

New Emerging Team for Health in rural & Northern British Columbia

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Edited by

Rosemary Raygada Watanabe

Greg Halseth

Neil Hanlon

Geography Program

University of Northern British Columbia

New Emerging Team for Health in rural & Northern British Columbia



NETHRN-BC is the acronym for New Emerging Team for Health in Rural & Northern BC. This project is funded by the Canadian Institutes for Health Research with the purpose to develop research capacity within British Columbia in rural and northern health.

The NETHRN-BC team brings together rural health researchers from the University of Victoria, UNBC, Thompson Rivers University, the University of British Columbia, and Carleton University into a multidisciplinary investigation of the social determinants of health.

Contact information:

http://nethrnbc.uvic.ca

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- Study Director
 Aleck Ostry MA, MSc, PhD
 Canada Research Chair, in the Social Determinants of Community Health and Associate Professor University of Victoria
- Investigators
 Amedeo D'Angiulli PhD
 Greg Halseth PhD
 Clyde Hertzman MD, MSc
 Stefania Maggi MA, PhD
 James Tansey PhD
- Study Collaborators
 James Dunn PhD
 Neil Hanlon PhD
 Mark Skinner PhD

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Program Outline

Day: December 12 Place: UNBC Rooms 5-173 5-175

9:00 - 9.15	Coffee/tea
9:15 – 9:30	Welcome - Neil Hanlon UNBC
9:30 – 10 am	Aleck Ostry to Introduce NETHRN-BC
10:00 -10.30 am.	Session I
10.00 -10.30 am.	Natalie Waldbrook.
	Rachel Herron, Mark W. Skinner.
	Trent University, Department of Geography
	"Pilot Study of Volunteer Services for Seniors in Ontario's Ageing Rural
	Communities"
10:30 – 10:45 am	Break
10:45 - 11:45 am	Session II
	Kathryn Proudfoot ¹
	Aleck Ostry ²
	Dalhousie University ¹
	University of Victoria
	"Food sales outlets, food availability, and the extent of nutrition policy
	implementation in schools in British Columbia across the rural/urban continuum"
	Rod Knight,
	Jean Shoveller, Shira Goldenberg
	UBC, Department of Health Care and Epidemiology
	"Youth's Experiences Accessing STI Testing Services in Northern BC"
11:45 – 12: 30	Lunch
12.30 – 1.10 pm.	Expo-Table for the BC Rural and Remote Health Research Network UNBC
•	Session III
1:10 - 2.10 pm	Session III Kristy Callaghan ²
	Stefania Maggi ² , Amedeo D'Angiulli ² , David MacLennan ¹
	"Gender Gap: Fact or Fiction? Results from the JAKE Study"
	Thompson Rivers University ¹ , Centre for Early Education and Development
	Studies (CEEDS), Carleton University ²
	Kelly Giesbrecht,
	Greg Halseth, Neil Hanlon, Anisa Martin, Chelan Hoffman, Laurel
	Van De Keere, Joe LeBourdais.
	UNBC, Geography Program "Challenges, Changes and Working together:
	Service Providers in Northern BC"
2:10 – 2:25 pm	Break
2:25 – 2:55 pm	Session IV
•	Anisa Zehtab-Martin,
	UNBC, Geography Program
	"Where is the 'warmth of welcome' for immigrants and refugees
	in northern BC?"
2:55 – 4:30 pm	NETHRN WORKSHOP
2.33 – 1 .30 pm	Greg Halseth
	UNBC, Geography Program
6:20 nm	Dinner
6:30 pm	Dillici

New Emerging Team for Health in Rural and Northern British Columbia

Aleck Ostry

Canada Research Chair in the Social Determinants of Community Health, Michael Smith Foundation for Health Research, Scholar and Associate Professor, Faculty of Social Science, University of Victoria

Outline

- The problems facing rural and northern health research in Canada
- New institutional commitment to rural and northern health in Canada?
- Canadian Community Health Survey- new results from rural/northern focused health research
- What's the rural/ northern health situation in BC?
- Outline of rural/northern health research underway with NETHRN-BC

The problems

Moving a rural/northern research and policy agenda forward is hampered by a legacy of under-funding. This means under-development of conceptual models, methods, databases, and researcher capacity.

In the recent Royal Commission Report on the Future of Medicare, Roy Romanow noted these problems and that "policies and strategies for improving health and health care in smaller communities have not been based on solid evidence or research. Until recently Canadian research on rural health issues has been piecemeal in nature and limited to small-scale projects. To make matters worse, despite the wealth of health-related data at the federal, provincial and territorial levels, most data collected or released are frequently not presented in a manner that supports meaningful rural-health research and analysis. Furthermore..... there is little connection between decision makers and researchers. As a result, rural-health policies, strategies, programs and practice have not been as effective as they could have been" (Romanow, 2002, p. 264).

New institutional commitment to rural and northern health?

- The Canadian Institutes for Health Research (CIHR) stresses better understanding of the unique social circumstances faced by rural and northern Canadians and how these are linked to health (Lyons and Gardner, 2001).
- The Canadian Public Health Association (CPHA) has adopted a "healthy communities approach" broadly based on stimulating citizen participation in rural and northern communities to improve social capital in order, in turn, to improve health status (Ministerial Advisory Council on Rural Health, 2002).
- In support of these efforts, using national mortality and cancer disease databases and the Canadian Community Health Survey (CCHS), the Canadian Population Health Initiative has conducted research to better characterize the health status and social circumstances of rural Canadians (Canadian Institute for Health Information, 2006).
- This research highlights cause-specific gaps in health status between urban and rural Canadian.

Results from CPHI study on rural health

The urban/rural health gap in Canada today: For all health outcomes?

Summary of results from CIHI report on the health of rural Canadians

Bolded outcomes= those health conditions which are "better" in rural compared to urban areas

<u>Source</u>: Canadian Institute for Health Information. 2006. *How Healthy are Rural Canadians? An Assessment of Their Health Status and Health Determinants*. Ottawa: Canadian Institute for Health Information.

Health Behaviors	Incidence or Prevalence	After Control for Socio-economic Status
Smoking	higher rural	no difference
Exposure to second hand smoke	higher rural	not tested
Five serving of fruit	lower rural	not tested
Leisure time and physical activity	little difference	not tested

Self-reported Indicators		
Poor SRHS	higher rural	no difference
Obesity	higher rural	higher rural
Stressful life	lower rural	lower rural
Low self-esteem	lower rural	not tested
Mental disorders	lower rural	not tested
Mortality		
All causes 0-64 years of age	higher rural	higher rural
All causes >64 years of age	little difference	slightly higher rural
Circulatory disease	higher rural	higher rural
All cancers	lower rural	lower rural
Lung cancer	lower rural	no difference
Colorectal cancer	lower rural	no difference
Breast cancer	lower rural	lower rural
Cervical cancer	higher rural	higher rural
Prostate cancer	lower rural	lower rural
Injury and poisoning	higher rural	higher rural
Respiratory disease	higher rural	higher rural
Other injury and poisoning (drowning, falls, burns, etc)	higher rural	higher rural
Motor vehicle accidents	higher rural	higher rural
Suicide	higher for rural men	higher for rural men
Morbidity		
Arthritis and rheumatism	higher rural	not tested
Asthma	lower rural	not tested
Life expectancy	lower rural for males	not tested

Summary

- Health status differences between urban and rural Canadians are complex and must be "unpacked" in order to begin to better understand these differences
- Several paradoxes are apparent:
 - why are lung cancer deaths lower in rural areas while smoking rates are higher?
 - why is mental health status better in rural areas but suicide for rural males is higher than for urban males?

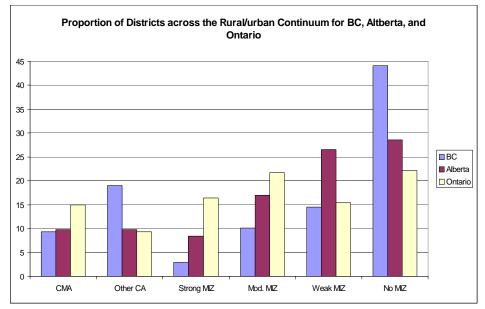
What's the rural/ northern health situation in BC?

Complex geography and demography in BC

The rural population in BC

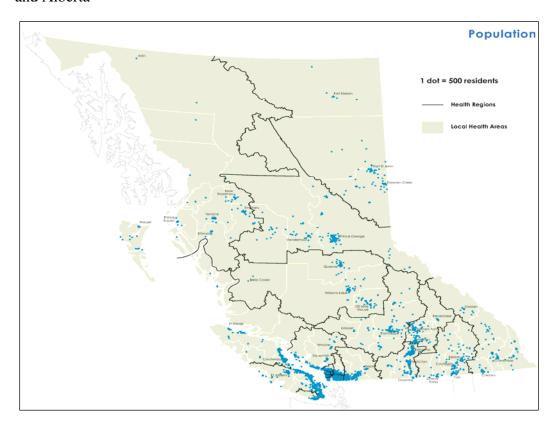
In British Columbia, approximately 25 to 40% of the population lives in predominantly rural or northern areas (Bollman, 2001).

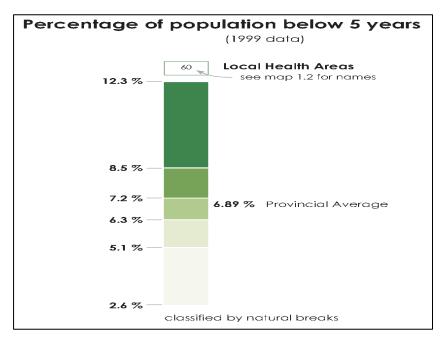


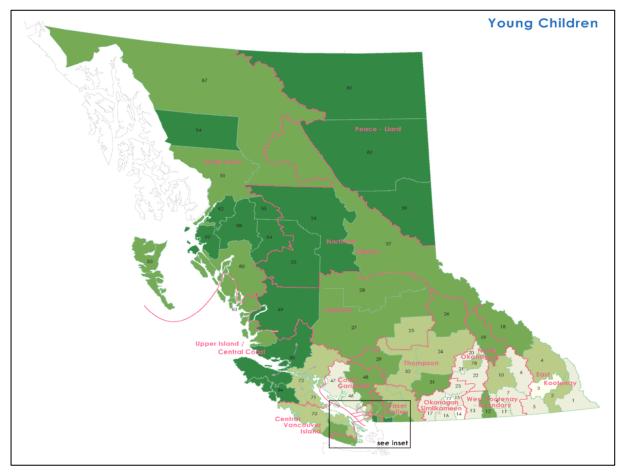


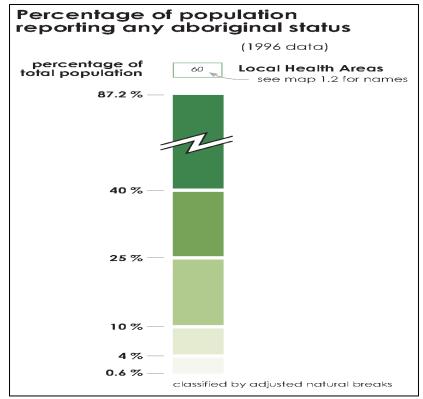
Compared to Ontario and Alberta, there are more districts classified as rural remote in BC and proportionately fewer in the strong, moderate, and weak MIZ categories.

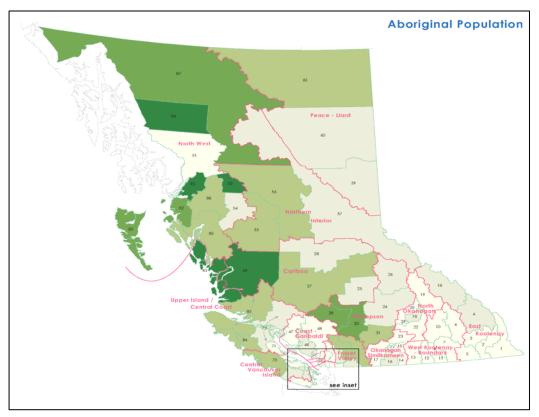
• Greater polarization between big urban and small remote places in BC relative to Ontario and Alberta

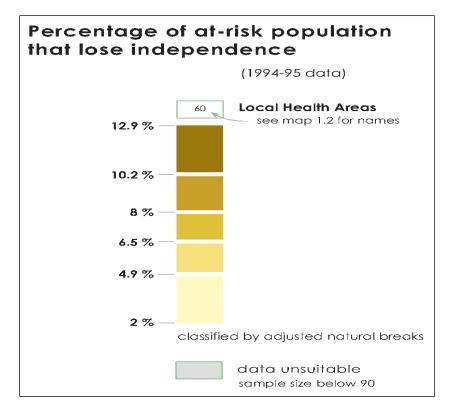


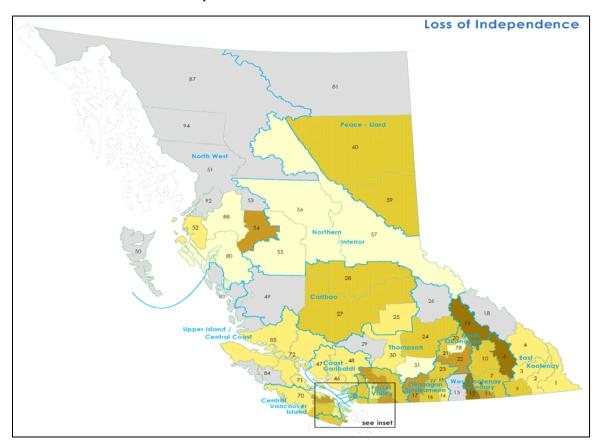


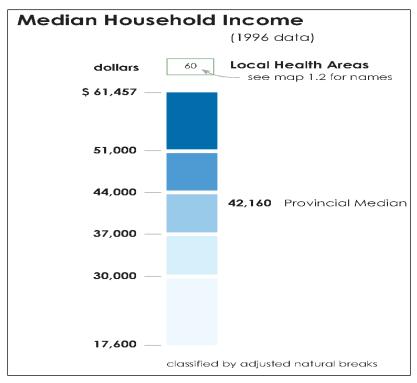


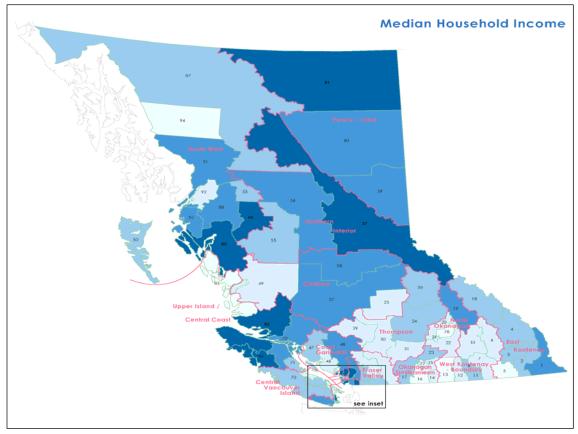


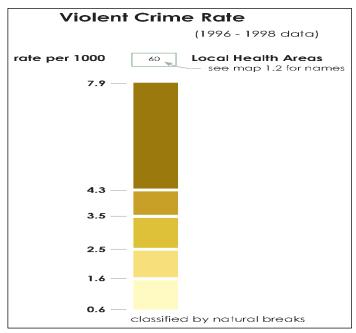


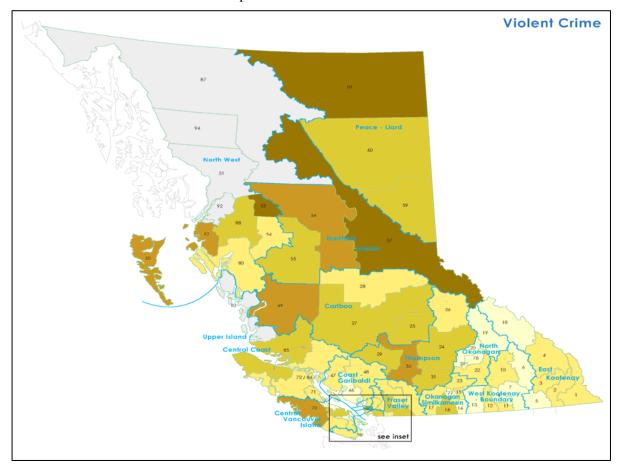






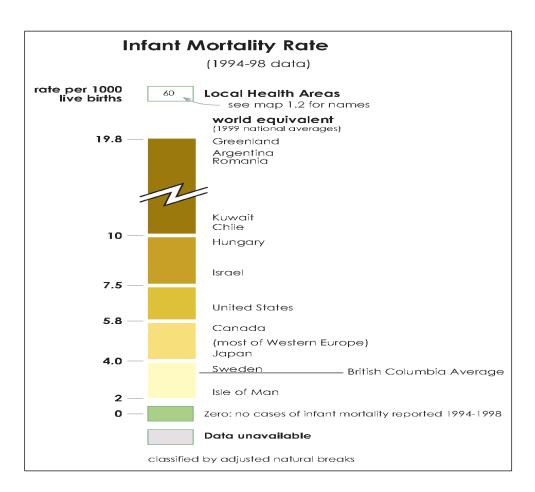




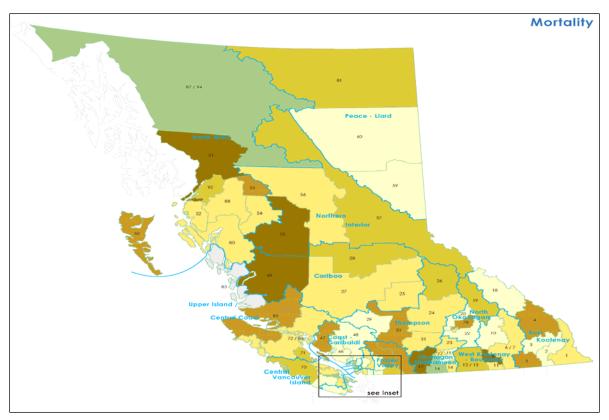


Summary

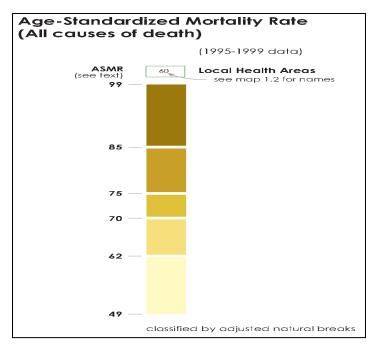
- Complex demography in the north in particular where elderly and very young populations require service
- Higher levels of income inequality, particularly in the north of the province
- High (urban levels) of crime in NE BC

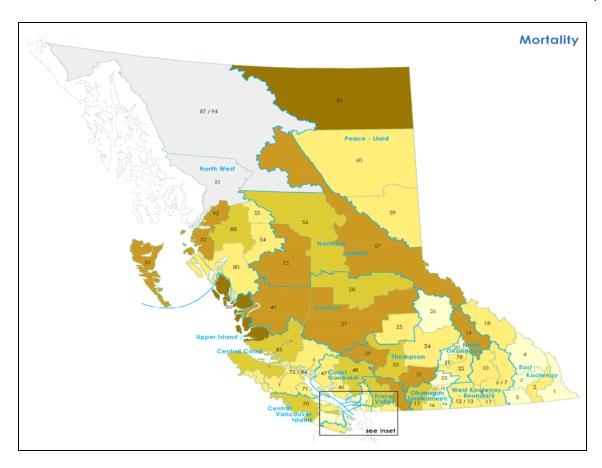


Infant Mortality

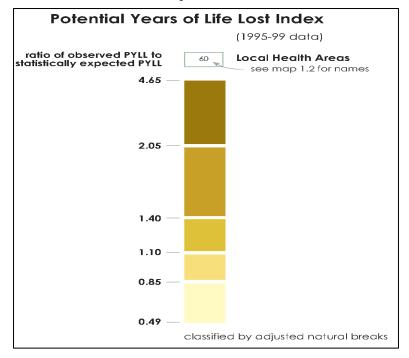


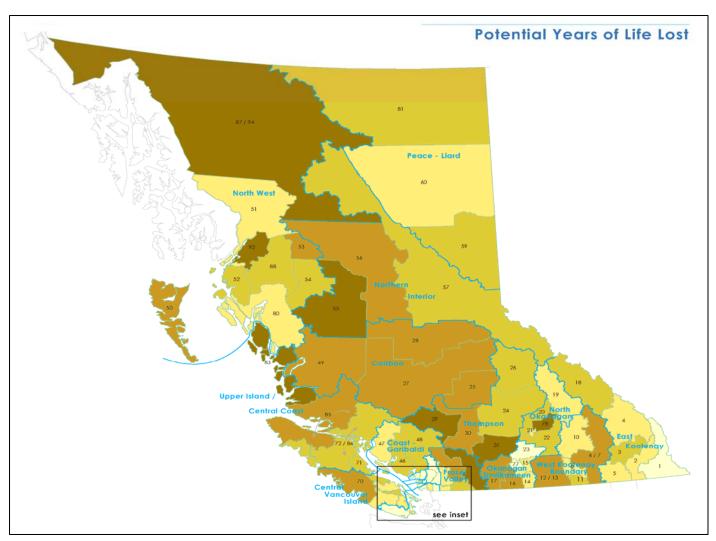
Source: Statistics Canada. Census of Population 2001





Source: Statistics Canada. Census of Population 2001





Summary

• Infant mortality, all cause mortality show worse outcomes in northern BC in particular.

Size of the rural/ urban gap in BC

The rural/urban health gap in BC

According to the 2005 Canadian Community Health Survey, approximately 20 percent of residents of northern regions were obese and approximately 25 percent smoked, compared to, respectively, 8 and 12 percent in Vancouver (Statistics Canada, Special Surveys Division, 2005).

• The size of the health gap in BC

This health behavior gap is also found between urban and rural communities located in the southern part of the province. For example, in 2005, smoking rates averaged 20 to 25 percent in the south east corner of the province (a region with no major urban centers) and obesity rates in this region of the province were approximately twice those found in the Greater Vancouver Regional District (Statistics Canada, Special Surveys Division, 2005).

The average age standardized mortality rate between 1997 and 2000 was 6.4 deaths per 1,000 in the Fraser Health Authority (largely urban and located in the south west corner of the province) compared to 8.4 per 1,000 in the Northern Health Authority (largely rural and covering the northern half of the province).

• The rural/urban health gap in BC

The size of the health gap in BC

The almost one third difference in the mortality experience of residents in these two health authorities is akin to what one might find comparing the current mortality experience between Canada and a much less developed much poorer nation such as Jamaica.

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The NETHRN- BC TEAM

Aleck Ostry MA, MSc, PhD & Chair in the Social Determinants of Health, Faculty of Human and Social Development, University of Victoria.

Investigators:

Amedeo D'Angiulli, PhD & Canada Research Chair in Population Health Centre for Early Education and Development School of Education & Department of Psychology, University College of the Cariboo, Kamloops B.C.

Greg Halseth, PhD & Canada Research Chair in Rural and Small Town Studies, University of Northern British Columbia, Prince George, B.C.

Clyde Hertzman, MD, MSc & Canada Research Chair in Population Health, Director, Human Early Learning Partnership, UBC

Stefania Maggi, MA, PhD

Associate Director, Centre for Early Education and Development. University College of the Cariboo, Kamloops BC,

James Tansey, BSc, PhD

Assistant Professor, Center for Applied Ethics and Sauder School of Business UBC

Collaborators:

James R. Dunn, PhD

Research Scientist Inner City Health Research Unit, Assistant Professor, Department of Geography, University of Toronto

Neil Hanlon, PhD

Assistant Professor, Geography Program, University of Northern British Columbia

Prince George, B.C

Mark Skinner, PhD

Assistant Professor, Geography Program, Trent University, Peterborough, Ontario.

Rural/northern health research underway with NETHRN-BC

- Research characterizing community social capital/resilience
 - various investigations to determine measures of social capital
 - for use in baseline studies of communities to be impacted by climate change
 - mixed methods to determine these
- Research on conditions facing rural/northern health care systems and workforces
- Research on mental health differences across rural and urban communities in BC
- Emerging research on food security and school nutritional differences across the urban/rural continuum in BC
- Research on promoting healthy children's development in rural and northern BC
- Partnership with team at UBC investigating sexual health in rural and northern BC.

Pilot Study of Volunteer Services in Ontario's Ageing Rural Communities

Natalie Waldbrook,

Rachel Herron & Mark Skinner

Department of Geography,

Trent University

Outline

- *Problem*: under-researched rural dimensions of volunteerism and service provisioning in ageing communities
- To address this problem, research is underway in Ontario using 'social determinants of rural health approach'
- Today's presentation:
 - (i) overview of a pilot project
 - (ii) results of preliminary analysis

Introduction

The ability to deliver health and social care services in many communities across Canada have been impacted by the widespread downloading of responsibility and restructuring within the health and social care systems. As a result, volunteers have taken on greater roles in providing care for seniors in many ageing communities. The ability of volunteers to take on greater roles providing care for seniors has received only partial attention from researchers and policy decision makers. This is especially the case for already under-serviced rural and small town settings where the capacity to cope through volunteerism is uncertain. To address this problem, research is underway in Ontario. This research project examines the evolving role of volunteers in ageing rural communities by applying an existing 'social determinants of rural health' framework that was initially developed for research in rural and northern British Columbia.

The purpose of today's presentation is to first present an overview of the pilot study of volunteer services in ageing rural communities, followed by the results from the preliminary analysis of this project.

Social determinants of rural health

Socio-economic circumstances of individuals and groups are equally or more important to health status than medical care and personal health behaviours.

Health Canada (www.hc-sc.gc.ca)

- Growing concern for rural and northern health, esp. in the context of ageing populations (eg. 'frontier ageing').
- The social determinants of rural health framework developed for research in rural and northern BC (NETHRN-BC)
- Important to test the utility of the framework / approach for understanding rural health in other jurisdictions.

According to Health Canada, socio-economic circumstances of individuals and groups are equally or more important to health status than medical care and personal health behaviours. Social determinants directly affect the health of individuals within a given population. The social determinants of health include general socio-economic, cultural, and environmental conditions, such as income equality, social inclusion and exclusion, education, and housing, as well as social and community networks.

There is a growing concern for the health of populations in rural and northern communities, especially those with a large population of people ageing-in-place. The delivery of services in rural and isolated communities is affected by geographic distance from other centres, limited health and social care services, and insufficient human resources to service the community's needs.

The goal of the Pilot Study of Volunteer Services in Ontario's Ageing Rural Communities is to test the potential usefulness of the social determinants framework, initially designed for research in BC, for understanding rural health in other jurisdictions such as northern Ontario.

Overview of Ontario pilot project

Why are some communities better places to grow old than others?

- Purpose is to test applicability of 'social determinants' approach for understanding mix of formal and informal services in ageing rural communities.
- Funded by SSHRC Internal Operating Grant from Trent University (PI: Mark Skinner, Geography).
- Features in-depth interviews with community leaders, service providers and volunteers.
- Focus on the case of Elliot Lake, Ontario.

The purpose of the pilot project is to test the social determinants approach for examining the mix of formal and community-based supports and services in rural communities as it relates to understanding why some communities are better places to 'grow old' than others.

By focusing on the networks of formal and community-based supports available in the community, the social determinants approach builds understanding of the evolving role of volunteerism with respect to rural service provision as well as the dynamics of rural communities.

The pilot study focuses on Elliot Lake, a small town in northern Ontario that has been a subject of extensive economic restructuring and demographic ageing. From a service provider perspective, the networks and relationships of formal and community-based services and supports are examined through in-depth interviews with local health and social care workers and volunteers in the Elliot Lake community. The pilot project will set the foundation for developing informed policy on the under-researched rural dimensions of volunteerism and health and social care in British Columbia and small towns across rural and northern Canada.

Study site location



Elliot Lake is located in northern Ontario, the most under-serviced part of the province, approximately 200km from Sault Ste. Marie and 160km from Sudbury.

Elliot Lake is approximately 7 hours northwest of Peterborough.

Elliot Lake, Ontario



- Resource-based, small town in northern Ontario (est. 1955)
- Population 12,000 and declining
- Extensive economic restructuring (closure of uranium mines in 1990s)
- Rapid population ageing, due to out-migration of young, in-migration of elderly for 'retirement living'
- "Canada's most elderly community" (Globe & Mail, 2007)

The community of Elliot Lake has experienced many economic and demographic changes in the years since it was established in 1955. Elliot Lake was once a thriving mining community that relied primarily on uranium extraction for survival. The community experienced an economic downturn after the last of its mines closed in the summer of 1996. In response to the out-migration of many miners and their families, a campaign was developed by the City of Elliot Lake to promote the community as a retirement destination for seniors.

Elliot Lake has faced many challenges in sustaining its community as it transformed from a booming mining town to a peaceful destination for retirees from all parts of the country. The population is currently 12 000, and declining, and the economy is now dominated by a service-sector industry in response to the growing needs of the new ageing population. The Elliot Lake community has experienced rapid population ageing due to the out-migration of the young and the in-migration of seniors. Currently, one in three people are over the age of 65 in Elliot Lake and it has been called Canada's most elderly community by the Globe and Mail. The pictures throughout the presentation are from the Globe and Mail. Elliot Lake is the study site for this project because its ability to respond to the challenges of economic restructuring and demographic ageing offers an important comparison for similar small towns across rural and northern Canada.

Methodology

- Adaptation of research protocol from UNBC project: *Integrated Study of the Social Determinants of Rural Health* (Procyk et al., 2005, interim report).
- Primary data collected through in-depth interviews with 29 community leaders, service providers and volunteers.
- Completed in-person during field site visits in June 2007.
- Secondary data for site profile (Census, literature, local media, related documents).

The methodology used for this project was adapted from the research protocol from the UNBC project *Integrated Study of the Social Determinants of Rural Health*.

The primary data for this project was collected through 29 interviews with local health and personal service providers. The research team visited Elliot Lake in June 2007 to conduct the interviews with the participants in-person.

Secondary data, such as information from Census Canada, existing literature, and local media such as the Standard newspaper, was also used to compile a site profile of Elliot Lake.

In-depth interviews

- Participants purposefully recruited across service sectors.
- Protocol of contact and scheduling by phone / email, followed by 'snowball' approach in field study site.
- Conducted on-site (offices, community centres, homes, Tim Hortons, etc.); transcribed from digital recordings.
- 4-part interview guide & preliminary analysis:
 - (i) Background information and goals.
 - (ii) Formal health and social care services delivery.
 - (iii) Social environment and relationships.
 - (iv) Community as a resource.

Participants were purposefully selected based on their roles in providing health and social care services across 13 sectors, such as health care, mental health, housing, and advocacy. A list of potential participants was compiled from the community services directory for Elliot Lake and from communication with directors and service providers in the community. Potential participants were identified and contacted for interviews. Once the research team arrived in Elliot Lake, a snowball approach was also used to recruit participants. The interviews were conducted in various locations on

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site, such as offices, community centre, homes, and Tim Hortons. The interviews were digitally taped and transcribed.

The interview guide and preliminary analysis was comprised of four parts. The four main components included gathering background information on the organizations and their goals, questions about resources and their ability to deliver services, the social environment of the community and the relationships of formal and informal care providers in Elliot Lake, as well as general questions about service delivery in the community.

The results from the pilot study were presented in this approach, featuring an analysis of transcript data and illustrated with quotes from the interviews.

Service providers & background

Broad range of services (formal and community-based):

Total

Type of Service	Number of Respondents (n=29)	Percentage
Mental Health	4	6.3
Children and Youth	0	0
Counseling	1	1.6
Public Health	0	0
Support Group	2	3.1
Employment	0	0
Home and Community	4	6.3
Housing	6	9.4
Advocacy	5	7.8
Specialized	2	3.1
Primary Health	3	4.7
Referrals	5	7.8
Resource	1	1.6
Other	10	15.6
Sharing Resources	1	1.6
Acute Care	1	1.6
Education	6	9.4
Seniors	11	17.2
Food	4	6.3
Outreach	2	3.1
Cultural	3	4.7
Hospice	1	1.6
Pharmacy	1	1.6
Palliative Care	2	3.1

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A wide spectrum of services is offered by organizations in the Elliot Lake community. The organizations that were interviewed have been providing services for a range of years and many appear to have been established during growth periods in development of Elliot Lake as a mining town or more recently as a retirement community.

The largest proportion of services was offered to seniors, who comprise one-third of the population. However, it is important to mention that the term "senior" varies based on the service provider or organization and ranges anywhere from 49 years of age and above in the Elliot Lake community. Although a large proportion of services were also offered to all ages in the community, nearly 80 percent of clients were reported as over the age of 65. None of the service providers or organizations that were interviewed reported providing child and youth services, which is likely due to the ageing structure of the community.

Changing service context

Various factors affect an organization's ability to deliver services within the community.

- Ability to deliver services has changed.
- Changing demographics has impacted service delivery.

"Basically, we find it more challenging to fulfill requests because of the number of requests for the types of service and human resource issues, but we're still managing to do it well. [The requests] are more complex".

Access to services

- Various factors pose challenges to accessing services for those living in small, northern towns like Elliot Lake.
- Out-of-town travel is often necessary to access health and social care services in larger centres.
 - Medical specialists, mental health services, cancer treatment.
 - Cultural and recreational services.

"Access to medical specialists is a major shortage in the community".

Various factors often pose challenges to accessing health and social care services for those living in small and rural towns. Out-of-town travel is often necessary to access services; however in a community such as Elliot Lake, travel is often difficult due to its physical isolation and distance from other centres.

Nearly all of the service providers and organizations interviewed in Elliot Lake reported that their clients traveled to receive or access services that were not available in the community. Clients typically traveled to access medical specialists or cancer treatment, as well as to access mental health services. Although health-related services accounted for most of the travel outside of Elliot Lake by clients, recreational and cultural programs and services were also reasons for travel.

Financial services

- Financial resources have a significant impact on many organization's ability to deliver services.
- Funding was a main resource-related concern in Elliot Lake.
- Local organizations assist each other through fundraising and donations.
- Service delivery is cut back when funding decreases

There are not really enough resources to meet the demand of local groups and organizations. Many groups in the area are competing for the same amount of funding. For example, the ATV club wants money put into trails, while others want money put into the pool".

Financial resources have a significant impact on many organization's ability to deliver services. As a result of government reforms in recent years, the amount of funding and resources available to health and social care providers have been affected.

The largest proportion of organizations and service providers in Elliot Lake reported their main source of funding came from municipal governments, non-profit organizations, fundraising and donations. While local organizations also largely relied upon their own revenue and funding from the Provincial Government, less than 5 percent of participants reported receiving funding directly from the Federal Government of Canada. Program delivery was also affected by the availability of human resources, especially with regards to volunteers and health care providers such as registered nurses and personal support workers.

A lack of resources to meet the demands of local groups and organizations was identified by many participants as a concern. Many groups in the community compete for the same funding opportunities. In most situations, service delivery is cut back when funding becomes an issue. In the absence of government resources, service providers and organizations in Elliot Lake relied on other non-profit organizations, fundraising, donations, and assistance through local partnerships for funding to operate their programs.

Staffing issues & support

- The ability to find and retain qualified staff in small towns often poses challenges to service delivery in these communities.
- Shortages resulted from difficulty recruiting and retaining staff.

"Elliot Lake is a small isolated community, so it is difficult to recruit young staff. It is increasingly more difficult".

"The nature of our services can cause volunteer burnout and the age of our volunteers have an impact on the services available"

• Geographic location, funding and volunteer shortages, and unattractive hours/wages/benefits are key issues.

The ability to find and retain qualified staff in rural and small towns often poses challenges to service delivery within these communities. In Elliot Lake, staff shortages resulted from difficulty in retaining and recruiting staff. The northern and remote geographic location of the community and the ageing and retired population poses challenges to staffing many positions in Elliot Lake. Shortages in funding by organizations and local agencies also affected their ability to recruit and retain staff.

Recruiting and retaining volunteers, as well as paid staff, was an issue in the Elliot Lake community. Volunteer burnout was a concern for many local service providers and organizations. Due to volunteer shortages, volunteers often commit to helping at more than one organization or agency. As volunteers are increasingly relied upon in an ageing community, such as Elliot Lake, volunteer burnout and shortages become an issue and pose further complexities for service delivery.

Community context

- The relationship between an organization and the general community may affect the ability to deliver services.
- Many opportunities for community involvement.

"You will never be without something to do in Elliot Lake if you want to get out [in the community]. There is something for everyone

• Elliot Lake community as a good place to deliver services, but there are also various challenges.

The relationship between an organization and the general community may affect the ability for service providers to deliver services. In a retirement community, such as Elliot Lake, many challenges arise in providing services to the ageing community as well as to the other residents. The majority of participants felt there were many opportunities for people to get involved in the community, especially with regards to volunteerism, recreation and sports, and senior's activities.

Overall, Elliot Lake was viewed as a good place to deliver services. Many service providers felt that relationships within the community had improved overtime as a result of increased awareness about the services offered. However, many service provides felt Elliot Lake was a challenging community to deliver services in. The majority of issues identified were with regards to the challenges of dealing with complaints from the "new retirees" and long-time residents of Elliot Lake. Some service providers also felt that the demand and intensity for service delivery had increased because many retirees did not have family support or ties to rely on as they aged.

In response to the challenges presented, local organizations and service provides relied on each other in delivering their programs. An increased awareness regarding the services that local organizations offered was crucial in building community strength and understanding among service providers.

Networks & partnerships

- Networks and partnerships are fundamental in providing services where resources and funding are limited.
- Organizations, groups and individuals in Elliot Lake share

resources and knowledge:

- Fundraising and special events
- Referrals to other agencies
- Networking and communication.
- Sharing resources and space
- Partnerships essential for program and service delivery.

Networks and partnerships are often fundamental in providing services in communities where resources and funding is limited. In Elliot Lake, organizations, groups and individuals rely on networks and partnerships to share knowledge and resources within their community.

Fundraising and referrals accounted for the largest proportion of knowledge and resource share, as well as networking and open communication. Shared resources and knowledge was seen by some as a challenge but also as a solution for service delivery in the small community. 25% of the interview participants felt there was an increase in collaboration and sharing as a result of partnerships and that these had been successful. The sharing of space for activities and programs to be held and human resources was practical and fundamental for many organizations. Partnerships were viewed as essential to performing roles and delivery services in the community.

Concluding comments

- The preliminary results indicate that:
 - A wide spectrum of services are offered to the community.
 - Services largely appeal to senior's needs.
 - Service delivery has changed over time.
 - Access to resources and funding key concerns.
 - Volunteers are relied upon.
 - Partnerships formed in the absence of funding / resources.
- NETHRN-BC social determinants approach was successful.

[&]quot;In the North, if you don't collectively do things, things don't get done".

• Further analysis is needed to determine efficacy for understanding rural volunteerism in other jurisdictions across Canada and internationally.

The preliminary results indicate that service providers and organizations offer a wide spectrum of services to the Elliot Lake community. These services largely appeal to the needs of seniors in the community, including health care, housing services and recreational activities. The majority of service providers felt their ability to deliver services in the community had changed over time as the ageing population has increased the demand and complexity for service delivery. Access to funding and resources were key concerns of service providers and organizations in Elliot Lake. Although many services had been discontinued in recent years, organizations have also introduced new services, as well as offered new approaches to service delivery in response to the community's changing needs. Access to services was also a concern in Elliot Lake. Many residents had to travel outside of Elliot Lake to access services, especially with regards to health care and specialists as a result of the community's size and geographic location.

As a small isolated community, organizations and service providers often shared resources, knowledge, and formed partnerships to deliver services in the absence of government funding. Volunteers are heavily relied upon in Elliot Lake as the community faces challenges to recruiting and retaining staff due to its ageing population and isolated location. However, volunteer burnout and shortages have become a concern for many organizations and service provides in the community.

Overall, the social determinants approach proved to be successful with regards to researching services for seniors in ageing rural communities. The social determinants approach allowed the research team to focus on the networks and dynamics of the formal and community-based supports available in the ageing community as well as the evolving role of volunteerism in Elliot Lake. However, further analysis is necessary to determine its efficacy for understanding rural volunteerism in other jurisdictions across Canada and internationally. The pilot project sets the foundation for subsequent comparative analyses of volunteer services for seniors in ageing rural communities.

Next steps

- Continue dissemination of results (eg, research participants).
- Formal analysis for comparative purposes with research underway at UNBC (eg, similarities with Mackenzie, BC?).
- Determine potential for further work with 'social determinants' approach in the form of a broader project (ie, across Canada).
- For further information, please contact Mark Skinner: Department of Geography, Trent University, markskinner@trentu.ca; www.trentu.ca/geography

The school food environment in British Columbia – a rural urban analysis

Kathryn Proudfoot¹

Aleck Ostry²

Community Health and Epidemiology, Dalhousie University ¹

Canada Research Chair and Michael Smith Foundation for Health Research Scholar, Faculty of Social Sciences, University of Victoria²

Outline

- Background information
- Overview of how the data for this research were collected
- Review of some preliminary findings
- Future direction
- Questions and feedback

Background

- Nutrition in schools has gained increasing attention in recent years.
- It is well established that healthy eating as a child promotes optimal growth and development while helping to prevent various nutrition related diseases.
- Schools can provide an important setting to encourage children to choose healthier foods and reverse the trend in rising obesity rates (Story 1999; H. Wechsler 2000; Kubik MY, Lytle LA et al. 2003; Katz, Connell et al. 2005; Neumark-Sztainer, S.A. French et al. 2005).
- Studies show that children on average consume 1/3 of their daily food intake at school (Health Canada 1997).
- However, schools can also have adverse effects on children's health if the food available in cafeterias, vending machines, tuck shops, and at special events and fundraisers is nutrient poor (M. Story, D. Neumark-Sztainer et al. 2002).
- School food environments thus present both a threat and an opportunity to improve children's health.

- In recognition of the importance of promoting the health of British Columbia's children, the Ministries of Education and Health completed a survey in 2005 that examines the food and beverages sold in BC schools.
- The purpose of the provincial survey was to provide information on the types of food being offered in schools and to which extent nutrition policies have been implemented in schools.
- This information also established a baseline to measure change over time in the types of foods sold in BC schools as well as nutrition policy implementation in BC schools.

Data Collection

- In the spring of 2005, information was collected from school districts and schools using: (1) a survey from individual BC school districts, and (2) a report from BC schools.
- The school district survey was designed to learn about nutrition policy at the district level. The school survey examined the types of foods sold in school stores, tuck shops, cafeterias and fundraising events. The survey also looked at whether or not a formal group existed to promote healthy eating and what nutrition policies and guidelines the school had in place.

Preliminary Findings

• The school food environment in urban and rural areas.

Distribution of BC Schools

 We have two ways of categorizing urban/rural continuum based on Statistics Canada's definitions. First is a simple binary categorization of rural and urban.

	Number of Schools	Percent
Urban	1264	76.9
Rural	379	23.1
Total	1643	100.0

^{*(}Based on statistics Canada classification system for rural and urban areas)

Distribution of BC Schools By MIZ Code

The second, more detailed way is the MIZ categorization.

MIZ Code	Number of schools in category	Percent
urban metropolitan area	824	50.2
urban tracted	167	10.2
urban untracted	273	16.6
rural strong urban influence	32	1.9
rural moderate urban influence	113	6.9
rural weak urban influence	197	12.0
rural no urban influence	34	2.1
Total	1643	100.0

^{* (}Based on statistics Canada classification system for rural and urban areas)

Response Rate by Rural Urban Distribution

	Number of responses	Number of schools in category	percent responses
Urban	935	1264	74.0%
Rural	234	379	61.7%
Total	1169	1643	71.2%

The survey instrument was completed by 1,169 of BC's 1,643 schools, for an overall response rate of 71.2%. Response rate was lower in rural areas.

Response Rate by MIZ Code

MIZ Code	Number of responses	Number of schools in category	Percent
urban metropolitan area	641	824	77.8%
urban tracted	95	167	56.9%
urban untracted	199	273	72.9%
rural strong urban influence	25	32	78.1%
rural moderate urban influence	71	113	62.8%
rural weak urban influence	121	197	61.4%
rural no urban influence	15	34	44.1%
Total	1169	1643	71.2%

Beverage Machines by Rural Urban Distribution

	Missing	No beverage machine	Beverage machine	Percent with beverage machine
Urban	45	367	523	58.8%
Rural	22	97	113	53.8%
Total	67	464	636	57.8%

Beverage Machines by MIZ Code

	No beverage machine	Beverage machine	Percent with beverage machine
urban metropolitan area	246	371	60.1%
urban tracted	40	48	54.5%
urban untracted	81	104	56.2%
rural strong urban influence	13	9	40.9%
rural moderate urban influence	36	30	45.5%
rural weak urban influence	41	67	62.0%
rural no urban influence	7	7	50.0%
Total	465	637	57.8%

Snack Machines by Rural Urban Distribution

	No snack machine	Snack machine	Percent with snack machine
Urban	636	202	24.1%
Rural	161	39	19.5%
Total	797	241	23.2%

Snack Machines by MIZ Code

	No snack machine	Snack machine	Percent with snack machine
urban metropolitan area	465	131	22.0%
urban tracted	58	21	26.6%
urban untracted	113	50	30.7%
rural strong urban influence	19	3	13.6%
rural moderate urban influence	50	13	20.6%
rural weak urban influence	80	21	20.8%
rural no urban influence	12	2	14.3%
Total	798	242	23.3%

Potential for sales in school vending machines

- To understand the potential for student exposure to snacks and beverages from school-based vending machines, it was necessary to describe the quantity of food offered for sale in school vending machines in relation to the number of students enrolled in the schools.
- This was accomplished through the development of a Potential for Food Sales (PFS) Index.

PFS Index Calculation

PFS Index= (Number vending machine slots)/

(Number of students enrolled in a given school/)*1,000.

- The PFS index measures the number of students per vending machine slot in each school and converts this from a fraction (by multiplying by 1,000) to a manageable number.
- The higher the PFS Index for a given school, the greater the potential for food sales to students form vending machines.

PFS from beverage machines

	Elementary	Middle	Secondary
PFS Index	40	61.8	71.6

• The PFS from beverage machines increases as students move from elementary to secondary schools. The PFS to students from beverage vending machines was approximately 80 percent greater in secondary schools and 50 greater in middle schools compared to elementary schools.

PFS from snack machines

	Elementary	Middle	Secondary
PFS Index	Not Available	89.1	96.8

- Only 16 elementary reported having snack vending machines therefore the PFS was unreliable and not reported.
- The PFS from snack vending machines in middle and secondary schools was much higher than for beverages vending machines.

School Food Policies

- Data taken from this survey and those completed in other provinces shed light on what types of food is offered in schools.
- School nutrition surveys reveal unhealthful foods and growing commercial activity in public schools.
- This raises important issues of public policy. Health professionals, researchers, public health advocates, educators, and politicians have all expressed concern about the nutritional integrity of the present-day school food environment and are taking steps to improve the situation.

- Currently, school nutrition criteria have been established in every province except Alberta and Quebec. These two provinces both have guidelines drafted and near publication.
- Provincial governments vary in how they plan to roll out nutrition guidelines in schools. Some provinces, such as BC, have chosen to provide voluntary guidelines.

District Wide Nutrition Policies

	Frequency	Percent
No policy in place	211	18.0
Policy in place	958	82.0
Total	1169	100.0

We found that of the 1169 responding schools there were 958 (82%) that had a district wide policy in place, had one currently under development, or are planning to implement these policies.

District Policy by Rural Urban Distribution

	number schools with policy in place	number schools with no policy in place	percent with policy in place
Urban	742	193	79.4%
Rural	216	16	93.1%
Total	958	209	82.0%

School District Policy Distribution by MIZ Code

	with policy	no policy	percent with policy
urban metropolitan area	481	160	75.0%
urban tracted	94	1	98.1%
urban untracted	167	32	83.9%
rural strong urban influence	23	2	92.0%
rural moderate urban influence	69	2	97.2%
rural weak urban influence	112	9	92.6%
rural no urban influence	12	3	80.0%
Total	958	211	82.0%

Nutrition Committees In Schools

	Frequency	Percent
No Committee	761	74.8%
Committee in Place	256	25.2%

In previous analysis (Rideout et al. 2007) it was found that the formation of groups focussed on nutrition in the schools should be encouraged because of their positive impact on school food policy.

Nutrition Committees by Rural Urban Distribution

	Nutrition committee	No nutrition committee	Percent with nutrition committee
Urban	193	613	23.9%
Rural	63	146	30.1%
Total	256	761	25.2%

Nutrition Committees by MIZ Code

	Missing			
		Nutrition committee	No nutrition committee	Percent with nutrition committee
urban metropolitan area	106	124	411	23.2%
urban tracted	5	27	63	30.0%
urban untracted	18	42	139	23.2%
rural strong urban influence	0	7	18	28.0%
rural moderate urban influence	3	14	54	20.6%
rural weak urban influence	19	36	66	35.3%
rural no urban influence	1	6	8	42.9%
Total	152	256	761	25.2%

Next Steps

- Systematic analysis of the data.
- Link census data to incorporate more variables based on the social determinants of health.
- Compare the availability of junk food sales and policy implementation in BC schools across varying SES areas.

Youth's Experiences Accessing Sexually Transmitted Infection (STI) Testing in Northern British Columbia

Rod Knight

Jean Shoveller & Shira Goldenberg

UBC, Department of Health Care and Epidemiology

www.youthsexualhealth.ubc.ca

- Youth Sexual Health Team, based out of the Department of Health Care and Epidemiology at UBC.
- We examine the ways gender, culture and place affect young people's sexual health, particularly youth in rural and northern BC.
- Interdisciplinary team (including Aleck and Neil), Jennifer Reade, Jesse Ogen, Robin Anderson, and Stephenie Berlinger.

"Dr. Jean Shoveller would have loved to be here and asked me to extend my greetings on her behalf".

Sexually Transmitted Infections (STIs) disproportionately affect young people in BC



Across Canada, many men and women experience health and social problems related to STIs; however, STIs are disproportionately affecting young people.

• Young people experience higher than average STI rates

- Serious public health concern, as left untreated
- Moreover, STIs are synergistic, in that acquiring one increases the risk of others, including HIV.
- Consequently, detection and treatment contribute to prevention.
- Youth face barriers related to features of the socio-cultural and sturcutral environment in which they seek STI testing services. It was hypothesized, therefore, that they are likely to vary between communities and to be particularly challenging in BC's north.
- Socio-cultural and structural determinants of STI status are central to improving interventions to
 promote and protect the population's sexual health. Thus, an examination of the ways in which
 the socio-cultural and structural circumstances interact with place to affect youth's experiences
 with STI testing is the intent of this study.

Examining youth's experiences with STI testing in:

Prince George, Fort St. John, Quesnel, Vancouver, Richmond



As the communities we selected all have various socio-demographics, they're not meant to represent a cross-section of the province, but are instead chosen to illustrate the southern/northern gradient in STI rates.

- For example, in 2005 Chlamydia rates among youth ages 15-24 exceeded the provincial average by 22% (i.e., 1168 per 100,000 compared to 955 per 100,000
- 1) Prince George
- 2) Fort St. John
- 3) Quesnel
- 4) Juxtaposed the northern communities with Vancouver/Richmond to inform differences the sociocultural and structural differences in the northern/southern gradient
- I know you are well-versed in the socio-demographics of these communities in BC, but just to give you an idea of the STI testing services in each community, and why we selected these communities for our study, I'd like to talk briefly to each one.

Study Objectives & Methods

- Objectives
 - Understand the way place interacts with the socio-cultural and structural environment to affect youth's experiences with STI testing
 - Develop recommendations to improve the accessibility of STI testing for youth in northern BC

Methods

- Naturalistic observation
- In-depth interviews
 - Youth ages 15-24 (n=100)
 - Service providers (n=40)

Prince George

Prince George offers STI testing at:

- one youth clinic (open one afternoon per week);
- one community health centre (3 hours every weekday).
- One student health clinic at UNBC; and

- one women's health centre (5 days a week, by appointment)
- There are also numerous general practitioners located throughout the city, as well as a regional hospital.

Quesnel

SH SERVICES:

- Public Health Unit (open during office hours)
- Three medical clinics.
- Hospital

Fort St. John

STI testing is provided by:

- The public health unit (offers only 4 appointments per week for STI testing).
- 3 walk-in clinics (work day hours only, and closed during lunch time)
- The hospital ER

As you are well aware, Fort St. John is experiencing an Oil and gas 'boom,' resulting in an In-migration of Oil/gas workers (Pop. aged 15-29 growing at 15.3%) and mobility of this population; (Sex ratio: 107.2 males per 100 females). High levels of disposable income.

So we were interested in better understanding how the 'boom' has affected young people's experiences accessing STI testing services.

Vancouver

Not unexpectedly, in Vancouver:

- There are a multitude of youth sexual health clinics (Including weekday hours, evening hours and weekend hours)
- Medical clinics
- Hospitals
- specialized services (e.g., youth sexual health clinics; clinics for LGBT people).

We have accumulated a lot of data from this study, but for the purpose of this talk I'm going to focus on 8 major themes, beginning with the impact of geography.

Richmond

And we examined Richmond:

- Richmond has a youth sexual health clinic operating in three locations (Every afternoon except Thursday).
- Medical clinics throughout the city
- Hospitals

Geographic Inaccessibility

Geographic isolation to STI testing services.

- Especially for youth with limited or no access to vehicles (limited public transportation; weather conditions)
- Limited access to specialized services (i.e., sexual health, or a youth sexual health clinic)

As a youth worker explains how this geographic inaccessibility can affect young people, especially during the winter months,

They'd have to walk three or four miles. And a cab ride [...] is \$15 one-way from where they live on the other side of town. They don't have that kind of money. It's not even downtown, it's a little hike up. Especially when it's 30 below. (Youth worker).

Exacerbated for oil and gas workers in camp, often hundreds of kilometers from town.

[NOTE: The quotes and stories that I'll share today are illustrative (although mot meant to be representative) of youth and service provider's experiences.]

Rurality and Access to STI Testing

Geographic isolation from services is obviously more of a challenge for youth living in the surrounding rural areas of these northern communities.

The following quote from a nurse will illustrate how the issue of 'place' concurrently interacts with other issues like confidentiality.

So when you're a young person and you live in town, you can make a doctor's appointment and walk to your clinic. Whereas [in a remote reserve] if you're not hitch-hiking, you're dependent on an adult. So if you're say 14, and you're in Grade 8 [...] and you're peeing and it's burning and you have some discharge, you got to ask your mom or a family member to take you to town and they're going to say, 'Why?' (Female Nurse)

Geographic isolation can also present challenges to health care provider's ability to follow-up with clients who test positive for an STI and where treatment and/or contact tracing is required.

For example:

- One nurse who works at a remote reserve reported being asked by the public health unit in the closest community to contact a 14-year-old male who tested positive
- She explains how she has to physically find him to ask him who his contacts were.

Limited Clinic Operating Hours

Particularly for a young person. If you look at the office hours here, typical of many clinics in northern communities, you can see it leaves about 1.5 hours a day for young people attending school.

Privacy Expectations)

- Youth told us they would prefer to test get STI testing at a clinic or doctor's office where they
 have never been before, to avoid being recognized or judged by health care provider's or
 other patients.
- For those living in northern BC, this type of anonymity was not perceived to be a realistic option.
- Some youth were also concerned that they would be seen going into the clinic, or seeing someone they know in the waiting room.
- As one young man explains:

But you do worry, you're like, 'Oh I wonder if it's someone's mom' or 'I'm going to run into this person some other way' and be like 'Oh no!' you know, especially if there was a bad thing that came out of it or whatever right, so you kind of worry at a smaller place about the confidentiality. Like this could be your friend's mom or your co-worker." (15-year-old Male

Local Social Norms and Youth Sexuality

- Many youth explained that their communities view youth sexual behaviour negatively, and explained how this could affect their experiences accessing STI testing services
- In the northern communities, particularly FSJ, hegemonic masculine commentaries reinforce social attitudes that "real" men ignore symptoms and that those seeking help for sexual health are considered "weak."
- As one young man from FSJ explains:

There are a lot of guys who are riggers and they're here for six months, or three weeks, and then they're gone. Who knows where they've been? I'm sure with a lifestyle like that, they don't take time to be like, I should go and get myself checked, right? Especially with the mentality that's forced among a lot of these guys - it's not cool to be weak at all. So, to have to go and test for STDs is not a merit badge you want to wear. (24-year-old Male)

LGBT Youth

Dominant forms of heterosexuality and heteronormativity in the northern communities affected young people's experiences accessing STI testing services, as well as explicit homophobia.

As a result, we were told

- LGBT youth may not feel comfortable stating their sexual identity in smaller communities.
- Lack of LGBT-specific sexual health information (e.g., in schools)

Youth wanted their service providers to be more sensitive and appropriate in their provision of services when discussing sexual identity.

Cultural Influences

- Service providers also suggested that cultural or religious influences may affect the likelihood that some youth will access STI testing services.
- For example, in Quesnel, where South Asians make up 8% of the town's population, one clinician who reported seeing almost no South Asian youth seeking sexual health services.
- As a nurse explains:
- We don't see a lot of South Asian youth coming in, or South Asian adults for that matter. [T]here is certain client groups we don't see a lot of, and haven't historically, and [...] we haven't had an 'in' to any of the groups either, so it's been hard [to] find out why, like why don't we see that group? (Female Nurse)

We don't see a lot of South Asian youth coming in, or South Asian adults for that matter. [T]here is certain client groups we don't see a lot of, and haven't historically, and [...] we haven't had an 'in' to any of the groups either, so it's been hard [to] find out why, like why don't we see that group? (Female Nurse)

Same issue was brought up in Prince George.

Inadequate Advertising of STI Testing Services

- Many youth explained that they didn't have enough information about STIs and STI testing services available in their community, and that they didn't know:
- WHERE TO GO
- WHEN TO GO
- HOW TO GET AN APPOINTMENT
- HOW TO GET MORE INFORMATION

You never hear of any advertisements for testing or anything like that, so [...] if you don't hear about it then it's out of your mind. (21-year-old Female)

Conclusion:

The themes that we discussed have distilled some of the prominent issues that youth want for a better deal for their sexual health and STI testing services.

Although I didn't have time to speak to every detail, much need for improvement exists, and I invite you to read our reports, specifically page 13 and 14 with recommendations for service providers.

Gender Gap: Fact or Fiction? Results from the JAKE Study

Kristy Callaghan¹

Stefania Maggi, Amedeo D'Angiulli¹ & David MacLennan²

Carleton University¹, Thompson Rivers University²

Overview

- Introduction
- JAKE Database
- Results
 - Is there a gender gap in Kamloops?
 - Determine role of neighbourhood and school factors involved in gender gap
- Conclusion

The gender gap

- ▶ Awareness of gender differences is growing
- Girls outperforming boys in school
- Need to account for socio-economic status
- ▶ Data from JAKE database and Census 2001

Awareness of gender differences with regards to academic achievement is constantly growing.

The widening gap between the average educational achievement of boys and girls has been the subject of much discussion.

Researchers and educators are continually examining possible reasons and methods to deal with these differences.

The lower educational achievement of boys relative to girls in Kamloops schools has recently received a great deal of publicity; in fact, an entire conference in October dealt with this very issue.

However, it is misleading to study gender differences without accounting for other important factors, such as socio-economic characteristics of children and the communities they live in.

To correctly understand gender differences with regards to academic achievement, it is necessary to determine how socioeconomic status (SES) and gender interact.

This study used the JAKE database and census data to examine the gender gap in the Kamloops-Thompson region of British Columbia.

JAKE (Justification & Accountability in Kamloops Education)

- Extensive database
- Variety of different categories
- That report on:
 - Student performance
 - Individual characteristics
 - Behavioral problems
 - Special needs
- ▶ PEN (Personal Education Number)

The variables for this analysis were used from the JAKE database which stands for Justification and accountability in Kamloops Education. It is an extensive database that contains approximately 4 million records on the student population within the Kamloops-Thompson School District. JAKE contains detailed records on the performance of children from kindergarten to grade 7. Longitudinal data on each specific child from their kindergarten year all the way through to grade 7 is available in JAKE. Data on children from grade 8 to grade 12 is currently being added into the database. Eventually, researchers will be able to follow these children from kindergarten to graduation, allowing for a longitudinal assessment of their school performance.

The information in JAKE is broken down into a variety of different categories. Within these separate categories there is an assortment of variables. JAKE contains not only information on the performance of all students, such as grades and school progression but also contains information on:

Individual characteristics (gender, ethnicity),

Behavioural problems (attention span, focus, absences, lates, suspensions) and

Special needs (autistic, visually impaired, deaf, etc.).

All of this information can be used to determine an individual's developmental status.

Each child within the JAKE database is assigned a unique personal education number.

The JAKE database does not include child names and street addresses; however, each child's postal code of residence is available allowing us to create maps as well as to link JAKE data with other databases such as the census data.

Thus the personal education numbers provide confidentiality so that when the data is analyzed, no personal identifiers (such as name & street address) are available.

FSA (Foundation Skills Assessment)

- Annual test administered across BC
- External source of student's achievement
- ▶ 3 mark categories
 - Exceeds expectations
 - Meets expectations
 - Not yet within expectations
- ▶ JAKE provides individual performance information

In our study, we examined the FSA scores for children in grades 4 and 7 in 2001.

For those of you that don't know, the FSA stands for the foundation skills assessment exam.

The FSA is an annual test administered across BC for the evaluation of numeracy, reading and writing skills of school aged children in grades 4 & 7.

The FSA is mainly used to assess the academic skills of British Columbia students and to provide the schools, school districts and the province with an accurate representation of how well students are learning basic skills in numeracy, reading, writing comprehension.

The FSA is also used as an external source of information to inform parents or guardians and teachers about a student's achievement.

The tests are graded by teachers from around the province (approximately 550) that work in teams. These teams are responsible for identifying a representative test that is then used as a reference to mark the remaining tests.

Each test is then assigned to one of the following categories: 1) Exceeds Expectations; 2) Meets Expectations; and 3) Not Yet Within Expectations. The test is taken individually and the Ministry of Education produces school, district and provincial results which are publicly released indicating the proportion of students who 'Exceed Expectations', 'Meet Expectations', and are 'Not Yet Within Expectations'.

Each individual student's percentage score on the numeracy, reading and writing portions of the 2001 FSA Exam were extracted from the JAKE database along with the child's gender, postal code and the school they attend.

Gender Gap and Neighbourhood

- ▶ Postal code of where the students lived at the time their wrote the FSA (2001)
- Census variables for 2001:
 - Unemployment rate
 - Male & Female unemployment rates
 - Average family income
 - Incidence of low income
 - Males with Post Secondary Education
 - Females with Post Secondary Education
 - Less than grade 9 Education
 - University Education
 - Bachelor's Degree or Higher

By using JAKE student data from 2001, we were able to match up each child's information from the JAKE database with the 2001 census data.

Each child's individual postal code (from JAKE) was linked to the census tract areas for the 2001 census.

This allowed us to use the census SES indicators to determine what role, if any these factors played in a child's FSA performance.

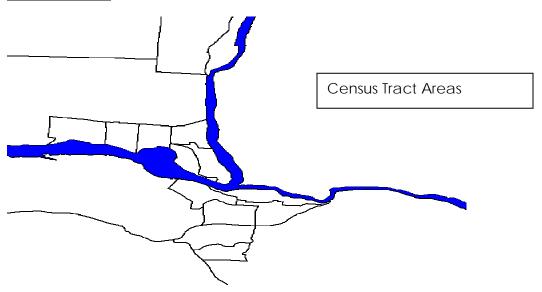
The SES variables that we chose to use were:

- **Unemployment rate** refers to unemployed labour force expressed as a percentage of the total labour force broken down into each neighbourhood.
- We also chose to break down unemployment rate into **male and female unemployment rates** to determine if gender parental roles can affect male & female students differently
- **Average family income** was also used. It is calculated by dividing the combined income of a neighbourhood of families by the number of families in that neighbourhood.
- **Incidence of low income** refers to the proportion of families in a neighbourhood below the low income cut-offs as determined by Statistics Canada.

- Male and female postsecondary education refers to the total population with postsecondary education broken down into male and female variables.
- Less than grade 9 education refers to the total population with less than grade 9 education.
- University education refers to the total population with some university education.
- Bachelor's degree or higher refers to the total population who attended university and received
 a degree at the bachelor's level or higher including bachelor's, honour's, master's and earned
 doctorate degrees.

These SES variables were chosen to determine what role, if any these factors play in a child's FSA performance

Neighbourhoods



The census information is broken down into neighbourhood categories.

These categories we examined included dissemination areas, and census tracts.

- The dissemination area (DA) is a small area composed of one or more neighbouring blocks with a
 population of 400 to 700 people. It is the smallest geographic area for which all census data are
 disseminated.
- Census tracts (CTs) are geographic areas that usually have a population of 2,500 to 8,000.

In our analysis we wanted to compare neighbourhood and school characteristics with gender FSA achievement. When comparing neighbourhoods we used census tract SES variables to determine the socioeconomic factors that are present in each child's home neighbourhood since each child's postal code of residence was used to link them to the census data. This map gives you an idea of what size census tracts (neighbourhoods as we call them) are in the Kamloops area.

For comparing schools, we used the census SES variables from the dissemination area in which the school is located. The school a child attends was used to link them to specific dissemination area in the census data. Therefore, when comparing school SES variables it is actually the census SES variables from the block in which the school is located.

We used dissemination areas for schools instead of census tracts because census tracts are larger and can contain two schools in one census tract unlike dissemination areas which are smaller

Participants from SD#73

	Number of Participants	Percentage of Participants
Total	2134	
Grade		
4	1061	49.7
7	1073	50.3
Gender		
Male	1097	51.4
Female	1037	48.6
FSA		
Reading	1976	92.5
Writing	1975	92.5
Numeracy	1969	92.3

Our study consisted of elementary school students in grades 4 and 7 from the entire Kamloops-Thompson school district in the year 2001.

The study population was comprised of 1061 students in grade four and 1073 grade seven students in 35 different schools from all over the school district.

The student samples per school ranged from 44 to 120 students.

Of the total 2134 students, 1097 were male and 1037 were female.

These students are spread out across 32 census tracts as determined by the 2001 census.

We examined gender differences for the numeracy, reading and writing portions of the FSA.

As you can see in the table we had results for approximately 92% of the total study population for numeracy, reading and writing.

Mean FSA performance scores

	Male (SD73)	Female (SD73)	P value
Reading	<u>61.79</u>	<u>64.83</u>	<u>p=.000</u>
Writing	<u>48.50</u>	<u>53.02</u>	<u>p=.000</u>
Numeracy	<u>54.28</u>	<u>53.21</u>	<u>p=.214</u>

- Females perform better than males in reading
- Females perform better than males in writing
- ▶ No difference in performance in numeracy

First of all in our analysis, a series of one-way ANOVAs was conducted to examine the potential gender differences among the three dimensions of the provincial FSA.

We found that when comparing male and female mean FSA scores for reading and writing, females significantly outperform males.

When comparing mean numeracy scores, there was no difference in male and female performance.

Therefore, the numeracy portion is the only portion of the FSA exam in which there were no gender differences.

What is HLM?

It stands for Hierarchical Linear Modelling

- ▶ It is a multi-level regression analysis
- Appropriate for nested data
- It is used to examine neighbourhood, school, or class differences

To further analyze this gender difference in the reading and writing FSA, we used hierarchical linear modeling (HLM) procedures.

HLM, also known as multi-level analysis, is a more advanced form of simple linear regression and multiple linear regressions.

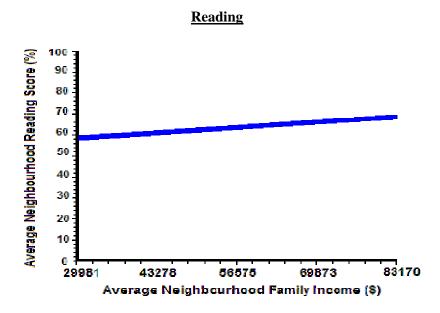
HLM allows variance in outcome variables to be analysed at multiple levels, whereas in simple linear and multiple linear regression all effects are modeled to occur at a single level.

HLM is appropriate for use with nested data. Since students are nested in neighbourhoods as well as schools and not randomly distributed across them, HLM analysis was used.

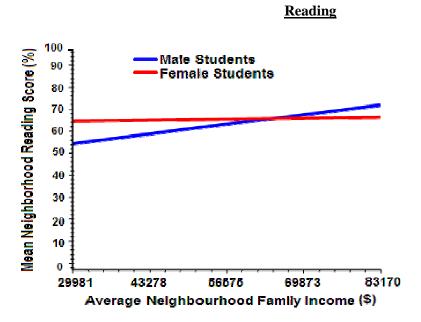
Gender Gap and Neighbourhood

Are females better than males in reading and writing in ALL neighbourhoods?

When examining the gender gap across neighbourhoods we wanted to see if female and male students were affected differently by neighbourhood SES variables for both reading and writing.



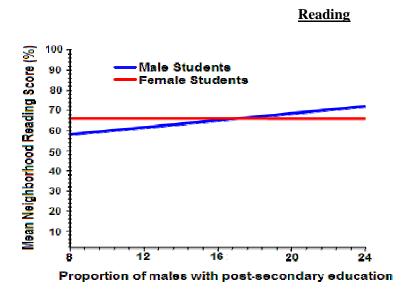
This graph demonstrates that reading performance of students is related to neighbourhood family income thus students from neighbourhoods with higher average family income tend to perform better than students from neighbourhoods with low average family income.



This graph is average family income separated into male and female performance.

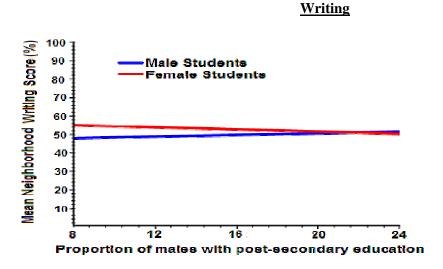
It shows how reading performance of male students improved significantly as average neighbourhood family income increased.

On the other hand, female reading performance remained constant across the spectrum of average neighbourhood family income.



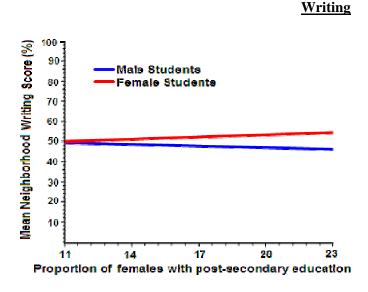
This graph illustrates how reading performance of male students increased as the proportion of males with post-secondary education increased whereas female reading performance remained constant.

These were the only variables that were significant with regards to student reading performance across neighbourhoods.



When examining writing, both paternal and maternal education levels played a part.

As you can see, male writing performance increases slightly as the proportion of males with post-secondary education increases.



As the proportion of females with post-secondary education increases, female students writing performance also increases.

Neighbourhoods Vs. Schools

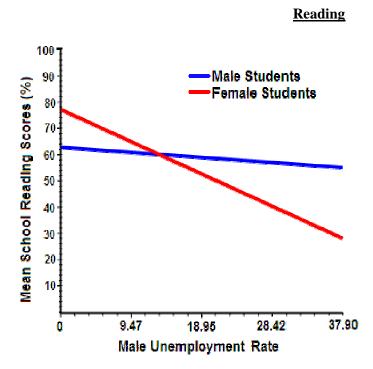
- ▶ More variability between schools than between neighbourhoods
- ▶ Schools differ more in FSA scores

When examining variability between neighbourhoods and schools we found that schools have greater variability thus student FSA scores differ more between schools than between neighbourhoods.

Gender Gap and Schools

Are females better than males in reading and writing in ALL schools?

When examining the gender gap across schools we wanted to see if female and male students were affected differently by school SES variables for both reading and writing.



When examining school variables, we found that male unemployment rate was the only significant variable.

As male unemployment rate increased, both female and male reading scores decreased.

But as you can see male unemployment levels affected female students' performance much more dramatically as their slope is much steeper.

We found that none of the variables were significant with regards to writing performance across schools.

Conclusion

Our findings only partially confirm what has been documented elsewhere. Present more complex picture of association between achievement, gender and SES. School SES and neighbourhood SES may impact differently on gender achievement

Our findings are only partially consistent with what has been documented elsewhere.

They present a more complex picture of the association between academic achievement, gender and socioeconomic status at the school and neighborhood levels suggesting that school SES and neighborhood SES may impact differently on the educational achievement of boys and girls.

- We know that early learning is crucial
- Our emphasis on SES leads us to consider family and neighbourhood differences as possible causes of the gender gap
- Academic success can be linked to certain neighbourhood and school characteristics

We know that early learning is crucial and our emphasis on SES leads us to consider family and neighbourhood differences as possible causes of the gender gap since academic success can be linked to certain neighbourhood and school characteristics.

Since one of the most important social determinants of academic achievement is SES. Understanding the relationship between SES, gender and achievement remains a central challenge for educators and parents.

Challenges, Changes and Working Together: Service Provision in Northern BC

Kelly Giesbrecht

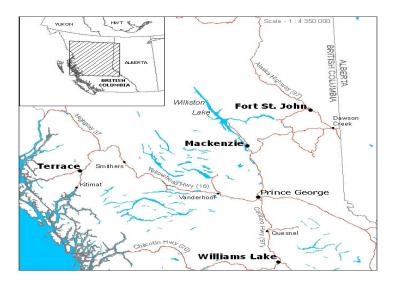
University of Northern British Columbia

Outline

- Study Context
 - Study Communities
 - o 2005/2006 Research
 - o Focus of 2007 Research
- Preliminary Results
 - o Challenges and Changes
 - Working Together
- Summary
 - Conclusion
 - o Implications

Study Context

Study Communities



Study Communities

2006 Census	Mackenzie	Fort St.	Terrace	Williams	BC
Data		John		Lake	
2006 Population	4,539	25,136	18,581	18,760	4,113,487
2001 Population	5,206	23,007	19,980	19,768	3,907,738
Pop'n Change 2001 to 2006	-12.8%	9.3%	-7.0%	-5.1%	5.3%
Median Age of Population	36.3 years	31.5 years	38.2 years	39.2 years	40.8 years
Male	2,430 (53.5%)	12,970 (51.6%)	9,320 (50.2%)	9,365 (49.9%)	2,013,990 (49.0%)
Female	2,110 (46.6%)	12,160 (48.4%)	9,260 (49.8%)	9,400 (50.1%)	2,099,495 (51.0%)

2005/2006 Research

- 2005
 - o Service provider interviews
 - o Health care and personal services
- 2006
 - o Service provider interviews
 - o Service users affected by changes in care networks

Focus of 2007 Research

- Services for Stroke or Diabetes
- Interviews
 - o Service users

- o Service providers
- Presentation focuses on Service Providers
- Ethics Approval
- Analysis Methods
 - o SPSS Database
 - o Qualitative analysis of challenges

Challenges and Changes

Challenges: Staff & Volunteers

- Human Resources
 - o Lack of available/ qualified staff
 - o Staff turnover and burnout
 - Vacant positions
- Workload/ Time
- Access to information, training & education

Challenges: Delivery of Services

Inadequate or Lack of Services

- Lack of staff
- Lack of space
- Lack of specialists

Increasing or Sustaining Services

To expand services and hire staff

To increase hours and sustain services

Challenges: Patients

- Financial Constraints
 - Cost to patients

- o Limited Medical Services Plan coverage
- Lifestyle
 - Work schedules
 - o Poor lifestyle choices
- Difficult Patients
 - o Non-compliance

Challenges: Quotes

- "Staff shortages are a challenge for us in all areas. We can't always provide the service right away and people are stuck until we can get these in place."
 - o T2007-CM07
- "You have to rely on the same people to do everything in a small community. A lot of stuff that I've done for this program is voluntary and I'm tired."
 - o T2007-CM06

Changes

- Service delivery has changed over time
- Overall the changes are positive:
 - o Improved Service Delivery
 - Service Expansion
- Changes: Quotes
- "We have developed a better continuity of care by identifying gaps and working to fill them by being less territorial."
 - o FSJ2007-CM02
- "It has been a growing process, but services have improved...There is better access and collaboration with service providers."
 - o M2007-CM01

Changes: Quotes

• "We have developed a better continuity of care by identifying gaps and working to fill them by being less territorial."

- o FSJ2007-CM02
- "It has been a growing process, but services have improved...There is better access and collaboration with service providers."
 - o M2007-CM01

Working Together

Working Together: In Community

- Service providers fit with other services in their communities
 - o Enhancing and/or complimenting each other's services
 - Sharing information and answering questions
 - o Awareness of/ providing awareness of other services

Working Together: Partnerships

- Service providers have local & external partners
- Local partnerships with:
 - o Business, municipal and government organizations
 - Health care organizations
 - Doctors
- External partnerships with:
 - Health care organizations
 - o National and regional health associations
 - o Support groups

Working Together: Partnerships

- Reasons to partner include:
 - o Share information or answer questions
 - o Provide or assist with service provision
 - Share resources or collaborate
 - o Referrals
- Local

- o To share information and answer questions
- External
 - o For training and education

Working Together: Assistance

- Organizations assist with service delivery
- Local assistance from:
 - o Business, municipal or government organizations
 - o Home and community care
 - Diabetes nurse educator
- External assistance from:
 - Health care organizations
 - o National and regional health associations
 - o Support groups

Working Together: Assistance

- Organizations provide assistance by:
 - Sharing information and answering questions
- Local assistance through
 - o Referrals
- External assistance with
 - o General service provision

Working Together: Successful

- Organizations Easily Accessible
 - o Phone and email
 - o Personal contact important locally
- Successful working relationships
 - o Good service delivery

o Sharing information and answering questions

Working Together: Changes

- Positive changes in working relationships
 - o Improved/improving relationships
 - o Increased programs
 - o New service or organization

Working Together: Quote

- "All of our relationships have gotten better because we've developed a sort of team. We're less isolated in our service provision, and we have a more holistic management approach. We have also identified more and more support services that are available for our clients to access."
 - o T2007-CM09

Summary

Summary: Conclusion

- Despite challenges, positive changes
- Successful working relationships
- Informal relationships important
- Service providers mediating challenges

Summary: Implication

• Funding organizations need to support working together effectively and efficiently.

Acknowledgements

Participants

- Service Providers
- o Service Users

2007 Research Team

- Anisa Martin
- o Chelan Hoffman
- o Laurel Van De Keere
- o Joe LeBourdais

Where is the 'warmth of welcome' for immigrants and refugees in northern BC?

Anisa Zehtab-Martin

Greg Halseth, Neil Hanlon, & Catherine Nolin

University of Northern British Columbia

Outline

- Correlation between NETHRN and 'Warmth of Welcome
- NETHRN CIHR overview
- 'Warmth of welcome' SSHRC overview



- How are the two projects related?
- Discussion

This presentation examines the connections between the UNBC component The New Emerging Team for Health in Rural and Northern BC and 'Warmth of Welcome' projects.

I will provide a brief overview of both, look at how the two projects are related, followed by a discussion.

Service delivery systems in British Columbia have been restructuring since the 1980's. This restructuring of service delivery systems intensifies and challenges residents and service providers in rural and small town places. Given the small population of rural and small communities, their social fabric can be significantly and rapidly transformed by an influx of immigrants.

NETHRN – **Project Overview:**

Primary investigators: Neil Hanlon & Greg Halseth

- UNBC component of the NET project focuses on developing a better understanding of formal and informal care networks in BC's rural and northern communities.
- Of particular interest are the shifting roles and relationships between formal and informal sectors.

In recent years the restructuring of health care services has resulted in stress on the formal care sector. As a result, increasing interactions with, and dependence upon, the informal care sector.

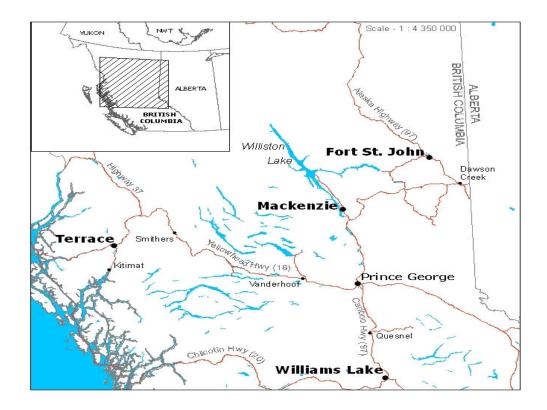
At a time when many northern and rural communities are experiencing socioeconomic stress, it is a concern that the informal sector may be under significant pressure as well. So field work began in the summer of 2005 with the primary focus of understanding the role of formal and informal networks for individuals and households under stress to the four communities of: Fort St. John, Mackenzie, Terrace, and Williams Lake.

The focus for the first years research was to talk to service providers. As a result a total of 88 interviews were conducted between the 4 communities in 200, In the fall of 2006 the UNBC research team went back to the communities. The focus for that year was to talk to service users. However we wanted to include service sectors that were not talked to the year before. In total 30 interviews were conducted with service providers.

The focus of this presentation will be on the key themes that emerged from the service provider interviews from those two years.

NETHRN – Project Overview

- Restructuring of health care services
- Stress on formal care sector
- Dependence on informal care sector
- Formal and informal care providers for households under stress
 - Lone parent
 - Recently unemployed
 - Permanent disability
 - Chronic illness



NETHRN - Project Overview

Summer 2005 (Exploratory)

• Service Provider Interviews (*n*=88)

Fall 2006 (Exploratory)

- Service User Interviews
 - Focus Group (n=7)
 - Interviews (n=32)
- Service Provider Interviews (*n*=30)

Summer 2007 (In-depth)

- Service User Interviews (*n*=29)
- Service Provider Interviews (*n*=40)

<u>NETHRN – Project Overview</u>

Key Themes

- Formal service reduction
 - Insufficient funding
- Partnerships
 - Cohesion and adaptation
- Unstable volunteer structure
 - Lack of access, volunteer availability
- 'Thin on the ground'

SERVICE REDUCTION

One of the dominant themes that emerged in our four target communities over the past two years of field work, was the lack of sufficient funding to meet program mandates.

This shortfall impacted service delivery in a number of ways which included program elimination or service reduction

These organizations had been faced with complete program elimination, program restructuring, or program changes.

Other impacts to service delivery were staff retention and recruitment.

This was due to the lack of benefits and little to no money allocated for continuing education.

Although impacted by funding cuts, service providers tended to emphasize an increase in partnerships and networks with other agencies in order to deliver their mandated service.

PARTNERSHIPS

While changes to funding allocations impact service delivery.

People living in rural and remote communities have adapted to ways to provide the most services with the little resources they have.

As a result, many organizations partner and collaborate their services with other groups in the community as well as volunteers, in order to provide what they can.

UNSTABLE VOLUNTEER STRUCTURE

Although one aspect of small town dynamics is people helping each other out, organizations were heavily reliant on the volunteer base since funding cuts had reduced financial contributions to the agencies.

Almost all the respondents partnered with volunteer groups, although many of these groups had at least one instance of an unsuccessful partnership. This was mainly due to lack of access to volunteers such as irregular office hours or volunteer availability.

'Warmth of the Welcome'

Drs. Catherine Nolin and Greg Halseth of the Geography Program at UNBC are conducting a study to understand the 'warmth of welcome'.

- Purpose: Examine the settlement, social and economic integration, and retention of immigrants and refugees in northern BC
- Affiliation with Immigration and Multicultural Service Society (IMSS)
- Regionalization

The warmth of welcome research examines the settlement process, social and economic integration, and retention experiences of immigrants and refugees in northern British Columbia.

Interest in developing this project comes from Catherine's long-time affiliation with Immigration and Multicultural Service Society (IMSS) in Prince George.

As well as the federal and BC governments' interests in so-called 'regionalization of immigration' this is meant to encourage immigrants to consider settlement in BC beyond Vancouver.

We are working in partnership with the immigrant and multicultural services society in Prince George with the goal to develop an integrated, collaborative approach to attract integrate and retain newcomers in northern BC.

This summer, the UNBC research team was fortunate to have a great group.

One of the members joined us from UBC, Katie, we also teamed up with the CIHR project and did field work together in Terrace and Fort St. John. The immigration team also did field work in Prince George, as part of its study site.

Prince George services as the site of regional service provision and receives the majority of recent immigrants in the identified region.

Terrace receives far fewer immigrants and is dealing with major job losses and out-migration. But, the Terrace-based Skeena Multicultural Diversity Group was established in 2001 as an initiative to work intensively on institutional change within the framework of anti-racism and multiculturalism.

Fort St. John is a fast-growing oil and gas hub in northern BC with pronounced needs for "skilled workers, white collar professionals, entrepreneurs, restaurateurs, retailers and others". The city is a labour magnet for inter- and intra provincial migration with no immigration service provision.

For this years research, we were testing the waters to see what is happening in this region with immigration.

The goal of the first part of this study is to better understand the capacity of these communities to offer warmth of welcome' to newcomers through roundtable discussion and interviews.

We conducted 3 roundtable discussions, one in each of the three communities. This year at the roundtable we wanted the perspective of municipal governments, members of the business community, and policy makers to see what they think is an important aspect of a welcoming community.

We also carried out 25 interviews specifically with service providers to see what is being offered for immigrants and what kind of support is available to them.

'Warmth of the Welcome'

Role of IMSS

- UNBC partnership with IMSS
- Only immigrant service in the north
- Daunting challenge to expand services
- 'Warmth of the Welcome'
- Multicultural Health Fair October 20, 2007
- 450 people throughout the northern region
- Workshops
- Different languages available

With its yearly target of establishing immigration levels at approximately one percent of the total population, the Canadian government has recognized the long-term benefits of accepting newcomers.

Settlement patterns in rural and small city regions are also important factors to consider because of limited service availability and

Immigrant settlement patterns have implications for the delivery of employment, education, health, and other services.

This study area of northern BC is not incidental or merely convenient for the purposes of this research project. Growing concern with the intense concentration of immigrants in the gateway cities of Vancouver, Toronto, and Montreal is coupled with the desire for the regionalization of immigration and the opportunity for smaller centres to benefit from Canada's immigration vision.

Canada's rural and northern communities have yet to benefit from the country's current influx of immigrants and little is known about the challenges immigrants encounter in rural and northern communities and about their potential contributions in these communities.

Regionalization of immigration is a new federal and provincial strategy to deal with the growing concerns with the intense concentration of new immigrants in the 'gateway cities' of Vancouver, Toronto, and Montreal.

Settlement services provision for northern BC operates from Prince George and struggles to serve a relatively small number of recent immigrants (1996-2001 – approximately 1000) from countries as diverse as India, the Philippines, the United States, South Africa, and Russia – thinly spread throughout the vast region between Prince George and the costal city of Prince Rupert.

This project examines the formal service provision as well as informal community networks of northern BC which work to integrate immigrants in the absence of local, place-and group specific settlement services.

In order to support not only integration, but retention, "settlement resources in regions of low immigration must come first if we expect newcomers to settle and stay in these areas.

Family, friends or pre-existing linguistic or ethno-cultural communities do not exist or are minimal. They can help lower the costs and risks of movement for new migrants, making it easier to find a place to live, a source of employment and a community in which to find support.

Must also consider the federal government aspirations and provincial actions which are actively cutting back services to regions outside of the main urban centres. How do northern communities balance these parallel, yet contradictory, processes?

'Warmth of the Welcome'

Summer 2007

- Prince George
- Terrace
- Fort St. John

'Warmth of the Welcome'

- Exploratory
 - Community capacity to offer a 'warmth of welcome'
- Roundtable (n=3)
 - Municipal governments, business community, and policy makers
- Interviews (n=25)
 - Service provider community
- Canadian government so-called 'regionalization'

- Canadian government recognizes long-term benefits
- Rural and northern communities have yet to benefit

'Warmth of the Welcome'

- Settlement patterns
 - Employment
 - Education
 - Health
- Limited services, spatially concentrated
- Settlement service for the entire north operates in Prince George
- Services for immigrants are really 'thin on the ground'

How are the two projects related?

- How are the two projects related?
- Access to care services is difficult
 - Complex system
- Exacerbated for newcomers due to lack of formal and informal services
 - Language
 - Mobility
 - Lack of immigrant specific services
- Formal and informal partnering
- 1) Access to care services is difficult for northern residents.

As I mentioned we found to be a key finding in the CIHR project, the same goes for immigrant services, and then some.

(2) access to care services is exacerbated for new immigrants because of language, mobility, and lack of immigrant specific services.

Small cities can encounter challenges in providing services for immigrants due to issues of scale, resources, and expertise. Some key areas that need to be addressed for immigrant services include language training, and access to employment, education and housing.

Discussion

Key issues

- Access
 - Language, terms
 - Cultural norms and practices
- Settlement Services
 - English as a Second Language (ESL) vs. English for Academic Purposes (EAP)

Policy Implications

- Research and policy focus on urban
- A new initiative
 - Provincial Nominee Program
- Research needed
 - Ethnographic work Summer 2008
- The joint research agenda with members of IMSS based in Prince George, BC and Dr. Greg
 Halseth of the University of Northern British Columbia Community Development Institute. This
 is the first endeavor of its kind in northern BC and therefore we hope to chart a way forward for
 long-term community-university research collaboration.
- Through collaborative and action research plans, we are beginning our work together to highlight the barriers to and needs for the strengthened participation of new immigrants in northern community life was well as develop recommendations and concrete initiatives which foster more inclusive and welcoming communities for new immigrants in BC's northern region.
- The personal needs of immigrants in terms of services were not as significant as the other services, however many immigrants who want to live in rural areas and small cities find that they have to drive to larger cities to buy specialty foods that are not available in their communities, but even more important is the availability of churches or places of worship for immigrants, as I mentioned the vineyard church for Ethiopians, they really appreciated this being provided to them in their language of Amharic- especially b/c some of them came as refugees from a place where they were not able to practice their own religion, this was very important.
- The biggest gap in service provisions for immigrants is English classes.
- There is a lack in Providing ESL classes regularly. Lack in providing different levels of ESL classes.
- Lack of ESL teachers, as I mentioned there are 2 ESL teachers for all the students in Brandon..

- Immigrants identified that learning English is the most important service to them. If they learn English they have more job opportunities, they are able to communicate to the rest of the community, and are able to use the rest of the services with more ease.
- Therefore Rural communities encounter challenges in providing services for immigrants due to issues of scale, resources and expertise. Connecting immigrants to appropriate service provision can be challenging.
- The lack of service provision is not a new issue for rural and small cities, however issues in services provisions for immigrants should be considered a little differently.

Third Annual Conference

December 12, UNBC



SPEAKERS

Kristy Callaghan 1

Stefania Maggi 2, Amedeo D'Angiulli 2, David MacLennan 3

Gender Gap: Fact or Fiction? Results from the JAKE Study

Thompson Rivers University 1,

Carleton University 2,

Centre for Early Education and Development Studies (CEEDS) 3

Kristy Callaghan Profile

Kristy received a Bachelor of Science Degree from Thompson Rivers University with a major in animal biology in 2006. She is responsible for the management and analysis of the Justification and Accountability in Kamloops Education (JAKE) database, a longitudinal database of the Kamloops School District #73 containing individual level information about school behaviour and academic achievement of students living in Kamloops and surrounding communities. Kristy also coordinates the activities of the group of researchers involved in the ongoing analysis of JAKE and participates in knowledge translation activities aimed at disseminating the results of the research to the school district.

Kelly Giesbrecht,

Greg Halseth, Neil Hanlon, Anisa Martin, Chelan Hoffman, Laurel Van De Keere, Joe LeBourdais.

Challenges, Changes and Working together: Service Providers in Northern BC

UNBC, Geography Program.

Kelly Giesbrecht Profile

MA NRES-Geography '04, returned to UNBC in Spring 2006 after a brief stint working for the BC Provincial Government. From September 2005 to March 2006, Kelly worked as a Planning Officer with the Integrated Land Management Bureau, Ministry of Agriculture and Lands, leading strategic land use planning implementation assessments of Land and Resource Management Plans and coordinating related public consultations in Fort St. James and Mackenzie. Kelly worked on a term position with the UNBC Office of Research as a Research Project Officer assisting researchers engaged in social science- and humanities related research. Currently, Kelly is a Research Associate with the Geography Program coordinating several social science research projects.

Rod Knight,

Jean Shoveller, Shira Goldenberg

Youth's Experiences Accessing STI Testing Services in Northern BC

UBC, Department of Health Care and Epidemiology

Profile Rod Knight

Rod moved to Vancouver and joined the Youth Sexual Health Team in the Fall, 2006. After graduating with a degree in sociology, Rod worked at the University of Alberta's Population Research Laboratory, supervising data collection on quantitative research. Rod has extensive experience working and living in rural and northern communities, having spent part of his childhood in Fort St. John, several years tree planting throughout rural Western Canada, and assisting with a research project for the Alberta Métis Settlements Council in rural Alberta.

Rod is enjoying his work with the Youth Sexual Health Team and hopes he can help make a difference in reducing youth sexual health disparities with the ongoing research.

Kathryn Proudfoot 1

Aleck Ostry 2

Food sales outlets, food availability, and the extent of nutrition policy implementation in schools in British

Columbia across the rural/urban continuum.

Dalhousie University, Community Health and Epidemiology. 1

University of Victoria, Faculty of Social Sciences. 2

Profile Kathryn Proudfoot

Graduated with a BSc in Nutrition and Food Science from the University of

Alberta. Currently a Registered Dietitian

Research interests include: food security and commercialism in the public school system

Thesis Topic: A look at neighborhood effects related to the social determinants of health that may help facilitate the uptake of healthy school food policy

Natalie Waldbrook,

Rachel Herron, Mark W. Skinner

Pilot Study of Volunteer Services for seniors in Ontario's ageing Rural Communities

Trent University, Department of Geography

Profile Natalie Waldbrook

MA (in progress) Trent University.

Thesis: 'Housing northern women: housing, access and affordability in the City of Greater Sudbury, Ontario.

She belongs to the Pilot Study of Volunteer Services in Ontario's Ageing Rural Communities. The project is funded by the Social Sciences and Humanities

Research Council of Canada, and is led by Dr. Mark Skinner, a geography professor, along with graduate student Natalie Waldbrook (Canadian Studies) and undergraduate student Rachel Herron (Geography).

Anisa Zehtab-Martin,

Where is the 'warmth of welcome' for immigrants and refugees in northern BC?

UNBC, Geography Program

Profile Anisa Zehtab-Martin

Masters of Rural Development program (MRD) at Brandon University

B.A in Sociology Brandon University 2003 BU Rural

She belonged to the Rural Development Institute (RDI) at the Brandon University.

Currently is Associated Researcher UNBC, Geography Program.

NETHRN-BC

Aleck Ostry, Ph.D

Associate Professor

Canada Research Chair and

Michael Smith Foundation for Health Research

Senior Scholar

Faculty of Social Sciences

PO BOX 3050

University of Victoria

Victoria, BC

V8W 3P5

Phone: 250-721-7336

Fax: 250-721-6216

e-mail:ostry@uvic.ca

Neil Hanlon, Ph.D

Geography Program

University of Northern British Columbia

Prince George, BC

Canada V2N 4Z9

Phone: (250) 960-5881

Fax: (250) 960-6533

Email: hanlon@unbc.ca

Web: http://web.unbc.ca/geography/faculty/neil

Greg Halseth, Ph. D

Canada Research Chair in Rural and Small Town Studies

University of Northern British Columbia

Prince George, B.C.

Canada V2N 4Z9

Phone: (250) 960-5826

Fax: (250) 960-6533

Email: halseth@unbc.ca

Web: http://web.unbc.ca/geography/faculty/greg/