As we began to gather data for our Community Health Assessment report, we realized we were in the midst of building a powerful document that reflects the health of the people in our region. Similar to a construction project, we needed plans to keep us on track. We’ve used the provincial Community Health Assessment reporting framework as the architectural plan to build this house.

Chapter 1 – This is community where the house is located. There is information about the people and the land in our region.
Chapter 2 – This is the foundation of the house. There is information about the factors or conditions that determine whether people are healthy.
Chapter 3 – This is about the physical structure (walls) of the house. There is information about the structure of the health care system.
Chapter 4 – This is about the windows and doors, the functioning parts, of the house. There is information about the performance of the health care system.
Chapter 5 – This is the roof of the house. There is information about health status, the overall picture of the health of the population. The community, the health determinants, the infrastructure and the health system performance support the health of the people.
Chapter 6 – This is the voice of the people in the rural communities. There is information about the Rural Municipalities of Cornwallis, Elton and Whitehead.
Chapter 7 – This is about the activities inside the house. There is information about new initiatives and programs that the Brandon RHA has recently implemented.

Come for a tour of our house!
We wish to thank the 2004 Community Health Assessment Team for their efforts in building this planning tool for the Brandon Regional Health Authority. Members of the team include:

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Brandon Regional Health Authority
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Executive Summary

A community health assessment describes how healthy we are and helps to determine what is working well and what is not. Assessing community health is an essential part of health planning within the region. It is an on-going process to identify the strengths and needs of a region.

Community Health Assessments were legislated by the provincial government with the creation of the Regional Health Authorities (RHAs) in Manitoba. The Regional Health Authorities Act states that, “a regional health authority shall assess health needs in the health region on an ongoing basis.” The findings from the comprehensive health assessment process provide the foundation for evidence-based decision-making by helping each RHA to identify priority issues and strategies for action.

Process and methods

The first comprehensive Community Health Assessments (CHA) in Manitoba were completed in 1997/98. Planning for the second CHA began in May 2001 using Manitoba Health’s Performance Measurement Framework as a basis for the process. Key individuals within each RHA led the CHA process. These individuals also represented their RHA on a provincial working group known as the Community Health Assessment Network (CHAN) that included representatives from CancerCare Manitoba and Manitoba Health. The first task of the CHAN group was to agree upon a set of indicators for reporting purposes. A small sub-group, known as the Working Indicator Group, was formed to create a set of indicators that would reflect the Performance Measurement Framework. This working group included representatives from three RHAs (Brandon, Interlake and Winnipeg) and Manitoba Health. A total of 170 core indicators were agreed upon using the selection criteria that were established. A Community Consultation Working Group was established in April 2002 to support the RHAs with community consultation processes. Activities included a comprehensive literature review, a review of RHAs past experiences and recommendations for appropriate consultation processes and a skills building workshop for CHAN members.

Information was gathered from many sources. Manitoba Health developed a regional profile document, a collection of data from the 170 core indicators. We also gathered information from traditional databases including Statistics Canada, the Manitoba Centre for Health Policy, the Brandon Regional Health Authority and local agencies. We used three methods to hear directly from people in the region. These methods included a telephone survey, an in-home survey and personal interviews.
A telephone survey was conducted in the fall of 2003 by a contracted agency. The purpose of this survey was to explore public perceptions in three key areas: health system performance, quality of life and safety/injury prevention. Four hundred residents from the Brandon region were surveyed.

The Kitchen Table Chats involved in-home surveys with individuals living in the central area of Brandon. This information-gathering project was a partnership between the Brandon Regional Health Authority and the Neighbourhood Renewal Corporation (NRC). The mission of the NRC is to improve the quality of life for folks living in the core area of Brandon. Both the NRC and the Brandon RHA were interested in learning more about the underserved populations living in the heart of Brandon – traditionally, the silent population. In particular, the populations of interest were new immigrants, First Nations and Metis, families living in poverty and the elderly.

A survey tool was developed using health determinants – the factors that influence peoples’ health – as a guide. Twelve individuals from the community were hired as interviewers for the project. Using a database from the City of Brandon, residential addresses were randomly selected to provide a cross-representation of the area. A total of 209 individuals completed the survey.

Key informant interviews were done in the three surrounding municipalities of Cornwallis, Elton and Whitehead. The intent of these interviews was to gather different perspectives about the rural experience by meeting with key representatives from the community. The interview guide consisted of open-ended questions addressing three key areas: primary issues or concerns in the community, components that are working well and factors that require attention. Reeves, school principals, pastoral care staff and one Hutterite Colony participated in the survey.

Format

This report is designed for use by a broad range of individuals, agencies and organizations. The report highlights the importance of gathering information that will illustrate the norms and differences and, most importantly, the reasons for the differences wherever possible. The report begins with an introduction to the community health assessment process and an overview of the Brandon region. The information is presented in next seven chapters. They include:

Chapter 1  Community and client characteristics – provides information about the demographic and geographic characteristics of the region.

Chapter 2  Health determinants – addresses the key determinants of health including income, education, employment and working conditions, healthy child development, personal health practices, social support networks, physical environment and health services. Gender analysis is provided wherever possible.
Chapter 3  Health system infrastructure – provides information about finances and human resources as the basic framework of the RHA.

Chapter 4  Health system performance – provides detailed information about responsiveness, system competency, our relationship with clients/community and work life.

Chapter 5  Health status – focuses on the overall health of the population or sub-groups of the population. This section includes information about mortality (death), morbidity (sickness) and well-being.

Chapter 6  Voices of the rural community – provides a summary of the key informant interviews with representatives from the rural municipalities in the Brandon region.

Chapter 7  How does the Brandon Regional Health Authority respond to evidence? – highlights a number of new initiatives within the region.

Findings

Community and client characteristics

The people

In 2001/02, the population of the Brandon region was 47,652, which is 4.1% of the total population of Manitoba. Between 1996 and 2001, there is an overall growth of 3.9% in the region. It is interesting to note that an increase in the population is observed in the City of Brandon whereas the population in the rural municipalities has declined in the same time period. The RM of Cornwallis has experienced the most significant decline in population.

Almost one-quarter of the Aboriginal population (22.6%) in the Brandon region is in the 5 to 14 years age grouping in comparison to 14.3% of the non-Aboriginal population.

The land

Significant portions of people, who work in the Brandon region, commute from smaller/rural communities

Health determinants

Income

The local agricultural community has recently experienced two devastating events. The discovery of a case of bovine spongiform encephalopathy (BSE) in Alberta in May 2003 has crippled local beef producers and businesses that are heavily dependent on the beef industry. As well, Wyeth Canada has cancelled numerous contracts with producers involved in the collection of pregnant mares’ urine (PMU) because of changes in market demand for post-menopausal hormone therapy and a shift towards lower doses of hormone therapy.
**Education**

Despite the higher level of education in the region, the literacy assessment of the Kitchen Table Chat survey revealed 12% of the individuals scored lower than their education level indicated. Planners may want to consider a literacy assessment of the people who access programs and services of the RHA to better understand this issue.

**Employment and working conditions**

There is a higher percentage of people in the labour force in the Brandon region than Manitobans overall. However, just over half of the Kitchen Table Chats survey respondents (51.4%) said they are working and 69.3% of the people are employed in a full time capacity.

**Healthy child development**

There was a significant increase in Brandon’s birth rate in 2001/02. This is likely related to the changes in federal legislation (Bill C-32) that resulted in extended maternity and parental benefits.

**Personal health practices**

New generation antidepressant medications and stressful life conditions have resulted in a dramatic increase in the use of antidepressants in the region.

**Social support networks**

Whether people have someone to talk with when they’re feeling anxious or upset seems to vary in the region. Slightly more than half of the individuals who participated in a telephone survey say they have someone to talk with. On the other hand, the vast majority of individuals who participated in the Kitchen Table Chat survey had contact with their closest friend in the past two weeks.

**Physical environment**

More than half of the people surveyed in the Kitchen Table Chats have been living in their home for two or more years.

**Health services**

Significant portions of people who access walk-in clinics go to see their family physician.

More than half of the people aged 65 years and older would prefer to die in the hospital than at home.
Health system infrastructure

Finances

Brandon Regional Health Authority spends more proportionally on acute care costs than any of the other regions. This is influenced by the fact that Brandon Regional Health Centre is the third largest health care facility within the province, serving as a regional referral centre for a broad geographical boundary encompassing over 180,000 people.

Human resources

Approximately 84% of the staff within the Brandon RHA is female and the majority of all staff (34%) is in the age range of 41 to 50 years. Over half (55%) are in the combined age ranges of 41-60.

Health system performance

Responsiveness

Almost 50% of our hospital admissions are from outside the region.

Most Brandon residents are able to access primary physician services within the region. As well, a high percentage of Brandon residents are able to access specialty services within the region. Most residents attend a physician visit at least once per year.

System competency

Brandon’s number one cause of death is cardiovascular disease. Cardiac catheterization is a diagnostic procedure for identifying the exact location and severity of coronary artery disease. Those facts taken into consideration, it is interesting to note that Brandon has a significantly lower rate for cardiac catheterizations than the province. Although numbers have increased over time, they remain significantly lower than the province. In fact, Brandon’s rate of cardiac catheterization is lower than all of the other regions with the exception of Marquette and South Westman.

Client/community focus

Brandon RHA promotes a client and community focus through:

- open communication, both internally and externally;
- promoting confidentiality;
- partnering with the community;
- promoting respect and caring;
- and showing organizational responsibility.
Worklife

Brandon RHA has shown leadership in promoting environmental concerns through a premier recycling program and through award winning energy conservation measures.

Health status

Mortality

Diseases of the circulatory system and cancer are the two disease categories that are the main causes of deaths in our region. Brandon has a high rate of hospitalization for heart attack, higher than the province as a whole.

Morbidity

Diabetes incidence is increasing. This could be due to a number of factors including improved screening as recommended in the Canadian clinical practice guidelines (1998, revised in 2003); an influx of new physicians; or, simply that causative factors such obesity and an aging population are increasing. Although diabetes is not one of the five top causes of death, it is interesting to note that studies show that diabetes influences about five times as many deaths as those that are directly attributed to diabetes. Diabetes is worsening across the province and Brandon region is no exception.

Well-being

Overall, it is positive to note that of those who responded to the Acumen research within our region, the majority feel that their health was good to excellent (85%).

Rural community

Issues or concerns

Five key issues:
- economic stress
- emergency services
- proximity to Brandon and area
- water and sewage
- relationship between RMs and Health and education sectors

How the RHA responds to evidence

The Brandon Regional Health Authority has implemented 23 major initiatives since the last Community Health Assessment in 1997/98.
In conclusion, the purpose of this report is to support evidence-based planning processes within the Brandon Regional Health Authority. Specifically, the report will be useful for assessing health needs and capacities of community residents, monitoring health status and evaluating health-related programs and services. An accurate analysis of available data combined with a firm understanding of the lived experiences of people in the region will result in informed health planning processes.

Ordering information
If you wish to receive a copy of this report, contact us at:

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Planning and Evaluation
150A 7th Street
Brandon, Manitoba
R7A 7M2

Telephone:  (204) 571 - 8455
Fax:          (204) 726 - 8505
Introduction

What is a Community Health Assessment?

A community health assessment describes how healthy we are and helps to determine what is working well and what is not. The Brandon Regional Health Authority (Brandon RHA) has been delegated sole authority by the Minister of Health for the publicly funded health services and programs that are available in the Brandon Region. Assessing community health is an essential part of health planning within the region. It is an on-going process to identify the strengths and needs of a region.

Community refers to all residents who live within the area served by the Brandon Regional Health Authority.

Health describes how an individual perceives his or her own health. Health is not limited to physical health, but includes many other factors such as mental well-being, social support, finances, safety, income, education, environment, personal health practices, and health services. Health is not one organization’s responsibility; it is the responsibility of individuals and the community as a whole.

Assessment is putting together all the information collected, including information received from community consultations and analyzing the information to determine needs and priorities that are specific to the Brandon region.

Where did the information come from?

Information was collected from many sources. We gathered information from traditional databases including Manitoba Health, Statistics Canada and the Manitoba Centre for Health Policy. We also used three methods to hear directly from people in the region. These methods included a telephone survey, an in-home survey and personal interviews.

A telephone survey was conducted in the fall of 2003 by a contracted agency (Acumen Research). The purpose of this survey was to explore public perceptions in three key areas: health system performance, quality of life and safety/injury prevention. The survey included a mix of questions that were pre-validated from other surveys and suggested questions or submitted questions that were reviewed by qualified experts. Four hundred residents from the Brandon region were surveyed. The research used random digit dialing which assured access to unlisted numbers and recently connected phones. When someone refused a survey, another person was called through the random digit dialing until the 400 surveys were completed.
Four hundred surveys represent approximately 10.8% of the population of the geographic area of the Brandon RHA (Regional Health Authority Manitoba Community Health Survey 2003 – Brandon, 2004).

The Kitchen Table Chats involved in-home surveys with individuals living in the central area of Brandon. The geographical boundaries for this survey were the Assiniboine River to the north, Park Avenue to the south, 24th Street to the west and Franklin Street to the east. This information-gathering project was a partnership between the Brandon Regional Health Authority and the Neighbourhood Renewal Corporation (NRC). The mission of the NRC is to improve the quality of life for folks living in the core area of Brandon. Both the NRC and the Brandon RHA were interested in learning more about the underserved populations living in the heart of Brandon – traditionally, the silent population. In particular, the populations of interest are new immigrants, First Nations and Metis, families living in poverty and the elderly.

A survey tool was developed using health determinants – the factors that influence peoples’ health – as a guide. Twelve individuals from the community were hired as interviewers for the project. Using a database from the City of Brandon, residential addresses were randomly selected to provide a cross-representation of the area. A total of 209 individuals completed the survey and the age of respondents ranged from 15 to 91 years. The majority of people identified their ethnic background as Canadian and 10% identified as First Nations. A total of 68.4% of the respondents were female and 31.6% were male. A few individuals (2.9%) were new to Canada within the past year and 12.0% were new to Brandon within the past year. The information from the household surveys is reported by specific topic area throughout this report.

Key informant interviews were done in the three surrounding municipalities of Cornwallis, Elton and Whitehead. The intent of these interviews was to gather different perspectives about the rural experience by meeting with key representatives from the community. Reeves, school principals, pastoral care staff and one Hutterite Colony participated in the survey. The interview guide consisted of open-ended questions addressing three key areas: primary issues or concerns in the community, components that are working well and factors that require attention. The findings from these interviews are found in Chapter Six of this report.

What area is served by the Brandon Regional Health Authority?

The Brandon Regional Health Authority was incorporated in January 1997 and it became operational in April 1998. The RHA includes the City of Brandon and the three surrounding rural municipalities (RM). The three municipalities include Cornwallis, Elton and Whitehead. The RM of Whitehead was legally incorporated into the Brandon Regional Health Authority on April 1st, 1998.
City of Brandon

Brandon is the second largest city in Manitoba covering an area of approximately 67 square kilometres. It is located on the Trans-Canada Highway 200 km west of Winnipeg and 100 km north of the United States border. A Dangerous Goods Route and a transportation management program are in place that is designed to limit truck traffic within the city. Both national railways run through the city in an east/west direction.

Canadian Pacific (CP) has a substantial railway yard within the city. An airport is located to the north of the Trans Canada Highway. Brandon is built along the Assiniboine River valley with most of the development to the south side of the river and above the flood plain. The elevation ranges from a low of 1180 feet in the river valley to a high of 1320 feet in the southwest corner of the City. A portion of the flood plain is located within a dike that provides a certain degree of protection against floods. Past flooding has meant that the river valley is now relatively undeveloped, although some residential areas and businesses are located in the valley and are protected by the dike.

Brandon is in the centre of a large and varied agricultural land use area surrounded by the Rural Municipalities of Cornwallis, Elton and Whitehead, which include three smaller communities. Brandon’s central business district was formed along the CP rail line. A shopping mall, the Town Centre, is central to the retail sector in downtown Brandon. Brandon University is to the west of the central business district, the Brandon Regional Health Centre and the Assiniboine Community College are to the east; City Hall and the Provincial Building are to the south. Another major area is approximately 3 km south west of the central business district. This includes the Keystone Centre, which is an agricultural and recreation complex, the Shoppers Mall Brandon, and a four-block strip of small and large retail businesses and malls. New residential development has largely occurred in the west and the northern areas of the city. Brandon’s twenty public schools are located throughout the city; three other public schools are located at Canadian Forces Base (CFB) Shilo and the Rural Municipality (RM) of Whitehead that are part of the Brandon School Division. There are two public schools in the community of Forrest in the RM of Elton north of Brandon that are part of the Rolling River School Division. One private faith-based school is located on the southern side of the city of Brandon.

The eastern part of the city has seen recent industrial expansion with Simplot Canada Limited substantially upgrading its manufacturing capacity for chemical fertilizers, and Maple Leaf Pork establishing a large hog slaughter operation. Western Cooperative Fertilizers also recently expanded their capacity to store anhydrous ammonia. Nexen Chemicals Canada Limited Partnership is in the process of expanding their facility that will make it the number one sodium chlorate producer in the world. Manitoba Hydro is also in the midst of installing a natural gas fired thermal generating station in addition to the present coal burning facility. Univar, a chemical warehouse business, has recently completed construction of a storage facility in Brandon. The major industrial park is located in the southeast corner of the city. Other smaller light industrial operations are
located along the Canadian National (CN) and CP rail lines throughout the city.

Key facilities in the north part of the city include the Canada Games Sportsplex and the Riverbank Discovery Centre. This area has had some light residential developments along the river and on the top of the North Hill. A new light industrial area is also being developed in the vicinity of the airport. Retail, hotel and service development has continued along the Trans Canada Highway that is north of the city.

Brandon is currently experiencing dramatic growth and development in terms of industry, business and related services. As a result, access to affordable housing is a paramount issue for newcomers. The Neighbourhood Renewal Corporation, Province of Manitoba and the City of Brandon are working in partnership to develop sustainable housing initiatives.

The Brandon Regional Health Authority (Brandon RHA) provides services in a variety of settings. A regional referral acute care centre, personal care homes and a diverse mixture of health care professionals in the community provide a wide range of services for Brandon and the Westman region. The Brandon Regional Health Centre, built in 1962, has recently undergone major expansion and is the largest provider of facility-based health care services outside the City of Winnipeg. It serves residents of southwestern and central Manitoba and to southeastern Saskatchewan as well as Parkland region for some specialty services. Physician services are available through group and independent practices, as well as walk-in clinics.

Brandon has its own municipal police, fire and ambulance services along with two post-secondary institutions: Brandon University and Assiniboine Community College.

Diverse recreational facilities and churches appeal to a wide variety of needs and interests. There is a high level of volunteerism in Westman that has drawn world-class events such as the Canada Summer Games, national and world curling events, World Youth Baseball and the Skate Canada Synchronized Championship to the area. As well, the 2006 Special Olympics National Summer Games were recently awarded to Brandon. Summer recreation includes soccer, rugby, baseball, swimming, field hockey and camping. Winter recreation includes hockey, ringette, basketball, and volleyball. There is a network of bicycle/walking paths that connect the City of Brandon and provide for year round transportation.

Brandon has one of the strongest smoking bylaws in the nation and the City recently received a special award from the Canadian Medical Association for their actions toward healthy public policy.
RM of Cornwallis

Characterized by rolling fertile farmlands and the Assiniboine River that flows through the municipality, the RM of Cornwallis also features the Blue Hills of Brandon to the south and Sprucewoods Provincial Forest to the east. CFB Shilo forms a prominent part of the eastern border. The municipality is easily accessible by the Trans Canada Highway and Provincial Trunk Highway 10.

With a population of approximately 3,800, the RM of Cornwallis features several smaller communities including Brandon Hills, Little Souris, Grand Valley, Chater, Cottonwoods and Sprucewoods. Spring Valley Hutterite colony is also located in the municipality. The major economic impetus is agriculture. Most residents employed in the RM of Cornwallis are either employed in farming or in agricultural businesses and services. The municipality’s largest employer is at the CFB Shilo. The Canadian Forces Base employs approximately 114 local residents as civilians in various functions.

RM of Elton

The RM of Elton is predominantly an agricultural area situated north of Brandon. With a population of approximately 1,300, the municipality has been home to families for generations with many resident families being descendents of original pioneers and owners of Century farms. The village of Forrest is the major community in the municipality and it is home to two schools that are part of the Rolling River School Division. The Hillside Hutterite colony is also located in the municipality. The Trans Canada Pipeline and CN rail line run through the municipality and one newly constructed major grain terminal, AgPro, is located north of Forrest near the Brandon North rail line.

RM of Whitehead

The RM of Whitehead is located approximately 25 kilometres west of the City of Brandon. Located conveniently along the Trans Canada Highway, the municipality is also 75 kilometres north of the U.S.A. border. Alexander, Kemnay and Beresford are the villages within the municipality.

Agriculture is a strong element in the RM of Whitehead’s economy. The municipality of approximately 1500 residents boasts two grain dealers, two grain elevators, two seed plants and two fertilizer dealers. The RM of Whitehead is serviced by both CN and CP main rail lines. This provides a direct link to agricultural markets and services located in Brandon, as well as other western municipalities in Manitoba and southeastern Saskatchewan.
Chapter 1
Community and Client Characteristics

Quick Profile

- Brandon acts as the trading centre for the entire western Manitoba region encompassing a population of 180,000.
- Brandon is growing. From 1996-2001, Brandon’s population grew by approximately 2% each year.
- Large numbers of employees choose to live in smaller centres or in a rural setting and commute to work.
- The commuting pattern extends approximately 64 kms and includes 80,000 people in the commute zone.
- The Canadian Armed Forces transferred the 2nd Battalion Princess Patricia Canadian Light Infantry from Winnipeg to Canadian Forces Base Shilo in 2004. This transfer involved approximately 700 military members plus their families, totalling 1100 – 1200 people.
- The discovery of a case of bovine spongiform encephalopathy (BSE) in Alberta in May 2003 has crippled local producers and businesses that are heavily dependent on the beef industry.

The People

Who lives in the Brandon region?

The growth or decline of the population depends upon the number of babies born, the number of people who die, and the number of people who move in and out of the region every year. Typically, births out-number deaths, and therefore, the population will grow unless a lot of people move away.
There are a number of challenges in trying to report accurate numbers of people living in a specific area. Data sources may gather data during different time periods, use different calculation formulas or use a different reporting structure. Although Census data is the most common data source for population reporting, the information in Table 1.1 is taken from Manitoba Health because it is the most current data available. Manitoba Health gathers information by postal code and, ideally, residents update their personal health information within 90 days of a change. Census data, on the other hand, is collected every five years so the numerical counts are often less than more current data sources. But the issues are more complex than simply time periods. For example, a rural resident with a mailing address in Brandon will be registered as a Brandon resident even though the individual lives in a rural municipality. A similar situation is seen with the Canadian Forces Base Shilo whereby the residential section of the base is in the RM of Cornwallis but the residents collect their mail on base at a different postal code. These challenges inevitably result in a discrepancy in data. For example, according to Manitoba Health data, the total population in the Brandon region in 2001 is 47,652 compared to 45,495 by Census data for the same time period.

Table 1.1 is a population comparison from June 01, 1996 to June 01, 2001 for the city of Brandon and the surrounding rural municipalities.

In 2001/02, the population of the Brandon region was 47,652 which is 4.1% of the total population of Manitoba. Between 1996 and 2001, there is an overall growth of 3.9% in the region. It is interesting to note that an increase in the population is observed in the City of Brandon whereas the population in the rural municipalities has declined in the same time period. The RM of Cornwallis has experienced the most significant decline in population.

Table 1.1: Population of Brandon and area, 1996 and 2001

<table>
<thead>
<tr>
<th></th>
<th>2001 Pop</th>
<th>2001 Pop</th>
<th>1996 Pop</th>
<th>1996 Pop</th>
<th>% Change female</th>
<th>% Change male</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>female</td>
<td>male</td>
<td>female</td>
<td>male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brandon City</td>
<td>22,430</td>
<td>20,409</td>
<td>21,026</td>
<td>19,312</td>
<td>+6.7%</td>
<td>+5.7%</td>
</tr>
<tr>
<td>RM of Cornwallis</td>
<td>1,491</td>
<td>1,178</td>
<td>1,796</td>
<td>1,436</td>
<td>-17%</td>
<td>-18%</td>
</tr>
<tr>
<td>RM of Elton</td>
<td>648</td>
<td>672</td>
<td>651</td>
<td>716</td>
<td>-0.46%</td>
<td>-6.1%</td>
</tr>
<tr>
<td>RM of Whitehead</td>
<td>381</td>
<td>443</td>
<td>436</td>
<td>487</td>
<td>-12.6%</td>
<td>-9%</td>
</tr>
<tr>
<td>BRHA</td>
<td>24,950</td>
<td>22,702</td>
<td>23,909</td>
<td>21,951</td>
<td>+4.4%</td>
<td>+3.4%</td>
</tr>
<tr>
<td>Total region</td>
<td>47,652</td>
<td>45,860</td>
<td></td>
<td></td>
<td>+3.9%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Manitoba Health
Figure 1.1 indicates the population proportions of the Brandon RHA, by gender, and by 5-year age increments. Although the largest proportion of males is in the 10-14 age grouping at 8% of the total male population, a significant proportion of males (15.5%) are in the combined age grouping of 35 to 44 years. The largest proportion of females is age 35-39 years at 8% of the total female population with 15.8% in the combined age grouping of 35 to 44 years.

**Figure 1.1: Brandon population pyramid, 2001/2002**

![Population Pyramid](image)

Source: Statistics Canada

### Population projections

Table 1.2 demonstrates the historical and projected changes for the Brandon RHA population in 1998, 2001, and 2025. Based on these projections, there will be fewer children age 0 to 14 years and slightly more residents aged 15 to 64 years. The most significant increase will be residents aged 65 and older.

**Table 1.2: Historical and projected population changes for the Brandon region population, 1998 – 2025**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 14 years</td>
<td>-27.0%</td>
<td>-17.4%</td>
</tr>
<tr>
<td>15 to 64 years</td>
<td>+0.4%</td>
<td>-4.1%</td>
</tr>
<tr>
<td>65 years and older</td>
<td>+38.8%</td>
<td>+46.9%</td>
</tr>
</tbody>
</table>

Source: Manitoba Bureau of Statistics
Aboriginal population

Aboriginal people are those persons who report identifying with at least one Aboriginal group (e.g. North American Indian, Métis, or Inuit) and/or those who reported being a Treaty Indian or a Registered Indian as defined by the Indian Act and/or those who were members of an Indian Band or First Nation. There are no on-reserve communities in the Brandon region, however, many First Nations and Metis individuals and families live and work in Brandon.

According to Table 1.3, 8.6% of the residents in the Brandon region identify as Aboriginal ancestry. There are approximately equal numbers of males and females.

Table 1.3: Number and percentage of Aboriginal population in comparison to all residents in the region, 2001

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total (# and %)</th>
<th>Male (# and %)</th>
<th>Female (# and %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total – all persons in region</td>
<td>45,495</td>
<td>21,740</td>
<td>23,755</td>
</tr>
<tr>
<td>Aboriginal identity</td>
<td>3,905 (8.6%)</td>
<td>1,880 (8.6%)</td>
<td>2,030 (8.5%)</td>
</tr>
</tbody>
</table>

Source: Statistics Canada

Figure 1.2 illustrates the age break down of the Aboriginal population in the Brandon region. The largest proportion of both females and males is in the 25 to 44 year grouping. Although it is difficult to compare Aboriginal data with the total population of the region (Figure 1.1) because of different age categories, a large proportion of both populations is in their middle years (up to age 44). There is a striking difference, however, in the data related to the younger population. Almost one-quarter of the Aboriginal population (22.6%) in the Brandon region is in the 5 to 14 years age grouping in comparison to 14.3% of the non-Aboriginal population.
Minority populations

Minority populations are identified as those persons, other than Aboriginal people, who identified themselves as non-Caucasian in race or non-white in colour in the 2001 Census of Canadians.

Approximately 2.3% of residents living in Brandon RHA identified themselves as belonging to any visible minority group. This number has increased slightly from the 1996 census results where 1.9% of the Brandon RHA residents identified themselves as a visible minority. The greatest increase is noted in the black population. In 1996 0.34% of the population was black as compared to 0.76% in 2001.

The population in Brandon and area is primarily of British or Eastern European descent and the vast majority are English-speaking, both at home and in the workplace. Although there has been an increase in the number of foreign immigrants in recent years, the percentage of visible minorities overall in the Brandon region is approximately 2%. Many foreign immigrants are in the region on a temporary work visa while other newcomers are sponsored by family members or they hold designated refugee status.

Dependency ratio

The dependency ratio is the ratio of the combined child population (aged 0 to 14) and elderly population (aged 65 and over) to the working age population (aged 15 to 64). This ratio is presented as the number of dependants for every 100 people in the working age population. As shown in Table 1.4, in 2001/02, there were 52.8 people of non-working age for every 100 people of working age in the region. Data for the Brandon region is similar to Manitoba as a whole.
Our dependency ratio will increase as our population ages. Even though our younger population (0-14 years) is expected to decrease by 27.0% by 2025, our older population (age 65 years and older) is expected to increase by 38.8%. Therefore we will see an 11.8% increase in dependent residents by 2025. At the same time, a large proportion of middle-aged residents who are currently working will retire by 2025 thereby reducing the number of individuals who are able to support the dependant population.

Table 1.4: Dependency ratio of Brandon region, 2001/2002

<table>
<thead>
<tr>
<th></th>
<th>Dependency ratio</th>
<th># of children &amp; elderly*</th>
<th># of working age (aged 15 to 64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>54.8</td>
<td>8,833</td>
<td>16,117</td>
</tr>
<tr>
<td>Male</td>
<td>50.6</td>
<td>7,632</td>
<td>15,070</td>
</tr>
<tr>
<td>Both</td>
<td>52.8</td>
<td>16,465</td>
<td>31,187</td>
</tr>
</tbody>
</table>

*children = age 0-14; elderly = age 65 and over
Source: Manitoba Health

**Lone-parent families**

A census family refers to married or common-law couple or lone parent with at least one never-married son or daughter living in the same household. According to Figure 1.3, the percentage of women and men in Brandon who are parenting independently is approximately 15.8%. This is lower than the provincial rate of approximately 16.2%. This rate has increased by 2.6% when compared with 1996 data. Children in Brandon are just as likely to live with single parent mothers as are children in Manitoba as a whole. Brandon children are less likely to live in a household headed by a single parent father than children in the province overall.

**Figure 1.3: Percentage of households with children headed by a single parent, Manitoba and Brandon, 2001**

Source: Data from Canadian Community Health Survey (2001), Brandon Regional Health Authority Profile, Manitoba Health, 2004
The Land

Where do the people come from?

Population density

Population density refers to the number of people living in a square kilometre of a particular region. The Brandon Region is the second most densely populated region in the province. The population density has decreased slightly according to the census data (1996 to 2001) from 27.73 people per square kilometre in 1996 to 27.02 people per square kilometre in 2001.

This data implies that the population density within this region has decreased slightly since 1996. However, the data from 1996 only includes the city of Brandon and the rural municipalities of Elton and Cornwallis. The RM of Whitehead was not legally incorporated into the Brandon RHA until April 1998. Therefore, the 2001 data includes a larger geographical area plus the people living in the RM of Whitehead at that time, which reflects a slightly lower population density overall. In 1996, 88.2% of Brandon Region residents lived in urban areas.

Commuting within the region

The City of Brandon accounts for 50% of the labour market area total while other cities, towns and villages accounts for 25% and the rural countryside for 25%.

As shown in Table 1.5, only 9% of males and 4% of females in the labour force that live in Brandon work elsewhere. About 5% of both sexes have home-based businesses. Eight percent of males and 6% of females living in rural towns and villages commute to Brandon for work. About 8% of both sexes operate home-based business within their communities. 28% of males and 27% of females who live in the rural setting work in the city. The majority of both sexes in rural areas that list home-based work are farmers.

Table 1.5: Commuting patterns of labour force (15+ years) - 2001

<table>
<thead>
<tr>
<th>Labour Market</th>
<th>Non-commuters</th>
<th></th>
<th>Commuters</th>
<th></th>
<th>Home-based</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>%</td>
<td>Females</td>
<td>%</td>
<td>Males</td>
<td>%</td>
</tr>
<tr>
<td>Brandon</td>
<td>10080</td>
<td>91</td>
<td>9055</td>
<td>96</td>
<td>1,005</td>
<td>9</td>
</tr>
<tr>
<td>Towns/villages</td>
<td>5040</td>
<td>92</td>
<td>4815</td>
<td>94</td>
<td>440</td>
<td>8</td>
</tr>
<tr>
<td>Rural areas</td>
<td>4315</td>
<td>72</td>
<td>3455</td>
<td>73</td>
<td>1690</td>
<td>28</td>
</tr>
<tr>
<td>Totals</td>
<td>19435</td>
<td>86</td>
<td>17325</td>
<td>90</td>
<td>3135</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, Special Run on Place of Residency - Place of Work data: 2001 Census

An urban area is defined as having a minimum population of 1,000 and a population density of 400 people per square kilometer. The urban population refers to those people living in urban areas.
Commuters are defined as persons who live in one census subdivision and work in another. Table 1.6 reflects the number of commuters in Brandon Labour Market Area that consisted of 27 jurisdictions in 2001.

Table 1.6: Commuter data, Brandon labour market area, 2001

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Total in labour force</th>
<th>Commuters to Brandon</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>1 Virden</td>
<td>1380</td>
<td>55</td>
</tr>
<tr>
<td>2 Woodworth RM</td>
<td>580</td>
<td>30</td>
</tr>
<tr>
<td>3 Daly RM</td>
<td>535</td>
<td>145</td>
</tr>
<tr>
<td>4 Hamiota RM</td>
<td>365</td>
<td>30</td>
</tr>
<tr>
<td>5 Rivers</td>
<td>455</td>
<td>105</td>
</tr>
<tr>
<td>6 Saskatchewan RM</td>
<td>335</td>
<td>60</td>
</tr>
<tr>
<td>7 Rapid City</td>
<td>215</td>
<td>110</td>
</tr>
<tr>
<td>8 Elton RM</td>
<td>805</td>
<td>310</td>
</tr>
<tr>
<td>9 Minnedosa</td>
<td>1315</td>
<td>125</td>
</tr>
<tr>
<td>10 Minto RM</td>
<td>415</td>
<td>20</td>
</tr>
<tr>
<td>11 Neepawa</td>
<td>1420</td>
<td>25</td>
</tr>
<tr>
<td>12 No. Cypress RM</td>
<td>1015</td>
<td>105</td>
</tr>
<tr>
<td>13 Carberry</td>
<td>680</td>
<td>35</td>
</tr>
<tr>
<td>14 Cornwallis RM</td>
<td>2245</td>
<td>1045</td>
</tr>
<tr>
<td>15 Wawanesa</td>
<td>205</td>
<td>45</td>
</tr>
<tr>
<td>16 Oakland RM</td>
<td>610</td>
<td>315</td>
</tr>
<tr>
<td>17 Whitewater RM</td>
<td>350</td>
<td>35</td>
</tr>
<tr>
<td>18 Souris</td>
<td>820</td>
<td>195</td>
</tr>
<tr>
<td>19 Sifton RM</td>
<td>460</td>
<td>40</td>
</tr>
<tr>
<td>20 Whitehead RM</td>
<td>890</td>
<td>530</td>
</tr>
<tr>
<td>21 Dauphin</td>
<td>3425</td>
<td>40</td>
</tr>
<tr>
<td>22 Sioux Valley</td>
<td>280</td>
<td>55</td>
</tr>
<tr>
<td>23 Pipestone RM</td>
<td>820</td>
<td>45</td>
</tr>
<tr>
<td>24 Odanah RM</td>
<td>245</td>
<td>45</td>
</tr>
<tr>
<td>25 Langford RM</td>
<td>445</td>
<td>20</td>
</tr>
<tr>
<td>26 Glenwood RM</td>
<td>320</td>
<td>65</td>
</tr>
<tr>
<td>27 Boissevain</td>
<td>760</td>
<td>30</td>
</tr>
</tbody>
</table>

Statistics Canada, Special Run on Place of Residency - Place of Work data: 2001 Census
Migration to the region

Internal/external migration refers to the percentage of people, aged one year and older, who had moved within one year of the 1996 Census of Canada. Internal migrants are people who resided in a different Census subdivision one year earlier. External migrants are people who resided outside of Canada one year earlier.

In 1996, Brandon appeared to have a higher rate of internal migrants (7.9%) than Manitoba as a whole (4.2%), and a lower rate of external migrants (0.2%), than Manitoba as a whole (0.5%).

Internal Migrant Mobility is the percentage of the population who had migrated, either in or out of the Brandon region, in the five years prior to the 1996 Census of Canada. External migrants who were living outside Canada are excluded in this data.

In Brandon, 8.1% of the population had moved within one year of the 1996 Canadian Census, compared to 4.7% of all Manitobans. As well, 22.7% of Brandon residents had moved within five years of the 1996 Census of Canada, compared to 13.8% of all Manitobans.

So, what does this mean?

- The population of the City of Brandon has increased since 1996 however the population of the surrounding rural municipalities has decreased.
- The largest proportion of males is the 10 to 14 year age group while the largest proportion for females is in the 35 to 39 year age group. A significant proportion of both males and females is in the 35 to 44 years age category.
- There are more women than men in the 65 years and older age groupings.
- By 2025, there will be a significant decrease in the number of people who are in the age category of 0 to 14 years.
- By 2025, there will be a significant increase in the number of people who are 65 years and older.
- The dependency ratio for the Brandon region will increase as the population ages.
- Almost one-quarter of the Aboriginal population in the Brandon region is between 5 and 14 years old.
- Accurate data for immigrant populations is not currently available.
- There is a 2.6% increase in single parent households since 1996.
A significant portion of people, who work in the Brandon region, commute from smaller/rural communities.

There is a high degree of mobility among Brandon residents.
Chapter 2
Health Determinants

What makes people healthy?

When we think of a Community Health Assessment, we think of counting the number of heart attacks, broken bones and surgeries performed. But a comprehensive Community Health Assessment goes beyond looking at obvious problems or medical interventions to look at the reasons behind health problems. For example, if a health region treats a large number of children with playground-related injuries each year, you could simply increase the paediatric trauma support available. Or you could explore the reasons for injuries on local playgrounds and develop an injury prevention initiative that focuses on reducing injuries among children and creating a culture of safety.

A comprehensive Community Health Assessment also looks at the overall health of a community and not just the factors that affect the health of any one individual. This is called a Population Health approach. Population Health is a way of thinking about health and taking action to improve the health of the public. A Population Health approach looks to reduce barriers to health and increase opportunities for people to become healthier. A Population Health approach addresses a range of risk factors for the entire population, rather than only people who are sick or at high-risk of becoming ill. This approach is based on the fact that a small reduction in risk in a large proportion of the population will have a greater effect than a large change in a small group within the population.

For example, although pregnant teens have a high risk for low birth weight babies, prevention efforts focused only on teen mothers would not significantly change the rate of low birth weight in a community since the majority of low birth weight babies are not born to teen mothers. High-risk programs may reduce the risk among teen mothers but will have little impact on the overall reduction of low birth weight in the community. In summary, Population Health focuses on strategies – particularly prevention, protection and promotion – that will achieve greater health for the population as a whole.

In 1974, the Lalonde Report set the stage by establishing a framework for the key factors that seemed to influence health. Twenty years later, in 1994, Federal/Provincial/Territorial Ministers of Health approved a document, Strategies for Health: Investing in the Health of Canadians. Specific factors that have a significant impact on population health were identified as health determinants. They include income and social status, education, employment and working conditions, healthy child development, personal health practices and coping skills, social support networks, physical environment, health services, gender, culture, biology and genetics.
The following story illustrates the complex set of factors or conditions (health determinants) that determine the level of health of every Canadian:

“Why is Jason in the hospital?
Because he has a bad infection in his leg.
But why does he have an infection?
Because he has a cut on his leg and it got infected.
But why does he have a cut on his leg?
Because he was playing in the junk yard next to his apartment building and there was some sharp, jagged steel there that he fell on.
But why was he playing in a junk yard?
Because his neighbourhood is kind of run down. A lot of kids play there and there is no one to supervise them.
But why does he live in that neighbourhood?
Because his parents can’t afford a nicer place to live.
But why can’t his parents afford a nicer place to live?
Because his Dad is unemployed and his Mom is sick.
But why is his Dad unemployed?
Because he doesn’t have much education and he can’t find a job.
By why...?”


Given the multitude of complex factors that are involved in the everyday lives of people in our region, it is not possible to report on all of the indicators related to health determinants. A set of core indicators has been selected to give a snapshot of life in the Brandon region. The information in this chapter is presented by each health determinant with the exception of culture, and biology and genetics. Data is not currently available for these two determinants. Gender is represented in the data analysis wherever possible.

**Income and social status**

Income is the single most important factor that affects the health of a population. The health of individuals and families improves at each step up the income and social ladder. As well, societies that are reasonably prosperous and have an equitable distribution of wealth have the healthiest populations, regardless of the amount they spend on health care.

As shown in Figure 2.1, the average income for residents in the Brandon region is lower than the provincial average for both 1996 ($41,727.00/$43,404.00) and 2001 ($48,287.00/$50,756.00).
Median individual income is the amount that divides the income distribution of a group into two halves or the mid point. This measure reflects the point at which one half of the population has less income and one half of the population has more income. As shown in Figure 2.2, median individual incomes for females in Brandon are similar to all Manitoba females for 1996 ($13,669/$13,643) and 2001 ($16,688/$16,602). However median individual incomes for males in Brandon are higher than for all Manitoban males for 1996 ($25,217/$23,150) and 2001 ($27,381/$26,265). The higher median individual incomes for males in the region may be partly due to employment patterns in the rural setting. Approximately 35% of main farm operators (primarily men) work off-farm for wages to supplement their farming operation. These are typically young farmers or those with small land bases. The majority of those working off the farm are employed full-time rather than part-time or seasonally (City of Brandon, 2001).

Source: Manitoba Health: Brandon Regional Health Authority Profile Document, August 2003
Figure 2.3 shows the percentage of the population with a low income in 2001. The population is separated into three categories: economic families, unattached individuals and the population in private households. Economic families are defined as a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law or adoption. Unattached individuals are defined as a group of two or more persons who live in the same dwelling and are not related to each other by blood, marriage, common-law or adoption. A private household is a separate set of living quarters with a private entrance either from outside the building or from a common hall, lobby, vestibule or stairway inside the building. The entrance must be one that can be used without passing through the living quarters of some other person or group of persons (www.statscan.ca/english/concepts/definitions.htm). In an urban area the size of Brandon (30,000 to 99,999), low income cut-offs (based on 1992 income) are defined as:

- 1 person $14,965
- 2 persons $18,706
- 3 persons $23,264
- 4 persons $28,162
- 5 persons $31,481
- 6 persons $34,798
- 7 or more persons $38,117

According to data shown, the proportion of economic families in the Brandon region that are experiencing a low income is similar to the rest of the economic families in the province. On the other hand, there are fewer unattached individuals living with a low income in the Brandon region than those throughout the province. The percentage of the population living in private households, a combination of economic families and unattached individuals, is slightly higher in the Brandon region than Manitoba overall.

**Figure 2.3: Incidence of low income (2000 income), Manitoba and Brandon RHA, 2001**

![Bar chart showing percentage of population living in economic families, unattached individuals, and population in private households in Manitoba and Brandon RHA in 2001.](chart.png)

Source: Statistics Canada, 2001 Census
Table 2.1 depicts the net monthly income as reported by participants in the Kitchen Table Chats survey. Data is missing from 16 surveys; 11 individuals felt the question was too personal and five did not know their monthly income. Data reflects individual net income, not household income. Therefore, the individuals who report no monthly income include students who are supported by their parents and individuals who are not currently working and are supported by a spouse. A total of 62.7% of the respondents have a net income of less than $1,500.00 per month. A total of 20.5% of the respondents report a net monthly income between $1,600 and $3,000. Just 2.4% of those interviewed report a net monthly income of greater than $3,100.00.

<table>
<thead>
<tr>
<th>Monthly net income</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable – has no personal income</td>
<td>6.7%</td>
</tr>
<tr>
<td>Less than $700</td>
<td>16.3%</td>
</tr>
<tr>
<td>$700 - $1000</td>
<td>24.4%</td>
</tr>
<tr>
<td>$1,100 - $1,500</td>
<td>22.0%</td>
</tr>
<tr>
<td>$1,600 - $2,000</td>
<td>10.0%</td>
</tr>
<tr>
<td>$2,100 - $2,500</td>
<td>8.1%</td>
</tr>
<tr>
<td>$2,600 – $3,000</td>
<td>2.4%</td>
</tr>
<tr>
<td>$3,100 +</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004
Note to figure: Data missing from 16 surveys

Income inequality measures the proportion of income from all sources, pre-tax and post-transfer, held by the bottom half of all households within a geographic area. Specifically, this means the overall distribution of income across a region. According to Figure 2.4, household income appears to be distributed more equitably in Brandon (23.6%) than in Manitoba (21.1%) as a whole.

Figure 2.4: Income inequality - percent of all income held by the lower 50% of households, 1996

Source: Data from Statistics Canada, Health Indicators (1996), Brandon Regional Health Authority Profile, Manitoba Health, 2004
Note to Figure: (1) Excludes the municipalities of East and West St. Paul
An indicator to measure the financial impact of bovine spongiform encephalopathy (BSE) in the region is paramount in an agricultural community. Table 2.2 shows the proceeds paid to local producers through Heartland Livestock Services in Brandon over two time periods. The year 2002 – 2003 reflects the sale of live animals, primarily beef cattle, before the (BSE) crisis and the year 2003 – 2004 reflects the sale year following the BSE crisis. According to Table 2.2, revenue to local producers dropped by approximately 36 million dollars in the first year of this agricultural disaster. At the same time, independent producers are accruing a staggering personal debt load to continue their farming operation until the international trade border is opened to live animals for export. As noted earlier, many farmers work off the farm to supplement their incomes however this trend is often difficult for beef producers. The demands of beef production such as regular feeding and constant activities with calving do not allow the freedom to leave the operation for extended periods of time. Therefore, the scheduled and often unscheduled nature of the work does not align with many employment opportunities.

**Table 2.2: Revenue from consignment sales, Brandon, 2002/2003 and 2003/2004**

<table>
<thead>
<tr>
<th>Time period</th>
<th>Revenue received by producers</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2002/2003</td>
<td>$87,350,312.00</td>
</tr>
<tr>
<td>May 2003/2004</td>
<td>$51,368,791.00</td>
</tr>
<tr>
<td>Total</td>
<td>- $35,981,521.00</td>
</tr>
</tbody>
</table>

Source: Heartland Livestock Services, 2004

Table 2.3 shows the difference in staff salaries at Heartland Livestock Services (Brandon) during two time periods. Once again, 2002 – 2003 reflects the year prior to the discovery of BSE and 2003 – 2004 reflects the first year following BSE. According to Table 2.3, payment to staff overall dropped by approximately $40,000.00. The organization has not needed to implement staff layoffs, to date, through creative measures such as job sharing.

**Table 2.3: Difference in total staff salaries at Heartland Livestock Services, Brandon, 2002/2003 and 2003/2004**

<table>
<thead>
<tr>
<th>Time period</th>
<th>Total salaries paid out</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2002/2003</td>
<td>$745,000.00</td>
</tr>
<tr>
<td>May 2003/2004</td>
<td>$705,418.00</td>
</tr>
<tr>
<td>Total</td>
<td>- $39,582.00</td>
</tr>
</tbody>
</table>

Source: Heartland Livestock Services, 2004
Coupled with the BSE disaster in the Brandon region in 2003, Wyeth Organics, a division of Wyeth Canada, announced the cancellation of numerous contracts with producers involved in the collection of pregnant mares’ urine (PMU). The urine is used in the production of Premarin, a life-improving post-menopausal hormone therapy for women. The reduction in size of the producer network is a result of considerable changes in market demand for the product and a shift toward lower doses of hormone therapy.

In the fall of 2003, the number of PMU ranches reduced by two-thirds, affecting ranches in Manitoba, Saskatchewan, Alberta and North Dakota. As well, production at the Brandon plant was lowered and approximately 30 seasonal workers were not hired.

Wyeth Organics provided a compensation package for producers leaving the network at the end of the 2003 – 2004 collection season to cover ranching expenses. The company provided funding for feed and health care until the horses can be moved into appropriate markets. As well, Wyeth established a $3.7 million Equine Placement Trust Fund designed to help producers place their horses in other markets. Therefore, the full impact of the reduction in PMU contracts will not be known for some time.

**Education**

Health status increases with level of education. People with less education are more likely to have low paying jobs that are not very satisfying. They may also have higher risks of occupational injuries. Those with a higher level of education are more likely to have better opportunities for jobs, higher incomes and job security.

Higher levels of education also improve people’s ability to access and understand information to help keep them healthy. Education is an important characteristic to consider in health planning as it helps to determine appropriate and effective communication mechanisms with the people we serve.

Levels of education attainment for specific age groupings in the Brandon region and the province are found in Table 2.4. Overall, residents in the Brandon region have a higher level of education than Manitoba residents. The population aged 20 to 34 years has a higher rate of high school completion but a lower rate of university education than their Manitoba counterparts. More residents in this age grouping have completed a trades and college certificate than their provincial cohort. Results are similar for the population aged 35 to 44 years. A total of 36.6% of those residents in the Brandon region have completed a trades or college certificate compared to 31.8% of Manitobans in the same age group. Once again, the percentage of this age group who completed a university degree or diploma is lower than other Manitoba residents. A change in the education pattern is noted for the population aged 45 to 64 years however. The percentage of this age group who hold a college certificate is higher but the percentage who have a trade certificate and a university degree or diploma is the same as the provincial rate.
<table>
<thead>
<tr>
<th>Characteristics – highest level of schooling</th>
<th>Brandon Regional Health Authority</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
</tr>
<tr>
<td><strong>Total population aged 20-34</strong></td>
<td>9,815</td>
<td>4,795</td>
</tr>
<tr>
<td>% of those aged 20-34 with less than a high school graduation certificate</td>
<td>18.4</td>
<td>22.3</td>
</tr>
<tr>
<td>% of those aged 20-34 with a high school certificate and/or some postsecondary</td>
<td>36.2</td>
<td>38.2</td>
</tr>
<tr>
<td>% of the population aged 20-34 with a trades certificate / diploma</td>
<td>11.0</td>
<td>14.0</td>
</tr>
<tr>
<td>% of the population aged 20-34 with a college certificate/diploma</td>
<td>18.3</td>
<td>13.2</td>
</tr>
<tr>
<td>% of the population aged 20-34 with a university certificate, diploma or degree</td>
<td>16.1</td>
<td>12.4</td>
</tr>
<tr>
<td><strong>Total population aged 35-44</strong></td>
<td>7,155</td>
<td>3,430</td>
</tr>
<tr>
<td>% of those aged 35-44 with less than a high school graduation certificate</td>
<td>23.3</td>
<td>25.4</td>
</tr>
<tr>
<td>% of the population aged 35-44 with a high school graduation certificate and/or some postsecondary</td>
<td>23.7</td>
<td>22.7</td>
</tr>
<tr>
<td>% of the population aged 35-44 with a trades certificate or diploma</td>
<td>15.4</td>
<td>20.7</td>
</tr>
<tr>
<td>% of the population aged 35-44 with a college certificate or diploma</td>
<td>21.2</td>
<td>16.2</td>
</tr>
<tr>
<td>% of the population aged 35-44 with a university certificate, diploma or degree</td>
<td>16.4</td>
<td>15.0</td>
</tr>
<tr>
<td><strong>Total population aged 45-64</strong></td>
<td>9,975</td>
<td>4,840</td>
</tr>
<tr>
<td>% of the population aged 45-64 with less than a high school graduation certificate</td>
<td>33.2</td>
<td>35.0</td>
</tr>
<tr>
<td>% of the population aged 45-64 with a high school graduation certificate and/or some postsecondary</td>
<td>17.5</td>
<td>15.3</td>
</tr>
<tr>
<td>% of the population aged 45-64 with a trades certificate or diploma</td>
<td>13.5</td>
<td>19.5</td>
</tr>
<tr>
<td>% of the population aged 45-64 with a college certificate or diploma</td>
<td>16.5</td>
<td>10.7</td>
</tr>
<tr>
<td>% of the population aged 45-64 with a university certificate, diploma or degree</td>
<td>19.1</td>
<td>19.5</td>
</tr>
</tbody>
</table>

Source: Statistics Canada
According to Table 2.5, the majority of participants in the Kitchen Table Chat survey (87.5%) have achieved a high school education through the regular public school system or the GED process. A total of 10.0% completed the middle grades and only 1.9% has not gone beyond elementary grades. One individual did not attend school at all and one individual did not answer the question. It is not possible to compare these findings with data from Statistics Canada in Table 2.4 because of the differences with the education categories and associated definitions. The education categories of the Kitchen Table Chats will be revised to align with the Statistics Canada database and the findings will be published in a separate report in the future.

Table 2.5: Level of education, KTC, 2004

<table>
<thead>
<tr>
<th>Highest level of education</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>GED</td>
<td>1.4%</td>
</tr>
<tr>
<td>High school</td>
<td>86.0%</td>
</tr>
<tr>
<td>Middle school</td>
<td>10.0</td>
</tr>
<tr>
<td>Elementary</td>
<td>1.9%</td>
</tr>
<tr>
<td>No schooling</td>
<td>.48%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004
Note to figure: Data missing from one survey

Although the majority of survey respondents have completed their high school education, 66.3% did not go on to post-secondary education programs as seen in Table 2.6. A total of 34% of survey participants have completed post-secondary education; 15.4% have a university degree and 18.7% completed a certificate or diploma program.

Table 2.6: Level of post-secondary education, KTC, 2004

<table>
<thead>
<tr>
<th>Level of post-secondary education</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>University degree</td>
<td>15.4%</td>
</tr>
<tr>
<td>Certificate or diploma from</td>
<td>11.5%</td>
</tr>
<tr>
<td>community college, school of</td>
<td></td>
</tr>
<tr>
<td>nursing, etc.</td>
<td></td>
</tr>
<tr>
<td>Trades certificate or diploma from</td>
<td>7.2%</td>
</tr>
<tr>
<td>vocational school or apprenticeship program</td>
<td></td>
</tr>
<tr>
<td>No post-secondary education</td>
<td>66.3%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004
Education levels are often used as a proxy measure for literacy. As part of the Kitchen Table Chats household survey, we completed a literacy assessment to determine how well people could read the print materials such as pamphlets and brochures that are distributed throughout the RHA. Of the 209 surveys that were completed, 200 literacy assessments were done. Reasons for not completing the assessment include the following:

- blindness or poor eyesight
- cannot read
- mental handicap
- English not first language
- declined part way through

As shown in Table 2.7, results from the literacy assessment are organized into three categories. These categories include:

- those with a higher literacy assessment score than the education level achieved,
- those with a lower literacy assessment score than the education level achieved and
- those whose literacy assessment score matched the education level achieved.

The results of the literacy assessment matched the education level achieved for the majority of respondents (81.0%). While 7.0% of the respondents scored higher on their literacy assessment than the grade level they had completed, concern lies with the 12.0% whose literacy assessment scores were below the education level they had completed. Literacy assessment scores for this group of individuals ranged between 4th and 8th grade levels.

**Table 2.7: Literacy assessment scores, KTC, 2004**

<table>
<thead>
<tr>
<th>Grade achieved</th>
<th>Literacy score</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>7th to 8th Grade</td>
<td>1%</td>
</tr>
<tr>
<td>Elementary</td>
<td>High School</td>
<td>1%</td>
</tr>
<tr>
<td>Middle</td>
<td>High School</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total with highest literacy score than grade achieved</strong></td>
<td><strong>7%</strong></td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td>4th to 6th Grade</td>
<td>3%</td>
</tr>
<tr>
<td>High</td>
<td>4th to 6th Grade</td>
<td>2%</td>
</tr>
<tr>
<td>High</td>
<td>7th to 8th Grade</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Total with lower literacy score than grade achieved</strong></td>
<td><strong>12%</strong></td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td>7th to 8th Grade</td>
<td>3%</td>
</tr>
<tr>
<td>GED</td>
<td>High School</td>
<td>2%</td>
</tr>
<tr>
<td>High</td>
<td>High School</td>
<td>77%</td>
</tr>
<tr>
<td><strong>Total with same literacy score and grade achieved</strong></td>
<td><strong>81%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004
Note to chart: Data missing from nine surveys
Employment and working conditions

Research supports the importance of status in the workplace and that those with more control over their work circumstance are healthier. Workplace social support is also associated with better health. The more connections people have, the healthier they are. Safe workplaces also contribute to population health.

Figure 2.5 illustrates the percentage of the population aged 15 years of age and over who are employed. Approximately 70% of both females and males over the age of 15 in the region are employed. Both male and female residents in the Brandon region have a higher participation in the labour force than Manitobans overall. When separated by sex, males have a higher rate of employment (77%) than females (64%).

Figure 2.5: Labour force participation rate, Manitoba and Brandon, 2001

There are several questions related to employment in the Kitchen Table Chats interview guide. All participants were asked if they are currently working. For the purpose of this report, data is reported for individuals between the ages of 15 and 60 years. Individuals between the ages of 61 and 91 years have been excluded from calculations regarding employment. According to Table 2.8, only 51.4% of the survey respondents are currently involved in any type of paid work including seasonal, contract, self-employment, babysitting, etc.

Table 2.8: Employment rate of respondents’ ages 15 to 60 years, KTC, 2004

<table>
<thead>
<tr>
<th>Do you currently work at a job or a business?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>51.4%</td>
</tr>
<tr>
<td>Permanently unable to work</td>
<td>4.8%</td>
</tr>
<tr>
<td>No</td>
<td>43.8%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004
Note to chart: Data missing regarding respondents age in two surveys.

Only 51.4% of the survey respondents are currently involved in any type of paid work including seasonal, contract, self-employment, babysitting, etc.
As shown in Table 2.9, 69.3% of the individuals who answered the Kitchen Table Chats survey that are currently involved in some type of paid work are working in a full time capacity while 28% are employed on a part time basis. Just 3% are working in a casual capacity.

**Table 2.9: Employment status of respondents who are currently working and between ages 15 to 60 years, KTC, 2004**

<table>
<thead>
<tr>
<th>(If yes) How much do you work?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>69.3%</td>
</tr>
<tr>
<td>Part time</td>
<td>28.0%</td>
</tr>
<tr>
<td>Casual</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Table 2.10 illustrates the sources of money for survey participants between the ages of 15 and 60 years who are not currently working. A total of 31.0% identified “Other” as their primary source of income. Further exploration of the answers provided identify other sources as financial support from parents, student loans, savings and investments, insurance claims and government programs such as family allowance. Those individuals receiving social assistance comprise 21.4% of the respondents, 20.2% are receiving a disability claim and 16.7% are financially supported by their spouse. A total of 6.8% are being paid a pension and just 4.8% are receiving employment and income assistance.

**Table 2.10: Sources of money for respondents who are not currently working and between ages 15 to 60 years, KTC, 2004**

<table>
<thead>
<tr>
<th>(If no) Where do you get your money?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>31.0%</td>
</tr>
<tr>
<td>Social assistance</td>
<td>21.4%</td>
</tr>
<tr>
<td>Disability claim</td>
<td>20.2%</td>
</tr>
<tr>
<td>Support from spouse</td>
<td>16.7%</td>
</tr>
<tr>
<td>Pension</td>
<td>6.0%</td>
</tr>
<tr>
<td>Employment &amp; income assistance</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Figure 2.6 indicates labour divisions by occupational grouping. For the male population in the Brandon region, the highest proportion of the labour force is employed in the trades, transport and equipment operators and related industries. There are significantly fewer males employed in the primary industries grouping that encompass farming. Given the agricultural nature of the area, it is interesting to note that more men are employed in industries that support the farming industry than in actual farming operations.
The manufacturing base in Brandon is somewhat varied. The agricultural community remains the most influential on the manufacturing sector with significant economic generators such as pork processing, farm fertilizer production and metal fabrication. There are other economic generators that are not directly linked to agriculture, however, such as the production of industrial chemicals, communication components and pharmaceuticals.

Table 2.11 indicates the major employers, based on number of employees, in the manufacturing sector in Brandon. Many of the industries listed are related to the agricultural industry. Maple Leaf Pork, a hog slaughter operation, is currently operating one shift. Plans to expand the operation to a second shift are underway and the number of employees will increase accordingly. Nexen Chemicals Canada Limited Partnership has recently expanded the Brandon plant. In October 2004, the Brandon plant will be the largest producer of sodium chlorate in the world.

The manufacturing base in Brandon is somewhat varied. The agricultural community remains the most influential on the manufacturing sector with significant economic generators such as pork processing, farm fertilizer production and metal fabrication. There are other economic generators that are not directly linked to agriculture, however, such as the production of industrial chemicals, communication components and pharmaceuticals.

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Table 2.11: Largest manufacturing employers, Brandon, 2002

<table>
<thead>
<tr>
<th>Employer</th>
<th>Number of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maple Leaf Pork, Brandon</td>
<td>1,400</td>
</tr>
<tr>
<td>Simplot Canada</td>
<td>250</td>
</tr>
<tr>
<td>Behlen Industries</td>
<td>200</td>
</tr>
<tr>
<td>A.E. McKenzie Seed Company</td>
<td>165</td>
</tr>
<tr>
<td>Inventronics</td>
<td>100</td>
</tr>
<tr>
<td>Wyeth Organics</td>
<td>60 full-time and 52 part-time</td>
</tr>
<tr>
<td>Nexen Chemicals</td>
<td>46</td>
</tr>
</tbody>
</table>

Source: Brandon Chamber of Commerce
An unemployment rate refers to the percentage of people in the labour force, 15 years of age and over, who did not have a job during a specific reference week. The labour force comprises people who are currently employed and people who are unemployed but were available to work in the reference week and had looked for work in the previous four weeks. Figure 2.7 shows the unemployment rate among the population in the Brandon region in comparison to the national and provincial unemployment rates. The unemployment rate for the Brandon region is lower than both national and provincial rates. Our lower unemployment rate is likely related to two key factors: the local demand for skilled and unskilled labour in the region and the agricultural industry where no one is ever unemployed.

**Figure 2.7: Unemployment rate, Canada, Manitoba and Brandon, 2001**

![Unemployment Rate Chart](chart)

Source: Data from Statistics Canada (2001), Brandon Regional Health Authority Profile, Manitoba Health, 2004

The unemployment rate for youth in Figure 2.8 refers to individuals 15 to 24 years of age who were not working during the reference week. Overall, the youth unemployment rate for the Brandon region is lower than both national and provincial rates. When separated by sex, however, the unemployment rate for males is slightly higher in Brandon when compared to Manitoba males.
Healthy child development

Studies show that what happens to a child in the first six years of life determines how well they do throughout the lifespan. Studies show that what happens to a child in the first six years of life determines how well they do throughout the lifespan – how well they are able to learn in school, how well they are able to cope with life experiences and how healthy they will be as adults. There are a number of measures that reflect the healthy development of children. Specifically, information is provided about:

- birth rate
- breastfeeding rates
- immunization rates
- teen pregnancy rates
- single parenting

Birth rate

The number of babies born in the Brandon region is lower than the provincial rate for three of the five time periods shown in Figure 2.9. In 2000/01, the birth rate in Brandon equaled that of the province, however, Brandon is higher than Manitoba overall in 2002/03. There is a significant increase in the birth rate among Brandon residents between 2001/02 and 2002/03. This increase is likely related to a change in Federal legislation (Bill C-32) whereby a woman is now eligible for up to 50 paid weeks of maternity (15 weeks) and parental (35 weeks) benefits under the Employment and Income Assistance program. The new legislation became effective January 1, 2001 and the rise in the local birth rate is seen in 2002/03. There are anecdotal reports by Public Health Nurses of clients delaying a pregnancy until these benefits were in place.
Breastfeeding

There are many known benefits to breastfeeding: it provides infants with optimum nutrition, it protects against infectious diseases and it promotes maternal-child bonding. Breastfeeding may also provide some protection against Sudden Infant Death Syndrome (Canadian Institute of Child Health, 2000).

Figure 2.10 shows a significant increase in breastfeeding rates at time of hospital discharge for the Brandon region during the time periods shown. This trend is consistent with the provincial rate as well. Despite the increase within the region, the breastfeeding rate remains well below the provincial rate.

Figure 2.10: Breastfeeding rates upon hospital discharge, 2001

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003
'1' indicates area's rate was statistically different from Manitoba average in first time period shown
'2' indicates area's rate was statistically different from Manitoba average in second time period shown
T indicates change over time was statistically significant
There are several factors that affect the breastfeeding rate upon discharge from hospital in the Brandon region:

- a client’s intent to breastfeed is a significant factor and it is reflected in low start rates prior to discharge,
- breastfeeding is not a common practice among Aboriginal women,
- medicalized birth practices through use of epidurals and caesarean section surgeries result in a less alert baby often with reported difficulties with latching to the nipple. The linkage between the administration of epidurals and caesarian section rates with lower breastfeeding rates is strong. Recent studies show that there is an increase in caesarian section rates when epidurals are administered early in labour.
- the short-stay maternity programs result in two major challenges — there is a physiological challenge in that women are discharged from hospital prior to the establishment of their milk supply and hospital-based staff have limited time to spend with clients who need additional help, and
- some maternal/child nurses have not accepted the additional benefits of breast milk compared to artificial formula.

Breastfeeding is a priority for the Maternal Child Coordinating Team and they have begun planning processes to improve the rates in Brandon. As well, breastfeeding is included in the 2004/05 Performance Agreement between Manitoba Health and the Brandon Regional Health Authority. The expected result is improved initiation, improved duration of breastfeeding and exclusive breastfeeding. The RHA is required to set specific targets for percent improvement in breastfeeding initiation and to define improved mechanisms to gather data on breastfeeding initiation, duration and exclusive breastfeeding by December 31, 2004.

**Immunization**

Immunization rates reflect the health and potential health of children. Historically, immunization programs have been the cornerstones of public health services with the intent to reduce the burden of illness related to vaccine-preventable illnesses. In the Brandon region, immunization coverage for children includes Measles, Mumps and Rubella (MMR), Diphtheria, Pertussis, Tetanus, Polio and Hemophilus influenza B (DaPTP/Hib) and Hepatitis B. There are specific challenges related to childhood immunizations including:

- Delays with data entry into the Manitoba Immunization Monitoring System (MIMS),
- Differences in provincial legislation. For example, a second dose of MMR (preschool) is required in Manitoba but not in all provinces and
- Immunization schedules are less frequent after one year of age so parents often forget the next scheduled dose.
From 2000 to 2002, as seen in Figure 2.11, 83% of Brandon two-year-olds had their MMR immunizations. This is lower than the immunization rate for all Manitoban two-year-olds (87%). Similarly, the percentage of 7 year olds immunized for MMR is lower at 78% than the coverage rate for Manitoba overall (81%) during the same time period.

From 2000 to 2002, 80% of infants under one year of age in the Brandon region are immunized for DaPTP/Hib. This rate is consistent with the immunization rate for Manitoba as a whole. However, the immunization rate for DaPTP/Hib at 2 years of age is significantly lower at 73% than the provincial rate of 76%. Staff in Public Health Services report fewer immunizations at 18 months of age (DaPTP/Hib booster) because the time frame between vaccinations is much greater after the first year of life and many parents have returned to the workforce by then.

**Figure 2.11: Average immunization coverage rate (MMR and DaPTP/Hib), Manitoba and Brandon, 2000 to 2002**

From 2000 to 2002, 80% of infants under one year of age in the Brandon region are immunized for DaPTP/Hib. This rate is consistent with the immunization rate for Manitoba as a whole. However, the immunization rate for DaPTP/Hib at 2 years of age is significantly lower at 73% than the provincial rate of 76%. Staff in Public Health Services report fewer immunizations at 18 months of age (DaPTP/Hib booster) because the time frame between vaccinations is much greater after the first year of life and many parents have returned to the workforce by then.

In the Brandon region, immunization for tetanus and diptheria (TD) is available to all teenagers. The percentage of 15-year olds and 17-year-olds who have been immunized for TD in the Brandon region is significantly higher than similar cohorts for all Manitoba as seen in Figure 2.12. The TD immunization program is school-based so the Brandon rate may reflect a higher proportion of this age group still attending school.

Despite the higher TD immunization rates for this age group in Brandon when compared to the rest of the province, current rates remain well below the provincial target of 95%. One of the primary challenges with immunizations for TD is that the vaccinations are provided in many different settings, such as Public Health Services, physician’s office and acute care areas, but a reporting process has not been standardized. For example, a physician cannot bill for services rendered if a tetanus vaccination is given to a 15 year old patient who presents to the Emergency department with a laceration. As a result, that immunization is not entered into the MIMS database.
Figure 2.12: Average immunization coverage rate (TD), Manitoba and Brandon, 1999 to 2002

Source: Manitoba Health

Teen pregnancy

According to Figure 2.13, in 2001/02 the pregnancy rate among girls aged 10 to 14 years was 1.2/1000 whereas the pregnancy rate among Manitoba girls of similar age is 0.6/1000.

Teenage girls aged 15 to 19 years in Brandon appear to have a lower pregnancy rate (46.0/1000) than all Manitoba teenage girls (53.1/1000) during the same time period. Despite the efforts of Public Health Services to reduce the rate of teenage pregnancies, the number of pregnant teenagers in Brandon has remained relatively constant over many years. Reproductive health services including emergency contraception are available five days per week plus an evening Family Planning clinic once per week. Public Health Nurses also work in partnership with the Brandon School Division to provide reproductive health education as part of the new Physical Education curriculum. Public Health Nurses report the vast majority of pregnant teenagers who access Public Health Services were not using birth control despite their awareness of what is available and how to access it. It may be that intended pregnancies are more common than originally thought.

Figure 2.13: Teenage and adolescent pregnancy rates (aged 10 to 14 years and 15 to 19 years), Manitoba and Brandon, 2001/02

Source: Manitoba Health
As shown in Figure 2.14, fewer teenage girls aged 15 to 17 years in Brandon gave birth (2.6%) when compared to all Manitoba teenage girls (3.7%). Of Brandon teens age 18 to 19 years, 7.3% gave birth compared to 6.5% of all Manitoba teens. There were no births reported in Brandon to adolescents aged 10 to 14 years.

**Figure 2.14: Deliveries by adolescents and teens, aged 10 to 19 years, Manitoba and Brandon, 2001/02**

![Bar chart showing deliveries by age group in Brandon and Manitoba](chart1.png)

As shown in Figure 2.14, fewer teenage girls aged 15 to 17 years in Brandon gave birth (2.6%) when compared to all Manitoba teenage girls (3.7%). Of Brandon teens age 18 to 19 years, 7.3% gave birth compared to 6.5% of all Manitoba teens. There were no births reported in Brandon to adolescents aged 10 to 14 years.

**Figure 2.14: Deliveries by adolescents and teens, aged 10 to 19 years, Manitoba and Brandon, 2001/02**

![Bar chart showing deliveries by age group in Brandon and Manitoba](chart1.png)

Single parenting

Individuals who parent independently typically experience higher levels of stress and their ability to cope is often compromised by a lack of adequate income. Financial insecurity for single parent families often manifest by substandard housing, inadequate nutrition, limited recreational opportunities, difficulties with transportation and challenges with employment. Brandon children are just as likely to live with single parents, as are children in Manitoba as a whole, as shown in Figure 2.15. In Brandon, in 2001, 13.4% of households with children were headed by single parent mothers in comparison to 13.2% for Manitoba overall. Single parent fathers headed a total of 2.4% of households with children, which is lower than the provincial rate of 3.0%.

**Figure 2.15: Percentage of households with children headed by a single parent, Manitoba and Brandon, 2001**

![Bar chart showing percentage of households headed by single parents](chart2.png)

Financial insecurity for single parent families often manifest by substandard housing, inadequate nutrition, limited recreational opportunities, difficulties with transportation and challenges with employment.

**Figure 2.15: Percentage of households with children headed by a single parent, Manitoba and Brandon, 2001**

![Bar chart showing percentage of households headed by single parents](chart2.png)

Source: Data from Canadian Community Health Survey (2001), Brandon Regional Health Authority Profile, Manitoba Health, 2004
Public Health Services and Child & Family Services of Western Manitoba have been providing prenatal education and support to pregnant teenagers since the early 1970’s. In 1992, the program evolved into the Special Delivery Club. Approximately 275 teens have been involved in the program over the past five years. In 2003, a collaborative research project involving Child & Family Services of Western Manitoba, Public Health Services and Brandon University was completed. The project was an evaluation of the impact of the Special Delivery Club program and future programming needs. Approximately 40 participants participated in the study. A total of 42% of the survey participants were lone parents and, of these, 75% had one child, 12% had two children and another 12% had three children (Ek, 2004).

**Personal health practices and coping skills**

Personal health practices such as eating habits, physical activity, smoking, use of alcohol and other drugs affect health and well-being. Many common problems are directly linked to these practices. Coping skills, which seem to be acquired primarily in the first few years of life, are also important in supporting healthy lifestyles. Effective coping skills help people to be self-reliant, solve problems and make healthier choices. These skills help people face everyday challenges in positive ways without resorting to risky behaviors such as alcohol or drug misuse.

There are a number of measures to examine personal health practices and coping skills. Specifically information is provided about:

- Alcohol and drugs including:
  - alcohol intake
  - pharmaceutical use
  - multi drug use
  - antibiotic use
  - antidepressant use

- Tobacco including smoking patterns
- Gambling
- Physical activity including:
  - levels of physical activity
  - types of physical activity
  - physical difficulties

- Nutrition including:
  - Body Mass Index (BMI)
  - fruit and vegetable consumption
  - food security
  - geo-spatial access to food
  - services for eating disorders
Safety devices including:
- self-reported type of injury
- use of safety devices

Sexual practices including:
- number of different partners
- condom use
- reasons for not using condoms

Emotional and spiritual health including:
- stress levels
- emotional difficulties
- spiritual care

Alcohol and drug use

According to Figure 2.16, Brandon male and female residents are more likely to drink alcohol heavily once per week to three times per month (males 22.4%; females 8.1%) than all Manitobans (males 18.8%; females 6.9%).

**Figure 2.16: Current drinkers aged 12 and over who reported consuming 5 or more drinks at least once in the past year, Canada, Manitoba and Brandon, 2001**

All participants in the Kitchen Table Chat survey were asked the question, “Have you used any drugs (prescription and/or street drugs) in the past six months to get high?” Figure 2.17 reflects the findings from those who answered ‘yes’ to the question. Of the males who used drugs to get high in the past six months, 25% are 21 to 25 years old. Of greater concern, however, is the percentage of both females and males in that age group and younger. For females and males who used drugs to get high in the previous six months, 38% are 21 to 25 years of age and 26% are in the 15 to 20 year age group.
Figure 2.17: Drug use during the past 6 months by age and sex, KTC, 2004

![Pie chart showing drug use by age and sex.]

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Figure 2.18 shows pharmaceutical use among residents in the Brandon region over two time periods. Pharmaceutical use is defined as at least one prescription over two years. The use of pharmaceuticals is higher for Brandon residents for both time periods shown. The rate for the second time period is significantly higher than the first. Without knowing more about the medications prescribed and the accompanying medical condition, it is difficult to further analyze pharmaceutical use in the Brandon region.

Figure 2.18: Pharmaceutical use by RHA, 2001

![Bar chart showing pharmaceutical use by region.]

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003
Figure 2.19 shows the average number of different drugs used by RHA residents over two time periods. Fewer residents in the Brandon region were using multiple drugs than the provincial average during the time period, 1996/97 – 1997/98. Although the number of residents using multiple drugs during the second time period, 1999/00 – 2000/01 is equal to the provincial average, the increase over time is significant. The increase in the use of different medications by residents is evident in all RHAs across the province.

According to Figure 2.20, the rate of antibiotic use by residents filling at least one antibiotic prescription in a two year period is significantly higher than the provincial average for both time periods shown. Although the trend of increased antibiotic use extends beyond the borders of the Brandon RHA, the significant increase in the use of antibiotics in the Brandon region between time frames warrants further examination.
Figure 2.21 shows the percentage of the population with two or more prescriptions for antidepressants in a two-year period. Antidepressant use by Brandon residents was similar to the provincial average for the time period 1996/97 – 1997/98. However, there is a significant increase in antidepressant use during 1999/00 – 2000/01. The overall increase during the two time periods is staggering.

**Figure 2.21: Antidepressant use by RHA, 2001**

The dramatic increase in antidepressant use in the Brandon Region is related to the following two key factors:

1. **New generation medications** –
   - Marketing of new generation antidepressant medications and establishment into clinical practice. These Selective Serotonin Reuptake Inhibitors (SSRIs) started to gain confidence and reliability among physicians and they have become part of routine prescribing practice. Pharmaceutical companies advertised and promoted their products as effective treatment for depression and related conditions so physicians quickly learned that SSRI medications could be used for the treatment of anxiety disorders, obsessive compulsive disorders, post-traumatic stress disorder and personality disorders in addition to depression.
   - Use of SSRI medications as the medication of choice for any emotional health related condition. With a relatively good side effect profile and absence of addictive properties, SSRI’s are being used as an alternative to older generation (tricyclic) antidepressants and anxiolytics.
2. Stressful life conditions –

The prevalence of stressful life conditions appears to have increased and more residents are presenting to family physicians with complaints of stress reactions either in response to acute events or chronic and enduring stressful lifestyles. The treatment of choice by most physicians is an SSRI medication with a possible recommendation for psychosocial counselling. The availability and utilization of counselling services in Brandon has grown significantly with the private practice counselling market rapidly expanding. Correspondingly, there should be a significant relationship between the population complaint of distress, increased use of medications and increased use of counselling services.

- Stress Response Syndrome – in recent years, there has been an increase in residents presenting with a mixed symptom profile that includes features of depression, anxiety and general stress reaction in response to stressful life conditions. Medical treatment of choice has been SSRI medications with favourable response, particularly when combined with psychosocial counselling techniques.
- Similarly with children, lifestyle appears to have become more complex and there might be fewer social supports available. There are reports of increasing frequency of depression, anxiety and stress reactions among children. In recent years, there is an increase in contact with physicians and other service providers with this or conduct problems as the presenting complaint. Again, it is likely the prescribing of an SSRI as the first treatment of choice for such situations.

Tobacco use

Figure 2.22 shows the percentage of the population aged 12 and over who are currently smoking (daily or occasional) and the percentage that are former smokers. Female residents in Brandon are currently smoking at the same rate as their provincial counterparts (25.5%/25.3%) but a higher percentage of women in Brandon are former smokers (38.7%) than women in the province overall (37.0%). On the other hand, males in Brandon smoke less (25.2%) than males throughout Manitoba (29.4%) and there are fewer former male smokers in the Brandon region than in the province (44.6%/46.3%).
Figure 2.22: Smokers & former smokers - females and males aged 12 and over, Manitoba and Brandon, 2001

Figure 2.23 shows the percentage of Kitchen Table Chats survey participants who are currently smoking by age and gender. Among those currently smoking, the highest rate of smokers is seen in women in the 26 to 30 year age grouping (13%). A total of 14% are women between the ages of 15 and 25 years whereas 24% of women ranging from 31 to over 70 years identify as smokers. Smoking rates for males are similar in that 23% of males who are currently smoking are between the ages of 15 and 30 years. The percentage of males smoking between the ages of 31 and over 70 years is similar (24%) to females in the same age range, although rates per age category are not as evenly distributed.

Figure 2.23: Smokers by age and gender, KTC, 2004

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004
**Gambling**

Participants in the Kitchen Table Chats survey were asked the question, “Is gambling a habit or problem for you?” Of those who said it is, 50% are women over the age of 70, according to Figure 2.24. A total of 17% of women ages 26 to 30 and 41 to 45 also identified gambling as a problem. As well, 17% of males in the 46 to 50 year old category self-reported gambling as a problem. Further data analysis is required to determine the source of gambling (bingo, VLTs, casinos, etc.) in order to develop appropriate interventions.

**Figure 2.24: Gamblers by age and gender, KTC, 2004**

![Gamblers by age and gender, KTC, 2004](image)

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

**Physical activity**

Measuring the physical activity of the population is important to assess the overall health of the people. Figure 2.25 shows measurements for both ‘activity’ and ‘inactivity’. Brandon residents are more similar to the Canadian population and less similar to the Manitoba population. Specifically, both female and male residents in Brandon are considerably more active than their provincial counterparts but slightly less active than Canadian women and men overall. The percentage of women and men in the Brandon who are inactive is similar to Canadian women and men overall. We are more active than Manitobans overall.
Participants in the Kitchen Table Chats survey were asked, “What do you do to be active?” More than one answer was accepted. According to Table 2.13, almost 44% of the respondents identified walking as their primary means of physical activity. Playing with children was identified by 9.5% of the individuals and another 24.6% are involved in gardening, weight training, jogging or team sports. Almost one quarter (22.2%) of the people identified other activities than those listed in the Table. These activities include:

- Cycling
- Bowling
- Golfing
- Baseball
- Swimming
- Curling
- Pilates, yoga and Tai-chi exercises
- Playing cards
- Fitness routine including stationary bike and walking machine

Source: Statistics Canada, Canadian Community Health Survey Cycle 1.1, data analysis by Manitoba Health
Table 2.13: Types of physical activity, KTC, 2004

<table>
<thead>
<tr>
<th>What do you to be active? (Check all that apply)</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking</td>
<td>43.8%</td>
</tr>
<tr>
<td>Playing with children</td>
<td>9.5%</td>
</tr>
<tr>
<td>Gardening</td>
<td>7.3%</td>
</tr>
<tr>
<td>Weight training</td>
<td>7.3%</td>
</tr>
<tr>
<td>Jogging</td>
<td>5.1%</td>
</tr>
<tr>
<td>Team sports</td>
<td>4.9%</td>
</tr>
<tr>
<td>Other</td>
<td>22.2%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Participants were also asked a question about their usual mode of transportation around town. As seen in Table 2.14, almost 40% of the respondents typically drive a vehicle whereas 31.6% of the individuals usually walk. A total of 9.8% identified public transit (bus) as their usual means of transportation and 5.7% access taxi services. Just 2.9% of the respondents cycle around town. Individuals identified other means transportation as well. These include:

- Driven by friends or family members
- Wheelchair or scooter
- Handi-transit

Almost 40% of the respondents typically drive a vehicle whereas 31.6% of the individuals usually walk.

Table 2.14: Getting around town, KTC, 2004

<table>
<thead>
<tr>
<th>How do you get around town most of the time?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive</td>
<td>39.8%</td>
</tr>
<tr>
<td>Walk</td>
<td>31.6%</td>
</tr>
<tr>
<td>Public transit (bus)</td>
<td>9.8%</td>
</tr>
<tr>
<td>Taxi</td>
<td>5.7%</td>
</tr>
<tr>
<td>Cycle</td>
<td>2.9%</td>
</tr>
<tr>
<td>Other</td>
<td>10.2%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004
Figure 2.26 illustrates physical difficulties as reported by survey participants. Individuals were asked if they had any difficulties with their physical health that kept them from doing the things they would usually do in a typical day and, if so, were their normal activities limited a little, a lot or totally. Almost three quarters of the respondents in Brandon (73%) did not report physical difficulties that limited their normal activities within the previous 30 days. This is similar to the respondents overall (75%). Approximately one quarter (27%) did experience physical difficulties that limited their normal activities only a little.

Figure 2.26: Self-reported physical difficulties in the last 30 days

Nutrition

Body mass index (BMI – international standard), which relates weight to height, is a common method of determining if an individual’s weight is in a healthy range based on their height. As shown in Figure 2.27, male residents in Brandon are more likely to be overweight whereas female residents are more likely to have a healthy body weight. A considerable portion of both men and women are overweight (males 42.9%, females 28.0%) and 38.2% of men and women in the region are obese.
Figure 2.27: Body Mass Index (International Standard)

Source: Statistics Canada, Canadian Community Health Survey Cycle 1.1, data analysis by Manitoba Health
Note: Data with a coefficient variation (CV) greater than 33.3% were suppressed (F) due to extreme sampling variability.

Figure 2.28 shows more female residents in the Brandon region are at an acceptable weight than women in Manitoba overall. There are lower percentages of overweight (28.0%) and obese (18.6%) women in Brandon when compared to Manitoba (29.3%/19.2%). Male residents of Brandon are more likely to be overweight than the male population in the province however obesity rates for men in Brandon are lower (19.6%) than the provincial rate (22.2%).

Figure 2.28: Body Mass Index (International Standard), Brandon and Manitoba, 2001

Source: Statistics Canada, Canadian Community Health Survey Cycle 1.1, data analysis by Manitoba Health
Note to Figure: Data with a coefficient variation (CV) greater than 33.3% were suppressed (F) due to extreme sampling variability.
As shown in Figure 2.29, a larger proportion of residents in the Brandon region consume the recommended amounts of fruits and vegetables than Manitobans overall. There are obvious gender differences when it comes to fruit and vegetable consumption. A comparison with national rates shows females in Brandon (22.0%) consume considerably more fruits and vegetables than females in Canada (20.5%) overall whereas male residents in Brandon (14.0%) consume slightly less than Canadian men (14.7%).

**Figure 2.29: Percentage aged 12 and over who consumed five or more servings of fruits & vegetables per day; Canada, Manitoba and Brandon, 2001**

![Bar chart showing percentage of the population for Canada, Manitoba, and Brandon.](chart)

Source: Statistics Canada, Canadian Community Health Survey Cycle 1.1, data analysis by Manitoba Health
Note to Figure: Data with a coefficient variation (CV) greater than 33.3% were suppressed (F) due to extreme sampling variability

Participants in the Kitchen Table Chat survey were asked a question related to food security (Table 2.15). Specifically, they were asked to describe the food situation in their home in terms of having enough to eat and food choices. Almost three-quarters (73.7%) said they have often had enough food and the kinds of food they want to eat. Almost one-quarter (23.9%) said they have enough to eat but not always the food of their choosing. A total of 2.9% of the respondents said they sometimes or often do not have enough to eat.

**Table 2.15: Food security, KTC, 2004**

<table>
<thead>
<tr>
<th>Which one of these statements best describes the food situation in your home?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>We often have enough to eat and the kinds of food we want.</td>
<td>73.7%</td>
</tr>
<tr>
<td>We have enough to eat but not always the kinds of food we want.</td>
<td>23.9%</td>
</tr>
<tr>
<td>Sometimes we do not have enough to eat.</td>
<td>1.9%</td>
</tr>
<tr>
<td>Often we do not have enough to eat.</td>
<td>0.5%</td>
</tr>
</tbody>
</table>
Access to food is largely determined by the physical location of food sources in relation to where people live. This relationship strongly influences the foods that people eat. A question related to geo-spatial access to food was included in the Kitchen Table Chat survey. As seen in Table 2.16, the vast majority of respondents (94.0%) identified grocery stores as their primary source of food. The food bank and community agencies support 3.7% of the individuals. Those who identified other food sources totaled 2.3% of the respondents. Other food sources include:

- Parents
- Private food service
- Take out/delivery

Table 2.16: Geo-spatial access to food, KTC, 2004

<table>
<thead>
<tr>
<th>Where do you usually get your food?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grocery store</td>
<td>94.0%</td>
</tr>
<tr>
<td>Food bank</td>
<td>2.3%</td>
</tr>
<tr>
<td>Community agencies</td>
<td>1.4%</td>
</tr>
<tr>
<td>24-hour convenience store</td>
<td>0.5%</td>
</tr>
<tr>
<td>Other</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

As shown in Figure 2.30, survey respondents are almost evenly divided about their thoughts of using services for eating disorders. A total of 16% of Brandon respondents feel it is very likely that they, or someone else they know, might use services for eating disorders, and 34% feel it is somewhat likely. Nearly one in five (19%) think it is somewhat unlikely that they or someone else they know would use these services and almost one third (31%) say it is not likely these services would be of any use.

Figure 2.30: Services for those with eating disorders

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004
Source: Acumen Research: RHAM Community Health Survey, December 2003
Note: This question was put to the Brandon sample only. Responses of “don’t know / refused” have been excluded. Percentages may not total exactly 100% due to rounding.
Despite the importance of children eating nutritious, well balanced diets, childhood obesity has become a national problem. Obesity in childhood has long-term implications for the health of individuals and it contributes to existing or future chronic health conditions such as diabetes and heart disease (Manitoba Council on Child Nutrition, 2001). Efforts to address childhood obesity are underway both locally and provincially.

The Food for Thought Program is a breakfast and snack program offered in 10 schools in the Brandon School Division. The intent of the program is to provide nutritious food to children who struggle with food security at home. A Program Coordinator is in place to oversee activities at all program sites. A Community Nutritionist with Public Health Services is actively involved in the program to support the nutrition and educational components.

The Province of Manitoba has recently created The Healthy Kids, Healthy Futures task force to identify possible solutions to the growing weight problem in the province. The committee will meet with Manitobans to identify programs that are making a positive impact on the health of children so that those programs may be implemented elsewhere. A website will also be launched so that Manitobans can share their thoughts on the issue. The task force will report back to the legislature in the spring of 2005.

Injury and safety devices

Participants in the Kitchen Table Chats survey were asked if they had an injury in the home, neighbourhood or at work in the past year. Individuals were invited to include more than one injury if applicable. The most common type of injury reported is falls (34%) followed by reports of cut/pierce at 25% and approximately 18% of responses were related to a burn. A total of 22% responses were ‘Other’, which includes sprains (ankle and wrist), collapsed lung, back pain, car accident and knocked over by a horse.

Figure 2.31: Self reported type of injury; KTC, 2004
Kitchen Table Chat survey participants were also asked questions about their use of safety devices. Specifically, questions related to use of bicycle helmets, car seats and seat belts as shown in Table 2.17. When asked, How often do the children in your household wear bicycle helmets?, more than one-quarter of the respondents (28.2%) said the children always wear a helmet. A total of 7.7% of the respondents said children in their households sometimes to usually wear a helmet and 33.3% of the respondents recognized that children in their household rarely or never wear a bicycle helmet. The question was not applicable to 30.8% of the respondents because the children in their household do not own a bicycle.

**Table 2.17: Use of safety devices: bicycle helmets, car seats and seatbelts, KTC, 2004**

<table>
<thead>
<tr>
<th>How often do the children in your household wear bicycle helmets?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>28.2%</td>
</tr>
<tr>
<td>Usually</td>
<td>5.1%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>2.6%</td>
</tr>
<tr>
<td>Rarely</td>
<td>10.3%</td>
</tr>
<tr>
<td>Never</td>
<td>23.0%</td>
</tr>
<tr>
<td>Not applicable – does not own a bicycle</td>
<td>30.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How often do you use a car seat for your children?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>66.7%</td>
</tr>
<tr>
<td>Most of the time</td>
<td>4.2%</td>
</tr>
<tr>
<td>Some of the time</td>
<td>4.2%</td>
</tr>
<tr>
<td>Never</td>
<td>8.3%</td>
</tr>
<tr>
<td>Not applicable</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How often do you wear a seatbelt?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>86.4%</td>
</tr>
<tr>
<td>Usually</td>
<td>8.3%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>2.9%</td>
</tr>
<tr>
<td>Never</td>
<td>0.5%</td>
</tr>
<tr>
<td>Not applicable – use public transit only</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Note to Table: Data missing (seatbelt use) from 3 surveys
Participants were then asked, How often do you use a car seat for your children? A total of 66.7% of the individuals reported they always use a car seat for their children. Those using a car seat some to most of the time totaled 8.4% and 8.3% of the respondents say they never use a car seat with their children. The question was not applicable to 16.7% of the participants because they do not own a vehicle or their children do not ride in vehicles.

The question, How often do you wear a seatbelt? Related directly to the survey participant and not to the children in the household. As shown in Table 2.17, 86.4% of the respondents report using a seatbelt all of the time. A total of 11.2% say they wear a seatbelt sometimes to usually and 0.5% report never wearing a seatbelt. This question was not applicable for 1.9% of the respondents because they use public transit exclusively.

Sexual practices

Participants in the Kitchen Table Chats survey were asked if they had sexual intercourse in the past year. Five respondents did not answer the question because they felt it was too personal. Of those who responded to the question, 61.8% had been sexually active in the past year and 38.2% had not. Those who were sexually active were also asked about the number of different sexual partners they had within that time period (Table 2.18). Once again, two individuals did not answer this question because they felt it was too personal. A total of 50% of the respondents had one sexual partner and 14.5% had 2 to 3 sexual partners within the past year. Those with 4 or more sexual partners were 3.2% of the respondents.

Table 2.18: Number of different sexual partners, KTC, 2004

<table>
<thead>
<tr>
<th>(If yes) With how many different partners?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 partner</td>
<td>50%</td>
</tr>
<tr>
<td>2 to 3 partners</td>
<td>14.5%</td>
</tr>
<tr>
<td>4 to 5 partners</td>
<td>1.6%</td>
</tr>
<tr>
<td>6 or more partners</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004
Note to chart: Data missing from 2 surveys – refused to answer

Following the questions about sexual activity, survey participants were also asked about their use of condoms. Specifically, they were asked, “How often have you used condoms in the past year?” As seen in Table 2.19, 24.8% of those who answered the question, said they use condoms with every sexual encounter. A total of 13.6% of the respondents use condoms half of the time or more while 4.8% use condoms less than half of the time. A total of 4% were not sure about their condom use while 52.8% reported never using condoms.
Table 2.19: Condom use, KTC, 2004

<table>
<thead>
<tr>
<th>(If yes) How often have you used condoms in the past year?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>24.8%</td>
</tr>
<tr>
<td>More than half of the time</td>
<td>8%</td>
</tr>
<tr>
<td>Half of the time</td>
<td>5.6%</td>
</tr>
<tr>
<td>Less than half of the time</td>
<td>4.8%</td>
</tr>
<tr>
<td>Unsure</td>
<td>4%</td>
</tr>
<tr>
<td>Never</td>
<td>52.8%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Note to chart: Data missing from 1 survey – refused to answer

Participants were then asked about the reasons for not using a condom for every sexual encounter. They were asked, “For the times that you didn’t use a condom during sexual intercourse, why didn’t you?” and more than one answer was accepted. The majority of individuals (38.2%) have only one sexual partner so they did not feel a condom was needed. A total of 22.8% reported that they knew their sexual partner and 20.0% responded that they were using another form of birth control. Other reasons include a dislike of condoms (5.0%), drinking alcohol or using drugs at the time (3.9%), not having one (1.7%) and sexual partner not wanting to use one (0.6%). A significant portion of the respondents provided reasons that were not included in the survey tool. The category, ‘Other’ includes the following rationale:

✓ Allergy to latex
✓ Trying to become pregnant
✓ No sexual risk with partner

Table 2.20: Reasons for not using condoms, KTC, 2004

<table>
<thead>
<tr>
<th>For the times that you didn’t use a condom during sexual intercourse, why didn’t you?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only one partner</td>
<td>38.3%</td>
</tr>
<tr>
<td>Knew the partner</td>
<td>22.8%</td>
</tr>
<tr>
<td>Uses another form of birth control</td>
<td>20.0%</td>
</tr>
<tr>
<td>Other</td>
<td>7.8%</td>
</tr>
<tr>
<td>Don’t like them</td>
<td>5.0%</td>
</tr>
<tr>
<td>Was drinking or using drugs at the time</td>
<td>3.9%</td>
</tr>
<tr>
<td>Didn’t have one</td>
<td>1.7%</td>
</tr>
<tr>
<td>Partner didn’t want to</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004
Emotional and spiritual health

According to Figure 2.32, the majority of women in Brandon (42.9%) report ‘a bit’ of constant stress in their lives. This percentage equals Manitoba women overall. The percentage of women experiencing ‘not very much’ chronic stress is higher than women in the province (26.0%/24.2%) as well as those experiencing ‘quite a bit’ of chronic stress (19.2%/18.5%). Data is not available for the male population.

Figure 2.32: Females - levels of chronic stress, Manitoba and Brandon, 2001

Source: Data from Canadian Community Health Survey (2001), Brandon Regional Health Authority Profile, Manitoba Health, 2004

Note to Figure:
Data with a coefficient of variation (CV) from 16.6% to 33.3% are identified by an (C) and should be interpreted with caution.
Data with a coefficient of variation (CV) greater than 33.3% were suppressed (F) due to extreme sampling variability.

Figure 2.33 shows emotional difficulties as reported by participants in the telephone survey. Individuals were asked, “During the past 30 days, did you have any difficulty with your emotional health that kept you from doing the things you usually do in a typical day. If so, would you say it limited your normal activities a little, a lot or totally? A total of 88% of the individuals reported no emotional difficulties within the previous 30 days. Of the 12% who did report difficulties, 8% said their normal activities were limited a little.
Participants in the Kitchen Table Chats survey were asked if they had experienced anxiety, depression or feeling overwhelmed in the past year. Responses were almost evenly divided with 47.4% reporting ‘No’ and 52.6% reporting ‘Yes’. Of those who had experienced anxiety, depression or feeling overwhelmed, half of the individuals (50%) had sought help from a health care professional including:

- Counselor
- Doctor
- Psychologist
- Psychiatrist
- Social worker
- Community Mental Health Worker
- Public Health Nurse
- Addictions Foundation of Manitoba

Survey participants were also asked if they had accessed any spiritual care in the past year. The majority of individuals (63.4%) had not sought help from a minister, pastor, elder or other spiritual care provider and 36.6% said they had accessed spiritual care. A high proportion of those who sought spiritual care found it helpful (86.3%). The individuals who had not accessed spiritual care were asked “why not?” They provided a range of answers as seen in Table 2.21.
Table 2.21: Reasons for not accessing spiritual care, KTC, 2004

<table>
<thead>
<tr>
<th>If no, why not?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never thought of it</td>
<td>45.5%</td>
</tr>
<tr>
<td>Didn’t need it</td>
<td>24.7%</td>
</tr>
<tr>
<td>Not a religious person</td>
<td>14.3%</td>
</tr>
<tr>
<td>Didn’t know how to find someone</td>
<td>3.9%</td>
</tr>
<tr>
<td>Prefer friends and family</td>
<td>2.6%</td>
</tr>
<tr>
<td>Can’t sit for long periods of time</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Social support networks

Support from families, friends and neighbours is vital to help people cope with difficult situations and maintain a sense of control over their lives.

According to Figure 2.35, fewer Brandon residents live in a private household with family members than all Manitobans. Similarly, more people in Brandon live in a private household with non-family members than in the province overall. The higher percentage of persons living in non-family private households is likely related to the many shared living arrangements among university and/community college students in the city, the increase in newcomers who are working at Maple Leaf Inc. and the number of personal care home beds in the region.

Figure 2.35: Social support - living arrangements, Manitoba and Brandon, 2001

Source: Data from Statistics Canada Data Consortium, Special Purchase (2001), Brandon Regional Health Authority Profile, Manitoba Health, 2004
Figure 2.36 reflects the marital status of residents in the Brandon region in comparison to Manitobans in general. Marriage is a measure of social support. Overall, the marital status of residents in this region is relatively consistent with the marital status of Manitobans although Brandon shows a slightly higher divorce rate than the province. The largest proportion of residents aged 15 and over (51.2%) are legally married and not currently separated compared with the province at 52.5%. The next highest category is never married (single) at 32.1%. This percentage is similar to the province overall at 31.7%.

**Figure 2.36: Social support - marital status, Manitoba and Brandon, 2001**

As shown in Figure 2.37, there are significant differences in the marital status of residents who participated in the Kitchen Table Chats survey when compared to Brandon residents overall. The majority of respondents (35%) identify as single (never married) and those who identify as legally married make up 21% of the respondents. The most significant difference is seen in the ‘widowed’ category. A total of 18% of the Kitchen Table Chats participants self-report as widowed in comparison to 6.8% of Brandon residents overall. This trend is most likely related to number of seniors housing complexes throughout the survey area.
According to Figure 2.38, slightly more than half of Brandon respondents in the telephone survey (53%) said they had someone who would listen to them all of the time. Only 6% did not have anyone to whom they could turn to be heard.

**Figure 2.38: Self reported description of persons to talk to in times of stress**

When you are feeling anxious or upset and you need to talk, do you have someone you can count on to listen to you? If so, would that be a little of the time, some of the time, most of the time or all of the time?

Source: Acumen Research: RHAM Community Health Survey, December 2003

Note: Responses of “don’t know / refused” have been excluded. Percentages may not total exactly 100% due to rounding.
According to Table 2.22, the majority of respondents in the Kitchen Table Chats survey have personal supports in place. Of the 208 individuals who responded to the question about when they last talked to their closest friend, 91.3% had contact within the past two weeks. Only 2.4% had contact more than four months previously. A total of 6.3% had contact with their closest friend within the past one to four months.

Table 2.22: Contact with closest friend, 2004

<table>
<thead>
<tr>
<th>When was the last time you talked with your closest friend?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today</td>
<td>38.9%</td>
</tr>
<tr>
<td>Within last week</td>
<td>47.6%</td>
</tr>
<tr>
<td>Within past two weeks</td>
<td>4.8%</td>
</tr>
<tr>
<td>Within past month</td>
<td>3.4%</td>
</tr>
<tr>
<td>2 to 4 months ago</td>
<td>2.9%</td>
</tr>
<tr>
<td>More than 4 months ago</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Note to chart: Data missing from one survey

Individuals completing the Kitchen Table Chats survey were asked, “If you needed to talk with somebody or borrow some money, who would you call?” Participants were able to identify more than one source of support. According to Table 2.23, family members including parents, sister/brother, aunt/uncle are the primary support figures. A total of 22.0% of the respondents selected the ‘Other’ category to answer the question. A review of the individuals listed in the ‘Other’ category shows 73.9% are other relatives including son/daughter, grandparent or grandchild. A total of 32.5% of the individuals identified friends as their main source of support and 22.4% of respondents identified co-workers, neighbours and financial institutions.

Table 2.23: Source of support, 2004

<table>
<thead>
<tr>
<th>If you needed to talk with somebody or borrow some money, who would you call?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>35.9%</td>
</tr>
<tr>
<td>Friend</td>
<td>32.5%</td>
</tr>
<tr>
<td>Sister/brother</td>
<td>22.5%</td>
</tr>
<tr>
<td>Other</td>
<td>22.0%</td>
</tr>
<tr>
<td>Bank</td>
<td>17.2%</td>
</tr>
<tr>
<td>Aunt/uncle</td>
<td>4.3%</td>
</tr>
<tr>
<td>Neighbour</td>
<td>3.8%</td>
</tr>
<tr>
<td>Co-worker</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

The majority of respondents in the Kitchen Table Chats survey have personal supports in place.
Physical environment

Physical factors in the natural environment such as water and air quality have a strong impact on the health of the population. Factors in the man-made environment such as housing, workplace safety and road design and maintenance are also very important.

Water quality

Water services – The City of Brandon’s Water Treatment Plant provides a water supply capacity of 45.4 million litres per day and it operates between 45% and 75% capacity, depending on demand. The Assiniboine River, which runs through the city, is the source of water during normal operation.

Sewage collection & treatment – All developed areas of Brandon are serviced with a piped municipal sewer system. The sewage system is gravity flow and some areas are supplemented with sewage lift stations (pump systems). The infrastructure is determined largely by geography. For example, sewage collection for the north hill area of the city is gravity flow to sewage lines on the south side. Since the south end of the city is physically lower than the sewage lines that flow into the treatment center, a lift station is in place to pump the waste into the lines to the treatment center. There are five lift stations throughout Brandon. There is one area in the city that has a septic system in place. When the area of Oak Bluff was initially developed, a water main was established but sewer lines were not installed. Therefore, each household is responsible for their own septic tank.

Sewage is not collected from the surrounding rural municipalities. Rural residents are responsible for their own sewage systems. Some have pump-out sewage systems while others have septic fields. There are no plans to expand water treatment services to the rural communities surrounding Brandon however some services are available to rural residents. Wastewater that is hauled in from the rural setting may be disposed of at the treatment center for a service fee.

Historically, wastewater was simply emptied into the Assiniboine River in its raw form and contents from septic tanks were spread on farmland but scientific research and experience encourages proper treatment of the material prior to disposal. The City of Brandon has a state-of-the-art wastewater treatment facility for all wastewater generated within the city. This involves the removal of solids, harmful components such as ammonia, phosphorus and nitrogen and disinfection to remove bacteria so that the wastewater is safe for disposal on farmland.

Landfill & eco-center – The City of Brandon owns and operates its own landfill site. Non-hazardous waste is accepted on a fee-for-service basis. There are also two transfer stations for residents of the rural municipality of Cornwallis; one is located on the low road to Shilo and the other is located on Richmond Avenue East. An Eco-center is located at the main landfill site on Victoria Avenue East. Residents are encouraged to drop off used motor oil, oil filter and containers and vegetable oil that is used for lubrication. Hours of operation vary depending on the season. The RM’s of Elton and Whitehead do not typically access these sites as a landfill operates within both municipalities.
Garbage collection is provided to most city addresses. There are some addresses that do not have garbage service due to physical restrictions. For example, some apartment blocks are serviced by very narrow lanes and the automated garbage trucks cannot get in to provide service.

A comprehensive recycling program is also available. Recycling pick-up has been incorporated with garbage collection in residential areas. There are also numerous recycling depots located throughout the city as well as at the landfill site and transfer stations. Residents are encouraged to recycle paper, plastic and metal products as well as biodegradable grass.

Air quality

Figure 2.39 illustrates the percentage of the population aged 12 and over who are exposed to environmental tobacco smoke in public places and work places on most days. Females in Brandon appear to be as likely to be exposed to second hand smoke (26.3%) as all Manitoba females (26.7%). Males in Brandon are more likely to be exposed (38.5%) than Manitoba males as a whole (35.1%). Overall, the percentage of the population exposed to second hand smoke is higher in Brandon than Manitoba.

Figure 2.39: Regular exposure to second-hand smoke, Manitoba and Brandon, 2001

Second-hand smoke is a serious health hazard. A smoker does not inhale two thirds of the smoke from a cigarette, cigar or pipe. The smoke that is exhaled by the smoker (mainstream smoke) mixes with the smoke from the lit end of the tobacco (sidestream smoke) to form second hand smoke. Exposure to second hand smoke poses significant health risks for non-smokers including:

- Coronary heart disease,
- Lung cancer,
- Nasal sinus cancer,
- Bronchitis and pneumonia,
- Asthma in children,
- Middle ear disease in children,
- Low birth weight and,
- Sudden Infant Death Syndrome.

After extensive community consultation and many public and private debates between smokers and non-smokers, business owners and health advocates, the City of Brandon introduced an anti-smoking bylaw (#6696) at midnight on September 1st, 2002. The intent of the bylaw is to ban smoking in all public places to protect the health and safety of both patrons and employees. The Brandon bylaw specifically defines 25 places where smoking is not allowed such as laundromats, restaurants and arenas.

The Brandon bylaw was the strongest anti-smoking bylaw at its inception. City Council reviewed the bylaw in June 2003 following widespread public consultation. Of the approximate 300 written submissions, 89% indicated support for the bylaw as it is written. The bylaw was unanimously supported by City Council and it remains in place today. In the spring of 2003, the Canadian Medical Association praised the City of Brandon with a special award for their efforts toward healthy public policy.

Road design and maintenance

In 1998, the Road Watch Program, a pilot project to improve road safety involving the Manitoba Public Insurance (MPI) and the City of Brandon was initiated. MPI provided funds to establish a comprehensive Check Stop program with the intent to reduce impaired driving and other infractions. Currently, MPI provides approximately $70,000.00 per year to the City of Brandon for the Brandon Police Services to implement 50 Check Stops between May and November each year. Based on the success of this initiative, the program has been adopted province-wide.

In 1999, a Dangerous Goods Route pilot project was initiated by the City of Brandon in partnership with the Department of Highways. The impetus for this initiative is based on three key factors:

- City Council members became aware of similar routes in other communities,
- a tanker truck rolled over at a major intersection in Brandon and the area required evacuation. This incident illustrated the potential risks related to the transportation of dangerous goods, and
- the development of Maple Leaf Inc. created a need for the eastern access route to Brandon.

Dangerous goods are any product, substance or organism that falls within any of the following categories:

- Explosives
- Gases – compressed, liquefied or dissolved under pressure
- Flammable & combustible liquids
- Flammable solids
- Oxidizing substances - organic peroxides
- Poisonous and infectious substances
- Radioactive materials
- Miscellaneous dangerous substances

After two years, the pilot project was evaluated and it is now fully implemented.
Housing

One of the themes that emerged from Mental Health reform in the mid and late 1990’s was a shortage of affordable and adequate housing in Brandon for mental health consumers. Housing for this population has often been a barrier to recovery as living in sub-standard, inadequate and/or unsafe housing contributes to reduced self-efficacy and an exacerbation of psychiatric symptoms. False perceptions about mental health consumers, previous negative experiences by landlords with the population and the difference between income support and market rent amounts reduced the overall supply of appropriate shelter.

Intersectoral partnerships and creative strategies have contributed to the development of housing and supports in Brandon. Housing is a priority for the Brandon Neighbourhood Renewal Corporation and Mental Health consumers have benefited by improved access to the rent supplement program. There have also been significant gains with private landlords as trusting relationships have been established and reliable supports have increased. Moving to improved housing is a new experience for many individuals and access to the necessary supports to develop skills and maintain housing are key to success. The benefits of improved access to safe, affordable and adequate housing will be felt over the next several years.

Figure 2.40 shows housing affordability in the Brandon region and compared to Manitoba overall. Housing insecurity can be determined by a number of indicators including those who spend more than 30% of their income on housing. When housing is unaffordable, individuals and families often face food insecurity and possible malnutrition and are unable to fully participate in active recreation and social programs for children. There is little or no money left for transportation to work, for clothing or for health products including prescriptions (Health Canada, 2004).

According to Figure 2.40, in 1996, a similar proportion of renters in Brandon were living in unaffordable housing compared to Manitobans overall (40.1% and 40.4% respectively) whereas a smaller proportion of homeowners in Brandon were living in unaffordable housing (8.3%) compared to Manitobans overall (11.0%) in 1996.

This trend does not continue into 2001 however. A higher proportion of renters in Brandon (43.0%) were living in unaffordable housing when compared to Manitobans overall (37.0%). The previous trend among homeowners in Brandon compared to the Manitobans changed by 2001. A significant increase in the percentage of homeowners in Brandon living in unaffordable housing closed the gap when compared with Manitobans overall (11.0% and 11.0%).

When housing is unaffordable, individuals and families often face food insecurity and possible malnutrition and are unable to fully participate in active recreation and social programs for children.
All of the participants in the Kitchen Table Chat survey were asked questions about their physical environment including their place of residence and neighbourhood. According to Table 2.24, 75.1% of the respondents are currently renting their primary residence. A total of 20.6% report that they own their home and 4.3% selected “Other” as a descriptor that includes living with parents or an adult child and staying with friends.

Table 2.24: Home ownership in central Brandon, KTC, 2004

<table>
<thead>
<tr>
<th>Home ownership</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own home</td>
<td>20.6%</td>
</tr>
<tr>
<td>Rent</td>
<td>75.1%</td>
</tr>
<tr>
<td>Other (includes living with parents or an adult child, staying with people in the home, etc.)</td>
<td>4.3%</td>
</tr>
</tbody>
</table>

Individuals were also asked a question about how long they have been living at their current place of residence. As seen in Table 2.25, a total of 55.5% have been living in their home for two or more years. Those living in their home for six months to two years represent 25.4% and just 19.1% have been settled in their home for less than six months.
Table 2.25: Length of time in current residence, KTC, 2004

<table>
<thead>
<tr>
<th>Length of time</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 6 months</td>
<td>19.1%</td>
</tr>
<tr>
<td>6 months to 1 year</td>
<td>20.6%</td>
</tr>
<tr>
<td>13 months to 23 months</td>
<td>4.8%</td>
</tr>
<tr>
<td>2 to 4 years</td>
<td>18.2%</td>
</tr>
<tr>
<td>more than 4 years</td>
<td>37.3%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Table 2.26 illustrates the perceptions of safety in the neighbourhood among participants in the Kitchen Table Chat household survey. The majority of individuals (54.5%) report feeling very safe while 35.9% report feeling somewhat safe. A total of 9.6% of the people surveyed do not feel safe.

Table 2.26: Perceptions of safety in neighbourhood, KTC, 2004

<table>
<thead>
<tr>
<th>Level of safety</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very unsafe - afraid</td>
<td>0.48%</td>
</tr>
<tr>
<td>Not very safe</td>
<td>9.1%</td>
</tr>
<tr>
<td>Somewhat safe</td>
<td>35.9%</td>
</tr>
<tr>
<td>Very safe</td>
<td>54.5%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Table 2.27 illustrates the safety concerns that were identified by survey participants. Of the 170 individuals who identified specific safety concerns in their neighbourhood, 46.8% of the concerns are related to theft of property and vandalism. We do not know if the individuals have experienced these types of crimes or if their responses are based on perceptions. A total of 18.2% of the respondents reported concerns with issues such as noisy disturbances, inebriated individuals walking about and loitering in the neighbourhood.
Table 2.27: Safety concerns in neighbourhood, KTC, 2004

<table>
<thead>
<tr>
<th>What makes it feel unsafe?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assaults</td>
<td>8.6%</td>
</tr>
<tr>
<td>Sexual assault</td>
<td>.48%</td>
</tr>
<tr>
<td>Family violence</td>
<td>2.4%</td>
</tr>
<tr>
<td>Theft of property</td>
<td>23.4%</td>
</tr>
<tr>
<td>Vandalism</td>
<td>23.4%</td>
</tr>
<tr>
<td>Graffiti</td>
<td>8.1%</td>
</tr>
<tr>
<td>Other</td>
<td>14.8%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Survey participants were asked, “If you could change one thing about your neighbourhood, what would it be?” Table 2.28 illustrates the themes that individuals identified. The majority of respondents (14.2%) identified specific maintenance issues. These include repair of streets and sidewalks, snow and ice removal and general upkeep of houses and yards. Concern with noise and traffic was identified by 12.4% of the respondents. Survey participants would like to live on a quieter street and they are concerned about the speed of vehicles on their streets. Crime and safety were also strong themes (11.7%). Individual comments include wanting more police protection, decrease theft, safer streets and a safer community in particular. Other individuals (7.4%) spoke to the need for more amenities in the neighbourhood. These amenities include grocery stores, shops and businesses, services in general and a playground. A total of 7.4% of the respondents would like to see changes with their neighbours. Dissatisfaction with current neighbours is due to noise level, the smell of others’ cooking, seedy visitors and not caring for home and/or yard. Concern with alcohol and drug use in the neighbourhood was identified by 2.5% of the respondents. A total of 2.5% of the individuals would like to see changes with the number and condition of rental properties in the area. Just 0.62% of the individuals identified concern with the cost of housing.
Table 2.28: Changes to the neighbourhood, KTC, 2004

<table>
<thead>
<tr>
<th>If you could change one thing about your neighbourhood, what would it be?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance</td>
<td>14.2%</td>
</tr>
<tr>
<td>Noise and traffic</td>
<td>12.4%</td>
</tr>
<tr>
<td>Crime and safety</td>
<td>11.7%</td>
</tr>
<tr>
<td>Amenities</td>
<td>7.4%</td>
</tr>
<tr>
<td>Neighbours</td>
<td>7.4%</td>
</tr>
<tr>
<td>Alcohol and drugs</td>
<td>2.5%</td>
</tr>
<tr>
<td>Rental properties</td>
<td>2.5%</td>
</tr>
<tr>
<td>Cost of housing</td>
<td>0.62%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Health services

Health services are essential to the health of the population. There is a strong relationship between the availability of preventive and primary care services and improved health status. By ensuring that health services are appropriate and cost-effective, we can be sure that they make the best possible contribution to health.

Four aspects of health services are discussed:

- Self-rated health,
- Immunization,
- Access to physicians and
- End of life care.

Health services are discussed in greater detail in Chapter 3, Health System Infrastructure and Chapter 4, Health System Performance.

Self rated health

According to Figure 2.41, nearly six in ten (59%) Brandon respondents categorize their health, compared to others their age, as excellent (16%) or very good (43%). A total of 11% rated it as either fair (8%) or poor (3%).
Figure 2.41: Self-rated health in comparison to others of the same age

Compared to others your age, would you say your health is...?

<table>
<thead>
<tr>
<th>Response</th>
<th>Brandon</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Fair</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Good</td>
<td>29%</td>
<td>16%</td>
</tr>
<tr>
<td>Very good</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Excellent</td>
<td>43%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Source: Acumen Research: RHAM Community Health Survey, December 2003
Note: Responses of “don’t know / refused” have been excluded. Percentages may not total exactly 100% due to rounding.

Immunization

Figure 2.42 shows the percentage of children, ages 9 to 13 years, who received their first Hepatitis B immunization dose. A similar percentage of children in the Brandon received their initial dose of Hepatitis B vaccine (3 dose series) compared to all Manitoba children. The initiation rate ranges from 18% for nine year olds to a high of 75% for 10 year olds. This is most likely due to the time of year that the campaign was provided. Children are either out of school for the summer or just returning to the school system between August 1 and September 30 so it is to be expected that health care providers be challenged to provide immunization at this time. Public Health Services initiates the school-based Hepatitis B vaccination program in November of each year.

Figure 2.42: Initial dose of Hepatitis B vaccine among children 9 to 13 years of age, Brandon and Manitoba, 2001

<table>
<thead>
<tr>
<th>Year</th>
<th>Manitoba</th>
<th>Brandon</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>21%</td>
<td>18%</td>
</tr>
<tr>
<td>10</td>
<td>72%</td>
<td>75%</td>
</tr>
<tr>
<td>11</td>
<td>73%</td>
<td>69%</td>
</tr>
<tr>
<td>12</td>
<td>69%</td>
<td>69%</td>
</tr>
<tr>
<td>13</td>
<td>49%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Manitoba Health, Campaign Year 2001, August 1 to September 30
Figure 2.43 illustrates the rate of Influenza (Flu) immunization among people 65 years and older in Brandon and Manitoba from 1996 to 2002. There has been a relatively constant increase in the percentage of older individuals who have been immunized against the flu during these time periods. Data reflects the eligible population who reside in the community and long-term settings. Despite the improvement in vaccination rates over the years, the Influenza immunization coverage rate for people 65 years and older remains well below (57%) the national target of 90%. There are likely several reasons for the current rate in our region. Public Health staff identified two key concerns that include:

- Accuracy of billing processes
- Common myths about flu immunization

**Figure 2.43: Influenza immunization coverage rate for people 65 and over for Brandon RHA and Manitoba, 1996 – 2002**

As seen in Figure 2.44, the rate of Pneumococcal Cumulative immunization among people age 65 and older is also increasing each year. The greatest increase is seen in 2000 when the provincial Pneumococcal immunization program for the elderly was introduced. Prior to 2000, those receiving this immunization were typically surgical candidates who were at high risk.

**Figure 2.44: Pneumococcal cumulative immunization coverage rate for people 65 and over**
Access to physicians

Participants in the Kitchen Table Chats survey were asked if they have a family physician. As shown in Table 2.29, the vast majority of respondents (82.3%) report that they do have a regular physician while 17.7% do not.

Table 2.29: Percentage of people with a regular physician, KTC, 2004

<table>
<thead>
<tr>
<th>Do you have a regular doctor?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>17.7%</td>
</tr>
<tr>
<td>Yes</td>
<td>82.3%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Participants who report they do not have a regular doctor were asked the reasons why not. According to Table 2.30, a total of 43.2% said they do not need one, 8.2% said there are not able to get an appointment with a doctor and 5.4% said they do not know how to access a family physician. Almost half of the respondents (43.2%) identified other reasons that include:

- Easier access to walk-in clinics
- High turnover of family physicians
- Temporary resident in Canada
- Unable to plan sickness in advance to make an appointment

Table 2.30: Reasons for not having a regular physician, KTC, 2004

<table>
<thead>
<tr>
<th>If no, why not?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t need one</td>
<td>43.2%</td>
</tr>
<tr>
<td>None available</td>
<td>8.1%</td>
</tr>
<tr>
<td>Do not know how to find one</td>
<td>5.4%</td>
</tr>
<tr>
<td>Other</td>
<td>43.2%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Survey participants were then asked about their use of walk-in clinics in the past six months. More respondents (58.9%) report they had gone to a walk-in clinic than those who did not (41.5). As seen in Table 2.31, most people go to a walk-in clinic 1 to 2 times in a six-month period (65.0%) while 30.0% access walk-in services 3 to 6 times in the same time frame. Just 4.81% seek health services through a walk-in clinic 7 or more times over a 6-month period.
Table 2.31: Use of walk-in clinics in past six months, KTC, 2004

<table>
<thead>
<tr>
<th>(If yes) How often have you gone to a walk-in clinic in the past 6 months?</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 2 times</td>
<td>65.0%</td>
</tr>
<tr>
<td>3 to 6 times</td>
<td>30.0%</td>
</tr>
<tr>
<td>7 to 12 times</td>
<td>4.0%</td>
</tr>
<tr>
<td>13 to 20 times</td>
<td>0.0%</td>
</tr>
<tr>
<td>More than 20 times</td>
<td>.81%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

Table 2.32 illustrates the reasons why participants in the survey chose to access health services through walk-in clinics. Individuals were able to choose more than one response to this question. Almost half of the people (47.5%) feel they cannot wait for a regular appointment. This response is consistent with the challenge identified earlier in not being able to schedule sickness in advance to make an appointment with a doctor. The issue of accessing physician services after hours was identified by 18.4% and 9.9% said they rely on walk-in clinic service because they do not have a family doctor. It is interesting to note that 17.7% of the total respondents reported earlier that they do not have a family doctor. Therefore, it may be that almost 8% of the survey respondents do not seek physician services through doctor's offices or walk-in clinics. A total of 18.8% of respondents identified other reasons for accessing walk-in clinics including:

- Family physician scheduled at walk-in clinic
- Prescription renewal

It is interesting to note that 41.7% of the individuals, who reported other reasons for going to a walk-in clinic, say they go to see their regular family physician.
Table 2.32: Reasons for using walk-in clinics, KTC, 2004

<table>
<thead>
<tr>
<th>Reason for using walk-in clinic</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can’t wait for a regular appointment</td>
<td>47.5%</td>
</tr>
<tr>
<td>The doctor’s office is closed</td>
<td>18.4%</td>
</tr>
<tr>
<td>I have no family doctor</td>
<td>9.9%</td>
</tr>
<tr>
<td>I want a second opinion</td>
<td>5.4%</td>
</tr>
<tr>
<td>Other</td>
<td>18.8%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, Kitchen Table Chats, 2004

End of life care

The information provided in Table 2.33 is related to end of life care. Given a choice, two thirds of Brandon respondents (68%) say that if the necessary supports were in place they would prefer to die at home, with one quarter (26%) preferring to die in the hospital. Only 4% said they did have any preference as to where they took their last breath. Further data analysis by age category, however, shows a significant exception for respondents 65 years or older of whom 55% would prefer to die in the hospital. A similar proportion of retired respondents would also prefer to die in the hospital. This finding is most likely due to the high proportion of seniors who are living alone. On the other hand, respondents in three-person households are more likely than average to prefer dying at home with approximately 90% choosing that option.

Table 2.33: End of life care

<table>
<thead>
<tr>
<th>Location</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>At home</td>
<td>68%</td>
</tr>
<tr>
<td>In the hospital</td>
<td>26%</td>
</tr>
<tr>
<td>Nursing home / hospice care</td>
<td>1%</td>
</tr>
<tr>
<td>At the home of family or friends</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
<tr>
<td>No preference</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Acumen Research: RHAM Community Health Survey, December 2003

Note: This question was put to the Brandon sample only. Responses of “don’t know / refused” have been excluded. Percentages may not total exactly 100% due to rounding.
So, what does this mean?

We have learned the average income for people in the Brandon region is lower than Manitoba overall. Almost two-thirds of the participants in the Kitchen Table Chats survey have a net monthly income of $1500 or less.

Despite the lower income levels within our region, however, household income is distributed slightly more equitably in the Brandon region than in Manitoba as a whole.

The local agricultural community has recently experienced two devastating events. The discovery of a case of bovine spongiform encephalopathy (BSE) in Alberta in May 2003 has crippled local beef producers and businesses that are heavily dependent on the beef industry. As well, Wyeth Canada has cancelled numerous contracts with producers involved in the collection of pregnant mares’ urine (PMU) because of changes in market demand for post-menopausal hormone therapy and a shift towards lower doses of hormone therapy.

Overall, Brandon residents have a higher level of education than Manitoba residents. There seems to be a trend with postsecondary education however. More Brandon residents have a trades certificate or a college certificate/diploma than other Manitobans and fewer people in Brandon have a university degree than in Manitoba overall.

Despite the higher level of education in the region, the literacy assessment of the Kitchen Table Chat survey revealed 12% of the individuals scored lower than their education level indicated. Planners may want to consider a literacy assessment of the people who access programs and services throughout the RHA to better understand this issue.

There is a higher percentage of people in the labour force in the Brandon region than Manitobans overall. However, just over half of the Kitchen Table Chats survey respondents said they are working and over two-thirds of the people are employed in a full time capacity.

The unemployment rate for the Brandon region is lower than both national and provincial rates. The unemployment rate for youth in the region is also lower than national and provincial rates. When separated by sex, however, the unemployment rate for males is slightly higher in Brandon in comparison to Manitoba males.

Maple Leaf Pork is the largest employer of the manufacturing industries in the region and the Brandon Regional Health Authority is the largest employer in the non-manufacturing sector.
There was a significant increase in Brandon’s birth rate in 2001/02. This is likely related to the changes in federal legislation (Bill C-32) that resulted in extended maternity and parental benefits.

Breastfeeding and childhood immunization are lower than provincial and national targets.

Despite the efforts of Public Health Services and community agencies to reduce the number of teen pregnancies, the teen pregnancy rates remain relatively constant over many years.

Brandon children are just as likely to live with single parents as children in Manitoba as a whole.

According to the Kitchen table Chats survey, 26% of the people who used drugs to get high in the previous six months were 15 to 20 years old.

New generation antidepressant medications and stressful life conditions have resulted in a dramatic increase in the use of antidepressants in the region.

There are equal numbers of women and men smoking (daily or occasional) in the region.

People in the Brandon region are more physically active than Manitobans overall, however, a considerable portion of both women and men are overweight and more than one-third are obese.

Falls are the most common type of injury in the home, neighbourhood or at work.

According to the Kitchen Table Chats survey, half of the people who are sexually active had one sexual partner in the past year and 1.6% had 6 or more sexual partners.

Most people do not experience emotional difficulties that keep them from doing the things they would normally do in a typical day.

The higher percentage of people living in non-family private households is likely related to the many shared living arrangements among university/college students in the city, the increase in newcomers working at Maple Leaf Pork and the number of personal care beds in the region.
Whether people have someone to talk with when they’re feeling anxious or upset seems to vary in the region. Slightly more than half of the individuals who participated in a telephone survey say they have someone to talk with. On the other hand, the vast majority of individuals who participated in the Kitchen Table Chat survey had contact with their closest friend in the past two weeks.

Brandon has shown leadership in promoting health public policy with its smoking bylaw.

More than half of the people surveyed in the Kitchen Table Chats have been living in their home for two or more years.

Significant portions of people who access walk-in clinics go to see their family physician. Planners may want to examine why people use walk-in clinics more closely.

More than half of the people aged 65 years and older would prefer to die in the hospital than at home.
Chapter 3

Health System Infrastructure

Infrastructure is the basic framework or features of a system or organization. In this chapter, health systems infrastructure refers to finances and human resources that are the basic framework of the RHA. The chapter will not incorporate other infrastructures within the region that influence health (e.g., housing, transportation). Other systems, in a broad way, will be incorporated within determinants of health (Chapter 2) and health system performance (Chapter 4).

Although health system infrastructure consists primarily of people and tangible resources, this chapter will also outline some of the basic characteristics of the infrastructure including education, leadership, information and technology and research.

Finances

“Human, financial and capital resources that are appropriate and sustainable” is one of the 5 corporate priorities for the Brandon RHA.

Primary costs of infrastructure can be divided into acute care (hospital, dialysis, chemotherapy, laboratory, diagnostic imaging and the STEP program) and care that is provided within the community (community mental health, primary health care, home care and public health). The higher proportion of costs is incurred within the acute care services (82.6% in 1999/2000, 81.3% in 2000/2001, 80.7% in 2001/2002). This is a similar trend as the entire province (81.1% in 1999/2000, 79.8% in 2000/2001, 79.3% in 2001/2002). For each of the three years, Brandon reported a lower proportion of costs for community care than did all other Manitoba RHAs except for Winnipeg and Churchill Regional Health Authorities.

Over the three years captured by Manitoba Health: Brandon Regional Health Authority Profile Document (2004), a trend can be noted with the percentage spent on community programs increasing with a comparable decrease in the amount spent on acute care. This trend is similar for both Brandon and the province.

The second cost analysis provided by Manitoba Health in the Profile document (2004) relates to the amount of money spent on administration costs. Administration costs are described as general administration, human resources department, information technology and communication costs. Brandon RHA spent 3.6% of its operating costs on administration in 2000/2001 and 3.7% in 2001/2002. This was lower than all other RHAs and the provincial average. All other regions spent more than 5% of the operating budget on administration.
Human resources

People are the primary resource for a caring health system. Human resources include paid staff as well as the committed group of volunteers that assist in many areas across the RHA.

Staff of the Brandon RHA is made up of approximately 2300 full time/part time/casual employees. These employees fill 1694 equivalent full time positions.

Volunteers are vital to the success of the Brandon RHA. Within the past year, approximately 500 volunteers have assisted with the various programs across the organization.

Staff

As shown in Figure 3.1, approximately 84% of the staff within the Brandon RHA is female and the majority of all staff (34%) is in the age range of 41 to 50 years. Over half (55%) are in the combined age ranges of 41-60.

Figure 3.1: Staff of Brandon RHA by age and gender

Within the Brandon RHA there are five unions that support staff positions:

- Manitoba Nurses Union (MNU) – for nursing staff;
- Manitoba Association of Health Care Providers (MAHCP) – includes all other positions that require a health professional (e.g. pharmacists, dietitians, therapists [physical, occupational, speech] social workers);
- Manitoba Government and General Employee Union (MGGEU) – community support staff (e.g. clerical, Home Care attendants) and Westman Regional Laboratory staff;
- Canadian Union of Public Employees (CUPE) – facility support (e.g. housekeeping, dietary) and
- Manitoba Medical Association for RHA employed physicians.
There are also non-union positions within the Brandon RHA. Most non-union positions are within the administrative component of the RHA.

Staff vacancy rates overall have improved in the past two years. In 2002/2003 overall staff vacancy rates were 6% and in 2003/2004 the rate was reduced to 3%.

MNU positions or nursing positions have traditionally had the highest vacancy rate. In 2002/03 the MNU vacancy rate was 9%; this reduced to 6% in 2003/04. Specifically, Registered Nurses averaged a vacancy rate of 12% in 2002/03. This reduced to 8% in 2003/04. Licensed Practical Nurses followed a similar trend with a vacancy rate of 5% in 2002/03 and a reduction to 1% in 2003/04.

Length of time a position is vacant is difficult to determine due to a multitude of factors including time of year (e.g. Spring may prove to be a better time of year as new graduates are available), the type of position (i.e. therapists are rare and difficult to recruit) and because all vacant positions are assessed to determine whether the job description is still applicable and/or whether the position is still required.

As a new human resource strategy, an Aboriginal Health Advisor was hired in November of 2002. This coordinator has developed and implemented an Aboriginal focused employment plan for the region.

**Staff education**

Staff education is a component built into the infrastructure of the Brandon RHA. Currently there are 17 staff educators with the Brandon RHA. Each of the 17 staff educators has a responsibility to educate staff in specific program areas including: critical care, long term care, diagnostic imaging, laboratory, community programs, surgery, medicine, computer education, maternal/child, extended care and support services.

Assessment of staff education needs consists of a variety of methods including:

- conducting needs assessment surveys, focus groups, key informant interviews;
- reviewing issues identified in performance appraisals and risk management processes and in strategic program planning;
- doing a skills inventory; and
- integrating staff education into planning of new programs.

Using these methods of assessment has resulted in the development and delivery of educational sessions that are relevant to the staff within the region. Examples include:

<table>
<thead>
<tr>
<th>Training</th>
<th>Program Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home IV infusion pumps</td>
<td>Home Care, STEP and Emergency</td>
</tr>
<tr>
<td>Use of Electronic Health Record</td>
<td>Acute care staff</td>
</tr>
<tr>
<td>Non-violent crisis intervention</td>
<td>Mental health staff</td>
</tr>
</tbody>
</table>
As well as identified needs through the above mentioned assessment methods, there are mandated or legislated education that must be provided. Mandated education includes (but is not limited to):

- **Regional Orientation (for all new staff)**
  - The Personal Health Information Act (PHIA) and Pledge of Confidentiality
  - Protection for Persons in Care Act
  - Workplace Hazardous Management Information System
  - Body Mechanics
  - Emergency Preparedness
  - Workplace Safety and Health

- **Freedom of Information and Protection of Privacy Act**

- **Advanced Cardiac Life Support for Intensive and Emergency Care Nurses**

A matrix has been developed for existing staff to provide a system for the delivery of all mandated education. This process includes a reporting system.

**Volunteers**

Currently the Brandon RHA has three volunteer coordinators: one affiliated with the Brandon Regional Health Centre, one with Rideau Park Personal Care Home and one with Fairview Home Inc.

Volunteers range in age from ages 15 to 83. Examples of areas where volunteers have provided support include:

- Bereavement telephone support
- Bingo
- Breast screening
- Cards/checkers
- Clerical services
- Flower care & delivery
- Hairdressing
- Helping with archival materials
- Hymn sing
- Knitting/crafts program
- Mobile book cart
- Mobile confectionary cart
- Musicians
- Operating a gift shop
- Operating a taxation service
- Operating the “Nearly New Shop” (Second Hand Store)
- Pastoral care
- Patient visiting
- Pet visits
- Sexual assault victim response
Leadership

The Brandon Regional Health Authority is an incorporated body with a governing board. As shown in Figure 3.2, there is a Chief Executive Officer who reports directly to the Board. Five Vice Presidents and one Executive Director report directly to the CEO. The Communications Coordinator reports to the Executive Assistant.

The Vice President of Acute Care Services provides leadership to all of the programs that provide inpatient and outpatient care offered at the Brandon Regional Health Centre. These include:

- surgery, medical care, emergent care, maternity care, etc.;
- diagnostic services (e.g. x-ray, ultrasound, scans);
- rehabilitation services (e.g. occupational therapists, physiotherapists, speech therapists);
- volunteer services; and
- pastoral care.

The Vice-President of Community Services and Long Term Care also has two streams to oversee. Community refers to those services that are delivered in the community. Examples include:

- Public Health,
- Home Care,
- Mental Health,
- Audiology,
- Midwifery,
- Primary Health Care and,

Long term care refers to the two Personal Care Homes that are affiliated with the RHA (Rideau Park and Fairview) as well as the partnerships that are in place with the private personal care homes (Central Park Lodge, Dinsdale Home and Hillcrest Place).

The Vice President of Finance and Information Services provides leadership to:

- financial services/comptroller,
- information technologies,
- health records,
- materials management,
- pharmacy services and
- the privacy officer.
The Vice-President of Support Services provides leadership to
- the human resources department,
- nutrition services,
- property management,
- environmental services, and
- emergency and safety services.

The Vice President of Medical Services provides leadership to
- the utilization coordinators, and
- any medical services that are directly involved with the RHA, the Westman Regional Laboratory and the physician clinical department heads.

The Executive Director of Planning and Evaluation oversees two streams:
- operational planning and evaluation that includes:
  - population health,
  - decision support,
  - quality improvement,
  - health promotion and
  - risk management.
- capital planning that oversees capital projects. Most recently this department has overseen the construction of:
  - the Clinical Services Redevelopment Project at BRHC,
  - the Magnetic Resonance Imaging (MRI) wing at the Brandon Regional Health Centre and
  - the 7th Street Health Access Centre.
Figure 3.2: Organizational chart of Brandon Regional Health Authority

[Diagram of an organizational chart showing the structure of the Brandon Regional Health Authority, including roles such as CHIEF EXECUTIVE OFFICER, EXECUTIVE ASSISTANT, PLANNING & EVALUATION DIRECTOR, EXECUTIVE DIRECTOR, EXECUTIVE VICE PRESIDENTS, and various department heads such as MEDICAL OFFICER OF HEALTH, MEDICAL OFFICER OF HEALTH, and others.]
Staff/management ratio

The ratio of staff to managers ranges from few to many, depending on area and expertise. For example, nurses make up the highest percentage of the workforce and thus there is a higher staff to manager ratio in departments with nursing as a component of the program. Alternatively, Information Technology has a lower staff to manager ratio. Similarly, areas with complex or varied processes have lower staff to management ratios. As well, some managers have direct service responsibilities along with the managerial role resulting in a lower staff to manager ratio (e.g. Audiology program).

Management/leadership training

Organizational strategies are in place to build the capacity of new managers. All new managers are offered a 30 hour leadership course and an 18 hour course in continuous quality improvement. Some managers elect to take courses in management from the Canadian Health Care Association.

Career advancement

All vacant positions within the Brandon RHA are posted internally, providing all qualified staff with an opportunity for career advancement.

Within nursing, Brandon RHA offers several specialized educational opportunities. These educational offerings provide nurses with the opportunity to advance their skills and thus qualify the nurse for career advancement or a lateral career move that would enhance job satisfaction. Examples of these opportunities include:

- Operating Room Specialist,
- Critical Care Nursing and
- Manitoba Renal Nursing Program.

Health human resource planning

Over two-thirds of the leaders/managers within the Brandon RHA are eligible for retirement within the next 5 years. As well, the majority of the health care providers are between 41 and 60 years. Thus, forecasting a high rate of retirement within the next 5-10 years is reasonable.

Currently a Health Human Resources plan is under development for the region. Human Resource Planning (HRP) is a process of systematically reviewing human resource needs to ensure that the appropriate number of employees, with the required skills, is available when they are needed. Health Human Resource Planning (HHRP) takes this one step further. HHRP strives not only to ensure an adequate supply of health professionals, but also the correct mix of professionals who are appropriately educated, distributed, and deployed to meet the health needs of Brandon and surrounding area. This can be accomplished by incorporating the health needs of the population into the planning strategy.
One of the current phases of the HHRP project is to collect a retirement profile and to complete a skills inventory. Within the plan (at the Forecasting Stage currently) will be a management succession plan that should assist with the transition of departing managers.

Ultimately, the Health Human Resources plan will include:

- recruitment and retention strategies,
- management succession plans,
- suggested training and development programs,
- diversity management programs,
- reward and recognition programs,
- efficient performance appraisal systems and
- leadership development initiatives to ensure a continuous and productive health care workforce. It should also provide a clear rationale for linking expenditures to these strategies.

**Information and technology**

An Information Systems Advisory Committee provides the expertise and advice to the CEO in regards to the planning, implementation, operation and evaluation of information technology computer services for the Brandon RHA.

This committee has developed a three-year strategic plan. The strategic plan is then reviewed on an annual basis. Priorities are developed based on a thorough environmental scan. The most recent environmental scan (November 2003) highlights the following information technology issues as most important (not ordered):

- Requirements for the Electronic Health Record (EHR) for the Clinical Services Redevelopment Project. Brandon Regional Health Centre is in the process of developing and incorporating an EHR as a component of clinical services. As of spring 2004, the major components for the EHR are installed. It is anticipated that the EHR will be operational by late in the 2004 calendar year. Acute care will be implemented first and will incorporate laboratory results, diagnostic imaging results, assessments and clinical charting.

- There is a need to access data that can be transformed into information, then knowledge and ultimately improved patient outcomes.

- Information technology progress in the Brandon RHA needs to be congruent with provincial initiatives.

- There is a need for education of end users so that technology can be used most efficiently.

- Policy and procedures regarding technology need to be in place to reduce risk, both for the individual client as well as for the region as a whole.
Current systems that have been installed or replaced in the past three years include:

- Admission/Discharge/Transfer/Central Patient Index
- Automated Medication Distribution System
- Clinical Charting – includes Care Plans
- Digital Dictation/Transcription
- Emergency Room Clinical Charting
- Finance/Material Management
- Health Records
- Information System for the Western Manitoba Regional Laboratory
- Information System for Diagnostic Imaging (e.g. X-ray)
- Operating Room Booking/Case Cart
- Order Entry/Results Reporting
- Patient Scheduling (enterprise wide)
- Scanning of old health records (document management)
- Staff Scheduling
- Ultrasound Picture Archiving and Communication System
- X-ray Picture Archiving and Communication System

For 2001 – 2003, the 12 health regions and CancerCare Manitoba compared and contrasted the percent of their total operating costs for information system costs. Information system costs were defined as system support, data processing, system development, operations research and technical support. This included all costs for salaries, supplies and sundry expenses. The breakdown did not include capital costs.

Brandon costs have remained relatively stable (1.1% - 1.3% of total operating costs) and are consistent with the average of all (1.0 – 1.1% of total operating costs). The percentage of operating costs used for information system costs is similar to Winnipeg (1.1 – 1.3% of total operating costs). Rural RHAs, with the exception of Churchill, have a lower percentage of total operating costs related to technology.

**Research**

Brandon RHA has collaborated with a variety of educational institutions and organizations to promote and participate in research. Table 3.1 provides an overview of several of these initiatives from the past three years.

In the year 2000, a registered nurse was hired in the position of Clinical Research Nurse. Her role is to facilitate various trials for pharmaceutical products. The trials are operated with funding from pharmaceutical organizations in partnership with local primary investigators. Table 3.1 lists some of the trials that have been conducted and are in progress since 2000.
Table 3.1: Examples of research projects in the last 3 years

<table>
<thead>
<tr>
<th>Year</th>
<th>Research Project</th>
<th>Status</th>
<th>Primary Investigator</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Outcome measures for Prairie Health Matters/Diabetes and Heart Health</td>
<td>In progress</td>
<td>Bev Temple</td>
</tr>
<tr>
<td>2004</td>
<td>West Nile Virus Sero-prevalence Study Health Canada/Manitoba Health/Brandon &amp; Assiniboine RHAs</td>
<td>In progress</td>
<td>Dr. Elise Weiss, MD, CCFP, MSc</td>
</tr>
<tr>
<td>2003</td>
<td>Predictive Validity for Neonatal Readmission of Canadian Guidelines for Discharge at less than 48 Hours of Age Masters Thesis, University of Manitoba Department of Community Health Sciences</td>
<td>Completed</td>
<td>Dr. Elise Weiss, MD, CCFP, MSc</td>
</tr>
<tr>
<td>2003</td>
<td>Evaluation of a dissemination intervention to enhance Registered Nurses’ use of clinical practice guidelines related to tobacco reduction Pilot study from January 2003 to June 2003</td>
<td>Completed</td>
<td>Kathryn Hyndman, MN</td>
</tr>
<tr>
<td>2002</td>
<td>What Survivors, Families and Service Providers Said... Final report to the Acquired Brain Injury Interest Group on focus groups involving individuals living with an acquired brain injury and their caregivers in Assiniboine and Brandon health regions Masters Thesis, University of Alberta Centre for Health Promotion Studies</td>
<td>Completed</td>
<td>Nancy McPherson, MSc</td>
</tr>
<tr>
<td>2001</td>
<td>Brandon Regional Health Authority Palliative Care Service: Service provider and recipient experiences</td>
<td>Completed</td>
<td>Renee Will EdD, RN John English RN, SRMN, CBSc, MHS Bev Hicks RPN, BN, MEd. Brandon University</td>
</tr>
<tr>
<td>2000 - present</td>
<td>Variety of pharmaceutical trials</td>
<td>Completed/ in progress</td>
<td>Sponsors included: Boehringer Ingelheim, Bristol-Myers Squibb, Schering Canada Inc., Canadian Heart Research Centre</td>
</tr>
</tbody>
</table>
So, what does this mean?

- Brandon Regional Health Authority spends more proportionally on acute care costs than any of the other regions. This is influenced by the fact that Brandon Regional Health Centre is the third largest health care facility within the province, serving as a regional referral centre for a broad geographical boundary encompassing over 180,000 people.

- The proportion of primary infrastructure costs has increased annually for community programs for the years 1999/2000 to 2001/2002 while the concurrent proportion of acute care costs have decreased.

- Brandon RHA administrative costs are lower than all of the other regions in Manitoba for the years 1999/2000 to 2001/2002.

- The majority of staffing are ages 41+ (57.5%). This has an impact on human resource planning, as there will be a great exodus of employees through retirement in the next 5 to 10 years.

- Brandon is in the process of developing a comprehensive Health Human Resources plan that will encompass strategies to address leadership succession and recruitment of employees.

- Brandon is a leader in electronic technology, as we become the first health centre in Manitoba with an integrated electronic health record.
Chapter 4

Health System Performance

More health care services have typically been thought to result in better health status for individuals and populations. However, a better understanding of population health challenges this perception. Although health care is an important factor in supporting and sustaining the health of the population, there are socioeconomic factors that have a powerful effect on health status. These factors must influence health care planning as strongly as the services available to address health issues. These influences are described in Chapter 2, Health Determinants.

Health system performance in this chapter will be reviewed according to:

**Responsiveness** – the extent to which the organization anticipates and responds to changes in the needs and expectations of the client and/or community populations and to changes in the environment (definition adapted from Canadian Council on Health Services Accreditation).

**System competency** - the extent to which the organization consistently provides service in the best possible way, given the current and evolving state of knowledge. The organization achieves the most benefit for the people it serves with the most cost-effective use of resources.

**Client/Community focus** - the extent to which the organization strengthens its relationship with the people it serves. The organization does this by encouraging and supporting community participation and partnership in meaningful activities.

**Work life** – the extent to which the organization provides an atmosphere that supports performance, excellence, full participation, personal, professional and organizational growth, health, well-being and satisfaction.

**Responsiveness**

Responsiveness can be measured through:

- availability
- accessibility of services
- timeliness.
Availability

Availability of services is the extent to which services and resources are available to meet the needs of the residents within the region. Measures that have been included in this section are:
- number of hospital beds,
- number of physicians,
- number of new home care cases,
- number of open home care cases,
- number of closed home care cases,
- length or duration of home care cases and
- number of personal care home beds.

Hospital beds

As indicated in Figure 4.1, Brandon is the only RHA that has increased the number of acute and other beds over time. This is reflective of the closing of the Brandon Mental Health Center and the addition of mental health related beds to the RHA. Between the time period of 1994/95 - 1995/96 and 1999/00-2000/01, Brandon RHA gained 22 beds in the Centre for Geriatric Psychiatry, 25 beds in the Centre for Adult Psychiatry and 10 beds at the Child and Adolescent Treatment Centre.

Brandon has the highest number of beds per 1000 residents when compared to the other regions in the year 1999/00-2000/01. This is a difficult comparison and somewhat deceptive, as the Brandon RHA serves a large geographical area that consists of close to 180,000 persons. If the bed ratio per 1000 is 7.1 for Brandon’s population of approximately 48,000, then the actual bed ratio would be closer to 1.9 for a Westman population of 180,000 which then would be the lowest bed ratio when compared to other RHAs.

Figure 4.1: Hospital bed supply by RHA

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003
Table 4.1 reflects the number of current in-patient beds within the Brandon RHA. The numbers do not include any outpatient beds such as observation, recovery room, day hospital or day surgery. This number is lower than the previous community health assessment (1997/98). At that time there were 366 beds (242 acute, 67 long term and 57 psychiatric).

Although 305 beds are available to the RHA, occasionally beds have to be blocked, or marked unavailable for patient use, due to a human resource shortage (e.g. shortage in nursing). For example, in April, 2004, sixteen beds were blocked on the surgical floor because of a shortage of nurses.

Table 4.1: Inpatient beds in the Brandon RHA

<table>
<thead>
<tr>
<th>Service</th>
<th>2004 Beds</th>
<th>Service</th>
<th>2004 Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obstetrics</td>
<td>20</td>
<td>Child and Adolescent Treatment Centre</td>
<td>10</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>15</td>
<td>Medicine – Assiniboine Centre -Rehab (12), Palliative (11) Acute (12)</td>
<td>35</td>
</tr>
<tr>
<td>Intensive Care Nursery</td>
<td>11</td>
<td>Personal Care/Waiting Placement</td>
<td>32</td>
</tr>
<tr>
<td>Intensive Care Unit</td>
<td>9</td>
<td>Extended Care (Chronic Care)</td>
<td>35</td>
</tr>
<tr>
<td>Surgery</td>
<td>43</td>
<td>Centre for Adult Psychiatry</td>
<td>25</td>
</tr>
<tr>
<td>Medicine – General Centre</td>
<td>48</td>
<td>Centre for Geriatric Psychiatry</td>
<td>22</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>305</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority (2004)

**Physician ratio**

As shown in Figure 4.2, there are 611 people per “fee for service” physician. This reflects only those physicians having an income of over $50,000.00 per year, thus eliminating physicians that are semi-retired. Brandon has a better ratio of population per physician (611:1) than all of the other regions with the exception of Winnipeg (563:1). Brandon also has a better ratio than the province (783:1).

Physician ratio is a difficult measure as no “ideal” ratio has been identified. Within Canada, in the 1990s, the overall ratio has tended to fluctuate between 530:1 and 540:1 (Source: http://atlas.gc.ca/site/english/maps/health/resources/physician/1, May, 2004).
**Home care**

Figure 4.3 shows an age and sex adjusted comparison of new home care cases for all of the health regions. Brandon RHA has experienced a significant increase of new home care cases over time. In the first time period displayed, Brandon shows significantly less new cases for home care than the province. However, this changes in the second time period with Brandon showing a significantly higher number of new home care cases per 1000 population when compared to the province. Thus, the incidence of home care cases has increased.

**Figure 4.3: New home care cases by RHA (incidence)**

Note to Figure:
- '1' indicates area's rate was statistically different from Manitoba average in first time period shown
- '2' indicates area's rate was statistically different from Manitoba average in second time period shown
- 't' indicates change over time was statistically significant

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003

Source: Manitoba Health

*Includes fee for service doctors only
The open home care cases by RHA as shown on Figure 4.4 indicate some consistency with the new cases trend and some contrast. Consistent with the new cases, the number of open cases has gone up over time. However, Brandon RHA has a significantly lower number of open cases in both time periods when compared to the province. Figure 4.5 shows closed cases. This explains why the open cases are lower in spite of the fact that the number of new cases are increasing significantly. Even though the number of new home care cases is higher than the province, because Brandon closes more cases, the number of open cases remains lower.

**Figure 4.4: Open home care cases by RHA (prevalence)**

Note to Figures:
'1' indicates area's rate was statistically different from Manitoba average in first time period shown
'2' indicates area's rate was statistically different from Manitoba average in second time period shown
't' indicates change over time was statistically significant

**Figure 4.5: Home care case closing rates by RHA**

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003
As shown in Figure 4.6, the length of services for home care cases within the Brandon region tends to be lower than the other RHAs and the province as a whole. Average length of home care cases has decreased in the two time periods shown and in fact is significantly lower than the province in the second time period. Thus, Brandon RHA differs from the province due to more frequent cases of shorter duration.

**Figure 4.6: Average length of home care cases by RHA**

![Average length of home care cases by RHA graph]

Note to Figures:
'1' indicates area's rate was statistically different from Manitoba average in first time period shown
'2' indicates area's rate was statistically different from Manitoba average in second time period shown
't' indicates change over time was statistically significant

In Brandon there has been significant growth in the home parenteral program as well as other intravenous programs. This could have contributed to the increased number of short duration home care cases within the region. Also, the RHA has a STEP program (Short Term Emergency Program). STEP was established in 1995 as a bridge between hospital and home care. The program provides a rapid response team that allows people to receive care in their homes following discharge from hospital. Often STEP refers clients to home care for ongoing services. This could be another factor in the number of home care cases that are of short duration.

**Personal care home availability**

When someone's needs can no longer be met at home - whether by family members, community supports or home care services - a personal care home may be required. You are eligible for a personal care home if you are a Manitoba resident, have a Manitoba health card and you need day-to-day help and on-going health services, to the extent that providing those services in your home is no longer manageable. A personal care home (PCH) provides long-term personal and health services. Licensed facilities are covered through the Manitoba Personal Care Home Program.

There are two personal care homes owned by the Brandon RHA: Fairview Home and Rideau Park Personal Care Home. Brandon RHA is associated with the other personal care homes in the region, but does not manage those homes.
Table 4.2 lists the personal care homes, the owner/managing organization and the number of beds available.

**Table 4.2: Personal care homes in Brandon RHA, 2004**

<table>
<thead>
<tr>
<th>Personal Care Home</th>
<th>Owner/ Managing Organization</th>
<th># of Beds</th>
<th>Room Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Park Lodge</td>
<td>Central Care Corporation</td>
<td>89</td>
<td>Private/Semi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Private/4 bed</td>
</tr>
<tr>
<td>Dinsdale</td>
<td>Salvation Army/Brandon RHA*</td>
<td>60</td>
<td>Single</td>
</tr>
<tr>
<td>Fairview Home</td>
<td>Brandon RHA</td>
<td>248</td>
<td>Private/Semi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Private/4 bed</td>
</tr>
<tr>
<td>Hillcrest Place</td>
<td>The Kafco Group</td>
<td>100</td>
<td>Private/Semi</td>
</tr>
<tr>
<td>Rideau Park</td>
<td>Brandon RHA</td>
<td>100</td>
<td>Private/Semi</td>
</tr>
</tbody>
</table>

*funded with an agreement through the Brandon Regional Health Authority

Manitoba Health uses the ratio of 110 beds per 1000 population aged 75+ as a planning number for PCH beds. As shown in Figure 4.7, Brandon RHA exceeds that planning number (178.3). This increase may be partially explained by the 100 beds that were added to Rideau Park to accommodate long-term psychiatric clients with the closure of the Brandon Mental Health Centre. Although the supply of personal care home beds has decreased from 1994/95-1995/96 to 1999/00 – 2000/01, Brandon continues to have a high number of beds per 1000 residents’ aged 75+ when compared to the province.

In December, 2002 the Manitoba Centre for Health Policy (MCHP) published a study titled, *Estimating Personal Care Home Bed Requirements*. This study forecasted the need for PCH beds in the future. Considered in this report were:

1. trends in the last decade;
2. trends in recent use (last three years);
3. the arithmetic average between the two trends; and
4. migration patterns (those who migrate into the RHA Personal Care Homes from another region or those who migrate out of Brandon RHA to a PCH in another region).

Using a projected increase of 10.7% of persons aged 75+, and a projected in-migration, the MCHP report suggests that Brandon RHA is currently ‘over bedded’ and will have sufficient PCH bed capacity until 2020. This study determined that in-migration (116) to Brandon exceeded out-migration (83 people).

However, Statistics Canada suggests that the population of the Brandon RHA aged 65+ will increase by 38.8% by the year 2025 (note Table 1.2 in Chapter 1). This is significantly higher than the projection for age 75+ that is suggested by the MCHP report. Planners will need to consider all variables when determining appropriate PCH bed ratios for the RHA.
Figure 4.7: Supply of personal care home beds, Manitoba and Brandon

<table>
<thead>
<tr>
<th></th>
<th>1994/95 - 1995/96</th>
<th>1999/00 - 2000/01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba</td>
<td>131.5</td>
<td>130.1</td>
</tr>
<tr>
<td>Brandon</td>
<td>199</td>
<td>178.3</td>
</tr>
</tbody>
</table>

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003
*includes provincial and federal PCH beds

Accessibility

Accessibility is described as the ease with which the client and/or community obtains required or available services and supports in the most appropriate setting. Measures in this section include:
- origin of RHA inpatients,
- percent of residents with 1 or more physician contact within the last year,
- location of visits to physicians,
- admissions to PCH per 1000 in the last year and residents of PCH per 1000 population.

Origin of Brandon RHA inpatients

As indicated throughout this report, Brandon is a regional referral center that services a broad geographic area with a total population of 180,000. This is borne out clearly when looking at where RHA hospital patients come from. As Figure 4.8 indicates, over 45% of inpatients in the Brandon Regional Health Centre are from outside of the region and this has increased over time (48.1% in 1999/00-2000/01 were from outside the region). This represents a total of 21,133 patients in 1994/95 –1995/96 and 23,535 patients in 1999/00 – 2000/01 from outside the region. This is a substantially higher percentage than all other regions except Churchill. It is also higher than the province and it has increased over time.

Given the number of Brandon RHA in-patients who are from outside the region, the way health services funding is determined warrants careful consideration. For example, a population-based funding methodology that is being considered would be challenging for the Brandon region with a population of 48,000 while serving a population of 180,000. Therefore, a funding methodology that is adjusted for the population served is necessary to ensure equitable funds are in place for required services.

Over 45% of inpatients in the Brandon Regional Health Centre are from outside of the region.
Figure 4.8: Where RHA residents went for hospital separations

*95* reflects fiscal years 1994/95-1995/96; *00* reflects fiscal years 1999/00-2000/01

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003
Physician contact

Ambulatory physician visits include office visits, home visits, personal care home visits, visits to outpatient departments and some emergency rooms (where data available). Figure 4.9 shows the percentage of residents who had at least one physician visit in the year. A higher percentage of residents in Brandon RHA are visiting the physician at least once annually when compared to the province or most of the other RHAs. This could be a reflection of the comparably better resident to physician ratio of the Brandon RHA.

Figure 4.9: Use of physicians by RHA (percentage of residents with at least one ambulatory visit to a physician)

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003
Note to Figure:
'1' indicates area's rate was statistically different from Manitoba average in first time period shown
'2' indicates area's rate was statistically different from Manitoba average in second time period shown
't' indicates change over time was statistically significant
As Figure 4.10 shows, the distribution of percentages of at least one physician visit during the fiscal year is similar between Brandon and Winnipeg. Figure 4.10 shows a combination of primary care physicians and specialists. The similar distribution could be due to the fact that specialists are located primarily in the two major cities.

**Figure 4.10: Use of physicians, Manitoba, Brandon and Winnipeg (percentage of residents with at least one ambulatory visit to a physician)**

As shown in Table 4.3, visits to primary care physicians (general practitioners/family practitioners) occurred mostly within the Brandon RHA. Only 5.1% of the population traveled to another RHA in 1995/96 with a similar trend of 5% in 2000/01. Only 1.9% traveled to Winnipeg for primary care in both time periods.

Brandon was able to accommodate many of the specialist visits as well. Almost 90% of the specialist visits were accommodated in the 95/96 time frame. This dropped slightly in the second time frame to 85%.

**Table 4.3: Location of visits to GP/FPs and Specialists**

<table>
<thead>
<tr>
<th></th>
<th>% within the RHA</th>
<th>% to another RHA</th>
<th>% to Winnipeg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95/96 00/01</td>
<td>95/96 00/01</td>
<td>95/96 00/01</td>
</tr>
<tr>
<td>Primary Care Physicians (General Practitioners/Family Practitioners)</td>
<td>93 93.1</td>
<td>5.1 5.0</td>
<td>1.9 1.9</td>
</tr>
<tr>
<td>Specialists</td>
<td>89.5 85</td>
<td>0.9 1.3</td>
<td>9.6 13.7</td>
</tr>
</tbody>
</table>

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003

*age- and sex-adjusted percent of residents with at least one ambulatory visit per year
**Personal care home accessibility**

As shown in Figure 4.11, Brandon RHA admits more people per 1000 residents over the age of 75 to personal care homes than does the province. Brandon also has higher admission rates than any of the other regions. However, the admission rate has decreased over the two time periods. This may be due, in part, to the fact that access to Rideau Park was restricted to Brandon Mental Health Centre (BMHC) patients until 1999.

**Figure 4.11: Admissions to personal care homes, Manitoba and Brandon**

Brandon admits more people over the age of 75 to personal care homes than any of the other regions.

As indicated in Figure 4.12, Brandon RHA has a significantly higher number of residents living in personal care homes when compared to the other regions or the province. This is true of both time periods even though the numbers for Brandon decrease in the second time period.

**Figure 4.12: Personal care home (PCH) residents**

As indicated in Figure 4.12, Brandon RHA has a significantly higher number of residents living in personal care homes when compared to the other regions or the province. This is true of both time periods even though the numbers for Brandon decrease in the second time period.
Another question that could be asked when looking at the availability and accessibility of PCHs is, “What is the level of care required by residents of a PCH?” As shown in Figure 4.13, Brandon RHA has a higher number of placements that are in the lower acuity levels (level 1 & 2). When levels 1 & 2 are combined and levels 3 & 4 combined for the year 2000, Manitoba shows a 50/50 split between the two, whereas Brandon RHA shows a 60/40% split (level 1 & 2/level 3 & 4). This trend is primarily related to patients from the BMHC as they tend to be younger and more mobile than the general population accessing personal care home beds.

**Figure 4.13: Level of care on admission to PCH**

![Graph showing level of care distribution for Brandon and Manitoba RHA](Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003. 95 reflects 1994/95-1995/96; 00 reflects 1999/00-2000/01)

**Timeliness**

Timeliness refers to the extent to which services are provided and/or activities are conducted to meet client and/or community needs at the most beneficial or appropriate time. One measure related to timeliness of service is wait times for admission to a PCH.

In spite of the fact that Brandon is described as “over-bedded”, and that we admit more people and have more residents of PCHs, we also continue to have a waiting list for peoples needing a personal care home. Table 4.4 shows that the average waiting list for personal care home beds has remained relatively stable over time. In 2003/04 we averaged 33 people/month waiting on PCH beds.

**Table 4.4: Average waiting lists for PCH in Brandon RHA**

<table>
<thead>
<tr>
<th>Avg Waiting List/Month</th>
<th>2001/02</th>
<th>2002/03</th>
<th>2003/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Waiting List</td>
<td>31</td>
<td>28</td>
<td>33</td>
</tr>
<tr>
<td>Community</td>
<td>14</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Hospital</td>
<td>17</td>
<td>17</td>
<td>19</td>
</tr>
</tbody>
</table>

Source: Brandon RHA
Brandon also has a longer wait time to get into a PCH. Median wait time is shown in Figure 4.14. Median refers to the amount of time it took for half the residents to be admitted after being assessed as requiring PCH placement. In Brandon the median was 27.4 in 94/95, so half of all PCH admittants waited less than 27.4 weeks, while half waited longer. In 2000/01 the median for Brandon is lower at 19 weeks. Both time periods are significantly higher than the Manitoba median. The first time period indicates a substantially higher wait time than any of the other regions. This wait time has been dramatically reduced in the second time period but remains one of the highest wait times in the province. This may be partially explained by the fact that beds in Rideau Park were opened to community residents in this time period.

**Figure 4.14: Median waiting times for PCH admission, Brandon and Manitoba**

![Median waiting times for PCH admission, Brandon and Manitoba](image)

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003
*By residence prior to admission, per 1000, age 75+

**System competency**

System competency can be measured through appropriateness, effectiveness, and efficiency of services.

**Appropriateness**

Appropriateness refers to the extent to which health services meet the needs of the people while reflecting best practices. A mix of measures has been chosen that include some focusing on children, middle aged or older adults. They can be divided into three categories:
- High profile procedures such as cardiac catheterization, angioplasty, coronary artery bypass graft surgery, hip replacement, knee replacement, cataract surgery and CT scans,
- Discretionary surgical procedures. These procedures are those that have been the subject of critical review. Lower to average numbers of these procedures would be preferred. Procedures include tonsillectomy, hysterectomy, caesarean section and vaginal births after caesarian sections and,
- Care mapping as a way of ensuring a standardized practice of care.
Brandon’s rate of cardiac catheterization is lower than all of the other regions except Marquette and South Westman.

High profile procedures

Brandon’s number one cause of death is cardiovascular disease. Cardiac catheterization is a diagnostic procedure for identifying the exact location and severity of coronary artery disease. Those facts taken into consideration, it is interesting to note that Brandon has a significantly lower rate for cardiac catheterizations than the province. Although numbers have increased over time, they remain significantly lower than the province. In fact, as noted in Figure 4.15, Brandon’s rate of cardiac catheterization is lower than all of the other regions with the exception of Marquette and South Westman.

Figure 4.15: Cardiac catheterization rates by RHA

Angioplasty is a procedure that involves using a balloon tipped catheter to enlarge a narrowing in a coronary artery. It seems to follow that if cardiac catheterization rates are low, than angioplasty should also be low. As shown in Figure 4.16, the trend is the same. Brandon has a lower rate of angioplasty, significantly lower than the province and one of the lowest when compared to the other RHAs.
Continuing with cardiac procedures, the next high profile procedure is **coronary bypass graft surgery**. This is surgery that creates new routes around narrowed and blocked arteries (caused by coronary artery disease) so that more blood can flow to the heart. Figure 4.17 shows that the trend expressed by cardiac catheterizations and angioplasty is similar to bypass surgery. Brandon remains significantly lower than the province and is one of the lowest rates when compared to the other regions.

**Figure 4.16: Angioplasty rates by RHA**

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003

Note to Figure:
'1' indicates area's rate was statistically different from Manitoba average in first time period shown,
'2' indicates area's rate was statistically different from Manitoba average in second time period shown,
't' indicates change over time was statistically significant,
's' indicates data suppressed due to small numbers

**Figure 4.17: Coronary artery bypass rates by RHA**

Note to Figure:
'1' indicates area's rate was statistically different from Manitoba average in first time period shown,
'2' indicates area's rate was statistically different from Manitoba average in second time period shown,
't' indicates change over time was statistically significant,
's' indicates data suppressed due to small numbers
Hip replacement or total knee replacement is performed when the joints have degraded, usually because of advanced arthritis. Both replacements have been shown to provide major improvements in mobility and quality of life. Our population data reflects an aging population. This would seem to predict a higher incidence of hip/knee replacement surgery. However, as shown in Figure 4.18 and Figure 4.19, when data for hip replacement and total knee replacement surgery is sex and age adjusted, Brandon region has a lower number of hip and total knee replacement surgeries than the most of the other regions. Although hip surgeries have increased, numbers remain well below the province and the amalgamation of rural south. Knee replacements have increased significantly over time. However, numbers remain well below the province, significantly lower in the second time period.

**Figure 4.18: Hip replacement rates by RHA**

Note to Figure:
'1' indicates area’s rate was statistically different from Manitoba average in first time period shown, 't' indicates change over time was statistically significant, 's' indicates data suppressed due to small numbers

**Figure 4.19: Knee replacement rates by RHA**

Note to Figure:
'1' indicates area’s rate was statistically different from Manitoba average in first time period shown, 't' indicates change over time was statistically significant, 's' indicates data suppressed due to small numbers
A cataract is when the lens of the eye becomes opaque, obscuring vision. In surgery, this opaque lens is removed and replaced by a clear one, resulting in major improvements in vision and quality of life. Figure 4.20 shows cataract surgeries for those ages 50+. The data is age and sex adjusted and is presented per 1000 residents. It is interesting to note that the number of cataract surgeries were significantly below that of the province in the first time period and significantly higher than the province in the second time period. The difference in the number of surgeries performed reflects the time period in which ophthalmology services were not available on a full time basis.

Figure 4.20: Cataract surgery rates by RHA

![Graph showing cataract surgery rates by RHA](image)

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003

Figure 4.21 shows the number of computerized axial tomography (CAT or CT) scans per thousand residents regardless of location of provision. This figure reflects person–visits to the CT suite. This means that if the person had multiple body parts scanned, it was counted as one visit. As can be seen in Figure 4.21, the number of CT scans for Brandon region residents have increased over the two time periods significantly, with Brandon residents having the highest number of CT scans in the province in the second time period. The increase in scan rates may be partially explained by the fact that the RHA purchased a new CT scanner in 1999. Previously, there were extended periods of downtime due to equipment failure and the older equipment did not have the equivalent capacity as the new machine.
Discretionary surgical procedures

The discretionary procedures identified in this section are those that best practice has shown to be decreasing in number. Tonsillectomy/adenoidectomy is an example of a procedure that has shown to be unnecessary in many cases. Because of success with antibiotics, surgery is no longer the standard treatment for tonsillitis that it was years ago. Figure 4.22 shows that Brandon has a higher tonsillectomy/adenoidectomy rate than the province. This rate reflects surgery done on Brandon region children age 0-14, no matter where the operation was done. The rate over time has increased slightly, which again differs from the province where the rate has decreased.
**Hysterectomy** is a surgical procedure to remove a woman’s uterus (subtotal hysterectomy), or uterus and cervix (total hysterectomy). A hysterectomy may be necessary for some gynecologic conditions such as cancer. However, in some cases there are alternatives to surgery. Figure 4.23 shows that Brandon residents are having more hysterectomies than the province. The rate has increased significantly over time, in contrast to the provincial rate that has decreased.

**Figure 4.23: Hysterectomy rates by RHA**

![Hysterectomy Rates by RHA](chartimage)

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003

**Caesarian section** has some risks for both baby and mother. However, in special circumstances, such as the baby being in a position that makes vaginal birth unsafe or difficult or separation of the placenta, a caesarian may be necessary. As shown in Figure 4.24, Brandon has a higher rate of caesarean births than Manitoba in both time periods. Caesarian sections have increased over time for most of the RHAs. However, caesarian sections for Brandon residents have increased significantly.

There are likely many reasons for the increase in caesarian sections in the Brandon region but our use of epidural analgesia as one contributing factor warrants further exploration. In 2003/04, the epidural rate for labouring patients is 53.4% of delivered obstetric cases. This rate has increased by 7.7% since 1999/00 and it is related to labouring patients only – it does not include epidural use as an anesthetic or for caesarean sections. Current research identifies increased risk of cesarean section as an adverse effect of epidural analgesia. As well, timing of the administration of the epidural appears to be important in that caesarian section rates are higher in women who receive their epidural early in labour (Enkin, 2000).
Figure 4.24: Caesarian section rates by RHA

Vaginal birth, whenever possible, is preferable to caesarian section. Figure 4.25 shows the number of women who gave birth vaginally following a delivery through caesarean section. Brandon, in comparison to Manitoba, has a much lower rate of vaginal births following a C-section than does the province. The rate has remained relatively stable at 20.6 to 24.6 in Brandon region. The rate has also remained fairly stable across the province (32.3 – 33.9).

Figure 4.25: Vaginal births after caesarean sections in acute care hospitals, Manitoba and Brandon

Care mapping

Care mapping is a way of assuring communication between health disciplines and standardizing care for clients. The care mapping process within the Brandon Regional Health Authority remains a relatively new concept. However, with more emphasis now placed on implementing a standardized practice of care, care mapping has become a region-wide method of reflecting the best practices guidelines for all key disciplines.
At present, Brandon RHA regularly implements eight care map systems. The current care maps include:

- Total Knee Arthroplasty
- Post-exposure Protocol
- Adult Sexual Assault
- Acute Ischemic Stroke
- Asthma
- Acute Coronary Syndrome
- Uncomplicated Myocardial Infarction
- Pneumonia (Rideau Park PCH)

There are also several care maps in the development process. These include Abdominal Hysterectomy, Breastfeeding, Vaginal Delivery, Caesarean Section, Wound Care and Suicide Prevention as well as other mental health related topics.

Effectiveness

Effectiveness is the extent to which services, interventions or activities achieve the best results. Measures of effectiveness include ambulatory or case sensitive conditions. We have also included rates of communicable diseases. Numbers of persons infected with shigella, tuberculosis, HIV, Chlamydia, verotoxogenic e. coli, and salmonella are also provided in this section.

Ambulatory or case sensitive conditions are those conditions where the need for hospitalization can be prevented or reduced by ambulatory care. Selected conditions for this report include:

- Alcohol dependence syndrome
- Alcoholic psychosis
- Asthma
- Depressive disorder
- Diabetes
- Drug dependence
- Drug psychoses
- Essential hypertension
- Hypertensive heart and renal disease
- Hypertensive heart disease
- Hypertensive renal disease
- Neurotic disorders
- Non-dependent abuse of drugs
- Secondary hypertension

Figure 4.26 shows that of the ambulatory care sensitive conditions listed, asthma and diabetes have the highest number of hospital admissions in 1999/00 to 2001/02. It should also be noted that alcohol dependence syndrome and alcohol psychosis for men cause a higher rate of admissions. Women have a higher rate of admissions for essential hypertension and neurotic disorders than men.
Men experience a higher rate of hospital admissions due to alcohol dependence and alcohol psychosis than women.

Women, on the other hand, have a higher rate of hospitalization due to essential hypertension and neurotic disorders than men.

Source: Brandon Regional Health Authority Profile, Manitoba Health, 2004

Figure 4.27 shows the numbers of new cases of selected infectious diseases for the years 1997 to 2001. The infectious conditions include the following:

- **Shigella** is an intestinal disease that is transmitted through infected human feces. Contaminated food and/or water can often be a source for shigella. In 1999, the incidence rate of shigella was 14/100,000 for Manitoba (Source: Communicable Disease Management Protocol, Manitoba Health, Shigellosis, 2001). The incidence for Brandon is low with only 8 actual cases reported in the five years displayed. The Manitoba rate ranges from a high of 239 actual cases in 1998 to a low of 11 actual cases in 2001.

- **Tuberculosis (TB)** is a bacterial disease that can attack any part of the body but usually attacks the lungs. TB is spread after prolonged or frequent person to person contact through the air (cough or sneeze from an infected person). TB is more common in people who live in crowded conditions and who have poorer general health. Historically, as more effective treatments for TB were discovered, the disease began to decline. However, worldwide, there has been stabilization in incidence and perhaps even an increase in recent years (Source: Communicable Disease Management Protocol, Manitoba Health, Tuberculosis, 2001). Brandon has had two new reported cases of tuberculosis in the past five years, both in the most recent years reported. Within the province there has been a range of new cases from a high of 122 in 1999 to a low of 97 in 1997 and 2000.
• **HIV** (human immunodeficiency virus) is a virus that kills your body’s CD4 cells. CD4 cells (also called T-helper cells) help your body fight off infection and disease. HIV can be passed from person to person if someone with HIV infection has sex or shares drug injection needles with another person. It also can be passed from a mother to her baby when she is pregnant, when she delivers the baby or if she breast-feeds her baby. AIDS - the acquired immunodeficiency syndrome - is a disease you get when HIV destroys your body’s immune system. (Source: [http://www.cdc.gov/hiv/pubs/brochure/at risk.htm](http://www.cdc.gov/hiv/pubs/brochure/at risk.htm), 2004). Brandon had very few reported cases of HIV – 4 in the year 2000. All of Manitoba ranged from an incidence high of 75 to a low of 64. It should be noted that HIV is reported differently than other sexually transmitted infections. If a person travels to a different town to be tested for HIV, the statistic is counted in that location and not related back to the person’s home community. Therefore, both Brandon and the province’s statistics could be understated. HIV testing should be increasing as the College of Physicians and Surgeons have stated that all prenatal women are to be offered HIV testing.

• **Chlamydia** is a common sexually transmitted infection (STI) caused by bacteria, which can damage a woman’s reproductive organs. Even though symptoms of chlamydia are usually mild or absent, serious complications that cause irreversible damage, including infertility, can occur “silently” before a woman ever recognizes a problem. Chlamydia also can cause discharge from the penis of an infected man. Chlamydia is the most frequently reported STI. (Source: [http://www.cdc.gov/std/Chlamydia/STDFact-Chlamydia.htm#WhatIs](http://www.cdc.gov/std/Chlamydia/STDFact-Chlamydia.htm#WhatIs), 2004) As shown in Figure 4.28, Brandon has a higher incidence of chlamydia (107-178) than any of the other infections displayed. This is consistent with the province, as the Manitoba rate for all years displayed ranges from a high of 3245 infected persons in 2000 to a low of 2570 in 1997.

• **Verotoxigenic E. Coli (VTEC) Infection** is a bacterial infection that is spread by eating contaminated food (e.g. undercooked hamburger). Brandon had 17 cases of VTEC reported over the five years displayed, with a high of 9 in the year 2000 due to a specific outbreak. The incidence of VTEC for Manitoba reached a five-year high the same year (2000) for a total incidence of 44 cases. Manitoba had the lowest incidence in 2001 (19).

• **Salmonellosis** is a bacterial disease that is usually contracted by eating contaminated foods such as chicken or eggs that have not been cooked thoroughly. (Source: [http://www.cdc.gov/healthypetsdiseases/salmonellosis.htm](http://www.cdc.gov/healthypetsdiseases/salmonellosis.htm), 2004). Several cases of salmonella were reported for each of the five years shown in Figure 4.27. The highest number of cases occurred in 1999 (22) and the lowest in 2001 (7) (Outbreak investigation for foodbourne in 1999). The incidence for the province also shows an up trend for the incidence of salmonella in 1999 (213). The lowest number of cases was reported for the province in 1997 (166).
Brandon has a higher incidence of chlamydia than any of the other selected infectious diseases shown.

Figure 4.27: New cases of selected infectious diseases, Brandon, 1997 to 2001

<table>
<thead>
<tr>
<th>Year</th>
<th>Shigella</th>
<th>Tuberculosis</th>
<th>HIV</th>
<th>Chlamydia</th>
<th>Verotoxogenic E. coli</th>
<th>Salmonella</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>107</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>1998</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>145</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>1999</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>119</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>2000</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>150</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>2001</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>178</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority Profile, Manitoba Health, 2004

Efficiency

Efficiency is the extent to which resources are brought together to achieve the best results with minimal waste, rework and effort. The measure for efficiency for this revolves around day surgery, both percentage of surgeries done in day surgery and types of surgeries.

Surgery has become less invasive with advances in technology. Day surgery has become an option for many different types of surgery, resulting in shorter wait times for clients and a potentially speedier recovery from less invasive procedures. With the redevelopment of the Brandon Regional Health Centre, there are now a total of six surgical theatres and one theatre for procedures under local anesthetic. As shown in Figure 4.28, Brandon RHA did approximately 68% of all surgeries as day surgeries in the year 2001/02, a higher percentage for males than for females. This percentage is higher than Winnipeg and higher than the province overall. Brandon RHA has committed to increasing the technological equipment and the training of staff with the newer technology. It is anticipated that the rate of day surgeries will continue to rise and the percentage of longer stay surgical patients will decrease.
Figure 4.28: Day surgeries as a percentage of total surgeries, Manitoba, Brandon and Winnipeg, 2001/02

![Bar Chart](image)

Source: Brandon Regional Health Authority Profile, Manitoba Health, 2004

Figure 4.29 shows the distribution of day surgeries for Brandon. The highest number of day surgeries involve the digestive system. Surgery on the female reproductive system is the next highest for females and surgery on the musculoskeletal system is the second highest for males.

**Figure 4.29: Brandon - day surgeries as a percentage of total surgeries, by the type of surgical procedure, 2001/02**

![Bar Chart](image)

Source: Brandon Regional Health Authority Profile, Manitoba Health, 2004
Client and community focus

Client and community focus will be examined by reporting on communication, confidentiality, participation/partnership, respect/caring and organization responsibility/involvement in the community.

Communication

Communication refers to the extent to which relevant information is exchanged with the client, family and/or community in a way that is understandable, meaningful, consistent and ongoing.

Brandon Regional Health Authority employs one communication coordinator. It is the role of the communication coordinator to:

- Research, design and edit staff newsletters,
- Act as a consultant on effective communication strategies, processes and policies,
- Promote events for staff and public,
- Coordinate regional staff meetings with RHA executives,
- Maintain and update internal and external databases (i.e. interpreters list, prize list, email distribution lists, media contacts, distribution lists),
- Coordinate and manage the web page,
- Coordinate and publish annual reports,
- Develop and implement advertising/marketing,
- Compile, edit and deliver public services announcements and
- Act as media contact.

Communication with the client and community is accomplished through many means. The following list is not all-inclusive.

- The Regional Responder is primarily a staff newsletter, however, it has a circulation of 700 copies that go to staff and external partners. The Regional Responder is a newsletter that outlines happenings within the RHA including quality improvement projects, introduction of new programs, upcoming workshops, privacy and security briefs, a health promotion column and a risk management column.
- The Health Care News is a community newspaper that is distributed quarterly to every household in Brandon and surrounding communities (a total distribution of 37,500). The Health Care News provides information about programs and services offered by the RHA. The newspaper keeps the public current with changes, additions and updates in services.
• The Brandon RHA website provides a comprehensive one stop shop that has links and descriptions of all the services that the RHA provides as well as some partner services. An on-line evaluation of the web site is planned for the summer of 2004.

• The Brandon RHA Board meetings are televised monthly on the local community access television station. Minutes from the board meetings are available both from the communication coordinator as well as on the website.

• The Brandon RHA Annual Board meeting is held each fall and is open to attendance by the public. The annual meeting is also televised and an annual report is available at the Brandon RHA administration office. The annual report is distributed in hard copy to each Brandon household through the Wheat City Journal and the Health Care News. The annual report is also available on the Brandon RHA website.

• Television opportunities are numerous and the Brandon RHA has a collaborative relationship with the local television network. In 2004 a regular health promotion segment was established on the local noon-hour show. This health promotion segment is from 7-14 minutes and includes information on health promotion topics as well as information about RHA services.

• The Health Resource Centre at the Brandon Regional Health Centre has available a variety of medical, nursing, consumer health and allied health resources including books, journals and videocassettes. The Health Resource Centre is available for use by the community.

A list of services and commonly called numbers was updated and placed in two weekly newspapers in June of 2004. These weekly newspapers are delivered to every household in Brandon. Laminated posters of the list of services are also available for partners, clients and other organizations. The list is attached as Appendix A.

A comment line is available for use by the public – patients, family members, staff, etc. This telephone line provides an opportunity for the RHA to receive positive comments along with complaints. The comment line receives about 75-100 calls per year, a combination of complaints, compliments and enquiries. The calls are reviewed and responded to within two working days. Complaints and compliments are referred to the appropriate manager of the area in question.

Confidentiality

The Personal Health Information Act (PHIA) became legislation in Manitoba in December 1997. Since that time Brandon RHA has implemented several key strategies related to PHIA:

• a Privacy Officer for the RHA with the responsibility of handling requests from individuals who wish to access or correct their personal health information, overseeing the compliance of the RHA with the PHIA and providing orientation and ongoing training for employees and those associated with the RHA;
• privacy policies for access, use, disclosure, storage, retention and destruction of personal health information;

• a confidentiality policy with a procedure for handling breaches of confidentiality and security; and,

• privacy impact assessments for all new and existing health information systems.

A Privacy and Security Committee is in place and takes the role of reviewing existing policies and recommending new policies in relation to privacy and security, providing guidance to enhance security practices, conducting privacy and/or vulnerability risk assessments and developing plans to reduce privacy and security risks. This committee is multi-disciplinary and reports to the executive management through a Vice President representative.

Training and education for staff regarding confidentiality/privacy of health information is provided on an ongoing basis through the following methods:

• All new employees, medical staff, students and volunteers receive orientation on confidentiality and the PHIA and sign a pledge of confidentiality.

• Approximately 90% of existing staff have been provided with an orientation on confidentiality and PHIA and have renewed their pledge of confidentiality.

• A process has been set up for re-signing of pledges on a bi-annual basis along with performance appraisals.

• A Privacy & Security Awareness team has been established with cross regional representation. Monthly education campaigns are conducted. The objectives of this committee include providing information and education material related to privacy and security, being accessible to staff to address/direct issues that relate to privacy and security and determining the educational needs of the employees, those associated with Brandon RHA and the public.

The Brandon RHA has a very defined process for responding to complaints from patients/clients/residents and family members. A written response is sent to all persons who forward a written complaint. This response is sent within two working days of the complaint, acknowledges the complaint and indicates that an inquiry will be made into the circumstances surrounding the complaint. Following the investigation, the person who made the complaint receives a response, usually written, but in some cases a face-to-face meeting occurs. Ideally the investigation and the response occurs within a two week time period. Complaints received by telephone are usually responded to by telephone.

The Personal Health Information Act (PHIA) became legislation in Manitoba in December 1997.
Participation and partnership

Participation and partnership refers to the extent to which the public actively participates as a partner in decisions, service planning and delivery and evaluation. Although Brandon Regional Health Authority does not have District Health Advisory Councils, we do have several advisory groups that include community participation. Examples of these groups follow.

- The **Aboriginal Recruitment/Retention Circle** is made up of representatives of multiple organizations including Aboriginal organizations, educational institutions, government organizations and union representation. The mission is to promote employment and educational opportunities to the Aboriginal community through relationships made with Aboriginal groups, organizations and service providers and to support Aboriginal awareness for RHA staff.

- The **Mental Health Advisory Team** is a diverse group of representatives from Health and Social Service Agencies. The purpose of the group is to provide consultation regarding mental health services and policy, to assist with planning services and to provide feedback and input. This team also identifies issues of common interest such as income, employment, transportation and housing. The team then collectively develops strategies for how improvement can occur through an advocacy and community development framework. An example of an initiative of this team was the implementation of off-hour bus passes for those on employment and income assistance. This improved transportation, access to services and capacity for recreation and leisure for a vulnerable population.

- The **Residents Council and Family Councils** in long term care facilities provide a forum for communication among residents, staff and family. Monthly meetings are held and topics can range from policies, procedures or programs to any item of mutual interest or concern.

- The **Regional Diabetes Program Advisory/Working Group** recently formed (June, 2004). This committee is broadly intersectoral and includes clients, Aboriginal organizations, an optometrist, a podiatrist, a pharmacist, the Canadian Diabetes Association and many others. The intent of this committee is to reduce duplication and promote integration of service for those at risk for and with diabetes.

- Several **Coordinating Teams** include patients, client, residents or members of the public.
Respect and caring

Respect and caring refers to the extent to which staff members are polite, considerate, sensitive and respectful to the people they serve. Measures for respect and caring that have been included in this section include opportunities for client input through client satisfaction surveys, translation services, evidence of spiritual care and availability of palliative care services.

Almost every clinical program and department of the Brandon RHA conducts periodic satisfaction surveys of its patients, clients and residents. These surveys include those for:

- In-patients and out-patients at the Brandon Regional Health Centre (BRHC),
- Residents of the Long-Term Care areas (Fairview Home, Rideau Park Personal Care Home, and the Extended Care areas at BRHC),
- Home care clients,
- Clients who use maternal-child services,
- Clients of select public health services, and
- Clients who use any of the seven mental health programs.

The surveys are collated and the results are sent back to the program/department. The program or department is then required to review the results and act on a minimum of one improvement area.

Translation services are available across the RHA. The communication coordinator compiles and maintains an interpreters list, which is available via computer to all RHA employees (through the public folders in Outlook). A policy related to interpreters including roles, responsibilities and process for utilization is in place. The policy is currently being reviewed and updated (June 2004). Despite the availability of a list of interpreters and a utilization policy in place, the provision of translation services remains inadequate. There has been a significant increase in new immigrants to the region over the past few years and this increase is expected to continue. The majority of newcomers to the Brandon region are not coming from Britain and Eastern Europe as we have witnessed over the past century. Today, newcomers are arriving from such places as Central and South America, Kenya and Romania. Communication tools that are culturally and linguistically sensitive are needed for a multitude of languages.

Spiritual care is recognized in the Brandon RHA as integral to holistic care and is facilitated by two full time pastoral care staff and several pastoral care volunteers. The paid staff and the volunteers coordinate an on-call system so that a spiritual care provider is always available for pastoral care. The department conducts a regular Sunday service in a small chapel at the Health Centre, sees people by referral and makes regular rounds to chat with health centre patients. Aboriginal spiritual care is a recent addition and is offered through the Brandon Council of Indigenous Elders. Within the next year (late 2004), Brandon RHA will be adding an Aboriginal spiritual care provider to the paid personnel. This is a one year term part time position. The position will be reviewed at the end of the term to determine whether an ongoing program is appropriate.
An updated list of contact numbers for clergy and churches is available to all Brandon RHA staff and clergy are encouraged to visit their congregational members who are in hospital or personal care homes. Community clergy can pick up a list of their congregational member admissions who have given their consent for a visit from a central point in the Brandon Regional Health Centre.

An Advisory Spiritual Care Committee composed of external ministerial membership as well as internal pastoral care staff is in place. This committee provides a forum for communication between community faith representatives and the Brandon RHA. The purpose of the group is to promote spiritual care as an integral part of health care and to promote the offering of spiritual care in a collaborative fashion.

Brandon has one full time staff member as palliative care coordinator. The role of the coordinator is to take the national and provincial recommendations for palliative care and make them a reality in the region. Toward that goal, a palliative care services team and a palliative care team with broader representation has been established.

Palliative care supports the individual and the family with their end of life wishes. This could include dying at home, staying at home as long as possible and facilitating transfer to hospital when appropriate. To date, the Brandon region has implemented a palliative care drug access program (a provincial program) and created and maintained a database of all clients on the palliative care registry.

Future objectives for palliative care include providing:
Seamless care for all palliative clients and their families;
Public awareness of the service;
A flexible and integrated system; and
Optimal care to dying individuals and their families.

**Organization responsibility and involvement in the community**

As a responsible member of the community the Brandon RHA, as an organization, makes an effort to support and strengthen the community and contribute to overall health. Measures for organizational responsibility and involvement in the community include RHA involvement in sustaining the environment, staff participation in community events and staff participation in external committees.

The Brandon RHA has a premier recycling program and is one of the top three recycling sites in Westman. Three waste audits have been done to monitor progress and evaluate the efficiency and effectiveness of the RHA recycling program. The audits were done in 1997, 2000 and 2003. The goal for the 2003 audit was to reduce the amount of total waste by 15-20% and to decrease the amount of recyclables reaching the waste stream.
As shown in Figure 4.30 the Brandon Regional Health Centre has decreased overall waste by 15.3% (61.63 tonnes per year) over time. Total waste being recycled has increased by 23.9% over time. Although the results of the audit were commendable, the Brandon RHA continues to strive to reduce the amount of recyclable waste that is being disposed of through the landfill and incinerator. To that end, a systematic and ongoing education plan for staff has been established.

Figure 4.30: Disposal of waste generated at the Brandon Regional Health Centre

In 2003, Brandon RHA won a national leadership award for reducing greenhouse emissions. Brandon RHA was the only health authority in Canada to receive the award in 2003 and this is the second time Brandon RHA has won (2001). Energy efficiency is kept in the forefront of the Brandon RHA through an energy efficiency committee that is comprised of representation from all levels of management and staff from all facilities within the RHA. The mission for the committee is to investigate, promote, and educate in regards to the use of energy and natural resources for the benefit of the public and for future generations.

The Canadian Council on Health Services Accreditation (CCHSA) recognized Brandon RHA in 2003 for maintaining standards in service. The accreditation came with 11 recommendations and two commendations. The award was “Accreditation with Report” which means that two follow-up reports were required by CCHSA. The first report was submitted in January 2004 and it addressed two issues: the first is in regard to upgrades on the pediatric ward and the second refers to a more integrated relationship between Westman Regional Laboratory and the RHA. The second report was submitted in July 2004 and it addressed the development of a policy on advanced care directives and physician appointments and peer reviews.

Brandon RHA, as an organization, supports numerous partnerships with the community. Examples include:
- Safe Community Coalition for Brandon and area;
- Integrated Housing Initiative;
- Early Years Team;
- Healthy Lifestyles Coalition; and the Suicide Prevention Implementation Network.

The achievements of the Energy Efficiency Committee have been a result of many different and creative ideas from Brandon RHA employees.
As well, Brandon RHA supports several community held events such as participation in the autumn celebration in downtown Brandon with the D.A.S.H. tent. D.A.S.H. is an acronym for Dudley’s Ambulatory Surgical Hospital and it is located in a large tent in a park in downtown Brandon. This event provides an opportunity for children to bring their stuffed animals or dolls for “health care”. The toy has the opportunity to experience an x-ray, a nutrition assessment, surgery, a cast, a breathing assessment and many other “interventions”.

Work life

Work life is important for organizational productivity, personal wellness and a healthy organization. Work life, in the context of this report, refers to a work atmosphere that is conducive to performance, excellence, full participation, personal/professional and organizational growth, health, well-being and satisfaction (source: adapted from Canadian Council on Health Services Accreditation). Measures related to work life that are included in this section are open communication, role clarity, participation in decision-making, learning environment and well-being.

Open communication

Open communication is the extent to which the organization creates and sustains a climate of openness, free expression of ideas and information sharing. Measures for open communication that have been included in this section are: availability of internal newsletters and opportunities for staff to express level of satisfaction about the job during employ with the Brandon RHA and on exit from employment.

**Internal newsletters** are produced regularly. The Regional Responder is produced monthly and is available in all staff areas. As mentioned earlier, this is primarily a staff newsletter but is provided to outside agencies (listed under communication in this chapter). Many of the specialty areas also have a communication newsletter that occurs on a regular basis. Examples include:

- **The News and Views for the Brandon Regional Health Centre staff.** News and Views is a one page, double sided newsletter that is distributed weekly. This newsletter highlights changes or reminders about staffing, policies, safety and security, privacy, plus lists staff accomplishments and staff appreciation letters.

- **The Fairview News and Views** provides information for staff, residents, families, volunteers and resident volunteers. This is a 24-page newsletter that comes out quarterly. The newsletter provides information on continuous quality improvement, upcoming staff activities along with welcomes to new staff.

Every two years, staff members and volunteers in the Brandon RHA are given the opportunity to complete two short **surveys**. Both measure satisfaction. The first survey measures work satisfaction and the second considers satisfaction with communication methods within the RHA. The survey results are collated and analyzed by a small committee and an action plan is formed.

In 2002, the majority of staff members and all of the volunteers are happy to work for the Brandon RHA.
The last completed survey was in 2002. The results of that survey indicated that, overall, a majority of staff members (73%) and all of the volunteers (100%) indicate that they are happy to work for the Brandon RHA. However, positive responses to the statement, “I am well informed about what is going on in the Brandon RHA” remain low at 46% from the 2000 surveys and 56% from the 2002 surveys. The surveys are due to be conducted again in December 2004.

All employees receive an exit survey upon leaving the employ of the Brandon Regional Health Authority organization. This survey requests information on the reasons for leaving and satisfaction level with a variety of work life components (e.g. rate of pay, hours of work, shift schedule, relationship with manager, etc.). The Human Resources Department and the Manager of the department from where the employee left review the survey. The Human Resources Coordinating team also reviews this information.

**Role clarity**

Role clarity is the extent to which staff have clearly defined jobs that are aligned with team and organizational goals. Measures of role clarity include structured staff orientation, a performance management process, percentage of staff with current job descriptions and current organizational/department charts.

*Regional orientation* is held for all new Brandon RHA staff. Ideally new staff attend regional orientation on their first day of work where all the needs of a new staff member are met (including signing on with a Human Resources Officer). If this cannot be achieved, orientation occurs at the earliest possible date following commencement of employment. Regional orientation occurs once or twice a month on a Monday and is ideally followed by site specific orientation. Orientation specific to sites and programs is done individually throughout the region.

A software program has been purchased by the region for completing performance appraisals. Thus, all performance appraisals can be completed electronically. This software provides a means of tracking the percentages of performance appraisals being completed. For the 2003/04 fiscal year, 49% of the part time and full time staff and 58% of the casual staff had current appraisals. Performance appraisals are to occur for each staff person every two years.

A standardized format has been created and is being used for all job descriptions. Every staff position has an existing job description. Job descriptions are reviewed and updated when new staff are hired to fill existing positions.
An overall organizational chart is available to all staff (see Figure 4.31) as well as departmental level organization charts in the intranet’s public folders.

Figure 4.31: Brandon RHA organizational chart – April 2004

Participation in decision-making

Participation and decision making refers to the extent to which staff input is encouraged and used in decision-making. Measures for participation and decision making include: staff participation on internal committees, existence of staff/management committees, evidence of teamwork processes and existing processes for staff input.

There are 21 coordinating teams within the Brandon RHA. The purpose of these teams is to promote continuous quality improvement within the organization. Continuous quality improvement (CQI) is a work philosophy that encourages every member of an organization to find new and better ways of doing things. Each coordinating team is composed of approximately 15 staff. Thus CQI processes alone seek the input and contribution of over 300 staff members.
The following Coordinating Teams are in place in the Brandon RHA:

1. Acute Care
2. Adult Mental Health
3. Ambulatory Care
4. Cancer Care
5. Children’s Mental Health
6. Community Health
7. Emergency Care
8. Environmental Management
9. Extended Care
10. Fairview
11. Home Care
12. Human Resources
13. Information Management
14. Intensive Care
15. Maternal-Child
16. Medical Care
17. Mental Health
18. Long-Term Care
19. Psychogeriatrics
20. Rideau Park
21. Surgical Care

Internal committees that include staff involvement are too numerous to list within this document. Internal committees are usually interest specific. Some examples of internal teams/committees include:

- Children’s Mental Health
- Continuing Medical Education committee
- Credentials Committee
- Critical Incident Stress Management
- Day Surgery Committee
- Electronic Health Record Operational Steering Committee
- Emergency Preparedness Team
- Energy Efficiency Committee
- Ethics Committee
- Facilities Committee
- Finance/Audit Committee
- Forms Committee
- Health Records Committee
- Home Care Panel
- Infection Control Committee
- Information Systems Advisory Committee
- Medical Committees (Emergency, Internal Medicine, Family Practice, etc.)
- Nursing Advisory Committees
- Nursing/Pharmacy Committee
- Palliative Care Team
- Patient Care Policy and Procedure
- Pharmacy and Therapeutics Committee
- Provider Advisory Council
- Psychiatric Facilities Coordinating Committee
- Recruitment and Retention Committee
- Respiratory Care Team
- Risk Management Committee
- Social Committee
- Space Management Committee
- Staff Educators Committee
- Standards Committee
- Substance Abuse Committee
- Utilization Management Committee
- Workplace Safety & Health Committees
Staff/management meetings are required by the labour unions. Staff Management Committee meetings are held on a bi-monthly basis and they are open to all unions (MAHCP, CUPE, MNU, and MGGEU). The Manitoba Medical Association does not attend as most physicians are not employees of the RHA. Management representatives include the Vice President, Support Services, a Human Resources Officer and a Manager from the Nursing department.

The Brandon RHA has adopted teamwork as a component of the vision: “a model region, responsive to the community through teamwork and a focus on health.”

and as a core value: “Teamwork and shared decision-making as being integral to reaching our mission, vision and goals.”

Each program and department is encouraged to operate as a business unit team, with sound communication practices and regular business meetings. As mentioned earlier, there are 21 Coordinating Teams that meet on a regular basis to monitor performance and improve care and service. Project Improvement Teams (PIT) also form for short-term projects to address specific issues.

Staff input is a guiding principle of Continuous Quality Improvement. Front-line staff members are invited to be members of Coordinating Teams and staff are included in formulating action plans. Staff input is also sought when drafting new policies and procedures. As well, the final budget for the RHA is determined after input has been received from managers across the RHA.

**Learning environment**

The learning environment is the extent to which the organization encourages creativity, innovation and initiative among staff. Measures include evidence of access to current information, a staff education budget and the percent of staff that have the opportunity to participate in staff education activities.

A Health Resource Centre is an important part of the second phase of the Clinical Services Redevelopment Project. The intent of the Health Resource Centre is to ensure that current and credible health information related to illness prevention, health promotion, healthy living and disease management is readily accessible to the public and health professionals. Designed to function like a lending library, the centre will have books, journals, videos, audiotapes, CD-ROMs, pamphlets and booklets available. The Health Resource Centre is expected to open in January 2005.
The Brandon RHA follows the principle of “best value” for their educational dollars. For example, whenever possible, speakers are brought in to the region so that multiple staff members can benefit from the presentations. The staff educators collaborate to sponsor an annual education day for all staff called the “Excellence Conference”. Staff members that may not have opportunity to attend many educational events such as custodial and clerical staff are often urged to attend this event. Speakers are also brought in to address special topics of interest. For example, internationally-known organizational development leader Jim Clemmer was invited to speak to managers and staff on the importance of recognition in quality of work life. This invitation was in response to the low score on the staff satisfaction surveys for staff recognition.

Departments and programs generally budget a small percentage of funding for staff education. If staff members attend an educational event such as a workshop or conference outside of the RHA, they give back to the RHA by providing a report to their colleagues on their return.

**Well-being**

Well-being is the extent to which the organization provides a safe, healthy and supportive environment, recognizes staff contributions and links staff improvement ideas to improvement opportunities. For the purposes of this report, measures of organizational well-being include:

- family friendly workplace initiatives,
- workplace wellness initiatives,
- workplace injuries,
- subsidized health related programs and
- staff turnover rate.

A staff day care has been under consideration for several years in the Brandon Regional Health Authority. However, it is only within the last year that the initiative has begun to take shape. In June 2003 a survey was taken of all staff of the RHA. There was a 10% response rate from the whole RHA and a 20% response rate from those in the child-bearing years (age 20-40). Those staff who responded indicated that they would be interested in enrolling 312 children in a Brandon RHA day care and they would require day care hours that service the needs of the shift worker.

In response to this identified need, a non-profit board has been established, policy and procedures have been developed, an application has been made to the Child Day Care Branch of the MB government and a space has been committed for the development of the day care. The next steps include being approved by the Child Day Care Branch and fund raising for the capital dollars to renovate and equip the day care.
The Employee Assistance Program is fully funded by the Regional Health Authority. The program provides employees and their eligible dependents with confidential and professional treatment resources for personal issues. Counseling services are offered in the areas of marital/relationship, family/parenting, addictions, emotional or behavioral, anxiety and depression, occupational stress/adjustment, career and vocational, violence/abuse, financial, information and/or referral and critical incident/trauma.

Opportunities for employees to flex their hours is limited due to collective agreements. However, where possible and when appropriate, staff can flex their hours and thus have more control over the hours they work.

Other activities that promote employee wellness include wellness workshops, staff appreciation and recognition days, staff immunization, an annual walking poker derby, a bike compound for those wishing to ride their bike to work, massage therapy at several sites, a children’s Christmas party and access to the BRHC gymnasium in the evening. Aerobics were offered for two sessions in 2003 in the gymnasium at the nurses’ residence during noon-hour. The instructor was paid through a small stipend from each participant.

Despite the availability of a staff influenza vaccination program, the immunization rate for Brandon RHA staff overall is low at 35.4% in 2003. According to the National Advisory Committee on Immunization (2002 – 2003), the goal of vaccine programs for healthcare providers is a coverage rate of 90%. Table 4.4 shows the flu immunization rate for BRHC staff that accessed immunization for influenza through Occupational Health over three time periods. Data does not include immunizations provided through family physician offices. The number of staff who received flu vaccination has decreased each year. Research indicates a number of reasons for refusal of influenza vaccination among healthcare providers (Pierrynowski-Gallant & Vollman, 2004). Specific reasons include:

- fear of side effects such as Guillian-Barre Syndrome
- discomfort at the injection site
- belief that the body can resist the infection
- doubts about vaccine efficacy
- not wanting to get sick
- not liking needles
- awareness that influenza vaccination is not mandatory for healthcare providers in most provinces

Lack of easily accessible service has also been reported as a reason why healthcare providers do not receive immunization. In an effort to increase the immunization rate for influenza among staff, the Occupational Nurse held 10 immunization clinics in 2003. In addition to these scheduled clinics, a mobile flu immunization service was provided to units and departments within the organization including Fairview Home and Rideau Park.
Table 4.5: Number of staff receiving influenza vaccination through Occupational Health Services, 2000/01, 2001/02, 2002/03

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/01</td>
<td>522</td>
</tr>
<tr>
<td>2001/02</td>
<td>488</td>
</tr>
<tr>
<td>2002/03</td>
<td>435</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Authority, 2004

A Workplace Wellness Committee was established in June 2003. Approximately 30 individuals from across the RHA have made a commitment to be involved in a wellness strategy for RHA employees. Included in that commitment is two executive sponsors: the Chief Executive Officer and the Vice President of Support Services. To date, the Workplace Wellness Committee has developed a planning logic model and an action plan for the next two years.

Workplace injuries have increased from 2003 to 2004. In 2003, there were 216 employee injury reports and in 2004 this increased by approximately 12.2% to 246 (Source: Workman Compensation Board claims and employee injury report, Brandon RHA, 2004). The primary body part injured in claims is the back/lower back followed by injuries to the hands/fingers.

Although claims and injury reports have increased, the costs associated with them have actually decreased. In 2003 the Brandon RHA outlined $111,046.57 as direct costs for workplace injury (medication, compensation, rehabilitation and pension). In 2004, the amount reduced to $89,198.96.

As shown in Figure 4.31, in Brandon, males aged 25 to 34 and 35 to 44 appeared to be at greatest risk for hospitalization due to workplace injuries (162/100,000 and 170/100,000 respectively), higher than that for all Manitoba males in this age group (101/100,000 and 118/100,000 respectively). For all Manitoba males, those at greatest risk were also men aged 25 to 44.

Figure 4.32: Males aged 25 to 34 years and 35 to 44 years of age - workplace injuries resulting in hospitalization, Manitoba and Brandon, 2001

Source: Brandon Regional Health Authority Profile, Manitoba Health, 2004
As shown in Figure 4.32, females aged 45 to 54 appeared to be at greatest risk for hospitalization due to workplace injuries (62/100,000), higher than that for all Manitoba females in this age group (21/100,000). For all Manitoba females, those at greatest risk were women aged 45 to 54.

Figure 4.33: Females - workplace injuries resulting in hospitalization, Manitoba and Brandon, 2001

![Graph showing rates per 100,000 for different age groups in Manitoba and Brandon, 2001.]

Source: Brandon Regional Health Authority Profile, Manitoba Health, 2004

To address workplace injury, the Brandon RHA began work on developing an **Ergonomics Program** in 2003. To date the organization has accomplished the following:

- analyzed all musculoskeletal injury reports for 2000, 2001 and 2002 to determine the causes and frequency of these injuries;
- identified four areas considered as high-risk work areas;
- developed a plan to reduce/eliminate potential risk of injuries;
- developed a "Safe Patient Lifts & Transfers" training program;
- implemented a "Train the Trainer Program" for "Safe Patient Lifts & Transfers" training program;
- completed "Train the Trainer Program" for areas identified as high-risk;
- started training workers from high-risk areas on RHA's "Safe Patient Lifts & Transfers" training program;
- inventoried all lift & transfer devices available in the RHA;
- prioritized a list of lift & transfer devices required; and
- are in the process of purchasing lift & transfer devices that have been approved.
Smoking has been identified as a major health risk factor. In an effort to promote health within the RHA, a smoking cessation initiative was started in 2003/2004. The planning for a smoking cessation program began with a review of smoking cessation initiatives from around the world. The Mayo Clinic was identified as one of the best practice sites for a smoking cessation program. Two staff members were supported by the RHA to attend the Mayo Clinic and receive training regarding smoking cessation. The RHA also supported an independent physician in attending the Mayo Clinic. A tobacco dependence program counselor was hired and the program was launched in February 2004. The initial pilot program was introduced for staff of the RHA. Currently, plans are underway to expand the cessation program to high-risk patients/clients currently accessing BRHA programs.

Staff turnover rates have increased over time. As Figure 4.34 shows, cumulative staff turnover rates were 10.8% in 2002/03 and increased to 14.2% in 2003/04. High staff turnover is primarily due to retirements. However, it has also been noted that there is a high staff turnover rate for positions that have a lower equivalent full time EFT (part-time positions at .5 or less). Thus, the RHA has begun, when possible, to combine small EFT positions resulting in larger EFT positions. The turnover rate has been projected as higher for 2004/05 (16.04%) based on the percentage of employees that are eligible for retirement.

Figure 4.34: Staff turnover rates (2002/03 cumulative and 2003/04)
So, what does this mean?

Although the information provided in this chapter provides a snapshot in time of health system performance, it is just that - a snapshot and it must be taken in context with other influences on the health system. For example, the bed to population ratio is difficult to compare to other regions within the province, as Brandon RHA is a regional referral center. This is borne out when we note that almost 50% of our hospital admissions are from outside the region. The increase of beds reflects the addition of mental health service beds to fill the gap left by the closing of Brandon Mental Health Centre. As these mental health services tend to serve clients from several regions, it is difficult to provide a bed to population ratio that reflects the actual population served.

Similarly, although Brandon reflects a better population/physician ratio than the other regions or the province, it is below the Canadian ratio (in the 1990s the ratio for Canada fluctuated between 530:1 and 540:1). There is no “formula” for an appropriate ratio of physician to population services. This is due to the complexities of counting physicians (by specialty, by location, and by the amount of work one physician does compared to another). And there is no universally accepted measure that relates population need with the amount of physician services that are available or required (Source: National Resources Canada http://atlas.gc.ca/site/english/maps/health/resources/physician/1 May, 2004).

When examining a population to physician ratio, the fact that Brandon is a regional referral center with specialist services needs to be considered. Thus, the physician to population ratio will not be exclusively primary physicians but will include specialists such as internists, surgeons and pediatricians. This will differ significantly from the rural regions as many do not employ specialists.

We have learned, however, that most Brandon residents are able to access primary physician services within the region. As well, a high percentage of Brandon residents are able to access specialty services within the region. Most residents attend a physician visit at least once per year.
Brandon RHA Home Care services contrast with most of the other regions. Our Home Care, as a general rule, offers an increased number of shorter duration cases than the rest of the province. However, Brandon RHA residents are admitted to Personal Care Homes at a lower acuity level. Planners could consider whether those slated for PCHs could remain in the community longer with more community supports.

Planning for Personal Care Home beds becomes a dilemma. How do we ensure availability and accessibility in a timely manner? Currently our wait times have been reduced but they remain higher than the province. Our admission rates and usage rates are also high. Although Manitoba Health’s statistics suggest we are over filled, it seems this has done nothing to alleviate the waiting list or wait times. The projection for the future suggests that between 2020 and 2040 there will be an increased need for PCH beds. After 2040, the projection is that the need for PCH beds will decrease. So, how do we accommodate the baby boomers and not become over filled in the future? Again, planning could be considered for how to keep the lower acuity clientele in the community longer.

On initial glance, when examining the appropriateness of our performance, it may seem like the region is healthier than the province or other regions because high profile procedures are not being done at as high a rate. However consideration of other factors need to be included in planning. If one was to consider cardiac procedures for example, the question needs to be asked, “Why are procedures so low when cardiovascular events are our number one killer?” Does it relate to lack of socio economic ability to travel to Winnipeg? Are clients choosing not to access service? Are people not seeking medical attention until major cardiac damage has occurred? Are people not being referred for the procedures? Answers to these questions need to direct planners in addressing potential shortfalls in service for this population. Another example is related to CT scans. Is our high rate of usage of CT scans reflective of the availability of a CT scan? Or is it reflective of our high rate of cancer within the region? And, finally does the high rate of CT scans have an impact on the health of this population?

Similarly, discretionary procedures are at a higher rate than most other regions. It is beyond the scope of this report to determine the reasons for this. Many factors could play into this data such as a higher incidence of antibiotic-resistant tonsillitis in the region thus resulting in the need for tonsillectomies. Planners need to examine case specific information around discretionary procedures to determine whether the rates are unacceptably high.
Of the services identified as “case sensitive” or rather those cases that could have avoided hospital admission thorough other means such as client education, diabetes and asthma rates are the highest. The Brandon RHA has recently begun an ambulatory respiratory clinic to address the education needs of those suffering from asthma and other respiratory conditions. The Brandon RHA also continues to roll out a Regional Diabetes Program that is consistent with a provincial model of best practice. However, planners may also want to consider some of the gender specific issues related to case sensitive conditions. For example, men show a higher rate of admission for alcohol dependency and alcoholic psychosis and women show higher rates for essential hypertension and neurotic disorders. Planners may want to consider gender specific interventions for these conditions.

Day surgery has become the most common form of surgery, thus reducing wait times and promoting less invasive procedures. Brandon RHA has committed to continuing with the training and the technology to promote further day surgery procedures.

Brandon RHA promotes a client and community focus through:

- open communication, both internally and externally;
- promoting confidentiality;
- partnering with the community;
- promoting respect and caring;
- and showing organizational responsibility.

Brandon RHA has shown leadership in promoting environmental concerns through a premier recycling program and through award winning energy conservation measures.

Teamwork is a core value and is advocated throughout the organization. This is especially true of the Continuous Quality Improvement programs that have been initiated across the RHA.
Chapter 5
Health Status - Focus on the Health of Populations

Health status is the overall picture of the health of the population or sub-groups of the population at a particular point in time. Health indicators are measurements based on standard definitions and they are designed to provide comparable information within a health region and between a health region and provincial and/or national levels. Health status may change over time and it is reported as improvement, worsening or no change. The most common categories of health status indicators are mortality rates, morbidity rates and measures of well-being.

Mortality rates are death rates. The mortality rate of a disease is the ratio of the number of deaths from a specific disease to the total number of cases of that disease. Mortality rates include life expectancy, infant mortality and potential years of life lost due to premature death.

Morbidity rates are sickness rates. It is the ratio of sick people to all people in a community. Morbidity rates are measured for specific health conditions such as low birth weight, chronic diseases and injuries.

Measures of well-being include self-reported health, functional health and activity limitations.

Information in this chapter is presented within these three categories. Figures and tables use comparisons between the Brandon region and Manitoba as a whole. Often Manitoba has been broken into 3 regions (Rural South, North and Winnipeg). Rural South refers to the geographic areas that include South Eastman, Central, Brandon, Assiniboine, Parkland, Interlake and North Eastman RHAs. Brandon is often compared to the grouping of Rural South. In some cases the information is provided in districts within the Brandon RHA. The districts include Brandon West, Brandon East and Rural Brandon (RM of Cornwallis, Elton and Whitehead). Brandon West and East are based on the provincial electoral boundary – north along 18th street to the Assiniboine River to 1st street, north along 1st street to the boundary of the City of Brandon.

The Acumen research is also presented as a source of information. This was a telephone survey completed in late 2003. The survey used random digit dialing, which continued until 400 adults completed the survey within the region. This represents approximately 11% of the adult population of the geographic area of the Brandon RHA.

When comparisons are made between regions or between a region and the province the data is often age and sex adjusted per 1000 residents. This means that the rates are adjusted or standardized to reflect the population age and sex of Manitoba during the same time period.
Mortality

As indicated in Figure 5.1, the mortality rate for the Brandon region is slightly lower than the provincial mortality rate from 1990-1994 and from 1995-1999. Mortality rate has not changed over the two time periods for either the Brandon region or for the province.

For both Brandon region and the province, infant mortality is consistent with the overall mortality rates. Infant mortality is lower than the provincial rate from 1990-94 (4.8 for Brandon and 6.7 provincially) and from 1995 – 99 (4.2 for Brandon and 6.9 provincially).

Female life expectancy in the Brandon region is approximately 82 years, which is slightly higher than the Manitoba average of 81 years. In the Brandon region, male life expectancy is lower than female at 77.1 years in 1990-94 and dropped one full year in the time period from 1995-99 (76.1 years). In 1990-94, Manitoba had a lower male life expectancy rate than Brandon (75.4). The rates became comparable in 1995-99 (Manitoba rate of 75.9).

Figure 5.1: Total mortality rates by RHA

In Brandon, the infant mortality rate has decreased slightly while provincially the infant mortality rate has increased slightly.

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003
**Premature mortality rate** is the number of deaths that occur prior to the age of 75 years. As shown in Figure 5.2, Brandon’s premature mortality rate was significantly lower than the Manitoba rate during the 1991-1995 time period. The premature mortality rate for Brandon increased slightly during the 1996-2000 time period, while the Manitoba rate decreased, bringing the two rates closer together. Brandon also differs from the rural south as Brandon’s premature mortality rate has increased over time, whereas the Rural South has decreased significantly over time.

**Figure 5.2: Premature mortality rates by RHA**

Potential years of life lost (PYLL) reflect the years of life lost when a person dies before the age of 75, thus giving greater weight to a death occurring at a younger age. As shown in Figure 5.3, over a ten-year time span, an average of 2,197 potential years of life (PYLL) were lost each year among residents due to deaths from all causes. There were substantially more potential years of life lost among the male population than female during this time frame. An increase over time of 7% potential years of life lost (737 years) can be noted.
Potential years of life lost (PYLL) can be related to causes of death as indicated below.

- From 1992 to 2001, an average of 678 potential years of life were lost each year for residents of Brandon due to deaths from cancer. This statistic has escalated over the years. From 1992-1996 there were a total of 3251 PYLL due to cancer. In the subsequent five-year period (1997-2001) there was a PYLL of 3525, an increase of 8% (274 years).

- From 1992 to 2001, an average of 477 potential years of life were lost each year for residents of Brandon due to deaths from circulatory diseases. Males lost more potential years of life than females. However, the number of female PYLL related to circulatory disease is increasing while the number of male PYLL is decreasing due to this cause.

- From 1992 to 2001 an average of 240 potential years of life was lost each year for residents of Brandon due to deaths from unintentional injuries. Although the number of PYLL for unintentional injuries has remained fairly stable between the two five year time frames (1290 PYLL from 1992-1996 and 1113 from 1997-2001) the number of males to females PYLL due to unintentional injuries is almost 2.5:1.

- From 1992-2001, an average of 167 potential years of life was lost each year due to death from suicide. A substantially higher proportion of males complete suicide than females. When the stats are broken down by year, the years of 1993, 1996, 1998 and 2001 indicate only males completed suicide. Between 1992-1996 and 1997-2001, the PYLL due to suicide has increased by 27% (200 years).
Between 1992-1996 and 1997-2001, the potential years of life lost due to suicide has increased by 27% (200 years).

- From 1992 to 2001, an average of 118 potential years of life was lost each year for residents of Brandon, due to deaths from respiratory diseases. PYLL due to respiratory disease have decreased over the years. Between 1992-1996 and 1997-2001 there was a decrease of 17% (110 years) in PYLL due to respiratory diseases. A substantial decrease can be noted in the male population. Males lost 493 potential years of life due to deaths from respiratory disease in the 1992 – 1996 time frame. This reduced to 276 in 1997-2001.

So, what is causing deaths in our region? Figure 5.4 shows that the disease causes of mortality are similar between men and women. A listing of diseases by categories is available in Appendix B. The five leading causes of death in Brandon region are:

1. Diseases of the circulatory system- e.g. heart attack, strokes
2. Neoplasms – all cancers
3. Respiratory system – e.g. asthma, chronic obstructive pulmonary disease
4. External causes – e.g. motor vehicle accidents, poisoning, falls, fire/flames, natural and environmental factors (e.g. heat/cold, drowning)
5. Digestive system – e.g. diseases that affect the esophagus, stomach and intestine, appendicitis, hernias of the abdominal cavity.

As shown in Figure 5.4, there is a difference between males and females in relation to death caused by external factors. Males have a higher number of deaths caused by external factors (134) than females (81). Death rates in the digestive category are slightly higher for women (88 versus 77 for men).

*Figure 5.4: Top 5 causes of mortality*

The five leading causes of death for residents of Brandon from 1992 to 2001

Source: Manitoba Health: Brandon Regional Health Authority Profile Document, August 2003
Morbidity

Morbidity includes information on the incidence and prevalence of common diseases and health conditions.

Infants

Both low and high birth weights have an effect on baby’s ability to thrive and impact potential future health problems. Low birth weight babies are live babes whose weight is less than 2500 grams (5.5 pounds). High birth weight refers to babies born at a weight greater than 4000 grams (8.8 pounds).

Figure 5.5 indicates that during the time period from 1996 to 2002, the percentage of low birth weight babies in Brandon region appear to vary from a high of 5.7% in 1996/97 to a low of 2.4% in 1999/00. There is no apparent trend over time, however there is a substantial drop in the percentage of babies with low birth weight in the year 1999/2000. The provincial rate has remained stable at approximately 5% over the six years that are displayed in Figure 5.5. Low birth weights in the Brandon region have remained under 4% since 1999/00, which is lower than the provincial rate. However, low birth weight rates have increased steadily over the last two years displayed.

Figure 5.5: Low birth weight

Low birth weight babies are at greater risk of death, disease and disability including cerebral palsy, learning disabilities, visual problems and respiratory problems.


Source: Manitoba Health: Brandon Regional Health Authority Profile Document, August, 2003
Figure 5.6 indicates that the number of high birth weight infants has varied in the Brandon region, ranging from 14% to 18%. The Manitoba average has increased slightly, leveling to 17% in 2000/01 and 2001/02. The lowest rate of high birth weight babies was in 1999/00. This indicates a similar trend to that of low birth weight babies. There was also a steady increase in rates of high birth weight babies over the last two years displayed. In 2001/02 the rate of high birth weight babies in Brandon region was higher than the province.

**Figure 5.6: High birth weight**

![Graph showing high birth weight rates](image)

High birth weight babies are at greater risk of trauma and injury during birth. There is also a greater chance of future health problems such as asthma and diabetes.


Figure 5.7 indicates the pre-term birth rate for Brandon region and the province of Manitoba. Pre term birth rate refers to live infants born prior to 37 weeks gestation. These babies may account for some of the low birth weight infants.

The Manitoba rate has remained fairly stable over the 6 years shown in a range of 6.9% to 7.6%. Brandon region has a consistently lower pre term birth rate than the province. Similar to the trend with low and high birth weight babies, there was a drop in pre term birth rates in 1999/00. The rate then increased to the highest of the six years in 2000/01.
Health conditions

Many health conditions decrease quality of life and lead to morbidity. Several of these health conditions are highlighted in the following section.

Circulatory disease

Circulatory diseases are identified as Brandon region’s number one cause of death. Examples of circulatory disease include heart disease (heart attack, congestive heart failure), hypertension (high blood pressure) or diseases of the blood vessels (stroke, blood clots).

Circulatory disease - Heart attack

Figure 5.8 describes the age and sex adjusted rates for hospitalization for heart attacks. Heart attack rates in the Brandon region are increasing over time, whereas the Manitoba average is decreasing slightly over time. In the time period from 1996/97-2000/01 the Brandon region has a significantly higher number of hospitalizations for heart attack than the province as a whole.
Heart attack hospitalization rates can be refined into the districts within the region as shown in Figure 5.9. Rural Brandon has a substantially higher rate of hospitalization for heart attack in the 1991/92-1995/96 time period that has decreased significantly over time. Brandon East has significantly increased in hospitalizations for heart attacks over time. All districts over both time periods, with the exception of rural in the 1996/97-2000/01, reflect an increase in hospitalizations over time.

Heart attack hospitalization rates can be refined into the districts within the region as shown in Figure 5.9. Rural Brandon has a substantially higher rate of hospitalization for heart attack in the 1991/92-1995/96 time period that has decreased significantly over time. Brandon East has significantly increased in hospitalizations for heart attacks over time. All districts over both time periods, with the exception of rural in the 1996/97-2000/01, reflect an increase in hospitalizations over time.

In the time period from 1996/97-2000/01, Brandon region has a significantly higher number of hospitalizations for heart attack than the province as a whole.

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003
Circulatory disease - Hypertension

Figure 5.10 indicates the percentage of residents aged 25+ that saw a physician for hypertension within a three year time period. Brandon region has a significantly lower percentage of persons with at least one physician visit with hypertension than the province within the second time period. However, the percentage has increased significantly over time.

Figure 5.10: Hypertension treatment prevalence

Percent of persons aged 25 and over who had at least one physician visit for hypertension in a 3 year period

![Bar graph showing hypertension treatment prevalence for Brandon and Manitoba](image)

- Brandon (2,t)
  - 1993/94-1995/96: 17.9%
  - 1998/99-2000/01: 20.9%
- Manitoba (t)
  - 1993/94-1995/96: 21.0%
  - 1998/99-2000/01: 22.1%

'2' indicates area's rate was statistically different from Manitoba average in second time period shown
'1' indicates change over time was statistically significant

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003

Circulatory disease - Stroke

Hospitalizations for stroke, as shown in Figure 5.11, are below the Manitoba average in both time periods and are lower than all of the other regions. Although the hospitalization rate for stroke has decreased slightly over time, this is not statistically significant.
Figure 5.11: Stroke rates by RHA

<table>
<thead>
<tr>
<th>Area</th>
<th>1991/92-1995/96</th>
<th>1996/97-2000/01</th>
<th>Mb Avg 91/92-95/96</th>
<th>Mb Avg 96/97-00/01</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Eastman (1,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Westman</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brandon</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marquette</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parkland (1,2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interlake (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Eastman (1,2,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burntwood (1,2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Churchill (s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nor-Man (1,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural South (1,2,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North (1,2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winnipeg (1,2,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manitoba (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

'1' indicates area's rate was statistically different from Manitoba average in first time period shown
'2' indicates area's rate was statistically different from Manitoba average in second time period shown
't' indicates change over time was statistically significant
's' indicates data suppressed due to small numbers
Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003

Circulatory disease - Peripheral vascular disease

A Peripheral Vascular Disease (PVD) clinic was held in the fall of 2003. This clinic was offered in partnership with the Misericordia Health Centre, Ambulatory Care Clinic and it was funded by Pfizer Canada Inc. The clinic provided the opportunity to have an ankle brachial index done by qualified professionals as a screening for peripheral vascular disease. Advertising was done across the Brandon region including notifying local physicians of this screening opportunity. Residents who were over age 50, had symptoms of PVD or risk factors for PVD were referred to the clinic or self-registered. A total of 111 people were screened through the PVD clinic, both clients that were pre registered and opportunistic clients who were walking by the clinic. The clinic was held two consecutive days in a shopping mall at two different sites (Brandon Shopper’s Mall and the Town Centre). Of the 111 participants, 69 were females (62%) and 42 were males (38%). As Table 5.1 shows, 23 of the 111 were referred to a specialist with suspected PVD (approximately 21%). Of those referred to the specialist, 4 (1.7%) did not have PVD, 9 (39%) had mild PVD and 3 (13%) had severe PVD.
Table 5.1: Referrals to specialists based on two Peripheral Vascular Disease screening days in Brandon

<table>
<thead>
<tr>
<th>Referrals</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>% of total females (n=69)</td>
<td>#</td>
</tr>
<tr>
<td>Normal</td>
<td>2</td>
<td>2.9</td>
<td>2*</td>
</tr>
<tr>
<td>Mild</td>
<td>8</td>
<td>11.6</td>
<td>1</td>
</tr>
<tr>
<td>Moderate</td>
<td>4</td>
<td>5.8</td>
<td>3</td>
</tr>
<tr>
<td>Severe</td>
<td>2</td>
<td>2.9</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>23.2</td>
<td>7</td>
</tr>
</tbody>
</table>

* false positive due to diabetes

Cancer

Cancer incidence refers to the number of new cases of cancer in a time period. Figure 5.12 compares the incidence of cancer between Brandon, the other RHAs and the province as a whole. By gender, males have a higher incidence of cancer throughout the province. However, Brandon exceeds all other regions for the incidence of cancer in males. For females, Brandon region exceeds the cancer incidence of all other regions except Nor-Man.

Figure 5.12: Cancer incidence, 1996-2000 (all cancers)

Source: Manitoba Health: Brandon Regional Health Authority Profile Document, August 2003
Cancer prevalence refers to the total number of persons with cancer at a specific time. Figure 5.13 shows that, similar to the incidence of cancer (number of new cases), the prevalence of cancer is higher in the Brandon region than the province and all of the other regions with the exception of South Westman females.

**Figure 5.13: Cancer prevalence (all cancers)**

Age standardized rate of cancer determined for individuals who have ever been diagnosed with cancer and who are alive as of December 31, 2000. Expressed as a rate per 100,000 population.

Brandon region also exceeds the province in prevalence of cancer.

Figure 5.14 shows the incidence rates for five selected cancers. In the years 1996 – 2000, Brandon had a higher incidence of breast cancer, cervical cancer and prostate cancer than the province (age standardized/per 100,000 people). The incidence of colorectal cancer and melanoma is similar to the province. Prostate cancer is the most common diagnosed cancer of the five identified and it is substantially higher in the Brandon region than the province. Breast cancer is second and again has a substantially higher incidence than the province. Of the two cancers that affect both males and females, colorectal cancer has a lower incidence in females (51.9) than males (77.6) and there is a similar incidence in melanoma (10.6 for females and 13.0 for males).
Cancer incidence by diagnosis for Brandon and Manitoba

Figure 5.14: Cancer incidence by diagnosis for Brandon and Manitoba

Age-standardized cancer incidence by diagnosis for Brandon - 1996-2000

Diabetes

Diabetes is currently listed as the seventh cause of death in Canada. This is likely under-represented as diabetes is often not listed as the cause of death, but rather a contributing cause. Underlying cause of death is traditionally listed as cardiovascular disease, gangrene or renal disease. When correlated with diabetes as the contributing cause of death, studies have shown that the actual number of deaths for which diabetes is a contributing cause is probably over five times the number coded as death caused by diabetes (Source: Diabetes in Canada: National statistics and opportunities for improved surveillance, prevention, and control: Health Protection Branch, Health Canada, 1999).

Diabetes continues to escalate everywhere and Brandon region is no exception. The incidence of diabetes in both males and females in the Brandon region has increased over the eleven years that were time trended by Manitoba Health (Regional Diabetes Profile: A Statistical Summary, Brandon Regional Health Authority: Manitoba Health, 2002). As of 1999 the incidence of diabetes within the Brandon region well exceeded that of the province.

The prevalence of diabetes has increased as shown in Figure 5.15. Males have a slightly higher prevalence than females. In one year the prevalence has increased from 588 to 653 (11%) for females and from 684 to 710 (4%) for males (per 10,000 population).
Figure 5.15: Prevalence of diabetes

The incidence of diabetes in the Brandon region well exceeds the incidence in the province.

Source: Regional Diabetes Profile: A Statistical Summary, Brandon Regional Health Authority: Manitoba Health, 2002

The incidence of diabetes in the Brandon region well exceeds the incidence in the province.

Source: Regional Diabetes Profile: A Statistical Summary, Brandon Regional Health Authority: Manitoba Health, 2002

Figure 5.16: Asthma: April 1, 2000 – March 31, 2002

Respiratory disease

As Figure 5.16 indicates, residents of Brandon appear to have lower rates of asthma (63.0/1,000) than all Manitobans (65.8/1,000). The rates between males and females seem to be consistent (64.4/1,000 for females and 61.4/1000 for males).

Figure 5.17 displays the respiratory morbidity treatment prevalence. This refers to the number of persons having at least one physician visit or hospitalization for a respiratory infection/condition (e.g. asthma, bronchitis, pneumonia) within a two-year period. Although Brandon region has significantly reduced the respiratory treatment prevalence rate over time, it remains significantly higher than the Manitoba rate and significantly higher than all of the other regions with the exception of Parkland.

Source: Manitoba Health: Brandon Regional Health Authority Profile Document, August 2003
Figure 5.17: Total respiratory morbidity rates by RHA

Age- & sex-adjusted percent of residents treated for respiratory diseases

South Eastman (1,2,t)  South Westman (1,2,t)  Brandon (1,2,t)  Central (1,2,t)  Marquette (1,2,t)  Parkland (1,2,t)  Interlake (1,2,t)  North Eastman (1,t)  Burntwood (1,2,t)  Churchill (1,2)  Nor-Man (1,2,t)  Rural South (1,2,t)  North (1,2,t)  Winnipeg (1,2,t)  Manitoba (1)

1994/95-1995/96  1999/00-2000/01  Mb Avg 94/95-95/96  Mb Avg 99/00-00/01

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003

Figure 5.18 shows the respiratory morbidity rates for districts within the region. Both Brandon West and Brandon East have significantly higher rates of respiratory morbidity than the province, with Brandon rural comparable to the province for the second time period. All three regions have reduced the respiratory morbidity treatment rates significantly over time. Brandon East has the highest rates of respiratory morbidity treatment prevalence.

Figure 5.18: Total respiratory morbidity treatment rates

The percentage of persons having at least one physician visit or hospitalization for a respiratory disease within a two year period

16.0%  13.4%  14.8%  13.1%  18.6%  17.1%  13.7%  12.4%

Bdn West (1,2,t)  Bdn Rural (1,t)  Bdn East (1,2,t)  Mb Avg

1994/95-1995/96  1999/00-2000/01

Although Brandon region has significantly reduced the respiratory treatment prevalence rate over time, it remains significantly higher than the Manitoba rate and significantly higher than all of the other regions with the exception of Parkland.

'1' indicates area's rate was statistically different from Manitoba average in first time period shown
'2' indicates area's rate was statistically different from Manitoba average in second time period shown
't' indicates change over time was statistically significant

Source: Manitoba Centre for Health Policy: The Manitoba RHA Indicators Atlas, June 2003
Multiple Sclerosis

Multiple sclerosis (MS) is the most common primary neurological disorder of young adults. Disability varies with this condition, but up to 60% are not fully ambulatory 20 years after onset. Costs to families and society of medical care and lost productivity are great; it is estimated that the lifetime cost per case in Canada is $1,608,000.00 [1998] (Source: The Epidemiology of Multiple Sclerosis, Presentation by L. Elliott, University of Manitoba, 2004).

Multiple sclerosis has a marked variation in prevalence according to geographical area. Canada as a country has a high prevalence of MS. The age standardized prevalence rate within Manitoba is 196/100,000 for 1989-98, one of the highest prevalence’s in the world. When Manitoba is broken down by region, Brandon region has the highest age standardized prevalence rates within the province (238.8/100,000) and the second highest incidence (18-19/100,000) for the years 1989-1998. (Source: The Epidemiology of Multiple Sclerosis, Presentation by L. Elliott, University of Manitoba, 2004).

Arthritis/Rheumatism

Arthritis/Rheumatism is a common complaint within the region. Brandon region had 17.7% of the participants in the Statistics Canada Canadian Community Health Survey in 2000 aged 12 and over indicate that they had been diagnosed with arthritis or rheumatism. This is slightly lower than the province (20.3%) and Canada (18.7%). However, persons diagnosed with these diseases have a substantially lower quality of life.

Injuries


The distribution of injuries by gender and age is similar between Brandon and the province with the higher occurrence of injuries requiring hospitalization in the older age ranges. Brandon rates are lower than the province in all age and gender categories with the exception of females in the age range of 10-14 and males in the age range of 65-74.

The Acumen research asked whether the participants had an injury in the last 12 months that was serious enough to limit normal activities. Figure 5.19 shows that Brandon rate of injuries that limit activity was very similar to overall response (eight participating RHAs).
Figure 5.19: Self reported experience of injury-limited activity in the past year

In the past 12 months, did you have any injuries that were serious enough to limit normal activities, such as work, school, or regular activities outside of the home?

![Bar chart showing percentages of Yes and No responses for Brandon and Overall.]

Source: Acumen Research: RHAM Community Health Survey, December 2003
Note: Responses of “don’t know / refused” have been excluded. Percentages may not total exactly 100% due to rounding.

The Acumen research also asked participants about the site of the injury occurrence. Participants identified the same top five sites for injury in Brandon region and overall. However, as Figure 5.20 shows, some differences in self-reported injury can be noted. Of the top five sites, the highest percent of Brandon participants (24%) noted injuries occurring at a factory, warehouse or construction site. In comparison, the highest percentage overall indicated the home or surrounding yard as common sites for injuries. Brandon is also higher for participants reporting injuries at sports or athletic areas and in the workplace.

Figure 5.20: Self reported sites of injury

![Bar chart showing percentages of occurrences at different sites for Brandon and Overall.]

Source: Acumen Research: RHAM Community Health Survey, December 2003
As in the sites of injury, the five top self-reported types of injury are similar between the Brandon RHA and the overall participants. However, as shown in Figure 5.21, Brandon reported more broken or fractured bones (29%) than the overall participants (17%).

**Figure 5.21: Self reported type of injury**

Of the Brandon respondents to the Acumen research that stated that they had missed work or school due to an injury, the average number of days missed was 31.04.

Almost half of all Brandon respondents in the Acumen research (45%) indicated they missed no time at work or school due to their injuries. Those who did miss time most frequently named an absence period of 15 to 30 days. The average length of time missed due to an injury amongst respondents overall is some 5 days shorter than the period for an injury in Brandon (Overall mean = 26.03, Brandon mean=31.04), although this difference is within the margin of error.

**Depression**

Depression is a relatively common mental disorder. It causes substantial suffering and disruption in the lives of those affected and of those around them, but it is amenable to treatment.

Statistics Canada estimates that one in twenty Canadian adults have suffered a major depressive episode in the past year. But many individuals suffer varying degrees of depression as its severity and classifications can be identified on a continuum, therefore, statistically, as many as one in ten Canadians will suffer some form of significant depression.

Current regional data relating to depression is unavailable at the time of the preparation of this report. However, the Manitoba Center for Health Policy will be releasing a report on mental health issues in the fall of 2004. Preliminary review of this report indicates that depression is a substantial issue and requires further investigation/action within this region.
Top reasons for hospital admissions

The reasons for hospital admissions for the residents who live in the geographic area of the Brandon Regional Health Authority are similar to the causes of death and morbidity (with the exception of admissions related to child birth). The admissions outlined in figure 5.22 refer to admissions by residents to any hospital, not just Brandon Regional Health Centre.

The top five reasons for admission to hospital include:

1. Diseases of the circulatory system;
2. Diseases of the digestive system;
3. Injury and poisoning;
4. Diseases of the respiratory system; and
5. Mental disorders.

All of the categories have reduced admissions over the years, with the exception of mental health. The mental health category shows few admissions in 1997/98 with a jump to more than double in 1998/99. This is due to inpatient mental health services being offered through the Brandon Mental Health Centre in 1997/98. These services were moved to the Brandon Regional Health Centre in 1998.

Figure 5.22: Top five reasons for hospital admissions for past five years in Brandon Regional Health Centre

Source: Manitoba Health, Decision Support Services RHA Hospital Utilization Data Table 25
Well being

Well-being is subjective. The following section reports well being as based on self-reported information from the residents of the Brandon RHA. The information is gleaned from the Acumen telephone survey and through Statistics Canada with analysis by Manitoba Health.

Self reported health

As shown in Figure 5:23, a higher percentage of Brandon participants in the Acumen telephone survey rated his/her health as good to excellent (85%) which is comparable to all participating RHAs (86%).

Figure 5.23: Self-rated health, 2003

Percent of survey respondents rating their health as...

Source: Acumen Research: RHAM Community Health Survey, December 2003

Functional health

Functional health refers to measures of overall functional health, based on 8 dimensions of functioning (vision, hearing, speech, mobility, dexterity, feelings, cognition and pain). As shown in Figure 5:24, Brandon males reported better functional health (84.5% very good or perfect) than Manitoba males (77.8% very good or perfect). Brandon females also reported better functional health (76.1% very good or perfect) than Manitoba females (75.9% very good or perfect).
Figure 5.24: Functional health: Manitoba and Brandon

Percent of population aged 12 and over reporting measures of overall functional health - Very good/perfect

Source: Manitoba Health: Brandon Regional Health Authority Profile Document, August 2003

Activity limitation

As Figure 5.25 shows, when asked in the telephone survey about limitations in activity, most respondents (73%) stated they did not have physical difficulties limiting normal activities within the previous 30 days. Of the one-quarter who stated they did have physical disabilities, approximately half said their activities were limited only a little, while about one in seven said they had been limited totally. Respondents aged 75+ are more likely than respondents overall to have had recent physical difficulties, while those in the 18-24 age bracket are least likely.

Figure 5.25: Self reported physical difficulties

During the past 30 days, have you had any difficulties with your physical health that kept you from doing the things you usually do in a typical day? If so, would you say it limited your normal activities a little, a lot or totally?

Note: Responses of “don’t know / refused” have been excluded. Percentages may not total exactly 100% due to rounding.
Source: Acumen Research: RHAM Community Health Survey, December 2003
So, what does this mean?

Overall, the information gathered about health status seems to bode better for the female population than the male. Female life expectancy is higher than males within the region and compared to the province. As well, males are losing more potential years of life, meaning they are dying younger. Males also have higher injury rates, higher causes of death by external factors and higher rates of suicide. The ratio of male to female potential years of life lost due to unintentional injuries is almost 2.5:1.

Trends can be noted in low and in high birth weight rates over the years. Both have gradually increased in the years from 1996/97 to 2001/02. This is especially notable in the high birth weight infants, as in 2001/02 we increased to a high of 18% of all babies born. This trend could be reflective of the increase in overweight and obese people within our region. Babies of high birth weight are at risk of significant health problems. The RHA incorporates several programs to address promoting healthy weight overall (e.g. Community Nutritionist, Health Promotion) and to promote healthy pregnancies (e.g. Healthy Baby). The trend of high birth weight babies should be monitored for future planning.

Diseases of the circulatory system and cancer are the two disease categories that are the main causes of deaths in our region. Brandon has a high rate of hospitalization for heart attack, higher than the province as a whole. Finer analysis shows that, in the past, a high number of heart attack victims resided in the rural area of the region. This has recently (1996/97-2000/01) shifted, with urban addresses showing a higher hospitalization rate for heart attack. This could reflect a shifting population from rural to urban along with a relative reduction in rural population (note Chapter 1). The Brandon RHA has recognized the high cost of mortality and morbidity related to circulatory disease and has incorporated a new cardiac program as part of the ambulatory care clinics.

As circulatory disease is the highest cause of death in the region, it may have been preferable to see a higher percentage of persons being treated for hypertension. It could be possible that many cases are being missed and presenting as progressed circulatory disease (e.g. heart attack or stroke). However, the statistic must be interpreted with caution, as many other venues than a physician provide opportunities for monitoring blood pressure (e.g. pharmacy, seniors groups).
It is interesting to note that the prevalence (all cases) for all cancer in the Brendon region is slightly higher for females whereas the incidence (new cases) is higher in males. If this trend continues the prevalence of cancer should even out between genders and/or males may eventually exceed females in prevalence. As well, cancer is the leading cause of potential years of life lost, indicating that it is killing people at a younger age than any of the other diseases profiled. The highest cancer incidence occurs in prostate cancer followed by breast and colorectal. The Brandon RHA should plan to address screening rates. Currently breast-screening rates within the Brandon region are lower than the province (note chapter 2). As well, prevention of cancer through appropriate lifestyle initiatives and partnerships that promote addressing many of the determinants of health are a priority to try to reduce the incidence of cancer in this region.

Diabetes incidence is increasing. This could be due to a number of factors including improved screening as recommended in the Canadian clinical practice guidelines (1998, revised in 2003); an influx of new physicians; or, simply that causative factors such as obesity and an aging population are increasing. Although diabetes is not one of the five top causes of death, it is interesting to note that studies show that diabetes influences about five times as many deaths as those that are directly attributed to diabetes. Diabetes is worsening across the province and Brandon region is no exception. A Regional Diabetes Plan is currently under development. This plan encompasses prevention, education, care and support for those people that are impacted by diabetes (clients, family, friends, community).

Respiratory disease is the third leading cause of death within our region. It is interesting to note that respiratory morbidity treatment rate has decreased over time. However, the rate continues to be significantly higher than the provincial rate. Finer analysis shows that Brandon East has the highest percentage of respiratory morbidity treatment. The Brandon region may have to consider how to reduce risk for respiratory disease. A positive step has been made toward reducing risk through the city wide smoking bylaw and subsequent provincial ban in all workplaces planned for the fall of 2004. The Brandon RHA, as well, has developed a Tobacco Strategy Committee to develop a region wide plan to address tobacco prevention, cessation, health protection and denormalization.
It is evident there are geographical pockets of increased numbers of people with multiple sclerosis. Brandon region is one of those pockets. We have the highest standardized rate of multiple sclerosis in the province. The geographic gradients may indicate variations in genetic makeup of populations and/or as-yet unknown environmental factors. The impact on Brandon region is that we will be losing more of our productive younger population to this degenerative neurological disorder if the trend continues. Research is needed to determine the causality link. The RHA will need to keep abreast of research, and be supportive of research, in order to learn causative factors and thus modify risk factors in the future.

Although injuries are reported as lower than the provincial rate in our region, some of the self-reported information gleaned through the Acumen research seems to indicate that workplace injuries may be more common than at other locations (e.g. homes) within our region. Currently, the Brandon Regional Health Authority has partnered with many agencies and organizations within the region to develop a Safe Communities initiative. One of the Coalition’s key objectives is safer workplaces.

Overall, it is positive to note that of those who responded to the Acumen research within our region, the majority feel that their health was good to excellent (85%).
Chapter 6

The Voice of the Rural Community

A community health assessment of the Brandon region would not be complete without a forum for the voices of people in the rural community. We conducted personal interviews with key representatives in each of the three rural municipalities. A total of 10 interviews were completed and participants included the Reeves of the municipalities, school principals, local ministers and two individuals from a Hutterite colony.

An interview tool was developed using three open-ended questions. These questions were about the key issues or concerns in the community, the aspects that are working well and what areas require attention. Themes were identified from the information that was collected. The information in this chapter is presented using the interview questions as a framework.

What are the issues or concerns in this community?

Economic stress

The rural municipalities are heavily dependent on agriculture including grain, cattle, horses, sheep and poultry. The farm economy has been negatively impacted by a number of factors including:

- subsidized European grain markets,
- cuts to Federal programs such as the grain transportation subsidy,
- weather conditions including drought, extreme moisture and early frost,
- the discovery of bovine spongiform encephalopathy (BSE) in 2003 and,
- the cancellation of pregnant mare urine (PMU) contracts in 2004.

Over the past two decades, rural communities have witnessed the loss of many family farms and a surge of farming corporations. The half section farm is almost non-existent because it can no longer generate enough income to sustain a family. Rather than lose land that has been held by a family for generations, many smaller farmers rent their land and they are either working for the renter or they are beginning a new career later in life. As a result, there are more 5,000 plus acre farms that are supported by labour from local residents.
The discovery of bovine spongiform encephalopathy (BSE) in 2003 has had a devastating effect on local cattle producers and industries and local businesses that are heavily dependent on beef. With the international trade border to the United States closed to the shipping of live animals, producers are not able to sell animals over the age of 30 months for export. As a result, there is a surplus of beef cattle in the region. Many producers are struggling with the unexpected demand for physical infrastructure to support their expanded herds and there was limited feed in the first year of the BSE crisis. As noted in chapter two, revenue to local producers for consignment sales by Heartland Livestock Services (Brandon) in the year following the onset of the BSE crisis dropped by approximately 36 million dollars.

The cancellation of many contracts with producers involved in the collection of pregnant mares' urine (PMU) has added to the economic stress in our communities. Wyeth Organics, a division of Wyeth Canada, is an affiliate of Wyeth, one of the world’s largest research-driven pharmaceutical and health care products companies. In the fall of 2003, the company adjusted the size of the producer network involved in the collection of urine because of significant changes in market demand and a shift toward lower doses of post-menopausal hormone therapy for women. Producers leaving the network continued to collect PMU through the 2003-2004 season but they will not receive a contract for the 2004-2005 collection season. As well, approximately 30 seasonal workers will not be hired in the Brandon plant.

Emergency services

Many respondents quickly identified access to fire and ambulance services as a key issue. The primary concern is the difficulty for service providers to find individual farm sites. Poor outcomes are often the result of decreased response times whether it is the loss of property due to fire or the death of an individual. Attempts to address this issue began a number of years ago. The rural municipalities mapped their areas using a Global Positioning System (GPS) as requested by the Brandon Fire Department; however the fire department has not purchased, to date, the necessary equipment to implement the project as planned. (Note to text: The Brandon Fire Department was unable to proceed with the GPS implementation plan due to cost. The fire department purchased equipment for the initial phase of the plan but additional supports including equipment and licensing fees to complete the project were cost prohibitive.)

Proximity to Brandon and area

The physical proximity to Brandon poses many challenges for rural residents. Although the municipalities have Local Urban Districts (LUD), more commonly known as hamlets, they are not self-sufficient in meeting the needs of the community. Residents in all three municipalities rely on goods and services that are only available in Brandon. Despite the accessibility of products and services, however, a dependent relationship with Brandon has caused some problems in the rural setting. Many residents are involved in activities that are only available in other communities, which has resulted in the erosion of the local community. For example, children in the Village of Forrest must travel to Rapid City for 4-H Beef Club, to Justice for baseball and to Brandon for soccer programs.

Revenue to local producers for consignment sales of live animals in the year following the onset of the BSE crisis dropped by 36 million dollars.

“The fire trucks have it easier than the ambulances – at least they can see smoke.”

“Children and youth learn about export at a very early age. They are often transported out of their community for school or recreational activities so they learn to leave before they think about staying.”
As a result, children from Forrest spend a great deal of time away from their neighbourhood. Another example is related to educational needs. The local school in Alexander serves children until grade eight. The children are then transported to Brandon by bus for the remainder of their public school education. Therefore, the children tend to develop strong connections in the city rather than in their home community.

**Water and sewage**

Concern with water quality and sewage disposal was raised within each municipality. There are areas in the RM of Elton with very poor water quality (hardness and/or high iron content) or no water supply. Many residents haul water from Brandon or from a community well to a cistern system at home. The RM has approached the City of Brandon to investigate expansion of water/sewage system beyond city limits. The City of Brandon is hesitant to provide these services to the surrounding communities, however, in an effort to deter fringe development.

The community of Spruce Woods, in the RM of Cornwallis, has different problems with water and sewage. The quality of water in Spruce Woods is excellent as the area is located over an aquifer. But the residential properties tend to be situated very close together and there is concern that the aquifer will become contaminated. As well, Environment Manitoba has stated that there will be no further development in the area unless homeowners put in holding tanks that must be emptied every week. This is a costly system for the homeowner that is perceived to deter further development. The RM has had preliminary discussions with Shilo about accessing a lagoon in the area. There may be an opportunity for a long-term lease but this requires further exploration. In the meantime, the RM has received a 1.2 million dollar grant from the federal government to work on this issue.

**Relationship between RMs and Health and Education Sectors**

Concern about the relationship between the rural municipalities and the Brandon RHA and the Brandon School Division was raised many times during the interviews. It is generally felt that the municipalities do not have an effective working relationship with these sectors and they wish to strengthen the connections. For example, the Brandon RHA requested financial support from the rural municipalities for the Clinical Services Redevelopment Project at the BRHC. Monies were forwarded to the organization on a per capita basis yet there was no mechanism for the municipalities to participate in discussions about how the monies were to be spent. Historically, rural municipalities were represented on the Board of Directors of the Brandon General Hospital. Residents of some municipalities have applied to become members of the Brandon RHA Board, but they have not been selected to date. The Assiniboine Regional Health Authority was given as an example of rural participation at the Board level.

Many participants also felt that rural representation on the Board of Directors of the Brandon School Division (BSD) is important. Rural residents pay education taxes based on their land ownership yet some do not feel there is a mechanism to actively participate in discussions about public education in the Brandon region.
(Note to text: There is currently a rural representative on the BSD Board. The Brandon School Division also holds public forums at different times throughout the school year.)

What is working well?

Participants identified a number of factors and/or amenities that support the health of rural communities. These factors include:

- **Community facilities and activities** provide opportunities for residents to gather together and sustain community spirit. Examples of these facilities/activities include a local rink for recreational hockey, community suppers, curling bonspiels, Christmas concerts and the hand digging of graves.

- **Local resources** such as a Community Clothes and Toy Closet which is an informal network of sharing of clothes and toys for children, a small grocery store, coffee shop and gas bar in Douglas and Alexander, various community newsletters and active public schools that are central to their communities. As well, there are numerous groups or clubs that support community living. These groups include:
  - Lions Club in Cornwallis,
  - Shilo Mens’ Club with members from Spruce Woods,
  - Fireflies, a women’s group in Brandon Hills and
  - Parent Councils in Elton and Whitehead.

- **A strong connection between individuals and families** is the lynchpin to a well-functioning community. Residents often depend on each other for emotional, physical and spiritual support in both day-to-day and emergency situations. For example, neighbours talk amongst each other about their worries related to crop conditions, agricultural policy and community issues. They often depend on each other for transportation to support their children’s after-school activities, assistance during calving time or during an emergency such as a fire or farming accident. Although connections with local Hutterite colonies are somewhat limited, the help they provide, during emergency situations in particular, is invaluable.

- **Cottage industries** such as scrapbooking, ceramics and woodworking allow employment opportunities for individuals while remaining in the community. The RM of Whitehead is home to approximately 20 small businesses.

- **Resources in Brandon** also support healthy living in a rural context. For example, the recycling program has reduced the amount of garbage that is burned. As well, the focus on ambulatory care at the Brandon Regional Health Centre and increased access to medical specialists has reduced the need for travel to Winnipeg for rural folks. The issue of transportation is often a minor challenge for individuals and families in relation to the responsibilities of the farm such as feeding animals and milking cows.

“We no longer burn our garbage. We haul it to Brandon and have it recycled”.

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• **Rural Development Plans** protect the future of rural communities. For example, a Livestock Plan in the RM of Elton was created to manage issues with the hog industry. After extensive community consultation, a livestock bylaw was established that encourages small operators to locate in Elton but it prohibits large operations. The size of operation is based on animal units or measures of manure as established by the Department of Agriculture. As well, a Subdivision policy is in place to protect farmland by restricting residential subdivisions other than in the villages of Forrest and Douglas.

• **Tax revenues** from Canadian National and Canadian Pacific railways and the Trans Canada Pipeline provide additional funds for rural municipalities. A fee for every mile of rail line or pipeline running through a municipality is negotiated with the Province of Manitoba and the funds are forwarded directly to the municipality on an annual basis.

• **Crime prevention programs and services** provide effective preventive crime services. For example, the Rural Crime Watch program is designed to prevent crime through active community involvement. The intent of the program is to foster a collaborative partnership between residents, as the ‘eyes and ears’ of the community, and the local police detachment. As well, Cornwallis and Whitehead municipalities have a Municipal Constable on staff on a part-time basis. A visible police presence is a preventive measure to deter crime throughout the communities.

• **The Association of Manitoba Municipalities** supports municipalities to work together on common issues. For example, the Association is currently tackling issues related to dead carcass disposal. As well, representatives from the RMs of Cornwallis, Elton and Whitehead meet on a regular basis to jointly problem-solve issues specific to the three RMs.

**What needs attention?**

Participants identified several areas that, in their opinions, require improvement. These areas include:

**Access to health services**

✓ A process to ensure the rural public is aware of the health-related services available and how to access them.

**Advocacy role of the RHA**

✓ Participants provided several examples of the need for advocacy by the RHA. These examples include:
  • increasing the physical education component of the curriculum for the Brandon School Division,
  • communicating the negative impact of the BSE crisis on the health of the people in the region. The impact of the BSE crisis on the health of families is evident. Participants described family breakdown, tension among children in schools, mental health issues and physical symptoms related to stress such as high blood pressure among residents in the community and,

“People don’t know what to expect in the country. Does Home Care go out of town?”
• informing the public about housing options and supports that are available for seniors in Brandon. There are many seniors living in the municipalities who are struggling with their current living arrangement. Some individuals and their families need additional supports to remain independent whereas others need to make decisions about when to move off the farm. Many older individuals and their families are not aware of housing options in Brandon or how to access the supports that are available.

Education tax formula
 ✓ A more equitable process for all residents thereby reducing the burden of cost for rural residents. Using current education tax methodology, rural residents are taxed on the number of hectares of land that they own. This formula creates significant disparity between rural and urban residents within a region. It was suggested that perhaps revenue from the Manitoba Lotteries Corporation could be applied to the costs associated with public education. Since there are no video lottery terminals (VLTs) in the rural municipalities, the Manitoba Lottery Corporation reserves funds payable to the municipal government on a per capita basis as compensation for rural residents accessing VLTs in other jurisdictions. Currently, these funds must be spent on economic development, infrastructure, community organizations, environmental purposes, recreation, culture and other.

Emergency services
 ✓ A process to ensure effective and timely response by emergency services.

Farm safety
 ✓ Programs to ensure a safe environment for children on a farm at all times. Childcare is often needed for a short period with little warning so it is not easy to make certain that arrangements are in place.

Indian Residential School
 ✓ A process to manage jurisdictional issues between Sioux Valley and the RM of Cornwallis regarding the clean up of the Indian Residential School. The building was demolished a number of years ago because it was a danger to the public as a vacant building. However, the site has yet to be cleaned up. This property has become a jurisdictional issue because it is owned by Sioux Valley yet is physically situated in the RM of Cornwallis.

“They’re under so much stress. This fall will be the breaking point if the border doesn’t open. And then what will they do?”

“When the work is at home and the work is dangerous, it’s hard to always protect kids.”
Leafy Spurge
✓ Chemical weed control to protect farmland.

Local industry
✓ A range of ways to generate revenue including cottage-type industries such as a welding shop. Some individuals suggested building upon existing resources to meet local needs. For example, it may be possible to convert the hog plant in Neepawa into a beef killing plant to reduce our dependency on live cattle export.

Partnership between RMs and Health and Education sectors
✓ A process to ensure that rural residents have a voice in the health and education sectors. Municipal representation on governing Boards of Directors was given as an example.

So, what does this mean?

Interviews with key representatives from the rural municipalities provide a snapshot of the strengths and challenges of rural living. The issues are complex and often require participation by many sectors including agriculture and education to achieve reasonable solutions. The Brandon RHA plans further consultation with residents in the rural municipalities as part of the ongoing community health assessment process.
Chapter 7
How the RHA Responds to Evidence

An on-going assessment of issues within a health region provides opportunities to improve services as well as to establish new programs and services that will address health concerns within a region. The Brandon Regional Health Authority has implemented a number of major initiatives over the past few years to improve the health of the people we serve. A brief overview of these initiatives is provided, in chronological order, in this chapter.

Population Health Planner Analyst

Once the Region was formed in 1997/98, the Board committed to “taking a population health approach”, recognizing that there were many factors that affected the health status of the population. The RHA has a definite mandate to organize and manage health services; however, in order to diminish the demand for health services and sustain the system long term, attention must be also directed to the underlying factors that determine whether people are healthy.

In 1998, monies were redirected from the deletion of a management position to create a Population Health Unit and hire a Planner Analyst. One of the primary responsibilities for the individual is to develop a process and to oversee ongoing community health assessment. This is the mechanism used to provide evidence to support decision-making and to validate strategic priorities. In addition, the Planner Analyst assists staff throughout the region to identify and pursue primary and secondary prevention activities as well as health promotion within a population health framework.

Acquired Brain Injury

The Acquired Brain Injury (ABI) Interest Group began meeting in 1999 to identify challenges with service provision for individuals living with an acquired brain injury and to problem-solve issues. The interest group is a partnership between survivors of an acquired brain injury, the Brandon Regional Health Authority, Assiniboine Regional Health Authority, Family Services & Housing, Society for Manitobans with Disabilities, Child and Family Services, Manitoba Public Insurance, Worker’s Compensation Board, Manitoba Brain Injury Association and Manitoba Health.
For the purposes of this initiative, the definition of acquired brain injury is:

Individuals 16 to 54 years of age who have an injury to the structure/functioning of the brain that results in a permanent, irreversible change in the patient’s adaptive capacity for self-serving, independent and purposeful behaviour and renders the patient suffering from neuropsychological/ neuropsychiatric functional deficits.

Diagnostic entities include the following:
- traumatic brain injury
- anoxic brain injury
- hemorrhagic brain injury
- embolic/thrombotic brain injury
- toxic chemical exposure
- non-progressive brain tumor

This group is committed to developing a community-based acquired brain injury program in collaboration with survivors and their families. Therefore, a series of focus groups and a provincial survey were conducted in Brandon and Assiniboine health regions in 2002/03. It is clearly evident that, although the number of individuals living with an acquired brain injury is small, the impact of a brain injury for survivors, their families and their communities is enormous.

Based on the findings from the focus groups, an Acquired Brain Injury Conference for survivors, family members and service providers was held in June 2004. The intent of the conference was to:
- increase knowledge and understanding of ABI in our region,
- provide an opportunity for survivors, family members and healthcare providers to meet and learn from each other and,
- promote the development of Acquired Brain Injury Support groups.

More than 100 people from across the province attended the conference. Participants included survivors, family members and service providers. Feedback from participants strongly supports the development and evolution of a community-based acquired brain injury program. Some initial steps have been taken in creating such a program including:
- a representative from the Acquired Brain Injury Interest group participated in the provincial working group on acquired brain injury,
- an Acquired Brain Injury initiative submission was included in the 2003/04 Health Plan and
- activities to initiate support groups for survivors and family members in the region.

In the meantime, the Acquired Brain Injury Interest Group continues to advocate for meaningful services that will improve the quality of life for survivors and their families.

“We weren't prepared for when he woke up. The initial crisis was about ‘survival’ but we didn’t know what survival was going to mean.”
- family member
Midwifery Program

In keeping with the provincial vision for a reorganized and sustainable health system that provides a balance between health promotion, disease prevention, institutional and community-based services, the Brandon Regional Health Authority established a midwifery program in 2001. According to the World Health Organization, a midwife is trained to give the necessary care and advice to women during pregnancy, labour and throughout the postnatal period, to assist with normal deliveries on her own responsibility and to care for the newly born infant, as well as having training in gynaecology and child care.

Planning for a midwifery program began many years earlier. Data was gathered as the initial step in the development of a funding proposal. Analysis of 1994/95 data strongly supported a midwifery program as it was found that the intrapartum intervention rates at the Brandon Regional Health Centre were among the highest in the province for hospitals with greater than 100 births per year. Regional data from 1994/95 includes:

- the highest number of total operative deliveries including vacuum extraction, forceps and caesarean sections (36%) (provincial rate - 24.8%)
- the highest number of medical inductions (30.1%) (provincial rate - 18%)
- the highest rate of episiotomies (38%) (provincial rate - 27%)

The intent of the Midwifery program is to provide an opportunity for primary health care delivery to childbearing women, encompassing health promotion strategies in both community and institutional settings. The midwifery model of practice promotes active decision making by women, allowing them greater range of choices and the necessary supports to assume personal responsibility for their health. There are currently three midwives on staff and another will be joining the practice in late fall of 2004.

Blood Recipient Notification Project

The Brandon Regional Health Authority actively participated in the Blood Recipient Notification Project initiated by Manitoba Health in the spring of 2001. This project was in response to a recommendation from the Krever Commission Report following an inquiry into the Canadian blood supply. The purpose of the project was to identify and notify Manitobans who received blood or blood products before April 1992 that may have been exposed to the Hepatitis C virus through contact with the blood supply and to advise Manitobans to seek testing. The exposure to the virus occurred either before the virus was known or before reliable tests were conducted in the blood supply. Reliable tests have been in place since 1992. The project included both direct client notification and a public awareness campaign for individuals who may have been at risk but could not be identified through hospital records.
There were 1,124 residents in the Brandon Region who received a letter of notification from Manitoba Health. Letter recipients and individuals who believed they received blood or blood products before April 1992 were advised to contact their family physician or usual health care provider to arrange for a blood test. A toll-free telephone number was provided for general information about the program as well as where to get tested for those who did not have a health care provider. Manitoba Health provided funding for additional Public Health staff to oversee the project at the regional level. The Public Health Nurse assigned to the Sexually Transmitted Infection program was responsible for staff education including nurses, doctors and laboratory technicians, physician orientation to standard protocols and individual follow-up of new cases of Hepatitis C. A total of 893 individuals from the Brandon region were tested. Seven individuals tested positive for Hepatitis C and three individuals received an indeterminate result.

**Community Volunteer Income Tax Program**

The Brandon Regional Health Authority embarked on an exciting new partnership with Canada Customs and Revenue Agency in January 2002. The Community Volunteer Income Tax Program is a community-based outreach initiative. The purpose of the program is to assist eligible individuals who are unable to complete their income tax and benefit returns themselves and are unable to pay for assistance. People from the community donate their time to provide this free service to others. As a result, individuals and families living within low incomes receive the benefits they are entitled to.

Within the context of Population Health, the Community Volunteer Income Tax Program provides the Brandon RHA with an opportunity to address the key health determinant, Income and Social Status, in a meaningful way. Health professionals working in the community have established linkages with clients who are eligible for the program so the referral process is relatively seamless. Canada Customs and Revenue Agency has extensive experience with the program and they provide equipment such as computers, software programs and volunteer training and support.

The Community Volunteer Income Tax Program has evolved over the past three years. There was a 44% increase in the number of income tax returns completed from the first year to the second year. This increase was partially a result of easy access to the storefront location in a downtown mall as well as more client referrals by RHA staff. The program moved to the 7th Street Health Access Centre in 2004. Although there was a reduction in the number of tax returns completed, we anticipate a better response rate in the upcoming year as a result of securing a permanent site for the program, and targeted advertising strategies for residents who are eligible for the program.
Sexual Assault Victim Response Program

A Sexual Assault Victim Response Program was established at the Brandon Regional Health Centre in February 2002. The purpose of the program is to ensure emotional and physical support to victims of sexual assault who present in the Emergency Department and to reduce the waiting time for the necessary medical examination. This program involves many partner agencies including Brandon Police Service, Westman Crisis Services, Community Mental Health Services, The Women’s Centre, YWCA Women’s Shelter, Child & Family Services, Brandon Regional Health Authority – Emergency Department and Volunteer Services.

To date, all of the nurses in the Emergency Department have been trained to collect forensic evidence and some of the nurses have been trained to conduct pelvic examinations. It is anticipated that all of the nursing staff will complete the pelvic examination training in time. Eleven volunteers have received special training to deal with crisis situations and volunteer on an on-call basis for victims of sexual assault who present to the local Emergency Department. The volunteers provide emotional support to the victim, as well as physical support such as coffee, blankets, a phone call to family or friends if requested, ensuring childcare is in place, etc.

The volunteers also provide information on medical, police and court proceedings, and inform the victim about what they can expect for a specific action. They accompany the victim and liaise with physicians, nurses, police and others as well as provide information about resources and community supports for follow-up care. This program has resulted in reduced waiting time in the Emergency Department and compassionate care for victims of sexual assault.

Aboriginal Health

The Brandon RHA was confronted with two major problems in its recent history: one problem was how to meet the growing demand for human resources in the health care field and the second was how to improve the health of the Aboriginal population in Brandon and area.

A decision was made in October 2002 to apply for a federal grant to hire an Aboriginal Human Resource Officer on a term basis. The goal of the program was to increase the numbers of Aboriginal people in the RHA workforce. The scope of this position was later expanded to that of an Aboriginal Health Advisor, who still works to promote the hiring of Aboriginal people, but also acts as a liaison between Aboriginal people and the staff of the organization.
Healthy Lifestyles Coalition

The Healthy Lifestyle Coalition was formed in the winter of 2002. The purpose was to develop a physical activity strategy for Westman. In November 2003, the membership expanded to a broad and diverse intersectoral group. As a result, the coalition objectives began to address lifestyle issues beyond physical activity. Currently the coalition has active committees addressing tobacco reduction, healthy eating and physical activity. The coalition is an action-oriented group that tackles the promotion of healthy living. Membership includes representatives from the following (but is not limited to):

- Recreation practitioners,
- Manitoba Metis Federation,
- Non-government organizations such as the Canadian Diabetes Association and the Heart and Stroke Foundation,
- Economic Development,
- Education,
- Seniors services,
- Sport Manitoba,
- Culture Heritage and Tourism,
- Regional Health Authorities and the Manitoba Fitness Council.

Safe Community Coalition

A Safe Community Coalition for Brandon and Area was established in January 2003. The Coalition comprises broad representation from many agencies and organizations in the region that have demonstrated a commitment to injury prevention over many years.

Members of the committee examined a number of national, provincial and regional databases and statistical records from local organizations to better understand the prevalence and type of injuries in the Brandon area. Two criteria were used to identify priority areas for action: the frequency of injuries and the capacity of partner agencies and organizations to address the specific causes of the injuries.

The committee also reviewed a listing of community concerns about safety that were gathered at a public meeting in 2002. Data analysis resulted in four key areas for action in the business plan. These areas are:

- falls among seniors age 65 years and over,
- falls by children under 16 years who use public playgrounds,
- young workers ages 15 to 19 years (hand injuries) and ages 20 to 24 years (eye injuries), and
- program evaluation.

In November 2003, the Safe Community Coalition for Brandon and Area business plan was approved by the national Safe Communities Foundation and start-up funds were secured. An official launch was held in June 2004 announcing Brandon and area as Manitoba’s first Safe Community.
Performance Deliverables

Performance deliverables serve as an accountability mechanism that provides clear direction to an RHA regarding performance in key areas relative to general accountability expectations. As well, performance deliverables formally outline operational requirements and planning opportunities. A contractual agreement between Manitoba Health and all RHAs in the province was established in April 2003. This agreement outlines specific actions for the RHA, performance measures and the contribution of Manitoba Health in achieving the established outcomes. The Brandon RHA signed an agreement with the province that addresses 11 areas that are based on Manitoba Health’s priorities. Our first Performance Deliverables agreement includes the following:

1. A regional Primary Health Care Operational Plan based on Manitoba Health’s Primary Health Care Policy Framework,
2. A regional plan for mental health consumer participation that is consistent with the provincial framework for meaningful consumer participation developed by the Provincial Mental Health Advisory Council,
3. A regional Sexually Transmitted Infection reduction strategy and implementation plan,
4. A regional plan to promote best practices in immunization,
5. A three-year regional Diabetes implementation plan that is based on Manitoba Health’s Regional Diabetes Program (RDP) Framework,
6. Implementation of a Personal Care Home Restraint Policy in all personal care home facilities in the region, which includes all of the requirements of the Manitoba Health Provincial Restraint Policy (2002),
7. A three-year Injury Prevention plan,
8. A regional Aboriginal Health strategy,
9. Accreditation results (2003/2004) and recommendations with a plan to address the recommendations,
10. (a) A comprehensive regional Disaster Management Program as part of implementing the Manitoba Health Integrated Risk Management Strategy,
10. (b) Implementation of a Personal Care Home Emergency Preparedness Program within each PCH facility and,

A status report for each deliverable that describes our progress towards achieving results is submitted to Manitoba Health as required. Our ability to meet the requirements of the Performance Deliverable agreement is greatly influenced by available resources such as staffing, finances and time, and the relevance to our operations. Based on our status report submissions, annual Performance Deliverable agreements are developed by Manitoba Health and signed by the RHA.
**Patient Safety**

Since the paediatric cardiac deaths at Children’s Hospital in Winnipeg in 1995, a lot of work has taken place across the province to ensure that we never again experience such a tragedy. Manitoba Health and the Brandon RHA have collaborated to emphasize the importance of patient safety and accountability of health care practitioners.

At the same time, there was growing concern internationally about the incidence of adverse events in health care. Studies in the United Kingdom, Australia, the United States and other countries pointed out that the rates of health care error are higher than originally thought. A subsequent study of the rate of medical error in Canada was released in May 2004. It confirmed that Canadian patients are exposed to similar rates of adverse events.

A full-time Risk Manager for the Brandon RHA was hired in April 2003 to monitor complaints and calls on the Comment Line, coordinate risk assessments and encourage reporting of unsafe situations and occurrences. Critical occurrences are regularly reported to Manitoba Health and thorough investigations are conducted with follow-up actions designed to ensure that the error will not be repeated.

**Bi-Regional Chronic Disease Committee**

Manitoba Health and the Regional Health Authorities have been aware of the burden that the effects of chronic disease place on the health care system. A recent study by the Manitoba Centre for Health Policy helped to measure how common these diseases are and how frequently they are treated. In April 2003 representatives from the Brandon and Assiniboine Regional Health Authorities came together to begin discussions on how the two RHA’s might tackle this huge problem together.

It was agreed that ‘chronic diseases’ would include:
- cardiovascular disease,
- diabetes,
- cancer and
- respiratory disease.

After some guiding principles and outcomes were agreed upon, the group decided to work on a comprehensive plan including prevention, treatment, rehabilitation and palliation for cardiovascular disease first. They would then use the same template to work on other types of disease in the future. It didn’t take the committee long to recognize that it is easier to specify what should be put into place than to find sufficient resources to make ideal care a reality. The group remains committed, however, to finding ways to make the best use of the resources that we have and to lobby for needed additional resources.

Others are also addressing the problem of chronic diseases. Manitoba Health has recently contracted a consulting firm to lead a Chronic Disease Prevention Initiative across the province and the Alliance for the Prevention of Chronic Disease has been working on various initiatives since regionalization took place in 1997/98.
Radiation Therapy

In January 2001, CancerCare Manitoba published a study on cancer called *Cancer Capacity Planning Study*. One of the observations in the study was the utilization rate of radiation therapy units in the province. The authors of the study noted the length of wait for service and that there were enough radiation therapy patients residing in the western Manitoba area to warrant having a radiation therapy unit built here.

In June 2003, Premier Gary Doer announced funding for a linear accelerator (radiation therapy) unit to be built in Brandon. Discussions with Manitoba Health, CancerCare Manitoba and the Brandon RHA have begun and we are in the initial stages of planning for this service to become a reality within the next several years.

2003 Accreditation Results

In June 2003, the Brandon Regional Health Authority participated in an accreditation process with the Canadian Council on Health Services Accreditation (CCHSA). This process allows the CCHSA and the regional health authority to evaluate the quality of the organization’s services by comparing them to nationally accepted standards.

Every three years, as part of the accreditation process, the RHA completes a self-assessment followed by a survey visit. The survey includes a review of documentation, team interviews, facility tours and group meetings with various individuals such as patients/clients, service providers and administrators.

The Accreditation team found many significant achievements by the Brandon Regional Health Authority. These achievements include:

- The employment of an Aboriginal Health Advisor and related program is a model to attract aboriginal employees and recognize their cultural differences,
- The organization has received two national awards for energy efficiency in its new power plant,
- Success with addressing a high professional and physician vacancy rates by allocating resources to recruitment efforts,
- Reallocation of resources to strengthen quality improvement and risk management processes,
- Increased use of clinical practice guidelines supported by a dedicated staff member. Seventeen clinical resource nurses have been hired,
- Evidence of significant team performance improvements and increased regional integration and,
- A very knowledgeable and competent CEO and executive management committee is in place.

Eleven recommendations were received from the Canadian Council on Health Services Accreditation. The recommendations and actions taken by the RHA are listed in Table 7.1.
<table>
<thead>
<tr>
<th>Recommendation by CCHSA</th>
<th>Action taken by RHA</th>
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<tbody>
<tr>
<td><strong>Environment</strong></td>
<td></td>
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<tr>
<td>1. The organization continue with its efforts to implement a comprehensive, region-wide and coordinated infection control program.</td>
<td>• Infection Control Committee, Brandon Regional Health Centre, expanded to include representation from other RHA programs&lt;br&gt;• Outbreak Team established&lt;br&gt;• Audit process established&lt;br&gt;• Action plan submitted to Manitoba Health</td>
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<tr>
<td><strong>Human Resources</strong></td>
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<td>1. A process be implemented to ensure compliance with the medical staff by-law requirements for annual re-appointment of individuals to the medical staff.</td>
<td>• Format for physician performance review completed&lt;br&gt;• Performance reviews initiated and ongoing&lt;br&gt;• Financial compensation for Clinical Department Heads initiated&lt;br&gt;• Several members of Department of Family Practice completed self-evaluations</td>
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<tr>
<td><strong>Acute Care Services</strong></td>
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<tr>
<td>1. Program teams to work with the Population Health Planner Analyst to assess the health needs of the population on an on-going basis and to develop process and outcome indicators.&lt;br&gt;2. A process to obtain more input from clients</td>
<td>• Cardiac Stakeholders Committee established and a Heart Health Program framework developed&lt;br&gt;• Bi-regional Chronic Disease Committee established&lt;br&gt;• Staff education regarding Outcome Measurement</td>
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<tr>
<td><strong>Leadership &amp; Partnerships</strong></td>
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<tr>
<td>1. A process be implemented to increase staff awareness and education on the role of and processes for directing issues to the ethics committee.&lt;br&gt;2. Address the legal relationship between Brandon RHA and Westman Laboratories.&lt;br&gt;3. Implement processes for receiving and giving feedback to program teams on their quality improvement efforts, increase Quality Improvement training for staff, improving Quality Improvement tools and establish more formal linkage and coordination of quality, risk and utilization.</td>
<td>• Education sub-committee established&lt;br&gt;• Bi-regional workshop, “Everyday Ethics” held&lt;br&gt;• Action plan is in place&lt;br&gt;• Legal relationship clarified&lt;br&gt;• Semi-annual Quality Improvement courses available&lt;br&gt;• Annual Facilitation courses available&lt;br&gt;• Annual seminar, “Uncommon Courtesy” available for clerical staff&lt;br&gt;• Program coordinating teams receive risk management data</td>
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<tr>
<td><strong>Maternal Child</strong></td>
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<tr>
<td>1. Consistent data collection on the effectiveness of its services to establish benchmarks and analysis of trends&lt;br&gt;2. Assessment and evaluation of beds and cribs in regard to national safety standards. Also implement safety precautions and processes to ensure baby/infant safety when patients are under IV therapy&lt;br&gt;3. Outcome evaluation become an essential component of all programs</td>
<td>• Client survey to cross continuum of care (prenatal/postpartum) implemented&lt;br&gt;• Policy and procedure on entanglement approved&lt;br&gt;• 8 non-compliant cribs removed&lt;br&gt;• Information sheet regarding outcome measurement distributed to all staff&lt;br&gt;• Programs required to identify and monitor one outcome measure</td>
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<tr>
<td><strong>Long Term Care</strong></td>
<td></td>
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<tr>
<td>Finalize the draft policy on advanced care directives</td>
<td>• Advanced Care Directive policy in place</td>
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</tbody>
</table>
Peripheral Vascular Disease Clinic

Based on the high incidence of circulatory disease in the Brandon region, the Brandon Regional Health Authority pilot tested a community-based Peripheral Vascular Disease (PVD) clinic in the fall of 2003. This clinic was a partnership between the Planning and Evaluation department of the Brandon Regional Health Authority and the Misericordia Health Centre, Ambulatory Care Clinic in Winnipeg.

Effective screening activities and early intervention for individuals at-risk for peripheral vascular disease are essential because diseases of the circulatory system are the leading cause of death in the Brandon region. Results from the pilot Peripheral Vascular Disease clinic support an on-going screening clinic in the region. A total of 23 of the 111 participants were referred to a specialist with suspected PVD (approximately 21%). Of those referred to the specialist, 1.7% did not have PVD, 39% had mild PVD and 13% had severe PVD. Therefore, it is anticipated that a PVD screening clinic may become part of the Ambulatory Care Clinics at the Brandon Regional Health Centre in the future.

Tobacco Dependence Program

In November 2003, planning for a Tobacco Dependence Program was initiated. There is strong rationale for such a program - tobacco is the leading cause of disease and preventable death in Manitoba and diseases of the circulatory system are the leading cause of death in the Brandon region. Many chronic diseases are linked to tobacco use and exposure to second-hand smoke including heart disease and stroke, chronic pulmonary lung disease and cancers. Manitoba has one of the highest rates of tobacco use in Canada with 38% of youth ages 15+ currently smoking (Canadian Centre on Substance Abuse, 1996).

As well, 27% of Brandon RHA employees are smokers. This means 620 individuals on staff are currently smoking. Research shows 25% of smokers want to quit at any given time, which means about 155 employees in the Brandon RHA.

From a Population Health perspective, employment and working conditions are critical determinants of health. Initiatives to make a safe and healthy work setting that promotes, supports and protects people’s health are key elements to positively impact the overall health of the population. Therefore, an effective tobacco cessation program is a practical strategy to address employee wellness within the organization.

The Tobacco Cessation Program model is based on the Nicotine Dependence program at the Mayo Clinic in Rochester, Minnesota. It is deemed the centre for best practice in the treatment of nicotine addiction. The success of the Mayo Clinic model is due to their individual approach to nicotine dependence through a wide variety of treatment options including nicotine replacement therapies, individual counselling, monitoring of carbon monoxide levels and physician assessment.
In February 2004, the first phase of the program was implemented for employees of the Brandon Regional Health Authority. Additional phases of the program will be implemented over time. The second phase of the program is planned for the fall of 2004. During this phase, the program will first focus on high-risk individuals who are currently accessing programs and services within the organization. High-risk individuals include cardiac patients, diabetics and those living with a respiratory disease. Health care providers will be trained to identify all tobacco users in their program area and offer brief intervention counselling. Client referrals to the program counsellor will be as necessary. The Tobacco Dependence Program will next focus on other patients, clients and residents of the RHA. The final phase of the program will offer service to residents in the community. This phase will be gradually rolled out in 2005.

**Integrated Housing Initiative**

The Brandon Integrated Housing “Model with Supported Living Options” is a multi-agency, collaborative initiative to address the needs of some priority groups of adults residing in the Brandon and Assiniboine regions for safe, appropriate and affordable housing. Partners in this initiative include:

- Tenants,
- Manitoba Housing Authority,
- Family Services & Housing,
- Society for Manitobans with Disabilities,
- Manitoba Housing Renewal Corporation,
- Canadian Mental Health Association,
- Brandon Friendship Centre,
- Seniors for Seniors,
- Brandon Regional Health Authority,
- Manitoba Seniors Directorate and
- Manitoba Health.

The priority populations for this initiative include:

- Persons with disabilities regardless of age,
- Frail elderly,
- Seniors,
- Persons who require a variety of supports to prevent institutionalization,
- Persons at-risk of homelessness and
- Financially challenged individuals

With the closure of the Brandon Mental Health Centre and the fact that Brandon is an urban centre for people with disabilities, access to and availability of affordable/low income housing have been on-going issues for many years. There is a broad range of housing options available throughout the city. Considerable effort has gone into the development of partnerships with private landlords and working with the Neighbourhood Renewal Corporation and Manitoba Housing Authority to develop additional housing suitable for the priority populations.
The Integrated Housing Initiative formalized the many partnerships that work together to provide housing and support to individuals. The focus of this initiative is to assist individuals to become satisfied and successful in housing of their choice with the least amount of professional support possible. The Integrated Housing Model is intended to be a key component of the housing continuum and to enhance integration throughout the community, ultimately reducing the stigma associated with persons with disabilities. One of the projects currently underway is the renovation at Princess Park to develop 10 universally accessible suites. It is anticipated that these suites will be available for tenancy in early fall 2004.

**Cancer Care Navigator Handbooks**

In the June 2000 Accreditation survey, the Cancer Care Coordinating Team concluded that continuity of care was one of the most significant gaps in cancer care for residents of western Manitoba. This gap was the result of the involvement of multiple institutions, clinics and programs in an individual’s cancer care.

The Team considered viable options to improve this situation and they decided to create a publication that would help patients and clients navigate their way through the health care system. They evaluated several generic and specialty publications and produced a handbook that is a combination of an information booklet and a diary for patients to record their experience. The Brandon Regional Health Centre Foundation provided funding for the printing costs and the resource became available in January 2004. It has been distributed widely to cancer patients all over western Manitoba and other RHA’s have inquired about permission to adapt the handbook for their own use.

**7th Street Health Access Centre**

The 1997/98 Community Health (Needs) Assessment showed sufficient traditional health services for mainstream populations. However, a significant portion of the population, including Aboriginal people, families living in poverty, new immigrants, the elderly and women and children, are currently under-served. In 2003, the Brandon Regional Health Authority successfully secured the necessary funding to develop an inter-disciplinary, multi-sectoral service delivery model that is anchored in the principles of primary health care. The intent of this initiative is to improve the health and well-being of individuals and families by providing appropriate and meaningful supports. Services will address the context in which people live (determinants of health) and positive relationships with residents and among service providers will make sure that clients are active partners in a caring environment.
In April 2004, the 7th Street Health Access Centre opened in the heart of Brandon at #20 - 7th Street. A wide range of services is available including:

- the Healthy Baby program
- treatment for sexually transmitted infections,
- birth control and emergency contraception,
- mental health counseling,
- help with drug and/or alcohol addiction,
- support with housing needs,
- physician and nurse practitioner services,
- income tax program,
- free voice mail boxes and
- laundry facilities.

An evaluation plan is currently being developed to guide future direction of the primary health care initiative, using quality improvement processes. Anticipated outcomes of this initiative include:

- Improved health status of the priority populations,
- More effective and efficient use of health resources,
- The major health determinants are addressed,
- Improved access to primary health care services and supports,
- Early identification of chronic diseases with appropriate intervention,
- Integration of multi-disciplinary services and supports and
- Enhanced community capacity for healthy living.

**Ambulatory Clinics at the BRHC**

In the spring of 2004, an ambulatory clinic area opened as part of the Clinical Services Redevelopment Project. These clinics include renal, respiratory, pain management and cardiac. Although some of the clinics are not new initiatives, they are presented as a group in this section. Therefore, individual clinics do not appear in chronological order within the chapter overall.

**Renal Health Clinic**

The Renal Health Clinic was established in 2001 as part of the Manitoba Renal Program (MRP). This clinic provides patient education and clinical support for patients with impaired kidney function and their families from the Westman region and Eastern Saskatchewan. Goals of the clinic include:

- to preserve residual renal function for as long as possible for those in the early stages of renal disease,
- to manage and/or prevent complications and symptoms for those in later stages of the disease and,
- to help prepare patients for dialysis or transplant.

The number of patients with chronic renal failure is significantly higher in Manitoba than the national average.

Source: CORR/CIHI, 2002
Clinic staff work in collaboration with other components of the provincial program including the Peritoneal Dialysis Program at St. Boniface Hospital in Winnipeg, the Local Centres Program that is coordinated by Health Sciences Centre and the Manitoba Transplant Program. Locally, the clinic works in partnership with Prairie Health Matters for client counselling, the Kidney Foundation for patient education materials, Day Hospital at the BRHC for IV iron therapy and Home Care for erythropoietic therapy.

The Renal Health Clinic was initially located in a local medical clinic. The clinic moved into the Brandon Regional Health Centre in the spring of 2004 and there has been a 40% increase in clients accessing the program. Prior to the move, the clinic was staffed by a nurse/physician team who accessed other disciplines on a case-by-case basis. However, multidisciplinary clinic sessions are now available involving a physician, nurse, dietitian, social worker and pharmacist. These clinic sessions are designed to ensure timely access to comprehensive supports for patients and their families. Clients are no longer required to make separate appointments with the various practitioners involved in their care. This structure is especially important for those individuals who travel from out of town.

Staffing resources remain an ongoing challenge in the delivery of comprehensive renal services. Specifically, additional resources are needed for the following functions:

- Educate family physicians regarding early client referral
- Establish a client/family support group
- Enhance pharmacy support

**Respiratory Clinic**

**Community Respiratory Program**

Respiratory diseases were identified as key health concerns in the 1997/98 Community Health Assessment by Brandon and Assiniboine (formerly Marquette and South Westman) Regional Health Authorities. At this time, RANA – Medical was contracted to provide the provincial Home Oxygen Program for all regional health authorities. RANA staff saw a wide range in people’s ability to live with a respiratory disease while they were in many homes throughout Brandon and Assiniboine regions. Data from the community health assessment and the community experience of RANA staff supported a more planned approach to the management of respiratory diseases. The President of RANA – Medical approached senior managers in the two health regions to discuss how the organizations could work together.
In December 1999, a partnership between RANA – Medical and Brandon and Assiniboine Regional Health Authorities was established to provide community-based education, support and health promotion activities for individuals and families experiencing chronic lung disease. Certified asthma educators on staff at RANA – Medical offer client education and home oxygen support to patients with asthma and/or COPD once they leave the hospital setting. This service is particularly important to rural residents. The partnership has resulted in many positive outcomes in 2003/2004. For example, client reported outcomes for individuals living with asthma include:

- 11.4% improvement in the number of times a client woke at night due to asthma or breathing problems in the past 4 weeks
- 186.2% improvement in the number of days of missed school or work in the past 4 weeks due to asthma or breathing problems
- 149% improvement in the number of doctor’s office visits in the last 6 months due to asthma or breathing problems
- 160.8% improvement in the number of ER visits in the last 6 months due to asthma or breathing problems
- 154.1% improvement in the number of hospital stays in the last 6 months due to asthma or breathing problems

**Paediatric Asthma Clinic**

The 1997/98 Community Health (Needs) Assessment identified 22% of all paediatric hospitalizations in Brandon as respiratory-related including asthma, tonsils and adenoids and bronchitis and bronchiolitis. At the same time, a local nursing instructor was completing graduate studies in the area of asthma. Her experience in the Department of Paediatrics, Section of Allergy at the Health Sciences Centre in Winnipeg also supported the need for enhanced paediatric asthma care and support in Brandon.

Therefore, a Paediatric Asthma Clinic was established for children with asthma and their families in November 2000. The intent of the clinic is to facilitate the self-management of asthma control. This clinic has resulted in fewer physician visits and/or reduced hospitalizations. The clinic is staffed by a paediatrician, three paediatric nurses and three respiratory therapists who are all certified asthma educators. A full day clinic is provided every two weeks with the following services:

- family history for new clients,
- respiratory assessment (pulmonary function studies),
- skill assessment regarding delivery devices and medications,
- medication counseling,
- a client-centred action plan including medication adjustments and
- on-going client follow-up.
As well, an Emergency Department Asthma Care Map has been developed using the Canadian Thoracic Society Asthma Guidelines (2001). The care map recommends client referral to the Paediatric Asthma Clinic for follow-up.

An evening family program for small group, interactive asthma education was piloted in February 2004 in an effort to reach more clients and their parents however it was poorly attended. There are likely many reasons for the low attendance but it appears that parents prefer one-to-one care and support from staff. A second attempt to establish an evening program for the fall of 2004 has been made but there has been no response from parents to date.

Approximately 125 clients per year receive services through the clinic. There are 25 new clients on waiting list that is usually 2 to 3 months. Additional clinics are often put in place to shorten the waiting list however the capacity to provide extra clinics is directly related to staffing resources. Data analysis is currently underway to determine the overall impact of the Paediatric Asthma Clinic. Anecdotally, staff feel there has been a reduction in hospitalizations of previously known asthmatics but there is an increase in new cases of asthma in the paediatric population.

**Respiratory Rehabilitation Clinic**

The Respiratory Rehabilitation Program was established in the fall of 1996 to provide education and professional support for individuals with Chronic Obstructive Pulmonary Disease (COPD). The goal of the program is to improve self-management of disease by the individuals and their families. A physiotherapist and registered nurse offered the program three times per year and it provided support to 3 to 5 clients and their spouses during each session.

A Respiratory Clinician was hired in April 2003 to establish the Respiratory Rehabilitation Clinic. The clinician provides education for patients while they are in hospital and after discharge as outpatients. Outpatients are seen in their home, in the office or contacted by telephone for follow-up. The earlier Respiratory Rehabilitation Program is now offered four times per year supporting 6 individuals and their families. Services are delivered by a multi-disciplinary team that has expanded to include the following practitioners:

- Certified Asthma Educator,
- Registered Nurse,
- Physiotherapist,
- Occupational therapist,
- Dietitian,
- Registered Psychiatric Nurse,
- Pharmacist,
- Social Worker and
- Registered Respiratory Technologist

From the fall of 1996 to the spring of 2003, 118 patients were referred to the Respiratory Rehabilitation Program. Since April 2003, 253 individuals have received support through 1,402 visits either in the Brandon Regional Health Centre or community setting.
Sleep Apnea Studies

Prior to 2003, all residents in the Brandon region who required sleep apnea studies were required to travel to Winnipeg for both clinical assessment and treatment intervention. Equipment to monitor airflow and oxygen levels was available in Brandon but more advanced patient assessment was not possible. A comprehensive sleep apnea study lab (Level 1) is available at both Health Sciences Centre and the St. Boniface General Hospital in Winnipeg. However the wait time for assessment is 2 to 5 years with no treatment available until the assessment is completed.

Sleep apnea is not simply a matter of a person feeling constantly tired; there are significant health implications as well. Poor quality sleep results in poor cognitive and motor skills. This shows up in a variety of ways including lower productivity at work and falling asleep while driving a vehicle. As well, constant hypoxia due to airway obstruction causes overload on the heart. Studies are currently underway in Calgary, Alberta to examine coronary disease and hypertension in people over the age of 60 years due to previous sleep apnea.

The need for early screening at the local level and patient stratification to determine which individuals require services available in Brandon and which people require services in Winnipeg was evident. A Level 3 monitor was purchased in 2003 and respiratory staff received intensive training to assess patient airflow, oxygen level, heart rate, body position, restless leg syndrome, snoring and other factors. Family physicians are now able to refer patients to a local Internist with a specialty in respiratory for Level 3 assessment. The waiting time for this service is 4 to 5 months. Test results are sent to St. Boniface Hospital and the patient continues with more comprehensive assessment if necessary. For those individuals who do not require further assessment, appropriate treatment is begun in Brandon.

Staff in the Respiratory department have identified the need for a second Level 3 monitor to better serve people in the Brandon region through home testing. Similar to holter monitoring, individuals are assessed in their natural environment. There are many positive outcomes associated with home testing including:

- improved accuracy with test results
- increased capacity for diagnostic testing
- decreased wait list
- enhanced patient comfort

In 2003/04, 276 patients had their sleep apnea study completed locally. It is anticipated that requests for diagnostic testing will continue to increase as a result of faster and easier diagnostic testing capacity.
Pain Management

Current data is not available to determine the prevalence of pain in the Brandon region. The only department collecting information about pain relief is Maternity through the Pre and Postnatal Patient Satisfaction survey. The Canadian Council on Health Services Accreditation addressed the issue of pain management by revising the Achieving Improved Measurement Standards to be used in 2005. There is now a pain-focused criterion with specific actions to meet the standard. These actions relate to assessment, monitoring, organizational responsibility and assessment measures of pain.

Preliminary steps in the development of a Pain Management program were undertaken in February 2004. A regional Pain Management Resource Nurse was hired and a Pain Management Steering Committee was established. The Pain Management Resource Nurse is responsible for staff education regarding assessment and management of uncontrolled pain for patients within the health centre and in the community. She works in collaboration with a pharmacist and they provide consultation on a case-by-case basis.

The Pain Management Steering Committee is a multidisciplinary team that comprises staff from many areas including mental health, acute care, home care, long term care, palliative care, rehabilitation services, pharmacy, maternal child, EMS, electronic health records, family practice physician and the Pain Management Resource Nurse. The purpose of the committee is to guide the development of a Pain Management program. Some of the gaps to providing adequate pain management to residents in the Brandon RHA that have been identified thus far include:

- a consistent process and tools for pain assessment,
- staff education regarding pain management,
- nurse, physician and patient fear of addiction,
- consistent use of available analgesia by nurses,
- use of non-pharmacological measures,
- a physician advocate in the area of pain management, and
- poor response to patient complaints of pain.

Although the planning processes for a pain management program are in the early stages, a survey has been conducted involving all nurses regarding their knowledge and attitudes about pain management. The results of the survey indicate that there are several educational opportunities to provide staff with evidence-based information about pain management. As well, a chart audit is underway to establish a baseline regarding the following:

- pain assessment and follow-up,
- use of medications and physician preference,
- routes of medication delivery, and
- patient comments related to the management of their pain.
An education package for nurses including information about pain management for individuals whether they are at home, in the hospital setting or a long-term care facility is in a draft stage.

**The Heart Program**

There is strong evidence to support a Heart Program in the Brandon region - diseases of the circulatory system are our number one cause of death. As well, recent data shows Brandon has a higher rate of acute myocardial infarction than the province as a whole while the rate of coronary artery bypass is significantly less than the province overall. Brandon also has one of the lowest rates of angioplasty when compared to the other RHA’s. Heart attack rates in the Brandon region are increasing over time whereas the Manitoba average is decreasing slightly (MCHP, 2003).

In the winter of 2003, a Cardiac Stakeholders group developed *The Heart Program for Brandon and Assiniboine Regional Health Authorities*. The intent of this program is to ensure a comprehensive, inter-disciplinary approach to the health promotion (primary prevention), secondary prevention, treatment and management of heart disease. The program will also provide palliative care and support to individuals experiencing end-stage cardiac disease. Using a case management model, clients will receive individualized care based on their personal needs and best practices.

At present, all inpatients have access to the program as well as some outpatients depending on whether there has been a doctor’s referral. There are two cardiac nurses who currently see 40 new patients per month.

Based on the Canadian Association of Cardiac Rehabilitation Standards, the Heart Program involves a number of disciplines including nurses, pharmacists, dietitians, and rehabilitation therapists. It is also dependent upon a strong partnership among many internal programs such as Prairie Health Matters, Community Mental Health Services, Tobacco Dependence Program, Home Care, Palliative Care and Telehealth. Additional partnerships have been established with external partners including the Heart and Stroke Foundation of Manitoba, YMCA and the Cardiac Catheterization Lab and Wellness Institute of the Winnipeg RHA.
Unified Referral and Intake System (URIS)

In 1995, there was a fatal incident on a playground in Winnipeg involving a child with an anaphylaxis reaction and no health plan in place. As a result, a partnership between three government departments – Family Services, Education and Training and Health – was created to coordinate services for children with special health needs in community programs such as schools and day cares. This partnership is called the Unified Referral and Intake System (URIS).

Over the past several years, URIS has been administered by a private agency. It has become increasingly difficult, however, to ensure continuity of care when the coordination function is external to the formal health care system. In early 2004, the provincial URIS staff asked the Brandon RHA Public Health Services to assume the coordination function. Public Health Services agreed to pilot URIS services for seven schools and two day cares. A cross-section of schools and day cares in the Brandon region were selected for the pilot project to ensure representation from diverse settings. In collaboration with family members and school/day care staff, a Community Health Nurse is responsible to coordinate and streamline processes for children requiring intervention with health care routines such as seizure disorders, severe allergies and catheterizations. An evaluation plan is currently being developed to provide future direction to the program.

Clinical Services Redevelopment Project

In March 2004, the first phase of a beautiful addition to the space at Brandon Regional Health Centre was unveiled and presented to the public. The Clinical Services Redevelopment Project, a 160,000 square-foot structure that occupies the space that was previously the BRHC visitors parking lot, houses the following programs and services:

- a new maternity unit that uses the single-room care concept
- a new Intensive Care Nursery
- a new Surgical Suite, with 6 spacious operating theatres, a primary recovery unit, a secondary recovery unit and a Pre-operative Assessment Clinic
- Pharmacy services
- a new Central Sterile Reprocessing area
- a new GI unit (for endoscopies)
- a new Renal Unit (formerly Dialysis)
- new space for ambulatory clinics
Work on the second phase, the redevelopment of existing space in the General Centre, is continuing. When it is complete, these programs will have a new home:

- Emergency Department
- Day Treatment (formerly Day Hospital)
- Chemotherapy
- Health Resource Centre (Library)
- BRHC Auxiliary Gift Shop
- Cardio-Respiratory Services.

**Magnetic Resonance Imaging Department**

The construction of another addition to the Brandon Regional Health Centre campus has been a boon for residents of western Manitoba who no longer have to travel to Winnipeg for Magnetic Resonance Imaging (MRI). The three-million-dollar MRI is used in the diagnosis of many conditions and is considered to be an important factor in recruiting new physicians to practise in Brandon. The MRI was completed and became fully operational in May 2004.

**So, what does this mean?**

Over the past five years, the Brandon Regional Health Authority has implemented many initiatives to better serve the residents of the region and, ultimately, to improve their health status. Ongoing monitoring of health information will continue to provide direction for improvement in health services.
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Abbreviations

ABI – Acquired Brain Injury
AMI – Acute Myocardial Infraction
BMHC – Brandon Mental Health Centre
BMI – Body Mass Index
BRHC – Brandon Regional Health Centre
BSD - Brandon School Division
BSE – Bovine Spongiform Encephalopathy
CAT or CT – Computerized Axial Tomography
CCHSA – Canadian Council on Health Services Accreditation
CEO – Chief Executive Officer
CFB – Canadian Forces Base
CHA – Community Health Assessment
CHAN – Community Health Assessment Network
CN – Canadian National
COPD – Chronic Obstructive Pulmonary Disease
CP – Canadian Pacific
CQI – Continuous Quality Improvement
CUPE- Canadian Union Public Employees
DASH – Dudley’s Ambulatory Surgical Hospital
DaPTP/Hib - Diptheria, Pertussis, Tetanus, Polio and Hemophilus influenza B
EFT – Equivalent Full Time
EHR – Electronic Health Record
EMS – Emergency Medical Services
ER – Emergency Room
GED – Grade Equivalent Diploma
GI – Gastro Intestinal
GPS – Global Positioning System
HHRP – Health Human Resource Planning
HIV – Human Immunodeficiency Virus
HRP – Human Resource Planning
KTC – Kitchen Table Chats
LUD – Local Urban Districts
MAHCP- Manitoba Association of Health Care Providers
MCHP – Manitoba Centre for Health Policy
MGGEU- Manitoba Government and General Employee Union
MIMS – Manitoba Immunization Monitoring System
MMR – Measles, Mumps and Rubella
MNU- Manitoba Nurses Union
MPI- Manitoba Public Insurance
MRI – Magnetic Resonance Imaging
MRP – Manitoba Renal Program
MS – Multiple Sclerosis
NRC – Neighbourhood Renewal Corporation
PCH – Personal Care Home
PHIA – Personal Health Act Information
PMU – Pregnant Mare’s Urine
PVD – Peripheral Vascular Disease
PYLL – Potential Years of Lost Life
RDP – Regional Diabetes Program
RHA – Regional Health Authority
RHAM – Regional Health Authorities of Manitoba
RM – Rural Municipalities
SSRI - Selective Serotonin Reuptake Inhibitors
STEP – Short Term Emergency Program
STI – Sexually Transmitted Infections
TB – Tuberculosis
TD – Tetanus and Diphteria
U.S.A. – United States of America
URIS – Unified Referral and Intake System
VLT – Video Lottery Terminals
VTEC – Verotoxigenic E. Coli
YMCA – Young Men’s Christian Association
Appendix A
Brandon RHA Programs and Services

Acute Care Services
Brandon Regional Health Centre
150 McTavish Avenue East
Ph: 726-1122  Fax: 578-4969

Inpatient Care
- Intensive Care Unit
- Medical and Surgical Units
- Mother and Baby Unit
- Neonatal Intensive Care Nursery
- Paediatrics
- Palliative Care
- Rehabilitation
- Surgical Suite
- Waiting Placement/Supportive Care

Ambulatory Care
- Cardiac & Respiratory
- Cast Clinic
- Chemotherapy
- Child Development Clinic
- Day Treatment
- Emergency/Observation Unit
- Gastro Intestinal (GI) Unit
- MB Breast Screening Program
- Ostomy Care
- Pain Management
- Renal Health Clinic
- Short Term Emergency Program (STEP)
- Tobacco Dependence Program
- Wound Care

BRHC Services
- Infection Control
- Social Work
- Volunteer Services

Community Services
Public Health Services
A5 - 800 Rosser Avenue, The Town Centre
Ph: 571-8446  Fax: 726-8743
- BabyFirst Home Visitors
- Child Health Clinics
- Communicable Disease Control
- Community Nutrition
- Community Postpartum Program
- Family Planning Clinics
- Health Education and Promotion
- Immunization
- Prenatal Classes
- Women’s Health

Prairie Health Matters
Ph: 571-8357
Diabetes and Heart Health promotion

Audiology Services
Ph: 571-8366
- Elks Preschool Aural Rehab Program
- Hearing testing, counselling and education on hearing loss, hearing aids and hearing protection.

Medical Officer of Health
Ph: 571-8395

Midwifery Services
531 Princess Avenue
Ph: 571-5530  Fax: 571-5537
Please call ahead for an appointment with a midwife.
7th Street Health Access Centre
20 - 7th Street
Ph: 578-4800  Fax: 578-4950
• Adult Community Mental Health Services
• Healthy Beginnings – A Healthy Baby Program
• Primary Care Services
• Public Health Services
• Sexually Transmitted Infections /Hepatitis C /HIV Program
• Travel Health Services

Partnership services available at 7th St. Health Access Centre:
• Child and Family Services
• Family Services and Housing
• Addictions Services (AFM)

Home Care Services
150—B 7th Street The Town Centre
Ph: 571-8416  Fax: 726-5720
Referral line 571-8427
• Adult Day Program
• Appeal Process
• Assessment & Application for Personal Care Home
• Assessment & Case Management
• Equipment & Supplies
• Family Relief
• Home Support
• Nursing Services
• Palliative Care
• Personal Care Assistance
• Respite Care
• Services for Seniors
• Supportive Housing
• Therapy Services

Long Term Care Services
Fairview Home
1351 - 13th Street
Ph: 728-6696  Fax: 727-7616

Rideau Park Personal Care Home
525 Victoria Ave. East
Ph: 727-1734  Fax: 726-6690

Associated with:
• Central Park Lodge Personal Care Home
• Dinsdale Personal Care Home
• Hillcrest Place Personal Care Home

Mental Health Services
Community Mental Health Services
B13 - 800 Rosser Avenue, The Town Centre
Ph: 571-8300  Fax: 726-8684
• Adult Community Mental Health Services
• Mental Health Services for the Elderly
• Psychosocial Rehabilitation Program

Child & Adolescent Treatment Centre (CATC)
1240 - 10th Street
Ph: 727-3445  Fax: 727-3451

Centre for Adult Psychiatry (CAP)
BRHC - AP1 - 150 McTavish Avenue East
Ph: 726-2923  Fax: 728-9633

Centre for Geriatric Psychiatry (CGP)
BRHC - Assiniboine Centre - 150 McTavish Avenue East
Ph: 726-2900  Fax: 725-0911

Westman Crisis Services
Administration Office
Ph: 725-3108  Fax: 726-4665
Mobile Crisis Unit (MCU) Ph: 725-4411 Toll Free: 1-888-379-7699
Crisis Stabilization Unit (CSU) Ph: 727-2555

Telephone support, crisis intervention and brief residential care and outreach services.

Regional Services
• Biomedical Services
• Health Resource Centre
• MB Telehealth
• Medical Services
• Pastoral Care
• Pharmacy, Rural Pharmacy
• Therapeutic Dietetics
# Appendix B
## International Classification of Diseases Code Groupings
### ICD-9

<table>
<thead>
<tr>
<th>Cause</th>
<th>ICD-9 codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious and parasitic diseases</td>
<td>001-139</td>
</tr>
<tr>
<td>Cancer</td>
<td>140-208</td>
</tr>
<tr>
<td>Benign neoplasms</td>
<td>210-229</td>
</tr>
<tr>
<td>Endocrine, nutritional and metabolic diseases and immunity disorders</td>
<td>240-279</td>
</tr>
<tr>
<td>Diseases of blood and blood-forming organs</td>
<td>280-289</td>
</tr>
<tr>
<td>Mental disorders</td>
<td>290-319</td>
</tr>
<tr>
<td>Diseases of the nervous system and sense organs</td>
<td>320-389</td>
</tr>
<tr>
<td>Diseases of the circulatory system</td>
<td>390-459</td>
</tr>
<tr>
<td>Respiratory diseases</td>
<td>460-519</td>
</tr>
<tr>
<td>Diseases of the digestive system</td>
<td>520-579</td>
</tr>
<tr>
<td>Diseases of the genitourinary system</td>
<td>580-629</td>
</tr>
<tr>
<td>Conditions related to pregnancy</td>
<td>630-676</td>
</tr>
<tr>
<td>Diseases of the skin and subcutaneous tissue</td>
<td>680-709</td>
</tr>
<tr>
<td>Diseases of the musculoskeletal system and connective tissue</td>
<td>710-739</td>
</tr>
<tr>
<td>Congenital anomalies</td>
<td>740-759</td>
</tr>
<tr>
<td>Conditions originating in the perinatal period (excl. stillbirths)</td>
<td>760-779</td>
</tr>
<tr>
<td>Sudden infant death syndrome (SIDS)</td>
<td>798.0</td>
</tr>
</tbody>
</table>

All injuries*<sup>a</sup>

<table>
<thead>
<tr>
<th></th>
<th>ICD-9 codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unintentional injuries</td>
<td>E800-E869, E880-E929, E950-E999</td>
</tr>
<tr>
<td>Intentionally self-inflicted injuries</td>
<td>E950-E959</td>
</tr>
<tr>
<td>Injuries due to assault</td>
<td>E960-E969</td>
</tr>
<tr>
<td>Injuries due to other violence&lt;sup&gt;b&lt;/sup&gt;</td>
<td>E970-E978, E990-E999</td>
</tr>
<tr>
<td>Injuries of undetermined intent</td>
<td>E980-E989</td>
</tr>
</tbody>
</table>
References


Notes
* Three groups of events that are assigned E-codes in the ICD-9 are excluded from the tables. They are very different from most injuries, both in their nature and in the types of preventive measures that might be considered appropriate.

<table>
<thead>
<tr>
<th>Excluded ICD-9 codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E870-E876</td>
<td>Misadventures to patients during medical and surgical care.</td>
</tr>
<tr>
<td>E878-E879</td>
<td>Surgical and medical procedures as the cause of abnormal reaction of patient or later complication, without mention of misadventure at time of procedure.</td>
</tr>
<tr>
<td>E930-E949</td>
<td>Drugs, medicinal and biological substances causing adverse effects in therapeutic use.</td>
</tr>
</tbody>
</table>

† Injuries due to other violence include those due to legal intervention, operations of war, and terrorism.
Appendix C

Community Health Assessment Survey

A partnership between the Brandon Regional Health Authority and the Neighborhood Renewal Corporation

ADDRESS: ______________________ AREA: __________

I would first like to ask you some general questions about your background, which will enable us to compare the health of people in Brandon.

**Demographics:**

1. **Gender:**
   - a. female
   - b. male

2. To which ethnic or cultural group(s) do you belong? (Check all that apply)
   - a. African
   - b. Asian
   - c. British
   - d. Canadian
   - e. First Nation
   - f. French
   - g. German
   - h. Latino
   - i. Metis
   - j. Ukrainian
   - k. other (specify)

2. 1 Are you new to Canada within the past year?
   - yes
   - no

2. 2 Are you new to Brandon within the past year?
   - yes
   - no
3. What is the language usually spoken in your home?
   a. English
   b. French
   c. German
   d. Spanish
   e. Ukrainian
   f. other (specify) __________________

4. What is your current marital status?
   a. married
   b. single (never married)
   c. widowed
   d. separated
   e. divorced
   f. common-law

5. How many people usually live in your household including yourself?
   a. 1 (lives alone)
   b. 2 - 3
   c. 4 - 6
   d. 7 +

6. In general, would you say your health is:
   a. excellent
   b. very good
   c. good
   d. fair
   e. poor

7. Compared to one year ago, how would you say your health is now? Is it:
   a. much better than one year ago?
   b. somewhat better than one year ago?
   c. about the same?
   d. somewhat worse than one year ago?
   e. much worse than one year ago?
Although many health expenses are covered by health insurance, there is still a relationship between health and income. These next questions are about working and income. Please be assured that all of the information you provide will be kept confidential.

**Income and Employment:**

1. Do you currently work at a job or a business? (any type of paid work - seasonal, contract, self-employment, babysitting, etc.)
   - a. yes
   - b. no (go to question 1.2)
   - c. permanently unable to work (go to question 1.2)

1.1  (If yes): How much do you work?
   - a. full-time
   - b. part time
   - c. casual

1.2  (If no): Where do you get your money? (Check all that apply)
   - a. pension (retired)
   - b. disability claim
   - c. social assistance
   - d. employment income assistance
   - e. support from spouse
   - f. other _____________________

2. What portion of your net monthly income goes to rent or a mortgage?
   - a. none
     explain: ______________________
   - b. 1/4
   - c. 1/3
   - d. 1/2
   - e. other: _____________________
3. What portion of your net monthly income goes to childcare?
   - a. none
   - b. 1/4
   - c. 1/3
   - d. 1/2
   - e. other: ______________________

4. Do most of your friends work?
   - a. yes
   - b. no

5. What do you usually do if you run out of money?
   - a. have not experienced it yet
   - b. borrow from a friend
   - c. borrow from a relative
   - d. go to the bank
   - e. go without (food, clothes, etc.)
   - f. other: ______________________

Now I'm going to ask you some questions about school and other training you may have.

**Education:**

1. What is the highest grade of elementary or high school you have completed?
   - a. no schooling (go to question 2)
   - b. elementary (grades 1-6)
   - c. middle school (grades 7-9)
   - d. high school (grades 10-12)
   - e. GED
1.1 What is the highest degree, certificate or diploma you have completed?
  □ a. no post-secondary degree, certificate or diploma
  □ b. trades certificate or diploma from vocational school or apprenticeship program
  □ c. certificate or diploma from a community college, school of nursing, etc.
  □ d. university degree

2. Have you taken any courses or training sessions since leaving school?
  □ a. no
  □ b. yes (go to 2.1)

2.1 If yes, where?
  □ a. Adult Learning Centre
  □ b. ACC or BU
  □ c. distance education
  □ d. courses/training through workplace
  □ e. other: ________________________________

3. **Conduct Literacy Assessment:** We are interested in finding out how well people are able to read the print material such as pamphlets and brochures that the RHA produces. Therefore, we need to look at reading levels which may not be the same as the grade completed in school. Please look at these lists of words and read them out loud.

** Assessment not administered due to:________________
  (e.g.) language barrier
<table>
<thead>
<tr>
<th>List 1</th>
<th>List 2</th>
<th>List 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat</td>
<td>Fatigue</td>
<td>Allergic</td>
</tr>
<tr>
<td>Flu</td>
<td>Pelvic</td>
<td>Menstrual</td>
</tr>
<tr>
<td>Pill</td>
<td>Jaundice</td>
<td>Testicle</td>
</tr>
<tr>
<td>Dose</td>
<td>Infection</td>
<td>Colitis</td>
</tr>
<tr>
<td>Eye</td>
<td>Exercise</td>
<td>Emergency</td>
</tr>
<tr>
<td>Stress</td>
<td>Behavior</td>
<td>Medication</td>
</tr>
<tr>
<td>Smear</td>
<td>Prescription</td>
<td>Occupation</td>
</tr>
<tr>
<td>Nerves</td>
<td>Notify</td>
<td>Sexually</td>
</tr>
<tr>
<td>Germs</td>
<td>Gallbladder</td>
<td>Alcoholism</td>
</tr>
<tr>
<td>Meals</td>
<td>Calories</td>
<td>Irritation</td>
</tr>
<tr>
<td>Disease</td>
<td>Depression</td>
<td>Constipation</td>
</tr>
<tr>
<td>Cancer</td>
<td>Miscarriage</td>
<td>Gonorrhea</td>
</tr>
<tr>
<td>Caffeine</td>
<td>Pregnancy</td>
<td>Inflammatory</td>
</tr>
<tr>
<td>Attack</td>
<td>Arthritis</td>
<td>Diabetes</td>
</tr>
<tr>
<td>Kidney</td>
<td>Nutrition</td>
<td>Hepatitis</td>
</tr>
<tr>
<td>Hormones</td>
<td>Menopause</td>
<td>Antibiotics</td>
</tr>
<tr>
<td>Herpes</td>
<td>Appendix</td>
<td>Diagnosis</td>
</tr>
<tr>
<td>Seizure</td>
<td>Abnormal</td>
<td>Potassium</td>
</tr>
<tr>
<td>Bowel</td>
<td>Syphilis</td>
<td>Anemia</td>
</tr>
<tr>
<td>Asthma</td>
<td>Hemorrhoids</td>
<td>Obesity</td>
</tr>
<tr>
<td>Rectal</td>
<td>Nausea</td>
<td>Osteoporosis</td>
</tr>
<tr>
<td>Incest</td>
<td>Directed</td>
<td>Impetigo</td>
</tr>
</tbody>
</table>

# of (+) Responses in List 1: ________
# of (+) Responses in List 2: ________
# of (+) Responses in List 3: ________

Legend: (+) = correct
(-) = word not attempted
(/) = mispronounced word

Raw Score: REALM Grade:
The next set of questions I would like to ask you are all about children.

**Healthy Child Development:**

1. Do you have children?
   - a. yes
   - b. no (go to question 1.4)

1.1 How many children do you have?
   - a. 1
   - b. 2
   - c. 3
   - d. 4
   - e. 5
   - f. 6+

1.2 Do all of your children live with you?
   - a. yes (go to question 1.4)
   - b. no

1.3 Who do the other children live with? (Check all that apply)
   - a. other parent
   - b. relative
   - c. friend
   - d. live on their own
   - e. other: _________________________

1.4 Are there any other children living in this home (other than your own)?
   - a. yes
   - b. no (go to question 2 if they have children, otherwise go to Physical Environment)

1.5 What is the relationship between these children (other than your own) and yourself.
   - a. step-children
   - b. foster children
   - c. grandchildren
   - d. friend’s children
   - e. neighbor’s children
   - f. other: ________
2. What sorts of activities do you like to do with your children or the children you care for? (Check all that apply)
   - a. sports
   - b. crafts
   - c. reading
   - d. games
   - e. fishing
   - f. playing (house, dolls, doctor, etc.)
   - g. bike-riding
   - h. other: ____________________

3. What sorts of activities would you like to be able to do with your children or the children you care for? (Check all that apply)
   - a. sports
   - b. crafts
   - c. reading
   - d. games
   - e. fishing
   - f. playing (house, dolls, doctor, etc.)
   - g. bike-riding
   - h. other: ____________________

3.1 What gets in the way of being able to do these things with your children or the children you care for? (Check all that apply)
   - a. time
   - b. transportation
   - c. cost of equipment
   - d. registration fees
   - e. other: ____________________

4. Which community agencies do you use (if any) with your children or the children you care for? (Check all that apply)
   - a. none
   - b. Elspeth Reid Family Resource Centre
   - c. YMCA
   - d. Brandon Friendship Centre
   - e. Boys and Girls Club
   - f. Youth for Christ
   - g. local church
   - h. library
   - i. other: ____________________
5. Who do you call when you need a break from your children?
   - a. spouse
   - b. friend
   - c. relative
   - d. neighbor
   - e. staff at local agency
   - f. other: ____________________________

Now I will ask you some questions about where you live.

**Physical Environment:**

1. How long have you been living at this address?
   - a. less than 6 months
   - b. 6 months - 1 year
   - c. 13 months - 23 months (or just over one year to almost two years)
   - d. 2 - 4 years
   - e. more than 4 years

2. Do you rent or own your home or apartment?
   - a. rent
   - b. own
   - c. other: ____________________________

3. Are you happy living in this home/apartment?
   - a. yes
   - b. no

3.1 (If yes): What do you like about your home/apartment? (Check all that apply)
   - a. size/layout
   - b. it’s affordable
   - c. close to a school, shops, bus stop, etc.
   - d. good neighborhood
   - e. other: ____________________________
3.2 (If no): What do you **NOT like** about your home/apartment?
(Check all that apply)
- a. size/layout
- b. too expensive
- c. too far from a school, shops, bus stop, etc.
- d. not a great neighborhood
- e. neighbors
- f. other: ____________________________

4. How safe do you feel in this neighborhood?
- a. very safe *(go to question 5)*
- b. somewhat safe
- c. not very safe
- d. very unsafe - afraid

4.1 What makes it feel unsafe? (Check all that apply)
- a. vandalism
- b. theft of property
- c. family violence
- d. assaults
- e. sexual assaults
- f. graffiti
- h. other: ____________________________

5. What do you like **most** about living in this neighborhood?
(Check all that apply)
- a. location
- b. good neighbors
- c. feels safe
- d. close to a school, shops, bus stop, etc.
- e. other: ____________________________
6. What do you like least about living in this neighborhood? (Check all that apply)
   - a. location
   - b. neighbors
   - c. crime
   - d. too far from a school, shops, bus stop, etc.
   - e. other: ______________________________

7. If you could change one thing about your neighborhood, what would it be?
   ______________________________

The next set of questions is about supports that are available to you.

**Supportive Environment:**

1. If you needed to talk with somebody or borrow some money, who would you call? (Check all that apply)
   - a. friend
   - b. sister/brother
   - c. aunt/uncle
   - d. neighbor
   - e. parent
   - f. co-worker
   - g. bank
   - h. other: ______________________________

2. Now think of your closest friend... when was the last time you talked with that person?
   - a. today
   - b. within last week
   - c. within past 2 weeks
   - d. within past month
   - e. 2 - 4 months ago
   - f. more than 4 months ago
3. Do you feel a sense of being connected with people who live in this neighborhood?
   - a. yes
   - b. no (go to Personal Health Practices and Coping Skills)

3.1 (If yes): Please describe the things that make you feel connected with people in your neighborhood. (Check all that apply)
   - a. frequent contact
   - b. I can ask them for help
   - c. I help them out
   - d. similar interests
   - e. children play together
   - f. other: ________________________________

The next group of questions is divided into 8 different sections. These questions are all related to your own personal health practices. Some of these questions are quite personal, and I would like to remind you that all of the information you provide will remain confidential.

I would first like to ask you some questions about alcohol and drugs:

**Personal Health Practices and Coping Skills:**

A. Alcohol & Drugs:

1. Have you had a drink of beer, wine, hard liquor or any other substance containing alcohol in the past six months?
   - a. yes
   - b. no (If the response is, “I haven’t had a drink in ___ years”, go to question 2, otherwise go to question 3)
1.1 (If yes): What type of alcohol did you drink? (Check all that apply)
   □ a. beer
   □ b. wine
   □ c. hard liquor
   □ d. hair products
   □ e. cleaning products
   □ f. other: ___________________________

2. Have you ever gone for treatment or counseling to help you quit drinking?
   □ a. yes
   □ b. no (go to question 2.3)
   □ c. don’t feel it is necessary – is a social drinker (Go to question 3)

2.1 (If yes): Were you successful in quitting?
   □ a. yes
   □ b. no (go to question 2.3)

2.2 (If yes): What type of supports have you used? (Check all that apply)
   □ a. residential (institutional admission)
   □ b. outpatient
   □ c. self-help (i.e. AA – Alcoholics Anonymous)
   □ d. other: ________________________________

2.3 (If no): Is there anything you can think of that would help you stop drinking?
   □ a. can’t think of anything
   □ b. time off from work
   □ c. support from spouse/family
   □ d. support from friends
   □ e. somewhere to go
   □ f. other: ___________________________
3. Have you used any drugs (prescription and/or street drugs) in the past six months to get high?
   a. yes
   b. no (If the response is, "I haven’t used drugs in ___ years", go to question 4, otherwise go to Section B: Tobacco)

3.1 (If yes): What drugs have you used? (Check all that apply)
   a. prescription (narcotics, uppers, downers)
   b. marijuana
   c. crack
   d. club drugs such as Ecstasy
   e. other: __________________________________________

4. Have you ever gone for treatment or counseling to help you quit using drugs?
   a. yes
   b. no (go to question 4.3)

4.1 (If yes): Were you successful in quitting?
   a. yes
   b. no (go to question 4.3)

4.2 (If yes): What types of support have you used? (Check all that apply)
   a. residential (institutional admission)
   b. outpatient
   c. self-help (i.e. NA – Narcotics Anonymous)
   d. other: __________________________________________

4.3 (If no): Is there anything you can think of that would help you stop using drugs?
   a. can’t think of anything
   b. time off from work
   c. support from spouse/family
   d. support from friends
   e. somewhere to go
   f. other: __________________________________________
The next set of questions is about smoking.

**B. Tobacco:**

1. Do you smoke regularly?
   - a. yes
   - b. no (If the response is, "I haven't had a smoke in ___ years", go to question 2, otherwise go to Section C: Gambling)

1.1 (If yes): What do you usually smoke?
   - a. cigarettes
   - b. cigar
   - c. pipe
   - d. other: _____________________________

2. Have you ever tried to quit smoking?
   - a. yes
   - b. no (go to question 2.3)

2.1 (If yes): Were you successful?
   - a. yes
   - b. no (go to question 2.3)

2.2 (If yes): What types of support have you used? (Check all that apply)
   - a. cold turkey
   - b. nicotine replacement therapy (e.g. gum, the patch)
   - c. medication (e.g. Zyban)
   - d. hypnosis
   - e. other: _____________________________

2.3 (If no): What do you need to help you quit smoking?
   - a. can't think of anything
   - b. time off from work
   - c. support from spouse/family
   - d. support from friends
   - e. other: _____________________________
I would now like to ask you some questions about gambling.

**C. Gambling**

1. **Is gambling a habit or problem for you?**
   - a. yes
   - b. no (If the response is, "I haven't gambled in ___ years or I only gamble once in awhile", etc., go to question 2, otherwise go to Section D: Exercise)

1.1 (If yes): What type of gambling is a problem?
   - a. bingo
   - b. VLT's
   - c. lottery tickets
   - d. poker
   - e. other: __________________________

2. **Have you ever tried to quit gambling?**
   - a. yes
   - b. no (go to question 2.3)

2.1 (If yes): Were you successful?
   - a. yes
   - b. no (go to question 2.3)

2.2 (If yes): What types of support have you used?
   - a. Gambler’s Anonymous
   - b. other: __________________________

2.3 (If no): What would help you quit?
   - a. can’t think of anything
   - b. time off from work
   - c. support from spouse/family
   - d. support from friends
   - e. somewhere to go
   - f. other: __________________________
Now I would like to ask you some questions about your physical activity:

**D. Exercise:**

1. What do you do to be active? (Check all that apply)
   - a. walking
   - b. jogging
   - c. team sports
   - d. weight training
   - e. gardening
   - f. playing with children
   - g. other: ____________________________

2. How do you get around town most of the time?
   - a. walk
   - b. cycle
   - c. drive
   - d. public transit (bus)
   - e. taxi
   - f. other: ____________________________

(Ask only if they have children living with them)

3. Are your children involved in any organized sports or recreational activities outside of school (e.g. soccer, ballet)?
   - a. yes
   - b. no

3.1 (If no): What gets in the way of your children being involved in organized sports or a recreational activity? (check all that apply)
   - a. time
   - b. transportation
   - c. cost of equipment
   - d. registration fees
   - e. no interest
   - f. other: ____________________________
The next group of questions is about food and eating habits.

E. Nutrition:

1. Which one of these statements best describes the food situation in your home?
   - a. We often have enough to eat and the kinds of foods we want.
   - b. We have enough to eat but not always the kinds of foods we want.
   - c. Sometimes we do not have enough to eat.
   - d. Often we do not have enough to eat.

2. Where do you usually get your food?
   - a. grocery store
   - b. 24-hour convenience store
   - c. community agencies
   - d. food bank
   - e. other: _________________________

2.1 Why do you shop there? (Check all that apply)
   - a. close to home
   - b. hours of operation
   - c. cost of food
   - d. more attractive environment
   - e. availability of parking
   - f. priority parking (Handicap, New mother's)
   - g. other: _________________________

(Ask if they have elementary school-age children living with them. If not, go to question 4)

3. Are your children in the "Breakfast in School Program"?
   - a. yes
   - b. no
4. How often do you use take-out or have home delivery food services?
   - a. never
   - b. rarely - less than once per week
   - c. once per week
   - d. 2-3 times per week
   - e. 4-5 times per week
   - f. more than 5 times per week

5. Do you use a meal service, such as “Meals on Wheels”?
   - a. yes
   - b. no

I will now ask you a few questions about safety.

F. Safety Devices:

(Ask only if the respondent has children living with them)

1. How often do the children in your household wear bicycle helmets?
   - a. always
   - b. usually
   - c. sometimes
   - d. rarely
   - e. never
   - f. not applicable - does not own a bicycle

(Ask only if the respondent has children living with them that are of an age for car seat use. Otherwise go to question 3)

2. How often do you use a car seat for your children?
   - a. always
   - b. most of the time
   - c. some of the time
   - d. never
   - e. not applicable

   Explain: ____________________
2.1. If not used “always”, what gets in the way of using a car seat?
(Check all that apply)
- a. don’t have one
- b. cost
- c. inconvenient
- d. don’t know what type to use
- e. unsure how to use it
- f. other: ____________________________

2.2. If using a car seat, where did you get the car seat?
- a. store
- b. community agency
- c. borrowed from friend/relative
- d. garage sale
- e. other: ____________________________

3. How often do you wear a seat belt?
- a. always
- b. usually
- c. sometimes
- d. rarely
- e. never
- f. not applicable – use public transit only

4. Have you had an injury in the home, neighborhood, or at work in the past year?
- a. yes
- b. no (go to Section G: Sexual Practice)

4.1 (If yes): What type(s) of injury? (Check all that apply)
- a. fall
- b. burn
- c. cut/pierce
- d. foreign object
- e. blunt trauma (e.g. crushed finger, blow to the head)
- f. other: ____________________________
4.2 What treatment was needed for the injury(ies)? *(Check all that apply)*

- a. none *(go to Section G: Sexual Practice)*
- b. emergency department
- c. walk-in clinic
- d. family doctor
- e. treated at home
- f. other: ____________________________

4.3 Why did you choose this treatment?

- a. happened on the weekend
- b. didn’t need an xray or stitches
- c. needed an xray or stitches
- d. only place that was open
- e. didn’t require medical care
- f. other: ____________________________

I would now like to ask you a few personal questions about sexual behavior because of its importance to personal health. You can be assured that anything you tell me will remain confidential.

**G. Sexual Practice:**

1. Have you had sexual intercourse in the past year?
   - a. yes
   - b. no *(go to Section H: Emotional & Spiritual Health)*

1.1. *(If yes): With how many different partners?*
   - one partner
   - 2 – 3 partners
   - 4 - 5 partners
   - 6 or more partners
2. How often have you used condoms in the past year?
   a. always (go to Section H: Emotional & Spiritual Health)
   b. more than half the time
   c. about half the time
   d. less than half the time
   e. never
   f. unsure

2.1. For the times that you didn’t use a condom during sexual intercourse, why didn’t you? (check all that apply)
   a. only have one partner
   b. knew the partner
   c. don’t like them
   d. partner didn’t want to
   e. didn’t have one
   f. was drinking or using drugs at the time
   g. uses another form of birth control
   h. other: ____________________________

The next set of questions is about emotional and mental well-being.

H. Emotional and Spiritual Health:

1. Have you experienced anxiety, depression, or feeling overwhelmed in the past year?
   a. yes (go to question 1.1)
   b. no (go to Section: Health Services)

1.1 Have you talked with a health care professional about it (in the past year)?
   a. yes (go to question 1.3)
   b. no

1.2 (If no): What do you think would help you?
   a. don’t know
   b. someone to help with a referral
   c. other: ____________________________
1.3  (If yes): Whom have you talked with? (Check all that apply)
   - a. counselor
   - b. doctor (go to question 1.3.1)
   - c. psychologist
   - d. social worker
   - e. other: ___________________________

1.3.1  When you went to see a doctor, were you prescribed a medication(s)?
   - a. yes
   - b. no

1.4  Have you accessed any spiritual care in the past year? (e.g. minister, pastor, elder, other)
   - a. yes
   - b. no (go to question 1.4.2)

1.4.1  If yes, what was your experience?
   - a. it was very helpful
   - b. it was not helpful
   - c. other: ___________________________

1.4.2  If no, why not?
   - a. never thought of it
   - b. didn’t know how to find someone
   - c. friends/family did not have a good experience
   - d. other: ___________________________

I would now like to ask you some questions about the contacts you have had with health professionals and health services.

**Health Services:**

1. Do you have a regular doctor?
   - a. yes (go to question 2)
   - b. no
1.1 (If no): Why not? (Check all that apply)
- a. none available
- b. do not know how to find one
- c. location of the physician’s office
- d. don’t need one
- e. other:_______________________

1.2 Where do you go for medical help? (Check all that apply)
- a. emergency room
- b. walk-in clinic
- c. use alternative therapy/naturopathy (herbal medicine, therapeutic touch)
- d. other:____________________________

2. Have you gone to a walk-in clinic (for yourself) in the past 6 months?
- a. yes
- b. no (go to question 2.2)

2.1 (If yes): How often have you gone to a walk-in clinic in the past 6 months?
- a. 1 - 2 times
- b. 3 - 6 times
- c. 7 - 12 times
- d. 13 - 20 times
- e. more than 20 times

2.2 Which of the following statements best describes your situation:
I use a walk-in clinic when: (Check all that apply)
- a. I have no family doctor
- b. the doctor’s office is closed
- c. I can’t wait for a regular appointment
- d. I want a second opinion
- e. other:____________________________
3. Have you received support from any of the following helping services in the past year? (Check all that apply)
   - a. public health nurse
   - b. child & family services
   - c. home care
   - d. community mental health
   - e. day care
   - f. food bank
   - g. local school
   - h. church
   - i. other: ___________________________

3. Where do you usually get information about health and illness?
   (ONE answer only)
   - friends/family
   - magazines
   - internet
   - hospital/clinics
   - public health services
   - mental health services
   - doctor or other health care provider
   - other: ___________________________

Now I'd like to ask a couple of personal questions about you...

1. How old are you? (Refer to literacy assessment)
   - a. 15 - 20
   - b. 21 - 25
   - c. 26 - 30
   - d. 31 - 35
   - e. 36 - 40
   - f. 41 - 45
   - g. 46 - 50
   - h. 51 - 55
   - i. 56 - 60
   - j. 61 - 65
   - k. 66 - 70
   - l. 70 +
2. What is your personal net monthly income? (actual take home pay)
   a. less than $700/month
   b. $700 - 1,000
   c. $1,100 - 1,500
   d. $1,600 - 2,000
   e. $2,100 - 2,500
   f. $2,600 - 3,000
   g. $3100 +
   h. not applicable - has no personal income