



# Strategic Initiative in Rural and Northern Health Research: Canadian Institutes of Health Research

*Submitted to  
The CIHR Governing Council*



**Prepared by**

Renée F. Lyons, Special Advisor to the  
President of CIHR and Professor,  
Dalhousie University

Paula Gardner, CIHR Research  
Assistant and Graduate Student,  
Dalhousie University

Ce document est disponible en français

November 2001

## **CIHR Strategic Initiative in Rural and Northern Health Research**

**Mission:** To support research and knowledge translation activities that will contribute to improvements in health status, health systems and health human resource utilization in rural Canada (See Appendix A for a description of these three foci.). A core unit of analysis is the geographic community with a focus on *building healthy rural communities*. The goals are research integration, impacting policy and practice, increasing research capacity and output, and becoming a world leader in rural and northern health research.

**Vision:** To apply bold, new approaches to health research and rural health research that will build on the strengths of rural culture and rural communities to make health a major benefit of rural living.

**The Importance of Rural and Northern Health Research:** The health of rural Canadians is a priority of the Government of Canada and a strategic priority of CIHR. Canada's rural population (nine million people – 33% of the population) is scattered across 99.8% of the second largest nation on earth. Canada's culture, identity and economy are firmly based on the need for sustainable rural communities. At least forty percent of Canada's exports are derived from natural resources and the most basic components for urban living (e.g., food, water, energy, building materials, respite) are intimately linked to rural communities. Yet, these communities have experienced enormous change in socio-economics, demographics, and their place in the Canadian landscape.

Good health and access to health care are central to sustaining rural communities, and it has been increasingly recognized that many urban-centric policies and practices have not benefited rural and northern communities. Across the country, rural citizens have repeatedly identified the need to take bold steps to improve rural health systems and health status. New, 'rural' approaches are required. Excellence in research can make substantive contributions to rural health, and to healthy public policy at all levels from the community to the federal government. Canada can become an international incubation center and world leader in innovations to improve rural health status and health service.

**Strategy Development Processes:** CIHR has taken several steps to develop a national strategy for rural health research and to establish this area as one of its first major cross-cutting themes. These steps have included:

1. Development of a multi-disciplinary menu of rural research topics involving all thirteen CIHR Institutes;
2. Development of a National Steering Committee to help draft the strategy
3. Organization of a national forum on rural health research in St. John's, Newfoundland, September, 2001;
4. Review of rural research policy and infrastructure in the US, Britain and Australia
5. Development of a CIHR research competition on Diagnostic and Integrative Studies in Rural Health, August, 2001; and
6. Consultations with researchers, clinicians, community members, agencies and granting councils to examine the potential focus, strategies and partnerships (see Appendix B) for a strategic initiative in rural and northern health.

## **Principles to Guide the Development of Rural and Northern Health Research:**

During our consultation process, several key principles emerged to guide our thinking on research in rural and northern health:

- It is time for Canada to “catch up” regarding *attention to rural health issues* and rural populations.
- Develop a strong *determinants of health* approach to health research and rural communities. This approach must be the core ingredient of a rural health research agenda. The sustainability and socio-economic status of rural communities are intimately connected to health status and health service.
- Use research knowledge to *build healthy communities* and to increase community capacity and self-empowerment for health.
- Build upon and strengthen *existing* research initiatives and infrastructure.
- Ensure that the *Canadian Institutes of Health Research* promotes rural health as a focus of research and as a unit of analysis.
- Researchers should collaborate with rural and northern communities to develop *relevant research*. Also research should provide for a strong *participatory* approach. Clear *communication and solid linkages* with rural health-related policy-makers and with practitioners should be developed.
- Knowledge must be shared with communities, not simply appropriated
- *Consult* a broad range of Canadians on research agendas and strategies.
- Develop strong *linkages* with the international rural health research community.
- Include opportunities for *student training, dissemination to the user community, and policy uptake* as key elements in calls for research proposals.
- Provide opportunities for *multi-disciplinary* approaches to rural health issues.
- Encourage collaboration between health researchers in *large and small universities*.

## **Research and Knowledge Transfer Strategy**

*Note: The primary focus of this agenda is improving the health status of vulnerable populations; however, many of components of this strategy include building international leadership, integrating disciplines, and strengthening health research and health systems.*

### ***Improving the health status of vulnerable populations***

#### **Capacity building in rural health research**

Unless action is taken to improve health status and health services, Canada’s rural communities are at risk of demise, irrespective of economic sustainability. If we are to move from ‘crisis to opportunity’ in Canada’s rural communities, the health research infrastructure must be remodelled so that research can play a more central role in health planning and development. Proposed initiatives (details provided below) for a national rural health research strategy include: a Canada Rural Communities Cohort Study to gather health status and health service data in leading and lagging communities and to provide an integrated tool for community health assessment and decision-making; a linked set of Rural Health Research Shops to capitalize upon existing research centers to support research on niche areas such as health policy innovations, primary health care, mental health, tele-health, and occupational health; a Rural Community Alliance for Health Research initiative to build partnerships between community groups and university researchers; and a RuralNet program that supports research

network development, and knowledge translation through a major e-portal demonstration project.

Goals:

- Redress the lack of a research base to improve rural health systems, and the determinants of health in rural remote and northern communities
- Provide knowledge integration and rural health research capacity building around focused research themes that link to CIHR Institute goals and community needs; e.g., access to good food choices in rural Newfoundland
- Contribute to research training opportunities, health policy research, knowledge translation and research syntheses around key issues such as intensive agricultural production, and early screening of risk factors for chronic disease
- Increase the benefits of health research for rural communities: pilot sites, best practices, and relevance to smaller to communities
- Provide a venue for the integration of the biomedical, natural and social sciences engineering, mathematics and the humanities; e.g., use of “distance” technologies in assessment and treatment of cardio-vascular disease and cancer
- Provide opportunities for researchers to work collaboratively on a national and international basis
- Link research with policy and action to dramatically improve policy and practice uptake
- Provide a useful pilot for CIHR’s knowledge translation secretariat by connecting Canadians intimately to the health research enterprise of CIHR
- Strengthen health research and health systems in Canada and internationally

**Strategies:**

## **1. The Canada Rural Communities Cohort Study**

A cohort of Canadian rural communities will be selected for gathering longitudinal health status and health service data in leading and lagging communities. A **healthy rural communities assessment protocol** will be designed to document and evaluate determinants of healthy rural communities and the presence of a core set of health services. This protocol will be a multi-disciplinary effort, integrating expertise across the physical and social sciences. We may capitalize on the 32 rural community cohort developed by the Canadian Rural Revitalization Foundation as an initial base. This initiative will contribute to the development of a multi-disciplinary research, assessment, and planning tool that assists communities in examining health systems, clarifying and addressing the determinants of health, in identifying health gaps and setting priorities. This study and the survey protocol will help Canada establish itself as an international leader in rural health research through national excellence in health research. It will also provide an excellent base for research training.

## **2. Rural Health Research Shops: A Centre-Focused Research and Development Awards Program**

It is recommended that CIHR spearhead the development of a linked set of rural health research units with specialized expertise that capitalizes upon existing research centers. Niche areas will include: health policy, service innovations, health promotion/primary health care, tele-health, occupational health, health human resource development, aging and rural life, rural

palliative care, mental health services and outreach rehabilitation, etc. These research units will follow the European science shops model, in which university research centres are increasingly accessible to communities and policy-makers to help address key rural health issues. For example, several recent studies of cancer and cardio-vascular disease outcome show substantive disadvantages for rural residents; however, many of the prevention and treatment factors are modifiable through uptake of best practice guidelines. Often special techniques need to be developed to communicate research findings with rural health professionals and to apply findings in non-urban settings. A linked set of research centers can provide a valuable conduit to communities on best practices. Communities can consult on health issues, and seek advice and support in developing projects or developing policy. The Rural Health Research Shops will develop research training opportunities for students and faculty through collaborative research projects and training programs/internships. This initiative will be a linked incentives research program with 25-50% funding matched with CIHR Institutes, government, or NGO's (See NIH's P30 – Core Centre Grants). Although no funds are provided for direct support of major research projects, a center grant helps to integrate and promote research in existing projects. Grants would be awarded competitively for up to five years. This support is intended to enhance the productivity of research grants at the institution and thereby improve the research capability of the community and the health of people in rural communities. The applicants can be an institution or consortium of institutions. Proposals must include one or more rural community partners.

This initiative provides integration and rural health research capacity building around focused research themes that link to Institute/agency goals and community needs. It contributes to research training opportunities, also to health policy research, knowledge translation and research syntheses around specific themes. It provides for the production of integrated research reports together with meetings of researchers/partners. It develops and strengthens linkages among research centers in Canada, and directly increases the relevance of health research to Canadians.

### **3. Community Alliances for Health Research: Rural and Northern**

Modelled on CIHR's Community Alliances for Health Research (CAHR) and SSHRC's Community-University Research Alliances (CURA), this initiative will build partnerships between community groups and university researchers by defining a research and training agenda of mutual interest. Co-Directors must be a university and a community partner. Rather than focusing initially on multiple collaborations, this initiative focuses on a solid partnership between a few groups and builds collaboration from there. A strong knowledge translation component/policy component of national significance must comprise the collaboration. An international partnership is encouraged. This initiative provides a research program that seriously encourages university-community partnerships and supports the concept of the science shop around specific research ventures.

### **4. RuralNet**

The RuralNet initiative calls for the development of linkages among researchers in Canada and other countries, and strengthens knowledge translation with the public, practitioners and policy-makers in Canada.

**a. Linking Researchers** – Development of a fund to support national and international research network development, including hosting a World Forum on Rural Health Research within the next 3 years. This fund would support bringing the best minds to Canada and to

reach out to other countries with efforts such as international research roundtables (researchers meet to exchange research strategies and to collaborate on rural health policy issues).

**b. Linking Research with Policy and Action** - Effective knowledge translation is an essential component for all research. It may be particularly important, however, for rural health research and this area provides a useful pilot for CIHR's knowledge translation secretariat. An interactive web-based demonstration project on rural health research knowledge translation (the CIHR e-portal project) is proposed, including research findings, synthesis work, current research underway, a rural health researcher data base, and links to Canadian and international sites (using the Aboriginal website in Australia as a model.)

These initiatives dramatically improve research capacity development, and the dissemination and translation of research, including policy makers, to the benefit of rural communities. They connect Canadians intimately to the health research enterprise of CIHR.

## ***Building international leadership through national excellence in health research***

### **Research Training and Career Development**

Given that Canada is the second largest country in the world with significant differences in rates of mortality and morbidity in rural and urban communities, Canada needs to foster a new generation of researchers that can address salient rural and northern health research questions across the four pillars. The proposed Rural Health Post-Doctoral Awards Program contributes to addressing this need.

Goals:

- Expedite recruitment of rural health researchers and health researchers interested in increasing the impact of their work in rural communities or interested in using the unique characteristics of rural populations for research (e.g., genetics, aging, water quality).
- Increase opportunities for clinician-scientists and research training in rural communities

***Strategy:***

### **5. Rural Health Post-Doctoral Awards Program**

Paramount to the goal of increasing capacity is the facilitation of an academic culture that supports rural research. The development of a rural health focus through post doctoral training in established health research centres will facilitate the recruitment of both rural health researchers as well as health researchers interested in increasing the impact of their work in rural communities or interested in using the unique characteristics of rural populations or communities for research (e.g., genetics, aging, water quality). One or more Centres could propose a linked Rural Health post-doctoral position wherein the student supervision is shared between the two institutions, fostering collaboration across large and small universities. These post-doctoral positions might include a research residency in a rural community. This initiative increases the capacity (skill sets/numbers) of Canadians to conduct research to improve health status and health services in rural communities.

## ***Unique challenges: Building a strong foundation for rural and remote health within the CIHR***

### **Building a strong foundation for rural and northern health in Canada and within CIHR**

In contrast to the United States and Australia, Canada does not have a long and substantive tradition in rural development, rural health or rural health research. Consequently, Canada has been slow to adopt innovations in rural health systems. There is growing evidence of a rural health “crisis” and recognition that Canada must show stronger leadership in this area. Together with recent national and provincial attention to rural Canada, there is a need to create a mechanism within CIHR that develops and manages a coherent, national strategy in rural health research. This initiative proposes the establishment of a secretariat that can foster rural health research development, knowledge translation, partnership development and funding opportunities.

#### **Goals:**

- Provide an integrated approach to rural health research and knowledge translation
- Identify and act on a research issue of national concern that resonates with all Canadians
- Deliver partnerships to Institutes and provide incentives for partnering
- Assist the 13 Institutes to include rural (focus, methods, knowledge translation) in their strategic plans.
- Establish a solid financial foundation for rural and northern health research

#### ***Strategy:***

### **6. CIHR Rural Health Secretariat**

The establishment of a secretariat is proposed to foster rural health research development, knowledge translation and policy uptake, partnership and funding opportunities; also, to provide a rural lens for CIHR to promote rural health research and to assess its progress in capacity building. The secretariat should be provided with staff and an advisory board (includes leading researchers, Institute representatives, key partners and rural citizens) and budget (see attached). The need for rural-specific infrastructure within CIHR is clear considering the challenges in rural research related to the increasing number of rural researchers, the integration and use of research, partnership development, and funding.

### **Workplan Overview**

This strategy is a five-year initiative, with the initial year primarily involving the design of each of the specific strategies. Workgroups will be developed for each strategy, and include members of CIHR Institute Advisory Boards. Another key function of Year 1 is the development of partnerships to launch these initiatives; e.g., Health Canada, SSHRC and the Rural Secretariat. The fifth year will involve extensive evaluation of this strategy with respect to processes and outcomes for rural health, as a model CIHR strategic initiative, and to recommend next steps. Initiatives should commence primarily at the same time to facilitate the review process, the development of national linkages with each initiative, and knowledge translation. The budget follows. It is proposed that Year 1 commence April, 2002.

# RURAL HEALTH STRATEGIC INITIATIVE COST OF IMPLEMENTATION

Sub Program	Year 1	Year 2	Year 3	Year 4	Year 5
	Budget (\$K)	Budget (\$K)	Budget (\$K)	Budget (\$K)	Budget (\$K)
1. Canada Rural Communities Cohort Study	*	1,500	1,500	1,000	*
2. Rural Health Research Shops (13 x \$ 100K/yr.)	*	1,300	1,300	1,300	*
3. Community-University Research Alliances-Rural & Northern Research (12 x \$ 100K/yr.)	*	1,200	1,200	1,200	*
4. Rural Health Post-Doctoral Awards (8 x \$ 50 K per year over 2 years (\$100K) yrs. 2 & 3 (8 x \$ 50 K per year over 2 years (\$100K) yrs. 4 & 5	*	400	400	400	400
5. Rural Net Program: A. Linking Canadian and International Researchers B. Linking Research with Policy and Action (KT)	*	*	*	*	*
6. CIHR Rural Health Research Infrastructure (Rural Secretariat)	2,000	2,500	3,000	3,200	3,400
<b>Total Budget</b>	<b>2,000</b>	<b>7,700</b>	<b>7,440</b>	<b>7,140</b>	<b>3,840</b>

\* Start-up, planning, evaluation, partnership development, dissemination from #6 funds.



## **Appendix A**

### **Research Foci**

A content analysis of the CIHR Rural Health Menu and St. John's Forum results indicated the following three major themes: Understanding and Improving the Health Status of Rural Populations, Redesigning Health Systems that Work for Rural and Northern Communities, and Making Efficient and Effective Use of Health Human Resources in Rural Canada.

#### ***1. Understanding and Improving the Health Status of Rural Populations***

Research that provides a clear picture of the health status of rural Canadians is critically important to planning and decision-making at all levels. What are the consequences of health status for rural communities? Which determinants of health are the most significant predictors of health outcomes in rural areas? What are the health beliefs of rural Canadians and how do these beliefs affect health? Particular attention should be paid to health determinants research that examines issues of the environment, transportation, job/income, and the personal health practices of rural Canadians over the lifespan.

##### **Components**

- Health status of rural populations and its determinants, including prevalence rates and mortality/morbidity changes over time; e.g., asthma and allergies, disability and functioning, Aboriginal people's health, nutritional status, diabetes mellitus, renal disease, hepatitis, distribution of musculoskeletal conditions, rural elders
- The positive aspects of rural living
- Environmental factors including: food, water and air safety, environmental toxins and living situations (sewer systems, housing) and their impact on health, and environmental determinants of health and illness; e.g., musculoskeletal health, arthritis, skin conditions, dental health
- Policies and practices that impact health; e.g., access to good food
- Health-related practices (e.g., early infant feeding)
- Strategies to address the special demands of weather and terrain on service delivery and design (mobility equipment, carrying supplies, food storage)
- Collective solutions to serving needs; e.g., rural elders
- The costs of obtaining health care and of engaging in health-related behaviors in rural communities (e.g., dental care, eye care and hearing resources)
- Gender inequalities and health in rural areas
- The effect of rural living on health and development; e.g. children and adolescents
- Rural and northern work environments and health status

#### ***2. Redesigning Health Systems that Work for Rural and Northern Communities***

Bold, new approaches to the health system in its broadest sense are required to improve service. Issues such as healthcare quality and access to service from prevention to community care, occupational health and safety and tele-health require particular attention. Appropriate benchmarks for service delivery in rural areas must be developed. Monitoring of service and uptake of innovation require examination. What do rural residents do when they get sick? How do rural communities mobilize resources to deal with illness, to keep healthy? How are

outcomes confounded by service deprivation? Access to health services will never mirror communities with large concentrations of people; therefore, promotion and prevention initiatives must be substantive components of health service.

### **Components**

- Research and policy uptake for alternative delivery strategies: traditional Aboriginal medicine; tele-health; outreach services (e.g., rehabilitation, diabetes services)
- Best practices in primary care, prevention and health promotion (maternal health and pregnancy, tobacco control, nutrition and obesity, injury prevention, physical activity (inclusive - older adults))
- Benchmarks, outcomes and performance indicators of health
- Youth health (prevention/health promotion)
- Rural work environments and their hazards to health (circulatory and respiratory conditions) – Quantifying understanding, preventing and treating occupational disease and risks.
- Optimal strategies (effective, efficient, acceptable) in rural communities for Prevention, screening, diagnosis and treatment/management of conditions such as the following: STD's, HIV, AIDS, hepatitis, rabies, mental health and addictive and compulsive behaviors, workplace, home and recreational injuries, breast cancer, FAS, colorectal cancer, prostate cancer, diabetes, disability, TB and respiratory infections, post transplantation monitoring, chemotherapy school based care, mental health and illness services
- Supportive and community care (e.g., palliative care)
- Specific barriers to quality care (e.g., liver disease) – health care providers, counselling and support, access to lab facilities, access to specific procedures, access to inpatient or outpatient facilities.
- Dealing with the relation between distance and early, appropriate interventions
- Access to health information for rural-dwellers (cancer prevention, screening, opportunities to participate in clinical trials, treatment options, supportive and palliative care)
- Improved access to health services for marginalized groups in rural communities
- Tele-health – what infrastructure availability and support in rural and remote communities is necessary for “e-health”?
- The infrastructure support required for health service (e.g., transportation, housing, recreation facilities)

### **3. Making Efficient and Effective Use of Health Human Resources**

Of particular importance in rural areas are training and the availability (recruitment/retention) of health-related human resources. What training and community conditions support rural health service and attract the human resources needed to sustain rural communities and improve health outcomes?

### **Components**

- Increased access to health professionals, including specialist services
- Recruitment and retention of health professionals
- Models of health care resource utilization and effects on costs and treatment outcomes
- The conditions in rural communities that motivate health professions to live and work there

- Access to information/ best practices by rural health care workers
- Development of specific skill sets for rural populations and specific health conditions
- Public expectations of health professions and human resource distribution
- The evolving role of informal and voluntary care
- Lack of housing and other infrastructure gaps in northern areas for health professionals
- The effect of professional practice (boundaries of service) guidelines on health service availability and quality

## **Appendix B**

### **Potential Partnerships – Rural Health Research and Knowledge Translation**

- Health Canada (Office of Rural Health/Minister's Advisory Council on Rural Health)
- Canadian Consortium of Rural Health Research
- Social Sciences and Humanities Research Council of Canada (SSHRC)
- Canadian Rural Partnership - Rural Secretariat/Rural Caucus
- Industry Canada
- Society of Rural Physicians of Canada
- Canadian Rural Revitalization Foundation
- Federation of Canadian Municipalities
- Canadian Federation of Agriculture
- Canadian Institute for Health Information
- Canadian Population Health Initiative
- Federal-Provincial Health Advisory Committees
- Ontario Rural Council
- Canadian Health Services Research Foundation
- Alberta Heritage Foundation for Medical Research
- Canadian Consortium of Health Promotion Research Centres
- Canadian Public Health Association
- Canadian Centres of Excellence - Women's Health
- Canadian Medical Association