Environmental Scan

Prepared for the Hamilton Niagara Haldimand Brant Local Health Integration Network

May, 2007

HayGroup

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1.0 Executive Summary

HNHB LHIN Released Phase 1 IHSP and Has Assumed Health Service Planning and Funding Role

Late in 2006 the Hamilton Niagara Haldimand Brant (HNHB) Local Health Integration Network (LHIN) released its first Integrated Health Service Plan (IHSP), which described the initial priorities for the LHIN. As of April 1, 2007, the LHIN has assumed its role of planning and funding health services. LHINs will not provide services directly, but will instead be responsible for integrating services in each of their specific geographic areas.

Environmental Scan Will Inform Phase 2 IHSP

Through community engagement, the HNHB LHIN is continuing to work with local health providers and community members to develop the HNHB LHIN Phase 2 IHSP. The Phase 2 IHSP will be informed by the Ministry of Health and Long-Term Care (MOHLTC) directions articulated in the forthcoming MOHLTC strategic plan, and by the results of the Environmental Scan documented in this report.

Environmental Scan Combines Identification of Health Service Needs and Current Local, Provincial, and Federal Initiatives

The Environmental Scan builds on the consultations and reports that support the Phase 1 IHSP and compares the HNHB LHIN population needs for health services with the local, provincial, and federal initiatives that would be expected to address these needs. A draft version of the Environmental Scan was presented at a meeting of external stakeholders, who provided valuable feedback regarding needs and priorities for action for the HNHB LHIN.

Key Findings and Conclusions

Key findings and conclusions from the Environmental Scan include:

Size and Variation within the HNHB LHIN Requires Initiatives Sensitive to Local Needs

- The HNHB LHIN encompasses 1.3 million people, who live in the full spectrum of urban to rural communities, with a wide range of socio-economic status and ethno-cultural characteristics. Health care needs vary by community, and the priorities for action on health care service improvement will also vary across the LHIN.

Older Population In HNHB LHIN Will Require Emphasis on Health Services Responsive to Needs of Seniors

- The large number of seniors, the high percent of the population aged 65 years and older in the HNHB LHIN area, and the large number of seniors living alone, will require that health care providers serving the HNHB be leaders in providing services sensitive and responsive to the needs of the elderly, including services that support independent living in the community.

HNHB LHIN Should Develop Strategies to Influence and Support Primary Care System Development

- While LHINs are not directly responsible for primary care, except as provided through CHCs, the low number of family physicians relative to the population suggests a need for continued efforts to improve access to primary care physicians. The external stakeholders who reviewed the draft Environmental Scan highlighted support for establishment and expansion of Family Health Teams as a priority for the HNHB LHIN.

Need for Coordinated Chronic Disease Management

- The high prevalence and significant impact of chronic diseases suggests a need to develop information, diagnostic, and treatment infrastructure to support chronic disease management by primary health care providers.

HNHB LHIN Should Support Enhanced Collaboration and Coordination Among Community Service Providers

- External stakeholders emphasized the need for more collaborative initiatives involving community service providers in the HNHB LHIN. People need to know what service is available, and from whom, and how clear and coordinated processes will improve the experience of clients and patients moving among services. Development of community service care plans could help to improve access and patient flow across providers, and help to reduce disparities between communities.

Current HNHB LHIN Initiatives

Some of the current activities of the HNHB LHIN, in response to the directions of the Phase 1 IHSP and the needs identified through the development of the Environmental Scan include:

Coordinated Approach to CDM

- Development of a coordinated approach to chronic disease management, initiated with the chronic disease management roundtable held in February with the Minister of Health Promotion.

Improvement of Patient Flow (ALC)

- Working with health service providers to improve patient flow, particularly for elderly patients who experience delays in accessing health care services after acute hospital care.

Maternal Newborn Planning Process

- Establishment of a maternal newborn planning process to address issues related to access to maternity care close to home.

Wait Time Strategy Support

- Working on wait time strategies to reduce delays for HNHB residents and others who rely on HNHB hospitals for five key health service areas - hip and knee replacements, cataract surgery, cancer surgery, MRI/CT exams and selected cardiac procedures.

Phase 2 IHSP Will Guide HNHB LHIN

The HNHB LHIN Phase 2 IHSP will build on these current initiatives, the needs and priorities identified by the

Environmental Scan, and the strategies highlighted in the MOHLTC strategic plan, to guide the LHIN in the fulfillment of its mandate, and to continually improve the health of the Hamilton Niagara Haldimand Brant population.

2.0 Background and Introduction

2.1 Background

Mandate of LHINs in Ontario

The Government of Ontario has created 14 Local Health Integration Networks (LHINs) to make the publicly funded healthcare system patient-focused, results-driven, integrated and sustainable. Delivering better health care is a key priority. LHINs have the mandate to engage communities in health system transformation through enhanced local capacity to plan, coordinate, integrate and fund the delivery of some publicly funded health services at the community level[1]. The health services include community support services, mental health and addictions services, community health centres, Community Care Access Centres, long-term care homes and hospital services.

Each LHIN is governed by a nine-member Board of Directors appointed by the province from among members of the LHIN's communities. The Board will make balanced decisions about health services based on the values of communities, a sound understanding of the issues and resources, and knowledge as to what practices, models and approaches have a positive impact.

The HNHB LHIN

The Hamilton Niagara Haldimand Brant (HNHB) LHIN includes the areas of Brant, Burlington, Haldimand, Hamilton, Niagara and part of Norfolk. The 6,600 square kilometres included within the LHIN boundaries make it the 9th largest LHIN in terms of geography, but it is the third largest LHIN in terms of population, with approximately 1.4 million residents. The LHIN is characterized by urban and rural settings, a mixed economy, and diverse health care delivery organizations that range from large tertiary teaching hospitals to small community based health service agencies.

The HNHB LHIN contains a diverse population in terms of language, ethno-racial identity and regional differences, and an aging cohort. It is home to two designated Francophone communities, the largest on reserve aboriginal population in Ontario, and a significant off reserve aboriginal population.

[1] The responsibilities and authority of the LHINs is subject to the approval by the Ontario Legislature of any necessary legislative changes and the development of supporting regulations.

2.2 HNHB LHIN Integrated Health Service Plan

HNHB LHIN Phase 1 Integrated Health Service Plan

Late in 2006, the HNHB LHIN released its first Integrated Health Service Plan (IHSP). This first IHSP describes initial priorities and activities for the three-year period beginning in the fall of 2006.

The ministry's 10-year strategic plan for the Ontario health system, expected in spring 2007, will also guide and inform LHIN priorities over time. The HNHB LHIN approach to the IHSP is consistent with MOHLTC expectations of LHINs in the development of the IHSP in year one. The IHSP includes a report on progress on current MOHLTC priorities, a readiness assessment for selected activities, and the LHIN's work plan over the next several months.

The plan also summarizes strategies that address the initial local integration priorities identified in February 2005. Community members were identified as "champions" for each of the health priority areas and worked with their communities to identify opportunities for positive change across the LHIN. Through this process, the communities identified ways to:

- Respond more effectively to persons who experience illness and injury as a result of work place conditions;
- Bring mental health and rehabilitation services closer to home for children and youth;
- Improve access to care and support for persons with mental health and addiction issues;
- Ensure the right elder care and support at the right time in the right place; and
- Provide best care and support to people who are dying.

The HNHB LHIN has, in its first year, participated in approximately 300 meetings with community groups, met with approximately 400 Board members of health service provider organizations, and held 14 open houses. Through these consultations and the development of the IHSP, the HNHB LHIN also identified other important health care issues, such as:

- Working with communities to understand what is important about the organization of services for moms and newborns;
- Working with family health teams, community health centres, public health and others to see how we can ensure

all citizens have access to chronic disease prevention and improvement;

- Continuing to work with hospitals, CCACs and community agencies to look at how people can get to the right care setting when they leave the hospital as soon as they need to.

HNHB LHIN Phase 2 IHSP

In the months following the release of the Phase 1 IHSP, HNHB LHIN stakeholders and communities of interest will report on progress to date on initial integration strategies, identify health improvement solutions on emerging priorities, and confirm opportunities for improvement at the local level based on environmental scan outcomes, the emerging MOHLTC directions, and the outcomes of various Provincial panel deliberations. The LHIN will consult with citizens, stakeholders and providers on proposed Phase 2 IHSP directions in 2007 and confirm directions within 6 months of the release of the MOHLTC strategic plan. These outcomes will guide coordination and funding decisions for the 2008-2009 year.

2.3 Environmental Scan

This Environmental Scan document is a key component of the development of the Phase 2 IHSP. It builds on the consultations and reports that support the Phase 1 IHSP and provides a summary of both external and internal issues that are likely to affect the planning, organization and delivery of health care services in the Hamilton Niagara Haldimand Brant Local Health Integration Network.

The Environmental Scan will inform decisions regarding the types of activities to be undertaken by the LHIN and its partners for a responsive, effective and transparent local health system. The Environmental Scan will align identified health improvement solutions, MOHLTC and related Ministry priorities and incentives, emerging pressure points and stakeholder readiness for change.

The following sections of this Environmental Scan document present:

- A profile of the health status of the HNHB LHIN resident population and characteristics of the HNHB LHIN health care system. This profile summarizes and supplements the Community Profile included as Appendix H of the Phase 1 IHSP. Apparent needs of the HNHB LHIN population for

health care services, or challenges faced by HNHB LHIN health care providers, are highlighted.

- An inventory of the local, provincial, and federal health system initiatives relevant to the health care needs and health system challenges of the HNHB LHIN.
- A preliminary assessment of the potential key areas of focus for the HNHB LHIN, taking into account the combination of:
  - Identified population needs and the opportunities to better respond to the needs
  - Provincial priorities and initiatives, and their applicability to the HNHB LHIN
  - Existing local and planned initiatives, their responsiveness to identified needs, and the opportunity to build on existing stakeholder engagement and support.
- Feedback from a stakeholder review of the draft environmental scan and proposed HNHB LHIN priorities.

This report will be used as input to an HNHB LHIN priority setting process, which will in turn support the development of the Phase 2 IHSP directions.

3.0 Community Profile

3.1 Population Health Framework

The HNHB LHIN Profile uses a population health framework that has been adapted from one developed by Statistics Canada and the Canadian Institute for Health Information.

Dimensions		Indicators
1.0 Population Characteristics and the Determinants of Heath	1.1 Demographic and Socio-economic Characteristics	● Geography
		● Population
		● Income
		● Education
		● Employment
		● Family Composition and Dwelling Status
		● Language
		● Aboriginal Population
		● Immigrant Population
	1.2 Lifestyle Behaviours and Preventive Care	● Smoking and Exposure to Second-Hand Smoke
		● Diet
		● Heavy Drinking
		● Physical Activity
		● Immunization
		● Mammography, Pap Tests
2.0 Population Health Status	2.1 Well-being and Personal Resources	● Life Stress
		● Sense of Belonging
		● Self-Rated General Health
		● Self-Rated Mental Health
	2.2 Health Conditions and Human Function	● Body Mass Index
		● Chronic Conditions
		● Activity Limitations
		● Cancer Incidence
		● Low Birth Weight
		● Leading Causes of Hospitalization
	2.3 Deaths	● Infant Mortality
		● Life Expectancy
		● Leading Causes of Death
		● Potential Years of Life Lost
3.0 Health System Utilization, Capacity and Performance:	3.1 Health Care System Utilization	● Acute Inpatient Hospitalizations
		● Mental Health Hospitalizations
		● Day Surgery and Emergency Department Visits
		● Complex Continuing Care Hospitalizations
		● Inpatient Rehabilitation Hospitalizations
		● Patient Flow In and Out of the HNHB LHIN
	3.2 Health Care System Capacity	● Health Service Maps
		● Funding by Sector and Geography
		● Supply of Beds in Hospital and LTC Homes
		● Supply of Physicians
3.3 Health Care System Performance		● Alternate Level of Care Days
		● Emergency Department Visits that Could Be Managed Elsewhere
		● Hospitalization for Ambulatory Care Sensitive Conditions

- Waiting Times for Priority Procedures

The Population Health Framework guides the selection of indicators to inform the LHIN's IHSP

The purpose of the framework is to guide and categorize a selection of indicators which help describe the population within the HNHB LHIN area in terms of the demographic, social, economic and environmental factors which can influence population health, as well as the lifestyle behaviours and health care practices which directly impact health status. The framework also includes indicators that describe the characteristics, capacity and effectiveness of the health care system to respond to population health care needs.

Additional indicators prepared for this report

In addition to the indicators explicitly listed in the Population Health Framework, and that were included in the Phase 1 IHSP Community Profile, other indicators and measurement results have been reviewed and are presented in this report. These indicators will be considered for future inclusion in the Population Health Framework.

3.1.1 Hamilton Niagara Haldimand Brant LHIN Geography

The HNHB LHIN stretches from Fort Erie to Turkey Point and Paris to Lowville and covers approximately 6,600 square kilometres. It encompasses Brant, Burlington, Haldimand, Hamilton, Niagara and part of Norfolk. The LHIN has wide variations in population density. It includes both urban and rural land areas. While Haldimand and Norfolk have the

greatest percentage of rural settlement, all communities in the LHIN include rural areas.

3.2 Population Characteristics and the Determinants of Health

3.2.1 Demographic and Socio-economic Characteristics

The age structure and socio-economic characteristics of a population are important markers of health status

Health status is influenced by social, economic and physical environments, personal health practices, individual capacity, coping skills and access to health services. The prevalence of preventable health conditions, chronic illness and disability is higher among low income groups, the elderly and those with less education[2]. Health system planners monitor the demographic and socio-economic characteristics of communities in order to identify those population groups most at risk of poor health status and to help explain existing patterns of health care utilization.

The Phase 1 IHSP Community Profile presented accepted measures of socio-economic status and highlighted indicators where measurement results for the HNHB LHIN population suggest the health status and health care needs of the residents of the HNHB LHIN area may differ from other residents of Ontario. These unique characteristics of the HNHB LHIN population are highlighted in this report.

3.2.2 Demographic Profile

In 2005, the HNHB LHIN had over 1.3M people, the 3rd largest population of all LHINs in Ontario

As of 2005, the area of the HNHB Local Health Integration Network was home to over 1.3 M people[3], the third largest population of all LHIN regions in Ontario. The HNHB LHIN area represents 11% of the provincial population and is spread

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[2] Richard Wilkinson and Michael Marmot, Editors, Social Determinants of Health: The Solid Facts. 2nd Edition, World Health Organization, 2003.

Booth G., Hux, J., Relationship Between Avoidable Hospitalizations for Diabetes Mellitus and Income Level, *Archives of Internal Medicine*, 2003: 163 (1): 101-106.

Manuel and Schultz Diabetes Health Status and Risk Factors, *Diabetes in Ontario: An ICES Practice Atlas*, Institute for Clinical Evaluative Sciences, 2002.

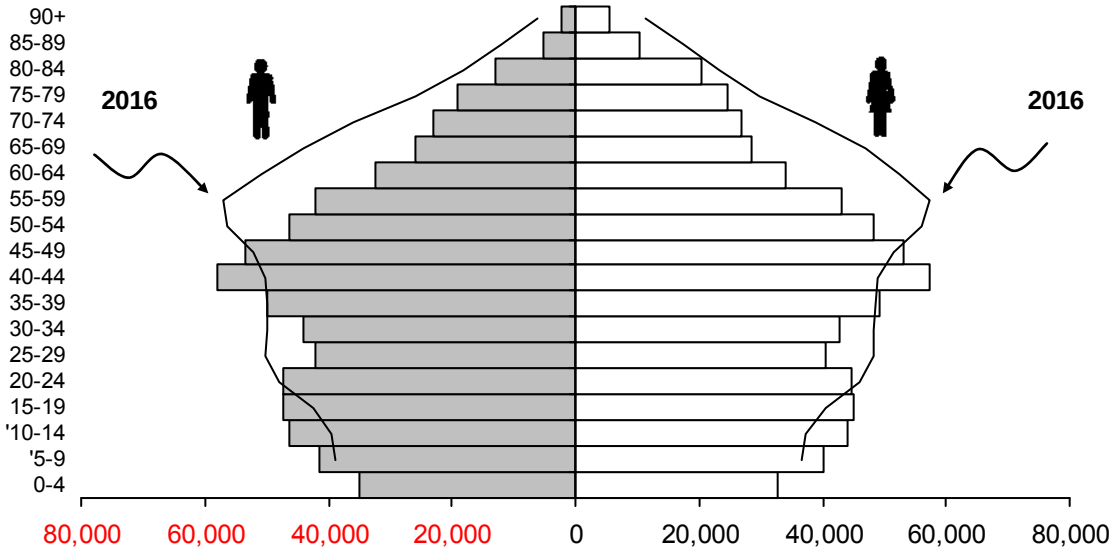
Ontario Health Services Restructuring Commission, Niagara Region Health Services Restructuring Report, October 1998.

[3] The Norfolk CSD is shared with the South West LHIN. Approximately 80% of Norfolk's population is contained within the Hamilton Niagara Haldimand Brant LHIN area. Data shown here refer to the entire CSD and not just that portion within the Hamilton Niagara Haldimand Brant LHIN.

across 20 census subdivisions (CSD)[4]. 38% of the HNHB LHIN population resides in Hamilton, 32% in Niagara, 12% in Burlington, 10% in the Brant county and Brantford and 8% in Haldimand and Norfolk.

Chart 1 shows the distribution of the HNHB LHIN population by age and gender in 2005 (the bar graph) and the projected distribution of the population by age and gender in 2016 (the lines).

Chart 1: HNHB Population 2005 and Projected in 2016, by Sex and Age Group:



Source: Ontario Ministry of Finance.

HNHB is home to over 200,000 seniors aged 65+, the largest number of seniors of all LHINs

The proportion of older residents in an area is an important indicator of potential health care needs because older people are more likely to fall ill and need more health care than people in younger age groups[5]. The HNHB LHIN area is home to over 200,000 seniors aged 65+; this is the largest number of seniors of all 14 LHIN populations in Ontario.

15.1% of HNHB Residents are seniors, compared to only 12.9% for all of Ontario

Seniors represent 15.1% (2006) of the total HNHB LHIN population, compared to the all Ontario rate of 12.9%. Within the HNHB LHIN area, the percent of the population aged 65 years or older ranges from a low of 9.1% for residents of West

[4] CSD: Census subdivision. An area that is a municipality or that is deemed to be equivalent to a municipality for statistical reporting purposes.

[5] Tremblay S, Ross NA, Berthelot JM. Regional Socioeconomic context and health. Health Reports. 2002:13(Suppl):S33-71.

Lincoln, to more than 20% for residents of Port Colborne (20.7%) and Niagara-on-the-Lake (22.6%).

The large number of seniors and the high percent of the population aged 65 years and older in the HNHB LHIN area will require that health care providers serving the HNHB be leaders in providing services sensitive and responsive to the needs of the elderly.

Identified Need

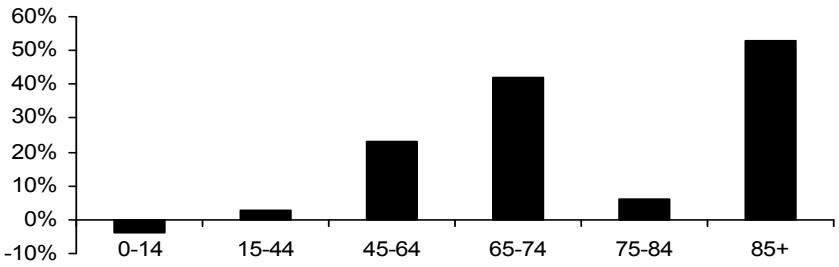
Health care services that are sensitive and responsive to the needs of the elderly.

HNHB's population is projected to grow 11% to just over 1.5M people between 2005 and 2016

Between 2005 and 2016, the LHIN population is projected to grow by 11% to just over 1.5M people. It is important to note that, while the highest rate of expected population growth is among the 'very old' (e.g., a 53% increase in those aged 85+), this represents a relatively small actual number of additional 'very old' individuals (12,300). Over this same decade the population aged 45-64 is projected to grow 23% (an increase of 80,000).

Chart 2: % Change in HNHB Population, 2005-2016, by Age Group:

The highest rate of expected population growth is among the very old, but this represents a relatively small actual number of additional 'very old' individuals (12,300)



Source: Ontario Ministry of Finance.

3.2.3 Socio-economic Status: Income, Education, Employment, Family Composition and Dwelling Status

Lower incomes are strongly associated with poor health and higher rates of death

Income and employment status are commonly used as indicators of socio-economic status. Research from Health Canada shows that paid work provides not only income, but also a sense of identity and social contacts[6].

[6] Health Canada. Toward a Healthy Future: Second Report on the Health of Canadians. Ottawa (ON); Federal, Provincial and Territorial Advisory Committee on Population Health; 1999.

While HNHB LHIN-Wide Rates of Adult and Youth Unemployment and Low Income are Lower Than All Ontario Rates, Within HNHB These Rates Vary Considerably

HNHB LHIN-wide rates of adult and youth unemployment (5.8% and 12.2%, respectively) and low income families[7] (11.5%) are lower than Ontario rates (6.1%, 12.9% and 11.7%, respectively). However, these rates vary considerably within the HNHB area. Brantford has the highest rates of adult and youth unemployment in the LHIN (6.8% and 15.2%, respectively) with Hamilton having the highest incidence of low income families (16.1%). In contrast, Niagara-on-the-Lake has the lowest rates of adult and youth unemployment and low income families (2.7%, 4.0% and 3.0%, respectively)

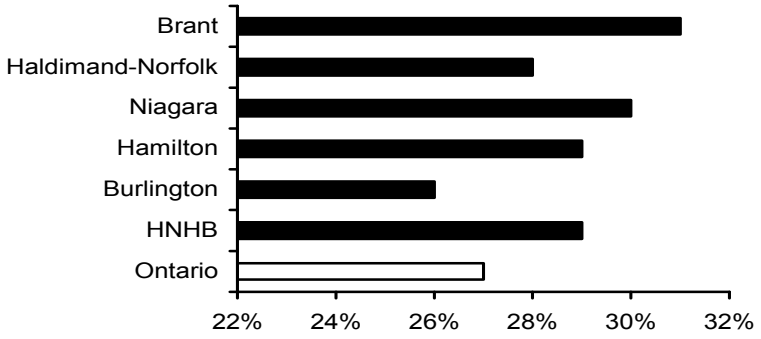
In HNHB, a higher proportion of the population has less than a high school education and a lower proportion has a university education, compared to all Ontario

Within most populations, education tends to be strongly associated with income. Higher levels of education may also be linked to better health outcomes due to better knowledge of risk factors and the health care system. HNHB has a higher proportion of the population with less than a high school education and a lower proportion with a bachelor degree or higher, (28.8% and 14%, respectively) than for all of Ontario (25.7% and 19%, respectively).

29% of HNHB Seniors live alone, above the Ontario average of 27%

29% of seniors aged 65+ live alone in HNHB communities, higher than the provincial average of 27%. Within HNHB the highest proportions of seniors living alone are found in St. Catharines (33%) and Brantford (33%) and the lowest proportion in Wainfleet (19%).

Chart 2: % Seniors Living Alone, HNHB LHIN and Ontario, 2001:



Source: 2001 Census of Canada.

[7] Low Income Cutoff (LICO): Income levels at which families or unattached individuals spend 20% more than average on food, shelter and clothing. Source: Statistics Canada, 2001 Census Dictionary.

Seniors living alone may be at greater risk of social isolation. The lack of social support among the elderly contributes to poor health status and the need for formal and institutional care[8].

Female-headed lone parent families often have lower incomes. 19.8% of families in HNHB are led by a female lone parent. While this rate is similar to the rate for Ontario, within HNHB the highest proportions of female lone parent families reside in Fort Erie, Niagara Falls and Welland, where almost one-quarter of all families with children are headed by a female lone parent. The lowest rate of female lone parenthood is in West Lincoln (9.2%).

3.2.4 Ethno-cultural Characteristics: Immigrant and Visible Minority, Aboriginal, and French Language Populations

3.2.4.1 Immigrants and Visible Minorities

HNHB LHIN area has a lower proportion of recent immigrant and visible minority populations relative to Ontario rates

Recently arrived immigrants and visible minorities typically display lower incomes and higher rates of unemployment, compared to those who have lived in Canada longer[9] [10]. The HNHB LHIN area is home to a lower proportion of recent immigrant[11] (2.1%) and visible minority[12] (7.0%) populations relative to Ontario rates (4.8% and 19.1%, respectively).

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[8] Tomaka J, Thompson S, Palacios R., "The Relation Of Social Isolation, Loneliness, And Social Support To Disease Outcomes Among The Elderly", J Aging Health. 2006 Jun;18(3):359-84.

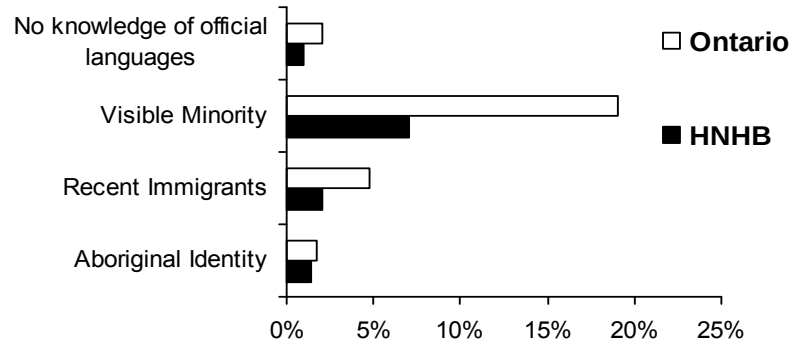
[9] Picot G, Hou F. The rise in low-income rates among immigrants in Canada. Ottawa: Statistics Canada; 2003. Analytical Studies Branch research paper. Catalogue No. 11F0019MIE No. 198.

[10] Picot G, Hou F. The rise in low-income rates among immigrants in Canada. Ottawa: Statistics Canada; 2003. Analytical Studies Branch research paper. Catalogue No. 11F0019MIE No. 198.

[11] Recent Landed Immigrants are people who have been permitted by immigration authorities to live in Canada permanently and arrived after 1996.

[12] Visible Minority: Under the *Employment Equity Act*, members of visible minorities are persons, other than Aboriginal persons, who are not white in race or color. Source: Statistics Canada, 2001 Census Dictionary.

Chart 3: Indicators of Language, Immigration and Ethnic Origin, HNHB LHIN and Ontario, 2001



Source: 2001 Census of Canada.

Within the HNHB LHIN, Hamilton is home to a higher proportion of recent immigrants (3.3%), and Burlington and Hamilton are each home to slightly higher proportions of visible minority populations (7.5% and 10.9%, respectively), compared to other communities in the LHIN.

The Hamilton census metropolitan area has the 3rd highest percent of foreign born residents in Canada

Due to proximity to Toronto and a relatively lower cost of living, Hamilton is increasingly important as a centre receiving newcomers to Canada as well as a noted destination for secondary migration. Every year, approximately 3,500-4,000 newcomers choose Hamilton as their home. As of 2001, more than one-quarter of the population of the Hamilton Census Metropolitan Area were foreign-born (26.5%). This represents the third highest proportion of foreign-born residents among such urban areas in all of Canada, surpassed only by Toronto and Vancouver[13]. Niagara, with its close proximity to the United States border, is a major receiver of refugees, which is not captured through the census enumeration. There are also seasonal migrant workers who locate in Niagara, Haldimand and Norfolk counties for temporary employment in the agricultural and tourism sectors, and who would not be captured in the population statistics.

[13] Source: Settlement and Integration Services Organization (SISO) Hamilton.

3.2.4.2 Aboriginal Population

HNHB Aboriginal population as reported in census data

According to 2001 census data, the HNHB LHIN has a lower proportion of people of Aboriginal Identity[14] (1.4%) than Ontario as a whole (1.7%). The census data reports that within HNHB LHIN area, Hamilton is home to the largest number of people of Aboriginal Identity (6,300) followed by Niagara (5,200) and Brant County (3,300). Burlington, Haldimand and Norfolk are each home to just over 900 people of Aboriginal Identity. The total number of HNHB LHIN area residents of Aboriginal Identity, according to the 2001 census, was just under 19,000. There are two reserves within HNHB, Six Nations and Mississaugas of the New Credit. Approximately half of the people of Aboriginal Identity residing in the HNHB LHIN area live On Reserve.

HNHB Aboriginal population is under-reported in census indicators

It is important to note that census data underestimates size of the First Nations population (both "On Reserve" and "Off Reserve") in the HNHB LHIN area, because of incomplete enumeration. Band registry lists with Indian and Northern Affairs Canada show the total registered Aboriginal population in HNHB LHIN for these two reserves as of August, 2006 was 24,263[15].

While data specifically (and separately) describing health service utilization and health care outcomes for the Aboriginal residents of the HNHB LHIN are not available, Canadian studies of Aboriginal health care have consistently shown that Aboriginal populations have reduced life expectancy and poor health status compared to the general Canadian population. They may also develop chronic diseases earlier in their lifespan, which has implications for requirements for long-term care and rehabilitation services.

Health Canada statistical profile of the health of Canada's First Nations

Health Canada's report on the health profile of First Nations residents of Canada[16] found that:

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[14] Aboriginal Identity: Refers to those persons who reported identifying with at least one Aboriginal group, i.e., North American Indian, Métis or Inuit (Eskimo), and/or those who reported being a Treaty Indian or a Registered Indian as defined by the *Indian Act* of Canada and/or who were members of an Indian Band or First Nation. Source: Statistics Canada, 2001 Census Dictionary.

[15] Source: Indian and Northern Affairs Canada http://www.ainc-inac.gc.ca/index_e.html

[16] Health Canada, "A Statistical Profile on the Health of First Nations in Canada for the Year 2000"

- Life expectancy at birth for the Registered Indian population was estimated to be 7.4 years lower for males and 5.2 years lower for females compared to the overall Canadian population's life expectancies.
- The First Nations birth rate was 23.4 births per 1,000 population - more than twice the Canadian rate. One in five First Nations births involved teenaged mothers; by contrast, far fewer births occurred among Canadian teen women (5.6%, or one in twenty).
- In 2000, the infant mortality rate for First Nations was 6.4 deaths per 1,000 live births -- 16% higher than the Canadian rate of 5.5. The First Nations infant mortality rate has been falling steadily since 1979, when it was 27.6 deaths per 1,000 live births.
- Combined, circulatory diseases (23% of all deaths) and injury (22%) account for nearly half of all mortality among First Nations. In Canada, circulatory diseases account for 37% of all deaths, followed by cancer (27%). Unintentional injury and suicide were approximately 6% of all deaths among First Nations in Canada.
- The most common causes of death for First Nations people aged 1 to 44 years was injury and poisoning. Among children under 10 years, deaths were primarily classified as unintentional (accidental). For First Nations aged 45 years and older, circulatory disease was the most common cause of death.
- In First Nations, potential years of life lost from injury was more than all other causes of death combined and was almost 3.5 times that of the Canadian rate.
- Compared with the overall Canadian population, First Nations had elevated rates of pertussis (2.2 times higher), German measles (7 times higher), tuberculosis (6 times higher) and dysentery (2.1 times higher) for the year 2000.
- The coverage rates for routine immunizations of 2-year-olds were lower among First Nations children.
- First Nations hospitalization rates were higher than the Canadian rates for all causes except circulatory diseases and cancers. Where the principal diagnoses were respiratory diseases, digestive diseases, or injuries and poisonings, the rates were approximately two to three times higher than their corresponding Canadian rates.

- The 1997 First Nations smoking rate was reported to be 62%, whereas in Canada, only 24% of the population aged 15 years and older were smokers in 2000.

Federal and Provincial Government Responsibilities for First Nations Health Care

First Nations people living in Ontario are covered by the Ontario Ministry of Health and Long-Term Care health care programs. In addition, Health Canada supports many First Nation communities by providing other services such as health and nutrition education, communicable disease control, primary nursing care, addiction counselling and treatment, and environmental health programs. Health Canada also provides members of these communities with goods and services not covered by provincial or territorial health care programs, such as prescription drugs, medical supplies and equipment, dental and vision care, and transportation to needed medical services.

The dearth of good information on the size and health status of the Aboriginal population within the HNHB LHIN, coupled with the historical poor health status and barriers to access to health care for Aboriginal populations in Canada, presents a need for the HNHB LHIN to partner with the First Nations to more fully identify the needs of these populations and ensure that health services (provincial and federal) are sensitive and responsive to these needs.

Identified Need

Health services that are sensitive and responsive to the needs of the HNHB Aboriginal population.

Welland, Port Colborne, and Hamilton are Designated Areas under the French Language Services Act

There are just over 28,000 Francophones within the HNHB LHIN area. More than half (55%) of this Francophone population resides in Niagara, 28% in Hamilton, 7% in Burlington, 5% in Brant and Brantford and 4% in Haldimand and Norfolk.[17] Francophones in 'designated areas' are guaranteed the right to receive services, including health services, in French. 'Designated Areas' under the French Language Services (FLS) Act of 1986 are areas where Francophones form at least 10% of the local population and/or urban centers with at least 5,000 Francophones. The HNHB LHIN communities of Welland, Port Colborne and Hamilton are designated areas under the Act. 2.3% of the HNHB LHIN population is Francophone (i.e., French as a mother tongue[18]).

[17] Source: French Language Health Services, Ontario Ministry of Health and Long-Term Care, 2001. From: M. Wylde, FLS Coordinator, Hamilton Niagara Haldimand Brant LHIN area.

[18] Mother Tongue: Refers to the first language learned at home in childhood and still understood by the individual at the time of the census. Individuals who

Impact of lack of availability of French-language health care

A 2001 report by the Fédération des Communautés Francophones et Acadienne du Canada[19] found that members of the French-speaking minority communities in Canada are relatively older, less educated, and less active in the labour market. The study found that lack of availability of French-language health care services:

- Reduces the probability of using health services for preventive reasons
- Increases consultation time and use of diagnostic tests, and increases probability of error in diagnosis and treatment
- Impacts the quality of care, reduces the probability of compliance with treatment, and reduces satisfaction with care and services.

2nd Report on the Health of Francophones in Ontario

In 2005, Laurentian University's Franco-Ontarian Institute and the Ontario Public Health Research, Education and Development Program at the Sudbury & District Health Unit released their Second Report on the Health of Francophones in Ontario[20], a follow up to their first report published in 2000. The research team studied the population as a whole (francophone, Anglophone, allophone[21]) and regional differences. This second report was based on data from the Canadian Community Health Survey 2000-2001 and Statistics Canada 2001. Principal findings of the report included:

- Francophones perceive their own health as not being as good as that of the general population of Ontario.
- Francophones have higher rates for smoking and a smaller proportion of persons live in a smoke-free household.
- There is no significant difference between Francophones and the whole population of Ontario in rates of chronic diseases such as emphysema, chronic bronchitis, asthma, high blood pressure, diabetes or heart disease, as well as of serious injuries.

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indicated French only or English and French are included in this data. Source: Statistics Canada, 2001 Census Dictionary.

[19] "Improving Access to French-Language Health Services", Study Coordinated by the Federation des Communautes Francophones et Acadienne (FCFA) du Canada for the Consultative Committee for French-Speaking Minority Communities, June 2001.

[20] Picard, L., Allaire, G., "Second Report on the Health of Francophones in Ontario / Deuxième Rapport sur la santé des francophones de l'Ontario", December 2005.

[21] Allophone means a person whose first language is neither of Canada's official languages of English and French.

- Francophones continue to consult a mental health professional at the same rate, while there is increased usage among the Anglophone population. Women's mental health is not as good as for men: they consult mental health professionals more frequently, they have a higher rate of depression, and report higher stress levels in the workplace.
- There is not much difference between Francophones and Anglophones in alcohol consumption. Allophones, however, show a lower level of alcohol consumption.
- Francophones, in general, are more likely to engage in sexual activity. However, the rate of sexual activity among francophone adolescents is no different from that of Anglophone adolescents.
- Francophones visit their dentist less often than other groups.
- More than 50 per cent of Francophones have been proactive and have "done something" to improve their health.

Identified Need

Access to French language health services for the Francophone populations of the HNHB LHIN area.

3.3 Lifestyle Behaviours and Preventive Care

Poor lifestyle behaviours are risk factors for chronic diseases

Lifestyle behaviours such as smoking, unhealthy diet and lack of physical activity are known risk factors for chronic diseases and conditions (e.g., obesity, diabetes, heart disease, end-stage renal disease and cancer). Poor health and the presence of chronic disease can lead to more frequent use of health care services, more prescription drug use, a higher risk of hospitalization, higher health system costs and higher rates of disability and death.

23.1% of HNHB population are smokers and 9.1% are exposed to second-hand smoke, higher than Ontario rates

The Ontario average rates of 20.7% for smoking[22] and 7.3% for exposure to second-hand smoke[23] are exceeded in the HNHB LHIN area (23.1% are smokers and 9.1% are exposed to second-hand smoke). Residents of Haldimand/Norfolk display the highest rates of smoking and exposure to second-hand smoke within the LHIN area (29.8% and 10.1%, respectively). Lowest rates of smoking and exposure to second-hand smoke are displayed in Burlington[24] (18.3% and 6.4%).

23% of HNHB residents are heavy drinkers

The HNHB LHIN area has a higher proportion of heavy drinkers[25] (23%), compared to the all Ontario rate (21.5%). The highest rates of heavy drinking are exhibited by residents of Haldimand and Norfolk (26%) and the lowest rates by residents of Burlington (19.7%).

Identified Need

Improvement in lifestyles impacting on health.

3.4 Population Health Status

3.4.1 Well-being and Personal Resources

59% of HNHB residents rate their overall health as 'excellent' or 'very good', slightly lower than Ontario as a whole (60.8%)

Self-reported health is an indicator of overall health status. It can reflect aspects of health not captured in other measures, such as: incipient disease, disease severity, aspects of positive health status, physiological and psychological reserves and social and mental function. In 2005, the proportion of HNHB LHIN residents rating their overall health as 'excellent' or 'very good' was 59%; slightly lower than for the Ontario proportion (60.8%)[26]. Within the HNHB LHIN area, the highest rate of excellent/good health was reported in

[22] Population aged 12 and over who reported being a current smoker (daily or occasional). Source: Statistics Canada, Canadian Community Health Survey 2005.

[23] Non-smoking population aged 12 and over who reported that at least one person smokes inside their home every day or almost every day. Source: Statistics Canada, Canadian Community Health Survey 2003.

[24] Rates from the Canadian Community Health Survey (CCHS) were available for Halton Region only. Halton rates from the CCHS have been used as a proxy for Burlington.

[25] 'Heavy drinking' is defined as current drinkers who reported drinking 5 or more drinks on one occasion, 12 or more times a year. Source: Statistics Canada, Canadian Community Health Survey 2005.

[26] Population (aged 12 and over for data from the Canadian Community Health Survey and National Population Health Survey, North component) who rate their own health status as being excellent or very good. Source: Statistics Canada, Canadian Community Health Survey 2005.

Burlington (66.1%) and the lowest rate in Brant County (54.9%).

Self-reported mental health provides a general indication of the population suffering from some form of mental disorder, mental or emotional problems, or distress, not necessarily reflected in self-reported (physical) health. In 2005, the proportion of HNHB LHIN residents rating their mental health as 'excellent' or 'very good'[27] was 73.7%, higher than the all Ontario rate (72.8%). Within the HNHB LHIN area, the highest rates were displayed in Brant County and Burlington (76.1%) and the lowest rate in Haldimand and Norfolk (71%).

24% of HNHB residents report 'Quite a Lot of Life Stress'

23.6% of HNHB LHIN residents report 'quite a lot of life stress'[28]; a rate similar to the all Ontario rate (23.1%). Within the HNHB LHIN area the highest rate of 'quite a lot of life stress' was in Burlington (26.6%) and the lowest rate in Niagara (22.6%).

Two-thirds of HNHB residents report a "Strong Sense of Belonging" to their local community

Research shows a high correlation of sense of community belonging with physical and mental health. In 2005, two-thirds of HNHB LHIN residents reported a 'very strong or somewhat strong sense of belonging' to their local community[29], a proportion that was higher than the all Ontario rate (63.4%). Within the HNHB LHIN area, the highest rate was displayed in Brant County (69.3%) and the lowest rate in Haldimand and Norfolk (63.2%).

3.4.2 Chronic Health Conditions and Human Function

HNHB displays higher rates of many chronic health conditions compared to Ontario as a whole

Chronic health conditions such as arthritis, obesity, high blood pressure, asthma, pain and diabetes place a high burden on the health care system and reduce the quality of life of those who suffer from the condition. In 2005, residents of HNHB LHIN displayed high rates of arthritis/rheumatism, adult obesity and high blood pressure, and higher rates of diabetes, asthma and overweight adults, compared to Ontario as a whole[30].

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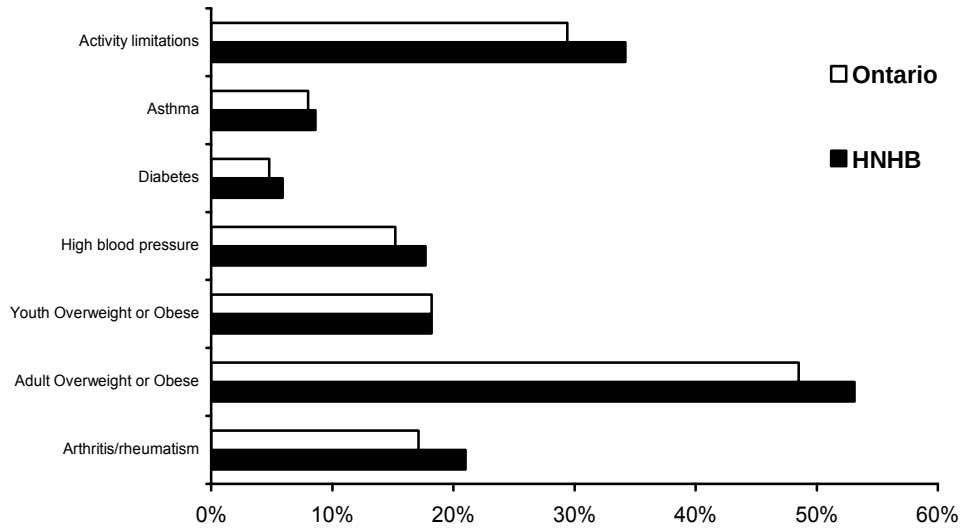
[27] Population aged 12 and over who rate their own mental health status as being excellent or very good. Source: Statistics Canada, Canadian Community Health Survey 2005.

[28] Population aged 18 and over who reported 'quite a lot of life stress'. Source: Statistics Canada, Canadian Community Health Survey 2005.

[29] Population aged 12 and over who describe their sense of belonging to their local community as very strong or somewhat strong. Source: Statistics Canada, Canadian Community Health Survey 2005.

[30] It is important to note that prevalence rates are not age-standardized, and therefore populations with a high proportion of seniors (such as is the case in

Chart 4: Prevalence of Chronic Health Conditions, HNHB LHIN and Ontario, 2005:



Source: Canadian Community Health Survey, 2005.

High percent (21%) of HNHB residents reported having arthritis/ rheumatism

In 2005, 21% of HNHB LHIN residents reported having arthritis/rheumatism[31], a rate higher than the all Ontario rate (17.1%). Within the HNHB LHIN area, high rates of arthritis/rheumatism were in Niagara (23.8%) and Haldimand and Norfolk (24.7%). The lowest rates of arthritis/rheumatism were in Burlington (17.1%).

Percent of HNHB residents reporting being overweight or obese (53.1%) is greater than Ontario rate (48.5%)

According to World Health Organization guidelines increased health risks are associated with being overweight or obese. Based on Body Mass Index[32], 34.6% of the adult population of the HNHB LHIN area is considered overweight and 18.5% are obese. The total proportion of HNHB LHIN residents reporting being overweight or obese (53.1%) is greater than the Ontario rate (48.5%). Within the HNHB LHIN area, high rates of obesity are found in Brant (21.3%) and Niagara

the HNHB LHIN area) will tend to have higher rates of chronic conditions which are associate with aging, (e.g., high blood pressure, diabetes, arthritis, activity limitations, etc).

[31] Population aged 12 and over who report that they have been diagnosed by a health professional as having arthritis or rheumatism. Arthritis/rheumatism includes both rheumatoid arthritis and osteoarthritis, but excludes fibromyalgia. Source: Statistics Canada, Canadian Community Health Survey 2005.

[32] Body Mass Index (BMI) is a method of classifying body weight according to health risk. BMI is calculated as follows: weight in kilograms divided by height in meters squared. The adult population (aged 18+) with a BMI of between 25-29 is considered overweight and those with a BMI of 30 or more, obese. Source: Statistics Canada, Canadian Community Health Survey 2005.

(19.2%), and the lowest rates of obesity are in Burlington (14.1%).

High percent (17.7%) of HNHB residents reported having high blood pressure

In 2005, 17.7% of HNHB LHIN residents reported having high blood pressure[33], a rate that is higher than the all Ontario rate (15.2%). Within the HNHB LHIN area, high rates of high blood pressure were reported in Hamilton (17.7%) and low rates in Burlington (15.5%).

5.9% of HNHB residents reported having diabetes

The rate of diabetes[34] in the HNHB LHIN area was 5.9% in 2005, higher than the all Ontario rate (4.8%), but not different. Within the HNHB LHIN area, the highest rate of diabetes was in Hamilton (6.2%) and the lowest rate in Burlington (3.2%).

HNHB rates of asthma are similar to the all Ontario rate of 8%

HNHB LHIN rates of asthma[35] (8.65) are higher than the all Ontario rate (8%), with the highest rate in Brant County (9.1%) and the lowest rate Haldimand and Norfolk (6.3%).

High Percent (34.2%) of HNHB residents report being limited in their activities due to a physical or mental condition

A high proportion (34.2%) of HNHB LHIN residents report being limited in their activities due to a physical or mental condition[36], compared to the all Ontario rate (29.4%). Within the HNHB LHIN area, high rates of activity limitation were found in Brant County (34.7%), Haldimand and Norfolk (38.8%), Hamilton (33.5%) and Niagara (36%). The lowest rates of activity limitation were found in Burlington (27.1%).

Identified Need

Strategies to reduce the prevalence and impact of chronic diseases on the residents of the HNHB LHIN area.

Dental and Oral Health Needs of Special Populations

In November 2002, the Hamilton District Health Council completed a review of the availability and accessibility of dental and oral health care services for special needs

[33] Population aged 12 and over who report that they have been diagnosed by a health professional as having high blood pressure. Source: Statistics Canada, Canadian Community Health Survey 2005.

[34] Population aged 12 and over who report that they have been diagnosed by a health professional as having diabetes. Source: Statistics Canada, Canadian Community Health Survey 2005.

[35] Population aged 4 and over (or aged 12 and over for data from the Canadian Community Health Survey and National Population Health Survey, North component) who report that they have been diagnosed by a health professional as having asthma. Source: Statistics Canada, Canadian Community Health Survey 2005.

[36] Population aged 12 and over whom report being limited in selected activities (home, school, work and other) because of a physical condition, mental condition, or health problem which has lasted or is expected to last six months or longer. Source: Statistics Canada, Canadian Community Health Survey 2005.

populations.[37] The review found that there were high levels of need for dental and oral health services, particularly for seniors, persons with disabilities, low-income groups, homeless street youth, and medically compromised individuals.

3.4.3 Deaths

Life expectancy among male residents of HNHB was 76.8 years and among female HNHB residents 81.5 years, lower than provincial life expectancy

Life expectancy measures quantity rather than quality of life. It is a widely-used indicator of the health of a population. As of 2001, life expectancy measured at birth[38] among male residents of the HNHB LHIN area was 76.8 years and among female HNHB LHIN residents 81.5 years, lower than the life expectancy for all Ontario males and females (77.5 and 82.1, respectively). Within the LHIN, Brant residents had the lowest life expectancy with 75.7 years among males and 80.7 years among females, and Burlington had the highest life expectancy with 79.5 years among males and 83 years among females.

Age-standardized All-Cause mortality rate in HNHB was 630/100,000 population, higher than the provincial rate (603/100,000)

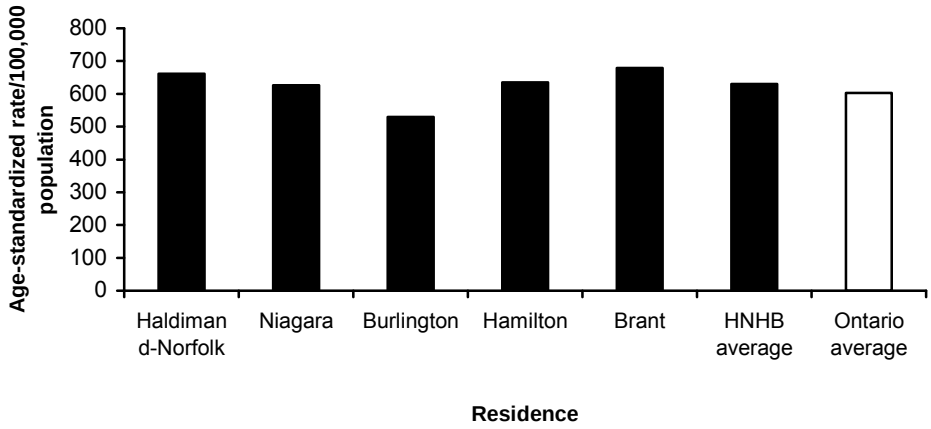
In 2001, the age-standardized all-cause mortality rate[39] in the HNHB LHIN area was 629.8/100,000 population, higher than the provincial rate (602.6/100,000). Within the HNHB LHIN area, high age-standardized rates of mortality were in Brant (679/100,000), Haldimand and Norfolk (661.7/100,000), Hamilton (634.8/100,000) and Niagara (625.7/100,000). Burlington residents had low age-standardized rates of death (529.4/100,000).

[37] "Review of Dental and Oral Health Needs of Special Populations in Hamilton", Hamilton District Health Council, November 2002.

[38] Life expectancy is the number of years a person would be expected to live, starting from birth (for life expectancy at birth) and similarly for other age groups, on the basis of the mortality statistics for a given observation period. Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

[39] Age-standardized rate of death from all causes per 100,000 population. Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Chart 5: Age-Standardized Rates of Death, All Causes, Per 100,000 Population, HNHB LHIN, by County of Residence, 2001:



Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates); Population Health Profile: HNHB LHIN, Health System Intelligence Project, 2005.

Circulatory disease and cancers are largest contributors to high HNHB mortality rates

High rates of mortality in HNHB LHIN communities are primarily due to high rates of circulatory disease[40] and neoplasms (i.e., cancers) [41], which are the two leading causes of mortality and morbidity. Within the LHIN, Hamilton and Niagara residents have high age-standardized rates of death due to cancers; Brant, Haldimand, Norfolk and Niagara residents have high age-standardized rates of death due to circulatory disease; and, Brant residents have high age-standardized rates of death due to respiratory disease[42]. Burlington residents have low age-standardized rates of death overall, and specifically for deaths due to circulatory disease, respiratory disease and injury. Hamilton residents have low age-standardized rates of death due to injury and Niagara residents have low age-standardized rates of death due to respiratory disease.

The HNHB LHIN rate of Potential Years of Life Lost (PYLL) is 13% higher than the all Ontario average

Potential Years of Life Lost (PYLL) rates are useful for quantifying the number of years of life "lost" from deaths that occur "prematurely" (i.e., before age 75). The overall HNHB LHIN PYLL rate is 13% higher than the Ontario average. Within HNHB LHIN, Potential Years of Life Lost (PYLL)

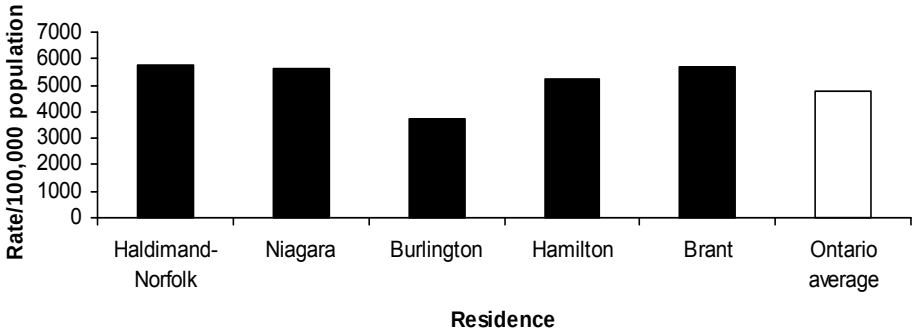
[40] Circulatory diseases are diseases affecting the circulation of the blood in the heart, arteries, capillaries or veins. They include ischaemic heart disease and cerebrovascular disease (i.e., strokes).

[41] An abnormal new mass of tissue, that serves no purpose. A malignant neoplasm [i.e., cancer] tends to spread to other parts of the body).

[42] Respiratory diseases are those affecting the respiratory system and include pneumonia and influenza, and bronchitis/emphysema/asthma.

rates are higher than the provincial average (from 10 to 20% higher) in the communities of Hamilton, Brant, Haldimand, Norfolk, and Niagara. Burlington PYLL rates are 21% lower than the provincial average.

Chart 6: Potential Years of Life Lost, Rate per 100,000 Population, All Causes, HNHB LHIN, by County of Residence, 2001:



Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Cancers contribute to more years of potential life lost for HNHB residents than any other cause, followed by circulatory system diseases, and external causes (i.e., injuries)

High PYLL rates for individual diseases may highlight opportunities to focus prevention efforts on those diseases and to reduce premature mortality. Cancers contribute to more years of potential life lost for HNHB residents than any other cause, followed by circulatory system diseases, and external causes (i.e., injuries). Compared to the provincial average, rates of PYLL due to cancer and circulatory disease are higher in Brant, Haldimand, Norfolk, Hamilton and Niagara, and lower in Burlington. Compared to the all Ontario rate of PYLL due to respiratory disease, rates are higher in Haldimand, Norfolk, Hamilton and Niagara, and lower in Burlington.

High Premature Mortality Due to Injury

Compared to the all Ontario rate of PYLL due to injury, rates are higher in Brant, Haldimand, Norfolk and Niagara and lower in Burlington and Hamilton. These high rates are consistent with the very high economic cost of injury to residents of the HNHB LHIN, shown later in section 2.5.1 of this report. Compared to the all Ontario rate of PYLL due to suicide, rates are higher in Brant and Haldimand-Norfolk and lower in Burlington, Hamilton and Niagara.

Identified Need

Improvements in the prevention, diagnosis and treatment of cancer.

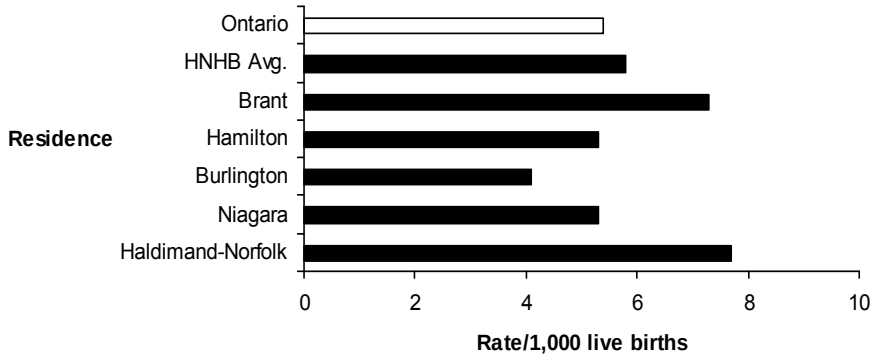
Identified Need

Improvements in the prevention, diagnosis and treatment of circulatory disease.

HNHB infant mortality rate higher than Ontario wide rate

Infant mortality is a long-established measure, not only of child health, but also of the well-being of a society. It reflects the level of mortality, health status, and health care of a population, the effectiveness of preventive care, and the attention paid to maternal and child health. As of 2001, the infant mortality rate[43] in the HNHB LHIN area of 5.8 per 1000 live births was higher than the Ontario rate of 5.4 per 1,000. Within HNHB LHIN the highest rates of infant mortality were in Haldimand and Norfolk (7.7/1,000) and the lowest rates in Burlington (4.1/1,000).

Chart 7: Infant Mortality Rates per 1,000 Live Births, HNHB LHIN, by County of Residence, 2001:



Source: Statistics Canada, Vital Statistics, Birth and Death Databases

Identified Need

Improvement in prenatal care/ Improvement in maternal and newborn care.

3.5 Health Care System Utilization

3.5.1 Acute Inpatient and Mental Health Hospitalizations

Identifying and understanding patterns of hospitalization are important to health system planners. Patterns of acute inpatient hospitalization are influenced by hospital system capacity, the availability of physicians and community services, and the age structure, health status and socio-economic characteristics of the population. Acute inpatient care represents a major component of hospital expenditures

[43] Infants who die in the first year of life, expressed as a count and a rate per 1,000 live births. Source: Statistics Canada, Vital Statistics, Birth and Death Databases

and provides a proxy measure of allocation of hospital resources.

In the fiscal year 2004/05, residents of HNHB had the highest volume of acute hospitalizations among all 14 LHIN populations. 93% of these separations were from hospitals in HNHB

In the fiscal year 2004/05, residents of the HNHB LHIN area had a total of 121,769 inpatient separations[44] and 788,290 inpatient days at Ontario acute care hospitals[45], the highest volume of acute hospitalizations among all 14 LHIN populations[46]. 93% of these separations were from hospitals located in the HNHB LHIN area. Whereas HNHB LHIN residents represented 10.9% of the provincial population, they accounted for 12.3% of all acute inpatient hospitalizations by Ontario residents in 2004/05. 94% of these separations were for acute medical or surgical care (including obstetrical care).

Acute mental health separations[47] accounted for 5.5% (6,722) of all inpatient separations and 10.3% (81,279) of total inpatient days attributed to HNHB LHIN residents at Ontario acute care hospitals.

Within the HNHB LHIN area, hospitalizations for Hamilton and Niagara residents accounted for just over 35% of total acute inpatient separations by HNHB LHIN residents, followed by residents of Burlington (11%), Brant (10.5%) and Haldimand and Norfolk (7.6%).

HNHB acute inpatient utilization per population is higher than Ontario average

While the HNHB LHIN population's relatively high percentage of seniors contributes to a disproportionately high volume of acute inpatient separations compared to the Ontario rate, an examination of age-standardized[48] rates of utilization shows that other factors are influencing HNHB LHIN

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[44] Separation: a completed case treated in hospital resulting in any of the following: discharge home, transfer to another facility, death or patient sign out. Includes ALC and acute care hospital mental health. Does not include newborns.

[45] Data are reported based on the patient's residence, not LHIN/municipality/county of hospitalization. As such, these figures reflect the hospitalization experience of residents of the Hamilton Niagara Haldimand Brant LHIN wherever they are treated in Ontario.

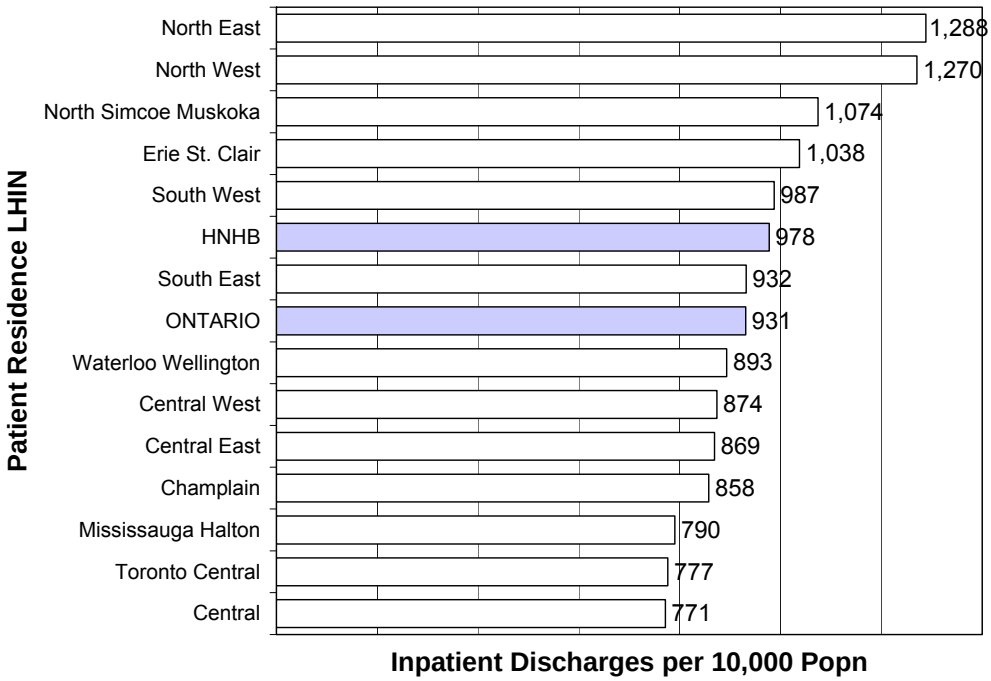
[46] Acute Care Utilization Report, Health System Intelligence Project, Ontario Ministry of Health and Long-Term Care, March 2006.

[47] Acute mental health separations include all those falling within the psychiatric program cluster category, including patients not in special psychiatric units of hospitals. It does not include hospitalizations in specialized mental health facilities (former provincial psychiatric hospitals).

[48] Age-standardized Rate: A summary rate which adjusts for variations in population age distributions over time and place. Mortality and hospitalization rates are adjusted using the Direct Method and the 1991 Canadian population as the standard.

residents' relatively high demand for hospital care. In 2004/05, the age-standardized rate of acute inpatient hospitalization for residents of HNHB LHIN was 978/10,000 population; a rate higher than the Ontario rate (931/10,000 age-standardized), and much higher than the utilization rates for the Greater Toronto Area (GTA) LHINs.

Chart 8: Age-Standardized Acute Care Hospital Separations for Residents of LHINs, 2004/05:



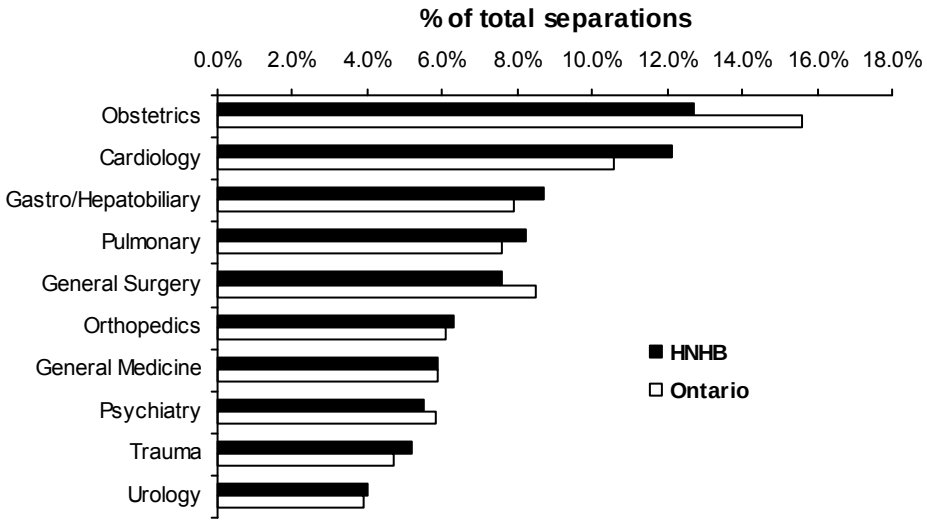
Source: CIHI Discharge Abstract Database (DAD), Ontario Ministry of Finance Population Estimates by LHIN.

Acute care separation rates are highest for residents of Brant, Haldimand-Norfolk, and Niagara, and lowest for residents of Burlington. The Hamilton rate is slightly higher than the Ontario average, which is unusual for a community primarily served by academic health science centres (teaching hospitals), which usually exhibit the lowest rates of acute care utilization.

Factors that impact hospitalization rates

The LHIN's higher age-standardized rates of hospitalization may be attributed to a combination of factors that influence population health status and the demand for health care, (i.e., socio-economic status, personal resources, lifestyle behaviours and the use of preventive health care services). Having regular access to a family physician can reduce the need to access hospital emergency departments for primary care, and reduce the likelihood of admission to hospital.

Chart 9: Leading Clinical Areas (i.e., Program Cluster Categories[49]) as a % of Total Inpatient Separations from Ontario hospitals, HNHB LHIN and Ontario, 2004/05:



Source: p. 2, Acute Care Utilization Report, Health System Intelligence Project, Ontario Ministry of Health and Long-Term Care, 2006.

Many of the Leading Causes of Hospitalization among Residents of HNHB Reflect an Older Population with a Higher Prevalence of Chronic Health Conditions

The leading causes of hospitalization among residents of the HNHB LHIN area also reflect the distinguishing characteristics of the population, (i.e., an older age structure with a higher prevalence of chronic health conditions). For example, while obstetrics was the leading cause of hospitalization among both Ontario and HNHB LHIN residents in 2004/05, obstetrics represented a smaller proportion of total LHIN residents' inpatient separations (12.5%), when compared to the all Ontario rate (15.6%). Similarly, whereas cardiology was the second leading cause of hospitalization among both Ontario and HNHB LHIN residents, it accounted for 12.1% of total separations by HNHB LHIN residents, compared to 10.6% for all of Ontario.

HNHB Utilization High For Orthopaedics, Trauma, Gynaecology, and Cardiology

The clinical programs where age-standardized hospitalization rates of HNHB LHIN residents were more than 10% higher than the Ontario average include orthopaedics, trauma, gynaecology, and cardiology. The programs where age-standardized hospitalization rates of HNHB LHIN residents were more than 10% lower than the Ontario average include dental/oral surgery and ophthalmology. This could reflect higher than average use of day surgery for these services (and

[49] Program Cluster Categories (PCCs) are groupings of Case Mix Groups (CMG) aggregated into 30 broad program areas. The CMG methodology groups hospital patients with similar diagnosis and treatment requirements.

the associated reduced use of inpatient care) or it may be evidence of limited capacity to provide this care and unmet needs. The higher utilization of acute care orthopaedic and trauma services suggests a need for a focus on accident and injury prevention.

Highest Economic Cost Due to Injury for HNHB LHIN Residents

The 2006 study by SMARTRISK, "The Economic Burden of Injury in Ontario"[50] found that in 1999 the total annual cost of injuries for the residents of the HNHB LHIN area was $657 million, the highest of all 14 LHINs. In 1999, HNHB LHIN residents had:

- 430 deaths due to injury
- 9,266 hospitalizations due to injury
- 59,361 non-hospitalized injuries
- 2,730 injuries resulting in permanent disability

Unintentional falls by HNHB LHIN residents accounted for more than one third of the total injury cost. Costs for falls among seniors (aged 55 and older) and children (under 15 years old) were the highest in the province for HNHB LHIN residents.

The rate of hospitalization of HNHB LHIN residents because of injury was 718 hospitalizations per 100,000 population, one of the highest hospitalization rates in southern Ontario.

The SMARTRISK report concludes that "Ontarians should not have to spend $5.7 billion each year on injury. The opportunity exists to avoid costs associated with injury by investing in a comprehensive provincial injury prevention strategy".

Identified Need

Safety and accident prevention initiatives.

3.5.2 Day Surgery Hospitalization

HNHB residents had 128,123 day surgery visits at Ontario hospitals in 2004

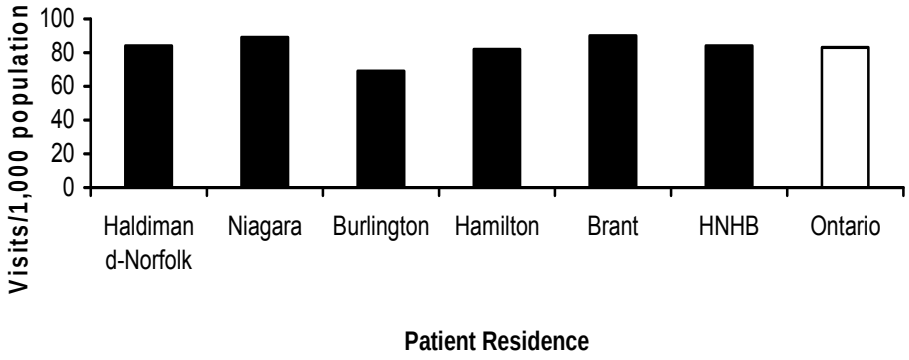
In the fiscal year 2004/05, HNHB LHIN residents had 128,123 day surgery visits at Ontario hospitals, accounting for the second-highest volume of day surgery visits among the 14 LHIN populations and representing approximately 11.5% of the total day surgery visits at Ontario hospitals.

[50] SMARTRISK. "The Economic Burden of Injury in Ontario". Toronto: SMARTRISK, 2006.

Age-Standardized rate of day surgery was similar to the all Ontario rate

The age-standardized rate of day surgery was 83.9/1,000, similar to the all Ontario rate (83.3/1,000). Within the HNHB LHIN area, rates of day surgery utilization vary greatly.

Chart 10: Day Surgery Visits, Age-Standardized Rates per 1,000 Population, HNHB Residents, by Patient Residence, 2004/05:



Source: Hospital Discharge data, Population Health Planning Database, Ontario Ministry of Health and Long-Term Care.

Within the HNHB LHIN area, the largest volumes of day surgery are related to diseases and conditions associated with an aging population (e.g., the removal of neoplasms, cataracts, gall bladders, etc.). The highest age-standardized rates of day surgery utilization are for residents of Brant and Niagara (89/1,000) and the lowest rates for residents of Burlington (69/1,000 population).

3.5.3 Emergency Department Utilization

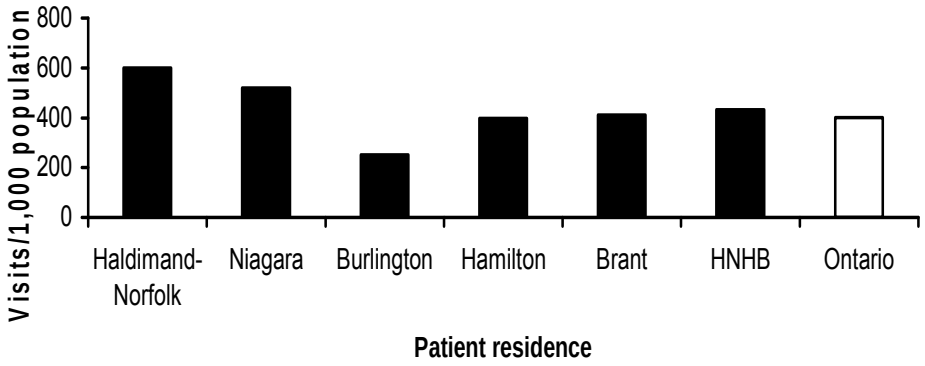
HNHB residents had 587,649 ED visits at Ontario hospitals in 2004

In the fiscal year 2004/05, HNHB LHIN residents had 587,649 emergency department (ED) visits at Ontario hospitals, accounting for the highest volume of ED visits among the 14 LHIN populations and representing approximately 11.5% of the total ED visits at Ontario hospitals.

Age-Standardized Rate Of ED Visits In HNHB Was Higher Than Ontario Rate

The age-standardized rate of ED visits in HNHB was 434/1,000, higher than the Ontario rate (401/1,000). Within the HNHB LHIN area, rates of ED utilization vary greatly. Residents of Haldimand-Norfolk exhibit the highest age-standardized rates of ED use (599/1,000), and residents of Burlington the lowest (251/1,000 population).

Chart 11: Emergency Department Visits, Age-Standardized Rates per 1,000 Population, HNHB Residents, by Patient Residence, 2004/05:



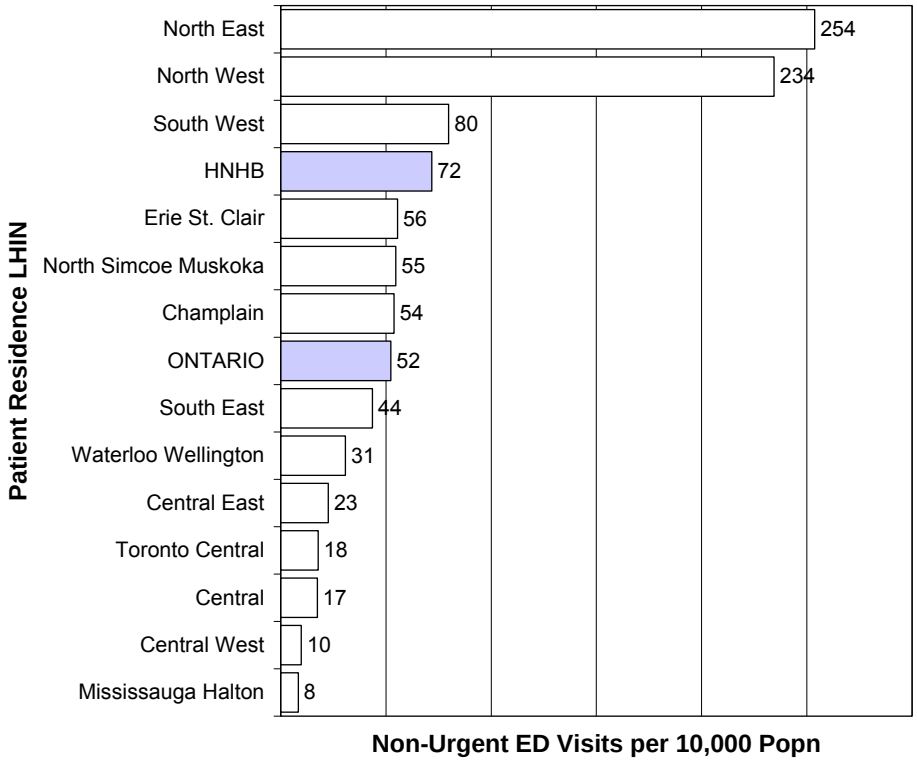
Source: Hospital Discharge data, Population Health Planning Database, Ontario Ministry of Health and Long-Term Care.

High rate of utilization of ED for non-urgent visits by HNHB residents

The greatest contributor to the higher rates of ED utilization by HNHB LHIN residents was the high rate of ED visits per population for non-urgent (CTAS Level 5) visits. In 2004/05, HNHB residents had the second highest age-standardized rate of non-urgent ED visits of all of the southern Ontario LHINs[51].

[51] Rates of non-urgent ED visits for residents of the North East and North West LHIN are high because in northern Ontario primary care is routinely provided through the emergency department.

Chart 12: Non-Urgent (CTAS 5) Emergency Department Visits, Age-Standardized Rates per 1,000 Population, HNHB Residents, by Patient Residence, 2004/05:



Source: Hospital Discharge data, Population Health Planning Database, Ontario Ministry of Health and Long-Term Care.

The variation in age-standardized ED visit rates across HNHB communities, may be influenced by a variation in population health status – as outlined in the preceding section, and a variation in access to primary care from a family physician (particularly with respect to non-urgent ED utilization) – which is discussed in the section on health care system capacity, below.

Identified Need

Improvement in access to and effectiveness of primary care for people under 55 years old.

3.5.4 Inpatient Rehabilitation

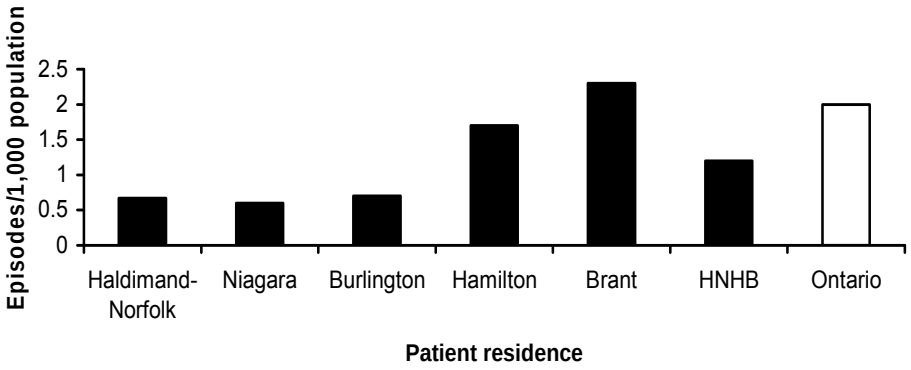
HNHB Residents Accounted For 2,214 Inpatient Rehabilitation Admissions at Ontario Hospitals In 2004

In fiscal year 2004/05, HNHB LHIN residents accounted for 2,214 inpatient rehabilitation admissions[52] at Ontario hospitals, accounting for the 7th highest volume of inpatient rehabilitation admissions among the 14 LHIN populations and

[52] This data includes only adult (aged 17+) inpatient rehabilitation admissions to designated rehabilitation hospitals and designated rehabilitation beds (general and special) in hospitals in Ontario.

representing 7.4% of the total inpatient rehabilitation admissions at Ontario hospitals.

Chart 13: Rehabilitation Episodes, at Designated Inpatient Rehabilitation Beds, Age-Standardized Rates Per 1,000 Population, HNHB LHIN and Ontario, by Patient Residence, 2004/05:



Source: National Rehabilitation Reporting System, Population Health Planning Database, Ministry of Health and Long-Term Care.

Inpatient Rehab per Population for HNHB Residents Was Well Below Ontario Average

The age-standardized rate of inpatient rehabilitation episodes among HNHB LHIN residents was 1.2/1,000 population, much lower than the Ontario rate (2.0/1,000). Within the HNHB LHIN area, rates of inpatient rehabilitation episodes vary. The lowest age-standardized rates of inpatient rehabilitation episodes were for residents of Niagara (0.6/1,000) and the highest rates for residents of Brant (2.3/1,000).

Inpatient Rehabilitation in HNHB More Focused On Stroke and Medically Complex Patients, and Less On Orthopaedic Patients

More than one quarter of HNHB residents hospitalized for inpatient rehabilitation in 2004/05 were stroke patients, while across Ontario as a whole, only 16% of inpatient rehabilitation patients were stroke patients. A much higher percent of HNHB residents who received inpatient rehabilitation were categorized as "medically complex" (13.1%) than the Ontario average (6.5%). In contrast, while the majority of inpatient rehabilitation patients in Ontario were orthopaedic patients (56.5%), just over one third (34.5%) of HNHB inpatient rehabilitation patients were hospitalized for orthopaedic rehabilitation.

Chart 14: Distribution of Inpatient Rehabilitation Patients by Program, HNHB Residents and All Ontario, 2004/05:

Rehabilitation Group	HNHB LHIN		All Ontario (excl. HNHB LHIN)	
	Cases	% of Total	Cases	% of Total
Orthopaedic	870	34.4%	15,458	56.5%
Stroke	696	27.5%	4,436	16.2%
Medically Complex	332	13.1%	1,775	6.5%
Debility	147	5.8%	949	3.5%
Amputation	155	6.1%	825	3.0%
Cardiac	81	3.2%	805	2.9%
Pulmonary	56	2.2%	826	3.0%
Spinal Cord	54	2.1%	645	2.4%
Neurological	68	2.7%	595	2.2%
Multiple Trauma	11	0.4%	325	1.2%
Pain Syndromes	33	1.3%	290	1.1%
Arthritis	15	0.6%	236	0.9%
Other Impairments	9	0.4%	144	0.5%
Burns	0	0.0%	19	0.1%
Congenital	0	0.0%	14	0.1%
Developmental	0	0.0%	5	0.0%

Source: National Rehabilitation Reporting System, Population Health Planning Database, Ministry of Health and Long-Term Care.

The low rate of use of inpatient rehabilitation for orthopaedic care in HNHB may reflect appropriately greater reliance on ambulatory and home care rehabilitation for elective joint patients in HNHB. However, the overall very low rate of hospitalization for inpatient rehabilitation may reflect reduced capacity for inpatient rehabilitation in HNHB hospitals.

Identified Need

Access to inpatient rehabilitation for HNHB residents.

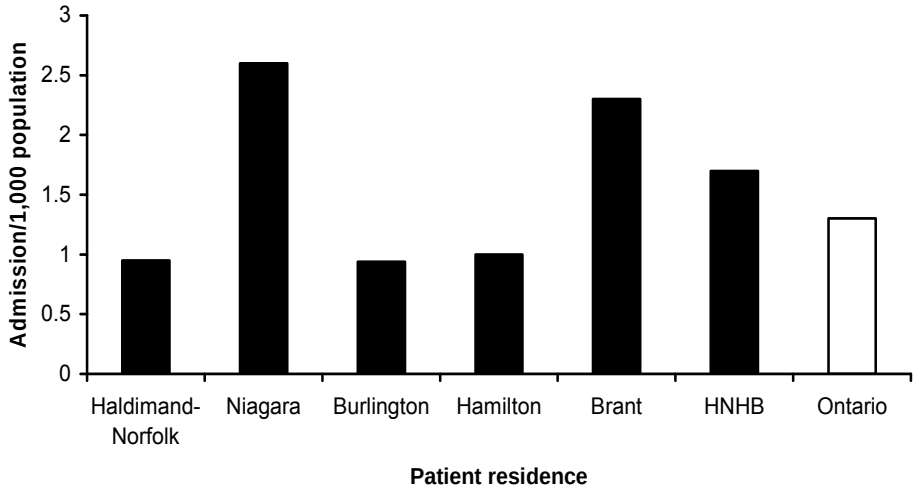
3.5.5 Complex Continuing Care Hospitalization

HNHB Residents Had Highest Volume of Complex Continuing Care Admissions of All LHINs

In fiscal year 2004/05, HNHB LHIN residents had 3,274 complex continuing care (CCC) admissions[53] at Ontario hospitals, the highest volume of CCC admissions among the 14 LHIN populations and representing 16.4% of the total CCC admissions at Ontario hospitals.

[53] Source: Continuing Care Reporting System, Population Health Planning Database, Ministry of Health and Long-Term Care.

Chart 15: Admissions to Complex Continuing Care Hospitals/Beds, Age-Standardized Rates Per 1,000 Population, HNHB LHIN and Ontario, by Patient Residence, 2004/05:



Source: Continuing Care Reporting System, Population Health Planning Database, Ministry of Health and Long-Term Care.

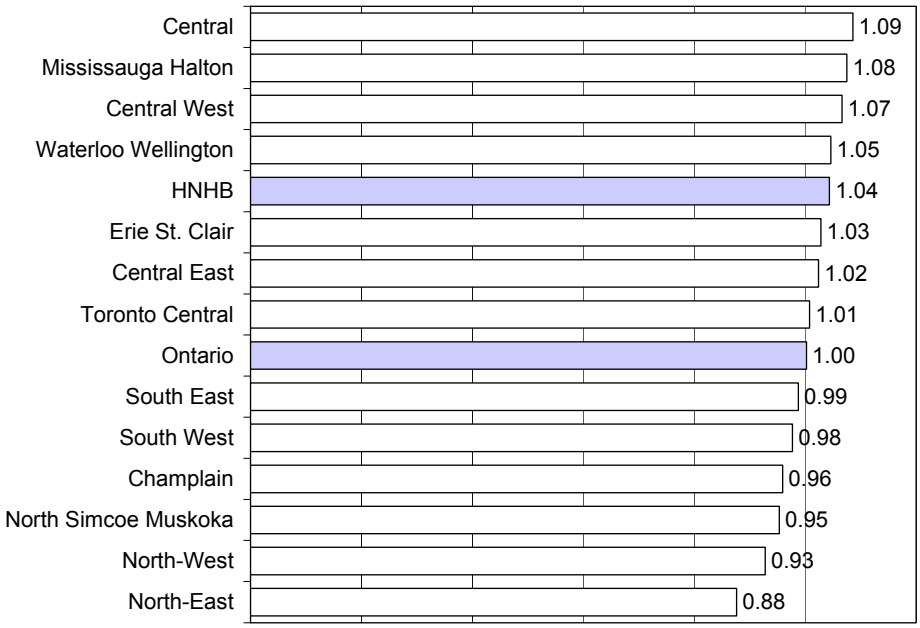
Rate of utilization of Complex Continuing Care by HNHB residents was well above Ontario average

The age-standardized rate of complex continuing care admissions for HNHB LHIN residents was 1.7/1,000 population, higher than the Ontario rate (1.3/1,000 population). Within the HNHB LHIN area, rates of CCC admissions varied substantially. The highest age-standardized rates of CCC admission were for residents of Niagara (2.6/1,000) and the lowest rates for residents of Burlington (0.9/1,000).

HNHB Complex Continuing Care Case Mix Index higher than Ontario average

The average Case Mix Index (a measure of relative need for care, based on the Resource Utilization Group (RUGS) client assessment tool) for HNHB residents admitted to CCC beds was higher than the Ontario average.

Chart 15: Average RUGS Case Mix Index for CCC Admissions by Patient Residence, 2004/05:



Source: Continuing Care Reporting System, Population Health Planning Database, Ministry of Health and Long-Term Care.

Variation in utilization of Complex Continuing Care across HNHB LHIN communities raises questions of equity of access

The variation in age-standardized rates of utilization of CCC beds across the communities within the HNHB LHIN raises the question of whether there is equal access to CCC beds within the HNHB LHIN. The variation may also reflect differences in how CCC beds are used (e.g., short-term rehabilitative care versus continuing care for medically complex patients) and could impact delays in hospital discharge for elderly patients who require ongoing inpatient care.

Identified Need

Equitable access to Complex Continuing Care beds across HNHB communities.

3.5.6 Acute Care Patient Flow - In and Out of the HNHB LHIN:

Inflow:

6% of HNHB Hospital Inpatients Live Outside the LHIN and Travel for Specialized Care

In the 2004/05 fiscal year, 6% of the total acute inpatient cases (8,156 cases) at HNHB LHIN hospitals were patients who did not reside in the LHIN. The majority of these cases required specialized treatment in the areas of cardiac, obstetrics and neonatology, general surgery, orthopaedics and trauma.

Outflow:

7% of HNHB LHIN Resident Inpatient Acute Care Was Provided Outside the LHIN Hospitals

In the same year, just over 7% of HNHB LHIN residents' total acute inpatient cases (10,024 cases) went to acute care hospitals outside of the LHIN. Almost 50% of this outflow occurred in the following clinical program areas: cardiac, obstetrics, neonatology, general surgery and psychiatry.

High Level of Self-Sufficiency for Acute Care in HNHB LHIN

The Canadian Institute of Health Information (CIHI) reports the ratio of the number of separations from acute care hospitals within a given region divided by the number of acute care hospital discharges generated by residents of that region as the inflow/outflow ratio in their annual Health Indicators Report. In 2004/05, the 5 LHINs that contained academic health science centres had the highest inflow/outflow ratios.

The HNHB LHIN had an overall acute care inflow/outflow ratio of 1.00 (meaning the volume of residents seeking acute care outside the LHIN effectively matched the volume of non-resident patients in the HNHB LHIN acute care hospitals) and 0.97 for both hip and knee replacement surgery.

Less Self-Sufficient for CABG Surgery

The HNHB LHIN was slightly less self-sufficient for cardiac artery bypass surgery (CABG), with an inflow/outflow ratio of 0.88.

Chart 16: Inflow/Outflow Ratio by LHIN, Overall and for Selected Surgical Procedures, 2004/05:

LHIN	Overall	Hip Replacement	Knee Replacement	Bypass Surgery
Toronto Central	1.76	2.19	2.27	5.13
South West	1.10	0.87	0.90	1.57
Champlain	1.10	1.01	0.99	1.48
Hamilton NHB	**1.00**	**0.97**	**0.97**	**0.88**
South East	0.96	1.03	1.01	0.96
Mississauga Halton	0.95	0.92	1.01	1.25
North East	0.95	0.68	0.80	0.91
Waterloo Wellington	0.94	1.15	1.08	1.01
Central	0.93	0.90	0.97	0.66
North West	0.92	0.92	0.93	0.00
North Simcoe Muskoka	0.90	0.75	0.69	0.00
Erie St. Clair	0.88	0.93	0.92	0.00
Central East	0.87	0.81	0.93	0.00
Central West	0.76	0.80	0.71	0.00

Source: CIHI Health Indicators, June 2006..

Inflow/outflow data is used to inform joint-LHIN planning. Patients are not obliged to receive care only at hospitals located within their LHIN. The utilization of hospitals outside of a patient's home LHIN is attributed to a range of factors, including: physician referral patterns; the availability of

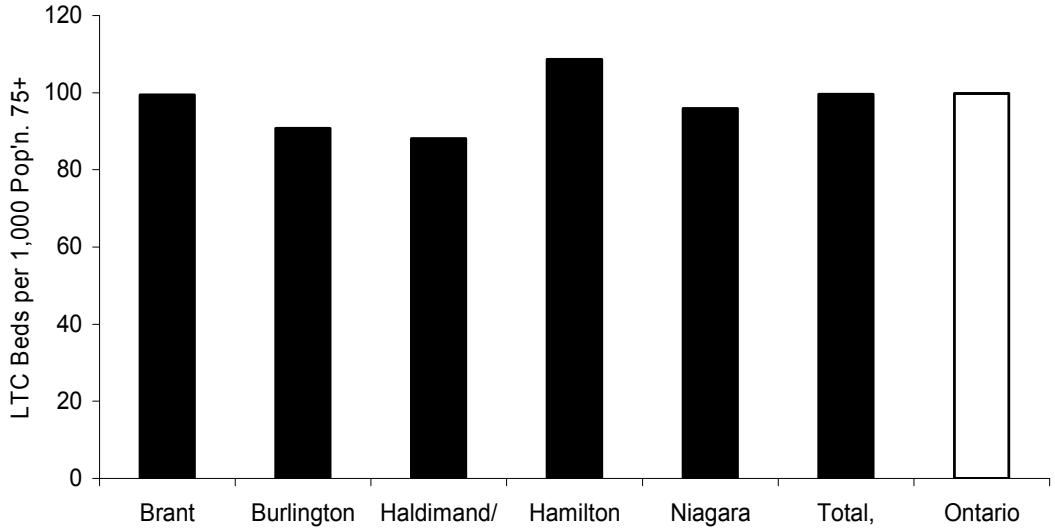
services; waiting time for services; and, patient preferences and convenience.

3.5.7 Residential Long-Term Care

Ratio of LTC Beds per Elderly Population Is Higher In HNHB than Provincial Average

Almost 85% of Ontario long-term care beds are occupied by residents aged 75 years or older. When the number of long-term care beds is compared with the number of LHIN residents aged 75 years or older, the ratio of beds to elderly residents in the HNHB LHIN (99.6 beds per 1,000 elderly) is just under the Ontario average (99.7 beds per 1,000 elderly). However, this ratio varies from a low of 88.1 beds per 1,000 population aged 75 years and older in Haldimand/Norfolk, to a high of 108.6 in Hamilton.

Chart 17: Long-Term Care Beds per 1,000 Population Aged 75 Years and Older, HNHB Counties and Ontario, 2005:

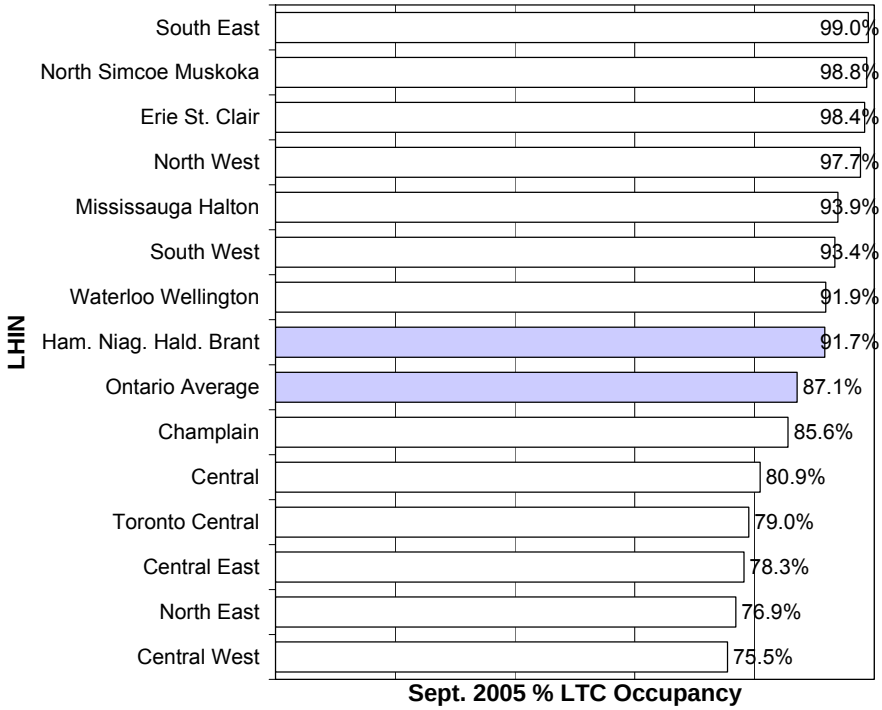


Source: Community Health Division, Long-Term Care Planning & Renewal Branch, Ministry of Health and Long-Term Care.

HNHB LTC Bed Occupancy above Ontario Average

In September 2005, the average occupancy of long-term care beds in HNHB LHIN facilities was 91.7%, higher than the Ontario average of 87.1%. While almost 20,000 new long-term care beds have been built in Ontario in the past 5 years, the higher than average occupancy in the HNHB LHIN facilities shows that on average there is less vacant bed capacity in the HNHB LHIN to accommodate increased demand.

Chart 18: Average Percent Occupancy of Long-Term Care Beds by LHIN, September 2005:

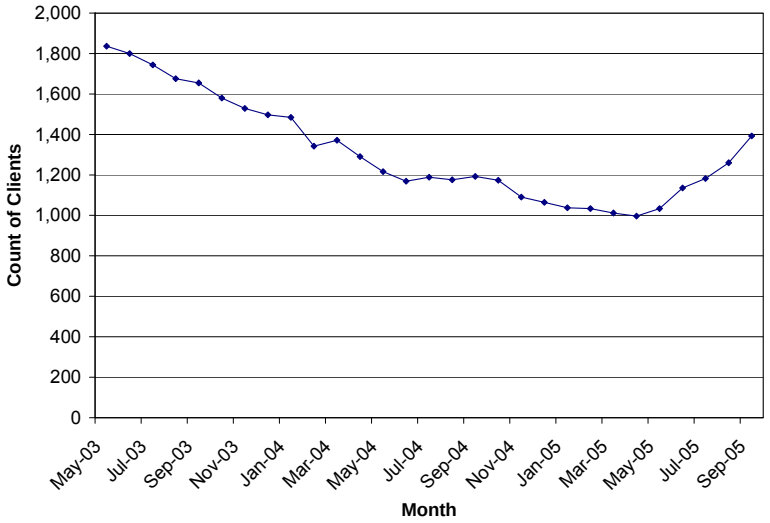


Source: Community Health Division, Long-Term Care Planning & Renewal Branch, Ministry of Health and Long-Term Care.

Wait List for LTC in HNHB Is Increasing

While until May 2005, during the period when new and redeveloped long-term care facilities were being built in Ontario, the number of people waiting in the community for access to a HNHB LTC bed steadily decreased. However, since May 2005 until September 2005 the number has been increasing.

Chart 19: Count of Clients Waiting in Community for HNHB LTC Bed, May 2003 to September 2005:



Source: Community Health Division, Long-Term Care Planning & Renewal Branch, Ministry of Health and Long-Term Care.

Variation in LTC Beds per Population by Community Suggests Unequal Access

As with CCC beds, the variation in LTC beds per population across the communities within the HNHB LHIN raises the question of whether there is equal access to LTC beds within the HNHB LHIN. Unequal distribution of LTC beds could force elderly residents who require residential care to move from their home communities and thus reduce their access to their family and social network.

Identified Need

Equitable access to LTC home beds across HNHB communities.

3.6 Health Care System Capacity

There Are 248 Health Service Provider Agencies in the HNHB LHIN, Delivering a Wide Range of Health Services

As of 2005/06, there were 5 Community Care Access Centres (CCACs)[54]; 3 Community Health Centres (CHCs)[55] operating on 4 sites and 1 Aboriginal Health Centre; 12 hospital corporations (on 23 hospital sites); 91 Community Support Service agencies; 29 Mental Health agencies; 18 Substance Abuse and Problem Gambling programs; and, 90 Long-Term Care Homes. The service envelope for which the LHIN has planning, coordination and funding responsibility does *not* include physician services, pharmacy, ambulance services, independent health facilities, and public health.

[54] In 2006/07, CCACs were consolidated and realigned, such that there is now a single CCAC serving the HNHB LHIN.

[55] Four new CHCs were awarded in the HNHB LHIN in 2006.

3.6.1 Hospitals:

3,501 Beds in HNHB Hospitals

As of March 2006, there were 3,501 hospital beds staffed and in operation within the HNHB LHIN, including: 2,087 acute, 383 acute/forensic mental health, 710 complex continuing care, and 321 general and specialized rehabilitation. During the 2006/07 fiscal year, hospitals within the LHIN will receive $1.48B in annual operating funds from the MOHLTC.

Chart 20: 05/06 Acute Care (including acute Mental Health) Hospital Beds and Occupancy for HNHB LHIN and Ontario:

Region/Indicator	Medical	Surgical	Combined Med/Surg	ICU	Obstetrics	Paeds	Psych.	Total
HNHB LHIN Beds	836	654	205	230	159	111	374	2,562
All Ontario Beds	7,509	4,698	2,282	1,565	1,554	741	4,528	22,786
HNHB LHIN Beds as % of Ontario	11.1%	13.9%	9.0%	14.7%	10.2%	15.0%	8.3%	11.2%
HNHB LHIN % Occupancy	98.3%	86.3%	84.7%	42.7%	74.2%	69.8%	86.7%	91.2%
All Ontario % Occupancy	93.4%	82.7%	83.0%	52.8%	72.6%	53.2%	84.4%	86.6%

Source: MOHLTC Financial Information Management (FIM), Daily Census Summary Reports

High HNHB Medical Bed Occupancy Creates Inefficiency and Patient Safety Risk

For fiscal year 2005/06, the average occupancy of acute care beds in HNHB LHIN hospitals was 91.2%, above the overall provincial average acute care occupancy of 86.6%. The high HNHB occupancy was primarily due to the 98.3% occupancy of acute care medical beds. Such a high occupancy rate has a negative impact on efficiency and patient safety because of the challenge of finding available beds for medical patients and the risk for those patients if they must be placed on a different service (e.g., a surgical unit), where the clinical staff providing their care may be less familiar with their needs. The high medical bed occupancy also impacts the ability to move patients admitted in the ED to a nursing unit, and leads to inpatient stays in the ED.

Identified Need

Improve occupancy of medical beds in acute care hospitals.

Chart 21: HNHB LHIN Hospital 2005/06 Beds (Acute and Mental Health) by Hospital Site and Type of Bed[56]:

Hospital	Medical	Surgical	Combined Med Surg	ICU	Obstet.	Paeds	Psych.	Total
Hamilton St Joseph's Hlth Care	131	117	-	27	34	-	254	562
Hamilton HSC - General Site	78	147	-	60	-	-	-	284
Hamilton HSC - McMaster Site	59	81	-	22	32	55	17	265
Hamilton HSC - Henderson Site	102	67	-	17	-	-	-	186
Joseph Brant Memorial Hospital	87	56	-	14	15	6	28	206
Hamilton/Burlington Sub-Total	**457**	**468**	**-**	**140**	**81**	**61**	**299**	**1,503**
Niagara HS - St Catharines General Site	94	49	12	22	16	12	16	219
Niagara HS - Greater Niagara Site	57	33	-	14	10	6	25	145
Niagara HS - Welland County Gen. Site	51	-	39	16	10	8	16	139
Niagara HS - St Catharines Ontario Street	23	15	-	4	-	-	-	42
Niagara HS - Port Colbourne Gen. Site	-	-	32	3	-	-	-	35
Niagara HS - Douglas Memorial Site	-	-	32	-	-	-	-	32
Niagara HS - Niagara-On-The-Lake Site	-	-	10	-	-	-	-	10
St Catharines Hotel Dieu	40	19	-	6	-	-	-	65
Grimsby West Lincoln Memorial	-	-	29	4	11	-	-	44
Niagara Sub-Total	**265**	**116**	**154**	**69**	**47**	**26**	**57**	**731**
Simcoe Norfolk General Hospital	47	16	4	6	5	2	-	80
Haldimand West Haldimand General	23	-	-	-	-	-	-	23
Dunnville Haldimand War Memorial	-	-	16	-	4	2	-	22
Haldimand Norfolk Sub-Total	**70**	**16**	**20**	**6**	**9**	**4**	**-**	**125**
Brantford General Hospital	39	54	31	15	22	20	18	198
Paris Willett Hospital	5	-	-	-	-	-	-	5
Brant Sub-Total	**44**	**54**	**31**	**15**	**22**	**20**	**18**	**203**
Grand Total	**836**	**654**	**205**	**230**	**159**	**111**	**374**	**2,562**

Source: MOHLTC Financial Information Management (FIM), Daily Census Summary Reports

Critical Mass for Obstetrical and Surgical Care

Ten of the hospital sites in the HNHB LHIN have fewer than 100 acute care beds. Smaller acute care hospitals may find it difficult to maintain a sufficient critical mass of acute care activity to provide efficient and high quality care, and will usually focus on non-elective primary and secondary level acute care inpatients, with limited specialist services available. Lack of access to specialists may limit the role of small hospitals with respect to obstetrical and inpatient surgical care.

Challenge of Balancing Local Access to Obstetrical Care with Critical Mass Considerations

In 2005/06, the number of newborn patients discharged from the HNHB LHIN hospitals ranged from a high of 3,573 at St. Joseph's Health Care System in Hamilton to a low of 71 patients at the Haldimand War Memorial Hospital in

[56] Beds are assigned to a bed type based on MOHLTC guidelines available at http://www.mohltcfim.com/cms/upload/DCS_Submission_Instruction_Guide.pdf . In Chart 21, the following abbreviations are used for types of bed: "ICU": Intensive Care Unit, "Obstet.": Obstetrical, "Paeds": Paediatric (i.e., aged 18 years and under, excluding newborns), "Psych": Psychiatric.

Dunnville. Decisions regarding the role of individual hospitals in obstetrical care require balancing of the desire to ensure local access, the availability of anaesthetic and surgical backup services, and critical mass considerations related to both quality and efficiency of obstetrical care.

Chart 22: HNHB LHIN Hospital 2005/06Newborn Separations by Hospital Site:

Hospital	Discharges	Avg. Length of Stay (ALOS)
Hamilton St Joseph's Hlth Care Sys-Hamilton	3,573	2.8
Hamilton Health Sciences Corp- Mcmaster Site	2,960	6.5
Burlington Joseph Brant Memorial	1,681	2.3
St Catharines Niagara Hlth Sys-St Catharines General Site	1,438	2.6
Brantford General Hospital	1,232	2.4
St Catharines Niagara Hlth Sys-Greater Niagara Site	1,086	2.2
St Catharines Niagara Hlth Sys - Welland County Gen. Site	753	2.5
Grimsby West Lincoln Memorial	578	2.1
Simcoe Norfolk General Hospital	408	2.1
Dunnville Haldimand War Memorial	71	2.2

Source: MOHLTC Financial Information Management (FIM), Daily Census Summary Reports

Identified Need ***Reduce risk and improve efficiency in obstetrical care.***

Low mental health beds per population in HNHB LHIN

As of fiscal year 2005/06, HNHB LHIN hospitals had 374 inpatient mental health beds, including long-term mental health. While the HNHB LHIN has 11% of the total Ontario population, it has only 8.3% of the total inpatient mental health beds in Ontario.

Chart 23: 05/06 Mental Health Hospital Beds and Occupancy by Type for HNHB LHIN and Ontario:

Region/Indicator	Acute Psych.	Addictions	Child Adolesc.	Forensic	Crisis Unit	Long-Term	Total
HNHB LHIN Mental Health Beds	191	-	-	36	2	146	374
All Ontario Mental Health Beds	2,033	73	112	656	55	1,610	4,528
HNHB Beds as % of Ontario Total	9.4%	0.0%	0.0%	5.5%	3.6%	9.1%	8.3%
HNHB LHIN % Occupancy	81.8%			75.1%	83.6%	96.0%	86.7%
All Ontario % Occupancy	85.6%	82.8%	63.2%	96.5%	116.1%	78.3%	84.4%

Source: MOHLTC Financial Information Management (FIM), Daily Census Summary Reports

In 2005/06, there were no addictions or child/adolescent mental health beds in the HNHB LHIN hospitals; however 22

child and adolescent mental health beds are now being built at the McMaster Children's Hospital in Hamilton.

Concentration of Inpatient Mental Health in Hamilton Creates Need for Protocols to Ensure Access by Residents of Other Communities

Almost 80% of the HNHB LHIN mental health beds are located in hospitals in Hamilton or Burlington. Objective access protocols and admission criteria are required to help ensure equity of access to inpatient mental health for residents in the other communities in the HNHB LHIN. The mental health beds should be considered to be a health care resource for the entire LHIN and access to the beds must be based on need and not geographic proximity.

Very High Occupancy of Long-Term Mental Health Beds

The overall occupancy of mental health beds in HNHB hospitals is 86.7%, higher than the provincial average of 84.4%. This is primarily due to the extremely high occupancy of the long-term mental health beds in HNHB hospitals.

Chart 24: 05/06 HNHB LHIN Mental Health Hospital Beds by Type by Hospital Site:

Hospital	Acute Psych. Beds	Addiction Beds	Child Adole. Beds	Forensic Beds	Crisis Unit Beds	Long Term Beds	Total Beds
Hamilton St Joseph's Hlth Care Sys-Hamilton	0	0	0	36	0	146	182
Hamilton St Joseph's Hlth Care Sys-Hamilton	71	0	0	0	2	0	72
Burlington Joseph Brant Memorial	28	0	0	0	0	0	28
St Catharines Niagara Hlth Sys-Greater Niagara Site	25	0	0	0	0	0	25
Brantford General Hospital	18	0	0	0	0	0	18
Hamilton Health Sciences Corp- McMaster Site	17	0	0	0	0	0	17
St Catharines Niagara Hlth Sys-St Catharines General Site	16	0	0	0	0	0	16
St Catharines Niagara Hlth Sys - Welland County Gen. Site	16	0	0	0	0	0	16

Source: MOHLTC Financial Information Management (FIM), Daily Census Summary Reports

St. Joe's Long-Term and Forensic Mental Health Beds are Regional Resources

The forensic and long-term mental health beds at St. Joseph's Health Care System in Hamilton are considered to be regional beds. There are 10 acquired brain injury (ABI) beds included in the St. Joseph's 146 long-term mental health beds that are a provincial resource.

Stakeholder Feedback Reports Low Availability of All Mental Health Services in HNHB LHIN

Data are not available to support the assessment of whether the apparent low availability of inpatient mental health beds in HNHB hospitals is balanced by enhanced access to ambulatory and community-based mental health services. Stakeholder feedback has suggested that the low availability of inpatient mental health care is indicative of the low overall availability of mental health services in the HNHB LHIN.

Identified Need

Improve access to mental health services.

Low occupancy of HNHB chronic (CCC) beds

In 2005/06, there were 990 chronic (complex continuing care), 212 general rehabilitation, and 60 specialized rehabilitation

inpatient beds in HNHB hospitals. The overall occupancy of inpatient rehabilitation beds in HNHB hospitals was similar to the Ontario average, while chronic beds in HNHB hospitals had much lower occupancy rates (81.8%) than the provincial average (86.3%). The low occupancy rate for the chronic beds may be evidence that the current supply of these beds is sufficient to meet the needs of the HNHB LHIN population for the complex continuing care, respite, and palliative care services available to the patients in these beds.

Chart 25: 05/06 Non-Acute Hospital Beds and Occupancy for HNHB LHIN and Ontario:

Region/Indicator	Chronic	General Rehab	Special Rehab	Total Rehab
HNHB LHIN Beds	990	212	60	272
All Ontario Beds	6,494	1,973	491	2,464
HNHB LHIN Beds as % of Ontario	15.2%	10.7%	12.2%	11.0%
HNHB LHIN % Occupancy	81.8%	87.3%	83.2%	86.4%
All Ontario % Occupancy	86.3%	86.2%	86.3%	86.3%

Source: MOHLTC Financial Information Management (FIM), Daily Census Summary Reports

Chart 26: 05/06 HNHB LHIN Non-Acute Hospital Beds by Type by Hospital Site:

Hospital	Chronic	Gen. Rehab.	Spec. Rehab.	Total
Hamilton St Peter's Hospital	250			250
St Catharines Hotel Dieu	102	32		134
Niagara HS - St Catharines Shaver Site	102	22		124
Hamilton HSC - Chedoke Site	57		60	117
Brantford General Hospital	73	25		98
Burlington Joseph Brant Memorial	50	24		74
Paris Willett Hospital	73			73
St. Joseph's Health Care Hamilton	30	35		65
Niagara HS - Welland County Gen. Site	64			64
Hamilton HSC -Henderson Site		56		56
Niagara HS - Greater Niagara Site	48			48
Simcoe Norfolk General Hospital	41			41
Niagara HS - Port Colborne Gen. Site	24			24
Niagara HS - Douglas Memorial Site	24			24
Hamilton HSC - General Site		18		18
Grimsby West Lincoln Memorial	16			16
Dunnville Haldimand War Memorial	13			13
Niagara HS - Niagara-On-The-Lake Site	12			12
Haldimand West Haldimand General	11			11
Grand Total	990	212	60	1,262

Source: MOHLTC Financial Information Management (FIM), Daily Census Summary Reports

Categorization of Rehabilitation Beds

While the MOHLTC categorization of inpatient rehabilitation beds as either "general" or "specialty" is shown in Chart 26, this categorization does not necessarily define the use of the

beds. "Specialty" rehabilitation beds are more likely to be found in teaching hospitals than in smaller, community hospitals. Inpatient rehabilitation beds are considered to be short-term local beds if the patients occupying the beds are likely to require a stay of less than 14 days, and if the type of care they require can be provided in most communities.

Long-Term Regional Rehabilitation

Long-term regional inpatient rehabilitation beds are for patients who will need more than a 14 day average stay and who will require care by specialized staff and access to specialized equipment normally only available in a regional rehabilitation facility. Long-term regional rehabilitation includes amputee, paediatric, acquired brain injury, spinal cord, trauma, neuron-oncology, and specialized respiratory rehabilitation.

Short-Term Local Rehabilitation

Short-term local rehabilitation usually includes musculoskeletal, neurological, cardiac, and acute geriatric rehabilitation.

In Hamilton, 68 of the Hamilton Health Sciences (HHS) rehabilitation beds and 6 of the St. Joseph's Health Care rehabilitation beds are considered to be regional beds.

3.6.2 Long-Term Care Homes:

In 2005 there were 90 long-term care homes located in the HNHB LHIN area, with just over 10,000 available beds. LTC Homes in the HNHB LHIN received $334M in annual operating funds in 2005/06 from the MOHLTC.

10,000 LTC Beds in HNHB

Chart 27: Long-Term Care Homes and Beds, HNHB LHIN and Ontario, 2005/06:

Community	Number of LTC Homes in 2005	LTC beds in 2005
Brant	8	890
Burlington	10	1,223
Haldimand/ Norfolk	9	835
Hamilton	29	3,976
Niagara	34	3,511
Total, HNHB LHIN	90	10,435
Ontario	617	75,252

Source: Ministry of Health and Long-Term Care, Planning and Decision Support Tool (PDST), 2005/06.

3.6.3 Mental Health and Addiction Agencies:

As of fiscal year 2006/07, there were 29 mental health agencies and 18 substance abuse and problem gambling programs within the HNHB LHIN that received annual operating funds of $43.8M and $11.1M, respectively, from the MOHLTC.

New MOHLTC Community Mental Health Data Reporting

In fiscal year 2005/06, Ontario community mental health (CMH) funded programs and Assertive Community Treatment Teams (ACTT) funded by community mental health and/or the hospital global funding envelope were required to report to the MOHLTC using the "Common Data Set - Mental Health" (CDS-MH). This data is being used to generate reports to answer some key administrative, demographic, and clinical questions about the Ministry of Health and Long-Term Care funded community mental health programs sector. For the 2005/2006 reporting period, submissions were made by approximately 342 of 383 programs, representing close to 90% of CMH programs.

HNHB Community Mental Health Patients Older Than Provincial Average

There were 52 HNHB LHIN programs that submitted CDS-MH data. These programs had a total of 19,019 service recipients in 2005/06. 51% of the service recipients were female (compared with 56% provincially). 42% of the HNHB LHIN service recipients were aged 35 to 54 (compared to 46% provincially), and 28% were aged 55 or older (compared to only 21% provincially).

HNHB Community Mental Health Services by Service Function

The number of service recipients by service function for HNHB LHIN providers, and the diagnostic category with the highest percent of service recipients for the service function, were:

- ACTT – 210 service recipients (84% schizophrenia or other psychotic disorder)
- Clubhouses – 140 service recipients (46% mood disorders)
- Counselling and Treatment – 2,417 service recipients (97% schizophrenia or other psychotic disorder)
- Diversion and Court Support – 1,996 service recipients (52% mood disorders)
- Early Interventions – 110 service recipients
- Forensic – 108 service recipients (100% substance related disorders)
- Mental Health Case Management – 2,799 service recipients (44% schizophrenia or other psychotic disorder)

- Mental Health Crisis Intervention – 6,639 service recipients (28% mood disorders)
- Primary Day/Night Care – 298 service recipients (46% mood disorders)
- Psycho-geriatric – 1,371 service recipients (51% other)
- Short Term Residential Crisis Support Beds – 343 service recipients (44% schizophrenia or other psychotic disorder)
- Social Rehabilitation/Recreation – 750 service recipients (57% schizophrenia or other psychotic disorder)
- Support Within Housing – 674 service recipients (53% schizophrenia or other psychotic disorder)
- Vocational/Employment – 128 service recipients (49% mood disorder)

There were no service recipients reported by HNHB LHIN programs for the abuse services, child/adolescent, concurrent disorders, dual diagnosis, eating disorder, and homes for special care service functions. This does not necessarily mean these services were not provided to clients in the HNHB LHIN, just that the data was not categorized as such in the CDS-MH data reporting.

3.6.4 Community Care Access Centres (CCAC):

Now a Single CCAC Serving HNHB LHIN

In the 2006/07 fiscal year, the five CCACs in the HNHB LHIN received $209M in annual operating funds from the MOHLTC. The CCACs have now been merged and realigned so that there is a single CCAC with the same geographic boundaries as the HNHB LHIN.

Variation in Service Emphasis Across Predecessor CCACs

In 2005/06, there were differences across the HNHB LHIN in terms of the relative allocation of in-home services for acute care, rehabilitation, maintenance[57], long-term care support, and end-of-life care. The Niagara CCAC had a relatively large emphasis on acute in-home services, while the Haldimand-Norfolk CCAC had a high percent of visits focused on LTC support.

[57] In-home services categorized as "Maintenance" are those with a service goal to maintain the client's independence by preventing/minimizing the premature decline in health and/or functional status.

Chart 28: Distribution of HNHB CCAC Case Management Visits by Service Type, 2005/06:

CCAC	Long-Term Care	In-Home Services					Not Yet Categ.	Total
		Acute	Rehab	Mtce.	LTC Suppt.	End of Life		
Brant CCAC	594	2,362	826	3,443	1,271	620	919	10,035
Hamilton CCAC	2,024	332	2,253	9,077	2,234	1,491	13,977	31,388
Niagara CCAC	2,462	3,282	5,220	9,371	1,915	1,183	1,617	25,050
Haldimand-Norfolk CCAC	612	670	614	2,714	1,331	410	458	6,809

CCAC	Long-Term Care	In-Home Services					Not Yet Categ.	Total
		Acute	Rehab	Mtce.	LTC Suppt.	End of Life		
Brant CCAC	5.9%	23.5%	8.2%	34.3%	12.7%	6.2%	9.2%	100.0%
Hamilton CCAC	6.4%	1.1%	7.2%	28.9%	7.1%	4.8%	44.5%	100.0%
Niagara CCAC	9.8%	13.1%	20.8%	37.4%	7.6%	4.7%	6.5%	100.0%
Haldimand-Norfolk CCAC	9.0%	9.8%	9.0%	39.9%	19.5%	6.0%	6.7%	100.0%

Source: MOHLTC FIM CCAC Comparative Reports 2005/06, CM Table 6B1. "Mtce." Is the abbreviation for "Maintenance". "Not Yet Categ." Is the abbreviation for "Not Yet Categorized".

The "Not Yet Categorized" service type is used until eligibility and service goals have been determined and the case manager has enough information to classify the client. The large number of Hamilton CCAC case management visits not assigned to a service makes it difficult to definitively identify the Hamilton CCAC distribution of activity by service.

A potential unintended consequence of the Ontario wait time strategy is the degree to which people in the community may be waiting for in-home care and support requirements, as CCAC resources are re-directed to post hospital recovery for MOHLTC priority procedure patients.

3.6.5 Community Health Centres (CHC):

As of 2006, there were three non-Aboriginal CHCs within the HNHB LHIN, receiving annual MOHLTC funding of $8.1M.

Chart 29: HNHB LHIN Non-Aboriginal Community Health Centres and Location:

Provider Organization	Location
Hamilton Urban Core Community Health Centre	Hamilton
North Hamilton Community Health Centre	Hamilton
Centre de santé communautaire du Hamilton-Wentworth-Niagara Inc.	Welland

Source: MOHLTC Health Intelligence Project. The Centre de santé communautaire Hamilton/Niagara has two locations: Welland, and Hamilton.

There is one Aboriginal health centre in the HNHB LHIN, the De dwa dehs nye's Aboriginal Health Centre in Hamilton.

3.6.6 Community Support Service Agencies:

Community Support services help residents maintain their safety and independence while living at home. Services are delivered either in the home or in different locations around the community. Organizations that provide these services can be either non-profit corporations or private companies. Examples of community support services include transportation, meal services, Wheels-to-Meals, Diners Club, caregiver respite, foot care, and supportive housing.

91 HNHB Community Support Service Agencies with $56 M MOHLTC Funding

As of 2006, there were 91 community support service agencies within the HNHB LHIN, receiving annual MOHLTC funding of $55.8M. Chart 30 shows the 15 highest volume community support services (in terms of annual number of clients) provided by the HNHB LHIN community support service agencies in 2004/05.

Chart 30: HNHB LHIN 2004/05 Community Support Services for 15 Services with Highest Annual Number of Clients Served:

Community Support Service	Units of Service		# of Clients Served
Public Education Coordinator	3,128	hour	14,594
Psychogeriatric Consulting Services (Alzheimer Strategy)	5,382	hour	11,468
Caregiver Support - Support and Counselling	16,155	hour	5,946
Social Recreational Service	2,754		4,833
Meals on Wheels	269,486	meal	4,805
Caregiver Support - Training, Information and	1,998	hour	3,284
Transportation	67,122	1-way trip	3,093
Special Services For the Blind and Visually Impaired	21,171	hour	2,549
Friendly Visiting	48,971	visit	1,990
Diners Club/Wheels to Meals/Congregate Dining	40,893	attendance	1,742
Security Checks/Reassurance Service	134,346	contact	1,714
Adult Day Service-Integrated-Frail/Alzheimers/Other Dementia	76,648	full day	1,449
Special Services For Persons with Acquired	6,708	hour	1,368
Client Intervention and Assistance Service (Seniors)	6,152	hour	1,123
Home Maintenance and Repair (Brokerage)	3,671	job	1,009

Source: MOHLTC Financial Information Management, IMU.

In 2004/05, the waitlist for supportive living services for both physically disabled clients and acquired brain injury (ABI) clients were among the largest, as a percent of the number of clients receiving service.

Chart 31: HNHB LHIN 2004/05 Community Support Services for Services with Highest Waitlist:

Community Support Service	Units of Service		# of Clients Served	Avg. Services per Client	# Waiting	Waitlist as % of Served
Friendly Visiting	48,971	visit	1,990	24.6	303	15%
Special Services For the Blind and Visually Impaired	21,171	hour	2,549	8.3	207	8%
Supportive Living Service - Physically Disabled Adults	81,922	24hr of service	393	208.5	199	51%
Adult Day Service-Integrated-Frail/Alzheimers/Other Dementia	76,648	full day	1,449	52.9	171	12%
Transportation	67,122	1-way trip	3,093	21.7	92	3%
Homemaking/Personal Supp/Attendant/Respite-Phys Dis Outreach	173,157	hour	361	479.7	81	22%
Supportive Living Service - ABI in SHU	15,852	24hr of service	49	323.5	72	147%
Security Checks/Reassurance Service	134,346	contact	1,714	78.4	55	3%
Independence Training - ABI Outreach	46,790	hour	197	237.5	55	28%
Adult Day Service (Alzheimers/Other Aging Dementia)	12,334	full day	250	49.3	36	14%
Caregiver Support - Support and Counselling	16,155	hour	5,946	2.7	35	1%
Caregiver Support (Volunteer)	2,495	hour	191	13.1	23	12%
Homemaking/Personal Supp/Attendant - HIV/AIDS in SHU	10,077	24hr of service	59	170.8	15	25%

Source: MOHLTC Financial Information Management, IMU.

Funded Assisted Living Services in Supportive Housing

In 2006/07 the projected number of HNHB seniors living in supportive housing and requiring services available on a 24-hour basis who received MOHLTC funding assisted living (i.e., homemaking/personal support/attendant service) was 575. The ratio of these seniors receiving the service to the total number of elderly residents of the HNHB LHIN was half the Ontario average.

Chart 32: Funded Assisted Living Services in Supportive Housing by LHIN Funded by MOHLTC in the Fiscal Year 2006/2007:

LHIN Name	Projected # of Units of Service to be Provided	Projected # of Seniors to be Served	Projected Fiscal Funding	2006 Pop'n 65 +	2006 Pop'n 75 +	Seniors Served per 1,000 Pop'n 65+	Seniors Served per 1,000 Pop'n 75+
Central West	120,661	1,145	$3,123,929	69,424	29,694	16.49	38.56
Toronto Central	791,815	2,724	$17,907,052	152,896	76,488	17.82	35.61
North East	116,736	891	$3,539,696	89,925	39,251	9.91	22.70
North West	63,196	324	$1,899,415	32,220	15,376	10.06	21.07
Mississauga Halton	257,775	804	$7,908,037	107,900	47,476	7.45	16.93
Central	228,734	985	$6,603,342	181,931	83,972	5.41	11.73
Central East	271,587	999	$6,654,609	195,912	93,930	5.10	10.64
North Simcoe Muskoka	65,590	248	$1,598,967	64,182	28,195	3.86	8.80
Hamilton Niagara HB	**115,886**	**575**	**$3,360,477**	**207,896**	**102,913**	**2.77**	**5.59**
South West	77,863	139	$1,980,208	137,211	66,750	1.01	2.08
Erie St. Clair	25,712	43	$778,530	89,770	43,485	0.48	0.99
Champlain	32,346	54	$584,345	150,568	71,641	0.36	0.75
Waterloo Wellington	0	0	$0	82,738	40,135	0.00	0.00
South East	0	0	$0	80,120	36,852	0.00	0.00
Provincial Total	**2,167,901**	**8,931**	**$55,938,607**	1,642,693	776,158	5.44	11.51

Source: MOHLTC Financial Information Management, IMU.

Identified Need

Increase access to MOHLTC funded supportive living services.

3.6.7 Supply of Primary Care Physicians:

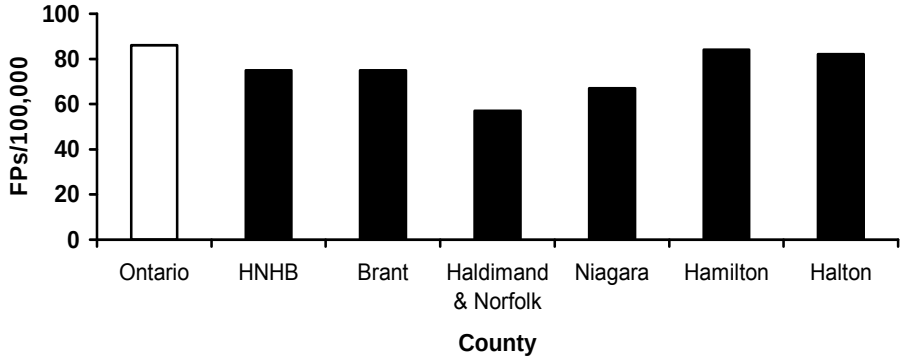
While the HNHB LHIN is not responsible for funding or planning of physician services (except where provided via a community health centre), the supply and access to primary care physicians will significantly impact the reliance of HNHB residents on those health services for which the HNHB is responsible.

In 2004 HNHB Had 75 Family Physicians/ 100,000 Population, Lower Than Ontario Rate Of 86

Physician-to-population ratios vary across the HNHB LHIN area. As of 2004, there were 75 family physicians/100,000 population in the HNHB LHIN, lower than the provincial rate of 86 family physicians/100,000 population[58]. Within the HNHB LHIN area the rate of family physicians/100,000 population varies, from a low of 57/100,000 in Haldimand and Norfolk to a high of 84/100,000 in Hamilton.

[58] Physician counts include all active general practitioners and family practitioners as of December 31 of 2004. The data include physicians in clinical and non-clinical practice and exclude residents and physicians who are not licensed to provide clinical practice and have requested that their information not be published in the Canadian Medical Directory.

Chart 33: Family Physicians per 100,000 Population, HNHB LHIN and Ontario, 2004:



Source: Canadian Institute for Health Information, Scott's Medical Database.

CCHS Reports 93.5% of HNHB Residents Have a Regular Medical Doctor, Highest Of All LHINs

In spite of the low ratio of family physicians per population in the HNHB LHIN, according to the 2005 Canadian Community Health Survey, 93.5% of HNHB LHIN residents reported that they had a regular medical doctor. This reported rate was above the Ontario average (91.1%) and the highest of the 14 LHINs. 81.9% of HNHB LHIN residents reported that they had contact with a medical doctor in the last 12 months, slightly higher than the Ontario average of 81.5%.[59]

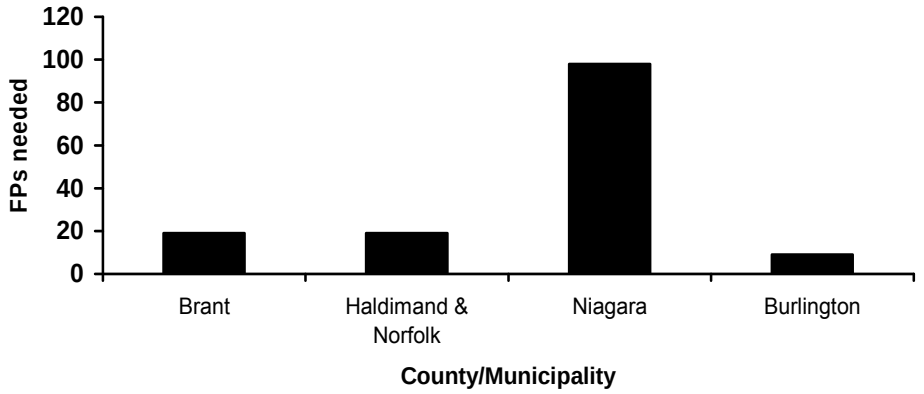
Communities within HNHB LHIN Have Been Designated As Underserviced For Family Physicians

As of October 2006, with the exception of Hamilton, communities within the HNHB LHIN were designated as having family physician vacancies[60] by the Underserviced Area Program (UAP) of the Ontario Ministry of Health and Long-Term Care.

[59] Source: Statistics Canada, Canadian Community Health Survey, 2005.

[60] Communities across the province may be designated for General/Family Practitioners (GP/FPs) if they are experiencing a severe shortage of physicians. Designation of communities as Underserviced is an ongoing self-assessment process, wherein communities identify themselves to the ministry as being in need of recruitment and retention assistance. The UAP designates communities as Underserviced when specific criteria are met. Factors considered include :health care professional data (how many serve the community), population and physician-to-population ratios, previous recruitment efforts, local demand for services, additional health service needs and resources, support of local health care professionals, etc.

Chart 34: Underserviced Area Vacancies, HNHB LHIN, October 2006:



Source: Ontario Ministry of Health and Long-Term Care Underserviced Area Program

Actual Availability of HNHB Family Physicians Providing Primary Care May Be Over-Estimated

It is important to note that, the Hamilton area is home to Academic Health Science Centres and family physicians involved in either teaching or research may be less available to provide patient care. As a result, Hamilton's supply of full-time and practicing family physicians is sometimes overestimated and may not meet UAP criteria for designation. As well, an ICES study of the supply of general practitioner and family physician services in Ontario found that 8.5% of active general and family practitioners (GP/FPs) in the HNHB LHIN were "quasi-specialists" (i.e., have more than 50% of their billings in one focused area of practice such as obstetrics, psychotherapy, or surgery) and thus are not available to provide the full range of primary care services.[61]

Introduction of Family Health Teams

Improving access to primary care with the introduction of Family Health Teams is a key component of the government's plan to build a health care system that delivers on three priorities - keeping Ontarians healthy, reducing wait times and providing better access to doctors and nurses. Family Health Teams include an interdisciplinary team of physicians and other providers such as nurse practitioners, nurses, social workers and dieticians.

13 Family Health Teams under development in HNHB LHIN

13 Family Health Teams are in different stages of development in the LHIN. Family physicians practicing in FHTs account for approximately 25% of all family physicians/general practitioners in the LHIN. The largest FHT in the Province is the Hamilton Family Health Team, a network of Health Service Organizations (HSOs) and Family

[61] "Supply and Utilization of General Practitioner and Family Physician Services in Ontario", ICES Investigative Report, August 2005.

Health Network (FHN) primary care models. An early success in its implementation is the availability of a mental health counsellor and nutritionist to all patient populations in the Hamilton Family Health Team.

Identified Need

Improved access to primary care physicians across the communities of the HNHB LHIN.

3.6.8 Other Health Human Resources

Other Health Care Providers per 100,000 Population

Minimal information about the supply of other health care providers is available at the regional, LHIN or county levels at this time. Chart 35 shows the reported number of individuals in selected health disciplines by LHIN as of the end of the 2005 calendar year, expressed in terms of the number of health care professionals per 100,000 population for each LHIN.

The HNHB LHIN is below the provincial average health care professionals per 100,000 for pharmacists, dieticians, and dentists. The HNHB LHIN rates of occupational therapists, midwives, registered practical nurses per 100,000 are above the provincial averages.

Chart 35: Health Care Professionals (2005) per 100,000 Population by LHIN:

LHIN	Count of Health Care Professionals by LHIN per 100,000 Population								
	Pharmacists	Occupational Therapists	Dietitians	Physiotherapists	Midwives	Registered Nurses	Registered Nurses - Extended	Registered Practical Nurses	Dentists
Central	77	48	16	55	1	427	1	96	68
Central East	63	21	11	43	2	531	3	167	26
Central West	50	15	11	31	0	348	1	85	85
Champlain	70	38	23	80	2	819	6	222	53
Erie St. Clair	68	21	13	37	1	659	7	215	51
HNHB	**69**	**43**	**19**	**63**	**3**	**764**	**5**	**229**	**63**
Mississauga Halton	77	25	17	47	2	490	1	82	74
North Simcoe Muskoka	61	33	18	57	4	1,192	19	466	49
North East	66	30	20	46	3	523	4	198	52
North West	69	36	25	52	5	967	18	391	48
South East	65	34	22	58	1	910	2	331	43
South West	62	45	21	65	3	905	3	292	51
Toronto Central	122	67	42	106	4	1,294	3	181	155
Waterloo Wellington	60	32	20	57	5	567	11	197	54
Ontario Average	**72**	**37**	**20**	**59**	**2**	**709**	**5**	**195**	**65**
HNHB as % of Ont Avg.	**96%**	**116%**	**96%**	**107%**	**120%**	**108%**	**112%**	**117%**	**97%**

Source: Ontario Ministry of Health and Long-Term Care LHIN IM Support Group.

Limitations of Measures of Health Professional Supply

However, the crude rates of health professionals per population do not tell us whether the supply of health professionals in the HNHB LHIN is appropriate or will be adequate to meet the needs of the aging population. As well, just as the HNHB LHIN population is aging, so are the HNHB health care providers. While a breakdown of health care professionals by age is not available for individual LHINs, Chart 36 shows the distribution of health care professionals by age for Ontario as a whole.

Chart 36: Percent Distribution of Ontario Health Care Professionals by Age Group (2005)

Health Care Profession	Percent Distribution by Age Cohort						% Over 55
	<25	25-34	35-44	45-54	55-64	65+	
Occupational Therapists	1.1%	41.1%	30.9%	20.3%	6.2%	0.5%	6.7%
Dieticians	1.6%	29.7%	31.7%	26.7%	9.7%	0.6%	10.3%
Physiotherapists	0.9%	33.2%	29.4%	23.3%	11.6%	1.7%	13.3%
Midwives	1.2%	26.6%	39.5%	25.4%	6.9%	0.3%	7.2%
Medical Lab Technologists	0.8%	11.1%	29.0%	38.7%	19.4%	0.9%	20.3%
Medical Radiation Tech.	3.6%	23.8%	32.2%	27.4%	12.3%	0.7%	13.1%
Pharmacists	0.8%	22.9%	30.1%	27.2%	13.7%	5.4%	19.0%
Speech Language Pathol.	0.3%	32.8%	33.9%	23.7%	8.3%	0.9%	9.2%
Registered Nurse	1.5%	17.3%	27.7%	32.1%	19.4%	2.0%	21.4%
Registered Nurse Extended	0.8%	21.6%	44.9%	29.3%	2.5%	0.8%	3.4%
Registered Practical Nurse	2.6%	15.5%	26.2%	35.2%	19.3%	1.3%	20.6%

Source: Ontario Ministry of Health and Long-Term Care LHIN IM Support Group.

More than one in five nursing staff and medical laboratory technologists in Ontario are aged 55 years or older. Ensuring that there is an adequate supply of health care providers to meet population needs will be a challenge for all health system stakeholders.

Identified Need

Ensure adequate future supply and distribution of health care professionals.

3.7 Health System Performance

3.7.1 Alternate Level of Care Days:

Integrating local health services to make it easier for patients to access the care they need is a primary goal of the LHIN. The coordination of care among health care providers can help to improve the quality of patient care and to alleviate the burden of cost to the system as a whole. High rates of

Alternate Level of Care[62] (ALC) patients reflect less than optimal health system coordination and integration. ALC days as a percentage of total acute days is commonly used as an indicator of system capacity, coordination and integration. ALC days are inpatient days in acute care beds by patients who could instead receive care in more appropriate, community-based settings that could meet their specific care needs, (e.g., long-term care, rehabilitation, palliative care, care at home with the right supports, etc.)

7% of HNHB Acute Care Inpatient Days Were ALC Days (65,933 Days)

In fiscal year 2004/05, HNHB LHIN residents had 65,933 ALC days, 7% of their total inpatient days[63] in Ontario acute care hospitals; this is consistent with the Ontario rate of 7%. At 85% occupancy, the 65,933 ALC days is equivalent to more than 200 acute care beds not available for use for acute care by the populations served by the HNHB LHIN hospitals.

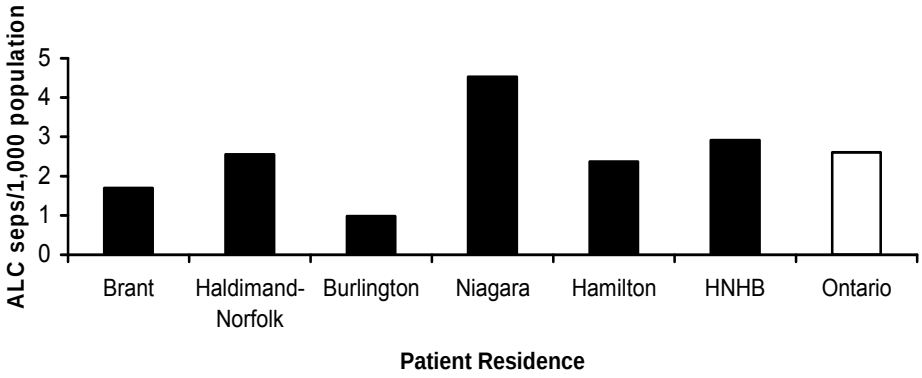
ALC Stays per Population in HNHB Higher Than Ontario Average

The age-standardized rate of ALC cases/1,000 population in the HNHB LHIN area in 2004/05 was 2.9/1,000, higher than the Ontario rate of 2.6/1,000. Within the HNHB LHIN area, the highest proportion of ALC days were displayed by residents of Haldimand and Norfolk, where ALC days represented 15% of their total inpatient days, and lowest proportion displayed by residents of Brant, where ALC days represented 3% of their total inpatient days.

[62] An ALC patient is a patient who is considered a non-acute treatment patient but occupies an acute care bed. This patient is awaiting placement in a chronic care unit, long-term care home, rehabilitation facility, home care programs etc. The patient is classified as an ALC when the patient's physician gives an order to change the level of care from acute care and requests a transfer to another facility.

[63] Total days includes all inpatient days, no exclusions were made.

Chart 37: Alternate Level of Care Separations, Age-Standardized Rates/1,000 Population, HNHB and Ontario, 2004/05:



Source: Hospital Discharge data, Population Health Planning Database, Ontario Ministry of Health and Long-Term Care.

The age-standardized rates of ALC cases per 1,000 population also varied across the HNHB LHIN area. Niagara residents had the highest rate (4.5 ALC cases/1,000) and Burlington residents the lowest (0.9 ALC cases/1,000).

HNHB Stakeholders Report Significantly Increasing ALC Volumes

While current (06/07) CIHI data is not yet available, HNHB hospitals (particularly in Niagara) and CCACs report that the number of patients waiting as ALC in acute care beds has increased, well above the already high age-standardized ALC rates reported in 2004/05.

HNHB LHIN ALC Session

In December 2006, the HNHB LHIN convened a stakeholder session to examine the impact of ALC patients in the HNHB hospitals and to develop strategies to address the issue. Data presented at that session showed that ALC patients were waiting primarily for discharge to long-term care beds, inpatient rehabilitation, and slow stream rehabilitation. The numbers of ALC patients had increased in 2006/07, leading to pressures on EDs, increased LTC bed occupancy, and greater difficulty for the CCACs to place patients in LTC beds.

Identified Need

Improved and more timely access to post acute care services.

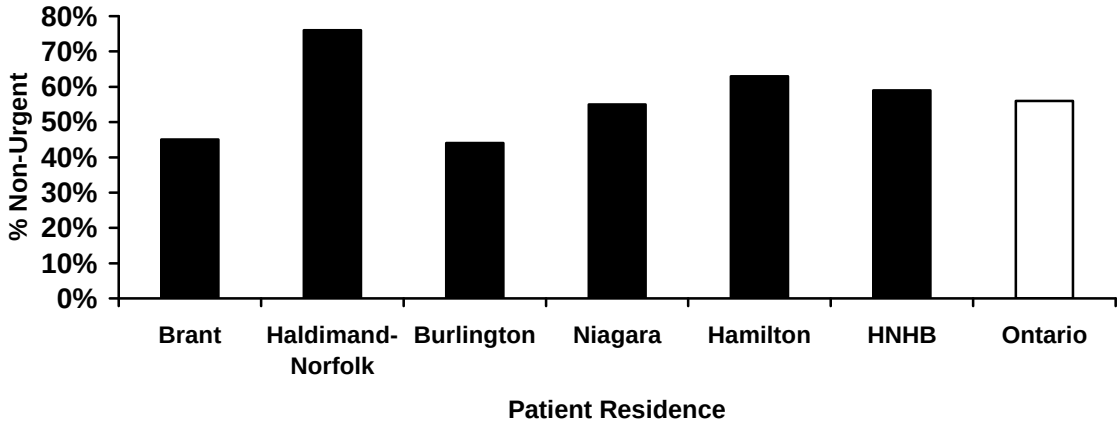
3.7.2 Semi-Urgent and Non-Urgent Emergency Department Visits

Improving the effectiveness and efficiency of the health care system is critical to making publicly-funded health care sustainable. Indictors that reflect the appropriateness of the setting in which care is received reflect system effectiveness and efficiency. These include the percent of emergency department visits which might be managed in a primary care setting and hospitalizations for ambulatory care sensitive conditions.

59% of the 580,000 HNHB ED Visits Were Considered To Be 'Semi- Or Non-Urgent' Conditions with Potential to Be Treated In Primary Care Settings

In 2004/05, residents of the HNHB LHIN area accounted for over 580,000 visits to the emergency department (ED). 59% of these visits were considered to be 'semi-urgent' or 'non-urgent' conditions (i.e., CTAS level 4 and 5) with potential to be treated in primary care settings, (e.g., minor infections, colds, cysts, etc.). This is higher than the Ontario rate of 56%.

Chart 38: Percentage of Emergency Department Visits for 'Semi-Urgent' and 'Non-Urgent' Conditions, HNHB and Ontario, 2004/05:



Source: Hospital Discharge data, Population Health Planning Database, Ontario Ministry of Health and Long-Term Care.

Within the HNHB LHIN area the highest proportion of ED visits with potential for management in a primary care setting was in Haldimand and Norfolk (76%) and the lowest rate in Burlington (44%).

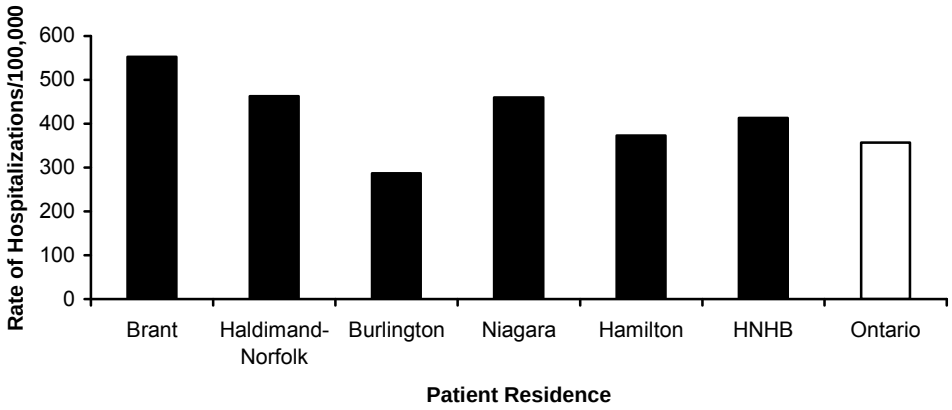
While the previously presented analysis of HNHB ED utilization focused on CTAS level 5 (non-urgent) visits, inclusion of the rates of use of CTAS level 4 (semi-urgent) visits in the chart above shows there is substantial variation in the acuity of ED visits across the LHIN. This variation in utilization may reflect a variation in population age structure and health status, as well as relative access to primary care.

3.7.3 Hospitalization for Ambulatory Care Sensitive Conditions:

Ambulatory care sensitive conditions (ACSC) are long-term health conditions, such as asthma, epilepsy, and diseases of the heart and lungs, which can often be managed with timely and effective treatment in the community[64].

[64] ACSC include: asthma, chronic obstructive pulmonary disease, grand mal status and other epileptic convulsions, acute bronchitis, pneumonia and congestive heart failure.

Chart 39: Age-Standardized Rates of Hospitalization for Ambulatory Care Sensitive Conditions Per 100,000 Population, HNHB and Ontario, 2005/06:



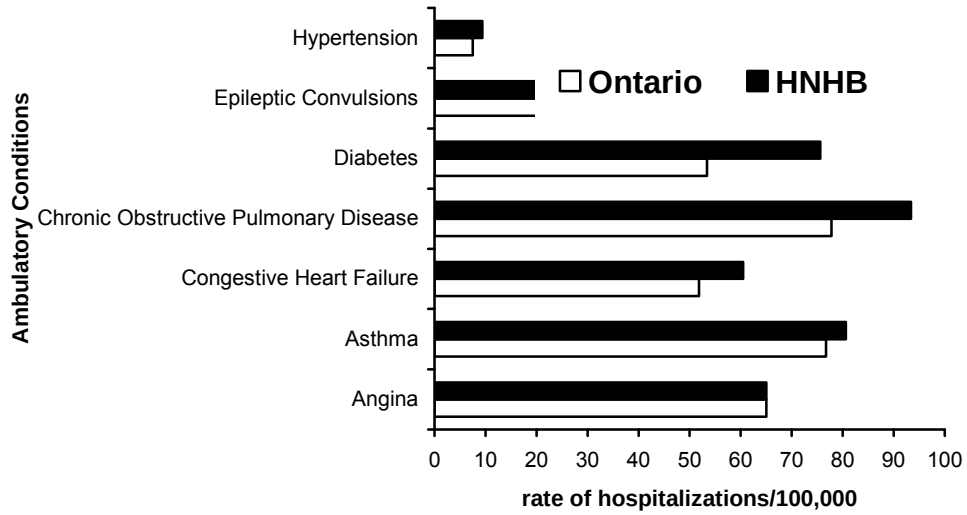
Source: Hospital Discharge data, Population Health Planning Database, Ontario Ministry of Health and Long-Term Care.

Rate Of Hospitalizations for Ambulatory Care Sensitive Conditions in HNHB Was Higher Than Ontario Average

In 2005, the average age-standardized rate of hospitalization for ACSC[65] in the HNHB LHIN area was 413/100,000 population, higher than the all Ontario average of 357/100,000 population and second-highest of all 14 LHINs. Within the larger grouping of ambulatory care sensitive conditions being measured, the specific conditions of diabetes, chronic obstructive pulmonary disorder (COPD) and congestive heart failure (CHF) were higher in the HNHB LHIN area compared to Ontario rates of hospitalization for these conditions. Within the HNHB LHIN area, Brant, Haldimand-Norfolk and Niagara residents had high rates of hospitalization for ambulatory care sensitive conditions, and Hamilton and Burlington residents had lower than average rates, compared to the all Ontario rate.

[65] Age-standardized acute care hospitalization rate for conditions where appropriate ambulatory care prevents or reduces the need for admission to hospital, per 100,000 population under age 75 years. Source: Canadian Institute for Health Information, Hospital Morbidity Database, Discharge Abstract Database

Chart 40: Age-Standardized Rate of Hospitalization for Ambulatory Care Sensitive Conditions per 100,000 Population, by Specific Condition, HNHB and Ontario, 2005/06:



Source: Hospital Discharge data, Population Health Planning Database, Ontario Ministry of Health and Long-Term Care.

When these results are combined with the primary care physician data and the 2005 CCHS results, it reinforces the previously identified needs for enhanced management of chronic diseases and equitable access to primary care.

3.7.4 Waiting Times for Priority Procedures

Targets Based On Time by Which 90% of Cases Should Receive Service

Ontario's wait targets were developed after consultation with clinical experts from across Ontario. They reflect a new priority system to better and more consistently manage access to services based on the urgency of need for treatment. The access target is defined as the wait time by which 90% of cases will have completed their surgery or exam (MRI or CT) from the time the decision was made by the specialist to proceed with surgery or exam.

Mixed Results for HNHB LHIN Hospitals

Based on HNHB LHIN and all Ontario wait time data for August/September 2005 and October/November 2006, there have been mixed results with respect to achievement of the wait time targets by the hospitals in the HNHB LHIN.

Chart 41: Priority Procedure Wait Times (Days) for HNHB and Ontario, August/September 2005 and October/November 2006:

Procedure	HNHB LHIN				Ontario		HNHB Days Over/Under	
	Aug./ Sept. 2005	Oct./ Nov. 2006	Change (Days)	Change (%)	Oct./Nov. 2006	Target	Ont. Aug./ Sept. 2005	Target
Cancer Surgery	64	81	17	27%	78	84	3	-3
Angiography	88	18	-70	-80%	26	NA	-8	NA
Angioplasty	57	13	-44	-77%	20	NA	-7	NA
Bypass Surgery	47	44	-3	-6%	47	182	-3	-138
Total Hip Replacement	416	274	-142	-34%	278	182	-4	92
Total Knee Replacement	450	404	-46	-10%	357	182	47	222
Cataract Surgery	250	275	25	10%	209	182	66	93
MRI	104	106	2	2%	113	28	-7	78
CT	79	60	-19	-24%	70	28	-10	32

Source: Ontario Ministry of Health Wait Times in Ontario website, http://www.health.gov.on.ca/transformation/wait_times/wt_data/data_ontario.html#

Waits for Most Invasive Procedures Have Decreased

HNHB wait times for invasive procedures have decreased except for cancer surgery and cataract surgery. However, the HNHB cancer surgery wait remains under the Ontario target. The HNHB cataract surgery wait is longer than both the Ontario average and the provincial target. HNHB cataract patients also have higher rates of adverse events than the Ontario average[66].

Joint Replacement Waits Remain Above Targets

While HNHB hip and knee replacement waits have been reduced significantly, they remain above the provincial target. The HNHB knee replacement wait is above the Ontario average wait.

MRI And CT Waits Exceed Provincial Targets

HNHB wait times for MRI and CT remain well above the provincial targets, but are below the provincial average wait times.

Identified Need ***More timely access to HNHB joint replacement surgery.***

Identified Need ***More timely access to HNHB cataract surgery.***

Identified Need ***More timely access to MRI and CT scans.***

[66] ICES, "Access to Health Services in Ontario – ICES Atlas 2nd Edition", Exhibit 4.12, page 112.

3.7.5 CIHI/Health Canada Health Indicators

In their 2006 Health Care in Canada report, CIHI published a series of LHIN-based results for their acute care performance indicators.

Rates of Use of Surgical Procedures

Age-standardized rates of use of surgical procedures can provide information about access of patients to surgical services. If utilization rates are low, then this could be evidence of barriers to access or insufficient capacity of surgical services. High utilization rates could reflect enhanced surgical capacity and good access to surgical services, or could be evidence of the response of the health care system to higher need for care.

Chart 42: Age-Standardized Surgical Procedure Rates by LHIN, 2004/05:

LHIN	Surgical Procedure Rates					
	Hip Replacement	Knee Replacement	Hysterectomy	Percutaneous Coronary Intervention	Coronary Artery Bypass Graft Surgery	Cardiac Revascularization
	04/05	04/05	04/05	04/05	04/05	04/05
Ontario	**74.8**	**107.0**	**338**	**164.1**	**90.8**	**254.9**
Erie St. Clair	79.7	117.4	494	119.8	82.0	201.8
South West	96.7	122.8	455	110.1	84.5	194.6
Waterloo Wellington	73.1	101.9	417	125.7	82.9	208.6
HNHB	**81.2**	**116.9**	**391**	**172.7**	**106.1**	**278.8**
Central West	51.8	115.1	269	163.0	108.9	271.9
Mississauga Halton	73.6	104.4	206	157.3	107.0	264.3
Toronto Central	61.3	66.0	165	139.5	66.7	206.2
Central	67.7	91.3	228	155.0	83.4	238.4
Central East	69.8	116.1	349	156.1	87.7	243.8
South East	96.8	129.5	347	242.4	115.4	357.8
Champlain	69.2	97.8	362	191.9	71.1	263.0
North Simcoe Muskoka	81.8	116.5	385	174.0	105.1	279.1
North East	73.8	112.1	674	240.0	83.4	323.4
North West	86.8	140.1	427	178.9	114.3	293.2

Source: CIHI "Health Care in Canada – Health Indicators", 2006

High Surgical Procedure Utilization for HNHB Residents

In 2004/05, the HNHB LHIN resident age-standardized rate of use of selected surgical procedures was higher than the Ontario rate for all of the procedures examined.

High Rate of Readmission for HNHB Acute AMI Patients

Chart 43 shows the 30 day in-hospital mortality, readmission, and hip fracture hospitalization rate results by LHIN. 30 day in-hospital mortality for HNHB LHIN resident acute AMI and stroke patients (measured per 100 patients) are below the Ontario average. Rates of readmission of HNHB LHIN resident asthma patients are the lowest in the province. Rates

of readmission of acute AMI patients are above the Ontario average and well above the readmission rates for patients living in the LHINs in the Greater Toronto Area. Overall rates of hospitalization for hip fractures and in-hospital hip fractures (a measure of patient safety) are among the lowest in the province.

Chart 43: Age-Standardized 30 Day In-Hospital Mortality, Readmission, and Hip-Fracture Hospitalization Rates by LHIN, 2004/05.

LHIN	30 Day In-Hospital Mortality		Readmission Rates			Hospitalization Rates	
	Acute MI	Stroke	Acute MI	Asthma	Prostatectomy	Hip Fracture	In-Hospital Hip Fracture
	03/04	03/04	03/04	03/04	03/04	04/05	03/04
Ontario	**11.1**	**18.2**	**7.2**	**4.8**	**2.4**	**553.0**	**0.7**
Erie St. Clair	10.5	16.7	8.1	3.2	2.0	502.0	0.6
South West	10.4	17.9	8.1	5.2	2.4	630.0	0.7
Waterloo Wellington	11.1	20.5	5.6	4.4	1.8	555.0	0.6
HNHB	**10.6**	**17.7**	**7.3**	**3.0**	**2.0**	**518.0**	**0.6**
Central West	9.7	15.3	5.7	6.2	2.2	469.0	0.5
Mississauga Halton	11.0	17.9	5.9	3.5	1.8	594.0	0.7
Toronto Central	11.5	16.6	5.9	5.9	2.7	479.0	0.6
Central	11.8	18.6	5.9	4.5	2.6	502.0	0.5
Central East	11.2	18.2	7.1	5.5	2.8	517.0	0.6
South East	11.6	21.6	7.2	8.5	2.9	624.0	1.0
Champlain	11.1	18.9	6.7	3.8	1.8	502.0	0.8
North Simcoe Muskoka	11.4	18.6	8.7	4.0	2.5	800.0	0.6
North East	12.3	18.5	9.0	3.8	3.2	626.0	0.8
North West	12.7	18.9	8.7	6.3	3.5	562.0	0.8

Source: CIHI "Health Care in Canada – Health Indicators", 2006

3.7.6 End of Life Care

Cancer System Quality Index Tracks End-Of-Life Care for Cancer Patients

Cancer Care Ontario has developed the Cancer System Quality Index to track the quality and consistency of key services delivered across the spectrum of Ontario's cancer system, from prevention through to end-of-life care. While data describing overall end-of-life care by LHIN is not available, the Cancer System Quality Index shows the percent of cancer patients who die in hospital, who access home care services during their last 6 months of life, and who receive a physician house call during their last 2 weeks of life.

For 2002, 51% of HNHB residents who died of cancer, died in hospital, a rate that is among the lowest in the province, and well below the provincial average of 56% of cancer deaths in hospital. 72% of HNHB residents who died of cancer received home care services in their last 6 months of life,

compared to an overall Ontario average of 69%. Only 21% of HNHB residents who died of cancer received a physician house call during their last 2 weeks of life (compared to the provincial average of 23%).

Variation in End-Of-Life Care Suggests Opportunities for Improvement

The variation in end-of-life care for cancer patients across the LHINs suggests that there are opportunities to better support patients who wish to die at home rather than in an institution. It is likely that similar variation across LHINs and within communities within individual LHINs, in end-of-life care exists for patients with other diseases.

Identified Need

Increased supply of home-based end-of-life care.

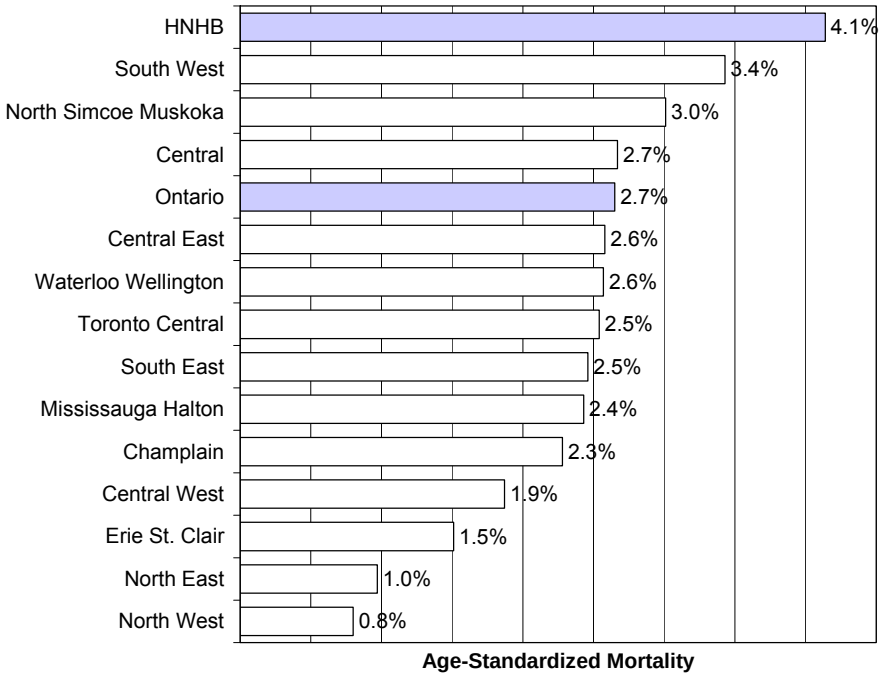
3.7.7 Death after Cancer Surgery

The Cancer Care Ontario Cancer System Quality Index tracks the age and gender-standardized rates of in-hospital death within 30 days after surgery for cancer. For most procedures, the in-hospital death rate for HNHB residents is lower or similar to the provincial average.

High Mortality for HNHB Colon Resection Surgery Patients

However, for colon resection (one of the most common cancer surgeries), the standardized mortality rate for HNHB residents is the highest in the province.

Chart 44: Age and Gender-Standardized 30 Day In-Hospital Mortality for Colon Resection Surgery Patients by LHIN, 2002 to 2004:



Source: Cancer Care Ontario Cancer System Quality Index 2006.

High Mortality for HNHB Mastectomy Patients

HNHB residents with breast cancer also have the highest standardized rate of in-hospital death within 30 days of mastectomy (0.55% versus the provincial average of 0.19%). While cancer surgery waits for HNHB residents remain slightly shorter than the provincial target, the increase of 18 days in the 90th percentile wait for cancer surgery for HNHB LHIN residents in the past year is concerning, given the relatively poor post-surgical outcomes for these two procedures.

Identified Need

More effective surgical interventions for colon cancer patients.

More effective surgical interventions for breast cancer patients.

4.0 Priorities for Action in Addressing Health Needs

Section 3.0 of this environmental scan presented information describing the health needs of the population within the HNHB LHIN and the populations that rely on health care services provided by agencies for which the HNHB LHIN has assumed responsibility. Section 4.0 links these needs with priorities for action that could be coordinated and/or supported by the HNHB LHIN to respond to the needs.

4.1 Population Characteristics and the Determinants of Health

The Age Structure and Socio-Economic Characteristics of a Population Are Important Markers of Health Status

Health status is influenced by social, economic and physical environments, personal health practices, individual capacity, coping skills and access to health services. The prevalence of preventable health conditions, chronic illness and disability is higher among low income groups, the elderly and those with less education[67].

HNHB Is Home To Over 200,000 Seniors Aged 65+; the Largest Number Of Seniors Of All LHINs

The proportion of older residents in an area is an important indicator of potential health care needs because older people are more likely to fall ill and need health care than people in younger age groups[68]. The HNHB LHIN area is home to over 200,000 seniors aged 65+; it is the largest number of seniors of all 14 LHIN populations in Ontario.

15.1% of HNHB Residents Are Seniors, Compared To Only 12.9% for All of Ontario

Seniors represent 15.1% (2006) of the total HNHB LHIN population, compared to the all Ontario rate of 12.9%. Within the HNHB LHIN area, the percent of the population aged 65 years or older ranges from a low of 9.1% for residents of West

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[67] Richard Wilkinson and Michael Marmot, Editors, Social Determinants of Health: The Solid Facts. 2nd Edition, World Health Organization, 2003.

Booth G., Hux, J., Relationship Between Avoidable Hospitalizations for Diabetes Mellitus and Income Level, *Archives of Internal Medicine*, 2003: 163 (1): 101-106.

Manuel and Schultz Diabetes Health Status and Risk Factors, *Diabetes in Ontario: An ICES Practice Atlas*, Institute for Clinical Evaluative Sciences, 2002.

Ontario Health Services Restructuring Commission, Niagara Region Health Services Restructuring Report, October 1998.

[68] Tremblay S, Ross NA, Berthelot JM. Regional Socioeconomic context and health. Health Reports. 2002:13(Suppl):S33-71.

Lincoln, to more than 20% for residents of Port Colborne (20.7%) and Niagara-on-the-Lake (22.6%).

Health Need and Priority for Action

(1) The large number of seniors and the high percent of the population aged 65 years and older in the HNHB LHIN area will require that health care providers serving the HNHB be leaders in providing services sensitive and responsive to the needs of the elderly.

29% of HNHB Seniors Live Alone

29% of seniors aged 65+ live alone in HNHB communities, higher than the provincial average of 27%. Within HNHB the highest proportions of seniors living alone are found in St. Catharines (33%) and Brantford (33%) and the lowest proportion in Wainfleet (19%). The lack of social support among the elderly contributes to poor health status and the need for formal and institutional care[69].

Health Need and Priority for Action

(2) The large number of seniors living alone means that health care providers serving the HNHB will need to develop and enhance services that support seniors living independently in the community.

The Hamilton Census Metropolitan Area Has the 3rd Highest Percent of Foreign Born Residents in Canada

As of 2001, more than one-quarter of the population of the Hamilton Census Metropolitan Area were foreign-born (26.5%). This represents the third highest proportion of foreign-born residents among such urban areas in all of Canada, surpassed only by Toronto and Vancouver[70]. Niagara, with its close proximity to the United States border, is a major recipient of refugees, which is not captured through the census enumeration. There are also seasonal migrant workers who locate in Niagara, Haldimand and Norfolk counties for temporary employment in the agricultural and tourism sectors, and who would not be captured in the population statistics.

Health Need and Priority for Action

(3) Because the region has a very high number and percentage of foreign born residents, providers will

[69] Tomaka J, Thompson S, Palacios R., "The Relation Of Social Isolation, Loneliness, And Social Support To Disease Outcomes Among The Elderly", J Aging Health. 2006 Jun;18(3):359-84

[70] Source: Settlement and Integration Services Organization (SISO) Hamilton.

need to develop services that are culturally sensitive and responsive to the needs of newcomers.

Aboriginal Populations Have Reduced Life Expectancy and Poor Health Status Compared to The General Canadian Population.

Canadian studies of Aboriginal health care have consistently shown that Aboriginal populations have reduced life expectancy and poor health status compared to the general Canadian population. They may also develop chronic diseases earlier in their lifespan, which has implications for requirements for long-term care and rehabilitation services.

HNHB Aboriginal Population Size Under Estimated in Census Data

Although, the HNHB LHIN has a reported lower proportion of people of Aboriginal Identity[71] (1.4%) than Ontario as a whole (1.7%), there are two reserves within HNHB, Six Nations and Mississaugas of the New Credit. Approximately half of the reported Aboriginal population residing in the HNHB LHIN area lives On Reserve. It is important to note that the First Nations communities in the HNHB LHIN area are underestimated in the census data due to incomplete enumeration. Band registry lists with Indian and Northern Affairs Canada show the total registered Aboriginal population in HNHB LHIN for these two reserves as of August, 2006 was 24,263[72].

Health Need and Priority for Action

(4) The dearth of good information on the size and health status of the Aboriginal population within the HNHB LHIN, coupled with the historical poor health status and barriers to access to health care for Aboriginal populations in Canada, presents a need for the HNHB LHIN to partner with the First Nations in the LHIN to more fully identify the needs of this population and ensure that health services are sensitive and responsive to these needs.

Poor Lifestyle Behaviours Are Risk Factors for Chronic Diseases

Lifestyle behaviours such as smoking, unhealthy diet and lack of physical activity are known risk factors for chronic diseases and conditions. Poor health and the presence of chronic disease can lead to more frequent use of health care services,

[71] Aboriginal Identity: Refers to those persons who reported identifying with at least one Aboriginal group, i.e., North American Indian, Métis or Inuit (Eskimo), and/or those who reported being a Treaty Indian or a Registered Indian as defined by the *Indian Act* of Canada and/or who were members of an Indian Band or First Nation. Source: Statistics Canada, 2001 Census Dictionary.

[72] Source: Indian and Northern Affairs Canada http://www.ainc-inac.gc.ca/index_e.html

more prescription drug use, a higher risk of hospitalization, higher health system costs and higher rates of disability and death.

The rate of smoking (23.1%) and exposure to second hand smoke (9.1%) in HNHB are higher than the Ontario average rates of 20.7% for smoking[73] and 7.3% for exposure to second-hand smoke[74]. Also, the HNHB LHIN area has a higher proportion of heavy drinkers[75] (23%), compared to the all Ontario rate (21.5%).

Health Need and Priority for Action

(5) The high rates of unhealthy lifestyles suggest a need to enhance and expand health promotion activities of Public Health and develop supports for health promotion activities of primary care providers.

4.2 Population Health Status

Life Expectancy Is Low and Mortality Is High

The health of the population of the HNHB LHIN is worse than for the province as a whole. Life expectancy measured at birth[76] is significantly lower than the life expectancy for all Ontario. Age standardized mortality is higher than the Ontario average in all areas of LHIN except Burlington, and is high in Brant and Haldimand/ Norfolk. Years of potential life lost is higher than the Ontario average in all areas of the LHIN but Burlington.

Health Need and Priority for Action

(6) The low life expectancy and the high mortality rates suggest a need to enhance and expand health promotion and disease prevention activities of Public

[73] Population aged 12 and over who reported being a current smoker (daily or occasional). Source: Statistics Canada, Canadian Community Health Survey 2005.

[74] Non-smoking population aged 12 and over who reported that at least one person smokes inside their home every day or almost every day. Source: Statistics Canada, Canadian Community Health Survey 2003.

[75] 'Heavy drinking' is defined as current drinkers who reported drinking 5 or more drinks on one occasion, 12 or more times a year. Source: Statistics Canada, Canadian Community Health Survey 2005.

[76] Life expectancy is the number of years a person would be expected to live, starting from birth (for life expectancy at birth) and similarly for other age groups, on the basis of the mortality statistics for a given observation period. Source: Statistics Canada, Vital Statistics, Death Database, and Demography Division (population estimates)

Health and support health promotion and disease prevention activities of primary care providers.

High Mortality Due To Cancer and Circulatory Diseases

High rates of mortality in HNHB LHIN communities are primarily due to high rates of circulatory disease and cancer, which are the two leading causes of mortality and morbidity.

Health Needs and Priorities for Action

(7) The relatively high rate of death from cancer suggests that there is a need for system-wide improvements in the prevention, diagnosis, and treatment of cancer.

(8) The relatively high rate of death from circulatory disease suggests that there is a need for system-wide improvements in the prevention, diagnosis, and treatment of circulatory disease.

HNHB Infant Mortality Rate Higher Than Ontario Wide Rate

As of 2001, the infant mortality rate[77] in the HNHB LHIN area of 5.8 per 1000 live births was higher than the Ontario rate of 5.4 per 1,000. Within HNHB LHIN the highest rates of infant mortality were in Haldimand and Norfolk (7.7/1,000) and the lowest rates in Burlington (4.1/1,000).

Health Need and Priority for Action

(9) The relatively high rates of infant mortality suggest a need for significant improvement in pre natal care and in maternal and newborn care.

Challenge of Balancing Local Access to Obstetrical Care with Critical Mass Considerations

In 2005/06, the number of newborn patients discharged from the HNHB LHIN hospitals ranged from a high of 3,573 at St. Joseph's Health Care System in Hamilton to a low of 71 patients at the Haldimand War Memorial Hospital in Dunnville. Decisions regarding the role of individual hospitals in obstetrical care require balancing many factors including: ensuring local access to care; the availability of anaesthetic and surgical backup services; critical mass considerations related to both quality and efficiency of obstetrical care.

[77] Infants who die in the first year of life, expressed as a count and a rate per 1,000 live births. Source: Statistics Canada, Vital Statistics, Birth and Death Databases

Health Need and Priority for Action

(10) Concerns regarding the safety and efficiency of low volume birthing services suggest a need to consider best practice birthing volumes while maintaining wide distribution of pre natal care and maternal and newborn care.

Residents of HNHB LHIN Have High Rates of Chronic Diseases and Conditions

Chronic health conditions such as arthritis, obesity, high blood pressure, asthma, pain and diabetes place a high burden on the health care system and reduce the quality of life of those who suffer from the condition. In 2005, residents of HNHB LHIN displayed high rates of arthritis/rheumatism, adult obesity and high blood pressure, and higher rates of diabetes, asthma and overweight adults, compared to Ontario as a whole[78]. Also, a high proportion of HNHB LHIN residents report being limited in their activities due to a physical or mental condition[79], compared to the all Ontario rate.

Health Need and Priority for Action

(11) The high prevalence and significant impact of chronic diseases suggests a need to develop information, diagnostic and treatment infrastructure to support chronic disease management by primary health care providers

[78] It is important to note that prevalence rates are not age-standardized, and therefore populations with a high proportion of seniors (such as is the case in the HNHB LHIN area) will tend to have higher rates of chronic conditions which are associate with aging, (e.g., high blood pressure, diabetes, arthritis, activity limitations, etc).

[79] Population aged 12 and over whom report being limited in selected activities (home, school, work and other) because of a physical condition, mental condition, or health problem which has lasted or is expected to last six months or longer. Source: Statistics Canada, Canadian Community Health Survey 2005.

4.3 Health Care System Capacity, Utilization and Performance

4.3.1 Health System Capacity

There Are 248 Health Service Provider Agencies in the HNHB LHIN, Delivering a Wide Range of Health Services

As of 2005/06, there were 5 Community Care Access Centres (CCACs)[80]; 3 Community Health Centres (CHCs); 12 hospital corporations (on 23 hospital sites); 91 Community Support Service agencies; 29 Mental Health agencies; 18 Substance Abuse and Problem Gambling programs; and, 90 Long-Term Care Homes. The service envelope for which the LHIN has planning, coordination and funding responsibility does *not* include physician services, pharmacy, ambulance services, independent health facilities, and public health.

Difficult for Small Hospitals to Support Obstetrics and Inpatient Surgery

Ten of the hospital sites in the HNHB LHIN have fewer than 100 acute care beds. Smaller acute care hospitals may find it difficult to maintain a sufficient critical mass of acute care activity to provide efficient and high quality care, and will usually focus on non-elective primary and secondary level acute care inpatients, with limited specialist services available. Lack of access to specialists may limit the role of small hospitals with respect to obstetrical and inpatient surgical care.

Low Mental Health Beds per Population in HNHB

As of fiscal year 2005/06, HNHB LHIN hospitals had 374 inpatient mental health beds, including long-term mental health. While the HNHB LHIN has 11% of the total Ontario population, it has only 8.3% of the total inpatient mental health beds in Ontario. There are no addictions or child/adolescent mental health beds in the HNHB LHIN hospitals.

Data is not available to support the assessment of whether the apparent low availability of inpatient mental health beds in HNHB hospitals is balanced by enhanced access to ambulatory and community-based mental health services. However, the relative deficiency in inpatient care will create problems in providing a comprehensive range of mental health services in the LHIN.

[80] CCACs have been consolidated, and as of January 1, 2007 there was one CCAC serving the HNHB LHIN.

Health Need and Priority for Action

(12) The relative deficiency in inpatient mental health care suggests a need to improve access to mental health services.

Use of Supportive Housing Is Lower Than the Average for the Province

In 2006/07 the projected number of HNHB seniors living in supportive housing and requiring services available on a 24-hour basis who received MOHLTC funding assisted living (i.e., homemaking/personal support/attendant service) was 575. The ratio of these seniors receiving the service to the total number of elderly residents of the HNHB LHIN was half the Ontario average.

Health Need and Priority for Action

(13) The large number of elderly and the relative deficiency in supportive housing suggest a need to increase access to MOHLTC funded supportive living services.

The Supply of Family Physicians Is Much Lower Than the Average for the Province

Physician-to-population ratios vary across the HNHB LHIN area. As of 2004, there were 75 family physicians/100,000 population in the HNHB LHIN, much lower than the provincial rate of 86 family physicians/100,000 population[81]. Within the HNHB LHIN area the rate of family physicians/100,000 population varies, from a low of 57/100,000 in Haldimand and Norfolk to a high of 84/100,000 in Hamilton. All areas are lower than the provincial average.

Largest Family Health Team in Ontario is in Hamilton

Family Health Teams include an interdisciplinary team of physicians and other providers such as nurse practitioners, nurses, social workers and dieticians. Family Health Teams are in different stages of development in the LHIN. Family physicians practicing in FHTs account for approximately 25% of all family physicians/general practitioners in the LHIN. The largest FHT in the Province is the Hamilton Family Health Team, a network of Health Service Organizations (HSOs) and Family Health Network (FHN) primary care models. An early success in its implementation is the availability of a mental health counsellor and nutritionist to all patient populations in the Hamilton Family Health Team.

[81] Physician counts include all active general practitioners and family practitioners as of December 31 of 2004. The data include physicians in clinical and non-clinical practice and exclude residents and physicians who are not licensed to provide clinical practice and have requested that their information not be published in the Canadian Medical Directory.

Health Need and Priority for Action

(14) The small number of family physicians relative to the population suggests a need for continued efforts to improve access to primary care physicians.

Limitations of Measures of Health Professional Supply

The crude rates of health professionals per population do not tell us whether the supply of health professionals in the HNHB LHIN is appropriate or will be adequate to meet the needs of the aging population. As well, just as the HNHB LHIN population is aging, so are the HNHB health care providers. More than one in five nursing staff and medical laboratory technologists in Ontario are aged 55 years or older. Ensuring that there is an adequate supply of health care providers to meet population needs will be a challenge for all health system stakeholders.

Health Need and Priority for Action

(15) The aging of the population and the aging of the workforce will require efforts to ensure an adequate future supply and distribution of health care professionals.

4.3.2 Health Care System Utilization

HNHB Residents Had the Second Highest Age-Standardized Rate of Non-Urgent ED Visits of All of the Southern Ontario LHINs

The age-standardized rate of ED visits in HNHB is higher than the Ontario rate. The greatest contributor to the higher rates of ED utilization by HNHB LHIN residents was the high rate of ED visits per population for non-urgent (CTAS Level 5) visits. In 2004/05, HNHB residents had the second highest age-standardized rate of non-urgent ED visits of all of the southern Ontario LHINs[82]. While overall ED utilization was higher than average for HNHB LHIN residents in 2004/05, ED utilization for HNHB LHIN residents aged 55 years and older was lower than the provincial average. The higher ED utilization for HNHB LHIN residents is restricted to the population aged less than 55 years old, and particularly for residents aged between 15 and 44 years old[83].

[82] Rates of non-urgent ED visits for residents of the North East and North West LHIN are high because in northern Ontario primary care is routinely provided through the emergency department.

[83] HNHB LHIN Emergency Department Utilization Report, Ontario Ministry of Health Health System Intelligence Project, October 2006.

The high rate of age-standardized ED visit may be influenced by population health status – as outlined in the preceding section, and access to primary care from a family physician.

Health Need and Priority for Action

(16) The high rate of ED utilization suggests a need for improvements in access to and effectiveness of primary care for people under 55 years old.

HNHB Hospitalization Rate Is Higher Than Provincial Average

In 2004/05, the age-standardized rate of acute inpatient hospitalization for residents of HNHB LHIN was 978/10,000 population, a rate higher than the Ontario average rate (931/10,000 age-standardized), and much higher than the utilization rates for the Greater Toronto Area (GTA) LHINs.

The leading causes of hospitalization among residents of the HNHB LHIN area also reflect the distinguishing characteristics of the population, (i.e., an older age structure with a higher prevalence of chronic health conditions). The clinical programs where age-standardized hospitalization rates of HNHB LHIN residents were more than 10% higher than the Ontario average include orthopaedics, trauma, gynaecology, and cardiology. The higher utilization of acute care orthopaedic and trauma services suggests a need for a focus on accident and injury prevention.

High Cost of Injuries to HNHB Residents

The 2006 study by SMARTRISK, "The Economic Burden of Injury in Ontario" found that in 1999 the total annual cost of injuries for the residents of the HNHB LHIN area was $657 million, the highest of all 14 LHINs. In 1999, HNHB LHIN residents had:

- 430 deaths due to injury
- 9,266 hospitalizations due to injury
- 59,361 non-hospitalized injuries
- 2,730 injuries resulting in permanent disability

Health Need and Priority for Action

(17) The higher utilization of acute care orthopaedic and trauma services and the high cost of injuries suggest a need for a focus on safety and accident prevention initiatives.

Low Rate of Use of Inpatient Rehabilitation

The age-standardized rate of inpatient rehabilitation episodes (1.2/1,000) among HNHB LHIN residents was lower than the Ontario rate (2.0/1,000).

HNHB Inpatient Rehabilitation Beds More Likely to Be Used for Stroke and Medically Complex Patients

More than one quarter of HNHB residents hospitalized for inpatient rehabilitation in 2004/05 were stroke patients, while across Ontario as a whole, only 16% of inpatient rehabilitation patients were stroke patients. A much higher percent of HNHB residents who received inpatient rehabilitation were categorized as "medically complex" (13.1%) than the Ontario average (6.5%). In contrast, while the majority of inpatient rehabilitation patients in Ontario were orthopaedic patients (56.5%), just over one third (34.5%) of HNHB inpatient rehabilitation patients were hospitalized for orthopaedic rehabilitation.

Low Utilization of Inpatient Rehabilitation May Reflect Insufficient Capacity in HNHB LHIN

The low rate of use of inpatient rehabilitation for orthopaedic care in HNHB may reflect appropriately greater reliance on ambulatory and home care rehabilitation for elective joint patients in HNHB. However, the overall very low rate of hospitalization for inpatient rehabilitation may reflect insufficient capacity for inpatient rehabilitation in HNHB hospitals.

Health Need and Priority for Action

(18) The low rate of use of inpatient rehabilitation suggests a need to improve access to inpatient rehabilitation for HNHB residents.

HNHB Residents Had Highest Volume of CCC Admissions of All LHINs

In fiscal year 2004/05, HNHB LHIN residents had 3,274 complex continuing care (CCC) admissions[84] at Ontario hospitals, the highest volume of CCC admissions among the 14 LHIN populations and representing 16.4% of the total CCC admissions at Ontario hospitals. However, within the HNHB LHIN area, rates of CCC admissions varied substantially. The highest age-standardized rates of CCC admission were for residents of Niagara (2.6/1,000) and the lowest rates for residents of Burlington (0.9/1,000).

Variation in Utilization of CCC across HNHB LHIN Communities Raises Questions of Equity of Access to CCC Beds

The variation in age-standardized rates of utilization of CCC beds across the communities within the HNHB LHIN raises the question of whether there is equal access to CCC beds within the HNHB LHIN. The variation may also reflect differences in how CCC beds are used (e.g., short-term rehabilitative care versus continuing care for medically complex patients) and could impact delays in hospital discharge for elderly patients who require ongoing inpatient care (i.e., ALC days).

[84] Source: Continuing Care Reporting System, Population Health Planning Database, Ministry of Health and Long-Term Care.

Health Need and Priority for Action

(19) The wide variation in use of inpatient CCC suggests a need to ensure equitable access to CCC beds across HNHB communities.

Wide Variation in LTC Home Beds to Population among the Communities within the LHIN

The ratio of Long-Term Care Home beds to elderly residents in the HNHB LHIN is similar to the Ontario average. However, this ratio varies from a low of 88.1 beds per 1,000 population aged 75 years and older in Haldimand/Norfolk, to a high of 108.6 in Hamilton.

As with CCC beds, the variation in LTC beds per population across the communities within the HNHB LHIN raises the question of whether there is equal access to LTC beds within the HNHB LHIN. Unequal distribution of LTC beds could force elderly residents who require residential care to move from their home communities and thus reduce their access to their family and social network.

Health Need and Priority for Action

(20) The wide variation in LTC home beds suggests a need to ensure equitable access to LTC home beds across HNHB communities.

There May Be an Emerging Deficiency in Long-Term Care Capacity in the Province

While until May 2005, during the period when new and redeveloped long-term care facilities were being built in Ontario, the number of people waiting in the community for access to a HNHB LTC bed steadily decreased. However, since May 2005 until September 2005 the number has been increasing. There may be an emerging deficiency in long-term care capacity in the province. The LHIN should monitor this situation closely.

4.4 Health System Performance

Ambulatory Care Sensitive Conditions (ACSC)

Ambulatory care sensitive conditions (ACSC) are long-term health conditions, such as asthma, epilepsy, and diseases of the heart and lungs, which can often be managed without need for hospitalizations if there is timely and effective treatment in the community[85].

[85] ACSC include: asthma, chronic obstructive pulmonary disease, grand mal status and other epileptic convulsions, acute bronchitis, pneumonia and congestive heart failure.

Hospitalization For ACSCs In The HNHB LHIN Area Was Higher Than The All Ontario Average And 2nd Highest Of All 14 LHINs

In 2005, the average age-standardized rate of hospitalization for ACSC[86] in the HNHB LHIN area was 413/100,000 population, higher than the all Ontario average of 357/100,000 population and second-highest of all 14 LHINs. Within the larger grouping of ambulatory care sensitive conditions being measured, the specific conditions of diabetes, chronic obstructive pulmonary disorder (COPD) and congestive heart failure (CHF) were higher in the HNHB LHIN area compared to Ontario rates of hospitalization for these conditions. Within the HNHB LHIN area, Brant, Haldimand-Norfolk and Niagara residents had high rates of hospitalization for ambulatory care sensitive conditions, and Hamilton and Burlington residents had lower than average rates, compared to the all Ontario rate.

High HNHB ACSC Rates Reinforce Previously Identified Needs for Enhanced Primary Care and Chronic Disease Management

When these results are combined with findings related to the shortage of primary care physicians, high use of EDs for non urgent visits, the high incidence and prevalence of chronic conditions, and the poor lifestyle choices of LHIN residents it reinforces the previously identified needs for improvements in primary care, enhanced management of chronic diseases and enhancements to health promotion and disease prevention.

Mixed Results in Achieving Wait Time Targets by the Hospitals in the HNHB LHIN

Ontario's wait targets were developed after consultation with clinical experts from across Ontario. They reflect a new priority system to better and more consistently manage access to services based on the urgency of need for treatment. Based on HNHB LHIN and all Ontario wait time data for August/September 2005 and October/November 2006, there has been mixed results with respect to achievement of the wait time targets by the hospitals in the HNHB LHIN.

While Waits for Most Invasive Procedures Have Decreased There Are Still Long Waits for Cataract Surgery, Joint Replacement Surgery and MRI and CT Scans

HNHB wait times for invasive procedures have decreased except for cancer surgery and cataract surgery. However, the HNHB cancer surgery wait remains under the provincial target. The HNHB cataract surgery wait is longer than both the Ontario average and the provincial target.

While HNHB hip and knee replacement waits have reduced significantly, they remain well above the provincial targets. HNHB wait times for MRI and CT also remain significantly higher than the provincial targets.

[86] Age-standardized acute care hospitalization rate for conditions where appropriate ambulatory care prevents or reduces the need for admission to hospital, per 100,000 population under age 75 years. Source: Canadian Institute for Health Information, Hospital Morbidity Database, Discharge Abstract Database

Health Need and Priority for Action

(21) Long wait times suggest a need to provide more timely access to

- **Cataract surgery.**
- **Joint replacement surgery.**
- **MRI and CT scans**.

HNHB Residents Have the Highest Rate of In-Hospital Mortality after Surgery for Common Cancer Surgeries

The Cancer Care Ontario Cancer System Quality Index tracks the age and gender-standardized rates of in-hospital death within 30 days after surgery for cancer. For most procedures, the in-hospital death rate for HNHB residents is lower or similar to the provincial average. However, for colon resection (one of the most common cancer surgeries), the standardized mortality rate for HNHB residents is the highest in the province. HNHB residents with breast cancer also have the highest standardized rate of in-hospital death within 30 days of mastectomy (0.55% versus the provincial average of 0.19%).

Health Need and Priority for Action

(22) The high rate of post surgical mortality suggests a need to ensure more effective surgical interventions for cancer patients.

ALC Days per Population in HNHB Higher than Ontario Average

The age-standardized rate of ALC cases/1,000 population in the HNHB LHIN area in 2004/05 was 2.9/1,000, higher than the Ontario rate of 2.6/1,000. The age-standardized rates of ALC cases per 1,000 population also varied across the HNHB LHIN area. Niagara residents had the highest rate (4.5 ALC cases/1,000) and Burlington residents the lowest (0.9 ALC cases/1,000).

While current (06/07) CIHI data is not yet available, HNHB hospitals (particularly in Niagara) and CCACs report that the number of patients waiting as ALC and the LOS as ALC in acute care beds has increased significantly, above the already high age-standardized ALC rates reported in 2004/05.

Health Need and Priority for Action

(23) The high and growing number of ALC cases in acute care hospitals suggests a need for improved and timelier access to post acute care services.

Variation in End-Of-Life Care Suggests Opportunities for Improvement

Although, overall there is good access to and use of in home end of life care for cancer patients, the variation in end-of-life care for cancer patients across the LHINs suggests that there are opportunities to better support patients who wish to die at home rather than in an institution. It is likely that similar variation in end-of-life care exists for patients with other diseases.

Health Need and Priority for Action

(24) The variation in use of end-of-life care for cancer patients across the LHINs suggests that there are opportunities to better support patients who wish to die at home rather than in an institution and a need to increase the supply of home-based end-of-life care.

5.0 Inventory of Health Service Initiatives

Section 5.0 of the environmental scan presents an inventory of health service initiatives, many of which may be responsive to the needs of the populations served by the HNHB LHIN. The identified health service initiatives are grouped as:

- Ontario MOHLTC priorities and initiatives
- Local (i.e. within the HNHB LHIN) systems strategies and initiatives
- Federal government initiatives

5.1 Ontario Ministry of Health and Long-Term Care Priorities and Initiatives

Three Priorities for Building a Dependable Public Health Care System and Improving the Overall Health of Ontarians

The Ministry of Health and Long-Term Care has identified three priorities for building a dependable public health care system and improving the overall health of Ontarians:

1. Reducing Wait Times
2. Providing Better Access to Doctors, Nurses and Other Health Care Professionals
3. Keeping Ontarians Healthy

Multiple strategies and initiatives have been implemented to address these priorities.

5.1.1 Reducing Wait Times

5.1.1.1 Ontario Wait Time Strategy

A Plan to Improve Access to Care and Reduce Wait Times for Five Major Health Services

The Ontario Wait Time Strategy is a plan to improve access to care and reduce wait times for five major health services: cancer surgery, cardiac procedures (angiography, angioplasty, and bypass surgery), cataract surgery, hip and knee replacements and diagnostic scans (MRI and CT exams).

The strategies blueprint involves five elements:

1. Accountability (to hospital boards and eventually LHINs)
2. Access Management (including a provincial information system and common method for prioritizing patients)
3. Capacity (medical and administrative best practice; benchmarking, strategic funding of resources)
4. Evaluation (measuring and monitoring wait times)
5. Communications (websites to report wait times)

New and Expanded Programs at Regional Cancer Centres

The Ontario government is improving access to cancer care and reducing wait times in Ontario by investing in new and expanded programs at five Regional Cancer Centres. The $19.8 million announced in January, 2006 is part of the Post-Construction Operating Plan (PCOP) for new or expanded programs at Regional Cancer Centres. This funding will support 13,693 new and expanded chemotherapy treatments, 41,004 radiation therapy treatments, 53,567 additional assessment and follow-up cancer services occurring in conjunction with an approved hospital capital redevelopment project. Regional cancer centres are located in Mississauga, Oshawa, Kitchener-Waterloo, Sudbury and Thunder Bay.

5.1.2 Providing Better Access

5.1.2.1 Health Human Resources Strategies

The Ontario government has committed to improving health care by investing $45 million in 2006 in strategies designed to ensure the right supply and mix of health care professionals

HealthForceOntario

The HealthForceOntario Strategy will create new and innovative health care roles to increase systems performance and access to care. Its mandate is to aggressively recruit the best and brightest health care workers to Ontario where we will educate them, train them, and provide them with the best possible working environment. The HealthForceOntario Strategy has three components:

- Creating four new roles in areas of high need, including Physician Assistants, Nurse Endoscopists, Surgical First Assist and Clinical Specialist Radiation Therapist.
- Developing centralized information for internationally trained professionals.
- Establishing a marketing and recruitment centre, including a comprehensive job portal, for recruiting internationally and within Canada.

Improving Access to Doctors

The Provincial government's plans are intended to improve access to doctors by:

- Increasing medical school undergraduate positions by 15 per cent over the next four years, resulting in 104 new first year undergraduate positions.
- Providing $16.4 million in 2005/2006 to fund new family residency positions and to build two new medical clinics. This will produce 340 new family doctors, providing care to 400,000 Ontarians by 2008.

- More than doubling the number of training opportunities – from 90 to 200 – for international medical graduates.
- Opening of the Northern Ontario School of Medicine.

International Medical Graduates (IMG)

The Ontario government invested about $40 million in 2005/06 for IMG training, assessment and support. This funding supports more than 300 IMGs in various levels of training and assessment positions.

Nurse Practitioners

The MOHLTC is committed to creating an additional 348 Nurse Practitioner positions over three years. In addition, the government invests $1.7 million annually for the NP education program.

Re-entry Training Positions for Canadian Physicians

The ministry is offering fifty re-entry training positions, for training beginning in 2007. The ministry will now also accept applications from currently practicing Canadian physicians for all specialties and subspecialties. Available positions are in Family Medicine (20), Specialty training (20), Community Medicine (5) and Subspecialty training (5).

Underserviced Areas Program

The Underserviced Area Program (UAP) is one of a number of supports provided by the ministry to help underserviced communities recruit and retain health professionals. It offers a variety of components, including incentives and practice supports, aimed at attracting and retaining health care providers to underserviced areas in Ontario.

Nursing Strategy

The Nursing Strategy is a strategy to address the core reasons for instability in the nursing workforce. It is part of a broader Health Human Resource Strategy aimed at:

- Increasing the number of full-time positions for nurses
- Improving recruitment and retention of nurses, and
- Improving nursing workplaces.

Specific initiatives included in the Nursing Strategy of relevance to the LHIN include:

- Nursing Enhancement Fund (to create and promote full time employment)
- New Graduate Initiative (to ensure available full time employment for new nursing graduates)
- Late Career Initiative (allows older nurses to work in less physically demanding roles in order to extend employment)

- Clinical Simulation Initiative (funding schools of nursing for equipment upgrades)
- Mentorship/ Preceptorship Initiative (provides mentorship experiences in all sectors)
- Patient Lift Initiative (funding for mechanical equipment to prevent musculoskeletal injuries)
- Safety Engineered Sharps (funds safer equipment)

5.1.2.2 Family Health Teams

Family Health Teams

Family Health Teams are a key component of the government's plan to build a health care system that delivers on the Ontario priorities by improving access to primary care. Since April, 2005, the Ontario government has approved 150 Family Health Teams located across the province in both urban and rural settings. It is expected that these 150 teams will be operational by 2007/2008 and will improve access to primary care for more than 2.5 million Ontarians in 112 communities.

5.1.2.3 Emergency Departments

Emergency Department Action Plan

The Ontario government released a $142 million comprehensive three point action plan aimed at increasing capacity and quality of emergency department (ED) services. The plan includes funds to:

- Recruit and retain ED physicians, and implement new provider models, including physicians assistants and nurse practitioners
- Provide better access and increase capacity, particularly in small and rural and high capacity hospitals
- Support and increase capacity for community-based service, including almost 2,000 new and replacement long-term care beds in Ontario

5.1.2.4 Chronic Disease Prevention and Management Framework:

Ontario has developed a Chronic Disease Prevention and Management Framework to recognize and promote collaboration between providers, health care organizations and communities to keep people healthy and ensure quality, evidence based care in chronic disease prevention. Ontario has collaborated with provincial and national agencies, such as the Heart and Stroke Foundation and the Canadian Diabetes

Association, on a variety of chronic disease management strategies. These chronic diseases addressed by these strategies include diabetes, heart disease, stroke, cancer, osteoporosis, asthma, Alzheimer's, mental health and arthritis. The strategies are aimed at improving health and quality of life, while decreasing the overall costs of health care. Current initiatives include the expansion of Ontario's Diabetes Strategy, improved diagnosis and early care, promotion of evidence based guidelines and self management tools, and incentive bonuses for physicians that implement strategies. A similar approach for congestive heart failure will begin in 2008.

5.1.2.5 Information Management Strategy

Improve the Ability to Collect Accurate and Up-To-Date Information and To Track and Monitor How the Health Care System Serves the Public

The Ontario Government has committed to putting in place an information management framework to improve the ability to collect more accurate and up-to-date information and to track and monitor how the health care system serves the public.

The Information Management Strategy is focused on producing better data, supporting accountability and quality improvement through performance measurement, and supporting evidence-based decision-making.

The goal of the strategy is to build a system that provides the objective, timely and accurate information, which is the basis for sound decisions that are in the best interest of patients. With better information and through enhanced information management, the government will be able to accurately measure and track how the system is performing, so that people can assess its quality and progress.

Local Data Management Partnerships

On December 1, 2005, the Ontario government announced the establishment of 14 Local Data Management Partnerships to enhance the health system's capacity to manage information and address data quality issues. The partnerships bring together health information management officials from hospitals and the community care sector in each of the 14 new Local Health Integration Networks. They will work together to identify best practices, standards, tools, and policies for better data quality and management with the goal of allowing faster access to the data that is documented in hospitals and CCACs, and the data that is collected and reported by their health information managers.

5.1.2.6 The Health Systems Improvement Act

Make the Health Care System More Responsive To the Needs of the Public

The government has introduced legislation intended to make the health care system more responsive to the needs of the public by strengthening and supporting health professionals and the various programs and services that make up our health care system. The Health System Improvements Act, 2006 includes the following initiatives:

- Medical billing review process and review board for checking physicians' Ontario Health Insurance Plan (OHIP)
- Enhancing regulatory colleges' complaints procedures by giving patients increased access to information, improved communications and streamlined processes
- Establishing The Ontario Agency for Health Protection and Promotion, a centre for public health excellence that will provide research, scientific and technical advice and support
- Enhancing optometrists and dental hygienists services, and establishing colleges to regulate four more professions (naturopathy, homeopathy, kinesiology and psychotherapy)
- Integration of air and land ambulance systems to manage transfer of critically ill patients between health care facilities
- Protection from liability for people using external automatic defibrillators
- Legislated transfer of authority for 5 drinking water systems to public health units

5.1.2.7 Long-Term Care Redevelopment and Planning

Long-Term Care Act

The Ontario government is implementing new legislation to enhancing the quality of life for residents of long-term care homes. The Long-Term Care Homes Act, 2006 addresses issues such as zero tolerance for resident abuse and neglect, whistle-blowing protections, access to RNs, restraint use and licensing.

Long-Term Care Development

To address the health care needs of Ontario's growing and aging population, the Ministry of Health and Long-Term Care has been expanding and modernizing its long-term care facility system. In early 2000, the ministry established a new unit, the Long-Term Care Redevelopment Project, to provide a

one-window, client-focused organization dedicated to development of long-term care beds. It has been working with other ministries, municipalities and stakeholders to facilitate this major undertaking. Thousands of new long-term care beds have been built and existing beds have been redeveloped in older long-term care facilities in Ontario.

MOHLTC Local Area Planning Initiative

The MOHLTC has recently engaged in a process to identify the inventory of long-term care services (and other supporting services) in local communities across Ontario. This data, in conjunction with population projections, is being used to assess the requirements in each community for long-term care beds and to identify either the additional long-term care beds required, or the projected excess of beds in the year 2010.

5.1.2.8 Health Infrastructure Renewal Fund

The Health Infrastructure Renewal Fund (HIRF) was established in 1999 to assist hospitals renew their healthcare facilities. In 2004, the program was reformed to make minor capital project approvals more efficient and to distribute infrastructure renewal funds to hospitals annually. The HIRF grant supplements an institution's existing renewal program and helps healthcare facilities address any renewal needs on a priority basis.

5.1.2.9 Alternative Funding Plans

An AFP provides an alternate approach to funding physician services other than fee-for-service. An AFP can be used to help with recruitment and retention of physicians in environments where fee-for-service revenue alone may not be sufficient. Through the 2004 Physician Services Agreement, the OMA and MOHLTC agreed to make $150M ("New Investment") in additional new funding available to the AHSC AFPs. The funding has been provided in conjunction with the development of an appropriate allocation methodology and a common AHSC AFP template.

5.1.2.10 Emergency Department Access to Prescription Drug History

The Ministry of Health and Long-Term Care has begun to provide most Ontario hospital emergency departments with electronic access to the drug claims history of patients receiving benefits through the Ontario Drug Benefit Program and the Trillium Drug Program.

5.1.2.11 Critical Care Strategy

On January 30th 2006, the Ontario government announced a $90 million strategy to improve critical care services in Ontario. The Critical Care Strategy, designed to improve access, quality and system integration, is comprised of seven closely linked initiatives:

- Critical Care Response Teams
- Critical Care Capacity
- Health Human Resources
- System-Level Training
- Critical Care Information System
- Performance Improvement Collaborative
- Ethical Issues of Access

The strategy proposed new funding, use of technology, performance management and the establishment of critical care networks in Ontario as approaches to change.

5.1.2.12 Ontario Stroke Strategy

The Ontario Stroke Strategy is an initiative providing funding to organize stroke care across the entire continuum (that is, from prevention to acute care, rehabilitation and secondary prevention) on a province-wide basis. Because stroke is a major public health issue, the Ontario Ministry of Health and Long-Term Care supports the Ontario Stroke System (OSS), which is based on the principles of coordinated, integrated, patient-centred and province-wide care, with the goal of producing measurable improvements in the quality of stroke care.

5.1.2.13 The Ontario Cancer Plan

The Ontario Cancer Plan, which is administered through Cancer Care Ontario, is a data driven plan that projects future demand for cancer services and identifies six priority areas necessary to drive improvement in access to quality care for cancer patients. The Ontario Cancer Plan proposes targeted investment in three areas:

1. Treating more people (volumes) to improve wait times;
2. Transformational initiatives to enhance quality, accessibility and accountability;

3. Capital development to cope with longer term growth in cancer cases.

Strategies include implementing provincial standards and guidelines, implementing regional cancer programs and rapid access strategies, increasing capacity, improving coordination and performance management.

5.1.2.14 Ontario's Children's Health Network

The Ontario Children's Health Network is a collaborative partnership of the province's six paediatric academic health sciences centres. Working closely with government, regional networks and community and academic partners, OCHN is committed to building an integrated, accessible and effective health-care system. Its goals are to enhance child health care and well-being, advance research, educate child-health professionals, advocate for children, foster relationships and integration, and ensure the economic viability of the system.

Network strategies include developing best practices in children's health care, improved accountability and case-costing measures, using new technologies to overcome distance, diversity and resource challenges, and increased public attention to paediatric health-care needs.

5.1.2.15 Mental Health Implementation Task Forces

In 2000 and 2001, nine regional task forces were established by the Minister of Health and Long-Term care. The task force's mandate was to focus on developing recommendations for regional and local improvements to mental health services across the province, in accordance with the ministry's mental health policy, Making It Happen (1999). The MHITFs were designed to serve as mechanisms through which recommendations would be developed for the ministry with respect to Provincial Psychiatric Hospital (PPH) restructuring, community reinvestments and the implementation of mental health reforms. All MHITFs completed their mandates by January 2003.

5.1.2.16 The Role of Small and Rural Hospitals

A Multi-Site Small Hospitals Advisory Group has been formed to investigate the future role of small and rural hospitals. This group has made recommendations on the core services that small hospitals can be expected to deliver to their communities in order to assist in defining the small hospitals' role as part of that larger system. The group is also

considering future opportunities for small and rural hospitals to contribute to the creation of a true health care system.

5.1.2.17 CCAC Alignment and Funding

Work has been completed to align Community Care Access Centres in Ontario with the geographic boundaries of the 14 Local Health Integration Networks (LHINs). CCAC Alignment within the 14 community LHINs is designed to create a more integrated structure for governing and managing the CCAC system, as one of the cornerstones of the health care system. The alignment will support MOHLTC goals of equitable access and consistent service for all clients in Ontario and was in place as of January 1, 2007.

Announcements in May 2006 of increased funding for CCAC delivered services in 2006/2007 included:

- $35 million for acute home care services
- $26.7 million for end-of-life care, including funding for 4 new residential hospices
- $30 million to implement the Caplan recommendations, including an increase in the minimum wage for personal support workers from $9.65/hr to $12.50/hr, and enhanced benefits and job security
- $12.75 million for in-home rehab after hip and knee replacement surgery and
- $13.1 million for Community Support Services

Of the total $104.7 million of new funding, $16.4 million was allocated to the CCACs serving the HNHB LHIN population.

5.1.2.18 Laboratory Reform

Ontario Regional Laboratory Services Planning Project

The MOHLTC initiated the Ontario Regional Laboratory Services Planning Project (ORLSP) to follow the guidelines established by the Provincial Group on Laboratory Reform in 2000. In order to design a system that would ensure quality and access to services and optimal utilization of scarce human and technological resources, input was sought from all stakeholders affected by the system. Other components of the reform of laboratory services in Ontario include implementation of the Ontario Laboratory Information System (OLIS), and the expanded Ontario Laboratory Accreditation program.

5.1.3 Keeping Ontarians Healthy

5.1.3.1 Operation Health Protection

Operation Health Protection is a three-year Action Plan to revitalize the public health system by preventing threats to health and promoting a healthy Ontario. The Action Plan includes six strategic priorities:

- Creation of a Health Protection and Promotion Agency
- Public Health Renewal
- Health Emergency Management
- Infection Control and Communicable Disease Capacity (including the implementation of regional Infection control networks)
- Health Human Resources for Public Health
- Infrastructure for Health System Preparedness

Emergency Planning and Preparedness

The Emergency Management Unit (EMU) was created to plan, organize, manage and coordinate provincial responses to emergencies that affect and impact health. Since its creation, the EMU has undertaken a number of emergency management initiatives and programming and has established the Ministry of Health and Long-Term Care Emergency Response Plan (MERP)

The Ontario Health Plan for Influenza Pandemic 2006

The 2006 Ontario Health Plan for an Influenza Pandemic (OHPIP) is a collaborative effort that involved over 400 individuals and experts from across the healthcare sector, labour and government. The OHPIP continues to be improved and enhanced year after year - building pandemic preparedness across the province. This year's version focuses on community response and the plan provides the important tools and guidelines to support the healthcare sector and the health workers in their planning efforts.

The OHPIP includes a First Nations chapter that outlines provincial, federal and First Nations responsibilities for planning.

5.1.3.2 Smoke Free Ontario

The Ontario government has prohibited smoking in all enclosed workplaces and enclosed public places in Ontario as of May 31, 2006. The Smoke Free Ontario legislation strengthens measures to ensure only those 19 years of age and older can buy cigarettes and will phase out the display of

tobacco products, with a complete ban beginning May 31, 2008.

5.1.3.3 Newborn and Maternal Screening / Childhood Immunizations

An important part of the government's plan for health care is about preventing people from getting sick in the first place. Funding has been provided for:

- screening newborns for at least 27 rare disorders; and
- providing free vaccinations against chicken pox, meningococcal disease and pneumococcal disease to all Ontario children.

5.1.3.4 Ontario's Action Plan for Healthy Eating, Active Living

Ontario's Action Plan for Healthy Eating and Active Living is a response to the key findings in the Chief Medical Officer of Health's report, Healthy Weights, Healthy Lives.

The plan offers new programs and strategies, and builds on existing ones to support healthy eating and active living in Ontario. The Ministry of Health Promotion is addressing critical gaps through investments in a variety of programs and services in 2006-07. The four strategies of the plan are:

- Grow healthy children and youth;
- Build healthy communities;
- Champion healthy public policy; and
- Promote public awareness and engagement.

5.2 Local Systems Strategies and Initiatives

A variety of priorities, strategies, initiatives and working groups are in place throughout the HNHB LHIN. Selected initiatives described in this section include:

- Mandated provincial accountabilities and/or provincial responsibilities
- Responses to identified local, provincial and/or federal needs and priorities, and/or
- Local proposals and priorities to provide improved health care to the population of the HNHB LHIN.

5.2.1 Current Initiatives

The following reflect recent and current initiatives of organizations within the LHIN:

5.2.1.1 Family Health Teams and Community Health Centres

Access to Primary Care

Four new Community Health Centres (in Fort Erie/Port Colborne, St. Catharines, Niagara Falls and Brantford) and 13 Family Health Teams (FHTs) are being developed in the LHIN. Approximately 25% of all family physicians in the LHIN now practice in a FHT. These program initiatives improve access in communities that are under serviced for primary care, and improve quality by providing team based care, systems navigation, increased chronic disease management and state of the art technology.

5.2.1.2 Wait Times Steering Committee

Action Plans To Improve Access to Services, Increase Efficiency and Produce Quality Outcomes

Considerable progress is being made in the HNHB LHIN to reduce wait times for MOHLTC identified priority procedures. A Wait Times Strategy (WTS) steering committee, co-chaired by hospital and community leaders in the LHIN is a forum for collaboration to develop action plans to improve access to services, increase efficiency and produce quality outcomes. Access targets have been set, and multiple initiatives are in place to sustain and achieve these targets in the five priority areas (cancer surgery, cardiac procedures cataract surgery, hip and knee replacement and diagnostic (MRI/CT) imaging). Five WTS work groups (i.e. one for each of the five priority areas) have been established, plus an additional work group to focus on ALC issues.

5.2.1.3 Joint Arthroplasty Assessment Centre and Cataract Surgery Centre of Excellence

Two Hamilton based projects designed to address wait times, the Joint Arthroplasty Assessment Centre and the Cataract Surgery Centre of Excellence, are being expanded to encompass the broader LHIN.

5.2.1.4 Diagnostic Imaging Coordination and Standards

A radiologist in the LHIN from St. Joseph's Health Care Centre in Hamilton is a member of the provincial expert panel making recommendations for greater standardization, improved efficiencies and clearer accountabilities in the delivery of diagnostic imaging (DI) services within the LHIN.

Strategies include the creation of population based benchmarks, shared patient diagnostic imaging information (i.e., PACS), health human resources planning for DI, development of standards re: equipment utilization and development of DI networks to maximize expertise and resources.

5.2.1.5 Health Human Resources Forum

The LHIN convened a health human resources (HHR) forum in September of 2006 to explore issues and develop local strategies for addressing the HHR needs of its population. A vision to guide future planning was developed, and next steps will include the use of technology to maximize resources, collaborative HHR planning among LHIN hospitals and coordinated recruitment and retention approaches among LHIN service providers.

The Distributive Campus Initiative will work to address the apparent deficit of physicians within the LHIN. Regional medical campuses are being developed to serve the Niagara and Waterloo Wellington area, which provide training, recruitment and retention opportunities upon which the LHIN will capitalize.

5.2.1.6 Critical Care Implementation

A lead in the critical care strategy implementation is in place in the LHIN and local work is underway to build on provincial initiatives. Work includes the implementation of performance improvement coaching teams for critical care units in several LHIN hospital sites, and the critical care response team demonstration project, designed to enhance staff collaboration and information sharing, currently in place in Hamilton hospitals at St. Joseph's, the Hamilton General and McMaster Children's Hospitals.

5.2.1.7 Regional Laboratory Steering Committee

A Regional Laboratory Steering Group is in place by Memorandum of Understanding among the 12 hospitals in the LHIN. This group is committed to increasing momentum in identified provincial laboratory reform priorities. They have identified nine priorities for a sustainable lab system in the LHIN, and have recommended that actionable strategies for two of these priorities, Information Technology and Governance, be in place by March, 2007. Work to link the sharing of lab tests to the e-Health strategic plan, and lab

rationalization for any clinical program realignments is underway.

5.2.1.8 French Language Support

Two communities are designated for French language services in the HNHB LHIN – Hamilton and Welland. The LHIN leadership has initiated contact and has participated in roundtable discussions to better understand the needs of this community. The LHIN plans to promote quality French Language services by working with leaders and building on existing plans.

5.2.1.9 Aboriginal Community Support

There are two reserves within the LHIN. LHIN leadership participated in an open house on the Six Nations Reserve in which a better understanding of the health needs, goals and desired of the Aboriginal Community was explored.

5.2.1.10 Community Support Services Collaboration

Community Support Services (CSS) within the LHIN have been working together to integrate their activities and coordinate communication with the LHIN. This collaboration has focused on joint leveraging of planning and service delivery options for volunteer and professional learning and development, and development of strategies to address local priorities.

5.2.1.11 Acquired Brain Injury Services

Acquired Brain Injury service providers in the LHIN came together for the first time in September, 2006 to begin to address issues of access and best practice. They have continued to collaborate, and are beginning to operationalize a plan for change.

5.2.1.12 The Niagara Region Inter-agency Transportation Network

The Niagara Region Inter-agency Transportation Network has made recommendations to improve capacity, coordination and efficiency of specialized and volunteer transportation services. Strategies such as consolidated intake and common operating procedures are being pursued.

5.2.1.13 Integrated Hospital Leadership

Joint Planning, Prioritizing and Problem Solving

A memorandum of understanding among hospital CEOs in the LHIN is strengthening joint planning, prioritizing and problem solving. This group has hired an Integrated VP for Information and Communication Technology to address system wide solutions. The Integrated VP co-chaired a Steering Committee that developed a strategic plan for e-Health for the HNHB LHIN. Several collaborative working groups are also reporting to the CEO group to align business processes, including:

- Human Resources
- Regional Laboratory
- Chief Financial Officers
- Chiefs of Staff
- Vice-Presidents, Clinical
- Pharmacy
- Communications
- Diagnostics
- Information Technology
- Integrated Supply Chain Management (through the "Focus on Healthcare Supply Chain Integration [FOHSCI] local project team)

Perioperative Coaching Team

Six LHIN hospitals have participated in the Perioperative Coaching Team Initiative. One hospital corporation, Hamilton Health Sciences, provided coaches, and the other five hosted coaching teams. Best practices and action planning for change established as a result of coaching team visits have been disseminated to the Perioperative Director Committee and Clinical Services Committee level.

5.2.1.14 Vascular Surgery Planning

Review and Regionalization of Vascular Surgery Services

Inter-LHIN collaboration between the HNHB and Waterloo Wellington LHIN was evidenced in the review and regionalization recommendations of vascular surgery services in the area. In order to provide effective and efficient and responsive services, vascular surgery services will be integrated between Hamilton Health Sciences and St. Joseph's Healthcare, and two associate centres will be established.

5.2.1.15 Central South Infection Control Network

This network provides a coordinated approach to infection prevention and control across the continuum of care. The network provides advice around best practice and education around provincial guidelines for stakeholders in the LHIN.

5.2.1.16 Central South Mental Health Implementation Task Force (December 2002)

Twenty-two representatives of the Central South region of Ontario and Burlington, selected by geography and stakeholder interest, worked together as the Central South Mental Health Implementation Task Force (CSMHITF). During the course of the Task Force's deliberations, input was sought from well over 3,000 members of the community through a variety of methods.

Making Recovery Happen

The Task Force, in its report "Making Recovery Happen", concluded that the mental health system was comprised of a poorly integrated but dedicated group of service providers and institutions. The Task Force provided recommendations to re-focus a new mental health system on the needs of the consumer and to empower those delivering the service to do so with urgency and excellence. The prior work and recommendations of the Task Force provide valuable input to the HNHB LHIN as it identifies strategies to enhance the mental health system in the LHIN.

5.2.1.17 Mental Health Rights Coalition Peer Support Program

The Mental Health Rights Coalition of Hamilton is currently working with service providers in the Hamilton area on a pilot project to integrate peer support workers into community mental health agencies, as a strategy to improve quality and access. This Peer Support Program offers individualized one-to-one opportunities for sharing experiences, exploring needs and developing plans of action to achieve one's goals. Various sources of information and links to other community resources are available, as well as referrals to other organizations, consumer advocacy, and other non-clinical support.

5.2.2 Previously Identified Integration Priorities

In 2005, the LHIN community of stakeholders described 10 initial service integration priorities that address needs identified in 5 particular areas, to be:

5.2.2.1 Workplace Injury and Illness Collaborative

Health Promotion and Disease Prevention

This priority was originally described as health promotion and disease prevention. The subsequent refinement of this priority has been to promote prevention and management of work-related illnesses and injuries by primary health care providers. This collaborative will coordinate and connect primary health care and occupational health sector activities to reduce workplace injury and illness. Activities will target the prevention and management of work-related illnesses and injuries by primary health care providers. Stakeholders from WSIB, the Department of Family Medicine at McMaster University, Occupational Health Clinics for Ontario Workers, family physicians, public health departments, industry and consumers are currently collaborating on this initiative.

Coordination of Services for Children and Youth

5.2.2.2 Child Mental Health Provider Education

McMaster Children's Hospital has committed resources for one year to work with community agency staff in the LHIN to identify education needs and develop training and education programs so that more services can be delivered locally.

5.2.2.3 Child-Youth Rehabilitation Network

McMaster Children's Hospital will bring together rehab service providers in the LHIN including hospitals, CCAC and Children's Treatment Centres to facilitate knowledge exchange and develop common educational programs. Outcomes will include consistent approaches, use of best practice and improved coordination of care throughout the LHIN.

5.2.2.4 Child Health Knowledge Exchange

A knowledge exchange will be developed to promote consistent and collaborative training for child health professionals across the LHIN.

5.2.2.5 Electronic Child Health Network (eCHN)

Launched by McMaster Children's Hospital, this network will support the graduated sharing of child and youth records with hospitals, physicians and community based providers. Its goal will be to improve communication, reduce duplication and ensure more timely and appropriate care responses.

5.2.2.6 Community Service Care Plans for Continuity of Care

Assist Persons to Live Independently In the Community

Selected community support services and other providers will develop care paths for three identified groups (persons over 65 year with fractures discharged to the community, persons with dementia presenting in ED because of caregiver burnout, young people with acquired brain injury) so that they receive the appropriate mix, sequence and continuity of services. This will help maximize recovery and/or prevent or delay hospitalization.

5.2.2.7 Concurrent Disorders Treatment Planning

Support For Persons with Mental Health and Addiction Issues

Mental health and addiction service providers in the HNHB LHIN have committed to collaborative processes in order to develop a coordinated approach to the assessment and treatment of persons with concurrent disorders aimed at improving health outcomes. Strategies will include promotion of best practices, LHIN wide cross training of staff, and shared care/inter-agency service delivery.

5.2.2.8 Palliative Care Best Practices

Improve the Quality of Care at the End of Life

This initiative introduces the use of two best practice skills enhancement programs, the Southwest Learning Initiative and the Pallium Project Learning Essential Application in Palliation (LEAP) for training all providers across the LHIN. The initiative will implement specialized education and training programs for volunteer caregivers and health care professionals

The Juravinski Cancer Centre is managing the launch of regional improvement project coordinators, physician leads and End-of-Life Care Network directors aimed at implementing standards of care for palliation.

5.2.2.9 Geriatric Service Collaborative

A LHIN-Wide Geriatric Access and Integration Network to Improve Quality of Care for Seniors

A collaborative of providers of specialized geriatric services will develop a network to promote strategies for optimal care, equitable access to services in hospital and community, better connection between services and advice on the allocation of resources.

5.2.3 Emerging LHIN Priorities for Change

The following have been identified by the LHIN as "emerging priorities" for change. Although a variety of individual

initiatives exist within the LHIN to address these priorities, for most to date there are no formal coordinated strategies or LHIN-endorsed approaches to change.

5.2.3.1 Patient Flow Planning

HNHB LHIN Convened Stakeholder Session to Develop Patient Flow Strategies

Patient flow has been identified as an issue in response to rising ALC days in hospital, and a noted difficulty of hospitals to discharge patients to the most appropriate level of care. The need for a LHIN wide approach to leverage all opportunities and resources to better move patients through the system was identified. In December 2006, the HNHB LHIN hosted providers from among hospital and community sectors to initiate discussion on approaches to reduce ALC patients in hospitals. The LHIN and the CCAC will work closely together to move this initiative forward.

February 2007 MOHLTC Announcement of Additional Patient Flow Funding

In February 2007 the MOHLTC announced additional funding to help people avoid hospital admissions and live independently in their homes. The funding will help clear hospital beds of patients waiting to be placed in nursing homes or to receive higher levels of nursing care in their own homes. The announcement included investments in supports such as additional home care and community support services, CCAC case managers in EDs, transitional beds between hospital stay and home discharge, and rehabilitation beds.

5.2.3.2 Chronic Disease Management Strategies

LHIN Role to Support Chronic Disease Management

Despite its lack of funding and performance reporting responsibility for primary care and public health, the LHIN has identified a role in reducing the burden of chronic illness, and aligning resources and promoting collaboration among service providers to reduce the incidence and impact of chronic diseases within the population.

5.2.3.3 Organization of Obstetrics Services

LHIN-Wide Approach to Organizing and Coordinating Obstetrical Services

A LHIN wide systems approach has been identified as important to the distribution and supply of obstetric services, given the changing demographic and needs of the LHIN population. Quality maternal child health services will require a LHIN wide system approach to the appropriate capacity and distribution of services to inform program design options, scope of practice, recruitment strategies, and infrastructure planning.

5.2.3.4 Other Local Priorities

Hospitals in the LHIN have identified several priorities for integration, including laboratory reform, HHR planning, and e-Health strategies. The LHIN identified a role in facilitating the work of hospitals in these areas by addressing barriers to progress.

Transportation, while not a mandate of the LHIN, is an important health care access issue identified by all communities within the LHIN. The LHIN will encourage the inclusion of transportation stakeholders in all health services planning.

Finally, the LHIN has identified a role in measuring the effects of integration.

5.2.4 Enabling Strategy

5.2.4.1 e-Health Plan

IT Is A Key Enabler For Timely, Effective, Patient Centred Care

Integrated information and communication technology (ICT) was identified by the LHIN as a key enabler for timely, effective, patient centred care. Subsequently, the HNHB LHIN developed a strategic plan to guide ICT implementation over the next several years. The following strategies for e-Health, guided by the LHIN's e-Health vision, are:

- Equip and connect stakeholders
- Protect information security and privacy
- Promote knowledge exchange
- Share clinical information
- Provide decision support systems
- Unify Information technology resources

5.3 Federal Initiatives

5.3.1.1 Canada's Drug Strategy

Addressing the Harmful Use of Substances

Canada's Drug Strategy, which was renewed in May 2003, is the federal government's response in addressing the harmful use of substances, including illegal drugs, alcohol, pharmaceuticals, inhalants and solvents. The Strategy takes a balanced approach to reducing both the demand for, and the supply of, drugs and substances through prevention, treatment, enforcement, and harm reduction initiatives. Components of this strategy that are directly relevant to the LHIN are:

- Focus on youth (provides prevention education and federal funding for treatment for youth)
- Drug strategy community initiatives fund (provides funding for local prevention/promotion/harm reduction strategies)
- Alcohol and Drug Treatment and Rehabilitation Program (bilateral contribution agreements for therapy for special populations; supports program evaluation and best practice)
- The Federal Initiative to address AIDS/HIV in Canada
- National Native Alcohol and Drug Abuse Program (funds First Nations and Inuit beds and community based programs)
- Fetal Alcohol Spectrum Disorder (funds local organizations to address prevention, identification and secondary consequences)
- "A National Framework for Action to Reduce the Harms Associated with the use of Alcohol and Other Drugs and Substances in Canada" (a multi-Ministry initiative)

5.3.1.2 The Canadian Diabetes Strategy

The Canadian Diabetes Strategy is a national partnership that includes the provinces and territories, many national health organizations and interest groups, and Aboriginal communities. The purpose of the CDS is to articulate and establish effective diabetes prevention and control strategies for Canada. The CDS has four inter-related components that are coordinated by the Public Health Agency, including the Aboriginal Diabetes Initiative, Prevention and Promotion, National Diabetes Surveillance System and National Coordination. The following strategies are being addressed:

- Support the development of healthy public policy
- Provide community based health prevention and promotion strategies
- Provide accessible access for prevention of diabetes in high risk individuals
- Increase human resource capacity for provision of diabetes services
- Conduct research and evaluation, support knowledge exchange

- Enhance surveillance

5.3.1.3 The Family Violence Initiative

On behalf of the federal government and 15 partner departments, the Public Health Agency of Canada coordinates the Family Violence Initiative (FVI). With the long-term goal of reducing the occurrence of family violence in Canada, the Government of Canada provides the Family Violence Initiative with $7 million permanent annual funding.

5.3.1.4 First Nations and Inuit Health

Health Canada is committed to delivering health programs and providing high-quality health care to First Nations people and Inuit. To address the health issues faced by the Aboriginal people in Canada, the First Nations and Inuit Health Branch at Health Canada carries out the following strategies and initiatives:

- Aboriginal Health Human Resources Initiative
- Children's Oral Health Initiative (COHI)
- HIV/AIDS Strategy
- Targeted Immunization Strategy
- Tuberculosis Elimination Strategy

5.3.1.5 The Integrated Pan-Canadian Healthy Living Strategy

This is an integrated Federal/Provincial/Territorial initiative approved in 2005 that is targeted at the problem of obesity in Canada. The goal of the strategy is to improve overall health outcomes and to reduce health disparities. Specific pan-Canadian healthy living targets include a 20% increase in the proportion of Canadians who are physically active, eat healthy and are at healthy body weights. Strategies used to achieve this target will be social marketing, research and surveillance and policy and program initiatives.

5.3.1.6 Federal HIV/Aids Initiative

In January 2005, the Government of Canada committed to pursuing a Government of Canada-wide approach to addressing HIV/AIDS, which signals a renewed and strengthened federal role in the Canadian response to HIV/AIDS. The Federal Initiative - a partnership of the Public Health Agency of Canada (PHAC), Health Canada, the

Canadian Institutes of Health Research and Correctional Service Canada - will focus on addressing the complex social, human rights, biological and community barriers that contribute to the HIV/AIDS epidemic.

5.3.1.7 Nursing Strategy for Canada

The Nursing Strategy for Canada is a joint Federal-Provincial-Territorial strategy established in 2002 that addresses the issue of adequate supply of nursing personnel in Canada. Eleven strategies for change have been initiated, organized into four related issues of unified action, improved data, research and human resource planning, appropriate education, and improved deployment and retention strategies. Specific strategies that will be of interest to the LHIN include:

- Improving quality of nursing worklife (Canadian Nursing Advisory Committee)
- Improved nursing human resource planning and management (Canadian Nursing Advisory Committee)
- Improved information for planning and evaluation (CIHI)
- Improved projection of supply and demand to 2015 (Health Canada)
- Recommendations around nursing staffing and skill mix (Nursing Advisory Committee)
- Development of provincial nursing education plan (Nursing Advisory Committee)
- Development of provincial nursing retention strategies (Nursing Advisory Committee)
- Development of provincial nurse re-entry strategies (Nursing Advisory Committee)

5.3.1.8 Population Health Approach

Health Canada through the Public Health Agency of Canada has identified population health as a key concept and approach for policy and program development aimed at improving the health of Canadians. This approach will promote and execute programs, policies, and interventions along the entire spectrum of health action, including health promotion, disease (and injury) prevention, risk management, policy coordination, medical treatment, rehabilitation and palliative care. The key elements of this strategy are aimed at:

- Focusing on the health of populations

- Addressing determinants of health and their interactions
- Evidence-based decision-making
- Increased upstream investments
- Collaboration across sectors and levels
- Mechanisms for public involvement
- Demonstrating accountabilities for health outcomes

5.3.1.9 Sustainable Development Strategy

Healthy and Sustainable Physical and Social Development

By contributing directly to a healthier society and a cleaner, safer environment, the work of the Department fosters sustainable development. Health Canada has committed to maintaining the health of Canadians through this three year plan that targets:

- Creating healthy and sustainable physical and social development (which targets Aboriginal health and healthy activity levels for all Canadians)
- Integrating sustainable development in departmental decision making and management
- Minimizing physical health effects of department's physical operations and activities

The first strategy is likely of greatest interest to the LHIN; it commits to improving health promotion and prevention in First Nations communities, and working with other organizations to improve the health of the population.

5.3.1.10 The Federal Tobacco Control Strategy

This strategy establishes a framework for a comprehensive, fully integrated, and multi-faceted approach to tobacco control. The FTCS is the federal contribution to the national tobacco control plan endorsed in 1999 by all Ministers of Health. It focuses on four mutually reinforcing components: protection, prevention, cessation and harm reduction, supplemented by effective use of public education campaigns to reach all Canadians. Established in 2001, it outlines a 10 year plan that includes specific targets for reduction in smoking and exposures to second hand smoke.

5.3.1.11 e-Health

e-Health is an essential element of health care renewal. The Government of Canada has been making investments in this area since the 1997 Federal Budget, including federal

commitments towards First Ministers Agreements (September 2000 and 2003). A key factor in the success of the Government's work is its strong commitment to collaboration.

Health Canada's current priorities and efforts focus on addressing policy issues and challenges in mainstreaming e-Health services within Canada's health care system and in measuring progress in the deployment and investment of these services. It has implemented and provided funding for a wide variety of federal, provincial and local initiatives to improve Canada's infostructure and telehealth abilities. Canada Health Infoway has been provided with extra funding to address priorities in the implementation of electronic health records and the further development of telehealth applications which are critical to care in rural and remote areas.

5.3.1.12 Health Human Resources Strategy

The Pan-Canadian Health Human Resource Strategy aims to ensure that Canadians have access to the health providers they need both now and in the future. To meet these goals, Health Canada is working with the provinces, territories and other key health-related organizations to improve HHR planning and coordination. The Health Human Resource Strategy will guide these efforts in three critical areas:

1. Health Human Resource Planning - ensuring we have enough of the right types of health care providers to meet the needs of Canadians;

2. Recruitment and Retention - encouraging more people to enter the health care field and improving working conditions to keep them there; and

3. Interprofessional Education for Collaborative Patient-Centred Practice - changing the way we educate health providers so Canadians will have better and faster access to the health-care provider.

Initiatives within this strategy of particular interest to the LHIN include:

- Healthy Workplace Initiative
- Recruitment and Retention Initiative
- Internationally Educated Health Professionals Initiative

5.3.1.13 National Pharmaceutical Strategy

Ensuring that no Canadian should suffer undue financial hardship in accessing needed drug therapies

As part of the 10-Year Plan to Strengthen Health Care, First Ministers agreed to the National Pharmaceuticals Strategy. The goal of the strategy is to ensure that no Canadian should suffer undue financial hardship in accessing needed drug therapies, and that affordable access to drugs is fundamental to equitable health outcomes for all our citizens. The main components of the strategy with relevance to the LHIN are:

- Explore options for catastrophic pharmaceutical coverage
- Establish a common National Drug Formulary for participating jurisdictions
- Accelerate access to breakthrough drugs through improvements to the drug approval process
- Pursue purchasing strategies to obtain best prices for Canadians for drugs and vaccines
- Influence the prescribing behaviour of health care professionals
- Broaden the practice of e-prescribing through accelerated development and deployment of the Electronic Health Record

5.3.1.14 Primary Health Care Renewal

In recognition that high-quality, effective primary health care services have profound implications for the entire health care system, the first ministers signed the 2003 Health Care Accord. The Accord establishes a goal of 24/7 access to primary care for 50% of the population by 2011. Strategies to accelerate access and delivery of primary health care have been implemented. Of significance is The Primary Health Care Transition Fund, which provides funding to the provinces and territories to enhance primary care and implement and evaluate new models.

5.3.1.15 Home Care for Canadians

The Health Accord of 2003 recognized that improving access to a basket of services in the home and community will improve the quality of life of many Canadians by allowing them to stay in their home or recover at home. Increased first dollar coverage for this basket of services for short-term acute home care, including acute community mental health, and end-of-life care has been provided by the Federal government. Available services can include nursing/professional services,

pharmaceuticals and medical equipment/supplies, support for essential personal care needs, and assessment of client needs and case management

5.3.1.16 Diagnostic and Medical Equipment Fund

Enhancing the availability of publicly-funded diagnostic care and treatment services was identified in the Health Accord of 2003 as critical to reducing waiting times and ensuring the quality of our health care system. To this end, the Government of Canada created a $1.5 billion Diagnostic and Medical Equipment Fund to build upon the 2000 Medical Equipment Fund, enabling provinces and territories to acquire and install equipment and support specialized staff training, in order to improve access to publicly funded diagnostic services.

5.3.1.17 National Wait Times Reduction Strategy

Strategic investments directed toward reducing waiting times for access to care, especially for cancer, heart, diagnostic imaging, joint replacement and sight restoration services have been established by Health Canada. To support the reduction of wait times, the Federal Government committed to investing $4.5 billion over six years, beginning in 2004-05, in the Wait Times Reduction Fund.

The Wait Times Reduction Fund will augment existing provincial and territorial investments and assist jurisdictions in their diverse initiatives to reduce wait times. This Fund will primarily be used for jurisdictional priorities such as training and hiring more health professionals, clearing backlogs, building capacity for regional centres of excellence, expanding appropriate ambulatory and community care programs, benchmarking and/or tools to manage wait times.

In January 2007, the Federal Government announced a $2.6 million Wait Time Guarantee pilot project for children needing surgery. The 15 month project will include the development of a national wait time information system for paediatric surgery. The McMaster Children's Hospital of Hamilton Health Science Centre is a partner in the project.

5.3.1.18 Canadian Patient Safety Institute

The 2003 First Ministers' Accord on Health Care Renewal stated that "the implementation of a national strategy for improving patient safety is critical. In response, the 2003 federal budget announced the provision of $10 million annually to support patient safety initiatives, including the

creation of the Canadian Patient Safety Institute (CPSI). The CPSI's role is advisory, rather than operational, in the improvement of patient safety as follows:

- To promote knowledge exchange in best practice
- To influence change in culture and provide advice to support systems change
- To collaborate with stakeholders in an ongoing dialogue to support improvements.

5.3.1.19 Canadian Strategy for Cancer Control and the Canadian Partnership Against Cancer

In November 2006 the Federal Government announced the establishment of the Canadian Partnership Against Cancer, a not-for-profit corporation that will implement the 5-year Canadian Strategy for Cancer Control. The goals of the Canadian Strategy for Cancer Control are to reduce the number of new cases of cancer among Canadians, enhance the quality of life of those dying from cancer, and lessen the likelihood of Canadians dying from cancer.

6.0 Alignment of Identified Needs and Initiatives

6.1 Needs and Provincial Initiatives

The exhibits on the following pages show the relationship of the HNHB population's needs for health services with the priorities and initiatives of the Ontario Ministry of Health and Long-Term Care. The check marks in the tables indicate provincial initiatives that are intended to have an impact on the identified high priority needs for health services.

HNHB LHIN needs for health services for which there are the fewest applicable provincial initiatives include:

- Access to French language health services for the Francophone populations of the HNHB LHIN area.
- Safety and accident prevention initiatives
- Increase access to MOHLTC funded supportive living services.

	Identified Need	Provincial							
		Ontario's Wait Times Strategy	Health Human Resources Strategy	Family Health Teams	Chronic Disease Mgmt. & Prevention	Information Management Strategy	Health Systems Improvement Act	Long Term Care Redevelopment & Planning	Health Infrastructure Renewal
Pop'n Characteristics & Determ. of Health	Health care services sensitive and responsive to the needs of the elderly.	✓		✓	✓			✓	
	Health services sensitive and responsive to the needs of the HNHB Aboriginal population.			✓	✓		✓		
	Access to French language health services for the Francophone populations of the HNHB LHIN area.		✓	✓					
Preventive Care & Lifestyle	Improvement in lifestyles impacting on health. - Smoking - Drinking - Diet			✓	✓		✓		
Population Health Status	Strategies to reduce the prevalence and impact of chronic diseases on the residents of the HNHB LHIN.			✓	✓		✓		
	Improvements in the diagnosis and treatment of cancer	✓		✓	✓	✓			✓
	Improvements in the diagnosis and treatment of circulatory disease	✓		✓	✓	✓			✓
	Improvement in pre natal care/ Improvement in maternal and newborn care.			✓					✓
Health Care System Utilization	Safety and accident prevention initiatives					✓			
	Improvement in access to and effectiveness of primary care for people under 55 years old.		✓	✓		✓			
	Access to inpatient rehabilitation for HNHB residents.								✓
	Equitable access to CCC beds across HNHB communities							✓	✓
	Equitable access to LTC home beds across HNHB communities							✓	
Health Care System Capacity	Improve occupancy of medical beds in acute care hospitals.			✓	✓	✓		✓	✓
	Reduce risk and improve efficiency in obstetrical care								✓
	Improve access to mental health services.		✓	✓	✓				✓
	Increase access to MOHLTC funded supportive living services.								
	Improved access to primary care physicians across the communities of the HNHB LHIN		✓	✓	✓				
	Ensure adequate future supply and distribution of health care professionals.	✓	✓						

Identified Need		Provincial							
		Ontario's Wait Times Strategy	Health Human Resources Strategy	Family Health Teams	Chronic Disease Mgmt. & Prevention	Information Management Strategy	Health Systems Improvement Act	Long Term Care Redevelopment & Planning	Health Infrastructure Renewal
Health System Performance	Improved and more timely access to post acute care services					✓		✓	
	More timely access to HNHB joint replacement surgery.	✓				✓			✓
	More timely access to HNHB cataract surgery.	✓				✓			✓
	More timely access to MRI and CT scans	✓				✓			✓
	Increased supply of home-based end-of-life care			✓					
	More effective surgical interventions for cancer patients.					✓			

	Identified Need	Provincial							
		Alternative Funding Plans	ED Acess to Drug Histories	Critical Care Strategy	Ontario Stroke Strategy	Ontario Cancer Plan	Ontario Children's Health Network	Mental Health Implementation Task Forces	Role of Small & Rural Hospitals
Pop'n Characteristics & Determ. of Health	Health care services sensitive and responsive to the needs of the elderly.		✓	✓	✓	✓			
	Health services sensitive and responsive to the needs of the HNHB Aboriginal population.								✓
	Access to French language health services for the Francophone populations of the HNHB LHIN area.								
Preventive Care & Lifestyle	Improvement in lifestyles impacting on health. - Smoking - Drinking - Diet				✓				
Population Health Status	Strategies to reduce the prevalence and impact of chronic diseases on the residents of the HNHB LHIN.				✓			✓	
	Improvements in the diagnosis and treatment of cancer	✓				✓			
	Improvements in the diagnosis and treatment of circulatory disease	✓		✓					
	Improvement in pre natal care/ Improvement in maternal and newborn care.						✓		✓
Health Care System Utilization	Safety and accident prevention initiatives								
	Improvement in access to and effectiveness of primary care for people under 55 years old.		✓					✓	✓
	Access to inpatient rehabilitation for HNHB residents.				✓				
	Equitable access to CCC beds across HNHB communities				✓				✓
	Equitable access to LTC home beds across HNHB communities								✓
Health Care System Capacity	Improve occupancy of medical beds in acute care hospitals.	✓	✓		✓	✓			✓
	Reduce risk and improve efficiency in obstetrical care						✓		✓
	Improve access to mental health services.							✓	
	Increase access to MOHLTC funded supportive living services.							✓	
	Improved access to primary care physicians across the communities of the HNHB LHIN								✓
	Ensure adequate future supply and distribution of health care professionals.			✓					

Identified Need		Provincial							
		Alternative Funding Plans	ED Acess to Drug Histories	Critical Care Strategy	Ontario Stroke Strategy	Ontario Cancer Plan	Ontario Children's Health Network	Mental Health Implementation Task Forces	Role of Small & Rural Hospitals
Health System Performance	Improved and more timely access to post acute care services				✓				
	More timely access to HNHB joint replacement surgery.	✓							
	More timely access to HNHB cataract surgery.	✓							
	More timely access to MRI and CT scans	✓			✓	✓			
	Increased supply of home-based end-of-life care					✓			
	More effective surgical interventions for cancer patients.			✓		✓			

	Identified Need	Provincial					
		CCAC Alignment and Funding	Laboratory Reform	Operation Health Protection	Smoke Free Ontario	Newborn Screening/ Child. Immunization	Action Plan for Healthy Eating, Active Living
Pop'n Characteristics & Determ. of Health	Health care services sensitive and responsive to the needs of the elderly.	✓					
	Health services sensitive and responsive to the needs of the HNHB Aboriginal population.			✓		✓	
	Access to French language health services for the Francophone populations of the HNHB LHIN area.						
Preventive Care & Lifestyle	Improvement in lifestyles impacting on health. - Smoking - Drinking - Diet			✓	✓		✓
Population Health Status	Strategies to reduce the prevalence and impact of chronic diseases on the residents of the HNHB LHIN.	✓		✓	✓	✓	
	Improvements in the diagnosis and treatment of cancer		✓				
	Improvements in the diagnosis and treatment of circulatory disease		✓				
	Improvement in pre natal care/ Improvement in maternal and newborn care.			✓		✓	✓
Health Care System Utilization	Safety and accident prevention initiatives			✓			
	Improvement in access to and effectiveness of primary care for people under 55 years old.						
	Access to inpatient rehabilitation for HNHB residents.	✓					
	Equitable access to CCC beds across HNHB communities	✓					
	Equitable access to LTC home beds across HNHB communities	✓					
Health Care System Capacity	Improve occupancy of medical beds in acute care hospitals.	✓					
	Reduce risk and improve efficiency in obstetrical care						
	Improve access to mental health services.						
	Increase access to MOHLTC funded supportive living services.	✓					
	Improved access to primary care physicians across the communities of the HNHB LHIN						
	Ensure adequate future supply and distribution of health care professionals.						

Identified Need		Provincial					
		CCAC Alignment and Funding	Laboratory Reform	Operation Health Protection	Smoke Free Ontario	Newborn Screening/ Child. Immunization	Action Plan for Healthy Eating, Active Living
Health System Performance	Improved and more timely access to post acute care services	✓					
	More timely access to HNHB joint replacement surgery.						
	More timely access to HNHB cataract surgery.						
	More timely access to MRI and CT scans						
	Increased supply of home-based end-of-life care	✓					
	More effective surgical interventions for cancer patients.						

6.2 Needs and Local System Priorities and Initiatives

The exhibits on the following pages show the relationship of the HNHB population's needs for health services with the priorities and initiatives of HNHB organizations and interest groups and the Local Health Integration Network. The check marks in the tables indicate local initiatives that are intended to have an impact on the identified high priority needs for health services.

HNHB LHIN needs for health services for which there are the fewest applicable local initiatives include:

- Reduce risk and improve efficiency in obstetrical care
- Access to French language health services for the Francophone populations of the HNHB LHIN area.
- Improvement in lifestyles impacting on health (i.e., smoking, drinking, diet)
- Equitable access to LTC home beds across HNHB communities
- Increased supply of home-based end-of-life care

	Identified Need	Local								
		FHT Development	Wait Times Steering Committee	Joint Arthroplasty Centre of Excellence	Cataract Surgery Centre of Excellence	DI Coordination and Standards	HHR Forum and Initiatives	Critical Care Implementation	Regioal Lab Steering Group	French Language Support
Pop'n Characteristics & Determ. of Health	Health care services sensitive and responsive to the needs of the elderly.	✓	✓	✓	✓			✓		
	Health services sensitive and responsive to the needs of the HNHB Aboriginal population.	✓								
	Access to French language health services for the Francophone populations of the HNHB LHIN area.	✓								✓
Preventive Care & Lifestyle	Improvement in lifestyles impacting on health. - Smoking - Drinking - Diet	✓								
Population Health Status	Strategies to reduce the prevalence and impact of chronic diseases on the residents of the HNHB LHIN.	✓								
	Improvements in the diagnosis and treatment of cancer	✓	✓			✓			✓	
	Improvements in the diagnosis and treatment of circulatory disease	✓	✓			✓		✓	✓	
	Improvement in pre natal care/ Improvement in maternal and newborn care.	✓								
Health Care System Utilization	Safety and accident prevention initiatives									
	Improvement in access to and effectiveness of primary care for people under 55 years old.	✓					✓			
	Access to inpatient rehabilitation for HNHB residents.									
	Equitable access to CCC beds across HNHB communities									
	Equitable access to LTC home beds across HNHB communities									
Health Care System Capacity	Improve occupancy of medical beds in acute care hospitals.	✓				✓				
	Reduce risk and improve efficiency in obstetrical care									
	Improve access to mental health services.	✓								
	Increase access to MOHLTC funded supportive living services.									
	Improved access to primary care physicians across the communities of the HNHB LHIN	✓					✓			
	Ensure adequate future supply and distribution of health care professionals.		✓				✓	✓		

Identified Need		Local								
		FHT Development	Wait Times Steering Committee	Joint Arthroplasty Centre of Excellence	Cataract Surgery Centre of Excellence	DI Coordination and Standards	HHR Forum and Initiatives	Critical Care Implementation	Regioal Lab Steering Group	French Language Support
Health System Performance	Improved and more timely access to post acute care services									
	More timely access to HNHB joint replacement surgery.		✓	✓						
	More timely access to HNHB cataract surgery.		✓		✓					
	More timely access to MRI and CT scans		✓			✓				
	Increased supply of home-based end-of-life care	✓								
	More effective surgical interventions for cancer patients.							✓		

	Identified Need	Local								
		Aboriginal Community Support	Community Service Collaboration	ABI Service Planning	Niagara Region Transportation Network	Integrated Hospital Leadership	Vascular Surgery Planning	Central South Infection Control Network	CS Mental Health Implementation TF	Mental Health Rights Coalition
Pop'n Characteristics & Determ. of Health	Health care services sensitive and responsive to the needs of the elderly.		✓		✓		✓			
	Health services sensitive and responsive to the needs of the HNHB Aboriginal population.	✓								
	Access to French language health services for the Francophone populations of the HNHB LHIN area.									
Preventive Care & Lifestyle	Improvement in lifestyles impacting on health. - Smoking - Drinking - Diet									
Population Health Status	Strategies to reduce the prevalence and impact of chronic diseases on the residents of the HNHB LHIN.								✓	✓
	Improvements in the diagnosis and treatment of cancer							✓		
	Improvements in the diagnosis and treatment of circulatory disease						✓	✓		
	Improvement in pre natal care/ Improvement in maternal and newborn care.									
Health Care System Utilization	Safety and accident prevention initiatives			✓				✓		
	Improvement in access to and effectiveness of primary care for people under 55 years old.									
	Access to inpatient rehabilitation for HNHB residents.			✓						
	Equitable access to CCC beds across HNHB communities			✓						
	Equitable access to LTC home beds across HNHB communities									
Health Care System Capacity	Improve occupancy of medical beds in acute care hospitals.									
	Reduce risk and improve efficiency in obstetrical care									
	Improve access to mental health services.				✓				✓	✓
	Increase access to MOHLTC funded supportive living services.		✓							
	Improved access to primary care physicians across the communities of the HNHB LHIN									
	Ensure adequate future supply and distribution of health care professionals.									

Identified Need		Local								
		Aboriginal Community Support	Community Service Collaboration	ABI Service Planning	Niagara Region Transportation Network	Integrated Hospital Leadership	Vascular Surgery Planning	Central South Infection Control Network	CS Mental Health Implementation TF	Mental Health Rights Coalition
Health System Performance	Improved and more timely access to post acute care services		✓	✓	✓					
	More timely access to HNHB joint replacement surgery.									
	More timely access to HNHB cataract surgery.									
	More timely access to MRI and CT scans									
	Increased supply of home-based end-of-life care									
	More effective surgical interventions for cancer patients.							✓		

	Identified Need	Local								
		Workplace Injury Collaborative	Child Mental Health Provider Education	Child Rehab Network	Child Health Knowledge Exchange	Electronic Child Health Network	Community Service Care Plans	Concurrent Disorder Treatment Planning	Palliative Care Best Practices	Geriatric Service Collaborative
Pop'n Characteristics & Determ. of Health	Health care services sensitive and responsive to the needs of the elderly.						✓	✓	✓	✓
	Health services sensitive and responsive to the needs of the HNHB Aboriginal population.									
	Access to French language health services for the Francophone populations of the HNHB LHIN area.									
Preventive Care & Lifestyle	Improvement in lifestyles impacting on health. - Smoking - Drinking - Diet									
Population Health Status	Strategies to reduce the prevalence and impact of chronic diseases on the residents of the HNHB LHIN.									
	Improvements in the diagnosis and treatment of cancer									
	Improvements in the diagnosis and treatment of circulatory disease									
	Improvement in pre natal care/ Improvement in maternal and newborn care.				✓	✓				
Health Care System Utilization	Safety and accident prevention initiatives	✓								
	Improvement in access to and effectiveness of primary care for people under 55 years old.		✓		✓	✓				
	Access to inpatient rehabilitation for HNHB residents.			✓						✓
	Equitable access to CCC beds across HNHB communities									✓
	Equitable access to LTC home beds across HNHB communities									✓
Health Care System Capacity	Improve occupancy of medical beds in acute care hospitals.						✓	✓	✓	✓
	Reduce risk and improve efficiency in obstetrical care									
	Improve access to mental health services.		✓				✓	✓		✓
	Increase access to MOHLTC funded supportive living services.									✓
	Improved access to primary care physicians across the communities of the HNHB LHIN									✓
	Ensure adequate future supply and distribution of health care professionals.									

	Identified Need	Local			
		Patient Flow Planning	Chronic Disease Management Strategies	Rationalization of Obstetric Services	eHealth Plan
Pop'n Characteristics & Determ. of Health	Health care services sensitive and responsive to the needs of the elderly.	✓	✓		
	Health services sensitive and responsive to the needs of the HNHB Aboriginal population.		✓	✓	
	Access to French language health services for the Francophone populations of the HNHB LHIN area.				
Preventive Care & Lifestyle	Improvement in lifestyles impacting on health. - Smoking - Drinking - Diet		✓		
Population Health Status	Strategies to reduce the prevalence and impact of chronic diseases on the residents of the HNHB LHIN.		✓		
	Improvements in the diagnosis and treatment of cancer		✓		✓
	Improvements in the diagnosis and treatment of circulatory disease		✓		✓
	Improvement in pre natal care/ Improvement in maternal and newborn care.			✓	
Health Care System Utilization	Safety and accident prevention initiatives				✓
	Improvement in access to and effectiveness of primary care for people under 55 years old.				✓
	Access to inpatient rehabilitation for HNHB residents.	✓			
	Equitable access to CCC beds across HNHB communities	✓			
	Equitable access to LTC home beds across HNHB communities	✓			
Health Care System Capacity	Improve occupancy of medical beds in acute care hospitals.	✓	✓		✓
	Reduce risk and improve efficiency in obstetrical care			✓	
	Improve access to mental health services.	✓	✓		
	Increase access to MOHLTC funded supportive living services.	✓			
	Improved access to primary care physicians across the communities of the HNHB LHIN		✓		
	Ensure adequate future supply and distribution of health care professionals.				

	Identified Need	Local			
		Patient Flow Planning	Chronic Disease Management Strategies	Rationalization of Obstetric Services	eHealth Plan
Health System Performance	Improved and more timely access to post acute care services	✓			✓
	More timely access to HNHB joint replacement surgery.				✓
	More timely access to HNHB cataract surgery.				✓
	More timely access to MRI and CT scans				✓
	Increased supply of home-based end-of-life care				
	More effective surgical interventions for cancer patients.				✓

6.3 Needs and Federal Government Initiatives

The exhibit on the following pages shows the relationship of the HNHB population's needs for health services with the initiatives of the Government of Canada. The check marks in the tables indicate federal initiatives that are intended to have an impact on the identified high priority needs for health services.

For some of the HNHB LHIN needs for health services there are no applicable federal initiatives:

- Access to inpatient rehabilitation for HNHB residents.
- Equitable access to CCC beds across HNHB communities
- Equitable access to LTC home beds across HNHB communities
- Reduce risk and improve efficiency in obstetrical care
- Increase access to MOHLTC funded supportive living services.

	Identified Need	Federal									
		Canada's Drug Strategy	Canadian Diabetes Strategy	Family Violence Initiative	First Nations and Inuit Health	Canadian Healthy Living Strategy	Federal Initiative re: HIV/AIDS	Nursing Strategy for Canada	Population Health Approach	Canada's Sustainable Development Strategy	Federal Tobacco Contol Strategy
Pop'n Characteristics & Determ. of Health	Health care services sensitive and responsive to the needs of the elderly.	✓	✓								
	Health services sensitive and responsive to the needs of the HNHB Aboriginal population.	✓	✓	✓	✓					✓	
	Access to French language health services for the Francophone populations of the HNHB LHIN area.										
Preventive Care & Lifestyle	Improvement in lifestyles impacting on health. - Smoking - Drinking - Diet	✓	✓	✓	✓	✓			✓	✓	✓
Population Health Status	Strategies to reduce the prevalence and impact of chronic diseases on the residents of the HNHB LHIN.		✓		✓		✓		✓	✓	✓
	Improvements in the diagnosis and treatment of cancer										
	Improvements in the diagnosis and treatment of circulatory disease										
	Improvement in pre natal care/ Improvement in maternal and newborn care.	✓									
Health Care System Utilization	Safety and accident prevention initiatives			✓							
	Improvement in access to and effectiveness of primary care for people under 55 years old.				✓						
	Access to inpatient rehabilitation for HNHB residents.										
	Equitable access to CCC beds across HNHB communities										
	Equitable access to LTC home beds across HNHB communities										
Health Care System Capacity	Improve occupancy of medical beds in acute care hospitals.										
	Reduce risk and improve efficiency in obstetrical care										
	Improve access to mental health services.	✓									
	Increase access to MOHLTC funded supportive living services.										
	Improved access to primary care physicians across the communities of the HNHB LHIN										
	Ensure adequate future supply and distribution of health care professionals.		✓		✓			✓			

Identified Need		Federal									
		Canada's Drug Strategy	Canadian Diabetes Strategy	Family Violence Initiative	First Nations and Inuit Health	Canadian Healthy Living Strategy	Federal Initiative re: HIV/AIDS	Nursing Strategy for Canada	Population Health Approach	Canada's Sustainable Development Strategy	Federal Tobacco Contol Strategy
Health System Performance	Improved and more timely access to post acute care services										
	More timely access to HNHB joint replacement surgery.										
	More timely access to HNHB cataract surgery.										
	More timely access to MRI and CT scans										
	Increased supply of home-based end-of-life care										
	More effective surgical interventions for cancer patients.										

	Identified Need	Federal								
		eHealth	Health Human Resources Strategy	National Pharmaceutical Strategy	Primary Care Renewal	Home Care for Canadians	Diagnostic & Medical Equipment Fund	Wait Times Reduction Strategy	Canadian Patient Safety Institute	Strategy for Cancer Control
Pop'n Characteristics & Determ. of Health	Health care services sensitive and responsive to the needs of the elderly.			✓	✓	✓		✓	✓	
	Health services sensitive and responsive to the needs of the HNHB Aboriginal population.				✓					
	Access to French language health services for the Francophone populations of the HNHB LHIN area.		✓							
Preventive Care & Lifestyle	Improvement in lifestyles impacting on health. - Smoking - Drinking - Diet				✓					✓
Population Health Status	Strategies to reduce the prevalence and impact of chronic diseases on the residents of the HNHB LHIN.				✓	✓				✓
	Improvements in the diagnosis and treatment of cancer	✓			✓			✓		✓
	Improvements in the diagnosis and treatment of circulatory disease	✓			✓		✓	✓		
	Improvement in pre natal care/ Improvement in maternal and newborn care.				✓		✓			
Health Care System Utilization	Safety and accident prevention initiatives	✓							✓	
	Improvement in access to and effectiveness of primary care for people under 55 years old.	✓	✓		✓					
	Access to inpatient rehabilitation for HNHB residents.									
	Equitable access to CCC beds across HNHB communities									
	Equitable access to LTC home beds across HNHB communities									
Health Care System Capacity	Improve occupancy of medical beds in acute care hospitals.	✓			✓	✓				
	Reduce risk and improve efficiency in obstetrical care									
	Improve access to mental health services.		✓		✓	✓				
	Increase access to MOHLTC funded supportive living services.									
	Improved access to primary care physicians across the communities of the HNHB LHIN		✓		✓					
	Ensure adequate future supply and distribution of health care professionals.		✓		✓			✓		

	Identified Need	Federal								
		eHealth	Health Human Resources Strategy	National Pharmaceutical Strategy	Primary Care Renewal	Home Care for Canadians	Diagnostic & Medical Equipment Fund	Wait Times Reduction Strategy	Canadian Patient Safety Institute	Strategy for Cancer Control
Health System Performance	Improved and more timely access to post acute care services	✓				✓				
	More timely access to HNHB joint replacement surgery.	✓						✓		
	More timely access to HNHB cataract surgery.	✓						✓		
	More timely access to MRI and CT scans	✓					✓	✓		
	Increased supply of home-based end-of-life care				✓	✓				✓
	More effective surgical interventions for cancer patients.	✓								✓

7.0 Advice on Health System Improvements from External Stakeholder Session

The environmental scan, inventory of initiatives, and the comparison of HNHB health service needs with the local, provincial, and federal initiatives, was presented at an external stakeholder session. Copies of the draft environmental scan and an overview document suggesting high priority local initiatives were distributed to all participants in advance of the facilitated session. Section 7.0 of this report documents the reaction and advice of the external stakeholders at the session.

7.1 External Stakeholder Group

As a step in completion of the environmental scan, the LHIN sought input from community stakeholders on what priority areas will most benefit the health of the communities within the HNHB LHIN and what resources can be leveraged to support planning, coordination and implementation.

March 9, 2007 Workshop Session

A workshop session was held on Friday March 9th, in Grimsby, where diverse community leaders from among health and health care, and related human services agencies were brought together to consider the findings of the environmental scan. Participants were asked to offer advice on the priorities from their perspective, based in part on the readiness of communities, the imperative for change and the available and required resources.

Participating Community Representatives

The following community representatives participated in the workshop session:

- Chrisse Allan, Board of Directors St. Catharines/Thorold Chamber of Commerce
- Angela Arsenio, AIDS Niagara Young Carers
- Carolee Bailey, Canadian Federation of University Women, Burlington Chapter
- John Bradford, Councillor, City of Brantford
- Dr. Andrea Feller, Associate Medical Officer of Health, Regional Niagara Public Health Department
- Juanita Gledhill, Chair, Board of Directors, Hamilton Niagara Haldimand Brant Local Health Integration Network

- Teresa Hartnett, Office for Family Ministry, Roman Catholic Diocese of Hamilton
- Brenda Herchmer, Manager, Niagara College Centre for Community Leadership
- Larry Horwood, Past Chair, CCAC Haldimand Norfolk
- Beverly Moore, Director, Salvation Army Family Services Dunnville

LHIN Staff The following LHIN staff were present and participated in group discussions:

- Marion Emo, Senior Director, Planning, Integration and Community Engagement
- Alan Iskiw, Senior Director- Performance, Contract and Allocation
- Dianne Renton, Senior Consultant Community Engagement and Communications
- Lianna Paron, Community Engagement Consultant

The session was facilitated by Mark Hundert and Chris Helyar, consultants with Hay Group Health Care Consulting who have also, along with Kelly Jennings of the Hay Group, been responsible for preparation of the environmental scan documents.

7.2 Health Service Needs

The workshop participants reviewed a listing of 24 health and health service needs (presented in section 4.0 of this report), which were identified based on an analysis of available quantitative information. Needs were identified as a priority for action if the situation in HNHB is significantly different from other LHINs in province.

7.2.1 Review of Health Service Needs

Participants were asked whether the identified needs based on quantitative data reflected their understanding of priority needs in the HNHB LHIN and in the community with which they were most familiar. They were also asked to identify additional needs that might not be identifiable through quantitative analysis.

Comments and feedback from the participants included:

Importance of Qualitative Input

- It is important to remember that any quantitative analysis of need will always be based on historical data. The HNHB LHIN should ensure that it seeks out and is sensitive to qualitative measures of need and stakeholder perceptions, rather than simply waiting for quantitative evidence of needs for health service.

New Immigrants, with Health Service Needs, May Be Under-Reported in Border Communities

- There are large numbers of newcomers to the Niagara area who are not officially counted in the population statistics. Quantitative analyses of need for the residents of these border communities may under-estimate the true requirements for health services.

Many Identified Needs Are Also for Social Services

- Many of the identified needs for health services are primarily or partially also needs for social services, particularly those needs that are related to the broader determinants of health, such as socio-economic status, literacy, education, and communications.

Impacts of Environmental Issues on Health

- The potential impacts of environmental issues on health must be recognized. For example, the presence of brownfield sites within the HNHB LHIN may pose a direct health risk to residents and hinder the development of health and sustainable communities.

Important to Recognize Variations Across HNHB LHIN Communities

- It will be important for the HNHB LHIN to recognize differences in needs within the communities in the LHIN. There are large variations in demographics and socio-economic characteristics across the communities in the LHIN, and corresponding variations in health status and health service needs.

Impacts of Migration of Populations to Access Health Services

- There may be instances where the presence of a health or social service provider in a community will act as a "magnet" for individuals or families with needs for the services available from that provider. An example would be the historical migration of individuals with needs for mental health care services to the neighbourhoods located close to provincial psychiatric hospitals. People may move to access specialized services, but find that they cannot access more basic health care services (such as primary care).

  When people are forced to move, they lose access to the supports in their community. The focus should be on helping them avoid moving by helping them with transportation to and from the specialized service provider.

Recent Additional Supportive Housing Units

- There have been some recent steps taken to respond to the identified needs for assisted living support. For example,

supportive housing units are now being introduced in Brantford.

Chronic Disease Management

- Chronic disease management will be increasingly important as a strategy to respond to, and reduce, the needs of the HNHB population for health care services. With the aging of the population, many patients who are discharged after an acute care hospital episode will have needs for ongoing care and support to address their chronic conditions.

Patient Flow to LTC

- High numbers of alternate level of care (ALC) days are evidence of barriers to patient flow from acute care hospitals to post-acute care, such as supportive housing, home care, rehabilitation, or long-term care. Some community support service agencies and long-term care facilities may not have the resources or staff they would need to have in order to care for the more complex patients. Patients should be able to access long-term care beds in their own community, rather than being forced to move away from family and friends.

Health Care Human Resource Limitations

- Lack of availability of staff in many health care disciplines is an impediment to ensuring that provincial wait time and access targets can be met.

7.2.2 Needs Missing from Environmental Scan

The two areas of high needs that were identified as being missing or inadequately emphasized in the environmental scan were:

High Needs of HNHB LHIN Adolescent Population

- The adolescent population within the HNHB LHIN should be identified as a high need group, as evidenced by the high rates of STDs and adolescent pregnancies within the LHIN communities, particularly in Hamilton (although this information was not revealed in the datasets used for the preliminary analysis).

Inadequate Supply of Community Mental Health Services

- While the quantitative analyses at this point did not assess the adequacy of community mental health services in the HNHB LHIN, the advice of the external stakeholders was that it is not sufficient to meet the needs of the population.

7.2.3 High Priority Health Service Needs

After the group review of the identified health service needs, the workshop participants were asked to select those needs that they considered to be the highest priorities for the HNHB LHIN.

Many Identified Health Service Needs May Be Symptoms of Root Causes Related To the Broader Determinants of Health

The participants cautioned the HNHB LHIN that many of the identified health service needs may be symptoms of root causes related to the broader determinants of health. While there may be initiatives related to changes in the health care delivery system to better respond to population needs for care, there should also be initiatives that will focus on improving the population health status and reducing the need for care.

A focus on improving population health status and the broader determinants of health would involve:

Support for Range of Community Services

- Helping people connect and be actively engaged in their communities. Linking with the non-profit, voluntary sector (health care, social services, seniors, multicultural, recreation, etc.) and promoting integration of services beyond health services should be a goal of the LHIN. As an example, these cross sector linkages could help address the needs of the large number of seniors living alone. Enhanced transportation services would also allow people to access services without having to move away from their home communities.

Promotion of Active Living and Life Skills Development

- Promotion of active living at all ages. While the school system will play an important role, communities and parents also have to be engaged and assume responsibilities in this area. Educational initiatives should include knowledge of community supports and life skills development.

Impact of Determinants of Health on Chronic Disease

- Understanding the impact of factors such as poverty, education, and the environment on the high levels of chronic disease in the HNHB LHIN.

Other high priority needs related to health service delivery included:

Coordination of Health Services, Particularly for Elderly

- Coordination of health service providers to better support movement of patients (and particularly elderly patients) along a continuum of care. The high number of elderly patients waiting in hospital as ALC is evidence that there is need for a greater emphasis on assisting patients to move from acute care to post-acute services.

Mental Health Services

- The capacity, distribution, and access to mental health services within the LHIN.

Primary Health Care

- Availability and access to primary care (but not exclusively or necessarily primary care physicians or nurses). The LHIN should support changes in roles in the primary care system and establishment of a team-based, multi-disciplinary approach to primary care.

Health Services for Immigrants

- Provision of health services that are culturally sensitive and responsive to the needs of new immigrants.

7.3 Local Health System Initiatives and Strategies

7.3.1 High Priority Initiatives

The workshop participants reviewed the inventory of local health system initiatives and previously identified integration priorities (listed in section 5.2 of this report) and identified those that they believe should be the highest priority. The highest priority initiatives were:

Family Health Team Development

- Family Health Team Development – FHT development was emphasized by all participants as a critical initiative. The changing nature of physician expectations and roles makes support for primary care teams whereby patients can be assured of expanded access to care without relying on an overburdened family practitioner in a solo practice, a priority. The LHIN can help with identifying and promoting understanding of population health requirements, and involving and linking FHTs and other health professionals to address population needs.

Community Service Collaboration

- Community Service Collaboration – There are not enough collaborative initiatives within the region. People need to know what is available, and from whom, and how clear and coordinated processes will improve the experience of clients and patients moving among services.

Child Health Knowledge Exchange

- Child Health Knowledge Exchange – Ensuring that the best possible care is provided to all of the children across the LHIN should be a priority.

Community Service Care Plans

- Community Service Care Plans – Development of care plans to help coordinate access to services and patient flow across providers is important. Standardized approaches for the entire LHIN can help reduce disparities between communities.

Geriatric Service Collaborative

- Geriatric Service Collaborative – Important to respond to the current and future demographics of the region, and to help address issues such as ensuring that people get the right care in the right place (.e.g., eliminate the need for patients to remain in hospital unnecessarily).

Child Mental Health Provider Education

- Child Mental Health Provider Education – There are long waits for access to children's mental health services, and because of shortages of providers the length of time a child can access the services may be limited. Providing

education to community agency staff will allow more services to be delivered locally.

Child Rehab Network

- Child Rehab Network – While the focus of rehabilitation programs has historically been on adults (particularly seniors), investments in child rehabilitation can improve the health status and quality of life of this vulnerable population.

Niagara Region Transportation Initiatives

- Niagara Region Transportation Network – Availability of transportation services will be key to ensuring access to services for the populations in the more rural communities, particularly in Haldimand-Norfolk.

Other initiatives identified as very high priority by most (but not all) of the participants included:

Other High Priority Initiatives

- Health Promotion - Health Promotion is a strategy for improving the health of the population by providing individuals, groups and communities with the tools to make informed decisions about their well-being. The HNHB LHIN should partner with the Ministry of Health Promotion to support a healthy and active HNHB population.
- Critical Care Implementation – This initiative includes implementation of performance improvement coaching teams for critical care units in several LHIN hospital sites, and the critical care response team demonstration project, designed to enhance staff collaboration and information sharing.
- Promotion of a Holistic and Client-Centred Philosophy - Client-centred care focuses on the client as the expert in his or her own care and also as the best person to define health and outcomes. Its goal is to provide the client with the most current information to assist them in making informed decisions about their care.
- Linkage with Non-Profit Community Organizations – The LHIN can link the broader non-profit community organizations with health care providers for collaborative solution building.

While chronic disease management was not explicitly identified as one of the highest priority initiatives, the emphasis on health promotion and enhanced primary care through family health team development was consistent with key elements of chronic disease management strategies.

7.3.2 Other Advice

The workshop participants offered advice to the HNHB LHIN with respect to its short term activities and approach to its role. This advice included:

- The LHIN should select a small number of achievable initiatives and focus on them. Success in completing such tasks, and publicizing the success, will help the public understand and accept the role of the LHIN.
- There is scepticism among front line workers who feel that they are struggling and unable to meet the health care needs of the population. These workers are concerned that money that would otherwise be available to support direct care will be spent on the LHINs. The LHIN will need to demonstrate the benefit of enhanced coordination of services and reinforce its goal of improving the health status and health care for the HNHB population.
- If the LHIN was to focus on a single initiative, it should be to promote shared processes and structures among health care and community services, and shared accountability for shared clients and patients. The HNHB LHIN can be a vehicle to expand system thinking not just to the wider geographic region, but also to all of the sectors that influence the health status of the population.
- The priorities for health services should be disease prevention, primary care, and continuity of care.

7.4 Next Steps

At the conclusion of the workshop the LHIN staff described the directions highlighted in the first HNHB LHIN Integrated Health Services Plan (IHSP) and the current activities of the LHIN. These activities include:

- Establishment of a maternal newborn planning process to address issues related to access to maternity care close to home
- The chronic disease management (CDM) roundtable in February, with Jim Wilson, Minister of Health Promotion, and development of a coordinated approach to CDM
- Working with health service providers to improve patient flow
- Working on wait time strategies (as mandated by the Ontario MOHLTC)

The HNHB LHIN has demonstrated its willingness to work with partners outside the official set of providers for which it is responsible, such as primary care providers. The LHIN has met with municipalities, the Ministry of Community and Social Services, discretionary funders, etc. During its first round of consultations, the LHIN chose to have sessions co-sponsored by non-health service providers.

The HNHB LHIN Board Chair thanked the workshop attendees for their participation, and emphasized the importance of their input to the LHIN as it refines the Environmental Scan report and moves forward with priorization of initiatives and strategies for the next fiscal year.