Waterloo Wellington **LHIN**

Waterloo Wellington Local Health Integration Network
Rural Health Care Review
Final Report

January 19, 2010

Ontario
Local Health Integration Network

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Executive Summary

As part of its Clinical Optimization Project, the WWLHIN conducted a review of rural health services to better understand the health status, service delivery and access challenges for its rural residents. The review was overseen by a Rural Health Working Group and included the following components:

- Consultation with various rural communities on needs and service priorities;
- Review of international, national and provincial literature on rural health care;
- Defining the socio-economic characteristics of rural and urban populations within the WWLHIN;
- Comparing the rural and urban populations in the WWLHIN in terms of health status and service utilization;
- Creating a framework to guide the future development of rural health services

The review did find evidence of rural-urban differentials in population health status and access to health services; consistent with the *inverse care law* which is well-documented in the rural health care literature. To address these health status and access challenges, the Rural Health Working Group is recommending the following to the WWLHIN:

THAT the Waterloo Wellington LHIN (WWLHIN) endorse and use the proposed framework for rural health services developed by the Rural Health Working Group consisting of the following four components:

1) ***Comprehensive Primary Health Care***
2) ***Community Supports and Home-based Care***
3) ***Hospital-based Acute and Emergency Care***
4) ***Integrated Rural Health Care Networks***

THAT a community health care survey be conducted in the municipality of Southgate to determine unmet health needs and service gaps;

THAT a detailed review of community support services (CSS) is done to ensure there is a needs-based distribution of CSS services for rural residents, with a specific focus on rural seniors;

THAT the Waterloo Wellington CCAC review its rural service delivery model to ensure there is needs-based access to CCAC professional services;

THAT the WWLHIN, in consultation with urban hospitals and their specialists, further define and designate regional programs based on existing 'best practice' models and other criteria including their responsibility to serve rural areas within the WWLHIN;

THAT the WWLHIN's Chief of Staff Working Group develops regional 'on-call' protocols to ensure there is appropriate support and timely consultations for family physicians covering rural hospital emergency departments with an initial focus on the following 5 specialty areas:

- ***Plastic Surgery***
- ***Ears, Nose, Throat (ENT)***
- ***Urology***
- ***Opthalmology***
- ***Internal Medicine***

THAT the eHealth strategy developed for the WWLHIN pay special attention to providing enhanced telemedicine and telehomecare services to rural residents;

THAT current and future redevelopment projects for rural facilities maximize opportunities for service integration/coordination between acute, primary, long-term care and community health services;

THAT the WWLHIN facilitate the establishment of a rural health network with the terms of reference and membership recommended in the framework.

Section 1.0 Introduction

1.1 Rural Health Working Group

This report has been prepared by the Rural Health Working Group of the WWLHIN's Clinical Optimization Steering Committee (COSC). The overall goal of the COSC is to:

- Align the provision of acute care with current and future population need;
- Improve patient access;
- Improve the outcomes of care; and
- Foster the development of academic activities in order to create a positive working environment for recruitment and innovation.

The mandate, objectives and membership of the Rural Health Working Group are listed in Appendix A.

The main process steps for the development of the report are listed below:

Process Steps	**Timeframes (2009-10)**
Community Consultations	January – April 2009
Literature Review	March – April 2009
Data Analysis	April – June 2009
Preparation and Review of Draft Reports	July – October 2009
Community and Stakeholder Consultations on Draft Report & Recommendations	November – December 2009
Preparation of final report	January 2010

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In support of this process, the Working Group met on the following dates:

- January 28, 2009
- February 5, 2009
- March 5, 2009
- March 30, 2009
- April 8, 2009
- May 13, 2009
- July 9, 2009
- September 23, 2009

The first 5 Working Group meetings were held prior to planned community consultations in different rural communities in the Waterloo Wellington LHIN, the results of which are described in Section 4 and Appendix E. Following the final Working Group meeting in September 2009, a draft report summary was prepared for community and stakeholder consultations. A listing of these consultation sessions is found in Appendix J.

1.2 Overview and Context

The report presents a rural health service planning framework that is intended to support the further development of integrated health services for rural residents in the WWLHIN, and includes components for improving both access and rural health status. The framework is supported by the research evidence collected during the literature review (see Appendices B and C) and is aligned with the key themes and issues that arose during the community consultations.

While the framework is meant to be forward-looking, it is worth noting that the health care providers that serve rural Wellington and rural Waterloo have a long history of collaboration, innovation, and demonstrated community leadership. There are many rural success stories which create a foundation upon which these service providers can continue to build. These include but are not limited to:

- The voluntary amalgamation of the Palmerston District and Louise Marshall Hospitals to create North Wellington Health Care;
- The development of a management services agreement between Groves Memorial Community Hospital and Hamilton Health Sciences;
- The voluntary creation of an administrative alliance with one CEO for North Wellington Health Care and Groves Memorial Community Hospital;
- The development of rural offices and outreach services by Trellis Mental Health and Development Services (formerly the Community Mental Health Clinic);
- The allocation of dedicated inpatient resources for rural Wellington residents by Homewood Health Centre;
- The creation of the Woolwich Community Health Centre in St. Jacobs to serve the primary care needs of Mennonites and other rural populations with special needs and the CHC's commitment to improve access by developing satellite services in other rural communities (Wellesley, Linwood);
- The planning by the Langs Farm Village Association to create the North Dumfries Community Health Centre which offers new primary health services to residents of Ayr and surrounding rural communities;
- The development and implementation of four (4) Family Health Teams to provide enhanced primary care to rural residents of Wellington County;

- The collaborative planning by the Waterloo Wellington Community Support Services Network to develop a comprehensive proposal for non-profit supportive housing services with specific rural delivery models; and

- The many networks of health care providers, past and present, that have worked diligently to develop strategies for creating more coordinated systems of care and support to WWLHIN residents.

Even though these past accomplishments are significant, the delivery of rural health services represents an ongoing challenge. Researchers have described this rural reality as the *"Inverse Care Law"*; defined as individuals with greater health care needs having less access to care. It has been a long standing challenge in both regional and provincial health systems because:

(1) more dispersed rural populations with greater driving distances mean fewer economies of scale in terms of delivering services; and

(2) lower services volumes and less critical mass can create challenges in terms of providing high quality services. As a result, health systems development has historically focused on centralization and regionalization of services, often leading to reduced access for rural residents.

Hopefully, with new eHealth strategies, further improvement to rural training and recruitment strategies, and the health systems trend towards greater decentralization of services, access can be improved. On the latter point, Dash and colleagues in their recent review of regional health systems development note that an emerging theme in the evolution of international health systems is *"decentralize where possible, centralize where necessary"*. They describe the benefits of decentralization as follows:

"First, decentralization results in better access, with people benefiting from the convenience of having core health services close to where they live. The goal is to provide a "one-stop-shop" where initial consultation and diagnosis can happen in a single place, reduce unnecessary referrals, and also prevent over reliance on hospitals" (Dash, 2009, p. 31).

This raises the secondary question of whether simply improving access is a sufficient goal. The following summarizes the potentially larger challenge of the health status of rural residents:

"Although many innovative ideas have been put forward and many approaches have been tried…studies have pointed out that rural health problems are often the result of more deep-rooted factors…referred to as the determinants of health: the social, cultural, behavioural, economic and environmental factors that shape the health of a population. The argument is that unless these fundamental conditions are modified, merely adding more practitioners or services may not substantially improve the health status of the rural population" (Health Transition Fund, 2002).

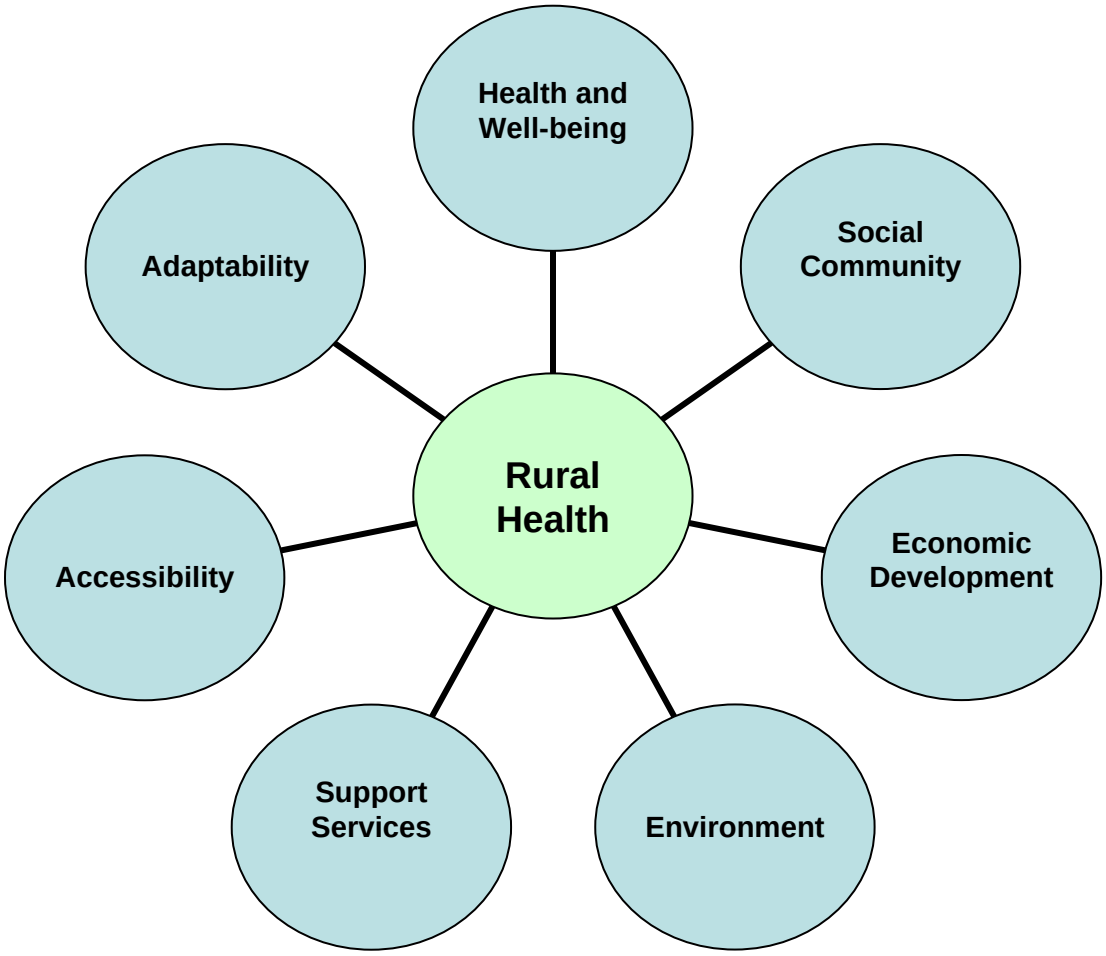
This means that successfully challenging the *inverse care law* means tackling both access and the determinants of health. Ultimately, the goal is the creation of healthy and sustainable rural communities. The Social Planning Council of Cambridge and North Dumfries in its recent report on creating healthy communities notes that *"Rural communities are often faced with health and well-being issues that are different in scope and quality than in an urban built environment" (SPCCND, 2008, p. 67)* and recommend that seven (7) dimensions be considered in improving rural health (see Figure 1 below).

One of the dimensions that is receiving increasing attention is the link between community economic development and healthy rural communities. The Ontario Rural Council, in a recent report based on a rural health forum held last year in Stratford, has concluded:

> *"Basic health care is critical to the overall economic development of rural communities. The linkage between health provision and economic development is crucial to building healthy, sustainable rural communities"* (TORC, 2010, p. 7)

According to the latest figures from the Ontario Ministry of Agriculture and Rural Affairs (OMAFRA), the health and social services sector is currently the 3rd largest employer of rural residents employing 179,000 people in 2008 - approximately 13% of the total rural labour force (OMAFRA, 2009). This is even more significant given that the restructuring of Ontario's economy will continue to lead to further job losses in rural manufacturing and retail (the top 2 sectors for rural employment). At a local level, rural municipalities have become a significant funder of rural health services including ambulance services, public health, long-term care and physician medical clinics; and increasingly there is a need to consider investments in health services as part of local economic development strategies.

Figure 1 – Dimensions of Healthy Rural Communities



SOURCE: Social Planning Council of Cambridge and North Dumfries, Our Communities, Our Health, Our Future, 2008

1.3 Format of this Report

Section 2 of the report presents the proposed vision and framework for rural health services in the WWLHIN, developed by the Rural Health Working Group. This is followed by an overview of the rationale for change and then describes key components of the framework. The relevant research findings from the literature review (Appendices B & C) are specifically referenced so there is a clear link between framework components and research evidence.

Section 3 provides a demographic and health status profile for the rural areas in the WWLHIN. There is no consensus in the literature about how best to define 'rural' but based on current definitions used by Statistics Canada, it was determined that the five(5) planning areas already defined by the LHIN can be reasonably grouped into 3 rural areas and 2 urban areas. Comparisons between these five (5) areas became the main focus for analysis in this report.

Section 4 contains the highlights of the Working Group's 2009 rural community consultations and provides a summary of four(4) local health reports collected during the literature review that describe health needs and issues for specific rural communities in the WWLHIN. The key themes from the community consultations are then compared to the rural health needs identified in the local reports.

Section 5 looks at the availability and utilization of various health services (hospital, CCAC, mental health, long-term care and community support services) and specifically contrasts rural versus urban utilization rates.

Section 6 is where the rural framework (section 2) is applied to the 3 rural planning areas by comparing the current state with future service configurations, and concludes with some recommendations to the WWLHIN.

Section 2.0 Proposed Framework for Rural Health Services in WWLHIN

2.1 Vision for Rural Health Services

The following vision for rural health services in the WWLHIN was created by the Rural Health Working Group based on the following questions:

1. Describe the key characteristics of the future health system that will best meet the needs of rural residents of Waterloo-Wellington.

2. Describe your preferred future for rural communities in WWLHIN. How will they be different than today?

Proposed Vision:

We envision a future where all rural communities in the Waterloo Wellington LHIN have an adequate number of appropriate health care providers; where all rural patients are rostered with a multi-disciplinary primary health care team (including MDs, nurses and other allied health professionals) to support them in managing their own health and coordinate their care with other parts of the system; and where rural family physicians have adequate back-up support from specialists and embrace collaborative, team-based patient care.

We envision a future where more health care is available "closer to home" based on eHealth strategies and more rural outreach programs from urban-based service providers; where access for rural residents is an important priority; and where maintaining a geographic balance between urban and rural services in terms of an appropriate continuum of care is an ongoing process.

We envision a future where there are a wide range of integrated rural health models linking health services and health-related community supports that can be customized to fit the unique needs of each rural community; and where smaller rural communities are formally linked to comprehensive primary care networks in larger rural communities.

We envision a future health system that is dynamic, continuously evolving based on new health care delivery models; best-practice research and IT innovations which is responsive to different rural communities in the Waterloo Wellington LHIN.

The details of the Working Group's visioning session helped to shape the proposed framework for rural health services. Working group responses to the two questions noted above are synthesized below and represent a set of key characteristics of a preferred future for rural health system development in the WWLHIN:

- ***Comprehensive Primary Care*** is the foundation for improving access in rural areas and for creating healthy rural communities and it includes:
  - teams of family physicians, nurses and other allied health professionals;
  - focus on the social determinants of health, with an emphasis on health promotion and disease prevention;
  - support for patient self-management strategies where rural residents are actively engaged in managing & improving their own health and the health of their families;

- ***Care Closer to Home*** which includes:
  - most commonly required services are provided "close to home".
  - repatriation of certain rural patients from larger centres; and
  - more specialist visits through rural clinics and/or telemedicine consults;

- ***Integrated Rural Health Services*** where key sectors and stakeholders are formally linked which includes:
  - acute care, primary care, home care (CCAC), long-term care, mental health services and community support services;
  - local governance-management structures to support local decision-making; and
  - integrated hospital-community models (e.g. health care campus);

- ***Variety of Integrated Care Models*** that bring together different types and levels of health & related supports located in and that respond to the unique "rurals" in WWLHIN;

- ***Health Human Resources*** training, retention and recruitment needs an ongoing rural focus based on collaborative practice models;

- ***Communication and Team-building*** between different health professionals is essential including:
  - between rural family physicians and specialists; and
  - between family physicians and allied health professionals;

- ***Effective Use of Health Information Technologies*** and eHealth strategies including telemedicine and adoption of a single health record;

- ***Virtual Access*** to broad range of specialized medical and other supports (e.g. mental health, pharmacist) via local rural health facilities;

- ***Appropriate Balance between Rural and Urban Health Services*** including where:
  - core rural health services are defined as part of urban-rural continuum of care;
  - services between larger (district) rural hospitals and small rural hospitals are clearly delineated;
  - larger rural communities can be primary care hubs with outreach to smaller rural communities;

- ***Needs-based Allocation of Resources*** which includes:
  - re-balancing the system to ensure equitable access for rural residents;
  - services flowing from city to country (urban outreach vs. rural transportation);

- ***Life Cycle Needs of Rural Communities*** where there is a balance between age-specific services (youth vs. seniors) and service complexity (primary care vs. complex care);

- ***Linkages between Rural Health & Community Economic Development*** where:
  - health care is seen as one of many sectors contributing to the sustainability and economic well-being of rural communities;
  - the public funding model does not discriminate against rural communities (e.g. transportation, infrastructure);
  - care in the community is seen as a valid economic driver;

2.2 Proposed Framework for Enhanced and Integrated Rural Health Services

2.2.1 The Rationale for Change

The rural community consultations and the quantitative analysis of socio-demographic data, health status indicators and service utilization rates (sections 2,3 & 4) have confirmed the following in terms of rural health challenges:

- Compared to the WWLHIN's 2 urban areas, the 3 rural areas have an older age profile which is consistent with the profile of rural communities in Ontario and Canada but there are some notable differentials in age structure within the LHIN's 5 sub-areas;

- Compared to urban residents, rural residents have a lower socio-economic status as measured by income and education levels;

- Compared to urban residents, rural residents have higher rates of premature mortality (as measured by PYLL – potential years of life lost); higher crude mortality rates and higher rates of some chronic conditions;

- Compared to urban residents, rural residents are hospitalized at higher rates; have lower usage rates of CCAC professional services; and are somewhat 'overbedded' in terms of the per capita supply of long-term care facility beds;

- While the creation of Family Health Teams and the expansion of community health centres has increased access to primary care for rural residents, there are still service gaps for some rural communities in terms of local availability of comprehensive primary care;

- During the community consultations, rural residents indicated that access to a wide range of health services was challenging including family doctors and primary care, mental health services, supportive housing and seniors' services;

- This lack of access coupled with higher rates of socio-economic disadvantage and a higher burden of illness & injury among rural residents is consistent with the "Inverse Care Law" identified in national studies of rural health;

Research Evidence:

- Romanow Report (2002): *Identified that an "Inverse Care Law" exists for rural and remote communities defined as "People in rural communities have poorer health status and greater needs for primary health care, yet they are not as well served and have more difficulty accessing health services than people in urban centres"*

- Canadian Institute for Health Information (2006): *In their comprehensive study of the health status of rural Canadians based on an analysis of over 170 health status indicators, researchers concluded: "Rural residents of Canada are more likely to be in poorer socio-economic conditions, to have lower educational attainment, to exhibit less healthy behaviours and to have higher overall mortality rates than urban residents".*

The three rural areas of the WWLHIN are sufficiently different in terms of demographic profile and health care utilization patterns to warrant distinct and targeted solutions and action plans (see Section 6 on Applying the Framework).

The proposed framework for enhanced and integrated rural health services has the following five components:

- Comprehensive Primary Health Care (including Mental Health & Addictions services)
- Community Supports and Home-based Care
- Hospital-based Acute and Emergency Care
- Integrated Rural Health Care Models

2.2.2 Comprehensive Primary Health Care

- Comprehensive primary health care (CPHC) is defined as:
  - *The set of universally accessible first-level services that promote health, prevent disease, and provide diagnostic, curative, rehabilitative, supportive and palliative services* (LaMarche, 2003)

- CPHC is delivered by family physicians working collaboratively with a team of allied health professionals and includes current Community Health Centre and Family Health Team models and is consistent with the *Medical Home* model as recommended by Canadian and American medical associations (CFPC, Oct. 2009);

- Comprehensive primary health care includes:
  - Health assessments;
  - Diagnosis and treatment of episodic and chronic illness and injuries;
  - Illness prevention and health promotion;
  - Education and support for self-care;
  - Primary reproductive care;
  - Pre-natal, obstetrical, post-natal and in-hospital newborn care;
  - Primary palliative care;
  - Primary mental health and addictions care;
  - Coordination of and referral to other more specialized health care services;
  - Supportive care in hospital, at home and in long-term care facilities (HSRC, 1999 and OMA, 2007)

- Chronic diseases, many of which have a higher incidence among rural residents, can be effectively managed by primary care health teams;

Research Evidence:

- Health Council of Canada (2009): *To maximize efficiencies and improve health outcomes for people with chronic disease, more attention needs to be focused on implementing effective and sustainable primary health care (PHC) teams. Parameters for successful PHC team-based approaches to CDM includes: patient-centered programs, clinician engagement, community involvement & empowerment and community outreach*

- Ontario College of Family Physicians (2009): *In the proceedings from a recent workshop on 'Stabilizing Health Services in Rural Communities', OCFP and OMA recommend: "LHINs should focus on the establishment of collaborative, interdependent, interprofessional teams in the community in light of the changing needs of our growing and aging population with chronic diseases especially for patients with multiple co-morbidities to relieve pressures on emergency departments and inpatient beds"*

- CPHC should be the foundation for rural health services and should be accessible to all rural residents based on a realistic definition of "care closest to home";

Research Evidence:

- Ontario College of Family Physicians (2009): *In the proceedings from a recent workshop on 'Stabilizing Health Services in Rural Communities', OCFP and OMA recommend: "The LHINs should concentrate on building strong primary care/community-based services in rural/small communities and ensure that they are effectively linked to emergency service providers local and regionally"*

- CPHC planning nodes should be located in rural towns that serve one or more surrounding rural townships and have a primary care catchment population of at least 5,000:
    - Rural North Wellington-South Grey: Mount Forest, Palmerston, Drayton, Dundalk
    - Rural Wellington: Arthur, Fergus, Elora, Erin
    - Rural Waterloo: Elmira, St. Jacobs, New Hamburg

Research Evidence:

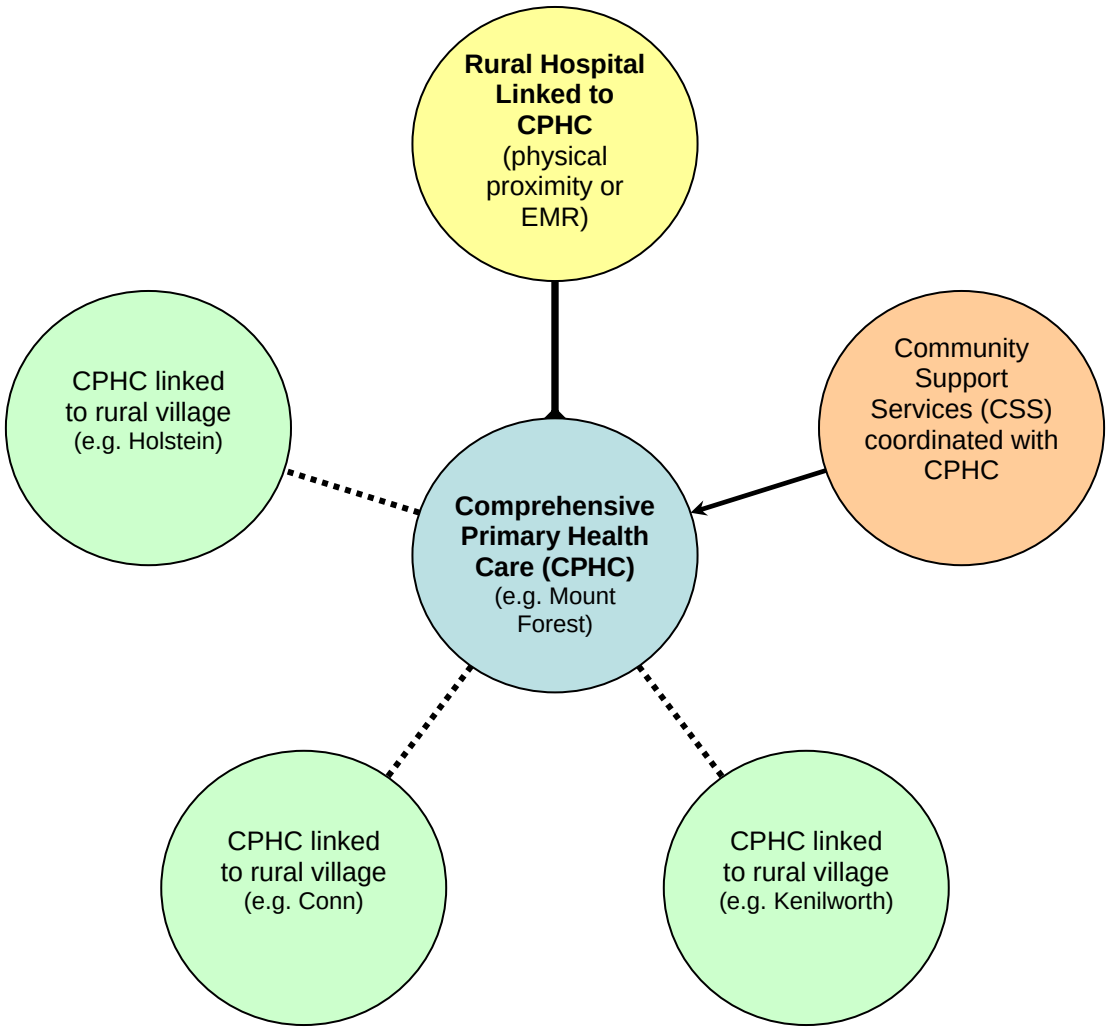
- Health Services Restructuring Commission (1999): *In their Primary Care Strategy, they defined 3 different group models for different sized communities: Urban, **Rural** and Remote. The 'Rural' model applies to smaller towns where a Primary Care Group (PCG) is in one physical location and can be reached within an hour by enrollees, and where the number of enrollees is at least 5,000. The recommended minimum staffing for the Rural PCG is 2 physicians and 2 nurse practitioners*

- British Columbia Ministry of Health (2002): *In its Standards for Accessibility of Acute Care Services, BC government recommended a primary care catchment population of 5,000 to support a rural family practice group of 5 physicians or a rural Primary Health Care Network which is defined as a linked combination of rural community health centres, diagnostic and treatment centres and physician practices*

- Wakerman et al (2008): *Evidence from rural primary care models in Australia is minimum population base of 5,000 for rural communities and 2,000 – 3,000 for remote communities to support a comprehensive and sustainable range of primary health services*

- CPHC services should be formally linked through outreach services to surrounding rural villages and hamlets (see Figure 1 below)

Figure 1 – Example of How CPHC Services link to Other Services and Surrounding Rural Communities



2.2.3 Community Supports and Home-based Care

- Community Support Services (CSS) are an important adjunct to primary health care services and should be formally linked to or co-located with CPHC whenever feasible (e.g. rural multi-service centres);

- Community support services and CCAC professional services should be accessible to all rural residents, especially to support rural seniors to age at home, based on a realistic definition of "care closest to home";

2.2.4 Hospital-based Acute and Emergency Care

- The role of rural hospitals is to:
  1) support CPHC clinics and centres in the provision of 24/7 care;
  2) to ensure that rural residents have 24/7 access to emergency services;
  3) to provide timely diagnostic support through up-to-date equipment and facilities;
  4) to provide inpatient medical care for conditions that cannot be properly managed at home or in an ambulatory setting, including low-risk obstetrics where there is appropriate staff training, staff coverage and back-up support;
  5) to arrange access to specialist care for rural patients;
  6) to provide convalescent care/rehab to patients transferred from larger acute hospitals;

Core services for small and very small hospitals are as follows:

- Very Small Hospitals (<1500 weighted cases)[1]:
  - An Emergency Department (ED) prepared to provide care, or stabilize and transfer, patients entering via the ED;
  - Some inpatient medical beds;
  - Family Physicians supported by broadly-trained nurses;
  - Rehab therapies including physiotherapy, occupational therapy, speech pathology , respiratory;
  - Clinical Nutrition;
  - Pharmacy;
  - Laboratory;
  - Ultrasound/General radiography;
  - Outpatient and ambulatory care services based on community needs including gaps in community-based services;

- Small Hospitals (>1500 weighted cases)[2]:
  - Core services for very small hospitals plus:
    - General Internal Medicine;
    - General Surgery/Day Surgery;

[1] North Wellington Health Care – Mt. Forest and Palmerston sites have approximately 750 weighted cases at each site

[2] This category would include the Groves Memorial Community Hospital

- Obstetrics;
- Special Care Units;

Research Evidence:

- JPPC Core Services Review (2007): *defined core services for 2 categories of rural hospital:* ***Small*** *(1500 – 4000 weighted cases) and* ***Very Small*** *(<1500 weighted cases) based on analysis of all small hospital sites in Ontario; current services were defined as a 'core service' if they were provided by at least 75% of hospitals surveyed*

- MOHLTC Rural and Northern Healthcare Framework (1997-98): *defined 2 levels of small hospital:* ***Level B Medical*** *(1,000 – 2,000 weighted cases) and* ***Level B Medical-Surgical*** *(2,000 – 5,000 weighted cases) that are similar to the JPPC categories of Very Small and Small*

- In terms of geography and critical mass, the provision of on-site 24/7 ED coverage at very small hospital sites needs to take into consideration at the very least:
  - Distance to next closest 24/7 hospital ED; (i.e. degree of remoteness); and
  - Volume of more serious emergencies (i.e. CTAS scores 1 and 2)[3];

  However, there are a number of other variables that also impact on the 24/7 coverage decision including:

  - Number of family doctors available to provide ED coverage;
  - Availability of nursing and other support staff;
  - Funding models and financial incentives;
  - Paramedic staffing and relative response times of ambulance services;

- Very small hospitals should be prepared to regularly review these variables and proactively consider strategies such as: pooling of available physician resources to better coordinate coverage across multiple sites; use of non-physician health care professionals in the ED; and ED diversion strategies based on enhanced community-based care options;

Research Evidence:

- MOHLTC Rural and Northern Healthcare Framework (1997-98): *defined but never formally implemented a third category of very small hospital,* ***Level A*** *based on the following parameters: <1000 weighted inpatient cases; <10,000 ER visits; <5 family physicians providing emergency coverage;*

ED coverage – combination of day- time physician coverage and after-

[3] Canadian Triage Acuity Scale (CTAS) is a system of rating the severity of illness/injury of patients presenting at the Emergency Department; CTAS scores range from 1 (Urgent) to

hours nursing coverage

- *NOTE: while no Level A hospitals were ever formally designated under this provincial policy framework, 2 rural hospital sites have formally converted to a combination of enhanced Primary Care & Urgent Care Centres with less than 24/7 ED coverage (The Willett in Paris which is part of the Brant Community Healthcare System and the Burke's Falls & District Health Centre which is part of Muskoka Algonquin HealthCare corporation) and Urgent Care Centres have been recommended or are being considered for the following small hospitals by their respective LHINs: Fort Erie, Port Colborne, Petrolia and Wallaceburg*

- Courtyard Group (2009): *In a report prepared for the South West LHIN on their Emergency Department Human Resources Project, a variety of strategies were recommended for improving ED coverage across small hospital sites including:*

  (1) maximize ED Coverage within current physician resource pool;

  (2) greater use of non-physician health professionals in the ED, specifically Nurse Practitioners and Physician Assistants;

  (3) maximize integration of Nurse Practitioners in Primary Care and Community Care settings as part of an ED diversion strategy

- Alberta Health (2008): *In its new provincial plan to improve the health system for rural residents, Alberta is looking at 3 key strategies to balance the goals of access, quality and sustainability:*

  (1) Creating distinctive ambulatory centres using existing infrastructure;

  (2) Empowering and better coordinating Emergency Medical Services (EMS) and transport; and

  (3) Increasing the number of telehealth programs.

- The role of multi-site rural hospital corporations is to deliver and manage programs effectively and efficiently while maintaining a balance between accessibility and quality (as defined by sufficient critical mass of patients and resources); this means that multi-site small hospital corporations are responsible for determining availability of services & programs at each site based on available resources (budget & staffing), evolving community needs, reasonable access and an ongoing review of service volumes as a key indicator of quality;

Research Evidence:

- JPPC (2006): *For small hospital corporations with two or more sites, the corporation as a whole is expected to provide all core services to its total catchment area but not every site within a corporation is required to provide all core services.*

- CIHI (2005): Annual Report on the Health of Canadians – Chapter 6 "The Canadian Volume-Outcome Experience": *Research confirms that patients treated in high-volume centres have better outcomes but the strength of the association varies by procedure and across studies. CIHI reviewed 9 surgical procedures and based on their analysis of the statistical association between volumes and patient outcomes concluded that for some (but not all) procedures, more is better.*

- The role of secondary referral hospitals is to support rural hospitals and their physicians by providing timely support for urgent requests for consultations; and delivering specialist services to rural areas either through visiting specialists and/or virtual visits through enhanced telemedicine consultations;

Research Evidence:

- CHSRF (2006): *Visiting specialists to rural and remote hospitals can lead to measurable improvements in access and health outcomes for rural residents*

- Thind et al (2009): *In a recent survey of family physicians in Southwestern Ontario, the large majority of rural family physicians were very satisfied with their practice but the variables that created the greatest amount of dissatisfaction were: (1) difficulty in referring patients to specialists; and (2) not receiving a timely response from specialists*

- In rural areas where there are no rural hospitals (e.g. Rural Waterloo), it is the responsibility of the secondary referral hospitals to work directly with the CPHC to arrange access to specialist services;

- Specialized services designated as 'regional' should include specific provisions for serving rural communities in the LHIN consistent with existing regional 'best practice' models (e.g. Grand River Regional Cancer Centre; St. Mary's Cardiovascular Centre);

2.2.5 Integrated Rural Health Care Models

- A rural health network should be established for WWLHIN's 3 rural areas with a mandate to plan and implement projects to enhance patient care, service coordination and system integration;

- The following terms of reference and composition are recommended for the rural health network:

    - Terms of Reference:
        - To identify unmet needs and gaps in rural health service;
        - To work with the Waterloo Wellington LHIN on the refinement and implementation of its Integrated Health Services Plan (IHSP), 2010 to 2013 and rural health strategy;
        - To identify issues of mutual concern and voluntary integration initiatives of mutual benefit in collaboration with the Waterloo Wellington LHIN;
        - To plan and implement projects to enhance patient care, service coordination and system integration. These projects can be clinical (e.g. interagency protocols, care pathways, staff development) or non-clinical (e.g. sharing of administrative functions);
        - To monitor rural health system performance indicators

    - Membership:
        - Core: health service providers (HSPs) located in or serving rural areas of WWLHIN
        - Associate: representatives from rural municipalities; Public Health; rural community groups and businesses

    - Structure:
        - Dedicated leadership and management infrastructure, with implementation support provided by the WWLHIN

Research Evidence:

- Moscovice (2003): *In the United States, rural health and hospital networks have proven to be successful structures for: (i) developing local service capacity; (ii) expanding health improvement services; and (iii) strengthening service coordination;*

- Shortell (2002): *A review of 25 community health partnerships (both urban and rural) designed to improve access, quality and health outcomes and maintain or reduce costs were selected from the Community Care Networks initiative. All partnerships were evaluated against 4 dimensions: (i) Community Health Focus; (ii) Seamless Continuum of Care; (iii) Managing within Limited Resources; and (iv) Community Accountability. The most successful community health partnerships had the following characteristics: (a) ability to manage partnership diversity and conflict; (b) strategy tied to a clear vision; (c) ability to re-position resources to address changing needs and resources; and (d) shared and committed leadership*

- Redevelopment of existing health infrastructure in rural communities (hospital, medical clinic, LTC facility etc.) should be viewed as an opportunity for further service integration;

- For non-hospital rural communities with CPHC services, integrated service planning should focus on the opportunities for strengthening linkages between primary health care and community support services;

- For CPHC communities with hospitals, future facility planning should be based on creating integrated rural health facilities or health campuses that have a blend of primary care, emergency care, acute care and long-term care functions based on community needs & availability of other community-based services

Current Accessibility to Services

There is no consensus in the research literature about appropriate distances to services. Different jurisdictions have used different guidelines. Based on current travel distances in the WWLHIN, there appears to be three levels of accessibility for rural residents:

Levels of Accessibility (where transportation from home to a service is required)	**Scope of Services**
Level 1 – Rural Care ***Closest*** to Home (available within 25 km.)	Primary care services; Community support services; Community mental health services
Level 2 – Rural Care ***Closer*** to Home (available within 40 km)	Hospital and Other Facility-based Care (including urgent & emergency care, acute inpatient services, complex continuing care, inpatient mental health & addictions, long-term care facilities)
Level 3 – Urban-based Services (> 40 km.)	Specialist Medical and Hospital-based Care

It should be noted that accessibility is a special challenge for the WWLHIN's Mennonite and Amish families that use horse and buggy for transportation.

Recommended Performance Indicators

It is important that implementation of the rural framework is consistent with the WWLHIN's overarching planning framework, the Integrated Health Services Plan (IHSP). The new IHSP for 2010-2013 has recently been released and identifies the following strategic dimensions and key performance indicators for the local health system:

WWLHIN Strategic Dimensions	Key Performance Indicators
Improve Access to Health Services	• Wait times – acute care services • Wait times – emergency care • Wait times – long-term care placement • Access to primary care services • Access to other services (CCAC, CSS)
Improve the Health of the Population	• Potential Years of Life Lost • Perceived (Mental) Health Status and Addiction • Prevalence of Chronic Conditions
Enhance System Effectiveness	• Hospital Standardized Mortality Rates • Case Fatality Rates • Readmission Rates • Adverse Events • WWLHIN residents experience
Build Community Capacity to achieve a Sustainable Health System	• Percentage of Alternate Level of Care (ALC) days • Hospital and ED Utilization for Ambulatory Care Conditions

All four of these dimensions are important for improving rural health services in the WWLHIN but the research evidence suggests there needs to be a particularly strong focus on the first two dimensions: Access and Population Health.

Section 3 of this report provides some rural-urban baseline data for the following **health status indicators**: mortality rates, potential years of life lost, and prevalence of certain chronic conditions.

Section 5 of this report provides some rural-urban baseline data for the following **access indicators**: per capita availability of family physicians & nurse practitioners, percentage of rural population served by comprehensive primary health care teams and per capita utilization of CCAC professional services.

Section 3 - Demographic and Health Status Profile of Rural Districts in the WWLHIN

3.1 Defining Rural and Measuring Rurality

One of the greatest rural health challenges, from a policy and funding perspective, is the lack of consensus among experts about how best to define 'Rural':

Most people have an intuitive notion of what 'rural' means but a precise and universally accepted definition has thus far eluded researchers and public administrators (CIHI, p. 7)

One international health researcher has summed up the rural definitional challenge as follows (Couper, 2003):

- Rural cannot simply be defined as 'non-urban';
- Rural and underserviced are not interchangeable (i.e. some rural areas are not underserviced);
- Rurality, like beauty, is in the eye of the beholder.

At Statistics Canada, six different methodologies have been used to define 'rural' communities:

- Census 'rural areas'
- 'Rural and small town' (RST) and 'Metropolitan influenced zones' (MIZ);
- OECD 'rural communities';
- OECD 'predominantly rural regions';
- 'non-metropolitan' regions;
- 'rural' postal codes.

Most definitions of 'rural' are geographical and include some combination of community size, population density and distance. However, many argue that the concept of 'rural' is broader than simply where people are located. For example, The Ontario Rural Council argues in its publication *"What Makes It Rural"* that in addition to rural geography, decision-makers need to also consider the following dimensions:

- Rural service delivery and access;
- Rural culture and communities (incl. community values, socio-cultural dimensions, age profile and capacity for leadership & innovation);
- Rural economies (in terms of diversity and infrastructure);
- Rural environments (incl. stewardship of natural areas)

Based on this mix of variables, some researchers have argued that there are at least four different categories of rural communities in terms of planning for services (Greenwood, 2008):

1) Rural *Adjacent* (mixed economy, daily commuting to urban);

2) Rural *Non-Adjacent* (mostly primary resource extraction, e.g. farming);

3) Rural *Remote* (mostly single industry, northern, aboriginal);

4) Rural *Amenity* (cottage country, retirement communities).

Other researchers have argued that different dimensions of 'rural' can be combined to create a multi-variate index which describes the degree of 'rural-ness' or 'rurality' for different communities.

For example, the Canadian Medical Association, the Canadian Nurses Association, the Canadian Pharmacists Association and the Society of Rural Physicians of Canada (SRPC) received funding to "develop a national, multi-stakeholder framework/index of rurality – a tool that could be used for healthcare planning purposes as well as a means for recruiting and retaining health care providers to rural and remote communities" (SRPC, 2003, p. 2). Based on an extensive literature review and a thorough stakeholder & community consultation process, the project steering committee recommended the following ten(10) variables for inclusion in a national index of *rurality*:

- Distance to secondary referral centre;
- Distance to a tertiary referral centre;
- Size of catchment area;
- Barriers (geography/weather/roads) to timely access to healthcare services;
- Availability of public transportation to health care services;
- Number of healthcare providers (FTEs);
- Ability to provide services such as obstetrics, general surgery and anesthesia;
- Level of on-call responsibilities of physicians;
- Difficulty in obtaining locums;
- Availability of equipment (e.g. x-rays, lab services);

The details of each variable in terms of categories for ranking are listed in Appendix D.1.

Similar to the proposed national index of rurality, the Ontario Medical Association also developed a Rurality Index for Ontario (RIO) based on a similar set of variables including: distance to referral centres, community size, measure of weather conditions, population-physician ratios and availability of certain hospital services. Unlike the proposed national index, the OMA RIO included ambulance availability and a measure of social indicators but did not include the availability of nurses, availability of public transportation and difficulty in obtaining locums (see Appendix D.2).

Original RIO scores for communities in the WWLHIN are listed in Appendix D-3. They were calculated by the OMA prior to the restructuring of municipal boundaries. In terms of how the RIO scores are used, the higher the absolute score the more 'rural' the community is considered. The Ministry and the OMA have used this rurality index for the allocation of various program benefits. For example, the Rural Medicine Investment Program which *"recognizes and remunerates physicians for their commitment to provide medical services in a rural area"* is available to physicians who practice in communities with a RIO score greater than 45 (MOHLTC, 2007).

Recently, as part of the Physician Services Agreement between the OMA and the Ministry of Health and Long-Term Care, the RIO was simplified based on the following 3 variables:

- **TIMEb** = Measure of travel time to nearest basic referral centre **(47% of index)**
- **TIMEa** = Measure of travel time to nearest advanced referral centre **(24% of index)**
- **POPm** = Measure of community population and population density **(29% of index)**

The recalibrated 2008 RIO scores are also listed in Appendix D.3. As part of its current review of the Underserviced Area Program, the Ministry of Health and Long-Term Care is recommending that communities with RIO scores less than 40 would no longer be eligible for designation as 'medically underserviced'. Under this proposal, only the following WWLHIN communities are considered 'rural' enough:

Community	**2008 RIO Score**
Southgate	48
North Wellington	42
Minto	46

There is an emerging consensus among rural researchers and policy-makers that the appropriate definition of what's 'rural' and the measurement of rurality needs to fit the context of the research and the research question(s). Statistics Canada specifically recommends:

We strongly suggest that the appropriate definition should be determined by the question being addressed. However, if we were to recommend one definition as a starting point for understanding Canada's rural population, it would be the "rural and small town" definition which is defined as those areas outside of urban centres of 10,000 or more population and where less than 50% of the labour force commutes to an urban centre for work. (Bollman, 2002)

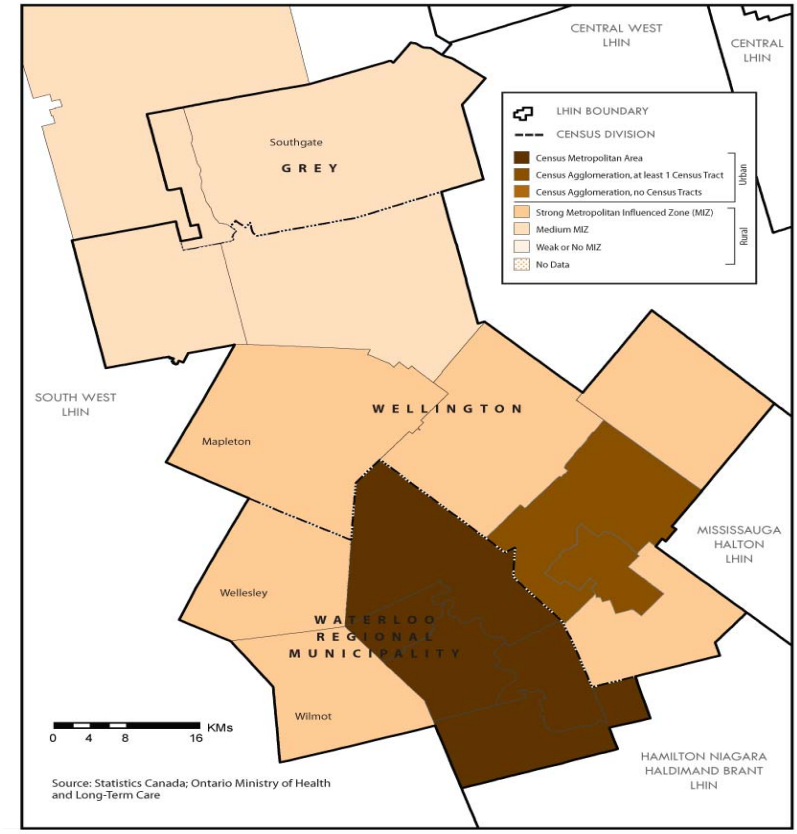
Using this approach, 9 of 17 census sub-divisions (CSDs) in the WWLHIN are classified as 'rural' accounting for approximately 16% of the population (see Map 1 below).

Municipality	***StatsCan Classification***
Township of Southgate (Grey County), Town of Minto, North Wellington	Moderate MIZ (more rural)
Town of Erin, Township of Centre Wellington, Township of Mapleton, Township of Puslinch, Township of Wellesley , Township of Wilmot	Strong MIZ (less rural)
City of Guelph, Township of Guelph-Eramosa	Census Agglomeration (urban)
City of Cambridge, City of Kitchener, City of Waterloo, Township of North Dumfries, Township of Woolwich	Census Metropolitan Area (urban)

NOTE: MIZ = metropolitan-influenced zone

In this urban-rural classification scheme, three rural townships (Guelph-Eramosa, North Dumfries and Woolwich) are considered part of larger urban areas.

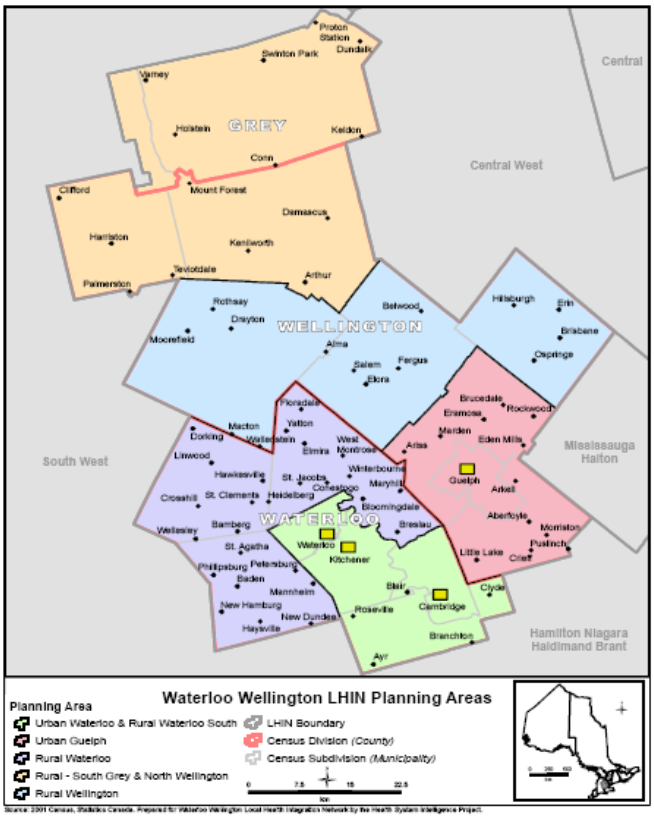
Map 1 – Rural Census Sub-Divisions in the WWLHIN (2006)



The other classification scheme is the five (5) sub-districts defined by the LHIN as service planning areas (see Table 1 below):

Table 1: Designated Planning Areas and Planning Area Map in Waterloo Wellington Local Health Integration Network

WWLHIN Planning Areas	Communities within the Planning Area
Urban Waterloo and South Rural Waterloo	City of Waterloo, City of Kitchener, City of Cambridge, and Township of North Dumfries
Rural Waterloo	Township of Wellesley, Township of Wilmot, and Township of Woolwich
Urban-Guelph	City of Guelph, Township of Guelph/Eramosa and Township of Puslinch
Rural Wellington	Town of Erin, Township of Centre Wellington and Township of Mapleton
Rural North Wellington & South Grey	Township of Southgate, Town of Minto and Township of Wellington North



In this classification scheme, there are 2 largely urban areas and 3 rural areas in the Waterloo Wellington LHIN. The two key differences between this scheme and the previous StatsCan urban-rural classification are as follows:

I. Township of Puslinch is part of the 'Urban Guelph' planning area;
II. Township of Woolwich is part of the 'Rural Waterloo' planning area (instead of being included in the larger urban CMA of Cambridge-Kitchener-Waterloo).

For the purposes of this report, analysis will primarily focus on the three (3) rural planning areas defined by the WWLHIN and how they are the same or different than the two (2) urban areas. Where data is available for all rural census sub-divisions in the WWLHIN, it will also be presented.

3.2 Demographic and Socio-Economic Indicators

Depending on what definition of 'rural' is used there are up to 12 census sub-divisions in the WWLHIN area that could be considered as 'rural'. In the table below, the key demographic characteristics of these 12 rural municipalities is listed for each of the LHIN's 5 sub-planning areas:

- RNWSG = Rural North Wellington South Grey
- RWELL = Rural Wellington
- RWAT = Rural Waterloo
- UWAT = Urban Waterloo (incl. Kitchener and Cambridge)
- UGUELPH = Urban Guelph

Community	***2006 Population***	***Density(1)***	***Dependency Ratio(2)***	***% Population Aged 65+***
RNWSG				
Wellington North	11,175	21.3	59	17.4%
Minto	8,504	28.3	60	17.5%
Southgate	7,167	11.1	52	12.8%
RWELL				
Centre Wellington	26,049	64.0	53	14.9%
Erin	11,148	37.5	42	10.1%
Mapleton	9,851	18.4	58	8.5%
RWAT				
Woolwich	19,658	60.3	54	14.5%
Wilmot	17,097	64.8	52	14.6%
Wellesley	9,789	35.2	58	8.8%
UWAT				
North Dumfries	9,063	48.4	46	10.3%
UGUELPH				
Guelph-Eramosa	12,066	41.4	48	12.4%
Puslinch	6,689	31.2	47	14.9%

NOTES: (1) Density = persons per square kilometer
(2) Dependency Ratio = ratio indicating the number of 'dependents' (aged 0-14 and over the age of 65) relative to the working age population (aged 15-64)

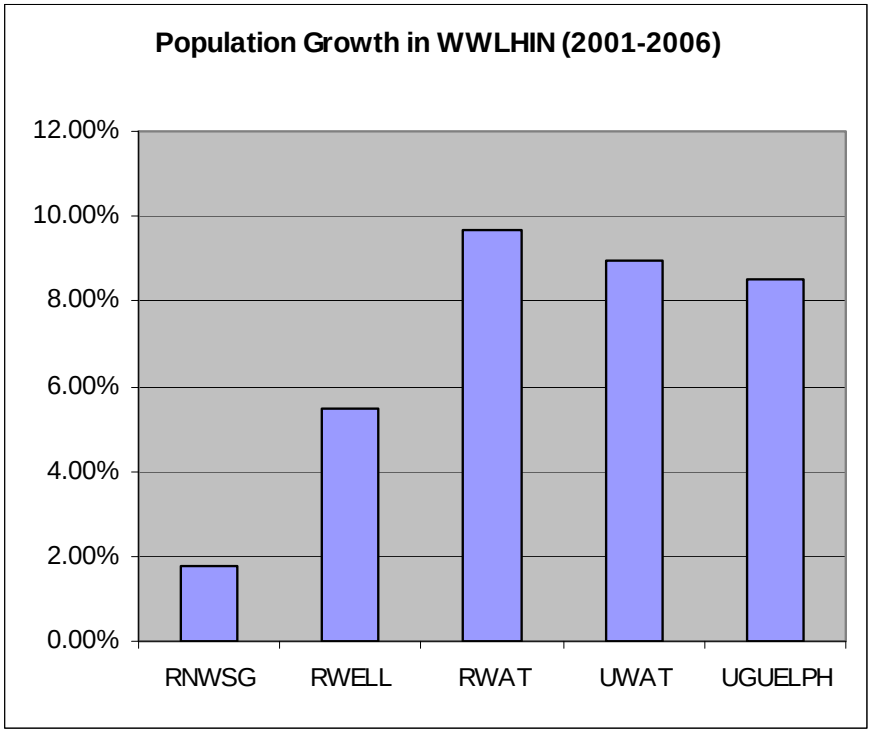
The basic demographic information highlights that the 12 'rural' communities are certainly not homogenous in terms of age structure and population density and confirms that within the LHIN's three (3) rural planning areas there is considerable variation. The literature suggests that rural communities have unique characteristics with respect to health determinants, including demographic, economic, social and cultural factors. Most rural communities in Canada have a high dependency ratio, an aging population,

a low proportion of immigrants and visible minorities, and relatively high proportion of aboriginal people as compared to urban areas. Rural Canadians tend to have lower

levels of formal education, employment and income. In addition, they are more likely to engage in primary industry occupations such as farming, logging, mining and fishing (Lagace, 2007, p. S62).

2006 Census data for the Waterloo Wellington LHIN would appear to confirm this description for rural communities, most notably for the 2 more rural areas - Rural North Wellington-South Grey (RNWSG) and Rural Wellington (RWELL). (see Figure 1).

Figure 1 - Population Growth in the WWLHIN's 5 Planning Areas



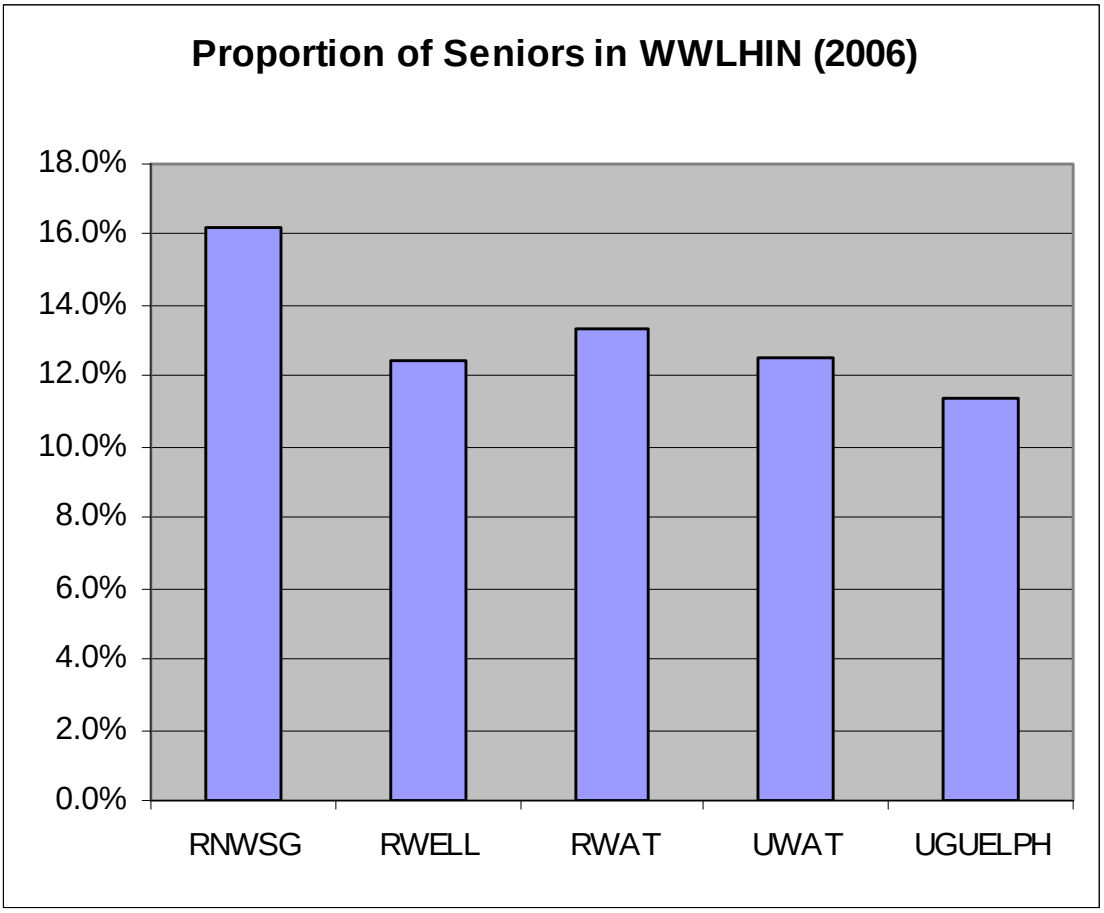
Since the 2001 Census, the two urban areas in the WWLHIN have experienced growth rates between 8-9%. The two more rural areas have had lower slower rates of growth. The notable exception is Rural Waterloo which experienced the highest growth rate of all five LHIN planning areas.

LHIN Planning Area	Population Growth % (2001-2006)
Rural Waterloo	9.7%
Rural Wellington	5.5%
Rural North Wellington-South Grey	1.8%

Age Profile

Many rural communities are aging more rapidly than urban communities and so the number and proportion of seniors is considered a key variable for purposes of planning rural health services (see Figure 2).

Figure 2 – Proportion of Seniors in the WWLHIN's 5 Planning Areas

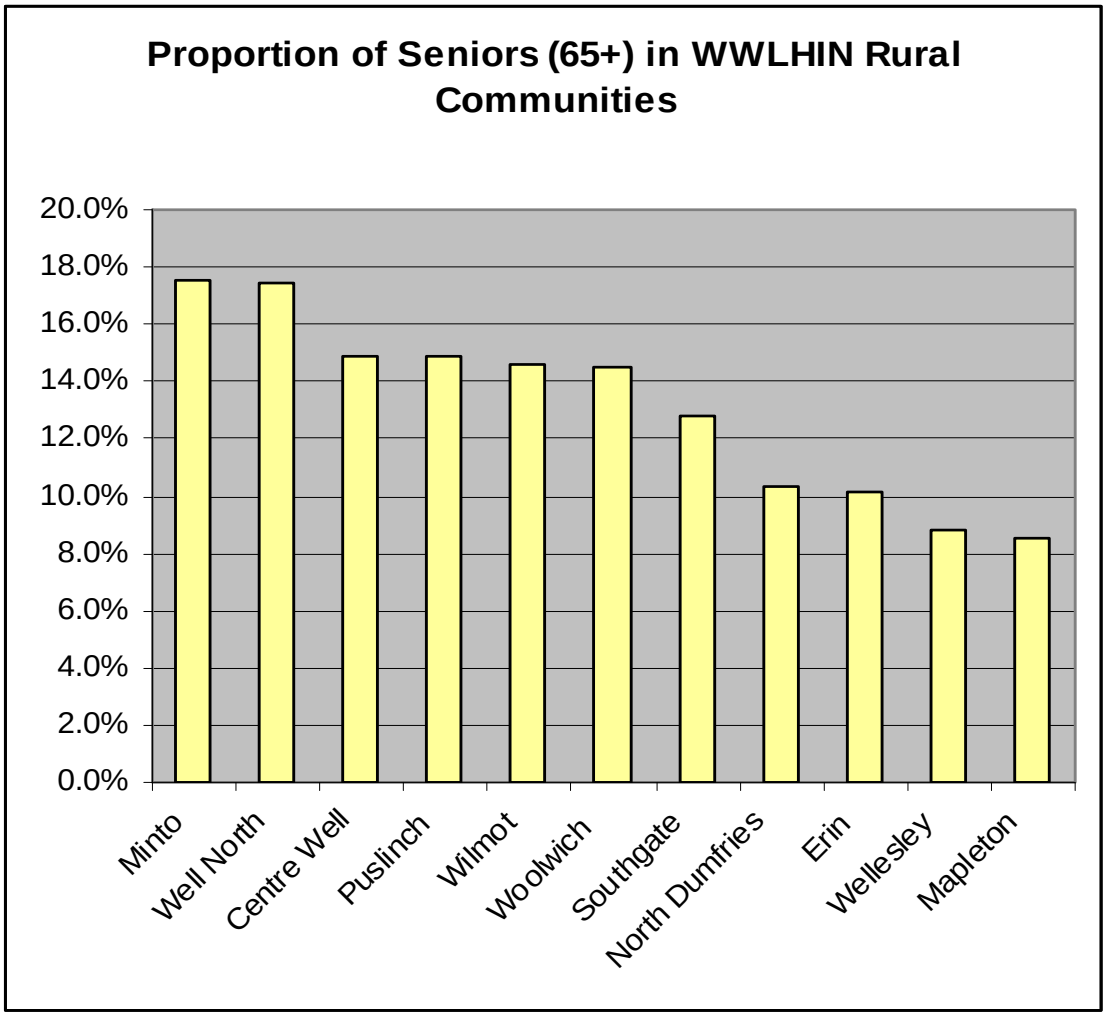


Rural North Wellington-South Grey, the most rural area in the WWLHIN, is also the most 'aged' of the five LHIN planning areas. However, there are some interesting variations in age structure within the LHIN's rural planning areas (see Figure 3).

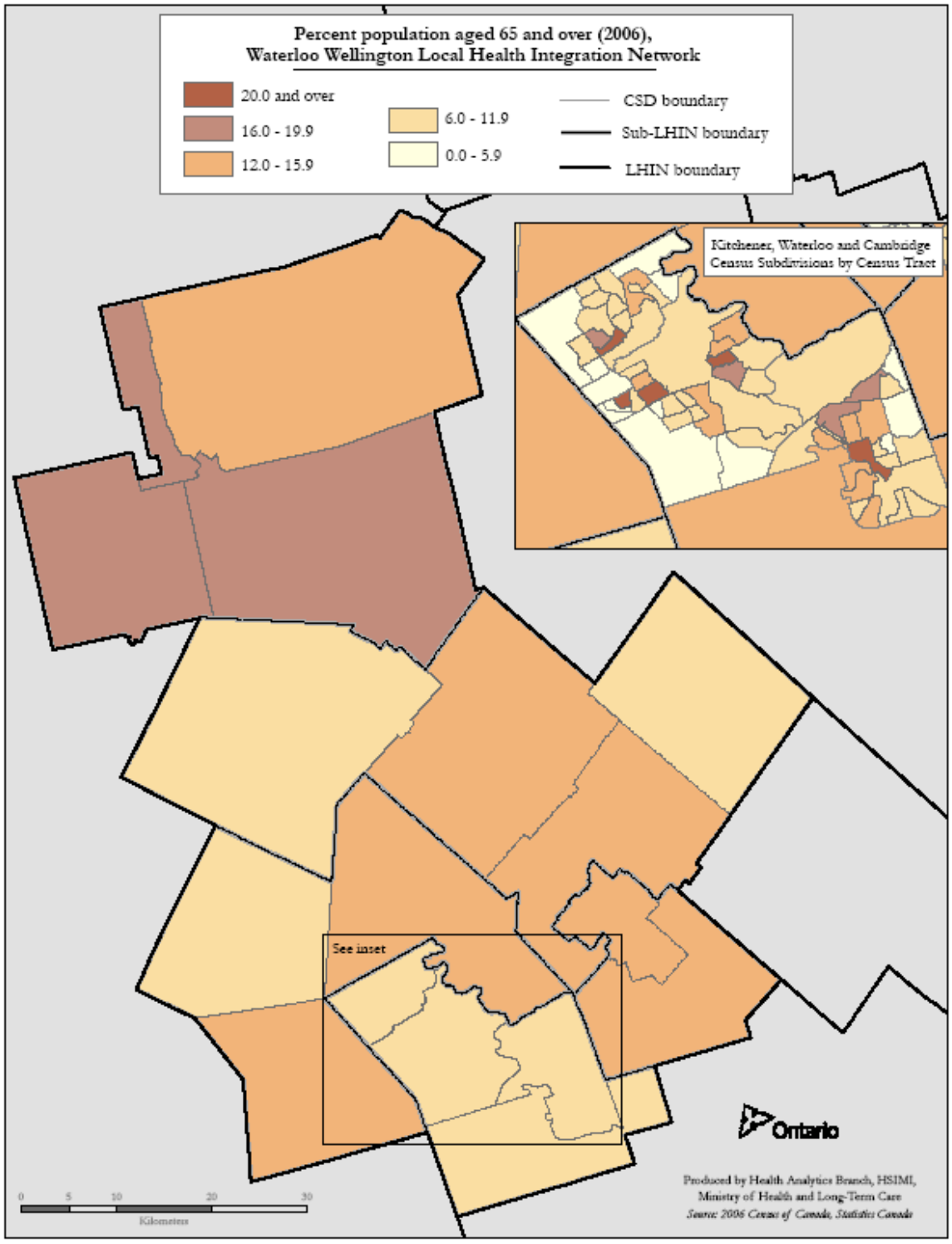
The rural municipalities of Minto, Wellington North, Centre Wellington. Puslinch, Wilmot and Woolwich all have a proportion of seniors (aged 65+) above 14% which is more typical of rural communities in Ontario. At the other end of the scale, the rural municipalities of Wellesley and Mapleton have a much younger age profile with the proportion of seniors below 9% suggesting that the relationship between rurality and older age structure does not hold for all rural communities in the WWLHIN. In fact, from a service planning perspective, the variation in age structure (as defined by proportion of

seniors) across all LHIN communities produces some interesting geographic variability (see Map 2).

Figure 3– Proportion of Seniors in WWLHIN Rural Communities



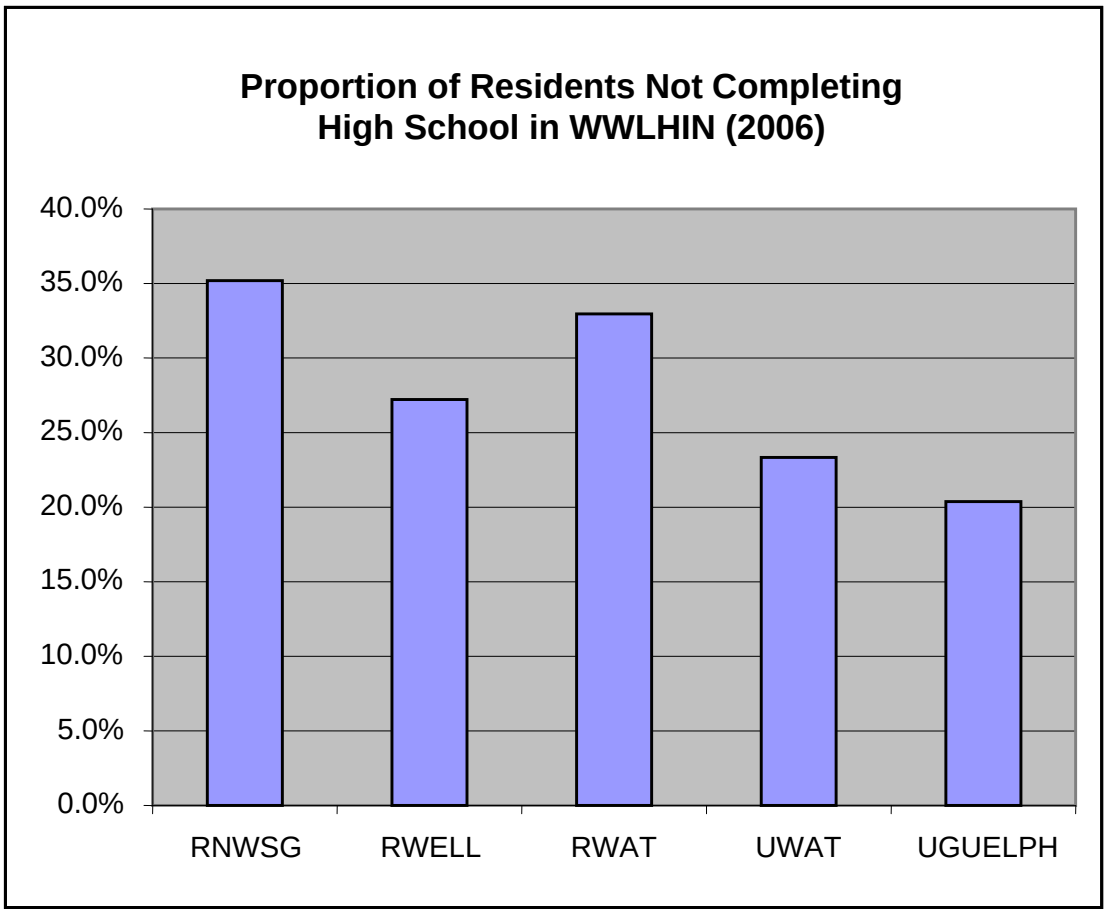
Map 2 – Percent of Population Aged 65+ in WWLHIN Communities



Socio-Economic Indicators

The rural health research literature also suggests that rural communities are characterized by higher levels of socio-economic disadvantage as defined by higher rates of poverty and lower rates of educational attainment. In terms of the latter, the rural-urban pattern is evident among the WWLHIN's 5 planning areas (see Figure 4). The proportion of residents that did not complete high school is higher in the 3 rural planning areas and the most rural area, Rural North Wellington South Grey, has the highest percentage (35%).

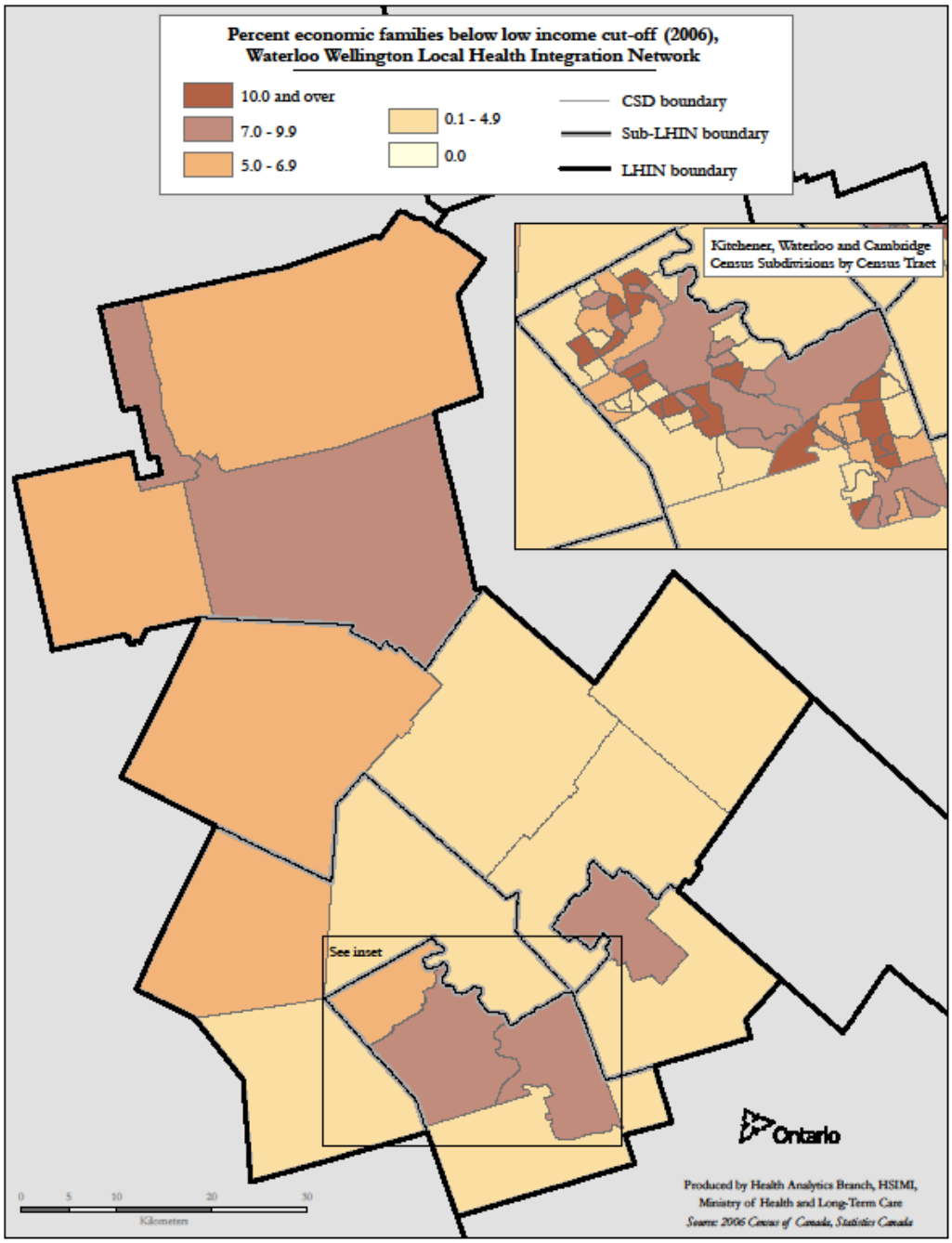
Figure 4 – Proportion of Residents That Did Not Complete High School



In terms of individual and family income levels, there are different ways to measure socio-economic disadvantage. One standard measure used by Statistics Canada is the proportion of families living below the Low-Income Cut-Off (LICO). Based on 2006 Census data, there does not appear to be a strong relationship between the proportion of families living in poverty (below LICO) and the degree of rurality (see Map 3). In fact, there are noticeable geographic 'pockets' of poverty in both urban and rural communities in the WWLHIN, with a number of downtown core neighbourhoods in Kitchener,

Waterloo and Cambridge having the highest proportions of families living below the LICO.

Map 3 – Percent of Families Below Low-Income Cut-off (LICO)



Index of Relative Socio-Economic Disadvantage

As part of the provincial Health System Intelligence Project (HSIP) which was established to provide all LHINs with standardized information for health planning, a "Socio-Economic Indicators Atlas" was developed for each LHIN in 2006 based on 2001 Census data. The report contained an *Index of Relative Socio-Economic Disadvantage* which was based a number of socio-economic variables related to:

- Income
- Employment
- Immigration
- Education
- Housing
- Family & Households

This index was then mapped for all census subdivisions in the WWLHIN and the main findings were as follows: (HSIP, 2006, p. 10)

1. *Relative to the province as a whole, census subdivisions in the Waterloo-Wellington LHIN have a considerably lower index score, indicating lower levels of relative socio-economic disadvantage on average;*

2. *The highest values of this indicator are found in Wellington North and Southgate* (the most rural areas in the northern part of the LHIN).

Special Populations

One of the special challenges for rural health services delivery is the large number of Amish and Mennonite families. The WWLHIN is home to approximately 35% of Ontario's total Mennonite population. According to the 2006 Census, numbers of Mennonites in the LHIN's 3 rural areas is as follows:

Sub-LHIN Area	Rural Municipality	# of Mennonites	% of Total Pop.
RNWSG	Wellington North	560	5.1%
	Southgate	480	7.0%
	Minto	305	3.8%
RWELL	Mapleton	2,990	32.2%
	Centre Wellington	550	2.3%
	Erin	10	0.1%
RWAT	Woolwich	4,270	24.0%
	Wellesley	4,175	44.6%
	Wilmot	1,835	12.4%

NOTE: Because some Amish and Mennonite households do not complete the Census surveys, they are typically under-represented in Statistics Canada population counts.

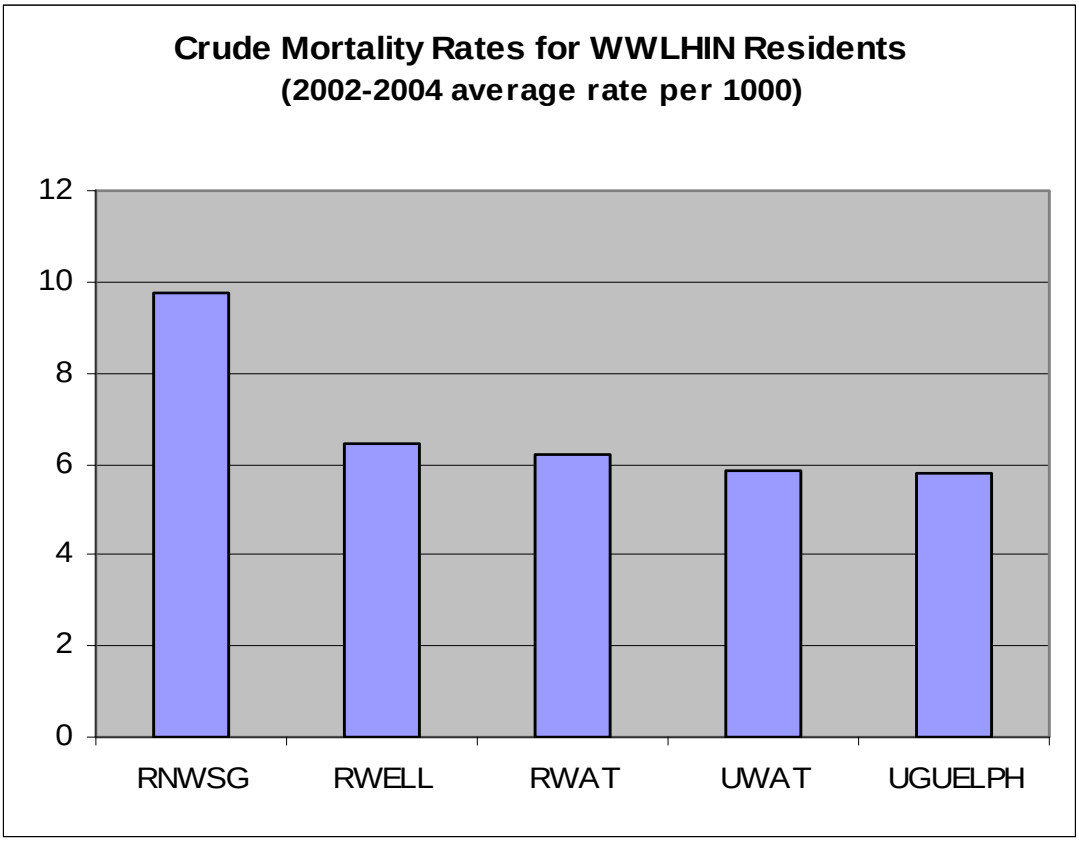
3.3 Health Status Indicators

Mortality rates and potential years of life lost are standard indicators of a population's health status.

Mortality Rates

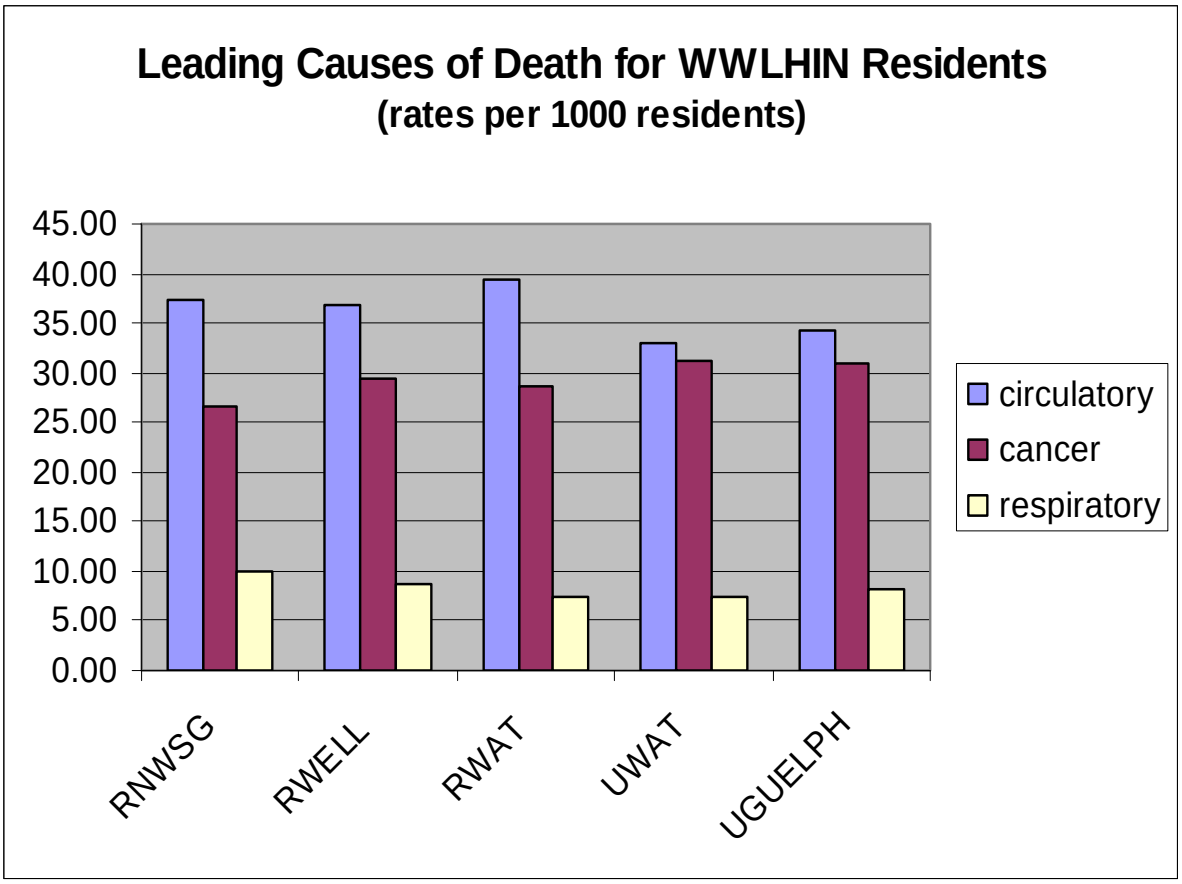
Overall mortality rates are similar for 4 of 5 WWLHIN planning areas but the mortality rate for the most rural area, Rural North Wellington South Grey, is significantly higher (see Figure 5). However, these rates have not been adjusted for age and so the much higher rates for the RNWSG area will be at least somewhat attributable to that area's older age profile.

Figure 5 – Crude Mortality Rates for the WWLHIN's 5 Planning Areas



There are some interesting rural-urban variations in health status when one looks at leading causes of death (see Figure 6). Mortality rates due to circulatory health problems (e.g. heart and stroke) and respiratory health problems are higher in the rural areas of the WWLHIN compared to the urban planning areas but Cancer mortality rates are lower in the rural areas. These findings are consistent with national research on rural-urban health status differentials.

Figure 6 – Leading Causes of Death for the WWLHIN's 5 Planning Areas

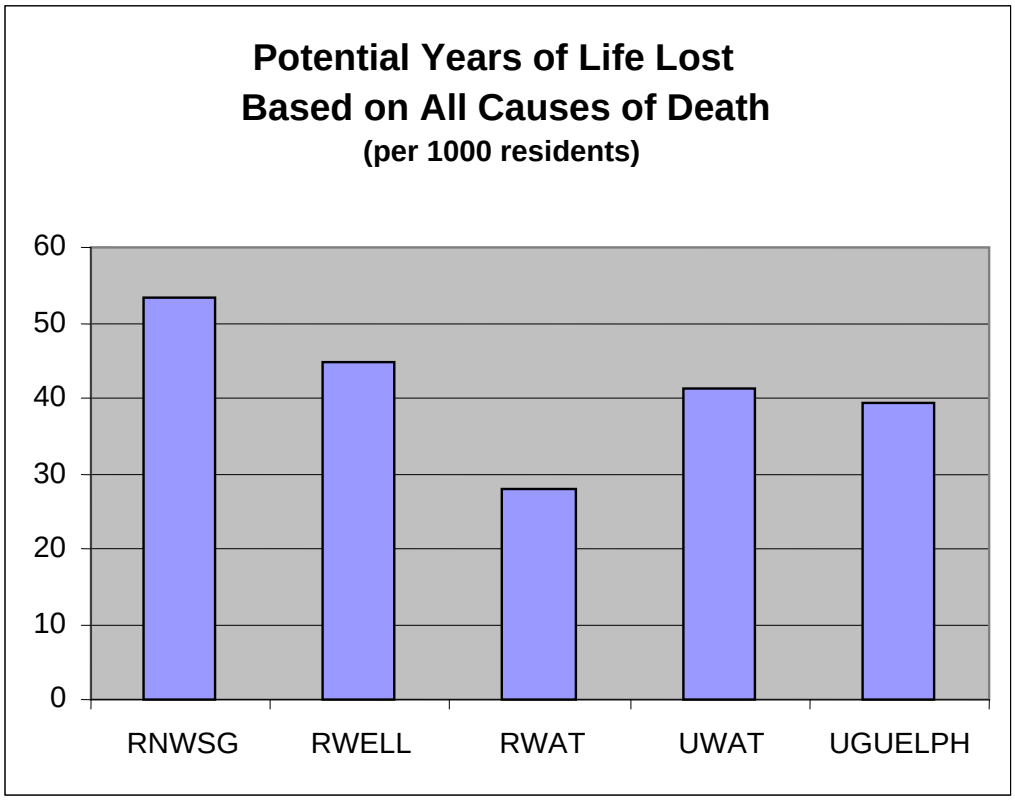


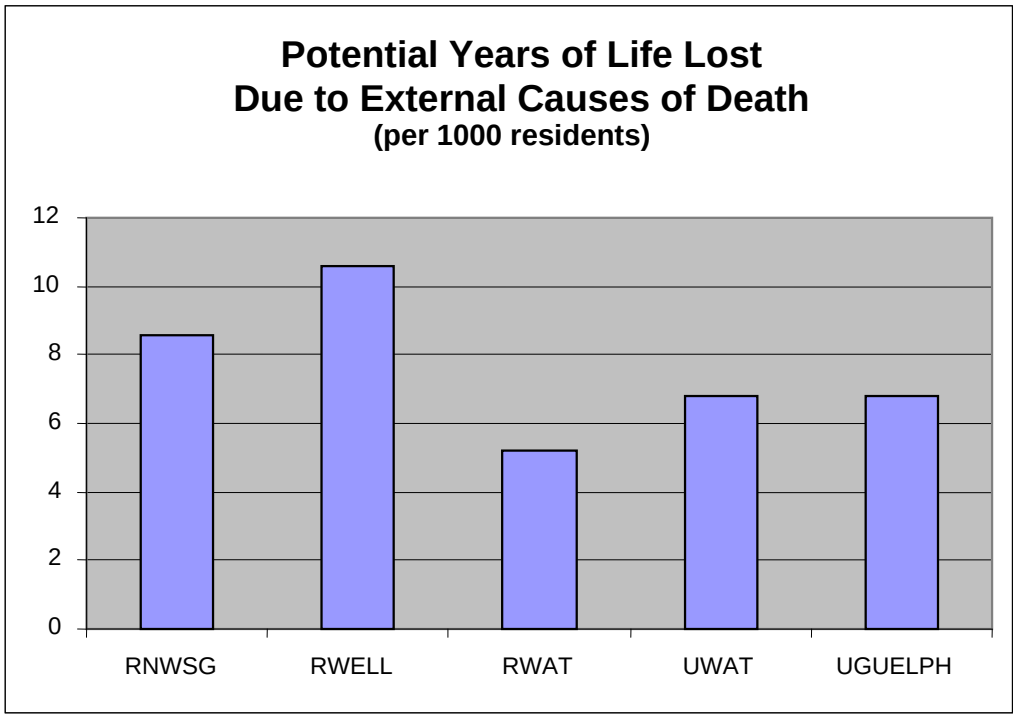
Potential Years of Life Lost

Potential Years of Life Lost (PYLL) is calculated by determining how many residents died before reaching age 75 and for each death, the number of years "lost" (e.g. a person who dies at age 68 represents 7 years of life lost). PYLL is considered a standard indicator of the amount of premature death in a given population.

Figure 7 shows that PYLL rates are higher in 2 of 3 rural planning areas in the WWLHIN but in the third rural planning area, Rural Waterloo, PYLL rates are lower than in the 2 urban planning areas. Another important cause of death for rural residents is mortality from 'external causes' including farm accidents and traffic fatalities. The PYLL rates again are higher in 2 of 3 rural planning areas but lower than urban rates for Rural Waterloo (see Figure 8).

Figures 7 & 8 – Potential Years of Life Lost (PYLL) based on All Causes of Death and Deaths due to External Causes Only





Section 4 - Rural Community Health Needs

4.1 Community Consultation Highlights

An important part of this process was to hear directly from rural residents in different parts of Waterloo Wellington LHIN. Five community consultations were held as follows:

Date	Location
January 28, 2009	Harriston & Minto Complex, Harriston
February 5, 2009	Aboyne Hall, Elora
March 5, 2009	Lion's Hall, Elmira
March 30, 2009	Cedar Creek Public School, Ayr
April 8, 2009	Township of Eramosa Council Chambers, Rockwood

The format for all 5 meetings was:

- First Hour – presentations by the WWLHIN on current integration & planning activities and by local health care providers on local programs & services ;
- Second Hour – facilitated small group discussions based on the following key questions:
    - As a rural resident of the Waterloo Wellington LHIN, what do you see as some of the key issues and challenges in terms of access to heath care services?

- How can we make our local health system more responsive to the needs of rural residents?

- One of the key goals of the LHIN is to facilitate the development of a more integrated health care system. What suggestions or ideas do you have for creating more coordinated service delivery for rural residents?

- The rural health strategy needs to be forward looking and innovative. Are you aware of innovative rural health programs from other jurisdictions that we should look at?

Following each session, the key issues raised by residents were organized into themes and a summary of these key themes is listed below:

Key Challenges in Terms of Access

- Access to Primary Care
- Access to Specialist Care
- Acute Care Facilities/Services
- Generic Access to Services
- Wait Times
- Lack of Transportation Options

- Ambulance/EMS
- Services for Seniors (Community and Facility-based)
- Community Support Services
- Affordable/Supportive Housing
- Mental Health & Addiction Services
- Lack of Coordination across LHIN Borders
- Health Human Resource and Funding Issues

Making System More Responsive

- More Rural-focused Planning
- Greater Awareness of Services
- More Coordinated Services & Partnerships
- Using System Navigators
- Redevelopment & Better Use of Rural Hospitals
- Improve Access to Services
- Improve Transportation
- Increase Supply of Health Professionals & Innovative HHR Strategies
- Cross-LHIN Planning
- More Effective Communication
- Utilize Information Technology

The detailed notes from these meeting can be found in Appendix E.

4.2 Local Rural Health Reports

The following local health reports were reviewed as part of this project:

- The Ontario Rural Council, "The Rural Health Strategy: an integrated approach to healthy communities" (Elora Rural Health Forum Report), Feb. 2003

- Woolwich Community Health Centre, "Proposal to Develop a Satellite CHC Location for the Township of Wellesley and Area: Community Needs Assessment", March 2003

- Langs Farm Village Association, "Proposal to Establish a Satellite CHC Location for North Dumfries: Community Needs Assessment", October 2003

- Region of Waterloo Public Health, "Woolwich Township Rural Health Study", August 2004

The first report by The Ontario Rural Council (TORC) was part of a series of reports released by the Council as part of their consultations with various rural communities about their Rural Health Strategy – *an integrated approach for the development and implementation of strategies to address chronic shortages of health professionals in rural communities.* The report is a proceedings of the community consultation that took place in Elora in February 2003. The workshop had two parts:

- A discussion of local rural assets; and
- A review and discussion of rural health strategy for retention and recruitment of rural health professionals.

In the first part of the workshop, community participants were introduced to the asset-based approach to community development and identified over 30 local assets. From this list, the following 3 key themes emerged as the most valuable: (TORC, 2003, p. 5)

- ***Accessibility*** for all residents to community services, local health practitioners, trauma related professionals, mental health services and transportation to local health care services;

- ***Sense of community*** meaning that groups work together, that there is respect for cultural traditions and beliefs, respect of elders, community closeness, community support and community involvement and input;

- ***Quality care*** where expertise matches community needs, that involves a wide variety of programs and services, that strives for a personalized approach, that has generalists that know when to refer to specialists and that results in satisfied rural people and the health and well-being of community members.

In the second part of the workshop, participants were introduced to TORC's 'Rural Health Strategy' which had 3 components:

- Guide for recruitment and retention of rural health professionals;
- Rural health career kit developed specifically for youth;
- Website (www.ruralhealth.ca)

Participants then brainstormed about successful recruitment and retention strategies which included:

- Effective local recruitment and retention committee (with broad based participation);
- Welcoming atmosphere in the community for prospective practitioners and their families;
- Connecting with rural youth and getting them involved in the health field;
- Working with medical schools and other educational institutions on rural training and placements;
- Support for local professionals (i.e. adequate resources, professional development opportunities etc.)

The next two 2003 reports were developed by the WWLHIN's 2 Community Health Centres (CHCs) as part of proposals for satellite locations to serve two 'underserviced' rural areas:

- Woolwich CHC satellite to serve Wellesley Township; and
- Langs Farm Village CHC satellite to serve North Dumfries Township.

The key needs assessment information from the 2 reports can be summarized as follows:

Wellesley Needs Assessment

The overall conclusion of the report is that Wellesley is significantly underserviced in terms of availability of primary care services.

The proposed Wellesley Satellite identified the following target groups which it would serve as 'priority' populations:

- Rural and farming families, including the unique populations of conservative Mennonites and Amish who travel by horse and buggy (i.e., Old Order Mennonites, David Martin Mennonites, Old Order Amish), and Low German-speaking Mennonites from Mexico.
- Seniors (55+ years of age)
- Families with young children (0-6 years of age)
- Youth (14-19 years of age).

A summary of characteristics and health challenges/risks for the 4 priority populations is summarized below:

Priority Group	Characteristics of Priority group	Health risks/ access problems experienced by the priority group
Rural/Farming Families	• Isolation related to geographic dispersion • Significant proportion of population involved in	• Overall lack of access to primary health care, illness prevention, health promotion, rehabilitation and related resources, programs and services

	agriculture, manufacturing and construction; almost 1/3 of population self-employed • Lower than average level of education • Larger than average family size • Poverty and language barriers for Low German-speaking Mennonites • Unique cultural groups - conservative Mennonite populations	• For self-employed, lack of access to health care plans/benefits and insurance coverage • Lack of public transportation, and great travel distances to access services outside of Wellesley Township, especially for those who travel by horse and buggy • Stress and mental health issues related to farming, isolation • Occupational risks related to farming • Unique challenges related to conservative Mennonite populations: language, limited formal education, cultural differences • Increased risk in rural community for heart disease, respiratory illness, diabetes, injuries
Seniors (55+)	• Majority of seniors are physically inactive • 2/3 of seniors live alone	• Overall lack of access to primary health care, illness prevention, health promotion and related resources, programs and services • Lack of public transportation, and great travel distances to access services outside of Wellesley Township, especially for those who travel by horse and buggy • Isolation • Lack of seniors' housing options that include supportive services
Families with Young Children (0-6)	• Larger than average family size • Significant proportion of the population 0-19 years of age (39.3%, with 30.5% between 0 and 14 years) • Growing number of 'in-migrating" families, with one or more members employed outside the Township	• Overall lack of access to primary health care, illness prevention, health promotion and related resources, programs and services • Lack of public transportation, and great travel distances to access services outside of Wellesley Township, especially for those who travel by horse and buggy • Lack of child care • Isolation of young mothers, stress, depression and specifically, post-partum depression • Lack of parenting and parent-child resources
Youth (14-19)	• Higher proportion of adolescents in Wellesley Township (8.6% of	• Overall lack of access to primary health care, illness prevention, health promotion and related resources, programs and

	population is 15-19 years of age) compared to provincial average (6.7%) • Youth in Wellesley attend high school outside of the Township – in Baden and Elmira (public schools), and Kitchener-Waterloo (separate schools) • Significant proportion of adolescents who leave school after grade 8 (conservative Mennonite groups)	services • Lack of access to other health information/ resources related to sexual health, tobacco use, substance abuse, etc. • Lack of public transportation, and great travel distances to access services outside of Wellesley Township, especially for those who travel by horse and buggy • Formal education for conservative Mennonite groups ends between 14-16 years of age; thereby limiting opportunities for health education beyond that age

According to the Census, Wellesley and Woolwich Townships have the greatest numbers of Mennonites in the WWLHIN (over 4,000 in each township) and that in Wellesley, Mennonites represent over 40% of the total population.

The 2003 report provided the following more detailed information about the Mennonite-Amish populations: (Woolwich CHC, 2003)

- *The Township of Wellesley comprises a number of Anabaptist cultural groups: the Old Order Mennonites (OOM), the David Martin Mennonites (DMM), the Old Order*

  Amish (OOA), and the Low German-speaking Mennonites from Mexico (LGSMM). The first three groups are notable for their very traditional lifestyle and practices. These three groups pay taxes to governments but they view the reliance on government for health insurance and social welfare supports as a sign of unfaithfulness and therefore make limited use of non-medical services. All three groups rely on horse and buggy for transportation, but will hire a driver for long distance travelling. Their first language is Pennsylvania Deutsch; English is learned when children begin school. The OOA and DMM usually have OHIP numbers but the OOM choose not to obtain OHIP cards. All three groups tend to access chiropractic care and then primary medical care when they are ill; most believe in childhood immunization; and there is increasing use of herbal medications by all three groups. There is very little use of other health and related services such as mental health counselling, health education programs, etc;

- *The LGSMM are a transient group whose parents and grandparents, originally from Canada (Manitoba), established colonies in Mexico and in Central and South America in the 1920's. In the 1980's, the children and grandchildren began returning to Ontario from the Mexican "colonies". Their first language is Low German, which is an oral language only. High German is used as the written and spoken language in the Mexican colony schools. The LGSMM use automobiles for transportation, and most modern amenities that can be afforded. However, living conditions for many LGSMM can be quite poor, with substandard housing, cramped living conditions, and inadequate income and food. The concept of preventative health care (i.e., regular prenatal care, eating well during pregnancy to ensure a healthy baby) is quite abstract for this group and is not generally valued. Language and cultural barriers are noteworthy barriers in providing health care to this population, and children in this*

group tend to be much sicker when health care is accessed[4,] Men are the "head of the household" and as such, influence the health-seeking behaviours of women; spousal abuse, alcoholism, and child abuse are not discussed outside of the family;

- *Family sizes for the OOA and OOM are large, with an average of 6-7 children. DMM and LGSMM families tend to be a bit smaller, with an average of 4 children. Conditions such as infant pneumonia, infant diarrhea and low birth rate are more frequent in one or more of these groups than in the general population, as are certain genetic/inherited diseases and disorders.*

North Dumfries Needs Assessment

The proposed CHC satellite for Dumfries would serve the following rural catchment area of approximately 12,000:

The community is primarily rural in character with its main centre being the community of Ayr from which the majority of community services and the one family physician serving the township operate. The proposed catchment area for the Community Health Centre satellite services includes the portion of North Dumfries Township found west of the Grand River as well as two communities in Oxford County and one community in Wilmot Township. The catchment has been defined based on information gathered from

community consultation and health survey data and "natural" community use patterns for health care and social services. It includes the following small rural communities:

- *Ayr*
- *Roseville*
- *Drumbo*
- *Canning*
- *New Dundee*
- *Plattsville*

Similar to the Wellesley CHC satellite, the proposed North Dumfries satellite would serve 4 priority populations. They are listed below along with the specific health challenges for each group:

Children and Youth
- Access to primary care services
- Access to recreation and support services beyond sports
- Need for after school programming for those from single parent or families with both parents
- Social skill development
- Primary prevention and health promotion programming

Young Families
- Access to primary care services
- Coordination of care and resource related to primary health care

- Access to a range of services in their own community (e.g. speech and language screening)
- Poverty issues (housing, food security)
- Community safety (e.g. vandalism and reckless driving are community issues)
- Parenting issues related to 0-6 age category
- Mental health

Farmers and Farming Families

- Access to primary care services
- Mental health
- Environmental safely (e.g. water quality)
- Farm Safety

Seniors

- Access to primary care services
- Mental health
- Transportation
- Poverty issues (e.g. housing, food security)
- Community independence
- Nutrition

The report also identified the following community health issues that need to be addressed for this rural area:

- Community safety concerns (vandalism, dangerous driving)
- Drug and alcohol abuse
- Sexual health issues (youth)
- Parenting concerns
- Food security
- Access to structured activities for youth (beyond sports)
- Transportation
- Nutrition
- Farm safety
- Affordable housing

The 2004 Rural Health Study by the Region of Waterloo Public Health Department focused on Woolwich Township and was initiated to provide additional background information to the Woolwich Community Health Centre. 250 people participated in the Rural Health Study through both focus groups and key informant interviews.

Participants were asked open-ended questions in which they described the factors which they believe affect their health (in both negative and positive ways), what resources they are currently using, and what they believe is needed to improve health in their communities. The following were identified as key challenges/concerns by study participants:

- Farm stress
- Lack of resources for mental health and substance abuse problems
- Concerns about pollution – air and water quality
- Erosion of a "sense of community" as Woolwich becomes more of a 'bedroom community'
- Lack of appropriate, affordable housing for seniors
- Lack of transportation which limits access to health services
- Poverty is an issue that is overlooked because township is considered 'prosperous'
- Concern about staff turnover at community support agencies
- Access to information about available services was seen as a problem

The overall conclusion of the 2004 study was:

Woolwich Township is fortunate in that it has a number of support services that work together to meet the needs of the community. The Community Health Centre plays an important role in bringing people together and raising awareness about the many factors that contribute to health. It can act as a focal point for the community.

Some of the health-related issues in Woolwich township at the time of the Rural Health Study were stress related to farming; the ability to obtain appropriate, affordable housing; transportation and access to services and employment; access to various health care services including mental health. The populations needing support include

farmers, youth, people living on low income, Low German speaking Mennonites, and conservative Mennonites. (Waterloo Region Public Health, 2004)

Summary Highlights:

Rural community consultations held by the WWLHIN in the Winter/Spring of 2009 and a review of 4 local rural health reports identifying health issues/challenges in several of the WWLHIN's rural communities (Centre Wellington – 2003; Wellesley – 2003; North Dumfries – 2003; Woolwich – 2004) yielded a considerable list of rural health issues.

In terms of comparing and contrasting the results of the 2009 consultations and the 2003-2004 reports, the following themes emerged:

<u>Consensus on Issues Requiring Improvement</u>

- Transportation
- Access to acute care, family doctors
- Improved mental health services

<u>Consensus on Improvement Strategies</u>

- Bringing urban services to rural areas (outreach)
- Investing in primary care and new models of care
- Recruitment and retention of rural health care professionals

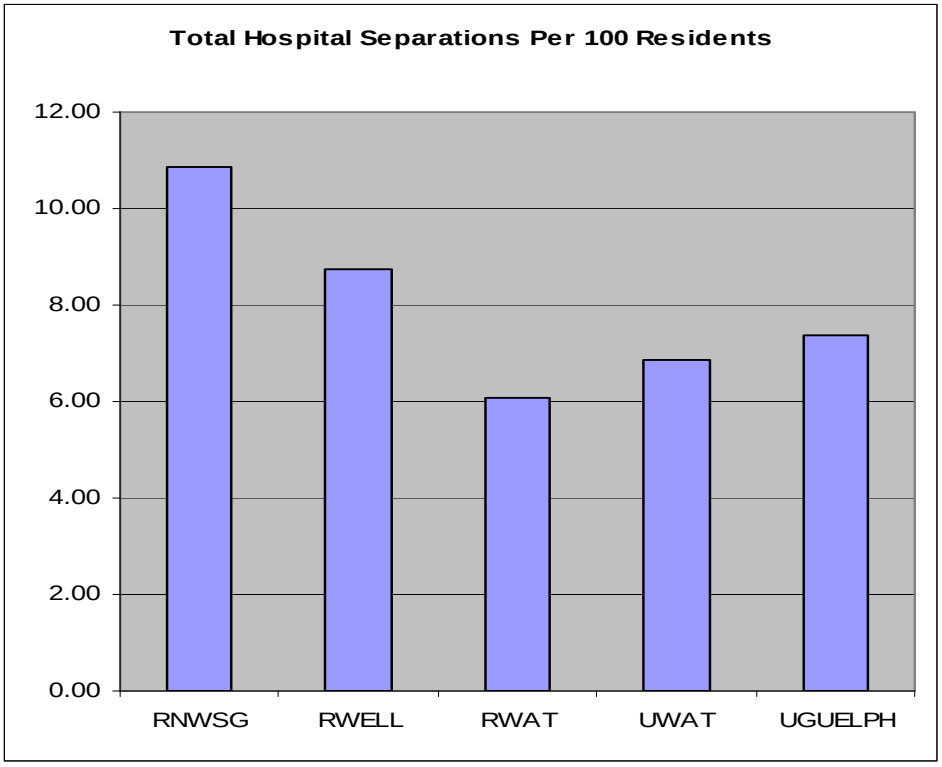
Where Consultations and Reports Differed

- Use of information technology (IT) – not specifically mentioned in reports
- Need for affordable housing – mentioned in reports but only 1 consultation session
- Services for youth – mentioned in reports but only 1 consultation session
- Concern about pollution – mentioned in reports but not at consultation sessions
- Rural poverty – mentioned in reports but not at consultation sessions
- Lack of community support services – mentioned in consultation sessions but not in reports

Section 5 – Availability and Utilization of Health Services for Rural Residents

5.1 Utilization of Hospital Services

5.1.1 Hospital Separations Per Capita

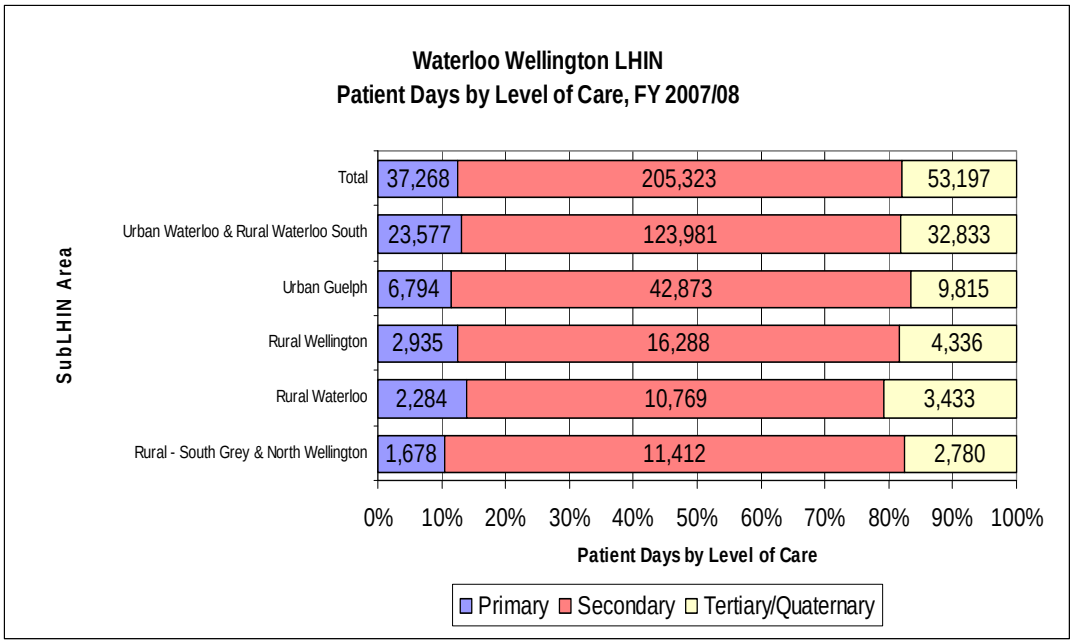


Hospital utilization rates per capita are higher in the two most rural areas (Rural Wellington, Rural North Wellington-South Grey) compared to the two urban areas but of the five LHIN planning areas, rates are lowest in Rural Waterloo. Higher rates of hospital utilization in the two rural areas may be attributable to:

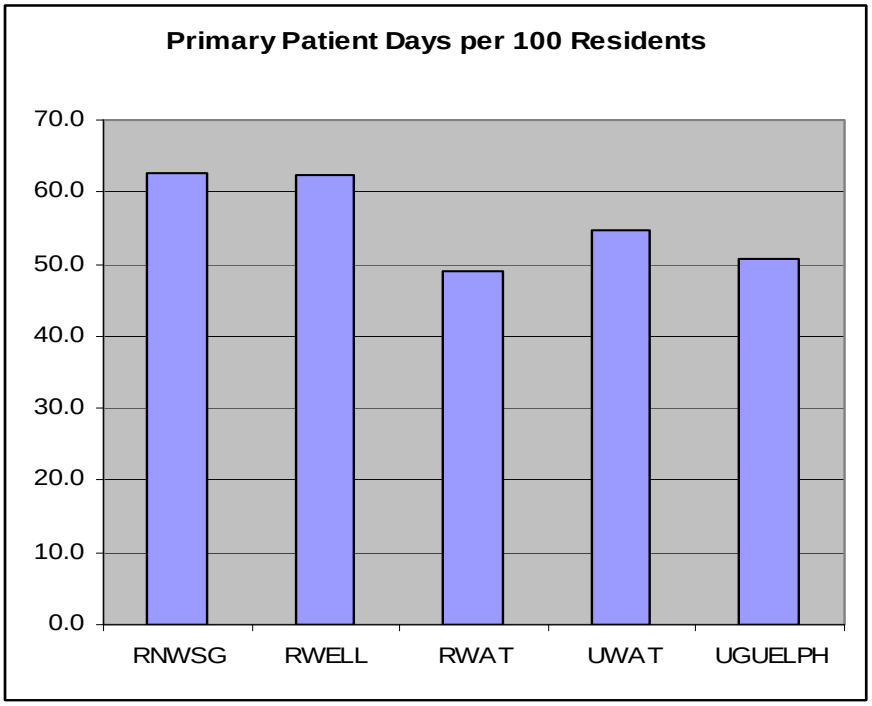
- Higher proportion of older residents;
- Higher prevalence of health problems;
- Lower socio-economic status of rural residents;
- Lack of primary care and community supports.

5.1.2 Patient Days by Level of Care

Hospital discharges (separations) can be divided into 3 categories: Primary, Secondary, Tertiary/Quaternary. Across the LHIN's 5 sub-areas, the proportion of separations was similar for the 3 categories (see table below):



Some primary admissions to hospital are considered ‘avoidable’ or classified as ‘ambulatory care sensitive’ conditions so it is important to look at the rate at which residents are being hospitalized for primary conditions. Residents in Rural North Wellington-South Grey and Rural Wellington are being hospitalized at a higher rate for primary separations than in the other three sub-areas of the LHIN.



5.1.3 Patient Outflow

Patient outflow is a measure of the degree to which hospitals in the WWLHIN capture the 'market share' of LHIN patients, i.e. the more patients that receive their hospital care outside the LHIN, the lower the 'market share'. In 2007-08, there were 8,700 discharges (separations) of WWLHIN residents from hospitals outside the WWLHIN representing 19% of all separations. For urban residents of Kitchener, Waterloo, Cambridge and Guelph, the main out-of-LHIN patient destinations are hospitals in Hamilton, Toronto and London typically for tertiary care. However, the outflow patterns for the LHIN's 3 rural areas are much different (see below). For rural residents, the relative proportion of hospitalization outside the LHIN (% outflow) was much higher. For example, over one-third of Rural North Wellington-South Grey residents were hospitalized outside the WWLHIN.

TABLE 5.1 – Percentage of Patients Hospitalized Outside WWLHIN

LHIN Sub-Area	***Total Hospital Separations***	***Separations outside LHIN***	***% Outflow***
RNWSG	2,918	1,103	37.8%
RWELL	4,112	1,253	30.5%
RWAT	2,825	616	21.8%
UWAT	26,673	4,134	15.5%
UGUELPH	9,831	1,593	16.2%
Totals:	46,359	8,699	18.7%

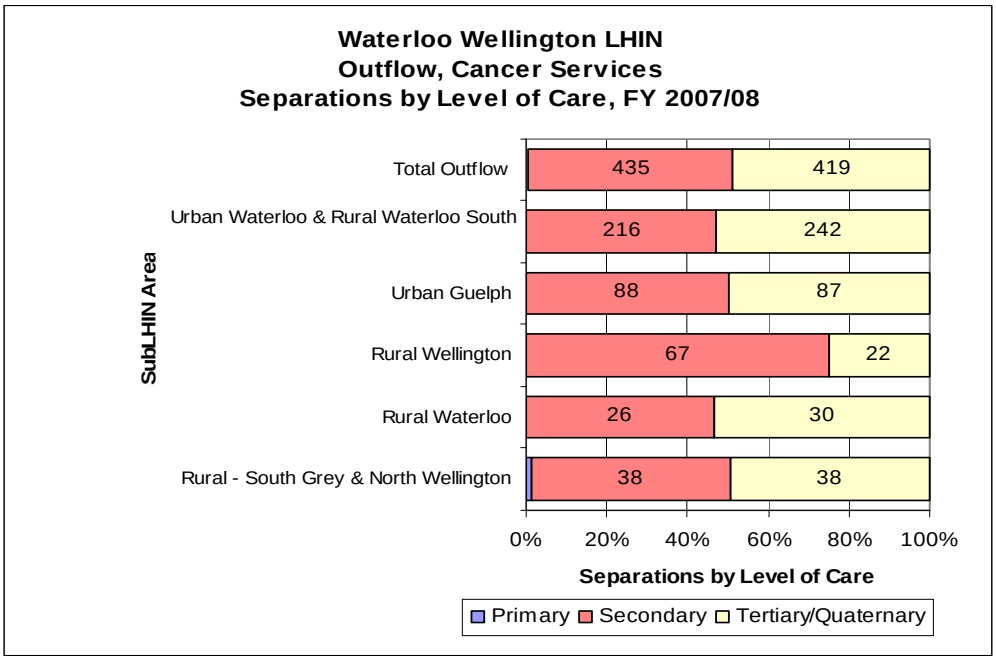
Cross-border LHIN patient referrals are a function of both proximity to hospitals outside the LHIN and the specialist relationships that different rural family physicians have developed over time (see table below).

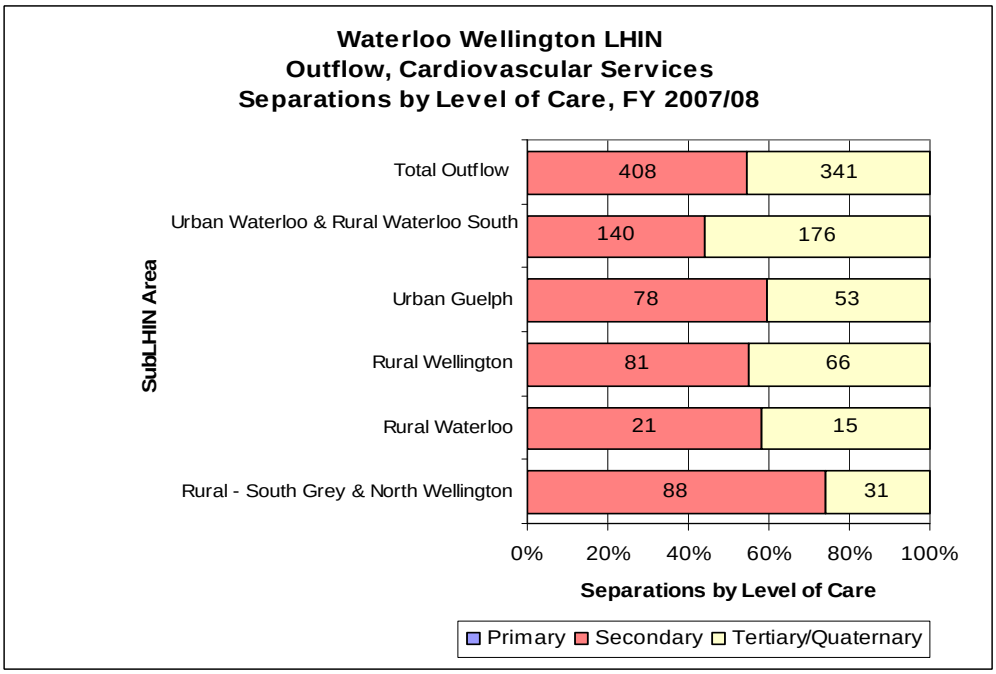
TABLE 5.2 – Top 'Outflow' Hospitals for Residents of 3 Rural Areas

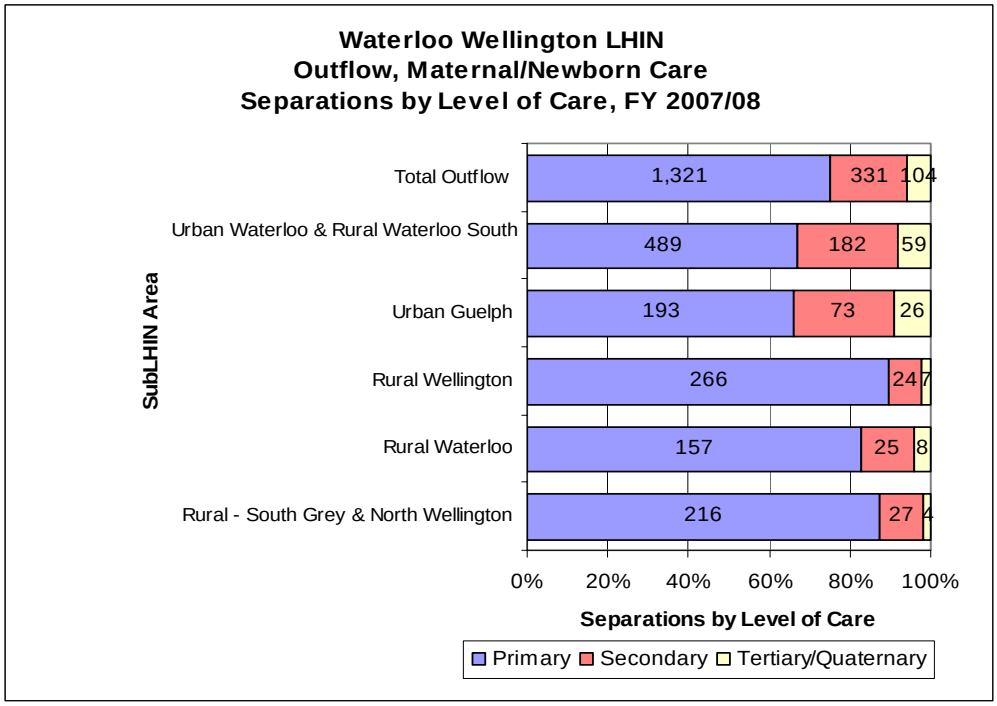
		Seps
RNWSG	GREY BRUCE HEALTH SERVICES-OWEN SOUND	153
	GREY BRUCE HEALTH SERVICES-MARKDALE SITE	131
	HEADWATERS HEALTH CARE CENTRE-DUFFERIN	118
	LONDON HEALTH SCIENCES CENTRE	113
	STRATFORD GENERAL HOSPITAL	86
	% going to top 5 hospitals	54.5
	Total Outflow	1,103
RWELL	HEADWATERS HEALTH CARE CENTRE-DUFFERIN	189
	HALTON HEALTHCARE SERVICES CORP - 3 sites	169
	HAMILTON HEALTH SCIENCES CORP - 3 sites	166
	WILLIAM OSLER HEALTH CENTRE - 3 sites	88
	STRATFORD GENERAL HOSPITAL	82
	% going to top 5 hospitals	55.4
	Total Outflow	1,253
RWAT	STRATFORD GENERAL HOSPITAL	203
	LONDON HEALTH SCIENCES CENTRE	103
	HAMILTON HEALTH SCIENCES CORP - 3 sites	73
	LISTOWEL MEMORIAL HOSPITAL	35
	ST.JOSEPH'S HEALTH CARE, LONDON	30
	% going to top 5 hospitals	72.1
	Total Outflow	616

Not surprisingly, each of the WWLHIN's 3 rural areas has different out-of-LHIN patient referral patterns. Rural North Wellington-South Grey borders on Grey and Dufferin counties and this would explain why residents of Dundalk (Southgate), for example, would be more likely to be hospitalized in Markdale or Owen Sound. Rural Wellington borders on Dufferin and Halton Hills to the east and this would explain why residents of Erin, for example, would be more likely to be hospitalized in Brampton or Halton Hills. Rural residents from all three rural areas are also hospitalized in Stratford.

In terms of patient outflow for specific health conditions, the following analysis was done for cancer, cardiovascular and maternal-newborn services.


Waterloo Wellington LHIN
Outflow, Cancer Services
Separations by Level of Care, FY 2007/08
Total Outflow
Urban Waterloo & Rural Waterloo South
Urban Guelph
Rural Wellington
Rural Waterloo
Rural - South Grey & North Wellington
435
419
216
242
88
87
67
22
26
30
38
38
Sub-LHIN Area
0%
20%
40%
60%
80%
100%
Separations by Level of Care
Primary
Secondary
Tertiary/Quaternary


Waterloo Wellington LHIN
Outflow, Cardiovascular Services
Separations by Level of Care, FY 2007/08
Total Outflow
Urban Waterloo & Rural Waterloo South
Urban Guelph
Rural Wellington
Rural Waterloo
Rural - South Grey & North Wellington
408
341
140
176
78
53
81
66
21
15
88
31
Sub-LHIN Area
0%
20%
40%
60%
80%
100%
Separations by Level of Care
Primary
Secondary
Tertiary/Quaternary



Because there are well-established regional cancer and cardiac centres in the WWLHIN, the amount of out-of-LHIN patient flow for these services is relatively small. This is not the case for maternal/newborn cases where there outflow of cases is more significant.

In addition to patient ouflow, there is the issue of specialist referral patterns within the WWLHIN. Referral challenges between family physicians and specialists can arise for

several reasons including specialist shortages and lack of role clarity regarding which regional hospital programs are meant to serve which catchment populations. The situation is further complicated by current Hospital-on-Call (HOCC) funding arrangements for specialists.

In term of specialist availability, a 2008 WWLHIN survey asked family physicians in what specialty areas were additional specialists required based on their referral experiences. The medical specialties that ranked highest (i.e. greatest need) were as follows: (see Appendix G for full listing)

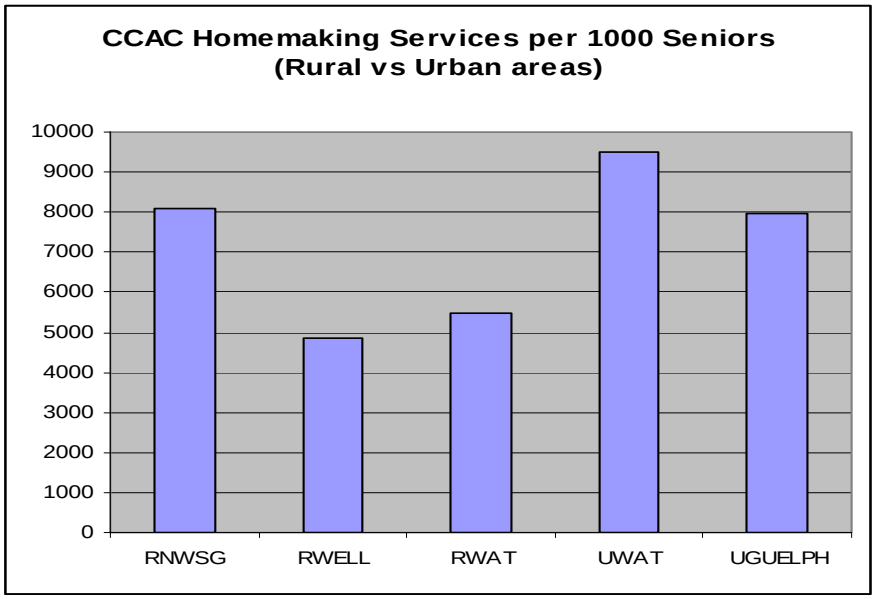
- Neurology
- Psychiatry
- Rheumatology
- Chronic Pain Management
- Dermatology
- Plastic Surgery
- Neurosurgery
- Oncology
- Internal Medicine
- Endocrinology

The 2008 survey had a low response rate from rural physicians and so rural family physicians were more recently polled and they identified the following 5 medical specialties as the ones where urgent access was the most problematic:

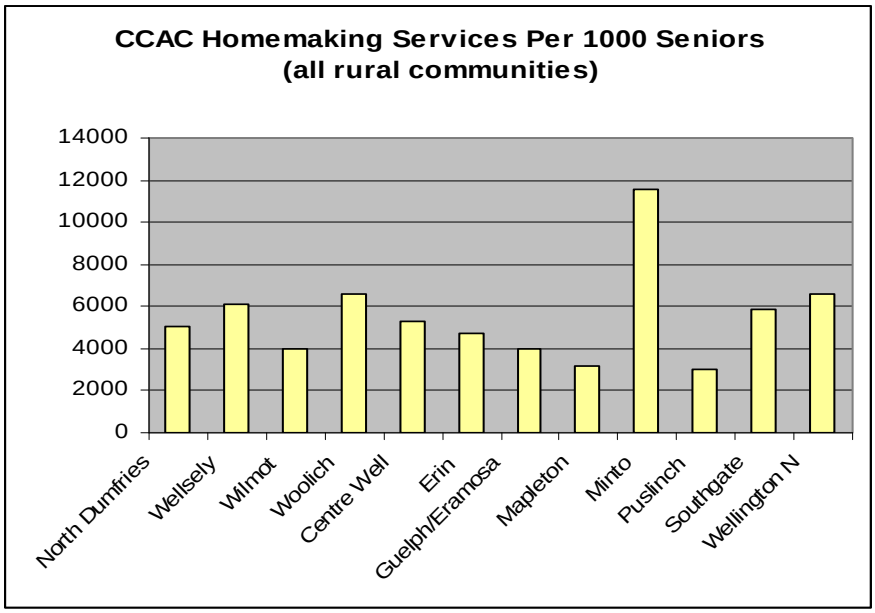
- Plastic Surgery
- Ear, Nose and Throat
- Urology
- Opthalmology
- Internal Medicine

5.2 CCAC Utilization

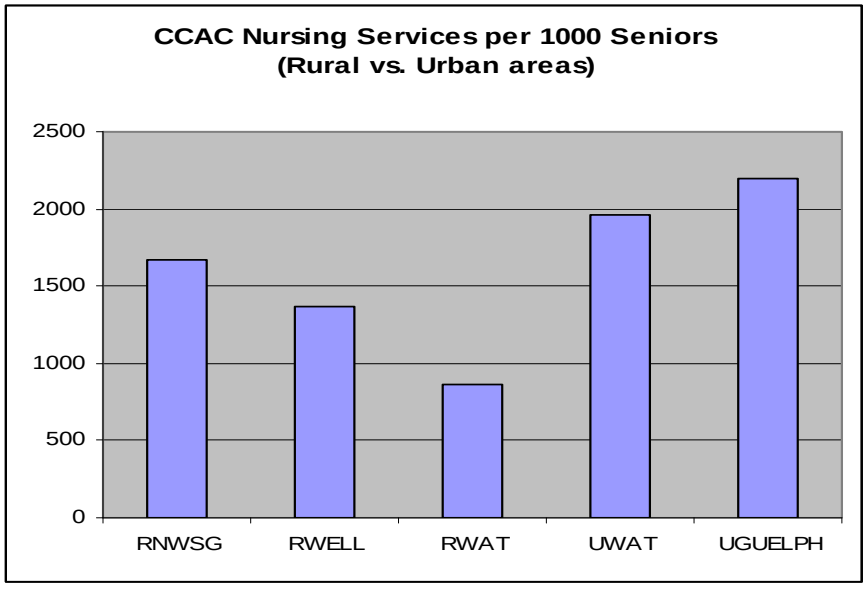
5.2.1 Homemaking Services



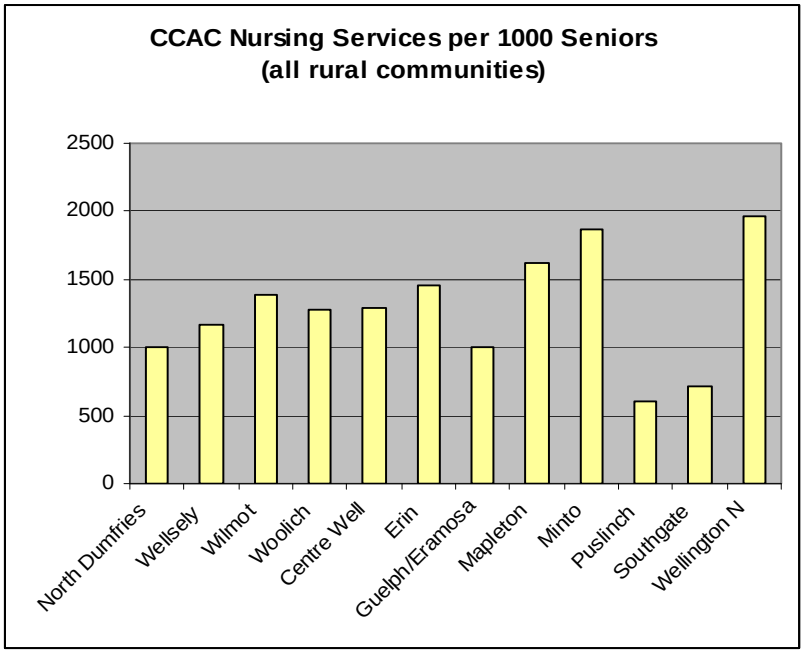
Utilization rates of homemaking services by seniors (65+) is generally higher in the LHIN's two urban areas. However, among the three rural areas, utilization rates are much higher in Rural North Wellington-South Grey and this is attributable to very high utilization rates in Minto Township (Palmerston, Harriston, Clifford). The rural communities with the lowest usage rates of homemaking services are: Puslinch and Mapleton (see table below).



5.2.2 Nursing Services

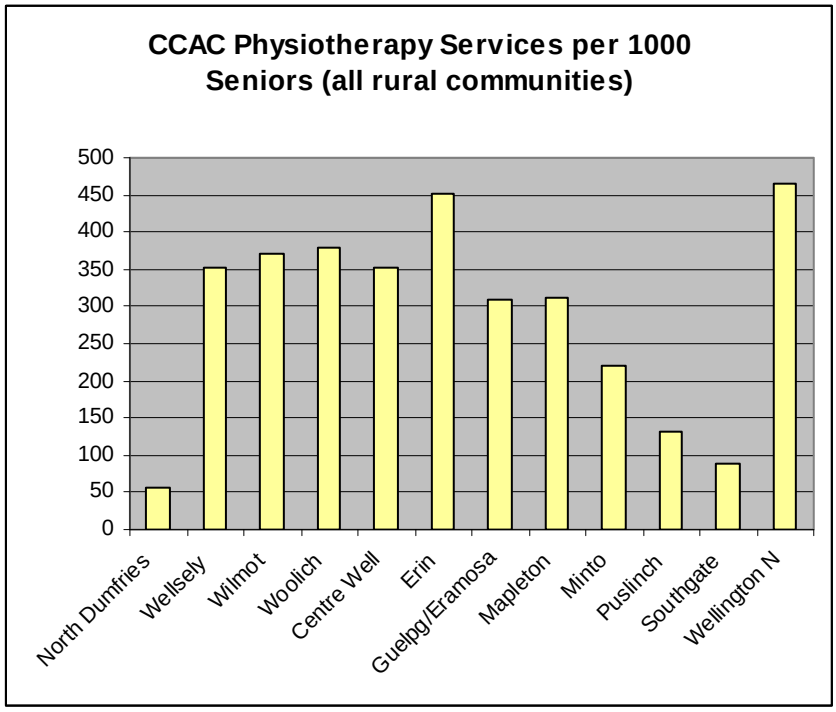


In the case of per capita utilization of nursing services, the two urban areas again have higher use rates among seniors (65+). Among the 3 rural areas, the highest rate of utilization is in the most rural area – Rural North Wellington-South Grey and the lowest utilization rate is in Rural Waterloo. The rural communities with the lowest usage rates of at-home nursing services are: Puslinch and Southgate (see table below).



5.2.3 Physiotherapy Services

For all rural communities in WWLHIN, the highest utilization rates for physiotherapy services for seniors (65+) was in North Wellington and Erin. The lowest rates were in North Dumfries, Southgate and Puslinch.



5.3 Primary Care Services

5.3.1 Comprehensive Primary Care in the WWLHIN

There are six rural comprehensive primary care (CPC) models in the WWLHIN: 4 Family Health Teams (FHTs) and 2 Community Health Centres (CHCs). The most mature model is the Woolwich CHC located in St. Jacobs which has satellites in Wellesley Township. The 2 newest models are the East Wellington FHT in Erin and the new health centre in Ayr (North Dumfries) which is a satellite of the Langs Farm Village CHC in Cambridge. Between the 6 CPCs, there are a total of 45 full-time equivalent (FTE) family physicians and 33 FTE nurses and nurse practitioners (see table below).

TABLE 5.3 – Numbers of Health Professionals and Enrolled Patients in Rural Comprehensive Primary Care Models (April 2009)

Rural FHTs and CHCs	# of Sites	FTE Physicians (vacancies)	FTE NPs/Nurses (vacancies)	FTE Other Allied (vacancies)	Enrolled Patients
Mount Forest FHT	1	6 (1)	5.5 (0.8)	2.6 (0.4)	7,689
Minto Mapleton FHT	6	8 (2)	4 (1)	4 (0)	13,449
East Wellington FHT	3	4 (5)	2.6 (1)	2 (0)	5,800
Upper Grand FHT	9	21 (0)	10 (1)	9 (0)	26,500
Woolwich CHC	3	4.5 (0)	10.2 (0)	8.3 (0)	5,710
North Dumfries CHC	2	1.6 (0)	1 (1.8)	2.2 (0)	570
totals:		**45.1 (8)**	**33.3 (5.6)**	**28.1 (0.4)**	

NOTES:

- Current FTEs plus vacancies represents total number of approved positions
- 'Other Allied' health professionals includes: Social Workers, Mental Health Counsellors, Dieticians, Pharmacists, Community Health Promoters, Chiropodists, Physiotherapists
- North Dumfries CHC has just begin its patient rostering process which is why the number of reported enrollees is low

Comparing the total number of residents in a rural community against the number of patients rostered to a rural FHT or CHC creates an estimate of what proportion of the local population is being served by one of these comprehensive primary care models (see table below). The rural communities where the proportion of residents served by a CPC is highest are in Centre Wellington (Upper Grand FHT) and Minto-Mapleton (Minto-Mapleton). The lowest rates of CPC coverage are in Wilmot, Puslinch, Guelph-Eramosa and Woolwich-Wellesley. Access to CPC services is also low in Southgate because the Mount Forest FHT primarily serves the residents of Mount Forest and surrounding area.

TABLE 5.4 - Estimated Proportion of Population Served by a Comprehensive Primary Care (CPC) Model (i.e. Community Health Centre or Family Health Team)

Rural Primary Care Catchment *Area (1)* *(and name of FHT or CHC)*	**2006 Population**	**% Served By CPC (2)**
Wellington North-Southgate(3) *(Mount Forest FHT)*	18,342	42%
Minto-Mapleton *(MInto-Mapleton FHT)*	18,355	73%
Centre Wellington *(Upper Grand FHT)*	26,049	100%
Erin *(East Wellington FHT)*	11,148	52%
Woolwich-Wellesley *(Woolwich CHC)*	29,447	19%
Wilmot	17,097	0%
North Dumfries *(satellite of the Langs Farm Village CHC)*	9,063	6%(4)
Twp. of Guelph-Eramosa(5)	12,066	0%
Twp. of Puslinch(5)	6,689	0%

NOTES:

1. Rural primary care catchment areas can cross different rural municipal boundaries and do not necessarily align with the LHIN's 3 rural sub-areas, (e.g. Minto-Mapleton FHT serves residents in both Rural North Wellington and Rural Wellington)
2. Based on number of enrolled FHT or CHC patients as of May 2009
3. Only a small number of Southgate residents are served by the Mount Forest FHT; the main rural community in Southgate is Dundalk which has been designated underserviced for many years
4. This rural satellite of the Cambridge-based Langs Farm Village CHC has only just opened and started to formally roster patients so it is expected that this percentage will increase over the coming months
5. Both these rural communities are considered part of the 'Urban Guelph' planning area and it is assumed that most of these rural residents seek their medical care in the City of Guelph or Hamilton (for those residents living at the south end of Puslinch)

5.3.2 Rural Family Physicians and Nurse Practitioners

TABLE 5.5 - Number of Rural Family Physicians (FPs) and Nurse Practitioners (NPs) in WWLHIN (April 2009)

Physician Groups	***Location***	***# FPs***	***Vacancies***	***# NPs***	***Vacancies***
Mount Forest FHT	Mount Forest	6	1	3	0
Minto Mapleton FHT	Drayton, Palmerston & Clifford	8	2	2	1
East Wellington FHT	Erin	4	5	0	1
Upper Grand FHT	Fergus	21	0	5	1
Woolwich CHC	St. Jacobs, Wellesley	4.5	0	4.8	0
North Dumfries CHC	Ayr	1.6	0	0	1
Dr. Bon	Arthur	1			
Elmira Medical Center	Elmira	5			
Nith Valley Medical Centre	New Hamburg	6			
Dr. Hosdil	Rockwood	1			
Dr. Sasaki	Erin	1			
Dr. Will	Hillsburgh	1			
Dr. Finn & Dr. Moor	Wellesley	2			

TABLE 5.6 - Number of Family Physicians (FPs) and Nurse Practitioners (NPs) per 1000 Residents and Population per Physician Ratios (April 2009)

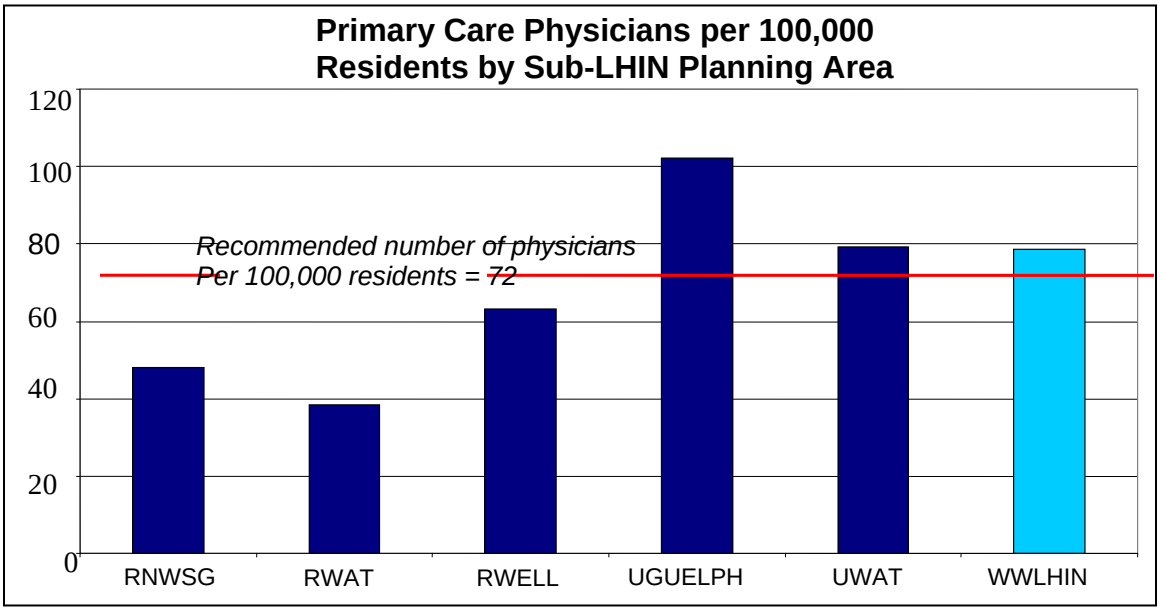
Rural Primary Care Catchment Area ***(and location of medical practices)***	**2006 Population**	**# of FPs and NPs**	**FPs+NPs per 1000**	**Pop-Doc Ratio**
Wellington North *(Mount Forest, Arthur)*	11,175	10	0.89	1596
Southgate	7,167	1	0.14	0
Minto-Mapleton *(Drayton, Palmerston, Clifford)*	18,355	10	0.54	2294
Centre Wellington *(Fegus, Elora)*	26,049	26	1.0	1240
Erin	11,148	6	0.54	1858
Woolwich-Wellesley *(St. Jacobs, Wellesley)*	29,447	16.5	0.56	2561
Wilmot *(New Hamburg)*	17,097	6	0.35	2850
North Dumfries *(Ayr)*	9,063	1.6	0.18	5664
Twp of Guelph-Eramosa *(Rockwood)*	12,066	1	0.08	12066
Twp of Puslinch	6,689	0	0	0

In terms of availability of family physicians and having primary health care 'closer to home', the most 'underserved' rural communities appear to be Puslinch, Guelph-Eramosa, North Dumfries and Southgate. There are no physicians practicing in Puslinch or Southgate and it is not known where those residents receive their medical care or if they are orphan patients. It is assumed that residents living in the rural townships surrounding Guelph receive their medical care in the City of Guelph, or even Hamilton, and both Puslinch and Guelph-Eramosa are considered part of the WWLHIN's 'Urban Guelph' planning area.

All rural communities in the WWLHIN, with the exception of Centre Wellington, can be considered "medically underserviced" if one uses the traditional pop-doc ratio benchmark (1380) set by the Ministry of Health and Long-Term Care. If one factors in

the availability of nurse practitioners, access to primary medical care services improves somewhat for rural residents in Wellington North, Minto-Mapleton, and Woolwich-Wellesley because their comprehensive primary care models have been in place the longest.

In terms of physician supply across the entire WWLHIN area, the 3 rural areas have fewer primary care physicians per capita than the 2 urban areas.



5.4 Mental Health Services

The lack of mental health services in rural areas was a key issue from the community consultations and is a well-established theme in the rural health services research literature:

"The dramatically lower supply of specialty mental health professionals in rural areas and corresponding reliance on primary care practitioners to deliver needed mental health services, are among the distinguishing features of the rural mental health system…Although primary care practitioners have demonstrated some success in treating a number of mental health problems, they are quick to recognize the need for a mental health specialist when faced with a major psychoses. In many cases, this means referring patients to a psychiatrist located in an urban area. For rural people experiencing serious and persistent mental illness, this lack of specialty services in their home communities may result in a permanent change of residence" (Hartley, 1999, p. 159)

The main providers of mental health services to rural residents in the Waterloo Wellington LHIN are:

- Trellis Mental Health and Development Services (ambulatory and outreach services) with offices in Mount Forest, Fergus and Erin;
- Homewood Health Centre (specialized inpatient services); and

- Family Health Teams (that have hired social workers or other mental health professionals).

Service utilization data is for rural clients served by Trellis is described in table below:

TABLE 5.7 – Client Service Volumes at Trellis Rural Offices (2006-07 to 2008-09)

	North Wellington Office (Mt. Forest)			**Fergus/Erin Offices**		
	2006-07	***2007-08***	***2008-09***	***2006-07***	***2007-08***	***2008-09***
New Admissions	706	548	512	926	792	900
Active Clients	1774	1610	1345	2473	2373	2055
Individuals waiting for first service	41	28	36	95	66	67

In the 3-year reporting period, the demand for Trellis services has declined somewhat in North Wellington (Mount Forest office) but appears to be more stable in Centre Wellington and Erin. Conversely, the number of individuals waiting for new service each year is relatively unchanged in North Wellington but has declined somewhat at the Fergus/Erin offices. Anecdotal evidence suggests that the mental health counseling offered by the rural Wellington FHTs (9 FTEs across 4 FHTs) may be reducing the demand for Trellis services.

The main presenting problems in 2008-09 at the rural Trellis offices are described below:

TABLE 5.8 – Top Presenting Problems at Trellis Rural Offices (2008-09)

	Mt. Forest	**Fergus/Erin**
Depression	275	455
Anxiety	232	450
Behaviour Problems	227	364
Mood Swings	169	276
Interpersonal Problems	154	305
Developmental Delay	143	105
Concentration Difficulties	133	236
Anger/Hostility	136	184
Sleep Disturbances	121	235
Suicidal Thoughts	118	198
Medical Problems	111	189
Memory Problems	71	156
Family History of MH Problems	87	135
Cognition Difficulties	56	129

Loneliness	38	120
Totals:	2071	3537

These top 15 diagnoses represent about 70% of total mental health cases seen by Trellis staff, with depression and anxiety being the most frequent presenting problems.

Many of these presenting problems could be categorized as “mild to moderate” and in the future could be handled by comprehensive primary health care teams that have mental health professionals on staff.

TABLE 5.9 – Age of Clients Served by Trellis Rural Offices (2008-09)

	Mt. Forest	Fergus/Erin
0-24	46.3%	40.3%
25-64	43.2%	37.8%
65+	9.6%	20.8%
unknown	0.9%	1.1%

In terms of age of Trellis clients, children, adolescents and young adults are over-represented and seniors are under-represented in the service statistics for North Wellington compared to the age profile of this area. Seniors are over-represented in the service statistics for the Fergus/Erin offices.

In terms of rural Wellington admissions to the Homewood Health Centre, there were on average 5-6 admissions per month from the 3 rural Wellington hospitals resulting in 390 patient days per month (see Appendix H).

5.5 Long-term Care and Community Support Services

The three rural sub-areas in the WWLHIN are relatively well-served in terms of the location and availability of long-term care facilities (see table below).

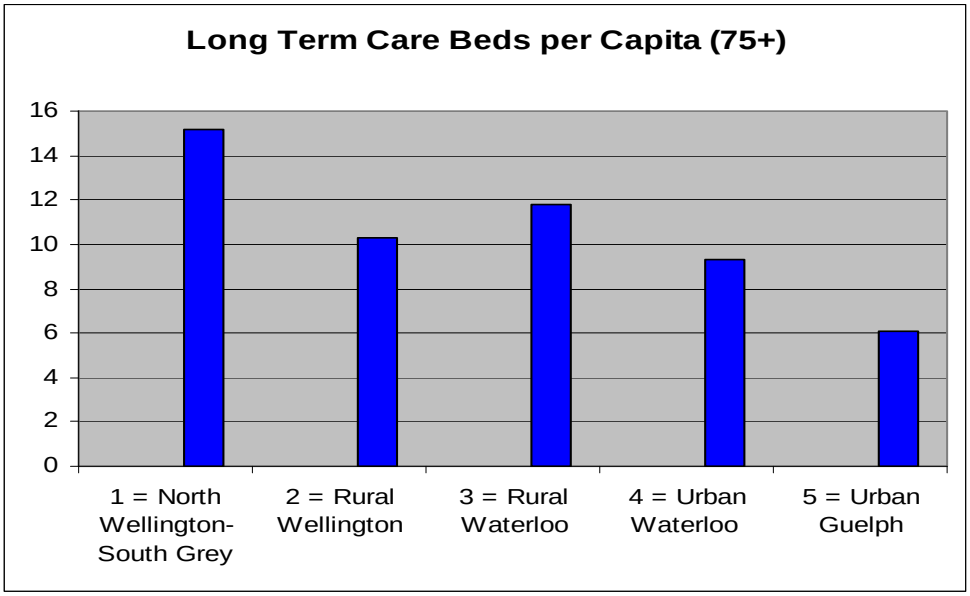
Table 5.10 – Long-term care facilities in 3 rural areas

Inst #	Facility Name	Type	Planning Areas	Beds (2007)
1959	SAUGEEN VALLEY NURSING CENTER (Mt. Forest)	NH	1	87
3584	ROYAL TERRACE (Palmerston)	NH	1	67
1953	CARESSANT CARE (Harriston)	NH	1	89
3441	CARESSANT CARE (Arthur)	NH	1	80
Rural North Wellington and South Grey (RNWSG)				**323**
4641	WELLINGTON TERRACE HOME (Elora)	HF	2	176
1939	CARESSANT CARE NURSING HOME (Fergus)	NH	2	87
Rural Wellington (RWELL)				**263**

4278	LEISUREWORLD CAREGIVING CENTRE (Elmira)	NH	3	96
3506	TWIN OAKS OF MARYHILL	NH	3	31
1908	CHATEAU GARDENS LTC CENTRE (Elmira)	NH	3	48
1927	DERBECKER'S HERITAGE HOUSE (St. Jacobs)	NH	3	72
1926	NITHVIEW HOME (New Hamburg)	HF	3	97
Rural Waterloo (RWAT)				**344**

All of the facilities are operating at very high occupancy rates. The average occupancy across all LTC facilities in Jan. 2009 was 98.9% (see Appendix I). Only 2 rural LTC facilities (Caressant Care Nursing Homes in Fergus and Arthur) were operating at slightly lower occupancy rates (96%).

In terms of the per capita supply of long term care beds, the 3 rural areas have more beds per capita than the WWLHIN's 2 rural areas. Per capita LTC bed supply for seniors (75+) in North Wellington is 60% higher than Urban Waterloo and 150% higher than Urban Guelph.



In terms of community support services, there are a wide variety of agencies and service providers operating in the 3 rural areas. In terms of seniors support services (adult day services, friendly visiting, home maintenance, home help, meals on wheels, congregate dining, security checks and transportation), the main service providers in the 3 rural areas are as follows:

Rural North Wellington South Grey	VON; Birmingham Lodge (Mt. Forest)
Rural Wellington	VON; St. Joseph's Outreach Services; East Wellington Advisory Group
Rural Waterloo	Community Care Concepts

Specialized support services (palliative care and Alzheimers) are provided by Hospice Wellington, VON and the Guelph-Wellington Alzheimers' Society.

Section 6 – Applying the Framework to Rural Communities in the WWLHIN

6.1 Future Scenarios

The application of the Framework (from Section 2) to the 3 rural areas in the WWLHIN leads to a set of strategies for enhancing and integrating health services for rural residents (see Section 6.2). However, there are a number of variables that will impact how specific plans and strategies unfold over time. These include but are not limited to:

- Changes to provincial rural health policy and recommendations from the Provincial Panel on Rural and Northern Health Services;
- Ongoing challenges in the recruitment of health care professionals to rural areas;
- Timeframes for the introduction of additional telemedicine and telehomecare services (and other new technologies) and their adoption by health care professionals as part of regular clinical practice;
- The availability of new funding to strengthen/enhance certain services;
- The relative proportion of new funding allocated (or existing funding re-allocated) to support institutional care (hospital, LTC facility) versus home, community-based and primary care;
- The evolving composition of urban and rural communities within the WWLHIN (i.e. different communities becoming 'more or less rural' over time); and
- The degree to which home, community and primary care alternatives lead to meaningful substitution of hospital-based inpatient and outpatient care.

In terms of future system re-design, it is this latter variable which may be the most important over time. While there are lots of pilot projects with promising results showing how the need for hospitalization has decreased because of various community-based interventions, it is still difficult to predict what the future blend of hospital-based services

and community-based care will look like; and how these service delivery models will look different in rural versus urban communities.

The following three scenarios are offered for discussion purposes in terms of how these variables might interact to produce some alternate futures.

Scenario 1 – "Maintaining the Status Quo"

This scenario assumes that new funding will be minimal with some very modest investments in primary care, home care and community-based care. The new funding covers increased operating expenses for HSPs but does not lead to additional staff positions. Investments in capital redevelopment projects are delayed as the recovery of the provincial economy is slow and prolonged.

No new Family Health Teams or CHC satellites are approved for the Waterloo Wellington LHIN but the existing rural FHTs and CHCs continue to mature in terms of their inter-professional team-based care models, their chronic disease management strategies and their health promotion programs, leading to some modest improvements in the prevalence of diabetes. Rural family physicians continue to split their time between clinic based and hospital-based care, including staffing of the Emergency Departments at the 3 rural Wellington hospital sites. Recruitment of new physicians and new Nurse Practitioners continues to be a challenge with some positions going unfilled for prolonged periods of time. This leads to increased waiting lists for selected hospital services, delays in booking medical appointments and increased numbers of orphan patients.

The health status differentials between urban and rural communities in the WWLHIN remain largely unchanged except for North Wellington – South Grey, which is the most rural area in the LHIN. With declining population growth, it begins to age much more rapidly than the other LHIN areas with increasing incidence of chronic diseases and ongoing access problems for its elderly residents.

Scenario 2 – "Implementing the Rural Framework"

As part of its re-commitment to its health system transformation agenda, this scenario assumes the provincial government and the LHINs will begin to make more significant investments in home, community-based and primary care. As per the rural planning framework's recommendation for providing more comprehensive primary care to rural residents, rural FHTs and CHCs receive funding for additional physician and allied health professional positions. The CCAC in partnership with hospitals receives funding to implement an Advanced Home Care Team; comprised of nurse practitioners working with physicians, case managers and other health care professionals who provide additional in-home supports for frail elderly to help them avoid hospitalization. For the first time, hospitals are beginning to see measurable impacts on their visit volumes as a result of these community investments.

The Rural and Northern Health Care Panel has developed and publicly released a series of integrated models for different rural and northern communities, based on community size and degree of remoteness. They have also recommended to the Minister of Health and Long-Term Care, the creation of a provincial rural health innovations fund to support

the local development of these different integrated rural models. This leads to some innovative facility re-design considerations at rural hospitals in support of an integrated health care campus model with less space required for acute care/emergency services but more outpatient and community space planned for primary care, ambulatory care, telemedicine suites, mental health & addictions, and long term care.

As a result of the LHIN's e-Health strategy, there is enhanced ability of HSPs to electronically share patient information leading to some improvements in the coordination of patient care, especially between hospitals, CCAC and primary care providers. The increased emphasis on telemedicine as a key rural service delivery strategy means that FHTs, CHCs and rural hospitals all have additional telemedicine suites for patients and their family doctors to consult with specialists at larger centres.

The WWLHIN's Rural Health Network, created from the rural framework, has been instrumental in coordinating the development of a number of interagency proposals for service enhancement in various rural communities. These include comprehensive Aging at Home proposals designed specifically to support rural seniors in their homes to better manage their chronic conditions.

The more significant investments in primary care and home care are also starting to pay off in terms of slowing the incidence of certain chronic diseases, especially for the rural FHTs and CHCs which have worked aggressively with their pre-diabetic patients and those at risk of heart disease to support them to make healthy lifestyle choices and alter the standard trajectory of these diseases.

Scenario 3 – "Complete System Re-Design"

In terms of provincial rural health policy, the documented successes of Alberta's rural health strategy and Quebec's expansion of private medical clinics have led to a fundamental re-think in Ontario of the most appropriate location for different types of medical care generally and specifically the role of small hospitals. The Public Hospitals Act has been amended to formally recognize and define 3 new models: 'rural health facilities', 'urgent care centres', and 'ambulatory care centres'. Based on the recommendations of the Rural and Northern Health panel, the government is offering financial assistance to rural hospitals in southern Ontario that are interested in moving towards one of the new facility models. Because of public concerns about the perceived closure of small hospitals, the government commissions independent research by the Institute for Clinical Evaluative Sciences (ICES) which confirms that, in most instances, the small hospital conversions will lead to more (not less) services for rural residents.

One of the other key drivers for change has been the significant decline in patient volumes at many small hospital sites – the ongoing investments in primary, home and community-based care eventually reached a 'tipping point', with increasing numbers of health care professionals leaving hospital positions to seek employment with expanded FHTs, CHCs, CCACs and other community health employers. Consumers have come to view basic, non-specialized hospital care as "care of last resort" given the community-based options that are now available to them.

6.2 Current versus Future Service Configuration

6.2.1 *Current State* - Rural North Wellington and South Grey (RNWSG)
Constituent Municipalities:

Municipality	***2006 Population***	***% Population Growth (2001-2006)***	***Density*** *(persons per square km.)*	***% Population Aged 65+***
Wellington North	11,175	-1.1%	21.3	17.4%
Minto	8,504	4.2%	28.3	17.5%
Southgate	7,167	3.8%	11.1	12.8%
Totals:	***26,846***	***1.8%***	***18.0***	***16.2%***

Degree of Rurality:

- Most rural of 3 rural areas as defined by population size, density and distance from urban centres
- All 3 constituent municipalities score above 40 on the OMA RIO scale
- Slowest population growth rate with declining population in Wellington North (2001 – 2006)
- Highest proportion of seniors (with somewhat younger age profile in Southgate)
- Highest measure of relative socio-economic disadvantage as defined by income and education levels
- Mennonite population is approx. 5% of total population (as defined by Census)

Health Status:

- Highest crude mortality rate
- Highest death rate from respiratory diseases (e.g. COPD)
- Second highest death rate from circulatory diseases (e.g. heart and stroke)
- Highest potential years of life lost (i.e. premature mortality)

Availability/Utilization of Health Services:

Hospital Services:

- Served by North Wellington Health Care (hospital sites in Palmerston and Mount Forest) which had 1520 weighted cases and 8,000 patient days in 2007-08
- 38% of residents were hospitalized outside the LHIN area (predominantly Southgate residents who were hospitalized in Owen Sound, Markdale, Orangeville)
- Including out-of-LHIN hospital admissions, residents of this area used the equivalent of 44 hospital beds
- Over 200 maternal/newborn cases were hospitalized outside the LHIN area

CCAC Services:

- Higher rates of homemaking services for residents aged 65+ (with very high rates recorded for Minto)
- Highest rural rates for nursing services for residents aged 65+ but well below urban rates

Primary Care Services:

- Served by 2 Family Health Teams (Mount Forest, Minto-Mapleton) which collectively have 14 family physicians and 9.5 FTE NPs & nurses
- Proportion of population served by comprehensive primary health care is 42% (Mount Forest) and 74% (Minto-Mapleton)
- Municipality of Southgate is significantly underserved with no physicians and only 1 Nurse Practitioner

Mental Health Services

- Community-based mental health services provided by Trellis with more serious cases transferred to Homewood Health Centre

Community Support Services:

- Friendly visiting, day programs provided by VON
- Community dining provided by Birmingham Lodge (Mount Forest)
- Meals on Wheels, transportation and security calls provided by VON and HCSS

6.2.2 *Current State* - Rural Wellington (RWELL)

Constituent Municipalities:

Municipality	***2006 Population***	***% Population Growth (2001-2006)***	***Density*** *(persons per square km.)*	***% Population Aged 65+***
Centre Wellington	26,049	7.4%	64.0	14.9%
Erin	11,148	0.9%	37.5	10.1%
Mapleton	9,851	5.9%	18.4	8.5%
Totals:	***47,048***	***5.5%***	***38.0***	***12.4%***

Degree of Rurality:

- Second most 'rural' of 3 rural areas as defined by population size, density and distance from urban centres
- Proportion of seniors (12%) is similar to urban areas (as a result of younger age profiles in Erin and Mapleton)
- Some indication of relative socio-economic disadvantage as defined by percentage of families living in poverty (LICO)
- Higher numbers of Mennonites living in Mapleton

Health Status:

- Crude mortality rates only slightly higher than in urban areas
- Relatively high death rate from respiratory diseases (e.g. COPD)
- Second highest death rate from circulatory diseases (e.g. heart and stroke)
- Second highest potential years of life lost (i.e. premature mortality) and highest PYLL due to deaths from external causes (incl. traffic/farm accidents and suicides)

Availability/Utilization of Health Services:

Hospital Services:

- Served by Groves Memorial Community Hospital which had 1,920 weighted cases and over 11,000 patient days in 2007-08
- 30% of residents were hospitalized outside the LHIN area (predominantly East Wellington residents who were hospitalized in Brampton and Halton Hills)
- Including out of LHIN hospital admissions, residents of this area used the equivalent of 64 acute hospital beds

CCAC Services:

- Lowest utilization rate of homemaking services for residents aged 65+
- 2nd lowest rate for nursing services for residents aged 65+

Primary Care Services:

- Served by 2 Family Health Team (Upper Grand FHT and East Wellington FHT) which between them have 25 family physicians and 24 FTE NPs & nurses; Mapleton residents are also served by the Minto-Mapleton FHT
- Proportion of population served by comprehensive primary health care is 52% (East Wellington) and 100% (Centre Wellington)

Mental Health Services:

- Community-based mental health services provided by Trellis with more serious cases transferred to Homewood Health Centre

Community Support Services:

- For East Wellington, Meals on Wheels, transportation and day programs provided by EWAG
- For Centre Wellington, Meals on Wheels, friendly visiting, security calls, and transportation provided by VON
- Seniors exercise program offered by the Town of Mapleton

6.2.3 *Current State* - Rural Waterloo (RWAT)

Constituent Municipalities:

Municipality	***2006 Population***	***% Population Growth (2001-2006)***	***Density*** *(persons per square km.)*	***% Population Aged 65+***
Woolwich	19,658	8.0%	60.3	14.5%
Wilmot	17,097	15.0%	64.8	14.6%
Wellesley	9,789	4.5%	35.2	8.8%
Totals:	***46,544***	***9.7%***	***54.0***	***13.3%***

Degree of Rurality:

- Least 'rural' of 3 rural areas; 'Rural and Small Town' definition used by Statistics Canada defines Woolwich as part of urban Metropolitan area
- Growth rate is higher than urban areas as a result of very high growth rate in Wilmot township
- Proportion of seniors (13%) is slightly higher than urban areas

- Some indication of relative socio-economic disadvantage as defined percentage of families living in poverty (LICO)
- Highest numbers of Mennonites living in Woolwich and Wellesley

Health Status:

- "Healthiest" rural population in the WWLHIN
- Crude mortality rate similar to 2 urban areas
- Highest death rate from circulatory diseases (e.g. heart and stroke)
- Lowest potential years of life lost (i.e. premature mortality) across all 5 LHIN areas

Availability/Utilization of Health Services:

Hospital Services:

- No local rural hospital – served by hospital facilities in Kitchener-Waterloo (Grand River and St. Mary's Hospitals)
- 22% of residents were hospitalized outside the LHIN area
- Including out-of-LHIN hospital admissions, residents of this area used the equivalent of 44 acute hospital beds

CCAC Services:

- 2nd lowest utilization rate of homemaking services for residents aged 65+
- Lowest rate for nursing services for residents aged 65+

Primary Care Services:

- Served by Woolwich Community Health Centre (with service locations in St. Jacobs, Wellesley and Linwood) which has 4.5 family physicians and 10 FTE NPs & nurses
- Lowest per capita supply of physicians
- Proportion of population served by comprehensive primary health care is 19%

Community Support Services:

- Community Care Concepts serves the 3 rural Waterloo townships of Woolwich, Wellesley and Wilmot and provides the following services: assisted transportation, homemaking services, home maintenance, friendly visiting, congregated dining, Meals on Wheels, adult day programs and Home at Last

Recommended Future State Model for WWLHIN's 3 Rural Areas:

- One comprehensive *Rural Health Network,* which includes a broad range of health service providers and other key stakeholders who can work collaboratively together to improve access & service coordination for rural residents and develop local strategies to create healthier rural communities;
- A rural stakeholder network created with a specific focus on rural mental health & substance abuse issues (preferably as a sub-group of the main rural health network);
- Comprehensive primary health care (CPHC) services (FHT or CHC) established for rural communities that are most underserved in terms of primary care (e.g. Southgate);
- Existing FHTs and CHCs determine if any of their outlying rural communities require additional linkage and outreach strategies;
- Collaborative arrangements strengthened between CPHC services and community mental health services to better serve individuals with mild to moderate mental health problems;
- Collaborative arrangements strengthened between CPHC services and community support services to better meet the needs of the rural elderly and other 'at-risk' rural populations;
- Equitable distribution of CCAC professional services among rural areas in the WWLHIN;
- Further exploration of opportunities for stronger governance, management and service linkages between various rural health service providers (hospitals, primary care, long term care, mental health & addictions, community support services)

6.3 Recommendations for the WWLHIN

THAT the Waterloo Wellington LHIN (WWLHIN) endorse and use the proposed planning framework for rural health services developed by the Rural Health Working Group consisting of the following four components:

1) Comprehensive Primary Health Care
2) Community Supports and Home-based Care
3) Hospital-based Acute and Emergency Care
4) Integrated Rural Health Care Networks;

THAT a community health care survey be conducted in the municipality of Southgate to determine unmet health needs and service gaps;

THAT a detailed review of community support services (CSS) is done to ensure there is a needs-based distribution of CSS services for rural residents, with a specific focus on rural seniors;

THAT the Waterloo Wellington CCAC review its rural service delivery model to ensure there is needs-based access to CCAC professional services;

THAT the WWLHIN, in consultation with urban hospitals and their specialists, further define and designate regional programs based on existing 'best practice' models and other criteria including their responsibility to serve rural areas within the WWLHIN;

THAT the WWLHIN's Chief of Staff working group develop regional 'on-call' protocols to ensure there is appropriate support and timely consultations for family physicians covering rural hospital emergency departments with an initial focus on the following 5 specialty areas:

- Plastic surgery
- Ears Nose Throat (ENT)
- Urology
- Opthalmology
- Internal Medicine

THAT the eHealth strategy developed for the WWLHIN pay special attention to providing enhanced telemedicine and telehomecare services to rural residents;

THAT current and future redevelopment projects for rural facilities maximize opportunities for service integration/coordination between acute, primary, long term care and community health services;

THAT the WWLHIN facilitate the establishment of a rural health network with the terms of reference and membership recommended in the framework.

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