Northern Health Research Conference

June 2 - 3, 2006
Sault Ste. Marie, Ontario

Conference Abstracts and Program

Northern Ontario
School of Medicine

The Northern Ontario School of Medicine (NOSM) welcomes you to the First Annual Northern Health Research Conference.

Northern Health Research Conference 2006

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Northern Ontario
School of Medicine

West Campus
Lakehead University
955 Oliver Road
Thunder Bay ON P7B 5E1
Tel: 807-766-7300
Fax: 807-766-7370

East Campus
Laurentian University
935 Ramsey Lake Road
Sudbury ON P3E 2C6
Tel: 705-675-4883
Fax: 705-675-4858

www.normed.ca

Message from the Founding Dean, Dr. Roger Strasser

Welcome to the first annual Northern Ontario School of Medicine (NOSM) Northern Health Research (NHR) Conference. We are delighted that so many researchers and health professionals, representing all corners of Northern Ontario, have come together to advance knowledge, understanding and partnerships in health research.

Research is a critical component of the NOSM curriculum. The School is committed to improving the health of Northern Ontarians, not only through our exceptional MD program, but also through our research endeavours and partnerships.

The 2006 Northern Health Research Conference has provided the opportunity to work closely with the host site, Algoma University College. We also appreciate the hospitality and support of the City of Sault Ste. Marie and the Sault Ste. Marie Physician Retention and Recruitment Program.

From among the 80 submissions received, 70 oral and poster presentations will cover a broad range of topics over the next two days. Close to 200 delegates are expected to attend.

As a delegate to this inaugural NHR Conference, you have the unique opportunity to network with colleagues and make important new contacts in the field of medical research. This book of abstracts is testament to the exceptional quality of presentations.

Over the last several months, individuals from varying backgrounds have worked diligently on the conference organizing committee. I am confident that all of us will benefit from the fruits of their labour.

Enjoy the presentations and the camaraderie!

Sincerely,

Dr. Roger Strasser
Founding Dean and Professor

OFFICE OF THE MAYOR

WELCOME TO SAULT STE. MARIE!

As Mayor of the City of Sault Ste. Marie, and on behalf of City Council, I am pleased to welcome you to Sault Ste. Marie as participants of the 1ST Annual Northern Health Research Conference.

Sault Ste. Marie is proud to host this conference in our naturally gifted community. What a wonderful time of year to experience the best that nature has to offer! While you are visiting, remember to take some time and enjoy our many attractions and culture. Visit our Canadian Bushplane Heritage Centre that was named the *Best Indoor Attraction* by Attractions Canada...where adventure takes off! Don't forget about the famous Agawa Canyon Tour train and relax, sit back and enjoy the rugged wilderness of Algoma Country during a 114 mile trip to Agawa Canyon Park.

Of course, if you are looking to relax, please come and enjoy a stroll along our waterfront boardwalk or take in our Sault Ste. Marie Museum, Art Gallery of Algoma, Ermatinger-Clergue National Heritage Site and the Canadian Bushplane Heritage Centre. We have it all!

Sault Ste. Marie boasts the slogan "*Naturally Gifted*", which signifies the beauty of this region and our location along the shores of both Lake Superior and Lake Huron. It also represents the citizens of our community, who will warmly welcome all of you in the friendliest of demeanours!

Yours Sincerely,

John Rowswell
Mayor

naturally gifted

Dear Participant:

On behalf of Algoma University College, an affiliate-college of Laurentian University, I would like to welcome you to the campus and the City of Sault Ste. Marie.

Your participation in the Northern Health Research Conference is a strong endorsement for the Northern Ontario School of Medicine, the health needs of the people and the communities of Northern Ontario and the importance of research on these health needs in Northern Ontario. You may be aware that this pan-northern medical school held its Curriculum Workshop -- attended by over 300 participants from Northern Ontario -- in Sault Ste. Marie, providing the basis for the "made in Northern Ontario" aspects of NOSM's MD program curriculum. In addition, Sault Ste. Marie has hosted Planning Retreats by NOSM Board of Directors and Deans Strasser and Ross are frequent visitors to the Sault. NOSM has formal affiliations with the Sault Area Hospital, as well as the Group Health Centre – an innovative multi-specialty, ambulatory healthcare organization serving 57,000 Sault Ste. Marie and Algoma District residents. Many of its physicians have joined the medical school as faculty members and undertaking important research on the health care needs of people in the north.

The importance of rural and remote health research is inestimable as a significant proportion of Canadians (approx. 1/3rd) reside in such areas. In 2001, the Canadian Institutes of Health Research undertook to identify the key components to a national health research strategy. Working collaboratively with an integrated approach -- within and between communities -- to health research will be a key factor in a Northern Ontario Heath Research Strategy. The CIHR Forum identified several key themes that include: improving rural health service; understanding health status and its determinants/health risk minimization; human resource development, and five actions: clarify issues; examine, synthesize and test strategies; improve knowledge translation/policy; foster improvements in methods, pilot sites, longitudinal studies; and, act as a clearing house/repository for rural health research. Taken together, health research in Northern Ontario impacts our people, communities, environments, as well as health service and policy. The health of our residents and services are undoubtedly major factors in the sustainability and health of our communities.

I look forward to meeting you at the conference and extend a heartfelt welcome to our campus.

Sincerely,

Arthur H. Perlini, Ph.D.
Academic Dean

Acknowledgements

Scientific Committee

Arthur Perlini, Academic Dean, Algoma University College
Silvana Spadafora, Director of Clinical Research and Program Development, Sault Ste. Marie's Group Health Centre
Joyce Helmer, Interim Faculty Development Director, Northern Ontario School of Medicine
Greg Ross, Associate Dean, Research, Northern Ontario School of Medicine

Organizing Committee

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Silvana Spadafora, Director of Clinical Research and Program Development, Sault Ste. Marie's Group Health Centre
Joyce Helmer, Interim Faculty Development Director, Northern Ontario School of Medicine
Greg Ross, Associate Dean, Research, Northern Ontario School of Medicine
Denise Smith, Health Professional Development Coordinator, Northeastern Ontario Medical Education Corporation
Shelley Condratto, Administrative Assistant, Health Professional Development, Northeastern Ontario Medical Education Corporation
Lyne Morvan, Administrative Assistant, Research, Northern Ontario School of Medicine
Sue Harnden, Executive Assistant, Office of the Academic Dean, Algoma University College

Conference Assistants

Suzanne Lortie-Carlyle, Sherry Carlucci, Denise Adams, Richard Witham, Andrea Smith, Ching Yeung, Emy-Anne Adam, Cathy Coulson, Rachel Lacroix

A special thank you to the City of Sault Ste. Marie, Algoma University College, and the Sault Ste. Marie Physician Retention and Recruitment program.

Accreditation

This conference meets the accreditation criteria of the College of Family Physicians of Canada and the Royal Physicians and Surgeons of Canada and has been accredited for 11 hours of MAINPRO®-M1 credits.

Agenda - Friday June 2, 2006

Friday Morning

8:00-9:00 ***Continental Breakfast / Poster Viewing***

Introduction: *Dr. Arthur H. Perlini, Academic Dean, Algoma University College*

9:00-9:15 **Welcome *- Dr. Roger Strasser, Founding Dean and Professor, Northern Ontario School of Medicine (NOSM)***

Introduction: *Dr. Roger Strasser, Founding Dean and Professor, Northern Ontario School of Medicine (NOSM)*

9:15-9:20 **Welcome – *David Orazietti, MPP, Sault Ste. Marie***

Introduction: *Dr. Greg Ross, Associate Dean, Research, Northern Ontario School of Medicine (NOSM)*

9:20-10:00 **Keynote Speaker - *Mr. Borys Chabursky, President and founder of SHI Consulting***

10:00-10:30 ***Nutrition Break / Poster Viewing***

Session Chair: Dr. Mamdouh Abou-Zaid, Research Scientist, Great Lakes Forestry Centre

10:30-10:45 *Dr. Mamdouh Abou-Zaid, Research Scientist, Great Lakes Forestry Centre; Domenic A. Lombardo, Melanie Coppens (Canadian Forest Service, Great Lakes Forestry Centre); Tom Noland (Ontario Forest Research Institute); J. Thor Arnason (Ottawa-Carleton Institute of Biology, University of Ottawa).* **Bioproducts from the Canadian Forest: Biological Diversity (Nutraceuticals and Bioactives) in Health Promotion and Disease Prevention**

10:45-11:00 *Tara Baron, MD, FRCPC, Assistant Professor, NOSM; Judy Baird, MD, CCFP, Assistant Professor, Northern Ontario School of Medicine; Dar Malaviarachchi, MSc, Assistant Professor, Northern Ontario School of Medicine.* **A Pilot Study of the Impact of an Exercise and Nutrition Program in Grade 3 Students from Sudbury Elementary Schools**

11:00-11:15 *Jennifer Holland, MLIS, Research Assistant, Health Information Research Unit, McMaster University; Alexander Lyubechansky, MA, MLIS, Director, Northern Ontario Virtual Library (NOVL); R. Brian Haynes, MD, PhD, Director, Health Information Research Unit, McMaster University.* **McMaster Premium Literature Service (PLUS): An Evidence-based Medicine Information Service Delivered in Collaboration with the Northern Ontario Virtual Library**

11:15-11:30 *Kristen Jacklin, Assistant Professor, NOSM;* Phyllis Kinoshameg, Wikwemikong Health Centre. **Collaborative Community Based Research: Developing a Diabetes Research Strategy with the Wikwemikong Health Centre, Manitoulin Island**

11:30-11:45 *Dr. Mary Lou Kelley, Director, Centre for Education and Research on Aging and Health and Associate Professor, School of Social Work, Lakehead University.* **Developing Palliative Carein Rural Communities: A Conceptual Model**

11:45-12:00 *Jennifer Michaud, BScN, RN, Northeastern Ontario Regional Telehealth Coordinator, NORTH Network; Laurie Sherrington, RN, Northwestern Ontario Regional Telehealth Coordinator, NORTH Network.* **Home is Where the Heart Is: Videoconferenced Cardiac Rehabilitation for Rural Northerners**

12:00-1:00 ***Lunch / Poster Viewing***

Friday Afternoon

Session Chair: Dr. Myra Rutherdale, Assistant Professor, Algoma University College

1:00-1:15 *Wayne Warry*. **Knowledge Transfer in the Aboriginal Context**

1:15-1:30 *Ghislaine Goudreau, Health Promoter, Sudbury & District Health Unit*. **Exploring the Connection Between Aboriginal Women's Hand Drumming and Health Promotion (Mino-Bimaadiziwin)**

1:30-1:45 *Bruce Minore, Research Director (Lakehead Site), Centre for Rural and Northern Health Research; Margaret Boone, Chief Operating Officer, Centre of Excellence for Children and Adolescents with Special Needs; Alison Arthur, Thunder Bay District Program Manager, Integrated Services for Northern Children; Mary Ellen Hill, Senior Researcher (Lakehead Site), Centre for Rural and Northern Health Research.* **Finding Ways to Provide Integrated Services for Children with Special Needs in Rural and Remote Parts of Northern Ontario**

1:45-2:00 *Cathy McCullough, RN, CCN (C), CHF Clinic Nurse, Group Health Centre; Dr. D. Crookston, Physician, Health Promotions Initiatives Team, Algoma District Medical Group, Group Health Centre; Dr. M.T. Mathew, Cardiologist, Algoma District Medical Group, Group Health Centre.* **Leadership in Community Congestive Heart Failure (CHF) Program Decreases Re-admission Rates**

2:00-2:15 *Dr. Michel A.S. Lariviere, C.Psych., Assistant Professor, School of Human Kinetics, Laurentian University; Nicole Good- Student, School of Human Kinetics, Health Promotion Program; Jacqueline Swartz- Student, School of Human Kinetics, Health Promotion Program.* **Community-driven Interventions for the Prevention of Childhood Obesity: A Critical Review of the Literature and an Assessment of Best Practices as They Apply to Northern and Rural Communities**

2:15-2:30 *Jan Clarke, PhD, Sociology & Social Welfare, Algoma University College, Sault Ste. Marie, Ontario.* **Unpacking Social and Political Relations of Clinical Trials**

2:30-3:00 ***Break / Poster Viewing***

Session Chair: Dr. Gayle Broad, Assistant Professor, Algoma University College

3:00-3:15 *Andrew Robinson, MD, FRCPC, Hôpital Régionale de Sudbury Regional Hospital Cancer Care.* **Review of Method of Detection of Contralateral Breast Cancer in Two Different Age Cohorts**

3:15-3:30 *Gratien Allaire, Institut franco-ontarien & Isabelle Michel, Director, Public Health Research, Education and Development Program, Sudbury & District Health Unit.* **Health of Francophone Populations of Northern Ontario: Findings and Questions**

3:30-3:45 *Dr. Gayle Broad, Algoma University College; Amy Boyer, BA (Hons), Research Assistant, Algoma University College and member of Batchewana First Nation.* **Indigenous Perceptions of Well-Being: Understanding the Strengths of Indigenous Communities**

Friday Afternoon - Continued

3:45-4:00 *Thomas L. Noland, Research Scientist, Ministry of Natural Resources, Ontario Forest Research Institute; Mamdouh Abou-Zaid, Research Scientist, Natural Resources Canada, Canadian Forest Service, Great Lakes Forestry Centre, Sault Ste. Marie, ON P6A 2E5; Ron Smith, Research Scientist, Natural Resources Canada, Canadian Forest Service, Atlantic Forestry Centre, Fredericton, N. B., CAN, E3B 5P7; Stewart Cameron, Research Scientist, Natural Resources Canada, Canadian Forest Service, Atlantic Forestry Centre, Fredericton, N. B., CAN, E3B 5P7.* **Cultivating Canada Yew for Paclitaxel Production: Prospects for Plantation Culture in Ontario**

4:00-4:15 *John C. Hogenbirk, MSc, Senior Researcher, Centre for Rural and Northern Health Research, Laurentian University; Ricardo Ramirez, PhD, Assitant Professor, School of Environmental Design and Rural Development, University of Guelph; Raymond W. Pong, PhD, Research Director, Centre for Rural and Northern Health Research; Kevin Houghton, CA, Telehealth Program Manager, Keewaytinook Okimakanak Telehealth; Brian Walmark, Research Director, Keewaytinook Okimakanak Research Institute; Donna Williams, RN, Regional Telehealth Coordinator, Keewaytinook Okimakanak Telehealth*. **Factors Explaining Uptake of Telehealth in First Nations Communities: the Keewaytinook Okimakanak Telehealth Experience**

4:15-4:30 *Dr. James Goertzen, Associate Professor, McMaster University/NOSM.* **Utilization of Health Services for Urgent Health Problems: Comparison Between Family Health Networks and Non Family Health Network Practices**

Wrap Up - Dr. Greg Ross, Associate Dean, Research, Northern Ontario School of Medicine (NOSM)

4:30-6:00 ***Poster Viewing***

Friday social evening includes dinner at the Bush Plane Museum, with entertainment sponsored by the Sault Ste. Marie Physician Retention and Recruitment program

Agenda - Saturday June 3, 2006

Saturday Morning

8:00-9:00 ***Continental Breakfast / Poster Viewing***

Session Chair: Dr. Silvana Spadafora, Assistant Professor & Section Leader of Internal Medicine, Northern Ontario School of Medicine (NOSM)

9:00-9:15 *Barbara Eles, BScN RN, Sudbury & District Health Unit; Darshaka Malaviarachchi, Epidemiologist, MSc*. **Heart Health Rural Outreach Project Evaluation: Implications for Public Health and Medical Practitioners**

9:15-9:30 *Lesley McBain, Department of Georgraphy, University of Saskatchewan*. **Going Beyond the "One and Only Purpose": Resistance in Northern Nursing**

9:30-9:45 *Phyllis Montgomery, RN, PhD, School of Nursing, Laurentian University; Dr. R. Veluri, Psychiatrist, NEMHC.* **Mothering Amidst Serious Mental Illness**

9:45-10:00 *Dr. Connie H. Nelson, Professor, School of Social Work, Lakehead University; Dr. Jungwee Park, Health Statistics Division, Statistics Canada*. **Mental Health and Well-being in Northern Ontario, 2002**

10:00-10:15 *Barbara Zelek MD CCFP Marathon Family Practice; Eliseo Orrantia, MD, CCFP, MSc., Marathon Family Practice, Marathon, Ontario; Heather Poole, BScH., McMaster University PhD candidate, Hamilton, Ontario; Jessica Strike, BSc., University of Ottawa medical student, Ottawa, Ontario.* **Home or Away? Factors Affecting Birth Choices in a Rural Community**

10:15-10:45 ***Nutrition Break / Poster Viewing***

Session Chair: Dr. Jan Clarke, Assistant Professor, Algoma University College

10:45-11:00 *Marina Ulanova, Associate Professor, Medical Sciences Division, NOSM*. **Syk Tyrosine Kinase is an Important Regulator of Pro-inflammatory Signaling in Lung Epithelium**

11:00-11:15 *Myra Rutherdale, Department of History, Algoma University College*. **Nursing In The North: What They Forgot To Mention Before We Left The South**

11:15-11:30 *Lenore Manitowabi, Program Support Worker, Noojmowin Teg Health Centre and Manitoulin First Nations Research Review Committee Member; Lorrilee McGregor, Manitoulin First Nations Research Review Committee Member.* **Guidelines for Ethical Aboriginal Research: The Development of Community-based Aboriginal Research Guidelines**

11:30-11:45 *Suzanne Lamoureux & Kerri Loney, Clinical Dietitians, Supportive Care Program & Supportive Care Oncology Research Unit of the Regional Cancer Program of the Hôpital Régionale de Sudbury Regional Hospital.* **Improving Access to Nutrition Counselling Using A Nutrition Referral Priority Rating System at the Hôpital régional de Sudbury Regional Hospital**

11:45-12:00 *Marion Maar, PhD, Medical Anthropologist, Assistant Professor, Human Sciences Division, NOSM*. **Building Collaborative Research Partnerships to Improve Diabetes Care in Aboriginal Communities**

12:00-1:00 ***Lunch / Poster Viewing***

Saturday Afternoon

Session Chair: Dr. Tim J. Best, Assistant Professor and Section Leader of Surgery (East), Northern Ontario School of Medicine (NOSM)

1:00-1:15 *T.J. Best, MD, MSc Assistant Professor and Section Leader of Surgery (East), NOSM; G. Elder, MD, Assistant Professor, Section of Surgery, Northern Ontario School of Medicine*. **Failure Pattern of Orthosphere Interpositional Arthroplasty for the Treatment of Thumb Carpometacarpal Joint Osterarthritis**

1:15-1:30 *Simon Chiu MD PhD FRCP, Associate Professor, University of Western Ontario London Ontario, Consultant psychiatrist, Forensic/Adult psychiatry program, Regional Mental Health Care, St. Thomas Ontario; John Copen, MD, FRCP, Assistant Professor, Northern Ontario School of Medicine, Thunder Bay Ontario; G. Sadek, MD, FRCP, Medical Director, Methadone Clinic (Private), London Ontario; Zack Cernovsky, PhD, Professor psychiatry, University of Western Ontario, London Ontario*. **Problem Gambling in Methadone Maintained Opiate Dependence**

1:30-1:45 *Denis Heng, Research Associate, Centre for Rural and Northern Health Research; Raymond W. Pong, Research Director, Centre for Rural and Northern Health Research*. **The More Things Change, The More They Stay the Same: Key Factors Influencing Choice of Practice Locations of Family Physicians at Four Different Career Points**

1:45-2:00 *Wendy Malesh, Graduate Student - Candidate for Masters of Science in Nursing Degree, Laurentian University.* **Leaders of University Baccalaureate Nursing Programs Leadership Style: Perceptions of Faculty**

2:00-2:15 *Ms. Amanda Maranzan, Coordinator, Practice-Based Research, Health Sciences North/NOSM; Ms. Sue Berry, Assistant Professor, Division of Clinical Sciences, NOSM; Dr. William Montelpare, Professor, School of Kinesiology, Lakehead University.* **Research Skills Development for Health Professionals: The PracticeBased Research Initiative**

2:15-2:30 *Dr. Carmel M Martin, Associate Professor, Clinical Sciences, NOSM*; *Dr Margot Felix-Bortolotti, Ms Shelley Darling, Dr Sarah Strasser, Clinical Sciences, Northern Ontario School of Medicine*. **Virtual Office of Synthesis and Information (VOSI)**

2:30-3:00 *Break / Poster Viewing*

Session Chair: Dr. Pauline Bragaglia, Algoma District Medical Group, Group Health Centre

3:00-3:15 *Robbie Goddard, Psychometrist, St Joseph's Care Group - Lakehead Psychiatric Hospital.* **The Effects of a Smoking Ban on an Inpatient Psychiatric Program**

3:15-3:30 *Dr Amanda Hey, Clinical Lead, Preventive Oncology and Screening, Regional Cancer Program, Hôpital Régional de Sudbury Regional Hospital (RCP-HRSRH); Carolyn Jackson, Regional Administrator, Ontario Breast Screening Program, RCP-HRSRH; Merci Miron Black, Nurse Examiner, Ontario Breast Screening Program, RCP-HRSRH; Denise Gauthier-Frohlick, Research Officer, Supportive Care Oncology Research Unit, RCP-HRSRH.* **Image-Guided Core Breast Biopsy: Implementing Guidelines into Community Practice**

3:30-3:45 *Dr. Sam Fratesi, Medical Advisor to the FOOTPAD Program, Vascular Surgeon, Algoma District Medical Group, Group Health Centre.* **The FOOTPAD Program: Foot care Optimal Outcomes and Treatment for Patients in Algoma with Diabetes Program**

Saturday Afternoon - Continued

3:45-4:00 *Cynthia MacKay, RD, CDE, Dept Head, Algoma Diabetes Education and Care (ADEC) Program, Group Health Centre; Dr. Pauline Bragaglia, Algoma District Medical Group, Group Health Centre*. **Interdisciplinary Team Approach to Insulin Adjustment Benefits the Patient with Diabetes**

4:00-4:15 *Dr. Pauline Bragaglia, Algoma District Medical Group, Group Health Centre; Cynthia MacKay, RD, CDE, Dept Head, Algoma Diabetes Education and Care (ADEC) Program, Group Health Centre*. **The Health Promotion Initiative in Diabetes (HPID) Outcomes Management Program at the Group Health Centre: A 5-year Experience Demonstrating Improved Outcomes That Have Been Sustained**

4:15-4:30 ***Wrap Up & Evaluation: Dr. Arthur H. Perlini, Academic Dean, Algoma University College***

Closing Remarks - Dr. Roger Strasser, Founding Dean and Professor, Northern Ontario School of Medicine (NOSM)

Keynote Speaker: Mr. *Borys Chabursky, President, SHI Consulting*

Biography

Mr. Chabursky is the President and Founder of SHI Consulting, and an entrepreneur in the life science sector with substantial management experience. In the past five years, he has provided interim management for seven start-ups and is currently a member of a number of for-profit and not-for-profit boards, including the advisory boards of the *Singapore Cancer Syndicate, Medical and Related Sciences Commercialization Centre (Toronto), Ontario Cancer Research Network Tumour Bank, GEMMA, Royal Ontario Museum RPC*, *The Orange Circle* and *Industrial Policy Advisory Committee (IPAC)* for a large multinational pharmaceutical company.

Mr. Chabursky is an integrative thinker who has grown SHI into a globally recognized firm with clients ranging from Fortune 100 companies to internationally recognized academics. He has experience in spearheading large-scale, multi-stakeholder, global initiatives and is often utilized as an advisor by influencers and developers of government policy. In 2003, he was named one of Canada's "Top 40 Under 40".

Mr. Chabursky is a sought-after speaker at international conferences. He was invited to speak and present at 39 international conferences and events in the past three years and has also been featured by Canadian and international television, radio and print media, such as: Canadian Business, CBC, Global TV, The National Post, Site Selection, BioBusiness, Life Science Today, Biotechnology Focus, The China Post, Les Echos (French daily newspaper), Peterborough Examiner, Hamilton Spectator, and Business Executive.

Oral

Presentations

Bioproducts from the Canadian Forest: Biological Diversity (Nutraceuticals and Bioactives) in Health Promotion and Disease Prevention

Principal Presenter
Dr. Mamdouh Abou-Zaid, Research Scientist, Great Lakes Forestry Centre

Other Presenters
Domenic A. Lombardo, Melanie Coppens (Canadian Forest Service, Great Lakes Forestry Centre)
Tom Noland (Ontario Forest Research Institute)
J. Thor Arnason (Ottawa-Carleton Institute of Biology, University of Ottawa)

Abstract
Canadian trees are a rich source of bioactive natural product compounds. Among the compounds of interest are phenolics, polyphenols, flavonoids and terpenoids. Foliage extracts of indigenous tree species have been screened for antioxidant and antifungal properties. Where activity was found, a bioassay-guided isolation of active constituents from the plant extracts was carried out. This paper describes on-going research at the Great Lakes Forestry Centre involving the isolation, purification and structural elucidation of anticancer/antioxidant/antifungal-active compounds from Taxus, Chimaphila, Acer, Pinus and Abies species, and considers their role in health promotion and disease prevention.

Notes:

A Pilot Study of the Impact of an Exercise and Nutrition Program in Grade 3 Students from Sudbury Elementary Schools

Principal Presenter
Tara Baron, MD, FRCPC, Assistant Professor, Northern Ontario School of Medicine

Other Presenters
Judy Baird, MD, CCFP, Assistant Professor, Northern Ontario School of Medicine
Dar Malaviarachchi, MSc, Assistant Professor, Northern Ontario School of Medicine

Abstract
The prevalence of obesity has tripled in Canada (Canadian Pediatric Society, 2002). Eighteen percent of Canadian children between two and 11 years of age are considered overweight (Statistics Canada, 2004). Overweight children have an increased risk of many medical complications including cardiovascular, endocrine, pulmonary, orthopedic, gastrointestinal and mental illness. The purpose of this pilot study is to investigate whether a seven month exercise and nutrition program, administered by Cambrian College fitness leisure and nursing students to grade 3 elementary school children, can influence physical activity, body mass index (BMI), and the food choices of children receiving the intervention. Five grade three classrooms in the Rainbow District School Board of Sudbury have been identified. Three classrooms are in the intervention group and two classes are in the control group. The intervention will be administered by students from both programs at Cambrian College from October to April. At the beginning and end of the study all participants will have their height and weight measured in order to determine BMI. A questionnaire which measures food choices and physical activity will also be administered. These measures will be repeated at the end of the study. In addition to looking for a positive change in lifestyle choices and a trend towards improved BMI, this study will also investigate whether a collaborative effort between multiple institutions can lead to a sustainable program.

Notes:

McMaster Premium Literature Service (PLUS): An Evidence-based Medicine Information Service Delivered in Collaboration with the Northern Ontario Virtual Library

Principal Presenter
Jennifer Holland, MLIS, Research Assistant, Health Information Research Unit, McMaster University

Other Presenters
Alexander Lyubechansky, MA, MLIS, Director, Northern Ontario Virtual Library (NOVL)
R. Brian Haynes, MD, PhD, Director, Health Information Research Unit, McMaster University

Abstract
Background: Ready access to current best evidence for clinical decisions remains a challenge to practicing physicians. To better serve these information needs, we developed an online information delivery service for physicians in collaboration with the Northern Ontario Virtual Library (NOVL), called McMaster PLUS (Premium Literature Service).
Objective: To determine how PLUS affects the use and usefulness of critically appraised, clinically rated evidence from research, in comparison with unassisted digital library access.
Design: A cluster randomized controlled trial comparing two versions of PLUS.
Methods: Physician raters used the McMaster Online Rating of Evidence (MORE) system to assess the clinical relevance of newly published clinical studies and reviews pre-appraised for their sound methodology. Passing articles continuously updated the PLUS database. One version of the PLUS web interface offered end users email alerts and a searchable database of scientifically rigorous, peer rated, discipline-filtered clinical research literature, (full-serve component) coupled with unassisted access to the NOVL online library of journals and texts that required user-based search and retrieval (self-serve component). A second interface offered only unassisted NOVL access (self-serve).
Results: 203 physicians practicing in Northern Ontario were randomized to either the full-serve or self-serve interfaces. The monthly average proportion of full-serve participants logging in was 57.8% higher than for the self-serve group during the intervention period ($p<0.001$), and the proportion of non-users was 51% less ($p=0.022$). In Phase 2, the full-serve interface was made accessible to the self-serve group. Login rates of the crossed-over self-serve group (1.85 logins/month) came to match those of the full-serve group (1.75 logins/month).
Conclusion: Phase 1 and 2 results of the McMaster PLUS trial show increased usage for the PLUS interface that alerted its users to high quality research that is relevant and important to their particular clinical practice.

Notes:

Collaborative Community Based Research: Developing a Diabetes Research Strategy with the Wikwemikong Health Centre, Manitoulin Island

Principal Presenters
Kristen Jacklin, Assistant Professor, Northern Ontario School of Medicine
Phyllis Kinoshameg, Wikwemikong Health Centre

Abstract
This paper will outline the development of a collaborative diabetes research initiative between an academic researcher and the Wikwemikong Health Centre (WHC) and will highlight some of the ways collaborative partnerships are beneficial to First Nations communities as well as the academic researchers. For example, partnerships can improve access to research funding and ensure the collection of meaningful and reliable data based in local knowledge for both partners. The partnership model discussed is founded in participatory action research (PAR) and the principles of (OCAP) Ownership, Control, Access to, and Possession of knowledge which is advocated by the National Aboriginal Health Organization (NAHO). Diabetes was identified as the research priority for the WHC by management, staff and health committee members. Previous community based research had shown that diabetes is prevalent on the Wikwemikong Unceded Indian Reserve and is a community concern. It has also been acknowledged by the First Nation and Inuit Health Branch (FNIHB) as a priority area for Aboriginal health. However, there is no financial support from FNIHB to track incidence and prevalence using reliable and valid criteria or to conduct community based research that would aid in reducing the number of people with diabetes. Consequently, there is no accurate and reliable diabetes specific information for Wikwemikong or other First Nations residents including important information on gender or age specific comparisons, trends, complications, and costs and projections. This gap in knowledge prevents the health centre from effective health planning to prevent and treat this disease. These are some of the issues emerging that will be addressed through our research partnership.

Notes:

Developing Palliative Care in Rural Communities: A Conceptual Model

Principal Presenter
Dr. Mary Lou Kelley, Director, Centre for Education and Research on Aging and Health and Associate Professor, School of Social Work, Lakehead University

Abstract
Background/objectives: Access to palliative care services has been described as the “right of every Canadian”, however, providing palliative care is a challenge in rural and remote communities when there are no specialized programs and no providers with palliative care training. In spite of lack of resources, some rural health care providers and volunteers have taken collective action to organize and build local capacity to meet the needs of dying residents. The purpose of this research was to conceptualize the process of developing rural palliative care programs using the theoretical perspective of community capacity development.

Methods: Data were qualitative, consisting of nine group interviews that included 66 interdisciplinary providers involved in providing rural palliative care. Data were collected in eight rural or remote areas across Canada, and were analyzed within the NVivo software program using a process of analytic induction.

Results: Based on the data, an original model was created called Developing Rural Palliative Care that conceptualized four sequential and incremental phases of development: antecedent community conditions; a critical incident; creating the team; and growing the program. The model articulates the major processes and activities within each phase. Throughout the developmental process, the nature of the rural community both supported the work of rural providers and created their challenges. Working together and being community focused emerged as the over-arching keys to success. Most of the palliative care work utilized existing resources. The role of “outside experts” is discussed in the local developmental process.

Conclusion: This presentation is based on original research, and presents a model for developing palliative care in rural and remote communities using a conceptual framework of community capacity development. The presentation will identify the role of specialized palliative care providers in supporting regional generalist providers in their local care giving tasks.

Notes:

Home is Where the Heart Is: Videoconferenced Cardiac Rehabilitation for Rural Northerners

Principal Presenter
Jennifer Michaud, BScN, RN, Northeastern Ontario Regional Telehealth Coordinator, NORTH Network

Other Presenter
Laurie Sherrington, RN, Northwestern Ontario Regional Telehealth Coordinator, NORTH Network

Abstract
Introduction: Cardiac Rehabilitation (CR) results in lower death rates, reduced incidence of a second heart attack, decreased hospitalization and cardiac procedures. However, traditional CR programs capture only a small portion of the eligible population that would benefit from such services. An innovative approach has been implemented to provide patients and their families throughout Northern Ontario with CR education via video.

Methods: Two CR Programs in Northern Ontario delivered multi-disciplinary comprehensive sessions throughout their respective regions. All NORTH Network sites from each region were invited to register and promote the sessions throughout their communities. Data were collected and analyzed to determine participant rates as well as patient and presenter satisfaction. Finally, traditional SWOT analyses were completed.

Results: Three series were delivered throughout Northern Ontario. Twenty-four sites (178 people) have received cardiac focused education using the technology. All presenters agreed videoconferencing is an effective method to reach patients in rural, remote, and under-serviced areas; they are also willing to deliver future sessions. Participants were “interested, engaged and actively included” in the teaching and learning process and all reported the technology to be useful in disseminating the information.

Conclusions: Patients, family members, and the presenters were highly satisfied with the modality. Future series will be delivered in two-hour blocks as opposed to half or full day sessions. Videoconferenced CR Education is a valid and relevant method of reaching rural, remote, and under-serviced areas of Northern Ontario. Future research could compare the clinical outcomes of patients receiving CR Education via video versus face-to-face methods.

Notes:

Knowledge Transfer in the Aboriginal Context

Principal Presenter
Wayne Warry

Abstract
This presentation outlines the results of provincial and national knowledge translation (KT) consultations and research conducted by CIHR/Institute of Aboriginal PeoplesHealth ACADRE centres (Aboriginal Capacity and Development Research Environments). In Ontario, a virtual knowledge transfer (KT) network of Aboriginal community and university-based researchers is being constructed by the Indigenous Health Research Development Program (http://www.ihrdp.ca/). The presentation places knowledge transfer (KT) within the context of the need to understand and respect Indigenous knowledge and to build collaborative relationships between Aboriginal health care providers, researchers, policy makers, and mainstream health science communities. The development of these networks must consider the unique cultural and health research environments in Ontario and be regionally adapted to ensure the effective dissemination of information to Aboriginal communities, and the expression of community needs to health science researchers. Research suggests knowledge translation efforts must be designed for specific decision-makers, health care providers, and community contexts. In the Aboriginal context, knowledge translation follows directly from participatory research principles, and the values expressed in the principles of Ownership, Control, Access to and Possession of knowledge (OCAP). Given current trends in Aboriginal health research, culturally meaningful KT strategies will soon be a standard component of all Aboriginal health research. This presentation reviews several KT practices that show promise, and argues that research grants be designed with culturally appropriate KT strategies in mind.

Notes:

Exploring the Connection between Aboriginal Women's Hand Drumming and Health Promotion (Mino-Bimaadiziwin)

Principal Presenter
Ghislaine Goudreau, Health Promoter, Sudbury & District Health Unit

Abstract
In the past 10 years, Aboriginal women in Sudbury have been gathering to hand drum as a way to revive their culture and to support one another. These women perceive hand drumming as a strength in their community that promotes health. This provided motivation for this study. The primary researcher is a member of the Aboriginal women's hand drumming circle, the Waabishki Mkwaa (White Bear) Singers. The primary researcher's vision was to explore the connection between Aboriginal women's hand drumming and health promotion.

Following Indigenous research methodology, the primary researcher offered traditional tobacco to members of the Waabishki Mkwaa Singers as an invitation to be the co-researchers for the study. In accepting the tobacco, they agreed to be full participants in the research process. Together, they designed the study and analyzed Aboriginal women's hand drumming stories. An Aboriginal Women's Hand Drumming (AWHD) Circle of Life framework was utilized to explore the physical, mental, emotional, and spiritual benefits of Aboriginal women's hand drumming. Culture and social support networks are determinants of health that were also examined as two key elements.

The Indigenous research methodology utilized in this study allowed Aboriginal women to build on the strengths in their community. The Aboriginal women hand drummers who participated in this study found wholistic healing, voice, empowerment, renewal, strength and Mino-Bimaadiziwin through their involvement in hand drumming. These results are consistent with Aboriginal perspectives of health promotion. The Ojibwe people view "health promotion" as a new term to describe a balanced way of life, "the good life" (Mino-Bimaadiziwin), which they have promoted for centuries.

Notes:

Finding Ways to Provide Integrated Services for Children with Special Needs in Rural and Remote Parts of Northern Ontario

Principal Presenter
Bruce Minore, Research Director (Lakehead Site), Centre for Rural and Northern Health Research

Other Presenters
Margaret Boone, Chief Operating Officer, Centre of Excellence for Children and Adolescents with Special Needs
Alison Arthur, Thunder Bay District Program Manager, Integrated Services for Northern Children
Mary Ellen Hill, Senior Researcher (Lakehead Site), Centre for Rural and Northern Health Research

Abstract
Managing continuity in the care provided to rural residents is often difficult because so few health professionals live in the communities. The reported study examines two ways this problem can be tackled, based on a comparison of service delivery models used by Integrated Services for Northern Children (ISNC), a program for children with special mental health, health and educational needs in rural and remote parts of northern Ontario. In some cases, urban-based consulting professionals work with local residents, trained as paraprofessionals, to provide on-going care; in other cases, they rely on community volunteers. The objective was to determine which approach provides better continuity of care for this difficult to serve population.

The study was undertaken in the District of Thunder Bay, the first region covered by the program to make extensive use of paraprofessionals. Data was collected in six rural centres from: the program's client/staff database; a review of 330 randomly selected patient records; and interviews with 100 individuals, including parents or guardians of patient's included in the chart reviews, care providers (paraprofessional or volunteer), and the resource group of mental health, health and education professionals based in the city of Thunder Bay.

The present paper presents selected findings from the study, comparing the volunteer "mediator" and paraprofessional "intervention worker" approaches along six dimensions: continuity of service provision (whether clients remain in touch with the service); breaks in service delivery; continuity of contact with particular providers; implementation of plans for services; co-ordination with primary care services; and co-ordination with formal and informal care givers.

Notes:

Leadership in Community Congestive Heart Failure (CHF) Program Decreases Re-admission Rates

Principal Presenter
Cathy McCullough, RN, CCN (C), CHF Clinic Nurse, Group Health Centre

Other Presenters
Dr. D. Crookston, Physician, Health Promotions Initiatives Team, Algoma District Medical Group, Group Health Centre
Dr. M.T. Mathew, Cardiologist, Algoma District Medical Group, Group Health Centre

Abstract
Congestive Heart Failure (CHF) is the leading cause of admission and re-admission at the Sault Area Hospital (SAH), which serves a population of 125,000. It is also the number one admission diagnosis in most hospitals in Canada. Level 1 medical evidence shows that a hospital discharge transition program decreases re-admission rates.

Chronic disease management is a challenge in today's healthcare system, where financial resources are limited and communities are boxed into silos of care. Sault Ste.Marie health care providers have overcome these challenges to implement an innovative program that benefits all patients. Substantial overall savings to the health care system were realized over and above the shifting of costs from hospital to community. The three Sault Ste. Marie based health care organizations have developed a "Best Practice" program that aligns fiscal accountability with improved patient outcomes.

After studying admission and re-admission rates in our local hospital, the Health Promotion Initiatives team at Group Health Centre (GHC), in conjunction with SAH, embarked on a CHF project. The project's first phase included GHC patients only. Such outstanding results were achieved that all three health care organizations, GHC, SAH and Algoma Community Care Access Centre (ACCAC), implemented a CHF program for all patients. A 68% decrease in re-admissions at SAH was realized after one year of implementing this program community-wide. Five years later, 2005 data indicates 17% re-admission rates, a relative risk reduction of 53%.

GHC is a multi-specialty, interdisciplinary ambulatory care facility with diagnostic services and electronic medical records. With 59,000+ registered patients, it is considered a community leader in health promotion, patient care and research. The GHC model exemplifies a different approach to service delivery, involving individuals in their own care, maximizing the scope of practice of our inter-disciplinary team, and using leading-edge infrastructure and technology to help achieve better health outcomes.

Notes:

Community-Driven Interventions for the Prevention of Childhood Obesity: A Critical Review of the Literature and an Assessment of Best Practices as they Apply to Northern and Rural Communities

Principal Presenter
Dr. Michel A.S. Lariviere, C.Psych.- Assistant Professor, School of Human Kinetics

Other Presenters
Nicole Good- Student, School of Human Kinetics, Health Promotion Program
Jacqueline Swartz- Student, School of Human Kinetics, Health Promotion Program

Abstract
Rates of childhood obesity vary according to region but are especially problematic in Northern Ontario. A report from the Northern Ontario Perinatal Child Health Survey Consortium (2003) indicates that approximately thirty per cent (30.4%) of children between two to six years are overweight and seventeen per cent (17.1%) are at risk of overweight. A recent development in Sudbury has been the creation of the Obesity Prevention Steering Committee whose mandate is to reduce the prevalence of obesity among area children. This public health initiative sought to implement interventions that would have the greatest impact on rates of childhood obesity. To that end, it wished to draw from the extant scientific literature. As such, the primary goal of this project was to inform current strategies and practices such that they coincide with what science and policy views as best practices. The project critically assessed the literature with due consideration to local needs and realities. The assumption was that features of this region (e.g. geography, demographics, socioeconomic levels, and infrastructure) were sufficiently unique to require a "made in northern Ontario" approach to childhood obesity prevention. Using existing databases at Laurentian and the SDHU (e.g. PsychLit, PsychInfo, ERIC, Cochrane and Campbell Collaborations), pertinent research was identified, summarized, and integrated within the context of Northern and Rural Health. Findings underline the central role of families, schools and the community in the prevention of childhood obesity. Improving the nutritional quality of family dinners and increasing the duration and frequency of outdoor activities are considered important points of departure in community-driven child obesity prevention efforts. Organizational and policy changes at schools and in local governments are equally relevant as they create the social and physical environments supportive of nutrition and physical activity.

The current study was a collaborative effort between Laurentian University and the Sudbury District Health Unit. It was funded by a Public Health Research Initiative Grant (PHRIG).

Notes:

Unpacking Social and Political Relations of Clinical Trials

Principal Presenter
Jan Clarke, Algoma University College, Sault Ste. Marie

Abstract
In social studies of science and technology, unraveling technical and scientific details often marginalizes social and political relations Yet these are critical to understanding social changes in biomedical research and practice. Clinical trials are an entry point where social and political relations of biomedical research and practice become visible. Clinical trails are usually seen as an endpoint in a scientific process that is integral to pharmaceutical production and described as practices of biomedical science. From a sociological perspective, however, clinical trials are also where researchers, medical experts, trial participants, and even activists negotiate and interact. Under such circumstances, there is a critical intersection between biomedical research, clinical practice and political activism that exposes social relations of clinical trails.
This paper traces actions of contemporary social movements questioning the clinical trials process to unpack social relations of biomedical research and practice. A framework for analysis is based on political activism in the US by groups in the women's health movement in the 1970s as well as AIDS treatment activists in the 1980s. These two different social movements both centred their actions on clinical trials as entry points for different strategies of social change that had some impact on clinical trials' process. Current research investigates actions around clinical trials taken by social movements in a Canadian context, with particular emphasis on actions taken by groups in the women's health movement. In a Canadian context, the interaction between the health care system and the state is quite different from the US. Unpacking the social relations of clinical trials in a Canadian context, therefore, not only increases understanding of social changes in biomedical research, but also sheds light on the social structure of the Canadian health care system.

Notes:

Review of Method of Detection of Contralateral Breast Cancer in Two Different Age Cohorts

Principal Presenter
Andrew Robinson, MD, FRCPC, Hopital Regional Sudbury Regional Hospital Cancer care

Abstract
Background: Screening for contralateral breast cancer typically consists of yearly mammography and physical exams at 6 month intervals. Mammography is known to be less sensitive in younger, denser, breasts, and recently MRI has been shown to be superior in detecting breast cancer in patients at high risk. It is unknown at this time if our contralateral screening processes work equally well in young and older patients.

Methods: Patients with a contralateral breast cancer diagnosed between 1985 and 2004 were identified from the British Columbia Cancer Agency Breast Cancer Outcomes Unit database. Information regarding characteristics of the tumor at baseline and contralateral diagnosis was recorded, as well as method of detection of the contralateral. Patients were divided into two age cohorts based on the age at which they developed their primary cancer: <40y (Group A) and 55-60y (Group B). Chi squared and independent-samples t-test were used for between group comparisons.

Results: Older patients were significantly more likely to have their second primary detected by screening mammography compared with the younger cohort ($p<0.0001$). Older patients were also more likely to have ER positive, lower grade second tumours, and a trend towards smaller tumours. Tumours detected by mammography were more likely to be lower grade, ER positive, and smaller.

Conclusions: Older patients are much more likely to have a contralateral breast cancer detected by conventional mammography, while younger patients have cancers which present with physical exam abnormalities or are self-diagnosed. A one size-fits all approach to detection of contralateral breast cancer may not be justified.

Notes:

Health of Francophone Population of Northern Ontario: Findings and Questions

Principal Presenters
Gratien Allaire, Institut franco-ontarien
Isabelle Michel, Public Health Research, Education and Development Program, Sudbury & District Health Unit

Abstract
The Francophone population of Northern Ontario represents 26.8 % of the francophone population of the province. In North-Eastern Ontario, francophones represent 25.2% of the total population. In their Second Report on the Health of the Francophone population of Ontario, published in December 2005, the Sudbury & District Health Unit's Public Health Research, Education and Development (PHRED) Program and the Institut franco-ontarien made important findings related particularly to North-Eastern Ontario francophones: higher rates of smoking, obesity, alcohol consumption (youth) and heart disease, and a relationship with level of education, gender, and revenue. However, the data analysed (Canadian Community Health Survey - Cycle 1.1, 2000-2001) do not provide an explanation for the findings. Further research is needed to help explain the differences in health status. One area to explore is that of the determinants of health (social, cultural, environmental*). The paper will present the main findings of the report and identify research questions that may lead to a better understanding of the health issues in the francophone population.

Notes:

Indigenous Perceptions of Well-Being: Understanding the Strengths of Indigenous Communities

Principal Presenter
Dr. Gayle Broad, Algoma University College

Other Presenter
Amy Boyer, BA (Hons), Research Assistant, Algoma University College and member of Batchewana First Nation

Abstract
Understanding the Strengths of Indigenous Communities (USIC) is a community-based action research project involving five First Nation communities from across Canada, including Batchewana First Nation. Measuring the health and well-being of First Nation communities to date has been focused on deficits, i.e., what are the dominant illnesses and diseases. This focus does not take into account Indigenous perspectives on well-being and strengths, and an alternative world view of illness and disease. The USIC project has explored these perspectives in five relatively strong First Nation communities through surveys, focus groups and case studies. Recent papers arising from the project explore perceptions of well-being and strengths, the connection between culture and health, and gender inequality and indicators of well-being. The findings from the project are showing some significant differences in First Nations perspectives that have implications for health care practitioners and delivery.

Notes:

Cultivating Canada Yew for Paclitaxel Production: Prospects for Plantation Culture in Ontario

Principal Presenter
Thomas L. Noland, Research Scientist, Ministry of Natural Resources, Ontario Forest Research Institute

Other Presenters
Mamdouh Abou-Zaid, Research Scientist, Natural Resources Canada, Canadian Forest Service, Great Lakes Forestry Centre, Sault Ste. Marie
Ron Smith, Research Scientist, Natural Resources Canada, Canadian Forest Service, Atlantic Forestry Centre, Fredericton
Stewart Cameron, Research Scientist, Natural Resources Canada, Canadian Forest Service, Atlantic Forestry Centre, Fredericton

Abstract
Canada yew (Taxus canadensis) is an evergreen shrub native to eastern Canada whose foliage, bark, twigs, and roots contain anti-cancer taxanes, especially paclitaxel. In 2004, the Canada yew research project was begun to try to determine the best practices for growing yew for optimum taxane production in plantations in northern Ontario and to attempt to propagate yew plants collected from across Ontario to select the best individuals for growth and taxane production. Yew plantations were established in 2004 at the OFRI arboretum and in 2005 at the OFRI arboretum, Thessalon First Nation BioCentre, and Whelan farm in Thessalon. The effects of fertilization treatments and mulch on growth and taxane production will be determined in all plantations. In 2004, cuttings from 295 plants were collected from throughout Ontario and propagated in the OFRI greenhouse. These plants were assessed for propagation efficiency, growth, and taxane production. The results from these measurements will be discussed. In addition, the seasonal cycle of taxane concentration in foliage from wild plants collected from northern Ontario will be discussed in an attempt to determine the best harvest time to optimize taxane concentration.

Notes:

Factors Explaining Uptake of Telehealth in First Nations Communities: The Keewaytinook Okimakanak Telehealth Experience

Principal Presenter
John C. Hogenbirk, MSc, Senior Researcher, Centre for Rural and Northern Health Research, Laurentian University

Other Presenters
Ricardo Ramirez, PhD, Assitant Professor, School of Environmental Design and Rural Development, University of Guelph;
Raymond W. Pong, PhD, Research Director, Centre for Rural and Northern Health Research;
Kevin Houghton, CA, Telehealth Program Manager, Keewaytinook Okimakanak Telehealth;
Brian Walmark, Research Director, Keewaytinook Okimakanak Research Institute;
Donna Williams, RN, Regional Telehealth Coordinator, Keewaytinook Okimakanak Telehealth

Abstract

The Keewaytinook Okimakanak Telehealth project expanded from 9 to 23 First Nations communities during September 2003-September 2005. These communities, located in Northwestern Ontario, have historically low access to health care/education services due primarily to their geographic isolation. For instance, only one community has an all-weather road. Access to the remaining communities is by aircraft, with 60% of the communities >300 km from the nearest service centre. Telehealth is one way to improve access to health care/education services, but little is known about the uptake in remote aboriginal communities.

We investigated uptake rates and factors that may help explain differences in uptake among First Nations communities. Fourteen communities started telehealth services during the study period, but we focussed on twelve communities that had 3-15 months of data. Telehealth utilization data were converted into per capita utilization rates per month for each community. We obtained population estimates from the Department of Indian and Northern Affairs for the year 2004. Exploratory data analyses were used to determine whether differences in rate could be explained by selected demographic and socio-political characteristics.

Utilization rates in the first month ranged from 0.002 to 0.053 telehealth sessions/person/month. The lowest (non-zero) and the highest rate in any month was 0.002 and 0.097 telehealth sessions/person/month, respectively.

Preliminary analysis suggests that the highest initial rates occurred in communities with the smallest population size (less than 300 people). Early results suggest that the rates in these communities are approaching those of the other communities, including nine communities that have had telehealth services for over two years (mean=0.023 telehealth sessions/person/month for these nine communities). Community affiliation with different Tribal Councils and distance to service centre did not have an obvious effect on utilization in the first few months. Investigations into other potential explanatory factors are continuing.

Notes:

Utilization of Health Services for Urgent Health Problems: Comparison Between Family Health Networks and Non Family Health Network Practices

Principal Presenter
Dr. James Goertzen, Associate Professor, McMaster University/Northern Ontario School of Medicine

Abstract
INTRODUCTION:
Family Health Networks (FHN) and Family Health Groups (FHG) are new models of primary health care delivery recently implemented in Ontario that are designed to provide accessible and comprehensive care to patients. Family physicians in both models provide a range of services including after-hours clinics to voluntarily rostered patients.

PURPOSE:
To examine the health services used by patients in FHNs, FHGs, and non-FHN/FHG practices for self-defined urgent health problems: personal family physician, after-hours clinic, walk-in clinic, emergency department, and telephone advisory service.

METHODOLOGY:
Thirty-six family physicians participated (8 FHN, 16 FHG, 12 non-FHN/FHG). Patients were randomly selected from electronic billing data or rosters; patients over one year of age who had visited the practice in the previous 12 months were eligible. The self-completed mailed survey asked about urgent health problems in the previous six months and use of health services for the most recent problem. Comparisons of outcomes between the three practice models were made using the Chi square test adjusted for nesting of patients with in practices.

RESULTS:
The overall response rate was 62.3% (5884/9373), two-thirds (60.2%) of respondents were female, and mean age was 43.8 years. Prevalence of a self-reported urgent heath problem in the previous six months was 23.4%. A similar proportion of patients that reported an urgent health problem from all three practice models called their family physician first (30.3-34.3 % p=n.s.) Overall prevalence of use of the emergency department was 11.4% (199/1753) among FHN respondents, 15.7% (347/2209) among FHG respondents, and 14.3% (252/1779) among non-FHN/FHG respondents (FHN vs FHG p=.006, FHN vs non-FHN/FHG p=.02). There were no significant differences in use of after-hour/walk-in clinics or telephone advisory service between the three practice groups.

DISCUSSION:
This study suggests that different primary care practice models may affect the services patients use for their self-defined urgent health problems.

Notes:

Heart Health Rural Outreach Project Evaluation: Implications for Public Health and Medical Practitioners

Principal Presenter
Barbara Eles, BScN RN, Sudbury & District Health Unit

Other Presenter
Darshaka Malaviarachchi, Epidemiologist, MSc

Abstract
Objective: Healthy Living Outreach Program was developed by Sudbury & Manitoulin Districts Heart Health Project to provide chronic disease prevention information to individuals living in rural and isolated areas.

Methods: The availability of a heart health information package was promoted through mass mailing of a flyer to more than 4000 households in seven selected communities on Manitoulin Island and in Sudbury East. Individuals called the health unit to request the package. Consent for a follow-up telephone survey was obtained during the contact. The bilingual survey examined the usefulness, content and reach of the package. Of the 28 requests, 21 people consented to participate and 15 completed the telephone survey.

Results: Ninety-three percent of the respondents were very satisfied with receiving the information package through the mail. The information did effectively promote the importance of adopting a healthier lifestyle. As a result of the package, 40% of the respondents stated that they had tried heart healthy eating, while approximately one in four individuals had tried other positive behaviour changes such as being active, handling stress, and making their lives smoke-free. The main topics of interest for future information were physical activity and healthy eating. Sixty percent of the participants were interested in receiving information on all four topics: healthy eating, physical activity, stress and smoking cessation. Even though 67% of the participants reported having a doctor or nurse practitioner in their community, 73% reported that it is either not easy at all (40%) or not very easy (33%) to get health information within their communities.

Conclusions: The evaluation results indicate a need for health information that is readily accessible in rural and isolated communities. Health professionals have an important collaborative role to play in disseminating health information.

Notes:

Going Beyond the "One and Only Purpose": Resistance in Northern Nursing

Principal Presenter
Lesley McBain, Department of Geography, University of Saskatchewan

Abstract
My research is focused on the experiences of nurses in northern Saskatchewan and Ontario in the immediate post World War Two era. In my work I explore the difference between the official discourse, which eminated from Ottawa and Regina, concerning medical procedures, and the way that these instructions were actually followed by nurses in the field. The daily encounters with Aboriginal people provides opportunities for expanding cultural understandings and also created some distance between official policy and actual practice. Under this central theme, I will pursue topics such as encounters with Aboriginal patients and Native medicine, the social geography of nursing stations and northern communities, and the social and moral expectations placed on professional women. I will also consider some of the more humourous and unexpected moments which occurred in the new surroundings and cultural encounters experienced by southern nurses. The source material is drawn from oral interviews, diaries, letters and official correspondence between the programme co-ordinators and the practitioners in the field. I feel that my historical and geographical perspective will do much to contextualize the past, and present-day models of northern health care delivery. My paper should expand our understanding of race relations in northern communities.

Notes:

Mothering Amidst Serious Mental Illness

Principal Presenters
Phyllis Montgomery, RN, PhD, School of Nursing, Laurentian University
Dr. R. Veluri, Psychiatrist, NEMHC

Abstract
Current survey data suggests that almost one-third of Ontario women are affected by mental illness. The incidence and prevalence rates of women with serious mental illness in North-eastern Ontario are unknown. Because of health-related risks such as rurality, isolation, lack of support, barriers to health care, multiple roles, poverty and persistent symptoms, the rates are assumed to be higher the rest of Ontario. There are few community mental health services offering parenting programs even though mothers with serious mental illness are consistently found to be at increased risk of losing custody of their children. This presentation describes the qualitative findings of 21 mothers diagnosed with serious mental illness living in Northern Ontario. In this grounded theory study, the core problem identified for this group of mothers was pulling their children close while pushing illness away. As the severity of illness increased, it often overwhelmed mothers' efforts to keep their children close. In addition to illness, mothers experienced profound suffering when they realized they could no longer keep close. Their stories extend nurses' understanding of suffering in illness to include the loss of creating meaning when unable to be responsible for their children. Implications for practice and future research will be addressed.

Notes:

Mental Health and Well-being in Northern Ontario, 2002

Principal Presenter
Dr. Connie H. Nelson, Professor, School of Social Work, Lakehead University

Other Presenter
Collaborator: Dr. Jungwee Park, Health Statistics Division, Statistics Canada

Abstract
Relying on data from the Canadian Community Health Survey (CCHS) − Mental Health and Well-being (2002), this research attempts to explain mental health in Northern Ontario (N=1,820). Examined were self-perceived mental health, depression, distress, mental disorder, and mental health service use.
Cross-tabulations were used to estimate the prevalence of mental health indicators. Multiple logistic regressions and linear regressions were conducted to study the association between mental health, and socio-demographic conditions and other health-related factors.
Results show that the mental health and well-being of North Ontarians was in a less desirable state than that of other Ontarians: higher rate of poor/fair self-perceived mental health (9.9% vs. 7.0%), higher prevalence of mental disorder (13.2 vs. 10.5), and as a result, higher use of professional services for mental health (9.8 vs. 7.9). North Ontarians' mental health seemed significantly associated with employment status, sense of community belonging, and social support. For men's mental health, unemployment is especially important: its effect was significant for self-perceived positive mental health (OR=0.26, 95%CI 0.12-0.58), distress (REG COEFF=1.35), depression (OR=8.63, 95%CI 1.63-15.62) and service use (OR=4.45, 95%CI 1.73-11.45). On the other hands, for women's mental health, the effect of community belonging was salient: significant for significant for self-perceived positive mental health (OR=2.12, 95%CI 1.32-3.41), distress (REG COEFF=-0.72), depression (OR=0.34, 95%CI 0.16-0.71) and mental disorder (OR=0.53, 95%CI 0.31-0.92).
To improve mental health status in North Ontario, job security as well as social and community support mechanisms including programs helping adjust economic changes may be important.

Notes:

Home or Away? Factors Affecting Birth Choices in a Rural Community

Principal Presenter
Barbara Zelek, MD, CCFP, Marathon Family Practice

Other Presenters
Eliseo Orrantia, MD, CCFP, MSc., Marathon Family Practice
Heather Poole, BScH., McMaster University PhD candidate
Jessica Strike, BSc., University of Ottawa medical student

Abstract
Objective: Rural communities that provide obstetrical services have better neonatal outcomes than those that do not. Some women, however, choose not to deliver in rural settings. In this study we look at what factors influence womens decisions to choose to deliver their babies in a small, rural community as opposed to in a larger centre.
Design: Self-administered survey.
Setting: Marathon, a community of 4500 in northwestern Ontario.
Participants: Sixty-four women between the ages of 15 and 39 living in Marathon, Ontario.
Main outcome measures: The relative importance of personal and systemic factors and belief systems in choosing to give birth in Marathon, Ontario. The level of informedness of women regarding local obstetrical services and how likely women would be to choose Marathon for delivery during a low-risk pregnancy.
Results: Belief systems were more important than personal and systemic factors in influencing women's decisions. The respondents had a moderate level of informedness (mean = 61% correct responses). The majority of women would choose to deliver in Marathon (82.7%).
Conclusion: In Marathon, belief systems are much more important than personal and systemic factors in influencing women's decisions to choose this small, rural community as a place to give birth.

Notes:

Syk Tyrosine Kinase is an Important Regulator of Pro-Inflammatory Signaling in Lung Epithelium

Principal Presenter
Marina Ulanova, Associate Professor, Medical Sciences Division, Northern Ontario School of Medicine

Abstract
Syk kinase is best known as a critical component of immunoreceptor signaling in leukocytes. We have recently found that Syk is widely expressed in lung epithelial cells (LEC) in situ, as well as in cultural primary bronchial EC and cell lines HS-24 and BEAS-2B. We hypothesized that Syk regulates inflammatory responses in LEC.

Using stimulation of beta1 integrin receptors by fibronectin or cross-linking with specific antibody we found that Syk-dependent signaling in LEC was initiated by the engagement of beta1 integrins. Stimulation of EC via beta1 integrins caused re-distribution of Syk from a cytoplasmic to plasma membrane localization as detected by confocal microscopy. Following beta1 integrin engagement, rapid phosphorylation of Syk on tyrosine occurred. Cytokine-mediated activation of pro-inflammatory signaling in LEC was dependent on Syk. Inhibition of Syk using siRNA or piceatannol caused down-regulation of TNF-induced p38 and p44/42 MAPK phosphorylation. This effect was accompanied by a decreased expression of pro-inflammatory molecules ICAM-1 and IL-6 both on protein and mRNA levels. Inhibition of Syk also lead to decreased expression of mRNA of inducible nitric oxide synthase (iNOS) and, correspondently, to diminished production of NO detected with a fluorescent dye DAF-FM. Interestingly, Syk inhibition affected the expression of pro-inflammatory molecules only when LEC were simultaneously stimulated via beta1 integrins, suggesting that these receptors provide co-stimulatory signals up-regulating the pro-inflammatory effects of TNF.

We propose that Syk is involved in signaling pathways initiated by integrin receptor engagement in LEC. Further, the data suggest that Syk-mediated signaling regulates the expression of pro-inflammatory molecules at least partly via activating the MAPK cascade. Understanding the role of Syk in signaling mechanisms in LEC may help in developing new therapeutic tools for inflammatory disorders such as asthma, COPD and acute lung injury.

Notes:

"Nursing In The North: What They Forgot To Mention Before We Left The South"

Principal Presenter
Myra Rutherdale, Department of History, Algoma University College

Abstract
My research is focused on the experiences of nurses and doctors who were employed with the Indian and Northern Health Services Branch of the Department of Health and Welfare immediately after World War Two. I am interested in the encounters that southern or British trained doctors and nurses had with Inuit people in northern Canadian communities. The establishment and provisioning of nursing stations was something that the government encouraged during the post war period. The paper I am proposing here will look at some of the day to day experiences that nurses had in their new communities. How did they interact with their new patients, and what could they learn from them about traditional medicine? What were the expectations placed on nurses in northern communities and how might their experiences differ from nurses who stayed in the south. One theme that is especially salient in reading through diaries, autobiographies, biographies and official correspondence is the way that by necessity traditional hierarchies between nurses and doctors broke down in northern health care situations. Nurses were expected to do everything from diagnosis to dentistry. The paper will explore some of these expectations and outcomes and will make the case that in order to understand how health care was delivered it is important to study the day to day localized experiences of the nurses and their patients. The careful reading of localized experience allows for us to understand the nuances of this medical encounter between two quite distinct cultures.

Notes:

Guidelines for Ethical Aboriginal Research: The Development of Community-based Aboriginal Research Guidelines

Principal Presenter
Lenore Manitowabi, Program Support Worker, Noojmowin Teg Health Centre and Manitoulin First Nations Research Review Committee Member

Other Presenter
Lorrilee McGregor, Manitoulin First Nations Research Review Committee Member

Abstract
Health organizations are often contacted by researchers who want to conduct research in Aboriginal communities, however few are prepared for the reality of how to design, implement and complete a successful project. We will discuss how Aboriginal health agencies can increase community capacity and self-determination in health research.

Noojmowin Teg Health Centre is a health access centre located on Manitoulin Island in Northern Ontario. In partnership with the three other health authorities and seven First Nations communities, staff at this centre coordinated the development of a community-based Research Review Committee. The function of this committee is to promote ethical health research in First Nations communities in the Manitoulin Island district. The committee researched local Aboriginal views on research ethics and used these Aboriginal values as the foundation for the developed of a research manual. The manual provides tools to assist communities to make informed decisions about health by providing guidelines for the review and evaluation of proposed research projects. We provide concrete strategies to empower communities to maintain ownership and control over research projects and access to research data.

Participants in this session will discuss several key elements involved in the development of research guidelines: 1) Importance of a community process for the development of research guidelines. 2) Overview of the manual for ethical Aboriginal research, the review process and importance of a sustainability plan and 3) how community-based Traditional Aboriginal values and ethics are incorporated into research and 4) the development of an Ethics and Research Review Workbook.

Conflict: Marion Maar, Manitoulin Research Review Committee Member (NOSM)
Joyce Helmer, Manitoulin Research Review Committee Member (NOMEC)

Notes:

Improving Access to Nutrition Counselling Using A Nutrition Referral Priority Rating System at the Hôpital Régional de Sudbury Regional Hospital (HRSRH)

Principal Presenters
Suzanne Lamoureux, Clinical Dietitian, Supportive Care Program & Supportive Care Oncology Research Unit of the Regional Cancer Program of the Hôpital Régional de Sudbury Regional Hospital
Kerri Loney, Clinical Dietitian, Supportive Care Program & Supportive Care Oncology Research Unit of the Regional Cancer Program of the Hôpital Régional de Sudbury Regional Hospital

Abstract
In this study, funded by Cancer Care Ontario Innovation Fund, a Nutrition Referral Priority Rating System (NRPRS) was developed and implemented to triage all nutrition referrals. Early nutrition intervention is critical to help maintain weight, decrease toxicities of treatments, improve overall survival and treatment response as well as improve quality of life. With the complexity of cases referred and the increased workloads, it was a challenge for the dietitians in the Supportive Care Program of the Regional Cancer Program (RCP) of the HRSRH to continue meeting the needs of all patients that required nutrition counselling. As a result, patients whose nutrition needs were deemed less urgent were not being seen. In the NRPRS, patients are graded from 1(high risk) to 4 (lower risk) based on acuity of symptoms, weight loss and access to the centre.

In order to refine the NRPRS tool and establish baseline statistics, a retrospective chart audit (n=112) was conducted and two focus groups were held with cancer patients and caregivers. A prospective study model (n=179) was implemented to triage all new referrals using the NRPRS. The objectives of the study were to: (1) Identify existing wait times for nutrition counselling services (2) Make changes to the NRPRS to improve timely delivery of service to all patients (3) Identify patient nutrition education needs (4) Enhance fields in the workload entry system to efficiently collect data.

Two formats, an information session and a drop-in session, were offered and evaluated to address the education needs of Priority 4 patients.

The study found that 62% of the patients were rated priority 1 or 2 (required to be seen within 7 days) and 55% of patients lived up to 6 hours away from the RCP thus explaining the clinicians' challenges in meeting their heavy workloads.

Notes:

Building Collaborative Research Partnerships to Improve Diabetes Care in Aboriginal Communities

Principal Presenter
Marion Maar, PhD, Medical Anthropologist, Assistant Professor, Human Sciences Division, Northern Ontario School of Medicine

Abstract
Poor health status and the need for culturally competent medical care are two of the many consequences of colonialization affecting Aboriginal communities today. Many chronic disease rates are much higher in Aboriginal communities compared with the broader Canadian population: On average, First Nations people develop type 2 diabetes at a younger age, diabetes rates are 3 to 5 times the national average and First Nations people have more serious diabetes related complications. In addition, Aboriginal communities are at a significant disadvantage with respect to access to health services and non-medical determinants of health, including labour force participation, employment and unemployment rates.

Chronic health problems such as diabetes have generally been explained as 'lifestyle' diseases in the past. However, recent research shows that a range of societal determinants of health including low income status, social exclusion and lack of access to effective health services contribute to the development of diabetes and related secondary complications.

First Nations health organization on Manitoulin Island are currently collaborating with NOSM faculty and mainstream health providers to document regional needs to improve diabetes prevention and diabetes care. This consultation is intended to be the starting point for the development of long-term research partnerships between First Nations communities and university-based researchers as well as the formation of a regional project steering committee.

Additional expected outcomes include the identification of diabetes care needs for Aboriginal patients and the identification of important social/societal determinants of health related to diabetes in Aboriginal patients. Information from this pilot will be used to leverage funding for a collaborative regional diabetes care research project and the development of a culturally competent, integrated model for diabetes care in Aboriginal communities.

Notes:

Failure Pattern of Orthosphere Interpositional Arthroplasty for the Treatment of Thumb Carpometacarpal Joint Osterarthritis

Principa Presenter
T.J. Best, MD, MSc, Assistant Professor and Section Leader of Surgery (East), Northern Ontario School of Medicine

Other Presenter
G. Elder, MD, Assistant Professor, Section of Surgery, Northern Ontario School of Medicine

Abstract
Purpose: To report early clinical results of the Orthosphere interpositional arthroplasty (Wright Technology Inc, Arlington, TN) and the pathological findings in failed cases.

Methods: A retrospective review of six patients who underwent implantation of an orthosphere interposition between 2002-2004 was conducted. The indication for surgery was first carpometacarpal joint osteoarthritis non-responsive to conservative treatments. In cases where revision occurred, excised trapezial specimens were sent to a bone pathologist to determine a possible cause of implant failure.

Results: Four of 6 patients showed radiological evidence of significant subsidence (up to 8 mm) of the implant into the trapezium. Three of these underwent revision surgery (FCR interpositional arthroplasty) for recurrent pain and disability. The fourth remained symptom free with a good result at 1 year follow up despite subsidence of 7 mm, and the remaining two patients had good clinical results at a mean 18 months follow-up, although one showed a 2 mm radiolucent line around the implant but no subsidence. Pathology review of the three revised failures showed only compressive effects of the trapezial bony trabeculae with associated inflammatory reaction of synovial tissues. No third body wear particles were documented nor was there evidence of osteolysis.

Conclusions: Our early clinical results were a 50% failure rate within 30 months leading to revision surgery. Mode of failure based on review of pathological specimens appeared to be mechanical rather than material wear or infection. These results independently confirmed the disappointing outcomes reported by Athwal et al. for the Orthosphere interpositional arthroplasty. As such, routine use of this device for basal thumb osterarthritis cannot currently be recommended.

Notes:

Problem Gambling in Methadone Maintained Opiate Dependence

Principal Presenter
Simon Chiu, MD, PhD, FRCP, Associate Professor, University of Western Ontario, London, Ontario, Consultant psychiatrist, Forensic/Adult psychiatry program, Regional Mental Health care, St.Thomas, Ontario

Other Presenters
John Copen, MD, FRCP, Assistant Professor, Northern Ontario School of Medicine, Thunder Bay, Ontario
G. Sadek, MD, FRCP, Medical Director, Methadone Clinic (Private), London, Ontario
Zack Cernovsky, PhD, Professor Psychiatry, University of Western Ontario, London, Ontario

Abstract
Background: Recently, increased attention is drawn towards the substance use and psychiatric comorbidity of problem gambling. There is a paucity of studies on problem gambling in opiate dependence clients maintained on methadone.
Objective: In the present study, we examined the pattern of gambling: severity of gambling, craving, and consequences , and substance use and psychiatric comorbidity in a homogeneous cohort of opiate dependent subjects maintained on methadone (MD-opiate).
Method: We administered a battery of standardized questionnaires: SOGS (South Oaks Gambling Screen), DAST (Drug Abuse Screening Test),AUDIT (Alcohol Use Disorder Identification Test), SCL-90 (Symptom Check List), Fagerstrom Test for Nicotine Dependence (FTND) and Gambling and Substance use Urge Scale to the group of MD-opiate clients attending a certified methadone clinic in Ontario. Urine samples were taken for monitoring of methadone and substances of abuse.
Results: The prevalence of pathological gambling (defined by SOG score > 5) MD-opiate clients (n=60) attending the methadone clinic was statistically lower (5 %) as compared with our earlier gambling study with dual diagnosis clients (15%) and other gambling studies (chi square $p < 0.05$). Gambling urge paralleled the substance use urges MD-opiate pathological gamblers had more severe active psychiatric and substance use behaviour.
Conclusion: Our data indicate that methadone maintenance may offer protective effects against pathological gambling in attenuating impulsivity. The promising results warrant the design of a multi-site study of gambling in methadone maintenance and opiate dependence linking Southwest Ontario and Northern Ontario academic-health care Networks. We suggest that methadone program outcome can be enhanced by integrating gambling, substance use and psychiatric treatment modalities through service planning, fostering partnerships and collaboration and optimizing e-technology advances.
funded by Lawson Health Research Institute, London, Ontario

Notes:

The More Things Change, The More They Stay the Same: Key Factors Influencing Choice of Practice Locations of Family Physicians at Four Different Career Points

Principal Presenter
Denis Heng, Research Associate, Centre for Rural and Northern Health Research

Other Presenter
Raymond W. Pong, Research Director, Centre for Rural and Northern Health Research

Abstract
Where physicians choose to practice is a complex decision-making process that can be influenced by many factors. This paper examines how 19 factors were ranked in relation to their perceived importance in influencing the choice of practice location by residents and graduates of a rural/northern Ontario family medicine program. Using data collected between 2001 and 2005, our study examines inter- and intra-factor differences at four points of a physician's career. Two ways of asking this question were used: 1) Residents and graduates were asked to indicate the relative importance of different factors on influencing either their choice of future practice location; and 2) Residents and graduates were asked to indicate their top three factors of importance in influencing either their choice of future or current practice location.

In general, regardless of the way residents and graduates were asked about their perceived importance, factors such as Lifestyle of the community, Opportunity for a variety of medical experience, and Influence of spouse/partner ranked consistently near the top of the rankings of the 19 factors. The average ratings of the relative influence of all factors were generally highest for the Exit respondents and lowest for the 5-Year respondents. This study also identifies a number of factors whose influence is stable in their relative importance to influencing practice location over time, whereas other factors seem to be important only at certain points during a physician's career.

Recruitment and retention strategies geared towards increasing the number of physicians practising in Northern and rural areas of Ontario may be better informed with the knowledge of the importance that physicians attribute to certain factors when considering where they practise medicine.

Notes:

Leaders of University Baccalaureate Nursing Programs Leadership Style: Perceptions of Faculty

Principal Presenter
Wendy Malesh, Graduate Student - Candidate for Masters of Science in Nursing Degree, Laurentian University.

Abstract
Leadership behavior and leader effectiveness are viewed as key organizational elements in the contemporary leadership literature, which is extensive. The most commonly described leadership styles include transformational, transactional, and passive/avoidant leadership. However, limited research has been done to examine leadership in nursing education. Hence, little is known about the leadership styles of nursing program leaders, how nursing leaders understand their leadership styles, how nursing leadership styles are perceived by nursing faculty, and contextual factors, such as the educational setting, that may influence leadership. Furthermore, the typical profile of the nursing education leaders lacks description.

This study seeks to describe the leadership styles of Ontario university baccalaureate nursing program leaders and the relationship of these styles to faculty perceived satisfaction, extra effort, and work unit effectiveness. Further, the relationship between the leadership styles and demographic data about the leader, faculty, and university will be described, as will the typical profile of these leaders. The descriptive non-experimental, correlational study is grounded in the "Full Range Leadership"(FRL) model, a trademark of Bass and Avolio (2004, p. 2). A cross-sectional survey design will be used. The survey will utilize the Multi-factor Leadership Questionnaire (MLQ) Form 5x-Short (Bass & Avolio, 1995) and three questionnaires to obtain leader, faculty, and university demographic data. Data collection will begin following ethical approval submitted for January 2006.

The findings from this research will be used in the formulation of a nursing education leadership best practice model that will support nursing education leaders to develop more effective leadership styles through reflection, feedback, support and counseling, role modeling, mentoring, and professional development. In addition, it is anticipated that curriculum for nursing leadership may be enhanced and that findings may be used by recruiters tasked with identifying effective future nursing education leaders. On a broader scope, the possibility exists for the findings to contribute to the development of leadership practice standards for nursing education executives.

Notes:

Research Skills Development for Health Professionals: The Practice-Based Research Initiative

Principal Presenter
Amanda Maranzan, Coordinator, Practice-Based Research, Health Sciences North/Northern Ontario school of Medicine

Other Presenters
Sue Berry, Assistant Professor, Division of Clinical Sciences, NOSM
Dr. William Montelpare, Professor, School of Kinesiology, Lakehead University

Abstract
The Practice-Based Research (PBR) Initiative was launched by Health Sciences North in the fall of 2003, with the goal of developing the critical thinking and research skills of health care professionals in Northwestern Ontario. In contrast to the traditional research model, the PBR model represents collaboration between the health care organization, academic institution, and health professional, bringing research out of the laboratory and into practice settings. The investigation of a clinical question by a health care professional, accomplished by the integration of research design and methodology into his/her practice setting, is the essence of PBR.

The PBR Initiative provides education, mentorship, collaborative opportunities, and research seed funding to novice health care researchers. Research teams are supported throughout the research process, from question definition and refinement, through data collection, to dissemination of results. There is also emphasis on the learning approach, accomplished through reflective learning exercises, integration of team learning concepts, and mentorship opportunities.

The PBR Initiative aims to increase the research skills of health care professionals. A program logic model was developed to aid in evaluation. This model examined program components, constraints, inputs, activities, outputs, and outcomes. Immediate outcomes such as increased knowledge and skills and team learning were evaluated, as were intermediate and long-term outcomes (such as increased presentation, manuscript submission, and publication of PBR; continued research involvement). The success of the PBR Initiative has continued into a second round of participants (in March 2006).

Notes:

Virtual Office of Synthesis and Information (VOSI)

Principal Presenter
Dr. Carmel M Martin, Associate Professor, Clinical Sciences, Northern Ontario School of Medicine

Other Presenters
Dr. Margot Felix-Bortolotti, Ms Shelley Darling, Dr Sarah Strasser, Clinical Sciences, Northern Ontario School of Medicine

Abstract
The VOSI project is an integral part of the province wide interdisciplinary Research Projects in Primary Health Care (PHC) transitions in Ontario.
Aims: To conduct a demonstration synthesis on interdisciplinary care literature that will inform current questions in Ontario related to new models of PHC organization - Family Health Teams. This will draw on the Primary Health Care Transition(PHCTF) major research and evaluation findings.
Objectives: The VOSI synthesis demonstration is formative process, being developed before the results of the PHCTF projects are published.
Methods: Planning: Outline initial questions–conceptual, theoretical, and operational-in a broad open format. Agree outputs with decision makers
Collaboration: Engage key stakeholders in refinement of questions; approaches, priority themes and their dimensions with key informants; Plan to validate approaches & findings.
Search: Initial search with goal of mapping perspectives and approaches with respect to question(s). Identify key conceptual papers. Evaluate these by the criteria of scholarship, and contribution to knowledge. Identify empirical papers, reports relevant to the question. Search all accessible Ontario PHCTF project material.
Mapping: Identify in consultation with stakeholders: key elements of the research; key actors; main findings and how derived; prevailing metaphors.
Appraisal: With appropriate techniques, appraise the scoped literature. Each study will be evaluated for relevance to the review question and for its validity and contribution. Extract, collate and group key results in key themes/dimensions.
Synthesis: Identify contributions to the questions. Develop plan for knowledge products.
Progress: Planning and Collaboration: Common questions identified so far from Ministry, Providers, Researchers and the National Evaluation Strategy Questions are:
How should the mix and number of providers on a multidisciplinary team reflect the needs of the community or practice population?
Research approaches, priority themes and their dimensions are being finalized with key informants and stakeholder consultation with a series of meetings including planned input from experts and intended audiences.
Conclusion: VOSI is leading an innovative ‘participatory’ approach to strategies/options for Ontario Primary Health Care Transition (PHCTF) research/evaluation synthesis and information.

Notes:

The Effects of a Smoking Ban on an Inpatient Psychiatric Program

Principal Presenter
Robbie Goddard, Psychometrist, St Joseph's Care Group - Lakehead Psychiatric Hospital

Abstract
Smoking is an important part of the lives of many psychiatric inpatients. When the decision was made that smoking would no longer be allowed within the buildings of the Lakehead Psychiatric Hospital some staff and clients became concerned about the implications of this decision. This study used available data to examine the impact of the smoking ban on the lives of the inpatient clients of the Long-Term Rehabilitation Program. All clients who were inpatients of the Rehabilitation Program during the study period: both the year prior to, and the year subsequent to, the smoking ban (26 individuals) were identified. Information regarding weight, blood pressure, and medications that were not a part of the regularly prescribed treatment ("prn") was analyzed. No change was found in these measures other than a non-significant trend suggesting an increase in the use of prn medication after the ban was implemented. Information was also analyzed regarding incidents of inappropriate or aggressive behaviour occurring on the inpatient unit. There were an increased number of incident reports in the year following the smoking ban, with significant increases seen in the categories of physical and verbal assaults, inappropriate smoking, and unauthorized absences from the unit, as well as miscellaneous incidents.

Conflict: Principal Investigator and most others involved with project work for organization the study relates to: information in the study may be critical of practices of the organization which they work for.

Notes:

Image-Guided Core Breast Biopsy: Implementing Guidelines into Community

Principal Presenter
Dr Amanda Hey, Clinical Lead, Preventive Oncology and Screening, Regional Cancer Program, Hopital Regional de Sudbury Regional Hospital (RCP-HRSRH)

Other Presenters
Carolyn Jackson, Regional Administrator, Ontario Breast Screening Program, RCP-HRSRH
Merci Miron Black, Nurse Examiner, Ontario Breast Screening Program, RCP-HRSRH
Denise Gauthier-Frohlick, Research Officer, Supportive Care Oncology Research Unit, RCP-HRSRH

Abstract
The Clinical Practice Guideline (CPG) for the Care and Treatment of Breast Cancer recommends the preferential utilization of Image-Guided Core Breast Biopsy (IGCBB) in the evaluation of Bi-Rads 3 mammogram abnormalities prior to consideration of open biopsy. IGCBB can reduce both the time to diagnosis and the number of invasive open biopsies, while providing reliable pathology information to the surgeon to assist in planning if definitive cancer surgery is required. IGCBB had been underutilized at the Hopital Regional de Sudbury Regional Hospital Diagnostic Imaging Department (HRSRH-DI) for a variety of reasons including radiologist, imaging technologist and equipment shortages and the role of ICGBB not being clearly articulated to community physicians or patients.
A pilot project with family physicians in Elliott Lake was delivered between March and July 2005. The clinical pathway was redesigned to incorporate IGCBB. An educational forum with external opinion leaders and interdisciplinary breast health providers garnered support. Quality indicators based upon provincial standards were measured. The 'navigation' of patients by a project coordinator was carried out. At project completion, health care provider and patient surveys were conducted.
IGCBB patients in the redesigned clinical pathway had shorter wait-times to diagnosis (14-30 days, mean 26 days) compared to open biopsy (31-82 days; mean 60 days). Of the 42 patients with abnormal screening mammograms, nine required biopsy. Five were diagnosed by IGCBB, achieving the desired outcome of increased utilization of the procedure (12% achieved, 1.7% baseline, 10% target). Four patients were diagnosed by open biopsy, therefore also achieving the desired decreased utilization (9.5% achieved, 20% baseline, 6% target).
Despite concerns of demand vs. capacity for IGCBB at the HRSRH-DI, the increased numbers were accommodated. System redesign, education with the opportunity for feedback along the continuum of interdisciplinary healthcare providers, and informational support to patients, were all components that effectively fostered change.

Notes:

The FOOTPAD Program: Foot Care Optimal Outcomes and Treatment for Patients in Algoma with Diabetes Program

Principal Presenter
Dr. Sam Fratesi, Medical Advisor to the FOOTPAD Program, Vascular Surgeon, Algoma District Medical Group, Group Health Centre

Abstract
Approximately two million persons in Canada have diabetes. It is estimated that 4-10% of those with diabetes will develop a foot ulcer. Northern Ontario's Algoma District has a high incidence and prevalence of diabetes and diabetes-associated complications such as limb amputation. Patients with these problems often succumb to complications such as heart attack and stroke.

Launched in June 2005, the FOOT PAD program is a comprehensive, practical and evidence-based program that delivers optimal foot care to patients with diabetes. Its uniqueness arises from the scope of its collaboration of providers and consumer groups, extent of interventions, and the evaluation feasibility of relevant clinical outcomes. FOOT PAD committee representatives are from Sault Area Hospital (SAH), Algoma Diabetes Education and Care (ADEC) Program, Group Health Centre (GHC), Algoma Foot Care Committee, including community nursing, foot care professionals and retail.

The FOOT PAD program resides at the Group Health Centre, a unique community-sponsored, not-for-profit, health facility serving 59,000+ patients. The GHC primary care registry of 3000+ patients with diabetes is the largest in Canada. Considered a community, provincial, and national leader in health promotion, patient care and research, the GHC model is an example of a different approach to service delivery that involves individuals in their own care, maximizes the scope of practice of our inter-disciplinary team, and uses leading-edge infrastructure and technology to help achieve better health outcomes.

Increasing awareness of the importance of foot care and regular examinations has shown to prevent amputations. On the other hand, in diabetes patients with established foot ulcers, judicious wound care as well control of smoking, blood pressure, hyperglycemia and use of certain medications decrease not only amputations but also complications such as strokes. Key components of the FOOT PAD program include an algorithm for diabetes foot care, a diagnostic assessment tool and standardized protocols.

Notes:

Interdisciplinary Team Approach to Insulin Adjustment Benefits the Patient with Diabetes

Principal Presenter
Cynthia MacKay, RD, CDE, Dept Head, Algoma Diabetes Education and Care (ADEC) Program, Group Health Centre

Other Presenter
Dr. Pauline Bragaglia, Algoma District Medical Group, Group Health Centre

Abstract
Current diabetes management focuses on optimal metabolic control. Achieving best possible glycemic control requires active participation of the person with diabetes in making adjustments to their meal plan, exercise/physical activity routine, and insulin doses.

The Group Health Centre (GHC) and Algoma Diabetes Education and Care (ADEC) Program has been using medical directives in diabetes management for the past 2.5 years. A medical directive is a written order for a drug/intervention/test/procedure that applies to a range of clients when specific conditions are met and specific circumstances exist. Medical directives being used for insulin dose adjustments, as outlined in the *ADEC Diabetes Medication Adjustment Policies and Guidelines Manual*, clarify the parameters of the insulin adjustment, patient eligibility criteria, and the specific required conditions. The established policies, procedures, and guidelines, together with the medical directive, act as the vital communication within our treatment team.

The diabetes nurse and dietitian educator, each certified in insulin dose adjustment, teach and assist patients to safely and competently adjust their insulin doses to achieve the best possible glycemic control. The nurse/dietitian educator's ability to adjust insulin is a considerable asset to both the patient and referring physician.

Data regarding the directive is collected from GHC's electronic medical record (EMR). The group examined were those on multiple daily injection insulin regimen. Factors examined include metabolic control, patient and physician satisfaction, and patient knowledge, skill acquisition and motivation to carry out self-care practices.

Medical directive use has resulted in lower A1c values, an improvement of more than 1%. Physicians are satisfied, responding that medical directives are effective and lessen their workload. Patients reported increased confidence to self-manage with 100% satisfaction.

The late Dr. Hui Lee was instrumental in promoting the use of medical directives and a team approach for diabetes management.

Notes:

The Health Promotion Initiative in Diabetes (HPID) Outcomes Management Program at the Group Health Centre: A 5-year Experience Demonstrating Improved Outcomes That Have Been Sustained

Principal Presenter
Dr. Pauline Bragaglia, Algoma District Medical Group, Group Health Centre

Other Presenter
Cynthia MacKay, RD, CDE, Dept Head, Algoma Diabetes Education and Care (ADEC) Program, Group Health Centre

Abstract
The Health Promotion Initiative in Diabetes (HPID) program (now the Algoma Diabetes Education and Care (ADEC) Program), at Group Health Centre (GHC) was featured as one of five Programs of Excellence by the National Health Council of Canada in their 2005 video and report. Originated by the late Dr. Hui Lee in 1998, the Program focuses on application of evidence based guidelines for individuals with Type 1 and Type 2 diabetes. GHC has the largest primary care registry of patients with diabetes in Canada (3,400+ patients).

Integrated care is provided by GHC's interdisciplinary team composed of primary care providers (37 family physicians and 8 nurse practitioners), specialists, dietitians, nurse educators, chiropodists and optometrists.

The aim is to maintain good health outcomes, reducing diabetes complications such as heart disease, stroke, blindness, amputation, and kidney failure. Using an interdisciplinary approach and an electronic medical record, a unique HPID template has been developed for each ambulatory non-pregnant person with diabetes greater than 18 years of age. Coordinated by the ADEC team, health promotion interventions are captured as "**G**ood **H**ealth **O**utcomes In **D**iabetes" (GHOD) scores and made available to the primary provider.

Since 2000, a GHOD score has been maintained for each diabetes patient, resulting in improved evidence based outcomes and an overall cumulative 55% improvement from baseline. The 2005 results show further improvement in the GHOD score, particularly in blood pressure and A1c outcomes. These results demonstrate that a community based, dedicated outcomes management program that uses evidence based promotions and interventions can optimize the process of care and is sustainable. The ADEC Program can be duplicated elsewhere to assist patients and providers manage diabetes care.

Notes:

Poster

Presentations

Evaluating the Use of Initial Screening for Depression for Persons with Diabetes

Principal Presenter
Paul Apostolon, RSW, Dept Head, Counselling, Group Health Centre

Other Presenter
Cynthia MacKay, RD, CDE, Dept Head, Algoma Diabetes Education and Care (ADEC) Program, Group Health Centre

Abstract
Depression affects 15 – 30% of people with diabetes, double the rate of depression in the general population. Diabetes and depression appear to have a synergistic exacerbative effect. The whole patient requires care to successfully manage this chronic disease. Early screening and a detection process that identifies depression within this patient group are imperative to assisting the diabetes educator with reducing stress, anxiety and emotional distress. Tending to the psychological and emotional health of people with diabetes can improve self-care and quality of life. Incorporating routine screening into diabetes care is an evidence-based recommendation in the 2003 Clinical Practice Guidelines.

The Group Health Centre (GHC) Counselling Department began providing onsite service for the Algoma Diabetes Education and Care (ADEC) Program in January 2004. Services include an initial group session, individual assessment, stress management and relaxation classes. An early screening and detection process for depression was initiated in May 2005.

A simple two-question screening tool for diagnosing depression is used by the ADEC team. The tool provides a structured and early identification process to assist with identifying depression, better monitoring, and encouraging earlier treatment for patients with diabetes.

Data shows that 27.5% of 200 patients with diabetes who attended an initial group session indicated positive for presenting with depression. Metabolic control data will be presented at the NOSM Conference.

GHC is a multi-specialty, interdisciplinary ambulatory care facility with diagnostic services and electronic medical records. With 59,000+ registered patients, it is considered a community leader in health promotion, patient care and research. The GHC model exemplifies a different approach to service delivery, involving individuals in their own care, maximizing the scope of practice of our inter-disciplinary team, and using leading-edge infrastructure and technology to help achieve better health outcomes. GHC has the largest primary care registry of patients with diabetes (3,400+) in Canada.

Notes:

Sepsis Mediated Cellular Dysfunction is Mediated by DFF40/CAD Induced Apoptosis

Principal Presenter
Danielle Brabant, Ph.D. Student, Department of Chemistry and Biochemistry and the Biomolecular Sciences Programme, Laurentian University

Other Presenters
Paul Michael, Research Associate, Department of Chemistry and Biochemistry and the Biomolecular Sciences Programme, Laurentian University
Students, Department of Chemistry and Biochemistry and the Biomolecular Sciences Programme, Laurentian University : Marija Tonnos, M.Sc.; Marisa Tessier, M.Sc.; ShuHung Kung, M.Sc.; Tyler Kirwan, B.Sc.: Viktoria Kekkonen, B.Sc.
Chilakamarti V. Ramana, Faculty, Department of Medicine, Yale University
Joseph E. Parrillo, Director, Division of Cardiovascular Disease and Critical Care Medicine, Cooper University Hospital, Robert Wood Johnson Medical School
Anand Kumar, Faculty, Division of Cardiovascular Disease and Critical Care Medicine, Cooper University Hospital, Robert Wood Johnson Medical School and Section of Critical Care Medicine, Winnipeg, University of Manitoba
Aseem Kumar, Canada Research Chair, Department of Chemistry and Biochemistry and the Biomolecular Sciences Programme, Laurentian University

Abstract
Sepsis is the systemic response to infection and can progress to severe sepsis and septic shock. Sepsis and septic shock are the leading causes of death in intensive care units in the developed world. Approximately 800,000 people are affected with sepsis every year in the United States, and 200,000 patients will succumb to the disease. Sepsis is initiated by the presence of microbes or its components which elicits a complex signalling cascade. Consequently, there is a misregulation of proinflammatory, iNOS, cell adhesion and apoptotic responses. The host response may lead to cellular damage and eventually to multiple organ dysfunction (MOD) and death. Despite the use of anti-inflammatory therapies aimed at treating the disease, there is still an increase in death rate. Hence, studies have been initiated to better understand the pathophysiological mechanism(s) involved in mediating sepsis. It has been postulated that apoptosis may play a vital role in the development of MOD associated with sepsis. We have developed a tissue culture model of sepsis which mimics the human disease. In this model we add serum derived from sepsis patients (septic serum) to a human fibroblast cell line. We have shown that septic serum treatment of human fibroblasts initiates the caspase cascade pathway and induces apoptosis. Addition of septic serum to human fibroblasts cells induced apoptosis by triggering the initiator caspase 8, the effector caspase 3 and the caspase activated DNase (DFF40/CAD). Further, we have shown that septic serum addition to human fibroblasts induces genomic DNA laddering and cell death . These data suggest that modulators of apoptosis during sepsis may provide novel therapeutics.

Notes:

A Case Based Multimedia Interactive Teaching Program in Hematology/Oncology for Medical Students and Residents

Principal Presenters
Brigden M, Della Vedova L, Hettenhausen W, Pilatzke S, Robertshaw T,
Department of Medical Oncology, Thunder Bay Regional Health Sciences Centre, Thunder Bay, Ontario

Abstract
Problem based learning (PBL) relies on a PBL tutor to help students understand the relevance of the clinical material presented often as individual structured cases. In attempt to both broaden the scope of and simplify this process, we are developing a series of interactive multimedia patient based modules dealing with individual problems in hematology and medical oncology. Each case includes a patient interview and exam, digitalized relevant laboratory and radiological investigations, a mini tutorial and finally, a self directed quiz. The expansive scope and modular nature of this project should allow students to further pursue individual topics after an initial exposure to the area in question on the hospital ward or in the clinic. Examples will be provided.

Notes:

Comparison of Two Novel Methods of Preservation of Induced Sputum with Standardized Method

Principal Presenter
Melanie Bussoli, BSc, Kinesiology program, School of Human Kinetics, Laurentian University

Abstract
Background: Sputum induction is a tool used to assess airway disease and to examine efficacy of treatment. Sputum is the combination of saliva and cells produced when a person coughs deeply and spits. Sputum induction is a process where people inhale aerosolized saline (salt and water) to help them cough-up sputum. This technique is useful, because it shows changes in cell numbers and types in the airways in a non-invasive manner.
At present, a limitation of this procedure is that samples need to be processed within two hours of induction (while cells are alive). As many Canadians live in centres where there are no personnel to process the samples, this procedure is unavailable to them.
Objective: To develop a fixation technique: this would allow delays in processing.
Methods Sputum is induced according to Popov et al. Samples are processed in three ways: i) standard sputum processing (ie. within two hours of induction) according to Pizzichini et al.; ii) preservation method A (fixation in ethanol) and; iii) preservation method B (fixation in formulin). In each method, cell plugs are selected and cytospins are prepared. Differential cell counts will be performed on Diff-Quik-stained slides. Means of duplicate slides (400 cells/slide) will be expressed as absolute counts (104 cells/ml).
Results: six samples have been processed to date; however, differential counts have not been performed. Processing of samples has been successful and cell plugs are adequately recovered from both fixation methods. Cell morphology appears to be normal and comparable to fresh samples. Samples from subjects that have increased airway inflammation have debris accumulating in preservation method B which interferes with cell spread and morphology on the slide.
Discussion: Preservation method A appears to be superior to preservation method B and visually comparable to fresh processing.
Funding support: Occupational Health Clinics for Ontario Workers Inc.

Notes:

Effectiveness of Splinting For The Treatment of Trigger Finger

Principal Presenter
Julie Colbourn, Occupational Therapist, St. Joseph's Care Group

Abstract
The purpose of this study was to evaluate the effectiveness of custom thermoplastic splinting for trigger finger as a first treatment option, prior to steroid injection or surgery.Trigger Finger occurs when the tendon develops a nodule and/or swelling of the tendon sheath. When the tendon swells, it must squeeze through the opening of the flexor sheath which causes pain or a "catching" feeling in the finger.

Pre and post outcome measures used were: grip strength; number of triggers on 10 active fists; Stages of Stenosing Tenosynovitis (Rodger's et. al., 1998); and subjective rating of pain. These measures were taken at the time of initial assessment (and splint fabrication) and after 6 weeks of constant splint wear. Additional demographic and subjective information was collected, including: age, gender, length of signs and symptoms, finger affected, medical diagnosis, participant perceived effectiveness, vocation, and avocation. Participants were given an information sheet on trigger finger and exercises to complete independently.

Statistical analysis comparing pre and post splinting data for the 28 participants showed a positive statistical relationship between custom thermoplastic splinting and improvement in the stages of Stenosing Tenosynovitis, the number of triggers in 10 active fists and in subjective rating of pain. Grip strength did not significantly change.

This study demonstrates a positive relationship between use of a custom thermoplastic splint for an isolated incidence of trigger finger and a decrease in subjective and objective outcome measures for triggering. Splinting should be considered as a non-invasive, low cost, first treatment option for trigger finger prior to steroid injection or surgery

Notes:

Vascular Intervention Program (VIP) Project

Principal Presenter
Dr. David Crookston, Lead Physician, Health Promotion Initiatives Team, Group Health Centre

Abstract
Introduction:
Cardiovascular disease is the primary cause of mortality in Northern Ontario. The INTERHEART Study demonstrated that nine modifiable risk factors predict over 95% of the risk of a myocardial infarction.

Setting:
A community-based multidisciplinary health service organization serving 59,000 rostered patients, and independent family physicians' offices in Sault Ste. Marie, Ontario.

Participants:
647 ambulatory adults, in the district of Algoma, Ontario, referred by their family physicians or self-referred.

Intervention:
Participants were stratified into low, medium, and high risk groups based on questionnaires, clinical evaluation, and history of diabetes or vascular disease. Low risk individuals (Framingham Risk Score under 12%) received usual care and were evaluated at the beginning and end of the study. Those at moderate to high risk were randomized to intervention or standard care. Intervention patients were provided with an ACTION (Assessment of Cardiovascular Treatable Intervention and Outcome Nomogram) score. The risk factors were family history, diabetes, hypertension, smoking, LDL, nutrition, abdominal girth, activity level, physiologic age, and psychosocial stress.

Intervention patients chose which risk factors to modify, received detailed individual counselling, as well as referral, as appropriate, for further nutritional, psychological, and smoking cessation counselling, and a structured exercise program. The study nurse evaluated randomized patients every 6 months for up to 18 months. Information, with consent, was shared with patients' family physicians and pharmacists to promote interdisciplinary collaboration.

Results:
Outcomes being evaluated are reduction in risk score, increased patients decision making, increased provider collaboration, and appropriate use of cardioprotective medications. The study will be completed in July 2006.

Notes:

The Falls, Fracture and Osteoporosis Risk Control and Evaluation (FORCE) Study

Principal Presenters
Sharon Cuddy, Manager, Clinical Research Department, Group Health Centre
Maureen Cassavia, RN, Clinical Research Department, Group Health Centre

Other Presenter
Dr. P. Ciaschini, Algoma District Medical Group, Group Health Centre

Abstract
Falls and osteoporosis-related fractures cause substantial morbidity and mortality in the elderly and are an increasing public health concern. In 2005, the Ontario government launched the province's first osteoporosis strategy to help prevent the disease through education and early diagnosis.

The FORCE Study, spear-headed in 2001 by the late Dr. Hui Lee, has a comprehensive, community-based approach to identify and manage the population at highest risk. The 3-year randomized controlled trial evaluates the effect of a coordinated, interdisciplinary approach for fall and fracture prevention. The study team, a broad group of interested consumers, stakeholders and providers, examines the barriers and possible solutions to the successful implementation of such an integrated approach.

Two hundred community-dwelling adults over the age of 55 were recruited from high-risk groups and randomized into two streams. An economic substudy examined the disease's financial burden on the patient, family, and health care system. A coordinator assessed and managed osteoporosis and fall risk according to a protocol of evidence-based interventions.

This presentation highlights leadership in implementation of an evidence-based, integrated protocol across a broad range of existing health care and community agencies in a northern Ontario community. Development of effective partnerships in research and advancing evidence-based knowledge into practice will be demonstrated. Results will support the provincial strategy and help move evidence into practice and provide suggestions for improved, coordinated care for falls and fracture prevention.

GHC is a multi-specialty, interdisciplinary ambulatory care facility with diagnostic services and electronic medical records. With 59,000+ registered patients, it is considered a community leader in health promotion, patient care and research. The GHC model exemplifies a different approach to service delivery, involving individuals in their own care, maximizing the scope of practice of our inter-disciplinary team, and using leading-edge infrastructure and technology to help achieve better health outcomes.

Notes:

Strategies for the Development of Knowledge to Inform Decisions in a Complex Health Care Environment

Principal Presenter
Shelley Darling, BHSci, MHA (candidate),Research Assistant, Virtual Office of Informatin & Synthesis, Northern Ontario School of Medicine

Other Presenters
Carmel Martin, MD, PhD, Project Lead, Virtual Office of Informatin & Synthesis, Northern Ontario School of Medicine
Margot Felix, PhD, Research Associate, Virtual Office of Informatin & Synthesis, Northern Ontario School of Medicine

Abstract
Aims: To identify strategies for assembling and synthesizing information for use in policy and organizational decision making in a health care system in a realistic time frame.
Objectives: To review the literature on the development of evidence and knowledge to inform decisions in a complex health care environment, based upon questions that do not have readily available evidence.
Context: Despite extensive Primary Health Care reform research in Ontario, policy questions about system transition emerge, that are only indirectly related to existing research findings.
Rationale: As health care organizations expand and network, the challenges of processing of large quantities of information and finding applicable knowledge become more apparent. Decisions made in the health care environment directly affect communities, and policy directions can directly shape populations.
Methodology: This paper began with planning and collaborating with decision makers, other researchers and key informants. A search was conduced that included identifying key papers, snowballing from leading literature, and internet and database searches. A mapping exercise and thematic analysis was then conducted, followed by appraisal of the existing knowledge. The final step of this iterative approach was a synthesis.
Results & Discussion: In order for policy makers and administrators to get sufficient knowledge to aid in decision making, it is paramount that the right questions are asked. Clarifying questions requires an interactive consultation process. In order to manage the quantity, relevancy, and utility of mass amounts of information, a number of strategies have been adopted to assist, including systemic or scoping reviews, conceptual frameworks, and realist synthesis. Detailed search and reviewing must occur to determine the status and quality of information. Influences in the external environment must also be taken into consideration. Finally, decisions must be made, almost certainly with imperfect or incomplete knowledge.

Notes:

The Effect of HMG-CoA Reductase Inhibitors (Statins) on Ubiquinone Levels: A Meta-Analysis

Principal Presenter
Luke A. Fera, BSc, Lake Superior State University

Other Presenter
Gregory M. Zimmerman, PhD, Chair of Biology Department/Associate Professor, Lake Superior State University, Sault Ste. Marie, MI

Abstract
HMG-CoA reductase inhibitors (statins) have become first-line therapy for patients with elevated low-density lipoprotein cholesterol levels. Cholesterol is synthesized in the liver via the mevalonate pathway. HMG-CoA reductase inhibitors prevent the reduction of HMG-CoA to mevalonate, thus inhibiting the initial and rate-limiting step of cholesterol biosynthesis. Mevalonate is also a precursor to ubiquinone (coenzyme Q10), which is an important electron carrier in the electron transport chain. If aerobic respiration is deficient, mitochondrial dysfunction results, and individuals experience myalgia, myositis, and in severe cases, rhabdomyolysis. As a class, the statins are often associated with myopathies of skeletal and cardiac muscle tissues. One proposed mechanism of these myopathic adverse events is decreased mitochondrial ubiquinone concentrations, which could potentially lead to mitochondrial dysfunction. Through an extensive literature review, nine published studies on this topic were identified, and were subjected to a random-effects meta-analysis in order to determine the effect of statins, as a class, on ubiquinone levels. An effect size for each sample study was calculated, along with its 95% confidence interval. Each individual effect size contributed to a single, cumulative effect size for the entire meta-analysis. The results of the meta-analysis confirmed with 95% certainty that statins significantly decrease coenzyme Q10 levels. Since ubiquinone can be absorbed exogenously by the gastrointestinal tract, it is recommended that patients receiving statin therapy should also receive ubiquinone supplementation. It is hypothesized that the incidence of myopathic adverse events associated with the HMG-CoA reductase inhibitors would markedly decrease in patients with normal ubiquinone concentrations, although this study did not examine the efficacy of ubiquinone supplementation.

Notes:

p38 MAPK is Involved in Triggering Membrane Blebbing and Nuclear Condensation in the L-Glutamine Deprived SP2/O-Ag14 Apoptotic Cell Model

Principal Presenter
Curtis Harnett, Laurentian University, Graduate Student

Other Presenters
Eric Gauthier Ph.D., Laurentian University, Associate Professor
Teresa Furtak, Laurentian University
Paul Guerin, Laurentian University

Abstract
L-glutamine (Gln) deprivation has been shown to trigger cells to undergo apoptosis. It has been suggested that removal of Gln can lead to an oxidative stress due to decreased glutathione levels within the cell. p38 MAPK is triggered by a variety of insults including oxidative stress, and has been shown to induce cellular events responsible for apoptosis initiation. The SP2/O-Ag14 (SP2) cell line is committed to undergo apoptosis after three hours of Gln withdrawal. With these considerations, we hypothesized that p38 MAPK would be induced at an early time point following Gln starvation of SP2 cells. Protein extracts from a variety of time points following Gln withdrawal revealed, through Western blot analysis, the unexpectedly late activation of p38 MAPK by phosphorylation at three hours post Gln withdrawal. Apoptotic inducing events, such as cytochrome C and SMAC/Diablo leakage from the mitochondria and caspases-3 and -9 activation, have previously been shown by our group to occur within the first hour of Gln withdrawal. Inhibition of p38 MAPK with SB203580 was unable to protect SP2 cells from these apoptotic inducing events. Interestingly, we found that inhibition of p38 MAPK, under Gln starved conditions, reduced the number of cells exhibiting nuclear condensation and membrane blebbing, morphological hallmarks of apoptotic cells. All together our data suggests that the p38 MAPK pathway triggers cellular events involved in membrane blebbing and nuclear condensation, rather than the induction of the apoptotic death machinery. Research supported by an NSERC Discovery Grant.

Notes:

The Role of L-Glutamine as a Signaling Molecule in the Rat Intestinal Epithelial Cell Line (RIE-1)

Principal Presenter
Curtis Harnett, Laurentian University, Graduate Student

Other Presenter
Eric Gauthier Ph.D., Laurentian University, Associate Professor

Abstract
L-glutamine (Gln) is a non-essential amino acid, capable of acting as a signaling molecule within the cell. The importance of Gln in regulating a number of biological processes such as proliferation is achieved by targeting molecular pathways within the cell. To study the molecular pathways influenced by Gln, we used the rat intestinal epithelial cell line (RIE-1) as a model. Contrary to previous reports indicating increased apoptosis as a result of Gln deprivation, we found no evidence to suggest apoptosis is occurring. Rather, through numerous experiments, we showed that RIE-1 cells underwent a stop in proliferation, following a 48 hour Gln deprivation. Furthermore, Gln starved cells do not exhibit permanent effects on proliferation, as re-addition of Gln to the culture media rescued the cells from quiescence. These results led us to investigate the status of the mammalian target of rapamycin (mTOR), a pathway responsible for monitoring the amino acid pool within the cell. Western blot analysis of Gln deprived RIE-1 cells showed the dephosphorylation of p70S6 kinase, but no change in the phosphorylation of 4E-BP1. This was unexpected since p70S6 kinase and 4E-BP1, are dephosphorylated following branched chain amino acid deprivation in other cell models. Taken together, results indicate Gln is capable of effecting molecular pathways responsible for controlling proliferation in RIE-1 cells. Our data also suggests Gln maybe capable of uniquely modulating the mTOR pathway. It remains to be determined if the modulation of the mTOR pathway seen here is responsible for the reduced rate of proliferation observed as a result of Gln deprivation. Research supported by an NSERC Discovery Grant.

Notes:

Characterization of Bacterial and Viral Nucleic Acid Induced Signal Transduction Pathways that Cause Cellular Dysfunction

Principal Presenter
ShuHung Kung, M.Sc. Student, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University

Other Presenters
Paul Michael, Research Associate, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University
Marija Tonnos, M.Sc. Student, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University
Marisa Tessier, M.Sc. Student, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University
Danielle Brabant, Ph.D. Student, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University
Tyler Kirwan, B.Sc. Student, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University
Viktoria Kekkonen, B.Sc. Student, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University
Chilakamarti V. Ramana, Faculty, Department of Medicine, Yale University
Joseph E. Parrillo, Director, Division of Cardiovascular Disease and Critical Care Medicine, Cooper University Hospital, Robert Wood Johnson Medical School
Anand Kumar, Faculty, Division of Cardiovascular Disease and Critical Care Medicine, Cooper University Hospital, Robert Wood Johnson Medical School and Section of Critical Care Medicine, Winnipeg, University of Manitoba
Aseem Kumar, Canada Research Chair, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University

Abstract
Sepsis and septic shock represent the systemic immunologic and pathophysiologic response to overwhelming infection. Septic deaths are typically due to early refractory cardiovascular failure (hypotension or shock) or later multiple organ failure. Septic shock is characterized by cellular dysfunction including cardiac myocyte contraction depression. Bacteria known to cause septic shock and induce myocyte contraction depression include, E. coli and S. aureus. Classically, cellular dysfunction was thought to be dependent on bacterial exotoxins such as Toxic Shock Syndrome Toxin-1 and/or bacterial endotoxin (lipopolysaccharide). Viruses such as enterovirus are known to cause myocarditis and induce a potent myocyte contraction depression, the mechanism(s) of virus induced myocyte contraction depression is not known. In this research proposal we hypothesize that myocyte cellular dysfunction is partially mediated by bacterial RNA and viral RNA. Our data indicate that bacterial RNA and viral RNA utilize the protein kinase RNA-dependent (PKR) to induce cardiac myocyte contraction depression. Using in vitro cellular and molecular biology strategies, our research will delineate the bacterial RNA and viral RNA induced signal transduction pathways that lead to cellular dysfunction.

Notes:

Zinc Toxicity Leads to an Energy Deficit in Human Liver Cells

Principal Presenter
Joseph Lemire, Undergraduate Researcher, Dr. V.D Appanna Research Group

Abstract
Zinc, is an essential metal that participates in a variety of biological functions. However, an excess or a deficiency in zinc leads to various disease states. As the bioavailability of divalent zinc is on a sharp rise due to industrial and commercial activities, the toxicity of zinc has become a cause of serious concern. Gastrointestinal disorders, immune system impairment, disabled copper absorption, anemia, leukemia, and changes in cholesterol levels are some of the medical conditions triggered by zinc toxicity. We have utilized a proteomic and metabolomic approach to delineate how zinc confers its toxicity on liver cells (HepG2 cells). The Tricarboxylic Acid (TCA) cycle, a key metabolic network that provides precursors for mitochondrial ATP production was severely impaired. The activities of aconitase (Acn), and α alpha− Ketoglutarate dehydrogenase (alpha-KGDH) were compromised. The Hypoxia Inducible Factor (HIF-alpha α) a transcription factor that modulates anaerobiosis, was stabilized and glycolysis was promoted. Hence, zinc toxicity evokes a hypoxic situation and perturbs mitochondrial ATP production. These metabolic conditions will lead to severe restriction in energy production and may contribute to various clinical abnormalities evoked by zinc toxicity.

Notes:

Aluminum-induced dyslipidemia in liver cells: A link to obesity

Principal Presenter
Ryan J. Mailloux, PhD candidate, Dept. of Chemistry and Biochemistry, Laurentian University

Other Presenter
Vasu D. Appanna*, PhD, Dept. of Chemistry and Biochemistry, Laurentian University

Abstract
Due to its toxic properties, aluminum (Al) has been deliberately excluded from biological systems. However, industrial pollution and anthropogenic sources have made this metal more biologically available. Al has been implicated as an etiopathological cofactor in a number of disorders including Alzheimers, Parkinsons, and Anaemia. Although this trivalent metal has been linked to a variety of disease situations, the precise molecular mechanism(s) of how Al toxicity results in abnormal biological processes has not been fully delineated. Using human liver cells (HepG2), we have uncovered that Al impedes mitochondrial energy production thereby channeling carbohydrates towards lipid production. Immunoblot and Native PAGE experiments revealed high levels of apolipoprotein (ApoB-100) and lipids in Al-stressed cultures cultured in glucose and fructose respectively. 13C NMR analysis helped unravel the metabolic network leading to enhanced lipid synthesis in Al-stressed cells. Such lipogenic enzymes like acetyl CoA carboxylase (ACC), ATP-citrate lyase (ATP-CL), and glycerol-3-phosphate dehydrogenase (G3PDH) were markedly increased under Al toxicity. The ability of mitochondria to synthesize ATP was severely restricted as numerous enzymes involved in oxidative phosphorylation were sharply diminished. Hence Al forces the liver cells to produce lipids at the expense of ATP, a condition observed in obese individuals.

Notes:

A Narrow Range of Low Glutamine Concentrations Dramatically Affects Cell Viability in Sp2/O-Ag14 Hybridoma Cells

Principal Presenter
Matthew T. Mallory, MSc Candidate, Laurentian University

Other Presenter
Eric R. Gauthier, Ph.D., Associate Professor, Laurentian University

Abstract
We have shown previously that Sp2/O-Ag14 (Sp2) murine B cell hybridomas commit to cell death in less than two hours during complete glutamine withdrawal. Here we investigated the effect of low glutamine concentrations on Sp2 cell viability. We noticed that Sp2 cell viability is dramatically altered over a very narrow range of glutamine concentrations. Hence, while only 35% cell viability was observed after a 24hr culture in the presence of 8µM L-glutamine, increasing the glutamine concentration to 25µM was sufficient to improve cell viability to 71%. Using fluorescence microscopy, we confirmed that low glutamine levels triggered apoptosis. Furthermore, PARP cleavage was observed at glutamine concentrations lower than 250µM, and coincided with the drop in cell viability. Interestingly, treating the cells with 25µM of glutamine and Z-VAD, a pan-caspase inhibitor, did not change viability with exposure to 25µM of glutamine alone, suggesting caspase activation may not be a critical component to the reduction in cell viability. In addition, low concentrations of glutamine elicited GADD153 expression in the range from 8µM and 250µM. Interestingly, GADD153 was not induced following complete withdrawal of glutamine. These results suggest that during complete glutamine withdrawal, apoptosis is rapidly induced, but in the presence of low glutamine levels, an alternative response is initiated to slow cell growth and respond to nutrient limitation. (This research was funded by an NSERC Discovery Grant).

Notes:

L-Glutamine Supplementation during Stationary Batch Culture of Sp2/O-Ag14 murine B Cell hybridomas Prevents the Induction of the Endoplasmic Reticulum Stress Response

Principal Presenter
Matthew T. Mallory, MSc Candidate, Laurentian University

Other Presenter
Dr. Eric R. Gauthier, Ph.D., Associate Professor, Laurentian University

Abstract
Glutamine, a non-essential amino acid, is crucial to some cell types for the maintenance of viability and for growth. Sp2/O-Ag14 (Sp2) murine B cell hybridoma cells require sufficient amounts of glutamine to prevent the activation of the intrinsic apoptotic pathway. Here, we studied the behavior of Sp2 cells in stationary batch culture whereby the cells are set at a density of 5x104cells/mL and allowed to grow until death. Viable cell density increased until culture day 4 whereby the cells began to undergo apoptosis. The loss in cell viability coincided with glutamine exhaustion in the culture. Western blotting revealed up-regulation of GADD153, a leucine zipper transcription factor known to be induced during amino acid deprivation as well as endoplasmic reticulum stress. Furthermore, increased expression of the ER chaperone Grp78/BiP was observed suggesting the induction of the endoplasmic reticulum (ER) stress response. Glutamine re-administration on culture day 4 increased viable cell density and negated the increase in expression of both proteins. These results demonstrate that glutamine is the limiting factor in the control of Sp2 cell viability during stationary batch culture. Furthermore, expression levels of GADD153 and Grp78/BiP, two markers of ER stress, can be modulated by glutamine supplementation. (This research was funded by an NSERC Discovery Grant).

Notes:

Chronic condition care in Primary Health Care (PHC) renewal: A framework for understanding care seeking and access for disadvantaged groups

Principal Presenter
Dr Carmel M Martin, Associate Professor, Clinical Sciences, Northern Ontario School of Medicine

Abstract
Aims: To conduct a scoping literature review to inform policy, clinical and research decision making on best practices with regard to access to chronic condition care − care seeking and care provision − for disadvantaged groups in rural and remote primary health care (PHC) populations.

Background: Access to PHC requires a system responsive to care seeking, with disadvantaged groups often requiring different health care arrangements.

Objectives: To develop a generic evidence-based framework to address the needs of disadvantaged rural and remote peoples in seeking chronic condition care - across the spectrum from prevention to illness and dying.

Methods: Participatory evidence-based literature synthesis. Through consultation with the intended users and stakeholders, the study will summarize the overall key narratives of different types of evidence, map synergistic and opposing influences in care systems and distil policy and research recommendations.

Findings: A working framework for scoping 'Access − care seeking and care provision' identified that key themes relate to the "symmetry between the system and user needs. Care provision, which is the focus of most of the accessibility activities and literature, must accommodate care seeking through mutuality, responsiveness, respect and in some cases going beyond provider, manager and policy maker scopes of knowledge.

Discussion: Theoretical and methodological challenges exist in documenting and understanding care seeking, as an essential component of PHC accessibility. This area is inherently complex and non-linear requiring multiple types of evidence. It has received little attention in research and policy activities.

Conclusion: This paper makes sense of the complexity of chronic care provision by assembling key components of a care seeking and service availability framework for disadvantaged groups. The framework provides a basis for the ongoing literature synthesis to inform policy and practice.

Notes:

Beating Heart Coronary Bypass: Rural Northern Ontario Experience

Principal Presenter
Avdesh N Mathur M.S. (Surg.), FRCS (C), Assistant Professor, NOSM and Sudbury Regional Hospital

Abstract
Objective: To examine factors relating to outcomes with beating heart off-pump coronary bypass (OPCAB) and to assess methods to improve the effectiveness of this approach.

Setting: A small rural northern Ontario community hospital where surgical assistance, nursing familiarity with OPCAB and even anesthesiologist comfort varied.

Design: Prospective collection of data with incremental audit of results and retrospective analysis of events.

Methods: One hundred twenty-four consecutive patients, operated on by the same surgeon between April 1996 and June 2002, were selected on the basis of coronary anatomy. Progressively more complex multi-vessel revascularization, including that to the posterior wall, was undertaken over the course of the study period. Every attempt was made not to compromise use of arterial conduits, quality of anastomoses or completeness of revascularization. This represents the ‘learning curve’ of this study. Follow up for up to 10 yrs. (Feb. 06) was 99%.

Main Results: Approximately 6% of patients developed a haemodynamic crisis requiring acute on-pump conversion. This tended to occur in patients undergoing complex multi-vessel OPCAB surgery and was associated with subsequent increased blood transfusion rate, operative time and mortality (2.8%), and poorer angiographic graft patency. This has led to a more cautious strategy including making the decision to proceed with OPCAB only after intraoperative assessment.

Conclusion: ‘Simple’ OPCAB on easily accessible coronary arteries resulted in excellent early outcomes. Complex multi-vessel OPCAB for triple vessel disease involving difficult to access arteries was more demanding with higher peri-operative complications and less effectiveness. Early enthusiasm for complex multi-vessel surgery has been gradually replaced with a more conservative use of OPCAB with improved intraoperative procedures, both of which have led to more favorable outcomes.

Key Words: Coronary heart disease; Off-cardiopulmonary bypass; Surgery. Beating heart.

Notes:

Establishment of a Procedure to Measure Intracellular Levels of L-glutamine

Principal Presenter
Abrar Mobarak, Department of Biology, Laurentian University, Sudbury, Ontario

Other Presenter
Eric R. Gauthier, Department of Chemistry and Biochemistry, Laurentian University, Sudbury, Ontario
Department of Biology, Laurentian University, Sudbury, Ontario

Abstract
We have recently shown that the Sp2/0-Ag 14 (Sp2) mouse hybridoma cells line rapidly activate the intrinsic apoptotic pathway in less than 2 hrs upon L-glutamine (L-Gln) withdrawal. Whether intracellular L-Gln levels need to decrease to a specific threshold before cell death is triggered is currently unknown. The intracellular concentration of L-glutamine was obtained by the technique of silicone oil layer centrifugation, a previously published method in which cells are centrifuged through a layer of silicone oil into a cells lysis buffer. This method facilitates the lysis of cells while excluding extracellular glutamine. This method allows for the measurement of the intracellular L-glutamine without the interference of the extracellular L-Gln. Validation of this method was done by incubating Sp2 cells in the presence of [14C] Urea (present in the intra and extracellular compartments) and [3H] Inulin (which is exclusively extracellular). Our results show that filtering Sp2 cells through a silicone oil cushion allowed the recovery of [14C] urea but not [3H] Inulin, demonstrating that the filtration excluded the extracellular compound. We then used the collected Sp2 cell lysates to measure intracellular L-Gln concentrations in the Gln-deprived Sp2 cells. Our preliminary results demonstrate that intracellular L-Gln levels drop significantly after 30 min of L-Gln starvation. These results show that this technique will allow us analyze and quantify the levels of intracellular metabolites in L-Gln starved Sp2 cells.

Notes:

The Use of Rating Scales by Canadian Psychiatrists: Qualitative and Quantitative Evidence

Principal Presenter
Dr. Oloruntoba Oluboka, Director, CREU, North East Mental Health Centre

Other Presenters
Dr. Sandra Stewart, Psychologist, North East Mental Health Centre
Dr. Susan Adams, Psychiatrist-in-Chief, North East Mental Health Centre
Dr. David Haslam, The University of Western Ontario

Abstract
The purpose of this study was to provide qualitative and quantitative evidence regarding the use of rating scales in general psychiatry practice. As the field moves increasingly to evidence based practice and the specific quantified measurement of patient outcomes, we felt that it was important to gain a current understanding of how clinician's incorporate this requirement into their day-to-day practice. Twenty-five percent of practicing Canadian psychiatrists were randomly selected to participate in the survey. Several questions pertaining to the use of rating scales, such as the amount of prior formal training on rating scale use, context regarding utilization of rating scales and the relevance of rating scales to general psychiatric practice issues were included. Results suggest that the majority of respondents do not use rating scales during the course of patient treatment. Over half of all respondents indicated that they had received no formal training on the use of rating scales. However, considerable interest exists with respect to practitioners incorporating these tools into a comprehensive clinical management strategy. The results of this study suggest that most respondents are willing to incorporate rating scales into their general practice, suggesting that patient outcomes are not currently being systematically measured using rating scales.

Learning Objectives:
1. Apply the use of rating scales in the clinical management of psychiatric patients.
2. Identify the relevance of rating scale(s) as an outcome measure.

References:
1. Gilbody, S., House, A. and Sheldon, T. (2002) Psychiatrists in the UK do not use outcome measures. British Journal of Psychiatry, 180, 101-103.
2. Slade, M., Thornicroft, G. and Glover, G.S.O. (1999) The feasibility of routine outcome measures in mental health. Social Psychiatry and Psychiatric Epidemiology, 34, 243-249.

Notes:

Findings from the 2005 First Nations Student Drug Use Survey

Principal Presenter
Michelle Ott, Project Consultant Centre for Addiction and Mental Health

Other Presenter
Dr. Val Mann, Director of Planning and Evaluation, Northwestern health Unit

Abstract
Objective:
The Centre for Addiction and Mental Health's (CAMH) Ontario Student Drug Use Survey (OSDUS) is the longest ongoing bi-annual school survey in Canada; however, it has never surveyed students in schools on First Nation communities.
Organizations in Kenora identified the lack of health and substance abuse information to be barriers in the delivery of mental health and addiction services to youth on First Nation communities.
With funding secured through CAMH's Community Research Capacity Enhancement Program (CRCEO), community partners conducted the First Nations Student Drug Use Survey.
Methods:
This pilot project involved a shorter, culturally appropriate version of the OSDUS. Students (117) from grades 7 through 12 were questioned on substance use, gambling behaviour, emotional health, demographics, and other social determinants of health. Results were compared to the 2005 OSDUS northern sub-analysis (Adlaf & Paglia-Boak, 2005) with differences considered significant if the percentage lay outside the 95% confidence interval of the OSDUS estimate.
Some of the challenges the team faced were:

- Requiring permission to be on Reserves
- Requiring permission from Band Councils, school principals and Aboriginal Child and Family Services to conduct survey
- Language barriers - obtaining consent by going door to door in each community with the interpreter and describing the project to each parent/guardian.
- Distance to each community resulted in a multiple hour drive on poor roads

Results:
Past year use of alcohol among First Nations students is lower compared to northern Ontario students (52.6% vs. 69.0%). Cigarette smoking (50.9%) and cannabis use (58.3%) rates are significantly higher among First Nations students when compared to northern Ontario students (19.9% and 33.0%, respectively).
Conclusions:
Findings from these schools will be of great interest to other researchers, teachers and health care providers who have an interest in the unique challenges faced by Anishinaabe youth.

Notes:

Palliative Care in First Nation Communities

Principal Presenter
Holly Prince, MSW, Project Coordinator, Lakehead University

Other Presenter
Dr. Mary Lou Kelley, Director, Centre for Education and Research on Aging and Health and Associate Professor, School of Social Work, Lakehead University

Abstract
Objective:
The purpose of this study was to explore Aboriginal people's current levels of awareness of palliative care, and their perceived access to palliative care resources within First Nation communities. The study also examined community values and beliefs related to death and dying and the educational needs of caregivers in First Nations communities. This study is part of a program of research being conducted within the CIHR New Emerging Team on End-of-Life Care for seniors. It was done in partnership with the Kenora Chiefs Advisory and funded by the Ontario Ministry of Health and Long-Term Care.

Methods:
The research design was a case study that included 13 First Nation communities in Northwestern Ontario in the Treaty 3 area. Quantitative and qualitative data were collected through surveys and focus groups with key community informants. A total of 220 surveys were collected and 11 focus groups were conducted. The data were analyzed to identify service delivery and educational needs using descriptive statistics and thematic analysis of interviews and focus groups.

Results:
The results indicated that community members had some awareness of palliative care. In addition, discussing advanced care directives was reported as important however was not often done. Finally, the results indicated that the majority of community members would prefer to die in their home communities and that more services and education are needed to support this.

Notes:

COMMUNITY: Improving Quality of Life and Creating a Community Culture of Excellence

Principal Presenter
Jody Rebek, Executive Director, Communities Quality Improvement (CQI)

Other Presenter
Susan Boston, Algoma Health Unit

Abstract
CQI evolved from the Building an Extraordinary Community (BEC) project which began in 1998. This initiative developed a vision for the community . A pilot project with the National Quality Institute (NQI) was initiated to determine how a "Community of Excellence" could be achieved. CQI was established in April 2003 as a non-profit organization.

Mandate: CQI is a catalyst to support organizational and community pursuits towards quality and to measure community performance to work towards establishing an improved quality of life;
Vision: A quality community for all people; and
Values: Teamwork, Integrity, Respect, Fairness.

commUNITY Performance

Progress towards achieving the Community of Excellence award is ongoing. CQI is currently developing a CQI/NQI proposal for a Northern Ontario partnership with CQI acting as the NQI satellite office.

The Community of Excellence award is tied in with the Community Performance report. CQI is working in partnership with the Determinants of Health committee, Canada Research Chair: Sustainable Communities and Algoma University College Community Economic and Social Development Community Resilience Project of Sault Ste. Marie to collaborate efforts relating to community indicator development. Community Performance Indicators have been established with a a Participatory Action Research process for community improvement.

CQI is on the verge of exciting changes for 2006 – all thanks to the ongoing support of our Municipal, Provincial and Federal partners and Quality Circle members. These include the NQI partnership, EMC partnership, Community Plan to create a Knowledge Network and Community Portal and the Community Improvement Symposiums.

Conflict: Funding resources for CQI include Quality Circle members (private and public sector) as well as FedNor. Algoma University College is a Quality Circle member of CQI

Notes:

Getting a Grip on Arthritis: a Community-based Educational Intervention for the Diagnosis/Management of Arthritis

Principal Presenter
Sheila Renton, Occupational Therapist, Ontario Coordinator, Getting a Grip on Arthritis, The Arthritis Society

Other Presenters
Sydney Lineker, The Arthritis Society
Jennifer Boyle, Arthritis Community Research and Evaluation Unit
Mary Bell, Sunnybrook and Women's College Health Sciences Centre
Elizabeth Badley, Arthritis Community Research and Evaluation Unit
Funded by Health Canada's Primary Health Care Transition Fund

Abstract
PURPOSE: The Getting a Grip on Arthritis (Grip) educational intervention was developed to build the capacity of primary health care providers to manage arthritis through the dissemination and local implementation of practice guidelines. RELEVANCE: Based on Social Cognitive Theory and the Ottawa Model of Research Use, the Grip program includes methods known to influence providers' use of arthritis best practices. DESCRIPTION: This program was designed by a taskforce of primary health care providers, adults with arthritis, researchers, and government representatives. The content was developed around arthritis best practices, adapted from published guidelines. The intervention consisted of an accredited educational workshop for teams of primary health care providers, presented by multidisciplinary faculty. Reinforcement activities, including patient and provider 'toolkits', posters, newsletters, community resource lists, goal reminders, reflective practice exercise, and donation of books/videos to participating sites and local libraries, were provided to support the adoption of best practice behaviour. OBSERVATION/DISCUSSION: 221 primary health care facilities volunteered to participate in the program and 942 providers attended one of thirty workshops across Canada. In Ontario, five workshops were conducted with physicians and other health care providers from Family Health and Primary Care Networks, Community Health Centres, hospitals, community-based agencies and fee-for-service environments. Participating sites included two Northern Ontario Family Health Networks. Challenges in workshop delivery included the mixed needs of participants, scope of practice issues, the varied skill sets of the faculty, and the volume of material covered in a short time frame. Strengths included team learning, the use of local faculty, and the involvement of patients with arthritis in the workshop. CONCLUSIONS: Dissemination of arthritis clinical practice guidelines is a complex process. This multifaceted and theory based approach was successful in recruiting primary health care facilities and their providers. Challenges and strengths were identified at the individual, regulatory and intervention level.

Notes:

"The Attending's New Clothes" (Or: The Emperor Hears the Heart Sounds)

Principal Presenter
Andrew Robinson, MD, FRCPC, Hopital Regional Sudbury Regional Hospital Cancer Care

Abstract
Background:
During medical training, the teaching and evaluation of clinical skills, can be difficult. One time-honoured method of teaching occurs at the bedside, often on patient rounds. Often, the attending may hear a unique physical finding, such as a 3rd or 4th heart sound. The attending then proceeds to direct the learner to listen, to see if they too can hear the sound. What is unclear is whether when students and interns report hearing heart sounds, whether they are being accurate or not.

Methods:
An anonymous survey of internal medicine residents who were graduates of a Canadian Medical School at an academic half-day in a tertiary care centre was undertaken. Questions were first assessed for face validity with one medical housestaff team. Residents were given ample time to complete this survey. The questions were yes/no, or for questions which required grading a 5 point Likert scale was used.

Results:
A total of 40 surveys were distributed, with a return of 25 (63% response rate). Of the respondents, 18/25 (72%) reported the experience where they reported hearing a heart sound that they in truth could not appreciate. The majority of these (88%, or 16 of 18) did so during clerkship, while 8/12 (66%) did so during their first year of residency. The most common reasons cited were “Fear of Wasting Time” (55%), and “Fear of looking incompetent (50%), other reasons, such as the “desire for a good evaluation” (22%) were cited less frequently.

Conclusions:
Verbal self-reporting of physical exam skill acquisition in the setting of group learning in medical training can be subject to errors. The proper acquisition of clinical skills needs to be done with sensitivity to students concerns regarding ‘wasting others time’, and ‘looking incompetent’. Students need to be aware that evaluation and instruction can be separated in time.

Notes:

Towards Nutrition Screening in Canadian Preschoolers

Principal Presenter
Lee Rysdale, MEd, RD. Project Manager-NutriSTEP, Resources, Research, Evaluation and Development (RRED) Division, Sudbury & District Health Unit

Other Presenters
Joanne Beyers, M.A., RD. Community Nutrition Specialist, Resources, Research, Evaluation and Development (RRED) Division, Sudbury & District Health Unit
Dr. Janis Randall Simpson, PhD, RD. Assistant Professor, Department of Family Relations and Applied Human Nutrition, University of Guelph
Dr. Heather Keller, PhD, RD. Associate Professor, Department of Family Relations and Applied Human Nutrition, University of Guelph

Abstract
NutriSTEP (Nutrition Screening Tool for Every Preschooler) is a national, multiphase, intersectoral project to develop and validate a nutrition screening index and develop "best practices" for implementing community screening. This presentation is an overview of the process undertaken by researchers from the Sudbury & District Health Unit and the University of Guelph along with numerous partners at the local, provincial and national level. It will highlight the key considerations in capacity building and community screening.

Data have been collected in English and French over a six-year period from ethically diverse (including First Nations) parent focus groups across Ontario (n=370) and key intercept interviews with parents from four provinces (n=900) as well as other key informants (n=35). The qualitative data collected was used to determine the appropriateness of index content and feasibility issues in screening.

Based on recommendations from focus groups and key intercept interviews, a final draft of NutriSTEP underwent validation and reliability testing from May 2005 til February 2006. Validity testing consisted of 300 in-depth nutritional assessments in English and French with multi-ethnic parents and their preschoolers (n=300) from more than seven Ontario communities with test retest reliability with another 150 parents from five Ontario communities. Currently, this data is being analysed with a goal of a valid and reliable screening tool in September 2006.

Key informants have identified the need for accessible turn-key solutions to NutriSTEP with infrastructure support and capacity for ethical follow-up. Once validated, NutriSTEP will be appropriate for all Canadian preschool children. It will be a fast and simple way to assess eating habits, identify nutrition problems, and appropriately direct to the community nutrition resources. These data can be used to plan effective public health programs and propose areas for further research and practice including nutrition education and effectiveness interventions.

Notes:

Triage in the North: How are Northern Hospitals Doing?

Principal Presenter
Cater Sloan, M.A., Research Associate, Centre for Rural and Northern Health Research

Other Presenter
Raymond W. Pong, Ph.D., Research Director, Centre for Rural and Northern Health Research

Abstract
Research shows Northern Ontarians have higher rates of injury, morbidity, and mortality, as compared with the rest of Ontario. Access to primary care may be problematic for residents in some northern Ontario communities because of physician shortages. Emergency departments (EDs) provide an important access point to both emergency and primary care in the North. To effectively provide care, especially in overcrowded EDs, health professionals use the process of triage to prioritize patients by how long they can safely wait for care. This paper profiles how well northern hospitals support triage in their EDs as compared with other regions.

This presentation extends the results of a larger study that documented triage procedures and practices in Ontario EDs. All Ontario hospitals with an ED were sent a survey in 2005, and the response rate was 76%. Response rates were uniformly high across small, community, and teaching hospitals, and across urban and rural hospitals. The analysis found hospital size was related to differences in the support and practice of triage. For example, small hospitals reported some of the highest percentage of nurses with training in triage, however, they also reported some of the highest percentages of inexperienced nurses performing triage. This paper examines the level and training of nurses and physicians for ED triage by region.

Notes:

Knowledge Translation Needs of Primary Health Care Researchers in Ontario. A Stakeholder Consultation

Principal Presenters
Dr. Sarah Strasser and Ms Shelley Darling, Project Team, Virtual Office of Synthesis and Information, Clinical Sciences, Northern Ontario School of Medicine

Other Presenters
Dr. Carmel Martin and Dr Margot Felix-Bortolotti, Virtual Office of Synthesis and Information, Clinical Sciences, Northern Ontario School of Medicine

Abstract
Aims: To evaluate current needs for access to knowledge synthesis and translation resources and infrastructure in relation to Primary Health Care research in Ontario.
Background: Primary Health Care is rapidly becoming acknowledged as the cornerstone of the Canadian Health System. The province of Ontario is in the process of identifying a strategy for future Primary Health Care (PHC) research and evaluation synthesis and information. This will be built on findings and experiences in relation to the Primary Health Care Transition Fund (PHCTF)
Objectives: A stakeholder consultation, of PHC evaluators and researchers in Ontario, to assess existing capacity and resources, in order to synthesize and disseminate research and evaluation.
Methods: A brief survey was faxed or sent electronically to all principal researchers funded by the PHCTF in Ontario. This was extended to other Ontario PHC researchers, providers and organizational representatives. Sampling continued until a broad representation of opinions of researchers from key PHC disciplines − physicians, nursing, pharmacy and allied health - and different levels of experience was achieved.
Findings: Survey respondents numbered 73, 28% response rate (50% of those who opened their email) with broad disciplinary representation. Experience varied from 10% >20 years to 35% <5 years of PHC research. Despite broad sampling, the majority came from urban academic or university backgrounds. Target audiences for the research were reported to be mainly decision-makers from policy, front line health care and administration. The predominant methods of knowledge translation reported were through peer-review journals and discussion forums/conferences, with a lesser emphasis on targeted stakeholder briefings.
Discussion: A consultation with PHC researchers in Ontario identified an emphasis on traditional academic knowledge exchange despite the need to reach the intended audiences for their research.
Conclusions: A strategy for future Primary Health Care (PHC) research and evaluation needs to emphasize mechanisms for knowledge exchange between researchers and their intended decision-maker audiences.

Notes:

Characterization of Gene Expression Profiles that Occur During Sepsis

Principal Presenter
Marisa Tessier, M.Sc. Student, Department of Chemistry and Biochemistry and the Biomolecular Sciences Programme, Laurentian University

Other Presenters
Paul Michael, Research Associate, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University
Students, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University:
Marija Tonnos, M.Sc.; ShuHung Kung, M.Sc.; Tyler Kirwan, B.Sc.; Viktoria Kekkonen, B.Sc.
Danielle Brabant, Ph.D. Student, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University
Chilakamarti V. Ramana, Faculty, Department of Medicine, Yale University
Rama Kota, Faculty, Division of Endocrinology, Clinical Nutrition and Vascular Medicine, School of Medicine, University of California
Amadeo M. Parissenti, Chair in Cancer Research, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University
Joseph E. Parrillo, Director, Division of Cardiovascular Disease and Critical Care Medicine, Cooper University Hospital, Robert Wood Johnson Medical School
Anand Kumar, Faculty, Division of Cardiovascular Disease and Critical Care Medicine, Cooper University Hospital, Robert Wood Johnson Medical School and Section of Critical Care Medicine, Winnipeg, University of Manitoba
Aseem Kumar, Canada Research Chair, Department of Chemistry and Biochemistry and the Biomolecular Sciences Program, Laurentian University

Abstract
Introduction: Complex gene expression patterns are initiated during sepsis and the expression of key genes important in the cellular pathophysiology of sepsis may remain unidentified given the previously available technology. We propose to broadly identify cardiac gene expression patterns during sepsis using DNA gene array technology.
Methods: Human cardiac myocytes were incubated for 12 hours with 10% human septic serum and 10% serum from the same patient in recovery phase. mRNA was harvested from both samples and radiolabeled cDNA probes were generated. Radiolabeled cDNA was used to probe genes on the Clontech 588 Atlas 1 gene array containing the sequences of 588 key human genes.
Results: Genes that were upregulated with human septic serum treatment include: The cytokines IL-1 , IL-2, IL-8, IL-10; the cell adhesion gene ICAM; the apoptotic gene ICH-2; the stress activated kinases Map kinase and MACMARKS; the chemotaxis gene monocyte chemotactic protein 1. Genes that were down regulated include: the heat shock protein HSP 70; the proliferation associated gene PAG; the regulator of cell-cycle gene cyclin D1. The control housekeeping gene ribosomal protein S9 was not modulated with septic serum treatment.
Conclusion: Our data indicate that septic serum signalling is diverse and complex with upregulation of a variety of genes including cytokines, cell adhesion, apoptotic genes and down regulation of growth associated genes. Our preliminary data also implicates genes that were previously not associated with the sepsis disease process and include specific map kinases and the DNA repair enzyme excision repair protein. This complexity in gene regulation provides clues as to why single drug therapies have been ineffective in treating sepsis. By identifying the gene expression patterns that occur during sepsis, we will be able to develop more informed therapeutic strategies.

Notes:

Characterization of B1: A Protein Associated with the Cancer Status of Ovarian Epithelial Cells

Principal Presenter
Laurie Turcotte, Graduate Student, Northern Ontario School of Medicine, Laurentian University

Other Presenter
Dr. Carita Lannér, Associate Professor, Northern Ontario School of Medicine

Abstract
Ovarian cancer has a high mortality rate, attributed to the difficulty of detection in early stages. A better understanding of early events taking place during tumor development, for example alterations in gene and protein expression, may aid in future development of novel biomarkers. Defective DNA replication, caused by altered replication proteins, is known to introduce genomic changes that are characteristic of cancer, including ovarian cancer. PCNA (proliferating cell nuclear antigen) is a replication protein typically upregulated in ovarian and other cancers. We used a novel polyclonal antiserum, called “B1 antiserum”, to assess the PCNA status of a panel of normal and cancer ovarian samples. Proteins from the samples were separated by two-dimensional electrophoresis, transferred to membranes and western blotting was performed. The B1 antiserum detected a novel protein, called the B1 protein, in non-malignant cells as well as PCNA in both non-malignant and cancer samples. The B1 protein was detected at a molecular weight of ~45 kDa and a pI of ~5.5, whereas PCNA is 36 kDa with a pI=4.6. Since the B1 protein was found in non-malignant ovarian epithelial cell cultures, we examined non-malignant and malignant breast epithelial cell cultures. The B1 protein was found associated with non-malignant breast epithelial cell cultures. Currently we are characterizing the cell type specificity of the B1 protein by screening other cell types, both epithelial and non-epithelial to determine whether the B1 protein is specific for epithelial cells. Continued screening of non-malignant and malignant samples will confirm whether the B1 protein is significantly associated with non-malignancy. In addition, we are developing strategies to identify the B1 protein using mass spectrometry. The B1 protein has the potential to be a tumor suppressor which could be used to evaluate the cancer status of tissues or monitor the progression of non-malignant tissue to malignant.

Notes:

Perceptions of Life in the City of Greater Sudbury and Surrounding Areas. A Study of Grade 10 and 12 Rainbow District School Board Students

Principal Presenter
I. Ching Yeung, Youth Health Career Awareness Program Advisor, NOMEC

Other Presenter
Joyce Helmer, Director of Education, NOSM

Abstract
A survey was conducted on Grade 10 and 12 students to study their perceptions of living in the City of Greater Sudbury and surrounding areas, with the objective to identify factors that could influence students' decision to stay in the region. On the whole, students have a good perception of living in their respective communities. For the 14 issues evaluated, eight received a rating of “Good” or “Very Good” from more than 50% of students. This finding indicates that the City of Greater Sudbury and surrounding areas has a good foundation to attract young people. Issues that students expressed concern were the geographical limitation of communities, cleanliness of the living environment, and access to social events and recreational facilities. There was a general consensus among the students that the strategies that would be effective to attract young people to the region are improvements in organized social/cultural activities, job opportunities and post secondary education. An in-depth analysis has demonstrated interesting differences between selected subgroups of students such as Grade 10 and 12, male and female, in-town and out-of-town, and students of different ethical origins. Parents and guardians have substantial influence on students' decision to leave or to stay in the community suggesting more resources should be allocated to parents/guardians to help their children make an informed choice. Our data also shows that students who had good volunteering experiences tend to have a more positive altitude towards the community and say they are more incline to return after leaving the community. Amongst students who participated in volunteer work, about 60% would be willing to make the community a better place to live, if given the chance. Community leaders should find ways to mobilize these students and to strengthen the bond between these young people and the community.

Notes:

Northern Ontario
School of Medicine

West Campus
Lakehead University
955 Oliver Road
Thunder Bay, ON P7B 5E1
Tel: 807-766-7300
Fax: 807-766-7370

East Campus
Laurentian University
935 Ramsey Lake Road
Sudbury, ON P3E 2C6
Tel: 705-675-4883
Fax: 705-675-4858

www.normed.ca