

Delivering Rural Health and Social Services: An Environmental Scan



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INTRODUCTION

This paper provides ideas for how health and social services may be delivered in rural and remote areas in general, with a focus on seniors where possible, and is the result of an international scan that includes the U.S., United Kingdom and Australia. It is intended to provide food for thought and to trigger ideas rather than recommend specific solutions.

Overall, the key challenges in providing health and social services in rural areas can be summarized as:

- Scarcity of local medical and social service resources.
- Distance between patients, physicians and facilities.
- Difficulties in recruiting and retaining health professionals.

This paper looks at initiatives that overcome the first two challenges – scarcity and distance. It does not address the difficulties of recruiting and retaining health professionals as this is primarily a responsibility of the provincial government.

It is organized as follows:

- An overview of the issues.
- Policy and planning resources – broad-based initiatives such as best practices.
- Some alternative models for delivering rural health care – such as co-operatives or regional centres.
- Using technology across the spectrum of health and home care – from the telephone to videoconferencing.
- Rural transportation – such as the coordination of existing resources.
- Information networks and resources – such as the Collaborative Seniors Portal Network or Pennsylvania Rural Access Guide.
- Selected initiatives in the non-profit sector – such as enVision.ca or the Rural Philanthropy Resource Network.

OVERVIEW OF THE ISSUES

Both the Kirby Report and the Romanow Commission include a chapter on health care issues in rural and remote communities.¹ They point out that:

- Geography is a determinant of health – the health of a community tends to be inversely related to the remoteness of its location.

¹ Nagarajan, K.V. (2004) Rural and remote community health care in Canada: beyond the Kirby Panel Report, the Romanow Report and the federal budget of 2003. *Canadian Journal of Rural Medicine* 9(4): 245-51, accessed March 21, 2006 from http://www.cma.ca/index.cfm/ci_id/41975/la_id/1/print/true.htm

- The vastness of the landscape and the large number of people living in rural and remote communities make it difficult to ensure that all Canadians have access to health care resources regardless of where they live.
- There are disparities in urban-rural health status.
- Rural communities are as diverse as urban ones and not a single homogenous population, there is no "one size fits all".
- Rural populations are declining as young people leave looking for other opportunities.
- Rural populations suffer higher unemployment levels and lower education levels than people in the rest of the country.
- Seniors, children and youth under 20 years of age are over-represented in rural areas.

From the same paper, issues to consider when thinking about rural health services include:

- What is "adequate access"?
- The need for effective linkages with larger centres.
- Special challenges facing those in smallest and most remote communities where the numbers are too small to sustain even basic services.
- Predominance of urban approaches to rural communities.
- Lack of research and gathering of evidence for improving health and health care in smaller communities.

POLICY AND PLANNING RESOURCES

Best/leading practices

Policy Recommendations, International Rural Aging Project

At a forum held as part of the International Rural Aging Project 1997-2004 (and sponsored by the West Virginia University Center on Aging in collaboration with the UN Programme on Ageing, the WHO and the International Association of Gerontology), policies on rural aging were developed through a series of workshops. The conclusions and recommendations for *Policies on Rural Aging in the First Decades of the 21st Century*, were endorsed by a Plenary Session of the International Conference on Rural Aging, June 11, 2000, Charleston, West Virginia.²

The paper made recommendations on healthy and active aging; productive and self-fulfilling aging; education, participation and rights; information and research; advocacy at the policy-making level; and policy implementation. It also outlined the components of successful model policies and programs, as follows.

² Available from the West Virginia Center on Aging/Publications, accessed March 27, 2006 from <http://www.hsc.wvu.edu/coa/publications.asp>

Components of successful model policies and programs

The components of successful policies are identified in terms of the roles and responsibilities of (a) local providers and volunteers, and (b) governments.

Roles and responsibilities of local providers and volunteers in successful models:

- Community and regional models for serving rural older people should be built from the bottom up.
- Recommendations:
 - professionals who understand the culture, concerns and needs of older rural people;
 - professionals who incorporate the concept and practices of prevention into their service delivery and are able to promote self-reliance and self-care;
 - services that are integrated and coordinated so that health care, for example, is provided in the context of social and economic support and in keeping with socio-economic circumstances; and
 - service delivery mechanisms and decision-making that are locally based and adapted to the needs and circumstances of the people and communities they are designed to serve.

Roles and responsibilities of governments in successful models:

- Roles and responsibilities of different levels of government should ensure equitable policies and allow the concept of aging in place to be a viable choice for older people.
- Recommendations:
 - equitable and adequate funding of health and social services for rural elderly;
 - support for local innovation in increasing the effectiveness and efficiency of services that reach rural areas and communities, and support of services that rely on the development of local resources; and
 - investment in developing reliable support systems, such as transportation, housing and community infrastructure, and promotion of cost-effective home-based and community-based services and benefits.

Rural transportation systems are an essential service for older inhabitants in rural communities (see Transportation below for examples).

Best Practices in Service Delivery to the Rural Elderly, West Virginia

The report, *Best Practices in Service Delivery to the Rural Elderly*,³ was presented by the West Virginia University Center on Aging to the U.S. Administration on Aging for their 2003 Report to Congress. It contains a compilation of chapters addressing different aspects of rural aging.

Major barriers to delivering services to the elderly in rural America include:

³ Available from the West Virginia Center on Aging/Publications, accessed March 27, 2006 from <http://www.hsc.wvu.edu/coa/publications.asp>

- economic deprivation – the rural elderly are more likely to be poor
- geographic isolation combined with shrinking of transportation and other infrastructure mean travelling is a challenge
- erosion of human service infrastructure
- diseconomies of scale

Plan of Action on Rural Aging

One of the more relevant chapters discusses policy recommendations from the Plan of Action on Rural Aging (PARA), which consisted of six demonstration projects in rural counties of West Virginia and Ohio. Projects focused on needs such as transportation, caregiver support systems, housing, health promotion, and wellness. Performance outcome measures were used to distill best practices from each of the projects.

Based on these demonstration projects as well as the contributions of national experts on rural aging, the author makes the following points.

- Four major features of best practices models are:
 - New and innovative programs are developed to serve clear, unmet needs.
 - Programs bring together new fiscal packages and funding streams integrated to support the programs.
 - New agency coalitions and partnerships emerge, which did not work together before, to shape the service delivery system of the program.
 - Program evaluation outcome measures are developed to assess the impact of the program on clients receiving services and benefits.
- Economic development infrastructure precedes service delivery – viable and effective service delivery is dependent on it.
- Health care programs and social services support local economies by providing jobs and upgrading the skills of the local work force.
- Staffing, planning and program delivery need to be more coordinated and integrated, and this should occur at the local level with support (rather than direct intervention) from upper levels of government.
- Geographic isolation, weak economic systems, lack of access to service, and paucity of service providers are among the challenges. Services need to be based on principles of equity, choice and quality. Best practices in rural service delivery require inducements and incentives that may not be necessary in urban areas.
- Groups concerned with rural aging at all levels need education and training – families, older persons themselves, professionals and paraprofessionals, the public.
- Community and regional models for serving rural older people should be built from the bottom up.
- Stimulate the political will of political leaders and decision makers in rural aging issues.

- Among the most important factors in assuring access to services in rural areas are identification and maximization of existing resources. For example:
 - Volunteers are a valuable potential resource who, with specialized training, can provide basic needs and support services.
 - Some kinds of health care providers may be underutilized, e.g. pharmacists can service as a link between physician and patient for information, education and support

Planning services

Another chapter on rural elders' needs discusses planning services. When designing and implementing programs for rural elders, planners should consider:

- Three distinctive features that will affect how a program is modified to respond to local needs:
 - Distinctive features of the population to be served
 - Distinctive features of the social and physical environment in which the population lives
 - Distinctive features of providing services to that population.
- In addition, planners should consider the following (often identified as the "five As").
 - Accessibility – how will people get to and from the program?
 - Affordability – are there adequate resources to fund the program, and if there is cost-sharing, can potential service users afford to pay?
 - Acceptability – does the program fit with local culture, attitudes, and existing systems of care?
 - Appropriateness – does the program truly meet the need it is intended to meet?
 - Awareness – how will information on and referral to the program be provided?
 - Sustainability – is the program likely to have a long-term impact that can be supported over the long haul?

Examples of successful programs include:

- Caregiver education that involves public health nurses and church parishioners. The program used local churches in a "parish nurse network." Churches donate space for a program staffed by 12 volunteer RNs who regularly provide health and wellness information, education, referral, blood pressure screening etc. The church does not provide the service but works with and legitimizes it. The program was originally a collaboration between an AAA (Area Agency on Aging; there are 655 AAAs across the U.S. whose mandate is to provide services which make it possible for seniors to stay in their homes), local churches and health and social agencies, covering nine counties and 4,800 square miles. In 2001 the program was run by an individual and had sites in hospitals as well as churches.
- Transportation using paid "volunteer" neighbours and friends rather than a fixed van approach. Volunteer drivers are recruited from each township to provide transportation for the elderly in those townships, e.g. for medical appointments, emergency transport, hospital visitation and necessities

(shopping). All drivers carry “no fault” insurance and the AAA carried additional liability insurance. The program has 150 volunteers, one half-time paid coordinator, and serves one county of 650 square miles. In 2001 the program was still functioning and busy. Drivers are all volunteers and paid for mileage.

- Mobile screening – Care-A-Van. The county health department, AAA and three hospitals worked to get state funding to buy a 28-foot RV which was equipped to provide health checks such as blood pressure, vision, hearing, glaucoma in rural communities. The objective is to provide health screenings, identify isolated elders, and increase the visibility of health programs and outreach efforts. The two staff, an RN and a LPN, serve 800-900 clients per year.

Using technology

A chapter on the use of technology to inform, educate and serve rural areas points out that, like much of the non-profit sector, the aging network has lagged behind other sectors in capitalizing on technology to inform, educate and reach out to elders. The authors cite telemedicine (or interactive televideo – ITV) and the Internet as being of particular important for rural and remote areas (see also Technology below). Applications include:

- Home care – one of the fastest growing telehealth contexts – includes
 - Telemonitoring devices that allow health care providers in a central office not only to see patients in their homes but also to monitor vital signs, listen to heart sounds, monitor the setup and administration of medicines etc.
 - It is also possible to instruct and monitor patients and family members in treatment procedures and therapies. This means that a home health nurse can now see, assess and educate more patients in one day than was possible in a week of home visits in rural areas.
- Education – interactive televideo means education is more accessible for health professionals and the public
 - Rural providers can participate in continuing education programs, conferences, grand rounds presentations, and other educational programs without leaving their communities
 - Health promotion and health problem management programs can be provided for the public via interactive televideo, enabling rural residents to participate in health education, see demonstrations of exercises or therapies, and query experts who are far away.
- Information dissemination – via the Internet
- Case management – technologies that facilitate client and case manager contact are becoming more common. The Silicon Valley Council on Aging and the Health Hero Network recently launched an interactive technology to monitor the health of frail elderly. The Health Hero platform, Health Buddy, is a small box with a screen that hooks to the telephone and utilizes telephone lines. A little larger than a caller ID box, the Health Buddy displays questions about the elder’s health status posted by a case manager via the Internet. The elder can answer each question by pushing a button and the responses are transmitted to the case manager’s computer. Based on the responses, the case manager may recommend a change in behaviour, educate the client, or refer him or her for follow-up.

Caregivers for the rural elderly

A chapter on issues concerning caregivers for the rural elderly points out that rural elders are less likely to have an adult child to help them than their urban counterparts, and are also less likely to have formal services available to supplement informal care.

Other issues that affect rural caregivers' capacity to assist a relative or friend include the geographic distance between the caregiver and formal services, lack of knowledge regarding the services and/or eligibility for services, and the belief that service use carries with it a welfare stigma.

One suggested planning model for caregivers has the acronym "RURAL"

- R – relevance to the needs of caregivers
- Ur – unity with existing services and approaches
- R – responsiveness to the traditions of the community
- A – access that ensures hours, location and outreach enhance access to services
- L – local leadership included in the program and its outreach.

Some model programs:

- Information and training:
 - Oklahoma developed a Caregivers Connection in order to provide training about caregiver issues to area agency staff. Single access to respite care was developed and, using funding from the National Family Caregivers Support Program, a series of workshops conducted with caregivers to examine need.
- Outreach:
 - Central Savannah River Area Rural Day Care Program offers mobile adult day services in Georgia. The program offers adult day services and respite services to low-income elders on a schedule that takes the program as far as 50 miles away several times per week.
 - In South Carolina, the COPE program (Care Options and Public Education) provides respite care, information and assistance to low-income and minority families who are providing care for seniors with dementia. The respite is provided in-home, and the information and assistance provided by telephone by ElderLink Inc.
- Volunteer programs
 - The Robert Wood Johnson Foundation's Faith in Action Organization is a faith-based community effort that, with volunteers, provides home-based services to chronically ill residents.

Rural transportation

Though public policy encourages seniors to stay in their homes as long as possible, when they can no longer drive they face huge problems accessing both life-sustaining and life-enhancing services. Supplemental Transportation Programs for Seniors (STPs) have been successful in easing transportation problems for seniors in rural areas. STPs differ from other transportation

programs in that they reach older adults (85+) who have special mobility needs. STPs are organized to meet those needs through trip chaining, transportation escorts, door-through-door service and other methods of personal support. They take a range of forms and are usually affiliated with local community and professional groups.

Some examples of such community-based transportation systems:

- Shepherd's Center Escort of Kalamzoo, Michigan, is an interfaith transportation program sponsored by 42 churches. It provides rides for medical appointments only. It does not charge a fee but accepts donations from riders and service providers. Drivers who escort riders to doctor's offices and other medical services leave an information card about the program and its service to the community, thus giving service providers an opportunity to contribute to a cause in their best interest and the best interests of their patients.
- Jefferson County Service Organization of Oskaloos, Kansas, is a non-profit agency that is the sole provider of transportation in the county. It was founded in 1975 by a group of senior citizens looking for transportation for seniors not able to drive to medical appointments. Today, 85% of its riders are seniors. Although many riders still drive, they depend on the service for longer-distance rides to medical appointments. Since most rides involve long distances, drivers usually stay with passengers until they are ready to return home. In addition to providing transport, they also help schedule and record medical appointments, and help with shopping and carrying groceries and other packages.
- The Independent Transportation Network of Portland, Maine, is a non-profit local transportation program that services a mix of urban and rural seniors and the visually impaired. It is an automobile oriented program and includes owned and volunteer vehicles as well as paid and volunteer staff. It has build a voluntary revenue stream from members of the community who benefit when older people have mobility. Its approach includes gift certificates from adult children, a ride and shop program where merchants help pay for their customers' rides, a ride services program where private contracts are established with local churches and assisted living facilities, and a healthy miles program with health providers.

(See Transportation section for more examples.)

Rural Health Good Practices, U.K.

In the U.K, the Institute for Rural Health (a centre of excellence) has set up an online database of *Rural Health Good Practices*.⁴ This is intended to provide an easily searchable website for those organisations looking to improve service delivery and access to care for people living in rural communities.

A related initiative is the Rural Health Forum.

⁴ Accessed March 27, 2006 from <http://www.ruralhealthgoodpractice.org.uk/>

Rural Directions for a Better State of Health, Victoria, Australia

Rural Directions for a Better State of Health from the State of Victoria, Australia, provides an explicit framework for improving the health of rural Victorians.⁵ The framework has three broad directions, each of which contains a number of strategies.

- Direction 1: Promote the health and wellbeing of rural Victorians, with strategies that include a mix of illness prevention, health promotion, self-care and disease management.
- Direction 2: Foster a contemporary health system and models of care for rural Victoria with strategies that include:
 - implementation of a three-level configuration for rural health services, comprising local, district and regional (see “integrated area-based rural health services” below);
 - enhanced area-based service planning processes ;
 - capability-based planning frameworks to support local planning and decision making about appropriate levels of care (see below);
 - continued development and implementation of statewide specialty service development plans;
 - continued development of primary and community health services, including continued support of Primary Care Partnerships and service coordination; and
 - a framework to support further development of ambulatory care.
- Direction 3: Strengthen and sustain rural health services with strategies that include:
 - initiatives to improve recruitment and retention of a skilled health workforce;
 - improved processes to ensure clinical governance and financial accountability;
 - implementation of shared services models, supporting collaborative arrangements between health services;
 - increased health service capacity to meet growing demand and ensure local access;
 - enhanced physical infrastructure and equipment through improved asset management and continued investment;
 - ongoing funding reform to improve accountability and better recognise the cost of services in rural areas; and
 - better health information systems developed to improve patient care through capacity to transfer and share accurate information.

Integrated area-based rural health services

One of the strategies is for an integrated area-based configuration that features the types of services provided by each of three levels of rural service providers.

⁵ Access March 27, 2006 from Victoria Health,
<http://www.health.vic.gov.au/ruralhealth/hservices/directions.htm>

- Local health services:
 - in primarily smaller towns or communities;
 - key focus of local service delivery on those services that are provided most often, usually the high volume, low complexity services such as primary healthy services, management of chronic conditions, care of the aged (including LTC homes) and general medical services;
 - will be required to develop and strengthen collaborative arrangements and alliances with district and regional health services within the geographic area; and
 - includes three sub-groups: local health service – community care only; local health services; and local health services – metropolitan fringe.
- District health services:
 - in larger sub-regional towns and cities;
 - will have an enhanced role in the provision of primary and secondary care;
 - service characteristics include: medical and procedural care available 24/7, specialist and procedural services across a range of clinical areas; and
 - provider of clinical placements to support undergraduate education and training for medical, nursing and health staff as well as rotations for specialist nursing and medical training.
- Regional health services:
 - the key service providers and resource centers for each region;
 - responsible for meeting the needs of their own local community, and the more complex and specialist health needs of the wider population in their region; and
 - continued development will provide increased regional self-sufficiency and improve access to care by providing regional residents with access to more complex care closer to their own homes.

In addition to the above, specialist metropolitan hospitals provide high complexity tertiary and quaternary services to rural residents on a referral basis.

Capability-based planning frameworks

Capability-based planning frameworks can help health service providers in planning specific clinical areas, one of which is care for the aged. They are intended to help health service boards make informed decisions about the level of service appropriate for their agencies, both now and in the future. They facilitate a risk assessment and risk management approach to the provision of health care services.

Key features:

- The frameworks define the minimum standards and structures, protocols and service arrangements that need to be established to ensure service safety and sustainability.
- The ability of each health service to offer a service of a certain level of type then depends on their ability to meet these criteria.

- Specific criteria to be defined for each of five categories:
 - Identified community need
 - Clinical staff required – medical, nursing and allied health
 - Clinical guidelines
 - Quality standards
 - Infrastructure, equipment and support services
- Developed in consultation with health professional groups and service providers.

Service Delivery to Rural Elderly: Creating and Using a System of Care, Nebraska

In a 2003 presentation on *Service Delivery to Rural Elderly: Creating and Using a System of Care*, Keith Mueller of the RUPRI Center for Rural Health Policy Analysis, University of Nebraska Medical Center, outlines three policy questions and their corresponding answers.⁶

Policy questions:

- What are the implications of the changing composition of the rural population?
- Given the anticipated demand for services from the elderly, what is the most cost-effective means of responding to that demand?
- What level of government should respond to the demand, and how?

Policy answers:

- Need to plan for the population changes
 - building capacity
 - generating the workforce
- Assessment of options
 - assessment of needs among the elderly
 - assessment of capacity
 - cost-effective ways of generating capacity
 - public-private partnerships will be crucial
- Using devolution, locally-based approaches
 - expanded waiver authority in existing Medicaid
 - interest in increased role for private plans in public programs
 - Medicare initiatives defined by states and regions
 - services are locally-based.

⁶ Accessed March 27, 2006 from RUPRI/Recent Center Presentations, <http://www.rupri.org/healthpolicy/>

Including the rural voice in policy and planning

Methods to help ensure that the rural voice is heard when developing policies are to use a rural proofing toolkit (UK government) or rural lens (Canadian government) as a filter, or by applying the “five As” of rural service delivery.

Rural proofing toolkit for health services

In 2005 the UK government launched a new rural proofing toolkit for health services as part of the Rural Proofing for Health project conducted through the Institute for Rural Health.⁷

The aim of the Rural Proofing for Health project has been “to provide a resource for primary care organizations to help them consider the needs of people living in rural communities in order that all health care services are rurally sensitive and that there are no inequities in access to care.” It is intended to ensure that when healthcare services are commissioned, residents of harder-to-reach areas are not excluded from access just because of where they live.

The toolkit covers all aspects of health care, including primary care, community care, specialist services including mental health, and hospital care. It also covers areas often overlooked in planning health services, such as transport and access to services.

The first section of the toolkit describes the evidence base for rural health services. The second is the guide itself and covers six areas:

- Access to services/transport
- Primary care
- Community care
- Specialist services
- Hospitals
- Patient and public involvement

Each section provides some background, identifies a series of questions that should be answered in planning rural health services, suggests some solutions and provides a good practice example.

Solutions under community care include:

- Mapping the spread/sparsity/demographics of the population to establish how many people may be at risk of not having advice available
- Developing a system of multidisciplinary single unified assessment to enable a single professional to perform the assessment, which is beneficial in rural areas that experience a lack of staff capacity
- Engaging in regular liaison with other agencies.
- Investigating the possibility of role sharing.

⁷ Accessed March 27, 2006 from Rural Health Good Practices,
http://www.ruralhealthgoodpractice.org.uk/index.php?page_name=toolkit_menu

- Carrying out process mapping in partnership with other providers.
- Redesigning services to provide integrated multi-agency intermediate care services as close to people's homes as possible.
- Developing services for acute screening, diagnosis and treatment within the community where possible.
- Developing shared funding initiatives with other service providers.
- Developing a flexible approach to length of treatment packages, e.g. in intermediate care, for people living in remote areas further from support, to avoid the need for hospital readmission.

The Canadian Rural Lens

The Canadian Rural Partnership, launched in 1998, promotes greater consideration of rural concerns in the design of federal policies and programs. It encourages federal departments and agencies to scrutinize their policies and program through the Rural Lens. The Office of Rural Health, now under the Public Health Agency, was also established in 1998 in response to the federal government's commitment to apply a "rural lens" to federal programs and policies related to health.

There are two tools available to help federal officials assess the effect of their initiatives on rural Canada:⁸

- Checklist of Rural Lens considerations
- Federal Framework for Action in Rural Canada

The five As of rural care

When planning services for rural residents, particularly the elderly, several papers stress the importance of recognizing that the rural culture and needs are different from that found in an urban setting.

As noted previously in West Virginia's report *on Best Practices in Service Delivery to the Rural Elderly*, applying the five As of rural care will help planners reflect knowledge of and sensitivity to rural culture and issues.

- Accessibility – how will people get to and from the program?
- Affordability – are there adequate resources to fund the program and, if there is cost-sharing, can potential service users afford to pay?
- Acceptability – does the program fit with local culture, attitudes, and existing systems of care?
- Appropriateness – does the program truly meet the need it is intended to meet?
- Awareness – how will information on and referral to the program be provided?

⁸ Accessed from the Canadian Rural Partnership, March 27, 2006, http://www.rural.gc.ca/lens_e.phtml

Community economic development

One theme that underlies many of the papers is the need for community economic development as a means to build the capacity that enables a community to provide for, or organize, many of the services its rural residents may need. As noted previously in the Wet Virginia's paper on *Best Practices in Service Delivery to the Rural Elderly*, an economic development infrastructure is a pre-requisite for service delivery. In addition, the health and social programs support local economies by providing jobs for the local workforce.

Ontario Rural Council

The Ontario Rural Council (TORC) is a forum for rural dialogue, collaboration and action. Its members represent non-profits, the private sector, government and individuals with specific rural expertise.

The Rural Health Working Group works to ensure that the rural voice is heard by decision-makers, and to help harness resources and build capacity within rural communities. One of its resources is a documents titled "Rural Health Strategy: Community Planning Guide" (\$50).

Rural health features on at least two of TORC's recent or upcoming activities:

- A public information forum in February 2006 was on "Rural Health Works: Strengthening Rural Health Services through Local Development Strategies." It was presented in partnership with the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and the Ontario Co-operative Development Initiative Collaborative. Topics at this forum included:
 - Access to rural health care: community driven approaches
 - Health co-operatives (see also below, Alternative Models)
- Rural Development Conference 2006, to be held April 10-12 in Collingwood and sponsored by the federal and Ontario governments as well as TORC. It includes a workshop on "Innovative Delivery Methods in Rural Health."

Canada-Ontario Municipal Rural Infrastructure Fund (COMRIF)

The Canada-Ontario Municipal Rural Infrastructure Fund (COMRIF) is a five year federal-provincial-municipal program launched in November 2004.⁹ In the Ontario 2004 Budget, the Government of Ontario committed \$298 million to COMRIF. The funds are for capital projects to renew aging infrastructure in rural communities. The federal government has also committed \$298 million over five years.

COMRIF's priorities are listed as:

- COMRIF responds to local needs by making infrastructure improvements to provide clean, safe drinking water, better sewage systems, upgraded waste management processes, and safer roads and bridges. COMRIF targets "green" infrastructure projects to meet Canada's and Ontario's environmental objectives, while improving the health and safety of Ontario residents. Other priorities may include **public transit**; cultural, recreational

⁹ COMRIF, <http://www.comrif.ca/eng/default.asp?id=0>

and tourist infrastructure; environmental energy improvements; and **connectivity.**" (emphasis added)

The first two intakes have closed. Intake Three will be announced in spring 2006. While primarily targeted at municipalities, non-profit organizations can apply if they have a supporting resolution from the local government.

Innovative Rural Communities

While not specific to health or the elderly, the Innovative Rural Communities project is one approach to spur community development. It is a multi-year, collaborative project that was launched in the fall of 2003.¹⁰ The University of Guelph and the Ontario Rural Council are among the research collaborators. Funding sources include FedNor, HRDC, OMAF, Ontario Ministry of Municipal Affairs, and the federal Rural Secretariat, Agriculture and Agri-Foods Canada.

The rationale is that, in today's world, it is innovation and creativity that are drivers of change and that an economy based on natural resources, as is typical of many rural communities, faces significant challenges.

The project's goal is to use the knowledge of rural people and stakeholders to develop the conditions that enable innovation to flourish in rural communities. Tools to enhance community economic development through innovation include a *Framework for Innovative Rural Communities*, and a package of resources titled *Innovation Pathways – Tools for Rural and Northern Communities*.

SSHRC research

In the last year the Social Sciences and Humanities Research Council (SSHRC) has announced a couple of programs that support non-profits and local community development.

- Up to \$1 million into a partnership between university-based researchers and community-based non-profit organizations. A team of 58 Canadian and international researchers will be working to develop a set of tools to support social and economic development of Canadian communities in areas such as social and health services, community housing and tourism, as well as local and regional development.¹¹
- \$9 million to connect university researchers with non-profit organizations including those providing health services.¹² The funding will support five Canadian research networks: a central hub and four regional centres that will carry out research in partnership with local organizations. Of most relevance, perhaps, is the work of the research network in Atlantic Canada.
 - Ian MacPherson of the University of Victoria will oversee the national network.

¹⁰ Innovative Rural Communities, accessed March 27, 2006, <http://www.innovativecommunities.ca/frame1.asp>

¹¹ SSHRC News Release, April 7, 2005; http://www.sshrc.ca/web/whatsnew/press_releases/2005/fontan_e.asp

¹² SSHRC News Release, November 8, 2005; http://www.sshrc.ca/web/whatsnew/press_releases/2005/social_economy_e.asp

- Leslie Brown of Mount Saint Vincent University will lead the network in Atlantic Canada to study challenges facing the not-for-profit sector, including an aging population, First Nations' issues and youth unemployment.
- At OISE, Jack Quarter will lead the Southern Ontario research network (focus on organic farming, environmental, urban food security).
- Manitoba, Saskatchewan and northern Ontario research network, directed by Lou Hammond Ketilson of the University of Saskatchewan, will work with local grassroots and co-operative organizations (see later comments on health care co-operatives) to uncover regional success stories.
- Jean-Marc Fontan at the Université du Québec à Montreal will lead a team investigating how the social economy has strengthened Quebec society.

SOME ALTERNATIVE MODELS FOR DELIVERING RURAL SERVICES

Canada

Health care co-operatives

One potential way to organize rural health care may be through the use of health care co-operatives, particularly to run health clinics or for home care. Health care co-operatives have been operating in Canada since the early 1940s, primarily in Saskatchewan, Quebec and British Columbia though there are also a few in Ontario.¹³ The health care co-operative model is based on four principles: team-based medical practice; preventive medicine; periodic payment; and consumer control.

In some places (usually urban) health clinics are opened and managed by large commercial groups. These opportunities may not exist in rural areas, however. Cooperatives can fill this void by mobilizing individual and group stakeholders to provide services to its members through, for example, renting space to health professionals, hiring resources and providing access to those services. If physicians are included, their services are covered by the public health plan.

Health care co-ops have been used to ensure that minority language and cultural groups can access health care services in their language of choice, e.g. Multicultural Health Brokers Cooperative in Edmonton.

A Saskatchewan study of community-based health care models in general (not specifically co-ops) found that the per capita cost was 17% lower than for other types of practice, mainly because of lower hospital utilization rate.

According to the federal government's Co-operatives Secretariat, in 2002 there were 85 health care co-ops across Canada reporting to the Secretariat in four categories as follows:

¹³ Two reports from the Co-operatives Secretariat: *Health Care Co-operatives in Canada*, Trent Craddock and Naila Vayid, August 2004; and *Co-operatives and Health Care, A Report to the Secretary of State Andy Mitchell by the Minister's Advisory Committee on Cooperatives*, Members of the Working Group on Health Care, November 2002.

- Health clinic (10): common features include a focus on priority groups, integration of primary care and health promotion, importance of community development and participation, and use of multidisciplinary teams. They normally offer an alternative to the “fee-for-service” model, based on a salary system.
- Ambulance (7)
- Home care (49, up from 3 in 1997): almost entirely in Quebec, home care co-ops provide care mostly to elderly people in their own homes
 - employ over 2,500 people
 - annual revenues of over \$11 million
 - generally perform better in rural communities than large urban centres
- Other health (29): the only two health co-ops in Ontario are in this category

A couple of guides on setting up health care co-ops:

- Girard, Jean-Pierre, *Implementation of a health services co-operative: Factors for success and failure*, published by Co-operatives Secretariat, Canada and with help from the Community Economic Development Technical Assistance Program, January 2005.¹⁴
- Co-operatives Secretariat, *Health Care Co-operatives Start Up Guide*.¹⁵

Integrated rural palliative home care

A Canadian federal health transition fund project in 2001, *A Rural Palliative Home Care Model* describes the development and evaluation of an integrated palliative care program in Nova Scotia and PEI.¹⁶ Key elements of the integrated program were:

- Access and referral through a regional single point of entry
- A common palliative care assessment tool and a palliative home chart used collaboratively with all agencies and interdisciplinary team members.
- Coordination through an identified case manager for each client and family and weekly palliative care rounds.
- Care delivery by an interdisciplinary team, in consultation with the palliative care resource/consult team and the patient/family. One demonstration site provided enhancements in nursing, respite and medication coverage.
- Consultation/resource teams that included physicians and nurses and, in some site, social workers and pharmacists, to provide consultation and leadership in palliative care.

¹⁴ Available through a link at Co-operatives Secretariat, accessed march 28, 2006, http://www.carleton.ca/cedtap/whatsnew/files/Health_Study.pdf

¹⁵ Available from Co-operatives Secretariat, accessed March 28, 2006, http://www.coop.qc.ca/index_e.php?s1=guides&s2=health-sante&page=intro

¹⁶ *A Rural Palliative Home Care Model*, accessed March 28, 2006, <http://www.gov.ns.ca/health/downloads/Palliative%20Care.pdf>

- Community resource linkages to provide support in palliative care volunteerism, support for the acquisition of equipment and support in public awareness.

United States

Arkansas Aging Initiative

Arkansas is primarily a rural state and has devoted all the funds received under the Tobacco Settlement to health care. One of these initiatives is the Arkansas Aging Initiative (AAI) whose goal, as specified in legislation, is to:

... establish healthcare programs statewide that offer interdisciplinary educational programs to better equip local health care professionals in better care, early diagnosis, and effective treatment for the elderly population and that provide access through satellite centers to dependable healthcare, education resource and support programs for the elderly.

Seven regional Centers on Aging have been established under the AAI. These Centers are being developed by the Donald W. Reynolds Center on Aging in partnership with the Area Health Education Centers (AHEC), local communities and local and regional hospitals, and will provide programming for the entire region. Funds are allotted to each Center from the Tobacco Settlement funds; the AHECs are also paid an administrative fee to serve in a human resources capacity, paying salaries and other relevant expenses of the regional Centers on Aging.

Each Center on Aging consists of two components:

- A Seniors Health Centre that is developed by a local hospital, and offers the following services to older adults and their families:
 - primary care
 - specialty care
 - consultation
 - health promotion
 - coordination of care
 - rehabilitation
- A Center for Senior Education. From the \$2,000,000 earmarked for the Arkansas Aging Initiative, the seven satellite Centers on Aging each receive \$250,000 annually to develop education programs addressing the unique needs of older people and how they can be met.

Community Partnerships for Older Adults

Community Partnerships for Older Adults in the U.S. "fosters community partnerships to improve long term care and supportive services systems to meet the current and future needs of older adults."¹⁷ It is a national program of The Robert Wood Johnson Foundation and based on the principle that the best solutions develop from strong community partnerships.

¹⁷ Community Partnerships for Older Adults, accessed March 28, 2006, <http://www.partnershipsforolderadults.org/>

Specific target groups for the initiative are older Americans who are: (1) 60 years of age or older with an increased risk for disability due to poverty, race or ethnicity, chronic illness, or advanced age; and (2) older adults with physical or cognitive impairments requiring long term care and supportive services.

The initiative seeks to promote community generated solutions to improve community access to long term care and supportive services for vulnerable older adults as well as to promote a better quality of care within the community for older adults and their caregivers. The RWJF will provide funds ranging from \$150,000 to \$750,00 to approximately 30 communities through the Community Partnerships for Older Adults initiative. Communities compete for the funds; the second round of proposals has now closed.

An online Resource Center showcases the issues involved with creating, maintaining and sustaining a community partnership. It features advice on topics such as strategic planning, inclusiveness and diversity, partnership evolution and fiscal strategies.

Center for Rural Health Development, West Virginia

The Center for Rural Health Development is a private, non-profit organization in West Virginia created in 1994 to provide leadership on rural health issues.¹⁸ It serves as a technical assistance and resource center to improve access to health care services in rural and underserved areas of the state. The Center:

- administers the West Virginia Rural Health Access Program (see below);
- provides leadership for a multi-faceted program to provide access to health care services in rural communities; and
- administers grants from Robert Wood Johnson Foundation and Claude Worthington Benedum Foundation, which amounted to \$3.7 million in its first phase; now in its second phase.

The Rural Health Access Program involves work in five areas:

- a loan fund that helps provide capital for health providers equipment and facilities;
- recruitment and retention;
- rural health networks development – a key strategy – helps rural providers work with the community to develop systems of care that are accountable to the community
- leadership development, including training community health teams and promoting community health development leadership that brings residents together with health providers to determine local needs; and
- transportation, for example helping three pilot communities address transportation barriers to health care by better coordinating existing resources and developing collaborative relationships to address additional transportation needs. The goal is better utilization of existing resources.

¹⁸ Center for Rural Health Development, West Virginia, <http://www.wvruralhealth.org/>

Freestanding emergency departments

There are about a dozen freestanding emergency departments in the US but the trend seems to be growing according to an article in *ED Management*¹⁹. Freestanding emergency departments are identical to other emergency departments but are not physically attached to a hospital.

Freestanding emergency departments are one response:

- if the main emergency department is overwhelmed and additional capacity is needed to handle the overflow; or
- if a region or rural area is underserved but a new hospital cannot be justified economically.

Australia

Centres Promoting Health Independence, Victoria

In Australia, Centres Promoting Health Independence (CPHI) are a key element in the state of Victoria's policy for seniors, and will lead the implementation of *Improving care for older people: a policy for Health Services*.²⁰ The target population is older people and younger people who have multiple and complex needs, but CPHIs are available to anyone who needs sub-acute care and access to specialist diagnostic, therapeutic and rehabilitation services. Their goal is to be recognized as a centre of excellence and a "one-stop" resource for seniors' health care.

Their functions will be:

- To reduce the need for hospital admission by providing community-based therapeutic interventions
- To support the reintegration into their community of people who have been a hospital inpatient.

Where possible, each CPHI will provide a core suite of services from a single site. These services will include:

- Inpatient services: including rehabilitation and geriatric evaluation and management services.
- Sub-acute ambulatory care services: centre-based, home-based and the full range of specialist clinics
- Outreach services to the community, including diagnostic, assessment and information services
- In-reach: provided to the acute sector within Health Services and including consultancy services, education and training, and information resources.

¹⁹ Number of freestanding EDs up, helping ease overcrowding, serving rural areas. *ED Management*, Sept. 1, 2005.

²⁰ Available through Victoria Department of Human Services, accessed March 28, 2006; overview at <http://www.health.vic.gov.au/older/indepen.htm> and a fuller description at <http://www.health.vic.gov.au/older/presentations/cphi.pdf>

- Co-location with other services which will include, where appropriate:
 - Aged care assessment services
 - Psycho-geriatric assessment services
 - Program of appliances for disabled people program
 - Ongoing community support providers
 - Carers centers/seniors resource center
 - Case management/brokerage programs
 - Home and Community Care day centers; and
 - Health promotion programs

USING TECHNOLOGY TO DELIVER RURAL HEALTH CARE

Technology is a key tool for reducing the impact of distance and dispersion typical of rural communities. It can take many forms ranging from telemedicine through to POTS (plain old telephone service).

For example, an article in *Internal Medicine News* describes a study in which adding telemedicine (two-way videoconferencing) to home health care halved the proportion of rural elderly patients who had to move from their homes to hospitals or nursing homes over a two-and-a-half year period. Patients in the study required care for heart failure, chronic obstructive pulmonary disease or chronic wound care.²¹

Connecting communities through technology

Rural Health Care Delivery: Connecting Communities through Technology, is a 2002 report prepared by the First Consulting Group for the California HealthCare Foundation (a philanthropic organization committed to improving California's health care and delivery systems). It outlines ways in which innovations in technology, connectivity and financing across the spectrum of care are lowering the barriers that can prevent the implementation of technology solutions that improve care delivery in rural communities.²²

The solutions being applied range from basic to advanced:

- The Internet and email allow providers to communicate with patients and consult with other providers.
- Web portals organize and provide access to general medical and patient-specific information from remote locations.
- Scanners and digital imaging technology capture and send images, EKGs and other materials to remote locations for interpretation.
- Video teleconferencing (telemedicine) uses smaller, less expensive systems that can be more readily deployed in hospitals, practices and patients' homes.

²¹ Sherry Boschert, Telemedicine helps elderly avoid nursing home: rural elderly received "virtual visits" from home health care nurses via two-way videoconferencing. *Internal Medicine News*, Feb 1, 2005 v38 i3 p94(1).

²² *Rural Health Care Delivery*, accessed from California HealthCare Foundation, March 27, 2006, <http://www.chcf.org/topics/view.cfm?itemID=20206>

- Remote patient-monitoring systems supported by regional tertiary care center professionals allow rural hospitals to keep intensive care and cardiac services open.

The report finds that the common denominator among successful rural technology programs is collaboration among institutional players and individual providers.

Two large technology issues for rural health care are (a) availability of broadband infrastructure connectivity and (b) the lack of technology integration.

Case examples

E-mail based applications:

- A primary care physician uses a clinical messaging system for physician-to-physician email, patient-to-physician email, laboratory test results, x-ray data, consultations, referrals and authorizations. The biggest benefit that the system has provided is access to specialists.

Web portal applications can include:

- Patient access to medical information.
- Provider access to medical information.
- Medical education and training.
- Access to patient information, particularly where access to paper records is aggravated by distance.
- An example: Eastern Maine Healthcare (EMH) created a web-based solution called MyOnlineHealth that allows participating Maine residents to engage in secure communication with health care providers. EMH has many patients who are more than 30 miles away from their provider. Using the system patients can:
 - communicate with their physicians;
 - request an appointment;
 - view laboratory test results;
 - obtain a prescription refill;
 - complete online health risk assessments and receive feedback; and
 - receive health information “pushed” to them by health providers.

Image capture and interpretation applications:

- Can provide access to remote specialist services such as radiologists. Using digital diagnostic equipment or scanned images, diagnostic specialists can read images from multiple sites and send back interpretations electronically in a matter of hours.
- Example - radiology: NightHawk Radiology Services in Sydney, Australia, provides night coverage for rural hospitals and physician practices in the United States. Images, compressed by an application at the rural site where they were obtained, are sent to Sydney using virtual private networks (VPNs) supported by the Internet. Within 30m minutes of receipt of the complete exam, the preliminary report is sent back to the originating hospital or practice. For significant positive findings, the service has a policy

of providing a verbal report to the ordering physician as well as the written report.

- Another example - pharmacy: Sacred Heart Medical Center in Spokane, Washington, developed a program to provide remote pharmacist coverage to a network of about two dozen hospitals serving local farming communities. The program supports 24-hour review of medication orders to identify potential contraindications, improper dosing and duplications. Though the program began with handwritten faxes, it is implementing an image scanning product to capture a handwritten order electronically.

Real-time remote video consults:

- Videoteleconferencing for specialist consults is the most commonly known use of technology to support rural health delivery.

Supporting rural home care:

- Data collection using applications such as a blood pressure cuff connected to a workstation.
- Video teleconferencing, which can include uploading physiological data, and which can connect the home, provider and tertiary care center or home health agency. In all cases, these support but do not replace face-to-face visits.
- Productivity benefits include:
 - Care providers can increase the number of patients they see since time spent traveling is reduced
 - Costs are reduced
 - Length of visits is reduced, increasing productivity
 - Visits to emergency room and hospitalizations are reduced
- Patient benefits include:
 - No need to wait till the next scheduled visit
 - More continuous monitoring capabilities and more immediate response to changes in patient condition
 - Increased compliance with treatment and medication regimes
 - Greater patient involvement in care and greater patient satisfaction
 - Improved outcomes
- An example: Connectivity is an issue for home health providers using technology for virtual visits. An in-home monitoring device made by HomMed LLC is sensitive to these concerns and sends data over a telephone modem or by digital two-way page.
 - The home telehealth monitoring systems measures a range of vital signs and communicates this clinical data for review by medical personnel.
 - It also collects subjective data such as how a patient feels, fatigue levels etc.
 - If any of the patient's signs fall outside parameters set by the physician, the monitoring nurse can immediately respond.
 - The system is easy to use and promotes self-management, resulting in a 98.2% compliance rate.

Canadian telemedicine

Northern Ontario Remote Telecommunications Health (NORTH)

The NORTH network in northern Ontario is a family of telehealth applications including tele-stroke emergency service.²³ Key features:

- Uses technology to bring medical services to First Nations communities, small villages and rural and remote areas.
- Administered from Sunnybrook and Women's College Health Sciences Centre.
- Facilitates more than 1,400 clinical consultations each month, and growing.
- Used by more than 1,500 health professionals, including family physicians, physiotherapists, nutritionists and speech language pathologists.
- Offers medical services in about 80 specialities from more than 700 specialist physicians.
- Linked to more than 100 sites in central and northern Ontario.
- In addition to supporting clinical care, NORTH supports continuing professional development and continuing medical education with up to 3,000 people participating in more than 275 educational sessions per month.
- Funding includes \$8.5 million under Canada Health Infostructure Program 2001 and \$5.75 million in ongoing funding for operating costs from MOHLTC.

An example: In the middle of the night a woman in North Bay falls unconscious, possibly the result of a stroke. A neurologist 300 miles away is woken by phone and within minutes views the patient on his computer screen, examines digital images of her brain, and advises the local emergency physician on the best course of action.

NORTH has also undertaken some special projects (could AD be a special project?):

- Electrical burn
- Telestroke
- Telecorrections
- Teleprimary care – supports the linkage of Nurse Practitioners with physicians using telehealth. NORTH is supporting the implementation of about 20 studios in 3 clusters.
- Osteoporosis telehealth
- Teleradiology
- Ontario critical care telemedicine knowledge network project

²³ NORTH Network, accessed March 27, 2006, <http://www.northnetwork.com/>

- Telesign language services

Telehealth Saskatchewan

Saskatchewan is another province that uses technology to support the delivery of clinical services and professional education. The services of Telehealth Saskatchewan include:

- live two-way videoconferencing
- telediagnosics, including digital stethoscopes, patient examination cameras and digital imaging
- clinical appointments, consultations, follow-ups, meetings and education sessions.

Canada Health Infoway

Having compatible technology is one factor that will facilitate telemedicine.

Canada Health Infoway is an independent, non-profit organization whose members are Canada's 14 federal, provincial and territorial Deputy Ministers of Health.²⁴ It invests with public sector partners across Canada to implement and reuse compatible health information systems. These systems provide healthcare professionals with rapid access to complete and accurate patient information, enabling better decisions about treatment and diagnosis.

With its private sector partners, Canada Infoway has launched or completed over 100 projects relating to the Electronic Health Record. The goal is to have an "interoperable EHR in place across 50 per cent of Canada (by population) by the end of 2009."

Two examples:

- The Thames Valley Digital Imaging Network which allows eight hospitals to share diagnostic images electronically.
- The development of a province-wide Picture Archiving and Communications System (PACS) in Newfoundland and Labrador by 2007. PACS is a computer system that allows diagnostic images - including X-rays, MRI, ultrasounds and CT scans - to be digitally captured, viewed, stored and transmitted electronically from one site to another. It replaces conventional X-ray film and greatly improves access to patient information by clinicians anywhere in the province.

One of Canada Health Infoway's programs is the Telehealth Program which is developing electronic solutions to help provide health care services to people in remote areas. One of the projects under this program is documenting Ontario's NORTH Network. The three main goals of the Telehealth Program are:

- to optimize the use of existing networks
- to maximize the use of telehealth in the clinical setting

²⁴ Canada Health Infoway, accessed March 27, 2006, <http://www.infoway-inforoute.ca/en/Home/home.aspx>

- to maximize the link between telehealth and the electronic health record.

RURAL TRANSPORTATION

The issue of transportation, or lack of it, is a common factor in serving rural populations.

"The need for specialized transportation is evident. Even in Fayette and Green counties, where public or agency transportation was available, transportation was not always accessible or it required the assistance of an escort who had to pay an unsubsidized fare. Demand responsive transportation, that includes allowing an escort to ride for the same fare, greater driver assistance to the passenger, and increasing volunteer efforts are recommended." (The Center for Rural Pennsylvania, *An Examination of Homebound Rural Seniors*, July 2000)

It has been suggested that transportation is key to sustaining the frail elderly and the disabled at home especially in rural communities. While the literature suggests that rural seniors are most likely to use informal services of family and friends, this option is not available to all residents. At the same time providing a transportation service in rural areas for the elderly and disabled can be problematic.

In a series of Think Tanks organized 2001-02 by Professor Tony Fuller (University of Guelph) for the Canadian Rural Partnership, participants observed that "rural transportation is Canada's forgotten issue," and that there had been very little improvement in the last 30 years for those without access to a car."²⁵

Similarly, a 2004 report on rural seniors conducted by the University of Alberta for Veterans Affairs Canada says: "the importance of supporting the medical, necessary and social transportation needs of clients in rural areas who do not drive through the Veterans Independence Program [*a federal program providing financial support to veterans*] cannot be underestimated. Transportation enables older adults to gain access to services and people and remain connected within their community."²⁶

Alberta has developed a tool to help municipalities, service organizations, consumer groups and other parties develop a local public transportation system for use by seniors and persons with disabilities: *Let's Plan On It! A Guide To Providing Transportation in Rural Areas for Seniors and Persons with Disabilities*.²⁷ The American Public Transportation Association has similarly issued a toolkit for public transportation organizations titled, *A Practical Guide for Making Transit Services More Responsive to the Needs of America's Aging Population*.

²⁵ Thinking About Rural Canada – a series of rural development think tanks, especially the portion of Think Tank 4 titled The Transportation Disadvantaged: Elderly and Disabled. Canadian Rural Partnership, November 2001-May 2002. http://www.rural.gc.ca/research/tank_e.phtml

²⁶ Keating et al, *Rural Seniors*, Phase 2 Report. December 2004. University of Alberta, Human Ecology.

²⁷ Alberta Infrastructure and Transportation, Let's Plan On It! <http://www.trans.gov.ab.ca/Content/doctype55/production/pol294.html>

Coordination of community transportation

One commonly-cited solution is to provide coordination of existing services.

Communities often have a variety of mini-transportation systems in their own area, each with one or two vans, cars or buses. There may also be volunteer transportation systems. There is high potential within one community for waste and inefficiency while at the same time the service both between and within the community is fragmented. Pooling the assets into a broader based system can benefit both those who need the service and those who provide it.

In a 2005 consultation of community transportation services in Halton-Peel,²⁸ a number of the issues that were raised related to the lack of coordination, including:

- No centralized access point to obtain transportation – both clients and providers are unaware of the breadth of transportation programs that exist.
- Service eligibility varies across providers.
- Cost to clients varies according to geography.
- Inability of regional and municipal-based transportation providers to easily cross geographic boundaries.
- Lack of coordinated approach to transportation “system”.
- Ad hoc coordination of client’s transportation between service providers.
- Difficulties in coordinating care between the Ministry of Health and Ministry of Transportation

In a study on the Coordination and Integration of rural Public Transportation Services in Pennsylvania,²⁹ the Center for Rural Pennsylvania suggests that:

- state and county human service agencies and rural school districts be encouraged to integrate their transportation services with the local public transportation provider
- local public transportation providers be given more authority and financial resources to fulfill the transportation coordination and integration function in their communities
- Pennsylvania General Assembly consider using a portion of motor fuels revenue, and encourage the federal government to supplement or match state and local transportation funding.

²⁸ Halton-Peel District Health Council, *Community transportation services consultation in Halton-Peel: Summary report of consultation proceedings*, January 2005.

²⁹ *Coordination and Integration of Rural Public Transportation Services in Pennsylvania*, a report by Dr. Bridget M. Jeffery for the Center for Rural Pennsylvania, September 2004. Available through <http://www.ruralpa.org/reports.html>

Examples of rural transportation for the elderly

Nova Scotia's Dial-A-Ride

Nova Scotia has been developing its capacity for personal inclusive transportation in rural areas through both coordination and financial assistance.

Nova Scotia's Dial-A-Ride network was created in response to the need for inclusive transportation services throughout its province, especially in rural communities. It is a support network of non-profit, community-based transportation systems and offers a diverse range of personal transportation services including wheelchair accessible vehicles for persons with special mobility needs.

Its goal is "to interconnect inclusive transportation services that are safe, affordable, and accessible to all members in a community including disabled, disadvantaged, elderly and any other person in need of transportation."

Members of the network are linked through a common theme logo, 1-800 phone services and website.

The network is a joint initiative of seven government departments and agencies: Service Nova Scotia and Municipal Relations, Education, Health, Community Services, Transport and Public Works, Utility and Review Board, and Disabled Persons Commission.³⁰

The policies of members of the network with respect to attendants appear to vary.

Nova Scotia also provides financial assistance for community-based transportation specifically targeted to inclusive transport in rural areas through two programs: Community Transportation Assistance Program (operating costs) and Accessible Transportation Assistance Program (capital costs).

- Community Transportation Assistance Program.³¹
 - Funding services that respond to the unmet needs of all persons who have a transportation disadvantage. Priorities and needs are determined by the community.
 - Services are developed and provided by non-profit organizations through partnerships by coordinating public, private, non-profit and volunteer resources and services.
 - Funding is available to municipalities and non-profit community based groups involved in the delivery of inclusive transportation services in low-population density areas (at or below 0.15 persons per acre)
 - The funding covers a portion of operating costs to a maximum of \$1.60 per capita for a population in the service area. Grants will be discounted proportionately for service levels below 0.2 rides per capita/annum.
 - Administered through Service Nova Scotia and Municipal Relations.

³⁰ Dial-A-Ride. <http://www.gov.ns.ca/snsmr/dialaride/>

³¹ N.S. Community Transportation Assistance Program: Program Guidelines and Application. http://www.gov.ns.ca/snsmr/dialaride/pdf/CTAP_application_guidelines_05.pdf

- Accessible Transportation Assistance Program.
 - Capital funding of up to a \$20,000 for the purchase of a new wheelchair accessible vehicle or up to \$10,000 for the modification of an existing vehicle.

JAUNT

JAUNT (Virginia) is a nonprofit public service corporation that coordinates rural public transportation for the general public, and complementary paratransit for social agencies, the elderly and disabled across five counties in Virginia.³² It is owned by the local governments that it serves and uses federal, state and local funding to supplement fares and agency payments.

Anyone can ride one of JAUNT's eighty buses but there are reduced rates for the disabled, which includes people who have difficulty reading, understanding or following bus information. Companions are welcome and pay the same fare as the disabled. Rides must be booked in advance.

According to the U.S. Coordinating Council on Access and Mobility, which features JAUNT as a "useful practice":

- JAUNT has become the coordinator of both public transportation and human services transportation by actively seeking contracts to provide human services transport.
- Almost one-half of JAUNT's riders are 65 years of age and older.
- A key to its success is that the local transportation planning agency has a written policy stipulating that human service agencies are to coordinate transportation services with JAUNT. The planning agency oversees implementation of this requirement through the metropolitan planning review process.
- JAUNT's coordination has resulted in service expansions to geographic areas and consumers not served previously, more service options, fewer limits on trip purposes and destinations, and lower trip costs for consumers.³³

South Okanagan Transit Society

South Okanagan Transit Society is a nonprofit, community-based society. Its purpose is to provide transportation at a reasonable cost to residents of the South Okanagan to health services in the Okanagan and its environs.³⁴ It features:

- a community bus that can accommodate 20 passengers, or 12 passengers and 4 wheelchairs;
- one-way fares between \$2.50 and \$10.00, depending on destination;

³² JAUNT, accessed March 27, 2006, <http://www.ridejaunt.org/about.html>

³³ Coordinating Council on Access and Mobility, Useful Practices. <http://ftawebprod.fta.dot.gov/UsefulPractices/Practices/View.aspx?PracticeID=101>; and JAUNT at <http://www.ridejaunt.org/>

³⁴ South Okanagan Transit Society, <http://www.medtransbus.org/>

- free ride for attendants;
- pick up and return to the client's home in Osoyoos and Oliver (and other points can be provided);
- can be used for any purpose, not just health related;
- two days notice required, if possible;
- drivers trained in CPR and First Aid and will assist with embarking and disembarking; and
- bus can be chartered evenings and weekends.

INFORMATION NETWORKS AND RESOURCES

Knowing where to go for services is a highly rated community characteristic for rural seniors. Information networks such as the Dementia Networks and Alzheimer Knowledge Exchange can help in this regard. Similarly, several papers promote the better integration and coordination of existing health and social service resources as one of the keys to better rural services.

Integration

Canadian Seniors Partnership

The Canadian Seniors Partnership is a network of decision-makers from the three levels of government and the volunteer sector. The Partnership is focused on a common vision of integrating services for seniors, their families and caregivers across all jurisdictions involving all service channels.

Initiatives include:

- Collaborative Seniors Portal Network, of which Ontario's *Seniors' Info* website is an example (see below)
- Vet-Link (www.vet-link.ca)
 - a collaborative network of individuals, teams, facilities, professional organizations and segments of the lay community committed to the goal of improving health and well being for veterans and related cohorts.
 - invites partnerships, liaisons and relationships with all interested parties. To date, these partnerships have committed to research collaborations in the areas of: pain management, end-of-life care, depression management, and environmental design, with the emphasis on facility-based care and older veteran populations.
- Network Registry
 - offers an opportunity for federal, provincial, territorial and municipal governments, as well as non-government organizations to network, become aware of existing projects and initiatives, and find projects that welcome additional partners
 - intended to stimulate interest and encourage the sharing of innovative ideas, and to create a community of interest across Canada.

Single point of access

Collaborative Seniors Portal Network

The Canadian Seniors Partnership has sponsored the Collaborative Seniors Portal Network (CSPN), which is an "enhanced Web site" that provides seniors with multiple points of access to information and services from all three levels of government and certain non-government organizations in a simple, logical, "citizen centred" fashion.

The Collaborative Seniors Portal Network consists of two Web sites – www.seniorsinfo.ca and www.seniors.gc.ca. Seniors' Info was launched October 31, 2003, as a multi-jurisdictional initiative by the Government of Canada, the Ontario Senior Seniors Secretariat and the City of Brockville.

Three more municipalities are about to join and several provinces have shown strong interest in this network. CSPN partner sites receive, on average 32,000 visitors per month. There were 373,000 visits in 2004, which represents a 36% increase over the previous year.

The Ontario Seniors Secretariat is looking for other cities who would like to participate in the Ontario pilot projects. Hamilton had indicated its intention to incorporate a seniors portal based on the Collaborative Seniors Portal Network into its myhamilton.ca website by Fall 2005, but to date does not appear to have done so.

Pennsylvania Rural Access Guide

The Pennsylvania Rural Access Guide³⁵ is an initiative of the Center for Rural Pennsylvania (a legislative agency) and the Pennsylvania State Association of Town Supervisors.

The Guide is a comprehensive database of state, federal and non-profit/foundation grants, loans and technical assistance resources. It was designed to help local government officials, non-profit organizations, community groups and individuals find the assistance they need for projects and programs

SELECTED INITIATIVES IN THE NON-PROFIT SECTOR

Building IT capacity in non-profits

Technology is a tool that can help non-profits reduce or eliminate the problems arising from distance and dispersion. It is also an area where non-profits, particularly in smaller communities, are often lagging.

A report by the Community Services Council, Newfoundland and Labrador for Industry Canada's VolNet Program in 2001 concluded there was a need for technical support to voluntary, community-based organizations to enable them to make efficient and effective use of technology and connectivity. The results of the assessment underscored the need for a toll-free technical support service enriched by onsite and online workshops and new training opportunities.

³⁵ Pennsylvania Rural Access Guide, accessed March 27, 2006, via <http://www.ruralpa.org/>

Organizations of all sizes and in all regions indicated a desire to make more use of modern communication technologies. Obstacles included cost, time, lack of technical help and volunteer knowledge. Other challenges included access to expertise especially in more remote and smaller communities.

Community Services Council, Newfoundland and Labrador

In response, the Community Services Council in Newfoundland and Labrador has developed a centralized resource that includes information, technical support and training. As well as developing technical capacity, the initiative responds to concerns expressed elsewhere about the lack of coordination and knowledge of existing resources.

The CSC helps the over 4,000 voluntary community-based organizations across the province by using the Internet to help these organizations use technology to increase their capacity. Its programs include³⁶:

- Connecting for Community: a three year project to increase the capacity of individuals and voluntary organizations in rural and remote communities who face barriers to using information technology. It has previously had a lead role in delivering technical training programs to the voluntary sector.
- enVision.ca: a virtual resource centre for the voluntary sector ("vortal") is a combination of static information and interactive tools, including virtual training centre. Its benefits include:
 - reducing geographic boundaries by allowing rural, remote, and small voluntary, community-based organizations the opportunities for timely information-sharing and resources;
 - increasing productivity of the sector by developing human resource skills in the use of information technology - skills essential for the knowledge-based economy;
- Volunteer Centre: established in 1977, has gone on to develop the first leadership and training programs for volunteers and community organizations.
- NL Canadian Volunteerism Initiative: supporting the development and dissemination of knowledge of volunteerism at the local level.

In addition, the Community Services Council has created sophisticated databases which are available online covering topics from possible funding sources to sample volunteer job descriptions.

Mobilizing rural philanthropy

Rural Philanthropy Resource Network

The Rural Philanthropy Resource Network is a new model being developed and tested by the Foundation for Rural Living in an effort to advance the rural non-profit and voluntary sector.³⁷ The aim is to provide individuals, communities, and agencies with the knowledge, training, and support needed to successfully

³⁶ Community Services Council, accessed March 27, 2006, <http://www.envision.ca/templates/cscprograms.asp?ID=222>

³⁷ Rural Philanthropy Resource Network, accessed March 27, 2006, http://www.frl.on.ca/frl/home_RPRN.htm

expand community investment and charitable programs – in particular, to enhance fundraising expertise.

The key element of the concept is the development of a shared resource that recognizes that small rural non-profits do not have the threshold or capacity to create elaborate structures.

The Network involves the development of:

- A central, virtually accessible infrastructure to directly support rural fundraising and non-profit management.
 - Resources and links to information
 - Research assistance to help navigate the resources
 - Professional development and training in various aspects of fundraising
 - Technical assistance, e.g. grant writing
- The placement of a team of rural development officers in several agencies in a variety of communities to assist with planning and execution of strategies.
- Professional facilitation from a management team.

An example: The Network was a catalyst in helping the West Elgin Community Health Centre to open in January 2004 by supporting efforts to raise \$250,000 from the community and private sector.

Using GIS for better allocation of resources

Geographic information system (GIS) mapping is being discovered by senior and community groups. GIS pairs databases of information with advanced mapping capabilities in a way that allows for better planning and allocation of resources.

Some examples:

- In Milwaukee, the Connected Caring Communities partnership of older adults, organizations, businesses and governments used GIS mapping to analyze the community from the perspective of seniors. Maps were created that showed restaurants, clinics, churches, banks, civic resources, bus routes and crime (a concern in that neighbourhood). One of the results of GIS mapping was to show where a shuttle bus route was required leading to a bus service for seniors that runs continuously throughout the morning, stopping at grocery stores, the senior centre, banks and other locations.
- In upstate New York, Aging Futures supports caregivers of older adults by improving the social connections of vulnerable and isolated seniors in the economically depressed, mixed urban/rural county. GIS mapping has helped Aging Futures by showing visually and providing hard data on where resources are needed.
- Also in New York state, the Retired and Senior Volunteer Program (RSVP) is using GIS mapping to help identify isolated seniors and link them with neighbours, friends and volunteers to help them stay in their homes. One result: RSVP depends on a core group of 1,000 volunteers to help run 125 different non-profit programs (such as Meals on Wheels). After six months of tailoring GIS mapping specifically to its programs, RSVP doubled the

number of new volunteers by getting a precise picture of where its volunteers lived and where it needed to focus its recruitment efforts.

GIS mapping has also been used by government. The state of Victoria (Australia) has used mapping in its *Rural Directions*. For each area it has developed a map that identifies the different health and social services in the area—hospitals, community health centres, long term care homes, bush nursing centres, primary care partnerships etc. Visually seeing the distances and spatial relationships between services helps in understanding need and planning to improve access.

Alzheimer Association rural initiatives

The US Alzheimer's Association has provided grants to chapters to help provide information, programs and services to older Americans living in rural communities.

Examples of these programs over the last few years:

- deliver Association information via non-traditional partners, e.g. veteran's groups, and community gatekeepers
- recruit rural professionals to deliver education and enhance participation in Safe Return program
- create a rural "first responder" volunteer network
- reach communities through collaborations with public health nurses and community action agencies
- educate rural caregivers by collaborating with a university cooperative extension service and geriatric education center
- create Alzheimer's partnership councils
- provide outreach through community college partnerships
- bringing Alzheimer's Disease home through scouting
- creating collaborations with rural electric cooperatives
- partnering with mobile health clinics

CONCLUSION

Some themes that emerge from the scan are:

- developing community economic capacity is integral to being able to deliver needed services
- identifying and maximizing existing resources is an effective way to help deliver more services
- technology has a growing role in reducing the impact of distance and dispersion for rural residents, service providers, and non-profits
- one-stop centres for senior health care and education are one model of service delivery

- collaboration and partnerships between stakeholders and funders help overcome scarce resources
- rural transportation is critical for access to services, and coordination of existing modes one solution

SELECTED WEB RESOURCES

Arkansas Aging Initiative	http://centeronaging.uams.edu/outreach/program_description.asp
BC Rural and Remote Health Research Network	http://www.bcrrhrn.ca/
California Healthcare Foundation – <i>Rural Health Care Delivery</i>	http://www.chcf.org/topics/view.cfm?itemID=20206
Canada Health Infoway	http://www.infoway-inforoute.ca/en/Home/home.aspx
Canada-Ontario Rural Municipal Infrastructure Fund (COMRIF)	http://www.comrif.ca/eng/default.asp
Canadian Journal of Rural Medicine	http://www.cma.ca/index.cfm/ci_id/36550/la_id/1.htm
Canadian Rural Health Research Society (CRHS)	http://www.crhrrs-scrsr.usask.ca/eng/
Canadian Rural Lens	http://www.rural.gc.ca/lens_e.phtml
Canadian Rural Partnership – Rural Seniors Dialogue 2004	http://www.rural.gc.ca/dialogue/report/bc/seniors_e.phtml
Centre for Research and Education on Aging and Health (CERAH)	http://cerah.lakeheadu.ca/
Centre for Rural and Northern Health Research (CRANHR)	http://www.cranhr.ca/
Collaborative Seniors Portal Network – Seniors' Info Brockville	http://www.seniorsinfo.ca/scripts/english/ON/brockville/index.asp
Center for Rural Pennsylvania	http://www.ruralpa.org/
Community Partnerships for Older Adults	http://www.partnershipsforolderadults.org/
Co-operatives Secretariat, Government of Canada	http://www.coop.gc.ca
enVision.ca	http://www.enVision.ca
Foundation of Rural Living	http://www.frl.on.ca/frl/aboutfrl/aboutus_overview.htm
Global Action on Aging – Rural Aging	http://www.globalaging.org/ruralaging/index.htm
Innovative Rural Communities, Ontario	http://www.innovativecommunities.ca/frame1.asp
Journal of Rural Health	http://www.nrharural.org/pubs/sub/JRH.html
National Rural Health Association (U.S.)	http://www.nrharural.org/
NORC Walsh Center for Rural Health Analysis (a US Office of Rural Health Policy research centre)	http://www.norc.uchicago.edu/issues/health6.asp

North Carolina Rural Health Research and Policy Analysis Center (a US Office of Rural Health Policy research centre)	http://www.shepscenter.unc.edu/research_programs/rural_program/
NORTH Network, telemedicine in Northern Ontario	http://www.northnetwork.com/
Office of Rural Health Policy, US Dept. of Health and Human Services	http://ruralhealth.hrsa.gov/
Ontario Rural Council	http://www.torc.on.ca/
OMAFRA Research Program: Sustainable Rural Communities	http://www.uoguelph.ca/research/omaf/rural/index.shtml
Research on Aging, Policies and Practice (RAPP), University of Alberta, Department of Human Ecology – <i>Caring Contexts of Seniors</i>	http://www.hecol.ualberta.ca/RAPP/
RUPRI Center for Rural Health Policy Analysis (a US Office of Rural Health Policy research centre)	http://www.rupri.org/healthpolicy/
Rural and Remote Canada Online	http://www.rural-canada.ca/home.cfm?lang=eng
Rural and Remote Health, international online journal based in Deakin U., Australia	http://e-jrh.deakin.edu.au/home/defaultnew.asp
The Rural Centre, Atlantic Canada	http://www.theruralcentre.com
Rural Development Institute, Brandon University	http://www.brandonu.ca/organizations/RDI/about.html
Rural Health Good Practices, UK	http://www.ruralhealthgoodpractice.org.uk/
<i>Rural Palliative Home Care Model</i> , Nova Scotia and PEI	http://www.gov.ns.ca/health/downloads/Palliative%20Care.pdf
Rural Philanthropy Resource Network	http://www.frl.on.ca/frl/home_RPRN.htm
Rural Proofing for Health – a UK toolkit	http://www.ruralhealthgoodpractice.org.uk/index.php?page_name=toolkit_menu
Seniors' Info (Ontario portal)	http://www.seniorsinfo.ca
Telehealth Saskatchewan	http://www.health.gov.sk.ca/ps_telehealth.html
Vet-Link	www.vet-link.ca
Victorian Government Health Information (Australia)	http://www.health.vic.gov.au/
Victoria, Health – Rural Directions	http://www.health.vic.gov.au/ruralhealth/hservices/directions.htm
West Virginia University Center on Aging; and - <i>Best Practices</i> download	http://www.hsc.wvu.edu/coa/about.asp http://www.hsc.wvu.edu/coa/publications/best_practices/best-practices2003.asp