

INTRODUCTION

A Community Health Assessment attempts to measure health status of the population and to highlight significant health issues. An assessment also identifies available health resources and describes how these services are used.

Benefits that can be realized through a Community Health Assessment process include an increased understanding of population health status, and heightened community awareness about health and wellness. The process also results in enhanced capacity among staff and volunteers, and engages residents in a dialogue about health and health issues. A Community Health Assessment lays the foundation for future action.

The Parkland Regional Health Authority (PRHA) began this comprehensive Community Health Assessment in June 2003. The process included staff, health care providers, community partners, volunteers, and residents of the Region. Health data and information were gathered, shared, analyzed, and interpreted. Several sources of data and information were accessed including Statistics Canada, Manitoba Centre for Health Policy, Manitoba Health, Acumen Research (Regional Telephone Survey) and the PRHA. Opinions were sought through community consultations, focus groups, and interviews with partners and service providers.

This report contains the findings of the PRHA Community Health Assessment process. Chapter 1 describes the people of the Parkland Region including ethnicity, age structure, and socio-economic conditions. Often referred to as non-medical determinants of health, this background provides important context for the remainder of the report.

Chapters 2 through 5 describe the health status of the population through mortality rates, child health data, illness and injury prevalence, and healthy lifestyle practices. Parkland data are compared to Manitoba data and in some instances we are able to present sub-regional data at the district level. This enables us to better understand the health status of populations within specific geographical areas of the Parkland. When available, data are also presented by sex. This level of data allows us to consider gender and its influence on health.

Information regarding health care services, service utilization, and health system performance is included in Chapter 6.

Each chapter contains a concluding text box that identifies planning considerations relevant to the content presented in that chapter. Key themes emerging from the entire report are presented at the end of the document.

This Community Health Assessment report is intended to assist policy makers and service providers with evidence-based planning in order to achieve the PRHA vision:

“Individuals, families, and communities achieving the best possible health and wellness”

ACKNOWLEDGMENTS

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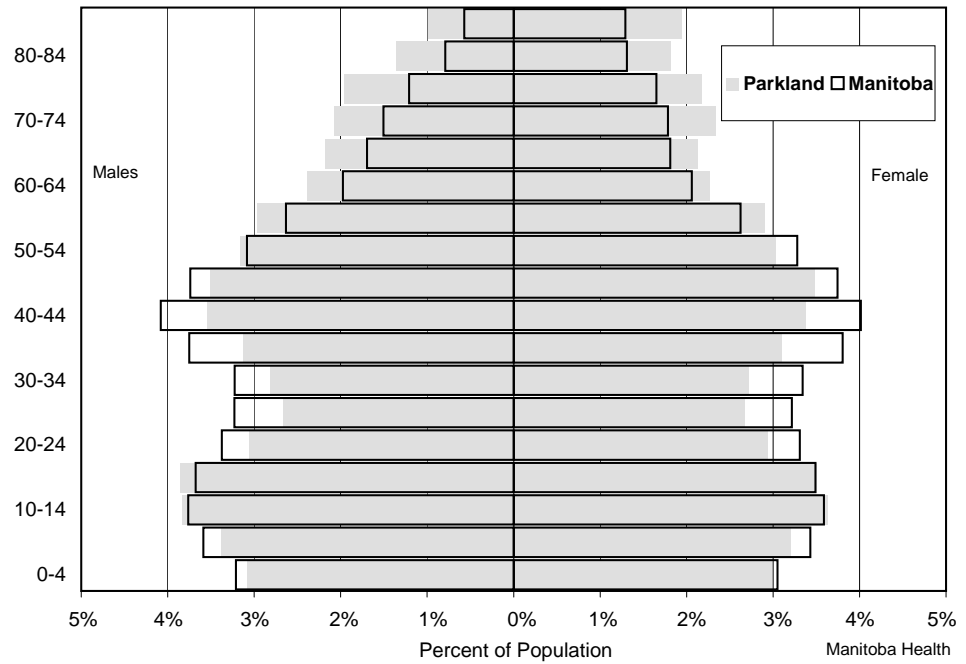
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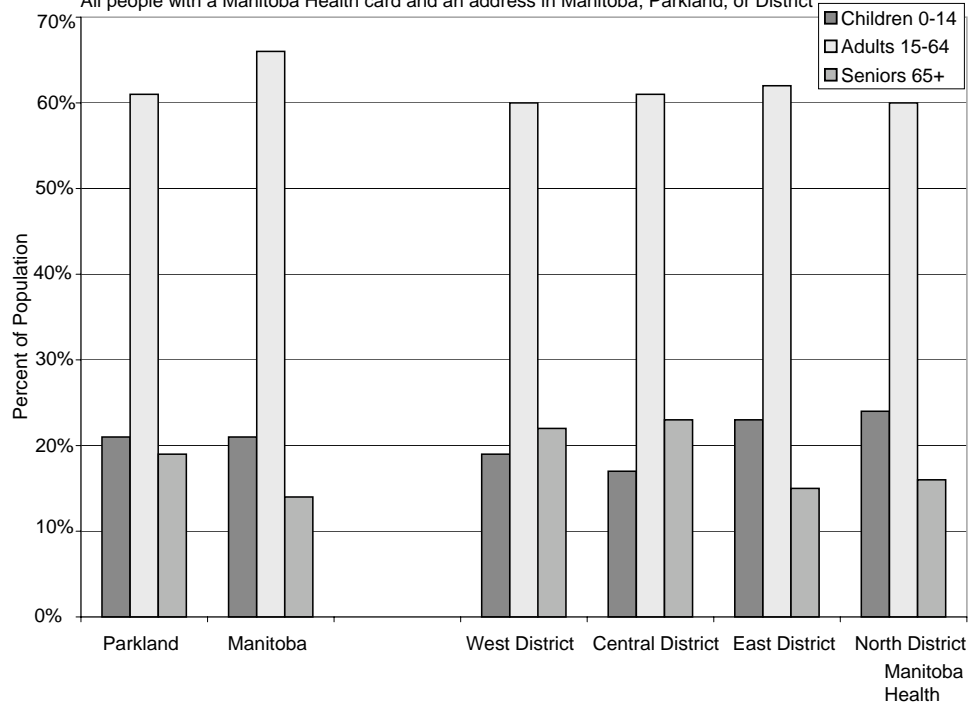
1.1 - Parkland Population Pyramid

2002/2003



1.2 Population Distribution 2002

All people with a Manitoba Health card and an address in Manitoba, Parkland, or District



THE PARKLAND REGION - DEMOGRAPHICS

The People of Parkland

In 2002 there were 42,182 people living in Parkland. Parkland residents make up 3.6% of the Manitoba population. Of these people, approximately 14% live in the West District, 16% in the East District, 36% in the North District, and 34% in the Central District.

Parkland has a low population density, approximately one person per square kilometre. Manitoba as a whole has two people per square kilometre. The region's population is also largely rural, with only 36% living in urban areas. This is much lower than the average for Manitoba, with 72% in urban areas. Rurality and a low population density have implications for health and access to health care, as many residents travel long distances to access health and other services.

Parkland has a different population distribution than Manitoba. The percentage of seniors in Parkland is much higher than that of Manitoba, while the percentage of adults aged 15-65 is lower in Parkland. This makes the Parkland population "older" than the Manitoba population. The percentage of children in the Parkland population is equal to that in Manitoba.

The populations of the West and Central District are older on average than in Parkland overall - these districts have a smaller percentage of children, and higher percentage of seniors. East and North Districts have a younger population than Parkland, with a higher percentage of children, and a smaller percentage of seniors.

The Manitoba Bureau of Statistics projects that the percentage of seniors in the Parkland population will remain stable at approximately 20% over the next 20 years until 2025. The percentage of children is projected to drop slightly, while the percentage of adults aged 15-65 is projected to increase slightly. This is in contrast to the projections for the province, where the percentage of seniors is expected to increase from approximately 13% in 2002 to 19% in 2025.

Ethnic Groups

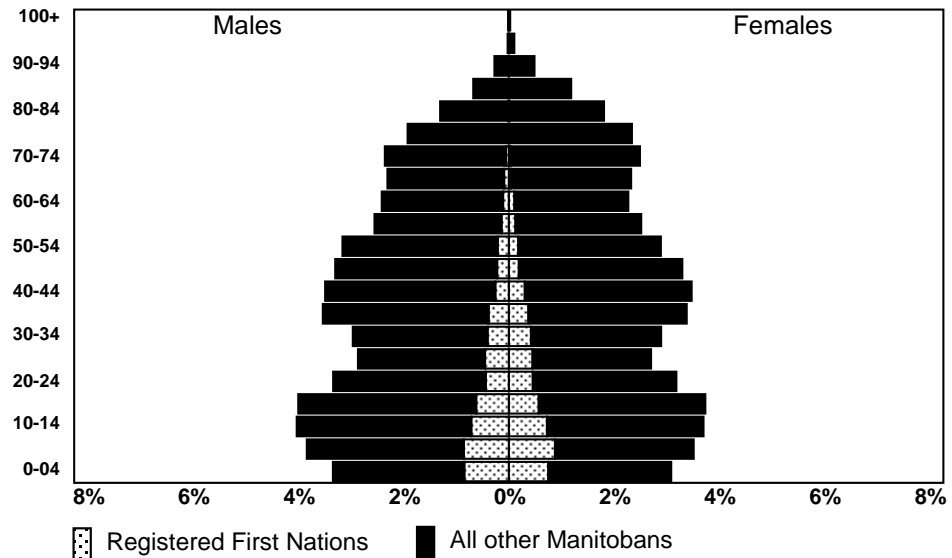
Parkland has an ethnically diverse population. In the 2001 Census, 25% of Parkland residents identified themselves as being of Aboriginal ancestry, including First Nations, Metis and Inuit individuals. This is an increase from the 1996 Census, when Aboriginal people made up 22% of the Parkland population. The majority of other Parkland residents are of European ancestry, with a small number of individuals reporting "visible minority" status.

Manitoba Health records for 1998 identify 10.6% of the Parkland population with Registered First Nation status based on affiliation with a Manitoba

Band. The population distribution of First Nations in Parkland shows a younger population, with a higher percentage of children, and a lower percentage of seniors than the region average. The Aboriginal population in Parkland is also growing more quickly than the non-Aboriginal population.

1.3: Parkland First Nations Population Pyramid Dec 31, 1998 - Population 43,357

MCHP*



Languages

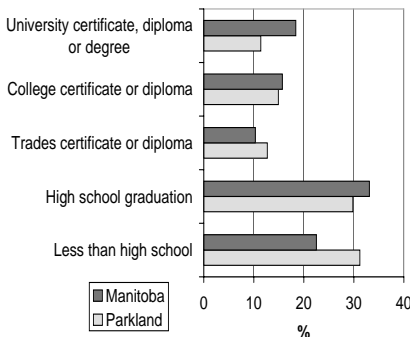
The majority of Parkland residents (88%) report speaking English at home. 1% of residents speak English and French, and less than 1% of the region's residents speak French exclusively in the home. 9% speak English and a language other than French in the home, and a further 2% speak a language other than French or English exclusively at home.

Education

Education is related to health status in a variety of ways. People with less education are more likely to have low paying jobs or to be unemployed. They are more likely to have low literacy levels and thus to have difficulty interacting with health care and other services. Education correlates with other factors such as housing and personal health practices that also influence health.

Young adults aged 20 - 34 are the age group most likely to have completed high school. Among Parkland young adults, a relatively high percentage has not completed high school. These individuals are at highest risk of challenges to their health resulting from a lack of education.

1A - Education in Population age 20 - 34
2001 Census



*MCHP - Manitoba Centre for Health Policy

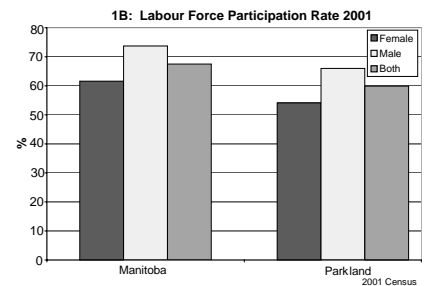
Parkland young adults are less likely than other Manitobans to have completed college or university. However, Parkland residents are more likely than other Manitobans to have a trade certificate or diploma. This pattern may reflect job opportunities in Parkland, as we have a relatively high proportion of jobs in sectors requiring training in a trade, and a low proportion of jobs requiring university degrees or college diplomas.

Employment

Labour Force Participation

The labour force refers to those individuals age 15+ who were either employed or actively looking for work at the time of the 2001 census. Those not in the labour force include young people who have not begun working, those who have chosen not to work in paid employment, unemployed individuals who have given up looking for work, and retired persons.

Parkland adults had lower participation in the labour force than Manitobans overall. This difference between Parkland and Manitoba can be partly attributed to our older population, as seniors aged 65+ are less likely to be in the labour force than those between 15 and 64.

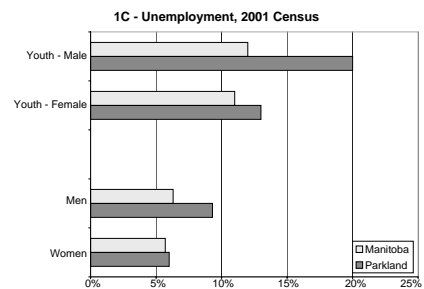


Unemployment

Unemployment in this report refers to those in the labour force who did not have a job at the time of the 2001 census. It does not include those who have given up looking for work, as these individuals are not considered to be in the labour force according to Statistics Canada.

Unemployment has a negative effect on health. It is associated with higher rates of illness and early death.

Unemployment rates are high in Parkland for both men and women. In 2001, 6% of the female labour force, and 9% of the male labour force were unemployed. In Manitoba overall, 6.1% of both the female and male labour force were unemployed. Looking at the youth labour force, aged 15 to 24, 13% of Parkland young women and 20% of Parkland young men were unemployed in 2001. In Manitoba overall, the youth unemployment rate was 11% for males and 12% for females.



With a relatively small labour force, and relatively high unemployment, Parkland has a small base of employed individuals compared with Manitoba.

Occupations

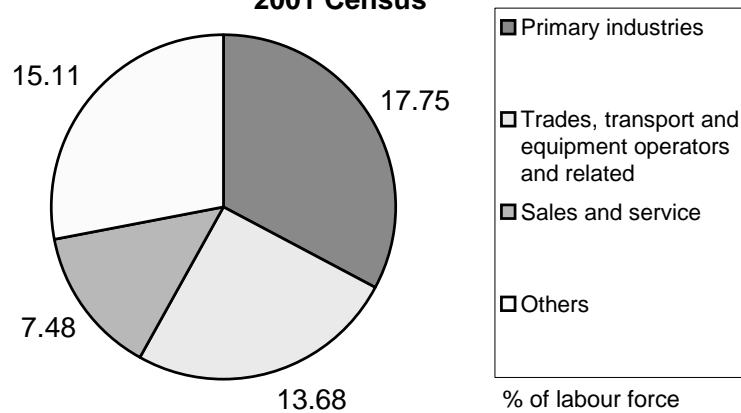
The three most frequent occupations for Parkland men are:

1. Primary industries, which includes farming, fishing, and forestry (17%)
2. Trades, transport, and equipment operators (13%)
3. Sales and service (7%)

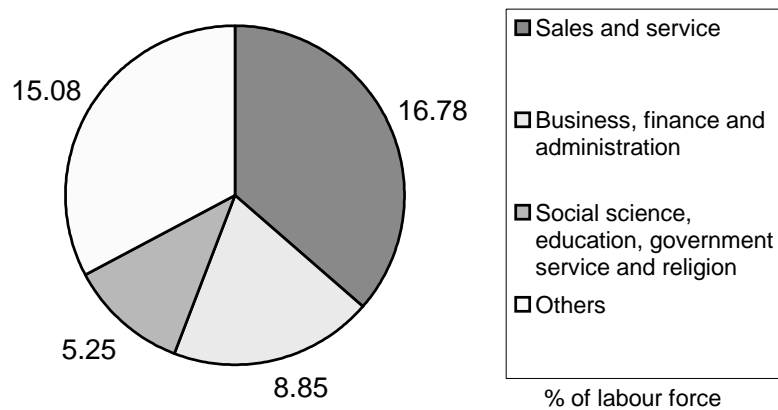
The top 3 occupations for women in Parkland are:

1. Sales and service (17%)
2. Business, finance, and administration (9%)
3. Social science, education, government service, and religion (5%)

1.4: Occupations - Parkland Men
2001 Census



1.5 - Occupations - Parkland Women
2001 Census



When genders are combined, 24% of the Parkland workforce is employed in sales and service related occupations. This is similar to the Manitoba average. A further 22% of Parkland workers are employed in occupations related to primary industries such as farming, fishing and forestry. In contrast, only 7% of the Manitoba labour force is employed in the primary industries.

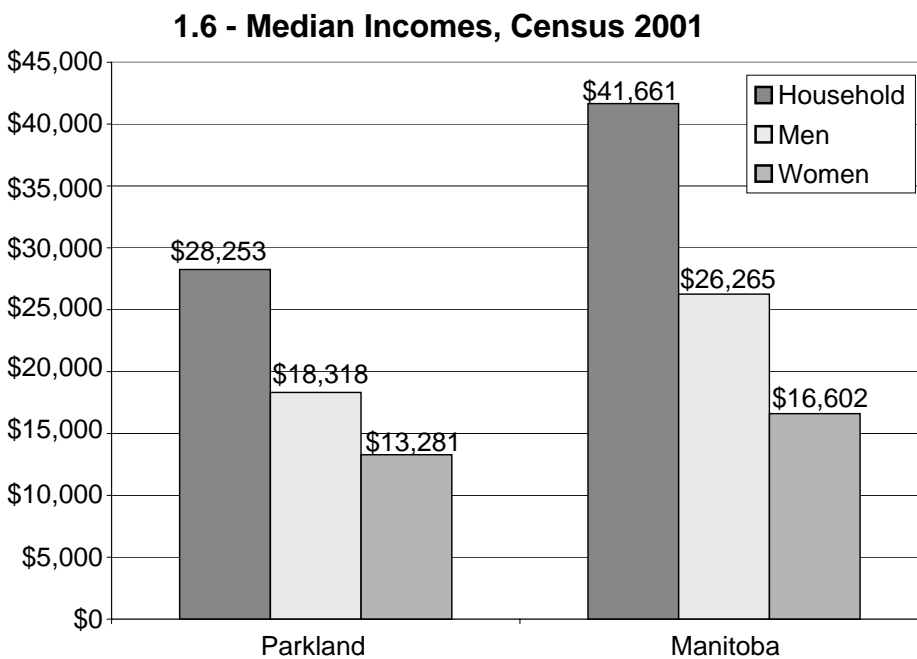
Work is an important determinant of health. While being employed is a positive predictor of health status, the type of work we do affects the type of occupational health risks we might face.

Income

Income is an important indicator of health status. Those with lower incomes are more likely to face challenges related to housing, transportation, and food security. Those with the lowest incomes also face social exclusion, as they do not have the resources necessary to participate in activities common to other sectors of society. Health risks decrease as income increases, and are also lower for all members of populations with relatively equal distribution of wealth.

Median Income

Median incomes for households, men and women are low in Parkland compared to the Manitoba average. Reported incomes are lower in Parkland than in any other Manitoba region. The gender wage gap is relatively small in Parkland, although this is attributable to lower incomes for men rather than to higher incomes for women.



The median is the cut-off where half of people earn more, and half of people earn less. The median is used instead of the average as it gives a more accurate picture. The average is skewed upwards by a few very high incomes.

Although reported incomes are low compared to other regions, this does not mean that everyone in our region is poor. For example, farmers may have much of their wealth invested in the family farm in ways that offset their taxable income; thus they have wealth that is not reported in these income numbers. The cost of living in Parkland is lower in some ways than in many other parts of the province - making it possible to have a higher standard of living with less income. Many people in our region also have resources outside the official wage economy, such as hunting and fishing, gathering and gardening, and bartering goods and services.

Percent of income held by the lower 50% of households
 -21.7% Parkland
 -22.1% Manitoba

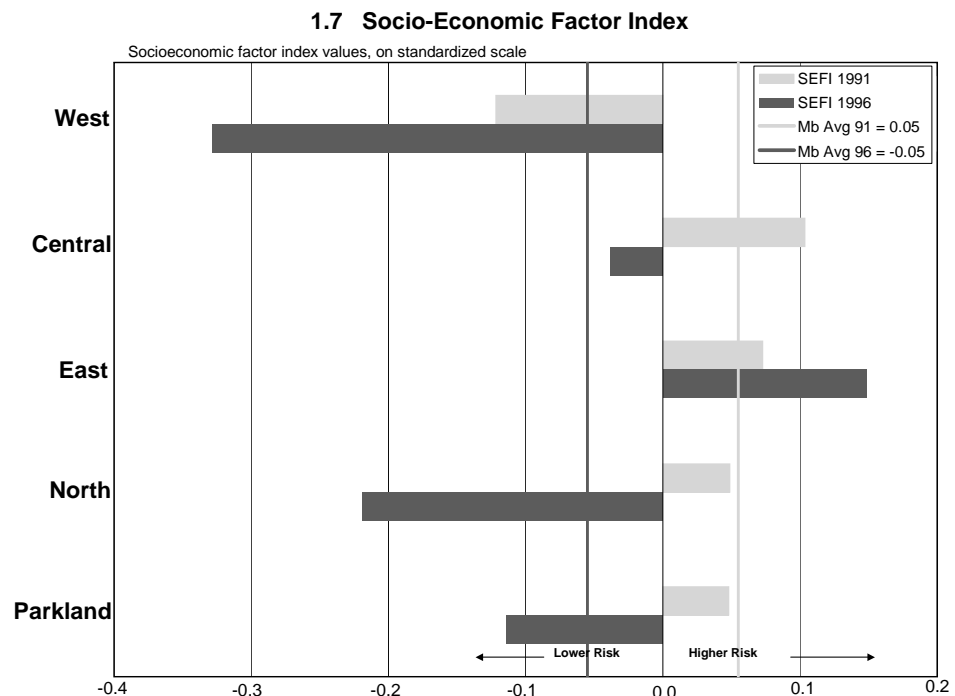
Income Inequality

Income inequality is represented by the percentage of income held by the lower 50% of households. If these households were to have 50% of income, there would be no inequality. In Parkland, the lower half of households have 22% of all income, similar to the Manitoba average. Although income inequality exists in Parkland, it is not significantly different from Manitoba, despite the lower average incomes in the region.

Socioeconomic Factor Index

The Manitoba Centre for Health Policy uses a combination of six socio-economic indicators to measure the impact of socio-economic conditions on health. This Socio-Economic Factor Index (SEFI) includes employment rates, single parent families, educational achievement, household dwelling value, and the participation of females in labour force. This index correlates closely with health status as measured by premature mortality. A higher SEFI value indicates higher risks for poor health in a population, and a higher need for health care.

SEFI values for Parkland are similar to the Manitoba average, based on data from the 1991 and 1996 Census. District variations show West and North districts with slightly lower SEFI than the Manitoba average, East District with somewhat higher SEFI, and Central District with a similar SEFI to Manitoba. This combined indicator of socio-economic risk correlates more closely with health status measures than some of the individual economic indicators described previously.



Demographics - Planning Considerations

- Our population is “older” than Manitoba, but not aging at the same rate as Manitoba. We have had a steady proportion of older people in the region and are projected to continue to have roughly 20% seniors over the next 20 years.
- Parkland’s Aboriginal population is younger and growing more quickly than our non-Aboriginal population. PRHA will need to look for ways to work collaboratively with Aboriginal people to ensure their health needs are met.
- Some individual indicators point to potential health concerns related to socio-economic status. However, the combined indicator SEFI places Parkland on a par with Manitoba. PRHA still needs to consider the challenges that many people face with regards to low incomes, education and literacy.



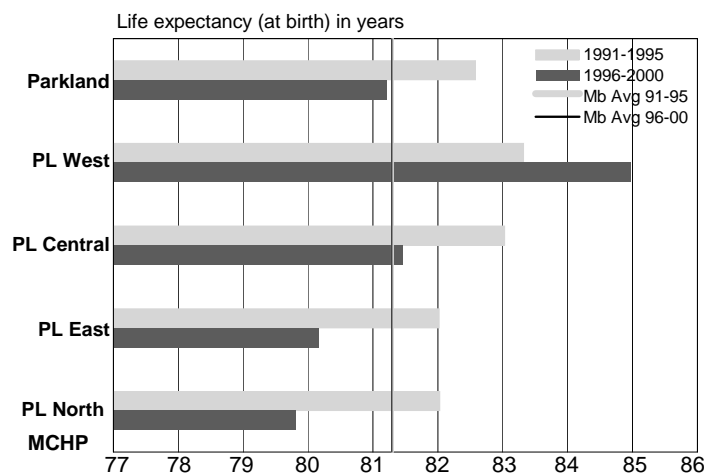
MORTALITY MEASURES OF POPULATION HEALTH STATUS

Life Expectancy

Life expectancy at birth is a key indicator of the health status of a population. Females in Parkland have a longer life expectancy than males. For females in Parkland, life expectancy is similar to that for Manitoba females, at 81 years. These 1996-2000 values represent a slight drop for Parkland females from 82.6 years in 1991-1995. Three of the districts have seen a drop in life expectancy between the two time periods, while West District saw an increase from the 1991-1995 value of 83 to 85 years in 1996-2000. There is a gradient among the districts, with West District females having the longest life expectancy at 85 years, and North District females with the shortest life expectancy of 80 years.

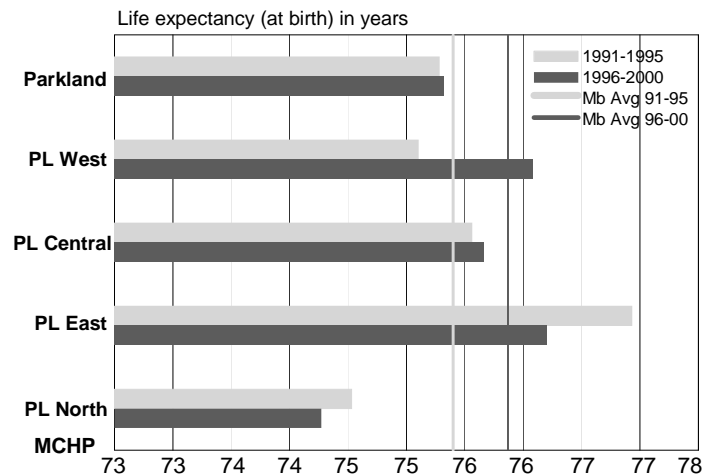
From 1995-1999, life expectancy for First Nation females in Parkland is 70.5 years, noticeably lower than that of other Parkland females, and is also somewhat lower than the Manitoba average of 73.2 years for First Nation females.

2.1: Female Life Expectancy



For Parkland males, life expectancy in 1996-2000 is similar to the Manitoba average, at 75 years. Differences between districts are slighter than for females, with a high of 76 years in the East District and a low of 74 years in the North District. Life expectancy increased slightly for Manitoba males but remained the same for Parkland males between 1991-1995 and 1996-2000. First Nation males in Parkland had a life expectancy of 68 years (1995-1999) – similar to the Manitoba First Nation average, but less than all other Parkland males.

2.2: Male Life Expectancy

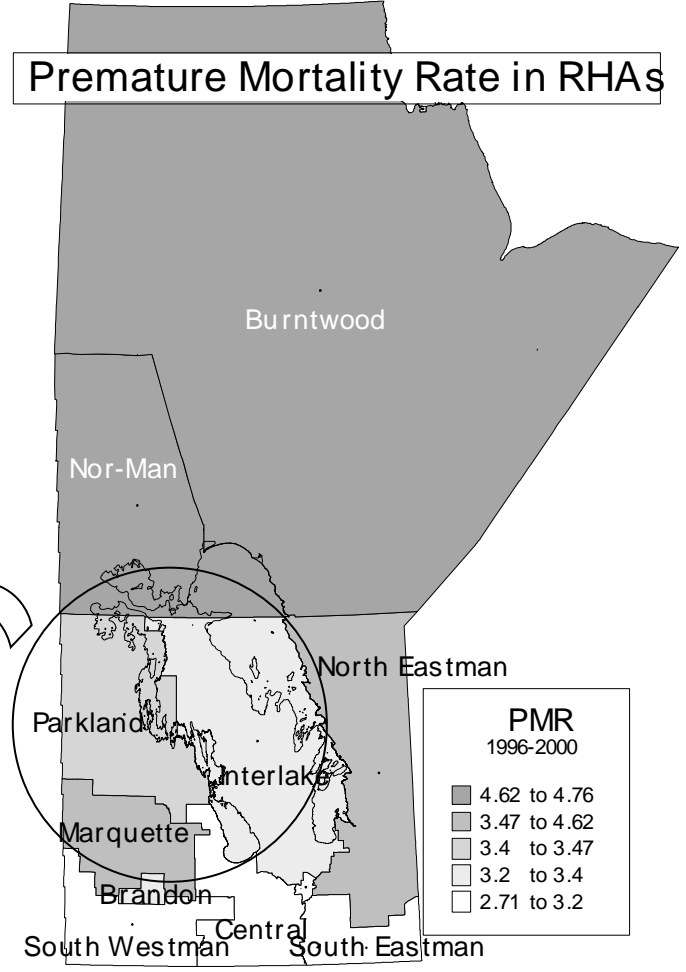
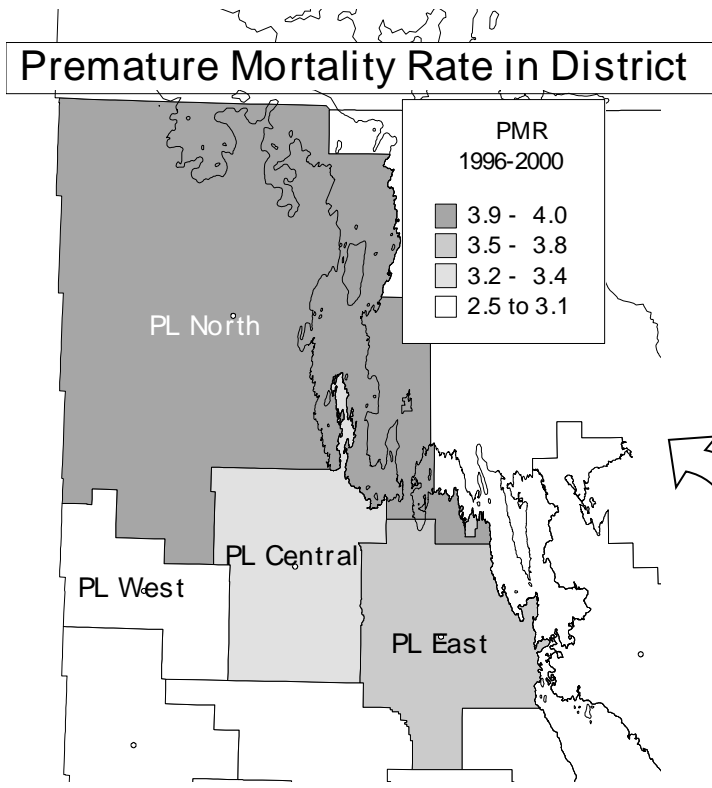


Premature Mortality

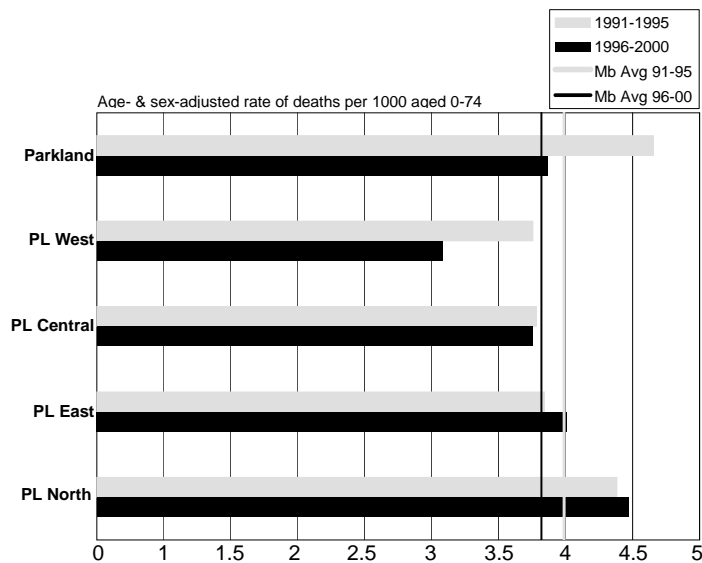
The premature mortality rate (PMR) measures the rate of death before the age of 75 years. Age 75 is the international standard cut off for early death. The premature mortality rate is considered the single best indicator of overall population health status. It correlates with rates of illness, self-rated health, and indicators of socio-economic risk. Populations with higher PMR are likely to need more health services.

Parkland's PMR is similar to Manitoba, at 3.45/1000, with no change from the early 1990's to the late 1990's. There is a slight variation in PMR among Parkland's districts, with the lowest in the West District, higher in Central and East Districts, and highest in the North District. Among the districts, only the North District rate is significantly higher than Manitoba.

Registered First Nations in Parkland have a much higher PMR than other Parkland residents (7.5/1000 vs. 3.5/1000). The Manitoba First Nations average is slightly lower at 6.6/1000.

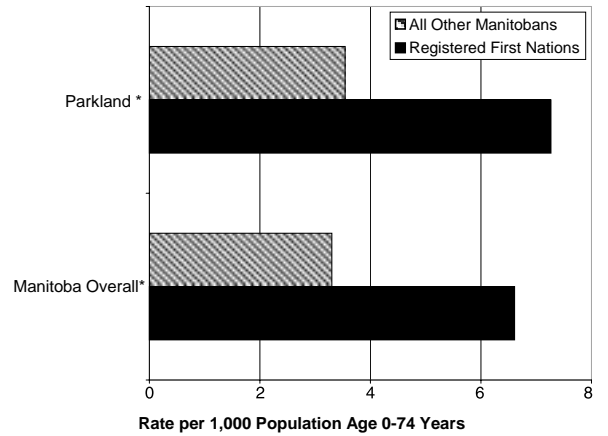


2.3: Premature Mortality Rates by District



1- statistically different from Manitoba rate in first time period.
 2- statistically different from Manitoba rate in second time period.
 t- change over time statistically significant.

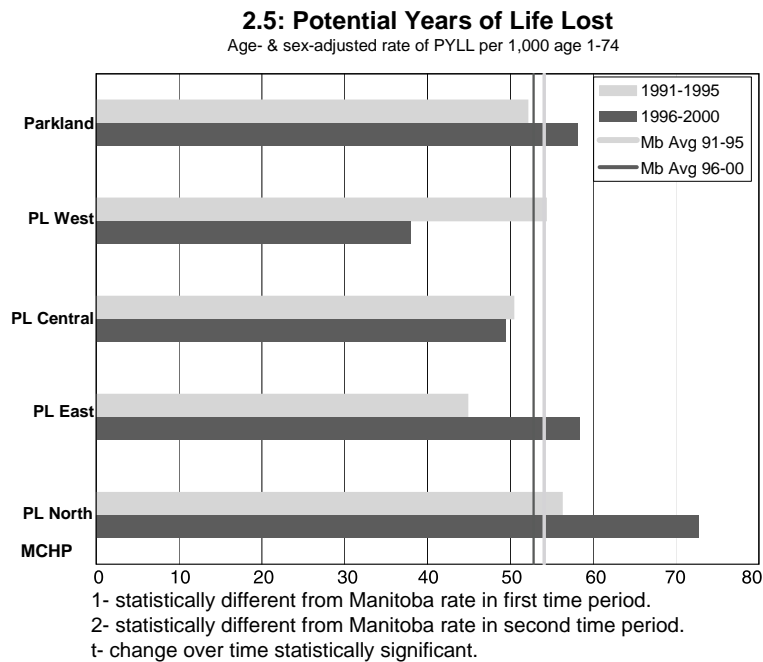
2.4: Premature Mortality in Parkland First Nations 1995 - 1999



Potential Years of Life Lost

Another way of looking at early death is to look at how early we die. Potential Years of Life Lost (PYLL) measures this by giving more weight to the deaths of younger people using age 75 as the marker. Someone who dies at 74 counts as 1 potential year of life lost, and someone who dies at 20 counts as 55 potential years of life lost. The rate per 1000 people will be higher if we have more people who die young, or lower if there are more deaths later in life.

In the time period between 1996 and 2000 we had an average of 55 PYLL per 1000 people under 75 in Parkland. In Manitoba, the average was 52/1000. The difference between Parkland and Manitoba is greater than we would expect based on the number of early deaths - this means that we are dying younger than Manitobans overall. The district differences follow the same pattern as the PMR, with fewer years of life lost prematurely in the West District, and a higher number in the North District.



Top Single Causes of PYLL in 1994-1998:

Men

- 1 Ischemic heart disease (1382*)
- 2 Suicide (1025*)
- 3 Motor vehicle accident (993*)
- 4 Lung cancer (582*)
- 5 Colon cancer (278*)

Women

- 1 Motor vehicle accident (575*)
- 2 Ischemic heart disease (453*)
- 3 Lung cancer (344*)
- 4 Breast cancer (205*)
- 5 Stroke (204*)
- 5 Suicide (203*)

(* indicates total number of potential years of life lost over the 5 year period)

In 1994 – 1998, the last years for which we have numbers of PYLL by specific cause of death, a few causes accounted for large numbers of potential years of life lost. Notably, all of these leading causes of PYLL have known modifiable risk factors, and are at least in part preventable.

The combined rates of PYLL conceal significant differences between men and women. In the years 1992-2004, 17,611 PYLL were lost for Parkland males, and 8830 for Parkland females. The increased male rate of PYLL holds for most of the leading causes as well, notably circulatory diseases, respiratory diseases, suicide and unintentional injuries. Four of the top five single causes of PYLL for men account for a higher numbers of PYLL than any of the leading causes for women.

Causes of Death

For men and women in the Parkland region the leading causes of death are:

Men	Women
1. Disease of the circulatory system (e.g., heart attack or stroke)	1. Diseases of the circulatory system (e.g., heart attack or stroke)
2. Neoplasms (i.e., cancers)	2. Neoplasms (i.e., Cancers)
3. Diseases of the respiratory system (e.g., emphysema, pneumonia)	3. Diseases of the respiratory system (e.g., emphysema, pneumonia)
4. External causes (e.g., physical injuries)	4. Endocrine, metabolic and immunity- related diseases & Digestive diseases (e.g. liver disease or colitis)
5. Endocrine, metabolic and immunity- related diseases (e.g. diabetes)	5. External causes (e.g., physical injuries)

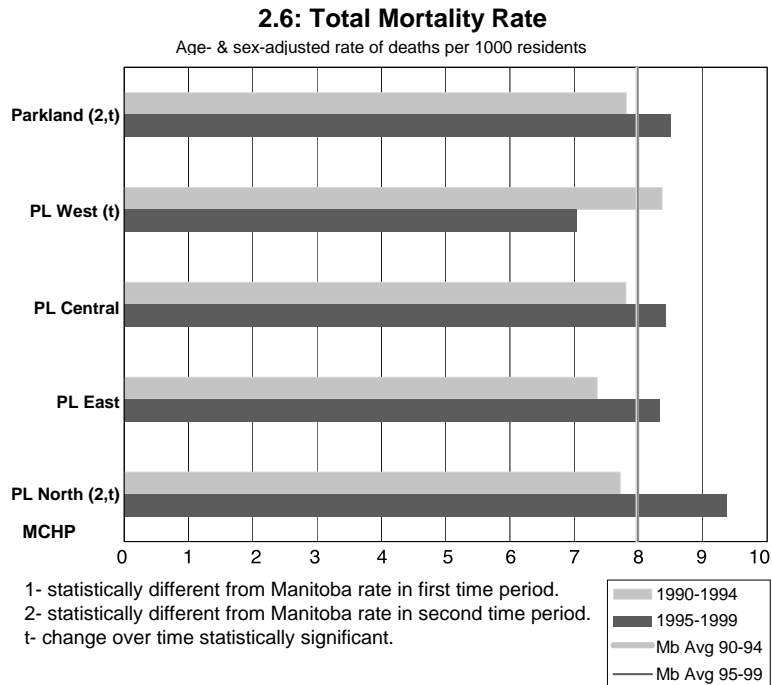
The five most frequent causes of death are similar for men and women in Parkland, with cardiovascular disease, cancers and respiratory illnesses causing the largest number of deaths. Injuries and metabolic/endocrine diseases such as diabetes also account for a significant proportion of deaths in both men and women. The only difference between causes of death in the Parkland region compared to Manitoba is that provincial statistics do not include endocrine disorders within the top five causes of death. This likely reflects the impact of diabetes on the health of Parkland residents.

Total Mortality

The Total Mortality Rate (TMR) shows the number of deaths at any age per 1000 people. Parkland's age adjusted total mortality, or death rate, is roughly 8.5/1000. This is slightly higher than the Manitoba average, and it has increased from the early 90's.

As the premature mortality rate remained stable during this time period, this suggests a higher death rate in people over 75. However, our percentage of people over 75 years has not.

The West District has a lower and decreased TMR than Manitoba overall, Central and East Districts have a rate similar to Manitoba, and the North district rate is higher than Manitoba and increased from the early 90's to the late 90's.



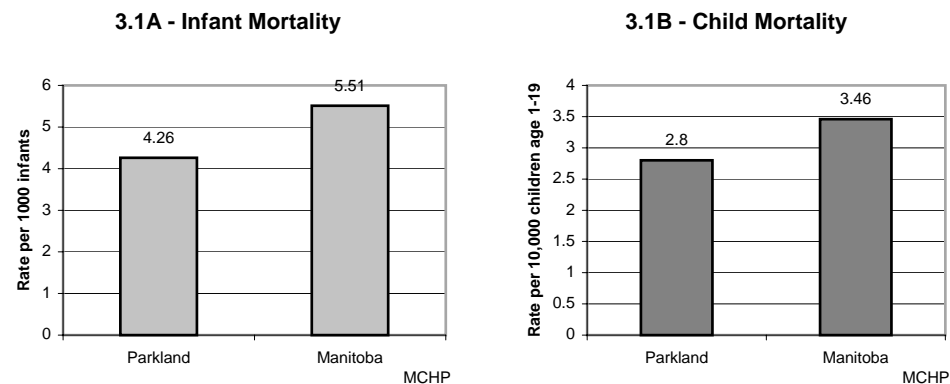
Mortality Measures - Planning Considerations

- The premature mortality rate is the single best overall indicator of population health. Parkland's PMR is similar to the Manitoba average, but district level data highlight areas of poorer health status.
- The rate of potential years of life lost shows that Parkland people are dying younger than the Manitoba average. The district level differences are similar to the gradient for PMR. The leading causes of PYLL have known modifiable risk factors that can be targeted in prevention activities.

CHILD HEALTH

Infant & Child Mortality

Infant mortality refers to the death rate for infants less than one year of age. The infant mortality rate is a key indicator of population health. It is affected by conditions of risk during pregnancy and infancy, including poverty, food security, sanitation and housing conditions, abuse, and health risk behaviours in the mother such as smoking and alcohol consumption.



For the period 1997-2001 Parkland had a relatively low rate of infant mortality, at 4.26 per 1000 infants under one year of age. The Manitoba average was 5.5/1000. Infant mortality in Parkland has been consistently lower than Manitoba since at least 1990.

The main causes of death for infants include prematurity/low birth weight, congenital abnormalities or birth defects, and Sudden Infant Death Syndrome. Parkland region has a relatively low rate of prematurity/low birth weight, which likely contributes to our relatively low rate of infant mortality.

Child mortality refers to the death rate for children aged 1 to 19 years. Data for 1997-2001 indicated that Parkland had a lower rate of child mortality than Manitoba overall. The rate of child mortality for Parkland was 2.8 per 10,000 while the provincial rate was 3.45 deaths per 10,000. The majority of deaths in children and adolescents resulted from injury.

Birth Weights

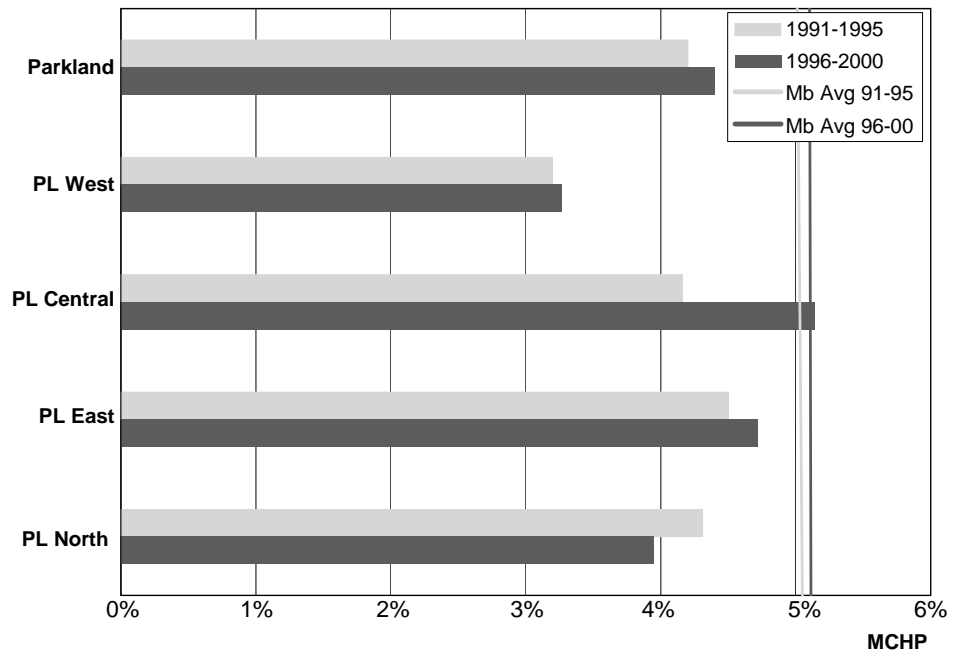
An infant's birth weight is an indicator of their pre-natal health and a significant predictor of their future health. Birth weights are divided into three categories:

- low birth weight (under 5.5 lbs./2500 g)
- healthy birth weight (5.5 lbs./2500 g < Birth Weight > 9 lbs/4000 g)
- high birth weight (greater than 9 lbs./4000 g)

Low birth weight is an indicator of the prenatal health of both mother and baby. The likelihood of low birth weight is greater among infants who were born prematurely and infants born to mothers who were malnourished or smoked during pregnancy. Low birth weight infants may be at increased risk for developmental problems and are more likely to require high-cost health services such as neonatal intensive care. There is also a higher risk of early death for infants with low birth weight compared to those with a healthy birth weight.

3.2: Low Birth Weight

Per cent of babies born with low birth weights (less than 2500 grams)



The rate of low birth weight is consistently low in Parkland.

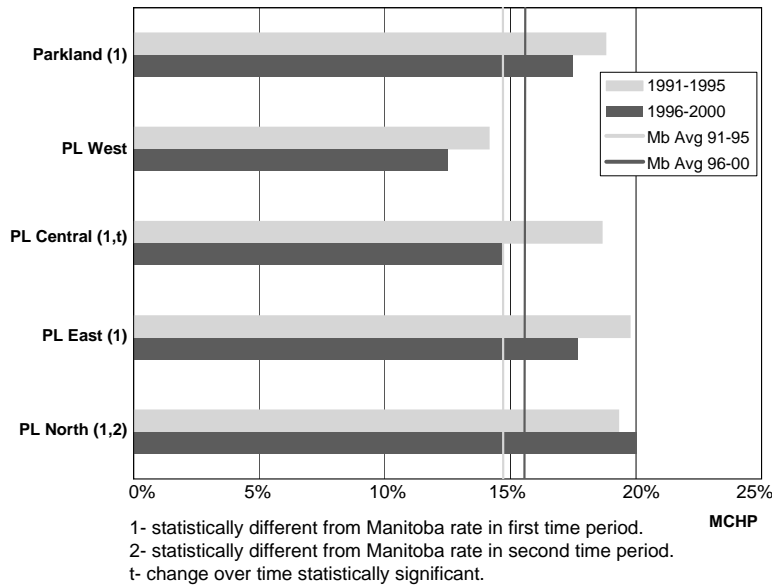
In 1996-2000, the percentage of low birth weight infants born in the Parkland region was lower than the provincial average. The rate of low birth weight fluctuates somewhat from year to year, but has been consistently lower than the Manitoba rate since 1997. The percentage of low birth weight births in 2002/2003 was 3.8% in Parkland, a decrease from the 1996-2000 rate.

Within Parkland, there are small differences in the rate of low birth weight from one district to another. West District has the lowest rate, Central District has the highest rate, and the rates for East and North Districts are intermediate.

Prematurity (before 37 weeks gestation) is one of the potential causes of low birth weight in infants. The rate of pre-term births in the Parkland region was 6.5% which is slightly lower than the rate of 7.1% reported for Manitoba over the same time period (1996-2000).

3.3: High Birth Weight

Per cent of babies born with high birth weights (greater than 4000 grams)



Parkland has a high rate of high birth weight.

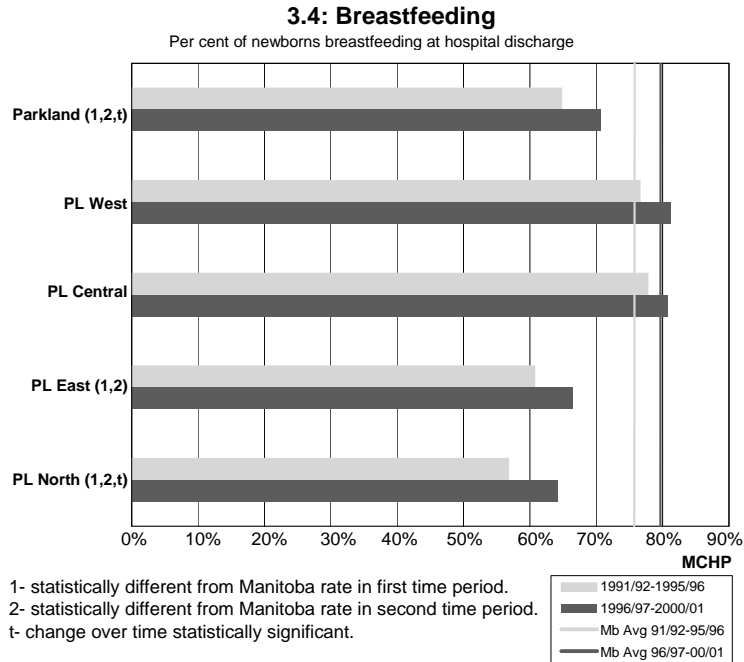
High birth weight is a concern because it increases the likelihood of birth complications as well as an increased risk of long-term health problems such as obesity and diabetes. The main risk factor for high birth weight is gestational diabetes in the mother.

According to the 1996-2000 data, the rate of high birth weight in the Parkland region was higher than the rate in Manitoba overall. There has been a steady increase in the percentage of high birth weight births over the last several years. By 2002/2003 the rate reached 22.9%. This increase in high birth weight is one indication of the increasing burden of diabetes in our region, and likely also contributes to a high rate of Caesarean section delivery in Parkland.

Breastfeeding

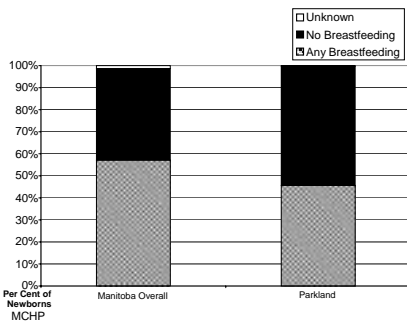
For the purposes of this report Breastfeeding refers to all infants who initiated breastfeeding in hospital, including those fed exclusively by breastfeeding and those with mixed feeding.

The World Health Organization (WHO) recommends exclusive breastfeeding (no supplements) for 6 months, and breastfeeding with other foods for up to 2 years. Although we do not have regional data on how many babies are breastfed in accordance with the WHO recommendations, some research suggests that between 31-36% of Manitoba babies were breastfed at 6 months of age. (National Population Health Survey 1996, NLSCY 1996)



In addition to providing nutrition custom-designed for the needs of the baby, breastfeeding strengthens the infant’s immune system with the antibodies contained within the breast milk. Lack of breastfeeding exposes infants to increased risk of infectious diseases and allergies. There is also a long-term increased risk of obesity and chronic diseases such as diabetes.

3.5: Breastfeeding among First Nations (at Hospital Discharge)



The number of babies being breastfed has increased over the last 10 years in Parkland as it has elsewhere in Manitoba. However, our rates in Parkland are still below the provincial average, at about 69% in 1996-2001. West and Central District rates are the same as the provincial average, while East and North District rates are below the provincial average. Older data from 1994-1998 indicate that Registered First Nations people in Parkland have lower rates of breastfeeding than all other Parkland residents (45.8%). However, the low rate among First Nations people does not completely account for our lower rates, as the rate for non-First Nations people in Parkland was also lower than that of Manitoba non-First Nations.

Iron Supplementation

Iron supplementation is a treatment for iron deficiency anemia, a condition caused by a lack of iron in the diet. If untreated in early childhood, iron deficiency can cause developmental delay. Infants are born with sufficient iron stores for the first 4-6 months of life, but require dietary iron beyond this age. In breastfed infants, iron needs can be met by introducing iron-rich foods to the diet after 6 months of age. For infants who are not breastfed, iron-fortified formulas are recommended to avoid iron deficiency associated with the use of non-fortified formula or the use of fresh or evaporated cow's milk. Risk factors for iron deficiency include low income and a resulting lack of money for iron-rich foods. In low-income families, infants may be fed fresh or evaporated cow's milk for economic reasons, placing them at nutritional risk.

Iron deficiency is not limited to infants, and is most frequent in children under the age of 5, and in teenagers between the ages of 15 and 19. Iron deficiency in young women can become a further concern if they become pregnant, as this may affect the iron stores of their infants.

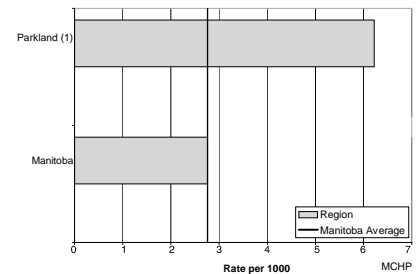
In 2001/2002, Parkland children had the highest rate of iron supplement prescriptions in the province, at 6.2/1000 children. The Manitoba rate for the same time period was 2.8/1000 children.

As iron supplementation is a treatment, not a condition, it is not clear whether our higher rate is caused by poorer iron status in Parkland children, or by differences in how iron-deficiency is diagnosed and treated by Parkland physicians.

Childhood Immunizations

The recommended immunizations for infants and young children include vaccines for Diphtheria, Pertussis (whooping cough), Tetanus, Polio, (DaPTP) and Haemophilus influenzae type b (Hib) given as a 5-in-1 combination, Measles, Mumps, and Rubella (MMR) given as a 3-in-1 combination. Since 1998, Hepatitis B vaccines are provided to children in Grade 4. Tetanus (T) and Diphtheria (D or d) boosters are also recommended for teenagers at the age of 15-17. Immunizations are provided through a variety of sources: PRHA Public Health Nurses, Federal or Band Public Health Nurses for First Nation residents, and physicians in some communities. Immunizations tend to be under reported, so the rates given here are minimums.

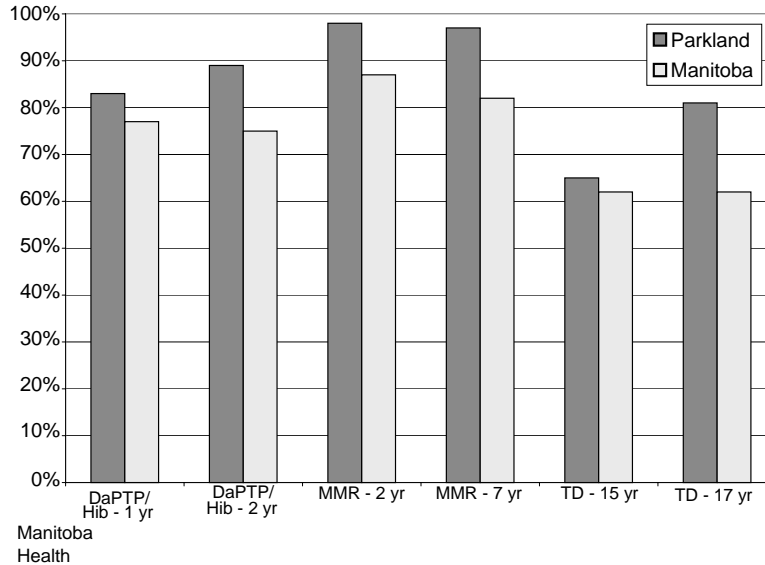
3.6: Children with Iron Supplement Prescriptions, 2001/02
Rate per 1000 children aged 0-19



*1 indicates rate significantly different from the Manitoba mean

Immunization against these diseases is recommended to prevent serious illness and death. In the past, many children died or were seriously ill with these diseases. Immunizing the majority of the population protects those individuals that are vaccinated from contracting the diseases, and limits the possibility of the disease spreading through the population.

3.7: Childhood Immunization Rates, 2002



Parkland children have consistently higher rates of immunization than the Manitoba average.

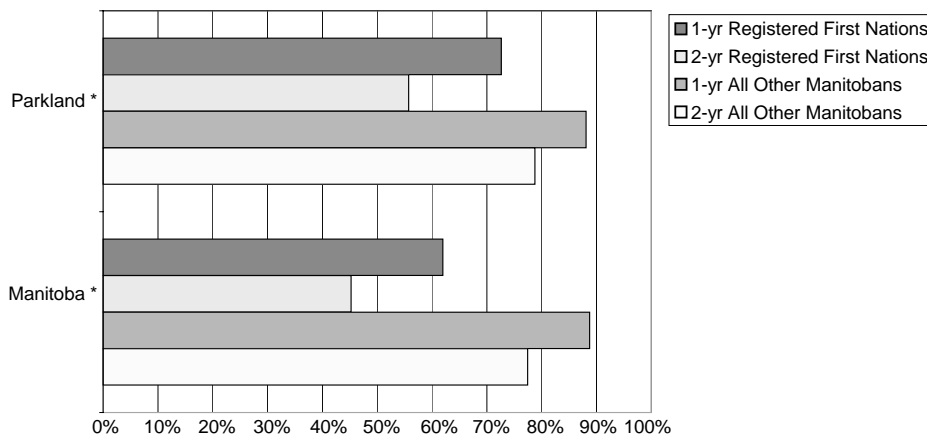
The immunization rates shown here represent the percentage of children who have received the recommended number of doses of each vaccine for their age. In 2002, 89% of Parkland 2-year-olds had a complete series of DaPTP Hib, and 97% of seven-year-olds had a complete MMR series. The goal of the immunization program is to have 95% of children vaccinated, so in Parkland we are above goal for the MMR and near the goal for the DaPTP Hib. Parkland immunization rates have been consistently higher than the Manitoba average since 1997.

Rates of immunization for tetanus and diphtheria in 15-17 year olds are generally lower than the immunization rates in early childhood. However, Parkland rates are higher than the Manitoba average for this age group. In 2002, 81% of Parkland 17-year-olds had received their tetanus/diphtheria booster vaccine.

Earlier data shows that, in 1994-1997, First Nation children in Parkland had a higher immunization rate than for all Manitoba Registered First Nation children. However the rates are lower for First Nation children in Parkland than for all other Parkland residents at both 1 year and 2 years.

Figure 3.8: Immunization Rates at 1 year old and 2 years old Registered First Nations vs All Other Manitobans by RHA

(Per Cent with Complete Immunization Schedules, 1-year-olds born 1994 - 1997, 2-year-olds born 1994 - 1996)



SOURCE: Manitoba Immunization Monitoring System

Hepatitis B

Hepatitis B is caused by a virus that attacks the liver and is the number one cause of liver cancer in the world. Hepatitis B virus is 100 times more infectious than the AIDS virus. Hepatitis B can be prevented with a vaccine that is given in a series of three shots. Most new cases of Hepatitis B occur in early adulthood. The vaccine against this disease works best in young children. It also protects them from the disease before they might have a chance to come in contact with the virus.

Hepatitis B is spread when blood or body fluids from an infected person enter another person's body through cuts or breaks in the skin. Fluids can get from one person to another in a number of ways:

- Sharing toothbrushes or razors
- Using improperly sterilized needles for tattooing or ear or body piercing
- Living in the same house with others who have Hepatitis B
- Having unprotected sexual intercourse
- Sharing needles during drug use
- During birth (mother to newborn)
- Working in occupations where there is contact with blood and body fluids
- Contact with an infected person while traveling in countries with a high rate of Hepatitis B

Hepatitis B - % of children receiving at least one dose

2001/2002	Age 10	Age 11	Age 12	Age 13
Parkland	74%	86%	86%	66%
Manitoba	72%	73%	69%	49%

Hepatitis B vaccines are provided to Grade 4 students in Manitoba. A higher percentage of Parkland children were vaccinated against Hepatitis B than the Manitoba average at each of the four reported ages. The reported numbers represent children who received at least one dose of the vaccine. In all age categories, the majority of these had received all three recommended doses.

Manitoba Childhood Immunization Schedule

Age	DaPTP*	Hib*	MMR	HBV	Td
2 months	X	X			
4 months	X	X			
6 months	X	X			
12 months			X		
18 months	X	X			
5 years	X		X		
Grade 4				XXX	
14 – 16 yrs.					X
Every 10 years					X

*DaPTP and Hib are given as “one needle”

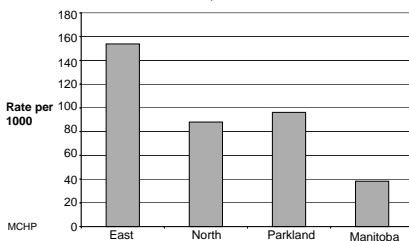
X represents one dose of vaccine.

Hospitalizations for Lower Respiratory Tract Infection

Children living in difficult conditions are more likely to be hospitalized for lower respiratory tract infections, which include pneumonia, bronchitis, and asthma. Specific risk factors for lower respiratory tract infections in children include exposure to second-hand tobacco smoke, overcrowded housing conditions, and lack of breastfeeding. All of these risk factors can also be correlated with living in low income households as 27% of Parkland children did in 2001.

Parkland infants were much more likely to be hospitalized with a lower respiratory tract infection than the Manitoba average in 2001/2002. Within Parkland, the East and North Districts both had significantly high rates. The rates for Central and West Districts cannot be reported due to small numbers.

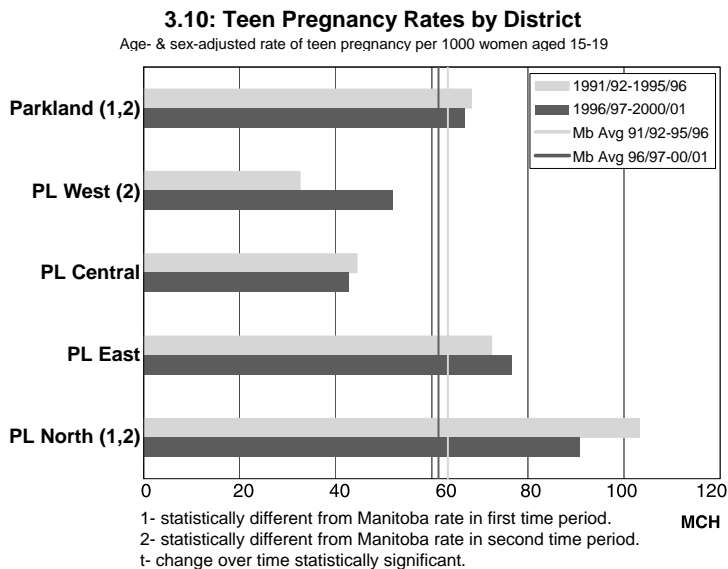
3.9: Hospitalization for Lower Respiratory Tract Infections
Children 0-19, 2002/2003



Teen Pregnancy

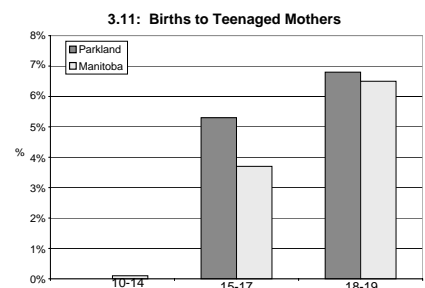
Teen pregnancy may pose physical, psychological and social risks for both mother and baby. Teenage parents may lack personal and economic resources for child-rearing. As a result, their children may experience more difficult living conditions that are not optimal for healthy growth and development. There is a greater risk of prematurity and low birth weight among babies born to teenage mothers, which is itself a predictor of increased risk for infant mortality or health problems.

In addition, children born to teenage mothers may show an increased risk of language delay and behavioural problems. Teenagers and their children may be at increased risk of living in poverty, social isolation, or not receiving an adequate education, all of which may impede their health, development and quality of life. Screening data from the Baby First Program confirms that Parkland teenaged mothers are more likely than older mothers to be in a higher risk situation and to require additional supports in parenting their children.



The rate of teen pregnancy for young women aged 15 to 19 was higher in the Parkland region than the average rate for Manitoba overall in both the early 1990's and the late 1990's. Rates of teen pregnancy are lower than the provincial average in the Central District, similar to the provincial average in West and East Districts, and higher than the provincial average in the North District. The teen pregnancy rate appears to be dropping to some degree in both Parkland and Manitoba overall.

Birth rates for young women in different age groups show that among 18-19 year old women, the percentage who gave birth in 2001/2002 was only marginally higher in Parkland than the Manitoba average. There were no births in the 10-14 year old age group. However, among 15-17 year olds, the percentage of young women in the Parkland region who gave birth was much higher than the rate reported for Manitoba overall. Thus, Parkland's higher teen pregnancy rate is accounted for primarily by pregnancies among young women aged 15 to 17 in the Parkland region.



Child Health - Planning Considerations

- Parkland has consistently had low rates of infant and child mortality, and of low birth weight births. This likely links to good prenatal care in the region.
- A high percentage of Parkland babies are born with high birthweight. This may be linked to the prevalence of diabetes in our region, and likely also contributes to the high rate of Caesarean section delivery.
- While breastfeeding initiation rates are still low in the Parkland, there has been a small improvement over the time periods reported. Lack of breastfeeding exposes children to increased risk of illness, as reflected in our higher rates of hospitalization for lower respiratory tract infection.
- Immunization rates for Parkland children are higher than the Manitoba average for every vaccine and at each of the ages reported. In Parkland, the Public Health program gives the majority of immunizations.

ILLNESS BURDEN

This chapter describes the disease, illness and injury experience of the people of Parkland. It is not representative of all the possible kinds of illness and injury that affect Parkland residents. The illnesses and injuries reported here are those that affect a significant proportion of our people, and have major impacts on mortality, health care use, and quality of life. These include chronic diseases such as cardiovascular disease, respiratory disease, diabetes, and cancer, as well as infectious diseases, and injuries. Infectious diseases and injuries may not affect large numbers of people in the Parkland Region but are the focus of preventive care and health protection.

Cardiovascular Disease

Diseases of the circulatory system includes all diseases of the heart and blood vessels, including heart attack, stroke, and related conditions, as well as rheumatic heart disease and others.

Circulatory system diseases are the leading cause of death for both men and women, accounting for 40% of deaths (Rural South and Brandon regions) in 1995-1999. An average of 562 PYLL/year were related to circulatory system diseases in 1992-2001, or approximately 21% of all Parkland PYLL. The ratio of PYLL to deaths suggests that most of the deaths were in people over age 75.

Cardiovascular disease is also a significant cause of illness in Parkland. Diseases of the circulatory system were the second leading cause of hospital utilization in terms of both number of cases and number of days in Parkland. For both cases and days the rate is higher than the Manitoba average.

4.1 - Hospital Utilization for Circulatory System Diseases, 2002/2003

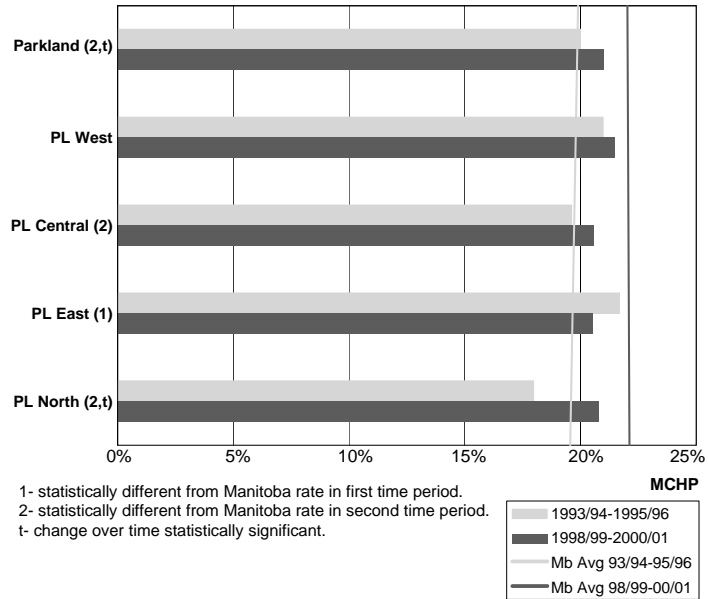
Rate per 1000 population	Cases	Days
Parkland	29.1	240
Manitoba	14.2	150

Manitoba Health

To look more closely at circulatory system diseases, we can look at three specific conditions: high blood pressure, heart attack and stroke. These conditions share many of the same risk factors: smoking, physical inactivity, a diet high in fat and low in fruits, vegetables and whole grains, increasing age, personal or family history of cardiovascular disease or diabetes, and lower socio-economic status.

Figure 4.2: High Blood Pressure

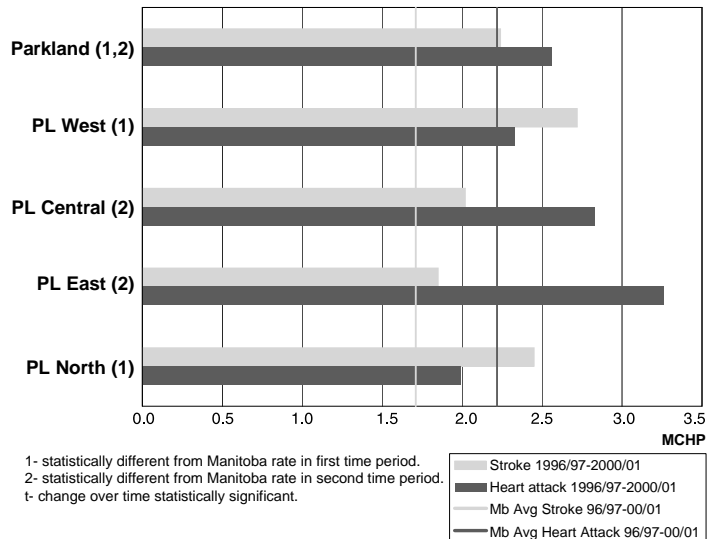
Age- & sex-adjusted percent of residents aged 25+ treated for high blood pressure



In the fiscal years 1998/1999 - 2000/2001 20.8% of Parkland residents over the age of 25 were treated for high blood pressure. This is slightly lower than the Manitoba rate of 22.4%. The rates in each district are similar to the Parkland rate - all are lower than the Manitoba average.

Figure 4.3: Heart Attack and Stroke Rates by District

Age- & sex-adjusted rate of hospitalization for Heart Attack and Stroke per 1000 residents age 20+



Parkland’s rate of heart attack is higher than the Manitoba average, although it appears to be dropping somewhat. In 1996/1997 - 2000/2001, 2.56/1000 people over age 20 were treated for heart attack in Parkland, compared to 2.26/1000 in Manitoba. Central and East Districts have higher rates than the Manitoba average, while West and North District’s rates are similar to Manitoba.

In the same time period, 2.24/1000 people over age 20 were treated for stroke in Parkland. The Manitoba rate for the same time period was 1.71/1000. East and Central Districts have similar rates to the Manitoba average, while North and West District rates are higher.

These rates are age and sex adjusted to be comparable across regions. Therefore, the differences between Parkland and Manitoba are not due to our older population. When we consider the actual burden of illness in our population, on average 100 people have a heart attack and another 100 people have a stroke in Parkland each year.

Respiratory Illness

Diseases of the respiratory system include infectious diseases such as influenza, pneumonia, bronchitis, and respiratory viruses, as well as chronic conditions such as asthma and chronic obstructive pulmonary disease.

Respiratory illnesses are the 3rd leading cause of death, after circulatory system diseases and cancers. They account for 10% of deaths (Rural South and Brandon), but only 3.6% of potential years of life lost for the Parkland Region. This indicates that the majority of deaths occur in people over 75, with relatively few in younger people.

When hospitalization is considered, respiratory illnesses are the 4th leading cause of hospital utilization for both cases and days. Parkland residents use the hospital more for respiratory diseases than the Manitoba average.

4.4 Hospital Utilization for Respiratory Diseases 2002/2003

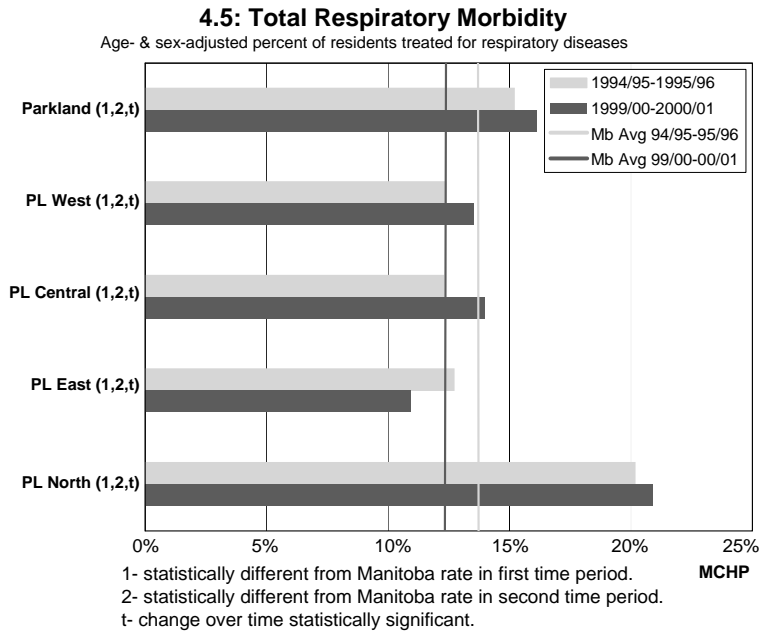
Rate per 1000 population	Cases	Days
Parkland	19.5	117
Manitoba	9.5	86

Manitoba Health

The Manitoba Centre for Health Policy indicator “Total Respiratory Morbidity” (TRM) selects a subset of the respiratory conditions. These are asthma, bronchitis (acute, chronic, and “not otherwise specified”), emphysema, and chronic obstructive pulmonary disease (COPD). These illnesses share several risk factors including smoking and exposure to tobacco smoke or wood smoke, household mould exposure, and occupational exposures such as asbestos and coal dust.

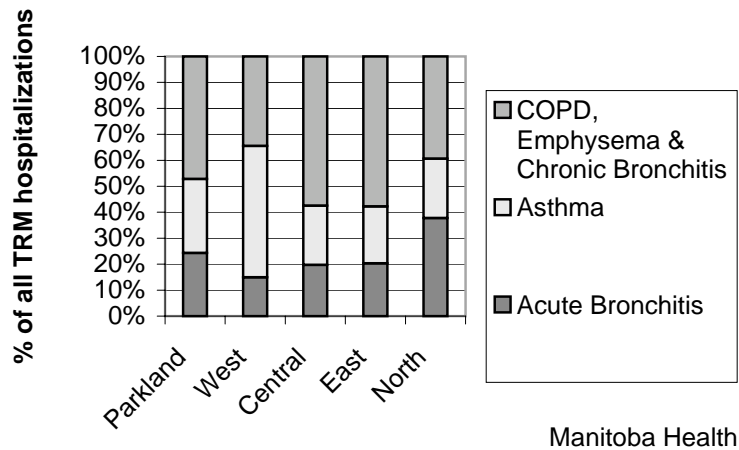
In 1997, PRHA identified potential concerns about air quality in the North District related to Louisiana Pacific's Oriented Strand Board plant. Baseline and follow-up health impact studies commissioned by Louisiana Pacific have not identified any impacts on respiratory health that could be attributed to proximity to the plant.

This indicator shows that Parkland has a significant burden of respiratory illness. Our rates are high compared to the Manitoba average, and increasing while the Manitoba rate is decreasing. The East District rate is somewhat lower, but West, Central and North Districts all have rates higher than Manitoba. The North District rate is particularly high, at over 20%.



Looking at hospital data for these conditions, we were able to obtain a breakdown into specific conditions. This allows us to examine the extent to which each of these conditions is driving the rates of respiratory illness. For this purpose, we grouped Emphysema, Chronic Bronchitis and COPD together.

4.6 - Hospitalization Ratio for Specific Respiratory Illnesses



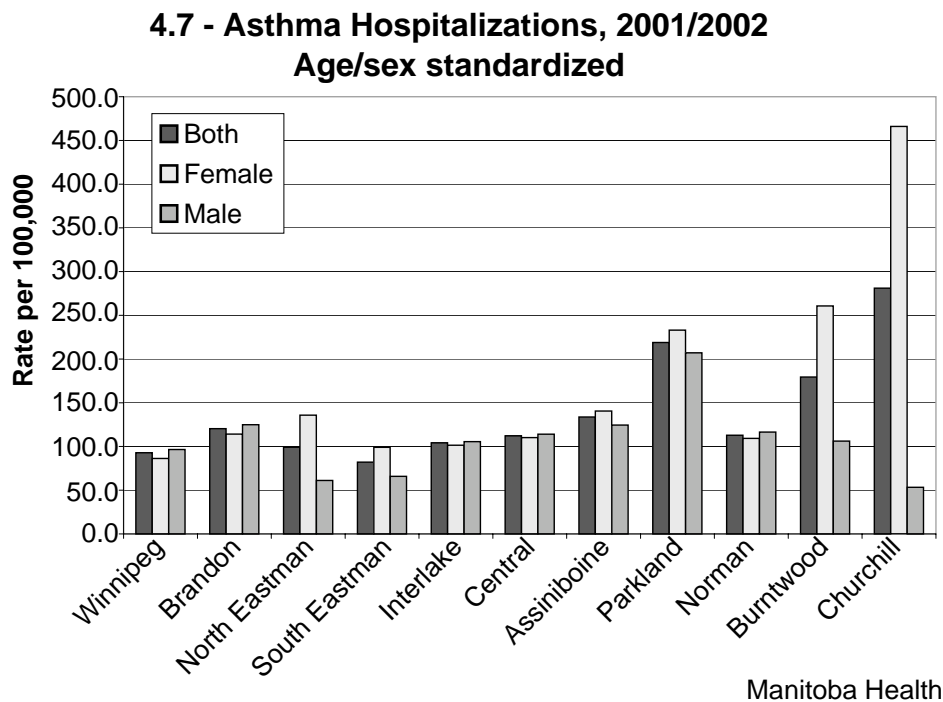
The ratios of these conditions were as we expected at the regional level, with 22.8% of cases due to acute bronchitis, 26.7% due to asthma, and 44.2% due to COPD. Two of the districts, East and Central, had similar patterns. However, West and North Districts have unusual patterns.

In the North, acute bronchitis makes up 35.6% of hospital admissions for these respiratory diseases, much higher than the usual ratio. This high rate of hospitalization for acute bronchitis in the North District is surprising and remains to be explained.

In the West, asthma accounts for 46.7% hospital admissions, also a much higher than expected ratio.

Asthma

The Parkland hospitalization rate for asthma in 2001/2002 was much higher than the Manitoba average at 218.94/100,000. However, the physician visit rate for the region is lower than the Manitoba average, at 54.0/1000 vs. 61.2/1000 in 2001-2003. This suggests that Parkland residents are less likely than other Manitobans to have their asthma treated through ambulatory care likely to be hospitalized.



In the West District the rate of physician visits for asthma is similar to the Manitoba average, while it is lower than average in the remainder of the districts. Combined with the large number of hospitalizations for asthma in the West, these data suggest that residents of the West District are diagnosed with asthma at a higher rate than other Parkland residents.

Diabetes

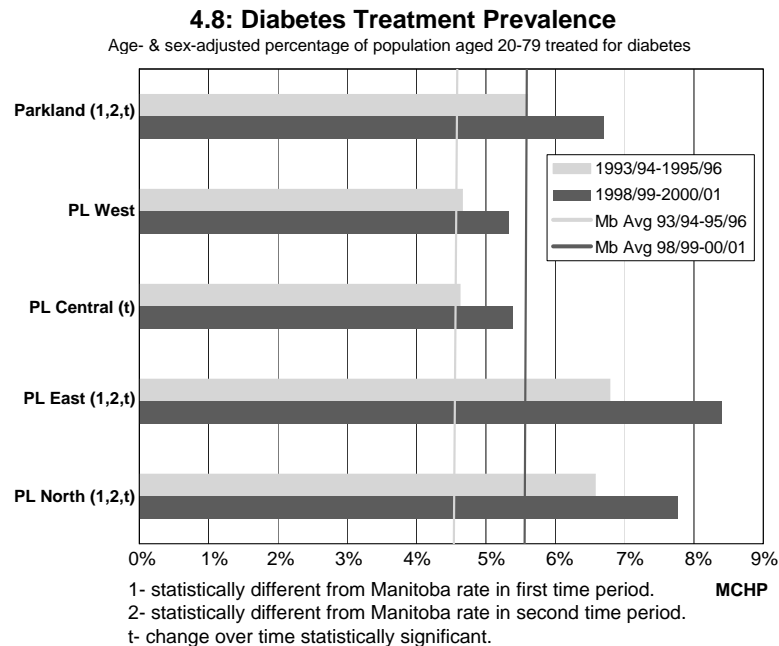
Diabetes rates include both Type 1 Diabetes, in which the body does not produce enough insulin, and Type 2 Diabetes, in which the body does not use insulin effectively. Ten percent (10%) of people with diabetes have Type 1. The remaining 90% have Type 2. Gestational Diabetes (occurring during pregnancy) is not included in these rates, although both mother and baby are at risk of developing Type 2 diabetes in the future.

Diabetes rates are increasing in both Parkland and Manitoba. The bulk of this increase is in Type 2 diabetes. Two populations at higher risk of developing Type 2 diabetes are seniors and Aboriginal people.

The incidence of diabetes has been consistently higher than in the rest of Manitoba since at least 1991, and has been growing. Each year there are an increasing number of people diagnosed with diabetes. The incidence of diabetes was 62.6/10,000 population in 1999. This means that approximately 270 individuals were newly diagnosed in Parkland in that year.

District prevalence rates show a marked difference between the West and Central Districts, with low rates, and the East and North Districts with high rates. All of the district rates have increased over time, with the district differences remaining steady.

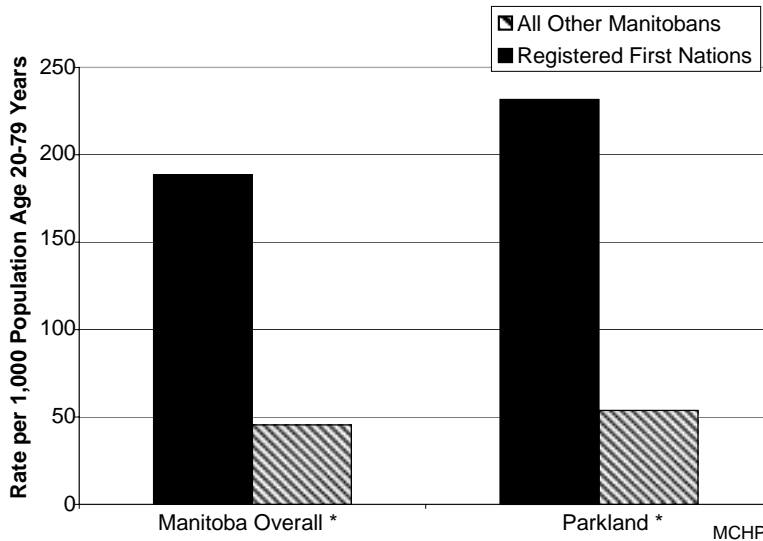
*Incidence of Diabetes:
Parkland 62.6/10,000.
Manitoba 50.5/10,000*



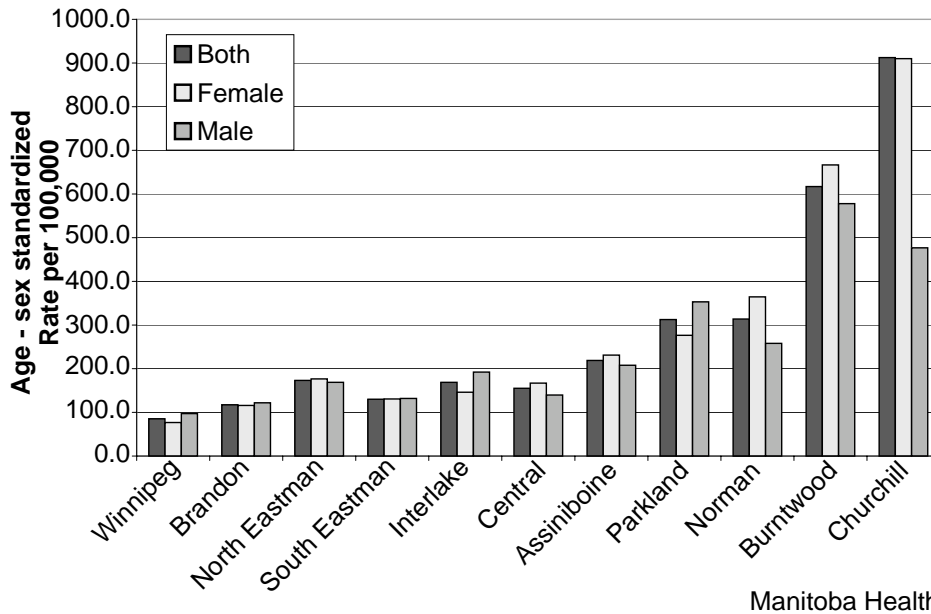
When we compare the Registered First Nations (RFN) rate of diabetes to that of all other Manitobans, we find a marked difference. For both Parkland and Manitoba, the RFN rate is approximately 4 times higher than the rate for all other Manitobans. And when compared with Manitoba averages, Parkland residents have a higher prevalence of diabetes, for both RFN and non-RFN people. This breakdown shows that, while First Nations people

are definitely carrying a higher burden of illness from diabetes, the high rates in Parkland cannot be attributed only to our Aboriginal population. Nor can we look to our senior population to explain the difference, as these numbers are age-adjusted to allow comparison across regions. We must look to other risk factors in both explaining and addressing the problem of diabetes in Parkland.

**4.9: Diabetes among First Nations
1996/97 - 1998/99**



4.10 - Diabetes Hospitalizations, 2001/2002



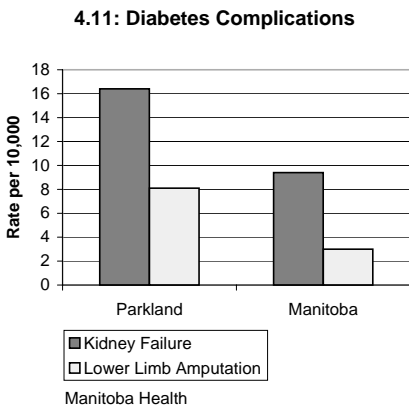
This chart indicates only those hospitalizations directly attributed to diabetes, and does not include hospital care for other conditions such as heart disease and kidney disease, that are more frequent in people with diabetes. Parkland men and women are hospitalized more frequently for diabetes than are

residents of most other regions. The difference is even greater than we would expect given the prevalence of diabetes. This may reflect a combination of factors. The availability of hospital beds may make doctors more likely to hospitalize a patient with less severe illness than in regions where there are fewer beds. Parkland people with diabetes may have more severe illness, leading to more frequent need for hospital care, or may not seek treatment until they are ill enough to require hospitalization.

People with diabetes are at risk for developing other health problems, called complications of diabetes, especially if their diabetes is poorly controlled. Two serious complications of diabetes are renal failure and lower limb amputation. Other complications include eye damage (diabetic retinopathy) that can lead to blindness, nerve damage (neuropathy), and cardiovascular disease.

Renal failure results from damage to the kidneys caused by chronic high blood glucose levels. Lower limb amputation in diabetic people results from a combination of nerve damage in the feet and poor circulation in the legs and feet that lead to undetected wounds that do not heal. Parkland rates for both of these complications are much higher than the provincial average - almost double for renal failure and more than double for amputations. The difference is much more than we would expect looking at the total number of people with diabetes in Parkland. This suggests that Parkland people with diabetes are not controlling their blood glucose levels as well as people in other parts of the province.

The rates of complications are higher among First Nations people, who are also developing complications at younger ages than other Parkland residents.



Focus on Diabetes

Four groups of people living with diabetes and one group of diabetes educators met with members of the Community Health Assessment team to discuss the challenges they face in managing diabetes. A total of 25 people from across the region took part. The conversations touched on the importance of diabetes in people's lives, the barriers to managing diabetes, and supports that enable people to be as healthy as they can with diabetes.

Diabetes as a Priority

For some individuals with diabetes, the diagnosis is traumatic, and perceived as a prolonged death sentence. Others may be unwilling to accept the diagnosis and its changes it may bring to their lives. Diabetes can also become a simple part of daily routine for some people, and may seem like a minor issue compared to other concerns they face.

Challenges in Managing Diabetes

Individuals with diabetes, along with service providers, emphasized that the challenges and barriers are different for everyone, and may change with time for each person. There were several common themes.

- **Costs** - There is no direct cost for visits to doctors and diabetes educators for diabetes care. However, many other aspects of care can be costly, such as medications, blood sugar testing materials, foot and eye care, transportation to appointments, and healthy foods.
- **Medical routines** - blood sugar testing can be problematic for some people - it may be painful, and people may not know how to use their equipment properly. For some, the daily scheduling of testing, medications, meals and activity can be challenging.
- **Healthy foods** - "People walk into their local store and they are greeted with pop and chips." In smaller communities, there may be no store that supplies fresh produce and meats. Processed foods are more available and more convenient, and restaurants provide large portions that are not suitable. As there is no one "diabetic diet," people must educate themselves and find out what works for them.
- **Physical activity** - people reported a lack of recreation programs for children and adults in some communities. People may be hesitant to walk for exercise in communities where wildlife is a problem. Some people reported that walking doesn't work for them - they need more intense activity to affect their blood sugar levels.
- **Accessibility of services** - although services may be available, access can be difficult when distances are long, roads may be poor. Some are unable to get time off work during the day when diabetes clinics are held.
- **Foot care** - there is very little foot care available within Parkland. The few foot care services that are available are not enough to meet the need, and most must be paid for privately. Diabetes educators and people with diabetes were concerned about the lack of foot care and felt that this may contribute to high rates of amputation, the complication that many people with diabetes fear most.

- **Family and community supports** - people with diabetes described finding it difficult to arrange their self-care around the needs of family members who may not want to adjust their own lifestyle to accommodate the diabetes. Friends, co-workers and employers may not be supportive, or may have a poor understanding of what kind of support is needed.
- **Information** - people get information about diabetes from a variety of sources. Some are reliable, and others may not be. When information is not consistent, people become confused. Myths about diabetes can prevent people from making the necessary changes in their lives.
- **Feeling in control** - some people feel confident that they can manage their diabetes by making changes to their lifestyle and using their medications. Others may feel that there is little they can do to change the fact that they have diabetes, or to reduce their risk of complications.
- **Readiness to change** – people with diabetes and service providers emphasized that each person must be ready to make any necessary changes in lifestyle or even to seek care for their diabetes. Without this readiness, medical care and education have a limited effect for the person who is living with diabetes.
- **Coping** - as diabetes requires self-care on a daily basis, people may vary in their ability to cope when they feel overwhelmed with the challenges of their daily routine. Problems in other aspects of life may interfere with how well people feel able to manage their diabetes.

Supports for Managing Diabetes

- **Family and community supports** - people with diabetes described their family and friends as supportive for the most part, with family members helping them remember their medications, and friends offering healthy snacks.
- **Health care services** - several people discussed how pleased they are with the care they receive from doctors, educators, and support groups that are available.
- **Supportive environments** - people in communities have many ideas of how to make their communities more health-promoting. Affordable healthy foods, walking and gym programs, community kitchens and gardens are some of the ideas they raised.
- **Awareness** - people are becoming more aware of the importance of diabetes and ways to reduce the risk of chronic diseases. Individuals with diabetes and service providers would like to see still more education and awareness for everyone, not only those with diabetes.

Cancer

Leading causes of cancer death

Men	Women
1. Lung	1. Lung
2. Prostate	2. Breast
3. Colon	3. Colon

Cancers are the #2 leading cause of death in Parkland and Manitoba for both men and women. They account for 26% of deaths, and 26% of potential years of life lost. The similar number of PYLL and deaths suggests that deaths are occurring in all ages – both young and elderly. Lung cancer and colon cancer in both men and women, prostate cancer in men, and breast cancer in women account for the largest number of cancer deaths in Parkland people.

When we consider hospital utilization, cancer is the 10th leading cause of hospital admissions, and the 6th leading cause of hospital days used. The relatively small number of hospitalizations relative to incidence reflects the way cancer is usually treated through surgery and/or outpatient care. The higher number of days for each hospitalization likely reflects the impact of end-of-life care for patients with terminal cancer.

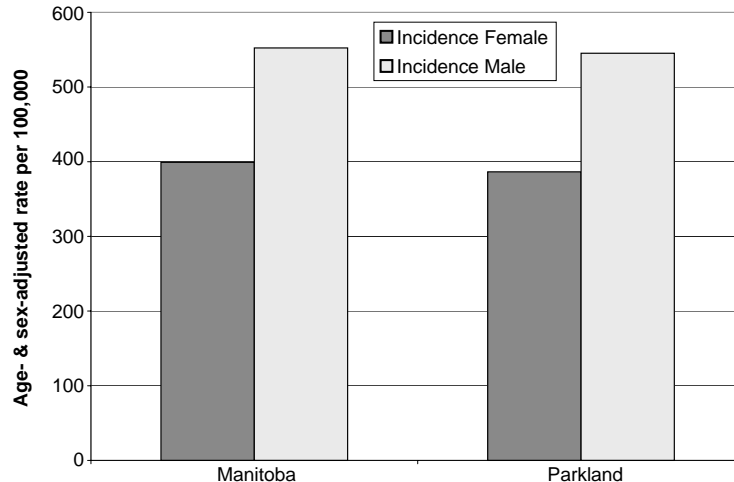
Hospital Utilization for Cancer 2002/2003

Rate per 1000 population	Cases	Days
Parkland	10	108
Manitoba	7.2	91

Manitoba Health

The number of new cancer cases diagnosed (incidence) from 1992 - 2001 in Parkland is slightly lower than the Manitoba rate for both men and women. Cancer incidence is higher in general for men than for women. Among the districts none have rates that differ significantly from the Manitoba average.

4.12: Cancer Incidence, 1992-2001



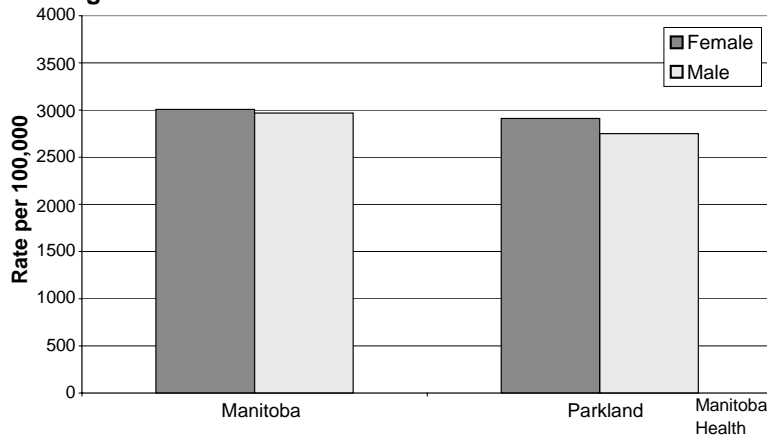
Most Frequently Diagnosed Cancers

Men	Women
1. Prostate	1. Breast
2. Lung	2. Lung
3. Colon	3. Colon

The three most frequently diagnosed cancers for men and women are the same as the top three causes of cancer mortality, with the order of the first two reversed. Prostate and breast cancer are both diagnosed more frequently than lung cancer, but have higher survival rates. Parkland's age-adjusted rates of these cancers are lower in most cases than the Manitoba rates. Prostate cancer in men is the exception.

CancerCare Manitoba maintains a cancer registry that allows us to measure cancer prevalence rates (the number of people ever diagnosed with cancer and still living). Similar to the incidence rates, cancer prevalence in Parkland is slightly lower than the Manitoba rate.

4.13: Age-Standardized Cancer Prevalence - All Cancers - 2000



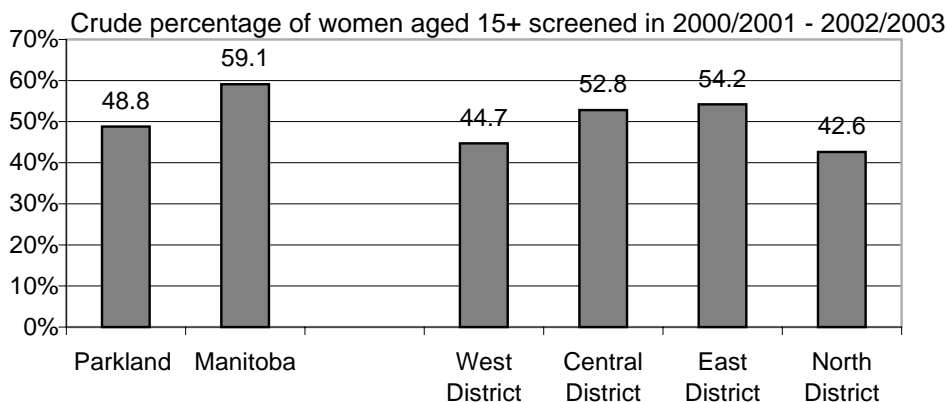
Cancer Screening Programs

Cervical Cancer Screening

Cervical cancer can be treated and cured in most cases if it is caught early enough - the number one risk factor for cervical cancer is not having had a Pap smear in the last 5 years. When we look at screening rates for cervical cancer, Parkland is somewhat below the provincial average screening rate, at 49% of women over 15 years of age. The rate is even lower in the West and North districts and closer to the provincial average in Central and East districts. Many Parkland women are at risk of developing invasive cervical cancer because they have not been screened.

The Manitoba Cervical Cancer Screening Program goal is for 70% of women to be screened in each 2-year period.

4.14: Cervical Cancer Screening



In focus group conversations with women in communities around Parkland they described several barriers to cervical cancer screening. Most women are aware that cervical screening is necessary, but some do not know that screening should be repeated every two years, and others simply forget that they are due for screening. Women also described embarrassment and discomfort with the procedure that makes them reluctant to seek screening. This discomfort is even more of a problem for many women when their doctor is male rather than female. For women in rural and remote communities, travel time and costs add an additional barrier.

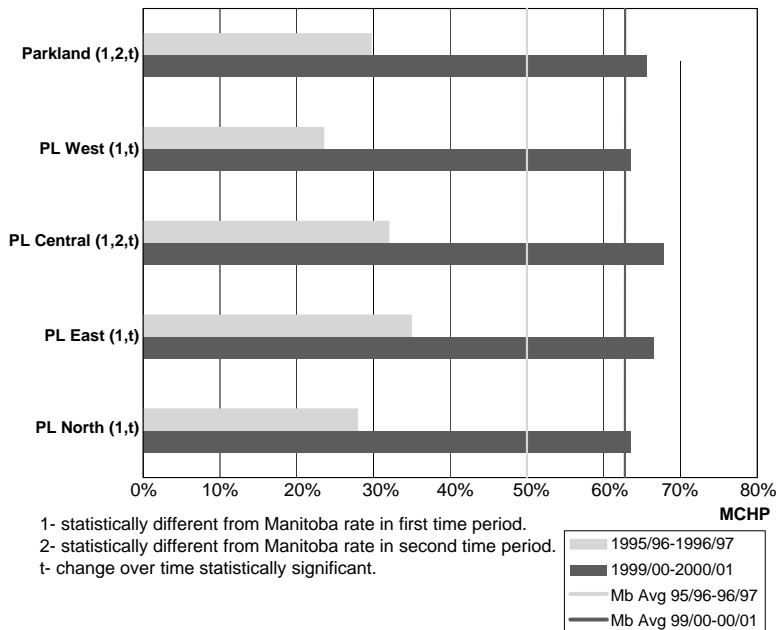
Breast Cancer Screening

Screening for breast cancer is recommended as it improves early detection of the disease. For most women, monthly manual self-examination and manual examination by a doctor are the usual screening method. For women aged 50-69, screening mammography is recommended.

The Manitoba Breast Screening program provides screening mammography to women between the ages of 50 and 69. The program goal is to screen 70% of women in this age category.

Figure 4.15: Breast Cancer Screening

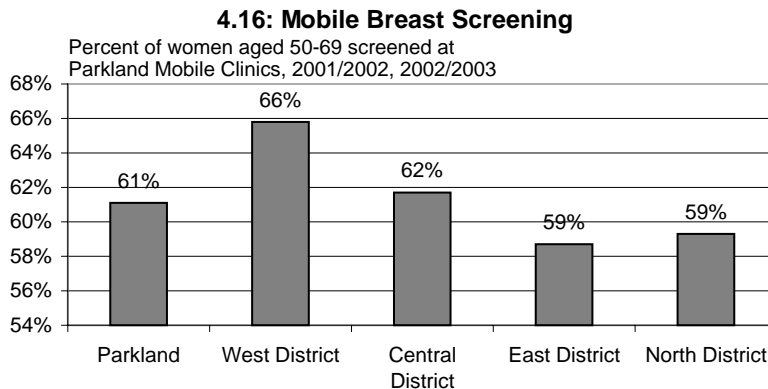
Age-adjusted percentage of women age 50-69 receiving at least one mammogram in two years



Breast Cancer Screening rates in Parkland have increased significantly since the introduction of mobile screening.

This chart shows the percentage of women aged 50 to 69 who received at least one mammogram over a two year period. In the early 1990's, Parkland's rate was much lower than Manitoba's, but in the late 1990's, our screening rate for breast cancer more than doubled, and is now above the provincial average.

Since 1998, the program has travelled to rural Manitoba communities including several Parkland communities to provide screening to rural women, reducing the distance that women have to travel to receive a mammogram. Prior to the Mobile program, women had to travel to Winnipeg or Brandon for a mammogram. This is the one factor that changed over that time period to account for the increased screening rate.



Statistics provided by the Manitoba Breast Screening program for mobile screening in Parkland in 2001/2002 - 2002/2003 show that 61.1% of eligible Parkland women were screened at mobile mammography clinics. Participation was higher in the West and Central Districts than in the North and East Districts. Since the Mobile Program started in July 1998, 36 breast cancers have been detected at mobile clinics in the Parkland.

Prostate Cancer Screening

Currently there is no province-wide screening registry or program for prostate cancer. A digital rectal examination is recommended for men over age 50. As this is usually performed during a routine physical exam, no rates are available. Routine screening using the Prostate Specific Antigen test is not recommended, as it does not distinguish between slow- and fast-growing tumours and has not been shown to reduce mortality from the disease.

Infectious Diseases

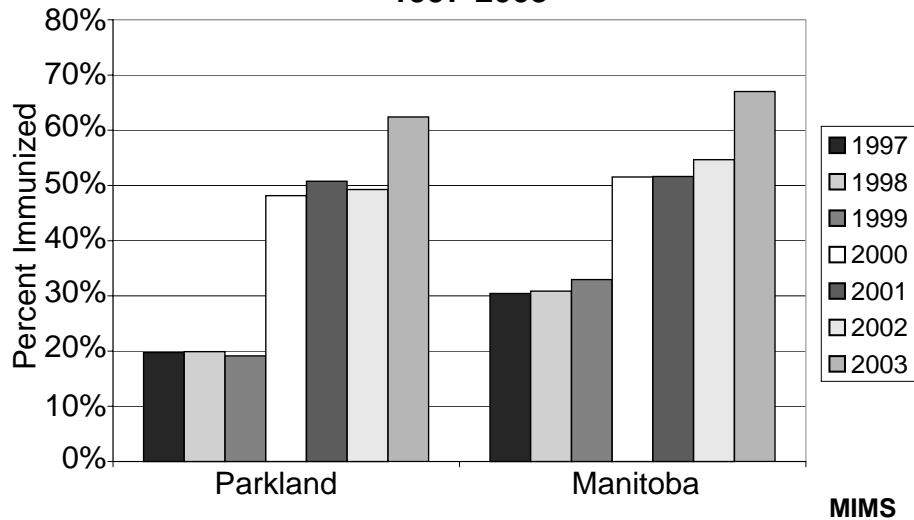
Communicable Diseases

Influenza and Pneumococcal

Influenza is a viral illness spread from person to person by coughing or sneezing. In Canada, the influenza season usually runs from November to April, causing local outbreaks. An estimated 10 – 25% of Canadians may get influenza each year and although most of these people recover completely, seniors are more at risk of dying from serious complications. In Parkland, Public Health staff monitor influenza outbreaks in schools and health care facilities such as Personal Care Homes (PCHs). In a typical year, outbreaks of influenza-like illness or confirmed influenza will be detected in approximately five schools or PCHs.

Yearly influenza vaccination is the best way to protect against influenza. In Parkland, influenza immunization is provided to people at higher risk of developing complications from influenza or to people who are more likely to transmit influenza to those at high risk of developing complications. This includes people aged 65 years or older, residents of long-term care or chronic care facilities, adults with chronic illnesses, household contacts of persons who have a weakened immune system or are 65 years of age or older, health care workers and first responders responding to emergency health situations (ambulance, police and firefighters). It is important to be immunized against influenza every year because the virus changes and protection decreases with time.

4.17 Influenza Immunizations - 65 Years old and older 1997-2003



The rate of influenza immunization among Parkland residents over the age of 65 rose from under 20% in the late 1990's to just over 60% in 2003. This is similar to the provincial average of 67%. However, only about 39% of people under the age of 65 years with high-risk medical conditions in Parkland were immunized against influenza in 2003 (compared to a provincial average of 16%).

Personal care home residents, people 65 years of age and older and people aged 2 years and older with high-risk chronic medical conditions are also offered immunization against pneumococcal disease. Pneumococcal disease is a bacterial infection that causes pneumonia as well as other infections and can be a serious complication of influenza. Unlike influenza vaccine, pneumococcal vaccine remains effective for many years.

According to the Manitoba Immunization Monitoring System (MIMS) report for 2003, an estimated 10% of people under 65 years of age with high-risk medical conditions were immunized against pneumococcal disease in Parkland, compared to a provincial estimate of 4%. However, MIMS estimated that about 60% of Parkland residents aged 65 years or greater have

been immunized against pneumococcal disease, which is similar to the provincial rate of 61%.

Hepatitis C Infections

In Manitoba, Hepatitis C became a reportable disease in 1999. In 2001, Parkland had the 3rd highest rate of Hepatitis C among the regions. However, the majority of these cases were identified as a result of the Blood Recipient Notification Project (BRNP) and were not new cases of Hepatitis C. Subsequently, the rates decreased in 2002 and 2003. In early 2004, a cluster of cases of Hepatitis C was identified as being associated with the sharing of injection drug use (IDU) equipment. IDU is known to be a key risk factor for becoming infected with Hepatitis C.

Hepatitis C rates per 100,000 (1999 - 2003)

Year	Parkland Region	Manitoba
2003	11.8	39.9
2002	7.1	46.0
2001	42.3	56.9
2000	14.1	43.9
1999	9.4	52.0

Other Communicable Diseases

Rabies remains endemic in Manitoba with usually fewer than 5 animals testing positive for rabies each year in the Parkland region. In the majority of cases, humans have not had significant contact with these rabid animals. However, each year, Parkland Public Health staff follow-up, on average, 100 reports of humans exposed to potentially rabid animals (through bites, scratches or other significant exposures) and determine the need for preventative treatment.

Endemic diseases are present in the area at all times.

There have been small numbers of other reportable communicable diseases in Parkland in the last 4 years. These include meningitis (both viral and bacterial), pertussis, methicillin-resistant *Staphylococcus aureus*, streptococcus, tuberculosis and vancomycin-resistant enterococci.

Sexually - Transmitted Infections

There are many factors that have been associated with increased risk of acquiring a sexually transmitted infection (STI). These include:

- lack of accessible and culturally appropriate health services
- lack of anonymity in obtaining condoms
- transience
- unstable housing
- poverty
- having less than a high school education
- involvement in sex-trade
- history of childhood abuse
- early childhood low socio-economic status
- marginalization of injection drug users and sex-trade workers.

In addition, some behavioural risk factors have been suggested to have a role in the spread of STIs including early age of first intercourse, having multiple sex partners, non-use of condoms during sexual encounters, men having sex with men, sharing of injection drug equipment and use of cocaine.

The majority of STIs have no symptoms and as a result are less likely to be diagnosed and treated. The health consequences of infection are numerous and considerably more severe for females (infertility, ectopic pregnancy, pelvic inflammatory disease and chronic pelvic pain) than for males.

Chlamydia

Chlamydial infection is the most frequently reported communicable disease in Canada, Manitoba and in Parkland region. Parkland has a slightly lower rate of chlamydial infection among men and women than the provincial rate, with females aged 15 – 24 years accounting for 62% of all chlamydial infections. There is an increasing trend in infection in males over the period 1996 – 2001.

Parkland Chlamydia Crude Rates per 100,000 (1996 - 2001)

Year	All males (cases /100,000)	All females (cases /100,000)	15-24 year old females (cases/100,000)	Total (cases/100,000)
2001	147	333	2179	240
2000	115	352	2285	233
1999	134	374	2531	254
1998	115	365	2320	240
1997	106	324	1230	162
1996	83	315	2004	199

Gonorrhoea

Parkland has a lower rate of gonorrhoea among men and women than the provincial rate. However, Manitoba has the highest rates of gonorrhoea of all provinces in Canada. The rate of gonorrhoea among both sexes in Parkland has increased from 1996 to 2001.

Parkland Gonorrhoea Crude Rates per 100,000 (1996 - 2001)

Year	All males (cases/100,000)	All females (cases/100,000)	Total (cases/100,000)
2001	37	42	39
2000	32	19	25
1999	14	28	21
1998	18	18	18
1997	18	23	21
1996	0	9	5

Syphilis

There were no endogenously transmitted cases of infectious syphilis in Manitoba from 1995 -2002 and the incidence of infectious syphilis throughout Canada was very low during that time period. However, since January 2003, Winnipeg has been experiencing an outbreak of infectious syphilis that has potential to spread to rural Manitoba.

Endogenously transmitted cases are those that originate within an area.

HIV/AIDS

From 1985 - 2002 only 10% of provincial cases of HIV/AIDS resided in rural MB. This is reflected in the very low number of individuals testing positive in the Parkland region. Policy in Manitoba reflects that HIV testing should be offered by physicians to all pregnant women as part of routine prenatal care. However, there is currently no data on prenatal HIV testing rates in Parkland region.

Hepatitis B Infections

From 1996 to 2001, there were less than 5 cases of acute Hepatitis B infection in Parkland. Since the introduction of the Grade IV Hepatitis B vaccination program in 1998, Parkland has consistently had one of the highest immunization coverage rates (close to 90%) of all regions in Manitoba. It is anticipated that this will further reduce the potential for local Hepatitis B transmission.

Pelvic Inflammatory Disease and Ectopic Pregnancy

Pelvic inflammatory disease (PID) and ectopic pregnancy are serious consequences of untreated gonorrheal and chlamydial infections in women. Data suggest that Manitoba has the highest rate of PID of all provinces in Canada. However, data on rates of ectopic pregnancy and PID are currently not available for Parkland region.

Environment-Related Infectious Diseases

Food and Waterborne Diseases

Food and waterborne illnesses occur when a person gets sick by eating food or drinking water that has been contaminated by micro-organisms such as bacteria, parasites and viruses and their related toxins. Recreational water illnesses are illnesses that are spread by swallowing, breathing or having contact with contaminated water from swimming pools, spas, lakes, rivers or oceans.

Many cases of food and waterborne disease go unreported because their symptoms often resemble the stomach flu.

The number of reported cases of food and water-related illness has declined in Parkland region over the past several years. The main factor to explain this decrease is the improvement of water treatment facilities in several Parkland communities.

The safety of the drinking water supply is a priority of Manitoba Conservation. Increased attention to drinking water quality has led to the creation of a Drinking Water Officer for Parkland. Manitoba Conservation has resumed water quality testing for private wells, and is phasing in more stringent criteria for certified water treatment plant operators. Regulations for on-site

wastewater management (i.e. septic fields) and agricultural manure management have also become more stringent in an effort to protect water quality.

The majority of reported cases of food and waterborne illnesses in Parkland caused by parasites such as cryptosporidia and giardia or bacteria such as campylobacter, salmonella and E. coli were found not to have common sources and were considered to be sporadic cases. There have been no cases associated with the shigella bacteria for several years. In 2001, there was an outbreak of cryptosporidiosis associated with recreational water.

Although the number of reported cases of food borne illness has been small in the last several years, Public Health Inspectors with Manitoba Conservation have expressed concerns that this may be due in part to underreporting, and that the potential exists for future outbreaks of food borne illness. Cases determined as sporadic may be associated with additional unreported cases that cannot be identified with the current protocols for follow-up. Public Health Inspectors also expressed concern about a lack of provincial standards for acceptable frequencies of inspection in food handling facilities such as restaurants.

Following safe food practices when preparing food, consuming water only from potable water sources and practicing healthy swimming behaviours when swimming in recreational water sites reduces the risk of developing food and water-related disease.

Animal and Insect Related Infections

Public Health Staff are involved in activities to prevent, control and manage several reportable environment related infectious diseases including Hantavirus Pulmonary Syndrome, Lyme disease, Q fever and West Nile virus infection.

Hantavirus Pulmonary Syndrome – is a rare but serious disease that can be spread by deer mice. In Manitoba, there have been two cases, both fatal, reported in 1999 and 2000. There have been no cases in Parkland region. Although the risk of getting Hantavirus infection in Manitoba is low, cleaning areas where mice may have frequented can expose people to the virus.

Most Hantavirus infections have resulted from inhalation of the virus by disturbing mice droppings in enclosed spaces or in other mouse habitats. Measures to discourage rodents from living in buildings and homes, safe handling of dead rodents and following appropriate precautions when cleaning up areas contaminated by rodent urine, feces or nests can reduce the risk of becoming infected.

Lyme Disease – is a bacterial infection transmitted from infected deer ticks to humans through tick bites. If Lyme Disease is not treated with antibiotics in the early stages of infection, treatment for long-standing disease may be more complicated.

There has been one case of Lyme Disease since it became reportable in Manitoba in 1999. There have been no cases in Parkland region. The risk of becoming infected is highest in certain areas of the US and Eastern Canada. Taking precautions to avoid contact with deer ticks can reduce the risk of infection.

Q Fever – is a disease caused by bacteria that is transmitted from animals to humans. Animals like goats, sheep and cattle can carry the Q fever bacteria in their flesh and body fluids. The highest levels of these bacteria are found in tissues involved in birth – the uterus, placenta and birth fluids. People usually get infected by breathing in dust contaminated by these tissues. The bacteria may also be present in raw or unpasteurized milk from infected animals.

Farmers, ranchers and farm in contact with these animals, particularly during the birthing process workers at higher risk for Q fever. Meat packers, abattoir workers, hunters and trappers are also at increased risk of infection.

Since Q fever became a reportable disease in Manitoba in 1999, there have been fewer than 10 cases in Parkland. Prevention measures include safe disposal of birth products and contaminated wastes, wearing protective clothing while working with these animals (especially pregnant ones) and using only pasteurized milk and milk products.

West Nile Virus (WNV) – is a new disease in Manitoba that is transmitted by mosquitoes to humans. People can become infected if they are bitten by WNV-infected mosquitoes.

In Parkland, WNV was first detected in 2002 in birds of the crow family and in horses. The first human cases in Parkland (fewer than 10 cases) were detected in 2003. The risk of WNV varies from year to year and is influenced by many factors including precipitation, temperature and mosquito populations. Manitobans are at highest risk of being bitten by a WNV-infected mosquito in July, August and September. Taking measures to minimize exposure to mosquito bites and reducing mosquito numbers around homes can lessen the risk of infection.

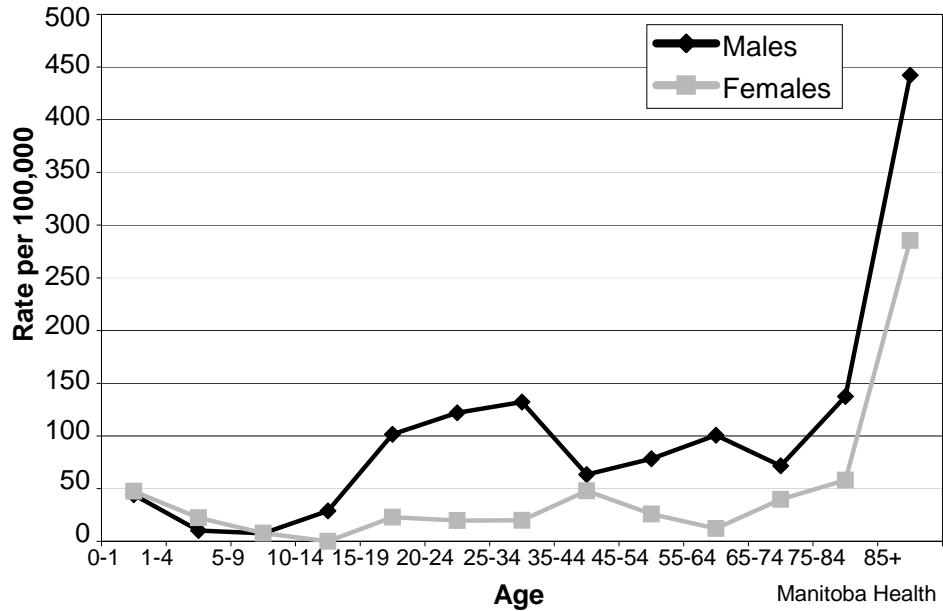
Injury

In the years 1992-2001, injuries were the fourth leading cause of death for Parkland males, accounting for 6.7% of deaths among males. For Parkland females, injuries accounted for 3.7% of deaths, making them the fifth leading cause of death. Although injuries account for a small percentage of deaths overall, they make up 20% of potential years of life lost over the same time period. Injury was also a major cause of hospitalization, falling fifth in the number of hospital admissions in 2001-2002 (10.7/1000) and eighth for use of hospital days (53.2/1000).

A detailed look at injury deaths in Parkland shows that 60.7/100,000 Parkland residents died of injuries in the years 1992-1999. This is higher than the Manitoba rate of 48.3/100,000. The rates for men and women are markedly different: 35.4/100,000 for women and 85.7/100,000 for men.

The death rates are higher for males than females in all age groups from 10-14 and older. For both males and females, the rates increase sharply after age 75. For males, there is also an early peak between ages 15 and 34.

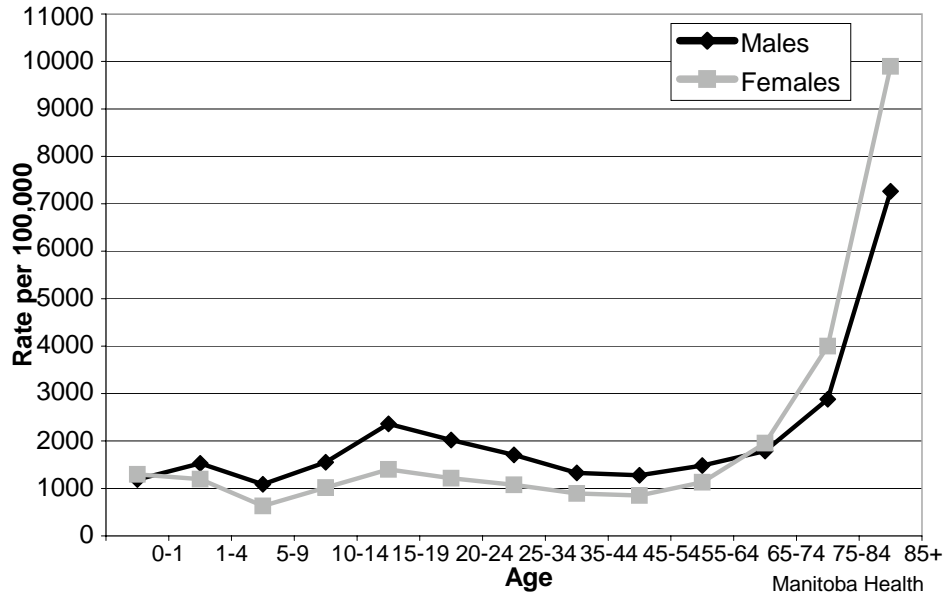
4.18 Injury Deaths by Age and Gender Parkland, 1992 - 1999



- Leading causes of injury death*
1. motor vehicle
 2. suicide
 3. falls
 4. fractures
 5. fire/burns

Looking more closely at hospitalizations for injuries, we find that there were 1705 admissions per 100,000 population in 1992-2001. Again, this is higher than the Manitoba average of 1054/100,000. The rates for men and women were similar, with 1647/100,000 for females and 1762/100,000 for males.

4.19 Injury Hospitalizations by Age and Gender Parkland 1992 - 2001



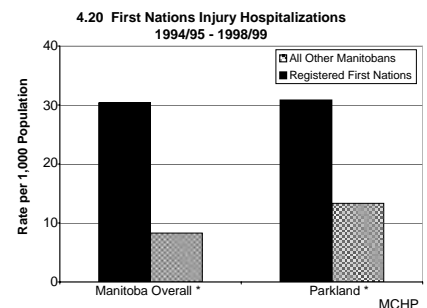
- Leading causes of injury hospitalization:
1. falls
 2. motor vehicle
 3. self-inflicted injuries
 4. struck by/against
 5. assault

Injury hospitalization rates are again higher for males than females in most age groups, from 1-64 years. The rates climb sharply after age 75, with female rates higher than male rates in this senior age group. Hospitalization rates for both genders show an early peak in the 15 -19 year age group.

When we examine the main causes of injury for these age groups, we find interesting patterns. For both men and women over 65, falls are the leading cause of hospitalization, followed by fractures. Motor vehicle traffic injuries also account for a significant proportion of hospitalizations. In 15-19 year old females, the leading cause of hospitalization is self-inflicted injury. Motor vehicle injuries also account for a significant number. For 15-19 year old males, the number one cause of injury hospitalization is motor vehicle accidents.

Injury among First Nations People

Injury hospitalization rates for Registered First Nations (RFN) people are higher than those for other Manitobans. This is true for both Parkland and for Manitoba as a whole. However, the difference is smaller in Parkland, where the RFN rate is a little over 2 times the rate for other Parkland residents. In Manitoba, the RFN injury hospitalization rate is 3.7 times that of non-RNF people. Unfortunately this is not because the Parkland RFN rate is lower than the Manitoba average. Rather, it is because the Parkland non-FN rate of hospitalization for injury is higher than the rate for all other Manitobans.



The leading causes of injury are not available at the regional level for First Nations people. For First Nations people in Manitoba as a whole, the leading causes of injury death and hospitalizations are:

Injury Deaths 1992-1999

- Suicide
- Motor Vehicle
- Drowning
- Suffocation
- Fire and Burns

Injury Hospitalizations 1992-2001

- Falls
- Assault
- Self-inflicted injuries
- Motor Vehicle
- Cutting and Piercing

Farm Injuries

Parkland-specific data on farm injuries are not available. However, the Workplace Safety and Health division of Manitoba Labour monitors workplace related deaths, including deaths that occur on farms. Over the last 20 years (1983-2002), 43% of workplace fatalities occurred on farms. As farm workers make up less than 16% of the Manitoba workforce (1999), the number of farm fatalities is disproportionately high. The leading causes of farm injury fatalities in Manitoba were runovers and rollovers involving vehicles or equipment (40%).

Injuries limiting activity

A region-wide telephone survey found that 14% of Parkland respondents had had an injury in the previous year that was serious enough to limit normal activities such as work and school. This would include injuries requiring hospitalization as well as other injuries that are not included in other statistics. Similar to the hospitalization rates, the survey found that respondents who identified themselves as First Nations, Metis or Aboriginal were 3 times more likely to have been injured.

The most frequent locations of injury were the home or yard (36% of reported injuries), sports or athletic areas (13%), and sidewalks or roadways (10%). The majority of respondents who were injured reported that they did not miss any work or school (43%). Of those who missed work or school, the average length of absence was 39 days.

The most frequent types of injuries reported were either sprains/strains (29%), broken bones (24%), or dislocations (9%). The majority of respondents sought treatment from a hospital emergency department (27%), family doctor (24%), or from a non-emergency clinic (19%). Others sought treatment from alternative therapies such as chiropractors or physiotherapists (18%), or visited a walk-in clinic (8%).

The majority of injuries are predictable and preventable. However, when the survey participants were asked what measures they were taking to avoid future injuries, the majority reported simply “being more careful” (52%), and many others felt that nothing could be done to prevent a recurrence of this injury (20%).

Illness Burden Planning Considerations

- Three major illnesses of concern in the region are cardiovascular disease, respiratory disease and diabetes. These illnesses have common modifiable risk factors such as smoking, physical inactivity, poor nutrition and chronic stress. Poverty also increases the risk of these chronic diseases. This group of illnesses causes ongoing challenges for people in managing their illness, and affects their quality of life. Parkland residents with chronic diseases are hospitalized more frequently than we would expect given the rates of illness, suggesting that people may be having difficulty managing their illness in the community. Efforts need to focus on prevention as well as helping people manage their chronic conditions.
- The Mobile Breast Screening program has allowed great improvements in the rate at which Parkland women are screened for breast cancer. However, our rate of screening for cervical cancer has remained low. There may be lessons to learn from the Mobile Breast Screening program in supporting early detection of cancer and other diseases.
- Rates of chlamydia in young Parkland women point to a concern with unprotected sex among young adults. This is also reflected in our high rates of teen pregnancy.
- Both injury deaths and injury hospitalizations in Parkland are higher than the provincial rate. Leading causes of injury in Parkland include falls, motor vehicle injury, self-inflicted injury and suicide. The majority of injuries are predictable and preventable.



LIVING WELL

Measures of illness and mortality are not the only ones that can give us an indication of how healthy our population is. How people describe their own health, and how they report health-related behaviours, give an idea of how well people are. This can help us understand how our population might be affected by illness in the future.

Many of these indicators are taken from the 2001 and 2003 Canadian Community Health Survey (CCHS) conducted by Statistics Canada. The survey data are not adjusted for age and sex. This means that differences in survey results between regions may be affected by age and gender structures of the region. CCHS targets persons 12 years and over who are living in private households. CCHS does not include on-reserve First Nation people or residents of Personal Care Homes.

Self-rated Health

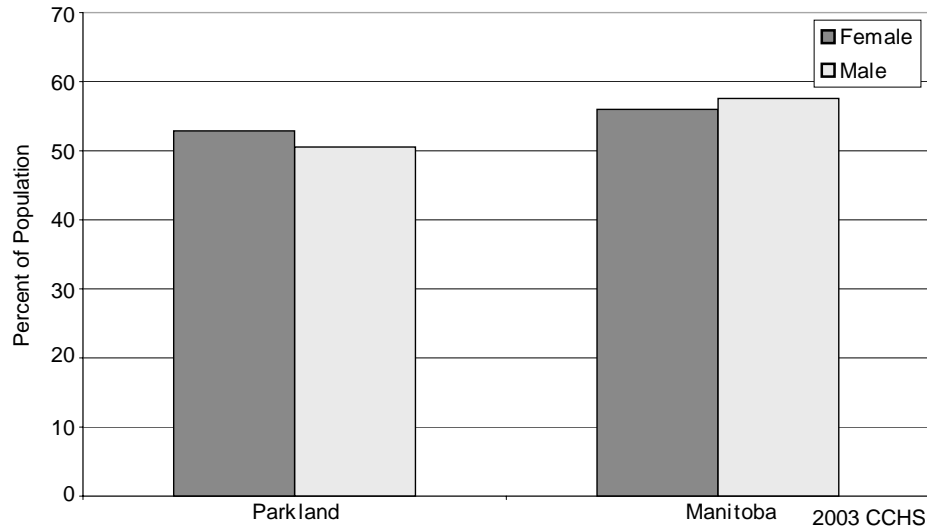
How we rate our own health is an important indicator of population health. It correlates with many other indicators of health, such as premature mortality, and individual characteristics such as age, education, income, smoking, obesity, and physical activity. It is also affected by aspects of health that are not recorded in morbidity measures, such as the severity of an illness or injury, social and mental functioning, and our personal.

How we rate our health doesn't vary according to health care system indicators (such as the number of hospital beds or doctors), but it can give an indication of how much we may need to use health care.

In Parkland, over half of people rate their health as very good or excellent. We are more likely to rate our health as either Good, Fair or Poor than other Manitobans.

As older people tend to rate their health more poorly, it is likely that our higher percentage of seniors affects these ratings. There may also be a connection to our challenges in the socio-economic determinants of health.

5.1: Self-Rated Health Very Good or Excellent

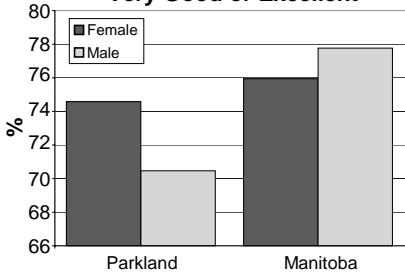


Functional Health

This indicator from the Canadian Community Health Survey measures eight different aspects of functioning, including vision, hearing, speech, mobility, dexterity, feelings, cognition and pain. All of these are combined to give an overall measure of physical, mental and emotional functioning.

Parkland has a slightly lower percentage of people whose functional health is very good or excellent compared to all Manitobans for both men and women. This is also to be expected given our older than average population, as many of these aspects of functioning tend to decline with age.

5.2 - Functional Health Very Good or Excellent



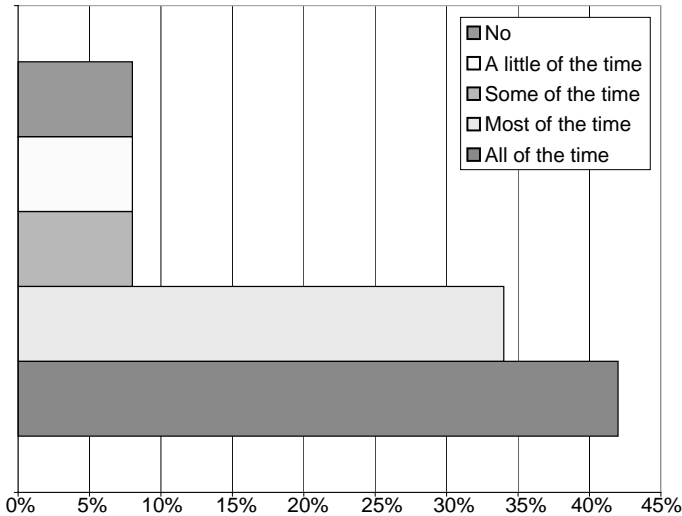
Chronic Stress

Stress affects many aspects of health and well being, and has been recognized as contributing to problems with chronic illness and mental health. As this measure is based on self-report, it gives an indication of how much people feel they are under stress - whether they feel able to cope with the level of stress in their lives.

In 2003, relatively few Parkland residents - 17.4% - report experiencing “quite a lot of stress” compared to 20.3% of Manitobans overall.

Social supports have an impact on how well we are able to cope with stress. During the regional telephone survey, respondents were asked whether they have someone to talk to in a time of stress. Three-quarters of Parkland respondents said that they have someone to talk to all or most of the time. Only 8% said that they did not have a confidant to help them in a time of stress.

5.3 Percentage of Parkland residents who have someone to talk to in a time of stress



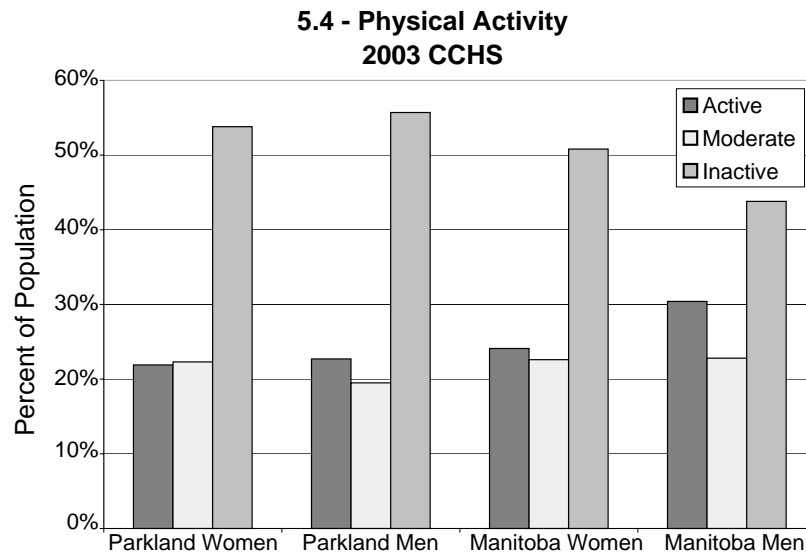
This telephone survey also revealed that 3% of respondents view taking care of their mental, emotional or spiritual health as the main thing they do daily to improve their health. Although this is a small percentage of respondents, it is significant that some Parkland residents view their mental and spiritual well-being to be the most important aspect of their health.

Physical Activity

Physical activity provides health benefits by reducing the risk of premature death, heart disease, diabetes, cancer, arthritis, depression, and obesity.

Activity levels are broken down into 3 categories:

- inactive: equivalent to less than 30 minutes of brisk walking daily
- moderately active: equivalent to 30-59 minutes of brisk walking daily
- active: equivalent to 60 minutes or more of brisk walking daily



Moderate activity (30 – 60 minutes) is the minimum amount required to reduce the health risks of a sedentary lifestyle. The benefits of physical activity increase with more time spent and with more vigorous activity performed.

In 2003, approximately half of Parkland men and women over age 12 were not active enough in their leisure time to achieve health benefits. 22.3% of women and 19.5% of men were moderately active. A further 21.9% of women and 22.7% of men were considered active. Parkland men were slightly more likely than women to be inactive.

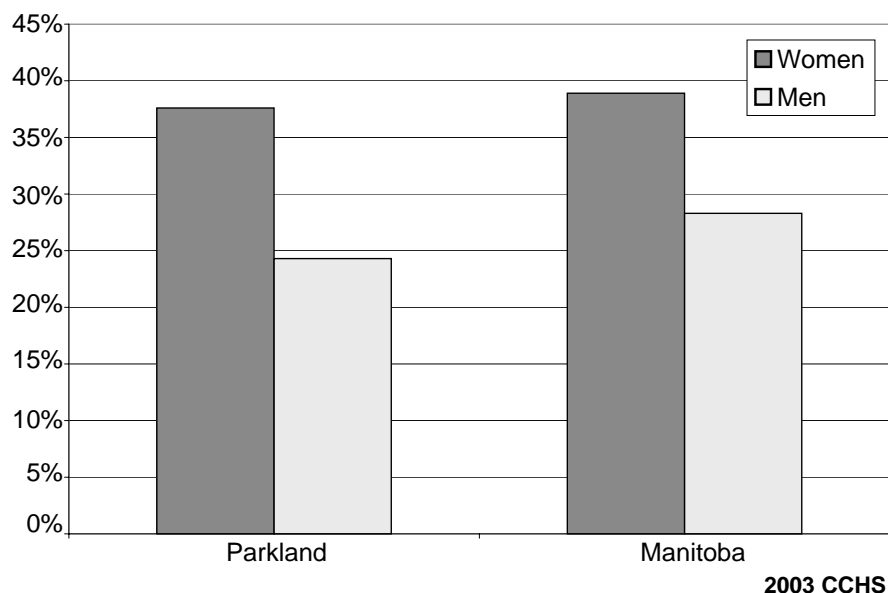
Manitobans overall were slightly more active than Parkland residents, with 43.8% of males and 50.8% of females in the 'inactive' category. Physical activity levels are generally highest in younger age groups. As the CCHS data are not age – standardized, the lower activity levels in Parkland may be due to our older population.

In Manitoba, 59% of youth aged 12-19 are not active enough for optimal growth and development. The average Canadian child is sedentary for three to five hours a day in front of the TV.

The majority (66%) of Parkland respondents to the regional telephone survey reported that the main thing they do daily to improve their health involves physical activity. Half of these report walking as their main form of physical activity, while others report other types of physical activity including physically demanding work.

Nutrition - Fruit and Vegetable consumption

5.5 - 5 or more Fruits & Vegetables per day



Fruit and vegetable intake is used to indicate overall eating habits, which are difficult to measure accurately. Canada's Food Guide to Healthy Eating recommends 5-10 servings/day of fruits and vegetables. Five per day is the minimum amount necessary for healthy eating. Any increase above 5 per day increases the benefits. The health benefits of healthy eating include a lower risk of chronic diseases such as cancer, heart disease, diabetes and digestive diseases.

The 2003 CCHS shows that 24.3% of Parkland men and 37.6% of women ate five or more servings of fruits and vegetables per day. Compared to the Manitoba average, Parkland men and women both have slightly lower fruit and vegetable consumption.

In the regional telephone survey, healthy eating was the second-most frequent measure taken daily by respondents to improve their health (18% of total respondents).

Discussions with people from around the region highlighted many of the barriers to healthy eating. Cost is a major factor for many Parkland residents – "Healthy eating is expensive!" Although Parkland incomes are lower than the Manitoba average, food is more costly here than in many other parts of the province.

Access to healthy foods such as fresh produce is also a problem in some areas of the region. Many smaller communities have no grocery store, meaning that residents must travel to larger centres to shop. This adds travel costs to the already higher cost of food.

Fruits and Vegetables includes fruit juice as well as fruit, potatoes that are not fried as well as other vegetables. 1 serving is 1 medium size vegetable or fruit, or 1/2 cup of prepared vegetables or fruit.

Yearly food cost for a family of four:

Winnipeg: \$7,141

Brandon: \$6,646

Dauphin: \$7,447

(MB. Agriculture)

Even when access and cost are not a problem, several people suggested that the convenience and availability of processed foods and ‘fast food’ make them the easier choice. These factors combine to make healthy eating a challenge for many Parkland residents.

Body Weights

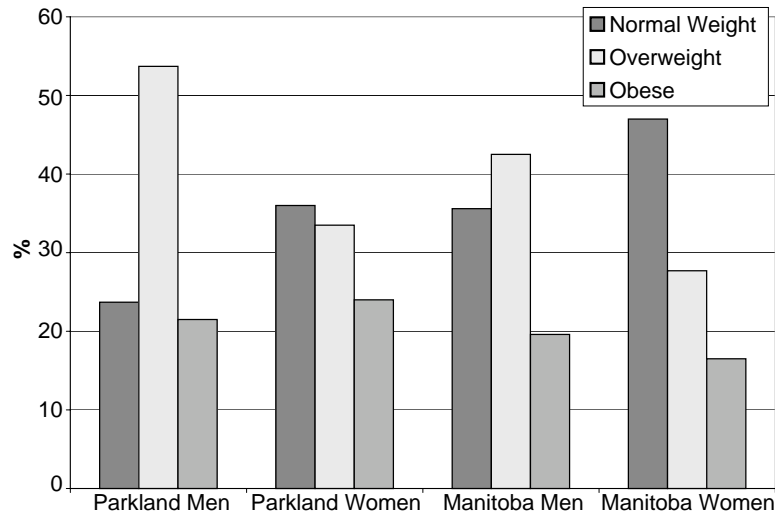
Body weights are measured using the Body Mass Index (BMI). The BMI is a measure of how much we weigh for our height. BMI scores are divided into 4 categories: underweight (under 18.5), normal weight (18.5 – 24.9), overweight (25.0 – 29.9), and obese (30.0 or higher). The normal weight range is associated with the lowest risk of chronic disease and early death.

In Parkland, both men and women age 18 and over, are more likely to be overweight and obese than Manitoba men and women. Men in general are more likely to be overweight or obese than women are. The number of people in the normal weight category is small. The number of underweight individuals in Parkland is too small to report.

Body weights at both extremes of the range create health risks. Underweight individuals are at higher risk of nutritional deficiencies. Obese individuals are at higher risk of chronic diseases such as diabetes and cardiovascular disease.

BMI - $\frac{\text{weight in kilograms}}{\text{height in metres squared}}$

5.6 - Body Weights
2003 CCHS



There is a tendency for weight to increase with age. As the CCHS data are not age – standardized, the higher percentage of overweight and obese people in Parkland may relate to our older population. In Parkland we have relatively small numbers of people who are physically active at the recommended levels, and who eat the recommended number of servings of fruits and vegetables. These factors may also contribute to our higher obesity rates.

In Canada, the prevalence of overweight boys increased from 15 percent in 1981 to 35.4 percent in 1996, and among girls from 15 percent to 29.2 percent. During the same timeframe, the prevalence of obesity in Canadian children tripled, from five percent to 16.6 percent for boys and from five percent to 14.6 percent for girls. A major concern regarding childhood obesity is that obese children tend to have an increased risk of becoming overweight in adulthood and higher morbidity and mortality rates in adulthood.

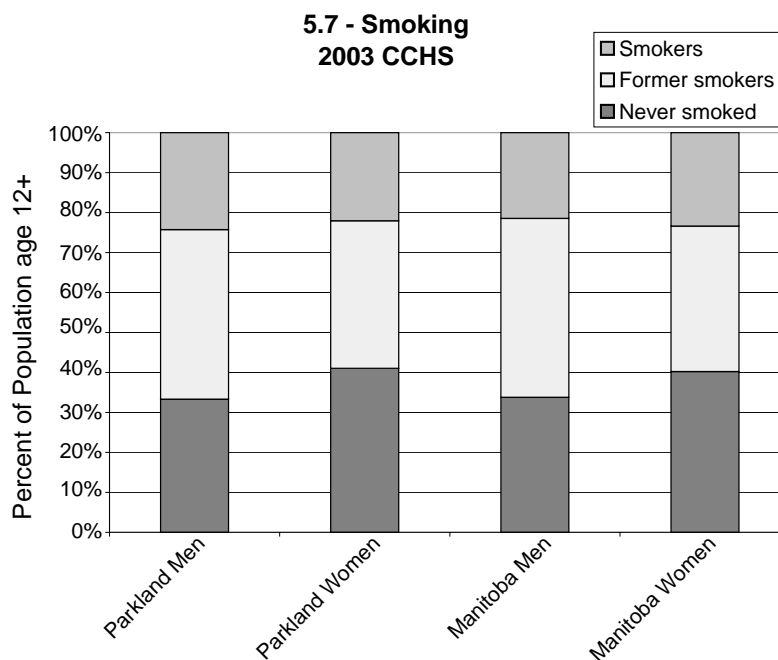
Smoking

Smoking increases the risk of many diseases. It causes lung cancer and other cancers, heart attack and stroke, and lung diseases such as chronic obstructive lung disease.

Less than a quarter of Parkland men and women were smokers in 2003. This is a slight decrease from the 2001 survey, when the overall rate was 24.7%. Smoking rates for both men and women in Parkland are similar to the Manitoba average.

Of those who don't smoke, 40% are former smokers, while 37% have never smoked. Men are more likely to be former smokers, while women are more likely have never smoked.

The trend over the last decade has been for a decline in the number of smokers. Across age groups, smoking rates are highest in those aged 20 - 24, and decline steadily with increasing age.



Exposure to Second-hand Smoke

Second-hand smoke causes cancers, cardiovascular disease, and lung diseases in non-smokers. It can also increase the risk of other diseases, such as ear infections and lower respiratory tract infections in children, and asthma.

In 2003, 11% of Parkland residents age 12 and over report being exposed to second-hand smoke regularly in their home. This means that at least one person smokes in their home.

This is similar to the Manitoba rate of 10.7%. The percentage exposed to a smoky home environment is lower than the percentage that smoke, suggesting that many smokers avoid smoking in their homes.

Over a quarter of Parkland residents age 12 and over report regular exposure to second-hand smoke in public places. Our men and women are more likely to be exposed to second-hand smoke than the Manitoba average of 19.5%. Men are more likely to be exposed than women are.

During the time period reported here, there was no public policy or legislation restricting smoking in many public places such as restaurants, bars, and recreation facilities. Some recreation facilities and restaurants in Parkland had voluntary bans in place, but the majority did not. New legislation to take effect in October, 2004 will eliminate second-hand smoke from all public places and workplaces.

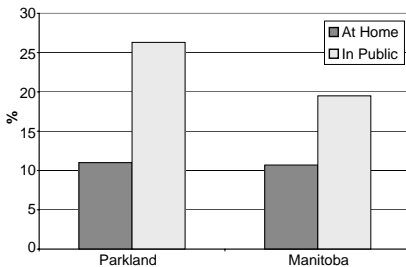
Alcohol and Drug Use

Heavy consumption of alcohol, whether in the form of regularly drinking more than 2 drinks/day, or 'binge' drinking of more than 5 drinks on one occasion, has health and social risks. Alcohol is an intoxicant that increases the risk of injury, violence, and unprotected sex. It is addictive, with negative consequences for home and work life. Consuming alcohol during pregnancy is the cause of Fetal Alcohol Spectrum Disorders – no safe level of drinking during pregnancy has been established.

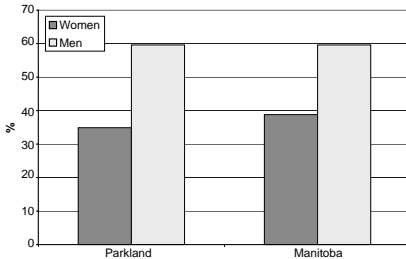
Heavy drinking also contributes to liver disease, high blood pressure, increases the risk of heart disease, stroke, some forms of cancer and digestive diseases, and can interact dangerously with many medications.

CCHS defines heavy drinking as consuming 5 or more drinks on one occasion. As a percentage of those who report drinking alcohol at all, 59.6% of Parkland men and 34.9% of Parkland women are considered heavy drinkers by this measure. These rates are similar to the Manitoba average. Since 2001, the frequency of heavy drinking has dropped from 63.3% for men and 44.2% for women.

5.8 - Exposure to Second-Hand Smoke
2003 CCHS



5.9 - Heavy Drinking
2003 CCHS



Addictions Foundation of Manitoba Services

The Addictions Foundation of Manitoba provides rehabilitation services to youth and adults in Parkland in a variety of settings including school-based, community-based youth services, and inpatient. Adult programs include Impaired Drivers Program, Gambling and Affected Program, Family Services, and Adult Rehabilitation. AFM provided service to a total of 308 Parkland residents in 2002/2003, for a rate of 730/100,000. This is slightly higher than the Manitoba rate of 656/100,000 individuals.

Among adult clients of AFM programs, roughly half (52%) used the adult rehabilitation program, while slightly less than half (44%) used the impaired drivers program in Parkland.

Youth Alcohol and Drug Use

Substance use is a significant concern among young people. According to the Addiction Foundation of Manitoba's 2001 Youth Alcohol and Drug Survey, youth in high schools across the province rated alcohol and drug use as their number two concern after "failing at school." Although the figures reported here are for youth across the province, personal communication with Parkland AFM representatives suggests that the pattern of substance use for Parkland youth is similar to the provincial average.

The majority of youth report some alcohol use. Heavy drinking, defined here as using alcohol more than once a week, was reported by 10% of those who had consumed alcohol in the past year. Over half of youth reported having at least experimented with tobacco use, with 40% having smoked within a year of the survey. Other drugs are used by less than half of youth. Marijuana and other cannabis products are the most frequently used drug, with 96% of those who report drug use having used cannabis. Boys are more likely to report alcohol and other drug use, but more girls than boys were tobacco smokers.

Young people reported their first tobacco use at an average age of 13.2 years, with alcohol use following shortly afterward at 13.3 years. Those students who had used other drugs reported their first use at 14.1 years on average.

5.10 Youth Alcohol and Drug Use

Youth Alcohol and Drug Survey	Ever Used	Used in Past Year
Tobacco	58%	40%
Alcohol	87%	80%
Other Drugs	48%	40%

Source - Addictions Foundation of Manitoba

Focus on Youth Health

The Community Health Assessment Team held focus groups with youth from around the region. A total of 40 high school aged youth took part in five focus groups - three with girls, and two with boys. The focus group discussions centred on identifying the health concerns of youth, and included a discussion of where youth go for information and support.

Issues that concern youth

Although the groups were separated by gender, boys and girls identified many of the same issues.

Sexuality - decisions about sexual relationships and the possible consequences of sex - including Sexually Transmitted Infections (STI's) and pregnancy - are a concern for both boys and girls

Smoking - "When you start in grade 7, you don't think about long term effects. You don't think it will affect you. It just turns into a long-term thing." Although some youth may be pressured by peers to try smoking, one group of girls described pressure to quit smoking from non-smoking peers.

Drug and alcohol use - substance use and abuse are a concern for youth. While some youth may see drinking or drugs as recreational, others are turning to substances to help them cope with problems.

Family problems - relationships with parents are a big issue for youth. Some youth are verbally or physically abused. Others are affected by the stress of divorce. Both boys and girls are concerned about getting the guidance and support they need from parents and other adults.

Activities - both boys and girls described a lack of suitable activities. Teachers and other leaders in small communities cannot offer the variety of activities that youth feel they need. In some communities, few activities are aimed at youth.

Social interactions - bullying, teasing, violence and gangs are a concern to youth around the region. Boys and girls described the importance of being part of a social group to be protected from bullying and put-downs. Youth who do not belong to a group of friends are both socially isolated and vulnerable to verbal and physical abuse among their peers.

Academics - school performance is a source of stress for youth in high school - from choosing courses to getting good grades, to graduating and deciding what to do next.

Healthy lifestyles - boys described their eating habits and activity levels as poorer than their parents' generation, and expressed a desire to change this.

Health services - some youth expressed concerns about wait times and travel to access specialized health services, and the costs of some health care expenses

Eating disorders - young women described concerns about body image. They feel that many girls have poor self-image related to weight. For some girls, this results in eating disorders.

Powerlessness - girls described having no control over many aspects of their lives. They feel that their opinions do not count and adults do not listen to them.

Where youth go for information

- **Friends** - the number one source for both boys and girls. Youth find friends easy to talk to, trust and rely on them. "That's all you've got out here."
- Parents and other family members
- Doctors, Public Health Nurses, and other health care "experts".
- Internet, books, TV and magazines
- Phone lines such as Kids Help and Teen Touch

Youth find it difficult to know whether information sources are reliable. In the case of friends, it is a question of trust. With experts or print media, they rely on the expertise of the source, and may seek information in multiple sources to find consistent messages.

Where youth go for support

- Friends - the number one source of support for young people
- Parents and other relatives
- Teachers, counsellors, church supports are used by some youth but not all

In many cases, youth do not seek or receive the support they need. Embarrassment, fear and shame may keep them from seeking help from friends, parents, or "experts". In small communities, youth are concerned about confidentiality. They may avoid seeking support if they fear that "word will get around". They may not know who to talk to or where to go for help. Youth who do not seek or receive support may end up turning to drugs or alcohol to try to cope with problems.

Focus on Women's Health

28 women in four communities around the region met with members of the Community Health Assessment team to discuss women's health. The women identified several factors they see affecting women's health, and discussed concerns about safety for women in their homes and communities.

What affects women's health

Multiple roles and responsibilities - "We're always the caregivers, no-one takes care of us."

Women described pressures on them to meet the needs of others, in their families and communities. These expectations do not change for women who work outside the home. When women put others' needs before their own, they neglect their health.

Isolation - Those who do not work outside the home described the isolation of being at home all day with no interaction. In small communities, many women stay at home to avoid "giving people reason to talk about you." The loneliness contributes to depression and problems with substance use.

Unemployment - women in remote communities described a lack of good paying jobs and meaningful work. This affects health directly and also indirectly by decreasing access to needed resources. Without education, women may lack the self-confidence to even apply for jobs that are available.

Nutrition - In smaller communities, healthy foods are scarce and expensive - and travelling to larger centres is both costly and difficult. Throughout the region, women see unhealthy foods as more available and more convenient than healthy foods.

Physical activity - Women described a lack of facilities, leadership, and motivation for activity. In rural and remote communities, wildlife and a lack of sidewalks or paths make active living a safety concern.

Addictions - Alcohol and drugs are an issue for many women - both their own addictions and those of the men in their lives: "You never know what people are going to do when under the influence." Spending on alcohol takes away money needed for food and other daily essentials.

Access to health care - For women in smaller communities, accessing even basic health care can be a challenge. Throughout the region, women described the difficulties of navigating the health care system when specialized care is needed: "You wait for the specialist appointment, then you wait for the tests, then you wait for the surgery. You suffer a long time before the problem is solved." Women feel the need to educate themselves about their health, and advocate for themselves and their families to receive the best possible care.

Women's safety concerns

Crime is a concern in rural as well as urban areas. Urban women described concerns about gangs and inadequate policing, and reluctance to report crimes for fear of repercussions. They feel that their communities are not empowered to resist or prevent the crimes going on around them. In urban, rural and remote communities, women do not feel safe when alone at night either at home or out in the community. Fears are heightened by incidents in the community and also by crimes reported on TV. For women in some rural areas, the lack of 911 service adds to their fears.

Community infrastructure is also a safety concern for women. Rural and remote areas lack safe walking paths or sidewalks, and may face problems with wildlife such as bears and uncontrolled dogs. In urban areas, sidewalks can pose a challenge to women with limited mobility, whether due to ice and snow in winter or uneven pavement in summer. Lighting at night is a concern in communities of any size.

Violence and abuse are a further safety concern for many women. Low self-esteem may be keeping women in abusive relationships: "We need to educate them when they're young that you don't have to put up with being unsafe." Alcohol and drug use contribute to violence in the homes of many women.

Focus on Men's Health

Two groups of men met with members of the Community Health Assessment Team to discuss men's health. They discussed health concerns unique to men, differences between men and women that affect health, and how they perceive the health information needs of men in Parkland.

Health Concerns that Affect Men

Socio-Economic Concerns – many of the men felt that low incomes and education may be contributing to problems with physical and mental health for Parkland men. As men traditionally have the “provider” role in families, they felt that financial stresses may place a heavier burden on men, leading to additional stress, and possibly to difficulty coping. Low incomes may also mean that healthy foods and other healthy lifestyle choices are less accessible to many people.

Stress and Mental Health – the groups saw stress and mental health as a growing problem for men in their communities. They also felt that it was becoming more acceptable to discuss mental health openly, and that men may simply be more open to admitting problems with stress and/or mental health. They felt that problems with stress and mental health may also be a partial cause of higher rates of physical illness in Parkland men.

Prostate Cancer – middle-aged and older men are aware that prostate cancer is a concern, although younger men may not be as aware. However, they expressed discomfort with the screening procedure, and felt that this is a barrier to some men to having screening done in a timely manner. If men wait until they have prostate-related symptoms, rather than seeking routine screening, they may not be catching prostate tumours early enough for effective treatment.

Prevention – the groups felt that many of the health problems affecting men are preventable, and that there are not sufficient resources for preventive care, and providing supportive environments for healthy behaviours.

Gender Roles – the men felt that many of the aspects of traditional gender roles affected their health. They described women as “nurturers”, while men have the role of “workers” or “providers”. Because men's role does not include caring for people's health, they felt that men are more likely to neglect their health than women. They also described a “macho” attitude that causes men to avoid admitting they may have problems or weaknesses. Thus men do not reach out for help but prefer to deal with their problems alone. They felt that women were better equipped to care for their own health because they are more willing to discuss problems with others and to seek health care.

Health Information and Services

Men in both groups described health information as something they need in order to take care of themselves and seek health care when appropriate. However, they see health information as hard to find, complex and confusing. They felt that many men may expect to receive health information from their doctors, but that doctors often do not have enough time with a patient to educate them about their health. In cases where a doctor is not the best source of information, they felt that many men did not know where else to seek information. They expressed a need for simple, reliable health information, available in a variety of formats such as brochures, websites, or fact sheets. This would allow men to seek information for themselves as they want it, and to do so in relative privacy.

Men often perceive health services as targeted to women, and do not feel as comfortable accessing these services as they feel that women do. Rather than sitting in a waiting room surrounded by women, they would prefer to be able to drop in and have the problem dealt with quickly. As most health services are provided during the day, they felt that their work responsibilities were a barrier to accessing services. This is compounded by a sense that it is not as acceptable for men to take time off work for health care as it is for women.

Living Well Planning Considerations

- The majority of Parkland residents are not physically active enough to achieve health benefits, and do not eat the recommended amount of fruits and vegetables. In addition, 21.5% of Parkland men and 24% of Parkland women are obese, and 25% of Parkland residents smoke. These risk factors contribute to our prevalence of chronic diseases such as cardiovascular disease, diabetes and respiratory disease.
- In focus groups, women described barriers to living well that include: the cost and availability of good quality food; facilities, leadership, and motivation for physical activity; and safety concerns.
- In focus groups with men, they described growing concerns about stress and mental health among men. They echoed the women's concerns about barriers to healthy eating and physical activity.
- Both men and women felt that traditional gender roles have a negative impact on their health.

USE OF HEALTH CARE SERVICES

Community Health Services

Primary Health Care

Primary Health Care is a general term used to describe a person's first level of contact with the health system through community health offices and family doctors. Primary health care services in Parkland are used to:

- Promote health
- Prevent illnesses
- Care for common illnesses; and
- Look after ongoing health problems

Primary health care involves a team approach to meeting people's health needs. A variety of health care providers are part of the primary health care team. Some members of the Primary Health Care Team in Parkland include:

- Community Health Workers,
- Public Health Nurses and Community Health Nurses
- Mental Health Workers,
- Diabetes Educators
- Health Promotion Coordinators and Community Health Nutritionists

A Primary Health Care Framework is used to deliver Community Health Services in the Parkland Region.

Public Health

Public Health Services include a broad range of programs that focus on the health of the entire population. Public Health staff engage in activities related to health promotion, disease and injury prevention, and health protection.

Public Health Program services include:

- Reproductive health, pregnancy/childbirth and parenting
- Family health for children, adolescents, adults and the elderly
- Nutrition education
- Prevention of injury, chronic diseases and substance abuse/addictions
- Baby First Program
- School Health Program
- Immunizations
- Sexually Transmitted Infection
- Healthy Baby – Growing Healthy Families
- Child Development Clinics
- Communicable Disease Control
- Health Promotion

When asked "How would you rate your experience with community services in past year?" 65% of respondents answered "Very Good" or "Excellent". Another 29% answered "good". (Acumen Survey 2003)

Internal program statistics for the fiscal year 2002/2003 indicate a total of 13, 852 client contacts for the Public Health Program as indicated in the chart below. The number of contacts for the program has increased somewhat from the previous year.

Service Provider	Number of Client Contacts 2001/2002	Number of Client Contacts 2002/2003
Public Health Nurses	7197	8347
Community Health Worker	1155	1660
Community Health Nurse	3014	1523
Baby First Home Visitors	807	1131
Health Promotion Coordinator	684	977
Community Nutritionist	291	214
Total	13,148	13,852

As client contacts represent each time the service provider had contact with a client (whether individual, family or group), we cannot identify what percentage of the population has had contact with the Public Health Program.

Regional Diabetes Program

The Regional Diabetes Program (RDP) objectives are to :

- Assist clients and families affected by diabetes in making informed choices and behaviour changes consistent with a healthy lifestyle. This includes self-management skills in areas such as diet, exercise, and medications and technical skills such as monitoring and interpreting blood glucose;
- Improve the diabetes knowledge, skills and attitudes of health professionals who deliver health care to persons with diabetes. This incorporates the Canadian and Manitoba Standards of Practice;
- Facilitate access to resources for primary prevention of diabetes;
- Participate in the development and implementation of a regional strategy, which addresses the areas of prevention, education, care, research and support;
- Increase interdepartmental, inter-sectoral collaboration in dealing with the increased prevalence of diabetes.

Program statistics show that over 300 new clients were seen in RDP in 2002/2003. This represents an increase of 20% over the previous two years. The program also saw an additional 971 follow-up visits in 2002/2003, a 47% increase over 2000/2001.

Fiscal Year	New Clients	Follow-up Contacts	Total Contacts
1999-2000	243	698	941
2000-2001	251	659	910
2001-2002	255	822	1077
2002-2003	303	971	1274

The RDP currently has the capability of providing additional visits with clients, as seen by the attrition rate. Internal statistics show that 37% of scheduled client visits in the first 6 months of 2003/2004 resulted in either “no-shows” or late cancellations. There are many reasons for attrition, but barriers related to time and distance to travel from remote communities may account for a portion of these cancelled or missed appointments. The RDP increased the number of locations for itinerant clinics to include several remote communities with the goal of making the program more accessible to clients throughout the region.

An analysis of the client numbers for the first half of 2003/2004 shows that 34% were seen in itinerant clinics, while the remaining 66% were seen in the base locations of Swan River and Dauphin. This time period was prior to the expansion of itinerant clinics into several more remote communities with the goal of making the program more accessible to residents of those communities.

Therapy Services

The Regional Therapy Program includes Physiotherapy, Occupational Therapy, and Speech Language Pathology.

These services help to improve and maintain the functional independence of clients with impaired functioning from injury, chronic disorders or disability. Services are provided in a range of settings, including the home/community, inpatient/outpatient services in facilities and long-term care facilities.

Rehabilitation is directed to improving or maintaining mobility and self-care, and helps people adapt to their altered abilities, and the environment in which they live and work.

Service Provider	00/01 total visits	01/02 total visits	02/03 total visits
Physiotherapy	10,298	10,921	10,985
Occupational Therapy	2024	3232	3,605
Speech Language Pathology	729	824	824

The number of total client visits has increased from 2000/2001 to 2002/2003 for each component of the therapy program. Between 2001/2002 and 2002/2003 there was a 17% increase in care to new clients.

Community Mental Health

The Community Mental Health Program is a community-based mental health service designed to:

- Provide comprehensive mental health services to people experiencing emotional and psychiatric problems.
- Detect problems early so they do not severely limit a person's ability to function.
- Promote public awareness of mental health issues.
- Educate on mental health issues upon request.

Community Mental Health Services are available throughout the Region. Community Mental Health staff work closely with other health and community service professionals to provide a wide range of services.

The number of cases opened and closed, and total caseload have increased consistently over the past 3 years for both the Community Mental Health program overall, and for the Mental Health Services For The Elderly program. The caseload for the Child/Adolescent Mental Health program showed a slight decrease, which may relate to staff vacancies during this period, rather than a drop in need for services. Over this three-year period, the number of Parkland children and adolescents admitted to acute psychiatric care in Brandon increased significantly.

A more detailed description of mental health service use will be contained in the Manitoba Centre for Health Policy's Report on mental health (September 2004).

6.1: Community Mental Health Services

Community Mental Health Program Case Counts

	2000/2001	2001/2002	2002/2003
Cases Opened - Community Mental Health (all)	751	745	857
Child/Adolescent Mental Health	202	192	185
Mental Health Services for the Elderly	151	169	230
Cases Closed - Community Mental Health (all)	681	729	803
Child/Adolescent Mental Health	207	228	182
Mental Health Services for the Elderly	127	135	170
Open Cases at Year-End	953	963	1026

Inpatient Psychiatric Admissions

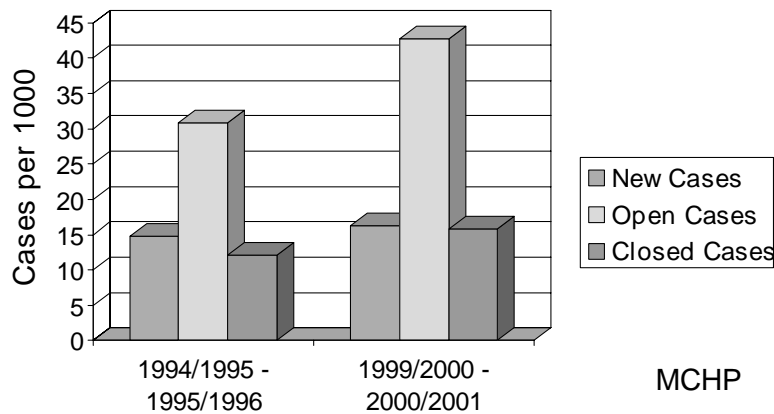
	2000/2001	2001/2002	2002/2003
Admissions to Parkland Psychiatric Unit	209	205	214
Admissions to Brandon Child/Adolescent Unit	15	18	25

The trend over the last several years has been for increased use of Community Mental Health services. Program staff feel that the increase reflects increased awareness of the program and decreased reluctance on the part of clients to seek care, rather than an increase in need for mental health services.

Home Care

Home Care is a community-based program that provides home support to individuals who require health services or assistance with activities of daily living that are not available from existing supports or community resources. Home Care works with individual's and provides assistance to help them remain in their own home for as long as is safely possible. A professional assessment of the individuals needs, existing supports and community resources determines eligibility for the Manitoba Home Care Program.

6.2: Home Care Cases in Parkland



Use of the Home Care program is indicated by three sets of numbers: the rate at which home care cases are being opened (new cases), the number of cases open per 1000 people, and the rate of case closings. From the earlier time period, fiscal years 1994/1995 – 1995/1996, to the later time period of 1999/2000 - 2000/2001, all three rates increased.

The relationship between the number of new cases and closed cases suggests whether the rate of open Home Care cases is likely to increase or decrease in the future, and how quickly. In the earlier time period, the rate of case closing was significantly lower than the rate of new cases, suggesting that the use of home care was increasing. By the later time period, the rate of open cases has gone up, but the difference between the new case rate and the rate of closing has narrowed. This suggests that use of Home Care is still increasing slightly, but not at the same rapid rate as it was in the mid-1990's.

Several trends affect use of the Home Care program. One trend is the aging of the population. With greater numbers of people living into their eighties and nineties, there is an accompanying increase in the number of people requiring some assistance to remain safely in their home. Increased demand for beds in hospitals and personal care homes leads to greater pressure on the Home Care system to maintain people in their homes with support and nursing care in order to prevent or delay admissions. The increased pressure on hospital beds has also led to changes in the kind of Home Care provided. At one time, home support workers provided the majority of Home Care,

with little need for nursing care. Today there are more people being discharged from hospital into Home Care while they still require nursing care. All of these trends have contributed to the increase in use of Home Care over the last decade.

*Average length of home care case
in Parkland:*

1994/95-1995/96 - 203 days

1999/00-2000/01 - 219 days

The average length of time that Home Care cases remain open has also increased somewhat over this time period. The same trends also affect the length of service required. Acute care patients requiring nursing care after discharge generally require short term care, while elderly patients or others with poor functional health requiring chronic care may receive Home Care for years rather than weeks or months.

Palliative Care

The Palliative Care program provides skilled, compassionate interdisciplinary professional and volunteer care for people whose disease does not respond to curative treatment. Care is provided throughout the region in hospitals, personal care homes and in the home, with the goal of achieving the best possible quality of life for clients and their families.

Although palliative care has traditionally been provided in all settings in the region, in December 2002 a registry was established to provide a formalized Palliative Care program throughout Parkland. The Province of Manitoba has also created a Palliative Care Home Drug Program that provides drug coverage for people who are registered with the Palliative Care program. Since the registry was put in place on December 19, 2002, there have been 98 people registered with the Palliative Care program, 88 of whom were also registered with the provincial drug program (as of August 15, 2004).

Support Services to Seniors

The Services to Seniors Program assists communities in creating and sustaining Support Services that will maintain and/or enhance the physical, psychological and social well-being of older persons in order to support their ability to remain independent. Examples include increasing the range of opportunity for personal development in retirement, promoting wellness-oriented lifestyles and supporting independent living by older adults in their own homes.

PRHA funds seven Community Resource Councils that provide support services to seniors living in the community. These councils coordinate transportation, shopping, friendly visiting, information and referral, and personal response systems. These services are provided by a combination of private businesses and volunteers in each community.

PRHA provides funding to 17 congregate meal programs in 11 communities. These programs provide a nutritious hot meal in a social atmosphere to seniors living independently. Meals on Wheels are provided through facility and community settings to bring a nutritious meal to frail seniors who are not able to travel to a Congregate Meal program. The number of meals provided by both programs has increased steadily in the last 3 years.

Community Meal Programs for Elderly – Number of Meals Served

	2001/2002	2002/2003	2003/2004
Congregate Meal	54,694	54,638	58,077
Meals on Wheels – Facility	10,266	11,506	12,305
Meals on Wheels - Community	6,392	6,261	6,067
Total Meals Served	71,352	72,405	76,449

Long Term Care Services

Personal care homes (PCH) provide residential long-term care for individuals whose functional capacities are chronically impaired or at risk of impairment. Some facilities also offer programs for people living in the community. Adult day care provides recreation and socialization in a supportive environment. Respite care provides short-term admissions to home care clients to provide a period of relief for their families or other caregivers.

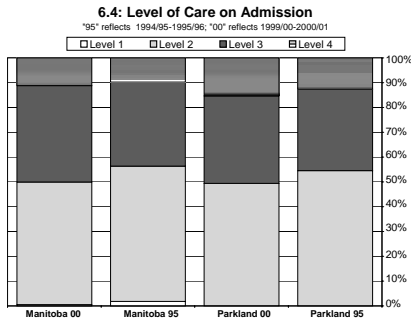
Parkland’s 11 personal care homes contain 518 long term care beds and 11 respite beds, for a total of 529 beds. Our bed supply is 123.4 beds per 1000 residents aged 75 and over. The provincial guideline for construction purposes has been 120/1000, although this guideline does not take health status into account. The Manitoba average bed supply is 130.1 beds per 1000 residents aged 75 years and over.

The Manitoba Bureau of Statistics has projected that by the year 2020, we will have fewer seniors in Parkland. Based on that projection, and on historical and current patterns of personal care home use, the Manitoba Centre for Health Policy has projected that we will need only 443 beds in our region, which would give us a surplus of nearly 100 beds.

In 1999/2000 - 2000/2001 there were 127/1000 individuals residing in personal care, with an admission rate of 28/1000 aged 75+. Since that date we have experienced temporary bed closures to accommodate repairs and renovations, bringing down the number of PCH residents and slowing down the admission rate temporarily.

6.3: Long Term Care Beds 2002/2003

Facility	Number of Beds
Dauphin PCH	85
St. Paul's Home	70
Swan Valley Lodge	55
Dr. Gendreau PCH (Ste. Rose)	63
Swan Valley PCH	58
Crocus Court PCH Roblin	59
Grandview PCH	39
Gilbert Plains Health Centre	29
McCreary Health Centre	20
Benito Health Centre	20
Winnipegosis Health Centre	20
Total	518



In addition to the population over age 75, another indicator of the need for personal care home beds is the time people wait to be admitted to personal care, once they have been panelled for admission. Measured by the median wait time (the cut off where half of people wait longer and half of people wait a shorter time), wait times for personal care went down in Parkland between the mid and late 1990's, from about 14 weeks to about 8 weeks. The main factor that explains this drop in wait times is the increase in reliance on home care.

Another changing aspect of personal care is the level of care required by people admitted to PCH. There are 4 levels of care assigned to personal care clients when they are panelled for admission. In Parkland, clients are not admitted at level 1. Between the two time periods of 1994/5 -1995/6 and 1999/2000 - 2000/1 there was a change in the relative proportions of people admitted at levels 2, 3 and 4. Level 2 admissions dropped to just under 50%, while the proportions of levels 3 and 4 increased.

For the same time periods, there was also a change in the median total length of stay for personal care home residents, according to their level of care on admission. The overall median for all residents has decreased somewhat, as has the median length of stay for those admitted at level 2. This may relate to the increase in reliance on home care to keep people at home - home care clients are able to wait until further into their life span before being admitted to personal care.

6.5: Median Length of Stay by Level of Care on Admission, Parkland RCH Residents

	All	Level 1	Level 2	Level 3	Level 4
1994/95-1995/96	2.61 yrs		2.87 yrs	1.95 yrs	0.76 yrs
1999/00-2000/01	2.16 yrs		2.75 yrs	2.01 yrs	1.30 yrs

in years

However, there has been an increase in the median length of stay for people admitted at levels 3 and 4 - the people requiring the most care are actually surviving longer in personal care than they were in the mid-1990's. This may be partly attributable to the recent practice of providing influenza and pneumococcal immunization to personal care home residents.

Acute Care Services

Emergency Health Services

Emergency Health Services include hospital emergency department services, ambulance and ambulance dispatch services, as well as emergency health preparedness. Hospital emergency services are provided at most hospitals throughout Parkland. Ambulance Services are provided from the communities of Dauphin, Ethelbert, Gilbert Plains, Grandview, Roblin, Ste. Rose, Swan River, Waterhen and Winnipegosis, and have recently been added to McCreary.

There has been a 5% increase annually in ambulance use throughout the region in the last three years. Calls may be of an emergency nature or may be less urgent, such as calls for transfers between hospitals. On average, 50% of the total ambulance calls over the last three years were emergent.

When asked "How would you rate your hospital or ambulance experience?" 86% of respondents said "Excellent", Very good", or "Good".

(Acumen Survey 2003)

6.6: Emergent and Non-Emergent Ambulance Calls

	2000/2001	2001/2002	2002/2003
Emergent	1547	1899	1966
Non-Emergent	1853	1695	1820
Total	3400	3594	3786

Hospital Services

Acute care services provide active treatment to reduce the impact of medical conditions or disorders. Generally, acute care services are provided in a hospital setting. Basic acute care is provided throughout the region in facilities in Roblin, Grandview, Swan River, Winnipegosis, Dauphin, Ste. Rose and McCreary. Parkland also provides a variety of specialized acute care services. Major surgical services are provided at Dauphin, and minor surgeries are done in Swan River. Obstetrical services and chemotherapy programs are provided in both Dauphin and Swan River. Hemodialysis is also provided in Dauphin.

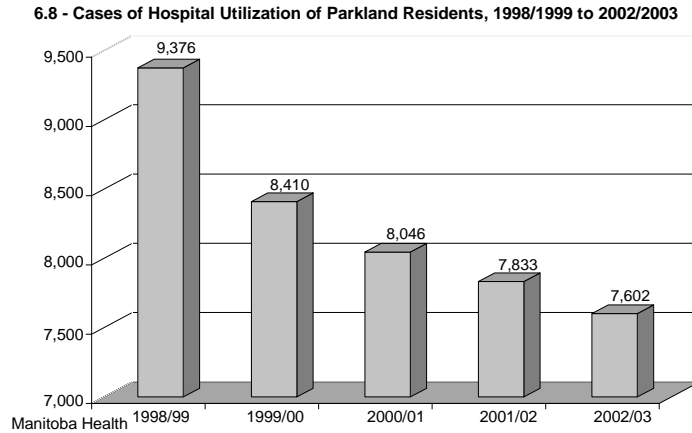
There are 215 acute care beds in Parkland's 7 hospitals, for a ratio of 5.1 beds/1000 population in 2002/2003. Manitoba Health's guideline for construction purposes has been 2.5 beds/1000. Using this guideline, Parkland appears to be oversupplied with hospital beds. However, this guideline does not take health status into account. The Manitoba average supply of acute care beds is 3.8/1000 population. Internal statistics show an average occupancy of 71% between 2000/2001 and 2002/2003 in Parkland's 215 beds.

6.7: Acute Care Beds 2002/2003

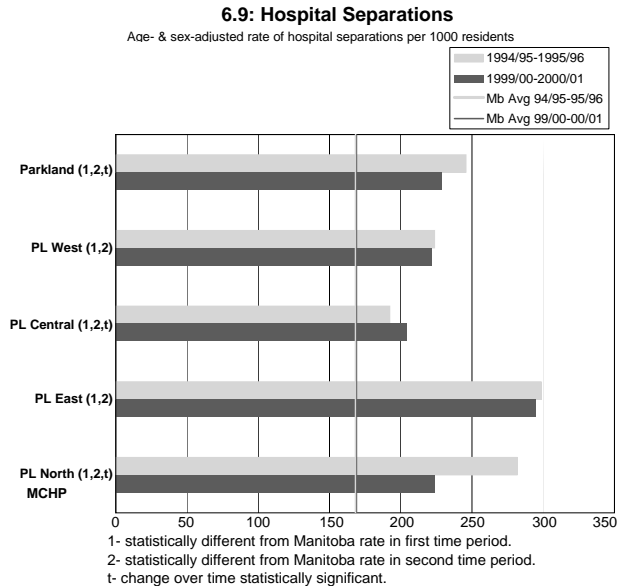
Facility	Number of Beds
Dauphin Regional Health Centre	82
Swan River Valley Hospital	32
Ste. Rose General Hospital	26
Roblin District Health Centre	25
Grandview District Hospital	18
McCreary/Alonsa Health Centre	13
Winnipegosis & District Health Centre	14
Benito Health Centre	5
Total	215

Hospital Admissions

The number of inpatient admissions to hospital has been dropping steadily in Parkland over the last several years. In 2002/2003, Parkland residents were admitted to hospital 7,602 times. This drop in hospital use reflects a growing reliance on outpatient treatments such as day surgery, and on ambulatory care or home care for more minor conditions.



When both inpatient and outpatient admissions are combined, hospitalizations are declining in both Parkland and Manitoba. The North District has seen the most significant drop in hospital admissions, which likely reflects temporary bed closures at Swan Valley Hospital. However, Parkland hospital use is higher than the Manitoba average in all districts.



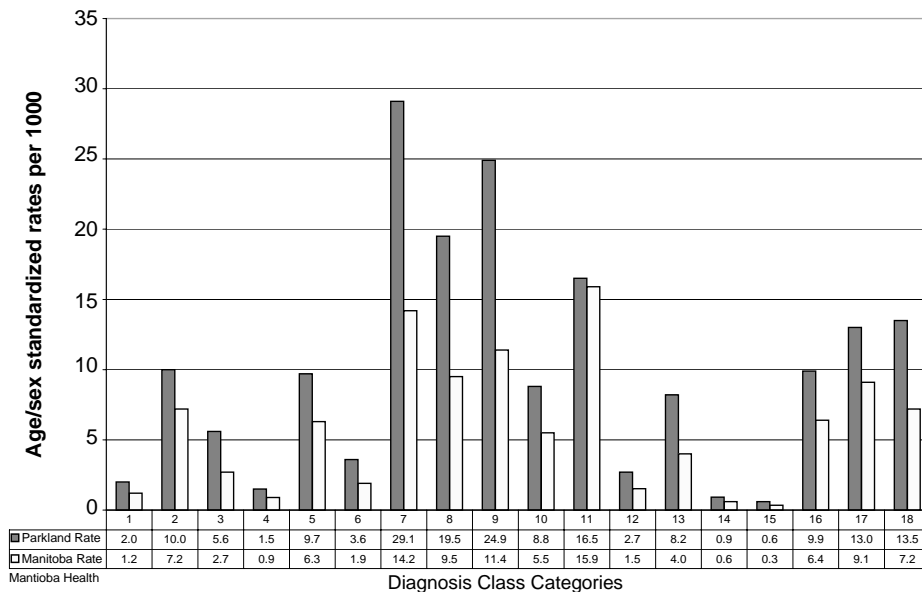
Parkland's overall health status as reflected in the premature mortality rate is similar to the Manitoba average. Our use of hospitalization, however, is higher than average overall and for all of the diagnostic categories. The rate of admission for the three most frequent categories – circulatory, digestive and respiratory diseases – is double the Manitoba rate in each case.

In a targeted consultation with the region’s Acute Care Services Committee, the group discussed several factors that they felt may be affecting admission rates. The availability of hospital beds is seen as affecting the doctor’s decision to admit – “when there are empty beds, they will be used”. Temporary bed closures at Swan River Valley Hospital have caused increased pressure on the remaining beds, which is reflected in the drop in North District hospitalizations.

Another factor is the distance that many region residents must travel to access hospital and physician services. Physicians may be more likely to admit patients for observation when they have traveled a long distance. Transportation difficulties may also mean that residents of remote communities wait until they are very ill before traveling to seek medical care. Thus they may be more likely to be hospitalized for conditions that could have been treated through ambulatory care if they had sought care earlier.

Recent expansion of the region’s surgical program is seen as a third factor affecting hospital use, as more patients are seen for both day and inpatient surgery.

6.10 - Hospital Utilization Cases 2002/2003

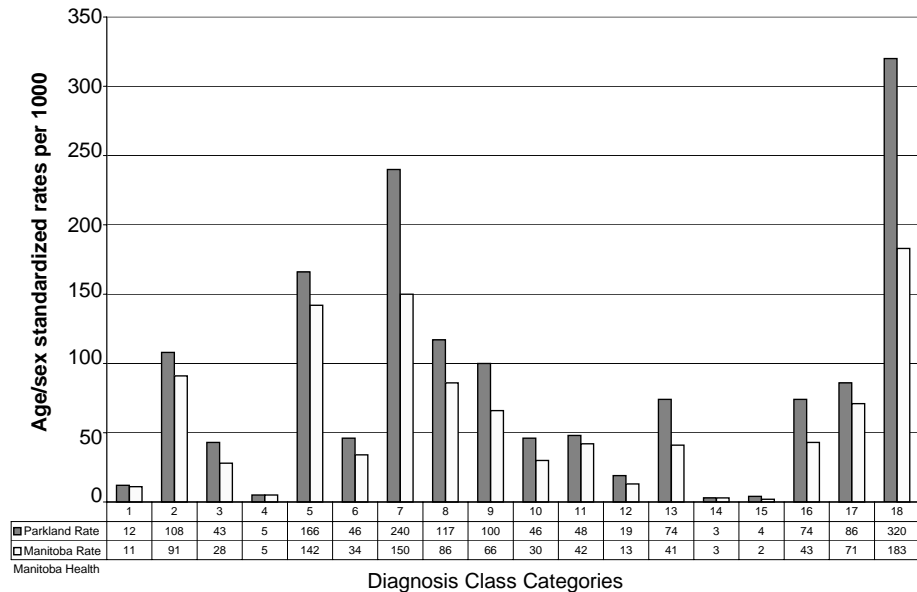


- 01 Infectious and Parasitic Diseases (001-139)
- 02 Neoplasms (140-239)
- 03 Endocrine, Metab. Dis., Immun. Disorders (240-279)
- 04 Disease of Blood, Blood-Forming Organs (280-289)
- 05 Mental Disorders (290-319)
- 06 Disease of Nervous Sys. & Sense Organs (320-389)
- 07 Disease of Circulatory System (390-459)
- 08 Disease of Respiratory System (460-519)
- 09 Disease of Digestive System (520-579)
- 10 Disease of Genitourinary System (580-629)
- 11 Pregnancy, Childbirth, Puerperium (630-676)
- 12 Disease of Skin & Subcutaneous Tissue (680-709)
- 13 Disease of Musculoskel. Sys. & Conn. Tis. (710-739)
- 14 Congenital Anomalies (740-759)
- 15 Conditions Origin. in Perinatal Per. (760-779)
- 16 Symptoms, Signs, Ill-Defined Conditions (780-799)
- 17 Injury & Poisoning (800-999)
- 18 Factors Infl. & Contact Health Serv. (V01-V82)

Hospital Days

Similar to rates of hospital admission, Parkland residents' use of hospital days is also higher than the Manitoba average overall and for most diagnostic categories. However, the discrepancy is not as significant as that for hospital admissions.

6.11 - Hospital Utilization - Days in Hospital 2002/2003

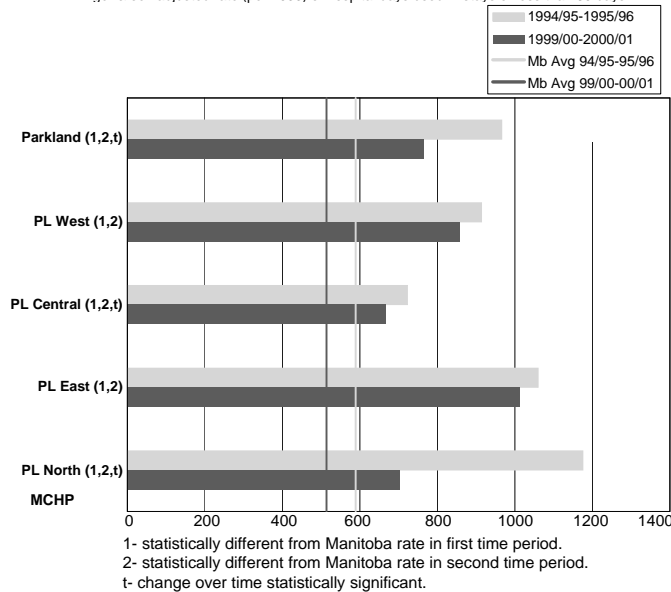


- 1 Infectious and Parasitic Diseases (001-139)
- 2 Neoplasms (140-239)
- 3 Endocrine, Metab. Dis. Immun. Disorders (240-279)
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- 17 Injury & Poisoning (800-999)
- 18 Factors Infl. & Contact Health Serv. (V01-V82)

Short stays are hospital stays that are less than 30 days. Parkland residents are in hospital for a higher number of days during short stays than the Manitoba average, although the rate has dropped between the early 1990's and the late 1990's along with the number of admissions. Much of this drop in short stay days can be attributed to the significant decrease in the North District. Part of this drop likely relates to the temporary bed closures in Swan River, as well as to greater reliance on home care, outpatient treatment and ambulatory care.

6.12: Short Stay Days

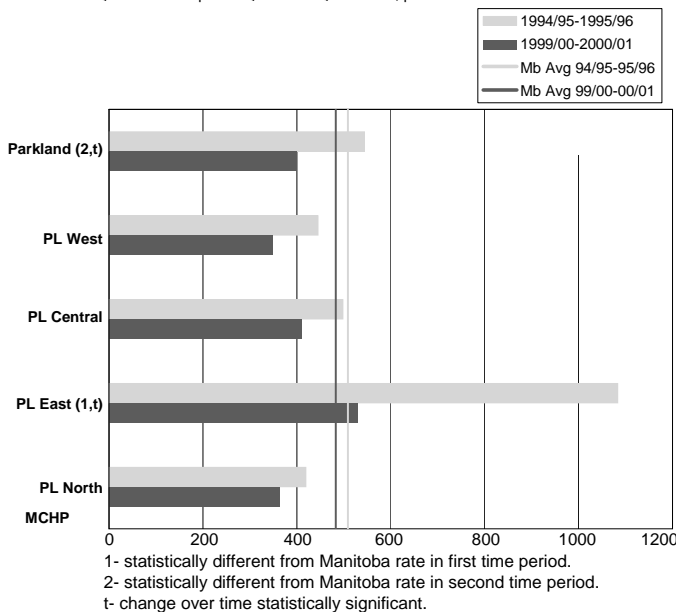
Age- & sex-adjusted rate (per 1000) of hospital days used in stays of less than 30 days



Long stays are those stays in hospital that last 30 days or more. Parkland residents' use of long stays has decreased between the early 1990's and the late 1990's, and is now lower than the Manitoba rate. The decrease was most noticeable in the East District, which had been significantly higher than the Manitoba rate.

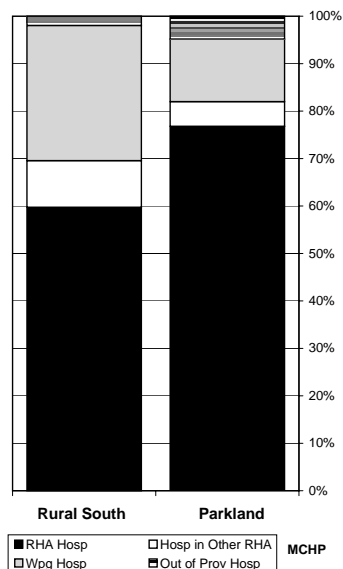
6.13: Long Stay Days

Days used in hospital stays of 30 days or more, per 1000 residents



Many long stay days are used by people awaiting placement in personal care homes. The sharp drop in long stay days in the East District relates to the increased availability of personal care home beds. During the later time period 25 PCH beds became available, allowing the admission of patients who had been awaiting placement in hospital.

6.14: Location of Hospitalization
1999/2000 - 2000/2001



Location of Hospitalization

Seventy-seven percent of Parkland hospitalizations are within the region. As Parkland Regional Health Authority does not provide tertiary care, a small percentage (13%) need to use Winnipeg facilities.

Parkland is distinct from the other rural south regions in that we provide the majority of hospital services needed by our own population, with the exception of tertiary care. Other rural south regions are adjacent to either Winnipeg or Brandon, and residents of those regions make heavier use of those urban facilities. Parkland is also unusual in the relatively high use we make of out-of-province hospitals (5% of admissions for Parkland vs. 2% for Manitoba). Most of these visits are to hospitals in Saskatchewan near the border with the North and West districts of Parkland.

Surgery

High Profile Procedures

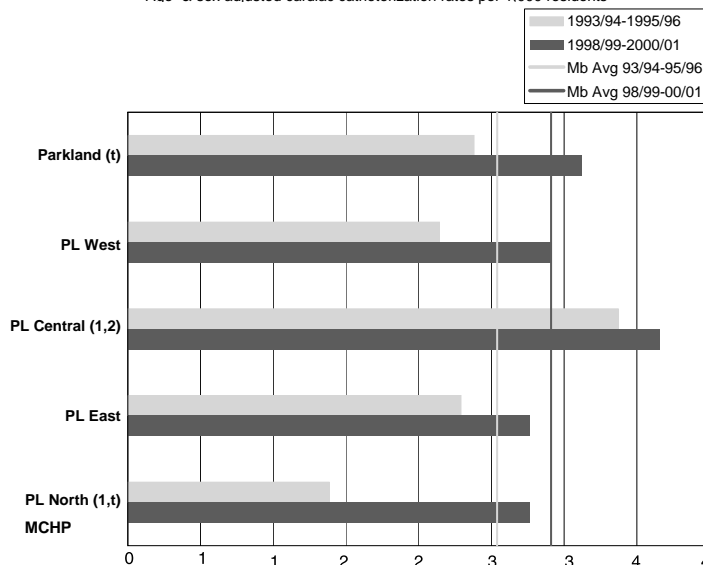
Certain types of surgery are often highlighted in the media as indicators of access to health care, although access is not the only factor affecting rates. The high-profile procedures reported here relate to coronary artery disease. None of these procedures are performed in Parkland hospitals.

Cardiac Catheterization

Cardiac catheterization is a procedure used to identify the exact location and severity of coronary artery disease.

6.15: Cardiac Catheterization

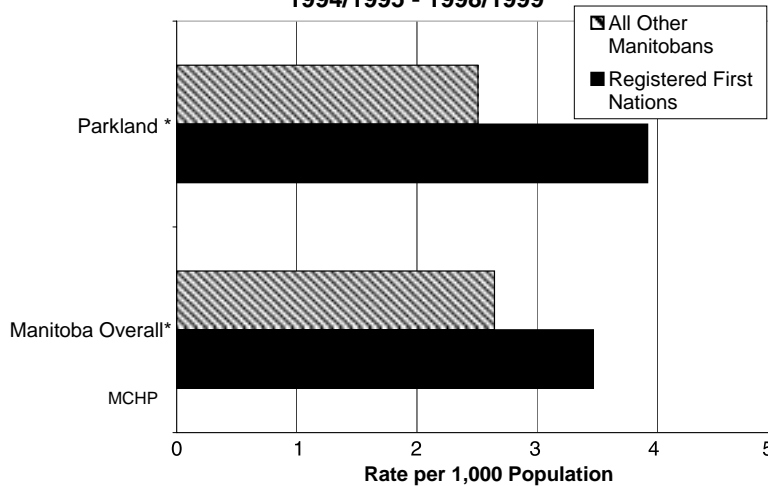
Age- & sex-adjusted cardiac catheterization rates per 1,000 residents



1- statistically different from Manitoba rate in first time period.
2- statistically different from Manitoba rate in second time period.
t- change over time statistically significant.

The rate of cardiac catheterization in the Parkland region is similar to that reported for Manitoba in both time periods and both rates have increased over time. In the early 1990's there was considerably more variability in the rates across districts. The increase in the Parkland rate appears to have contributed to more even distribution across districts. This suggests that there is now more equal access to these procedures across districts as compared with the early 1990's.

**6.16: Cardiac Catheterization among First Nations
1994/1995 - 1998/1999**

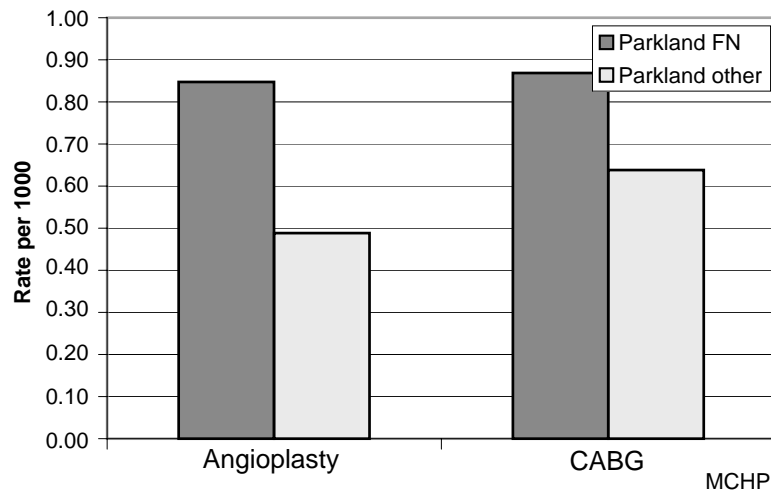


Rates of cardiac catheterization for Registered First Nations residents from 1994/95 to 1998/99 were higher than for all other Parkland residents. The higher rates of cardiac catheterization among First Nations residents might reflect a higher rate of underlying diseases requiring the procedure. For example, First Nations people have a higher prevalence of diabetes, one of the risk factors for cardiovascular disease.

Angioplasty and Coronary Artery Bypass Graft Surgery:

Angioplasty is a procedure to enlarge narrowed coronary arteries. Coronary Artery Bypass Graft Surgery (CABG) is a surgery to create a new route around narrowed coronary arteries. Both of these procedures are treatments for ischemic heart disease and are performed in individuals at high risk for heart attack.

6.17A: Angioplasty and CABG Among First Nations



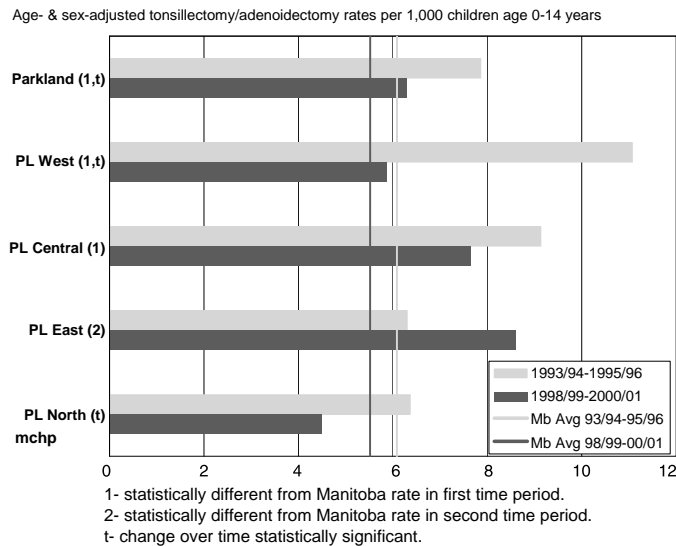
Rates for both procedures in Parkland are small, and similar to the Manitoba average. There is little variability across districts. Rates have increased over time from the early 1990's to the late 1990's. Registered First Nation rates of both angioplasty and CABG are higher than the rates for all other Parkland residents. Again, this may reflect higher rates of underlying disease rather than better access for First Nations individuals. The pattern of variability in the rates of both procedures is similar to that of cardiac catheterization. This suggests relatively equal access to cardiac procedures across the region for all Parkland residents.

High Variation Procedures

The surgeries reported here are considered “high variation” or “discretionary” as the rates do not vary according to health status. These procedures have been the subject of critical reviews in the research literature because of potential overuse and wide variation in rates. High Variation Procedures reported here include tonsillectomy, adenoidectomy, hysterectomy, and Caesarean section.

Tonsillectomy/Adenoidectomy

6.18: Tonsillectomy/Adenoidectomy

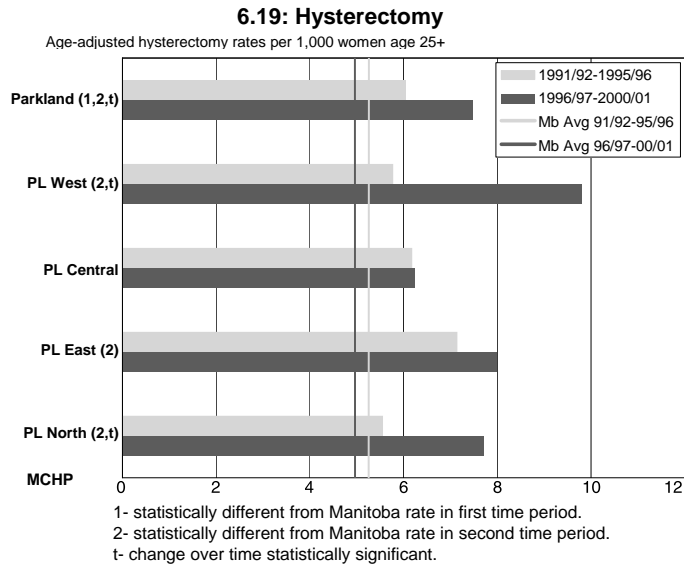


Surgery to remove tonsils and/or adenoids is one treatment for children with recurring throat infections. In the early 1990's, Parkland rate of tonsillectomy and adenoidectomy was significantly higher than the Manitoba average, at 7.9/1000 children aged 0-14 years.

The Parkland rate declined in the late 1990's, and is now comparable to the Manitoba rate of 5.6/1000 children under 14 years. Most of this drop is attributable to the West and North Districts, which now have rates similar to the Manitoba average. Central and East Districts continue to have rates higher than Manitoba. The Manitoba Centre for Health Policy suggests that average to low rates probably represent good practice.

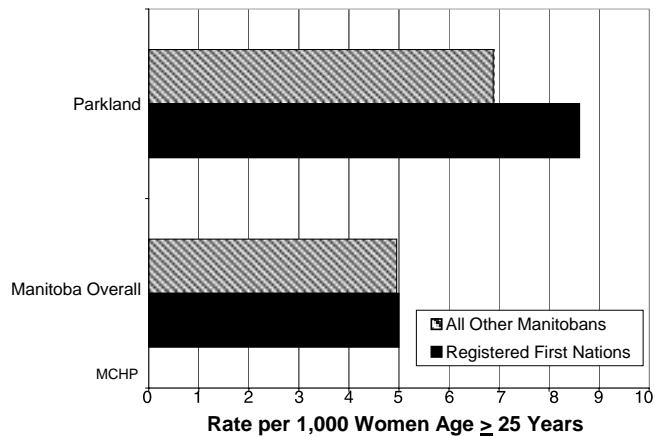
The Registered First Nation rate is significantly lower than the rate for all other Parkland residents at approximately 3.8 procedures per 1000 children under age 14.

Hysterectomy



Hysterectomy refers to the surgical removal of the uterus. Parkland women had a higher rate of hysterectomy than Manitoba women throughout the 1990's. The difference grew through the 90's, as the Parkland rate increased from the early 90's to the late 90's, while the Manitoba rate dropped. Increased rates in the West and North Districts account for most of the Parkland increase in the late 1990's.

**6.20: Hysterectomy among First Nations
1994-1999**

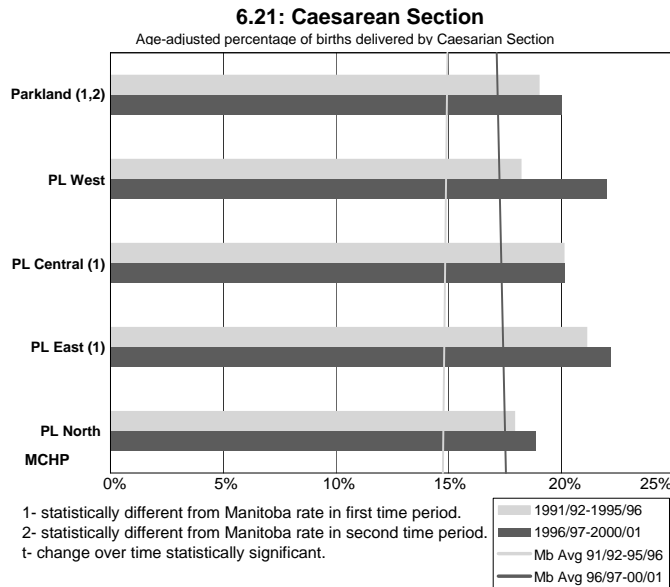


Rates of hysterectomy for Registered First Nation women were higher in 1994-1999 than the rates for other Parkland women. However, the elevated rates for First Nation women do not account for all of the difference for Parkland and Manitoba, as the rates for both First Nation women and all other women were higher in Parkland than the rates for their counterparts in Manitoba.

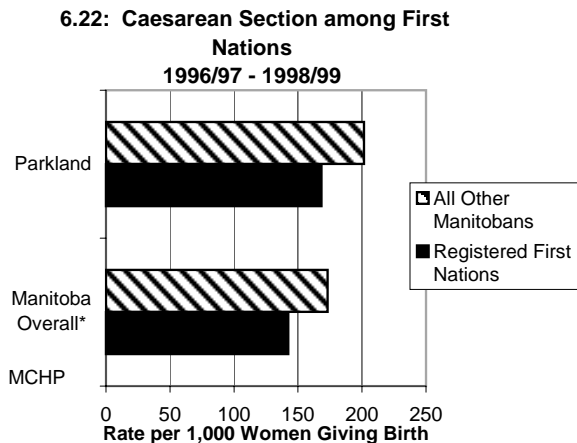
Since this time, the number of hysterectomies performed on Parkland women has dropped, to a crude rate of 5.3/1000 women over age 25 in 2002/2003.

Physician feedback suggests that hysterectomy rates in Parkland have been affected by the availability of specialist physicians and equipment within the region. Rates have tended to be higher when a gynecologist is practicing in Parkland. The recent drop in rates may relate to the availability of equipment for endometrial ablation, which is now available as an alternative to hysterectomy for some women.

Caesarean Section



Caesarean section refers to the surgical delivery of an infant. The Parkland rate of Caesarean section is higher than the Manitoba rate in both time periods, with a slight increase from the early 1990's to the late 1990's. District rates do not differ significantly. The rate for Registered First Nation women was slightly lower than that of all other Parkland women.



However, Caesarean section rates for deliveries in Parkland hospitals for the years 1994-1998 are comparable to the Manitoba average. Parkland's higher rate may reflect our higher percentage of high birth weight babies, as these infants may be more likely to require delivery by Caesarean section.

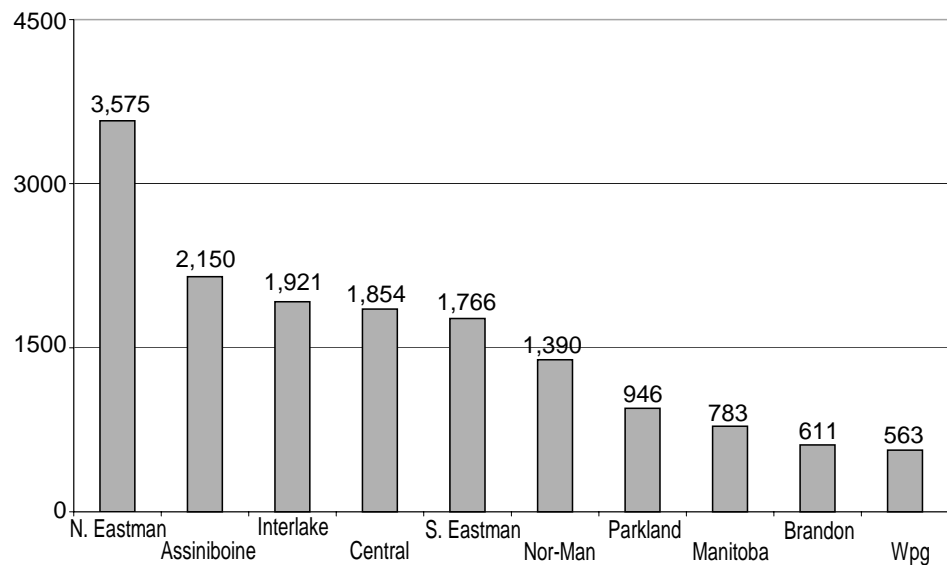
Medical Services

Physician Ratio

In 2001/2002 there was one fee for service physician for every 946 residents of Parkland. Parkland has more fee for service physicians per population than any region except Brandon and Winnipeg. This reflects the unique situation of Parkland region with respect to how medical services are provided. Parkland physicians are predominately paid on a fee for service – in northern regions there is a higher number of salaried physicians who are not represented in this ratio.

Physicians located in Parkland also provide the majority of services used by Parkland residents. This is in contrast to the situation in Winnipeg and Brandon, in which physicians serve many residents from the surrounding regions. Thus the Parkland physician/resident ratio more closely reflects medical service use patterns than is the case in most other regions.

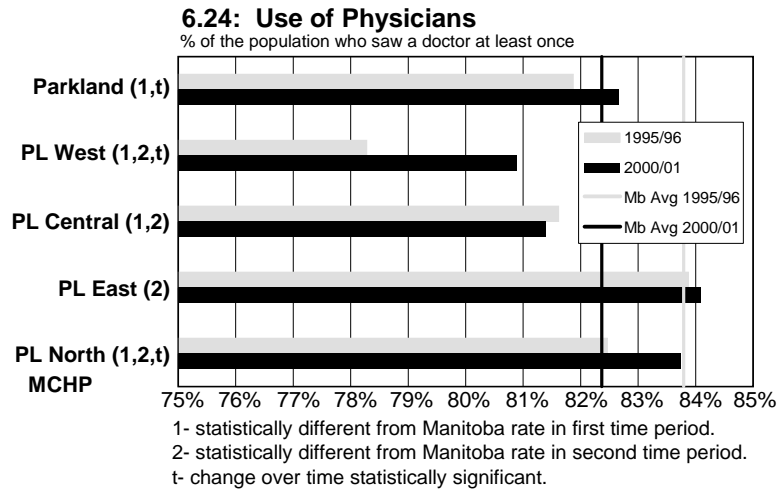
6.23 - Population per Physician* - 2001/2002



*Includes fee for service doctors only

Manitoba Health

Use of Physicians

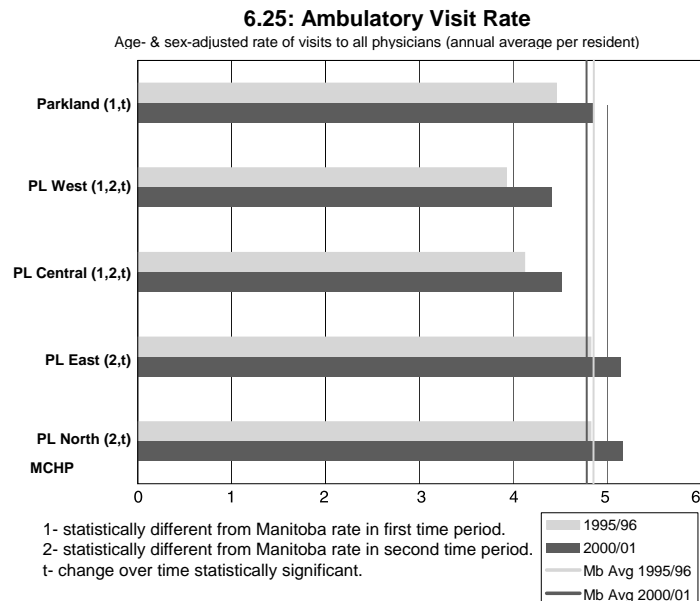


83% of Parkland residents saw a doctor at least once in 2000/2001. This is a similar percentage to Manitoba. Parkland residents' use of physicians has increased slightly from 1995/1996, while the Manitoba rate has dropped slightly. The increase between time periods is most noticeable in the West and North Districts, while the East and Central District residents' physician use remained stable.

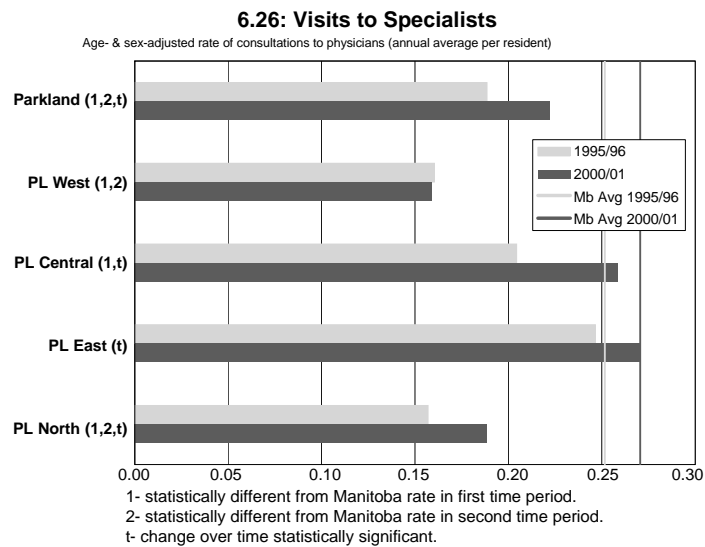
This slight gradient of physician use between districts follows the gradient of health status as measured by premature mortality rate. This is to be expected, as populations with poorer health status generally require more health care services.

90% of Parkland respondents to the regional telephone survey reported that they had a regular health care provider such as a doctor or nurse.

Ambulatory Visits and Consultations



Ambulatory visits refer to all physician visits that take place outside of hospital in-patient care, whether to a specialist or to a general practitioner. Each Parkland resident visited a physician an average of 4.85 times in 2000/2001, similar to the Manitoba average. The visit rates are lower in the West and Central Districts, and higher in the North and East Districts, reflecting variations in health status. The ambulatory visit rate increased between 1995/1996 and 2000/2001 to a similar degree in each district.



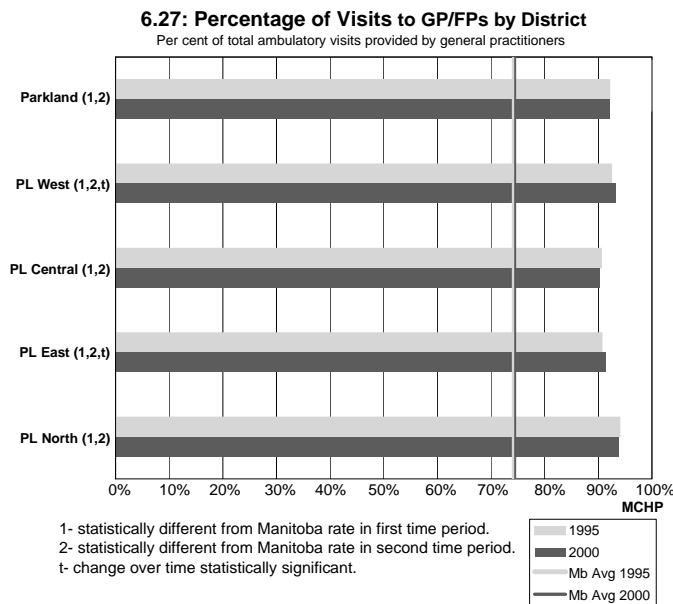
Parkland Registered First Nations had a higher number of visits per person compared to the rate for all other Parkland residents, with an average of 7.7 visits per person. Again, this may reflect health status, as populations with poorer health status require more medical care.

The ambulatory consultation rate is an indicator of access to specialist care. The consultation is the first visit to a specialist after a referral by another physician. Parkland residents appear to be referred to specialists less frequently than other Manitobans. However, the difference is significant only for West and North Districts, as East and Central District residents have consult rates similar to Manitoba.

This likely reflects referral patterns in the districts. Out-of-province records do not show specialty coding, so that when people see a doctor in another province, it is always coded as a visit to a general practitioner. As patients in West and North Districts are often referred to specialists in Saskatchewan, their specialist visits are underreported here.

Specialists trained outside of Canada who do not have a Canadian Specialist Fellowship are also coded as general practitioners on billing claims. Thus the ambulatory specialist consult rate may be underreported even for visits within Manitoba.

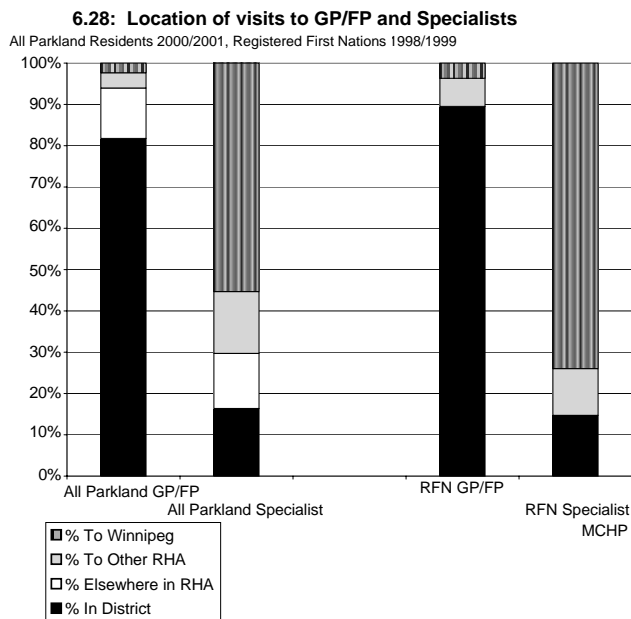
Visits to General Practitioners/Family Physicians



The majority (92%) of Parkland residents' ambulatory visits were to general practitioners or family physicians (GP/FP), rather than to specialists. This is significantly higher than the Manitoba average of 74.5%. The percentage is highest in the West and North Districts, where visits to out-of-province specialists are under-reported. Central and East District residents also have a higher percentage of visits to general practitioners and family physicians.

As residents of other rural regions also have high percentages of visits to general practitioners, it is likely that the lower Manitoba rate reflects urban patterns of physician use. Winnipeg residents are more likely to continue seeing specialists beyond the initial referral than are residents of rural regions.

Location of Visits to Specialists and General Practitioners/Family Physicians



When Parkland residents visit general and family practitioners, they are within Parkland 93.9% of the time, with smaller percentages of visits to Winnipeg or other RHA physicians. District patterns are similar, with the exception of the West District, where 5% of visits are to Saskatchewan physicians, reflecting travel patterns along the border with Saskatchewan.

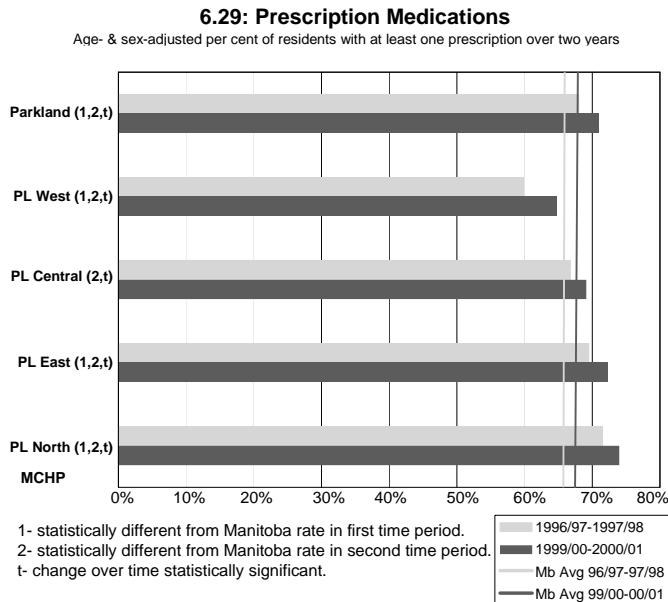
The locations of specialist visits reflect the availability of specialists within the region. 55% of specialist visits were to Winnipeg doctors, 29.7% within Parkland, and 15% to physicians in other regions in 2000/2001. The percentage of visits to specialists in Saskatchewan cannot be reported as this information is not included in out-of-province billing claims.

The distribution of visits to GP/FPs was similar for Registered First Nations individuals in Parkland, with 89.5% of visits within region, and 33.7% of visits to specialists within Parkland in 1998/1999.

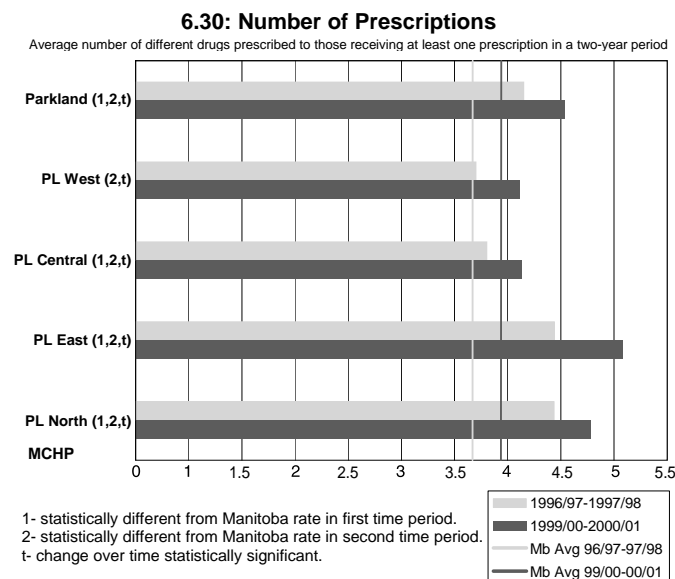
Pharmaceutical Use

Prescription Medications

Seventy-one percent of Parkland residents had at least one prescription medication in 1999/2000 – 2000/2001, compared to 68% of Manitoba residents. The pattern of prescription use across the districts is similar to the pattern of health status reflected in premature mortality rate. The percentage of residents with prescription medications has increased by about the same amount in Manitoba, Parkland, and each district.



The average number of prescriptions for each person who had at least one prescription during this time period was 4.1 per person in Parkland, significantly higher than the Manitoba average of 3.4 per person. East and North District residents have the highest average number of prescriptions.



Higher use of prescriptions in East and North Districts reflects the slightly poorer health status in these populations, and may also reflect the effect of remoteness on prescribing patterns. Physicians may be less likely to take a ‘wait-and-see’ approach to prescribing medications for patients who have travelled a long distance and may be perceived as unlikely to return for a follow-up visit.

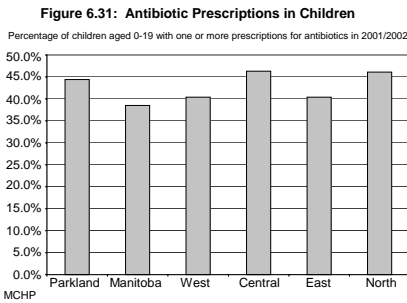
Antibiotics

When we examine prescriptions for antibiotics only, the pattern of prescribing mirrors that of prescriptions overall. A higher percentage of Parkland residents received antibiotic prescriptions than the Manitoba average. Among these individuals, the average number of prescriptions was 2.3 per person, higher than the Manitoba average of 2 per person. High use of antibiotics is driven mainly by prescriptions for residents of the East and North districts.

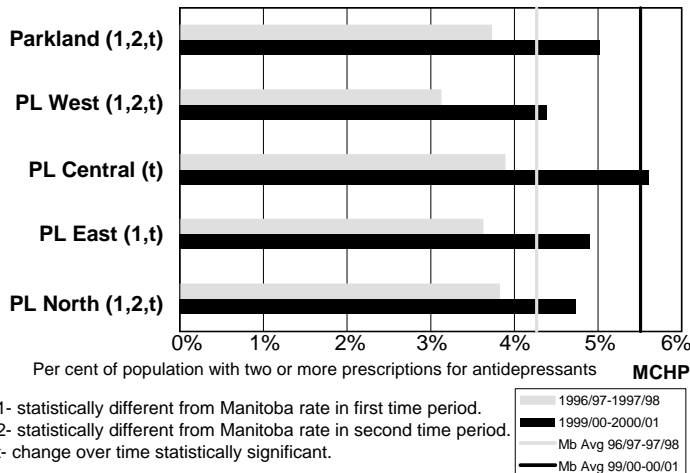
Antibiotic prescriptions to children are similarly high in Parkland, with 44% of Parkland children receiving antibiotics in 2001/2002, compared to 38.5% of Manitoba children. District patterns show higher prescribing in the Central and North Districts, and lower in the East and West Districts.

Antidepressants

Parkland residents have lower use of antidepressants than the Manitoba average. Among districts, only Central District is significantly different from Parkland overall, with a similar percentage to Manitoba receiving antidepressant prescriptions.



6.32: Antidepressant Use



A more detailed description of the use of psychiatric medications will be contained in the Manitoba Centre for Health Policy’s report on mental health (September 2004).

Antidepressant use has increased in both Parkland and Manitoba between 1996/1997-1997/1998 and 1999/2000-2000/2001. This increase is similar across all regions, and likely relates to the availability of newer antidepressant drugs, rather than to a change in mental health needs.

Use of Health Care Services – Planning Considerations

- Contacts for all community health services have increased over the last several years. It appears that there has been a shift in how Parkland residents use health care, with less use of hospital services and heavier use of ambulatory and community based care.
- Hospital admissions have been declining over the last several years, but our use of hospital care is still higher in Parkland than the Manitoba average. Hospitalization rates are higher than we would expect given our average health status as indicated by PMR.
- Physician use patterns and survey data suggest that most Parkland residents have good access to ambulatory care. Utilization rates for acute care also indicate good access to hospitals for Parkland residents. However, qualitative data suggest that access is still a concern for people in relatively isolated communities. Most of these communities are located in the East and North Districts, where higher premature mortality indicates poorer health status.

Health System Performance

Health system performance indicators include:

- Responsiveness (availability, accessibility, timeliness)
- System Competency (appropriateness, effectiveness, efficiency)
- Client/community focus (communication, partnership, satisfaction)
- Work Life (satisfaction, role clarity, open communication)

In Parkland Health System Performance was measured through a regional Community Health telephone survey conducted by Acumen Research, a PRHA Staff Satisfaction Survey, and the Human Resource Benchmark Project. Results indicate:

- 90% of respondents to the regional Community Health Survey indicated they have a regular health care provider such as a doctor or nurse.
- Parkland women are more likely than Parkland men to have a regular health care provider.
- Overall, two thirds of respondents said it was somewhat or extremely easy to get an appointment with a health care provider.
- 80% indicated that they were able to get health care when they need it.
- 82% rated the availability of health care services for people their age as “Good”, “Very Good”, or “Excellent”.
- Almost two thirds know “where to go” to get a concern addressed, and 80% know where to find information.
- 84% rated the quality of health care services as “good”, “very good” or “excellent”.
- Aboriginal people are nearly twice as likely to rate quality is fair or poor.
- Women are more likely than men to rate quality of health care as excellent or very good.

In the 2001 CCHS, the percentage of people who reported unmet health care needs was:

- Parkland 11.9%
- Manitoba 13.1%
- Canada 12.5%

Health Human Resources

- The Parkland RHA average employee age is 47.3 years
- 89% of the workforce is female.
- 97% of employees are non management;
- Parkland RHA has an annual employee turnover rate of 11.4%
- 72% of Parkland Regional Health Authority Staff “agree” or “strongly agree” with the statement “Overall, I am very satisfied with my job.”
- The Parkland RHA average length of employee service is 9.1 years.
- Recruitment and retention of health care professionals is an on-going challenge for the Region.

PARKLAND CHA - KEY THEMES

Chronic Disease

Cardiovascular disease, respiratory illnesses and diabetes place a heavy burden of illness on our population. Our data show that chronic diseases are a major cause of mortality and early death, and a main cause of hospitalization in our region. The chronic nature of these illnesses means that they have a long-term impact on quality of life for those individuals living with them.

These chronic diseases have a common set of modifiable risk factors, including smoking, physical inactivity, poor nutrition, obesity and chronic stress. The risk of these illnesses is also affected by socio-economic conditions. All of these factors also exacerbate existing chronic illness.

Patterns of health care use for chronic diseases suggest that Parkland residents with these conditions are not managing their illness as well in the community as other Manitobans are. This is resulting in higher use of hospital care.

Addressing chronic diseases in Parkland will require efforts to reduce the modifiable risk factors and to support Parkland residents in living well with cardiovascular disease, respiratory disease and diabetes.

Sexual and Reproductive Health of Youth

High rates of chlamydia and teen pregnancy in Parkland point to a concern with unprotected sex among young adults. Youth across the region describe sexuality and sexually transmitted infections as one of their main health concerns.

For those young people in relatively small, isolated communities, services such as reproductive health programs can be difficult to access. They may have difficulty getting transportation to services, and they also describe a lack of anonymity in accessing service. In many cases they find that their friends are their sole source of information and support.

Youth need to be supported in making healthy decisions about their sexual activity, and in protecting themselves from the consequences of unprotected sex.

Socio-Economic Status

Using the Socio-Economic Status Index Parkland residents are similar to other Manitobans in regards to income, education, and other markers of socio-economic status. However, unemployment, low income and lack of education are factors affecting the health of a significant number of Parkland residents.

Qualitative data suggest that socio-economic challenges are greater in relatively isolated communities. Most of these communities are in the North and East Districts, which have poorer health status as measured by PMR. Socio-economic concerns need to be taken into consideration in planning health services.

Access to Services

Utilization data show that Parkland residents have relatively good access to ambulatory and acute care. However, qualitative data suggest that many Parkland residents experience challenges in accessing health care. Residents of relatively remote communities find transportation to services a challenge, especially when combined with socio-economic concerns. Youth in these communities reported difficulties with travel as well as concerns about their anonymity in accessing services.

People also reported difficulties in 'navigating the system' when specialized care is required. In many cases, specialized care requires travel to Winnipeg or Brandon, which increases the difficulty of access.

Utilization

People in Parkland have average health status compared to the Manitoba population. Although hospital use has been dropping over the last several years, it is still higher than we would expect given our average health status. Hospitalization rates for chronic diseases are much higher than can be attributed to the prevalence of these illnesses. Reasons for our above average hospital use may include our higher than average bed supply, and geography.

REFERENCES

Acumen Research. *RHA Community Health Survey 2003 - Parkland*. Winnipeg, MB: Acumen Research, January 2004.

Addictions Foundation of Manitoba. [Addictions Foundation of Manitoba program utilization, 2002/2003]. Unpublished data, February 2004.

Brownell M, Roos N, Fransoo R, Guevremont A, Frohlich N, Kozyrskyj A, et.al. *Manitoba Child Health Atlas 2004: Inequalities in Child Health: Assessing the Roles of Family, Community, Education and Health Care*. Winnipeg, MB: Manitoba Centre for Health Policy, Accessed August 2004 at http://www.umanitoba.ca/centres/mchp//reports/child_inequalities/indicators_health.shtml

Brownell M, Martens P, Kozyrskyj A, Fergusson P, Lorfald J, Mayer T, Derksen S, Friesen D. *Assessing the Health of Children in Manitoba: A Population-Based Study*. Winnipeg, MB: Manitoba Centre for Health Policy and Evaluation, February 2001.

CancerCare Manitoba. Mobile Breast Screening Follow-Up Report for Parkland RHA. Unpublished data, November 2003.

CancerCare Manitoba. RHA Report: Annual Cancer Incidence Counts and Rates by RHA, 1992-2001. Winnipeg, MB: CancerCare Manitoba, March 2004.

Diabetes and Chronic Diseases Unit, Manitoba Health. *Regional Diabetes Profile: A Statistical Summary, Parkland Regional Health Authority*. Winnipeg, MB: Manitoba Health, n.d.

Donner L. *Injuries in Manitoba: A 10-Year Review*. Winnipeg, MB: Manitoba Health, January 2004.

Health Information Management, Manitoba Health. *Parkland Regional Health Authority Regional Health Profile*. Winnipeg, MB: Manitoba Health, August 2003.

Healthy Child Manitoba. [Baby First Program Evaluation]. Unpublished data, August 2004.

Martens PJ, Fransoo R, The Need To Know Team, Burland E, Jebamani L, Burchill C, et al. *The Manitoba RHA Indicators Atlas: Population-Based Comparisons of Health and Health Care Use*. Winnipeg, MB: Manitoba Centre for Health Policy; June 2003.

Martens P, Bond R, Jebamani L, Burchill C, Roos N, Derksen S, et.al. *The Health and Health Care Use of Registered First Nations People Living in Manitoba: A Population-Based Study*. Winnipeg, MB: Manitoba Centre for Health Policy, March 2002.

Manitoba Agriculture. *Family Finance: Family Living Costs Categories 2004*. Retrieved August 2004 from: <http://www.gov.mb.ca/agriculture/homeec/col2004/cba29s01.html>

Patton D, Brown D, Broszeit B, Dhaliwal J. *Substance Use Among Manitoba High School Students*. Winnipeg, MB: Addictions Foundation of Manitoba, October 2001.

Perinatal Project Team, Manitoba Health. *Manitoba Perinatal Health Surveillance Report 1989-1998*. Winnipeg, MB: Manitoba Health, November 2000.

Statistics Canada. Health Indicators, Vol. 2004, No. 1 (82-221-XIE). Retrieved August 2004 from <http://www.statcan.ca/english/freepub/82-221-XIE/00604/toc.htm>

Statistics Canada. National Longitudinal Survey of Children and Youth: Childhood Obesity. Retrieved August 2004 from <http://www.statcan.ca/Daily/English/021018/d021018b.htm>

Tichon W. [Manitoba Conservation environmental health priorities]. Dauphin, MB: personal communication, August 2004.

APPENDIX 1 - PARKLAND REGIONAL HEALTH AUTHORITY CHA PROCESS

Phase One: Planning

Actions:

- Community Health Assessment Working Group established
- Planning for Community Consultation Workshop (CHAN)
- Four phase plan developed and approved
- Preliminary analysis of existing data
- Identification of data gaps

Outcomes:

- Storyboard of data and gaps
- Approved plan to consult with community and gather needed data

Phase Two: Information and Awareness

Actions:

- Develop Regional Profile presentation
- Present to PRHA Board and Advisory Councils
- Train presentation team
 - 20 staff from around Region
- Present Regional Profile to:
 - Regional Committees and Teams
 - Target Communities
 - McCreary, Alonsa, Ste. Rose, Waterhen, Rorketon, Grandview, Roblin, Ethelbert, Winnipegosis, Barrows, Birch River, Benito, Camperville, Duck Bay, Mafeking

Outcomes:

- Regional Profile presentation
- Presentation Team
- Informed and engaged staff, volunteers and communities
- Information to help target consultations

Phase Three: Focused Consultation

Actions:

- Acumen Regional Telephone Survey
- Community Consultation Workshop (CHAN)
- Train Focus Group team
 - Facilitation and focus group training for 20 staff
- Focus groups with community members
 - Diabetes (Waterhen, Camperville, Mafeking, Dauphin)
 - Youth (Alonsa, Rorketon, Roblin, Swan River)
 - Women (Barrows, Waterhen, Dauphin, Swan River)
 - Men (Benito, Dauphin)

- Targeted consultations with staff groups
 - Regional Diabetes Team
 - Home Care Team
 - Acute Care Committee
 - Individual health care providers

Outcomes:

- Trained Focus Group leaders
- Description of “lived experience” and insights of people from throughout the Region
- Interpretation of data

Phase Four: Report Writing and Information Sharing

Actions:

- Gender-Based Analysis training
 - 30 staff and volunteers
- Acumen Survey Presentation
- Data Analysis and Interpretation Workshop (CHAN)
- Report Writing Workshop (CHAN)
- Data further combined and analyzed
- Technical Report written

Outcomes:

- Technical Report
- Summary Report
- Updated Regional Profile presentation
- Enhanced analysis skills

- Informed strategic planning

APPENDIX 2: COMMUNITY CONSULTATION TOOLS

Community Focus Group Questionnaires

Diabetes

1. Thinking about your own experiences, what does diabetes mean to you? To your community?
2. Out of all the concerns in people's lives, where does diabetes rank in importance?
3. How much do you think people feel they can do to avoid getting diabetes or to stay healthy with diabetes?
4. What do you see people doing to avoid getting diabetes or to stay healthy with diabetes? Where do they go for information? Where do they go for help to manage their diabetes?
5. What makes it hard to stay healthy once you have diabetes? What can be done about these barriers?
6. What's the most important issue (barrier/solution)?
7. We're planning to start offering diabetes education services here in your community. What advice would you give us on how to provide that service?
8. There are many people that have diabetes and don't even know it. It can be detected by testing people's blood sugars. What are some ways that we can help more people in your community get tested and find out if they have diabetes? What do you think would work best?
9. Have we missed anything?

Youth Health

1. What health issues concern youth?
2. What issues do youth face daily?
3. Where do youth turn to for information?
4. How do you know if the information is reliable?
5. Where do youth turn to for support?
6. What makes it difficult for some youth to get support when they need it?
7. What would you say is the top issue?

Women's Health

1. What do you think affects women's health?
2. What affects your health?
3. Do you feel safe in your community?
4. Do you think there are women in your community that do not feel safe in their own homes?
5. Do you feel safe in your home?
6. What do you think would increase your feeling of safety in your home and your community?
7. What do you need in your home and your community to make you healthier?

Men's Health

1. What (if anything) surprised you in these health statistics?
2. How well does this information fit with your experience and knowledge about men in your community?
3. What did you expect to see that's not here? What might be some other health issues for men?
4. What do you think causes these differences between men's and women's health?
5. What are the barriers to staying healthy (for men)? (describe how that affects men's health)
6. What can be done about that (barrier to men's health)?
7. Where do men go for information about health (you and/or other men you know)?
8. What's the most important issue (barrier and/or solution)?
9. Have we missed anything?

Sample Focus Group Consent Form

Dear Participant:

You are invited to participate in a discussion group for the Community Health Assessment, conducted by the Parkland Regional Health Authority. The purpose of this assessment is to gather information about the health of the people in our community. There will be a number of discussion groups held throughout the RHA. The information we gather will be used for improving health services and for planning future programs.

Approximately 10 – 12 individuals have been invited to participate in this group discussion. The group leader will ask specific questions about men's health. This discussion will take approximately 1 hour.

Participation in this group discussion is optional. You may change your mind at any time and you may also choose not to answer specific questions. You do not have to give a reason and it will not affect the care you may require within the Parkland Regional Health Authority. Being involved in this discussion involves no known benefit or risk to you.

The information you provide will remain confidential. Only general information about you will be recorded, such as, age, gender, home community. Only those individuals who are directly involved with the Community Health Assessment will have access to this information. Group information will be included in a final report and future publications. The findings of the health assessment will be made available to the public and service providers throughout the region as well as Manitoba Health. In keeping with ethical standards, all recorded information will be stored in a locked cabinet in an office in Regional Administration for a period of seven years.

Refreshments will be provided to all participants. However, you will not be paid for your participation.

Please call Fiona Jeffries at 629-3001 if you have any questions about the Community Health Assessment or this group discussion. If you would like to speak with someone who is not connected with this group discussion, please call Shirley Dzogan (Manitoba Health) at (204) 786-7293.

Sincerely,

Fiona Jeffries,
Community Health Assessment Coordinator
Parkland Regional Health Authority

This study was explained to me by: _____

I agree to take part in this study.

Signature of Participant

Date

Printed Name of Participant

I believe that the person signing this form understands what is involved in the study (assessment) and voluntarily agrees to participate.

Signature of Interviewer

Date

Health Care Provider Targeted Consultation Questionnaires

Diabetes Educators

1. From your insight in working with clients, what does diabetes mean to clients and their families?
2. Out of all the concerns in people's lives, where does diabetes rank in importance?
3. How much do you think people feel they can do to prevent or manage diabetes?
4. What do you see clients doing to prevent or manage diabetes?
5. Where do people go for information and help?
6. What are the barriers to clients managing their diabetes?
7. What do you think contributes to our high diabetes and complication rates?
8. What do you think people need more/less of in their life/family/community to help them prevent or manage diabetes?
9. What do you think is the most important issue?
10. Have we missed anything?

Home Care Case Coordinators

1. How do home care caseloads compare to other regions?
2. Is our high home care caseload because of long stays, high admission or few closings? What other factors might explain high caseloads?
3. How would you explain the district variations?
4. How does our personal care home bed supply affect our use of home care and personal care days?
5. How has the acuity of personal care home residents changed over time? What might explain those changes?
6. Does the change over time in home care caseload make sense given the numbers of opening and closing cases? What predictions would you make for the future?
7. What do these indicators NOT show? What else can you say about home care and personal care home use that is not indicated by the data here?

Acute Care Committee

1. Residents of Parkland are hospitalized at a much higher rate than the provincial and rural south average. Do use levels make sense with overall health status?
2. Every district within Parkland also has higher separation rates than the Manitoba average. Central District Rates are climbing - what might be the cause? North District rates have dropped significantly - what might be the cause? East District rates have remained the same over time and do not match the gradient of health status. Do higher rates reflect poorer health, high number of beds, or something else?
3. Do residents of high use districts have poorer access to other facilities or services such as PCH and home care?
4. Short stay days have decreased, but the district rates do not follow the expected gradient. What might account for high rates in West District? In East District?
5. Long stay days have dropped significantly. What can you attribute this to? What might account for the drop in East District?
6. Overall, what would you say about hospital utilization in Parkland?
7. What are potential reasons for high rates of injury hospitalization in the Parkland, and in the East and North Districts?
8. Does the pattern for the location of hospitalizations surprise you? How?
9. 90% of separations are for RHA residents. Does this surprise you? How?
10. What do you know about the region that may cause the pattern of hospitalization rates for leading causes?
11. Which causes of hospitalization are a concern?
12. What else can you tell us about hospital use in the region?

Health Care Service Locations

- * On Site
- ☐ Visiting/Itinerant

PHN	Public Health Nurse	CHW	Community Health Worker
CHN	Community Health Nurse	STS	Services To Seniors
HCC	(combined PHN and HCC role)	EMS	Emergency Medical Services
DER	Home Care Coordinator	PS	Physician Services
MH	Diabetes Education Resource	PCH	Personal Care Home
	Mental Health		

DISTRICT	PHN	CHN	HCC	DER	MH	CHW	STS	EMS	PS	PCH	Hospital
CENTRAL	Dauphin	*	*	*	*		*	*	*	*	*
	Winnipegosis			☐	☐		*	*	*	*	*
	Ethelbert		*	☐	☐		*	*	☐		
	Pine River		☐		☐						
NORTH	Gilbert Plains		☐		☐		*	*	☐	*	
	Swan River	*	*	*	*		*	*	*	*	*
	Benito		*		☐				☐	*	
	Pelican Rapids	☐		☐	☐	*					
	Duck Bay	☐		☐	☐	*					
	Camperville	☐		☐	☐	*					
	Minitonas	☐		☐	☐		*				
	Mafeking										
	Birch River	☐		☐	☐						
	Roblin	*		*	☐	*		*	*	*	*
WEST	Grandview				☐		*	*	*	*	*
	Ste. Rose du Lac	*	*	☐	*		*	*	*	*	*
EAST	McCreary		*	☐	☐		*	*	*	*	*
	Alonsa	☐		☐	☐	*			☐		
	Waterhen	☐		☐	☐	*			*		
	Crane River	☐		☐	☐	*					
	Bacon Ridge	☐		☐	☐	*					
	Rorketon				☐		*		☐		

