Burntwood Regional Health Authority
2009 Community Health Assessment
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EXECUTIVE SUMMARY

Spirit Way
INTRODUCTION

Each Regional Health Authority is required by Manitoba Health to undertake a comprehensive Community Health Assessment (CHA) of their region every five years. This document represents the third Community Health Assessment completed by the Burntwood Regional Health Authority (BRHA).

For this Community Health Assessment, Manitoba Health required that each Regional Health Authority (RHA) report on a "Core" set of 96 indicators. Beyond this core set of indicators, each RHA could report on other important indicators based on their unique needs and priority areas. Where possible, the Region has also used other data sources and community consultation information to fill in where the standard data sources were suppressed or did not appear to tell the complete story. The BRHA has also chosen many other indicators beyond the core set to paint the most comprehensive picture of the region possible.

ABOUT THE REGION

The Burntwood Region covers most of the province of Manitoba lying north of the 56th parallel. The BRHA is the largest geographical health region in the province at 324,000 square kilometers covering 52 per cent of the province.

As of June 2008, the Burntwood Regional Health Authority served an area with a population of 46,818 people. The Burntwood population is very young relative to the rest of the province. Residents under age 15 in Burntwood Region account for 32.8 per cent of the population compared to just 19.2 per cent in Manitoba overall. Only four per cent of Burntwood residents are over age 65 compared to 13.8 per cent of Manitobans.

The Burntwood population is almost evenly divided between those who live in First Nations communities (on-reserve) and those that live off-reserve. More specifically, the population figures for June 2008 show that 23,078 people lived in off-reserve communities (49.3% of the population) in the region, while 23,740 lived in First Nations communities. Just over two-thirds of Aboriginal residents living in the Burntwood Region (67.9%) report knowledge of at least one Aboriginal language. This is much higher than both Manitoba (25.2%) and Canada (21.5%).

According to the Manitoba Bureau of Statistics, Burntwood and Churchill will grow by 27.6 per cent by 2035. The largest projected increase in population is the older age groups, particularly those age 65 and older. Although the overall numbers are small in the older age groups, there will still be an impact on planning. This means that Burntwood must continue to meet the needs of its young population, but continue to plan for appropriate resources and services for residents as they age and decide to stay in the Burntwood region in their retirement years.

"Health and Education" is a major industry sector in Burntwood. For women, "Health and Education" account for 43 per cent of all employment in the region, compared to 33 per cent for Manitoba women overall. Among Aboriginal residents of Burntwood, "Health and Education" is also the leading industry accounting for 34 per cent of employment (48% for females and 21% for males).
KEY FINDINGS

Throughout this Community Health Assessment, the RHA has identified many areas of strength, particularly around:

- Community consultation participants felt the Burntwood region did a good job in providing culturally sensitive programs and services. The region was also praised for its willingness to partner with, and participate in, community activities. Several community members remarked on the increased profile of the RHA in the community and congratulated the RHA for their participation.

- Many Chronic Disease Prevention Initiative (CDPI) activities were cited as being successful in the communities. CDPI was a five year federal, provincial and BRHA funded initiative where small grants were given for community initiatives focused increased physical activity, tobacco reduction or cessation and improved nutrition/reduction in obesity. Burntwood’s CDPI also added Pathways to Healthy Living which included mental health and spiritual wellness. Outcomes and feedback from the projects illustrate that partnerships and small amounts of funding can make a big difference in reducing modifiable risk factors. One of the more popular initiatives included the ‘Blue Light’ campaign, where non-smoking households receive a blue light for the front porch. Other CDPI initiatives, including community meals and events, were also praised as helpful to the community and positive examples of the partnership with the BRHA.

- While many community members indicated that parents could use support and education, the Families First Program was praised as helping at risk children and their families cope with the stresses of parenting.

- The Patient Satisfaction Surveys indicate that Burntwood residents are mostly quite satisfied with the level of care they receive in the Burntwood Region.

- Increases in the number of MRI (in Winnipeg) and CT (in Thompson) scan procedures shows the region is making key diagnostic procedures accessible to its residents.

- Visits to the Burntwood Community Health Resource Centre (BCHRC) in Thompson continue to increase while "no-show" rates have declined substantially.

- The Region did well on a number of appropriateness or quality of care indicators, for example with lower rates of caesarean section and hysterectomy. The Region will continue to explore reasons for lower rates of tonsillectomy/adenoidectomy.
Through the data verification process with Burntwood Regional Health Authority staff and a thorough review of the data collected in this and previous CHA processes, the following areas have been highlighted as challenges in the region:

- Socio-Economic Factors
- Personal Health Practices
- Mental Health and Addictions
- Maternal Health and Family Needs
- Diabetes and Complications
- Communicable Disease Control
- Access and Continuity of Care
- Infant and Child Injury and Mortality
- Injury, Premature Death and Life Expectancy

Many of the areas identified as challenges were also highlighted in the previous two Community Health Assessments. Although in some areas there has been improvement, the RHA must continue to work with community members to achieve more optimal health outcomes. The RHA does recognize, however, that in some cases, the areas identified as challenges are not within the control of the region, or directly impacted by services the RHA delivers. For example, the RHA likely cannot change many of the real socio-economic challenges (such as income, and education levels) faced by regional residents. However, as research clearly shows a link between social conditions, income and education and health, it is very important that the RHA continue to track this information and continue to work toward partnering with other organizations to support Burntwood region residents.

Data for each key issue are highlighted in this executive summary, but further details and more comprehensive data can be found throughout the body of this report.
SOCIO-ECONOMIC FACTORS

Socio-economic factors were also identified as a priority area through the 2004 CHA and, although there has been some improvement, this area continues to be one where improvement is needed. Some areas where the BRHA would like to see improvement include unemployment rates, income and numbers of families receiving social assistance, as well as education levels and retention rates (students who must repeat a grade).

- According to the 2006 Census, the unemployment rate in Burntwood is 17.4 per cent compared to 5.5 per cent for all of Manitoba.

- Labour force participation and employment rates have declined since the last CHA. Labour force participation rates have declined from 61.5 per cent in the 2001 Census to 56.8 per cent in 2006. Labour force participation rates are lower among Aboriginal residents of the region at 47.7 per cent.

- More than one in eight children in the region live in families who are receiving income assistance, and median income in single parent families is the lowest in the province at less than $20,000 per year.

- 56 per cent of Burntwood residents do not have a high school certificate, diploma or degree, compared to 29 per cent of Manitobans.

- Burntwood has the second highest rates of retention for children in grades Kindergarten to 8, with about 10 per cent of students repeating one year of schooling. This may be an opportunity to identify needs and challenges early and find ways to support children so that they are confident, comfortable and successful in school and are able to graduate from high school.
PERSONAL HEALTH PRACTICES

The degree to which the Burntwood residents are choosing healthy lifestyle choices and active living is critical in improving the long term health status of the region. While the change in health status will be gradual over time, active and healthy living will contribute to the prevention of a number of chronic diseases, better mental health, improved fitness, and the ability to live more independently later in life. While there are some encouraging signs with respect to physical activity levels, more focus needs to be placed on improving BMI levels (see page vii for definition) and improving access to nutritious food. In addition, smoking rates and exposure to second hand smoke continue to be unacceptably high.

The Region strongly believes that by working together with communities and partners, all residents can follow the path to healthy living and make great strides towards improvement in health status. CDPI has shown that even small events impacting small numbers of people can reduce or even eliminate modifiable risk factors. There were many examples of successful CDPI initiatives discussed in the community consultation process and many details of these initiatives at the community level are presented in Chapter 3.

Smoking

- Burntwood had the highest smoking rates among Manitoba RHAs. The proportion of residents who smoke either daily or occasionally was 35.1 per cent in 2007, higher than the Manitoba average of 22.5 per cent and the Canadian average of 22.0 per cent.

- While there were declines in smoking rates in 2005 and 2007, smoking rates rose in 2008 in Burntwood/Churchill to 41.3 per cent, which was well above the Manitoba average of 24.2 percent. The rise in female rates of smoking (31.6% in 2007 to 40.1% in 2008) is particularly noteworthy.

- 26.2 per cent of youth age 12 to 19 are "current daily" or "occasional smokers" (compared to 14.8% in Manitoba) and according to school survey data, more than half of students smoke by Grade 12. The data also shows that youth are very strongly influenced by their peers, and the more friends they have that smoke, the more likely they are to smoke.

Exposure to Second Hand Smoke (SHS)

- According to the combined 2007 and 2008 Canadian Community Health Survey (CCHS) data, 17.9 per cent of Burntwood region residents who do not smoke are exposed to second hand smoke in their home. This is significantly higher than the provincial rate of 7.9 per cent.

- Unfortunately, there does not appear to be any real improvement in reducing exposure to second hand smoke, particularly among children. While exposure to SHS decreased in 2005, the rate increased in 2007 above 2003 levels at 22.3 per cent.

- Given the high prevalence of smoking among young women (and the high pregnancy rates in this group) in the region, the concern is that a very high proportion of infants and
children under age 12 are also exposed to tobacco smoke inside the home on a regular basis.

Physical Activity

- About one-half of residents self-report that they are moderately or physically active. These rates are very similar to the provincial average and there has not been a great deal of improvement in these rates since 2003.

- According to school survey data, just over one in five students are inactive in Burntwood Region (20% of grades 6-8 and 21% of grades 9-12).

- Approximately one in three students are moderately active but research has shown that this level of physical activity is not enough for health benefits.

- On the positive side, 76 per cent of students indicated that their families either strongly encourage (27%) or encourage (49%) them to participate in physical activities. In addition, just over 85 per cent indicated that their families provide support for these activities (such as through driving them to activities).

Body Mass Index (BMI)

The body mass index (BMI), is a statistical measure which compares a person's weight and height. Though it does not actually measure the percentage of body fat, it is used to estimate a healthy body weight based on a person's height. It is the most widely used diagnostic tool to identify weight problems within a population, usually whether individuals are underweight, overweight or obese.

- More than sixty per cent of adults meet the criteria for being overweight or obese, which ranks among the highest in the province.

- Community consultation participants expressed concern about obesity, and particularly about poor eating habits and obesity in children.

- BMI rates among Burntwood/Churchill youth (age 12-19) show that only two out of three youth had weights and heights that resulted in a "normal BMI". This is lower than the provincial rate of 76.3 per cent.

- Just over one in four (26.2%) Burntwood/Churchill youth (age 12-19) had BMIs in the overweight category, compared to 17.1 per cent of Manitoba children. This is the highest prevalence of overweight in the province.

- Just over eight per cent of Burntwood/Churchill youth were already in the obese BMI category by the age of 12 to 19. This is higher than the provincial rate of 6.6 per cent.
Nutrition

- In the region, appropriate nutrition among all ages was identified as a concern by residents and health care providers. There was concern expressed about appropriate infant feeding methods, as well as "pacifying" children with junk food. Several people expressed ongoing need for school breakfast and lunch programs, as well as nutrition and cooking programs in the community.

- According to CCHS data, fewer than one-third of residents consume at least five servings of fruits and vegetables daily (compared to 37.2% of Manitobans). However, this may be less about "choice" and more related to cost and availability, as the BRHA heard through the community consultation process.

- In addition, there is some good news in that Burntwood/Churchill did see an increase in fruit and vegetable consumption in 2008 compared to 2007, and rates are moving closer to the provincial average.

Heavy Drinking

- Drug and alcohol use and the effect on the community was one of the more extensive topics of discussion during the community consultation process. Not every community, and of course, not every person, faces challenges with drugs and alcohol; however, it was a common theme. Concern was expressed, not just about excessive drinking among adults, but youth drinking and the resulting behaviours that can occur when judgment is clouded by alcohol use (from violence to risky sexual activity). In addition, teachers and other health care providers expressed concerns about the challenges for children living with Fetal Alcohol Spectrum Disorder, which is incurable and is a result of exposure to alcohol in the womb.

- Based on the CCHS data, in Burntwood Region more than one in four adults (26.1%) who drink alcohol meet the criteria for "heavy drinking", compared to 19.6 per cent of Manitobans.

- School survey data tells us that use of alcohol ranges from 47 per cent of grade nine students to over 68 per cent of grade 12 students. Over one in five (22%) grade 12 students reported drinking alcohol more than five different occasions in a thirty day period.

- The school survey data also indicate that almost one in three students (30%) in grade nine have used illegal drugs at least once, 36 per cent of students in grade 10, 32 per cent of students in grade 11 and 38 per cent of students in grade 12.
Cervical and Breast Cancer Screening

- Manitoba Health data indicate that the rate of cervical cancer screening decreased from 365.1 to 313.4 per 1,000 residents between 2002-2005 and 2005-2008, and that the regional rate remains lower than Manitoba at 546.1 per 1,000. This is not a positive trend, as the Burntwood Region had the third highest cervical cancer incidence rate among all Manitoba RHAs in 2003-2005. However, it is important to note that BRHA has an aggressive cervical screening program underway and there is an expectation that more current screening rates will show significant improvement. Particularly noteworthy is the activity at the BCHRC where there have been Women's Health Days since 2007. On these days, the Centre is set up with a spa-like atmosphere and is available only for women to have pap tests. These days have become so popular that women are inviting their friends to attend. The numbers of women screened at the Centre have increased significantly from 185 in 2007 to 294 in 2008 to 340 in 2009. It is also important to note that the Region is working particularly hard to screen women who are typically hard to reach and have not had a pap test for at least three years.

- Breast cancer screening rates increased between 2002-04 and 2006-08 from 95.4 to 103.0 per 1,000 women which is positive, but the regional rate remains lower than the provincial average. However, although the female breast cancer incidence rate increased from 65.0 to 99.0 per 100,000 between 2000-02 and 2003-05, it is the lowest in the province and lower than the Manitoba average of 122.0 per 100,000.

MENTAL HEALTH AND ADDICTIONS

Mental health and addictions were priority areas identified by community residents and health care providers through the community consultation process, as well as in both of the previous Community Health Assessments. There was a lot of discussion around reasons for challenges in mental health, and many consultation participants identified the residential school experience, the lack of employment opportunities in some communities and lack of cohesive families and supports in the community as possible contributing factors.

- Rates of heavy drinking and drug use have already been identified earlier in this summary. Other issues such as gambling and sniffing were also identified by community residents as impacting the community.

- The treatment prevalence rate for substance abuse for Burntwood residents is 13.4 per cent compared to 4.9 per cent of Manitobans. Treatment prevalence rates for other mental health issues appear to be lower than the provincial average, but this could be due to recording bias or lack of treatment, as hospitalization rates for mental health issues are higher than the provincial average. The hospitalization rate for Burntwood males is the second highest in the province and for females the rate is the fourth highest.

- Although there was discussion about mental health needs of both youth and adults, it is noted that antidepressant prescription rates for Burntwood youth and adults are among the lowest in the province. For children, the rate decreased from 6.3 to 6.0 per 1,000 children between 2000/01 and 2005/06, which is significantly lower than the Manitoba average of 10.5. For adults, the prescription rate has increased significantly from 3.8 per
cent to 5.3 per cent between 2000/01 and 2005/06. However, it is still significantly lower than the Manitoba average of 6.9 per cent in 2005/06.

- These lower rates may not reflect actual need, but availability of physician services to provide the prescription, and there may be many residents who are using substances to try to deal with mental health issues as opposed to appropriate prescription medication.

- It is also important to note that there is very likely an under-reporting of true rates due to differences in service delivery and reporting of services and prescriptions in First Nations communities.

### MATERNAL HEALTH AND FAMILY NEEDS

Concern about parenting, child safety and child neglect were some of the most prevalent topics raised by community consultation participants. When asked generally what community members needed to be healthy, comments about the need for better parenting skills were often raised as immediate concerns. Community members indicated that with parenting supports and stronger families, the communities can achieve a real balance and improved health.

**Breastfeeding**

Infant feeding choices contribute to healthy early child development and breastfeeding is the optimal feeding method. The benefits are extensive for both mother and baby and include reduced childhood illnesses and hospitalization, intellectual development and increased bonding between mother and baby. The Canadian Paediatric Society (CPS) recommends exclusive breastfeeding for at least the first six months of life and continued breastfeeding for up to two years or more.

“There is encouraging evidence that good nutrition, nurturing and responsive caregiving in the first years of life, linked with good early child development programs, improve outcomes for all children’s learning, behaviour and physical and mental health throughout life, regardless of income level.”

- Residents of Burntwood continue to experience challenges with breastfeeding. Breastfeeding initiation rates (in the hospital) in Burntwood decreased significantly from 68.6 per cent to 64.5 per cent between 1996/97-2000/01 and 2001/02-2005/06, which is significantly lower than the Manitoba average of 81.6 per cent in 2001/02-2005/06).

- Data shows that younger moms and Aboriginal women are two groups who are less likely to breastfeed. This suggests a need to continue to focus with these groups in particular to determine what information is needed to make choices about breast feeding and what supports are required for moms to continue to breastfeed once they leave the hospital. In addition, while women typically make their decision to breastfeed before conception or during the first three months of pregnancy, younger women may differ. This is important as many women who give birth in Burntwood Region are young. In one study of First Nations women in southern Manitoba, only 22 per cent of women had decided prior to pregnancy, and 36 per cent of the women still had not decided in their third trimester of pregnancy. One area of opportunity may be in prenatal programming and strong linkages with breastfeeding support groups.
Families First Program

- Almost all babies born to Burntwood residents living off-reserve have been screened through the Families First Program between 2003 and 2006. This is very good coverage screening for families who may have risk factors and need additional support.

- The proportion of births that screened “positive” (higher risk) increased from 45.7 per cent to 49.2 per cent of births between 2003 and 2006. Between 2003 and 2006, risk factors of particular concern include use of alcohol during pregnancy (23.1%), smoking during pregnancy (47.9%), low levels of education (43.8%) and financial concerns (38.6%).

- Families can decline services offered through the Families First Program. The rate of eligible Burntwood region families who declined service decreased from 32.3 per cent to 21.2 per cent between 2005 and 2006, lower than the Manitoba average of 23.6 per cent in 2006. This tells us that public health nurses and Families First home visitors are doing a good job of engaging families and building trust so that families will allow visitors to come into their homes on an on-going basis. In fact, the Families First Program was one of the only programs identified by name and praised by community members.

Foster Care

- The proportion of children aged 0 to 17 years who were taken into foster care in Burntwood increased from 7.1 per cent to 7.4 per cent between 1998/99-2000/01 and 2001/02-2003/04, which is much higher than the Manitoba average of 3.3 per cent in 2001/02-2003-04.

Families Receiving Protective or Support Services

- The proportion of children aged 0 to 17 years who were living with families receiving protective or support services from Child and Family Services in Burntwood increased slightly from 11.1 per cent to 11.5 per cent between 1998/99-2000/01 and 2001/02-2003/04, which is equal to the Manitoba average.

Low Income Families

- Fourteen per cent of all BRHA families are considered to be low income. This is slightly higher than the provincial rate of just under 12 per cent. However, there is a wide variation within the region, from seven per cent to 24 per cent of families.

- The good news is that the low income rates have decreased in Burntwood families from 17 per cent reported in the 1996 Census to 19 per cent in 2001 to the current rate of 14 percent.

- 23.3 per cent of children aged 18 years and under lived in a low income family, which is higher than the Manitoba average of 21.4 per cent in 2005.
DIABETES AND COMPLICATIONS

Risk factors for diabetes and many other chronic conditions include obesity, poor nutrition, lack of physical activity and stress. Burntwood residents have high rates of many of these risk factors. It is important to note that although Burntwood has a young population, and therefore residents should be at lower risk for chronic disease (which tend to occur most frequently among older people), in almost every chronic condition examined, the prevalence or rate is higher among Burntwood residents than for Manitobans overall. Diabetes is an example of one of the very large differences observed.

- Although diabetes is relatively uncommon among children, there is starting to be a higher prevalence within Burntwood Region. The diabetes prevalence for children in Burntwood increased significantly from 0.4 per cent to 0.9 per cent between 1998/99-2000/01 and 2003/04-2005/06, which is significantly higher than the Manitoba average at 0.4 per cent in 2003/04-2005/06. This trend is a concern and the BRHA will continue to monitor this.

- Among adults, the prevalence of diabetes is 21.4 per cent in Burntwood, which is more than twice the provincial rate of 8.7 per cent. This means that at least one in five residents of the region is living with diabetes.

- Incidence rates (new cases) among Aboriginal residents are much higher (at least two or three times, according to current data) than among non-Aboriginal residents of the region. Due to the differences in service provision and reporting, for many communities of the region, these rates may well under-represent the true incidence and prevalence of chronic conditions such as diabetes in the region.

- Complications such as lower limb amputations among residents living with diabetes are also much higher among Burntwood residents than for Manitobans overall. In fact, residents of Burntwood and Churchill have the highest rates of lower limb amputations in Manitoba for people living with diabetes. Other complications, such as chronic kidney disease and hospitalizations for disease of the circulatory system as well as death due to heart disease, are higher for residents of Burntwood Region than for Manitobans overall.

- Residents with diabetes are 3.3 times more likely to be hospitalized than those without.

- Residents with diabetes see the doctor 2.2 times as many times as those who do not have diabetes.

- residents with diabetes are 2.0 times as likely to die within five years as those who do not have diabetes.

- According to Manitoba Health, as of 2005/06, only one in four residents with diabetes have had an eye exam. This is the second lowest rate in the province and, due to the significant complications that can occur with eye sight, this is an important measure. More recent data indicate that since the inception of the Retinal Screening Vision Program, there have been 1,251 residents screened, including 312 residents of First Nations communities. 583 of Burntwood residents were screened in 2009 and 79 were
referred to specialists as a result. The partnership and funding from both FNIH and Manitoba Health has meant that the two retinal screening nurses have visited 23 Burntwood communities (both off and on-reserve) at least once since 2007.

COMMUNICABLE DISEASE CONTROL

In the three areas highlighted in this section there is a common theme. A review of Burntwood Region rates indicates that they are either very high or very low in comparison to the rest of the province. This suggests significant improvements are still to be achieved. However, a more detailed review of differences in rates on and off-reserve tells a different story. For example, rates of immunization are low for children living on-reserve, rates of STIs are high and Tuberculosis rates also tend to be high on-reserve. These indicators highlight the need to continue to work across jurisdictions with the federal government who is responsible for delivering services on-reserve. By working together towards prevention and compliance with treatment and prevention initiatives, the BRHA can improve the health status of the entire region.

Immunization

- According to Manitoba Health, Burntwood’s coverage rate for all children at ages 1, 2, 7, and 17 are among the lowest of all Manitoba RHAs (at age 11, Burntwood’s coverage is close to the Manitoba average). The picture improves when looking at coverage rates for First Nations, relative to other RHAs. First Nation immunization coverage rates are near the Manitoba average, although they remained consistently below non-First Nation coverage rates in each age group.

- The data provided by Manitoba Health is invaluable in capturing immunizations completed for all residents of Manitoba; however, the most recent data presented in this report do not reflect the most up-to-date coverage rates for BRHA communities.

- More recent data collected by the region indicates that the coverage rates for children age 1, 2 and 7 in BRHA communities for 2008 and 2009 are very good. For example, complete coverage rates are seen for the communities of Thicket Portage, Pikwitonei and Ilford for these age groups in 2009. Near complete coverage rates (greater than 85%) for Wabowden and Gillam in 2009 are also evident. Thompson, Lynn Lake and Leaf Rapids have not reached as high coverage as the other BRHA communities, but show improving rates overall, and rates are still higher that the most recent Manitoba averages in 2007.

Sexually Transmitted Infections

- For both Chlamydia and Gonorrhea, rates in Burntwood for both men and women were significantly higher than the Manitoba average for 2008, and ranked the highest in the province.
Between 1990 and 2008, there were 12,552 cases of Chlamydia diagnosed among Burntwood region residents. 82 per cent of these cases were diagnosed among First Nations residents. A review of where people lived at the time of diagnosis indicates that 60 per cent of cases are diagnosed among residents living on-reserve.

Although rates of Chlamydia continue to be much higher among Burntwood residents living on-reserve, rates of Chlamydia for people living off-reserve have actually increased much more than rates for people living on-reserve. Chlamydia rates have more than tripled for residents living off-reserve, from 454.5 cases per 100,000 in 2000 to 1,693.6 per 100,000 in 2008. Rates for residents living on-reserve have increased from 2,739.6 cases per 100,000 in 2001 to 3,551 cases per 100,000 in 2008. However, the increase in rates could also mean that more people are being screened and treated for Chlamydia as a result of the newer more patient friendly testing method.

In 2008, the highest rate of Chlamydia among Burntwood residents was among females age 15-19 at 13,437.9 cases per 100,000 residents, followed by 20-24 year old females at 12,762.6 cases per 100,000 residents.

Trends for Gonorrhea cases are similar to Chlamydia. According to Manitoba Health data, between 1990 and 2008, there were 3,891 cases of Gonorrhea diagnosed among Burntwood region residents and 84 per cent of these cases were diagnosed among First Nations residents. 58 per cent of cases are diagnosed among residents living on-reserve.

As with Chlamydia, rates of Gonorrhea for people living off-reserve have increased much more than rates for people living on-reserve. According to Manitoba Health data, rates have increased more than seven times for residents living off-reserve, from 63.7 cases per 100,000 in 2000 to 489.5 per 100,000 in 2008. Rates for residents living on-reserve have increased from 625.7 cases per 100,000 in 2001 to 1,326.9 cases per 100,000 in 2008.

The highest rate of Gonorrhea among RHA Burntwood residents was among females age 15-19 at 3,991.6 cases per 100,000 residents, followed by 20-24 year old females at 3,730.4 cases per 100,000 residents.

**Tuberculosis**

Between 1998 and 2009, there were 533 cases of tuberculosis diagnosed among residents of the Burntwood region. Almost all of the cases (98%) were among residents who are status First Nations. In addition, in this same time period 87 per cent of cases of tuberculosis were diagnosed among residents living on-reserve.

Incidence rates of TB for the Burntwood region have ranged from 86 to 126 cases per 100,000 population for the past three years. These rates are much higher for Burntwood region residents than for the other regions, and rank the highest in the province. The provincial rate over this same time period has ranged from 8.7 to 12.9 cases per 100,000 residents.
• Off-reserve rates have increased from no cases in 2000 to 21.3 cases per 100,000 in 2009. Rates on-reserve have also increased, from 61.6 per 100,000 in 2000 to 149.5 per 100,000 in 2009. However, it is important to note that the on-reserve rate in 2009, although an increase from 2000, is actually lower than all rates since 2003.

ACCESS AND CONTINUITY OF CARE

Continuity of physician care was a concern for many Burntwood residents who participated in community consultations. The turnover in physicians, the inconvenience of travelling for physician appointments, and the limited number of appointment times were all cited as barriers to accessing physician resources. Another major theme that was discussed at community consultations was the cultural appropriateness of health care services offered in Burntwood. In relation to culturally sensitive services, participants generally felt that the Burntwood region has done a good job in trying to be as culturally sensitive as possible. A number of indicators within Chapter 6 show that more work can be done in providing appropriate care at the right time and the right setting.

• According to Manitoba Health data, the ambulatory visit rate (normal visits to physicians when the patient is not a patient in the hospital) in the Burntwood region declined between 2000/01 and 2005/06 and it was the lowest among Manitoba RHAs in 2005/06. This may however be due to differences in recording physician visits so that data may not accurately reflect all activity in Burntwood Region. In addition, data from the Burntwood Community Health Resource Centre (BCHRC) indicate many positive strides in provision of primary care. For example, in 2009/10, the BCHRC had 33,831 visits to the centre’s physicians, an increase of 20 per cent from 2006/07. While visits to BCHRC have increased, there has also been dramatic improvement in reducing "no-show" rates which improves efficiency and allows better access to health services for patients who need them.

• Continuity of care for adults and children remained steady between the two time periods observed but remained well below the Manitoba average. However, this is partly related to differences in practices in the Burntwood Region with routine use of locums and a team approach to services. For example, if someone needs an appointment at the health centre in Thompson, they may see the next available physician as opposed to the priority necessarily being placed on seeing the same physician.

• The hospitalization rate for ambulatory care sensitive conditions (ACSC) among Burntwood region residents in 2005/06 was over three times the Manitoba average and was the highest in the province. ACSC include chronic conditions such as asthma and diabetes, which if managed in the community, should rarely result in hospitalization. The higher rates of ACSC are likely related to higher rates of chronic conditions such as diabetes but also related to distances of community members from hospitals. For example, a community member from an outlying community may be more likely to be sent to hospital if there is no physician in the community and the nurse feels that more diagnostic follow up is required. Once at the hospital, the patient may be admitted for even one night for observation, while this is less likely to occur in larger centres where a patient can easily return home.

• The antidepressant prescription follow-up indicator for Burntwood region residents decreased from 43.8 per cent to 38.5 per cent between 1999/00-2000/01 and 2003/04-2005/06. In both time
periods, follow-up was significantly lower than the Manitoba averages (58.2 per cent in 2003/04-2005/06). In fact, in the second time period, the follow up indicator for Burntwood Region residents was the lowest in the province. Again, it is important to note that there is very likely an under-reporting of true rates due to differences in service delivery and reporting of services and prescriptions in First Nations communities.

- While newborn readmission rates decreased between 1996-2000 and 2001-2005, Burntwood's rate remained significantly higher than the provincial average in 2001-2005. These data may be somewhat explained by higher rates of delivery in the Burntwood Region.

**INFANT AND CHILD INJURY AND MORTALITY**

Injury is a very important issue to residents of the Burntwood region. Not only do hospitalization, physician visit and mortality data show this, but community consultation participants also remarked on the impact of high risk behaviour and injury on regional residents.

- Overall, injuries accounted for 76.5 per cent of all deaths among Burntwood children and youth; that is three out of every four deaths. For both males and females, in every age group, injury was the leading cause of death.

- Between 1980 and 2008, there were 338 deaths to infants under one year of age in the Burntwood Region. Of these, 185 (or 54.7%) were males and 153 (or 44.3%) were females. These deaths account for 8 per cent of all deaths in the region and an average of 11.6 deaths per year.

- Actual numbers of infant deaths ranged from a low of 5 in 1989 to a high of 20 in 1998. In 18 of the 29 years examined there were at least 12 infant deaths per year (crudely approximating one infant death per month).

- The leading specific cause of infant death were related to respiratory problems, accounting for 15 per cent of all deaths, followed by Sudden Infant Death Syndrome (SIDS), which accounted for 11 per cent of all infant deaths. Short gestation and low birth weight accounted for nine per cent of all deaths between 1980 and 2008.

- Hospitalizations due to injury among children have decreased somewhat among Burntwood region children from 243.2 hospitalizations per 10,000 children (age 0 to 19) to 239.3 per 10,000 in 2001/02-2005/06. However, the Burntwood region rate is significantly higher than the provincial average of 57.8 per 10,000 and ranks the highest among all regions.

- Two of the three leading causes of injury hospitalization among Burntwood children and youth were due to intentional violence, either to self or by others.

- Between 1980 and 1998, there were 514 deaths in the Burntwood Region to children and youth between the ages of 1 and 19. These deaths account for just over 12 per cent of all deaths in the region and an average of 17.8 deaths per year.
Most deaths among Burntwood children and youth occurred in youth aged 15-19 (45.1% of all deaths), followed by children aged 1-4 (28.0%). Looking at the data by gender shows that males age 15-19 account for the highest proportion (32.9%) of deaths among children and youth, followed by 1-4 year old males (14.4%) and females (13.6%).

The leading four causes of death among children and youth are all injury-related and the leading cause is self-inflicted injury:

- suicide (95 deaths or 18.5% of all deaths between 1980 and 2008);
- accidental drowning (51 deaths or 10% of all deaths);
- accidents caused by fire and flames (30 deaths or 5.8% of all deaths); and
- accidental hanging and suffocation (29 deaths or 5.6% of all deaths).

INJURY, PREMATURE DEATH AND LIFE EXPECTANCY

Premature mortality and injury rates continue to be very high in Burntwood. It underlines the point that to make measurable progress in improving life expectancy and reducing the number of premature deaths in Burntwood, injury prevention strategies need to be effective and that Burntwood communities need access to safe and healthy activities particularly for young people. Engaging youth in organized and productive activities was an important theme for community consultation participants. Although injury is a very important contributor to premature death, it is also important to note that circulatory disease is the leading cause of death in the region.

- Injury hospitalization rates are the highest in the province for Burntwood men and women. About 15 per cent of hospitalizations for Burntwood men are due to injury and about eight per cent for females.

- The leading causes of injury hospitalization for both men and women are falls, followed by assaults and self-inflicted injuries. Rates for falls are much higher than for any other cause.

- Between 2000 and 2006, injury accounted for 17 per cent of all deaths among Burntwood females (compared to 5% of Manitoba females) and 27 per cent of deaths among males (compared to 8% of Manitoba males). While this represents a slight decrease over the previous time period, it still remains well above the Manitoba average. The Region will continue to monitor regional data to determine if the increasing trend continues.

- The leading cause of injury deaths for Burntwood residents was suicide followed by suffocation.

- Overall, Burntwood residents have the highest rates of premature deaths (deaths before age 75) in the province, and the trend appears to be increasing for the numbers of deaths, while the rates of Potential Years of Life Lost (PYLL) remain steady. If the Region can work toward decreasing preventable deaths, such as those due to injury, there should also be a decrease in the premature death rates.

- Circulatory disease as a cause of death continues to be a priority area. PYLL due to this disease was the highest in the province for men and women. High blood pressure is a risk factor for
deaths due to circulatory disease and physician billing data (which includes information about people living on and off-reserve as long as they were diagnosed by a physician) indicates that treatment prevalence rate in Burntwood increased significantly from 26.3 per cent to 35.4 per cent between 2000/01 and 2005/06, significantly higher than the Manitoba average of 23.7 per cent in 2005/06. Hospitalizations and deaths due to stroke and acute myocardial infarction are also higher than the provincial average, again many of these can be avoided through changes in lifestyle and modifiable risk factors.

- Lower life expectancy is an important priority area. The Burntwood region ranked the lowest for life expectancy for both males and females in 2001-2005. As well, Burntwood is one of only a few regions to experience a decline in life expectancy from 1996-2000 to 2001-2005 for males and females.
REFERENCES


CHAPTER 1

Grassy River

INTRODUCTION
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1 INTRODUCTION

How healthy are we? What makes us sick? What factors play a role in determining how healthy we are? How do we use the services that are offered when we become ill?

A comprehensive Community Health Assessment (CHA) must be undertaken by the Regional Health Authorities (RHAs) in Manitoba every five years and these are some of the questions that are explored. This report is the third comprehensive CHA; the first was published in 1997 and the second in 2004 and while it will not provide information about all health issues, it will serve to highlight the important and relevant issues that need to be addressed by Burntwood Regional Health Authority, our partners, and the community at large. It will also point out which priority issues need to be further explored, and act as a baseline and focus for future reports.

Let us start by defining what is meant by a Community Health Assessment (CHA):

**Community** may refer to more than just a geographic location. There are communities of interest, or groups of people who share common ideas or characteristics. People who are Aboriginal or people who have diabetes could be considered a community. Most of the information presented in this report is at a regional level and where possible data are also presented at a district level.

**Health** is defined by the World Health Organization as a state of complete physical, spiritual, mental and environmental health. It is a resource for everyday life – and not the objective for living. It is also a joint societal responsibility – and not only that of the formal health sector.

**Assessment** in this report refers to a process of examining the factors that affect our health (determinants of health), the health of the people who live and work in our region, and the use of the health care system delivered by Burntwood RHA and the physicians in our region. We believe that this should be an ongoing process of assessing health and all of its determinants in order to steer programming and planning, and address the health needs of the population.

Through review of our data and consultation with our staff and community members, this Community Health Assessment will be the basis for the Region’s planning and decision-making. Through this process, it will be important to gain a clear picture of both the health beliefs of residents, how these beliefs affect health and which determinants of health are the most significant predictors of health outcomes in the region.

In summary, the information collected through this process will be used:

- To inform RHA strategic planning process
- To inform RHA communities and stakeholders
- To inform Manitoba Health strategic planning and performance deliverable processes
- To inform consultants/liaisons about the region
- To inform evidence-based decision making
1.1 PROCESS AND METHODS

The Manitoba Health Guidelines 2009 provided direction as to the requirements for the Community Health Assessment. For further information, these guidelines can be viewed at: http://www.gov.mb.ca/health/rha/docs/chnag.pdf.

In early 2008 the BRHA CHA steering committee comprised of the Vice President Aboriginal Health, the Medical Officer of Health and the BRHA part-time epidemiologist began planning for the 2009 comprehensive CHA. The committee convened on a regular basis, with the addition of a BHRA Health Consultant to manage the work plan of the CHA and review progress.

The steering committee also worked with staff and managers of the BRHA on an on-going basis to collect data and complete "reality checks". BRHA staff were also instrumental in planning all of the community consultation logistics. Several formal meetings were held to communicate with BRHA staff and ask for approval and direction of timelines and the CHA process. These included:

- March 2008 - presentation to BRHA Board about the CHA process, work plan and timelines.
- March 2008 - presentation to BRHA Regional Management to update about CHA progress and timelines.
- Spring to fall of 2008 - several meetings with MKO to attempt to identify a way to work together to share information collected through our health assessment processes. This included a presentation to MKO staff (by the epidemiologist and Medical Officer of Health) in August 2008 about BRHA, public health and the Community Health Assessment process.
- January 2010 - presentations to Senior Executive Committee and Regional Management about key findings of CHA to date.
- March 2010 - presentation to Senior Executive Committee and Regional Management for document review and approval.
- April 2010 - Document verification and "red flag" exercise with Regional Management.

Throughout the project, the Community Health Assessment Network (CHAN) was an important resource to the Regional Health Authority. With representatives from all Regional Health Authorities (RHAs), CancerCare Manitoba (CCMB), Manitoba Centre for Health Policy (MCHP) and Manitoba Health, CHAN supports the province-wide co-ordinated approach to the CHA.

For this CHA, Manitoba Health required that each RHA report on a "Core" set of 96 indicators. Beyond this core set of indicators, each RHA could choose from many other important indicators based on their unique needs and priority areas. In some cases our region was limited due to indicators being suppressed due to small numbers. Where possible, we have used other data sources and community consultation information to fill in where the standard data sources were suppressed. The indicators are presented throughout this document and summarized in a data table in Appendix A.

It is important to note that the information in this report is NOT limited to services and utilization only within our region - for example, if a Thompson resident went to Winnipeg to give birth, the baby would still be captured as a "Burntwood birth". This is the case for all hospital and physician encounters for people living both on and off-reserve as long as the encounter is captured through Manitoba Health billing data.
We note that just over three-quarters of Burntwood Region residents (76%) were identified as Aboriginal in the 2006 Census. We have tried to include as much information as possible about Aboriginal people specifically in this report. We know from previous research and reports that Aboriginal people in Manitoba generally have poorer health status than non-Aboriginals. Some particular diseases are more prevalent in this population, such as diabetes, than in others. Research indicates that there may be a higher prevalence of risk factors, such as smoking, among Aboriginal people than non-Aboriginal. These reports are generalized to Aboriginal people, but we do not know if this is the case for Aboriginal people in our specific region. Aboriginal residents living off-reserve were invited to participate in our consultation process to provide valuable feedback about their views of health status, risk factors and services in our region. Data from the Canadian Community Health Survey which is used primarily in Chapters 3 and 4, include information about Aboriginal residents of Burntwood if they are living off reserve. Manitoba Health does not collect ethnicity data with its health, hospital or utilization information. Ethnicity data from these sources are limited to geography and to whether an individual lives "on" or "off" reserve. We are committed to communicating the findings of this document to our residents, and to hearing feedback about whether they believe we have adequately captured their experiences and concerns about health and health services in the Burntwood Region.

This project was lead by Rusty Beardy, Vice President Aboriginal Health for Burntwood Regional Health Authority. Ongoing advice and assistance was provided by Dr. Lisa Richards, Medical Officer of Health for Burntwood RHA. Juanita Barrett, BRHA Health Consultant also provided valuable assistance throughout the course of this project and facilitated the majority of focus groups in Thompson. The work to compile the data and write this reported was contracted to Cynthia Carr, a part-time epidemiologist with BRHA since 2001.
1.1.1 DATA COLLECTION

Two methods of data collection were used to gather information about the region. The first, "hard data," (administrative and survey data) was obtained through a variety of data sources (see 1.1.2 Primary Data Sources); the second was through a series of consultations with staff and community members.

1.1.2 PRIMARY DATA SOURCES

There are many data sources used in this document and all of these sources are referenced throughout. However, there are several sources that are used for the majority of statistics in this report. The primary data sources used in this document are:

- Statistics Canada, Canadian Community Health Survey (2003-2008)
- Statistics Canada, 2006 Census
- Manitoba Health, Health Information Management
- Manitoba Health, Communicable Disease Control
- Manitoba Health, Chronic Disease Branch
- Healthy Child Manitoba Office
- Manitoba Centre for Health Policy, Need to Know Project
  - Manitoba Centre for Health Policy, *Manitoba RHA Indicators Atlas 2009*
  - Manitoba Centre for Health Policy, 2008 Child Health Atlas Update
  - Manitoba Centre for Health Policy, *What Works? A First Look at Evaluating Manitoba's Regional Health Programs and Policies at the Population Level*
- Cancercare Manitoba, *Youth Health Survey Report, 2008.*

Statistics Canada, Canadian Community Health Survey

The source some of the determinants of health data in this document is the Canadian Community Health Survey (CCHS). Data from this survey are currently available for the years 2003, 2005, 2007 and 2008. Although the CCHS was originally completed every two years, as of 2007 it became an annual survey. Data from 2008 became available at the end of this Community Health Assessment process and although we did not change graphs to reflect these new data, in some cases, we did add time trend tables to show the most recent data where it was applicable.

The CCHS is an important source of determinant data and self-reported health data; however, the survey is an off-reserve, household survey only (for residents age 12 and older). This means that persons living in an institutional setting (including personal care homes) or on-reserve are not included in this survey. The survey data is then "weighted" (by age group and gender) in an attempt to accurately represent the regional experience.

1Unless otherwise noted, all Canadian Community Health Survey data used in this report is directly from Statistics Canada website. This data has been appropriately weighted to populations and includes peer group comparisons.
In order to effectively compare health regions with similar socio-economic characteristics, health regions have been grouped into ‘peer groups’. Statistics Canada used a statistical method to achieve maximum statistical differentiation between health regions. Twenty-four variables were chosen to cover as many of the social and economic determinants of health as possible, using data collected at the health region level mostly from the Census of Canada. Concepts covered include:

- basic demographics (i.e., population change and demographic structure),
- living conditions (i.e., socio-economic characteristics, housing, and income inequality), and
- working conditions (i.e., labour market conditions)

Burntwood and Churchill are combined together and are classified by Statistics Canada as “Peer Group F”\(^2\). This Peer Group consists of five regions that account for 0.4 per cent of the Canadian population. These regions are characterized as:

- Northern and remote regions
- Very high Aboriginal population
- Very low employment rates
- Low proportion of immigrants

The regions making up Peer Group F are:

- Région de Nunavik
- Région des Terres-Cries-de-la-Baie-James
- Burntwood/Churchill
- Mamawetan/Keewatin/Athabasca
- Nunavut

In many cases throughout this chapter, Peer Group F has been included for comparison, in addition to Manitoba and the other provincial regions. In this way, we can compare our data to our own province and provincial RHAs (that are in the province but are very different from our own), as well as other regions across Canada that are not in our province but are more similar to our region.

\(^2\) Burntwood and Churchill were in Peer Group C in 2001 CCHS but have been changed to F in 2003. Therefore, 2001 Peer Group F data will not included Burntwood/Churchill. This will impact our ability to make inferences about changes over time within this Peer Group.
Figure 1-1. Canadian Community Health Survey Health Region Peer Groups.

Source: http://www.statcan.gc.ca/pub/82-221-x/2009001/tmap-tcarte/hr-rs/ca07-eng.pdf

For more information about the Canadian Community Health Survey, please visit Statistics Canada website at: www.statcan.ca. A listing of the specific data tables with the associated data can be found at: http://www.statcan.gc.ca/pub/82-221-x/2009001/tbl-eng.htm.

Statistics Canada, 2006 Census

The 2006 Census data are used to report on the majority of indicators related to demographic and socioeconomic factors in our region. The majority of data from the Census are from the year 2006. However, there are some economic variables (such as annual median income) where the data being reported is actually from the year 2005 (that is, in 2006 people were asked about their income in the preceding full year).

Data that are identified as "20% sample data" refer to information that was collected using the long census questionnaire. For the most part, these data were collected from 20 per cent of the households; however they also include some areas, such as First Nations communities and remote areas, where long census form data were collected from 100 per cent of the households.

**Manitoba Health, Health Information Management**

Manitoba Health provided and extensive amount of data in their "Community Profile" document (data set) on a variety of health services. These data include information about screening for disease, injury, certain chronic and communicable diseases as well as mortality data. Data from Manitoba Health was also used for certain population estimates (which are released in June of each year and are based on the numbers of individuals who are active in the Manitoba Health Registry), as well as the standard Medical and Hospital Reports which are released yearly.

This information is often provided by age group and gender and is usually presented as a "crude rate". That is, unlike the Manitoba Centre for Health Policy (MCHP) data, these data are not standardized to allow for comparisons between regions that take into account different age structures. However, these data are appropriate in that they illustrate the true situation in each region. From this we can determine numbers of people accessing and requiring services. When standardized data are presented, they will be clearly identified as standardized. If there is no description of data as "standardized", the reader can assume the data presented are crude rates.

For more information about Manitoba Health and information that is available, please visit: http://www.gov.mb.ca/health/.
Manitoba Health, Communicable Disease Control

Although communicable disease data were provided as part of the standard Community Profile, Communicable Disease Control also provided some Ad Hoc reports for our region with more specific time trend and gender information.

For more information about Manitoba Health, Communicable Disease Control and information that is available, please visit: http://www.gov.mb.ca/health/publichealth/cdc/.

Manitoba Health, Chronic Disease Branch

Diabetes and chronic diseases are important diseases in our region. This branch provided an extensive amount of information in its "Diabetes in Manitoba, 1998 to 2006" PowerPoint presentation.

For more information about Manitoba Health, Chronic Disease Branch and information that is available, please visit: http://www.gov.mb.ca/healthyliving/chronic.html.

Healthy Child Manitoba Office

Healthy Child Manitoba provided a great deal of data for the Early Development Instrument scores which gave us a great deal of information about Readiness to Learn. These data were collected in the spring of 2005, 2006 and 2007 by Kindergarten teachers who fill out information sheets on each student. The data are then submitted to Healthy Child Manitoba who works with McMaster University in analysing the data.

We also received data from the Families First Screening Program that screens all women who live off-reserve and have given birth in Manitoba. These screening data provide us with information about women who might have engaged in risky behaviour during pregnancy (such as drinking and smoking) and who might require support in parenting.

For more information about Healthy Child Manitoba and information that is available, please visit: http://www.gov.mb.ca/healthychild/.
Manitoba Centre for Health Policy (MCHP), Need to Know Project

Regions have been provided an extensive amount of statistical information through the Manitoba Centre for Health Policy (MCHP), Need to Know Project. Some of the MCHP data sources we used most extensively throughout this document are:

1. **Manitoba RHA Indicators Atlas 2009**
   Fransoo R, Martens P, Burland E, The Need to Know Team, Prior H, Burchill C

   Martens P, Fransoo R, The Need to Know Team, Burland E, Prior H, Burchill C, Romphf L, Chateau D, Bailly A, Ouelette C

   Brownell M, De Coster C, Penfold R, Derksen S, Au W, Schultz J, Dahl M

The MCHP provides data primarily based on service utilization. As with the data from Manitoba Health, these data are dependent on quality reporting by service providers. For example, if salaried physicians do not "shadow bill" to Manitoba Health, our data about the health service utilization patterns of our residents will not be accurate. MCHP data are rarely provided by age group or gender (unless looking at targeted issues such as immunization among seniors), so there is usually just one measure provided for the whole region. Data are always standardized to take into account age differences among regions. Standardization does allow for more accurate comparisons between regions, however, it masks the true situation (crude rates) in the region and is more difficult to use for program planning. Finally, although MCHP did provide analysis on many variables from the CCHS, we have also used some CCHS data provided directly from Statistics Canada as these data are more recent and weighted to the population. CCHS data analyzed by MCHP are very useful but are not directly comparable to the data we obtained directly from Statistics Canada because the Centre often combines several years of data (so that they can provide more detailed levels of information and have more stable rates, but this limits the time trend aspect of the data). In addition, it is not clear if MCHP uses the same weighting and boot-strapping methodologies that are used by Statistics Canada.

For more information about the Need to Know Project and the data that are available, please visit: [http://www.rha.cpe.umanitoba.ca/index.html](http://www.rha.cpe.umanitoba.ca/index.html).

Manitoba Health is the process of reviewing and updating the Women’s Health Strategy\(^3\) (2001). To support this work and help inform the current Community Health Assessment process, ten regional consultations were held between January and May 2009. The Women's Health Clinic was contracted for this project. Approximately 200 people participated in the face-to-face consultations and key informant interviews or provided written submissions. Regional reports that summarize the comments from each of the consultations along with an Excel file that contains the flip chart notes that were recorded at each session were provided to each of the RHAs.

The consultation with Burntwood RHA residents occurred in a three hour meeting on February 18, 2009. Seventeen women attended this meeting representing a variety of organizations such as Burntwood Regional Health Authority, Ma Mawi Centre, YWCA, Thompson Crisis Centre, and AFM. Several women identified themselves as Aboriginal. Key themes from this consultation are included throughout the report.


Cancercare Manitoba, Youth Health Survey Report, June 2009.

The purpose of the Youth Health Survey was to provide schools and Burntwood RHA with current region-specific information about risk factors for chronic disease in youth. This survey provides information about nutrition, physical activity, obesity, smoking and other areas for students from grade six to twelve in our region. Students from the following schools participated in this survey: RD Parker Collegiate, Thicket Portage School, Pikwitonei School, DR Hamilton School, Julie Lindal School, Stevenson Island School, West Lynn Heights School, Gillam School, Leaf Rapids Education Centre, Mel Johnson School, Oscar Blackburn School, and Helen Betty Osborne Ininiw Education Resource Centre. In total, 1,100 students in the BRHA area participated in this survey.

\(^3\) http://www.gov.mb.ca/health/women.
1.1.3 COMMUNITY CONSULTATION

Community consultations took place in the spring, fall and winter of 2009 with the final consultations occurring in February 2010. Some of the community consultations had to be re-scheduled into 2010 due to inability to reach communities as a result of weather (charters could not fly in), and because pandemic H1N1 vaccination clinics took precedence. In the end, all planned community consultations were successfully completed. Community consultations were facilitated by Cynthia Carr and Juanita Barrett.

Community consultations took place in Thompson as well as all Burntwood RHA-serviced Bayline Communities. Consultations in Thompson occurred with the following groups:

- BRHA Board - 10 participants
- BRHA staff - 22 participants
- Regional Management - 33 participants
- Physicians and Nurse Practitioners - 7 participants
- Spiritual Care Advisory Committee - 6 participants
- "Other" healthcare providers - 2 participants at two separate meetings
- Community Leaders, Thompson City Council and Staff - 11 participants in two separate meetings
- Northern Regional Conference of Municipal Leaders - 27 participants
- Teachers - 9 participants
- Youth - 8 participants
- RCMP - 10 participants
- Elders - 6 participants
- People who are living with diabetes - 7 participants
- Thompson community members - 1 participant
- New moms/breastfeeding moms - 4 participants

Consultation occurred in the following Bayline communities:

- Lynn Lake - 11 participants
- Leaf Rapids - 11 participants
- Wabowden - 14 participants
- Pickwitonei - 11 participants
- Gillam - 19 participants
- Thicket Portage - 11 participants
- Ilford - 12 participants

Participants in the community focus groups included community centre staff and health care providers, teachers, community leaders, RCMP, elders, people with chronic diseases, new moms/breastfeeding moms and community members in general. We did not break the participants out by category due to small numbers and overlap - for example, an elder may also have had a chronic condition or a new mom may also be a staff member or teacher. In total, 252 community members and staff participated in the community consultations. All participants were asked to fill out a "mini-survey". From the participants who filled out the survey we can report the participant characteristics as presented in Table 1-1.
Table 1-1. Community consultation participant characteristics.

<table>
<thead>
<tr>
<th>Years lived in Burntwood Region</th>
<th>Less than one year</th>
<th>2.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4 years</td>
<td>18.9%</td>
<td></td>
</tr>
<tr>
<td>5-7 years</td>
<td>8.8%</td>
<td></td>
</tr>
<tr>
<td>8-10 years</td>
<td>5.9%</td>
<td></td>
</tr>
<tr>
<td>More than 10 years</td>
<td>63.9%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age of participant</th>
<th>Under age 24</th>
<th>6.4%</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-34 years old</td>
<td>10.5%</td>
<td></td>
</tr>
<tr>
<td>35-44 years old</td>
<td>14.0%</td>
<td></td>
</tr>
<tr>
<td>45-64 years old</td>
<td>41.3%</td>
<td></td>
</tr>
<tr>
<td>More than 60 years old</td>
<td>27.9%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>39.2%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>60.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ranking of health care services in community</th>
<th>1 (not good at all)</th>
<th>8.9%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>11.6%</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>44.6%</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>28.1%</td>
</tr>
<tr>
<td></td>
<td>5 (very good)</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

The results of the community consultation are woven as quotes and key themes throughout this document. All community consultation materials developed for the Burntwood RHA Community Health Assessment are provided in Appendix C.
1.1.4 Note on How to Find Information in this Document

This document is organized around the 96 core indicators required by Manitoba Health. The indicators are grouped into broad categories:

Chapter 1 - Introduction, Methodology and Data Sources
Chapter 2 - Regional Profile
Chapter 3 - Determinants of Health
Chapter 4 - Health Status
Chapter 5 - Health System Characteristics
Chapter 6 - Health System Performance

Chapters 3 to 6 are organized by each indicator separately, and include information about the importance of the indicator, highlights of the data, as well as graphs and tables to show comparisons to other regions and trends over time. Where available, we have also included district level data for our region.

Because of the scope of this document and the number of indicators on which we are reporting, we have also developed two indicator data tables. The data table (in Appendix A) shows one measure for each indicator for Burntwood RHA compared to Manitoba. In this way, the reader can see at a glance the differences between the region and Manitoba for the most recent data that are available.
1.2 **BURNTWOOD REGIONAL HEALTH AUTHORITY BOARD ENDS**

**Vision**

The Vision (or MEGA END) of the BRHA is *“Northern Health in Northern Hands.”*

The BRHA is working toward a future where the health status of the Region is equal to, if not better than the rest of the province and where there are no health disparities among peoples.

The mental, emotional, physical and spiritual health of individuals is supported by healthy families in healthy communities. Everyone is working together to create and maintain the best possible conditions for the best possible health outcomes. The BRHA is an employer of choice, providing a rich environment for growth and learning, research and best practice.

1.3 **BURNTWOOD REGIONAL HEALTH AUTHORITY STRATEGIC PLAN 2007-2011**

**Mission**

*To work with individuals, families and communities to achieve their best possible health and wellness.*

- Promote health, healthy choices, and healthy environments.
- Prevent illness and injury.
- Provide services for timely return to health.

**Health Priorities**

The following health issues are priorities for the Region. It should be noted that tobacco use, lack of physical activity and poor nutrition are all risk factors that contribute to Diabetes, Cardiovascular disease and Cancer.

- Child Health
- Chronic Disease Prevention and Treatment
  - Cardiovascular Health
  - Diabetes
  - Cancer
- Mental Health/Wellness and Addictions
- Injury
- Infectious Diseases
- Oral Health
Strategies

The following strategies are interwoven and interdependent and must be considered in concert with one another, the health priorities and the system as a whole. The health priorities will be addressed through the following strategies:

1. **Health Promotion and Disease and Injury Prevention**

   Focus on prevention and promotion activities to improve the health status of the people in our region.

   1.1. Continue to better integrate chronic disease prevention and health promotion into primary health care.
   1.2. Ensure healthy environments by working with community partners. This includes clean air, water, and soil, as well as an environment that promotes safety and healthier personal choices.
   1.3. Work with individuals as they learn about and care for their own health, connecting through community partners like the education system.
   1.4. Advocate for best practices utilization and adequate resources for such strategies.

2. **Partnerships and Engagement**

   Impact the health status of the Region by continuing to build partnerships that integrate strategic planning with communities:

   2.1. Enhance partnerships to influence the health determinants that are beyond the scope of the BRHA that require a stronger advocacy role.
   2.2. Enhance partnerships with FNIHB, Manitoba Health and Aboriginal leaders to deliver health services with a shared vision and a strategic plan.
   2.3. Enhance partnerships to facilitate research, training and best practices.
   2.4. Enhance partnerships to deliver effective prevention and promotion activity strategies.

3. **Aboriginal Health**

   Work towards transformation of the current health systems to address the disparities in health status:

   3.1. Participate with Aboriginal leaders, FNIHB and Manitoba Health in the broader transformation of the health system to better address the health needs of First Nations and Métis peoples.
   3.2. Continue to engage local communities in addressing the disease and injury prevention, health promotion and health service delivery needs within their communities by supporting their development of community health plans in collaboration with the BRHA.
   3.3. Develop and implement an Aboriginal Health Program in the organization.
4. **Capacity Development/ Sustainability**

Develop the capacity of the system to address the burden of illness in the Region and create sustainability:

4.1 Facilitate health research in the Region.
4.2 Develop standardized tools and practices
4.3 Create a human resource strategy that will work for a transitional workforce, develop and hire the people of the region and provide the supports and incentives to retain people.
4.4 Establish a change management strategy that will build the organization required to support the strategic plan.
4.5 Develop the capacity of all communities to support their health and wellness.
4.6 Secure funding commensurate with the health needs of the Region and coordinate resources with partners.
4.7 Ensure system competency through balanced scorecard evaluation. Access will be a key part of this evaluation.

5. **Continuity of care**

Develop a seamless continuum of responsive patient focused care to support individuals, regardless of jurisdiction, to receive services according to their needs:

5.1 Promotion and prevention activities are offered throughout the region.
5.2 Treatment is consistent with existing care plan and changes are communicated to all caregivers.
5.3 Discharge planning ensures that the plan of care is continued in the home environment.
5.4 The patient is actively included in all planning.
5.5 Case management is utilized to ensure that all disciplines have input to and are aware of the plan of care.
5.6 Ongoing communication and linkages with our jurisdictional and external partners.
5.7 Patient satisfaction questionnaires will measure continuity of care.

6. **Children and Youth**

Children are the fastest growing population segment of the Burntwood Region. They are the future leaders responsible for the direction of the region and its health outcomes. Therefore they will need to demonstrate the knowledge, skills, judgment and ability as leaders to understand and positively influence health status to change the long term health status of the region as a whole.

6.1 Ensure practical and realistic evidenced-based developmental tools and resources are available throughout the region. This must include healthy choices, mental wellbeing and physical activity.
6.2 Develop a comprehensive referral network based on the regional needs and identified gaps.
6.3 Develop/participate in an evaluation component to ensure the developmental tools and resources are meeting the needs and that services are provided and optimal positive outcomes are being achieved.
6.4 Enhance partnerships with other social services/agencies and communities to provide the appropriate parenting capacity-building skills and supports to high-risk families.

7. **Patient Safety**

Continue to actively promote a culture of safety within the organization through implementation and monitoring of best practices in our day to day operations to improve the safety of our patients:

7.1 Continue participation in Safer Healthcare Now! initiatives with expansion to include additional interventions.
7.2 Continue implementation of Falls Prevention program throughout the region.
7.3 Implementation of Safe Patient Transfers policy.
7.4 Continue to implement patient safety practices to ensure compliance with the Accreditation Canada’s Required Organizational Practices (ROPs).
CHAPTER 2

Railway Bridge at Pikwitonei

REGIONAL PROFILE
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2 REGIONAL PROFILE

The special characteristics of the community in which we live have a significant impact on how healthy we are, and our ability to manage our own health. This section looks at a few of these special characteristics which are known to impact on our health and illness. More specifically, this section examines the geography and governance of the region, its demographic features, including the make-up of our population, the structure of our families, and our socio-economic situation.

2.1 GEOGRAPHY

This section provides an overview of some of the distinguishing characteristics of the Region, in terms of its geography and the political organization of the communities within the region. Finally, an overview of the BRHA organization itself is provided.

The land of the Burntwood Region is a mix of Canadian Shield and boreal forest, as well as permafrost and a sub-arctic climate. Within the Canadian Shield, there are many lakes and rivers, making the region well-known to outdoor enthusiasts. The boreal forest is diverse in the number of different trees that are present, including balsam fir, tamarack, white spruce and black spruce. Deciduous trees such as white birch, aspen, and poplar are more common in the southern portions of the region. The permafrost in the north-western portion of the region, known as the Taiga Shield, brings small, slow growing coniferous trees to the area, and serves as a transition from the boreal forest in the south and the tundra further north.

The Burntwood Region covers most of the province of Manitoba lying north of the 56th parallel. The BRHA is the largest geographical health region in the province at 324,000 square kilometres covering 52 per cent of the province.

The Burntwood Region includes one city, three towns, 19 First Nations communities (many of which have adjacent non-treaty communities), seven Northern Affairs communities and multiple hamlets and cottage settlements dispersed in unorganized territories across the region. Transportation and communication infrastructure is limited compared to other parts of the province. Some communities are accessible only by air or winter roads, and many homes may still not have a telephone or running water.

This section provides an overview of some of the distinguishing characteristics of the Region, in terms of its geography, the political organization of the communities within the region. Finally, an overview of the BRHA organization itself is provided.

Consistent with remote and northern regions, Burntwood is sparsely populated, and significant distances separate the region’s various communities. In terms of the political and governance structure of these communities, they are traditionally categorized into four groups:
• **Industrial communities** – these communities are those which have authority (under provincial legislation, which has jurisdiction under the Constitution Act, 1867 for municipal matters) to administer their own affairs. Generally speaking, they provide all local services and are governed by a Mayor and Council. This category of communities includes Gillam, Thompson, Lynn Lake, and Leaf Rapids.

• **First Nation communities** – these communities also look after their own matters, but under authority provided to them under the federal Indian Act. This is because constitutional authority for matters relating to “Indians and lands reserved for Indians” lies with the federal government. Most Indian Bands are governed by a Chief and Council elected for two year terms by the Band membership. First Nation communities within the BRHA region include:

  - Barren Lands First Nation (Brochet)
  - Bunibonibee Cree Nation (Oxford House)
  - Fox Lake Cree Nation
  - Garden Hill First Nation
  - God’s Lake First Nation
  - Manto Sipi Cree Nation (God’s River)
  - Marcel Colomb First Nation
  - Nisichawayasihk Cree Nation (Nelson House)
  - Northlands First Nation (Lac Brochet)
  - Norway House Cree Nation
  - O-Pipon-Na-Piwin (South Indian Lake)
  - Pimicikamak Cree Nation (Cross Lake)
  - Red Sucker Lake First Nations
  - Sayisi Dene Denesuline Nation (Tadoule Lake)
  - Shamattawa First Nation
  - St. Theresa Point First Nation
  - Tataskweyak Cree Nation (Split Lake)
  - War Lake First Nation
  - Wasagamack First Nation
  - York Factory First Nation (York Landing)

• **Northern Affairs communities** – some communities in the Region are considered to be “Northern Affairs Communities”, that is, communities which operate under the provincial Northern Affairs Act. These communities are, in some respects, in between unorganized territories and industrial communities, in that they are not incorporated towns and villages, and still dependent to some extent on the provincial government to provide local services. The Northern Affairs Act provides for a Mayor and Council on three to four year terms. Funding is provided by the provincial government to provide basic local services, and some communities have negotiated block funding arrangements, thereby allowing them greater flexibility in the management of their own spending priorities. Northern Affairs communities in the BRHA region include:

  - Brochet
  - Cross Lake
  - God’s Lake Narrows
  - Granville Lake
• Ilford
• Nelson House
• Norway House
• Oxford House
• Pikwitonei
• Red Sucker Lake
• Thicket Portage
• Wabowden

• **Unorganized territories** – effectively speaking, the provincial Department of Northern Affairs functions as the municipal government for those communities or territories which do not fall into one of the other categories and, therefore, are considered to be “unorganized”. The communities of Paint Lake and Setting Lake are examples of unorganized territories, both administered by the provincial Department of Aboriginal and Northern Affairs.

Perhaps what this list best illustrates is the jurisdictional challenge to the BRHA as we deliver our services to people in communities with different legal status. As is discussed further in the section on demographics below, almost 76 per cent of the population self-identifies as being Aboriginal, most of whom live on a reserve (about half of the Burntwood population), thereby falling under federal jurisdiction (section 91(24) of the *Constitution Act, 1867* gives constitutional authority over “Indians and lands reserved for Indians” to the federal government).
2.2 COMMUNITY DESCRIPTION

As of June 2008, the Burntwood Regional Health Authority served an area with a population of 46,818 people. This meant that the Burntwood population accounted for just about four per cent of the provincial population as whole (but, as noted earlier, 53% of the province’s land mass). What is particularly striking, however, is how young the Burntwood population is relative to the rest of the province. Residents under age 15 in Burntwood Region account for 32.8 per cent of the population compared to just 19.2 per cent in Manitoba overall.

The Burntwood Region is also unique from other regions in the province in the relative size of the Aboriginal population. The Burntwood population is almost evenly divided between those who live in First Nations communities (on-reserve) and those that live off-reserve. More specifically, the population figures for June 2008 show that 23,078 people lived in off-reserve communities (49.3% of the population) in the region, while 23,740 lived in First Nations communities. Table 2-1 below lists the population of Burntwood Region communities.

A relatively young population, and a large proportion of residents of Aboriginal descent and living in First Nation communities, have a very significant impact on the health needs of the region, the particular kinds of health services in demand, and the ability of the BRHA to effectively respond to those demands.

<table>
<thead>
<tr>
<th>Community</th>
<th>On-Reserve Population</th>
<th>Proportion of BRHA population</th>
<th>Community</th>
<th>Off-Reserve Population</th>
<th>Proportion of BRHA population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway House FN</td>
<td>4,208</td>
<td>9.0%</td>
<td>City of Thompson</td>
<td>13,925</td>
<td>29.7%</td>
</tr>
<tr>
<td>Cross Lake FN</td>
<td>3,333</td>
<td>7.1%</td>
<td>Town of Gillam</td>
<td>1,171</td>
<td>2.5%</td>
</tr>
<tr>
<td>Garden Hill FN</td>
<td>2,307</td>
<td>4.9%</td>
<td>Town of Lynn Lake</td>
<td>740</td>
<td>1.5%</td>
</tr>
<tr>
<td>Nelson House FN</td>
<td>2,523</td>
<td>5.4%</td>
<td>Town of Leaf Rapids</td>
<td>569</td>
<td>1.2%</td>
</tr>
<tr>
<td>St. Theresa Point FN</td>
<td>2,434</td>
<td>5.2%</td>
<td>Unorganized Territories</td>
<td>6,667</td>
<td>14.2%</td>
</tr>
<tr>
<td>Oxford House FN</td>
<td>1,788</td>
<td>3.8%</td>
<td>All Off-Reserve</td>
<td>23,078</td>
<td>49.3%</td>
</tr>
<tr>
<td>Split Lake FN</td>
<td>1,461</td>
<td>3.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wasagamack FN</td>
<td>1,030</td>
<td>2.2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gods Lake FN</td>
<td>948</td>
<td>2.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shamattawa FN</td>
<td>899</td>
<td>1.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red Sucker Lake FN</td>
<td>622</td>
<td>1.3%</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Northlands FN</td>
<td>541</td>
<td>1.2%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Gods River FN</td>
<td>468</td>
<td>1.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>York Factory FN</td>
<td>290</td>
<td>0.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Churchill FN</td>
<td>276</td>
<td>0.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barren Lands FN</td>
<td>269</td>
<td>0.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fox Lake FN</td>
<td>200</td>
<td>0.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>War Lake FN</td>
<td>61</td>
<td>0.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All On-Reserve</td>
<td>23,740</td>
<td>50.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following is a brief description of Thompson and each of the BRHA-serviced communities:¹

Gillam

Gillam is located about 730 kilometres north of Winnipeg, about midway between Thompson and Churchill. Named after Zachary Gillam, a captain of a fur trading vessel which chose to winter in the nearby Nelson River estuary in 1682, the town today is serviced by an all weather road leading to Thompson, as well as by Via Rail, connecting the town to both Thompson and Churchill and numerous smaller towns along the rail line. Gillam also has a small airport with regular flights to Churchill, Thompson and Winnipeg.

The arrival of the railroad in 1929 resulted in Gillam's population growing from a small Indian and Métis village to a town of about 350, made up largely of Canadian National rail workers and a handful of business people. In the 1960s, however, it was the arrival of the major power dams, built by Manitoba Hydro on the Nelson River, which led to the most significant changes.

There has been a steady decline in the Gillam population over the last decade. In 1991, the town's population was listed as 1,893. By the 1996 Census, however, this had dropped to 1,534, a decline of 19 per cent. In the 2001 Census, the population was 1,178, but in 2006 Census, the population slightly increased to 1,209 (2.6% increase).

Manitoba Hydro continues to be the economic and social driver in the town. As a result, the town is able to offer its residents many services and recreational facilities, including places to bowl, skate, curl, play hockey, play badminton – much of which can be done under one roof, along with the town’s library and recreational hall.

Ilford

Ilford is located 144 air kilometres northeast of Thompson, 416 kilometres northeast by rail from The Pas and 688 air kilometres north of Winnipeg.

The community originated as a construction and service centre during the building of the Hudson Bay Railway. Later it served as a marshalling point for prospectors during the Island Lake gold rush, and then as a similar marshalling point for the network of winter freight roads going east from Ilford.

Ilford is also home to members of the War Lake Band. Discussions about establishing a reserve area continue.

The population of Ilford has shown continual decline according to Statistics Canada Census data. The population has decreased from 155 in 1996 to 143 in 2001 and further to 116 in the 2006 Census.

Ilford is represented by a mayor and council under The Northern Affairs Act.

¹ Unless otherwise indicated, the information in these profiles is from Manitoba Intergovernmental Affairs, Community Profiles, available at www.communityprofiles.mb.ca, supplemented with background information from the Burntwood Regional Health Authority, Northern Health in Northern Hands: A Community Health Needs Assessment, 1997 and BRHA 2004 Community Health Assessment.
Leaf Rapids

Leaf Rapids is located 209 kilometres northwest of Thompson, Manitoba and 1000 kilometres northwest of Winnipeg, Manitoba. It was built between 1971 and 1974 to serve employees of the newly opened Ruttan Mine, owned originally by Sherritt Gordon and, later, the Hudson Bay Mining and Smelting Co., Limited. At its peak, the Ruttan Mine was one of the largest and most modern copper and zinc mines in all of Canada, and served as the cornerstone of the local economy until the mine ceased operations in June 2002.

The population of the Town of Leaf Rapids has also changed significantly in recent years, putting enormous pressures on the town. The 1991 Census data shows a population of 1,613 for the town, dropping to 1,504 in the 1996 Census, and further to 1,300 in the 2001 Census. Since the 2001 Census, the mine has closed and, as a result, many people have left the area. In January 2003, the population was estimated to be approximately 400 residents. In the 2006 Census, the population increased to 539. This increase in population since 2003 may be due to residents from Granville Lake, a nearby Northern Affairs community, moving into the community. These families were forced to leave their own community in 2003 when it was declared unsafe after their waste treatment facilities broke down. Although there were plans for these residents to move back to their community once waste facilities were repaired, some may have chosen to stay.

As a result of sharp decline in the town’s population following the closure of the mine, the Leaf Rapids Hospital was changed to a community health centre.

Lynn Lake

The area around the present-day town of Lynn Lake has historically been a favourite hunting, fishing and trapping location for First Nations and Métis people who live in the area. In 1941, minerals were discovered which eventually attracted the Sherritt Gordon Mine Company. In 1950, work began on the construction of a rail line between Sherridon, Manitoba and the future town of Lynn Lake, 232 kilometres away. The original town consisted of the buildings that were moved from the old mine site at Sherridon. By 1952, a total of 208 buildings had been moved and the town had a population of 507.

By the mid-1970s, the population had peaked at about 3,500 residents. But by the early 1980s, declining copper prices had forced the company to layoff several of its employees. The mine stopped production entirely in 1985, though the town was given a new lease on life with a rise in gold prices and new gold operations near the townsite. By mid-1987, Lynn Lake’s population had declined to 1,540.

The town’s population has seen a great deal of change in the past two decades. The 1991 Statistics Canada Census data for the town showed a population of only 834, which then increased five years later in 1996 to 1,038. The 2001 Census data, however, shows a population for the town of just under 700 people. In the 2006 Census, the population slightly increased to 714, which is an increase of 2.1 per cent compared to 2001.

While these changes are likely largely due to changes in available employment in the resource sector in the area, there are some other dynamics involved. The nearby Marcel Colomb Band

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3 This estimate was provided by local officials.
reached a land claim settlement and have been given the Hughes Lake area. A new reserve will be created there. Similarly, Aboriginal families from the Barren Lands Band of Brochet, Manitoba and the Mathias Colomb Band of Pukatawagan, Manitoba have contributed to the changing make-up of the town.

**Pikwitonei**

Pikwitonei is also located along the Hudson Bay Railway line, about 300 kilometres northeast of The Pas and about 50 kilometres southeast of Thompson. The Tolko Manitoba Inc. Forestry road, as well as winter roads, link Pikwitonei to an all-weather road network in the region for about six to eight weeks every January and February and, in the summer, waterways are used.

In 1969, the community was recognized under *The Northern Affairs Act*, and became governed through a municipal council.\(^4\) The terrain around Pikwitonei can support recreation and forestry development. Trapping is still very much a vital economic activity for those in the community. Six nearby lakes support a small commercial fishery, which supplies fish to the Wabowden fish station. Some of the area surrounding Pikwitonei is also involved in wild rice harvesting as well.

As with other, similar communities in the Region, the population of Pikwitonei is small, and is gradually getting smaller. According to Manitoba Health’s population registry, it had a population of 139 in 1996, which had dropped to 126 by 2002 and to 123 by 2003. As of June 1, 2009, the population is reported to be very similar at 125 residents.

**Thicket Portage**

Thicket Portage is located on the Hudson Bay Railway line, about 48 kilometres south of Thompson and 256 kilometres northeast of The Pas, Manitoba. Originally known as Franklin Portage, after the Franklin expedition, the area is home to one of the portages used to connect the Nelson River system with nearby Wintering Lake.

Transportation in and out of the community is largely via the rail line, and waterways in the summer. For about eight weeks each winter, the community of Thicket Portage establishes a winter road, connecting the town to Thompson and to provincial highways.

Thicket Portage is a Northern Affairs community, meaning that it is governed by mayor and council with authority under *The Northern Affairs Act*. It also has a fairly small population which has been decreasing in recent years. Manitoba Health’s population registry shows that, in 1996, it had a population of 229. By 2002, it had decreased to 215 and to 203 by 2003. As of June 1, 2009, the population is reported to be 168 residents. This represents a decrease of 26.6 per cent over the thirteen years.\(^5\)

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\(^4\) NorMan Regional Development Corporation, Pikwitonei Profile, May 2003.

\(^5\) Manitoba Health population registry data. These population figures are for the postal code in which Thicket Portage is located.
Thompson

Thompson, known as the “Hub of the North,” is the trade and service centre of Northern Manitoba. Located about 740 kilometers north of Winnipeg, Thompson enjoys an excellent transportation infrastructure which includes scheduled daily air service, overnight truck delivery, paved roads, and a railway system.

Thompson began in 1956 when INCO Ltd. discovered a rich body of nickel ore in the area. A nickel plant and mine site were developed on Cook Lake, and a town site was chosen a few kilometres away on the Burntwood River. The name of the town was chosen to honor Dr. John Fairfield Thompson, the Chairman and Chief Executive Officer of INCO at the time.

Thompson is a unique northern city offering all the benefits of an urban lifestyle in a beautiful wilderness setting. Today, the city is home to approximately 14,000 residents and serves as many as another 65,000 people in its role as a trade centre. Thompson offers its citizens many of the services that would be expected to be found in a much larger, southern centre, as well as convenient access to some of the most beautiful geography in the country.

According to the City of Thompson about 42 percent of residents who are working are employed at the Inco nickel mine. While this is a significant proportion, fully a quarter work for some level of government: 17 percent for the Manitoba Government, just over four percent work for the Federal Government, and just slightly more (4.4%) work for the City of Thompson. Fourteen percent of those working in Thompson work for the School Board of Mystery Lake. Finally, a little more than seven percent are employed in the aviation industry. The BRHA is also considered to be a major employer in the area, employing more than 500 people, the vast majority of many of whom are located in Thompson.

Wabowden

Wabowden is located on Bowden Lake, 111 kilometres southwest of Thompson, and 640 km north of Winnipeg. Though the Métis culture is dominant, the people of Wabowden are made up of several families of diverse backgrounds, some of whom have lived in town for almost a century. There are close ties to Cross Lake, where many of Wabowden’s families originated.

As with other towns in the Burntwood Region, the town has experienced some large swings in its population in recent years. When the Manibridge Nickel Mine was working in the early 1970s, the population of the town was well over 1,000. Since the closure of the mine in 1976, however, the population has declined.

In 2001, the population of the town was almost 500 people. According to Manitoba Health’s population registry, however, in 1996, the population was 608. By 2002, it was very similar at 609. By the following year, however, it was down slightly to 597 and by June 1, 2009 the population was reported to be 552 residents. This represents a decrease of 9.2 percent since 1996.

As with other communities in the area, Wabowden is represented by a mayor and council under The Northern Affairs Act. 7

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6 NorMan Regional Development Corporation, City of Thompson Community Profile, February 2003.
7 NorMan Regional Development Corporation, Wabowden Profile, May 2003.
Table 2-2 illustrates some selected demographic characteristics of the BRHA direct service communities. We are limited however, in that Wabowden, Pikwitonei and Thicket Portage are rolled up into "Division 22, Unorganized Territories" so we do not have community-specific data for these three communities. These data illustrate that although all of these communities are within the BRHA, they are very different in a variety of ways, aside from the obvious which is that Thompson is by far the largest community.

- Both Ilford (-18.7%) and Leaf Rapids (-58.3%) have experienced significant declines in population between 2001 and 2006.

- Most of the residents of Ilford (95.7%) self-identify as Aboriginal, while only 36.7 per cent of Thompson residents and 46.4 per cent of Gillam residents are Aboriginal.

- Leaf Rapids has a very young population with the median age being 24.6 years old (the median age is the midpoint of the population if ages were ranked in order from youngest to oldest); this means that one half of the population of Leaf Rapids is younger than 24.6 years of age. This is very similar to the regional median of 24.0 years. The median age of Lynn Lake is the oldest at 33.4 years of age.

- In Leaf Rapids, just 6.7 per cent of families are single parent families compared to more than 30 per cent of families in Unorganized Territories Division 22. Lynn Lake also has a large proportion of single parent families at 28.1 per cent.

- Median family income ranges between communities from a low of $33,437 in Lynn Lake to a high of $83,433 in Gillam. However, median family income is much lower among lone parent families and is only $16,399 for residents of Lynn Lake.

- Not only does Gillam have the highest median family income, the community also has the highest employment rate at 71.3 per cent. The employment rate in Leaf Rapids is the lowest at 38.6 per cent. Ilford has a labour force participation rate and employment rate of 47.1 per cent. This indicates that the same proportion of people who are available for work, have found work in the community.

- Almost one in three residents of Leaf Rapids (30.5%) has low income compared to only 9.2 per cent of Gillam residents and 15.6 per cent of all Burntwood residents. In addition, government transfers (such as social assistance) account for 28 per cent of the income of Leaf Rapids residents (compared to a low of 4.7% in Gillam and the regional average of 15.9%).

- In Ilford, almost two out of three (62.5%) residents age 15 and older have not completed high school, followed by both Leaf Rapids and Unorganized Territories Division 22 at 51.4 per cent. In Thompson, the rate is the lowest in the region at 36.7 per cent of residents.

- Some communities are experiencing significant challenges with housing. For example, in Lynn Lake more than one in three (38%) dwellings need major repairs. This may be due to many houses being abandoned. The Town often must pay to demolish houses that become uninhabitable, and this is a major financial stressor for the Town. In fact, one main area of concern raised by community leaders and community members during the community consultation was the fact that homes were not being taken care of and
that in the past four years, over forty homes had to be demolished by the town at a significant cost. At the time of the consultation, a further eighteen homes had been turned over to the town and would likely be demolished. In Ilford, a very small community of just over 100 people, one in three dwellings (33.3%) are also in need of major repair.

- The average value of owned dwellings ranges significantly from just over thirty thousand dollars in Leaf Rapids to over $160,000.00 in Unorganized Territories Division 22. Many residents of Leaf Rapids and Lynn Lake remarked on the declining population and the impact on the value of their homes. Several residents indicated that they would like to move, but because of the lack of value in their homes (and anyone willing to purchase the home), they were unable to do so.

- Mobility data give us information about stability in the community. One and five year mobility data indicate the proportion of residents who were living at the same address both one and five years ago. Gillam, which is a community very much based around one industry (Manitoba Hydro), has one of the lowest rates of individuals who were in the community one and five years ago. For example, in Gillam, just 39.2 per cent of residents lived at the same address five years prior to the 2006 Census, compared to 90.5 per cent of Ilford residents and the Burntwood average of 69.4 per cent.
Table 2-2. Demographic characteristics of BRHA direct service communities, 2006.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Gillam</th>
<th>Ilford</th>
<th>Leaf Rapids</th>
<th>Lynn Lake</th>
<th>Thompson</th>
<th>Burntwood Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006 population</td>
<td>1,209</td>
<td>116</td>
<td>539</td>
<td>714</td>
<td>2,493</td>
<td>13,446</td>
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<tr>
<td>2001-2006 % change in population</td>
<td>2.6</td>
<td>-18.7</td>
<td>-58.8</td>
<td>2.1</td>
<td>7.4</td>
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<tr>
<td>% Aboriginal</td>
<td>46.4</td>
<td>95.7</td>
<td>70.2</td>
<td>56.0</td>
<td>75.9</td>
<td>36.7</td>
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<td>Age</td>
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<tr>
<td>Median Age</td>
<td>29.3</td>
<td>28.5</td>
<td>24.6</td>
<td>33.4</td>
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<td>29.7</td>
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<tr>
<td>% of population age 15+</td>
<td>70.7</td>
<td>69.6</td>
<td>67.6</td>
<td>74.1</td>
<td>70.6</td>
<td>73.2</td>
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<td>Housing</td>
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<td></td>
</tr>
<tr>
<td>% of dwellings needing major repairs</td>
<td>10.3</td>
<td>33.3</td>
<td>12.1</td>
<td>38.0</td>
<td>27.3</td>
<td>10.2</td>
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<tr>
<td>Average value of owned dwelling</td>
<td>$33,128</td>
<td>$0</td>
<td>$31,808</td>
<td>$53,627</td>
<td>$161,282</td>
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<td>Families</td>
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</tr>
<tr>
<td>Number of families</td>
<td>325</td>
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<td>150</td>
<td>160</td>
<td>655</td>
<td>3,655</td>
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<tr>
<td>% single parent families</td>
<td>13.8</td>
<td>33.3</td>
<td>6.7</td>
<td>28.1</td>
<td>30.5</td>
<td>22.6</td>
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<tr>
<td>Income</td>
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</tr>
<tr>
<td>Median family income (before tax)</td>
<td>$83,433</td>
<td>suppressed</td>
<td>$40,127</td>
<td>$33,437</td>
<td>$45,804</td>
<td>$76,882</td>
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<tr>
<td>Median single parent income (before tax)</td>
<td>$57,460</td>
<td>suppressed</td>
<td>$0</td>
<td>$16,399</td>
<td>$28,929</td>
<td>$28,117</td>
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<tr>
<td>Government transfer as a % of income</td>
<td>4.7</td>
<td>suppressed</td>
<td>28.0</td>
<td>20.5</td>
<td>15.2</td>
<td>7.2</td>
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<tr>
<td>% low income before taxes</td>
<td>9.2</td>
<td>suppressed</td>
<td>30.5</td>
<td>19.4</td>
<td>17.7</td>
<td>15.2</td>
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<td>Education</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>% no certificate/ diploma/ degree</td>
<td>31.0</td>
<td>62.5</td>
<td>51.4</td>
<td>42.0</td>
<td>51.4</td>
<td>34.6</td>
</tr>
<tr>
<td>Labour Force and Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour force participation rate</td>
<td>77.8</td>
<td>47.1</td>
<td>57.1</td>
<td>70.7</td>
<td>53.3</td>
<td>76.5</td>
</tr>
<tr>
<td>Employment rate</td>
<td>71.3</td>
<td>47.1</td>
<td>38.6</td>
<td>68.7</td>
<td>40.1</td>
<td>71.2</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>8.3</td>
<td>0.0</td>
<td>32.5</td>
<td>2.9</td>
<td>25.4</td>
<td>6.9</td>
</tr>
<tr>
<td>Mobility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% lived at same address one year ago</td>
<td>74.3</td>
<td>95.7</td>
<td>74.3</td>
<td>85.0</td>
<td>86.8</td>
<td>79.3</td>
</tr>
<tr>
<td>% lived at same address 5 years ago</td>
<td>39.2</td>
<td>90.5</td>
<td>34.8</td>
<td>62.4</td>
<td>65.5</td>
<td>49.3</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, 2006 Census Community Profiles.
NOTE: "Unorganized Division 22" includes the non-First Nations portions of Split Lake, Norway House and Cross Lake, as well as the communities of Island Lake, Wabowden, Pikwitonei and Thicket Portage.
2.3 DISTRICTS DESCRIPTION

The Burntwood Region is divided into eleven districts for health planning and data analysis purposes. Some districts are composed entirely of off reserve communities such as Thompson and Lynn Lake, Leaf Rapids, South Indian Lake. The Gillam, Fox Lake district is a mixture of on reserve and off reserve. The rest of the districts include on-reserve communities only (see Table 2-3).

Table 2-3. BRHA Districts.

<table>
<thead>
<tr>
<th>District</th>
<th>Communities in District</th>
<th>Community On or Off-reserve</th>
<th>2008 District Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thompson</td>
<td>City of Thompson</td>
<td>Off-reserve</td>
<td>13,931</td>
</tr>
<tr>
<td>Lynn Lake, Leaf Rapids, South Indian Lake</td>
<td>Lynn Lake Local Government District</td>
<td>Off-reserve</td>
<td>2,274</td>
</tr>
<tr>
<td></td>
<td>Town of Leaf Rapids</td>
<td>Off-reserve</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community of South Indian Lake</td>
<td>Off-reserve</td>
<td></td>
</tr>
<tr>
<td>Gillam, Fox Lake</td>
<td>Gillam Local Government District</td>
<td>Off-reserve</td>
<td>1,371</td>
</tr>
<tr>
<td></td>
<td>Fox Lake First Nation</td>
<td>On-reserve</td>
<td></td>
</tr>
<tr>
<td>Nelson House</td>
<td>Nelson House First Nation</td>
<td>On-reserve</td>
<td>2,497</td>
</tr>
<tr>
<td>Norway House</td>
<td>Norway House Cree Nation</td>
<td>On-reserve</td>
<td>5,101</td>
</tr>
<tr>
<td>Cross Lake</td>
<td>Cross Lake First Nation</td>
<td>On-reserve</td>
<td>4,402</td>
</tr>
<tr>
<td>Island Lake</td>
<td>Garden Hill First Nation</td>
<td>On-reserve</td>
<td>7,583</td>
</tr>
<tr>
<td></td>
<td>Red Sucker Lake First Nation</td>
<td>On-reserve</td>
<td></td>
</tr>
<tr>
<td></td>
<td>St. Theresa Point First Nation</td>
<td>On-reserve</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wasagamack First Nation</td>
<td>On-reserve</td>
<td></td>
</tr>
<tr>
<td>Thicket Portage, Pikwitonei, Wabowden</td>
<td>Thicket Portage</td>
<td>Off-reserve</td>
<td>826</td>
</tr>
<tr>
<td></td>
<td>Pikwitonei</td>
<td>Off-reserve</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wabowden</td>
<td>Off-reserve</td>
<td></td>
</tr>
<tr>
<td>Tadoule Lake, Brochet, Lac Brochet</td>
<td>Sayisi Dene First Nation</td>
<td>On-reserve</td>
<td>1,568</td>
</tr>
<tr>
<td></td>
<td>Barren Lands (Brochet) First Nation</td>
<td>On-reserve</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Northlands (Lac Brochet) First Nation</td>
<td>On-reserve</td>
<td></td>
</tr>
<tr>
<td>Oxford House, Gods Lake</td>
<td>Oxford House First Nation</td>
<td>On-reserve</td>
<td>3,858</td>
</tr>
<tr>
<td></td>
<td>Gods Lake First Nation</td>
<td>On-reserve</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gods River First Nation</td>
<td>On-reserve</td>
<td></td>
</tr>
<tr>
<td>Shamattawa, York Factory, Split Lake, War Lake</td>
<td>Shamattawa First Nation</td>
<td>On-reserve</td>
<td>3,407</td>
</tr>
<tr>
<td></td>
<td>York Factory First Nation</td>
<td>On-reserve</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Split Lake First Nation</td>
<td>On-reserve</td>
<td></td>
</tr>
<tr>
<td></td>
<td>War Lake First Nation</td>
<td>On-reserve</td>
<td></td>
</tr>
</tbody>
</table>

Source: Manitoba Centre for Health Policy and Manitoba Health 2008 Population report.
Figure 2-1 shows the geographic distribution of the BRHA districts.

Figure 2-1. Map of BRHA districts

Source: Manitoba Centre for Health Policy
2.4 THE BURNTWOOD REGIONAL HEALTH AUTHORITY

The Burntwood Regional Health Authority (BRHA) is responsible for the operation and administration of facility and community-based health programs and services at a regional level within the Burntwood Region of Manitoba. The BRHA is responsible, within the context of broad provincial policy direction, for assessing and prioritizing those services and programs based on evidence-based needs and developing and managing an integrated approach to health care delivery.

The Burntwood RHA Board of Directors provides leadership, oversight and governance to the Burntwood Regional Health Authority. Part of their responsibility is to set goals and strategies and monitor the progress made toward achieving them. As identified in Burntwood RHA’s annual report, the Board has identified child health, chronic disease prevention and treatment, and mental health wellness and addiction as priorities for the region.

The six District Health Advisory Councils in the Burntwood Region help to facilitate community input and involvement by providing advice to the Board on local health issues and concerns. District Health Advisory Councils provide needed input with respect to the implementation of programs and services at the community level.

2.4.1 PROGRAMS AND SERVICES

The BRHA delivers a broad range of services to almost the entire northern half of the province of Manitoba with a variety of facilities throughout the Region. Two community-based hospitals, a regional hospital, five community health centres, one personal care home, and a community health resource centre make up the Region’s network of facilities. Through these facilities, various health services are provided, including access to physicians and other health professionals, home care, public and community health services, specialty clinics, as well as mental health care.

The BRHA operates two community hospitals, located in the towns of Gillam and Lynn Lake. The Gillam Hospital is a ten-bed facility, with three beds allocated to long-term care, five for medical and surgical patients, and the remaining two for paediatric care. Recent figures for the hospital show a total of 26.3 full-time equivalents (FTE’s). The Lynn Lake Hospital is a 19-bed facility with 11 acute care beds, six long-term care, and two chronic care beds. The Lynn Lake Hospital employs 25.2 FTE’s.

A challenge for the Gillam and Lynn Lake Hospitals is maintaining consistent staffing levels to ensure the provision of offered health services.

The BRHA operates one regional hospital, the Thompson General Hospital (TGH) which is currently operating 30 in-patient beds for general medicine, surgery and paediatrics, 16 for obstetrics, 10 for psychiatry and three for the Special Care Unit. TGH is rated for 74 beds providing both primary and secondary inpatient care.

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8 The information in this section is from the BRHA website at www.brha.mb.ca, and BRHA’s 2003 Annual Report; and updated March 24, 2009.
The BRHA operates one regional hospital:

- The Thompson General Hospital (TGH) is currently operating 30 in-patient beds for general medicine, surgery and paediatrics, 16 for obstetrics, 10 for psychiatry and three for the Special Care Unit. TGH is rated for 74 beds. TGH provides both primary and secondary inpatient care.

The BRHA operates one, thirty-five bed personal care home in Thompson. The facility has 29 regular beds, one respite bed and a 5-bed cognitively impaired unit. In addition, the province funds a small number of beds in two associated federal PCHs - Nichisiwayasik PCH and Pinaow Wachi PCH.

In addition to the larger hospitals, there are community health centres located in some of the smaller communities within the region. These include the following:

- Leaf Rapids Health Centre
- Pikwitonei Community Health Centre
- Thicket Portage Community Health Centre
- Wabowden Community Health Centre, and
- Ilford Community Health Centre

Health centres provide primary health care including health promotion and disease prevention initiatives directly to the residents of these communities.

The Burntwood Community Health Resource Centre (BCHRC) located in Thompson provides primary care physicians, nurse practitioners, a social worker, Aboriginal liaison workers, a dietitian, retinal screening and foot care, midwifery and health promotion services. A resource library and a traditional healing room are also included in the centre. Physicians travel to other communities from this centre.

In 2008, the BCHRC had 29,222 visits to the centre’s physicians, an increase of 3.9 per cent from the previous year, and a 5.5 per cent increase since the last Community Health Assessment.

The programs offered by the BRHA are: \(^9\)

- **Primary Care Services**, including family physicians, individual & family counselling, nutrition and healthy eating services, health promotion, support to traditional healing, medical & midwifery services, nurse practitioner (at present has only Paediatric Nurse Practitioner position filled), retinal screening, foot care, and reproductive health services.

- **In-Patient Care and Treatment**, including acute medical/surgical/pediatric services, and chronic, long term and palliative care.

- **Disease Management**, including the Burntwood Regional Diabetes Program, communicable disease control (including sexually transmitted infections), the Community Cancer Program, and hemodialysis services.

\(^9\) This list of services is taken from the BRHA website at [www.brha.mb.ca/brha_programs.htm](http://www.brha.mb.ca/brha_programs.htm), reviewed and revised March 24, 2009
• **Mental Health**, including adult & child community mental health services, community mental health consultation services (including psychiatry, psychology, occupational therapy and social work services). A light therapy room is available in Thompson for seasonal affective disorders. Mental Health staff also provides Applied Suicide Intervention Skills Training to BRHA staff and professionals from other agencies. Proctor and housing support services are available for those individuals who need one-to-one community support, Critical Incident Stress management for First Responders and Community Trauma support.

• **Diagnostic and Pharmacy Services**, including laboratory and radiology services (including CT scanning, electroencephalogram (EEG), electrocardiogram (ECG)/stress testing, ultrasound and, and pharmacy dispensing.

• **Public Health Services**, including health promotion, illness prevention and health protection, early child development, clinical nutrition services, and the services provided by the Medical Officer of Health.

• **Health Promotion**, including various activities aimed at preventing disease, including the Chronic Disease Prevention Initiative.

• **Preventative Services**, including immunizations and screening programs.

• **Maternal and Child Health Programs**, including prenatal and postnatal education (prenatal classes as well as post-partum visits through public health), in-patient maternity and paediatrics.

• **Northern Consultation Centre (NCC)**, includes a variety of specialty full-time and itinerant services (see Medical Services).

• **Emergency Medical Services**, including licensed ambulance services.

• **Northern Patient Transportation Program (NPTP)**

• **Rehabilitation Services**, including audiology, speech therapy, physiotherapy, occupational therapy and respiratory therapy.

• **Telehealth Services**, providing video access to consultations and interviews with medical specialists in Winnipeg and other regions, as well as staff training and education.

• **Aboriginal Services**, including translation services, advocacy, culturally appropriate services, staff education, and the Aboriginal Representative Workforce Strategy.

• **Home Care**, including palliative care.

• **Medical Services**, including family medicine physicians, emergency medical officers, house medical officers (who provide care to hospitalized patients), fee-for-service physicians and specialists in the Northern Consultation Centre as follows:

  o Resident specialists in the areas of Obstetrics/Gynecology (3), Surgery (2), Internal Medicine (2), Pediatrics (2) Ear/Eye/Nose & Throat (1), Nurse
Practitioner (1), and Psychiatry (1) and, at the time of writing, recruiting is under way for specialists in Anaesthesia and Radiology.

- Itinerant specialists in the areas of dental surgery, orthopaedics including orthotics, internal medicine, neuromuscular and radiology.
- 10 General Practitioners (GPs) in Thompson
- Six Emergency Medical Officers (EMOs - currently fully staffed)
- Five General Practitioners in outlying communities (all fully staffed)
- Two “fee-for-service” physicians in Thompson who are not employed by the BRHA and who have hospital privileges through the BRHA Medical Advisory Committee.
2.5 DEMOGRAPHICS

The most recent population data is from Manitoba Health (July 2008 population report). According to this report, the population of Burntwood RHA was 46,883 which represent an increase of 4.7 per cent in population from the 2002 population of 44,770 reported in the 2004 Community Health Assessment. Another source of population data is Statistics Canada Census data. According to the Statistics Canada 2006 Census, the population increased between the last two Census cycles by 6.4 per cent (from 41,639 in 2001 to 44,316 in 2006).

According to the 2006 Census, our population is equally divided among men and women. Children under the age of 15 account for 33.4 per cent of the population (one in three residents) compared to Manitoba where 19.6 per cent of resident are under the age of 15.

2.5.1 POPULATION DENSITY

The Burntwood RHA geographic area covers 342,362 square kilometres. The small population combined with this huge land area results in a population density of 0.1 persons per square kilometre, compared to the provincial population density of 2.1 persons per square kilometre\(^1\). While the population density of Manitoba increased from 1.9 to 2.1 persons per square kilometre, our population density has remained stable since the 1996 Census.

- **Figure 2-3** presents the population density of each RHA, as well as Manitoba and Canada. The population density for Burntwood is so small that it does not show up on this graph due to the scale of the other population densities.

![Burntwood population density, 2006.](image)

**Figure 2-3.** Burntwood population density, 2006.

Source: Statistics Canada, 2006 Community Profiles.

NOTE: Winnipeg population density for 2006 is 1088.1 but is not shown on the graph due to the difference in scale.
2.5.2 Population by Age Group

- The population pyramids in Figures 2-4 and 2-5 illustrate the difference in our population structure compared to the rest of the province. In our region, children and youth account for a higher percentage of residents than they do in Manitoba. We have fewer elderly (or people of "retirement age") residents and more people in what we would consider to be the "working age groups".

- Figure 2-6 illustrates the direct comparison between Burntwood and Manitoba by age group. It is interesting to note that the gap between populations is largest at the under 1 and 1 to 4 year old age group (with the proportion of Burntwood residents being much larger in these age groups than Manitoba). The gap then slowly decreases until the 40-44 year old age group and above where the Manitoba population is proportionally larger than Burntwood.

- Only four per cent of Burntwood residents are over age 65 compared to 13.8 per cent of Manitobans. This is the lowest rate in the province. This statistic demonstrates the fact that people have historically been less likely to retire to a Burntwood community. However, this is changing and our population of older people will continue to grow. In addition, life expectancy in our region continues to be among the lower end in the province. We also have younger people having babies, which mean proportionally our population is much younger than in other regions (see Figure 2-7).

Figure 2-4. Burntwood RHA population pyramid, 2008.
Figure 2-5. Manitoba population pyramid, 2008.

Source: Manitoba Health June 1, 2008.

Figure 2-6. Comparison of Burntwood and Manitoba population structures, all residents 2008.

Source: Manitoba Health June 1, 2008
Figure 2-7. Percentage of population over 65 years by region, 2008.

Source: Manitoba Health June 1, 2008

NOTE: Churchill rates should be interpreted with caution due to small numbers.
2.5.2.1 Dependency Ratio

The dependency ratio is the ratio of the combined child population (aged 0 to 14) and elderly population (aged 65 and over) to the working age population (aged 15 to 64). This ratio is usually presented as the number of dependents for every 100 people in the working age population. This measure is important to consider in the context of families, as people aged 65 and over, in addition to those under age 15, are more likely to be socially and/or economically dependent on working age individuals.

- As Figure 2-8 illustrates, the 2008 dependency ratio in Burntwood of 58.5 is among the highest in the province. Although we have a small number of residents age 65 and over, the population under age 15 heavily influences this statistic.

- Dependency ratios for Burntwood reported in the past three Statistics Canada Census cycles of 1996 (88.8), 2001 (87.3) and 2006 (88.7) are much higher than those reported by Manitoba Health (63.5 in 1996, 63.1 in 2001 and 62.1 in 2006). However, both data sources show very little change, and that our ratios have historically been much higher than the provincial average.

Figure 2-8. Dependency ratio by region, 2008.

Source: Manitoba Health June 1, 2008
NOTE: Churchill rates should be interpreted with caution due to small numbers.
2.5.3 CHANGES IN POPULATION OVER TIME

Not only is our population structure different from the provincial structure, our population has followed a different pattern of change compared to the provincial population. While our population decreased by 4.2 per cent between the 1996 and 2001 census, the provincial population grew by 2.6 per cent in the same time period.

- **Figure 2-9** illustrates the population change between 1990 and 2008 by age group. Burntwood’s population is increasing as a proportion of the total in every age group until age 20.

- Between ages 20-34, the BRHA population decreased but where we see the largest increase starts after age 35. Although we have a very young population overall, the BRHA must remain cognizant of the fact that it is the older age groups where we have seen the largest growth as a proportion of the entire population.

- The increase in the older age groups may seem counter to the information presented earlier in this chapter, but we must also take into account small numbers. When we have relatively small numbers of residents (for example in the 65 and older age group), small changes (by even one or two people) can result in what looks like a large change. However, as illustrated in this chapter, we do have, and will likely continue to have, a younger population compared to the province, but must continue to monitor the change in population structure and plan for the needs of those residents who choose to remain in the community as they become older.

**Figure 2-9. Change in population over time, 1990-2008.**
2.5.4 POPULATION PROJECTIONS

Population projection data has been provided by the Manitoba Bureau of Statistics. The slight limitation to this information is that Churchill data are combined with Burntwood. However, the population of Churchill is less than one thousand residents and the inclusion of these data should not impact the validity of the projections for our region.

- According to the Manitoba Bureau of Statistics, Burntwood/Churchill will grow by 27.6 per cent by 2035. This is a lower rate of growth than is projected for Manitoba overall (at 40.9%) (see Figure 2-10).

- Figure 2-11 shows the projected rate of population change by age group. The largest increases in the older age groups are on trend with what we have seen historically between 1990 and 2008.

- Figure 2-12 illustrates that the growth in population for our region is projected to be gradual, and that there are no projections of sudden spikes in population. However, this could change if new employment and industry opportunities come to the region.

Figure 2-10. Projected population change by region.

Source: Manitoba Bureau of Statistics.
Figure 2-11. Burntwood/Churchill projected population change by age group.

Source: Manitoba Bureau of Statistics

Figure 2-12. Burntwood/Churchill projected population by year.

Source: Manitoba Bureau of Statistics.
Figure 2-13 shows the components that are influencing the projected population growth for Burntwood. The strongest influence will be the "natural increase" in population – that is, the difference between the number of births and number of deaths among regional residents. Migration becomes a stronger negative influence. It is interesting to note that, while there is a projected negative in both inter-provincial (between provinces) as well as intra-provincial (within the province) migration to RHA Burntwood, there is a projected increase of 167 per cent in the rate of international migration to the Burntwood Region.

Figure 2-13. Projected population change, Burntwood 2006-2036.
2.5.5 Aboriginal Population

Information about the numbers of Aboriginal residents in our region is available through the 2006 Census data (Community Profiles and Aboriginal Population Profiles). This information is "self-reported" as being Aboriginal.

- These data indicate that over three quarters of people living in the region self-identifies as Aboriginal (76.1%) compared to the provincial average of 15.5 per cent of the population. This is an increase over rates reported in the 2001 census (71.4%) and 1996 Census (66.7%) (see Table 2-4).

- As Table 2-4 illustrates, the majority of Aboriginal residents in our region (30,625 or 91.2%) are North American Indian.

- Although 33,595 residents self-identify as Aboriginal, according to Statistics Canada, 2006 Population Profile, a slightly smaller number at 30,975 are Registered Indian. Overall, 70 per cent of BRHA residents are Registered Indians compared to just 9 per cent of Manitobans. In fact, BRHA residents account for 30 per cent of all Registered Indians in Manitoba (while we account for just 3.8% of the entire population of Manitoba) (see Table 2-4).

- In 2006, the median age of Aboriginal residents of Burntwood was 20.6 years which is younger than the median age of 24 for Burntwood overall and much younger than the median age of all Manitobans at 38.1 years. Only 62.2 per cent of Aboriginal residents in the region are older than 15 compared to 80.4 per cent of all Manitobans (and 66.6% of all BRHA residents) (see Table 2-4).

### Table 2-4. Aboriginal population, 2006.

<table>
<thead>
<tr>
<th>Aboriginal Population</th>
<th>Burntwood</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total - All persons</td>
<td>44,165</td>
<td>1,133,515</td>
</tr>
<tr>
<td>Aboriginal identity population</td>
<td>33,595</td>
<td>175,395</td>
</tr>
<tr>
<td>North American Indian - single response</td>
<td>30,625</td>
<td>100,645</td>
</tr>
<tr>
<td>Metis - single response</td>
<td>2,420</td>
<td>71,810</td>
</tr>
<tr>
<td>Inuit - Single Response</td>
<td>65</td>
<td>560</td>
</tr>
<tr>
<td>Multiple Aboriginal Identity responses</td>
<td>75</td>
<td>680</td>
</tr>
<tr>
<td>Aboriginal responses not classified elsewhere</td>
<td>410</td>
<td>1,695</td>
</tr>
<tr>
<td>Non-Aboriginal population</td>
<td>10,565</td>
<td>958,120</td>
</tr>
</tbody>
</table>

Information about the numbers of First Nations residents living on reserve is available from Manitoba Health.

- According to these data, as of June 1, 2008, 23,740 residents of our region lived on reserve (50.7% of all residents). This represents an increase in population of six per cent since 2004, while the population living off-reserve has only increased by one per cent in this time period.

- **Figure 2-14** shows the population pyramid for Burntwood Region First Nations residents who lived on reserve in 2008. It is evident that the population structure of First Nations residents is very much a pyramid shape, with a large proportion of the population being young and very small numbers of residents in the older age groups.

![Figure 2-14. Burntwood Region First Nations population pyramid, 2008.](image-url)
2.5.6 Marital Status

Table 2-5 illustrates the marital status of residents aged 15 and over in Burntwood RHA and in Manitoba.

- Just over 40 per cent of residents aged 15 and over reported being married in 2006. This is lower than the provincial average of 50.2 per cent of the population. For Aboriginal residents only, the rate is lower at 35.4 per cent.

- Just over 4 per cent of BRHA residents reported being divorced compared to 6.8 per cent of Manitobans overall. Again, the rate is lower among Aboriginal residents of the region at 3.2 per cent.

- The lower rate of marriage and divorce among Aboriginal residents is likely related, at least in part to the younger age of these residents in the region.

It is interesting to note that the Census also reports on “common-law” relationships (two people of the opposite sex or of the same sex who live together as a couple, but who are not legally married to each other) outside of the “Legal Marital Status” category.

- According to these data, 17.3 per cent of residents of Burntwood RHA live in common-law relationships, compared to 10.8 per cent of provincial residents. These data indicate that although fewer regional residents are “legally married”, many residents are in long term committed relationships that involve living with a partner. Of BRHA Aboriginal identity residents only, 12.9 per cent indicate that they are in a "common-law" relationship.

Table 2-5. Legal marital status of residents, 2006.

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL RESIDENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total - All persons,15+</td>
<td>29,495</td>
<td>923,225</td>
</tr>
<tr>
<td>Never legally married (single)</td>
<td>14,475</td>
<td>307,505</td>
</tr>
<tr>
<td>Legally married (and not separated)</td>
<td>11,830</td>
<td>463,095</td>
</tr>
<tr>
<td>Separated, but still legally married</td>
<td>925</td>
<td>26,215</td>
</tr>
<tr>
<td>Divorced</td>
<td>1,230</td>
<td>62,865</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABORIGINAL RESIDENTS ONLY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total - All persons,15+</td>
<td>20,890</td>
<td>117,205</td>
</tr>
<tr>
<td>Never legally married (single)</td>
<td>11,400</td>
<td>62,470</td>
</tr>
<tr>
<td>Legally married (and not separated)</td>
<td>7,385</td>
<td>37,480</td>
</tr>
<tr>
<td>Separated, but still legally married</td>
<td>675</td>
<td>4,690</td>
</tr>
<tr>
<td>Divorced</td>
<td>670</td>
<td>8,170</td>
</tr>
<tr>
<td>Widowed</td>
<td>755</td>
<td>4,395</td>
</tr>
</tbody>
</table>

2.5.7 FAMILY STRUCTURE

This section describes what we know about families living in our region. We recognize that, due to the way families are defined, we are limited to describing “traditional” family structures at this time.

- The 2006 Census indicates there were 11,065 families living in Burntwood RHA in 2006. Approximately fifty per cent of families in our region are married couple families which is very different from the province where 72.2 per cent of families are married couple families (see Table 2-6).

- On average, there were 3.9 persons in a married-couple family, 3.5 in a common-law couple family and 3.0 in a lone-parent family. These family sizes are bigger than the provincial average of 3.1 persons in a married-couple family, 2.8 in a common-law couple and 2.6 in a lone-parent family.

- These family sizes are particularly important in relation to family incomes illustrated in Table 2-6. Family incomes in our region are lower for lone parent families than provincial family incomes, and we are taking care of more people with those incomes.

- As Table 2-6 illustrates, the proportion of lone parent families in our region is larger than in the province overall (30.0% versus 17.0%). In fact, as shown in Figure 2-15, the rate of lone-parent families in Burntwood is the highest in the province. Within those lone-parent families, the distribution is also somewhat different from what we see in the rest of the province, with proportionally more males heading lone parent families in Burntwood (26.4% versus 19.3%). The rate of lone parent families has increased since the 2001 Census cycle when 27.1 per cent of families were lone parent families.

- Table 2-6 also illustrates the substantially lower income experienced by lone parent families compared to couple families (median family income of $17,773 versus $56,387). This is very important, as extensive research has illustrated the relationship between income and health. In communities where the discrepancy between the richest and poorest populations is the greatest, the health is the worst. In populations with the least discrepancy in incomes across the population, health status is the best, regardless of the overall income level.

- Family information about Aboriginal residents only is presented in a different way than it is for all residents. As Table 2-6 shows, the information about Aboriginal residents is presented about number of individuals, as opposed to total numbers of families. In addition, family income information is not available. It is interesting to note that over one-half (53.5%) of people in Aboriginal families are children - this again underscores the high proportion of youth in this population, and would indicate that Aboriginal families may have more children than non-Aboriginal families.
<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALL RESIDENTS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of census families</td>
<td>11,065</td>
<td>312,805</td>
</tr>
<tr>
<td>Married couple families</td>
<td>5,825</td>
<td>225,875</td>
</tr>
<tr>
<td>Common-law couple families</td>
<td>1,915</td>
<td>33,720</td>
</tr>
<tr>
<td>Single parent families</td>
<td>3,320</td>
<td>53,210</td>
</tr>
<tr>
<td>Female single parent</td>
<td>2,445</td>
<td>42,930</td>
</tr>
<tr>
<td>Male single parent</td>
<td>880</td>
<td>10,280</td>
</tr>
<tr>
<td>Median family income – all</td>
<td>$37,612</td>
<td>$58,816</td>
</tr>
<tr>
<td>Couple families</td>
<td>$56,387</td>
<td>$67,013</td>
</tr>
<tr>
<td>Single parent families</td>
<td>$17,773</td>
<td>$31,518</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ABORIGINAL RESIDENTS ONLY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of persons in census families</td>
<td>33,590</td>
<td>174,575</td>
</tr>
<tr>
<td>Spouses</td>
<td>7,210</td>
<td>36,745</td>
</tr>
<tr>
<td>Common-law partners</td>
<td>2,690</td>
<td>16,585</td>
</tr>
<tr>
<td>Single parents</td>
<td>2,930</td>
<td>16,020</td>
</tr>
<tr>
<td>Female single parent</td>
<td>2,185</td>
<td>13,065</td>
</tr>
<tr>
<td>Male single parent</td>
<td>745</td>
<td>2,955</td>
</tr>
<tr>
<td>Children in census families</td>
<td>17,925</td>
<td>80,700</td>
</tr>
<tr>
<td>Persons not in census families</td>
<td>2,835</td>
<td>24,520</td>
</tr>
</tbody>
</table>

Figure 2-15. Single parent families by region, all residents, 2006.

Source: Statistics Canada, 2006 Community Profiles.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
2.5.8 Language

Language was an area that was discussed during the community consultation process. Most focus group participants agreed that the RHA is doing a good job of providing an opportunity for interpreter services for patients when required. While many participants expressed the desire to receive services directly in their own language, without an interpreter present, residents realized that this was often not possible. Another discussion that took place during the community consultation process was the challenges with ensuring young people learn their native language, as this would help them maintain a positive connection to their culture. Elders mentioned concern about potential loss of language and the impact on their ability to communicate, and share values with, younger people in their communities.

- Tables 2-7 to 2-10 illustrate what we know about language in our region and how we compare to Manitoba as well as the rest of Canada.

- With three quarters of our population being of Aboriginal descent, residents in our population are more likely to speak languages other than English and French. Approximately 64 per cent people in our region speak English at home (compared to 87% of Manitobans) (see Table 2-7). Rates of English speaking in the home have changed somewhat over the last two census cycles. In 2001, 52 per cent of residents indicated that they spoke English most often at home.

- There are very few French speaking residents in our region. In fact, only 2.6 per cent of our residents report speaking both English and French when asked about knowledge of official languages. Just 0.1 per cent reported knowledge of French only (see Table 2-8).

- Approximately 49 per cent of our population reports a mother tongue other than English or French. These proportions are much higher than in Manitoba (21.9%) and Canada (20.6%) (see Table 2-9).

- Residents of our region are more likely to speak a language other than English while at work than are fellow Manitobans. In the 2006 Census, 86.4 per cent of Burntwood residents who work reported that they spoke English only at work compared to 96.4 per cent of Manitobans (see Table 2-10).

- Table 2-11 illustrates language characteristics of residents who identify as Aboriginal. Just over two-thirds of Aboriginal residents living in the Burntwood Region (67.9%) report knowledge of at least one Aboriginal language. This is much higher than both Manitoba (25.2%) and Canada (21.5%).

- Just over 44 per cent of Aboriginal residents of our region report that they speak an Aboriginal language in the home. Over two thirds of the Aboriginal population report a knowledge of an Aboriginal language (see Table 2-11)
Table 2-7. Language spoken at home, 2006.

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total - All persons</td>
<td>44,160</td>
<td>1,133,510</td>
<td>31,241,030</td>
</tr>
<tr>
<td>English only</td>
<td>28,395 (64.3%)</td>
<td>989,215 (87.3%)</td>
<td>20,584,775 (65.9%)</td>
</tr>
<tr>
<td>French only</td>
<td>70 (0.2%)</td>
<td>19,515 (1.7%)</td>
<td>6,608,120 (21.2%)</td>
</tr>
<tr>
<td>Non-official language</td>
<td>14,330 (32.5%)</td>
<td>107,875 (9.5%)</td>
<td>3,472,130 (11.1%)</td>
</tr>
<tr>
<td>Both English and French</td>
<td>25 (0.1%)</td>
<td>1,820 (0.2%)</td>
<td>94,060 (0.3%)</td>
</tr>
<tr>
<td>English and non-official language</td>
<td>1,330 (3.0%)</td>
<td>14,875 (1.3%)</td>
<td>406,455 (1.3%)</td>
</tr>
<tr>
<td>French and non-official language</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>58,885 (0.2%)</td>
</tr>
<tr>
<td>English, French and non-official language</td>
<td>10 (0.0%)</td>
<td>0 (0%)</td>
<td>16,600 (0.1%)</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, 2006 Community Profiles.

Table 2-8. Knowledge of official languages, 2006.

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total - All persons</td>
<td>44,165</td>
<td>1,133,510</td>
<td>31,241,030</td>
</tr>
<tr>
<td>English only</td>
<td>42,135 (95.4%)</td>
<td>1,017,565 (89.8%)</td>
<td>21,129,945 (67.6%)</td>
</tr>
<tr>
<td>French only</td>
<td>40 (0.1%)</td>
<td>1,925 (0.2%)</td>
<td>4,141,850 (13.3%)</td>
</tr>
<tr>
<td>Both English and French</td>
<td>1,150 (2.6%)</td>
<td>103,525 (9.1%)</td>
<td>5,448,850 (17.4%)</td>
</tr>
<tr>
<td>Other language</td>
<td>835 (1.9%)</td>
<td>10,500 (0.9%)</td>
<td>520,385 (1.7%)</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, 2006 Community Profiles.

Table 2-9. Mother tongue, 2006.

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total - All persons</td>
<td>44,165</td>
<td>1,133,510</td>
<td>31,241,030</td>
</tr>
<tr>
<td>English only</td>
<td>22,285 (50.5%)</td>
<td>838,415 (74.0%)</td>
<td>17,882,780 (57.2%)</td>
</tr>
<tr>
<td>French only</td>
<td>320 (0.7%)</td>
<td>43,955 (3.9%)</td>
<td>6,817,650 (21.8%)</td>
</tr>
<tr>
<td>Both English and French</td>
<td>35 (0.1%)</td>
<td>2,630 (0.2%)</td>
<td>98,630 (0.3%)</td>
</tr>
<tr>
<td>Other language</td>
<td>21,520 (48.7%)</td>
<td>248,510 (21.9%)</td>
<td>6,441,975 (20.6%)</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, 2006 Community Profiles.

Table 2-10. Language spoken at work, 2006.

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total - All persons</td>
<td>18,040</td>
<td>658,885</td>
<td>18,418,100</td>
</tr>
<tr>
<td>English only</td>
<td>15,580 (86.4%)</td>
<td>635,360 (96.4%)</td>
<td>14,064,105 (76.4%)</td>
</tr>
<tr>
<td>French only</td>
<td>30 (0.2%)</td>
<td>7,275 (1.1%)</td>
<td>3,724,975 (20.2%)</td>
</tr>
<tr>
<td>Non-official language</td>
<td>1795 (10.0%)</td>
<td>11,270 (1.7%)</td>
<td>273,830 (1.5%)</td>
</tr>
<tr>
<td>Both English and French</td>
<td>10 (0.1%)</td>
<td>1,640 (0.2%)</td>
<td>252,295 (1.4%)</td>
</tr>
<tr>
<td>English and non-official language</td>
<td>635 (3.5%)</td>
<td>3,260 (0.5%)</td>
<td>86,820 (0.5%)</td>
</tr>
<tr>
<td>French and non-official language</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>5,055 (0.0%)</td>
</tr>
<tr>
<td>English, French and non-official language</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>11,025 (0.1%)</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, 2006 Community Profiles.
<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Aboriginal identity population</td>
<td>33,595</td>
<td>175,395</td>
<td>1,172,790</td>
</tr>
<tr>
<td>Knowledge of Aboriginal language(s)</td>
<td>22,800 (67.9%)</td>
<td>44,175 (25.2%)</td>
<td>252,045 (21.5%)</td>
</tr>
<tr>
<td>Knowledge of English only</td>
<td>10,590 (31.5%)</td>
<td>115,685 (66%)</td>
<td>772,290 (65.9%)</td>
</tr>
<tr>
<td>Knowledge of French only</td>
<td>0</td>
<td>230 (0.1%)</td>
<td>35,570 (3.0%)</td>
</tr>
<tr>
<td>Knowledge of English and French only</td>
<td>185 (0.5%)</td>
<td>13,910 (7.9%)</td>
<td>100,070 (8.5%)</td>
</tr>
<tr>
<td>Knowledge of other languages</td>
<td>20 (0.06%)</td>
<td>1,390 (0.9%)</td>
<td>12,810 (1.1%)</td>
</tr>
<tr>
<td>% of the Aboriginal identity population whose mother tongue is an Aboriginal language</td>
<td>60.6%</td>
<td>21.6%</td>
<td>18.7%</td>
</tr>
<tr>
<td>% of the Aboriginal identity population who speak an Aboriginal language most often at home</td>
<td>44.9%</td>
<td>13.1%</td>
<td>11.8%</td>
</tr>
<tr>
<td>% of the Aboriginal identity population with knowledge of Aboriginal language(s)</td>
<td>67.9%</td>
<td>25.2%</td>
<td>21.5%</td>
</tr>
</tbody>
</table>

2.5.9 INTERNAL/EXTERNAL MIGRATION

- Given that the majority of BRHA residents are Aboriginal, it is not surprising that the majority (97.4%) of our residents were born in Canada (see Table 2-12).

- Less than three per cent of residents of Burntwood are immigrants compared to more than 13 per cent of all Manitoba residents (see Table 2-12). However, there are certain areas where the numbers of foreign born residents in our region are increasing, and one of these is in the health care profession.

- It will be important for the RHA to support foreign born health care providers as they settle in the community. There is extensive orientation and support required for these residents as they learn about the northern culture, adapt to living in small and potentially isolated communities, and learn the Canadian health care system.

- Foreign born residents who are health care providers may need additional support with their conversational English so that they can communicate with patients as effectively as possible. While residents who participated in the community consultation process praised these health care providers as being very knowledgeable and helping the community, there were challenges identified with communication. This issue can be exacerbated if the patient is also speaking English as a second language.

Table 2-12. Internal/External migration status, 2006.

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>Total - All persons</td>
<td>44,160</td>
<td>1,133,515</td>
</tr>
<tr>
<td>Canadian-born population</td>
<td>43,020</td>
<td>974,735</td>
</tr>
<tr>
<td></td>
<td>97.4%</td>
<td>86.0%</td>
</tr>
<tr>
<td>Foreign-born population</td>
<td>1,045</td>
<td>151,230</td>
</tr>
<tr>
<td></td>
<td>2.4%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Immigrated before 1991</td>
<td>685</td>
<td>92,535</td>
</tr>
<tr>
<td></td>
<td>65.6%</td>
<td>61.2%</td>
</tr>
<tr>
<td>Immigrated 1991 to 2001</td>
<td>200</td>
<td>27,505</td>
</tr>
<tr>
<td></td>
<td>19.1%</td>
<td>18.2%</td>
</tr>
<tr>
<td>Immigrated 2001 to 2006</td>
<td>160</td>
<td>31,190</td>
</tr>
<tr>
<td></td>
<td>15.3%</td>
<td>20.6%</td>
</tr>
<tr>
<td>Non-permanent residents</td>
<td>100</td>
<td>7,545</td>
</tr>
<tr>
<td></td>
<td>0.2%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, 2006 Community Profiles.
2.5.10 Mobility Status

Mobility status refers to whether people have moved or lived at the same location in the previous five years. This information is collected through the Census, so for the 2006 Census the question refers to where the person lived in 2001.

Mobility status can provide information about the transience of a population and may provide insight into issues such as housing affordability. People who have trouble affording and finding stable housing often move from home to home.

- Within our region, 69.4 per cent of residents (age five and older) lived at the same address in the last 5 years. This is higher than the provincial average of 63.4 per cent of Manitobans. (see Figure 2-16).

- According to the Statistics Canada 2006 Aboriginal Population Profile, 73.7 per cent of Burntwood Aboriginal identity residents lived at the same address five years ago. This is somewhat surprising, as other information indicates that this is a very transient population. In addition, this rate is much higher than the provincial rate of 58.2 per cent.

- Figure 2-17 shows that 26.5 per cent of our residents moved within the province compared to 29.9 per cent of Manitobans. According to these data, Burntwood has a relatively transient population. Burntwood residents’ mobility appears to be centered on moving within the community or moving in and out of different Manitoba regions.

- However, few of our residents tend to move in and out of Manitoba. Figure 2-18 shows that just 3.6 per cent of our residents lived in a different province or territory five years ago. This is very similar to the provincial average of 3.4 per cent.

- According to Statistics Canada 2006 Aboriginal Population Profile, only 1.5 per cent of Burntwood Aboriginal identity residents lived in a different province or territory five years ago. This is about half of the provincial rate of 3.0 per cent for Aboriginal residents.
Figure 2-16. Lived in the same address in last 5 years, 2006.

Source: Statistics Canada, 2006 Community Profiles.
NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 2-17. Moved within province in last 5 years, 2006.

Source: Statistics Canada, 2006 Community Profiles.
Figure 2-18. Lived in different province or territory five years ago, 2006.

Source: Statistics Canada, 2006 Community Profiles.
REFERENCES

i Statistics Canada, 2001 Census.
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3.0 INTRODUCTION TO THE DETERMINANTS OF HEALTH

There is a growing body of evidence to indicate that increased spending in health care is not the answer to improving the health status of a population.

Instead, the key influences on health are:

- Income and social status
- Education
- Employment and working conditions
- Personal health practices and lifestyle
- Personal resources
- Environmental factors
- Healthy child development
- Biology and genetic endowment
- Social Environment
- Culture
- Gender
- Health services

These are referred to as determinants of health. Each determinant of health has one or many “indicators”, which are a way of measuring the determinant. The determinants of health can be thought of as the “risk or protective factors” - those things associated with health status outcomes. A well-known example of the relationship between a determinant of health and an outcome is smoking (an indicator of personal health practice and lifestyle) and lung cancer (a health status indicator, or outcome). That is, there are much higher rates of lung cancer among people who smoke (or who have smoked) than among people who do not smoke.

Although all the determinants of health are important, we have focused on some more than others for the following reasons. Firstly, data is not currently available at a regional level (and sometimes not even provincial level) for all determinants of health. Secondly, not all determinants of health are easily modifiable or can be reasonably addressed within the parameters of a regional health organization. For example, it will be noted that the Community Health Assessment was able to collect data and address in great detail indicators of personal health practices and coping skills; however, there is very little in the document specifically related to biology and genetic endowment. Gender differences are addressed throughout this document.
3.1 SOCIOECONOMIC FACTORS

Socioeconomic factors such as income are important because Health Canada reports the following links between low income and health:

- Canadians with low incomes are more likely than Canadians with high incomes to suffer illnesses and to die early.

- Only 47 per cent of Canadians in the lowest income level rate their health as excellent or very good, compared to 73 per cent of Canadians in the highest income group.

- Canadians who live in the poorest neighbourhoods are more likely than residents of the richest neighbourhoods to die at an early age.

- Children in low-income families and neighbourhoods are at higher risk for infant death and low birth weight than children who grow up in families with higher incomes. They are more likely to experience developmental delays and injuries.

- In Canada, approximately one in four children lives in a low-income family. Rates are even higher in Aboriginal and recently-arrived immigrant communities, and in families headed by very young parents and women who are single parents.
3.1.1 INCOME INEQUALITY

Wide variations in income have been shown to negatively affect health status of communities. In contrast, those communities with people who uniformly have higher incomes enjoy better health status. There is also evidence to suggest that low income people tend to access the health care system less due to a number of reasons, including language/cultural barriers that may exist, a lack of time to go to appointments and a lack of information.1

Some indicators of income inequality that we have reviewed include the numbers of children and families living under what Statistics Canada defines as the “low income cut off” (LICO). LICO is the income level at which families or persons spend 20 per cent more than average of their before tax income on food, shelter and clothing. LICO is not an absolute number such as "$15,000 per year" because it is calculated in relation to the average income and spending in the community or area that the person lives. Therefore, the LICO in an expensive northern community could be higher in terms of absolute dollars than it is in a more affordable southern community.

Income and ability to care for families was a common topic discussed during the community consultations. Many participants expressed concern about young families and whether they had enough money to care for their children. Residents who do not have enough money struggle in just providing the necessities due to the remoteness of the community which is exacerbated by lack of all-weather roads to many communities. The high cost of living in communities was often not due to cost of housing but due to the need to leave the community to purchase necessities such as groceries. When there is no ice road or regular road, residents must rely on trains to get their groceries and other supplies. In one community without a local store, residents must take the train which is about a five hour ride each way and due to scheduling, often spend a night or two in Thompson just to get groceries. Participants also indicated that families often did not have enough money to support their children in recreational activities; for example, even if there is an arena in the community, many parents cannot afford the equipment required for their children to participate in hockey or skating.

- In Burntwood, 16 per cent of all residents living in private households live below the Low Income Cut Off. This is below the provincial average of 17 per cent and a continued improvement over rates reported in the 1996 (19%) and 2001 (21%) Census (see Figure 3-1).

- We also have data on families specifically. Fourteen per cent of all BRHA families are considered to be low income. This is slightly higher than the provincial rate of just under 12 per cent (see Figure 3-2).

- As with low income in all private households, the low income rates has decreased in Burntwood families from 17 per cent reported in the 1996 Census to 19 per cent in 2001 to the current rate of fourteen percent.

- Within the region, 23.3 per cent of children aged 18 years and under lived in a low income family, which is higher than the Manitoba average of 21.4 per cent in 2005 (see Figure 3-3). This is troubling as these data indicate that almost one in four
children in the region live in a family that is struggling financially. This can impact on the ability for the family to provide adequate shelter, food and clothing for their children and may result in children being cared for by other community members or family members if their own parents cannot continue to care for them.

- **Figure 3-4** shows that it is unattached individuals (people living alone or with others who are not family or common-law partners) who are most vulnerable to living below LICO. In the region, 23 per cent of unattached individuals live below LICO. However, the good news is that, as with the other measures, these rates are decreasing over the last three Census cycles from 26 per cent in 1996 to 31 per cent in the 2001 Census and then to 23 per cent as reported in the 2006 Census.
Figure 3-2. Incidence of low income (before tax) for economic families by region, 2005.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 3-3. Incidence of children under age 18 living in low income economic families (before tax) by region, 2005.

Source: Statistics Canada, 2006 Community Profiles.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
Figure 3-4. Incidence of low income (before tax) for unattached Individuals by region, 2005.

Source: Statistics Canada, 2006 Community Profiles.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
3.1.2 FAMILIES RECEIVING INCOME ASSISTANCE

The proportion of the population collecting income assistance (IA) benefits is an important indicator of the economic health of families. Those families that are eligible for income assistance have income levels that are low enough that it can negatively impact their health status. A recent Statistics Canada study showed that those families with a combined income of $20,000 a year or less are more likely to experience a decline in self-rated health than people with the highest incomes. The stresses associated with financial problems for lower income families contributed to a decline in self-rated health status.ii

- From 1999/2000-2000/01 to 2004/05-2005/06, the proportion of children aged 17 and under who lived in a family that received income assistance in the Burntwood Region decreased significantly from 13.8 per cent to 12.7 per cent, which is lower than the Manitoba average of 13.2 per cent in 2004/05-2005/06 (see Figure 3-5).

- The proportion of families with young adults aged 18-19 years receiving income assistance in the Burntwood Region decreased from 12.1 per cent to 8.9 per cent in 2004/05-2005/06, which is lower than the Manitoba average of 9.1 per cent (see Figure 3-6).
Figure 3-5. Children aged 0-17 in families receiving income assistance by region, 1999/2000-2000/01 and 2004/05-2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
'1' and '2' indicate area’s rate was statistically different from Manitoba average in first and/or second time period
't' indicates change over time was statistically significant for that area

Figure 3-6. Young adults aged 18-19 in families receiving income assistance by region, 1999/2000-2000/01 and 2004/05-2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
3.1.3 **Median Individual and Household Income**

Median individual and household income is a more effective way to show how much income inequality exists in a community. “Median” refers to the point that is exactly halfway between the bottom and the top if you listed each income in order from lowest to highest. Therefore, when we refer to median income we are literally referring to the income that separates the lowest half of the population from the top half. This is an important measure, as research shows that communities where individuals have similar incomes (without a large difference between those at the top end and those at the bottom) generally experience better health status compared to regions with more variations in income.

- The median household income for Burntwood in 2005 was $44,076, lower than the Manitoba median of $47,875 (see Figure 3-7). However, the median income is an increase from $39,443 reported in 1996 and $40,887 reported in the 2001 Census.

- The median individual income for Burntwood in 2005 was $15,395, substantially lower than the Manitoba median of $24,194 (see Figure 3-8). The Burntwood Region had the lowest median individual income among all Manitoba RHAs.

- Data on income for BRHA residents of Aboriginal identity is available from the 2006 Census. Median income in this group is $11,285 and is actually higher among females ($12,554) than males ($9,942). Government transfers account for 28.4 per cent of all income among Aboriginal residents compared to 15.1 per cent of income for all Burntwood residents. Put another way, while earnings (through employment) account for 85 per cent of income for all Burntwood residents, this is the case for a smaller proportion of Aboriginal residents (71.6%). While income is higher among Aboriginal women living in the region than men, govern transfers account for 35.3 per cent of income among these women compared to just 21 per cent for men.

- Median household income for Aboriginal residents of Burntwood was reported to be $34,618 (2005 income) which is much lower than the median income for all Burntwood residents of $44,076.
Figure 3-7. Median household income by region, 2005.

Source: Statistics Canada, 2006 Community Profiles.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 3-8. Median individual income by region, 2005.

Source: Statistics Canada, 2006 Community Profiles.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
3.1.4 INCOME IN SINGLE PARENT FAMILIES

Single parent households often have lower incomes than two parent households. These families can be particularly vulnerable to poor health status with the stress, lack of time and resources to make healthy choices. This indicator can pinpoint more vulnerable households for poorer health status.

- The median income for a single parent family in the Burntwood Region was $17,773 in 2005, lower than the Manitoba median of $31,518. The Burntwood Region had the lowest median income in a single parent family among all RHAs in Manitoba (see Figure 3-9).

- The positive news is that median incomes in single parent families have increased in the region from $14,779 reported in 2001. In 1996 only the average income was reported and this was higher at $22,788; however the average is influenced by the very high incomes in some BRHA communities (such as Gillam).

Figure 3-9. Median income in single parent family by region, 2005.

Source: Statistics Canada, 2006 Community Profiles.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
3.1.5 UNEMPLOYMENT RATES

Unemployment rates give us information about the numbers of people in the community who are actively looking for work. Although this information is useful, it is important to note that this does not give us information about people who are ‘underemployed’ (for example, working part time when they would prefer to be working full time), people who have become discouraged and given up looking for work as well as people who for other reasons (such as motherhood or age) choose to not seek paid employment.

The unemployment rate, although subject to these limitations, is an important indicator because research has shown that people that are unemployed tend to have poorer health status.

Lack of employment was a topic raised by many participants in the community consultation process. These concerns were raised by many people in the Bayline communities. Concerns about lack of employment opportunities related to the impact on income but also around broader issues related to giving purpose to daily life. Some of the feedback received through community consultations indicated that the reason people (both youth and adults) may be involved in gambling and making other poor choices is due to the lack of work and feeling a purpose to life. Other participants mentioned the impact on family whereby young family members, instead of staying in the community, will leave to find employment in Thompson or Winnipeg. This makes it more difficult to keep family bonding and cohesiveness, particularly when youth leave the community for work or school. Although lack of employment was raised in several communities, the impact is seen more dramatically in some than others. For example, the obvious impact on Leaf Rapids and Lynn Lake communities when the major employer left the community. Those who could not afford to leave, or chose not to leave, were left behind and many could not find further employment. Adjusting to a life of unemployment when a person was used to working was highlighted as being very difficult and may have contributed to other issues such as depression, addictions, participation in gambling and violence in communities. It is important to highlight however, that in other communities participants indicated that there were jobs available but that residents may not be motivated to take a job when their income from other sources, such as government transfers, was sufficient.

- The Burntwood unemployment rate for males in 2006 was the highest in Manitoba at 18 per cent, well above the Manitoba average of 6 per cent (see Figure 3-10).

- Similarly, for females, the Burntwood Region had the highest unemployment rate in 2006 at 16 per cent, higher than the Manitoba average of 11 per cent (see Figure 3-11).

- For Burntwood youth, the unemployment rate was also very high. The male youth unemployment rate was 30.9 per cent in 2006, well above the Manitoba average of 11.7 per cent and the highest rate in Manitoba (see Figure 3-12). The female youth unemployment rate in Burntwood was 26.8 per cent in 2006, considerably higher than the Manitoba average of 10.5 per cent, and also ranked the highest in Manitoba (see Figure 3-13).
Figure 3-10. Male unemployment rate by region, 2006.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 3-11. Female unemployment rate by region, 2006.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
Figure 3-12. Male youth unemployment rate by region, 2006.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 3-13. Female youth unemployment rate by region, 2006.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
3.1.6 Labour Force Participation Rates

Those that are employed generally have fewer health difficulties than those who are unemployed. Labour force participation is an important indicator of social belonging and contribution to society. Not being in the labour force can be isolating resulting in fewer social supports and can affect health and well being in a negative way.\footnote{\textsuperscript{iv}}

Labour force participation rates include both people who are employed, as well as those who are unemployed. These rates are meant to reflect the population that is engaged in the labour force either by working or looking for work.

- As Table 3-1 shows, the labour force participation in Burntwood Region was 56.8 per cent, well below the Manitoba average of 67.3 per cent. Participation rates for males and females are also well below Manitoba averages.

- This table also confirms that Burntwood’s unemployment rate is very high. The total rate was 17.4 per cent in 2006, well above the Manitoba average of 5.5 per cent.

- A review of the 1996 and 2001 Census data indicate that while the participation rate had been quite stable (61.5% in 1996 and 61.0% in 2001) the trend has changed and has declined in the most recent Census.

- Participation rates have consistently been higher among Burntwood Region males (67.8% in 1996 and 66.1% in 2001) compared to Burntwood Region females (54.6% in 1996 and 55.6% in 2001).

- Among Aboriginal identity residents of the region specifically, labour force participation rates are even lower than the regional rate at 47.7 per cent. This means that less than half of residents age fifteen and older are either employed or looking for work. In addition, just over one in three residents (35.4%) is employed compared to one half of Aboriginal residents in Manitoba.

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th></th>
<th>Manitoba</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Male</td>
</tr>
<tr>
<td>ALL RESIDENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation rate</td>
<td>56.8%</td>
<td>61.1%</td>
<td>52.4%</td>
<td>67.3%</td>
<td>72.8%</td>
</tr>
<tr>
<td>Employment rate</td>
<td>46.9%</td>
<td>49.9%</td>
<td>43.8%</td>
<td>63.6%</td>
<td>68.8%</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>17.4%</td>
<td>18.3%</td>
<td>16.3%</td>
<td>5.5%</td>
<td>5.5%</td>
</tr>
<tr>
<td>ABORIGINAL RESIDENTS ONLY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation rate</td>
<td>47.7%</td>
<td>51.2%</td>
<td>44.2%</td>
<td>59.2%</td>
<td>63.7%</td>
</tr>
<tr>
<td>Employment rate</td>
<td>35.4%</td>
<td>36.7%</td>
<td>34.2%</td>
<td>50.1%</td>
<td>52.8%</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>25.7%</td>
<td>28.3%</td>
<td>22.6%</td>
<td>15.4%</td>
<td>17.1%</td>
</tr>
</tbody>
</table>

3.1.7 Occupation

Better paying occupations generally have a positive impact on health and well being, though there are some jobs which have inherent dangers or exposure to environmental risk factors which may negatively impact health status.

Occupation is the kind of work done by persons aged 15 and over. Occupation is based on the type of job the person holds and the description of his or her duties, regardless of the work setting. For example, someone might work in the Industry of Healthcare but as a "Manager"; in this case, the occupation is "Management Occupation" as opposed to "Health Occupation".

Table 3-2 shows major occupations by gender as well as major occupation for Aboriginal identity residents only.

- As with Manitoba overall, the most common occupation in Burntwood in 2006 was "Sales and service occupations." Just under one in three (31%) Burntwood residents was employed in this occupation in 2006. It was the leading occupation for females and second for males.

- The next largest occupation category was "Trades, transport and equipment operators and related occupations" at 18 per cent of residents. However, very few females are occupied in this field (2%) while almost one in three men (31%) is employed in this field.

- Among females specifically, the second leading major occupation was "Social science, education, government service and religion" with 20 per cent of employed women working in this field.

- Health occupations specifically accounted for only five per cent of all occupations in Burntwood. However, this is somewhat misleading, because the focus in this case is on people providing health care (such as nurses) as opposed to people working in the health sector. A more accurate picture of employment in the health industry overall is presented in the next section under "Industry".

- Patterns of employment by major occupation were similar among Aboriginal residents to all residents of the region. Again, the leading occupation was "Sales and service occupations" but this category accounted for a slightly higher proportion of all jobs at 35 per cent. Eight per cent of all Burntwood residents reported employment in "Management occupations" and this was the case for six per cent of Aboriginal residents in the region (which is the same rate for all Aboriginal identity Manitobans).
### Table 3-2. Employment by major occupation, Burntwood and Manitoba, 2006.

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
</tr>
<tr>
<td>ALL RESIDENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management occupations</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>Business, finance and administration occupations</td>
<td>12%</td>
<td>4%</td>
</tr>
<tr>
<td>Natural and applied sciences and related occupations</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Health occupations</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Occupations in social science, education, government service and religion</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>Occupations in art, culture, recreation and sport</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Sales and service occupations</td>
<td>31%</td>
<td>25%</td>
</tr>
<tr>
<td>Trades, transport and equipment operators and related occupations</td>
<td>18%</td>
<td>31%</td>
</tr>
<tr>
<td>Occupations unique to primary industry</td>
<td>7%</td>
<td>12%</td>
</tr>
<tr>
<td>Occupations unique to processing, manufacturing and utilities</td>
<td>2%</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
</tr>
<tr>
<td>ABORIGINAL RESIDENTS ONLY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management occupations</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Business, finance and administration occupations</td>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td>Natural and applied sciences and related occupations</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Health occupations</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Occupations in social science, education, government service and religion</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>Occupations in art, culture, recreation and sport</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Sales and service occupations</td>
<td>35%</td>
<td>30%</td>
</tr>
<tr>
<td>Trades, transport and equipment operators and related occupations</td>
<td>18%</td>
<td>32%</td>
</tr>
<tr>
<td>Occupations unique to primary industry</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Occupations unique to processing, manufacturing and utilities</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

3.1.8 Industry

Industry is not necessarily the type of work a person does but it refers to the business in which a person is employed.

- As Table 3-3 shows, unlike Occupation, where the patterns were quite similar, the Burntwood economy has a somewhat different mix of industry sectors in comparison with the rest of Manitoba. For example, the agriculture and resource-based industry accounts for 15 per cent of employment in Burntwood, which is well above the Manitoba average of eight per cent.

- Health and education was a major industry sector in Burntwood, particularly for women. For women alone, health and education accounted for 43 per cent of all employment in the region compared to 33 per cent for Manitoba women overall.

- By contrast, manufacturing and construction was a much small industry sector in Burntwood accounting for only seven per cent of all employment in the region, well below the Manitoba average of 15 per cent.

- Among Aboriginal residents of Burntwood, "Health and education" was also the leading industry accounting for 34 per cent of employment (48% for females and 21% for males).

Table 3-3. Employment by major industry, Burntwood and Manitoba, 2006.

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th></th>
<th>Manitoba</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
</tr>
<tr>
<td>ALL RESIDENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture and other</td>
<td>15%</td>
<td>25%</td>
<td>3%</td>
<td>8%</td>
</tr>
<tr>
<td>resource-based industries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing and</td>
<td>7%</td>
<td>11%</td>
<td>2%</td>
<td>16%</td>
</tr>
<tr>
<td>construction industries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale and retail</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>trade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance and real estate</td>
<td>3%</td>
<td>2%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Health and education</td>
<td>28%</td>
<td>15%</td>
<td>43%</td>
<td>20%</td>
</tr>
<tr>
<td>Business services</td>
<td>11%</td>
<td>13%</td>
<td>9%</td>
<td>16%</td>
</tr>
<tr>
<td>Other services</td>
<td>25%</td>
<td>22%</td>
<td>28%</td>
<td>20%</td>
</tr>
</tbody>
</table>

|                        | Burntwood |          | Manitoba |          |
|                        | Total     | Male     | Female    | Total    | Male     | Female    |
| ABORIGINAL RESIDENTS ONLY |         |          |           |          |          |           |
| Agriculture and other  | 9%        | 15%      | 2%        | 6%       | 10%      | 2%        |
| resource-based industries |          |          |           |          |          |           |
| Manufacturing and       | 7%        | 13%      | 2%        | 15%      | 24%      | 5%        |
| construction industries |          |          |           |          |          |           |
| Wholesale and retail    | 10%       | 10%      | 10%       | 12%      | 12%      | 12%       |
| trade                  |           |          |           |          |          |           |
| Finance and real estate | 2%        | 2%       | 2%        | 3%       | 2%       | 4%        |
| Health and education    | 34%       | 21%      | 48%       | 25%      | 12%      | 39%       |
| Business services       | 10%       | 12%      | 7%        | 14%      | 17%      | 10%       |
| Other services          | 28%       | 27%      | 28%       | 25%      | 23%      | 27%       |

3.1.9 POPULATION SCORING HIGH ON WORK STRESS SCALE

This indicator refers to the annual percentage or prevalence of the working population, aged 15 to 74 years, who scored "None"/"Low" or "Medium" or "High" on the Work Stress scale. This indicator is derived from the CCHS survey, and reflects a respondent's perceptions of work, including job security, social support, monotony, physical effort required, and extent of participation in decision-making.

Those individuals that score high on the work stress scale survey is a key insight in potential mental health difficulties workers may be experiencing. Those that score high on work stress scale have been found to suffer depression at higher rates.\footnote{vi}

- The proportion of residents who scored “High” on the work stress scale in Burntwood between 2001-2006 was 22.1 per cent, lower than the Manitoba average of 27.6 per cent (see Figure 3-14).

Figure 3-14. Residents self-perceived “High” work stress by region, 2001-2006.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Churchill data suppressed.
3.1.10  HOUSING AFFORDABILITY

Households that spend thirty per cent or more of their total household income on housing (whether it is owned or rented) are an indicator of unaffordability. By allocating almost one third or more of income simply toward housing, people then have less money for other basic necessities such as healthy foods, warm clothing, health care and medication costs. People who rent their home, as opposed to owning, often are more likely to face the issue of unaffordable housing. This is because people often rent because they do not have the financial resources to own (either due to being young and new to the labour force or due to ongoing low paying or lack of employment). These people are starting off with lower incomes and then can be subject to “supply and demand” issues, particularly in the north, and this can result in higher rental rates.

- The average value of an owned dwelling in Burntwood Region was $119,223 in 2006, lower than Manitoba average of $153,307 in 2006 (see Figure 3-15).

- For housing affordability specifically, in the region 22 per cent of people who rent their (non-reserve) housing spend at least 30 per cent of their household income on rent. This is lower than the provincial rate of 35.3 per cent (see Figure 3-16).

- Among Burntwood residents who own their (non-reserve) homes, 8.4 per cent spend more than 30 per cent of their total household income on mortgage payments. This is lower than the Manitoba average of 11.4 per cent in 2006 (see Figure 3-17). It is also the lowest rate recorded among Manitoba RHAs.

Figure 3-15. Average value of owned dwelling by region, 2001 and 2006.

Source: Statistics Canada, 2006 Community Profiles
NOTE: Includes non-reserve dwellings only.
Figure 3-16. Proportion of tenant-occupied households spending 30% or more of household income on gross rent by region, 2006.

Source: Statistics Canada, 2006 Census (20% sample).
NOTE: Includes non-reserve dwellings only.

Figure 3-17. Proportion of owner households spending 30% or more of household income on owner’s major payments by region, 2006.

Source: Statistics Canada, 2006 Census (20% sample).
NOTE: Includes non-reserve dwellings only.
3.1.11 **EDUCATION ATTAINMENT**

Education, along with income, is one of the main indicators of socio-economic status and an important determinant of health. A direct relationship has been found between education and health status. Educational attainment statistics can also yield information about the relative age of the population because access to higher education has improved significantly in recent years.\(^{[6]}\)

Concern about education attainment was a topic of discussion at many focus groups during the community consultation process. Teachers and community residents discussed the challenges that youth face in their home environments and the apparent lack of support for their on-going education in some cases. Many teachers and administrators commented on "parent-teacher" meetings and the fact that in many cases no parents show up. We also cannot ignore the issue of FASD and the impact that this has on youth who are affected. Without significant support, many youth with FASD have a very difficult time in completing high school.

Other issues that can prevent positive results in education attainment that were identified were teen pregnancies and the fact that many youth are also facing issues with addictions. Several participants also indicated that having breakfast programs at school served as an incentive for children to come to school. However, many also commented that in many cases it is the older children in the family getting the younger children up and bringing them to these programs and to school, not the parents.

Another issue identified as a potential barrier to success in education is that in many of the Bayline communities, local schools only go up to grade eight. This means that in order to attend high school youth must leave the community. Youth will attend high school wherever it works best for the family so this could be Thompson, Winnipeg, Flin Flon etc. depending on where there may a family member or other person to provide housing and supervision to the youth while they attend high school. In some cases, when the eldest child of the family is ready for high school, the whole family leaves the community together. Although many participants indicated that a small community cannot provide the same types of experiences and opportunities as a high school in a bigger community, the need to leave the community presents many potential issues:

- Youth may not be adequately supervised in the new community;
- Youth may face temptations in larger communities that they are not adequately prepared for in the smaller community;
- Costs may be prohibitive for families even when the youth is staying with family members;
- Youth may find it difficult to adapt to or fit in the new high school environment;
- Youth may not be adequately prepared academically for what is expected in high school; and,
- Youth may become disconnected from their families and may be unlikely to return to their communities of origin.

For these reasons and others, many youth do not successfully complete high school once they leave the community. In addition, other participants mentioned that due to
need for support at home, parents may not encourage or support their child in leaving the community to attend high school.

- **Table 3-4** shows that the proportion of the population without a high school certificate is much higher in Burntwood compared to Manitoba overall in all age categories studied.

**Table 3-5** illustrates the highest level of education achieved by residents. Information is available about all residents as well as for Aboriginal identity residents only.

- Over half (56%) of Burntwood residents have no certificate, degree or diploma, well above the Manitoba average of 29 per cent (see **Table 3-5**).

- Only 10 per cent of Burntwood residents had a university certificate, diploma or degree at or below the bachelor level, which is well below the Manitoba average of 19 per cent (see **Table 3-5**).

- Among Aboriginal residents only, 68 per cent of residents of Burntwood Region do not have a high school certificate, diploma or degree compared to 50 per cent of Aboriginal residents of Manitoba (see **Table 3-5**). Overall, only 13 per cent of Aboriginal residents have high school as the highest level of education compared to 21 per cent of all Aboriginal residents in Manitoba. Four per cent of Aboriginal people in the region have a university certificate, diploma or degree.
### Table 3-4. Population with less than high school certificate, 2006.

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
</tr>
<tr>
<td>15-24</td>
<td>75.3%</td>
<td>77.2%</td>
</tr>
<tr>
<td>25-34</td>
<td>47.8%</td>
<td>52.0%</td>
</tr>
<tr>
<td>35-64</td>
<td>46.9%</td>
<td>48.1%</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, 2006 Community Profiles.

### Table 3-5. Population with highest level of educational attainment, 2006.

<table>
<thead>
<tr>
<th></th>
<th>Burntwood</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
</tr>
<tr>
<td>ALL RESIDENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No certificate, diploma or degree</td>
<td>56%</td>
<td>58%</td>
</tr>
<tr>
<td>High school certificate or equivalent</td>
<td>17%</td>
<td>15%</td>
</tr>
<tr>
<td>Apprenticeship or trades certificate or diploma</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>College, CEGEP or other non-university certificate or diploma</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>University certificate or diploma below the bachelor level</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>University certificate, diploma or degree</td>
<td>7%</td>
<td>5%</td>
</tr>
</tbody>
</table>

| ABORIGINAL RESIDENTS ONLY      |           |          |          |           |          |          |
| No certificate, diploma or degree | 68%      | 72%      | 66%      | 50%       | 53%      | 48%      |
| High school certificate or equivalent | 13%      | 11%      | 14%      | 21%       | 20%      | 21%      |
| Apprenticeship or trades certificate or diploma | 6%       | 7%       | 4%       | 9%        | 11%      | 7%       |
| College, CEGEP or other non-university certificate or diploma | 7%       | 6%       | 7%       | 12%       | 9%       | 14%      |
| University certificate or diploma below the bachelor level | 3%       | 2%       | 4%       | 3%        | 2%       | 3%       |
| University certificate, diploma or degree | 4%       | 2%       | 5%       | 6%        | 4%       | 7%       |

3.1.12 Unpaid Work

In this indicator, unpaid work is divided into three major categories which include housework, child care, and seniors care. The amount of unpaid work done can be a key indicator overall health and wellness as the stress and the time resources needed for care giving can result in lower levels of health and well being.\textsuperscript{viii}

- In 2006, a very high proportion of Burntwood residents reported having done unpaid work, similar to provincial averages (see Table 3-6).

- A higher proportion of Burntwood residents reported doing unpaid childcare (59.3%), compared to the Manitoba average of 38.4 per cent (see Table 3-6). Females performed the bulk of unpaid childcare at 66.4 per cent in Burntwood compared to the males (52.4 %).

<table>
<thead>
<tr>
<th>Table 3-6. Unpaid work, Burntwood and Manitoba, 2006.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>All unpaid work</td>
</tr>
<tr>
<td>Unpaid housework</td>
</tr>
<tr>
<td>Unpaid childcare</td>
</tr>
<tr>
<td>Unpaid assistance to seniors</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, 2006 Community Profiles
3.2 ENVIRONMENT

3.2.1 EXPOSURE TO SECOND HAND SMOKE

Exposure to second-hand smoke\(^1\) can have a significant impact on health. Breathing in second-hand smoke causes over 1,000 deaths in Canadian non-smokers from lung cancer and heart disease every year\(^{ix}\).

The good news is that most Canadian families agree they should avoid exposure to SHS in their home and car. Currently, four out of five (82%) Canadian homes already restrict smoking in some way.\(^x\) Parents also report that the primary reason they want to cut back on the amount of SHS in their home is because of their children.\(^{xi}\)

Exposure to second-hand smoke can cause a variety of chronic conditions including heart disease, several different cancers such as lung, throat, pancreas, and leukemia. A number of respiratory conditions can result from second hand smoke exposure including chronic bronchitis, and pneumonia. In children, it can cause Sudden Infant Death Syndrome, restrict fetal growth including low birth weight and small-for-gestational age, bronchitis, pneumonia and other lower respiratory tract infections, asthma exacerbation, middle ear disease, and respiratory symptoms.\(^{xii}\)

- According to the combined 2007 and 2008 CCHS data (data were combined due to small numbers and this gives us higher precision in estimates), 17.9 per cent of Burntwood Region residents who do not smoke are exposed to second hand smoke in their home. This is significantly higher than the provincial rate of 7.9 per cent (see Figure 3-18).

- It is important to note that these rates are for people who are age 12 and older only. We know that rates of exposure to second hand smoke by non-smokers decreases with increasing age as adults who choose not to smoke will often not allow smoking in their homes. However, children do not have the ability to choose who they live with or to dictate whether people smoke in their homes.

- Table 3-7 illustrates changes in rates of exposure to SHS by Burntwood Region residents as well as Manitobans living off reserve between 2003 and 2008. The source for these data is the Canadian Community Health Survey.

- These data show that for Manitoba overall, rates of exposure are slowly declining. However, they also show that while rates of exposure to SHS for all Manitobans over age 12 was 7 per cent, when we look only at children and youth age 12 to 19, these rates increase to one in five (and this is among the non-smoking population only).

---

\(^{1}\) **Definition:** Non-smoking population aged 12 and over who reported that at least one person smokes inside their home every day or almost every day.
Within Burntwood Region, while exposure to SHS decreased in 2005, the rate increased in 2007 above 2003 levels at 22.3 per cent. Similarly, for children aged 12 to 19, while 2008 were suppressed due to small numbers, 2007 figures showed that over half of 12-19 year olds were being exposed to SHS (see Table 3-8) with a significant increase from 2005 rates.

Figure 3-18. Residents exposed to second hand smoke by region, 2007/08.

![Graph showing percentage exposure to second-hand smoke by region](image)

Source: Statistics Canada, Canadian Community Health Survey (CCHS), 2007.
NOTE: Churchill rates should be interpreted with caution due to small numbers.


<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba</td>
<td>10.7%</td>
<td>8.6%</td>
<td>8.9%</td>
<td>7%</td>
</tr>
<tr>
<td>Manitoba 12-19 year olds only</td>
<td>22.9%</td>
<td>20%</td>
<td>16.5%</td>
<td>19.3%</td>
</tr>
<tr>
<td>Burntwood/Churchill</td>
<td>22.2%</td>
<td>14.7%</td>
<td>22.3%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Burntwood/Churchill 12-19 year olds only</td>
<td>49%</td>
<td>39.2%</td>
<td>52.4%</td>
<td>Suppressed due to small sample size</td>
</tr>
</tbody>
</table>

3.3 PERSONAL RESOURCES

3.3.1 LIFE STRESS

Life’s stresses, whether it is chronic or brought on by major life events, can impact a person’s health, affecting their immune system. While stress does not directly cause illness, a complex range of factors including genetics, external resources, personal resources and emotional support will increase the risk of illness. Sources of life stresses can range from financial worries, work, unemployment, parenting, health problems, aging and caregiving/elder care. Stress may not necessarily cause illness. A person’s reaction to a stressor will influence its effect on health. External resources (money and education), personal resources (sense of control over one’s life) and emotional support can influence whether life stress causes health difficulties.\textsuperscript{xiii}

Many community consultation participants noted family violence, vandalism, gang activity and lack of respect for authority as being stressful for their life and others. One participant noted that...."kids seem unhappy to me and are not smiling anymore."

- The proportion of Burntwood residents who had “quite a lot” life stress in Burntwood was 16.7 per cent in 2007, lower than the Manitoba average of 19.4 per cent and the Canadian average of 22.5 per cent (see Figure 3-19).

Figure 3-19. Residents who have “quite a lot” life stress by region, 2007.

Source: Canadian Community Health Survey, 2007
NOTE: Churchill rates should be interpreted with caution due to small numbers.
3.3.2 Life Satisfaction

People’s assessment of their own well being is another key perspective to determine the health status of individuals. Those that report being satisfied or very satisfied with their life enjoy better physical and mental health.\textsuperscript{xiv}

- The proportion of Burntwood residents who self rated “very satisfied” for life in Burntwood was 35.3 per cent in 2008, lower than the Manitoba average of 37.8 per cent (see Figure 3-20).

**Figure 3-20. Residents who self rated “very satisfied” for life by region, 2008.**

![Graph showing life satisfaction by region](image)

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas from CCHS data

NOTE: Churchill rates should be interpreted with caution due to small numbers.

's' indicates data suppressed due to small numbers.
3.3.3 LICENSED CHILDCARE SPACES

As women have entered the workforce in greater numbers in Canada, access to licensed child care spaces has been an issue of greater concern in children’s health. Access to licensed child care space is considered an important part of early childhood development, leading to improved health outcomes for children overall. Having children cared for in licensed facilities also improves the health and safety of children by providers which are regulated by provincial governments.

- The rate of licensed child care spaces in Burntwood decreased from 38.15 to 30 per 1,000 children aged 0-12 years (see Figure 3-21). Burntwood had the lowest rate of child care space among Manitoba RHAs.

Figure 3-21. Licensed child care space rate by region, 2001 and 2006.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
3.3.4 SCHOOL READINESS

3.3.4.1 READINESS TO LEARN AT SCHOOL ENTRY

Early Development Instrument (EDI) measures are an important gauge of the health and well being of children, and are strongly linked to income levels and parental involvement in the child’s early learning.

The EDI is a checklist that Kindergarten teachers complete for each child in their class. It is a holistic measure of children’s development across five areas:

1. physical health and well-being
2. social competence
3. emotional maturity
4. language and cognitive development
5. communication skills

Teachers complete the EDI in February, after they have had several months of interaction with their Kindergarten class.

Tables 3-8 and 3-9 present the EDI results for two years of children attending Kindergarten with the value representing the percentage of children who are ‘not ready’ or ‘very ready’ for each category of development. There is also a summary of the percent of children who are not ready in at least one or at least two areas of development.

- **Table 3-8** shows children who are not ready to learn by each area of development. Burntwood appears to have higher proportions of children not ready for school in each area of development compared to the Manitoba average. Of greater concern is that those proportions have risen in each category between 2005/06 and 2006/07.

- **Similarly, in Table 3-9** which measures children that are very ready for school, Burntwood has lower rates of ‘very ready’ children in most areas of development. Each area of development saw a decrease between 2005/06 and 2006/07, with communication skills and general knowledge seeing the largest declines—only 23.9 per cent of children were very ready in that area of development, compared to the provincial average of 36.0 per cent.

The observations of participants at the community consultations suggest that the pervasiveness of alcohol use among some parents may be a major contributor to Burntwood’s poor performance on readiness of school indicators. In some cases, the lack of parental control and authority, along with poor nutrition appear to have a negative effect on children’s readiness to learn. Consultation participants also noted the high incidence of FASD and the impact this has on children’s ability to learn and to function in the classroom.
Table 3-8. Children 'not ready' for school, 2005/06-2006/07.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Health and Well-Being</td>
<td>15.4%</td>
<td>22.7%</td>
<td>11.3%</td>
<td>10.9%</td>
</tr>
<tr>
<td>Social Competence</td>
<td>11.1%</td>
<td>22.9%</td>
<td>9.9%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Emotional Maturity</td>
<td>9.0%</td>
<td>16.0%</td>
<td>10.6%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Language and Cognitive Development</td>
<td>18.2%</td>
<td>23.6%</td>
<td>12.5%</td>
<td>11.8%</td>
</tr>
<tr>
<td>Communication Skills and General Knowledge</td>
<td>11.8%</td>
<td>17.7%</td>
<td>11.1%</td>
<td>11.0%</td>
</tr>
<tr>
<td>One or more areas of development</td>
<td>32.3%</td>
<td>46.3%</td>
<td>28.3%</td>
<td>27.7%</td>
</tr>
<tr>
<td>Two or more areas of development</td>
<td>17.3%</td>
<td>28.6%</td>
<td>14.6%</td>
<td>13.9%</td>
</tr>
</tbody>
</table>

Source: Healthy Child Manitoba Office.

Table 3-9. Children 'very ready' for school, 2005/06-2006/07.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Health and Well-Being</td>
<td>25.8%</td>
<td>23.4%</td>
<td>32.1%</td>
<td>33.6%</td>
</tr>
<tr>
<td>Social Competence</td>
<td>32.3%</td>
<td>28.1%</td>
<td>33.9%</td>
<td>34.8%</td>
</tr>
<tr>
<td>Emotional Maturity</td>
<td>27.4%</td>
<td>21.0%</td>
<td>28.2%</td>
<td>28.5%</td>
</tr>
<tr>
<td>Language and Cognitive Development</td>
<td>25.3%</td>
<td>20.9%</td>
<td>30.0%</td>
<td>32.5%</td>
</tr>
<tr>
<td>Communication Skills and General Knowledge</td>
<td>36.9%</td>
<td>23.9%</td>
<td>33.9%</td>
<td>36.0%</td>
</tr>
<tr>
<td>One or more areas of development</td>
<td>59.9%</td>
<td>53.7%</td>
<td>62.4%</td>
<td>64.8%</td>
</tr>
<tr>
<td>Two or more areas of development</td>
<td>41.5%</td>
<td>32.0%</td>
<td>43.3%</td>
<td>45.5%</td>
</tr>
</tbody>
</table>

Source: Healthy Child Manitoba Office.
3.3.4.1.1 **CHILDREN WITH ENGLISH OR FRENCH AS A SECOND LANGUAGE**

This indicator measures the proportion of children with English or French as a second language (this means that their first language is not English or French). Children who have English or French as a second language will have greater challenges in meeting the classroom expectations as they learn to communicate in another language.

- The proportion of children with English or French as a second language decreased from 5.3 per cent to 3.2 per cent from 2005/06 to 2006/07, well below the Manitoba average of 11.6 per cent (see Figure 3-22).

![Figure 3-22. Children with ESL/FSL in Burntwood and Manitoba, 2005/06-2006/07.](image)

Source: Healthy Child Manitoba Office.

3.3.4.1.2 CHILDREN WITH SPECIAL NEEDS

This indicator measures the proportion of children who have special needs. Children with special needs will be challenged in being ready to learn as they try to address their special needs in the classroom setting.

- The proportion of children with special needs in the Burntwood Region increased from 5.5 to 6.4 per cent from 2005/06 to 2006/07, which is above the Manitoba average of 3.4 per cent (see Figure 3-23).

Figure 3-23. Children with special needs in Burntwood and Manitoba, 2005/06-2006/07.

Source: Healthy Child Manitoba Office.
NOTE: Burntwood is statistically lower than Manitoba in 2006-2007.
3.3.4.1.3 CHILDREN WHO REQUIRE FURTHER ASSESSMENT CONCERNING FUTURE NEEDS

This indicator measures the percentage of children who have been deemed to require further assessment for their future needs. Children who may have additional needs at a future date may also have challenges in being fully ready to learn in a classroom setting.

- The proportion of children who required further assessment for future needs in the Burntwood Region decreased from 12.5 per cent to 9.9 per cent from 2005/06 to 2006/07, which is below the Manitoba average of 11.7 per cent in 2006/07 (see Figure 3-24).

Figure 3-24. Children who need further assessment in Burntwood and Manitoba, 2005/06-2006/07.

Source: Healthy Child Manitoba Office.
3.3.4.2 RETENTION RATES

Retention rates refer to the percentage of students that were held back at least once in the same school for consecutive years, by children from kindergarten to Grade 8. School retention rates are an important gauge of children’s overall health status. If children are being held back in school due to school performance, it may be that their health status is not adequate enough to perform in school. It may require more child health initiatives to target students who are being retained.

- The retention rate in the Burntwood Region decreased significantly from 15.2 per cent to 9.9 per cent between 1997/98-2001/02 and 2001/02-2005/06, but was still significantly higher than the Manitoba average of 3.0 per cent in 2001/02-2005/06 (see Figure 3-25).

![Figure 3-25. Retention rates by region, 1997/98-2000/01 and 2002/02-2005/06.](image)

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

1 indicates area’s rate was statistically different from Manitoba average in first time period
2 indicates area’s rate was statistically different from Manitoba average in second time period
t indicates change over time was statistically significant for that area
3.4.3 SCHOOL CHANGES

School changes measures the number of students who are in Grade 3 who have not had a school change in the previous four years. In most cases, this means that the student has been at the same school from Kindergarten to Grade 3 (not taking into account students who are retained).

- The proportion of Grade 3 students with no school changes in Burntwood decreased significantly from 73.9 per cent to 55.3 per cent between 1997/98-2000/01 and 2002/03-2005/06, which is significantly below the Manitoba average of 79.8 per cent in 2002/03-2005/06. The Burntwood Region had the lowest proportion of no school changes among all Manitoba RHAs (see Figure 3-26).

Figure 3-26. Grade 3 students with no school changes rate by region, 1997/98-2000/01 and 2002/03-2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

'1' indicates area's rate was statistically different from Manitoba average in first time period

'2' indicates area's rate was statistically different from Manitoba average in second time period

't' indicates change over time was statistically significant for that area
3.3.4.4 Grade 12 Math and ELA Performance

This indicator measures Grade 12 language arts and math exam performance in children born in 1984 and 1988. Improved Grade 12 performance can be an indicator of the effectiveness of children’s health initiatives. It is important to monitor this indicator, as school performance will have a significant bearing on the socio-economic status of individuals, which ultimately impacts their overall health status.

Consultation participants discussed school performance, noting that children often have to leave the community in order to continue their education. This disruption often causes problems in parental control and continuity. Participants also felt that education was not valued. One participant noted that, "children may not see education as important anymore because [they are] fast tracked to Manitoba hydro jobs and band jobs so [there are] no consequences to not having an education."

- The Grade 12 students’ math pass rate, as a percentage of all grade 12 students, in the Burntwood Region decreased from 71.8 per cent for children born in 1984 to 68.1 per cent for children born in 1988. This is lower than the Manitoba average of 82.9 per cent for children born in 1988, and ranked the lowest math pass rate among all Manitoba RHAs (see Figure 3-27).

- The Grade 12 students’ math pass rate, as a percentage of all residents, decreased from 15.2 per cent for children born in 1984 to 13.6 per cent for children born in 1988, which is significantly lower than the Manitoba average of 49.0 per cent (see Figure 3-28).

- The Grade 12 students’ ELA pass rate, as a percentage of all Grade 12 students in the Burntwood Region, decreased from 78.9 per cent for children born in 1984 to 71.2 per cent for children born in 1988, which is lower than the Manitoba average of 90.8 per cent (see Figure 3-29).

- The Grade 12 students’ ELA pass rate, as a percentage of all Burntwood residents, significantly decreased from 19.6 per cent for children born in 1984 to 15.5 per cent for children born in 1988. This is significantly lower than the Manitoba average of 59.3 per cent, and ranked the lowest among all Manitoba RHAs (see Figure 3-30).
Figure 3-27. Grade 12 students math pass rate by region, % of students, born 1984 and 1988.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
's' indicates data suppressed due to small numbers.

Figure 3-28. Grade 12 students math pass rate by region, % of all residents, born 1984 and 1988.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
'1' indicates area's rate was statistically different from Manitoba average in first time period.
'2' indicates area's rate was statistically different from Manitoba average in second time period.
'>' indicates change over time was statistically significant for that area.
's' indicates data suppressed due to small numbers.
Figure 3-29. Grade 12 students ELA pass rate by region, % of students, born 1984 and 1988.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
's' indicates data suppressed due to small numbers.

Figure 3-30. Grade 12 Students ELA pass rate by region, % of residents, born 1984 and 1988.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
1' indicates area's rate was statistically different from Manitoba average in first time period.
2' indicates area's rate was statistically different from Manitoba average in second time period.
t' indicates change over time was statistically significant for that area.
### 3.3.4.5 High School Completion Rate

As with ELS and math pass rates, high school completion rates are an important indicator of future socio-economic status, which ultimately impacts overall health status.

- In Burntwood, the high school completion rate decreased from 55.9 per cent to 54.0 per cent between 2002/03 and 2005/06, which is significantly lower than the Manitoba average of 77.7 per cent in 2005/06 (see Figure 3-31).

**Figure 3-31. High school completion rate by region, 2002/03 and 2005/06.**

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

**NOTE:** Churchill rates should be interpreted with caution due to small numbers.

1. ‘1’ indicates area’s rate was statistically different from Manitoba average in first time period
2. ‘2’ indicates area’s rate was statistically different from Manitoba average in second time period
3. ‘t’ indicates change over time was statistically significant for that area
4. ‘s’ indicates data suppressed due to small numbers
3.4 PERSONAL HEALTH PRACTICES AND LIFESTYLE

Personal health practices and lifestyle factors refer to those actions by which individuals can take to prevent diseases and promote self-care, cope with challenges, develop self-reliance, solve problems and make choices that enhance health.

3.4.1 ACTIVE LIVING

The level of active living is an important gauge of the success of health promotion and disease prevention initiatives that governments are now implementing. Active living is an important component in preventing a number of diseases, reducing mental health difficulties, improving fitness, maintaining a healthy weight, and continuing independent living in later life.

People need to be physically active to be healthy! In fact, according to Health Canada, being physically inactive is as dangerous to our health as smoking.

There has been a lot of attention paid to the issue of physical activity and obesity among children. Most children enjoy physical activity, especially activities that they can do with their friends and which give them a feeling of accomplishment such as building snowmen, skating or swimming. Many children are also involved in organized sports and other activities like hockey, soccer, gymnastics, basketball and dance. However research is showing that there is a tendency for school-age children to spend more and more of their time in less active pursuits, like watching TV or playing computer/video games.

Research also shows that there is a relationship between physical activity and healthy eating habits. When children are active, they are more likely to feel good about themselves and to recognize when they are hungry and when they are full. This allows them to eat enough to meet their nutritional needs and have the energy they need to be active. Children who are hungry or who do not eat well are less likely to have enough energy to be active and to get involved in activities that will help them to feel good about themselves.

At both the teachers and youth focus group consultations in Thompson, it was noted that physical activity was decreasing as children and youth spend more time texting, watching TV, playing video games, and using computers and this is sometimes supported (or at a minimum not monitored) by the parents. Within the communities, participants felt that there is a need to find a way to get children back into more physical activities, and they will need people to coach them. Coaching and bringing teams together was considered to be difficult as there has been an increasing lack of voluntarism (including for sports activities) within the communities. Some community focus group participants suggested that it is difficult to access recreational facilities because transportation to them is not available. Overall, there was a feeling that the recreational facilities were there but that they were not being fully utilized through organized activities. This lack of facility use has meant that children seek other, riskier lifestyle choices which may include simply being inactive or other types of stimulation which may include alcohol and drug use or gang activity.
It was also noted that there has been a decrease in the focus on physical activities within schools, and that a change of school curriculum is required to include more physical activity. Youth focus group participants suggested a number of ways to increase physical activity levels including:

- Starting walking groups;
- Using the new track at the arena;
- Promoting more martial arts;
- Using the sports available in community (hockey, skating, curling, baseball, soccer, skateboard park); and
- Promotion of a football team.

Participants in the diabetes focus group consultations noted a number of positive trends that are occurring within Burntwood that are contributing to healthy living. CDPI was mentioned as a helpful program in encouraging and resourcing healthy lifestyle choices. It was noted that the Mamawetak is starting more programs to support healthy living such as exercise classes, programs for youths, and giving out food hampers to diabetics. An area track in Thompson has been developed along with a millennium trail which will help encourage more physical activity. Inco was also seen as contributing to more healthy living in the community with money to help build schools and activity centres. Inco employees have a number of health benefits, such as access to exercise and promotion of health living. Table 3-10 lists many of the successful CDPI events that occurred in Burntwood communities.

Given the risk of diabetes from unhealthy lifestyles, the choices are stark. As one focus group participant put it:

“Would you rather be poking yourself with a needle 5 to 6 times per day or eat healthy and exercise?”

(focus group participant)
Table 3-10. Burntwood CDPI initiative (physical activity) success stories, 2008.

<table>
<thead>
<tr>
<th>Community</th>
<th>What CDPI activity for Physical Activity is working well in your community?</th>
<th>What makes it work well?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross Lake</td>
<td>● Walking Group – 32 people walk weekly, snacks, prizes</td>
<td>● Talking to employers so employees can participate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Advertising prior to event on radio and television</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Motivated coordinator</td>
</tr>
<tr>
<td>Garden Hill</td>
<td>● Walking and running groups</td>
<td>● Collective effort from all organizations</td>
</tr>
<tr>
<td></td>
<td>● Exercise classes daily</td>
<td>● Television presentations advertising</td>
</tr>
<tr>
<td></td>
<td>● Ice fishing 3x week- 10 families involved</td>
<td>● Combination of trailer activities (food)</td>
</tr>
<tr>
<td></td>
<td>● Schools in Motion – 15 minutes of activity daily in the classroom</td>
<td>● People like to get out of the house</td>
</tr>
<tr>
<td>Gods Lake Narrows</td>
<td>● Canoe Quest – to Cross Lake and Norway House (10 canoes, 2-3 weeks, 20 people ages 15-60 years)</td>
<td>● N/A</td>
</tr>
<tr>
<td>Ilford</td>
<td>● Exercise Program – 10 adults, 3xweek</td>
<td>● $ to purchase treadmill</td>
</tr>
<tr>
<td></td>
<td>● Walking Program to begin in spring</td>
<td>● Donated equipment from Sports Manitoba</td>
</tr>
<tr>
<td></td>
<td>● New treadmill, pedometers, and water bottles purchased for the Health Centre</td>
<td>● Support from Chief and council</td>
</tr>
<tr>
<td></td>
<td>● Skating rink to be built</td>
<td></td>
</tr>
<tr>
<td>Lac Brochet</td>
<td>● Community Walk (1 mile)</td>
<td>● Whole community participation</td>
</tr>
<tr>
<td></td>
<td>● Cultural Week</td>
<td>● Picnic after walk</td>
</tr>
<tr>
<td></td>
<td>● Canoe trip to Brochet</td>
<td>● Volunteers/staff working together</td>
</tr>
<tr>
<td>Leaf Rapids</td>
<td>● Weight loss</td>
<td>● Motivation</td>
</tr>
<tr>
<td>Pikwitonei</td>
<td>● Terry Fox Run</td>
<td>● Advertising and organization</td>
</tr>
<tr>
<td></td>
<td>● World Record Walk</td>
<td>● Socializing</td>
</tr>
<tr>
<td></td>
<td>● Frontier Games</td>
<td>● Helping each other</td>
</tr>
<tr>
<td></td>
<td>● Canada Day sports events</td>
<td>● School and recreation working together</td>
</tr>
<tr>
<td></td>
<td>● Gym Nights (youth/adult)</td>
<td>● Volunteers</td>
</tr>
<tr>
<td></td>
<td>● Norman Games</td>
<td></td>
</tr>
<tr>
<td>Red Sucker Lake</td>
<td>● Kids Ice Hockey League (seasonal)</td>
<td>● Sports Manitoba donated used equipment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Kids are interested</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Active when equipment available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Gym facilities offer any available equipment</td>
</tr>
<tr>
<td>Split Lake</td>
<td>● Winter &amp; Summer Festival Games</td>
<td>● Organization</td>
</tr>
<tr>
<td></td>
<td>● Troy Lake Swimming Program</td>
<td>● Team work</td>
</tr>
<tr>
<td></td>
<td>● Canada Day</td>
<td>● Transportation provided</td>
</tr>
<tr>
<td></td>
<td>● Community gatherings (feasts, games)</td>
<td>● Music</td>
</tr>
<tr>
<td>Community</td>
<td>What CDPI activity for Physical Activity is working well in your community?</td>
<td>What makes it work well?</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------------------------------------------------------------</td>
<td>-------------------------</td>
</tr>
</tbody>
</table>
| St. Theresa Point | ● Diabetes Walk  
● Canoe races  
● Cultural Week (school closed, go to trap lines, learn cultural ways, teach children, food, trapping, hunting, fishing, traditional ways.) | ● Community involvement |
| Thicket Portage | ● Exercise Program – multi agency outdoor activities for kids.  
● Gym nights  
● Sports days  
● Community walks | ● People working together  
● Volunteers  
● Prizes  
● Leadership |
| Thompson | ● AFM  
● student yoga  
● Breathing exercises  
● Walking  
● Kids Kamp – 1 week long for kids affected by substance abuse  
● Physical Activity Committee  
● Workplaces in motion  
● Promotional Materials | ● Involvement from children, adults, and elders  
● Idea from MB in motion  
● Committed people willing to carry out the work |
| Wabowden | ● Exercise Program – arena based, weightlifting, in partnership with the recreation department | ● Community working together  
● Prizes  
● Leadership  
● Scheduled time for women, men, co-ed  
● Funding |
| Wasagamack | ● Youth cutting trail for walking programs (wood provided to elders)  
● Walking programs  
● Gym with equipment | ● Community working together  
● Volunteers  
● Prizes  
● Leadership  
● Positive outcome  
● Encouragement from others |

Source: Burntwood Regional Health Authority.
As Table 3-11 shows, levels of physical activity in Burntwood/Churchill residents (living off-reserve) who are 12 years and older are generally at similar levels compared to Manitoba averages, with approximately 50 per cent of the population being moderately or physically active.

- The proportion of Burntwood residents 12 years of age and older who are physically active in 2008 was 25.0 per cent, which is very similar to the Manitoba average of 24.0 per cent (see Figure 3-32).

- The proportion of residents 12 years and older who have moderate levels of physical activity in Burntwood in 2008 was 21.3 per cent, lower than the Manitoba average of 24.4 per cent (see Figure 3-33).

- The proportion of residents 12 years and older who are physically inactive in Burntwood in 2008 was 53.7 per cent, higher than the Manitoba average of 51.5 per cent (see Figure 3-34).

- The total physical activity levels measures (for work, leisure and travel) in Table 3-12 show that Burntwood has slightly higher levels of physical activity than the Manitoba average.


<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba All</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Moderately or Physically Active</td>
<td>51.3%</td>
<td>48.5%</td>
<td>53%</td>
<td>52.8%</td>
</tr>
<tr>
<td>All Inactive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manitoba Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately or Physically Active</td>
<td>54.8%</td>
<td>51.4%</td>
<td>54.5%</td>
<td>53.9%</td>
</tr>
<tr>
<td>Inactive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manitoba Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately or Physically Active</td>
<td>47.9%</td>
<td>45.8%</td>
<td>51.6%</td>
<td>51.7%</td>
</tr>
<tr>
<td>Inactive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burntwood/Churchill All</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately or Physically Active</td>
<td>47.2%</td>
<td>52.3%</td>
<td>52.6%</td>
<td>50.6%</td>
</tr>
<tr>
<td>Inactive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burntwood/Churchill Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately or Physically Active</td>
<td>55%</td>
<td>57.4%</td>
<td>51.6%</td>
<td>50.6%</td>
</tr>
<tr>
<td>Inactive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burntwood/Churchill Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately or Physically Active</td>
<td>39.1%</td>
<td>47.1%</td>
<td>53.8%</td>
<td>50.5%</td>
</tr>
<tr>
<td>Inactive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3-32. Residents 12 years and older who are physically active by region, 2008.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas, CCHS 1.1, 2.1, 2.2 and 2007 Combined

NOTE: ‘s’ indicates data suppressed due to small numbers

Figure 3-33. Residents 12 years and older who are moderately active by region, 2008.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas, CCHS 1.1, 2.1, 2.2 and 2007 Combined

NOTE: ‘s’ indicates data suppressed due to small numbers
Figure 3-34. Residents 12 years and older who are physically inactive by region, 2008.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas, CCHS 1.1, 2.1, 2.2 and 2007 Combined

NOTE: ‘s’ indicates data suppressed due to small numbers
<table>
<thead>
<tr>
<th>Region</th>
<th>Active (%)</th>
<th>Moderate (%)</th>
<th>Inactive (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Eastman</td>
<td>male</td>
<td>43.0</td>
<td>32.0</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>15.9</td>
<td>39.1</td>
</tr>
<tr>
<td>Central</td>
<td>male</td>
<td>53.6</td>
<td>26.0</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>21.2</td>
<td>27.1</td>
</tr>
<tr>
<td>Assiniboine</td>
<td>male</td>
<td>52.5</td>
<td>29.6</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>29.6</td>
<td>30.3</td>
</tr>
<tr>
<td>Brandon</td>
<td>male</td>
<td>42.5</td>
<td>31.9</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>24.3</td>
<td>32.6</td>
</tr>
<tr>
<td>Winnipeg</td>
<td>male</td>
<td>32.1</td>
<td>35.8</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>18.5</td>
<td>35.5</td>
</tr>
<tr>
<td>Interlake</td>
<td>male</td>
<td>47.0</td>
<td>26.9</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>22.3</td>
<td>40.9</td>
</tr>
<tr>
<td>North Eastman</td>
<td>male</td>
<td>44.3</td>
<td>32.1</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>19.3</td>
<td>37.5</td>
</tr>
<tr>
<td>Parkland</td>
<td>male</td>
<td>49.0</td>
<td>28.2</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>18.0</td>
<td>37.9</td>
</tr>
<tr>
<td>NOR-MAN</td>
<td>male</td>
<td>41.3</td>
<td>37.0</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>25.2</td>
<td>38.0</td>
</tr>
<tr>
<td>Burntwood</td>
<td>male</td>
<td>49.2</td>
<td>24.4</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>19.9</td>
<td>37.9</td>
</tr>
<tr>
<td>Manitoba</td>
<td>male</td>
<td>39.1</td>
<td>32.8</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>19.8</td>
<td>35.2</td>
</tr>
</tbody>
</table>


Note: Rates in bold indicate significant differences between males and females.
Churchill data suppressed.
3.4.2 HEALTHY LIVING

Healthy eating is fundamental to good health and is a key element in healthy human development, from the prenatal and early childhood years to later life stages. Healthy eating is equally important in reducing the risk of many chronic diseases.

Poor nutrition can be a risk factor in developing cancer, diabetes, heart disease, and a number of other poor health outcomes. There is currently a great deal of concern and media attention regarding the issue of trans fat in our diet. In August 2005, the interim report of the Trans Fat Task Force was released and according to Minister of Health Ujjal Dosanjh, “Canadians’ consumption of trans fats is one of the highest in the world.”

Focus group participants recognized the importance of a good diet in contributing to people’s health. Participants noted the challenges in making good dietary choices in rural and northern communities, given the expense and lack of access to healthy choices. There was also a particular concern with the dietary choices of children and how the stressed and busy lifestyles of families contribute to a poor diet.

Canada’s Food Guide to Healthy Eating advises Canadians to choose lower fat dairy products, leaner meats and foods prepared with little or no fat. The Food Guide also advises that people age four and older consume 5 to 10 servings of fruit and/or vegetables daily. We can significantly reduce our intake of saturated and trans fats by avoiding commercially fried foods and high fat bakery products. Eating more vegetables and fruit, whole grain breads and cereals, peas, beans, lentils and nuts, will also result in lower intakes of both saturated and trans fats.

Personal health practices, such as healthy eating, play a large part in determining how healthy people will be. Between about the ages of six and twelve, children are learning to make decisions and beginning to make more choices on their own. They are developing attitudes and habits that they will carry with them for the rest of their lives. It is important, therefore, that parents support children in making nutritious eating habits a part of their lives from very early ages.

Focus groups in Burntwood communities noted the challenges in having a healthy diet. Lynn Lake focus group participants said they were unable to follow Canada’s food guide. Good quality fruits and vegetables are difficult to find in northern stores and when they are available, it is more expensive than unhealthy options such as soft drinks and chips. It is possible for some in the communities to drive or to take the train to Thompson for groceries but few residents felt they had the resources or the time to do this. The challenges of healthy eating were particularly serious for Burntwood residents who are managing their diabetes.

Youth that participated in the focus group consultations in Thompson indicated that it was difficult to eat healthy foods when there is more access to cheaper, unhealthy foods in the schools and communities. At the Northern Regional Conference focus group, participants thought there were a lot of educational resources regarding healthy living being provided by the Burntwood Region and at nursing stations and health centres. The Frontier schools have been providing healthy living skills including providing good dietary

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options. The major challenge that was identified was having all the different health and other services working together to maximize the services provided by each, and also increased efforts to break down the jurisdictional issues related to service provision.

The Heart and Stroke Foundation provides information about costs of food for selected communities. Thompson is the only Burntwood Region community included in this sample and the costs of food and the National averages are presented in Table 3-13. Although these data are for Thompson only, for the most part they show that costs even in the regional centre are higher than national averages. In outlying communities, the costs are much higher.

<table>
<thead>
<tr>
<th>Item</th>
<th>Thompson Price</th>
<th>National Avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILK, 1 %, 4 L</td>
<td>$4.15</td>
<td>$5.26</td>
</tr>
<tr>
<td>Cheddar Cheese, Medium, 520g</td>
<td>$12.12</td>
<td>$9.15</td>
</tr>
<tr>
<td>Whole Wheat Pasta, 900g</td>
<td>$8.14</td>
<td>$5.48</td>
</tr>
<tr>
<td>Brown Rice, 1 kg</td>
<td>$4.77</td>
<td>$4.99</td>
</tr>
<tr>
<td>Potatoes, 5 lb bag</td>
<td>$3.99</td>
<td>$4.25</td>
</tr>
<tr>
<td>Apples, Macintosh, 6 Medium</td>
<td>$5.16</td>
<td>$3.50</td>
</tr>
<tr>
<td>Lean Ground Beef, 1 kg</td>
<td>$6.85</td>
<td>$7.18</td>
</tr>
<tr>
<td>Peanut Butter, 1 kg</td>
<td>$6.49</td>
<td>$5.27</td>
</tr>
</tbody>
</table>


Participants in the Women’s Health Strategy Consultation did indicate that the Northern Food Strategy initiative which includes greenhouses, community freezers, and methods to share fish and game has contributed positively to healthier eating. A number of participants in several different consultations commented that there was a need for people to go back to grassroots skills, including growing their own food. More emphasis and resources are needed to make this a viable and effective method for providing nutritious food.

Children’s nutrition was also a concern. Lynn Lake focus group participants noted that due to a lack of family structure, many children went to school hungry. While it appears that many schools in Burntwood have meal programs, not every community did. One participant noted that, “the breakfast and lunch programs [at school] are the only decent meals most of these kids get.”

While in many cases, focus group participants did not recognize the name Chronic Disease Prevention Initiative (CDPI) specifically, many described successful community events that were likely funded through this program. The description of many of these events included not only the benefits of teaching residents about cooking and nutrition, but also about bringing the community together in a positive way. Some very successful CDPI initiatives with a nutrition focus are illustrated in Table 3-14.

<table>
<thead>
<tr>
<th>Community</th>
<th>What CDPI activity for Healthy Eating is working well in your community?</th>
<th>What makes it work well?</th>
</tr>
</thead>
</table>
| Cross Lake          | • Community fish fry  
                    • Cooking classes                                                                                       | • School involvement  
                    • Student & volunteers working together                                                                 |
| Garden Hill         | • Ice fishing (filleting, cooking preparing)  
                    • “No Junk Food” policy                                                                                 | • Collective community involvement  
                    • Organizations challenging each other                                                                    |
| God’s Lake Narrows  | • Cooking class for youth                                                                                  | • Kids are interested  
                    • Connections to other communities  
                    • Meeting new people                                                                                 |
| Ilford              | • Freezer Program  
                    • Food-mail program  
                    • Food Bingo  
                    • Families and Schools Together  
                    • Community Gardens  
                    • Ice Fishing(preparing/cooking)                                                                        | • Having available equipment  
                    • Community members working together  
                    • Soil for garden available in community                                                                   |
| Lac Brochet         | • Kids & Nutrition Program                                                                                 | • Team effort  
                    • New foods available                                                                                   |
| Pikwitonei          | • Snack Program (school)  
                    • Community Gardens                                                                                     | • Teachers and kids like program  
                    • Door to door volunteer work  
                    • # of people involved increasing                                                                        |
| Red Sucker Lake     | • Community Gardens                                                                                         | • Community interest  
                    • Help from students and science teacher  
                    • Promotion through radio and television  
                    • Posting information in public places  
                    • Seeds can be germinated at school                                                                     |
| Split Lake          | • Dietician (Guest Speaker)  
                    • Elders teach youth how to fillet fish  
                    • “No Junk Food” policy in school                                                                        | • Giving out memos and notices  
                    • Use of external and internal resources                                                                  |
| St. Theresa Point   | • Community Breakfast  
                    • Gardening  
                    • Nutrition Bingo                                                                                       | • Sharing tasks  
                    • Education in a fun way  
                    • Cost sharing with Northern store  
                    • Donations                                                                                               |
| Thicket Portage     | • A.M. snacks in school  
                    • Nutrition Bingo                                                                                       | • Fridge put in school  
                    • Help from Principal  
                    • Prizes                                                                                                   |
### Thompson

<table>
<thead>
<tr>
<th>Community</th>
<th>What CDPI activity for Healthy Eating is working well in your community?</th>
<th>What makes it work well?</th>
</tr>
</thead>
</table>
| Thompson           | • F.A.S.T. – family cooks for all families – 7-12 families cook healthy meals and do activities together. Children do crafts and parents have sharing circles- takes place at Wapanok School 1xweek for 8 weeks.  
• A.F.M – teaching about healthy foods for residential program (nursing students teach clients with one on one sessions).  
• Kids Camp – healthy eating games – offering healthy foods  
• Food Security Committee – “Health Fair” in schools – 4 different activities at each school (reading labels, Jeopardy, prizes, snacks). “World Food Day” at the mall – handing out apples. Meal bags were put together to donate to the food bank containing ingredients for vegetarian chilli.  
• World Food Day- Mall Display on Food Charter and new Food Guide/education information and apples provided | • Volunteers from different agencies  
• Free training available through AFM  
• Transportation provided  
• Entire family can be involved  
• Parents can take a night off from cooking |

### Wasagamack

<table>
<thead>
<tr>
<th>Community</th>
<th>What CDPI activity for Healthy Eating is working well in your community?</th>
<th>What makes it work well?</th>
</tr>
</thead>
</table>
| Wasagamack         | • Community gardening & greenhouses                                                                                              | • Greenhouses are easy to start  
• Community involvement                                                           |
Data from the Canadian Community Health Survey provide further information about exactly how much fruits and vegetables residents (living off-reserve) consume.

- The proportion of residents who consume at least five servings of fruits and/or vegetables per day in the Burntwood/Churchill region was 29.4 per cent in 2007, lower than the Manitoba average of 37.2 per cent and the Canadian average of 43.9 per cent (see Figure 3-35).

- As Table 3-15 shows, Burntwood/Churchill did see an increase in fruit and vegetable consumption in 2008 compared to 2007, and we are moving closer to the provincial average.

**Figure 3-35.** Residents who consume at least 5 servings of fruits and/or vegetables per day by region, 2007.

<table>
<thead>
<tr>
<th>Region</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brandon</td>
<td>29.1%</td>
</tr>
<tr>
<td>Peer Group F</td>
<td>25.1%</td>
</tr>
<tr>
<td>Burntwood/Churchill</td>
<td>29.3%</td>
</tr>
<tr>
<td>Parkland</td>
<td>33.5%</td>
</tr>
<tr>
<td>NDR-MAN</td>
<td>34.0%</td>
</tr>
<tr>
<td>South Eastman</td>
<td>34.3%</td>
</tr>
<tr>
<td>Central</td>
<td>35.4%</td>
</tr>
<tr>
<td>Interlake</td>
<td>36.4%</td>
</tr>
<tr>
<td>Winnipeg</td>
<td>38.3%</td>
</tr>
<tr>
<td>North Eastman</td>
<td>42.8%</td>
</tr>
<tr>
<td>Asiniboine</td>
<td>43.7%</td>
</tr>
</tbody>
</table>

Source: Canadian Community Health Survey, 2007

**Table 3-15.** Consumption of 5 or more servings of fruit and/or vegetables per day, Manitoba and Burntwood/Churchill, 2003-2008.

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba</td>
<td>36.6%</td>
<td>34.5%</td>
<td>37.2%</td>
<td>34.5%</td>
</tr>
<tr>
<td>Burntwood/Churchill</td>
<td>29.1%</td>
<td>n/a</td>
<td>29.4%</td>
<td>33.9%</td>
</tr>
</tbody>
</table>

3.4.3 **BODY MASS INDEX**

The Body Mass Index (BMI) indicator refers to the proportion of the population aged 18 years and older, who fall into three BMI groupings: underweight/normal, overweight, and obese. Body mass index is a common method of determining if an individual’s weight is in a healthy range based on their height. It is calculated as follows: weight in kilograms divided by height in meters squared. The index is: under 18.5 (underweight), 18.5-24.9 (acceptable weight), 25-29.9 (overweight) & 30 or higher (obese).

The Body Mass Index (BMI) is considered to be the most useful indicator of population health risks associated with being both overweight and underweight. Obesity is a major risk factor for a number of chronic diseases.

Aside from the concern about the health of the population and the impact of obesity on quality and quantity of life, the region must acknowledge the impact of unhealthy weights on health services. As the population continues to increase in weight, as well as age, we will likely see more people requiring health services, more frequently. We must focus at the community level to make strides in reversing this trend towards obesity in the population.

- The proportion of residents who were overweight or obese in the Burntwood/Churchill region was 64.7 per cent in 2007, which is higher than Manitoba average of 55.6 per cent and the Canadian average of 50.8 per cent (see Figure 3-36). It is important to note that this survey is based on self-reported height and weight, and thus tends to underestimate the prevalence of obesity and overweight.

- As Table 3-16 shows, the proportion of Burntwood/Churchill residents who are overweight or obese is increasing, with an alarming 72.4 per cent of all residents who are considered overweight or obese in 2008. This is well above the Manitoba average of 54.5 per cent in 2008.
Figure 3-36. Residents who are overweight or obese by region, 2007.

Table 3-16. Residents who are overweight or obese (self-reported), Manitoba and Burntwood/Churchill 2003-2008.

<table>
<thead>
<tr>
<th>Region</th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba All</td>
<td>55%</td>
<td>54.6%</td>
<td>55.6%</td>
<td>54.5%</td>
</tr>
<tr>
<td>Manitoba Males</td>
<td>62.9%</td>
<td>62.3%</td>
<td>62.7%</td>
<td>61.2%</td>
</tr>
<tr>
<td>Manitoba Females</td>
<td>46.8%</td>
<td>46.9%</td>
<td>48.3%</td>
<td>47.7%</td>
</tr>
<tr>
<td>Burntwood/Churchill All</td>
<td>62.8%</td>
<td>61.3%</td>
<td>64.7%</td>
<td>72.4%</td>
</tr>
<tr>
<td>Burntwood/Churchill Males</td>
<td>73.8%</td>
<td>71.8%</td>
<td>71.1%</td>
<td>73.8%</td>
</tr>
<tr>
<td>Burntwood/Churchill Females</td>
<td>50.6%</td>
<td>49.4%</td>
<td>57%</td>
<td>70.6%</td>
</tr>
</tbody>
</table>

3.4.4 ALCOHOL USE

The alcohol use indicator refers to percentage of the population aged 12 years and over who are current drinkers and who reported drinking five or more drinks on at least one occasion in the past 12 months. Heavy alcohol use can lead to several chronic diseases and toxic effects to the body (e.g., tissue damage leading to liver cirrhosis, acute brain damage, or long-term effects, such as cancer, caused by continuous exposure). Alcohol use can impact one’s ability to parent for the family to function in a healthy way. We also know that alcohol use is a major contributor to suicide.

In the Burntwood Region, RCMP focus group participants viewed alcohol as “the root of all evil”, which contributes to other problems such as drug abuse and domestic violence in the Burntwood Region. While efforts have been attempted to curb alcohol abuse by the Manitoba Liquor Commission and through the banning of alcohol in some communities in Burntwood, alcohol still gets smuggled into the communities and there is also access to home-made alcohol which was felt to be more dangerous.

Teacher focus group participants noted that there are huge issues with alcohol and drug addictions in Burntwood communities, including children who are addicted at younger and younger ages, children coming to school high and/or drunk, poor family dynamics (e.g. drugs and alcohol abuse at home), and drug paraphernalia is found within the school grounds. There are challenges with runaways as teenagers rebel and flee from absent parents or parental strife. Lynn Lake residents also noted the absence of parenting caused by alcohol abuse. One participant summed it up as, “Parents are drinking and not looking after [their] kids. The kids are not afraid of the police and [there are no] repercussions.” One participant also noted that a small number of grandmothers were helping to raise many children in one community because the parents of these children were unable to parent them due to alcohol abuse. Overall, alcohol use among parents has led to increased family violence, poorer school performance and children who do not respect adults or authority figures generally.

Community residents felt that alcohol use was could be contributing to more mental illnesses, suicides and the incidence of FASD. Teachers did note that there were some resources available to managing addictions, including the RDP which has addiction counsellor resources. The AFM supports children 12 years and up, and share case loads with the RDP. Whiskeyjack is also a source for addictions programs, but they lack the resources needed to address the problem. Community residents also suggested that, even if addictions treatment resources are accessed outside the community, there is not the support for those recovering from addictions when they return.

- The proportion of residents who have five or more drinks on one occasion in the past year in Burntwood/Churchill was 21.6 per cent, higher than the Manitoba average of 18.9 per cent and the Canadian average of 17.2 per cent (see Figure 3-37).

- As Table 3-17 indicates, after a decline in 2007, the proportion of Burntwood/Churchill residents involved in heavy drinking increased to 26.1 per cent in 2008, which is above the Manitoba average of 19.6 per cent.
Figure 3-37. Residents who have 5 or more drinks on one occasion by region, 2007.

Source: Canadian Community Health Survey, 2007

NOTE: Churchill rates should be interpreted with caution due to small numbers.


<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>17%</td>
<td>17%</td>
<td>18.9%</td>
<td>19.6%</td>
</tr>
<tr>
<td>Males</td>
<td>24.9%</td>
<td>23.6%</td>
<td>25.9%</td>
<td>27.9%</td>
</tr>
<tr>
<td>Females</td>
<td>9.4%</td>
<td>10.6%</td>
<td>12.3%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Burntwood/Churchill</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>27%</td>
<td>27.5%</td>
<td>21.6%</td>
<td>26.1%</td>
</tr>
<tr>
<td>Males</td>
<td>35.4%</td>
<td>41.1%</td>
<td>26%</td>
<td>31.4%</td>
</tr>
<tr>
<td>Females</td>
<td>18.1%</td>
<td>13.4%</td>
<td>16.3%</td>
<td>suppressed</td>
</tr>
</tbody>
</table>

3.4.5 SMOKING

According to the Canadian Cancer Society, more than 47,500 Canadians die each year of tobacco-related disease. Eliminating tobacco use is identified as one of the most effective ways to reduce the number of Canadians who will be diagnosed with cancer. Cigarette smoking causes about 30 per cent of cancers in Canada and more than 85 per cent of lung cancers. Smoking is also associated with other poor health outcomes such as heart disease, other lung diseases and stroke.

According to the Women’s Health Bureau of Health Canada, smoking affects women differently than it does men. For example, smoking among women is linked to lower fertility, cancer of the cervix, osteoporosis, and menstrual and menopausal problems. Smoking during pregnancy has been found to be associated with lower birth weight babies, and recent research suggests a link between secondhand smoke and breast cancer.

Few focus group participants noted that the leading chronic diseases in Burntwood such as COPD, asthma and cancer were likely the result of smoking habits of residents. Smoking continues to a major problem in Burntwood communities as evidenced by the Canadian Community Health Survey data as well as information provided by community members.

Some good news was shared by Leaf Rapids residents who noted the success of the “Blue Light” program in Burntwood communities and hoped it would come to Leaf Rapids. It was exciting to hear of an initiative that took place in another community where the success of this had been shared to other community members. The “Blue Light” program is an example of a very positive Chronic Disease Prevention Initiative that has taken place in Burntwood Region. Other successful initiatives focused on tobacco reduction are noted in Table 3-18.

<table>
<thead>
<tr>
<th>Community</th>
<th>What CDPI activity for Tobacco Reduction is working well in your community?</th>
<th>What makes it work well?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brochet</td>
<td>• Booth displays&lt;br&gt;• No smoking in band office</td>
<td>• Displays placed in visible areas&lt;br&gt;• Draw prizes to attract others&lt;br&gt;• More people were involved</td>
</tr>
<tr>
<td>Cross Lake</td>
<td>• Blue Light Program (blue outdoor light suggests non-smoking home) 350 houses with blue lights</td>
<td>• Door to door to explain program&lt;br&gt;• Community curiosity with blue lights&lt;br&gt;• Community members can get acquainted</td>
</tr>
<tr>
<td>Garden Hill</td>
<td>• Addictions Awareness Week (Annual)&lt;br&gt;• Television presentation</td>
<td>• N/A</td>
</tr>
<tr>
<td>Gods Lake Narrows</td>
<td>• Ban on public smoking&lt;br&gt;• Youth conference with Tobacco component</td>
<td>• Enjoyment of children</td>
</tr>
<tr>
<td>Ilford</td>
<td>• Smoke free Health Centre – presentation for kids and all community members</td>
<td>• Large # in attendance&lt;br&gt;• Posters and phone calls to inform people</td>
</tr>
<tr>
<td>Lac Brochet</td>
<td>• N/A</td>
<td>• N/A</td>
</tr>
<tr>
<td>Leaf Rapids</td>
<td>• N/A</td>
<td>• N/A</td>
</tr>
<tr>
<td>Pikwitonei</td>
<td>• N/A</td>
<td>• N/A</td>
</tr>
<tr>
<td>Red Sucker Lake</td>
<td>• Workshops in community and schools on Tobacco Reduction</td>
<td>• Good attendance&lt;br&gt;• Community entrance (especially youth)&lt;br&gt;• No smoking in public places</td>
</tr>
<tr>
<td>Split Lake</td>
<td>• Blue Light Program&lt;br&gt;• Smoking banned in public</td>
<td>• Smoke free homes</td>
</tr>
<tr>
<td>St. Theresa Point</td>
<td>• Smoking banned in public&lt;br&gt;• Second hand smoke education on radio</td>
<td>• Compliance by all&lt;br&gt;• Less smoking in home</td>
</tr>
<tr>
<td>Thicket Portage</td>
<td>• Education displays in several location– information on medical coverage for the nicotine patch</td>
<td>• council promotes non-smoking in public places&lt;br&gt;• volunteers for Blue Light Campaign</td>
</tr>
<tr>
<td>Thompson</td>
<td>• CHAMPIONS (AFM, Tobacco Reduction Partners and Youth Aboriginal Conference)– Manitoba High School Athletic Association presented at Youth Aboriginal Conference</td>
<td>• Willingness of one partner to carry forward and seek other partnership with an existing conference structure for youth.&lt;br&gt;• Based on best practice indicators</td>
</tr>
<tr>
<td>Wabowden</td>
<td>• N/A</td>
<td>• N/A</td>
</tr>
<tr>
<td>Wasagamack</td>
<td>• Presentations at school, public education in classrooms&lt;br&gt;• Healthy Lung kits&lt;br&gt;• Posters, pamphlets</td>
<td>• lung display&lt;br&gt;• media support</td>
</tr>
</tbody>
</table>

Source: Burntwood Regional Health Authority.
In Burntwood/Churchill, the proportion of residents who smoke either daily or occasionally was 35.1 per cent in 2007, higher than the Manitoba average of 22.5 per cent and the Canadian average of 22.0 per cent (see Figure 3-38). Burntwood had the highest smoking rates among Manitoba RHAs.

As Table 3-19 indicates, while there were declines in smoking rates in 2005 and 2007, smoking rates rose in 2008 in Burntwood/Churchill to 41.3 per cent, which was well above the Manitoba average of 24.2 percent. The rise in female rates of smoking (31.6% in 2007 to 40.1% in 2008) is particularly noteworthy.

![Figure 3-38. Residents who are current smokers by region, 2007.](source)


<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>22.8%</td>
<td>20.5%</td>
<td>22.5%</td>
<td>24.2%</td>
</tr>
<tr>
<td>Males</td>
<td>23.2%</td>
<td>21.8%</td>
<td>25.1%</td>
<td>27.3%</td>
</tr>
<tr>
<td>Females</td>
<td>22.4%</td>
<td>19.1%</td>
<td>20.0%</td>
<td>21.2%</td>
</tr>
<tr>
<td>Burntwood/Churchill</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>43.9%</td>
<td>35.4%</td>
<td>35.1%</td>
<td>41.3%</td>
</tr>
<tr>
<td>Males</td>
<td>45.8%</td>
<td>36.9%</td>
<td>38.0%</td>
<td>42.3%</td>
</tr>
<tr>
<td>Females</td>
<td>41.8%</td>
<td>33.8%</td>
<td>31.6%</td>
<td>40.1%</td>
</tr>
</tbody>
</table>

3.4.6 COMPLETE PHYSICAL EXAM

This indicator refers to the percentage of the population who received at least one complete history and physical examination in a given year. Completing a physical exam is an important element in health prevention and promotion activities for individuals as it can lead to early detection of diseases and conditions which can lead to better overall health status.

Community consultation participants expressed their frustration in the turnover in family physicians coming to their community which impacts their continuity of care and may explain why fewer physical exams are completed in Burntwood.

- The proportion of Burntwood residents who had a complete physician exam decreased slightly from 28.8 per cent to 28.0 per cent from 1988/89-1995/96 to 1996/97-2003/04, significantly lower than the Manitoba average of 39.8 per cent in 1996/97-2003/04 (see Figure 3-39).

- As Figure 3-40 shows, the proportion of Burntwood residents who had complete physical exams has remained fairly constant in the 25-30 per cent range from 1984/85 to 2003/04. This indicator has been consistently lower in the Burntwood Region compared to Manitoba, and ranks among the lowest in the province.

Figure 3-39. Residents who had a complete physical exam by region, 1988/89-1995/96 and 1996/97-2003/04.


NOTE: Churchill rates should be interpreted with caution due to small numbers.

1 and 2 indicate area’s rate was statistically different from Manitoba average in first and/or second time period

T indicates change over time was statistically significant for that area.
Figure 3-40. Residents who had a complete physical exam by year, Burntwood and Manitoba, 1984/85-2003/04.

3.4.7 PHARMACEUTICAL USE

Pharmaceutical use is increasing substantially in Canada in recent years. It is becoming increasingly important to monitor and report on pharmaceutical use. While pharmaceuticals can avoid hospitalizations and prevent serious illness, overuse of prescription drugs can result in more health complications and use of the health care system generally. The number of prescriptions that are taken overall and for specific drugs, like statins for cholesterol, ACE inhibitors for blood pressure, and antidepressants for mental illness, is an indicator of appropriateness of care and prescribing. Given the cost to the health care system due to over-prescribing, it will be increasingly important to monitor these indicators.

In community consultations, participants expressed frustration at the lack of access to pharmaceuticals. Residents from smaller Burntwood communities said that they had to go to Thompson to get their prescriptions filled or wait for it to come by train or other means. Prescription refills often require a visit to the family physician who is difficult to access in many small Burntwood communities. This delay in seeing the physician often causes a gap in pharmaceutical use to treat chronic conditions.
3.4.7.1 Population with at least one prescription in fiscal year

- The proportion of residents who had at least one prescription medication dispensed in the fiscal year in Burntwood increased from 60.8 per cent to 62.7 per cent from 2000/01 to 2005/06, which is significantly lower than the Manitoba average of 66.1 per cent in 2005/06 and the lowest ranking in the province (see Figure 3-41).

Figure 3-41. Residents with at least one prescription in fiscal year by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

'1' indicates area's rate was statistically different from Manitoba average in first time period

'2' indicates area's rate was statistically different from Manitoba average in second time period

't' indicates change over time was statistically significant for that area
3.4.7.2 NUMBER OF PRESCRIPTIONS PER USER

- The average number of different medications dispensed to each resident who had at least one prescription in a fiscal year in the Burntwood Region increased significantly from 4.4 to 5.0 between 2000/01 and 2005/06, which is significantly higher than the Manitoba average of 4.0 in 2005/06 and ranks the highest in the province (see Figure 3-42).

Figure 3-42. Average number of prescriptions used per user by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
1 indicates area's rate was statistically different from Manitoba average in first time period
2 indicates area's rate was statistically different from Manitoba average in second time period
* indicates change over time was statistically significant for that area
3.4.7.3 ANTIBIOTIC PRESCRIPTIONS (ADULTS)

Increasing concern has been expressed about the number of antibiotic prescriptions, specifically the appropriateness of those prescriptions, the costs associated with this kind of drug treatment and how it is contributing to the development of antibiotic resistance for infections.\textsuperscript{xviii} It is important to continue to monitor and measure the number of antibiotic prescriptions to see if efforts to educate physicians about the risks of over-prescribing antibiotics are effective.

- The proportion of males with at least one antibiotic prescription in the Burntwood Region was 25.8 per cent in 2003/04, below the Manitoba average of 30.4 per cent. It is also the lowest antibiotic prescription rate among for males among Manitoba RHAs (see Figure 3-43).

- The proportion of females with at least one antibiotic prescription was 36.4 per cent, lower than the Manitoba average of 37.1 per cent in 2003/04 (see Figure 3-43).

- The difference in antibiotic prescriptions prescribed for males and females is considered to be statistically significant for the Burntwood Region (see Figure 3-43).

![Figure 3-43. Residents with at least one antibiotic prescription by region and gender, 2003/04.](image)

Source: MCHP 2005, Sex Differences in Health Status, Health Care Use, and Quality of Care: A Population-Based Analysis for Manitoba’s Regional Health Authorities.

NOTE: ‘m’ indicates area’s rate for males was statistically different from Manitoba average for males; ‘f’ indicates area’s rate for females was statistically different from Manitoba average for females; ‘d’ indicates difference between male and female rates was statistically significant for that area.
3.4.7.4 STATIN USE

The use of statin is an important tool in chronic disease management, lowering cholesterol levels and reducing the risk of cardiovascular disease. While the use of statin in Canada has increased in late 1990s and early 2000s, it appears that the drug is being underutilized for higher risk patients.\textsuperscript{xix} It is important for regions to monitor and encourage the use of statin given its positive impacts in lowering the burden of chronic diseases on the health system.

- In the Burntwood Region, the proportion of adults with at least one prescription for statins was 14.1 per cent for males in 2003/04, significantly higher than the Manitoba average of 9.9 per cent. For females, the proportion was 13.8 per cent in 2003/04, also significantly higher than the Manitoba average of 7.4 per cent (see Figure 3-44).

- For both males and females, Burntwood ranks the highest among all of the Manitoba RHAs for this indicator (see Figure 3-44).

Figure 3-44. Residents aged 20 years and older with at least one prescription for statins by region and gender, 2003/04.
3.7.5 ACE INHIBITOR USE

ACE (Angiotensin-Converting Enzyme) inhibitors are usually given to people with high blood pressure, congestive heart failure, or people with a high likelihood of developing coronary artery disease. It is another important medication in the treatment of heart disease and has been shown to improve patient outcomes.\textsuperscript{xx} It is important to monitor the use of ACE inhibitors in the region to ensure that a critical chronic disease management tool is being used to improve patient outcomes, and reduce the burden of chronic disease on the health care system.

- In Burntwood, the proportion of residents 20 years old and over with a prescription for an ACE inhibitor was 20.0 per cent for males in 2003/04, well above the Manitoba average of 10.0 per cent. For females, the Burntwood Region had an ACE inhibitor use rate of 25.2 per cent, which is well above the Manitoba average of 8.7 per cent. Females in Burntwood recorded the highest rate of ACE inhibitor use in 2003/04 among Manitoba RHAs (see Figure 3-45).

![Figure 3-45. Residents aged 20 years and older with at least one ACE inhibitor by region and gender, 2003/04.](image-url)
3.4.7.6 ANTIDEPRESSANT PRESCRIPTIONS

Antidepressant prescriptions have increased substantially among adults in Canada in the late 1990s and early 2000s. The concerns about side effects for these types of medications are not as prominent as those expressed for children. There is evidence that while prescriptions for antidepressants have risen, there is still a substantial portion of the adult population who have depression that do not receive any medication.\textsuperscript{xxi}

- In Burntwood, the proportion of residents who were receiving two or more prescriptions for antidepressants in a fiscal year in Burntwood increased significantly from 3.8 per cent to 5.3 per cent between 2000/01 and 2005/06, which is significantly lower than the Manitoba average of 6.9 per cent in 2005/06 and ranks among the lowest in the province (see Figure 3-46).

Figure 3-46. Residents with two or more prescriptions for antidepressants by region, 2000/01 and 2005/06.

![Bar chart showing the proportion of residents with two or more prescriptions for antidepressants by region, 2000/01 and 2005/06.](chart)

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

'1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area
### 3.4.8 IMMUNIZATION

#### 3.4.8.1 CHILDHOOD IMMUNIZATION

Vaccines are one of the most important components of child health programs. Vaccines can prevent disability and death and control the spread of infectious diseases within communities. As a result of immunization programs, vaccine-preventable diseases have gone from being the leading causes of death in the early 1900s to causing less than five per cent of all deaths in Canada. xxii Certain vaccines are provided at no charge to Manitoba children. These vaccines and the scheduled time at which they should be given are illustrated in Table 3-20.

**Table 3-20. Manitoba Health Immunization Schedule.**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2, 4 AND 6 MONTHS</strong></td>
<td>Two needles at each visit; one needle to protect against diphtheria, whooping cough, lockjaw, polio and haemophilus influenzae type b; another needle to protect against pneumococcal infections</td>
</tr>
<tr>
<td><strong>12 MONTHS</strong></td>
<td>Three needles at each visit; one needle to protect from measles, mumps and German measles; one needle to protect against chickenpox, and another needle to protect against meningitis (C type)</td>
</tr>
<tr>
<td><strong>18 MONTHS</strong></td>
<td>Two “booster” needles to continue protection (same vaccines as 2, 4 and 6 months – see above)</td>
</tr>
<tr>
<td><strong>2-6 YEARS (PRESCHOOL)</strong></td>
<td>Booster needles to continue protection against diphtheria, whooping cough, lockjaw, polio; also measles, mumps and German measles and, if the child is still at risk for chickenpox, chickenpox vaccine will be offered</td>
</tr>
<tr>
<td><strong>9-10 YEARS (GRADE 4)</strong></td>
<td>Three-dose series of needles to protect against hepatitis B; also a shot for meningitis (C type) and if the child is still at risk, the chickenpox vaccine will be offered</td>
</tr>
<tr>
<td><strong>11-12 YEARS (GRADE 6)</strong></td>
<td>Three-dose series of needles to protect against the human papillomavirus (HPV). The vaccine is offered only to grade 6 female students.</td>
</tr>
<tr>
<td><strong>14-16 YEARS (GRADE 9)</strong></td>
<td>Booster needle to provide protection against diphtheria, tetanus and whooping cough</td>
</tr>
</tbody>
</table>

Source: Manitoba Health
Immunization coverage is tracked in more than one way. One important distinction is the coverage rates between those who are “continuously enrolled” and those who are “non-continuous”. Continuous enrolment means that the child has been in the RHA since birth, so that we can be confident that we know if the child has had each immunization scheduled. Non-continuous means that the child has not been in the region for the duration of his or her life. For example, the child may have moved to the province or region at age two or may have lived here for a few years, moved away and then moved back. This means that our records about this child may be incomplete. It is important to look at both rates separately because lower rates among non-continuously enrolled children may not reflect the fact that they are not up to date in immunizations. Instead, it may mean that we simply do not have all of the information.

- **Figure 3-47** presents immunization completeness (that is, the child has had all of the scheduled immunizations) for Burntwood RHA and Manitoba by age group. As expected, non-continuous immunization rates are much lower than for those with continuous enrolment in the Burntwood Region, except for age two. Overall, the trends seem to indicate that immunization rates decrease as the child gets older. For example in 2007 in Burntwood, only one in five youth who were 17 years old had complete immunization.

- **Table 3-21** shows coverage rates (for all residents, continuous and non-continuous) between 2002 and 2007 by age group for Burntwood and Manitoba overall. This table shows that the Burntwood Region remained below the Manitoba coverage rates in each age group from 2002 to 2007. While there were improvements in coverage rates in some ages, not enough progress was made to reach the provincial averages.

- **Table 3-22** presents coverage rates for each type of vaccine (antigen) by age group and year for Burntwood residents. Coverage rates by antigen have remained relatively stable between 2002 and 2007. The one exception is the HBV antigen at age 11 which has seen a significant increase in coverage between 2002 and 2007.
Figure 3-47. Immunization complete by age and enrolment type, all residents RHA Burntwood and Manitoba, 2007.

Rate per 100 children

Table 3-21. Vaccine coverage rates by age for Burntwood compared to Manitoba, 2002-2007.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Burntwood)</td>
<td>72.8</td>
<td>73.6</td>
<td>63.9</td>
<td>64.6</td>
<td>60.3</td>
<td>64.1</td>
</tr>
<tr>
<td>1 (Manitoba)</td>
<td>83.5</td>
<td>85.2</td>
<td>79.7</td>
<td>79.0</td>
<td>77.4</td>
<td>76.1</td>
</tr>
<tr>
<td>2 (Burntwood)</td>
<td>53.2</td>
<td>54.1</td>
<td>51.9</td>
<td>48.1</td>
<td>31.8</td>
<td>45.8</td>
</tr>
<tr>
<td>2 (Manitoba)</td>
<td>72.5</td>
<td>72.9</td>
<td>67.2</td>
<td>65.5</td>
<td>45.0</td>
<td>58.5</td>
</tr>
<tr>
<td>7 (Burntwood)</td>
<td>53.6</td>
<td>53.4</td>
<td>51.0</td>
<td>50.2</td>
<td>57.2</td>
<td>56.8</td>
</tr>
<tr>
<td>7 (Manitoba)</td>
<td>69.3</td>
<td>69.3</td>
<td>64.6</td>
<td>63.4</td>
<td>66.4</td>
<td>68.6</td>
</tr>
<tr>
<td>11 (Burntwood)</td>
<td>25.8</td>
<td>21.3</td>
<td>30.9</td>
<td>28.9</td>
<td>30.9</td>
<td>40.4</td>
</tr>
<tr>
<td>11 (Manitoba)</td>
<td>54.1</td>
<td>57.3</td>
<td>57.4</td>
<td>58.1</td>
<td>55.0</td>
<td>54.4</td>
</tr>
<tr>
<td>17 (Burntwood)</td>
<td>26.1</td>
<td>28.2</td>
<td>29.2</td>
<td>25.8</td>
<td>18.2</td>
<td>20.9</td>
</tr>
<tr>
<td>17 (Manitoba)</td>
<td>48.6</td>
<td>48.6</td>
<td>51.7</td>
<td>53.5</td>
<td>34.6</td>
<td>41.9</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Age Group/Antigen</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 1: Tetanus</td>
<td>62.0</td>
<td>64.7</td>
<td>63.9</td>
<td>65.1</td>
<td>61.5</td>
<td>65.0</td>
</tr>
<tr>
<td>Age 2: Polio</td>
<td>73.0</td>
<td>81.8</td>
<td>82.2</td>
<td>79.6</td>
<td>84.9</td>
<td>82.2</td>
</tr>
<tr>
<td>Age 2 MMR</td>
<td>80.4</td>
<td>82.6</td>
<td>82.6</td>
<td>80.6</td>
<td>83.7</td>
<td>84.0</td>
</tr>
<tr>
<td>Age 7 Pertussis</td>
<td>58.3</td>
<td>60.9</td>
<td>57.4</td>
<td>56.9</td>
<td>64.2</td>
<td>63.6</td>
</tr>
<tr>
<td>Age 7 Measles</td>
<td>72.5</td>
<td>79.6</td>
<td>73.0</td>
<td>68.0</td>
<td>78.6</td>
<td>78.9</td>
</tr>
<tr>
<td>Age 11 HBV</td>
<td>37.5</td>
<td>39.8</td>
<td>44.9</td>
<td>46.0</td>
<td>51.3</td>
<td>63.6</td>
</tr>
<tr>
<td>Age 17 Diphtheria</td>
<td>27.2</td>
<td>33.9</td>
<td>38.9</td>
<td>35.0</td>
<td>38.5</td>
<td>36.8</td>
</tr>
</tbody>
</table>


- Figures 3-48 and 3-49 illustrate immunization rates for First Nations and non-First Nations children in the Burntwood Region.
- It is evident that immunization rates are much lower among First Nations children than non-First Nations children in every age group. However, while rates are decreasing for non-First Nations children age 1 and 2, they are at least improving among First Nations children.
Childhood immunization by age group will be reviewed in the following sections. Figures 3-50 to 3-74 represent immunization completeness (that is, the child has had all of the scheduled immunizations) for various age groups by RHA and First Nations status.
In summary, Burntwood’s coverage rate for all children at ages 1, 2, 7, and 17 are among the lowest of all Manitoba RHAs (at age 11, Burntwood’s coverage is close to the Manitoba average). The picture improves when looking at coverage rates for First Nations, relative to other RHAs. First Nation immunization coverage rates are near the Manitoba average, although they remained consistently below non-First Nation coverage rates in each age group.

The data provided by Manitoba Health (Manitoba Immunization Monitoring System) is invaluable in capturing immunizations completed for all residents of Manitoba; however, the recent data presented in this section (2005-2007) do not reflect the most up-to-date coverage rates for BRHA communities.
3.4.8.1.1 COMPLETE IMMUNIZATION RATES FOR AGE 1

This indicator measures the proportion of infants at one year old that received the scheduled immunizations.

- Complete immunization rates for all infants aged 1 year in Burntwood was 64.1 per 100 children, lower than the Manitoba average of 76.1 in 2007 (see Figure 3-50). The Burntwood Region had the lowest rate of immunization for 1 year old infants.

- For 1 year old First Nations infants, Burntwood had the 2nd lowest immunization rates among Manitoba RHAs at 59.7 per 100 children in 2007. The Manitoba average was 63.8 (see Figure 3-51).

- Our immunization rate among one year old infants who were non-First Nations was also the 2nd lowest in the province, but higher than the rate among First Nations at 74.9 per 100 (see Figure 3-52).

Figure 3-50. Complete immunization rates for all infants aged 1 year by region, 2007.


NOTE: Churchill rates should be interpreted with caution due to small numbers.

Burntwood has statistically lower than average rate.
Figure 3-51. Complete immunization rates for First Nations infants aged 1 year by region, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 3-52. Complete immunization rates for non-First Nations infants aged 1 year by region, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
   Central has statistically lower than average rate.
3.4.8.1.2 COMPLETE IMMUNIZATIONS FOR AGE 2

This indicator measures the proportion of children at two years old that received the scheduled immunizations.

- Complete immunization rates for all infants aged 2 years in Burntwood was 45.8 per 100 children, lower than the Manitoba average of 58.5 in 2007 (see Figure 3-53). Burntwood had the lowest immunization rates among Manitoba RHAs.

- For 2 year old First Nations children, Burntwood had the 4th lowest immunization rates among Manitoba RHAs at 38.5 per 100 children in 2007. The Manitoba average was higher at 41.7 (see Figure 3-54).

- Our immunization rate among non-First Nations two year old children was 64.8 per 100 children, higher than the Manitoba rate of 61.5 per 100 children and the rate among First Nations at 38.5 per 100 children (see Figure 3-55).

Figure 3-53. Complete immunization rates for all children aged 2 years by region, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers. Central and Burntwood have statistically lower than average rates. Parkland rate is statistically higher than average.
Figure 3-54. Complete immunization rates for First Nations children aged 2 years by region, 2007.

Figure 3-55. Complete immunization rates for non-First Nations children aged 2 years by region, 2007.
3.4.8.1.3 COMPLETE IMMUNIZATION FOR AGE 7

This indicator measures the proportion of children at seven years old that received the scheduled immunizations.

- Complete immunization rates for all children aged 7 years in Burntwood was 56.8 per 100 children, lower than the Manitoba average of 68.6 in 2007 (see Figure 3-56).

- The complete immunization rates for First Nations children aged 7 years in the Burntwood Region was 50.7 per 100 children in 2007, below the Manitoba average of 54.1. (see Figure 3-57).

- The immunization rates for non-First Nations children who were 7 years old was 70.1 per 100 children in the Burntwood Region which was slightly below the Manitoba average of 70.8 (see Figure 3-58).

Figure 3-56. Complete immunization rates for all children aged 7 years by region, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers. Burntwood and Winnipeg rates are statistically lower than average. Central, NOR-MAN, Assiniboine and Parkland rates are statistically higher than average.
Figure 3-57. Complete immunization rates for First Nations children aged 7 years by region, 2007.


NOTE: Churchill rates should be interpreted with caution due to small numbers. Central Region rate is statistically lower than average.
Figure 3-58. Complete immunization rates for non-First Nations children aged 7 years by region, 2007.


NOTE: Churchill rates should be interpreted with caution due to small numbers. Central, North Eastman, Assiniboine and Parkland rates are statistically higher than average.
3.4.8.1.4 COMPLETE IMMUNIZATION FOR AGE 11

This indicator measures the proportion of children at seven years old that received the scheduled immunizations.

- Complete immunization rates for all 11 year old children in the Burntwood Region was 40.4 per 100 children, lower than the Manitoba average of 54.4 in 2007 (see Figure 3-59).

- For First Nations children aged 11 years, the immunization rate was 31.7 per 100 children, above the Manitoba average of 29.8 in 2007 (see Figure 3-60).

- Figure 3-61 shows immunization rates for non-First Nations youth age 11 years. The Burntwood rate of 56.4 per 100 is the second lowest in the province, after Winnipeg, but is very similar to the Manitoba rate of 57.6 per 100.

---

**Figure 3-59. Complete immunization rates for all children aged 11 years by region, 2007.**


NOTE: Churchill rates should be interpreted with caution due to small numbers.
Figure 3-60. Complete immunization rates for First Nation children aged 11 years by region, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
Central, Interlake and North Eastman rates are statistically lower than average. NOR-MAN and Parkland rates are statistically higher than average.

Figure 3-61. Complete immunization rates for non-First Nations children aged 11 years by region, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
Winnipeg is statistically lower than average. Brandon, South Eastman, Central, NOR-MAN, Assiniboine and Parkland are statistically higher than average.
3.4.8.1.5 COMPLETE IMMUNIZATION FOR AGE 17

This indicator measures the proportion of children at 17 years old that received the scheduled immunizations.

- The complete immunization rate for all Burntwood Region 17 year old youth was 20.9 per 100 children, lower than the Manitoba average of 41.9 in 2007 (see Figure 3-62).

- For First Nations youth, the immunization rate in the Burntwood Region was 11.5 per 100 children, lower than the Manitoba average of 15.6 in 2007 (see Figure 3-94). Rates among non-First Nations youth were also low, at 39.3 per 100, which was the second lowest in the province and lower than the provincial average of 45 per 100 (see Figure 3-63).

Figure 3-62. Complete immunization rates for all youth aged 17 years by region, 2007.


NOTE: Churchill rates should be interpreted with caution due to small numbers. Central, Assiniboine and Parkland rates are statistically higher than average.
Figure 3-63. Complete immunization rates for First Nations youth aged 17 years by region, 2007.


NOTE: Churchill rates should be interpreted with caution due to small numbers.
Winnipeg rate is statistically lower than average. Central, NOR-MAN, Assiniboine and Parkland rates are statistically higher than average.

Figure 3-64. Complete immunization rates for non-First Nations youth aged 17 years by region, 2007.


NOTE: Churchill rates should be interpreted with caution due to small numbers.
Winnipeg rate is statistically lower than average. Central, NOR-MAN, Assiniboine and Parkland rates are statistically higher than average.
3.4.8.2 IMMUNIZATION AMONG ADULTS

3.4.8.2.1 INFLUENZA IMMUNIZATION

This indicator measures the percentage of the population aged 12 years and older, who were immunized for influenza. Although seniors are the primary targets of influenza immunization campaigns, most practitioners agree that it is a good idea for adults and children to also have a yearly flu shot.xxiii

- In Burntwood/Churchill, the proportion of (off-reserve) residents 12 years of age and older who report that they have had an influenza immunization was 30.4 per cent in 2007, higher than the Manitoba average of 26.8 per cent and slightly lower than the Canadian average of 31.6 per cent in 2007 (see Figure 3-65).

- Table 3-23 presents changes in self-reported influenza immunization rates (had the immunization within the preceding twelve months). Rates are much higher among females than males, and appear to be relatively stable or increasing in Burntwood/Churchill and in the province overall.

![Figure 3-65. Residents self-report having influenza immunization by region, 2007.](image-url)

Source: Canadian Community Health Survey, 2007

NOTE: Churchill rates should be interpreted with caution due to small numbers.

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2008</th>
</tr>
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<td>2008</td>
</tr>
<tr>
<td>Manitoba</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>28.3%</td>
<td>26.8%</td>
<td>27.1%</td>
</tr>
<tr>
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<td>25.5%</td>
<td>23.3%</td>
<td>22.7%</td>
</tr>
<tr>
<td>Females</td>
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<td>30.9%</td>
<td>30.1%</td>
<td>31.3%</td>
</tr>
<tr>
<td>Burntwood/Churchill</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>16.7%</td>
<td>24%</td>
<td>30.4%</td>
<td>29.2%</td>
</tr>
<tr>
<td>Males</td>
<td>12%</td>
<td>15.9%</td>
<td>26.4%</td>
<td>21.1%</td>
</tr>
<tr>
<td>Females</td>
<td>21.8%</td>
<td>32.2%</td>
<td>35%</td>
<td>38.4%</td>
</tr>
</tbody>
</table>

3.4.8.2.2 COMPLETE IMMUNIZATION FOR 18-64

- **Figure 3-66** shows complete immunization rates for all residents between the ages of 18 and 64. While the region has had some lower rates in some age groups, the immunization rates for this group is slightly higher than the Manitoba average (15.2% in Burntwood compared to 13.9% in Manitoba overall).

- For First Nations residents aged 18-64 years, the immunization completion rate was 12 per 100 residents, above the Manitoba average of 11.6. (see **Figure 3-67**).

- Immunization rates among non-First Nations adults ranged from 10.2 per cent in South Eastman to 23.7 per cent of Churchill adults. The rate in Burntwood Region of 19.3 per cent was the third highest in the province in 2007 (see **Figure 3-68**).

**Figure 3-66. Complete immunization rates for all residents aged 18-64 years by region, 2007.**

NOTE: Churchill rates should be interpreted with caution due to small numbers.
South Eastman rate is statistically lower than average. NOR-MAN and Churchill rates are statistically higher than average.
Figure 3-67. Complete immunization rates for First Nation residents aged 18-64 years by region, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers. Winnipeg, Assiniboine NOR-MAN and Churchill rates are statistically higher than average.

Figure 3-68. Complete immunization rates for non-First Nation residents aged 18-64 years by region, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers. South Eastman rate is statistically lower than average.
3.4.8.3 IMMUNIZATION AMONG SENIORS

Provinces and Territories have recognized the importance of immunizing seniors particularly for influenza and pneumococcal disease. Provinces and territories have set a target of 80 per cent immunization coverage for seniors for influenza and pneumococcal disease. While there have been increases in senior vaccination rates for influenza, there still needs to be a concerted effort to strengthen public education and awareness to combat misinformation about immunization. In Canada, pneumococcal immunization rates continue to be well below national targets of 80 per cent coverage for adults over 65.xxiv

3.4.8.3.1 INFLUENZA IMMUNIZATION

It is particularly important for seniors over 65 years of age to be immunized for influenza, as they have the highest rate of hospitalization and death from the flu among all age groups. Common complications of the flu for seniors include bacterial infection and pneumonia. On average, about 4,000 to 8,000 people in Canada die each year from complications of influenza, and about 70,000 to 75,000 people with the flu are hospitalized. xxv Getting the flu shot helps to reduce the risk of serious complications and life-threatening illness.

- The influenza immunization rate among all seniors in Burntwood was 36.1 per 100 residents in 2007, which is significantly below the Manitoba average of 58.7 (see Figure 3-69). It was the lowest immunization rate among Manitoba RHAs.

- For First Nations seniors, the influenza immunization rate was 28.0 per cent in Burntwood, below the Manitoba average of 31.4 per cent (see Figure 3-70).

- For non-First Nations seniors, Burntwood ranked the lowest among all RHAs for immunization rates at 47.5 per cent (see Figure 3-71).
Figure 3-69. Influenza immunization rate among all seniors by region, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers. Burntwood rate is statistically lower than average. Brandon and Churchill rates are statistically higher than average.

Figure 3-70. Influenza immunization rate among First Nations seniors by region, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers. North Eastman rate is statistically lower than average. Winnipeg, Assiniboine and Parkland rates are statistically higher than average.
3.4.8.3.2 PNEUMOCOCCAL IMMUNIZATION

There are approximately 500,000 cases of pneumococcal disease in Canada each year. Adults aged 65 years and older with certain medical conditions are at increased risk for pneumococcal disease and its complications compared to the general population. Complications include blood poisoning, infection of the fluid surrounding the brain and spinal cord (meningitis), pneumonia, ear or sinus infections (especially in children). Severe or invasive pneumococcal infections can lead to hospitalization and sometimes death.xxvi

- The pneumococcal immunization rate among all seniors in Burntwood was 49.1 per 100 residents aged 65 and older, which is significantly lower than Manitoba at 63.9 in 2007. It was the lowest rate recorded among Manitoba RHAs (see Figure 3-72).

- For First Nations seniors, the pneumococcal immunization rate in Burntwood was 44.2 per 100 residents aged 65 and older, which is slightly lower than the Manitoba average of 45.2 in 2007 (see Figure 3-73).

- For non-First Nations seniors, Burntwood ranks among the lowest pneumococcal immunization rates in the province at 56.1 per cent (see Figure 3-74).
Figure 3-72. Pneumococcal immunization rate among all seniors by region, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers. Burntwood rate is statistically lower than average.

Figure 3-73. Pneumococcal immunization rate among First Nations seniors by region, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers. Churchill and Winnipeg rates are statistically higher than average.
Figure 3-74. Pneumococcal immunization rate among non-First Nations seniors by region, 2007.

3.4.9 CANCER SCREENING

Screening for disease can take a variety of forms, with screening programs for certain types of cancers being the most commonly encountered. Screening for cervical cancer through a pap test and breast cancer through mammography is a proven method within target populations to find disease earlier and reduce mortality. These screening methodologies can also be used as a population screening tool. Some types of cancer screening are not as clearly endorsed as pap tests and mammography. Other potential screening tools include PSA tests for prostate cancer, and Fecal Occult Blood Tests (FOBT) and colonoscopies for colon cancer.

There are other types of screening, such as blood testing for diabetes; however, they are not used as a population approach to disease prevention and detection. In this section we focus on what we know about cervical and breast cancer screening.

At the Women's Health Strategy consultation, participants commented that the mobile clinic approach to health service delivery where breast and cervical cancer screening can be brought directly to women in the communities was a particularly effective way to ensure cancer prevention screening tests are accessed.
3.4.9.1 CERVICAL CANCER SCREENING

In 2009, 1300 Canadian women will be diagnosed with cervical cancer and 380 women will die of cervical cancer. Regular pap smears can prevent or detect early cell changes that can be the precursor to cervical cancer. The introduction of an HPV (Human Papillomavirus vaccine) for population screening in Canadian schools is an important preventative strategy for cervical cancer. Cervical cancer should be dramatically reduced in Manitoba with the introduction of a vaccine for girls and young women. Risk factors associated with cervical cancer include early age of sexual intercourse, sexually transmitted infection, low socio-economic status and smoking.

Research demonstrates that there are groups of women who tend to participate less in screening, including cervical cancer screening. These women are considered hard to reach or under-served because there are particular obstacles that keep them from accessing this test.

- Cervical cancer screening rates in Burntwood decreased from 365.1 to 313.4 per 1,000 residents between 2002-05 and 2005-08, which is well below the Manitoba average of 546.1 in 2005-08 (see Figure 3-75). Cervical screening rates in Burntwood are the lowest among all Manitoba RHAs.

- Figure 3-76 shows cervical cancer screening rates by age group. Many women still believe that if they are past their "child bearing years" or in a stable relationship, they do not need to have a pap test. This is incorrect, as women in every age group (starting at 18 or the onset of sexual activity) until at least the age of 65 should have a routine pap test. This figure shows that Burntwood screening rates are much lower than provincial rates in every age group with the exception of the 70 years and older age group. These data also show that, in general, screening rates tend to decrease with increasing age. It is particularly troubling that Burntwood has experienced reductions in screening rates between 2005 and 2008, with no age category achieving a screening rate of at least 50 per cent.
Figure 3-75. Cervical screening rates by region, 2002-05 and 2005-08.

Source: Manitoba Health (Health Information Management)
NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 3-76. Cervical screening rates by age group, 2002-05 and 2005-08

Source: Manitoba Health (Health Information Management)
3.4.9.2 BREAST CANCER SCREENING

23,000 Canadians will be diagnosed with breast cancer and 5,400 will die of the disease.xxviii Mammography screening, with or without clinical breast examination, has been shown in randomized trials to reduce the chance of dying of breast cancer. Screening for breast cancer is important, as most women diagnosed with breast cancer do not have identifiable risk factors such as a family history of breast cancer.

- Breast screening rates in Burntwood increased from 95.4 to 103.0 per 1,000 women between 2002-04 to 2006-08, but still remain substantially lower than the Manitoba average of 155.8 in 2006-08 (see Figure 3-77). Breast screening rates in Burntwood are the lowest among Manitoba RHAs.

- While Burntwood rates continue to be lower than the provincial rate, the last three time periods have shown continual (although small) improvements in screening rates (see Figure 3-77).

- As Figure 3-78 indicates, breast screening rates are below the Manitoba average in each age category with the exception of the 65 to 69 and 70 and older age categories.
Figure 3-77. Breast screening rates by region, 2002-04, 2004-06 and 2006-08

Source: Manitoba Health (Health Information Management)

NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 3-78. Breast screening rates by age group, 2004-06 and 2006-08

Source: Manitoba Health (Health Information Management)
3.5 CHILD HEALTH

3.5.1 BREASTFEEDING INITIATION

Breastfeeding has been recognized by the World Health Organization and other national bodies as a key contributor to the healthy growth and development of infants. It reduces the incidence of allergies, infections and enhances cognitive development. Breastfeeding is also a fundamental part of the reproductive process which also contributes to better health status for the mother. Based on evidence gathered to date, exclusive breastfeeding for six months is the optimal way of feeding infants. The Canadian Paediatric Society, Dieticians of Canada and Health Canada recommend exclusive breastfeeding for at least the first four months of life.

In the breastfeeding/new moms focus groups, participants indicated that both in the hospital and in prenatal classes they were shown how to breastfeed and the benefits of breastfeeding was explained. However, these participants indicated that there was little or no information provided about how to solve breastfeeding problems. They were not initially clear about who to ask for help if there were problems and if there was information available that they could take home from the hospital about common problems and how to solve them.

For some, the most challenging/least supportive environment was experienced in hospital. Participants expressed that once they returned to their home and community things seemed to go better with local community staff and Families First Home Visitors providing support and advice. One person was able to contact a lactation consultant in Winnipeg, and another went online to find out more information about breast-feeding and managing problems, and this made it easier. It was noted that it did take awhile for breastfeeding become “easy” and this needs to be made clear to women so that they do not give up right away.

It is important to note that a small number of participants attended these focus groups so this feedback is reflective of a very small number of mostly young parents. Their feedback is valuable but may not generally reflect the experiences of all parents and their needs in infant feeding choices.

- Unfortunately, residents of Burntwood continue to experience challenges with breastfeeding. Breastfeeding initiation rates in Burntwood decreased significantly from 68.6 per cent to 64.5 per cent between 1996/97-2000/01 and 2001/02-2005/06, which is significantly lower than the Manitoba average of 81.6 per cent in 2001/02-2005/06 (see Figure 3-79).
Figure 3-79. Breastfeeding initiation rates by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

1' indicates area's rate was statistically different from Manitoba average in first time period
2' indicates area's rate was statistically different from Manitoba average in second time period
$t$ indicates change over time was statistically significant for that area
3.5.2 INFANT FEEDING TYPE

• As Figure 3-80 indicates, there have been increases in the proportion of formula fed children in Burntwood and a decline in breast feeding. The proportion of infants who are formula fed rose from 41.1 per cent to 46.6 per cent from 2004/05 to 2007/08. The proportion of infants who are breast fed, on the other hand, went from 13.9 per cent to 12.0 per cent in the same time period.

Figure 3-80. Feeding in hospital rates by type, Burntwood 2004/05-2007/08.

3.5.3 SEXUAL ACTIVITY

Youth sexual activity is an important indicator of child health status, given the incidence of Sexually Transmitted Infections (STIs) and HIV, which contribute to poorer health status for youth. This indicator can illustrate the effectiveness of public health awareness campaigns and other interventions emphasizing the importance of contraception. It will important to monitor sexual activity among youth to determine if these interventions are effective and accessible to youth.

Consultation participants noted the young age at which Burntwood youth begin to engage in sexual activity. There was a feeling that there was not enough information about Sexually Transmitted Diseases and HIV, although it was noted that the schools did provide access to condoms for students.

- In Burntwood, the proportion of teens aged 15-19 who reporting having had sexual intercourse was 61.8 per cent in 2003/05, substantially higher than the Manitoba average of 41.9 per cent in 2003/05 (see Figure 3-81).

Figure 3-81. Sexual intercourse rates among youth aged 15-19 by region, 2003/05.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: 'w' indicates a warning - rates are highly variable; interpret with caution
's' indicates data suppressed due to small numbers
3.5.4 Teen Pregnancy Rate

Teen pregnancy is considered a major public health issue in many countries. Teens who are pregnant have a greater risk of health problems, including, for example, anemia, hypertension, renal disease, eclampsia and depressive disorders.xxxii

Although not every teen pregnancy is an “unplanned” or “unwanted” pregnancy, teen pregnancy is considered a major public health problem in many countries. This is because research has shown that teenage mothers are less likely to complete their education and are more likely to have limited career and economic opportunities.xxxiii In addition, their babies are at increased risk of preterm birth, low birth weight and death during infancy.xxxiv

Some consultation participants noted that teenage pregnancy was almost a cultural norm in some communities and not of particular concern to many residents. This suggests that teenagers may not be fully aware of the potential negative outcomes that may result from a teen pregnancy.

- The teen pregnancy rate in Burntwood decreased from 136.4 to 125.0 per 1,000 women aged 15-19 between 1996/97-2000/01 and 2001/02-2005/06, which is significantly higher than the Manitoba average of 49.8 in 2001/02-2005/06. The decrease in Burntwood is considered statistically significant and the region still had the highest teen pregnancy rates among all Manitoba RHAs (see Figure 3-82).
Figure 3-82. Teen pregnancy rates by region, born 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
'1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area
3.5.5 **TEEN BIRTH RATE**

Similar to the teen pregnancy rate, teen birth rates are a public health concern because babies born to teen mothers are at increased risk of preterm birth, low birth weight and death during infancy. There are also significant economic consequences to teen births, as teenage mothers are less likely to complete their education and are more likely to have limited career and economic opportunities. Teenagers between the ages of 15 to 17 who give birth will likely be single which means there is no household income to support the mother and infant.

- The teen birth rate in Burntwood decreased from 109.3 to 101.1 per 1,000 women aged 12-19 between 1996/97-2000/01 and 2001/02-2005/06, which is significantly higher than the Manitoba average of 30.1 in 2001/02-2005/06 (see Figure 3-83). Burntwood has the highest teen birth rate among all RHAs.

![Figure 3-83. Teen birth rates by region, born 1996/97-2000/01 and 2001/02-2005/06.](image-url)

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

**NOTE:** Churchill rates should be interpreted with caution due to small numbers.

1' indicates area’s rate was statistically different from Manitoba average in first time period

2' indicates area’s rate was statistically different from Manitoba average in second time period

T' indicates change over time was statistically significant for that area
3.5.6 PREVALENCE OF CHILDREN IN CARE

The family provides the most significant influence on a child’s development. Families provide both physically for children with food, shelter and clothing, as well as teaching them skills, values and attitudes needed to fully participate in society. By providing these developmental foundations, families enable children and youth to be independent, healthy members of society. Those children that are in need of child protective services have poorer health status and are at greater risk of, or actual victims of child abuse, neglect and maltreatment.

Foster care is provided to children who can no longer be cared for by their family. These children usually come from the most high risk situations and must be taken out of the family home for their continued safety.

As discussed throughout this chapter, concern about parenting, child safety and child neglect were some of the most prevalent topics raised by community consultation participants. When asked generally what community members needed to be healthy, comments about the need for better parenting skills were often raised as immediate concerns. Community members indicated that without parenting supports and stronger families, the communities cannot achieve a real balance and health.

- The proportion of the children aged 0 to 17 years who were taken into foster care in Burntwood increased from 7.1 per cent to 7.4 per cent between 1998/99-2000/01 and 2001/02-2003/04, which is substantially higher than the Manitoba average of 3.3 per cent in 2001/02-2003-04 (see Figure 3-84).
Figure 3-84. Prevalence of children in care by region, 1998/99-2000/01 and 2001/02-2003/04.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
3.5.7 Child Protection and Support

As with the number of children in care, the rate of child protection and support services in Canada has risen substantially, and the children that receive child protection services are at risk or have been subject to child abuse, neglect and maltreatment. Given that abuse and neglect negatively impacts current and future health status of children, it is important to monitor and act more proactively to encourage family development.

- The proportion of children aged 0 to 17 years who are living with families receiving protective or support services from Child and Family Services in Burntwood increased slightly from 11.1 per cent to 11.5 per cent between 1998/99-2000/01 and 2001/02-2003/04, which is equal to the Manitoba average (see Figure 3-85).


Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
3.5.8 YOUTH SMOKING

According to the Canadian Cancer Society, more than 47,500 Canadians die each year of tobacco-related disease. Eliminating tobacco use is identified as one of the most effective ways to reduce the number of Canadians who will be diagnosed with cancer. Cigarette smoking causes about 30 per cent of cancers in Canada and more than 85 per cent of lung cancers. Smoking is also associated with other poor health outcomes such as heart disease, other lung diseases and stroke. Because we know that the earlier people start smoking, the more likely it is they will continue to smoke, we must continue to focus anti-smoking campaigns at school age children (and their parents). It has been found that 66 per cent of smokers had their first cigarette by 15 years of age. xxxix Research findings also indicate that if people have not started smoking during their adolescent years, they probably will not smoke at all.xli

- The prevalence of Burntwood children 12-19 years of age who had smoked 100 or more cigarettes was 26.2 per cent in 2001/05, which is significantly higher than the Manitoba average of 14.8 per cent (see Figure 3-86). Burntwood's youth smoking rate is the highest recorded among Manitoba RHAs.

- According to the School Youth Health Survey, 30 per cent of boys and 47 per cent of girls in Burntwood Region between grades six to twelve smoke.

- Figure 3-87 shows that within Burntwood Region, smoking rates among our children in school range from nine per cent of grade six students to over one-half (52%) of students in grade 12. While only three per cent of grade six students smoke daily, this continually increases and by grade 12, one in three students (33%) is smoking daily.

- Tables 3-24 and 3-25 illustrate the importance of peers in youth smoking behaviour. Table 3-24 shows smoking patterns by numbers of friends who smoke. Among daily smokers almost all of their five closest friends smoke, compared to just 39 per cent of occasional smokers and only five per cent of non-smokers. Just three per cent of daily smokers indicated that none of their closest five friends did not smoke, compared to 71 per cent of non-smokers. This table shows a pattern with increased rates of smoking with increased numbers of friends who smoke for daily and occasional smokers (while it is more marked for daily smokers).

- Although there appears to be a pattern with increased rates of daily smokers with increased numbers of friends who smoke, this relationship is not apparent when looking at numbers of family members who smoke in the home. In this case, it appears that for both categories of smokers, the more people who smoke in the home, the less likely they are to smoke. There appears to be a more obvious relationship with non-smokers where almost one-half (45%) of students who do not smoke indicated that no-one smokes in the home. Overall though it appears that peers have the greatest influence on each other when it comes to choices about smoking.
Figure 3-86. Children aged 12-19 who have smoked 100 or more cigarettes by region, 2001/05.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.
NOTE: '*' indicates that area's rate is significantly different from the Manitoba average
'w' indicates a warning - rates are highly variable; interpret with caution; 's' indicates data suppressed due to small numbers

Figure 3-87. BRHA Student smoking status by grade, 2009.

Source: CancerCare Manitoba, Burntwood Region School Youth Health Survey Report, June 2009.
Table 3-24. Burntwood student smoking status by number of friends who smoke cigarettes, 2009.

<table>
<thead>
<tr>
<th>How many of your 5 closest friends smoke cigarettes?</th>
<th>Percentage of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daily Smokers</td>
</tr>
<tr>
<td>0</td>
<td>3%</td>
</tr>
<tr>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>4</td>
<td>14%</td>
</tr>
<tr>
<td>5</td>
<td>61%</td>
</tr>
</tbody>
</table>

Source: CancerCare Manitoba, Burntwood Region School Youth Health Survey Report, June 2009.

Table 3-25. Burntwood student smoking status by number of family members smoking inside the home, 2009.

<table>
<thead>
<tr>
<th>Family Member Smoking Inside the Home</th>
<th>Percentage of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daily Smokers</td>
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<tr>
<td>0</td>
<td>25%</td>
</tr>
<tr>
<td>1</td>
<td>15%</td>
</tr>
<tr>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>3</td>
<td>14%</td>
</tr>
<tr>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td>5 or more</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: CancerCare Manitoba, Burntwood Region School Youth Health Survey Report, June 2009.
3.5.9 ALCOHOL AND DRUG USE AMONG YOUTH

The health effects of excess alcohol consumption started early in life have also been clearly demonstrated for a number of chronic diseases such as cancer, strokes, hypertension and liver disease, but also with social and economic problems. For young people in particular, alcohol is strongly related to traffic injuries, violence and high risk sexual activity.\textsuperscript{xli}

Community consultation participants remarked that, just as with alcohol use among adults, children in Burntwood are emulating their parents by drinking heavily and then engaging in risky behaviour like gang activity and vandalism. It was suggested as well that children from Burntwood communities coming to Thompson for school often view it as an opportunity to drink, free of parental control. The lack of recreational activities and parental authority was seen as contributing to the drinking problem among youth. It was also noted that youth were also taking more street drugs.

- In Burntwood, the prevalence of youth aged 12-15 years who drank alcohol in the previous 12 months was 26.1 per cent in 2001-05, which is higher than the Manitoba average of 24.1 per cent (see Figure 3-88).

- For youth 16-19 years old who drank alcohol less than once a week, the prevalence in Burntwood was 49.9 per cent in 2001-05, lower than the Manitoba average of 55.0 per cent (see Figure 3-89).

- Figure 3-90 shows the proportion of students between grades nine and twelve who reported using alcohol in the School Youth Health Survey. Use of alcohol at least once in the past thirty days ranged from 47 per cent of grade nine students to over 68 per cent of grade 12 students. Over one in five (22%) grade twelve students reported drinking alcohol more than five different occasions in the thirty day period.

- Figure 3-91 shows use of illegal drugs by Burntwood Region students between grades nine and twelve. According to these data, almost one in three students (30%) in grade nine have used illegal drugs at least once, 36 per cent of students in grade 10, 32 per cent of students in grade 11 and 38 per cent of students in grade 12. Almost one in five grade 10 students reporting using illegal drugs ten or more times.
Figure 3-88. Youth aged 12-15 who drank alcohol in past 12 months by region, 2001/05.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: 'w' indicates a warning - rates are highly variable; interpret with caution
's' indicates data suppressed due to small numbers

Figure 3-89. Youth aged 16-19 who drank alcohol less than once a week by region, 2001/05.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: 'w' indicates a warning - rates are highly variable; interpret with caution
's' indicates data suppressed due to small numbers
Figure 3-90. Student alcohol use status by grade, 2009.

Source: CancerCare Manitoba, Burntwood Region School Youth Health Survey Report, June 2009.

Figure 3-91. Student illegal drugs use status by grade, 2009.

Source: CancerCare Manitoba, Burntwood Region School Youth Health Survey Report, June 2009.
3.5.10 YOUTH DIET, BODY MASS INDEX AND PHYSICAL ACTIVITY

Earlier in this chapter, the importance of physical activity among youth and the linkages to healthy eating and overall health were discussed. The following summarizes the perspective of Burntwood communities found in community consultations around this issue.

Community consultation participants noted the sedentary lifestyle of children who spend time on the computer or watching TV, rather engaging in physical activities. The lack of volunteers, transportation and structured activities was contributing to increased obesity among Burntwood youth. It was somewhat discouraging to hear about the lack of update of recreational opportunities that were available in the communities. There were communities with recreational facilities that sometimes included arenas and curling rinks. However, in some cases these were not up and running because there was no one to take care of them and because of the lack of people who have been using the facilities. Comments about facilities being too far away and youth needing someone to drive them were somewhat surprising given the small size of some of the communities. A message relayed frequently by people running the recreational programs was that although the children and youth often really enjoyed the programs and did participate, it was very difficult to get parents involved in any way, including volunteering as coaches and supervisors of recreation evenings.

- According to the recent School Youth Health survey which included 1,100 students from Burntwood in grades 6 to 12, three-quarters (74%) of students indicated that they eat two servings or less of fruits and vegetables daily and about four per cent of students indicated that they ate five or more servings as per Health Canada recommendations.

- In Burntwood, 65.2 per cent of children aged 12-19 years were at a normal BMI or lower, which is significantly lower than the Manitoba average of 76.3 per cent in 2001/05 (see Figure 3-92). Burntwood ranks the lowest for normal BMI in children among Manitoba RHAs.

- With respect to those who are overweight, 26.2 per cent of children 12-19 years of age are considered overweight, which is higher than the Manitoba average of 17.1 per cent in 2001/05 and ranks the highest in the province (see Figure 3-92).

- Prevalence of obesity among children 12-19 was 8.7 per cent in Burntwood, which is higher than the Manitoba average of 6.6 per cent between 2001-05 (see Figure 3-92). In addition, Burntwood had the highest prevalence of children who were either overweight or obese among all Manitoba RHAs.

- Figures 3-93 and 3-94 illustrate the differences in actual and perceived body weight by gender for youth in the region. While most youth accurately estimated that they were in the "healthy weight" range, girls who were actually underweight were far less likely to indicate this than were boys. For example, 9 per cent of RHA Central female youth indicated that they were underweight when in fact 27 per cent were under weight. Females were also most likely to estimate that they were overweight (28% perceived to be over weight when the actual rate was 18%).
Figure 3-92. BMI ratings for children aged 12-19 by region, 2001/05.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.
NOTE: Churchill data suppressed due to small numbers.

Figure 3-93. Actual body weight by gender, students grade 6-12, 2009.

Source: CancerCare Manitoba, Burntwood Region School Youth Health Survey Report, June 2009.
Although 64 per cent of students (between grades 6 and 12) self-rated themselves as good or excellent athletes, their actual physical activity levels are not as high as we would like to see.

As Figure 3-95 shows, only almost one half of students meet the criteria for being physically active. The highest rate was among students in grade ten at 54 per cent and the lowest was among grade 12 students at 43 per cent. Almost one in five students in every grade was inactive.
Table 3-26 shows the importance of having friends who are physically active. Over one-half (57%) of students who meet the criteria for being physically active indicate that they have at least four to five close friends who are also active.
Table 3-26. Physical activity rate among BRHA students grades 6-12 by how number of closest friends who are physically active, 2009.

<table>
<thead>
<tr>
<th># of friends who are physically active</th>
<th>Active Students</th>
<th>Moderately Active Students</th>
<th>Inactive Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3%</td>
<td>6%</td>
<td>14%</td>
</tr>
<tr>
<td>1</td>
<td>7%</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>2</td>
<td>11%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>3</td>
<td>21%</td>
<td>26%</td>
<td>20%</td>
</tr>
<tr>
<td>4 or 5</td>
<td>57%</td>
<td>43%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Source: CancerCare Manitoba, Burntwood Region School Youth Health Survey Report, June 2009.

- Over three quarters (76%) of Burntwood students indicated that their families either strongly encourage (27%) or encourage (49%) them to participate in physical activities. Just over 85 per cent of students also indicated that their families provide support for these activities (such as through driving to activities). These results are more positive than the feedback provided during the community consultations.

- **Figure 3-96** is interesting as it shows what per cent of students indicate that they learned important things about being physically active at school. For example, while 69 per cent of students indicated that they had learned in general about the importance of being physically active, less than half were aware of illnesses related to inactive lifestyles and even less were aware of the relationship between television watching and physical activity.

Figure 3-96. Physical activity issues taught in Burntwood schools, 2008.

Source: CancerCare Manitoba, Burntwood Region School Youth Health Survey Report, June 2009.
3.5.11 PRESCRIPTION DRUG USE BY CHILDREN

Prescription drug use by Canadian children is not a well researched area of child health and well being. While prescription drug use is undoubtedly rising to care for a range of infectious, chronic and mental health illnesses, little is known about the depth and breadth of prescription drug use by children and its impact on health status. A study released in 2003 found that approximately 50 per cent of Canadian children receive a prescription drug during the course of a year—up to 1,400 different medications, according to a recent study. The study concludes that some of these drugs may have been dispensed without appropriate research into their effects on children, and without adequate regulatory supervision or assistance.
3.5.11.1 CHILDREN WITH AT LEAST ONE PRESCRIPTION

- In Burntwood, children aged 0-19 who had at least one prescription decreased from 424.0 to 408.9 per 1,000 children between 2000/01 and 2005/06, which is significantly lower than the Manitoba average of 551.0 in 2005/06 (see Figure 3-97).

Figure 3-97. Children aged 0-19 with at least one prescription rate by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: ‘1’ indicates area's rate was statistically different from Manitoba average in first time period
‘2’ indicates area's rate was statistically different from Manitoba average in second time period
‘t’ indicates change over time was statistically significant for that area
3.5.11.2 ANTIBIOTIC PRESCRIPTIONS FOR CHILDREN

The rate of antibiotic prescriptions in children has become a concern among Canadian public health authorities, as it has led to antibiotic resistant infections. This has caused infections to be harder to treat, often requiring more treatment and hospitalization. It is important for the region to monitor the rate of antibiotic prescriptions dispensed to children to ensure that physicians are following practice guidelines and avoiding hospitalizations.

- The rate of children aged 0-19 with at least one antibiotic prescription in Burntwood decreased significantly from 300.5 to 249.1 per 1,000 children between 2000/01 and 2005/06, and is significantly lower than the Manitoba average of 389.9 in 2005/06 (see Figure 3-98). Burntwood had the lowest antibiotic prescription rate among all Manitoba RHAs.

Figure 3-98. Children aged 0-19 with at least one antibiotic prescription by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: '1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area
3.5.11.2.1 NUMBER OF ANTIBIOTIC PRESCRIPTIONS PER CHILD

As with the number of children prescribed antibiotics, this indicator is important to measure and monitor due to the concern of antibiotic-resistant infections. This measure will provide a glimpse on how widespread the use of antibiotics is in children in a given region. If it is determined that too many children are routinely receiving antibiotics to combat infection, it may require further public health education to health care providers around the dangers of antibiotic-resistant infections.

- The average number of antibiotic prescriptions used per child aged 0-19 years in Burntwood decreased significantly from 2.1 to 1.9 between 2000/01 and 2005/06, which is the equal to the Manitoba average in 2005/06 (see Figure 3-99).

Figure 3-99. Average number of antibiotic prescriptions used per children aged 0-19 by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: ‘1’ indicates area’s rate was statistically different from Manitoba average in first time period
‘2’ indicates area’s rate was statistically different from Manitoba average in second time period
‘t’ indicates change over time was statistically significant for that area
3.5.11.3 **Antidepressant Prescriptions for Children**

The use of antidepressant prescriptions in children increased significantly in the 1990s, with the drug often being used to treat conditions other than depression. Overuse of antidepressants, particularly Selective Serotonin Reuptake Inhibitors (SSRIs), was of particular concern given the increased risk in suicide observed by some researchers. This concern prompted the U.S. Food and Drug Administration in 2004 to order drug producers to put labels on all antidepressants that were used with children and youths warning of the increased risk of suicide associated with taking these drugs.\textsuperscript{xlv}

- The rate of children aged 0-19 years with at least one antidepressant prescription in Burntwood decreased from 6.3 to 6.0 per 1,000 children between 2000/01 and 2005/06, which is significantly lower than the Manitoba average of 10.5 in 2005/06 (see Figure 3-100). Burntwood recorded the lowest antidepressant prescription rate among all Manitoba RHAs.

---

**Figure 3-100.** Children aged 0-19 with at least one antidepressant prescription by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

**NOTE:** Churchill data suppressed due to small numbers

\textsuperscript{1} indicates area’s rate was statistically different from Manitoba average in first time period

\textsuperscript{2} indicates area’s rate was statistically different from Manitoba average in second time period

\textsuperscript{t} indicates change over time was statistically significant for that area

\textsuperscript{s} indicates data suppressed due to small numbers
3.5.11.4 Psychostimulant Prescriptions for Children

Psychostimulant prescriptions are used to treat Attention Deficit/Hyperactivity Disorder (ADHD) in children. As with antidepressant medication, there is concern about the appropriate level of psychostimulant prescriptions and the possible increased risk of cardiac complications for children.

- The rate of children aged 0-19 years with at least one psychostimulant prescription in Burntwood increased significantly from 6.3 to 17.4 per 1,000 children between 2000/01 and 2005/06, which is still significantly lower than Manitoba at 26.8 in 2005/06 (see Figure 3-101).

Figure 3-101. Children aged 0-19 with at least one psychostimulant prescription by region, 2000/01 and 2005/06.
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CHAPTER 4

Home on Lynn Lake Museum Grounds - Re-Enactment of Moving Homes

HEALTH STATUS
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4.0 INTRODUCTION TO HEALTH STATUS

In the Determinants of Health chapter, we examined many factors that have been shown to impact health outcomes. We found that we have relatively high rates of a variety of risk factors (such as smoking and obesity). In this chapter, we examine health outcomes and we will make some conclusions about whether the risk factors we’ve identified do in fact appear to be impacting the health status of Burntwood Region residents.

As with the determinants of health, there are a great number of indicators that we could review to examine the health status of Burntwood residents. Although this report may not provide an exhaustive review of all health status indicators, it is a comprehensive review of those indicators that we know contribute to the greatest burden of illness and mortality in the population. Although we examined many indicators, in some sections we decided to focus on one or two in-depth ones instead of doing a high level review of many indicators, some of which impact the population less than others.

The broad categories of health status indicators that are covered in this chapter are:

- Well-being
- Communicable diseases
- Chronic diseases
- Cancer
- Injuries
- Child health
- Life expectancy and mortality
4.1 WELL-BEING

4.1.1 SELF-RATED PHYSICAL HEALTH

According to Health Canada, self-reported (or self-rated) health is an indicator of overall health status and well-being. It can reflect aspects of health not captured in other measures, such as: incipient disease, disease severity, aspects of positive health status, physiological and psychological reserves and social and mental function. There is strong evidence from the literature that self-ratings of health are important independent predictors of new morbidity, decline in functional ability, health care utilization and hospitalization, recovery from illness, and nursing home placement.

Decades of epidemiological and gerontological research show that self-ratings of health are associated with individuals' socio-economic status, their physical and psychological well-being and social environment, and also their lifestyle and health behaviours. More recently, using longitudinal data from the National Population Health Survey in Canada, it was concluded that self-ratings of health status are dynamic evaluations that reflect not only individuals' current socio-economic, psycho-social and physical health status, but reflect the changes that occurred in those characteristics and conditions over time. There is extensive literature on the usefulness of the single-item measure of self-rated health status for measuring and monitoring the health of individuals and populations.

- In 2007, the percentage of residents who self-rated their physical health as "very good" or "excellent" in the Burntwood/Churchill Region was 56.0 per cent, which is slightly lower than Manitoba average of 59.9 per cent and the Canadian average of 59.6 per cent (see Figure 4-1).

- More recent time trend data from the Canadian Community Health Survey (see Table 4-1) shows that, while this indicator had been relatively stable or improving since 2003, a low of 44.2 per cent of Burntwood/Churchill residents who self-rated their health as "very good" or "excellent" was reported in 2008. A decrease is also seen for Manitobans overall.
Figure 4-1. Residents with "very good" or "excellent" self rated physical health by region, 2007.

Table 4-1. Perceived health, very good or excellent (%), 2003-2008.

<table>
<thead>
<tr>
<th>Region</th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>60.9</td>
<td>59.1</td>
<td>59.9</td>
<td>54.1</td>
</tr>
<tr>
<td>Males</td>
<td>61.3</td>
<td>60.5</td>
<td>60.4</td>
<td>55.2</td>
</tr>
<tr>
<td>Females</td>
<td>60.5</td>
<td>57.7</td>
<td>59.5</td>
<td>53.1</td>
</tr>
<tr>
<td>Burntwood/Churchill</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>49.6</td>
<td>56.8</td>
<td>56</td>
<td>44.2</td>
</tr>
<tr>
<td>Males</td>
<td>56.5</td>
<td>57.2</td>
<td>55.2</td>
<td>38.5</td>
</tr>
<tr>
<td>Females</td>
<td>42.2</td>
<td>56.4</td>
<td>57.1</td>
<td>50.9</td>
</tr>
</tbody>
</table>

4.1.2 SELF-RATED MENTAL HEALTH

Self-reported mental health provides a general indication of the population suffering from some form of mental disorder, mental or emotional problems, or distress, not necessarily reflected in self-reported (physical) health. Mental health and addictions was a significant focus of the community consultations, and will be discussed in further detail later in this document.

- In 2007, the percentage of residents who self-rated mental health as "very good" or "excellent" in the Burntwood/Churchill Region was 69.9 per cent, lower than the Manitoba average of 73.5 per cent and lower than the Canadian average of 74.8 per cent (see Figure 4-2). However, Burntwood/Churchill rated higher than our peer group at 66.2 per cent.

- More recent time trend data from the Canadian Community Health Survey (see Table 4-2) shows that this indicator has varied between 2003 and 2008 for the Burntwood/Churchill region, but has increased to 72 per cent of residents in 2008, which is very similar to the provincial average. These data also show a steady increase among females from 2003 to 2008. However, it is important to note that these data reflect the experiences of residents living off-reserve only, as well as those residents with a telephone and who are mentally healthy enough to participate in the survey.

Figure 4-2. Residents with "very good" or "excellent" self-rated mental health by region, 2007.

Source: Canadian Community Health Survey, 2007.
Table 4-2. Perceived mental health (% of respondents), very good or excellent, 2003-2008.

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba All</td>
<td>74.6</td>
<td>71.9</td>
<td>73.5</td>
<td>71.5</td>
</tr>
<tr>
<td>Manitoba Males</td>
<td>74.1</td>
<td>73</td>
<td>73.3</td>
<td>73.5</td>
</tr>
<tr>
<td>Manitoba Females</td>
<td>75</td>
<td>70.8</td>
<td>73.7</td>
<td>69.5</td>
</tr>
<tr>
<td>Burntwood/Churchill All</td>
<td>67</td>
<td>74</td>
<td>69.9</td>
<td>72</td>
</tr>
<tr>
<td>Burntwood/Churchill Males</td>
<td>66.2</td>
<td>76.2</td>
<td>69.3</td>
<td>67</td>
</tr>
<tr>
<td>Burntwood/Churchill Females</td>
<td>67.8</td>
<td>71.7</td>
<td>70.6</td>
<td>77.6</td>
</tr>
</tbody>
</table>

4.1.3 FUNCTIONAL HEALTH STATUS – PHYSICAL HEALTH

Functional Health Status is a health utility index that provides a description of an individual’s overall functional health status based on eight dimensions of functioning (vision, hearing, speech, mobility, dexterity, feelings, cognition and pain). This measure can help to provide more detailed information on the overall health status of an individual, beyond the self-rated physical health indicator.

- Within the region, 50.3 per cent of residents scored perfect scores on the physical functioning scale. This is lower than Manitoba average of 55.7 per cent in 2007 (see Figure 4-3).

Figure 4-3. Perfect scores on physical functioning scale by region, 2007.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: ‘s’ indicates data suppressed due to small numbers.
4.1.4 Functional Health Status – Mental Health

Functional health status, with a focus on mental health, is an important indicator, as it can yield some important information about the overall health status of individuals. There are instances where mental health status figures can provide better, more consistent information about what contributes to the overall health status of a region than more traditional indicators of health status such as income and schooling level.iv

- The predicted scores on the general mental health scale in Burntwood was 84.5, which is slightly higher than the provincial average of 84.0 in 2007 (see Figure 4-4).

Figure 4-4. Predicted scores on general mental health scale by region, 2007.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Churchill rates should be interpreted with caution due to small numbers.

* indicates area's rate was statistically different from Manitoba average in first time period.
4.2 CHILD HEALTH

Child health is an important priority, as a number of significant inequalities exist in the health status of Canadian children and youth. Some young people are more likely to be injured, and/or experience physical and mental health challenges. Without appropriate action, these health inequalities are likely to persist into adulthood. On both a personal and societal level, the downstream consequences of these early experiences can be considerable.

Many of the adverse health outcomes for children can be prevented. Moreover, it is now accepted that the health status of young people in Canada is influenced by a wide range of social, cultural, physical and economic determinants, many of which lie outside the traditional health sector.\(^v\)

4.2.1 STILLBIRTHS

Stillbirth rates can be an important indicator of prenatal care for pregnant women. A major technological change that has had a profound effect on the frequency of stillbirths was the introduction and widespread uptake of prenatal diagnosis and pregnancy termination for serious congenital anomalies.\(^vi\)

- The stillbirth rate in the Burntwood Region decreased slightly from 7.2 to 6.7 stillbirths per 1,000 births between 1997/97-2000/01 and 2001/02-2005/06. Burntwood Region rate appears to be same as Manitoba average of 6.7 in 2001/02-2005/06 (see Figure 4-5).
Figure 4-5. Stillbirth rate by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.
NOTE: No cases for Churchill.
4.2.2 Preterm Birth Rate

This indicator measures the number of live born infants prior to 37 weeks gestation expressed as a proportion of all live births (40 weeks gestation is considered 'full term').

Preterm births are an important public health concern, as they are the leading cause of infant mortality in Canada. These births account for about 75 per cent of all deaths that occur in the perinatal period. They also contribute to both short and long term health conditions, and are associated with higher health care costs. Preterm babies have higher rates of a wide range of health issues, including respiratory conditions, brain development and mental health illnesses which can continue into adulthood. vii

- Between 2002/03 and 2006/07, the percentage of preterm births in Burntwood residents increased from 8.5 per cent in 2002/03 to 10.3 per cent in 2006/07, which is higher than Manitoba at 8.2 per cent (see Figure 4-6). Due to the resource implications associated with caring for preterm infants, this increase is important to note.

- Figure 4-7 shows that Burntwood’s preterm birth rate was the highest in the province for 2006/07 at 10.3 per cent of births. In addition, combined data for five years, which provides more stability in rates, are illustrated in Figure 4-8. These data show that the five year average annual preterm birth rate in Burntwood Region appears to be consistently high at 9.2 per cent of births (the second highest in the province over five years).
Figure 4-6. Preterm birth rate, 2002/03-2006/07.

Source: Manitoba Health (Health Information Management)

Figure 4-7. Preterm births rate by region, 2006/07.

Source: Manitoba Health (Health Information Management)

NOTE: Churchill rates should be interpreted with caution due to small numbers.
Figure 4-8. Preterm births rate by region, 2002/03-2006/07.

Source: Manitoba Health (Health Information Management)

NOTE: Assiniboine, Central, Burntwood, NOR-MAN and Winnipeg were statistically different from Manitoba average.
4.2.3 Low Birth Weight Infants (LBW)

Low birth weight is a key determinant of infant survival, health, and development. Low birth weight infants are at a greater risk of having a disability or diseases such as cerebral palsy, visual problems, learning disabilities and respiratory problems.\textsuperscript{viii}

There are two broad categories of risk factors for low birth weight infants (see Table 4-3).

Table 4-3. Risk factors for low birth weight infants.

<table>
<thead>
<tr>
<th>Social Risk Factors</th>
<th>Personal Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty</td>
<td>Smoking</td>
</tr>
<tr>
<td>Single parent</td>
<td>Alcohol and other drug use</td>
</tr>
<tr>
<td>Teenage parent</td>
<td>Poor nutrition before and during pregnancy</td>
</tr>
<tr>
<td>Little or no prenatal care</td>
<td>Limited stress-relief strategies</td>
</tr>
<tr>
<td>Living with a violent partner</td>
<td></td>
</tr>
<tr>
<td>Generally stressful life</td>
<td></td>
</tr>
<tr>
<td>Workplace conditions</td>
<td></td>
</tr>
<tr>
<td>Type and amount of work</td>
<td></td>
</tr>
</tbody>
</table>

- Within the Burntwood Region, the prevalence of low birth weight (LBW) infants have fluctuated from year to year, and this is primarily a reflection of the small numbers of low birth weight infants each year. Overall, there has been no substantial change in the proportion of low birth weight infants between 2002/03 (5.6% of live births) and 2006/07 (6.0% of live births). The prevalence of LBW infants in the Burntwood Region have consistently remained very similar to, or slightly higher than, the provincial average (see Figure 4-9).

- Figure 4-10 illustrates low birth weight prevalence by region for 2006/07, with a low of 0 in Churchill to a high of 7.9 per cent of births in the NOR-MAN region. The Burntwood Region prevalence was higher than the provincial average, and ranks among the highest in the province.

- Combined data for five years, which provides more stability, are illustrated in Figure 4-11. These data show that the five year average annual LBW prevalence in the Burntwood Region appears to be consistently high at 5.5 per cent of births (the third highest in the province over five years).
Figure 4-9. Low birth weight prevalence, 2002/03-2006/07.

Source: Manitoba Health (Health Information Management)

Figure 4-10. Low birth weight prevalence by region, 2006/07.

Source: Manitoba Health (Health Information Management)

NOTE: No cases for Churchill.
Figure 4-11. Low birth weight prevalence by region, 2002/03-2006/07.

Source: Manitoba Health (Health Information Management)

NOTE: *Rates are unstable due to small counts; statistical testing is not possible.
Assiniboine, Central, Parkland and Winnipeg were statistically different from Manitoba average.
4.2.4 **HIGH BIRTH WEIGHT INFANTS (HBW)**

Research has shown an increased risk of developing Type 1 Diabetes for high birth weight (HBW) infants\(^{ix}\). In addition, Health Canada advises that HBW infants are at greater risk of infant mortality than are normal weight infants. Pregnant women who are diagnosed with gestational diabetes are at higher risk for delivery of a high birth weight infant.

- While rates of LBW infants have historically been higher than the provincial average, the same is true for HBW infants. **Figure 4-12** shows that the prevalence of HBW infants in the Burntwood Region has remained higher than the provincial average in every year. Overall, however, the prevalence has not changed substantially— from 21.3 per cent of live births in 2000/01 to 19.5 per cent in 2006/07. Provincial prevalence has also remained steady at approximately 16 per cent of live births.

- **Figure 4-13** shows that in 2006/07 HBW prevalence ranged from a low of 14.4 per cent in Winnipeg to almost one in five births in the Parkland Region (22.0%).

---

**Figure 4-12.** High birth weight prevalence, Burntwood and Manitoba, 2002/03-2006/07.

![Graph showing high birth weight prevalence](expected_graph_url)

*Source: Manitoba Health Healthy Living (Health Information Management)*
Figure 4-13. High birth weight prevalence by region, 2006/07

Source: Manitoba Health (Health Information Management)
NOTE: Churchill rates should be interpreted with caution due to small numbers.

Brandon, Burntwood, Central, Interlake, NOR-MAN, Parkland and Winnipeg were statistically different from Manitoba average.

Figure 4-14. High birth weight prevalence by region, 2002/03-2006/07.

Source: Manitoba Health (Health Information Management)
NOTE: *Rates are unstable due to small counts; statistical testing is not possible.
Brandon, Burntwood, Central, Interlake, NOR-MAN, Parkland and Winnipeg were statistically different from Manitoba average.
4.2.5 DIABETES PREVALENCE IN CHILDREN

Experts believe that the most important risks for children acquiring Type 2 Diabetes are being overweight, not being physically active, and having a family history of the disease. In addition, the hormones released during the early teen years make it harder than usual for the body to use insulin correctly. This problem is called insulin resistance and it can lead to diabetes.

Diabetes in children is a particularly important issue because the longer a person has diabetes, the more likely he or she is to have problems, such as diseases of the eyes, heart, blood vessels, nerves, and kidneys. Helping children to manage their diabetes and control blood sugar levels will be an important commitment of caregivers, as it may help delay the start of, or prevent, some of these problems later in life.

While community consultations generally focused on the management and access to care for diabetes among adults, there was discussion about the poor dietary habits and sedentary lifestyle of children in the Burntwood Region, which is leading to increased prevalence of diabetes in children.

- Diabetes is still relatively uncommon among children; however we are starting to see a higher prevalence within the region. The diabetes prevalence for children in Burntwood increased significantly from 0.4 per cent to 0.9 per cent between 1998/99-2000/01 and 2003/04-2005/06, which is significantly higher than the Manitoba average at 0.4 per cent in 2003/04-2005/06 (see Figure 4-15).
Figure 4-15. Diabetes prevalence by region, 1998/99-2000/01 and 2003/04-2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first and/or second time period

‘t’ indicates change over time was statistically significant for that area; ‘s’ indicates data suppressed due to small numbers
4.2.6 **Asthma**

Asthma is one of a number of chronic respiratory diseases in which incidence rates continue to climb for Canadians. While incidence and prevalence are generally higher among children below the age of 11, it is common among all age groups, requiring health care interventions that help to manage asthma symptoms on an ongoing basis.

Participants in the teachers’ focus group in Thompson cited asthma as one of the more serious chronic diseases in the region, particularly among students.

- Asthma prevalence for children in the Burntwood Region remained quite stable, increasing just slightly from 5.6 per cent of children to 6.1 per cent between 1999/2000-2000/01 and 2004/05-2005/06. The rate remains significantly lower than the Manitoba average of 13.9 per cent in 2004/05-2005/06, and ranks the lowest among all regions in the province (see Figure 4-16).

![Figure 4-16. Asthma prevalence by region, 1999/00-2000/01 and 2004/05-2005/06.](image-url)

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

**NOTE:** ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first and/or second time period; ‘1’ indicates change over time was statistically significant for that area; ‘s’ indicates data suppressed due to small numbers.
4.2.7 **ATTENTION DEFICIT - HYPERACTIVITY DISORDER (ADHD)**

Approximately five per cent of Canadian children display behaviours that are associated with hyperactivity or inattention. This can be a barrier to healthy child development, as those with ADHD have difficulty concentrating on tasks or are easily distracted, act impulsively or without thinking, and have problems waiting for his or her turn in peer and social settings. It is important to identify these children and provide the necessary interventions.

Behavioural challenges among children were a topic of discussion in the majority of focus groups. Although most community members did not specifically mention ADHD, participants in the teachers’ focus group in Thompson said that ADHD was one of the more serious chronic conditions facing children in the region.

- The ADHD prevalence for children in the Burntwood Region increased from 1.0 per cent to 2.1 per cent between 2000/01 and 2005/06. Although this is a statistically significant increase, the prevalence remains significantly lower than the Manitoba average of 3.2 per cent in 2005/06 (see Figure 4-17).

- It is important to note that diagnosis of ADHD requires that the parent identify a concern and took the child to a physician for an assessment. Some parents may not identify a child’s behaviour patterns as a medical issue and/or may try to manage the condition with other resources available through the school or other means. In addition, not all physicians will necessarily identify that a child has ADHD. For example, in some cases, children with ADHD are diagnosed with other disorders and/or children who have other disorders (such as Fetal Alcohol Syndrome Disorder) may be diagnosed with ADHD.

![Figure 4-17. ADHD prevalence by region, 2000/01 and 2005/06.](image)

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

**NOTE:** ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first and/or second time period.

‘s’ indicates change over time was statistically significant for that area; ‘s’ indicates data suppressed due to small numbers.
4.2.8 AUTISM

Autism is now recognized in Canada as the most common neurological disorder affecting children, and one of the most common developmental disabilities. While still in the early stages of autism surveillance and research, autism is thought to affect 1 in every 165 Canadian children and incidence rates appear to be rising.\textsuperscript{xii}

- Although still relatively rare, the autism prevalence for children in Burntwood increased significantly from 0.2 per cent to 0.3 per cent between 1996/97-2000/01 and 2001/02-2005/06. Burntwood's rate is still significantly lower than the Manitoba average of 0.6 per cent in 2005/06 (see Figure 4-18).

Figure 4-18. Autism prevalence by region, 1996/97-2000/01 and 2001/02-2005/06.
4.2.9 CONGENITAL HEART DEFECTS

In Canada, congenital heart defects are among the most common structural anomalies, diagnosed in approximately 1 in 100-150 newborns. While advances in diagnosis and surgical treatments have led to earlier diagnosis and a significant reduction in childhood mortality and morbidity, serious heart defects continue to have an impact on the health of affected children. Congenital heart anomalies continue to be the leading cause of deaths attributable to congenital anomalies in Canada.\textsuperscript{xii}

- The infant congenital heart defect rate in Burntwood increased from 11.4 to 13.0 per 1,000 infants between 1996/97-2000/01 and 2001/02-2005/06, which is significantly higher than the provincial average of 7.4 per 1,000 infants in 2005/06 (see Figure 4-19).

Figure 4-19. Infant congenital heart defect rate by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: '1' and '2' indicate area's rate was statistically different from Manitoba average in first and/or second time period
'Y' indicates change over time was statistically significant for that area; 's' indicates data suppressed due to small numbers
4.2.10 CHILD INJURY

In Canada, injuries are the third leading cause of child hospitalizations, with 29,142 injury hospitalizations for ages 1-19 years for 2005/06. Many non-fatal injuries result in impairments and disabilities such as blindness, spinal cord injury and intellectual deficit due to brain injury, which causes a significant burden on the health care system and the economy.\textsuperscript{xiii}

Injury is a very important issue to residents of the Burntwood Region. Not only do Burntwood hospitalization, physician visit and mortality data (which will be presented throughout this chapter) show this, but community consultation participants also remarked on the impact of high risk behaviour and injury on regional residents.

- Hospitalizations due to injury among children have decreased somewhat among Burntwood Region children from 243.2 hospitalizations per 10,000 children (age 0 to 19) to 239.3 per 10,000 in 2001/02-2005/06. However, the Burntwood Region rate is significantly higher than the provincial average, and ranks the highest among all regions (see Figure 4-20).
As Table 4-4 shows, injury hospitalization rates have fallen for many of the major causes of injury hospitalization between 1996-2001 and 2001-2006.

However, it is sobering to note that the leading cause of injury hospitalization among Burntwood children and youth is "self-inflicted" injury. Participants in the focus groups talked about self-inflicted injury, and many people felt that these youth were crying out for attention, as opposed to really meaning to hurt themselves badly or end their lives. They felt that this was another indicator of youth who do not feel supported, do not have a solid family structure and do not know how to deal with sadness and stress. Health care providers and RCMP officers also expressed concern about the number of Burntwood youth who were intentionally self-injuring, and many felt that this reflected a lack of appropriate community level support.

The second leading cause of injury hospitalization among Burntwood children and youth is falls. This often includes toddlers and small children. Lack of supervision of children was cited as a significant concern among focus group participants, and injuries may sometimes result from the lack of supervision by a parent or other adult.

One of the only categories of injury hospitalization to increase between the two time periods was "violence by others". This increased from 16.6 hospitalizations per 10,000 children to 17.4. Violence among BRHA youth was noted as a topic of concern by many focus group participants, as well as teachers and RCMP members. There was a great deal of discussion about children and youth being unsupervised, particularly at night, and violence occurring. Some participants wondered if the increased violence was related to gangs becoming more
common in the communities, while others thought it might be related to use of alcohol and drugs.

- Not only has violence by others increased, but we must note that two of the three leading causes of injury hospitalization among Burntwood children and youth were due to intentional violence, either to self or by others.
Table 4-4. Injury hospitalization rates per 10,000 children aged 0-19 by cause, 1996-2001 and 2001-2006.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Inflicted</td>
<td>41.7</td>
<td>37.6</td>
</tr>
<tr>
<td>Falls</td>
<td>43.0</td>
<td>36.4</td>
</tr>
<tr>
<td>Violence by Others</td>
<td>16.6</td>
<td>17.4</td>
</tr>
<tr>
<td>Poisoning</td>
<td>29.0</td>
<td>15.7</td>
</tr>
<tr>
<td>Motor Vehicle</td>
<td>18.5</td>
<td>11.5</td>
</tr>
<tr>
<td>Other Vehicle</td>
<td>14.8</td>
<td>11.0</td>
</tr>
<tr>
<td>Natural/ Environment</td>
<td>5.9</td>
<td>4.0</td>
</tr>
<tr>
<td>Fire/ Flames</td>
<td>4.9</td>
<td>3.2</td>
</tr>
<tr>
<td>Undetermined</td>
<td>1.9</td>
<td>3.2</td>
</tr>
<tr>
<td>Sports</td>
<td>3.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Suffocation/ Choking</td>
<td>2.1</td>
<td>1.4</td>
</tr>
<tr>
<td>Late Effects</td>
<td>2.8</td>
<td>1.4</td>
</tr>
<tr>
<td>Drowning</td>
<td>2.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Other</td>
<td>47.0</td>
<td>92.0</td>
</tr>
</tbody>
</table>

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.
4.2.11 Dental Extractions in Toddlers/Children

Oral care is often overlooked when identifying indicators for overall health status. However, tooth decay is the most common chronic disease of childhood in Canada. While research in this area is lacking, there is now evidence to suggest that oral diseases can be correlated with some chronic diseases such as diabetes. There is also anecdotal evidence to suggest that vulnerable populations, such as those with a low socio-economic status and Aboriginal peoples, have poorer oral health.  

Although focus group participants, for the most part, did not discuss dental health and tooth decay, many raised the issue of poor diet among children. Participants noted that due to high costs of milk, parents will often purchase less costly items such as pop and fruit punch or tang. Some participants wondered if there was enough information available to parents about the difference between "fruit juice" and "fruit drink" or "fruit punch". There was also discussion about parents not cooking for their children, but instead giving them money to purchase items such as pop and candy from the vending machines or local store. This does not apply to all parents, but was a common theme among community consultation participants. Some health care providers also indicated that, in some cases, there is a belief that dental extractions are almost a "right of passage." It is difficult to ensure that parents understand that dental extractions among young children are actually not common in many areas. Most importantly, they are preventable by not propping the baby bottle, only providing milk or water in the bottle, adhering to good dental habits, and limiting the amount of junk food consumed by young children.

Finally, participants in many of the Bayline communities noted that there is no dentist in the community and although a dentist does visit some communities, it is not often and there may not be enough appointments available. Visiting a dentist in Thompson can cost money for those who need to travel there, as well as for those who do not have dental coverage. This may mean that minor problems, and opportunities for teaching and prevention, do not get caught early enough.

- The dental extraction rate in Burntwood increased significantly from 40.5 to 68.0 per 1,000 children between 1996/97-2000/01 and 2001/02-2005/06 (as it did in all regions of Manitoba), significantly higher than the Manitoba average of 14.2 in 2001/02-2005/06 (see Figure 4-21). BRHA Regional Management Team members indicated that this increase in extractions may actually be positive, in that it could indicate that there has been more resources devoted, and thus more opportunity to perform these procedures on children. Although dental extractions are not ideal, it is less ideal to have a child waiting (and often in pain) for these procedures.
Figure 4-21. Dental extraction rate by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: '1' and '2' indicate area's rate was statistically different from Manitoba average in first and/or second time period.
't' indicates change over time was statistically significant for that area; 's' indicates data suppressed due to small numbers.
4.2.12 INFANT MORTALITY

Infant mortality rates provide information on the level of mortality, health status and level of health care in a region, as well as effectiveness of preventive care and attention paid to the health of the mother and her child. The infant mortality rate is the ratio of the deaths among infants under one year old to the number of live births for a given period of time.

Although infant deaths are rare, when they do occur the most common cause is Sudden Infant Death Syndrome (SIDS). Each year in Canada, approximately 1 in every 2,000 live born infants dies of SIDS. Although there is no known cause of SIDS, the Canadian Foundation for the Study of Infant Deaths identifies several risk factors including:

- Babies who sleep on their tummies (6.6x)
- Babies who sleep on their sides (2x)
- Smoking during pregnancy (3x)
- Exposure to second-hand smoke (2x)
- Overheating
- Cluttered sleeping area
- Soft sleeping surface (increases with tummy sleeping)
- Boys slightly more than girls
- Aboriginal (3x)
- Substance abuse during pregnancy
- Teen mothers (less than 20 yrs of age)
- Mothers with late or no prenatal care
- Preterm infants (before 37 weeks gestation)
- Low birth weight infants (under 2500 g)
- Multiples (twins, triplets, etc.)
- Mild respiratory infections
- Unaccustomed tummy sleepers (18-20x)

The numbers in brackets indicate relative risk. For example, infants who die of SIDS are three times (3X) more likely to be Aboriginal than non-Aboriginal. They are also twice as likely to have been exposed to second-hand smoke, and three times as likely to have been born to a woman who smoked during pregnancy.

Infant mortality rate is one of the most important health indicators, providing information on the level of mortality, health status and level of health care in a region, as well as effectiveness of preventive care and attention paid to the health of the mother and her child. It also reflects the health and education status of women and the relative effectiveness and accessibility of the public health system. Infant mortality rates by income quintile show that while rates are decreasing among all income groups, there remains a significant gap in infant mortality rates between neighbourhoods with the highest and lowest incomes. Infant mortality by cause data can provide additional insight as to the advances in public health prevention, diagnosis and treatment initiatives for pregnant women.

Participants at the breast feeding focus group in Thompson reflected on their experience with prenatal care in the Burntwood Region. Very little in the way of prenatal classes appears to be offered in the Bayline communities. For those who did attend prenatal classes, participants indicated that they had focused primarily on labour and the process for delivery. Participants
felt that prenatal classes could have provided more information about care of the baby in the post-partum period and risk factors for SIDS.

- Between 1980 and 2008, there were 338 deaths to infants under one year of age in the Burntwood Region. Of these, 185 (or 54.7%) were males and 153 (or 44.3%) were females. These deaths account for 8 per cent of all deaths in the region and an average of 11.6 deaths per year. As a comparison, it is important to note that in this time period in the province overall, infant deaths accounted for just under 1.5 per cent of all deaths.

- In Burntwood Region, actual numbers of infant deaths ranged from a low of 5 in 1989 to a high of 20 in 1998. In 18 of the 29 years examined there were at least 12 infant deaths per year (crudely approximating one infant death per month).

- Regional comparison data are only available until 2005. The infant mortality rate in Burntwood decreased from 10.2 to 8.9 per 1,000 infants between 1996-2000 and 2001-2005, which is still higher than the Manitoba average of 6.7 in 2001-2005 (see Figure 4-22).

**Figure 4-22. Infant mortality rate by region, born 1996-2000 and 2001-2005.**

![Infant mortality rate by region, born 1996-2000 and 2001-2005.](image)

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

's' indicates data suppressed due to small numbers
4.2.12.1 Infant Mortality by Income Quintile

This indicator allows health planners to see if child health outcomes have any relationship to socio-economic status or where they live in their region. If there are any identifiable patterns, it allows regions to determine what strategies are needed to improve access to health services. In Canada, infant mortality rates by income quintile show that while the rate is decreasing in among all income groups, there remains a significant gap in infant mortality rates between neighbourhoods with the highest and lowest incomes.\textsuperscript{xvii}

- As Figure 4-23 shows, infant mortality has declined for the three highest urban income groups between 1996-2000 and 2001-2005, while rural infant mortality rates have declined for all income groups except for the highest income group.

Figure 4-23. Infant mortality by income quintile, 1996-2000 and 2001-2005.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.
4.2.12.2 **INFANT MORTALITY BY CAUSE**

This indicator is helpful to health planners to determine trends around infant mortality, and pinpoint resources for prenatal and perinatal health programs for women to those areas where it can be most effective.

- Congenital anomalies were the leading cause of infant mortality between 2001-2005 for all infants at 30 per cent of all infant deaths (see Figure 4-24). This was the case in every region of Manitoba. It was also the number one cause for post neonates at 20 per cent.

- Short gestation/low birth weight was the second leading cause of infant mortality, and this was largely consistent across Manitoba.

![Figure 4-24. Infant mortality by cause, 2001-2005.](image)

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

**NOTE:** This graph includes all infants regardless of birth weight or gestational age.
• **Table 4-5** indicates the leading causes of infant mortality by broad classification for the Burntwood Region between 1980 and 2008. Conditions Originating in the Perinatal Period account for almost one-third of all infant deaths, followed by Congenital Anomalies at 28.4 per cent.

Table 4-5. BRHA Infant deaths by classification, 1980-2008.

<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>Number Of Deaths</th>
<th>Proportion Of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions Originating in the Perinatal Period</td>
<td>104</td>
<td>30.8%</td>
</tr>
<tr>
<td>Congenital Anomalies</td>
<td>96</td>
<td>28.4%</td>
</tr>
<tr>
<td>Symptoms, Signs, Ill-defined Conditions</td>
<td>60</td>
<td>17.8%</td>
</tr>
<tr>
<td>Diseases of the Respiratory System</td>
<td>18</td>
<td>5.3%</td>
</tr>
<tr>
<td>Injury &amp; Poisoning</td>
<td>16</td>
<td>4.7%</td>
</tr>
<tr>
<td>Other*</td>
<td>44</td>
<td>13.0%</td>
</tr>
</tbody>
</table>

Source: Manitoba Health, Health Information Management
NOTE: All "other" classifications account for less than 5 deaths each.

• The leading specific cause of death were related to respiratory problems, accounting for 15 per cent of all deaths, followed by Sudden Infant Death Syndrome (SIDS), which accounted for 11 per cent of all infant deaths. Short gestation and low birth weight accounted for nine per cent of all deaths between 1980 and 2008.
**4.2.13 CHILDHOOD MORTALITY**

In Canada, injuries are, by a considerable margin, the leading cause of death among children and youth accounting for 57 per cent of deaths in this age group. Cancer is the second leading cause of death among children and youth, accounting for just 10 per cent of all deaths.

- As Table 4-6 shows, injury is the leading cause of all child deaths in Manitoba in each child age category. The percentage of deaths due to injuries increases from 37 per cent between the ages of 5 and 9 to 72 per cent for those aged 15-19 years.

- The child injury mortality rate in the Burntwood Region decreased from 72.6 to 72.0 deaths per 100,000 children between 1996-2000 and 2001-2005; however, this is significantly higher than the Manitoba average of 21.9 in 2001-2005 (see Figure 4-25).

**Table 4-6. Leading causes of child death all Manitobans by age group, 2001-2005.**

<table>
<thead>
<tr>
<th></th>
<th>Age 1-4</th>
<th></th>
<th>Age 5-9</th>
<th></th>
<th>Age 10-14</th>
<th></th>
<th>Age 15-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury</td>
<td>49%</td>
<td>Injury</td>
<td>37%</td>
<td>Injury</td>
<td>57%</td>
<td>Injury</td>
<td>72%</td>
</tr>
<tr>
<td>Other</td>
<td>34%</td>
<td>Other</td>
<td>26%</td>
<td>Other</td>
<td>28%</td>
<td>Other</td>
<td>12%</td>
</tr>
<tr>
<td>Respiratory System</td>
<td>9%</td>
<td>Neoplasm</td>
<td>20%</td>
<td>Neoplasm</td>
<td>9%</td>
<td>Neoplasm</td>
<td>5%</td>
</tr>
<tr>
<td>Congenital Anomalies</td>
<td>8%</td>
<td>Congenital Anomalies</td>
<td>17%</td>
<td>Congenital Anomalies</td>
<td>6%</td>
<td>Circulatory System</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

**Figure 4-25. Child injury mortality rate for children aged 0-19 by region, 1996-2000 and 2001-2005.**

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first and/or second time period

‘No data for Churchill
In the 2004 Community Health Assessment, child deaths and injuries were identified as key areas of concern. Because of this, we have requested more in-depth child death data to follow up on these findings to present in this report.

- Between 1980 and 1998, there were 514 deaths in the Burntwood Region to children and youth between the ages of 1 and 19. These deaths account for just over 12 per cent of all deaths in the region and an average of 17.8 deaths per year. As a comparison, it is important to note that in Manitoba deaths to children age 1-19 accounted for just over 1.5 per cent of all deaths.

- Of the deaths in Burntwood Region, 333 (or 64.8%) were males and 181 (or 35.2%) were females.

- Most deaths among BRHA children and youth occur in youth aged 15-19 (45.1% of all deaths) followed by children aged 1-4 (28.0%). Looking at the data by gender, we can see that, males age 15-19 account for the highest proportion (32.9%) of deaths among children and youth (see Figure 4-26), followed by 1-4 year old males (14.4%) and females (13.6%).

**Figure 4-26. Distribution of Burntwood child and youth deaths by sex and age group, 1980-2008.**

Source: Manitoba Health, Health Information Management.
Table 4-7 shows the leading causes of child and youth mortality by broad classification. Overall, injuries accounted for 76.5 per cent of all deaths among Burntwood children and youth; that is three out of every four deaths. For both males and females, in every age group, injury was the leading cause of death.

If we look at the specific causes of death, as we did with infants, we will have more information about the specific causes of the deaths. The leading four causes of death among children and youth are all injury related and the leading cause is self-inflicted injury:

- suicide accounting for 95 (or 18.5%) of all deaths between 1980 and 2008;
- accidental drowning (51 deaths or 10% of all deaths),
- accidents caused by fire and flames (30 deaths or 5.8% of all deaths), and
- hanging and suffocation (29 deaths, or 5.6% of all deaths).


<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>Number Of Deaths</th>
<th>Proportion Of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury &amp; Poisoning</td>
<td>393</td>
<td>76.5%</td>
</tr>
<tr>
<td>Symptoms, Signs, Ill-Defined Conditions</td>
<td>22</td>
<td>4.3%</td>
</tr>
<tr>
<td>Disease of Nervous Sys. &amp; Sense Organs</td>
<td>14</td>
<td>2.7%</td>
</tr>
<tr>
<td>Endocrine, nutritional and metabolic diseases</td>
<td>14</td>
<td>2.7%</td>
</tr>
<tr>
<td>Congenital Anomalies</td>
<td>13</td>
<td>2.5%</td>
</tr>
<tr>
<td>Disease of Respiratory System</td>
<td>13</td>
<td>2.5%</td>
</tr>
<tr>
<td>Disease of Circulatory System</td>
<td>11</td>
<td>2.1%</td>
</tr>
<tr>
<td>Neoplasms</td>
<td>7</td>
<td>1.4%</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
<td>5.3%</td>
</tr>
</tbody>
</table>

Source: Manitoba Health, Health Information Management.

NOTE: All Other classifications account for less than 5 deaths each.

Figure 4-27 illustrates the burden of injuries in deaths among children by age group and gender. In our 15-19 year old youth, injuries accounted for almost 9 out of every 10 deaths (88.8%) that occurred between 1980 and 1998. In both the 10-14 and 15-19 year old age groups, injuries accounted for at least 80 per cent of male deaths. These deaths are preventable, and targeted programming, education campaigns and partnering can work towards decreasing these injury deaths.
Figure 4-27. Injuries as a proportion of child deaths, Burntwood, 1980-2008.

Source: Manitoba Health, Health Information Management.
4.3 Injury

Injury is a serious public health issue having a major impact on the lives of Canadians. Injuries are the leading cause of death for children, youth, and young adults, aged 1-24. Injuries rank fourth among the causes of death across all age groups and genders. Injuries have a major economic impact in terms of direct costs of treatment, care, and rehabilitation, and indirect costs of lost productivity associated with injury. According to Health Canada, injury is the leading cause of death of children and young adults, and is among the leading causes of hospitalization for children, young adults and seniors.

Injury is also a major cause of long and short-term impairment and disability for Canadians. Injuries are different from other diseases in that they have an immediate onset. An individual goes from being perfectly healthy one minute, and seconds later is injured, disabled or fatally wounded. This is why, for example, Self-Rated Health cannot be used to predict outcomes such as death – young men may feel that their health is great, but by engaging in risky behavior they can shorten or reduce the quality of their life in an instant. The most important factor with respect to injuries is that they are preventable through safe and appropriate activities and lifestyle choices.
4.3.1 INJURY HOSPITALIZATION RATES

Injuries can be either intentional or unintentional:

- **Intentional injuries** are either self-directed (such as suicide, or self harm) or directed at others (family violence, child abuse, assault, murder).

- **Unintentional injuries** are just that – unintended, and result from such events as motor vehicle collisions, falls, fires and poisonings.

Hospitalizations due to injury among Burntwood Region males remained steady, accounting for 15 per cent of all hospitalizations between 1993-1999 and 2000-2006. However, this rate is twice that of Manitobans, where injuries account for just seven per cent of all hospitalizations in the second time period (see Figures 4-28).

Hospitalizations due to injury among Burntwood females also remained steady, accounting for eight per cent of all hospitalizations in each time period. However, this rate is higher than that seen among Manitoba females, where injuries account for five per cent of all hospitalizations (see Figures 4-29).

Falls were the leading cause of injury hospitalization among males and females, respectively, although both causes experienced a drop in rate between 1993-1999 and 2000-2006 (see Figures 4-30 and 4-31).
Figure 4-28. Male injury hospitalization rates by region, 1993-99 and 2000-06.

Source: Manitoba Health (Health Information Management)

NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 4-29. Female injury hospitalization rates by region, 1993-99 and 2000-06.

Source: Manitoba Health (Health Information Management)

NOTE: Churchill rates should be interpreted with caution due to small numbers.
Figure 4-30. Burntwood female causes of injury hospitalization, 1993-99 and 2000-06.

![Bar chart showing female causes of injury hospitalization in Burntwood from 1993-99 and 2000-06.](chart1)

Source: Manitoba Health (Health Information Management)

Figure 4-31. Burntwood male causes of injury hospitalization, 1993-99 and 2000-06.

![Bar chart showing male causes of injury hospitalization in Burntwood from 1993-99 and 2000-06.](chart2)

Source: Manitoba Health (Health Information Management)
4.3.2 Injury Hospitalization or Death

This indicator provides information to health planners around the burden of injuries on the health care system, particularly on hospitals. This rate combines both hospitalizations and deaths due to injuries.

- The female injury hospitalization or death rate in the Burntwood Region decreased slightly from 29.0 to 28.4 per 1,000 females between 1988/89-1995/96 and 1996/97-2003/04. As with other injury data already presented, these rates, although improving slightly, are significantly higher than the Manitoba average of 8.8 per 1,000 in 1996/97-2003/04 (see Figure 4-32).

- Time trend data are available for injury hospitalization or death rates between 1984/86 and 2002/04 (see Figure 4-33). These data show that the rates among Burntwood females are consistently higher than Manitoba rates by a large margin in every year. In addition, while there had been a slight trend toward a decreasing rate (as seen with the Manitoba rate), this direction has changed and rates appear to be increasing.

- The male injury hospitalization or death rate in Burntwood is lower than the most recent rate among females. The rate has decreased from 29.9 to 25.4 per 1,000 males between 1988/89-1995/96 and 1996/97-2003/04, however, like females, this rate remains much higher than the Manitoba average of 9.7 per 1,000 in 1996/97-2003/04 (see Figure 4-34).

- Time trend data for males (see Figure 4-35) shows that the rates among Burntwood males, while consistently higher than Manitoba rates, are decreasing slowly over time.

- We must note the consistently higher rates of injury hospitalization or deaths among residents of First Nations communities compared to non-First Nations communities in Burntwood Region. Because the RHA currently only provides services directly to non-First Nations communities, we are limited in our ability to work with community members to provide further education and supports in order to reduce or eliminate injury deaths and hospitalizations. These data underscore the importance of working with our partners who provide services directly on-reserve so that we can have an impact at the community level before residents end up as inpatients in the hospital.
Figure 4-32. Female injury hospitalization or death rates by region, 1988/89-1995/96 and 1996/97-2003/04.


NOTE: Churchill rates should be interpreted with caution due to small numbers.

'1' indicates area's rate was statistically different from Manitoba average in first time period

'2' indicates area's rate was statistically different from Manitoba average in second time period

't' indicates change over time was statistically significant for that area
Figure 4-33. Female injury hospitalization or death rates by year, Burntwood and Manitoba, 1984/86-2002/04.


Figure 4-34. Male injury hospitalization or death rates by region, 1988/89-1995/96 and 1996/97-2003/04.


NOTE: Churchill rates should be interpreted with caution due to small numbers.

'1' indicates area’s rate was statistically different from Manitoba average in first time period

'2' indicates area’s rate was statistically different from Manitoba average in second time period

'Y' indicates change over time was statistically significant for that area

Figure 4-35. Male injury hospitalization or death rates by year, Burntwood and Manitoba,

4.4 CHRONIC DISEASES AND THEIR COMPLICATIONS

Although chronic diseases are among the most common and costly health problems facing Canadians, they are also among the most preventable. Examples include cardiovascular diseases (heart disease and stroke), diabetes, mental illness, arthritis and asthma.

According to the World Health Report 2002, the major risk factors for individuals in developing a chronic disease include:

- tobacco
- alcohol
- blood pressure
- physical inactivity
- cholesterol
- overweight
- unhealthy diet

There are also risk factors in communities that have been identified:

- Social and economic conditions, such as poverty, employment, family composition;
- Environment, such as climate, air pollution;
- Culture, such as practices, norms and values; and
- Urbanization, which influences housing, access to products and services.

As discussed in Chapter 3, chronic diseases and their risk factors were a key theme discussed at each consultation focus group. Diabetes, cancer and heart disease were cited as the most common chronic diseases. Diabetes was cited more often than any other chronic disease. In many focus groups (even those not targeted specifically at diabetes or chronic disease), at least one person had diabetes and all knew of someone with diabetes.

Specifically in relation to diabetes, it was felt that there are a number of good programs and services available both in Thompson and in the communities (e.g. dietitian, diabetic nurse educator and foot-care clinic) available. However, most of the Bayline community programming occurs when the staff from Thompson (such as from the Regional Diabetes Program) come to the community, and the lack of a full time staff member to help support those with chronic disease in the community was noted. This was particularly a concern with relation to weather, which might prevent the staff member from Thompson from being able to access the communities at certain times of the year.

Thompson focus group participants indicated that access to an eye specialist has improved, with some community members receiving results within 10 days. This was praised as "great service". However, not everyone was aware that retinal screening is now available, and it was felt that information about this program might be better communicated. In addition, retinal screening may not be available in all Burntwood communities, and many residents in Bayline community focus groups indicated that they did not know about this program.

Overall, the feedback about supports available through programs such as the Regional Diabetes Program were very positive, and the greatest challenge in managing chronic diseases
in general was cited as lack of access to a doctor as required, as well as to pharmacists for continuity in prescriptions. Focus group participants indicated that due to the difficulty in getting a long term family physician and the requirement to see multiple doctors (especially if one is living with diabetes or any chronic disease), there are challenges with ensuring consistent, quality health care. Participants indicated that in many of the health centres, their particular diabetes medication was not kept in stock and if a physician did not visit the community for extended periods (for example, due to weather preventing the charter flight) they risked running out of their medication. Many participants also indicated that in their communities the wait to see a physician could be months and if they do not plan ahead to visit the physician for a refill, they risk going for extended periods without their medication. Others noted that they had to go to Thompson to see a physician simply for a refill of medication and this made it very difficult to manage their diabetes.

Focus group participants from Thompson indicated that they generally had positive experiences with their physicians in helping them to monitor their chronic disease. There is good information provided to patients about medications, especially when the patient requested it. Health professionals generally do not ask patients to routinely bring their medications, including over the counter drugs, to appointments.

As discussed in Chapter 3, in terms of ongoing management of chronic conditions such as diabetes, many participants in more remote communities noted the difficulty in maintaining a healthy diet with the lack of access to affordable and healthy foods such as fruits and vegetables.

While detailed information will be provided in this section about many chronic conditions, Table 4-8 highlights some selected chronic diseases and complications. This table shows the difference between Burntwood and Manitoba prevalence and rates.

- It is important to note that although Burntwood has a young population, and therefore our residents should be at lower risk for chronic disease (which tend to occur most frequently among older people), in every condition (with the exception of Respiratory Treatment prevalence), the prevalence or rate is higher among Burntwood residents than for Manitobans overall. For example, the prevalence of diabetes is 21.4 per cent in Burntwood, which is more than twice the provincial rate of 8.7 per cent. Complications such as lower limb amputations among residents living with diabetes are also much higher among Burntwood residents than for Manitobans overall. Due to the differences in service provision for many communities of the region, these rates may well under-represent the true rate of chronic conditions in the region. For example, if physicians are salaried and do not "shadow-bill", Manitoba Health may not have a record of an individual being diagnosed with diabetes. In addition, for residents who receive most of their health care services on reserve through a nurse, there may be no data to indicate that they have been diagnosed with a chronic (or any type) of condition. Therefore, when reviewing treatment prevalence data, it is important to consider these to be likely under-reporting the true prevalence of illness in the region.
Table 4-8. Selected chronic diseases and complications.

<table>
<thead>
<tr>
<th>Disease / Condition</th>
<th>Burntwood rate</th>
<th>Manitoba rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>21.4%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Lower Limb amputation due to diabetes</td>
<td>39.8 per 1,000</td>
<td>14.3 per 1,000</td>
</tr>
<tr>
<td>Hypertension treatment prevalence</td>
<td>35.4%</td>
<td>23.7%</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>14.2%</td>
<td>12.7%</td>
</tr>
<tr>
<td>Arthritis</td>
<td>21.9%</td>
<td>20.2%</td>
</tr>
<tr>
<td>IHD treatment prevalence</td>
<td>11.8%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Hospitalizations or deaths due to stroke</td>
<td>7.5 per 1,000</td>
<td>3.0 per 1,000</td>
</tr>
<tr>
<td>Hospitalizations or deaths due to AMI</td>
<td>6.1 per 1,000</td>
<td>4.6 per 1,000</td>
</tr>
<tr>
<td>Respiratory Morbidity treatment prevalence</td>
<td>7.6%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Asthma</td>
<td>8.5%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Treatment prevalence for renal failure</td>
<td>Female (3.5%)</td>
<td>Female (1.7%)</td>
</tr>
<tr>
<td></td>
<td>Male (3.2%)</td>
<td>Male (2.5%)</td>
</tr>
<tr>
<td>Treatment prevalence for inflammatory bowel disease</td>
<td>Female (0.2%)</td>
<td>Female (0.4%)</td>
</tr>
<tr>
<td></td>
<td>Male (0.2%)</td>
<td>Male (0.4%)</td>
</tr>
</tbody>
</table>

Source: Canadian Community Health Survey, 2007, Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas, Manitoba Health (Health Information Management).
4.4.1 DIABETES

Diabetes is a significant chronic disease which can have a major impact on the health of Canadians and on the health care system itself. According to the Public Health Agency of Canada, forty percent of Canadians with diabetes develop long-term complications such as high blood pressure, vision loss and kidney disease. The Public Health Agency of Canada also reports that there is a disproportionate number of First Nations people who are being diagnosed with Type 2 diabetes. Rates of diabetes among Aboriginal people in Canada are three to five times higher than those of the general Canadian population.xix

Health Canada identifies several risk factors for diabetes:

Type 1
The causes of Type 1 diabetes are largely unknown. Risk factors currently under study are exposure to cow's milk in infancy and infections of various kinds.

Type 2
The more risk factors an individual has, the greater his/her likelihood of developing Type 2 diabetes.

- **Obesity**
  An excessively high body weight increases diabetes risk. A BMI greater than 27 indicates a risk for developing Type 2 diabetes.

- **Apple-shaped figure**
  Individuals who carry most of their weight in the trunk of their bodies (i.e., above the hips) tend to have a higher risk of diabetes than those of similar weight with a pear-shaped body (excess fat carried mainly in the hips and thighs).

- **Age**
  Age increases the risk of Type 2 diabetes. Canadian data for 1996/97 show that the prevalence rate of diabetes in those aged 65 and over (10.4%) is three times as high as the rate in those 35 to 64 (3.2%).

- **Sedentary lifestyle**
  Being overweight can be prevented by regular physical activity. A second, independent benefit of regular physical activity is improved blood sugar control in persons who already have Type 2 diabetes.

- **Family History**
  The genetic link for Type 2 diabetes is stronger than the genetic link for Type 1. Having a blood relative with Type 2 diabetes increases the risk. If that person is a first-degree relative (e.g. a parent, sibling or child), the risk is even higher.

- **History of Diabetes in Pregnancy**
  Nearly 40 percent of the women who have diabetes during their pregnancy go on to develop Type 2 diabetes later, usually within five to ten years of giving birth.

- **Impaired Glucose Tolerance**
  Impaired glucose tolerance or impaired fasting glucose can precede the development of Type 2 diabetes.

- **Ethnic Ancestry**
  Being of Aboriginal, African, Latin American or Asian ethnic ancestry increases the risk of developing Type 2 diabetes. Risk levels for these groups are between two and six times higher than for Canadians of Caucasian origin.

- **High Blood Pressure**
Up to 60 percent of people with undiagnosed diabetes have high blood pressure.

- **High Cholesterol or other fats in the blood**
  More than 40 percent of people with diabetes have abnormal levels of cholesterol and similar fatty substances that circulate in the blood. These abnormalities appear to be associated with an increased risk of cardiovascular disease among persons with diabetes.

Although we are seeing more cases of diabetes being diagnosed among younger people, diabetes still remains most common among residents age 50 and older. For this reason, in some of the following graphs we present both crude and age-adjusted rates. The crude rates represent the "real rates" and this information is important for planning services. For example, if 10 out of 20 people in a community have diabetes, we could say that the crude rate is fifty per cent, or five hundred per 1,000 residents. The age-adjusted rate is useful to allow us to compare our rates to other areas where the population structure might be different. For example, age-adjusting means that we "pretend" that our population looks the same as Manitoba (in terms of percentage of people in each age group) and then say, if we had that population structure, how many cases (or deaths, or hospitalizations) would we expect to see in Burntwood Region. This allows us to take into account the differences when a disease is most prevalent in certain age groups. Both pieces of information are useful but only the "crude rate" is the true rate in Burntwood Region, while the adjusted rate allows us to better compare ourselves with the rest of Manitoba.

- The diabetes treatment prevalence rate in the Burntwood Region increased significantly from 15.9 per cent to 21.4 per cent of adults between 1998/99-2000/01 and 2003/04-2005/06. This is significantly higher than the Manitoba average of 8.7 per cent in 2003/04-2005/06 (see Figure 4-36).

- **Figure 4-37** illustrates the very large difference in diabetes prevalence rates between Aboriginal and non-Aboriginal Manitobans. Overall in Manitoba, 17.8 per cent of residents with Treaty status were living with diabetes compared to just 5 per cent of non-Treaty Manitobans in 2005/06. Within the Burntwood Region, 16.7 per cent of Treaty status residents living with diabetes compared to just 7.1 per cent of non-Treaty residents in the same time period. However, again we caution that these numbers likely under-represent the true rate of residents living with diabetes in Burntwood Region, particularly given the large number of residents who live on reserve and receive the majority of their health care services in this setting (these data are not provided to Manitoba Health).

- We have discussed the prevalence rates of diabetes in Burntwood Region, and these data reflect the total number of people in Burntwood Region who have diabetes and have been diagnosed and sought treatment from a physician in the time periods examined. For planning purposes, it is also important to note the rate of new cases (incidence) of diabetes being diagnosed in Burntwood Region. **Figure 4-38** shows that the crude diabetes incidence rate in the Burntwood/Churchill region was 6.9 new cases per 1,000 residents between 2001/02-2005/06. This rate of new cases is higher than the Manitoba average of 5.7 per 1,000 residents. The age-adjusted incidence rate in this time period was 10.9 new cases per 1,000 from 2001/02-2005/06, which is much higher than the provincial rate of 5.4 per 1,000 residents. The age-adjusted rate, and the increase seen compared to the crude rate, reflect our young population and the burden that this disease has not just on older residents but on young people as well.
Figure 4-36. Diabetes prevalence rates by region, 1998/99-2000/01 and 2003/04-2005/06.

Per Cent

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
1' indicates area’s rate was statistically different from Manitoba average in first time period
2' indicates area’s rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area
Figure 4-37. Diabetes prevalence rates by treaty and non-treaty status, 2005/06.

![Diabetes prevalence rates by treaty and non-treaty status, 2005/06.](image)

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

Figure 4-38. Crude and age adjusted diabetes incidence rates by region, 2001/02-2005/06 average.

![Crude and age adjusted diabetes incidence rates by region, 2001/02-2005/06 average.](image)

Source: Manitoba Health & Healthy Living, Diabetes and Chronic Diseases Unit.

NOTE: Age-standardized diabetes incidence rates were significantly higher than the Manitoba rate in Burntwood/Churchill, NOR-MAN, Parkland and North Eastman. They were significantly lower in Winnipeg, Central, Assiniboine and South Eastman.
There are many complications associated with diabetes, including an increased risk of death, which for Burntwood residents is two times the risk of those who do not have diabetes. Other complications and associated illnesses for people living with diabetes include chronic kidney disease and diseases of the circulatory system. They also have more hospitalizations and physician visits than do people without diabetes.

- The crude rate of chronic kidney disease among Burntwood/Churchill residents who have diabetes was 18.7 cases per 1,000 people with diabetes in the 1999/2000-2003/04 period. This rate was higher than the Manitoba average of 14.2. The age-adjusted rate was lower than the crude rate at 12.5 per 1,000 in 1999/2000-2003/04 period (see Figure 4-39).

- The crude rate of circulatory system hospitalizations among Burntwood/Churchill residents with diabetes was 125.3 per 1,000 for the 1999/2000-2003/04 period, higher than the Manitoba average of 120.9. The age-adjusted rate was 91.7 per 1,000 for the 1999/2000-2003/04 period, again higher than the Manitoba average of 58.5 (see Figure 4-40).

- The overall crude rate of hospital days used among Burntwood/Churchill residents with diabetes was 3,499.3 days per 1,000 residents with diabetes in the 2001/02-2005/06 period. This rate of hospital days was lower than the Manitoba average of 4,164.5 hospital days per 1,000 residents with diabetes. The age-adjusted rate was lower than the crude rate at 2,808.8 per 1,000 in the 2001/02-2005/06 period (see Figure 4-41).

- It is also important to note that the ratio of hospital days among Burntwood/Churchill residents living with diabetes was 3.3 times the rate of those residents who had not been diagnosed with diabetes.

- The crude rate of physician visits by Burntwood/Churchill residents with diabetes was 10,344 visits per 1,000 residents in the 2001/02-2005/06 period, lower than the Manitoba average of 13,076.9 (see Figure 4-42). However, this still means that each person living with diabetes saw a physician (for any cause) over ten times in the five year period.

- Our data also show that, as with hospitalizations, there was an increased rate of physician visits among Burntwood/Churchill residents who have diabetes compared to those who have not been diagnosed with diabetes. Residents with diabetes had 2.2 times as many physician visits as those who do not have diabetes between 2001/02-2005/06.

Figure 4-39. Rates of chronic kidney disease among people diagnosed with diabetes by region,
NOTE: Age-standardized Chronic Kidney Disease with diabetes rates were significantly higher than the Manitoba rate in Burntwood/Churchill, NOR-MAN, Central and Parkland. They were significantly lower in South Eastman.

Figure 4-40. Hospitalization rates for circulatory system disease among people diagnosed with diabetes by region, 1999/2000-2003/04 average.

NOTE: Age-standardized Circulatory System Hospitalizations with diabetes rates were significantly higher than the Manitoba rate in Burntwood/Churchill, NOR-MAN, Central and Parkland. They were significantly lower in Winnipeg, Brandon and South Eastman.

Figure 4-41. Rates of hospitalization days (any cause) for people diagnosed with diabetes by region,
NOTE: Age-standardized Hospitalization Days with diabetes rates were significantly higher than the Manitoba rate in Burntwood/Churchill, Brandon, Assiniboine and Parkland. They were significantly lower in Winnipeg, North Eastman, Interlake, NOR-MAN and South Eastman.

Figure 4-42. Rates of physician visits for people diagnosed with diabetes by region, 2001/02-2005/06 average.
4.4.1.1 LOWER LIMB AMPUTATION AMONG PEOPLE DIAGNOSED WITH DIABETES

Individuals with diabetes who have a lower limb amputation have higher mortality rates and a lowered quality of life. Treatments are painful and time consuming, requiring frequent hospitalizations, with patients needing assistance with activities of daily life. Effective foot care for those with diabetes can often avoid the need for amputation.xx

- Lower limb amputation rates among Burntwood Region residents with diabetes decreased from 46.1 to 39.8 amputations per 1,000 diabetics aged 19 years and older between 1998/99-2000/01 and 2003/04-2005/06. This rate remains significantly higher than the Manitoba average of 14.3 amputations per 1,000 people living with diabetes in 2003/04-2005/06 (see Figure 4-43).

Figure 4-43. Lower limb amputation rates among residents with co-morbid diabetes by region, 1998/99-2000/01 and 2003/04-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
'1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area
's' indicates data suppressed due to small numbers
4.4.2 HYPERTENSION TREATMENT PREVALENCE

Hypertension is the medical name for high blood pressure, a major risk factor for heart attack, stroke and other cardiovascular problems. Normal blood pressure in adults is defined as a reading of 120 over 80, while hypertension is any reading of 140 over 90 or higher on a consistent basis (if you have diabetes, a reading of 130 over 80 or higher would be considered high as well). Health Canada estimates that up to 60 per cent of persons with undiagnosed diabetes have high blood pressure.

Data about hypertension is available from the Canadian Community Health Survey (but this includes off-reserve residents only), as well as physician billing data.

- According to the 2007 CCHS, 14.3 per cent of Burntwood residents reported that they had been diagnosed with hypertension. This is slightly below the Manitoba average of 16.2 per cent and the Canadian average of 16.0 per cent (see Figure 4-45).

- Physician billing data (which includes information about people living on and off-reserve as long as they were diagnosed by a physician) indicates that the hypertension treatment prevalence rate in Burntwood increased significantly from 26.3 per cent to 35.4 per cent between 2000/01 and 2005/06, significantly higher than the Manitoba average of 23.7 per cent in 2005/06 (see Figure 4-46).
Figure 4-45. Residents who report having hypertension by region, 2007.

Source: Canadian Community Health Survey, 2007 (Cycle 3.1)
NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 4-46. Hypertension treatment prevalence rates by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: *1* indicates area’s rate was statistically different from Manitoba average in first time period
*2* indicates area’s rate was statistically different from Manitoba average in second time period
*t* indicates change over time was statistically significant for that area
4.4.3 OSTEOPOROSIS

In Canada, about one out of four women and one out of eight men over 50 years of age have osteoporosis. This chronic disease can have a devastating effect on people's lives, causing painful fractures, disability or deformity. Incidence data for this disease can be an indicator of the relative success of osteoporosis prevention measures by primary care physicians and specialists.

Osteoporosis is a disease characterized by low bone mass and deterioration of bone tissue. This leads to increased bone fragility and risk of fracture (broken bones), particularly of the hip, spine and wrist. Osteoporosis is often known as "the silent thief" because bone loss occurs without symptoms.

This chronic disease can have a devastating effect on people's lives, causing painful fractures, disability or deformity. The reduced quality of life for those with osteoporosis is enormous. Osteoporosis can result in disfigurement, lowered self-esteem, reduction or loss of mobility, and decreased independence. Incidence data for this disease can be an indicator of the relative success of osteoporosis prevention measures by primary care physicians and specialists.

The statistics related to hip fractures are particularly disturbing. Seventy percent of hip fractures are osteoporosis-related. Hip fractures result in death in up to 20 percent of cases, and disability in 50 per cent of those who survivexxi.

- The osteoporosis treatment prevalence rate in the Burntwood Region increased significantly from 10.2 per cent to 14.2 per cent of residents age 50 and older between 1998/99-2000/01 and 2003/04-2005/06. This is higher than the Manitoba average of 12.7 per cent of residents age 50 and older in 2003/04-2005/06 (see Figure 4-47).
Figure 4-47. Osteoporosis treatment prevalence rates among residents age 50+ by region, 1998/99-2000/01 and 2003/04-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers. 
1’ indicates area’s rate was statistically different from Manitoba average in first time period
2’ indicates area’s rate was statistically different from Manitoba average in second time period; ‘t’ indicates change over time was statistically significant.
4.4.4 ARTHRITIS

According to the Canadian Community Health Survey, arthritis and other rheumatic conditions affected nearly four million Canadians aged 15 years and older - approximately one in six people. Two-thirds of people with arthritis are women, and nearly three of every five people with arthritis are younger than 65 years of age.\textsuperscript{xii}

By the year 2026, it is estimated that over six million Canadians 15 years of age and older will have arthritis. Compared with people with other chronic conditions, those with arthritis experienced more pain, activity restrictions and long-term disability. Those with arthritis were more likely to need help with daily activities, reported worse self-rated health and more disrupted sleep and depression, and more frequently reported contact with health care professionals in the previous year.\textsuperscript{xiii}

Data about arthritis is available from the Canadian Community Health Survey (but this includes off-reserve residents only), as well as physician billing data.

- According to the 2007 CCHS, 13.2 per cent of Burntwood/Churchill residents reported that they had been diagnosed with arthritis. This is the lowest rate in the province, and is lower than the Manitoba average of 15.7 per cent and the Canadian average of 15.0 per cent (see Figure 4-48).

\textbf{Figure 4-48. Residents who report having arthritis by region, 2007.}

Source: Canadian Community Health Survey, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
Physician billing data (which includes information about people living on and off-reserve as long as they were diagnosed by a physician) indicates that the arthritis treatment prevalence rate in Burntwood experienced a statistically significant decrease between 1999/2000-2000/01 and 2004/05-2005/06 while still remaining above the Manitoba average (see Figure 4-49).

![Figure 4-49. Arthritis treatment prevalence rate by region (age 19+), 1999/2000-2000/01 and 2004/05-2005/06.](image)

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

1' indicates area's rate was statistically different from Manitoba average in first time period

2' indicates area's rate was statistically different from Manitoba average in second time period

't' indicates change over time was statistically significant for that area
4.4.5 ISCHEMIC HEART DISEASE (IHD) TREATMENT PREVALENCE

Cardiovascular disease is the leading cause of death for both men (32.3%) and women (34.1%) in Canada. It accounts for 18 per cent of hospitalized cases. It is also Canada’s most costly disease and puts the greatest burden on our health care system.

Ischemic heart disease (e.g. narrowing of the arteries, angina), acute myocardial infarction (heart attack), congestive heart failure and stroke are examples of cardiovascular disease. Many of the risk factors for cardiovascular disease are common to Type 2 diabetes and many cancers (such as obesity, physical inactivity, stress). In turn, Type 1 and Type 2 diabetes are significant risk factors for cardiovascular disease.

A number of focus group participants identified heart disease as one of the key chronic diseases affecting their communities. The challenges with managing one's cardiac care were seen as similar to diabetes. Participants were concerned that there were not enough organized recreational activities to allow cardiac patients to improve their heart health. As mentioned previously, participants noted the difficulty of eating healthy with the scarcity in healthy foods at higher prices. Educational resources for those trying to lead a healthier lifestyle were noted. As one participant remarked, "[There's] not enough education about healthy eating--I had to learn a new way to cook."

- The IHD treatment prevalence rate in Burntwood increased from 11.5 per cent to 11.8 per cent between 1996/97-2000/01 and 2001/02-2005/06. This is significantly higher than the Manitoba average of 8.5 per cent in 2001/02-2005/06 (see Figure 4-50).
Figure 4-50. IHD treatment prevalence rates by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: ‘1’ indicates area’s rate was statistically different from Manitoba average in first time period
‘2’ indicates area’s rate was statistically different from Manitoba average in second time period
‘t’ indicates change over time was statistically significant for that area
4.4.6 RESPIRATORY MORBIDITY TREATMENT PREVALENCE

Six million Canadians live with chronic respiratory diseases, which place a significant burden on hospital treatment resources. According to the 2008 Canadian Institute of Health and Information (CIHI) report entitled *The Cost of Acute Care Hospital Stays by Medical Condition in Canada, 2004-2005*, of the total $17 billion share of acute care inpatient costs, 45.5% can be attributed to the treatment or complexities of respiratory diseases.\(^{xxiv}\) Hospitalization data on respiratory disease treatment is an important indicator of the effectiveness of primary care management of those conditions, as well as a reflection of the socioeconomic status, smoking rates and the relative quality of the environment. \(^{xxv}\)

- The total respiratory morbidity prevalence in Burntwood decreased significantly from 8.4 to 7.2 per cent between 2000/01 and 2005/06. Our rate has been significantly lower than the provincial rate in both time periods (see Figure 4-51).

**Figure 4-51. Total respiratory morbidity prevalence by region, 2000/01 and 2005/06.**

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

\(^{xxiv}\) indicates area’s rate was statistically different from Manitoba average in first time period

\(^{xxv}\) indicates area’s rate was statistically different from Manitoba average in second time period

\(^{t}\) indicates change over time was statistically significant for that area
4.4.7 Asthma

While asthma is often considered a children's disease, it is common among Canadians of all age groups and accounts for approximately 80 per cent of chronic respiratory disease in Canada.\textsuperscript{xxvi} Children and teens do have the highest prevalence of asthma and the highest hospitalization rates. In terms of number of people affected, however, the disease affects more adults than children. Asthma rates and hospitalization rates can be an indicator of the effectiveness of asthma management strategies, smoking rates and the relative quality of the environment.

The exact cause of asthma is not known, but according to the National Asthma Control Task Force, it appears to be the result of a complex interaction of:

a) predisposing factors (such as a greater tendency to have an allergic reaction to foreign substances);

b) causal factors, which may sensitize the airways (such as cat and other animal dander, dust mites, cockroaches, workplace contaminants); and

c) contributing factors, which may include cigarette smoke during pregnancy and childhood, respiratory infections, and indoor and outdoor air quality (“air pollution”).

The increase in asthma seen among children in westernized countries in the past several decades may be the result of exposures to various factors in the fetal and early childhood period, which may, in turn, influence the development of the immune system.\textsuperscript{xxvii}

There does not appear to be very much research on the effectiveness of interventions to prevent asthma. However, it is thought that breastfeeding and avoiding the exposure of infants and young children to house dust mites, cockroaches, animal dander, and cigarette smoke may decrease the risk.

Data about asthma is available from the Canadian Community Health Survey (but this includes off-reserve residents only), as well as physician billing data.

- According to the 2007 CCHS, 8.5 per cent of Burntwood/Churchill residents reported that they had been diagnosed with asthma. This is higher than the Manitoba average of 7.2 per cent and the Canadian average of 8.1 per cent (see Figure 4-52).

- As Figures 4-53 and 4-54 illustrate, asthma treatment prevalence rates in Burntwood have been below the Manitoba average both for males and females.
Figure 4-52. Self-reported asthma rate by region, 2007.

Source: Canadian Community Health Survey, 2007.

Figure 4-53. Asthma treatment prevalence rates by region, 2006/07.

Source: Manitoba Health (Health Information Management)

NOTE: Churchill rates should be interpreted with caution due to small numbers.
Figure 4-54. Asthma treatment prevalence rates by year, 2002/03 to 2006/07.

Source: Manitoba Health (Health Information Management)
### 4.4.8 Treatment Prevalence for Renal Failure

Diabetes is the leading cause of end-stage renal (kidney) failure, accounting for 35% of new kidney failure cases in 2006. XXVIII Given the usual slow progression of kidney disease, the treatment prevalence for renal failure can be an indication of the effectiveness of chronic disease prevention strategies, including healthy living messages and chronic disease management plans.

- The renal failure treatment prevalence rate for males in Burntwood was 3.2 per cent in 2003/04, higher than the Manitoba average of 2.5 per cent. The renal failure treatment prevalence rate for females in Burntwood was 3.5 per cent in 2003/04, higher than the Manitoba average of 1.7 per cent. In both cases, the prevalence rates among Burntwood Region males and females was significantly higher than the provincial rates (see Figure 4-55).

#### Figure 4-55. Renal failure treatment prevalence for females and males aged 20+ by region, 2003/04.

Source: MCHP 2005, Sex Differences in Health Status, Health Care Use, and Quality of Care: A Population-Based Analysis for Manitoba’s Regional Health Authorities.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

- 'm' indicates area’s rate for males was statistically different from Manitoba average for males
- 'f' indicates area’s rate for females was statistically different from Manitoba average for females
- ‘d’ indicates difference between male and female rates was statistically significant for that area
- ‘s’ indicates data suppressed due to small numbers
4.4.9 HOSPITALIZATIONS OR DEATHS DUE TO STROKE

Stroke is an important cause of death and disability in the Canadian population. Stroke is the third leading cause of death in Canada. Six percent of all deaths in Canada are due to stroke, with more than 14,000 Canadians dying from strokes each year. Hospitalization and mortality data for stroke is an important measure of variations in mortality, which may be due to a number of factors, including emergency treatments, quality of care in hospitals, primary care and prevention, or socioeconomic factors.

There are a number of controllable and uncontrollable risk factors that have been identified for cerebrovascular diseases or strokes. According to the Heart and Stroke Foundation of Canada, the uncontrollable risk factors are:

- **Age**
  As people age, their risk for stroke increases. A woman’s risk of having a stroke increases significantly after menopause.

- **Gender**
  Men have a higher risk than women of having a stroke, but women are more likely to die from a stroke.

- **Ethnicity**
  Aboriginal people, Africans, Hispanics, South Asians and Black people have higher rates of high blood pressure and diabetes which puts them at higher risk for stroke.

- **Family History**
  A person’s risk for stroke increases if his/her parent or sibling has had a stroke before the age of 65.

- **Prior history**
  Up to one-third of people who survive a first stroke or Transient Ischemic Attack (a TIA or “mini-stroke”) have another stroke within five years.

Controllable risk factors include:

- **High blood pressure**
  Research indicates that 65 percent of all strokes are associated with high blood pressure.

- **Diabetes**
  Compared to people without diabetes, people with diabetes have a two to four times greater risk of stroke.

- **Smoking**
  Men who smoke have a 40 percent greater chance of having a stroke than those who do not smoke. Women who smoke have a 60 percent greater chance of having a stroke compared to non-smoking women.

- **Heart disease**
  Coronary heart disease (e.g. angina or heart attack), valve disorders, heart rhythm disorders and other heart diseases can increase the risk of stroke.
The hospitalization rate due to stroke among Burntwood residents decreased significantly from 9.3 to 7.5 per 1,000 residents aged 40 years and older between 1996/97-2000/01 and 2001/02-2005/06. However, this is significantly higher than the Manitoba average of 3.0 per 1,000 between 2001/02-2005/06 (see Figure 4-56).

Figure 4-56. Hospitalization rate due to stroke by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: 
1 indicates area’s rate was statistically different from Manitoba average in first time period
2 indicates area’s rate was statistically different from Manitoba average in second time period
t indicates change over time was statistically significant for that area
s indicates data suppressed due to small numbers
4.4.10 Hospitalizations or Deaths Due to Acute Myocardial Infarction (AMI)

AMI (Acute Myocardial Infarction or heart attack) is one of the leading causes of death in Canada. Over 17,000 Canadians die each year as the result of a heart attack. A lowering of the hospitalization and mortality rate can be an indicator of effective strategies in treating, managing and preventing AMI. It may also be related to the quality of care being provided to AMI patients.

- The hospitalization rate due to AMI in Burntwood decreased significantly from 7.2 to 6.1 per 1,000 aged 40 years and older between 1996/97-2000/01 and 2001/02-2005/06, which is significantly higher than the provincial rate of 4.6 per 1,000 in 2001/02-2005/06 (see Figure 4-57).

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

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

Figure 4-57. Hospitalization rate due to AMI by region, 1996/97-2000/01 and 2001/02-2005/06.
4.4.11 TREATMENT PREVALENCE FOR INFLAMMATORY BOWEL DISEASE

Approximately 0.5 per cent of Canadians have inflammatory bowel disease (IBD), which means ulcerative colitis and Crohn's disease together occur in one in 350 persons in Canada. Research has indicated that Canada has among the highest rates of IBD and that, within Canada, Manitoba has among the highest provincial prevalence rates. One of the potential reasons for this may be the cold weather, which means it is a disease that the Burntwood Region needs to monitor closely.xxxi

- Both the male and female inflammatory bowel disease treatment prevalence rates in Burntwood were 0.2 per cent in 2003/04, significantly lower than the Manitoba average of 0.4 per cent. (see Figure 4-58).

Figure 4-58. Inflammatory bowel disease treatment prevalence for females and males by region, 2003/04.

Source: MCHP 2005, Sex Differences in Health Status, Health Care Use, and Quality of Care: A Population-Based Analysis for Manitoba's Regional Health Authorities.

NOTE: 'm' indicates area's rate for males was statistically different from Manitoba average for males
'f' indicates area's rate for females was statistically different from Manitoba average for females
's' indicates data suppressed due to small numbers
4.5 MENTAL HEALTH

Approximately 3.4 million Canadians are affected by depression and anxiety, with more than two-thirds of people opting not to seek help for these mental health conditions given the stigma that still is attached to mental health illnesses.

In a 2003 survey conducted by Canadian Mental Health Association, two-thirds of Canadians were found to have experienced depression and anxiety or has had a relationship with someone who has. In addition, the 2001/02 Canadian Community Health Survey (CCHS) found that depression was a significant chronic disease, with as many Canadians suffering from major depression as from other leading chronic conditions, such as heart disease or diabetes. Four per cent of people interviewed in the survey reported having experienced symptoms or feelings associated with major depression, compared with 5 per cent with diabetes, 5 per cent with heart disease and 6 per cent with a thyroid condition.

The specific mental health conditions reviewed in this section include:

- Cumulative Disorder
- Depression
- Anxiety Disorders
- Substance Abuse
- Personality Disorder
- Schizophrenia
- Dementia

Mental health was a main theme for discussion among focus group participants. Participants noted that mental health challenges vary from community to community. The causes of mental illness which were identified included: social conditions, drugs, alcohol, addictions, feelings of hopelessness, lack of employment, and inability to find employment. The social environment in which one has grown up was seen as very important given the significant upheaval in the lifestyles of aboriginal people in the last generation or two. As one participant commented, "These kids are living under all these conditions--how can they not be depressed?"

Some other issues identified as challenges in managing mental health illness in the Burntwood Region included:

- An overall lack of services for mental health;
- A wide array of service providers in the region such as the BRHA, FNIH, First Nations community services and physician services without the necessary coordination of care;
- The desire of people to want to leave their community for services (for confidentiality and social stigma reasons);
- Lack of ongoing supports when patients/clients return to the communities;
- Some of the societal changes can make it difficult to support and manage the younger generation (e.g. the ability to discipline children can sometimes be compromised when there is difficulty in ensuring there are consequences to negative or risky behaviours);
A lack of mental health services specifically for youth, which requires youth to be sent to Winnipeg for assessment and treatment. This is something that RCMP focus group participants commented on, as they are often involved when a youth becomes acutely ill and requires treatment. This may involve using their resources to take the youth to Thompson (if living in an outlying community) and/or keeping the youth in a holding cell to prevent them from harming themselves or others.

Mental illness is sometimes not taken very seriously in the community, unless someone is hospitalized or attempts suicide. Participants noted the negative connotation with the word "mental" and indicated that sometimes people with mental health needs feel stigmatized as opposed to supported by community members.

Some suggestions that were offered to manage these challenges include:

- Increased networking with all communities to determine needs;
- Identification of resources required based on those needs;
- Providers in different organizations working together better; and
- Development of community support groups.

As Table 4-9 shows, other than for Substance Abuse, Burntwood residents had lower treatment prevalence rates for most mental health conditions than the Manitoba average. However, this information may reflect reporting biases. For example, mental health disorders often occur together - such as depression and substance abuse. If a physician can only record one diagnosis, that physician may be more likely to choose substance abuse if it is perceived as the most pressing condition OR because the disorder needs to be recorded in order to assist the patient in accessing substance abuse treatment services.

Other than recording biases, these lower treatment prevalence rates in Burntwood may reflect the difficulty to access mental health services in the region or a feeling among Burntwood residents that there is still a stigma attached to accessing mental health treatment and that it is preferable to address it without formal treatment.
<table>
<thead>
<tr>
<th></th>
<th>Burntwood rate</th>
<th>Manitoba rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment prevalence of cumulative mental health disorders</td>
<td>25.0%</td>
<td>24.4%</td>
</tr>
<tr>
<td>Treatment prevalence of anxiety disorders</td>
<td>5.0%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Treatment prevalence of depression</td>
<td>13.8%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Treatment prevalence of schizophrenia</td>
<td>0.9%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Treatment prevalence of dementia</td>
<td>9.3%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Treatment prevalence of personality disorder</td>
<td>0.6%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Treatment prevalence for substance abuse</td>
<td>13.4%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Proportion of adolescents/teenagers prescribed SSRI’s</td>
<td>8.8 per 1,000</td>
<td>14.5 per 1,000</td>
</tr>
<tr>
<td>Proportion of adolescents/teenagers prescribed antidepressants</td>
<td>6.0 per 1,000</td>
<td>10.5 per 1,000</td>
</tr>
<tr>
<td>Attempted suicide</td>
<td>0.8%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

4.5.1 **TREATMENT PREVALENCE OF CUMULATIVE MENTAL HEALTH DISORDERS**

This indicator can provide a gauge on the scope and breadth of how common mental illness is in a given region. It is key information in determining the health priorities and defining the appropriate level of mental health resources that are needed.

- The prevalence of cumulative mental health disorders in Burntwood decreased significantly from 28.2 per cent to 25.0 per cent between 1996/97-2000/01 and 2001/02-2005/06, slightly higher than the Manitoba average of 24.4 per cent in 2001/-02-2005/06 (see Figure 4-59).

**Figure 4-59. Prevalence of cumulative mental health disorders by region, 1996/97-2000/01 and 2001/02-2005/06.**

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers. 

"1" indicates area’s rate was statistically different from Manitoba average in first time period 

"2" indicates area’s rate was statistically different from Manitoba average in second time period 

"t" indicates change over time was statistically significant for that area
4.5.2 TREATMENT PREVALENCE OF ANXIETY DISORDERS

Estimates suggest that anxiety disorders affect 12 per cent of the Canadian population, causing mild to severe impairment. Individuals may choose not to seek treatment for their anxiety because they consider the symptoms mild or normal, or the symptoms themselves may interfere with seeking help from the health care system. Anxiety disorders can be effectively treated in the community setting if the mental health resources are accessible. Hospitalization rates for anxiety disorders have dropped significantly in Canada in the last 20 years.xxxii

- Treatment prevalence of anxiety disorders in Burntwood increased significantly from 4.0 per cent to 5.0 per cent between 1996/97-2000/01 and 2001/02-2005/06, but remains significantly lower than the Manitoba average of 7.4 per cent in 2001/02-2005/06 (see Figure 4-60).

Figure 4-60. Treatment prevalence of anxiety disorders by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

'1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area
4.5.3 TREATMENT PREVALENCE OF DEPRESSION

Approximately eight per cent of adults will experience major depression at some time in their lives. Mood disorders have a major economic impact through associated health care costs, as well as lost work productivity. Most individuals with a mood disorder such as depression can be treated effectively in the community. Many individuals, however, delay seeking treatment.

- The treatment prevalence rate for depression in Burntwood increased significantly from 12.7 per cent to 13.8 per cent between 1996/97-2000/01 and 2001/02-2005/06. However, the rate remains significantly lower than the Manitoba average of 19.1 per cent in 2001/02-2005/06 (see Figure 4-61).

Figure 4-61. Treatment prevalence of depression by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

- ‘1’ indicates area’s rate was statistically different from Manitoba average in first time period
- ‘2’ indicates area’s rate was statistically different from Manitoba average in second time period
- ‘t’ indicates change over time was statistically significant for that area
4.5.4 Treatment Prevalence of Schizophrenia

Schizophrenia affects about one per cent of the Canadian population. Onset is usually in early adulthood. Schizophrenia has a profound effect on an individual’s ability to function effectively in all aspects of life. Because of these significant effects, those that have schizophrenia require greater attention from the health care system. Schizophrenia can be treated effectively with a combination of medication, education, primary care services, hospital-based services and community support, such as housing and employment.xxxiv

- The prevalence of schizophrenia in Burntwood increased from 0.8 per cent to 0.9 per cent between 1996/97-2000/01 and 2001/02-2005/06, significantly lower than the Manitoba average of 1.1 per cent in 2001/02-2005/06 (see Figure 4-62).

Figure 4-62. Treatment prevalence of schizophrenia by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

'1' indicates area’s rate was statistically different from Manitoba average in first time period

'2' indicates area’s rate was statistically different from Manitoba average in second time period
4.5.5 Treatment Prevalence of Dementia

Approximately 500,000 Canadians have dementia. It is the most significant cause of disability among Canadians over age 65. Incidence and prevalence of dementia is expected to rise significantly with the aging of the population. Demand for long term care services will increase.xxv

- Treatment prevalence rates for dementia among Burntwood residents age 55 and older decreased from 10.1 per cent to 9.3 per cent between 1996/97-2000/01 and 2001/02-2005/06, lower than the provincial average of 10.8 per cent in 2001/02-2005/06 (see Figure 4-63).

Figure 4-63. Prevalence of dementia by region (age 55+), 1996/97-2000/01 and 2001/02-2005/06.

[Graph showing prevalence of dementia by region over two time periods, with notes about statistical differences and trends.]

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

'1' indicates area's rate was statistically different from Manitoba average in first time period

'2' indicates area's rate was statistically different from Manitoba average in second time period

'3' indicates change over time was statistically significant for that area
4.5.6 TREATMENT PREVALENCE OF PERSONALITY DISORDERS

It is estimated that six to nine per cent of the Canadian population have a personality disorder. Personality disorders exist in several forms. Personality disorders are difficult to treat because those that have it may deny the presence of the problem or they may be skeptical that health professionals can have any success in treating it based on previous attempts.xxxvi

- The treatment prevalence of personality disorders in Burntwood increased from only 0.4 per cent to 0.6 per cent between 1996/97-2000/01 and 2001/02-2005/06. This rate is significantly lower than the Manitoba average of 0.9 per cent in 2001/02-2005/06 (see Figure 4-64).

Figure 4-64. Treatment prevalence of personality disorders by region, 1996/97-2000/01 and 2001/02-2005/06.
4.5.7 TREATMENT PREVALENCE FOR SUBSTANCE ABUSE

Symptoms for mental health conditions are often managed through alcohol or drugs, which may exacerbate the mental illness for some individuals. In one American study, 54 per cent of people with a lifetime history of at least one mental illness also had at least one other mental illness or addiction to substances. Substance abuse can influence the onset, course and outcome of mental illness.xxxvii

Community consultation participants often noted the high rate of addictions among residents, with drug abuse for such substances as marijuana, ecstasy, crack, and pharmaceutical drugs (such as Tylenol) being perceived to be just as big a problem as alcohol. Prescription drug abuse also occurs with people getting prescriptions from multiple doctors and/or the selling of prescription drugs on the street. The health system does not appear to have the communication and tracking mechanisms in place to keep each other informed which was seen as a major challenge. Community participants sensed that drug use is becoming more widespread and starting at younger and younger ages. They felt it was affecting the dynamics of the community, with less interest from residents in doing community-wide activities. As one participant noted, "Addiction comes before anything else, even the kids."

- Treatment prevalence rates for substance abuse among Burntwood residents decreased from 18.1 per cent to 13.4 per cent between 1996/97-2000/01 and 2001/02-2005/06. This reduction in prevalence rate was statistically significant, and our rate is also significantly higher than Manitoba at 4.9 per cent in 2001/02-2005/06 (see Figure 4-65).
Figure 4-65. Treatment prevalence of substance abuse by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: '
' indicates area's rate was statistically different from Manitoba average in first time period

'2' indicates area's rate was statistically different from Manitoba average in second time period

't' indicates change over time was statistically significant for that area
4.5.8 ADOLESCENTS OR TEENAGERS PRESCRIBED SELECTIVE SEROTONIN RE- UPTAKE INHIBITORS (SSRIs)

There has been increasing concern about the appropriateness of prescribing SSRIs to adolescents for depression. Some studies have linked SSRIs to an increased risk for suicide among adolescents, which prompted Health Canada in 2004 to issue an advisory about certain anti-depressant medications.

- The rate of children with at least one SSRI prescription in Burntwood Region decreased from 11.5 to 8.8 per 1,000 between 2002/03 and 2005/06. This is significantly lower than the Manitoba average of 14.5 in 2005/06 (see Figure 4-66).

Figure 4-66. Children with at least one SSRI prescription rate by region, 2002/03 and 2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: ‘1’ indicates area’s rate was statistically different from Manitoba average in first time period
‘2’ indicates area’s rate was statistically different from Manitoba average in second time period
‘t’ indicates change over time was statistically significant for that area
‘s’ indicates data suppressed due to small numbers
4.5.9 ADOLESCENTS/TEENAGERS PRESCRIBED ANTI-DEPRESSANTS

Similar to the SSRI indicator, there are concerns with anti-depressants generally and the possibility of increased risk of suicide for adolescents. It is important to monitor physician prescriptions to ensure that prescription levels are at an appropriate level.

- Children with at least one anti-depressant prescription in Burntwood was the lowest in the province, and remained quite stable at 6.3 and 6.0 per 1,000 between 2000/01 and 2005/06 (see Figure 4-67). The low rate of anti-depressant prescriptions is somewhat puzzling given the information that we have been provided about mental health needs of both youth and adults in Burntwood Region. These lower rates may be related to availability of physicians, willingness to see a physician or possibly lack of recording of these medications through the federal system.

![Figure 4-67. Children with at least one antidepressant prescription rate by region, 2000/01 and 2005/06.](image)

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

NOTE: 
1” indicates area's rate was statistically different from Manitoba average in first time period
2” indicates area's rate was statistically different from Manitoba average in second time period
3” indicates change over time was statistically significant for that area
4” indicates data suppressed due to small numbers
4.5.10 ATTEMPTED SUICIDE

This indicator can provide information about more serious mental health conditions in a region which are leading to attempted suicides. Increased attempted suicides may be an indication that resources are not available or accessible.

- The attempted suicide rate among Burntwood Region residents was the highest in Manitoba and increased from 0.7 per cent to 0.8 per cent between 1988/89-1995/96 and 1996/97-2003/04. This rate is significantly higher than Manitoba average of 0.2 per cent in 1996/97-2003/04 (see Figure 4-68).

- As Figure 4-69 shows, the rate of attempted suicide in Burntwood has remained in the 0.5-1.0 per cent range since in the mid 1980s, and has remained above the Manitoba average.

Figure 4-68. Attempted suicide rate by region, 1988/89-1995/96 and 1996/97-2003/04.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
'1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area
Figure 4-69. Attempted suicide rate by year, Burntwood and Manitoba, 1984/86-2002/04.

4.6 CANCER

4.6.1 CANCER INCIDENCE

According to Canadian Cancer Statistics 2009, an estimated 171,000 new cases of cancer and 75,300 deaths from cancer will occur in Canada in 2009. The leading cause of cancer death for both sexes continues to be lung cancer. The top five cancers in terms of mortality for 2009 were prostate, lung, breast, colorectal and non-hodgkins’ lymphoma.

Incidence data can give us information about the relative effectiveness of cancer screening programs, cancer risk factors and access to cancer treatment.

Cancer survival rates are an indicator of the relative severity of any individual cancer, which can help to target future resources for cancer prognosis. Improvements in cancer survival rates are an indicator of progress in cancer control. Cancer prevalence is an important indicator of the cancer burden on the health care system which has resource implications for jurisdictions.

“During their lifetime, 38% of Canadian women and 43% of men will develop cancer, and, 1 out of every 4 Canadians will die of cancer.”

Cancer is a disease that is more common in older age groups, with almost three-quarters of all new cases diagnosed in people aged 65 years or older. However, it is also responsible for over one-third of deaths occurring before the age of 75 years (75 being the standard “expected” average lifespan).

Outcomes for cancer are not the same for each cancer site. Based on the ratio of deaths to new cases, the National Cancer Institute of Canada (NCIC) classifies cancers into three groups:

- those with very good prognosis (ratio of 30% or less),
- those with fairly good prognosis (ratio of 31%-49%),
- those with poor prognosis (ratio greater than 50%) (see Table 4-10).

<table>
<thead>
<tr>
<th>VERY GOOD PROGNOSIS</th>
<th>FAIRLY GOOD PROGNOSIS</th>
<th>POOR PROGNOSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female Breast</td>
<td>Male breast</td>
<td>Lung</td>
</tr>
<tr>
<td>Prostate</td>
<td>Colorectal</td>
<td>Leukemia</td>
</tr>
<tr>
<td>Melanoma</td>
<td>Non-Hodgkin’s lymphoma</td>
<td>Pancreas</td>
</tr>
<tr>
<td>Body of the uterus</td>
<td>Female bladder</td>
<td>Stomach</td>
</tr>
<tr>
<td>Cervix</td>
<td>Kidney</td>
<td>Ovary</td>
</tr>
<tr>
<td>Thyroid</td>
<td>Oral</td>
<td>Brain</td>
</tr>
<tr>
<td>Hodgkin’s disease</td>
<td>Larynx</td>
<td>Multiple myeloma</td>
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<tr>
<td>Testis</td>
<td></td>
<td>Esophagus</td>
</tr>
<tr>
<td>Male bladder</td>
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</tbody>
</table>


It is important to note that the most common cancers diagnosed in women and men (breast and prostate cancer, respectively) have very good prognosis, colorectal cancer has fairly good prognosis and lung cancer has poor prognosis. This tells us that the most frequent cancers are not necessarily the most frequent causes of death from cancer. In addition, some cancers have
higher survival rates, which means that these people may have additional needs in the future related to their survivorship (these can be physical, emotional and financial).

“[In Canada], breast cancer and prostate cancer remain the most frequent cancers; lung cancer remains the most frequent cause of death from cancer.”

There are many known risk factors for cancer. Some risk factors cannot be modified such as age, gender and heredity. Lifestyle risk factors can be modified, though, thus reducing the risk for cancer. These risk factors include:

- **Smoking**
  Tobacco use is the cause of an estimated 30 percent of fatal cancers in Canada and the main cause of lung cancer.

- **Poor Diet**
  At least 20 percent of cancer deaths are linked to a poor diet - including consumption of alcohol. Fruit and vegetable consumption is protective for a variety of cancers, whereas a diet high in red meat, processed meat, and saturated fat has been linked to an increased risk of several cancers.

- **Sunlight**
  Skin cancer is the most commonly occurring cancer. One of the main causes of skin cancer is exposure to the sun’s ultraviolet (UV) rays.

- **Alcohol consumption**
  Excessive alcohol consumption is a risk factor for a number of health complications, including cancer.

In Burntwood, cancer was cited by some participants as one of the more serious chronic diseases facing the region, along with diabetes. Participants appreciated that a number of cancer care services are provided in the region, including chemotherapy. There were some areas that were identified for areas of improvement including:

- Emotional support for cancer: it was felt that some doctors do not have the listening or emotional support skills to talk to people who are diagnosed with cancer;

- Having to pay for one’s own accommodations when going for cancer care treatment in Thompson or Winnipeg can be difficult for some people; and

- Effectiveness and continuity of cancer care service locally: participants noted that when key cancer care staff in Burntwood is on holidays, Burntwood patients need to travel to Winnipeg for care. Participants wondered if those temporary staffing gaps could be filled temporarily to minimize the disruption in cancer care treatment.
The female cancer incidence rate in Burntwood increased from 330.7 to 375.0 per 100,000 between 2000-02 and 2003-05, lower than the Manitoba average of 427.1 in 2003-2005 (see Figure 4-70).

The male cancer incidence rate in Burntwood increased from 464.7 to 645.1 per 100,000 between 2000-02 and 2003-05, higher than the Manitoba average of 527.4 in 2003-2005 (see Figure 4-71).

**Figure 4-70. Female all cancer incidence by region, 2000/02 and 2003/05.**

**Figure 4-71. Male all cancer incidence by region, 2000/02 and 2003/05.**

*Source: CancerCare Manitoba*
Breast cancer has the highest incidence among all cancers for women in Canada and Manitoba with 22,700 breast cancer cases nationally in 2009. Breast cancer incidence rates rose steadily in the 1980s and early 1990s, with modest declines and increases since.\textsuperscript{xlii}

- The female breast cancer incidence rate among Burntwood residents increased from 65.0 to 99.0 per 100,000 between 2000-02 and 2003-05. This is lower than the Manitoba average of 122.0 in 2003-2005, and ranks the lowest in the province (see Figure 4-72).

Figure 4-72. Female breast cancer incidence by region, 2000/02 and 2003/05.

Source: CancerCare Manitoba

NOTE: Data for Churchill not available.
4.6.1.2 Cervical Cancer Incidence

Cervical cancer has the 13th highest incidence among Canadian women in 2009, with 1300 new cases nationally. Cervical cancer is preventable through regular pap smears. The introduction of a population based HPV vaccine program in Manitoba should also assist in the prevention of new cervical cancer cases.

- The cervical cancer incidence rate in Burntwood increased from 2.0 to 11.0 per 100,000 between 2000-02 and 2003-05, and is higher than the Manitoba average of 9.0 in 2003-2005 (see Figure 4-73).

- The Burntwood Region had the third highest cervical cancer incidence rate among all Manitoba RHAs in 2003-2005 (see Figure 4-73). It is possible that this is reflective of better screening, which would mean that we are identifying cases at the earliest possible stage where they are most amenable to treatment. We will continue to monitor these data.

Figure 4-73. Cervical cancer incidence by region, 2000/02 and 2003/05.

Source: CancerCare Manitoba
NOTE: Data for Churchill not available.
4.6.1.3 Colorectal Cancer Incidence

Colorectal cancer has the third highest incidence of all cancers in Canada, with 22,000 new cases in Canada. Colorectal cancer is most common in adults over the age of 50, making age a key risk factor for this disease. A poor diet is also a contributing factor to colorectal cancer. Colorectal cancer is more common in Western industrialized countries, which suggests that a high fat/low fibre diet, lacking in fresh fruits and vegetables, increases the risk for colorectal cancer. One researcher has also estimated that 12-14 per cent of colon cancer could be attributed to lack of frequent involvement in vigorous physical activity.

Population based screening has shown that colorectal cancer mortality can be reduced through a fecal occult blood test and colonoscopies. Manitoba has introduced a population-based screening program to bring greater awareness around colorectal cancer prevention.

- The female colorectal cancer incidence rate in Burntwood increased from 41.0 to 62.0 per 100,000 between 2000-02 and 2003-05. This most recent rate is higher than Manitoba at 52.0 in 2003-2005, and now ranks among the highest of all RHAs in the province (see Figure 4-74).

- The male colorectal cancer incidence rate in Burntwood increased from 51.0 to 107.0 per 100,000 between 2000-02 and 2003-05, and is higher than the Manitoba average of 78.0 in 2003-2005 (see Figure 4-75). Burntwood now ranks the highest in the province (among all RHAs) for colon cancer incidence in males.

Figure 4-74. Female colorectal cancer incidence by region, 2000/02 and 2003/05.
Figure 4-75. Male colorectal cancer incidence by region, 2000/02 and 2003/05.

Source: CancerCare Manitoba

NOTE: Data for Churchill not available.
4.6.1.4 Lung Cancer Incidence

Lung cancer has the 2nd highest incidence for all cancer in Canada with 23,000 new cases in 2009. Given the link between smoking and cancer, anti-tobacco initiatives are critical in reducing incidence over the long term. Those anti-tobacco initiatives are evident nationally with male incidence rates declining since the 1980s and rates for females levelling off in recent years.*

Both community consultation and survey data indicate that smoking continues to be a lifestyle choice for many residents of the region. Many focus group participants acknowledge that they realize there is a link between smoking and lung cancer but continue to smoke. Some people indicated the lack of smoking cessation aides and support programs in the community made it difficult to quit, while many others indicated that they enjoyed smoking and were not willing to quit.

- The female lung cancer incidence rate in Burntwood decreased from 60.0 to 42.0 new cases per 100,000 between 2000-02 and 2003-05, lower than the Manitoba average of 63.0 in 2003-2005 (see Figure 4-76).

- The male lung cancer incidence rate in Burntwood increased from 108.0 to 141.0 new cases per 100,000 residents between 2000-02 and 2003-05. This most recent rate is much higher than the Manitoba average of 85.0 in 2003-2005, and ranks the highest (along with NOR-MAN RHA) among all RHAs in the province (see Figure 4-77).

Figure 4-76. Female lung cancer incidence by region, 2000/02 and 2003/05.
Figure 4-77. Male lung cancer incidence by region, 2000/02 and 2003/05.

Source: CancerCare Manitoba

NOTE: Data for Churchill not available.
4.6.1.5 Melanoma Cancer Incidence

Melanoma cancer has the 7th highest incidence among all cancers, with 5,000 new cases in 2009. Melanoma cancer incidence has been increasing nationally over recent years as Canadians have spent more time in the sun without protection.\textsuperscript{xlv} It will be important for regions to continue to make their residents aware of the need to have protection from the sun while they are outside.

- The female melanoma cancer incidence rate in Burntwood decreased from 10.0 to 0.0 per 100,000 between 2000-02 and 2003-05, lower than the Manitoba average of 9.0 in 2003-2005 (see \textbf{Figure 4-78}).

- The male melanoma cancer incidence rate in Burntwood stayed the same at 4.0 per 100,000 between 2000-02 and 2003-05, lower than the Manitoba average of 12.0 cases per 100,000 in 2003-2005 (see \textbf{Figure 4-79}).

\textbf{Figure 4-78. Female melanoma cancer incidence by region, 2000/02 and 2003/05.}

\begin{center}
\begin{figure}
\centering
\includegraphics[width=\textwidth]{melanoma_cancer_incidence.png}
\caption{Female melanoma cancer incidence by region, 2000/02 and 2003/05.}
\end{figure}
\end{center}
Figure 4-79. Male melanoma cancer incidence by region, 2000/02 and 2003/05.

Source: CancerCare Manitoba

NOTE: Data for Churchill not available.
4.6.1.6 Prostate Cancer Incidence

Prostate cancer has the highest incidence of all cancers among Canadian men with 25,500 new cases in 2009. Prostate cancer incidence continues to rise nationally, though little is known about the causes of prostate cancer, nor is there an effective screening mechanism to detect it.\textsuperscript{xlvi}

- While the rate of prostate cancer in Manitoba decreased to 127.0 new cases per 100,000 males in 2003-05, the prostate cancer incidence rate in Burntwood increased from 100.0 to 160.0 new cases per 100,000 between 2000-02 and 2003-05 (see Figure 4-80). This rate is now the highest in Manitoba.

\textbf{Figure 4-80. Prostate cancer incidence by region, 2000/02 and 2003/05.}

Source: CancerCare Manitoba

\textbf{NOTE: Data for Churchill not available.}
4.6.2 **CANCER PREVALENCE**

Cancer prevalence can provide important information about the burden of cancer on the health care system. As cancer survivors live longer, Canada can expect to have higher rates of cancer prevalence over the near future. It will be important to have the necessary resources to maintain the quality of life for all cancer survivors in the Burntwood Region.

- Cancer prevalence rates in Burntwood have remained fairly steady, while the Manitoba rate has increased at a greater rate (especially in males) from 2000 to 2005 (see Figure 4-81).

- The cancer prevalence rate for females in Burntwood increased from 4,605 to 4,979 per 100,000 between 2000 and 2005, higher than the Manitoba average of 3,678 in 2005 (see Figure 4-82). Burntwood had among the highest rates among Manitoba RHAs.

- The cancer prevalence rate for males in Burntwood increased from 4,295 to 4,802 per 100,000 between 2000 and 2005, very similar to the Manitoba average of 4,811 in 2005 (see Figure 4-83). Burntwood had among the highest rates among Manitoba RHAs.

![Figure 4-81. All cancer prevalence rates by year 2000-2005.](source: CancerCare Manitoba)
Figure 4-82. Cancer prevalence among females, by region, 2005.

Source: CancerCare Manitoba
NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 4-83. Cancer prevalence among males, by region, 2005.

Source: CancerCare Manitoba
NOTE: Churchill rates should be interpreted with caution due to small numbers.
4.6.2.1 Colorectal Cancer Prevalence

As population screening is introduced across Manitoba, it is expected that colorectal cancer incidence and prevalence rates will increase in future years. It is hoped that this is good news, as cases will be found earlier when they are treatable and survival is more likely.

- The female colorectal cancer prevalence rate in Burntwood increased from 345 to 479 per 100,000 between 2000 and 2005. This is slightly higher than the Manitoba average of 461 in 2005 (see Figures 4-84 and 4-85). At this same time, the male colorectal cancer prevalence rates in Burntwood increased steadily and substantially from 592 to 990 per 100,000. This rate is now much higher than the Manitoba average of 619 in 2005 (see Figure 4-84). In fact, Figure 4-86 illustrates that the prevalence rate among Burntwood Region men is now the highest in the province.

Figure 4-84. Colorectal cancer prevalence rates by year, Burntwood and Manitoba, 2000-2005.

Source: CancerCare Manitoba
4.6.2.2 Lung Cancer Prevalence
While incidence rates for lung cancer are beginning to decline across Canada, it continues to have high mortality rates and lower survival rates than other cancers. Prevalence rates for lung cancer continue to be largely unchanged in recent years, unlike other cancers which are experiencing increases.

- Lung cancer prevalence rates in Burntwood for men are consistently higher than Manitoba over the 2000-2005 period, while women were consistently below the Manitoba average (see Figure 4-87).

- The female lung cancer prevalence rate in Burntwood decreased from 103 lung cancer cases per 100,000 residents to 67 per 100,000 between 2000 and 2005. This rate is much lower than the Manitoba average of 181 cases per 100,000 residents in 2005 (see Figure 4-88).

- Between 2000 and 2005, the male lung cancer prevalence rate in Burntwood increased substantially from 265 to 542 lung cancer cases per 100,000 residents. This is much higher than the Manitoba average of 204 cases per 100,000 residents in 2005, and represents a worrying trend (see Figure 4-89).

- While the lung cancer prevalence rate was the lowest in the province for Burntwood females in 2005, the prevalence rate among Burntwood males was the highest in the province (see Figures 4-88 and 4-89).

Figure 4-87. Lung cancer prevalence rate by year, 2000-2005.

![Graph showing lung cancer prevalence rates](source: CancerCare Manitoba)

Figure 4-88. Female lung cancer prevalence rates by region, 2005.
4.6.2.3 Melanoma Cancer Prevalence
Prevalence rates for melanoma cancer are expected to increase with greater public awareness about the risks of unprotected sun exposure. This should lead to increased physician visits and testing for melanoma.

- The female melanoma cancer prevalence rate in Burntwood increased from 44 to 47 per 100,000 between 2000 and 2005, but remains lower than the Manitoba average of 172 cases per 100,000 residents in 2005 (see Figure 4-90).

- The male melanoma cancer prevalence rate in Burntwood increased from 56 to 68 cases per 100,000 residents between 2000 and 2005; however, our rate remains lower than the Manitoba average of 162 in 2005 (see Figure 4-91).

- Figures 4-91 and 4-92 illustrate that the prevalence rates of melanoma among both Burntwood females and males are the lowest in Manitoba in 2005.

**Figure 4-90. Melanoma cancer prevalence rates by year, 2000-2005.**

Source: CancerCare Manitoba
Figure 4-91. Female melanoma cancer prevalence rates by region, 2005.

Source: CancerCare Manitoba
NOTE: Data for Churchill not available.

Figure 4-92. Male melanoma cancer prevalence rates by region, 2005.

Source: CancerCare Manitoba
NOTE: Data for Churchill not available.
4.6.2.4 Female Breast Cancer Prevalence

With improvements in breast cancer treatments and survival rates, it is expected that the number of breast cancer survivors will increase significantly in the foreseeable future.

- Although the female breast cancer prevalence rate among RHA Burntwood increased from 1,040 to 1,149 cases per 100,000 women between 2000 and 2005, the rate remains lower than the Manitoba average of 1,571 in 2005 (see Figure 4-93).

- Figure 4-94 shows that our breast cancer prevalence rate is the lowest in the province.

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**Figure 4-93. Female breast cancer prevalence rates by year 2000-2005.**

Source: CancerCare Manitoba
Figure 4-94. Female breast cancer prevalence rates by region, 2005.

Source: CancerCare Manitoba

NOTE: Data for Churchill not available.
4.6.2.5 Cervical Cancer Prevalence

With widespread cervical cancer screening through Pap smears and the HPV vaccine, it is anticipated that cervical cancer prevalence will continue to decline gradually over time.

- The cervical cancer prevalence rate in Burntwood Region was consistently above the Manitoba rate in each year between 2000 and 2005 (see Figure 4-95).

- While we have seen that the cervical cancer incidence rate (numbers of new cases) increased quite dramatically between 2000/02 and 2003/05, cervical cancer prevalence rates increased more modestly from 505 to 551 per 100,000 between 2000 and 2005. The prevalence rate continues to be higher than the Manitoba average of 220 in 2005 (see Figure 4-95). We will continue to monitor these data, as well as deaths and screening rates, to determine whether improvements to cancer prevention initiatives need to be made.

- Figure 4-96 shows that the prevalence rate of women living with cervical cancer was 551 per 100,000 women in 2005, which was the highest in the province.

Figure 4-95. Cervical cancer prevalence rates by year, 2000-2005.

Source: CancerCare Manitoba
Figure 4-96. Cervical cancer prevalence rates by region, 2005.

Source: CancerCare Manitoba

NOTE: Data for Churchill not available.
4.6.2.6 Prostate Cancer Prevalence

With high incidence levels and high survival rates, prostate cancer prevalence is expected to grow over the foreseeable future. This will require increased cancer survivor resources for prostate cancer patients.

- The prostate cancer prevalence rate among Burntwood Region males increased from 905 cases to 1,219 cases per 100,000 residents between 2000 and 2005. However, this remains below the provincial rate of 1,440 cases per 100,000 residents in 2005 (see Figure 4-97).

- Figure 4-98 shows that the prevalence rate of prostate cancer among Burntwood Region males was the second lowest in the province in 2005.

Figure 4-97. Prostate cancer prevalence rates by year, 2000-2005.

Source: CancerCare Manitoba
Figure 4-98. Prostate cancer prevalence rates by region, 2005.

Source: CancerCare Manitoba
NOTE: Data for Churchill not available.
4.6.3 CANCER SURVIVAL

Cancer survival rates are an important indicator showing the advancement of cancer treatments within different cancer sites. It is also an important planning tool for health regions as the number of cancer survivors increases. It will be increasingly important to provide the appropriate programs and supports to enable cancer survivors to manage their health effectively and live independently.

- Cancer survival for both females and males in the Burntwood Region ranks the lowest in the province, with 51 and 48 per cent of individuals, respectively, surviving the disease after five years (see Figures 4-99 and 4-100).

- The female cancer survival rate in Burntwood/Churchill has varied somewhat over the past four time periods, but decreased overall from 55 per cent to 54 per cent between 1985/89 and 2000/04. This is lower than the Manitoba average of 59 per cent in the 2000/04 time period (see Figure 4-101).

- The male cancer survival rate in Burntwood/Churchill increased from 42 per cent to 51 per cent between 1985/89 and 2000/04, which is lower than the Manitoba average of 58 per cent in 2000/04 (see Figure 4-102).

- Figures 4-103 to 4-108 depict cancer survival rates for the top four most commonly diagnosed cancers in males and females in the Burntwood/Churchill region, as well as the province of Manitoba.

- The fluctuations in the female survival rate in the Burntwood Region over the past four time periods can be primarily attributed to the same fluctuations in their lung cancer survival rate. Lung cancer survival rates decreased overall from 19 per cent to 10 per cent between 1985/89 and 2000/04, which is much lower than the Manitoba average of 22 per cent in 2000/04 (see Figure 4-105).

- The increase in the male cancer survivor rate can be partly attributed to an increase in the survivor rate for prostate cancer. The prostate cancer survival rate in Burntwood/Churchill increased from 60 per cent to 77 per cent between 1985/89 and 2000/04, but remains lower than the Manitoba average of 94 per cent in 2000/04 (see Figures 4-108). As well, although lung cancer survival rates remain low, the male lung cancer survival rate in Burntwood/Churchill increased overall from 17 per cent to 21 per cent between 1985/89 and 2000/04, higher than Manitoba at 15 per cent in 2000/04 (see Figure 4-106).
Figure 4-99. Female all cancer survival rate by region, 2000-2004.

![Female all cancer survival rate by region, 2000-2004.](image)

Source: CancerCare Manitoba

NOTE: Data for Churchill not available.

Figure 4-100. Male all cancer survival rate by region, 2000-2004.

![Male all cancer survival rate by region, 2000-2004.](image)

Source: CancerCare Manitoba

NOTE: Data for Churchill not available.
Figure 4-101. Female all cancer survival rate by year, 1985/89 to 2000/04.

Source: CancerCare Manitoba
NOTE: Churchill rates should be interpreted with caution due to small numbers

Figure 4-102. Male all cancer survival rate by year, 1985/89 to 2000/04.

Source: CancerCare Manitoba
NOTE: Churchill rates should be interpreted with caution due to small numbers
Figure 4-103. Female colorectal cancer survival rate by year, 1985/89 to 2000/04.

![Graph showing female colorectal cancer survival rate by year, 1985/89 to 2000/04.]

Source: CancerCare Manitoba

NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 4-104. Male colorectal cancer survival rate by year, 1985/89 to 2000/04.

![Graph showing male colorectal cancer survival rate by year, 1985/89 to 2000/04.]

Source: CancerCare Manitoba

NOTE: Churchill rates should be interpreted with caution due to small numbers.
Figure 4-105. Female lung cancer survival rate by year, 1985/89 to 2000/04.

Source: CancerCare Manitoba
NOTE: Churchill rates should be interpreted with caution due to small numbers

Figure 4-106. Male lung cancer survival rate by year, 1985/89 to 2000/04.

Source: CancerCare Manitoba
NOTE: Churchill rates should be interpreted with caution due to small numbers
Figure 4-107. Female breast cancer survival rate by year, 1985/89 to 2000/04.

Source: CancerCare Manitoba

NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 4-108. Male prostate cancer survival rate by year, 1985/89 to 2000/04.

Source: CancerCare Manitoba

NOTE: Churchill rates should be interpreted with caution due to small numbers.
4.6.4 LEADING CAUSES OF DEATH DUE TO CANCER

The leading five causes of cancer deaths data provide important information to health planners to see where cancer prevention strategies should be targeted.

- Lung, breast and colorectal cancer had the highest mortality rate, in descending order, for women in the Burntwood/Churchill region and Manitoba between 2000 and 2005 (see Figure 4-109).

- Lung, prostate and colorectal cancer had the highest mortality rate, in descending order, for men in the Burntwood/Churchill region and Manitoba between 2000 and 2005 (see Figure 4-110).

- While pancreatic cancer does not have a high incidence compared to other cancers, it had the 4th highest number of deaths in both Burntwood/Churchill and Manitoba from 2000-2005 for both men and women (see Figures 4-109 and 4-110).

Figure 4-109. Female leading causes of cancer mortality, Burntwood/Churchill and Manitoba, 2000-2005.

Source: CancerCare Manitoba
Figure 4-110. Male leading causes of cancer mortality, Burntwood/Churchill and Manitoba, 2000-2005.

Source: CancerCare Manitoba
4.7 COMMUNICABLE DISEASES

This section will primarily focus on sexually transmitted infections (STIs) and tuberculosis. As well, a few enteric illnesses will also be highlighted.

4.7.1 SEXUALLY TRANSMITTED INFECTIONS (STIs)

In Canada, Gonorrhea and Chlamydia are the two most common STIs where rates of infection are highest in the 15-24 age group. Rates of both types of infection declined in the 1980s and 1990s as people used safer methods of sexual activity with increased awareness of the threat of HIV/AIDS. Since 1997, however, rates in Canada have risen steadily for both types of infection. This trend is of concern given the health effects of both STIs.

The health effects of both Chlamydia and Gonorrhea can be serious. Women can develop pelvic inflammatory disease (PID) if infections are untreated. PID effects include abdominal pain, fever, and infertility. Pregnant women can also pass on Chlamydia and Gonorrhea infections to their baby during delivery, causing infections and other health complications. Men can develop scarring of the urethra which can cause infertility. Both sexes are at risk of the infection spreading through the bloodstream into the joints, causing a kind of arthritis called Reiter’s Syndrome.

Given the rising Canadian rates and the potential long term health impacts of STIs, it is important that we continue to monitor STI rates in order to determine the effectiveness of public health prevention messaging regionally, particularly in emphasizing the importance of safe sexual practices for young people.

At a student focus group in Thompson, participants discussed the risks of unprotected sex and the motivation behind it.

They felt that some of the reasons that young people have unprotected sex include:

- The use of alcohol and/or drugs;
- Lack of information about the risks of unprotected sex and, even if the participants felt they had good information and awareness, they did not feel that they (the participants) were reflective of the full student population; and
- Some of the people who got pregnant just wanted to have kids (needed someone to “love” or “love them”, care for, etc.).

The participants identified the public health nurse and peer groups as resources to talk to if students had questions about birth control or sexually transmitted infections. There were not any major concerns expressed regarding the privacy of talking to a nurse or other adult, although participants felt that this may be a concern for other students.
4.7.1.1 CHLAMYDIA

Chlamydia is the most common bacterial sexually transmitted infection (STI) in Canada. For a major proportion of infected women, untreated Chlamydia can lead to pelvic inflammatory disease (PID).

- Between 1990 and 2008, there were 12,552 cases of Chlamydia diagnosed among Burntwood Region residents. As Figure 4-111 illustrates, 82 per cent of these cases were diagnosed among First Nations residents. These are residents living either on or off-reserve but who have identified as First Nations.

- A review of where people lived at the time of diagnosis indicates that 60 per cent of cases are diagnosed among residents living on-reserve (see Figure 4-112).

- Although rates of Chlamydia continue to be much higher among Burntwood residents living on-reserve, Figure 4-113 shows that rates of Chlamydia for people living off-reserve have actually increased much more than rates for people living on-reserve. Chlamydia rates have more than tripled for residents living off-reserve, from 454.5 cases per 100,000 in 2000 to 1693.6 per 100,000 in 2008. Rates for residents living on-reserve have increased from 2,739.6 cases per 100,000 in 2001 to 3551 cases per 100,000 in 2008. However, the increase in rates could be good news if it means that more people are being screened and treated for Chlamydia as a result of the newer less invasive testing method.

- The Chlamydia rate for females in the Burntwood Region was 3,515.3 per 100,000 population in 2008, which is almost five times higher than the Manitoba average of 757.2 in 2008 (see Figure 4-114). The Chlamydia rate for Burntwood Region females increased from 2,213.7 to 3,515.3 per 100,000 population from 1998 to 2008. Burntwood's rates remained consistently higher than the Manitoba average over this time period (see Figure 4-115).

- The Chlamydia rate for males in Burntwood Region was 1,789.5 per 100,000 population in 2008, which is more than four times higher than the Manitoba average of 398.6 in 2008 (see Figure 4-116). As with the female rate, there was a substantial rise in the male Chlamydia rate between 1998 to 2008, and it remained well above the Manitoba average (see Figure 4-117).

- Figures 4-118 and 4-119 depict the total Chlamydia rate (for both males and females combined), and these data follow the same trends as the male and female data presented in Figures 4-114 to 4-116.

- In 2008, the highest rate of Chlamydia among Burntwood residents was among females age 15-19 at 13,437.9 cases per 100,000 residents, followed by 20-24 year old females at 12,762.6 cases per 100,000 residents (see Figure 4-120). Figures 4-121 and 4-122 illustrate Chlamydia rates among females and males in the 15-19, 20-24 and 25-29 year old age groups between 1998 and 2008. Although rates continually increase in every age group, the sharpest increase was among both females and males in the 20-24 year old age group.
Figure 4-111. Burntwood Chlamydia by Ethnicity, 1990-2008 combined.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

First Nation (N=10258) 82%
Non First Nation (N=2294) 18%

Figure 4-112. Burntwood Chlamydia cases by on and off-reserve, 1990-2008 combined.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

On reserve (N=7587) 60%
Off-reserve (N=4965) 40%
Figure 4-113. Burntwood Chlamydia rates by on and off-reserve and year, 2000-2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

NOTE: Assiniboine, South Eastman, Central, Interlake, Winnipeg, Burntwood and NOR-MAN were statistically different from Manitoba average at level of 5%.

Figure 4-114. Female Chlamydia rates by region, 2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

NOTE: Assiniboine, South Eastman, Central, Interlake, Winnipeg, Burntwood and NOR-MAN were statistically different from Manitoba average at level of 5%.
Figure 4-115. Female Chlamydia rates by year, 1998-2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

Figure 4-116. Male Chlamydia rates by region, 2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

NOTE: South Eastman, Central, Interlake, Winnipeg, Burntwood and NOR-MAN were statistically different from Manitoba average at level of 5%.
Figure 4-117. Male Chlamydia rates by year, 1998-2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

Figure 4-118. Total Chlamydia rates by region, 2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

NOTE: Assiniboine, South Eastman, Central, Interlake, Winnipeg, Burntwood and NOR-MAN were statistically different from Manitoba average at level of 5%. 
Figure 4-119. Total Chlamydia rates by year, 1998-2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

Figure 4-120. Burntwood Chlamydia rates for females and males by age group, 2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control
Figure 4-121. Burntwood female Chlamydia rates by age group, 1998-2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

Figure 4-122. Burntwood male Chlamydia rates by age group, 1998-2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control
4.7.1.2 GONORRHEA

The Public Health Agency of Canada reports that after 20 years of consistent decline in Canada, the rates of infection for Gonorrhea have risen more than 40 percent over the past five years in Canada. The recent rise in Gonorrhea infection is attributed to people not consistently using safer sex methods. It is important to monitor regional trends and increase public health messaging around STIs if necessary.¹

- Between 1990 and 2008, there were 3,891 cases of Gonorrhea diagnosed among Burntwood Region residents. As Figure 4-123 illustrates, 84 per cent of these cases were diagnosed among First Nations residents. These are residents living either on or off-reserve but who have identified as First Nations.

- A review of where people lived at the time of diagnosis indicates that 58 per cent of cases are diagnosed among residents living on-reserve (see Figure 4-124).

- Although rates of Gonorrhea continue to be much higher among Burntwood residents living on-reserve, Figure 4-125 shows that rates of Gonorrhea for people living off-reserve have actually increased much more than rates for people living on-reserve. Rates have increased more than seven times for residents living off-reserve, from 63.7 cases per 100,000 in 2000 to 489.5 per 100,000 in 2008. Rates for residents living on-reserve have increased from 625.7 cases per 100,000 in 2001 to 1,326.9 cases per 100,000 in 2008.

- Similar to Chlamydia, Gonorrhea rates in Burntwood for both men and women were significantly higher than the Manitoba average for 2008, and ranked the highest in the province (see Figures 4-126 and 4-127). There was a substantial rise in the Gonorrhea rate for both men and women between 1998 and 2008 in the Burntwood Region and, once again, the Burntwood rate remained above the Manitoba average each year. The gap between the Burntwood and Manitoba average has widened considerably from 2001 to 2008 (see Figures 4-127 and 4-129).

- Figures 4-130 and 4-131 depict the total Gonorrhea rate (for both males and females combined), and these data follow the same trends as the male and female data presented in Figures 4-127 to 4-129.

- In 2008, the highest rate of Gonorrhea among RHA Burntwood residents was among females age 15-19 at 3,991.6 cases per 100,000 residents, followed by 20-24 year old females at 3,730.4 cases per 100,000 residents (see Figure 4-132). Figures 4-133 and 4-134 illustrate Gonorrhea rates among females and males in the 15-19, 20-24 and 25-29 year old age groups between 1998 and 2008. Although it is more difficult to see trends compared to the Chlamydia data (due to smaller numbers and thus larger variations in rates), the sharpest increase among both females and males is in the 20-24 year old age group.
Figure 4-123. Burntwood Gonorrhea cases by Ethnicity, 1990-2008 combined.

- First Nation (N=3254) 84%
- Non First Nation (N=637) 16%

Source: Manitoba Health (Health Information Management), Communicable Disease Control

Figure 4-124. Burntwood Gonorrhea cases for On reserve and Off reserve, 1990-2008 combined.

- On reserve (N=2263) 58%
- Off reserve (N=1628) 42%

Source: Manitoba Health (Health Information Management), Communicable Disease Control
Figure 4-125. Burntwood Gonorrhea rates by On and Off*reserve by year, 2000-2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

Figure 4-126. Female Gonorrhea rates by region, 2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

NOTE: No cases for Churchill.

South Eastman, Central, Interlake, , Winnipeg, Brandon, Burntwood, Churchill and NOR-MAN were statistically different from Manitoba average at level of 5%.
Figure 4-127. Female Gonorrhea rates by year, Manitoba and Burntwood, 1998-2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

Figure 4-128. Male Gonorrhea rates by region, 2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

NOTE: No cases for Churchill.
Assiniboine, South Eastman, Central, Interlake, Winnipeg, Brandon, Burntwood and NOR-MAN were statistically different from Manitoba average at level of 5%.
Figure 4-129. Male Gonorrhea rates by year, Manitoba and Burntwood, 1998-2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

Figure 4-130. Total Gonorrhea rate by region, 2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

NOTE: No Cases for Churchill.
Assiniboine, Brandon South Eastman, Central, Interlake, Winnipeg, Burntwood and NOR-MAN were statistically different from Manitoba average at level of 5%.
Figure 4-131. Total Gonorrhea rates by year, 1998-2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

Figure 4-132. Burntwood Gonorrhrea rate for female and male by age group, 2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control
Figure 4-133. Burntwood female Gonorrhea rates by age group, 1998-2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control

Figure 4-134. Burntwood male Gonorrhea rates by age group, 1998-2008.

Source: Manitoba Health (Health Information Management), Communicable Disease Control
4.7.1.3 HIV

Human Immunodeficiency Virus (HIV) is the virus responsible for AIDS. Although people are living longer with this disease, there is no cure, nor is there a vaccine to prevent infection. HIV infection, however, is largely preventable through safe sex methods. Over 70,000 Canadians are living with AIDS with a significant percentage unaware that they have the disease.  

- Outside of Winnipeg, the number of new HIV cases is quite low. Between 1985 and 2007, Winnipeg residents accounted for 83.5 per cent of the 1,477 cases of HIV diagnosed among Manitoba residents. In this time period, there were 24 cases diagnosed residents of Burntwood (15 among males and 9 among females). This means that on average, in this 23 year period, there was approximately one case diagnosed per year. Overall, Burntwood residents accounted for just 1.6 per cent of all HIV cases diagnosed in Manitoba in this time period. However, it is important to note that this is based on residence at time of diagnosis, so some of the Winnipeg cases, for example, could be former residents of BRHA who have moved to Winnipeg for lifestyle or other reasons (such as seeking treatment in a more anonymous setting).

- Looking specifically at more recent data, the number of new cases of HIV for females in Burntwood was an average of 1.4 new cases per year from 2002-2006. The average number of new cases of HIV for males was 1.6 new cases per year from 2002-2006.

- Figure 4-135 illustrates the average annual number of cases as rates per 100,000. The rate for Burntwood males is the third highest in Manitoba at 7.8 cases per 100,000 (much lower than the provincial rate of 12.3 per 100,000). The rate for Burntwood females is the second highest in the province at 6.3 cases per 100,000 (compared to the provincial rate of 7.1 per 100,000).
Figure 4-135. HIV rates by region, 2002-2006 average.

Source: Manitoba Health (Health Information Management), Communicable Disease Control.

NOTE: No cases for Churchill.
4.7.2 VEROTOXOGENIC E. COLI

Verotoxogenic E. coli is often spread through contaminated hamburger meat, appearing in occasional outbreaks. Increases in E. coli rates may require increased attention to public health food handling messages for the public.

- There were no recorded cases of verotoxogenic E. coli in Burntwood from 2000-2006. (see Figure 4-136).

Figure 4-136. New cases rate for Verotoxogenic E.coli by region, 2000-2006 average.

Source: Manitoba Health (Health Information Management), Communicable Disease Control
NOTE: No cases for Churchill and Burntwood.
Assiniboine and Central were statistically different from Manitoba average at level of 5%.
Brandon, NOR-MAN, North Eastman and Parkland are unstable due to small number of cases. Therefore statistical testing is not possible.
4.7.3 SALMONELLA

Salmonella is a significant foodborne illness which can have serious health consequences for the young, elderly and those with poor immune systems. Monitoring these rates is important in gauging the effectiveness of food inspection systems, and whether public health messaging around food handling is being heeded by the general public.

- The Salmonella incidence rate among Burntwood residents was 8.8 new cases per 100,000 residents between 2000 and 2006. This is lower than the Manitoba average of 12.7, and ranks among the lowest in the province (see Figure 4-137).

Figure 4-137. Salmonella incidence rates by region, 2000-2006 average.

Source: Manitoba Health (Health Information Management), Communicable Disease Control
NOTE: No cases for Churchill.
Assiniboine, Interlake, South Eastman and Winnipeg were statistically different from Manitoba average at level of 5%.
NOR-MAN and North Eastman are unstable due to small number of cases. Therefore statistical testing is not possible.
### 4.7.4 Shigella

As with Salmonella, Shigella is also a significant food borne illness which can have serious health consequences for the young, elderly and those with poor immune systems. Monitoring these rates is important in gauging the effectiveness of food inspection mechanisms and whether public health messaging around food handling is being heeded by the general public.

- The Shigella incidence rate in Burntwood Region was 0.9 new cases per 100,000 residents between 2000-2006. This is lower than the Manitoba average of 1.2 per 100,000 residents (see Figure 4-138).

![Figure 4-138. Shigella incidence rates by region, 2000-2006 average.](image)

Source: Manitoba Health (Health Information Management), Communicable Disease Control  
NOTE: No case for Churchill and North Eastman. Assiniboine, Brandon, Burntwood Interlake, Central, NOR-MAN, Parkland and South Eastman are unstable due to small number of cases. Therefore statistical testing is not possible.
4.7.5 **TUBERCULOSIS**

Tuberculosis (TB) is a disease caused by the bacteria *Mycobacterium tuberculosis*. TB usually infects the lungs but can also infect other parts of the body, including the kidneys, spine and brain.

According to the Canadian Lung Association, people are at highest risk of TB if they:

- have come into close contact with someone with TB (for example, family members or people sharing living spaces)
- have HIV or AIDS
- have a weak immune system (people who have had a serious disease or have had a transplant)
- live in long-term residences (for example, seniors’ homes)
- live in crowded housing
- live or have lived in a correctional facility (jail, prison)
- are homeless
- have already had active TB before
- had TB in the past, but didn’t get proper treatment for it
- live in communities with high rates of inactive TB infection or active TB disease
- work with any of the above groups (for example, health-care workers and prison staff)

In Canada, TB is most common in two groups:

- Aboriginal people
- Immigrants and refugees who were born in countries where TB is common.

Between 1998 and 2009, there were 533 cases of tuberculosis diagnosed among residents of the Burntwood Region. Table 4-11 illustrates the number of cases by year for Burntwood Region, Manitoba as well as the per cent of cases accounted for by Burntwood residents.

As Figure 4-139 shows, almost all of the cases (98%) were among residents who are status First Nations. In addition, Figure 4-140 shows that in this same time period 87 per cent of cases of tuberculosis were diagnosed among residents living on-reserve.

As illustrated in Figure 4-141, incidence rates of TB for the Burntwood Region have ranged from 86 to 126 cases per 100,000 population for the past three years. These rates are much higher for Burntwood Region residents than for the other regions, and rank the highest in the province. The provincial rate over this same time period has ranged from 8.7 to 12.9 cases per 100,000 residents.
• **Figure 4-142** shows tuberculosis incidence rates by year for Burntwood, Manitoba and Canada for the time period 1998-2009. These data show that, although rates in both Manitoba and Canada have been quite low and relatively stable over this time period, the same is not true for Burntwood. Due to the smaller regional population, rates are not as stable as may be seen in larger populations and we can see that the trend is more fluctuant. Burntwood rates are consistently much higher than those seen in Manitoba and Canada.

• **Figure 4-143** shows TB incidence rates for the Burntwood Region by on- or off-reserve status at the time of diagnosis. Although the on-reserve rates are consistently much higher than the rates for residents living off-reserve, there has been a slight increase in rates off-reserve. Off-reserve rates have increased from no cases in 2000 to 21.3 cases per 100,000 in 2009. Rates on-reserve have also increased, from 61.6 per 100,000 in 2000 to 149.5 per 100,000 in 2009. The on-reserve rate in 2009, although an increase from 2000, is actually lower than all rates since 2003.

• **Figure 4-144** shows TB incidence rates by age group for Burntwood and Manitoba. Rates of TB are higher in the Burntwood Region than Manitoba in every age group, with most cases occurring between the ages of 30 and 49.

• The final graph (**Figure 4-145**) shows TB incidence rates by gender between 2005 and 2009. Rates have typically been higher among males than females, but in 2009 the reverse was true.

---

**Table 4-11. Tuberculosis cases, Burntwood and Manitoba, 1998-2009.**

<table>
<thead>
<tr>
<th>Year Diagnosed</th>
<th>Burntwood</th>
<th>Manitoba</th>
<th>Burntwood % of Manitoba Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>27</td>
<td>117</td>
<td>23.1%</td>
</tr>
<tr>
<td>1999</td>
<td>54</td>
<td>134</td>
<td>40.3%</td>
</tr>
<tr>
<td>2000</td>
<td>13</td>
<td>104</td>
<td>12.5%</td>
</tr>
<tr>
<td>2001</td>
<td>28</td>
<td>116</td>
<td>24.1%</td>
</tr>
<tr>
<td>2002</td>
<td>26</td>
<td>98</td>
<td>26.5%</td>
</tr>
<tr>
<td>2003</td>
<td>58</td>
<td>128</td>
<td>45.3%</td>
</tr>
<tr>
<td>2004</td>
<td>71</td>
<td>146</td>
<td>48.6%</td>
</tr>
<tr>
<td>2005</td>
<td>43</td>
<td>116</td>
<td>37.1%</td>
</tr>
<tr>
<td>2006</td>
<td>70</td>
<td>134</td>
<td>52.2%</td>
</tr>
<tr>
<td>2007</td>
<td>42</td>
<td>103</td>
<td>40.8%</td>
</tr>
<tr>
<td>2008</td>
<td>60</td>
<td>141</td>
<td>42.6%</td>
</tr>
<tr>
<td>2009</td>
<td>41</td>
<td>157</td>
<td>26.1%</td>
</tr>
</tbody>
</table>

Source: Manitoba Health, Tuberculosis Control Unit.

Note: Data valid as of April 2010 but cases are continually reviewed and updated data extracts may reflect slightly different numbers.
Figure 4-139. Burntwood Tuberculosis cases by origin, 1998-2009 combined.

- Status First Nations (N=524) 98.3%
- Canadian Born Non First Nations (N=3) 0.6%
- Metis (N=3) 0.6%
- Non-Status First Nations (N=2) 0.4%
- Foreign Born (N=1) 0.2%

Source: Manitoba Health, Tuberculosis Control Unit.

Figure 4-140. Burntwood Tuberculosis cases by on-reserve and off-reserve, 1998-2009 combined.

- On reserve (N=462) 87%
- Off reserve (N=71) 13%

Source: Manitoba Health, Tuberculosis Control Unit.
Figure 4-141. Tuberculosis incidence rates by region, 2007-2009.

<table>
<thead>
<tr>
<th>Region</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brandon</td>
<td>0.0</td>
<td>3.9</td>
<td>1.9</td>
</tr>
<tr>
<td>Assiniboine</td>
<td>0.0</td>
<td>4.4</td>
<td>4.4</td>
</tr>
<tr>
<td>Parkland</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Churchill</td>
<td>1.6</td>
<td>0.0</td>
<td>109.4</td>
</tr>
<tr>
<td>Eastman</td>
<td>2.6</td>
<td>1.3</td>
<td>3.0</td>
</tr>
<tr>
<td>Interlake</td>
<td>5.8</td>
<td>2.8</td>
<td>2.6</td>
</tr>
<tr>
<td>Central</td>
<td>6.9</td>
<td>9.5</td>
<td>0.9</td>
</tr>
<tr>
<td>Winnipeg</td>
<td>7.4</td>
<td>4.8</td>
<td>12.2</td>
</tr>
<tr>
<td>North Eastman</td>
<td>12.4</td>
<td>20.6</td>
<td>50.7</td>
</tr>
<tr>
<td>NOR-MAN</td>
<td>90.1</td>
<td>126.3</td>
<td>4.1</td>
</tr>
<tr>
<td>Burntwood</td>
<td>12.9</td>
<td>8.7</td>
<td>8.7</td>
</tr>
</tbody>
</table>

Source: Manitoba Health, Tuberculosis Control Unit.

Note: Data valid as of April 2010 but cases are continually reviewed and updated data extracts may reflect slightly different numbers. Churchill rates should be interpreted with caution due to very small numbers. The rate in 2009 is a result of only one case.
Figure 4-142. Tuberculosis incidence rates by year, 1998-2009.

Source: Manitoba Health, Tuberculosis Control Unit and Public Health Agency of Canada for Canadian rates.
NOTE: Canada rate for 2009 not available.

Figure 4-143. Tuberculosis incidence rates on-reserve and off-reserve by year, Burntwood Region, 2000-2009.

Source: Manitoba Health, Tuberculosis Control Unit.
Figure 4-144. Tuberculosis incidence rates by age group, 2007-2009 combined, Burntwood and Manitoba.

Source: Manitoba Health, Tuberculosis Control Unit.

Figure 4-145. Tuberculosis incidence rates by gender, 2005-2009, Burntwood.

Source: Manitoba Health, Tuberculosis Control Unit.
4.8 MORTALITY

Mortality rates are a measure of the overall health of the population and are similar to what is measured by life expectancy. That is, regions with high mortality rates will also have lower life expectancy statistics. It is helpful to review the mortality rates as it gives us a baseline from which to measure changes over time. While life expectancy measures do not change a great deal in the short term, some mortality rates can be significantly reduced in short periods of time. Examples are the reduction in SIDS-related mortality that has been evident since the implementation of “Back to Sleep” and other education campaigns. Other examples would be suicide or other injury prevention programs that can have an immediate impact on risky behaviours.

Mortality rates that take longer to change include cancer related mortalities as they respond to certain treatment, and often occur as a result of risk factors engaged in over a lifetime. For example, lung cancer mortality rates are impacted by smoking behaviours over decades. Therefore, smoking cessation campaigns that occur today will not immediately have an impact on lung cancer mortality rates.

It is important to look at mortality both in terms of all deaths and what is causing them. It is also important to focus on deaths that occur at younger ages as these deaths are more likely to be preventable. In looking at deaths that occur at "younger ages", we will be presenting data on premature mortality rates as well as Potential Years of Life Lost. Both of these measures focus exclusively on deaths that occurred before the age of 75.
4.8.1 Life Expectancy

Life expectancy is perhaps the most widely used indicator of the health of a population and the overall effectiveness of the health care system in maintaining the health status of the population. However, it is important to note that life expectancy measures quantity rather than quality of life.

Life expectancy is the number of years a person would be expected to live, starting from birth (for life expectancy at birth) and similarly for other age groups, if the age- and sex-specific mortality rates for a given observation period (such as a calendar year) were held constant over the estimated life span. This means, for example, that someone who was born in 1890 would have a lower life expectancy at birth than someone who was born in 2003. The reason for this is that in the 1800’s people died earlier from many preventable causes of death (particularly vaccine-preventable illnesses), so the life expectancy in that time period was lower than for those people who were living in the late 1990’s and early 2000’s.

- The Burntwood Region ranks the lowest for life expectancy for both males and females in 2001-2005. As well, Burntwood is one of only a few regions to experience a decline in life expectancy from 1996-2000 to 2001-2005, and this is the case for both females and males (see Figures 4-146 and 4-147).

- Female life expectancy in Burntwood decreased from 76.6 to 76.0 years between 1996-2000 and 2001-2005, which is significantly lower than the Manitoba average of 81.5 years in 2001-2005 (see Figure 4-146).

- Male life expectancy in Burntwood decreased from 71.4 to 69.7 years between 1996-2000 and 2001-2005, which is significantly lower than the Manitoba average of 76.3 years in 2001-2005 (see Figure 4-147).

- These declines in life expectancy should be interpreted with some caution, as the data are based on small numbers and can fluctuate. However, given what we know about the challenges we are facing (for example with increasing rates of diabetes and other chronic diseases), we do need to keep monitoring these data to determine if the trend continues.
Figure 4-146. Female life expectancy by region, 1996-2000 and 2001-2005.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

'1' indicates area's rate was statistically different from Manitoba average in first time period.

'2' indicates area's rate was statistically different from Manitoba average in second time period.

'†' indicates change over time was statistically significant for that area.
Figure 4-147. Male life expectancy by region, 1996-2000 and 2001-2005.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: '1' and '2' indicate area's rate was statistically different from Manitoba average in first time period and/or second time period. 't' indicates change over time was statistically significant for that area.
4.8.2 PREMATURE MORTALITY RATE

Many health researchers consider Premature Mortality Rate (PMR), which counts all deaths that occur prior to the age of 75, as the best single indicator of the health status of a population. Populations with higher PMRs tend to have poorer health overall and higher need for, and utilization of, health services.

- Premature mortality rates among our residents increased from 5.3 to 5.8 per 1,000 residents between 1996-2000 and 2001-2005. This was significantly higher than the Manitoba average of 3.3 in 2001-2005, and ranks the highest in the province (see Figure 4-148).

Figure 4-148. Premature mortality rates by region, 1996-2000 and 2001-2005.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: ‘1’ indicates area’s rate was statistically different from Manitoba average in first time period

‘2’ indicates area’s rate was statistically different from Manitoba average in second time period

‘t’ indicates change over time was statistically significant for that area
4.8.3 **Potential Years of Life Lost (PYLL)**

The most useful measurement for premature mortality is "Potential Years of Life Lost" (PYLL). PYLL is calculated by subtracting age at death from age 75 (the standard "death age") for each person who died, and then adding all these differences for a total PYLL. This information is usually grouped by cause of death for comparison with cause-specific death rates. This measure emphasizes causes of death that tend to be more predominant among younger persons, such as accidents, congenital anomalies, and AIDS.

For this report, we will look specifically at causes of death which are predominant with the general population such as cancer, circulatory disease, and respiratory disease. The report will also focus on cause of death groupings which are more common among young people such as unintentional injuries and suicide. It is important to focus on causes of death for young people, in particular, because the impact of suicides and injuries can have a greater impact on the PYLL data than causes of death affecting older people such as cancer and circulatory disease.

- Rates of PYLL in Burntwood remained relatively constant at 109.0 and 108.7 PYLL per 1,000 residents between 1996-2000 and 2001-2005. Although this is somewhat positive, we know from the PMR data that the actual number of premature deaths have increased, which means that some of these deaths may have occurred at a slightly older age. In addition, this rate is significantly higher than the Manitoba average of 50.9 PYLL per 1,000 residents in 2001-2005 (see Figure 4-149).
Figure 4-149. Potential years of life lost rates by region, 1996-2000 and 2001-2005.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers. '1' and '2' indicate area's rate was statistically different from Manitoba average in first time period and/or second time period.
4.8.3.1 PYLL Due To Cancer

As discussed earlier in this chapter, cancer is typically a disease of older people so although deaths due to cancer occur, the impact on young people is still not as great as it is for other causes of death such as injury. However, there are certain cancers (such as breast cancer) where we might see a higher burden of deaths in young people compared to other types.

- The rate of PYLL due to cancer among Burntwood females was 5.3 per 1,000 residents for the 2000-2006 time period, slightly higher than the Manitoba average of 5.2 (see Figure 4-150).

- The male PYLL due to cancer rate in Burntwood was much higher than the female rate at 11.8 years per 1,000 residents for the 2000-2006 time period, but this rate is still lower than the Manitoba average of 14.8 and among the lowest in the province (see Figure 4-151).

Figure 4-150. Female potential years of life lost due to cancer rates by region, 2000-2006 average.

NOTE: No case for Churchill.
Figure 4-151. Male potential years of life lost due to cancer rates by region, 2000-2006 average.


NOTE: Churchill rates should be interpreted with caution due to small numbers.
4.8.3.2 PYLL Due to Circulatory Disease

Heart attack and stroke are among the most common causes of death in Canada and can impact younger adults to a greater degree than other chronic diseases. Comprehensive cardiac care and stroke strategies are being implemented in Canada and Manitoba in order to address mortality rates.

- PYLL due to circulatory disease among Burntwood females was 16.9 per 1,000 for the 2000-2006 period, which was substantially higher than the Manitoba average of 4.5 per 1,000 and ranked highest in the province (see Figure 4-152).

- The male PYLL rate due to circulatory disease rate in Burntwood was much lower than the female rate at 4.8 per 1,000 for the 2000-2006 time period. This rate is also higher than the Manitoba average of 2.2 per 1,000, and also ranked highest in the province (see Figure 4-153).

Figure 4-152. Female potential years of life lost due to circulatory disease rates by region, 2000-2006 average.

![Figure 4-152](chart.png)
Figure 4-153. Male potential years of life lost due to circulatory disease rates by region, 2000-2006 average.

NOTE: No case for Churchill.
4.8.3.3  PYLL Due To Respiratory Disease

Respiratory diseases include asthma, chronic obstructive pulmonary disease (COPD), lung cancer, influenza and pneumonia, bronchiolitis, tuberculosis (TB), cystic fibrosis, and respiratory distress syndrome (RDS). These diseases can affect individuals at any age and respiratory disease incidence and prevalence will rise as the population ages. Tobacco cessation and measures to improve air quality will have the greatest impact.

- Female PYLL due to respiratory disease rate in Burntwood was 39.3 per 1,000 for the 2000-2006 period, almost four times higher than the Manitoba average of 10.5 per 1,000 (see Figure 4-154).

- Male PYLL due to respiratory disease rate in Burntwood was lower than our rate among females at 10.2 years per 1,000 residents for the 2000-2006 period. This is lower than the Manitoba average of 14.4 years per 1,000 residents (see Figure 4-155).

- The female PYLL rate due to respiratory disease was the highest among Manitoba RHAs for the 2000-2006 period, while the male PYLL rate was the lowest in the province.

Figure 4-154. Female potential years of life lost due to respiratory disease rates by region, 2000-2006 average.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
Figure 4-155. Male potential years of life lost due to respiratory disease rates by region, 2000-2006 average.


NOTE: Churchill rates should be interpreted with caution due to small numbers.
4.8.3.4 PYLL Due To Unintentional Injuries

Injuries are the most preventable of the health conditions studied in this section, and injury prevention measures can have the greatest short term impact on PYLL figures, given that young people generally suffer injuries more than those in other age categories.

- The data indicate that there are higher PYLL rates associated with injury deaths. Even though death due to injuries are still relatively rare occurrences in our population overall, these deaths likely impact young people the most. Thus the smaller number of events (compared for example to deaths due to other causes such as cancer) has resulted in higher rates of PYLL.

- The female PYLL due to injuries rate in Burntwood was 20.0 per 1,000 for the 2000-2006 time period. This is more than triple the Manitoba average of 6.5 per 1,000, and ranks among the highest in the province (see Figure 4-156).

- The male PYLL due to injuries rate in Burntwood was 4.3 per 1,000 for the 2000-2006 period. This is more than double the Manitoba average of 1.6 per 1,000, and ranks the highest in the province (see Figure 4-157).

Figure 4-156. Female potential years of life lost due to injuries rates by region, 2000-2006 average.

NOTE: No cases for Churchill.
Figure 4-157. Male potential years of life lost due to injuries rates by region, 2000-2006 average.


NOTE: No cases for Churchill.
4.8.3.5 PYLL Due To Suicide

Once again, suicide is something that young people typically engage in more than older age categories. Suicide prevention strategies along with mental health resources and appropriate medications can have a large impact on PYLL figures.

- The female PYLL due to suicide rate in Burntwood was 5.0 per 1,000 for the 2000-2006 time period, which is more than double the Manitoba average of 2.3 (see Figure 4-158).

- The male PYLL due to suicide rate in Burntwood was 13.7 per 1,000 for the 2000-2006 time period, higher than the Manitoba average of 13.1 (see Figure 4-159).

Figure 4-158. Female potential years of life lost due to suicide rates by region, 2000-2006 average.
Figure 4-159. Male potential years of life lost due to suicide rates by region, 2000-2006 average.


NOTE: Churchill rates should be interpreted with caution due to small numbers.
4.8.4 MORTALITY

Mortality rates are calculated as the total number of deaths among all residents (all ages and all causes) per 1,000 residents in the region.

Mortality rates indicate the overall health of the population and are similar to what is measured by life expectancy. That is, regions with high mortality rates will also have lower life expectancy statistics. It is helpful to review the mortality rates as it gives us a solid basis from which to measure changes over time. Life expectancy measures do not change a great deal in the short term; however, some mortality rates can be significantly reduced in short periods of time. Examples are the reduction in SIDS-related mortality that has been evident since the implementation of “Back to Sleep” and other education campaigns. Other examples would be suicide or other injury prevention programs that can have an immediate impact on risky behaviours.

Mortality rates that take longer to change include cancer-related mortalities, as they respond to certain treatment and often occur as a result of risk factors engaged in over a lifetime. For example, lung cancer mortality rates are impacted by smoking behaviours over decades. Therefore, smoking cessation campaigns that occur today will not immediately have an impact on lung cancer mortality rates.

- As with premature deaths, total mortality rates in Burntwood increased from 13.2 to 14.3 per 1,000 between 1996-2000 and 2001-2005. Again, Burntwood’s rates are significantly higher than the Manitoba average of 8.0 in 2001-2005, and rank the highest in the province (see Figure 4-160).
Figure 4-160. Total mortality rates by region, 1996-2000 and 2001-2005.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first time period and/or second time period.
4.8.4.1 Leading Causes of Death

A recent article on causes of death in the United States indicated that the five leading behavioural causes of death in the US (in order of significance) were associated with:

1. Smoking and tobacco usage
2. Obesity: poor diet and lack of physical activity
3. Abuse of alcohol
4. Microbial agents (infections, bacteria)
5. Car accidents

Some of these risk factors cause far more deaths than others. For example, many more people die from smoking than from car accidents. It is also important to note that although we cannot avoid death altogether, many of these causes of death are under our control. We can stop smoking. We can improve our diet and start exercising more. We can stop drinking (or at least drink in moderation). We can acquire immunity for vaccine preventable diseases with vaccinations. By doing so, we can live longer and healthier lives.

In this section, we look at the leading five causes of death by broad diagnostic category; that is we do not look at "deaths due to smoking" but, for example, "diseases of the circulatory system".

- Tables 4-12 and 4-13 illustrate the leading causes of death for residents in the Burntwood Region and the proportion of deaths for which they are accountable. Taken together, diseases of the circulatory system and cancer account for well over one third of all deaths of Burntwood Region residents, and this pattern is consistent with what we see in the province as a whole. We know that the risk factors for diseases of the circulatory system and many cancers, such as smoking and obesity, have a high prevalence in Burntwood Region. However, these two causes of death accounted for over 50 percent of all deaths among males and females across the province. Of particular note is the high proportion of deaths due to injury in both Burntwood females and males. Injury ranked third for causes of death in Burntwood females, and first for Burntwood males. This is in contrast to Manitoba, where injury ranked fifth and fourth, respectively.

- While circulatory and respiratory diseases showed a decline as a percentage of all deaths in the Burntwood Region, endocrine and nutritional disorders increased as a percentage of all deaths in Burntwood. These trends are reflected across Manitoba, and may be related to the increases we are seeing in prevalence of diabetes throughout the province.
Table 4-12. Leading causes of death, Burntwood and Manitoba females.

<table>
<thead>
<tr>
<th>Cause Of Death</th>
<th>As percentage of all deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba Females</td>
<td></td>
</tr>
<tr>
<td>Diseases of the Circulatory System</td>
<td>42.1%</td>
</tr>
<tr>
<td>Cancer</td>
<td>26.0%</td>
</tr>
<tr>
<td>Respiratory Diseases</td>
<td>9.0%</td>
</tr>
<tr>
<td>Endocrine and Nutritional Disorders</td>
<td>3.2%</td>
</tr>
<tr>
<td>External Causes (injury)</td>
<td>3.8%</td>
</tr>
<tr>
<td>All Other Causes</td>
<td>15.9%</td>
</tr>
<tr>
<td>Burntwood Females</td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>15.9%</td>
</tr>
<tr>
<td>Diseases of the Circulatory System</td>
<td>27.2%</td>
</tr>
<tr>
<td>External Causes (injury)</td>
<td>21.4%</td>
</tr>
<tr>
<td>Endocrine and Nutritional Disorders</td>
<td>3.3%</td>
</tr>
<tr>
<td>Respiratory Diseases</td>
<td>9.4%</td>
</tr>
<tr>
<td>All Other Causes</td>
<td>22.8%</td>
</tr>
</tbody>
</table>

Source: Manitoba Vital Statistics death data.

Table 4-13. Leading causes of death, Burntwood and Manitoba males.

<table>
<thead>
<tr>
<th>Cause Of Death</th>
<th>As percentage of all deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba Males</td>
<td></td>
</tr>
<tr>
<td>Diseases of the Circulatory System</td>
<td>39.2%</td>
</tr>
<tr>
<td>Cancer</td>
<td>27.4%</td>
</tr>
<tr>
<td>Respiratory Diseases</td>
<td>9.4%</td>
</tr>
<tr>
<td>External Causes (injury)</td>
<td>7.6%</td>
</tr>
<tr>
<td>Endocrine and Nutritional Disorders</td>
<td>2.8%</td>
</tr>
<tr>
<td>All Other Causes</td>
<td>13.6%</td>
</tr>
<tr>
<td>Burntwood Males</td>
<td></td>
</tr>
<tr>
<td>External Causes (injury)</td>
<td>30.7%</td>
</tr>
<tr>
<td>Diseases of the Circulatory System</td>
<td>27.7%</td>
</tr>
<tr>
<td>Cancer</td>
<td>13.6%</td>
</tr>
<tr>
<td>Endocrine and Nutritional Disorders</td>
<td>2.8%</td>
</tr>
<tr>
<td>Respiratory Diseases</td>
<td>6.0%</td>
</tr>
<tr>
<td>All Other Causes</td>
<td>19.2%</td>
</tr>
</tbody>
</table>

Source: Manitoba Vital Statistics death data.
Figures 4-161 to 4-184 illustrate mortality rates for selected causes of death. For each cause of death, regional comparisons for the year 2006 are provided for females and males separately, then for all residents. In addition, time trend graphs are provided under each 2006 graph to compare Burntwood rates to Manitoba over time. Some of the key points from these graphs are highlighted below.

- **Circulatory Disease** (Figures 4-195 to 4-200) accounted for more than one-fifth of deaths among females in Burntwood (21.7%) and 18.6 per cent for males in 2006. These rates were the lowest in the province for females and the second lowest for males. These rates are lower than the provincial rates, where almost one in three deaths among both males and females are due to circulatory disease. However, overall mortality rates have increased slightly between 2002 and 2006 from 18.2 per cent of all deaths to 19.9 per cent.

- **Cancers** (Figures 4-201 to 4-206) accounted for approximately one in four deaths among Burntwood females and just about 20 per cent of deaths among men in 2006. Again, these rates are lower than provincial rates; in fact, the regional rate of 21.4 per cent of deaths is the lowest in the province. This may be related to our younger population, and that people die of other causes before they are old enough to develop cancer. Cancer deaths as a proportion of all deaths have increased the most for Burntwood males from 13.3 per cent of deaths in 2002 to 19.5 per cent in 2006.

- **Respiratory Disease** (Figures 4-207 to 4-212) accounted for 12 per cent of deaths among Burntwood Region females and 7.5 per cent of deaths among Burntwood Region males in 2006. Deaths due to respiratory disease appear to be increasing, and accounted for just under 10 per cent of all deaths in BRHA residents in 2006. This is the second highest rate in Manitoba.

- **Endocrine and Nutritional Disorders** (Figures 4-213 to 4-218) accounted for a lower proportion of deaths among Burntwood females (3.6%) compared to males (11.0%) in 2006. However, among females, rates appear to be very unstable. Proportions for both females and males rank among the highest in the province. Overall, between 2002 and 2006, endocrine and nutritional disorders remained quite stable accounting for about eight per cent of all deaths in the Burntwood Region. The only exception was in 2005 where there was an increase to 11.8 per cent of all deaths.
Figure 4-161. Female mortality rates due to circulatory diseases by region, 2006.

Source: Manitoba Vital Statistics death data.
NOTE: No case for Churchill.

Figure 4-162. Female mortality rates due to circulatory diseases by year, 2002-2006.

Source: Manitoba Vital Statistics death data.

Figure 4-163. Male mortality rates due to circulatory diseases by region, 2006.
Figure 4-164. Male mortality rates due to circulatory diseases by year, 2002-2006.
Figure 4-165. Total mortality rates due to circulatory diseases by region, 2006.

Source: Manitoba Vital Statistics death data.
NOTE: No case for Churchill.

Figure 4-166. Total mortality rates due to circulatory diseases by year, 2002-2006.

Source: Manitoba Vital Statistics death data.
Figure 4-167. Female mortality rates due to neoplasms (cancer) by region, 2006.

Source: Manitoba Vital Statistics death data.
NOTE: No case for Churchill.

Figure 4-168. Female mortality rates due to neoplasms (cancer) by year, 2002-2006.

Source: Manitoba Vital Statistics death data.
Figure 4-169. Male mortality rates due to neoplasms (cancer) by region, 2006.

<table>
<thead>
<tr>
<th>Region</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burntwood</td>
<td>19.5%</td>
</tr>
<tr>
<td>Assiniboine</td>
<td>25.0%</td>
</tr>
<tr>
<td>Parkland</td>
<td>26.1%</td>
</tr>
<tr>
<td>Central</td>
<td>26.8%</td>
</tr>
<tr>
<td>Winnipeg</td>
<td>29.6%</td>
</tr>
<tr>
<td>NOR-MAN</td>
<td>29.7%</td>
</tr>
<tr>
<td>Interlake</td>
<td>29.7%</td>
</tr>
<tr>
<td>North Eastman</td>
<td>30.7%</td>
</tr>
<tr>
<td>Brandon</td>
<td>33.0%</td>
</tr>
<tr>
<td>South Eastman</td>
<td>33.9%</td>
</tr>
</tbody>
</table>

Source: Manitoba Vital Statistics death data.
NOTE: No case for Churchill.

Figure 4-170. Male mortality rates due to neoplasms (cancer) by year, 2002-2006.

<table>
<thead>
<tr>
<th>Year</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td></td>
</tr>
</tbody>
</table>

Source: Manitoba Vital Statistics death data.
Figure 4-171. Total mortality rates due to neoplasms (cancer) by region, 2006.

![Bar chart showing total mortality rates due to neoplasms (cancer) by region, 2006.](chart1.png)

Source: Manitoba Vital Statistics death data.

NOTE: No case for Churchill.

Figure 4-172. Total mortality rates due to neoplasms (cancer) by year, 2002-2006.

![Line chart showing total mortality rates due to neoplasms (cancer) by year, 2002-2006.](chart2.png)

Source: Manitoba Vital Statistics death data.
Figure 4-173. Female mortality rates due to respiratory diseases by region, 2006.

![Bar chart showing female mortality rates due to respiratory diseases by region in 2006.]

Source: Manitoba Vital Statistics death data.

NOTE: No case for Churchill.

Figure 4-174. Female mortality rates due to respiratory diseases by year, 2002-2006.

![Line graph showing female mortality rates due to respiratory diseases by year from 2002 to 2006.]

Source: Manitoba Vital Statistics death data.
Figure 4-175. Male mortality rates due to respiratory diseases by region, 2006.

Source: Manitoba Vital Statistics death data.

NOTE: No case for Churchill.

Figure 4-176. Male mortality rates due to respiratory diseases by year, 2002-2006.

Source: Manitoba Vital Statistics death data.
Figure 4-177. Total mortality rates due to respiratory diseases by region, 2006.

![Bar chart showing total mortality rates by region.](chart1)

Source: Manitoba Vital Statistics death data.

NOTE: No case for Churchill.

Figure 4-178. Total mortality rates due to respiratory diseases by year, 2002-2006.

![Line graph showing mortality rates by year.](chart2)

Source: Manitoba Vital Statistics death data.
Figure 4-179. Female mortality rates due to endocrine/nutritional diseases by region, 2006.

Source: Manitoba Vital Statistics death data.
NOTE: No case for Churchill.

Figure 4-180. Female mortality rates due to endocrine/nutritional diseases by year, 2002-2006.

Source: Manitoba Vital Statistics death data.
Figure 4-181. Male mortality rates due to endocrine/nutritional diseases by region, 2006.

![Graph showing male mortality rates due to endocrine/nutritional diseases by region, 2006.]

Source: Manitoba Vital Statistics death data.
NOTE: No case for Churchill.

Figure 4-182. Male mortality rates due to endocrine/nutritional diseases by year, 2002-2006.

![Graph showing male mortality rates due to endocrine/nutritional diseases by year, 2002-2006.]

Source: Manitoba Vital Statistics death data.
Figure 4-183. Total mortality rates due to endocrine/nutritional diseases by region, 2006.

Source: Manitoba Vital Statistics death data.
NOTE: No case for Churchill.

Figure 4-184. Total mortality rates due to endocrine/nutritional diseases by year, 2002-2006.

Source: Manitoba Vital Statistics death data.
4.8.4.2 Mortality Among Residents With and Without Certain Diseases

This indicator measures the annual percentage of deaths, for residents 19 years and over, for people with and without the following diseases: hypertension, arthritis, total respiratory morbidity (TRM), diabetes, ischemic heart disease (IHD), cumulative mental illness (CMI), and osteoporosis. Both groups were followed for five years, to compare cumulative mortality rates for all causes combined.

- Overall, the Burntwood Region’s rate of mortality with and without diseases studied in this section was generally higher than the Manitoba average.

- Most striking of these data is that 14.4 per cent of residents who had diabetes died within five years (from any cause) compared to just 8.0 per cent in the comparison group. This means that people with diabetes have a relative risk of almost two times that of others of dying within five years.

Table 4-14. Mortality rates among residents with and without certain disease, 2001/02-2005/06.

<table>
<thead>
<tr>
<th></th>
<th>With disease</th>
<th>Without disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total respiratory morbidity</td>
<td>9.3%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Arthritis</td>
<td>8.7%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>14.4%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>6.8%</td>
<td>5.1%</td>
</tr>
<tr>
<td>IHD</td>
<td>10.7%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>24.6%</td>
<td>19.1%</td>
</tr>
</tbody>
</table>

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
4.8.4.2.1 Total Respiratory Morbidity (TRM)

Canada is facing a significant increase in respiratory disease incidence and prevalence as the population ages. It will be critical for health regions to appropriately plan for this increase while working to enhance preventative strategies, particularly around smoking cessation and working with other agencies around air quality. As discussed in Chapter 3 of this document, smoking prevalence among all age groups of BRHA residents is very high. In addition, many non-smoking residents are exposed to second-hand smoke with increased risk for respiratory illness, particularly with long term exposure to second-hand smoke.

- The five-year mortality rate among residents with respiratory illness in Burntwood was 9.3 per cent between 2001/02-2005/06, higher than the Manitoba average of 7.8 per cent (see Figure 4-185). At the same time, five–year mortality rate among residents without respiratory illness in Burntwood was 9.1 per cent, higher than the Manitoba average of 5.4 per cent. It is important to note that the difference between groups in Burntwood was not significantly different.

Figure 4-185. Mortality rates among residents with and without TRM by region, 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
'y' indicates area's rate for those with TRM was statistically different from Manitoba average with TRM
'n' indicates area's rate for those without TRM was statistically different from Manitoba average without TRM
'd' indicates difference between groups is statistically significant for that area
4.8.4.2.2 ARTHRITIS

Compared with people with other chronic conditions, those with arthritis have lower quality of life, as they tend to have more pain, activity restrictions and long-term disability, and require more health care services to live independently. It will important to have those health care services that can permit arthritis sufferers to live as independently as possible.

- The five-year mortality rate among residents with arthritis in Burntwood was 8.7 per cent between 2001/02-2005/06, significantly higher than the Manitoba average of 5.6 per cent (see Figure 4-186). At the same time, the five-year mortality rate among residents without arthritis in Burntwood was 7.9 per cent. This was also significantly higher than the Manitoba average of 4.9 per cent. However, it is important to note that the Burntwood groups were not significantly different.

Figure 4-186. Mortality rates among residents with and without arthritis by region, 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
'y' indicates area's rate for those with arthritis was statistically different from Manitoba average with arthritis
'n' indicates area's rate for those without arthritis was statistically different from Manitoba average without arthritis
'd' indicates difference between groups is statistically significant for that area
4.8.4.2.3 **DIABETES**

Diabetes is of particular concern for Manitoba, as the incidence of diabetes is much higher among First Nations. While diabetes can be effectively managed, it is clear that it is still leading to premature death at a far higher rate than those without diabetes.

- The five-year mortality rate among residents with diabetes in Burntwood was 14.4 per cent between 2001/02-2005/06, higher than the Manitoba average of 11.7 per cent and ranking among the highest in the province (see Figure 4-187). In comparison, the five-year mortality rate among residents without diabetes in Burntwood was 8.0 per cent, which was significantly different from the rate among residents with diabetes.

- These data show the importance of managing chronic conditions such as diabetes, as residents in Burntwood Region who had been diagnosed with diabetes had almost twice the risk of dying in five years compared to those who had not been diagnosed with diabetes.

**Figure 4-187. Mortality rates among residents with and without diabetes by region, 2001/02-2005/06.**

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

'y' indicates area’s rate for those with diabetes was statistically different from Manitoba average with diabetes

'n' indicates area’s rate for those without diabetes was statistically different from Manitoba average without diabetes

'd' indicates difference between groups is statistically significant for that area
4.8.4.2.4 HYPERTENSION

Hypertension is a major contributor to heart attacks and stroke. It will continue to be important for individuals to be aware of the dangers of high blood pressure and to take steps to lower high blood pressure. Increased public awareness of this, communicated by physicians and other providers, will help to lower hospitalizations.

- The five-year mortality rate among residents with hypertension in Burntwood was 6.8 per cent between 2001/02-2005/06, significantly higher than the Manitoba average of 4.4 per cent and ranking the highest in the province. By comparison, the five year mortality rate among residents without hypertension in Burntwood was lower than for those with hypertension at 5.1 per cent between 2001/02-2005/06 (see Figure 4-188).

Figure 4-188. Mortality rates among residents with and without hypertension by region, 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
'y' indicates area's rate for those with hypertension was statistically different from Manitoba average with hypertension
'n' indicates area's rate for those without hypertension was statistically different from Manitoba average without hypertension
'd' indicates difference between groups is statistically significant for that area
4.8.4.2.5 Ischemic Heart Disease

Ischemic heart disease (IHD) remains a key chronic disease which will require a long term sustained strategy from prevention to treatment. There remains a gap in mortality rates among residents with IHD in comparison to those that do not have IHD.

- The five-year mortality rate among residents with IHD in Burntwood was 10.7 per cent between 2001/02-2005/06, significantly higher than the Manitoba average of 7.0 per cent and ranking among the highest in the province. By comparison, the five-year mortality rate among residents without IHD in Burntwood was 7.4 per cent, also significantly higher than the Manitoba average of 4.6 per cent. The differences between Burntwood groups were found to be significant (see Figure 4-189).

Figure 4-189. Mortality rates among residents with and without IHD by region, 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

'y' indicates area's rate for those with IHD was statistically different from Manitoba average with IHD

'n' indicates area's rate for those without IHD was statistically different from Manitoba average without IHD

'd' indicates difference between groups is statistically significant for that area
4.8.4.2.6 OSTEOPOROSIS

Approximately two million Canadians are living with osteoporosis with one in four women and one in eight men over 50 years suffering from osteoporosis. Treating osteoporosis and the fractures associated with the disease is costly, and results in numerous hospitalizations.

- The five-year mortality rate among residents with osteoporosis in Burntwood was 24.6 per cent between 2001/02 and 2005/06, significantly higher than the Manitoba average of 17.0 per cent, and significantly higher than the mortality rate of 19.1 per cent for Burntwood residents who did not have a diagnosis of osteoporosis (see Figure 4-190).

Figure 4-190. Mortality rates among residents with and without osteoporosis by region, 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
'Y' indicates area's rate for those with osteoporosis was statistically different from Manitoba average with osteoporosis
'n' indicates area's rate for those without osteoporosis was statistically different from Manitoba average without osteoporosis
'd' indicates difference between groups is statistically significant for that area
's' indicates data suppressed due to small numbers
4.8.4.3 Unintentional Injury Death Rates

Unintentional injury death rates measures long-term success in reducing deaths due to unintentional injuries, compared with other regions or jurisdictions. It measures the adequacy and effectiveness of injury prevention efforts, including public education, community and road design, prevention, emergency care, and treatment resources.\textsuperscript{lv}

- The unintentional injury death rate for males in Burntwood increased from 83.9 to 94.1 per 100,000 between 1993-1999 and 2000-2006. It remained above the Manitoba average of 42.5 in 2000-2006, and ranked among the highest in the province (see Figure 4-191).

- Among Burntwood females, the unintentional injury deaths rate increased from 40.4 to 62.1 per 100,000 between 1993-1999 and 2000-2006. This rate was also higher than the provincial average of 29.1 in 2000-2006, and ranked the highest in the province (see Figure 4-192).

- Overall, within Burntwood Region the total unintentional injury deaths rate increased from 61.9 to 77.8 per 100,000 between 1993-1999 and 2000-2006. Our rate is higher than the Manitoba average of 35.7 in 2000-2006 (see Figure 4-193).

![Figure 4-191. Male unintentional injury deaths rate by region, 1993/99 and 2000/06.](image)

Source: Manitoba Health (Health Information Management).

NOTE: Churchill rates should be interpreted with caution due to small numbers.
Figure 4-192. Female unintentional injury deaths rate by region, 1993/99 and 2000/06.

Source: Manitoba Health (Health Information Management).
NOTE: Data for Churchill not available.

Figure 4-193. Total unintentional injury deaths rate by region, 1993/99 and 2000/06.

Source: Manitoba Health (Health Information Management).
NOTE: Churchill rates should be interpreted with caution due to small numbers.
4.8.4.3.1 PROPORTION OF ALL DEATHS DUE TO INJURY

This indicator provides an important gauge of how serious the injury mortality rate is in a region. It permits health planners the opportunity to devote the appropriate resources necessary to reduce the number of deaths due to injury.

- The proportion of injury deaths out of total deaths for males decreased from 32 per cent to 27 per cent between 1993-1999 and 2000-2006 in Burntwood, which was much higher than the Manitoba average 8 per cent in 2000-2006 and ranked the highest in the province (see Figure 4-194).

- The proportion of injury deaths out of total deaths for females decreased from 21 to 17 per cent between 1993-1999 and 2000-2006 in Burntwood, which was far higher than the Manitoba average at 5 per cent in 2000-2006 and also ranked the highest in the province (see Figure 4-195).

Figure 4-194. Proportion of injury deaths out of total deaths for males by region, 1993/99 and 2000/06.
Figure 4-195. Proportion of injury deaths out of total deaths for females by region, 1993/99 and 2000/06.

Source: Manitoba Health (Health Information Management).
NOTE: Churchill rates should be interpreted with caution due to small numbers.
4.8.4.3.2 Leading Causes of Injury Deaths

This indicator along with the previous indicator (proportion of all deaths due to injury) assists health planners to more accurately pinpoint injury prevention strategies to the leading causes so that it is more effective in preventing injury.

- Suicide continued to be the number one cause of injury deaths for the 1993-1999 and 2000-2006 periods for both men and women. Injury death rates for all leading causes increased from 1993-1999 to 2000-2006, except drowning (see Table 4-15).

Table 4-15. Leading causes of injury deaths among RHA Burntwood residents (rates per 100,000)

<table>
<thead>
<tr>
<th></th>
<th>Suicide</th>
<th>Suffocation</th>
<th>Drowning</th>
<th>Motor Vehicle/Traffic</th>
<th>Assaults</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All injury deaths 1993 to 1999</strong></td>
<td>15.4</td>
<td>13.4</td>
<td>12.2</td>
<td>7.4</td>
<td>5.1</td>
</tr>
<tr>
<td><strong>Females 1993 to 1999</strong></td>
<td>7.3</td>
<td>7.3</td>
<td>5.3</td>
<td>7.3</td>
<td>5.3</td>
</tr>
<tr>
<td><strong>Males 1993 to 1999</strong></td>
<td>23.0</td>
<td>19.3</td>
<td>18.6</td>
<td>7.5</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>All injury deaths 2000 to 2006</strong></td>
<td>23.4</td>
<td>16.5</td>
<td>7.3</td>
<td>10.1</td>
<td>12.3</td>
</tr>
<tr>
<td><strong>Females 2000 to 2006</strong></td>
<td>9.1</td>
<td>9.7</td>
<td>2.6</td>
<td>9.1</td>
<td>5.8</td>
</tr>
<tr>
<td><strong>Males 2000 to 2006</strong></td>
<td>37.1</td>
<td>23.5</td>
<td>11.7</td>
<td>10.5</td>
<td>18.5</td>
</tr>
</tbody>
</table>

4.8.4.4 SUICIDE

Suicide is a complex phenomenon, and there are a number of risk factors for suicide. Some of the more prominent risk factors include being male, unemployed, and divorced. However, there are a number of psychological and mental health conditions that researchers have established as being important risk factors for suicide. They include:

- **Previous history** of suicidal behavior
- **Family history** of suicide
- **Physical abuse**
- **Stress** e.g. loss (such as a spouse leaving), being fired from a job, ill health, or social embarrassment
- Having **access to the lethal means** for suicide (e.g., firearms, medication)
- **Mental illness**- approximately 90 per cent of suicidal people have a psychiatric disorder, the most common being depression or psychosis.

Suicide in Canada accounts for 24 per cent of all deaths among 15 to 24 year olds and 16 per cent among 15 to 44 year olds. Suicide is the second leading cause of death for Canadians between the ages of 10 and 24. Suicide rates are an indicator of the effectiveness of mental health prevention and promotion initiatives. iv

- The suicide rate in Burntwood increased from 0.2 to 0.4 per 1,000 residents between 1996-2000 and 2001-2005. This increase was considered statistically significant, and it was also statistically higher than the Manitoba average of 0.2 suicides per 1,000 residents in 2001-2005 (see Figure 4-196). Burntwood Region ranks the highest in the province for this indicator.
Figure 4-196. Suicide rate by region, 1996-2000 and 2001-2005.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: No cases for Churchill.

'1' indicates area's rate was statistically different from Manitoba average in first time period

'2' indicates area's rate was statistically different from Manitoba average in second time period

't' indicates change over time was statistically significant for that area
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xxiv Canadian Institute of Health Information, The Cost of Acute Care Hospital Stays by Medical Condition in Canada, 2004-2005, p.40


xxx Heart and Stroke Foundation of Canada website, http://www.heartandstroke.com/site/c.ikIQfMcMWJtE/b.3483991/k.34A8/Statistics.htm
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CHAPTER 5

Winter Road near Thicket Portage

HEALTH SYSTEM CHARACTERISTICS
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5.0 Health System Characteristics

We have already reported on the Characteristics of Burntwood Region (Chapter 2), the Determinants of Health (Chapter 3), and Health Status (Chapter 4) of residents living in Burntwood Region. The indicators for this chapter provide an important snapshot of how well the health system is performing with a focus on utilization of our health care resources.

The data below can illustrate how timely services are being provided to residents as well as how integrated and coordinated the health care system is. The interaction between the primary, acute, and long term care systems are analyzed in greater detail in this chapter. These indicators can also provide important health policy and planning information. The data can point to whether adjustments are needed in key areas of health care services such as diagnostics, mental health, primary care or home care. It can help identify those aspects of a region’s health care system that require more resources or more targeted use of existing resources. This chapter also provides some indications of how well a region is doing in its health promotion and prevention initiatives and whether the acute care system is being used less in favour of more community-based health care services.
5.1 Utilization

Hospital and physician utilization patterns offer important information about health care service use and whether patients are being provided care in the appropriate setting. Physician visits can be an effective way to manage chronic diseases but if there is not access to physicians, health problems can often become more acute, leading to hospitalizations with lengthy and costly stays in the hospital.

It is important to be cautious in interpreting any physician visit data and making inferences about utilization patterns and rates of disease in the population. That is because the data are only as good as the information provided by the physician. For example, if a person is diagnosed with diabetes in 2001, the physician might send Manitoba Health information indicating that this person was seen for diabetes. However, if the person keeps visiting the physician for the same illness, the physician may not indicate “diabetes” every time but instead may code the visit as a general follow up. If this happened, for example, in 2003 we would not know that this person had diabetes and was visiting the physician for diabetes in that year, even though the 2001 data would indicate physician visits for this illness. Accuracy of physician billing and coding is therefore very important to the validity of our data and the information that we are able to gather from it.

Access to physician services was a key point of discussion among community consultation participants. Participants underscored the following challenges in accessing physician services in the region:

- Lack of available spots for appointments, particularly with family physicians;
- The travel and disruption in people’s lives in the smaller Burntwood communities where travel by bus or train is necessary to access health care services outside their communities;
- Some people do not have phones to provide information regarding appointments and, although letters are sent to communicate regarding the appointment, sometimes they may not reach the person;
- The larger turnover in physician positions affects continuity of care and requires new physicians to be in a constant state of learning how the health care system operates in Burntwood. It also requires the region to address constant health professional recruitment and retention issues.
- There are not enough physician services in smaller communities outside Thompson. Participants noted that physicians come into the community at specific time intervals, which may mean it is not possible for some residents to see the doctor during the time they are there.

Participants had suggestions on how to improve physician services so that they are more convenient and more accessible. They include:

- For those patients needing to travel to Thompson for care, participants suggested that appointments be coordinated with their arrival and departure times on the bus, train or car.
This would ensure that residents do not have to spend extra time outside their community, which can be disruptive to their family and working life.

- Several participants suggested that for those communities that do not have adequate physician coverage, nurse practitioners should be brought into the community to provide primary care. One participant remarked on being frustrated that, “You can see a nurse if [you are] sick and the doctor is not here, but if you need a prescription, you have to wait for the doctor.”

- Focus group participants also wondered if telehealth resources were being fully utilized in the region. Many participants felt that disruptive travel to Thompson or Winnipeg for health care appointments could have been avoided by using the telehealth system.

- Given the turnover and the lack of continuity of care, a number of focus group participants felt that more communication between health care professionals could improve the efficiency of health care delivery.

While a lot of the suggestions offered to improve access to health care were constructive and thoughtful, some participant input reflected possibly too high expectations on the health care system. For example, a number of participants felt that health care services ought to include transportation to and from their residence in small communities to health care facilities. Some participants also suggested that more specialist services should be available in small communities and in Thompson. There will need to be further community dialogue in Burntwood which clarifies what the health care system can and cannot do in a northern and remote region.
5.1.1 PHYSICIAN VISIT RATES BY CAUSE

Physician utilization patterns offer important information about how the health care system is performing and whether patients are being provided care in the appropriate setting. Physician visits can be an effective way to manage chronic diseases. Without access to physicians, health problems can often become more acute, leading to hospitalizations which can be lengthy (impacting the patients' quality of life), as well as costly to our system.

- Data has not been provided by each RHA separately but rolled up into larger areas. Burntwood has been "rolled up" into "North" along with the Churchill and NOR-MAN RHAs.

- Table 5-1 Illustrates that in the North, reasons for visits to physicians have remained relatively stable, with the leading reason being for Respiratory Diseases followed by Injury & Poisoning. These two reasons combined account for more than one in five physician visits in both time periods examined. It is important to note that, although common in the North, Injury and Poisoning is not a leading reason for a visit to a physician in Manitoba, and illustrates our increased burden of illness due to injury in the region.

- "Health Status and Contact" means that the patient was visiting the physician not necessarily because he or she was ill, but for screening or other types of tests or immunization. In 2005/06, these types of visits accounted for just under six per cent of all physician visits (see Table 5-1).

- "Mental Illness" is one area where we have seen an important change. In the first time period this was not in the "top ten" reasons for physician visits, but by 2005/06 it was the eighth leading reason for visits, accounting for more than six per cent of all visits. This trend is not unexpected (see Table 5-1).
<table>
<thead>
<tr>
<th>Cause</th>
<th>2000/01 Per Cent</th>
<th>2005/06 Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory Disease</td>
<td>14.0%</td>
<td>Respiratory Disease</td>
</tr>
<tr>
<td>Circulatory Disease</td>
<td>9.1%</td>
<td>Circulatory Disease</td>
</tr>
<tr>
<td>Musculoskeletal Disorders</td>
<td>8.5%</td>
<td>Mental Illness</td>
</tr>
<tr>
<td>Nervous System</td>
<td>8.5%</td>
<td>Musculoskeletal Disorders</td>
</tr>
<tr>
<td>Ill-Defined Conditions</td>
<td>8.4%</td>
<td>Ill-Defined Conditions</td>
</tr>
<tr>
<td>Mental Illness</td>
<td>8.2%</td>
<td>Health Status &amp; Contact</td>
</tr>
<tr>
<td>Health Status &amp; Contact</td>
<td>7.3%</td>
<td>Nervous System</td>
</tr>
<tr>
<td>Injury &amp; Poisoning</td>
<td>6.4%</td>
<td>Endocrine &amp; Metabolism</td>
</tr>
<tr>
<td>Genitourinary &amp; Breast</td>
<td>6.2%</td>
<td>Injury &amp; Poisoning</td>
</tr>
<tr>
<td>Disorders of Skin</td>
<td>5.3%</td>
<td>Genitourinary &amp; Breast</td>
</tr>
<tr>
<td>Other</td>
<td>18.2%</td>
<td>Other</td>
</tr>
<tr>
<td>North (Burntwood, Churchill and NOR-MAN)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory Disease</td>
<td>14.5%</td>
<td>Respiratory Disease</td>
</tr>
<tr>
<td>Injury &amp; Poisoning</td>
<td>9.1%</td>
<td>Injury &amp; Poisoning</td>
</tr>
<tr>
<td>Ill-Defined</td>
<td>8.7%</td>
<td>Musculoskeletal Disorders</td>
</tr>
<tr>
<td>Musculoskeletal Disorders</td>
<td>8.5%</td>
<td>Ill-Defined Conditions</td>
</tr>
<tr>
<td>Nervous System</td>
<td>7.8%</td>
<td>Nervous System</td>
</tr>
<tr>
<td>Genitourinary &amp; Breast</td>
<td>6.7%</td>
<td>Endocrine &amp; Metabolism</td>
</tr>
<tr>
<td>Circulatory System</td>
<td>6.4%</td>
<td>Circulatory System</td>
</tr>
<tr>
<td>Health Status &amp; Contact</td>
<td>6.0%</td>
<td>Mental Illness</td>
</tr>
<tr>
<td>Endocrine &amp; Metabolism</td>
<td>5.9%</td>
<td>Genitourinary &amp; Breast</td>
</tr>
<tr>
<td>Disorders of Skin</td>
<td>5.8%</td>
<td>Health Status &amp; Contact</td>
</tr>
<tr>
<td>Other</td>
<td>20.5%</td>
<td>Other</td>
</tr>
</tbody>
</table>

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
5.1.1.1 **Physician Visits for Mental Illness**

Physician utilization patterns for mental illness are an important indicator to focus on as the burden of mental illness on the health care system rises with each year. It is important to monitor whether residents are accessing mental health treatment options in their community through their physician both as a measure of health system performance and also to determine whether there are any barriers to mental health treatment such as any stigma that may be attached to seeking mental health services. As with all chronic conditions, physician visits can be an effective way to manage mental illness, but without access to a physician, health problems can often become more acute, leading to hospitalizations with lengthy and costly stays in the hospital.

Community focus group participants commented that while there are mental health workers who come into the communities periodically, this does not seem to address the mental health needs of communities effectively. Many participants noted that mental health services for youth are not adequate and that there needs to be someone in the community that youth can talk to about their mental health issues. Teachers from Thompson noted that, although there is a school counsellor, there is a feeling there are not enough resources to manage mental health challenges well. It was noted that for children under the age of 18 who want to access mental health services, they must be sent to Winnipeg for assessment. Teachers felt that if they could work together with other regional resources (e.g. BRHA, RCMP, etc.) across the various systems, through a central place with more case coordination, there may be better chances of success dealing with the challenges locally. Participants also commented that there is not the required support in the community for someone who comes back to the community after mental health treatment, which makes their recovery more difficult.

- As illustrated previously in **Table 5-1**, mental illness accounts for more than six per cent of all physician visits for residents living in Northern Manitoba, which is lower than the provincial rate of just under nine per cent. It is unclear as to whether the lower rate of physician visits are due to lack of physician resources and availability, specificity of coding for patient visits, or lack of willingness by residents to seek help from a local physician for mental health needs. It is also possible that there are lower rates of mental illness in this area, resulting in a reduced need for treatment.

- **Figures 5-1** and **5-2** illustrate average annual physician visit rates for mental illness between 2003/04 and 2007/08 for Burntwood females (1281.4 visits per 1,000 residents) and Burntwood males (1050.3 visits per 1,000 residents).

- The graphs below show that for both males and females, physician visits for mental illness are much higher in the urban settings of Winnipeg, as well as Brandon. Again, the question is raised as to whether this reflects an increased availability of services and willingness to use the services or a true difference in rates and severity of mental illness in urban compared to rural and northern regions.

NOTE: Churchill rates should be interpreted with caution due to small numbers.


NOTE: Churchill rates should be interpreted with caution due to small numbers.
5.1.2 **Total Hospital Separation Rates**

The number of separations is the most commonly used measure of the utilization of hospital services. Separations, rather than admissions, are used because hospital abstracts for inpatient care are based on information gathered at the time of discharge.

Hospital separation rates are important indicators to track to determine the availability of hospital beds and the effectiveness of the hospital in moving patients through the health care system. Separation rates are also an indicator of the degree to which morbidity (level or type of illness) is influencing discharges. Long stays may be an indicator of sicker patients. It may also be the result of an inability, for example, of a hospital to move long term patients into Personal Care Homes. The general trend has been for the number of separations to decline as the health care system moves to managing illness and disease in a primary care setting rather than in a hospital.

- **Table 5-2** shows the numbers of acute care cases and days for Burntwood residents. In 2007/08, Burntwood residents account for 41,402 acute care hospital days. On average, Burntwood residents who were hospitalized spent just under four days in hospital for each case. Days in hospital per case are lower among First Nations residents (3.6 days per case) than among non-First Nations residents (4.5 days per case) in Burntwood Region.

- The same pattern of First Nations residents spending much shorter days in hospital per case is evident at the provincial level. Discussions with physicians who provide care in hospital indicate that it is not uncommon for a patient to be sent to hospital from a First Nations community for further follow up and testing if the health care provider at the First Nations community determines that the person needs more care or testing than can be provided in the community. If the patient is sent out of his or her community to hospital for an illness that is not as acute or for further follow up or testing, they may simply spend one night in hospital and then go back to their home community.

- In addition, the leading reason for hospitalizations for First Nations residents is pregnancy and childbirth which accounts for about 2.5 days in hospital for both First Nations and non-First Nations residents.

<table>
<thead>
<tr>
<th></th>
<th>Acute Care Cases</th>
<th>Acute Care Days</th>
<th>Days per Case</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Burntwood Residents</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-First Nations only</td>
<td>3,686</td>
<td>16,541</td>
<td>4.5</td>
</tr>
<tr>
<td>First Nations only</td>
<td>6,922</td>
<td>24,861</td>
<td>3.6</td>
</tr>
<tr>
<td>All Residents</td>
<td>10,608</td>
<td>41,402</td>
<td>3.9</td>
</tr>
<tr>
<td><strong>Manitoba</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-First Nation only</td>
<td>106,620</td>
<td>1,039,567</td>
<td>9.8</td>
</tr>
<tr>
<td>First Nation only</td>
<td>11,555</td>
<td>46,746</td>
<td>4.0</td>
</tr>
<tr>
<td>All Residents</td>
<td>118,175</td>
<td>1,086,313</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Source: Manitoba Health (Health Information Management), 2007/08 Hospital Report Table 19A.
The majority of Burntwood Region residents who must spend time in the hospital are able to do so within a facility in Burntwood Region. In 2007/08, at least 70 per cent of hospitalizations for Burntwood residents occurred in Burntwood facilities and the remaining hospitalizations primarily took place at Winnipeg facilities (see Figure 5-3).

Figure 5-3 also shows that more than thirty per cent of hospitalizations for regional residents occurred at Thompson General Hospital.

Figure 5-3. Hospital separations by facility for Burntwood Region residents, 2007/08.

Source: Manitoba Health (Health Information Management), 2007/08 Hospital Report Table 19A.
Figures 5-4 and 5-5 show the standardized rates of acute care cases and acute care hospital days for Burntwood Region and Manitoba.

Because First Nations residents living on reserve tend to be younger than the population overall (as shown in Chapter 1), we are using standardized data to control for the differences in population structure (because, other than for childbirth, older people are hospitalized much more frequently than younger people).

- **Figure 5-4** shows that the standardized acute care rate, or the rate of individuals who were hospitalized at least once in 2007/08 was 296.6 per 1,000 for Burntwood First Nations residents (living on reserve only) compared to just 158.2 acute care cases per 1,000 for non-First Nations residents.

- **Figure 5-5** shows the number of hospital days per 1,000 residents (not just those who were hospitalized but for all residents to show the burden of these hospitalizations). Again, the rate among Burntwood First Nations residents is significantly higher than the rate among non-First Nations residents.

- **Figure 5-6** illustrates that hospital separations increase substantially beyond the age of 65, with male and female rates being approximately equal. The hospitalization rate for females in their child-bearing years is substantially higher than the rate for males in this same age group, as expected.

**Figure 5-4. Standardized acute care cases per 1,000 residents, 2007/08.**

Source: Manitoba Health (Health Information Management), 2007/08 Hospital Report Table 19A.
Figure 5-5. Standardized acute care hospital days per 1,000 residents, 2007/08.

Source: Manitoba Health (Health Information Management), 2007/08 Hospital Report Table 19A.

Figure 5-6. Hospital Separations by Age and Gender, 2006/07.

Source: Manitoba Health - Health Information Management.
Burntwood’s hospital separation rate increased from 277.5 per 1,000 area residents in 2000/01 to 315.6 in 2005/06. In addition, Burntwood Regional rate remains significantly higher than the Manitoba average in 2005/06 of 136.7 per 1,000 area residents (see Figure 5-7).

Figure 5-7. Total hospital separation rates by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: '1' and '2' indicate area's rate was statistically different from Manitoba average in first and/or second time period
'Y' indicates change over time was statistically significant for that area
5.1.2.1 Hospital Separation Rates for Short Stays and Long Stays

A reduction in the number of hospital days used as well as the number of "long stays" overall, may be an indicator of more efficient use of hospital resources through efforts to move patients to more appropriate settings in the community.

- For short stays, the rate in Burntwood increased from 735.3 short stays per 1,000 residents in 2000/01 to 780.1 per 1,000 in 2005/06. This remains significantly higher than the Manitoba average of 321.6 per 1,000 residents in 2005/06, and is the highest rate among Manitoba RHAs (see Figure 5-8). It is also noteworthy that Burntwood was the only RHA to see hospital separation rate increase during the two time periods while every other RHA saw a decrease.

- For long stays, Burntwood Regional rate increased from 706.3 per 1,000 residents in 2000/01 to 1,076.7 in 2005/06. The rate remains significantly higher than the Manitoba average of 608.3 per 1,000 residents in 2005/06 (see Figure 5-9).

Figure 5-8. Hospitalization rates for short stays by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: "1" and "2" indicate area’s rate was statistically different from Manitoba average in first and/or second time period
"Y" indicates change over time was statistically significant for that area
Figure 5-9. Hospitalization rates for long stays by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first and/or second time period.
‘t’ indicates change over time was statistically significant for that area.
5.1.2.2 Hospital Separation for Mental Illness

According to the Canadian Institute for Health Information (CIHI), one in seven hospitalizations in Canada involve patients diagnosed with a mental illness. CIHI published a report, *Hospital Mental Health Services in Canada 2002–2003*, which showed that when combining hospitalizations for patients with a primary diagnosis of mental illness and hospital patients with a non-psychiatric primary diagnosis and an associated mental illness, these hospital stays accounted for one-third of the total number of days patients spent in Canadian hospitals. These stays were more than twice as long, on average, as stays not involving mental illness. Another finding highlighted in this report was that hospitalizations for mental illness tend to occur in the principal working years of a person’s life.

While community consultations focused primarily on community mental health services, some participants felt that mental health issues were not being taken seriously enough until people required hospitalization due to a serious mental health episode, such as an attempted suicide. In addition, there were sentiments that there are not enough community mental health services for people to access, and this may be leading to more hospitalizations in Burntwood.

- The hospital separation rate for mental illness among Burntwood females was 61.3 per 1,000 female residents between 2003/04 and 2007/08. It was the fourth highest hospital separation rate recorded among Manitoba RHAs (see Figure 5-10).

- The hospital separation rate for mental illness among Burntwood males was higher than the female rate at 66.7 hospital separations per 1,000 residents in the same time period (see Figure 5-11). The male hospital separation rate was the second highest among Manitoba RHAs.
Figure 5-10. Female hospital separation rate for mental illness, 20003/2004-2007/2008.

Source: Manitoba Health Healthy Living, Health Information Management, special data run, 2009.
NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 5-11. Male hospital separation rate for mental illness, 20003/2004-2007/2008.

Source: Manitoba Health Healthy Living, Health Information Management, special data run, 2009.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
5.1.3 HOSPITAL EPISODE RATES FOR CHILDREN

There are a variety of reasons for hospitalizations among children, but research shows that many of these are preventable. In addition, recent research has shown that there are specific groups of children who are at much higher risk of hospitalization than others (based on income and age group). This information can help us to better target our public health programming, such as injury prevention programs which may result in reduced hospitalizations among children.

According to research published recently in the Manitoba Centre for Health Policy, 2008 Child Health Atlas, children from lower income areas have higher hospital episode rates than children from higher income areas, in both urban and rural regions of Manitoba. In rural areas, children from the lowest income quintile neighbourhoods had over twice the hospital episode rate of children from the highest income quintile neighbourhoods. It is also important to note that the highest hospitalization rates occur in infants and the second highest rate occurs in adolescence. The leading reasons for hospitalizations among children are respiratory conditions, injury and poisoning and pregnancy and birth complications. Pregnancy and birth complications are the leading reasons of hospitalizations among Manitoba females between the ages of 15 and 19.

- Hospital episode rates for Burntwood children aged 0-19 increased from 83.9 hospital episodes to 94.1 per 1,000 children between 2000/01 and 2005/06. This rate is almost three times higher than the Manitoba average of 37.8 in 2005/06, and was the highest among all Manitoba RHAs (see Figure 5-12). In addition, Burntwood was the only RHA to experience an increase in hospital episode rates over the two time periods.
Figure 5-12. Hospital episode rates for children aged 0-19 by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first and/or second time period. ‘t’ indicates change over time was statistically significant for that area.
5.1.4 High Profile Procedures

In this section, information about several high profile procedures is presented. These procedures are monitored as key indicators of accessibility to important and high volume diagnostic procedures such as MRI (Magnetic Resonance Imaging) and CT (Computed Tomography) scans and surgical procedures such as cardiac (heart) and orthopaedics (hip and knee surgeries). With the increased focus on wait times and strategies to reduce wait times and improve access at the pan-Canadian level, it is important to monitor progress being made on these procedures and whether the health care system is making the necessary reforms to improve access to key procedures.

Increases in procedure rates may give rise to issues over appropriateness and whether increases in utilization necessarily mean better patient outcomes. However, indicators of appropriateness can be difficult to interpret. There are some cases where an increase in surgery rates, such as for hip and knee replacement, may indicate availability of services. In other cases, such as with cataract surgery, utilization rates may reflect inappropriate use of the procedure.

Access to high profile procedures was cited as a concern by health care providers during our community consultation process. However, for the most part (with the exception of MRI and CT scans), rates of each of the high profile procedures among Burntwood Region residents were very similar to the provincial averages. In addition, in some cases where there had been concern expressed about accessibility and wait times, such as for hip and knee replacement surgery, there has actually been an increase in rates of these procedures among our residents.

Community consultations among Burntwood residents did not reveal a great deal of concern over access to these high profile procedures. One service that was mentioned frequently was physiotherapy services. Many participants expressed concern that physiotherapy services that were once provided in the community were no longer being offered, requiring residents to travel to Thompson to receive them.
5.1.4.1 CATARACT SURGERY

Cataract surgery is the replacement of the eye lens with an artificial one. It is a key procedure which is used frequently in improving the vision of patients. Some risk factors for developing cataracts include having diabetes, being a smoker, and spending extensive periods of time on the land hunting and fishing (due to sun exposure – particularly the reflection from the water).

- Cataract surgery rates among Burntwood residents decreased from 24.7 to 23.0 per 1,000 residents aged 50 years and older between 1998/99-2000/01 and 2003/04-2005/06, slightly lower than the Manitoba average of 26.9 in 2003/04-2005/06 (see Figure 5-13).

Figure 5-13. Cataract surgery rates by region, 1998/99-2000/01 and 2003/04-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first and/or second time period
‘t’ indicates change over time was statistically significant for that area
5.1.4.2 HIP REPLACEMENT SURGERY

Hip replacement surgery is a procedure in which the hip joint is replaced by a prosthetic device. Hip replacements are done to relieve arthritic pain in the joint or as a replacement for a hip fracture.

- Hip replacement surgery rates among Burntwood Region residents increased from 2.0 to 2.4 per 1000 between the 1996/97-2000/01 and 2001/02-2005/06 periods, which is slightly above the Manitoba average of 2.2 in 2001/02-2005/06 (see Figure 5-14).

Figure 5-14. Hip replacement surgery rates by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Data for Churchill not available.
* indicates change over time was statistically significant for that area.
5.1.4.3 **KNEE REPLACEMENT SURGERY**

Knee replacement surgery is often needed for seniors who have seen their joints become damaged due to arthritis. Knee replacement is also becoming increasingly necessary for obese patients.

- Knee replacement surgery rates in Burntwood increased from 2.8 to 4.0 per 1,000 residents aged 40 years or older between 1996/97-2000/01 and 2001/02-2005/06, significantly higher than Manitoba average of 2.8 in 2001/02-2005/06 (see Figure 5-15).

**Figure 5-15. Knee replacement surgery rates by region, 1996/97-2000/01 and 2001/02-2005/06.**

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: '1' and '2' indicate area’s rate was statistically different from Manitoba average in first and/or second time period.

't' indicates change over time was statistically significant for that area.

's' indicates data suppressed due to small numbers.
5.1.4.4 CARDIAC CATHETERIZATION

Cardiac catheterization is an imaging procedure which allows physicians to evaluate how well the heart is functioning. This procedure can improve cardiac patients’ outcomes and survival rates.

- While Manitoba rates remained stable, cardiac catheterization rates for Burntwood Region residents increased from 8.4 to 9.3 per 1,000 residents age 40 and older between 1998/99-2000/01 and 2003/04-2005/06, significantly higher than the Manitoba average of 6.9 catheterizations per 1,000 residents age 40 and older in 2003/04-2005/06 (see Figure 5-16).

Figure 5-16. Cardiac catheterization rates by region, 1998/99-2000/01 and 2003/04-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas. NOTE: ’1’ and ’2” indicate area’s rate was statistically different from Manitoba average in first and/or second time period. ’1’ indicates change over time was statistically significant for that area.
5.1.4.5 **ANGIOPLASTY**

Angioplasty refers to a surgical technique of widening a narrowed or obstructed blood vessel.

- The angioplasty rate among Burntwood females was 1.2 per 1,000 residents aged 40 years and older, the same as the Manitoba average of 1.2 in 2003/04 (see Figure 5-17).

- Burntwood male angioplasty rates were much higher at 3.4 per 1,000 residents aged 40+. This rate is slightly higher than the provincial average of 3.0 per 1,000 in 2003/04 (see Figure 5-17).

- Consistent with the findings in other RHAs, the difference in rates between males and females in Burntwood Region was statistically significant (see Figure 5-17).

**Figure 5-17.** Angioplasty rate for females and males aged 40 and over rates by region, 2003/04.

Source: MCHP 2005, Sex Differences in Health Status, Health Care Use, and Quality of Care: A Population-Based Analysis for Manitoba’s Regional Health Authorities.

**NOTE:** Churchill rates should be interpreted with caution due to small numbers.

- ‘m’ indicates area’s rate for males was statistically different from Manitoba average for males
- ‘f’ indicates area’s rate for females was statistically different from Manitoba average for females
- ‘d’ indicates difference between male and female rates was statistically significant for that area
- ‘s’ indicates data suppressed due to small numbers
5.1.4.6 CORONARY STENT INSERTION

Coronary stent insertion is a surgical technique similar to angioplasty with the addition of a stent. A stent is a mesh tube used to expand a narrowed section of a cardiac artery. The purpose of the insertion is to improve blood flow and relieve cardiac symptoms.

- As with the angioplasty rates presented, the female coronary stent insertion rate in Burntwood is significantly lower than the rate among Burntwood males at 1.2 per 1,000 residents aged 40 years and older. Like angioplasty, our rate is very similar to the provincial average of 1.1 per 1,000 residents in 2003/04 (see Figure 5-18).

- The coronary stent insertion rate among Burntwood males was 3.0 per 1,000 residents aged 40 years and older, which is just slightly higher than the Manitoba average of 2.8 in 2003/04 (see Figure 5-18).

Figure 5-18. Coronary stent insertion rates for female and males aged 40 and over by region, 2003/04.
5.1.4.7 **CORONARY ARTERY BYPASS GRAFT (CABG) SURGERY**

CABG surgery creates new routes around narrowed and blocked arteries, allowing enough blood flow to deliver oxygen and nutrients to the heart muscle.

- CABG surgery rates for Burntwood Region residents increased from 1.8 to 2.0 per 1,000 residents between 1996/97-2000/01 and 2001/02-2005/06. Our rate is higher than Manitoba average of 1.5 in 2001/02-2005/06 (see Figure 5-19).

![Figure 5-19. CABG surgery rates by region, 1996/97-2000/01 and 2003/04-2005/06.](image)

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

**NOTE:** Data for Churchill not available.

- '1' indicates area's rate was statistically different from Manitoba average in first time period
- '2' indicates area's rate was statistically different from Manitoba average in second time period
5.1.4.8 **PERCUTANEOUS CORONARY INTERVENTION (PCI)**

Percutaneous coronary intervention is another cardiac surgical technique performed to reduce or eliminate the symptoms of coronary artery disease.

- PCI rates in Burntwood increased from 1.7 to 2.4 per 1,000 residents between 1996/97-2000/01 and 2001/02-2005/06, which is slightly higher than the Manitoba average of 2.3 in 2001/02-2005/06 (see **Figure 5-20**). Every RHA recorded (except Churchill where the data was suppressed due to small numbers) an increase in PCI rates over the two time periods.

**Figure 5-20.** PCI rates by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: '1' and '2' indicate area's rate was statistically different from Manitoba average in first and/or second time period

't' indicates change over time was statistically significant for that area
5.1.4.9 MAGNETIC RESONANCE IMAGING (MRI) SCAN

MRIs have become an increasingly important diagnostic tool for the health system. Manitoba has been challenged in providing timely access to MRIs, so it is important to continue to monitor the MRI scan rate to see if the health system is responding adequately to the increasing demand for MRIs. It should be noted that there are no MRI machines in the Burntwood Region which will impact the ability of residents in Burntwood to access this diagnostic service.

- MRI scan rates for Burntwood Region residents increased from 8.7 to 12.5 per 1,000 residents between 2001/02-2002/03 and 2004/05-2005/06. Although the increase in rates was statistically significant, our rate remains significantly lower than the provincial rate of 22.0 per 1,000 residents in 2003/04-2005/06 (see Figure 5-21).

Figure 5-21. MRI Scan rates by region, 2001/02-2002/03 and 2004/05-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first and/or second time period

‘t’ indicates change over time was statistically significant for that area
### 5.1.4.10 COMPUTED TOMOGRAPHY (CT) SCANS

As with MRIs, CT scans are a key diagnostic procedure which have grown in volume considerably over recent years. It is important to monitor scan rates to ensure that Burntwood Region has the infrastructure and health human resources necessary to meet rising demand in a timely way for patients.

- The CT scan rate for Burntwood increased from 43.3 to 94.8 per 1,000 residents between 1998/99-2000/01 and 2003/04-2005/06. This increase is considered statistically significant and the region had the highest CT scan rate among Manitoba RHAs. Our rate is significantly higher than the Manitoba average of 66.1 per 1,000 in 2003/04-2005/06 (see Figure 5-22). The installation of a CT scanner at the Thompson General Hospital in 2001 has clearly impacted scan rates in the region.

**Figure 5-22.** CT scan rates by region, 1998/99-2000/01 and 2003/04-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: "1" and "2" indicate area's rate was statistically different from Manitoba average in first and/or second time period

"t" indicates change over time was statistically significant for that area
5.1.5 HOME CARE

Home care is a critical health care service, as it provides a wide range of health and supportive services which assist individuals with health related problems to remain in their own homes. Home care can reduce the use of hospital services, allowing home care clients to live more independently and avoid hospital admissions. Home care can also reduce the length of hospital stays by providing post-acute care services.

Many community consultation participants voiced their concern about the level of home care services in Burntwood. There was concern with both the quality of homecare services and that there were not enough paid positions to make home care a viable service. Seniors often have to rely on family to be able to live independently however, many family members expressed that they should be paid for providing this type of support.

5.1.5.1 NEW HOME CARE CASES

New home care case rates are an important determinant of the home care systems’ ability to accommodate new clients, avoiding the need for hospitalization. It can provide a gauge of the ongoing burden on the home care system in a region.

- New home care case rates in Burntwood Region increased from 1.36 per cent to 1.80 per cent between 1999/00-2000/01 and 2003/04-2004/05 which is considered to be a statistically significant increase. Our rate of new cases in 2003/04-2004/05 was significantly higher than the Manitoba average of 1.38 per cent in 2003/04-2004/05 (see Figure 5-23).

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Figure 5-23. New home care case rates by region, 1999/00-2000/01 and 2003/04-2004/05.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first and/or second time period

‘t’ indicates change over time was statistically significant for that area
**5.1.5.2 OPEN HOME CARE CASES**

The number of open home care cases is a key measure for the region in planning for the demands that home care places on the health care system.

- Open case rates in Burntwood increased from 2.6 per cent to 3.4 per cent between 1999/00-2000/01 and 2003/04-2004/05, which is higher than the Manitoba average of 3.19 per cent in 2003/04-2004/05 (see Figure 5-24). The increase in open case rates for Burntwood is considered statistically significant.

**Figure 5-24. Open home care case rates by region, 1999/00-2000/01 and 2003/04-2004/05.**

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

**NOTE:** ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first and/or second time period.

‘f’ indicates change over time was statistically significant for that area.
5.1.5.3 Home Care Case Closing Rates

Home care closing rates are another important tool in determining the appropriate amount of resources needed to adequately meet the demand for home care services in a region.

- Closing home care case rates in Burntwood increased significantly from 1.4 to 1.8 per cent in the 1999/00-2000/01 and 2003/04-2004/05 period. This rate was significantly higher than the Manitoba average of 1.47 per cent in 2003/04-2004/05. (see Figure 5-25).

Figure 5-25. Closing home care case rates by region, 1999/00-2000/01 and 2003/04-2004/05.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: '1' and '2' indicate area's rate was statistically different from Manitoba average in first and/or second time period
'Y' indicates change over time was statistically significant for that area.
5.1.5.4 AVERAGE LENGTH OF HOME CARE CASES

The average length of home care cases can indicate the level and extent of home care needs for clients in the region. A reduction in the average length may indicate that there are other non-home care resources that are being utilized to keep clients living independently.

- The average length of home care cases among Burntwood Region residents decreased from 170.1 days to 166.2 days between 1999/00-2000/01 and 2003/04-2004/05. This is significantly lower than the Manitoba average of 222.0 days in 2003/04-2004/05 (see Figure 5-26).

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**Figure 5-26. Average length (days) of home care case by region, 1999/00-2000/01 and 2003/04-2004/05.**

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: '1' indicates area's rate was statistically different from Manitoba average in first time period

'2' indicates area's rate was statistically different from Manitoba average in second time period
5.1.5.5 HOME CARE DAYS USED

This is another indicator of the extent of home care needs that clients may have in a region. For Burntwood specifically, it may also be an indicator of the availability of home care services in the communities.

- The number of home care days used by Burntwood females in 2003/04 was 167.4 days per year, which is lower than the Manitoba average of 215.7 days in 2003/04.

- Among Burntwood males, the same pattern is evident with 145.2 days used per year, compared to the provincial average of 193.0 days in 2003/04 (see Figure 5-27).

- The average number of home care days used for females and males in Burntwood were significantly lower than the Manitoba average. The difference in average days used between males and females in Burntwood was also statistically significant (see Figure 5-27).

Figure 5-27. Number of home care days used per year per client by region, 2003/04.

Source: MCHP 2005, Sex Differences in Health Status, Health Care Use, and Quality of Care: A Population-Based Analysis for Manitoba’s Regional Health Authorities.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

‘m’ indicates area’s rate for males was statistically different from Manitoba average for males
‘f’ indicates area’s rate for females was statistically different from Manitoba average for females
‘d’ indicates difference between male and female rates was statistically significant for that area
5.1.6 PERSONAL CARE HOME UTILIZATION

The utilization rate for Personal Care Homes (PCHs) can be used in combination with other utilization data in understanding the capacity of a program to provide home care services and the appropriateness of how PCHs are used. Rates of admission and wait time data are important indicators of how accessible PCHs are and how responsive the system is in processing new admissions. Level of care data can be an important indicator to show how the region is addressing home care services across the continuum of care. Median length of stay by level of care can also show the capacity of the system to address all PCH needs across the care spectrum and whether the system is responsive enough to address changes in care needs.

Focus Group consultations did not involve a great deal of discussions on personal care homes specifically. There was concern expressed in the communities that there were not enough organized activities or facilities for seniors to spend time together either by being physically active or by socializing together in order to promote healthy living.
5.1.6.1 **Rate of Admission to Personal Care Homes (PCHs)**

Rates of admission is an important indicators of how accessible Personal Care Homes are and how responsive the system is in processing new admissions.

- The rate of admission to PCHs among regional residents increased significantly from 1.02 per cent to 2.39 per cent between 1999/00-2000/01 and 2004/05-2005/06. Our rate of admissions was lower than the provincial average of 2.87 per cent in 2004/05-2005/06 (see Figure 5-28).

**Figure 5-28. Rate of admission in personal care homes by region, 1999/00-2000/01 and 2004/05-2005/06.**

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

**NOTE:** ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first and/or second time period

‘t’ indicates change over time was statistically significant for that area
5.1.6.2 RESIDENTS IN PERSONAL CARE HOMES

In Personal Care Homes (PCHs), the goal of care is not to cure, but to allow the patient to remain as healthy as possible, for as long as possible. Patients arrive with, and develop over time, a wide range of medical conditions and needs which can be challenging to manage. A recent report by the Canadian Institute of Health Information (CIHI)\(^1\) showed that many continuing care patients experience daily pain and over one in five patients assessed were totally dependent on others for the basic activities of daily living, such as personal hygiene, eating and moving around. Most (82%) had complex and unstable health conditions and signs of depression were reported in nearly one quarter (24%) of patients. In addition to these issues, the report highlighted that many patients, particularly those who have been in the facility for at least 15 weeks, have limited or no social involvement. Keeping track of the numbers of residents who are living in PCHs in Burntwood Region, and continuing to strive to meet the wide range of emotional and physical needs of these patients, will continue to be an important priority of Burntwood Region.

- The rate of Burntwood Region residents living in PCHs increased from 4.5 per cent to 8.9 per cent of residents age 75 and older between 1999/00-2000/01 and 2004/05-2005/06. This increase was statistically significant but it was still significantly lower than the Manitoba average of 12.7 per cent. It was the lowest rate among Manitoba RHAs. (see Figure 5-29)

Figure 5-29. Residents in personal care homes by region, 1999/00-2000/01 and 2004/05-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: "1" and "2" indicate area's rate was statistically different from Manitoba average in first and/or second time period
"t" indicates change over time was statistically significant for that area
5.1.6.3 MEDIAN WAIT TIME FOR PCH ADMISSION

Wait time data are important indicators of how accessible Personal Care Homes are and how responsive the system is in processing new admissions. However, these data are also impacted by how long current PCH residents live and remain in the PCH, as there are a limited number of available beds in each region.

The median wait time for admission to PCHs in the Burntwood Region increased from 0.6 to 0.7 weeks between 1999/00-2000/01 and 2004/05-2005/06. Burntwood’s wait time was the lowest among Manitoba RHAs, significantly below the provincial average of 6.9 weeks (see Figure 5-30).

Figure 5-30. Median wait time for PCH admission by region, 1999/00-2000/01 and 2004/05-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Data for Churchill not available.
*1* indicates area’s rate was statistically different from Manitoba average in first time period
*2* indicates area’s rate was statistically different from Manitoba average in second time period
5.1.6.4 LEVEL OF CARE ON PCH ADMISSION

Level of care (LOC) data can be an important indicator to show how the region is addressing home care services across the continuum of care. It also provides some insight on how appropriate the admission criteria for PCHs in a given region.

- The average level of care on PCH admission in the Burntwood Region decreased very slightly from 3.3 to 3.1 between 2000 and 2005, which was higher than the provincial average of 2.7 in 2005 (see Figure 5-31).

- The proportion of level 1 and 2 care on admission in Burntwood was suppressed due to small numbers (see Figure 5-32).

- The proportion of level 3 and 4 care on admission in Burntwood decreased from 90.9 per cent to 81.0 per cent between 2000 and 2005, well above the Manitoba average of 56.4 per cent in 2005 (see Figure 5-33).

- Figures 5-34 and 5-35 show that only about thirty per cent of admissions in Burntwood are actually at level 4 care, while about 52 per cent are at level 3.

Figure 5-31. Average level of care on admission by region, 2000 and 2005.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Data for Churchill not available.
Figure 5-32. Level 1 & 2 care on admission by region, 2000 and 2005.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Data for Churchill not available.
's' indicates values suppressed due to small numbers.
Figure 5-33. Rate of level 3 & 4 care on admission by region, 2000 and 2005.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Data for Churchill not available.

Figure 5-34. Level 3 care on admission by region, 2000 and 2005.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Data for Churchill not available.
Figure 5-35. Level 4 care on admission by region, 2000 and 2005.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Data for Churchill not available.
5.1.6.5 MEDIAN LENGTH OF STAY

Median length of stay by level of care can show the capacity of the system to address all PCH needs across the care spectrum and whether the system is responsive enough to address changes in care needs.

- Median length of stay by level of care in the Burntwood Region decreased from 0.87 to 0.44 years between 2000 and 2005. The length of stay remains lower than the Manitoba average of 1.9 years in 2005 (see Figure 5-36). Generally people leave a PCH upon their death, and the short length of stay regionally, as well as the decrease in length of stay over the two time periods, reflects that people are waiting longer and are more frail upon admission (an increasing number of people at levels 3 and 4).

Figure 5-36. Median length of stay by region, 2000 and 2005.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Data for Churchill not available.
5.2 FISCAL PROFILE

Fiscal indicators are a very real indicator of a region's commitment to meet priority areas and to allocate resources to the most urgent health care challenges. While Churchill has begun to slowly shift its resources to health prevention and promotion, a significant percentage of resources are allocated to acute care.
5.2.1 Acute Care, Personal Home Care and Community Costs

With the growing emphasis on healthy living strategies to improve the health status of residents, it is important to track the relative ratio of spending on acute care versus community based health care. If there is a change in the ratio more towards community costs, it is tangible evidence of a region that is embracing the importance of primary care and health prevention and promotion strategies rather than the more traditional notion of health care as being the provision of acute care services.

- The proportion of acute care costs in Burntwood decreased from 54 per cent to 46 per cent between 2002/03 and 2007/08, lower than the Manitoba average of 51 per cent in 2007/08 (see Figures 5-37 and 5-38).

- The proportion of PCH costs in Burntwood was four per cent in 2007/08, substantially lower than the Manitoba average of 14 per cent in 2007/08. Burntwood had the lowest proportion of PCH costs among Manitoba RHAs (see Figure 5-39). This finding may be explained by Burntwood’s younger population.

- The proportion of community costs in Burntwood increased from 29 to 32 per cent between 2002/03 and 2007/08. This is higher than the Manitoba average of 15 per cent in 2007/08. Burntwood had the highest proportion of community costs among Manitoba RHAs (see Figures 5-40 and 5-41).
Figure 5-37. Proportion of acute care costs by region, 2007/08.

Figure 5-38. Proportion of acute care costs: Comparison between Burntwood and Manitoba by year, 2002/03-2007/08.

Source: Manitoba Health Healthy Living Management Information System.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
Figure 5-39. Proportion of PCH costs by region, 2007/08.

Source: Manitoba Health Healthy Living Management Information System.
NOTE: No case for Churchill.

Figure 5-40. Proportion of community costs by region, 2007/08.

Source: Manitoba Health Healthy Living Management Information System.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
Figure 5-41. Proportion of community costs, Burntwood and Manitoba by year, 2002/03-2007/08.

Source: Manitoba Health Healthy Living Management Information System.
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i Canadian Institute of Health Information. Facility-Based Continuing Care in Canada, 2004–2005.
CHAPTER 6

Health System Performance

Ferry at Norway House
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6.1 ACCESSIBILITY

One of the five principles of the Canada Health Act is Accessibility. This means that Canadians should have reasonable access to medically necessary hospital and physician services and that this must not be impeded by financial or other barriers. Accessibility is generally defined as the ability of patients to obtain health care services at the right place and the right time, based on need.

We review the principle of accessibility by looking at the availability of physicians and contact with health professionals, as well as availability of local acute care services. It should be noted that many organizations consider screening rates (such as mammography and pap tests) to be considered when measuring accessibility. However, the other school of thought is that screening represents a personal health practice and as such, is a determinant of health. In this report, screening is addressed in the Determinants of Health Chapter (Chapter 3). We consider availability, and use of, health care professionals and acute care to be key indicators of Accessibility and focus on this area.

Access to health care in Canada can have many types of barriers; one potential barrier that we focused on in our community consultation process was cultural and language barriers. A Canadian study on immigrant women’s health showed that while immigrant women generally view health and prevention in similar ways to Canadian-born women, they had less access to the health care system and its resources which they needed to stay healthy. The reasons for this reduced access include: language barriers for those whom French or English is not their first language, a lack of cultural sensitivity among health-care providers, and work life barriers in which women lack the time to access health care as they work long hours in low-paying jobs, while often trying to care for young children. Immigrants often lack the social supports necessary for healthy living which leads to stress and reduced mental health status.

Access to health care is also an issue for Aboriginal people who live off-reserve, as they are less likely than the overall population (77% compared to 79%) to regularly visit a physician, and more likely to report having unmet health care needs (20% compared to 13%). For First Nations people living on-reserve, a number of barriers to health care services have been cited. They include extensive wait times, services not covered by benefits, a shortage of doctors/nurses on their reserve, the cost of transportation and concerns that the services provided were inadequate or not culturally appropriate.

In a recent National Aboriginal Health Organization (NAHO) survey, 12.9 per cent of respondents indicated that one or more of their home care service needs are not being met. More than a third (35.9%) of Aboriginal respondents said they had less access to health care services in comparison to their Canadian counterparts.

We have already provided a summary of focus group participants’ concerns with accessibility to physician services and health care services generally in Burntwood in Chapter 5. Another major theme that was discussed at community consultations was the cultural appropriateness of health care services offered in Burntwood. In relation to culturally sensitive services, participants generally felt that the Burntwood Region has done a good job in trying to be as culturally sensitive as possible. One participant remarked, “[Culturally sensitive services] is not really an issue here. People who work here are from here so they know the community members.” Some examples provided by participants included:
In many cases, the workforce is representative of the large aboriginal population being served; there is access to services for the Aboriginal population receiving health care in the region (e.g. interpreters, smudging ceremonies); there is recognition of, and support for, traditional customs (e.g. family gatherings in patient rooms); Aboriginal health is recognized as a priority by the Burntwood Region with a Vice President of Aboriginal Services hired by the region; The It’s Safe to Ask campaign was supported and promoted; the region offers a seminar on native culture that all employees must complete; there is a Sexual Health program which involves aboriginal youth; there are ongoing meetings and consultations with surrounding community leaders, including aboriginal leaders; there are good interpretation services for First Nations, as well as other cultures; there are ensured processes for feedback from Aboriginal population through the patient satisfaction process (e.g. focus group with elders, phone line, pamphlet); there is a process set up to encourage feedback from District Health Advisory Committees (DHAC’s) one of which focuses on aboriginal services; and the Chronic Disease Prevention Initiatives has been initiated and supported in all communities within the Burntwood.

While feedback regarding culturally appropriate services generally focused on services to Aboriginal residents, participants did mention other barriers to overcome in providing health care, including:

- Age barriers--Teenagers and younger males may have difficulties in approaching health care professionals, especially regarding depression-type issues. Elders may prefer more traditional options to health care;
- Gender issues—Some female participants noted their preference to see female physicians but noted the difficulty in accessing them with physicians in the north being still primarily male;
- Some groups may feel stigmatized and isolated from the community, such as mental health clients, homeless people and the gay and lesbian community.

In terms of moving forward on providing culturally appropriate services, community consultation participants suggested the following:

- Continue to build upon the present activities to promote and support aboriginal culturally sensitive services;
- Ensure that there is an awareness of, and sensitivity to, other cultures from different parts of the world and alternative lifestyles (e.g. gay and lesbian community);
- Ensure there is support for providers (e.g. physicians) so they can communicate/articulate clearly to clients and other providers;
- Continue to identify barriers to cultural sensitivity, with ongoing staff awareness promoted and supported; and
- Communicate within and outside the organization about the culturally sensitive resources that are available.
6.1.1 REGULAR MEDICAL DOCTOR

Access to primary care services is of primary concern to a region, particularly as we move from a system that emphasizes health prevention and promotion strategies with less reliance on acute care services. If residents do not have regular access to the services of a General Practitioner for their primary care needs, it may result in greater reliance on Emergency Room and acute care services.

Physician to population ratios are used to support health human resource planning. However, the Canadian Institute for Health Information (CIHI) cautions against using total numbers of physicians or ratios alone to determine whether a region has adequate provider resources. This is because there are a number of factors that influence whether the supply of physicians is appropriate. CIHI identifies the following factors:

- distribution and location of physicians within a region or province;
- physician type (i.e., family medicine physicians versus specialists);
- level of service provided (full-time versus part-time);
- physician age and gender;
- population's access to hospitals, health care facilities, technology and other types of health care providers;
- population needs (consider demographic characteristics and health problems);
- and,
- society's perceptions and expectations.

The proportion of residents living off-reserve who reported having a regular medical doctor in Burntwood/Churchill was 41.1 per cent in 2007. This is lower than the Manitoba average of 84.6 per cent, and lower than the Canadian average of 84.9 per cent in 2007 (see Figure 6-1). However, it is important to note that the Burntwood Region, in order to most effectively provide physician services both in Thompson and in outlying communities, has set up practice methods which are different from the typical "same doctor for the patient" system that we see elsewhere. Salaried physician are in place largely throughout the region, and patients are scheduled with physicians according to availability. In addition, the region's physicians will provide services to the outlying communities, as well as Thompson. We are also limited in that many physicians do not stay in the community for lengthy periods of time, so there is continual turnover of physician services.

Table 6-1 illustrates that, in comparison to other rural and northern RHAs, the Burntwood region has among the lowest ratios of family physicians to residents. Our ratio (not including locums) of one family physician per 3,600 residents in 2008 was lower than the average rural/northern ratio of one per 1,600. However, again it is important to note our different practice methods in the north, where nurse practitioners practice extensively in the First Nations communities and there is on-going and successful use of locums in providing service to community members.
Figure 0-1. Residents who have a regular medical doctor by region, 2007.

Source: Canadian Community Health Survey, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
Table 6-1. Estimated family physician-population ratio in rural and northern Manitoba Regional Health Authorities, 2008.

<table>
<thead>
<tr>
<th>Region</th>
<th>Family Physician FTEs*</th>
<th>Population June 2008¶</th>
<th>Estimated Family Physician-Population Ratio†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assiniboine</td>
<td>55</td>
<td>67,819</td>
<td>1:1,200</td>
</tr>
<tr>
<td>Brandon</td>
<td>38</td>
<td>50,541</td>
<td>1:1,300</td>
</tr>
<tr>
<td>Burntwood</td>
<td>13</td>
<td>46,818</td>
<td>1:3,600</td>
</tr>
<tr>
<td>Central</td>
<td>67.5</td>
<td>104,689</td>
<td>1:1,500</td>
</tr>
<tr>
<td>Interlake</td>
<td>37.5</td>
<td>77,590</td>
<td>1:2,000</td>
</tr>
<tr>
<td>NOR-MAN</td>
<td>20.6</td>
<td>24,090</td>
<td>1:1,200</td>
</tr>
<tr>
<td>North Eastman</td>
<td>24.5</td>
<td>40,994</td>
<td>1:1,700</td>
</tr>
<tr>
<td>Parkland</td>
<td>37</td>
<td>41,569</td>
<td>1:1,100</td>
</tr>
<tr>
<td>South Eastman</td>
<td>38.5</td>
<td>65,383</td>
<td>1:1,700</td>
</tr>
<tr>
<td>Churchill</td>
<td>1</td>
<td>934</td>
<td>1:1,000</td>
</tr>
<tr>
<td><strong>Rural and Northern Manitoba</strong></td>
<td><strong>332.6</strong></td>
<td><strong>520,427</strong></td>
<td><strong>1:1,600</strong></td>
</tr>
</tbody>
</table>

NOTE: * Current as per RHA information March 2009; FTE is "full time equivalent" so a 0.5 FTE would be equivalent to "half time".
† Rounded figures.
6.1.2 Contact with Medical Doctor in Past 12 Months

Regular contact with a medical doctor is necessary in order to ensure that the primary health care needs of residents are being met on a regular ongoing basis. This ensures a level of continuity of primary care which makes those health care interventions more effective.

- In 2007, 68.2 per cent of Burntwood/Churchill residents indicated that they had contact with a medical doctor in the previous twelve months. As Figure 6-2 shows, this is lower than both the provincial (76.4%) and Canadian (79.1%) averages.

- It is important to note that this question was specific to contact with a medical doctor so that systems which are effectively providing services to residents, and making more use of nurses and other health care professionals, will not be represented in these data even though the level of service may be excellent.

Figure 6-2. Contact with a medical doctor in past 12 months by region, 2007.

Source: Canadian Community Health Survey, 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
6.1.3. PHYSICIAN VISITS

The proportion of residents visiting a physician over a specific period of time is an important indicator of the access residents have to both general practitioners and specialist services. It may also be indicator of equity of access and general attitudes of residents to the importance of physician visits to maintain good health status.

- The proportion of Burntwood residents with at least one physician visit decreased significantly from 76.9 per cent of residents to 71.2 per cent between 2000/01 and 2005/06. This was significantly lower than the Manitoba average of 82.6 per cent in 2005/06 (see Figure 6-3).

It is unclear as to whether physician shortages may have been a partial factor in the decline of visits seen or if other payment/billing arrangements with physicians may have impacted whether data were submitted to Manitoba Health.

Figure 6-3. Physician visit rate by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: '1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area
6.1.4. **Ambulatory Visit Rate**

Ambulatory visit rates are a key indicator of how well the health care system is managing chronic care patients outside of a hospital setting. Once again, this in combination with other indicators can be a key insight into how well a region is moving to a more primary care centred model of ongoing care for its residents. While the previous indicator showed the proportion of residents with at least one physician visit, this indicator illustrates the average number of physician visits per resident (who had seen a physician at least once). The term "ambulatory" simply means that the patient was not an in-patient in the hospital or through the Emergency Room, but rather saw a physician through an appointment or on an outpatient basis.

- Ambulatory visit rate in Burntwood decreased significantly from 4.5 to 3.8 per resident between 2000/01 and 2005/06, which is significantly lower than the Manitoba average of 5.0 in 2005/06 (see **Figure 6-4**). Burntwood had the lowest ambulatory visit rate among Manitoba RHAs.

- It is important to note that these data not include emergency room visits, and many residents do seek services through the emergency room if they cannot see a physician at their health centre or clinic. In addition, these data do not include visits to health centres where the residents may be receiving care by a nurse or other health care provider who is not providing billing information to Manitoba Health.

![Figure 6-4. Ambulatory visit rates by region, 2000/01 and 2005/06.](image)

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

**NOTE:** '1' and '2' - area's rate statistically different from MB average in first or second time period; 't' indicates change over time was statistically significant.
6.1.4.1 Ambulatory Visit Rate to Specialists

Specialist visit rates are another key component in the movement to a primary care model and can indicate whether there are the specialist resources necessary to support a primary health care system.

- The ambulatory visit rate to specialists in Burntwood increased significantly from 0.6 to 0.7 per resident between 2000/01 and 2005/06. However, the rate remains significantly lower than the Manitoba average at 1.3 in 2005/06 (see Figure 6-5). This may be related to challenges that community consultation participants expressed in relation to the need to leave the community to see a specialist. Although in many cases the cost of travel and accommodation would be covered (at least to some extent), there are other expenses to consider as well, such as arrangements for child care and time off work. In some cases residents may not follow up with the appointments due to these types of challenges.

Figure 6-5. Ambulatory visit rates to specialists by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: 1 indicates area’s rate was statistically different from Manitoba average in first time period
2 indicates area’s rate was statistically different from Manitoba average in second time period; ’t’ indicates change over time was statistically significant.
6.1.5 AMBULATORY CONSULTATION RATE

Ambulatory consultations are provided predominantly by specialists. The ambulatory consultation rate can yield important information about the accessibility of specialist services in a given area. It is particularly important in northern and rural areas, as patients use specialist services less frequently than in an urban area; it is, therefore, critical to ensure that those initial visits to specialists are available and timely.

- The ambulatory consultation rate in Burntwood actually increased significantly between 2000/01 and 2005/06 from 0.29 to 0.34 consultations per resident. The rate was significantly higher than the provincial average of 0.3 consultations per resident in 2005/06 (see Figure 6-6).

Figure 6-6. Ambulatory consultation rates by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: '1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area
6.1.6 VISIT LOCATION WITHIN DISTRICT

This indicator provides information on whether residents in a region are visiting their family physicians or specialists in their own region or going outside the region for primary care. This is an important indicator of how accessible physicians are in the region and whether there are adequate resources. Travelling for care creates patient stress and dislocation, which can hinder patient willingness to seek care before illnesses become worse as well as their ability to manage chronic diseases with ongoing physician support.

- The proportion of Burntwood residents who visited a general practitioner (GP) within the region decreased from 68.7 per cent to 67.4 per cent between 2000/01 and 2005/06, which is much lower than the Manitoba average of 82.0 per cent in 2005/06 (see Figure 6-7).

- This same indicator for specialists in Burntwood decreased from 10.1 per cent to 9.5 per cent between 2000/01 and 2005/06, which again is lower than the Manitoba average of 76.7 per cent in 2005/06 (see Figure 6-8). However, it is important to keep in mind that while there are some specialists in Burntwood Region, the vast majority of specialists are located in Winnipeg, and the very high rate among Winnipeg residents (basically 100%) has skewed this average. Our rates are comparable to, and in some cases higher than, other regional rates.

Figure 6-7. GP visit location within district rates by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
Figure 0-8. Specialist visit location within district rates by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
6.1.7 **HOSPITAL BEDS PER 1,000 RESIDENTS**

This is a complex indicator which provides insight about how the health care system is balancing the goals of accessibility and appropriateness. Recent historical trends have shown that hospital expenditures and number of beds are declining as the health care system has undergone a restructuring. It is important that this indicator be analyzed in combination with indicators of health care services offered outside the hospital setting to ensure that access to appropriate health care services are available to residents across the continuum of care.

- The number of beds per 1,000 residents in Burntwood RHA varies substantially from 0.23 per 1,000 in LTC to 1.97 in acute care hospital (see **Figure 6-9**).

---

**Figure 6-9. BRHA beds by category, 2008.**

Source: Burntwood RHA.
6.1.8 Acute Care Occupancy Rate

Occupancy rates are an important indicator to measure and monitor to ensure that there is an appropriate level of resources given to hospitals in a region. Lower occupancy rates may be an indicator that a given hospital’s resources may need to be reviewed and re-profiled.

- Occupancy rates at the Thompson General Hospital have a wide variation, with the SCU ward at 33 per cent and the surgery ward at 112 per cent. (see Table 6-2).

Table 6-2. Acute care occupancy rate by health care facility, 2006/07 to 2009/10.

<table>
<thead>
<tr>
<th>Health care facility</th>
<th>2006/07</th>
<th>2007/08</th>
<th>2008/09</th>
<th>2009/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thompson (Acute)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td>104%</td>
<td>83%</td>
<td>92%</td>
<td>96%</td>
</tr>
<tr>
<td>SCU</td>
<td>40%</td>
<td>59%</td>
<td>57%</td>
<td>33%</td>
</tr>
<tr>
<td>Surgery</td>
<td>162%</td>
<td>131%</td>
<td>125%</td>
<td>112%</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>63%</td>
<td>57%</td>
<td>53%</td>
<td>52%</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>56%</td>
<td>34%</td>
<td>42%</td>
<td>79%</td>
</tr>
<tr>
<td>Obstetrics</td>
<td>70%</td>
<td>76%</td>
<td>93%</td>
<td>79%</td>
</tr>
<tr>
<td>Nursery</td>
<td>43%</td>
<td>104%</td>
<td>50%</td>
<td>54%</td>
</tr>
<tr>
<td>Gillam</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTC</td>
<td></td>
<td>85%</td>
<td>109%</td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td>31%</td>
<td>22%</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>Lynn Lake</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTC</td>
<td></td>
<td>117%</td>
<td>126%</td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td>16%</td>
<td>23%</td>
<td>20%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: Burntwood RHA.
6.1.9 Inflow and Outflow of RHA Patients

A ratio of less than one indicates that health care utilization by residents of a region exceeded care provided within that region, while a ratio of more than one indicates that care provided by the region is more than the utilization by local residents, suggesting that patients are coming from other regions for care (i.e. an inflow effect). This is an important ratio to track for regions as they plan and organize the services provided within their region and how they collaborate with other regions for the provision of certain health care services. A ratio of less than one is typical for rural and northern regions, as often not all specialty services can be provided in the region and patients must go to Winnipeg for certain procedures and tests.

- Inflow/Outflow overall ratio in the Burntwood Region was 0.6 in 2006 (see Figure 6-10). This means that more patients left the region to obtain services than came in. This makes sense, as we would only expect inflow ratios of greater than one in larger centres with more specialised services.

Figure 6-10. Inflow and outflow overall ratio by region, 2006.

Source: Canadian Institute for Health Information (CIHI), Health Indicator Report.
6.1.10 **Families First Program**

The Families First Program is offered by Healthy Child Manitoba and is intended to improve outcomes for infants by providing parents with information and support required to make their children’s early years happy and healthy. All families living off-reserve are to be "screened" by a public health nurse to determine if they are eligible for this program upon the birth of their baby. "Screening" refers to a variety of questions that are asked (such as about depression, education, income, smoking and drinking during pregnancy) and, if the family scores within a certain range (for example, saying "yes" to three or more high risk items), they are eligible for services in this program. However, the family does not have to accept these services.

The most important service offered to those who meet the screening criteria for the program is home visits. The home visitor will meet with the family on a regular basis for up to three years. The home visitor supports the family in building strong relationships with their children while sharing information and resources with the parents. Because this program is based on home visits, there can be a significant number of staff needed to provide services to all of the families who are eligible for this program.

Information collected through this program provides valuable information about the health and wellbeing of parents and to what extent special supports may be needed for families in Burntwood Region.

Community consultation participants expressed their concern about the quality of parenting in the communities given the levels of family violence and the absence of parental control which is leading to youth addictions and risky behaviour. Some participants did praise the Families First Program as being helpful in improving parenting skills but there was a more general concern that not enough parental coping skills were being taught to new and young parents. The young parents who had been part of this program and participated in the consultation had a great deal of praise for the program. They liked the process of having a home visitor as opposed to being in a 'group setting' type of program. They felt that this offered privacy in asking questions about parenting and other issues of concern. Having the home visitor come to their home also offered more flexibility than being required to leave their house at a certain time to attend the program. For example, if the baby is sleeping, the mom does not have to choose between waking baby to go out or missing the program.

Families First home visitors also expressed satisfaction with the programs. However, they did confirm that there are many young parents who require extensive supports, and the level of supports required may not necessarily strictly fit within the program. However, the visitors are encouraged to be flexible and if the materials/topics provided are not suited to the particular client, they work with the client to meet her needs. If this means reminders on how to bathe baby on several visits, then this is what the visitor does and other components of the program are provided when it is appropriate. Home visitors did identify that in some cases a higher level of support in the community (as these visitors come from Thompson) would be helpful for ongoing needs of new parents and families.

- Virtually all births to residents living off-reserve (97.4 per cent) in the Burntwood Region were screened by the public health nurses between 2003 and 2006, which is higher than the Manitoba average of 93.9 per cent in 2006 (see Figure 6-11).
The proportion of births to Burntwood residents living off-reserve that screened positive - those that are at higher risk and meet the eligibility requirements for enrolment in the Families First Program - increased from 37.8 per cent to 45.9 per cent between 2003 and 2006. This is higher than the Manitoba average of 22.8 per cent in 2006 (see Figure 6-12).

As mentioned previously, families can decline the services offered through the Families First Program. The rate of eligible Burntwood Region families who declined service decreased from 32.3 per cent to 21.2 per cent between 2005 and 2006, lower than the Manitoba average of 23.6 per cent in 2006 (see Figure 6-13). This indicates that public health nurses and Families First home visitors are doing a good job of engaging families and building trust so that families will allow visitors to come into their homes on an ongoing basis. This can be a difficult thing to do.

Figure 0-11. Proportion of off-reserve births screened, 2003-2006.

Source: Healthy Child Manitoba, Families First Screening Form 2007.
Figure 0-12. Proportion of births screened “positive” for eligibility to enrol in program, 2003-2006.

Source: Healthy Child Manitoba, Families First Screening Form 2007.

Figure 0-13. Proportion of eligible families who declined service, 2005-2006.

Source: Healthy Child Manitoba, Families First Screening Form 2007.
6.1.11 Families First Program Screening Data (Risk Factors)

Having several risk factors based on responses to the Families First screening form is an important predictor of likely outcomes for the child. The Manitoba Centre for Health Policy found that those parents receiving income assistance, having a file with local child protection services, mothers who did not finish high school, and living in a one-parent family with no social support were the strongest predictors of children entering the care of Child and Family Services. It is important to identify those at high risk when targeting Families First programming. We recognize that these results may be better suited to Chapter 3 in the Child Determinants of Health Section. However, the Manitoba Health guidelines indicate that these data should be included in this chapter. In addition, including the data here provides further support for the need to provide access and engage with parents in this important program.

Table 6-3 provides summary information about the Families First risk factors that are measured. The prevalence rates in the table are the combined rates for the years 2003 to 2006. The combined rates are somewhat more stable than the yearly rate (as we have more data) and for some issues, such as drug use, it is preferable to review more than one year of data.

- Table 6-3 shows the comparison in the rates of risk factors between new mothers living off-reserve in Burntwood compared to Manitoba. While the Burntwood Region has shown progress in decreasing the rate of young mothers (under 18 years old), mothers who have less than grade 12 education, single parents and partner distress or violence, other risk factors rates have risen. These risk factors include drug use during pregnancy, smoking during pregnancy, social assistance and social isolation.

- In addition, although there has been a decrease in the prevalence rates of some risk factors between 2003 and 2006, some of these rates are still quite high. For example, although almost half of Burntwood mothers have less than grade 12 education (or equivalent). This is much higher than the provincial rate of 21.6 per cent (or about one in five). This may be partly related to the relatively young age of new parents in Burntwood Region - they may still be attending high school. However, we do know that once young adults become parents it is very difficult for them to complete high school given their family responsibilities.
<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Burntwood</th>
<th>Manitoba</th>
<th>Burntwood Region change from 2003 to 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>alcohol use during pregnancy</td>
<td>23.1%</td>
<td>12.9%</td>
<td>No change</td>
</tr>
<tr>
<td>drug use during pregnancy</td>
<td>13.5%</td>
<td>4.2%</td>
<td>Increase</td>
</tr>
<tr>
<td>smoking during pregnancy</td>
<td>47.9%</td>
<td>21.0%</td>
<td>Increase</td>
</tr>
<tr>
<td>mother is less than 18 years old</td>
<td>6.8%</td>
<td>2.5%</td>
<td>Decrease</td>
</tr>
<tr>
<td>mother has less than grade 12 education</td>
<td>43.8%</td>
<td>21.6%</td>
<td>Decrease</td>
</tr>
<tr>
<td>social assistance or financial difficulties</td>
<td>38.6%</td>
<td>17.7%</td>
<td>Increase</td>
</tr>
<tr>
<td>single parent</td>
<td>23.2%</td>
<td>12.8%</td>
<td>Decrease</td>
</tr>
<tr>
<td>social isolation</td>
<td>7.1%</td>
<td>5.3%</td>
<td>Increase</td>
</tr>
<tr>
<td>depression / anxiety of mother</td>
<td>14.4%</td>
<td>14.1%</td>
<td>No change</td>
</tr>
<tr>
<td>partner distress or violence</td>
<td>13.7%</td>
<td>6.0%</td>
<td>Decrease</td>
</tr>
<tr>
<td>3 or more risk factors (answered yes to any of these questions 3 or more times)</td>
<td>49.0%</td>
<td>24.4%</td>
<td>Increase</td>
</tr>
</tbody>
</table>

Source: Healthy Child Manitoba, Families First Screening Form 2007.

- **Figure 6-14** shows that the overall prevalence rate for three or more risk factors in the Burntwood Region over the combined 2003-2006 period was the second highest in the province at 49.0 per cent.

- **As Figure 6-15 shows**, prevalence rates for three or more risk factors had increased slightly overall between 2003 and 2006 in Burntwood Region.
Figure 0-14. Prevalence of three or more risk factors by region, 2003-2006 combined.

![Graph showing prevalence of three or more risk factors by region, 2003-2006 combined.]

Source: Healthy Child Manitoba, Families First Screening Form 2007.
NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 0-15. Prevalence of three or more risk factors, Burntwood and Manitoba, 2003-2006.

![Graph showing prevalence of three or more risk factors for Burntwood RHA and Manitoba, 2003-2006.]

Source: Healthy Child Manitoba, Families First Screening Form 2007.
6.1.11.1 Alcohol and Drug use During Pregnancy

Maternal alcohol and drug consumption can have health consequences for both the mother and fetus, including fetal alcohol spectrum disorder (FASD). FASD describes a range of conditions linked to prenatal exposure to alcohol which can have a wide range of effects on the baby that are difficult to diagnose. FASD can impair cognitive, behavioural, developmental, physiological and/or physical functions over the lifespan of a person with FASD. FASD patients can require extensive health and child welfare supports.

Community consultation participants noted the significant number of children FASD in their communities. They highlighted the difficulties in finding families for these children and the strain they place on the educational and health systems in providing for their needs.

- The four year combined average of alcohol use during pregnancy by Burntwood residents was at 22.8 per cent, which remained above the Manitoba average of 12.7 per cent (see Figure 6-16).

- Alcohol use by mothers during pregnancy in Burntwood RHA remained at relatively consistent levels in each year between 2003 and 2006, but well above the Manitoba average each year (see Figure 6-16).

- Fortunately, drug use during pregnancy is still relatively uncommon in Burntwood compared to alcohol use. Within Burntwood Region, rates of drug use by mothers during pregnancy increased from 10.9 per cent to 14.6 per cent between 2003 and 2006, higher than the Manitoba average of 4.3 per cent in 2006 (see Figure 6-17).
Figure 0-16. Rates of alcohol use during pregnancy by region, 2003-2006 combined.

![Rate of Alcohol Use During Pregnancy by Region](chart1.png)

Source: Healthy Child Manitoba, Families First Screening Form 2007.
NOTE: Churchill rates should be interpreted with caution due to small numbers.

Figure 0-17. Prevalence of alcohol use during pregnancy, Burntwood and Manitoba, 2003-2006.

![Prevalence of Alcohol Use During Pregnancy](chart2.png)

Source: Healthy Child Manitoba, Families First Screening Form 2007.
Figure 0-18. Prevalence of drug use during pregnancy, Burntwood and Manitoba, 2003-2006.

Source: Healthy Child Manitoba, Families First Screening Form 2007.
6.1.11.2 SMOKING DURING PREGNANCY

Mothers who smoke during pregnancy are at increased risk for having smaller children, preterm birth, spontaneous abortion, stillbirth and sudden infant death syndrome (SIDS). There are also a wide range of longer term effects associated with smoking, including behavioural problems such as inattention and attention-deficit/hyperactivity disorder in children. Smoking during pregnancy has also been linked to some childhood cancers, including nervous system tumours, leukemias and lymphomas. Maternal smoking during pregnancy is also a risk factor for asthma in young children.\textsuperscript{ix}

- Rates of smoking during pregnancy among Burntwood RHA residents increased from 42.7 to 50.3 per cent over the four years between 2003 and 2006 (see Figure 6-19).

- Over the 2003-2006 time period, the proportion of Burntwood women who smoked during pregnancy was 47.9 per cent, much higher than the Manitoba average of 21.0 per cent and ranking the highest in the province (see Figure 6-20).

![Figure 6-19. Prevalence of smoking during pregnancy, Burntwood and Manitoba, 2003-2006.](source)

Source: Healthy Child Manitoba, Families First Screening Form 2007.
Figure 0-10. Smoking during pregnancy by region, 2003-2006 combined.

Source: Healthy Child Manitoba, Families First Screening Form 2007.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
6.1.11.3 Anxiety and Depression in Mothers of Newborns

Mothers of newborns who suffer from depression can negatively effect family relationships and increase the risk for children to be maltreated and to be taken into care. An important part of the Families First Program is to provide the coping skills and social supports necessary to deal with mental health challenges that arise with becoming a new parent. Community consultation participants noted the level of family violence in their communities and the effect it had on mental health of both children and parents.

- The proportion of families with newborns where the mother experienced depression in Burntwood was 11.3 per cent in 2006, lower than the Manitoba average of 13.4 per cent in 2006 (see Figure 6-21).

- From 2003-2006, the percentage of mothers experiencing depression was 14.4 per cent, slightly higher than the Manitoba average of 14.1 per cent (see Figure 6-22).

Figure 6-21. Depression/anxiety during pregnancy, Burntwood and Manitoba, 2003-2006.

Source: Healthy Child Manitoba, Families First Screening Form 2007.
Figure 0-22. Depression/anxiety during pregnancy by region, 2003-2006 combined.

Source: Healthy Child Manitoba, Families First Screening Form 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
6.1.11.4 Mother With Less Than a Grade 12 Education

Education level is positively associated with health status and health behaviours. Education contributes to health and well being by equipping people with the necessary problem solving and coping skills needed to have greater control over their life circumstances. Education also improves people’s ability to access and understand information that can keep them healthy.\textsuperscript{x}

- The proportion of families with newborns where the mother had less than a Grade 12 education in Burntwood decreased slightly from 43.8 per cent to 40.5 per cent between 2003 and 2006, but remained much higher than the Manitoba average of 21.4 per cent in 2006 (see Figure 6-23).

- From 2003-2006, the Burntwood Region had the second highest percentage of mothers with newborns who had less than a Grade 12 education (43.8%) among all RHAs (see Figure 6-24).

\begin{figure}
\centering
\includegraphics[width=\textwidth]{mother-grade-12-education.png}
\caption{Mother has less than a grade 12 education, Burntwood and Manitoba, 2003-2006.}
\end{figure}

Source: Healthy Child Manitoba, Families First Screening Form 2007.
Figure 0-24. Mother has less than a grade 12 education by region, 2003-2006 combined.

Source: Healthy Child Manitoba, Families First Screening Form 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
6.1.11.5 RELATIONSHIP DISTRESS

Having a newborn can be a stressful experience for new parents and family relationships can suffer as a result. First-time parents in particular face significant changes in their lives including role changes, lifestyle adjustments, and financial difficulties. Mothers can feel overwhelmed and fathers isolated and left out. It is important to measure and track the incidence of relationship stress to see where supports and coping skills can best be used to ensure children have the most ideal care and parenting support possible.

- Within Burntwood Region, the percentage of families with newborns where parents experienced relationship distress decreased from 14.1 per cent to 10.3 per cent between 2003 and 2006, which is higher than the Manitoba average of 6.0 per cent in 2006 (see Figure 6-25).

- Relationship difficulties and family violence were topics identified as priorities by many community consultation participants and these data support those expressions of concern. Some home visitors also indicated that on some visits a great deal of time can be spent focusing on issues related to the mom's relationship with family members, with less time being available to focus on other needs of the baby. The visitor is flexible and provides the service that appears to be most needed for that participant. Although relationship issues are important, the parent may require more support and assistance than can be offered directly by the home visitor.

Figure 6-25. Prevalence rates of relationship distress, Burntwood and Manitoba, 2003-2006.

Source: Healthy Child Manitoba, Families First Screening Form 2007.
6.1.11.6 DOMESTIC VIOLENCE

Children who witness domestic violence can suffer from mental health disorders, as well as negatively impacting their physical health. Families in which there is family violence also have higher rates of child maltreatment and foster care. Community consultation participants expressed concern with the levels of domestic violence in their community and the mental health difficulties youth were facing.

- The prevalence of domestic violence in Burntwood Region parents (living off-reserve) of newborns decreased from 7.3 per cent to 6.7 per cent between 2003 and 2006. Although there had been a slight decrease, Burntwood Regional rate remained much higher than the provincial average of 2.5 per cent in 2006 (see Figure 6-26). These findings are also reflective of concerns expressed about family violence by community consultation participants.

Figure 0-26. Prevalence of domestic violence, Burntwood and Manitoba, 2003-2006.

![Figure 0-26. Prevalence of domestic violence, Burntwood and Manitoba, 2003-2006.](source: Healthy Child Manitoba, Families First Screening Form 2007.)
6.1.11.7 Social Assistance/Financial Difficulties

Financial challenges related to raising a newborn can occur both because of the costs associated with raising a child and because family income usually declines when a newborn arrives (such as when the mother takes maternity leave and then may decide not to return to work). Those financial stresses can lead to lower child health status, as children with low socioeconomic status have been found to be at higher risk for poorer coping skills and are more vulnerable to mental health disorders.

- The proportion of Burntwood families with newborns who receive social assistance increased from 32.6 per cent to 36.1 per cent between 2003 and 2006, much higher than the provincial average of 17.3 per cent in 2006 (see Figure 6-27).

- As Figure 6-28 shows, Burntwood residents with newborns have the highest prevalence of social assistance/financial difficulties in the province at 38.6 per cent overall between 2003 and 2006.

Figure 6-27. Social assistance/financial difficulties, Burntwood and Manitoba, 2003-2006.
Figure 0-28. Social assistance/financial difficulties by region, 2003-2006 combined.

Source: Healthy Child Manitoba, Families First Screening Form 2007.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
6.2 SAFETY

6.2.1 STAFF IMMUNIZATION

Staff immunization is a key component in any patient safety initiative. It improves the health of healthcare workers and is an important tool in infection prevention and control in healthcare facilities. Influenza transmission and outbreaks in hospitals and PCHs can result in significant patient, resident and staff morbidity and mortality. Annual immunization of healthcare workers and others who are capable of transmitting influenza to those at high risk, is the most effective measure for reducing the impact of influenza. Studies have shown that high rates of staff immunization can reduce patient mortality and lower the risk of influenza outbreaks in PCHs.\(^i\)

- As Table 6-4 shows, Burntwood rate of flu immunization among health care practitioners was 66 per cent in 2008.

- By health care sector, there was a wide variation of rates with public health, diagnostics, infection control, and Families First staff at or close to 100 per cent coverage, while front line staff in emergency services, rehabilitation, dietary, along with physicians, had flu immunization rates of less than 50 per cent (see Table 6-4).
Table 6-4. Staff flu immunization rates, 2008.

<table>
<thead>
<tr>
<th>By Sector</th>
<th>Front-line staff (64%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dialysis</td>
</tr>
<tr>
<td></td>
<td>Maintenance</td>
</tr>
<tr>
<td></td>
<td>Emergency</td>
</tr>
<tr>
<td></td>
<td>Rehab Services</td>
</tr>
<tr>
<td></td>
<td>Pharmacy</td>
</tr>
<tr>
<td></td>
<td>Home Care</td>
</tr>
<tr>
<td></td>
<td>Dietary</td>
</tr>
<tr>
<td></td>
<td>Obstetrics</td>
</tr>
<tr>
<td></td>
<td>Operating Room</td>
</tr>
<tr>
<td></td>
<td>Mental Health</td>
</tr>
<tr>
<td></td>
<td>Med/Surg/Peds</td>
</tr>
<tr>
<td></td>
<td>Public Health</td>
</tr>
<tr>
<td></td>
<td>Families First</td>
</tr>
<tr>
<td></td>
<td>Environmental Services</td>
</tr>
<tr>
<td></td>
<td>Ambulance Attendants</td>
</tr>
<tr>
<td></td>
<td>TGH Admin/Reception</td>
</tr>
<tr>
<td></td>
<td>Physicians</td>
</tr>
<tr>
<td></td>
<td>CSR/Infection Control</td>
</tr>
<tr>
<td></td>
<td>Burntwood Community Health Resource Centre</td>
</tr>
<tr>
<td></td>
<td>Diagnostics &amp; Respiratory</td>
</tr>
<tr>
<td></td>
<td>Personal Care Homes</td>
</tr>
</tbody>
</table>

Source: Burntwood RHA.
<table>
<thead>
<tr>
<th>By Sector</th>
<th>Front-line staff (64%)</th>
<th>Support staff (71%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ABI</td>
<td>Information Systems</td>
</tr>
<tr>
<td></td>
<td>NCC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dieticians</td>
<td>Payroll/Finance</td>
</tr>
<tr>
<td></td>
<td>NPTP</td>
<td>Purchasing/Stores</td>
</tr>
<tr>
<td></td>
<td>Chemotherapy</td>
<td>Library</td>
</tr>
<tr>
<td></td>
<td>Specialists</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BRHA Administration</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Human Resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Senior Executive/Administration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aboriginal Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Health/Medical Records</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Travel</td>
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<td></td>
<td></td>
<td>EMS/EPO</td>
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<tr>
<td></td>
<td></td>
<td>Physician Billing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff Development</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pre-retirement</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008 Flu Immunization Rates for HCP (Burntwood Region Average 66%)</td>
<td>ABI 73%</td>
<td>Information Systems 100%</td>
</tr>
<tr>
<td></td>
<td>NCC 76%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dieticians 100%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NPTP 100%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chemotherapy 50%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialists 60%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BRHA Administration 0%</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Source: Burntwood RHA.</td>
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</tr>
</tbody>
</table>
6.2.2 POLYPHARMACY FOR COMMUNITY DWELLING SENIORS

Polypharmacy which involves taking of many prescription drugs is an issue of growing concern for the health care system, particularly among seniors. As seniors take more drugs, the risk for negative side effects from drug interactions increases along with the chances of admission to hospital. Seniors living in the community can be at even higher risk than seniors in long term care as their drug intake is not monitored as closely.

RCMP staff at a community consultation focus group indicated that prescription drug abuse occurs with people getting prescriptions from multiple doctors. On the other hand, residents also indicated that prescription drugs are difficult to access, as they need to see a physician to get the prescription filled. Prescriptions then need to be transported to the community which can add to the delay in receiving necessary pharmaceuticals.

- Figure 6-29 shows the time trends for polypharmacy in the Burntwood Region and Manitoba. Both show a steady increase in the percentage of community dwelling seniors who are taking six or more different drugs in a 121 day period. In Burntwood Region the proportion increased from 2.8 per cent in 1996/97 to 15.7 per cent of community dwelling seniors in the fiscal year 2003/04. Although these proportions are increasing for both Burntwood and Manitoba, Burntwood Region residents are experiencing an increase at a more rapid rate.

- As Figure 6-30 shows, every RHA in Manitoba experienced a statistically significant increase in polypharmacy between 1996/97-1999/2000 and 2000/01-2003/04. Burntwood's polypharmacy prevalence ranked the third highest in the province in 2000/01-2003/04, and was significantly higher than the Manitoba average.
Figure 0-29. Polypharmacy prevalence for community dwelling seniors by year, 1996/97-2003/04.


NOTE: Churchill rates should be interpreted with caution due to small numbers.
'1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area
6.3 **CLIENT CENTERED SERVICES**

**What is appropriate care? If you can define it, then we need to link to satisfaction.**

(focus group participant)

In order to ensure that a client centered approach to providing health services is being followed, it is important to solicit the feedback of clients to ensure that those receiving the services feel that their needs are being met. Whether that feedback is garnered through surveys or focus groups, feedback directly from the client is a key method to see how well services are being delivered and what shortcomings need to be addressed.

**The question – getting better client satisfaction is not the right end point. We need to focus on getting access to good quality care – then doing the media/communication strategy to educate the public on this.**

(focus group participant)

The Burntwood RHA patient/client satisfaction and complaint process was reviewed, revised and evaluated in 2007/08, with a formal survey and report that included patient/client satisfaction survey pamphlets completed in all areas of the region, a phone survey, focus groups, and the collation of the complaints to identify key themes of successes and challenges.

- As Table 6-5 shows, patients were generally satisfied with their experience in receiving health care services. In terms of overall experience, 76 per cent of phone survey respondents and 91 per cent of pamphlet survey respondents thought their experience was good to excellent.

- In terms of information, once again, there was general overall satisfaction with what to expect, answers to questions they posed and a good idea of what they need to do next. Perhaps the greatest area of concern was that 30 per cent of phone survey responses thought the information given about what to expect was only fair to poor (see Table 6-5).

- The access to service was the area in which respondents expressed the greatest dissatisfaction. Of those that responded by phone, 42 per cent though getting the service was only fair to poor (see Table 6-5).

- The comments that were offered were consistent with what we heard at the community consultation focus groups, such as the lack of home care services, the need to coordinate appointments with train and bus schedules, and the lack of continuity of care due to physician turnover.
<table>
<thead>
<tr>
<th></th>
<th>Phone survey</th>
<th></th>
<th>Pamphlet survey</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Responses Good to Excellent</td>
<td>% Responses Fair to Poor</td>
<td>% Responses Good to Excellent</td>
<td>% Responses Fair to Poor</td>
</tr>
<tr>
<td>Access</td>
<td>Access (getting service)</td>
<td>57</td>
<td>42</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>Access (wait time)</td>
<td></td>
<td></td>
<td>77</td>
</tr>
<tr>
<td>Coordination</td>
<td>77</td>
<td>21</td>
<td>85</td>
<td>13</td>
</tr>
<tr>
<td>Information</td>
<td>Information (what to expect)</td>
<td>66</td>
<td>30</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>Information (answer questions)</td>
<td>83</td>
<td>13</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Information (need to do)</td>
<td></td>
<td></td>
<td>89</td>
</tr>
<tr>
<td>Involvement</td>
<td>72</td>
<td>19</td>
<td>81</td>
<td>6</td>
</tr>
<tr>
<td>Overall Experience</td>
<td>76</td>
<td>22</td>
<td>91</td>
<td>9</td>
</tr>
<tr>
<td>Follow up Requested</td>
<td></td>
<td>41%</td>
<td></td>
<td>27%</td>
</tr>
</tbody>
</table>

Source: Burntwood RHA.
6.4 **CONTINUITY OF SERVICE**

Continuity of service is taking on an increasingly important goal as a part of health system performance, particularly with the increasing emphasis on primary health care. Continuity of service allows for a more permanent relationship between clients and providers to be developed. Improved continuity of care is linked to improved adherence to screening and treatment regimens, recognition of unidentified problems, better immunization outcomes, fewer hospitalizations, lower use of emergency rooms, improved patient satisfaction, and a general reduction or avoidance in health care costs. Given the physician turnover in Burntwood, the region is challenged with providing continuity of care. As previously discussed, community consultation participants were concerned about the lack of continuity of care given the frequent changes in physicians.

6.4.1 **CONTINUITY OF CARE - ADULT**

The measure of “continuity of care” for adults is that at least 50 per cent of their ambulatory care visits are with the same physician in a two year period.

- The proportion of Burntwood Region adults meeting the “continuity of care” definition remained very stable between 1999/00-2000/01 and 2004/05-2005/06 at 48.2 per cent and 47.5 per cent respectively. Unfortunately, our rate remained significantly lower than the provincial rate of 67.7 per cent in 2004/05-2005/06 (see Figure 6-31).

**Figure 6-31. Adult continuity of care by region, 1999/00-2000/01 and 2004/05-2005/06.**

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: ‘1’ and ‘2’ indicate area’s rate was statistically different from Manitoba average in first or second time period.

‘t’ indicates change over time was statistically significant for that area.

‘*’ indicates change over time was statistically significant for that area.
6.4.2 CONTINUITY OF CARE - CHILDREN

Continuity of care for children allows a physician to know the history of the child and family, allowing a level of trust to develop with a physician which evidence shows leads to better care, including fewer Emergency Room visits and hospitalization.\textsuperscript{xiii} Improved continuity of care also improves immunization rates among children.\textsuperscript{xiv}

Continuity of care among children are lower than those among adults. This is likely because, while appointments among adults are often routine screening or follow up appointments, young children tend to see the physician for illnesses which parents perceive as requiring immediate attention (and in some cases they do). When a child has an ear infection, injury, bad cold or other illness, parents will often not wait more than a day to see their family physician but will seek more immediate attention through alternate health care providers. For example, parents will often take their children to walk in clinics or emergency rooms for treatment.

- Within the Burntwood Region, the continuity of care indicator increased from 40.2 per cent to 41.0 per cent between 1999/00-2000/01 and 2004/05-2005/06. As with adults, this indicator is significantly lower than the Manitoba average of 56.2 per cent in 2004/05-2005/06 (see Figure 6-32).

\textbf{Figure 6-32. Child continuity of care rate by region, 1999/00-2000/01 and 2004/05-2005/06.}

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas, 2008.

\textbf{NOTE:} '1' and '2' indicate area's rate was statistically different from Manitoba average in first or second time period; 't' - change over time was statistically significant 's' indicates data suppressed due to small numbers
6.4.3 **Antidepressant Prescription Follow Up**

Antidepressant prescription follow up is an important indicator of the quality of primary care and mental health care received in a region. Concerns have been raised about the side effects of antidepressant prescriptions so it is important to monitor physician follow up of patients to ensure that the medications are, in fact, effective in treating depression. As discussed previously, community consultation participants expressed concerns that follow up care in the communities was not adequate for residents returning to the community after mental health assessment and treatment.

“Antidepressant prescription follow-up” is defined as the proportion of patients with a new prescription for antidepressants and a diagnosis of depression within two weeks of each other, who then had three subsequent ambulatory visits within four months of the prescription being filled. Note that "ambulatory visit" means that the patient was not an in-patient at the hospital but saw a physician through an appointment at their office or outpatient clinic.

- The antidepressant prescription follow-up indicator for Burntwood Region residents decreased from 43.8 per cent to 38.5 per cent between 1999/00-2000/01 and 2003/04-2005/06. In both time periods, follow-up was significantly lower than the Manitoba averages (58.2 per cent in 2003/04-2005/06) (see Figure 6-33). In fact, in the second time period, the follow up indicator for our residents was the lowest in the province.

**Figure 6-33. Antidepressant prescription follow-up rate by region, 1998/99-2000/01 and 2003/04-2005/06.**

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

'1' and '2' indicate area’s rate was statistically different from Manitoba average in first or second time period

's' indicates data suppressed due to small numbers
6.4.4 DIABETES CARE: EYE EXAMS

Eye exams are a critical component of ongoing care for people living with diabetes. It is an important indicator to monitor to ensure that chronic diseases are being appropriately managed to avoid loss of eye sight and improve the quality of life of patients.

- Diabetics who had an eye exam in Burntwood RHA increased from 23.9 per cent to 25.0 per cent between 2000/01 and 2005/06, significantly lower than the Manitoba average of 33.5 per cent in 2005/06 (see Figure 6-34).

- It is important to determine if lower eye exam rates are due to lack of resources (that is, even if a smaller proportion of people with diabetes are having eye exams, this number would still potentially be large due to the number of people living with this disease), or if it may be due to lack of education and awareness of the importance of eye exams for people living with diabetes. However, more recent data indicate that since the inception of the Retinal Screening Vision Program, there have been 1,251 residents screened, including 312 residents of First Nations communities. 583 of Burntwood residents were screened in 2009 and 79 were referred to specialists as a result. The partnership and funding from both FNIH and Manitoba Health has meant that the two retinal screening nurses have visited all 23 Burntwood communities (both off and on-reserve) at least once since 2007.
Figure 0-34. Diabetics who had an eye exam by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
‘1’ and ‘2’ indicate area’s rate was statistically different from MB average in first and second time period; ‘t’ indicates change over time was statistically significant.
6.5 EFFECTIVENESS

6.5.1 AMBULATORY CARE SENSITIVE CONDITIONS

This is an important indicator of the effectiveness of the health care system in providing an appropriate level of access to primary care. While not all admissions for ambulatory care sensitive conditions are avoidable, it is generally agreed that appropriate prior ambulatory care can prevent admission to the hospital for illnesses, conditions and chronic diseases. While there is not yet a level of utilization which is ideal, it is assumed that a high rate is presumed to reflect problems in obtaining access to primary care. Examples of ambulatory care sensitive conditions include asthma, diabetes and some mental illnesses. These diseases, if managed appropriately - with support by the physician and compliance by the patient - at the community level should not result in persons becoming so ill that they require hospitalization.

- The hospitalization rate for ambulatory care sensitive conditions among Burntwood region residents increased from 37.8 to 43.1 per 1,000 residents between 2000/01 and 2005/06. This rate was significantly higher than the Manitoba average of 13.5 hospitalizations per 1,000 residents in 2005/06 and was the highest in the province (see Figure 6-35).

Figure 6-35. Hospitalization rate for ambulatory care sensitive conditions by region, 2000/01 and 2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.

NOTE: Churchill rates should be interpreted with caution due to small numbers.

1' indicates area's rate was statistically different from Manitoba average in first time period
2' indicates area's rate was statistically different from Manitoba average in second time period; 't' indicates change over time was statistically significant
6.5.2 **Re-admission Rates for Infants Within 28 Days of Birth**

Re-admission rates for infants within 28 days of birth can provide information on access to public health maternal care and the effectiveness of obstetrical care in hospital. It may also be related to low socioeconomic status of the jurisdiction being studied. High re-admission rates should be a trigger for the re-examination of both hospital care and the provision of public health services for newborns and their mothers.

- Within Burntwood Region, newborn readmission rates decreased from 52.9 to 46.6 per 1,000 infants between 1996-2000 and 2001-2005. Our rate remained significantly higher than the provincial average in 2001-2005. (see Figure 6-36).

**Figure 6-36.** Newborn readmission rate by region, 1996-2000 and 2001-2005.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas 2008.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
- ‘1’ indicates area’s rate was statistically different from Manitoba average in first time period
- ‘2’ indicates area’s rate was statistically different from Manitoba average in second time period
- ‘t’ indicates change over time was statistically significant for that area
- ‘s’ indicates data suppressed due to small numbers
6.5.3 CAESAREAN SECTION RATE

How often caesarean sections are performed provides information on the frequency a surgical birth delivery versus all other modes of birth delivery. Unnecessary caesarean section deliveries have increased the risk of maternal morbidity and mortality and cost more to the health care system. These rates are often monitored for quality of care in clinical practices as lower rates of caesarean section are associated with more appropriate and efficient care for mothers and the newborn child.\textsuperscript{xvi}

- Among Burntwood Region residents, caesarean sections increased slightly from 16.1 per cent to 16.9 per cent of births between 1996/97-2000/01 and 2001/02-2005/06. This is significantly lower than the provincial average of 19.5 per cent in 2001/02-2005/06 (see Figure 6-37).

Figure 6-37. Caesarean rate by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy Need to Know Project, 2009 Data Atlas.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
1' indicates area's rate was statistically different from Manitoba average in first time period
2' indicates area's rate was statistically different from Manitoba average in second time period
3' indicates change over time was statistically significant for that area
6.5.4 VAGINAL BIRTH AFTER CAESAREAN SECTION

This indicator provides information on health system performance and appropriateness of care and there is evidence to suggest that vaginal birth is safe for many women who have previously delivered by caesarean section. Vaginal birth is preferable if possible as there is less risk to the mother and a much shorter recovery time compared to caesarean section births. Clinical practice guidelines for obstetricians and gynaecologists in Canada have advised that women be offered the opportunity to deliver vaginally if they have previously had a caesarean section. xvii

- The proportion of women who have a vaginal birth after caesarean section for Burntwood residents decreased from 58.1 per cent to 49.6 per cent between 1996/97-2000/01 and 2001/02-2005/06, which is higher than the Manitoba average of 34.7 per cent in 2001/02-2005/06 (see Figure 6-38). In both time periods, Burntwood Region ranks the highest in the province for this indicator.

![Figure 6-38. Vaginal birth after caesarean rate by region, 1996/97-2000/01 and 2001/02-2005/06.](image-url)
6.5.5 Hysterectomy Rate

Hysterectomy rates and variations in rates can provide some insight into physician practice patterns, appropriateness of care, the demographic profile of a given region and their relative health status.\textsuperscript{xviii}

- The hysterectomy rate among our residents was 2.9 per 1,000 women aged 25 years or older, lower than the Manitoba average of 3.6 for the 2002/03-2006/07 period (see Figure 6-39).

![Hysterectomy rate by region, 2002/03 - 2006/07 combined.](chart)

**Figure 6-39. Hysterectomy rate by region, 2002/03 - 2006/07 combined.**

Source: Discharge Abstract Database.

NOTE: Churchill rates should be interpreted with caution due to small numbers.
6.5.6 TONSILLECTOMY/ADENOIDECTOMY

The number of tonsillectomies and adenoidectomies performed in a hospital setting can be an indicator of appropriateness of care as these procedures do not normally need to be performed in hospital. These rates may indicate that community or primary care is not as accessible to patients as it needs to be in ensuring appropriate and efficient delivery of health care.

- The tonsillectomy/adenoidectomy rate among Burntwood Region children decreased significantly from 5.1 to 2.9 per 1,000 children aged 0-14 between 1996/97-2000/01 and 2001/02-2005/06. This is very lower than the provincial rate of 4.7 per 1,000 children in 2001/02-2005/06 (see Figure 6-40).

Figure 0-40. Tonsillectomy/adenoidectomy rate by region, 1996/97-2000/01 and 2001/02-2005/06.

Source: Manitoba Centre for Health Policy, Manitoba Child Health Atlas 2008.
NOTE: Churchill rates should be interpreted with caution due to small numbers.
'1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area
's' indicates data suppressed due to small numbers
REFERENCES

1 Stewart, M. (n.d.). Immigrants and Refugees: Perspectives on Supportive Policies, Programs, and Practices
3 Assembly of First Nations. (March 2007). First Nations Regional Longitudinal Health Survey (RHS) 2002/03.
6 Canadian Institute for Health Information, Health Indicators, 2008, p.80.
12 UBC Centre for Health Services and Policy Research, Continuity of Care, http://www.chspr.ubc.ca/research/patterns/continuity
15 Statistics Canada: Health Indicators – Definitions and Data Sources http://www.statcan.gc.ca/pub/82-221-x/4060874-eng.htm
16 CIHI, Health Indicators, p.54.
17 Statistics Canada: Health Indicators – Definitions and Data Sources http://www.statcan.gc.ca/pub/82-221-x/4060874-eng.htm
18 Ibid., p.72.
## Appendix A: Indicators Summary

### Regional Profile

<table>
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<tr>
<th>Indicator</th>
<th>Definition</th>
<th>Region Current</th>
<th>Manitoba Current</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5.1 Population density</td>
<td>Population per square kilometre</td>
<td>0.1</td>
<td>2.1</td>
<td>2006 Census</td>
</tr>
<tr>
<td>2.5.2 Population by age group</td>
<td>% of population over 65.</td>
<td>4.0%</td>
<td>13.8%</td>
<td>MBH 2008 population</td>
</tr>
<tr>
<td>2.5.2.1 Dependency ratio</td>
<td>Population &lt;15 and &gt;65 to rest of population</td>
<td>58.5</td>
<td>49.4</td>
<td>MBH 2008 population</td>
</tr>
<tr>
<td>2.5.4 Population projections</td>
<td>Projected population in 2036</td>
<td>60,070</td>
<td>1,660,740</td>
<td>Manitoba Bureau of Statistics</td>
</tr>
<tr>
<td></td>
<td>% of projected population change</td>
<td>27.6%</td>
<td>40.9%</td>
<td>Manitoba Bureau of Statistics</td>
</tr>
<tr>
<td>2.5.5 Aboriginal population</td>
<td>% of population that self identifies as Aboriginal</td>
<td>76.1%</td>
<td>15.5%</td>
<td>2006 Census</td>
</tr>
<tr>
<td>2.5.6 Marital Status</td>
<td>% of person is Legally married.</td>
<td>40.1%</td>
<td>50.2%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>% of aboriginal person is Legally married.</td>
<td>35.4%</td>
<td>32.0%</td>
<td>2006 Census</td>
</tr>
<tr>
<td>2.5.7 Family structure</td>
<td>% of lone parent family</td>
<td>30.0%</td>
<td>17.0%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>% of lone parent family for aboriginal residents.</td>
<td>8.7%</td>
<td>9.1%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>Median income for lone parent family</td>
<td>$17,773</td>
<td>$31,518</td>
<td>2006 Census</td>
</tr>
<tr>
<td>2.5.8 Language</td>
<td>% of population that speak only English in the home</td>
<td>64.3%</td>
<td>87.3%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>% of population with knowledge of official language is English only.</td>
<td>95.4%</td>
<td>89.8%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>% of aboriginal population with knowledge of official language is English only.</td>
<td>31.5%</td>
<td>66%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>% of population with mother tongue is English only.</td>
<td>50.5%</td>
<td>74.0%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>% of families that speak only English at work</td>
<td>86.4%</td>
<td>96.4%</td>
<td>2006 Census</td>
</tr>
<tr>
<td>2.5.9 Internal/External migration</td>
<td>% of residents who are Canadian born</td>
<td>97.4%</td>
<td>86.0%</td>
<td>2006 Census</td>
</tr>
<tr>
<td>2.5.10 Mobility status</td>
<td>% of residents who lived at same address 5 years ago.</td>
<td>69.4%</td>
<td>63.4%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>% of residents who move within province in last 5 years.</td>
<td>26.5%</td>
<td>29.9%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>% of residents who lived in different province or territory 5 years ago.</td>
<td>3.6%</td>
<td>3.4%</td>
<td>2006 Census</td>
</tr>
</tbody>
</table>
# Appendix A: Indicators Summary

## Determinants of Health

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Definition</th>
<th>Region Current</th>
<th>Manitoba Current</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.1 Income inequality</td>
<td>% of Private Households with low income</td>
<td>16%</td>
<td>17%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>% of Economic Families with low income</td>
<td>14%</td>
<td>12%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>% of children &lt;18 living in low income family</td>
<td>23.3%</td>
<td>21.4%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>% of Unattached Individuals with low income</td>
<td>23%</td>
<td>38%</td>
<td>2006 Census</td>
</tr>
<tr>
<td>3.1.2 Families receiving income assistance</td>
<td>% of children aged 0-17 in family receiving income assistance</td>
<td>12.7%</td>
<td>13.2%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td></td>
<td>% of young adult aged 18-19 in family receiving income assistance</td>
<td>8.9%</td>
<td>9.1%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.1.3 Median individual and households income</td>
<td>The midpoint of dollar amount of individual income</td>
<td>$15,395</td>
<td>$24,194</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>The midpoint of dollar amount of household income</td>
<td>$44,076</td>
<td>$47,875</td>
<td>2006 Census</td>
</tr>
<tr>
<td>3.1.4 Income in single parent family</td>
<td>The midpoint of dollar amount of income for single parent families.</td>
<td>$17,773</td>
<td>$31,518</td>
<td>2006 Census</td>
</tr>
<tr>
<td>3.1.5 Unemployment rates</td>
<td>Male unemployment rate</td>
<td>18.4%</td>
<td>5.5%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>Female unemployment rate</td>
<td>16.1%</td>
<td>10.5%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>Male youth unemployment rate</td>
<td>30.9%</td>
<td>11.7%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>Female youth unemployment rate</td>
<td>26.8%</td>
<td>10.5%</td>
<td>2006 Census</td>
</tr>
<tr>
<td>3.1.6 Labour Force Participation Rates</td>
<td>% of the population aged 15 years and over, who were in the labor force in the week prior to the Census of Canada.</td>
<td>56.8%</td>
<td>67.3%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>Labour force participation rate for aboriginal people.</td>
<td>47.7%</td>
<td>59.2%</td>
<td>2006 Census</td>
</tr>
<tr>
<td>3.1.9 Population scoring high on work stress scale</td>
<td>% of residents self-perceived “High” work stress</td>
<td>22.1%</td>
<td>27.6%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>3.1.10 Housing affordability</td>
<td>Average value of owned dwelling</td>
<td>$119,223</td>
<td>$153,307</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>Tenant spending per dwelling</td>
<td>22.2%</td>
<td>35.3%</td>
<td>2006 Census</td>
</tr>
<tr>
<td></td>
<td>Owner spending per dwelling</td>
<td>8.2%</td>
<td>11.4%</td>
<td>2006 Census</td>
</tr>
<tr>
<td>3.1.11 Educational attainment</td>
<td>% of population aged 15-24 with less than high school certificate.</td>
<td>75.3%</td>
<td>47.6%</td>
<td>2006 Census</td>
</tr>
</tbody>
</table>
### APPENDIX A: INDICATORS SUMMARY

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Definition</th>
<th>Region Current</th>
<th>Manitoba Current</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of population aged 25-34 with less than high school certificate.</td>
<td>47.8%</td>
<td>16.4%</td>
<td>2006 Census</td>
<td></td>
</tr>
<tr>
<td>% of population aged 35-64 with less than high school certificate.</td>
<td>46.9%</td>
<td>21.6%</td>
<td>2006 Census</td>
<td></td>
</tr>
<tr>
<td>3.1.12 Unpaid work</td>
<td>% of unpaid work.</td>
<td>91.0%</td>
<td>90.8%</td>
<td>2006 Census</td>
</tr>
<tr>
<td>3.2.1 Exposure to Second Hand Smoke</td>
<td>% of residents who exposures to second hand smoke.</td>
<td>13.3%</td>
<td>7%</td>
<td>CCHS 2008</td>
</tr>
<tr>
<td>3.3.1 Life Stress</td>
<td>% of residents who has “quite a lot” life stress.</td>
<td>16.7%</td>
<td>19.4%</td>
<td>CCHS 2007</td>
</tr>
<tr>
<td>3.3.2 Life Satisfaction</td>
<td>% of residents who self rated “satisfied” or “very satisfied” for life</td>
<td>35.3%</td>
<td>37.8%</td>
<td>MCHP Health Atlas from CCHS data</td>
</tr>
<tr>
<td>3.3.3 Licensed child care spaces</td>
<td>The rate of licensed child care spaces per 1,000 children ages 0-12 years by area.</td>
<td>30</td>
<td>30</td>
<td>MCHP Child Health Atlas 2008</td>
</tr>
<tr>
<td>3.3.4.1 Readiness to learn at school</td>
<td>% of children not ready for Physical Health and Well-Being</td>
<td>22.7%</td>
<td>10.9%</td>
<td>HCMO.</td>
</tr>
<tr>
<td>% of children not ready for Social Competence</td>
<td>22.9%</td>
<td>9.6%</td>
<td>HCMO.</td>
<td></td>
</tr>
<tr>
<td>% of children not ready for Emotional Maturity</td>
<td>16.0%</td>
<td>10.1%</td>
<td>HCMO.</td>
<td></td>
</tr>
<tr>
<td>% of children not ready for Language and Cognitive Development</td>
<td>23.6%</td>
<td>11.8%</td>
<td>HCMO.</td>
<td></td>
</tr>
<tr>
<td>% of children not ready for Communication Skills and General Knowledge</td>
<td>17.7%</td>
<td>11.0%</td>
<td>HCMO.</td>
<td></td>
</tr>
<tr>
<td>% of children not ready in one or more areas of development</td>
<td>46.3%</td>
<td>27.7%</td>
<td>HCMO.</td>
<td></td>
</tr>
<tr>
<td>% of children not ready in two or more areas of development</td>
<td>28.6%</td>
<td>13.9%</td>
<td>HCMO.</td>
<td></td>
</tr>
<tr>
<td>% of children very ready in Physical Health and Well-Being</td>
<td>23.4%</td>
<td>33.6%</td>
<td>HCMO.</td>
<td></td>
</tr>
<tr>
<td>% of children very ready in Social Competence</td>
<td>28.1%</td>
<td>34.8%</td>
<td>HCMO.</td>
<td></td>
</tr>
<tr>
<td>% of children very ready in Emotional Maturity</td>
<td>21.0%</td>
<td>28.5%</td>
<td>HCMO.</td>
<td></td>
</tr>
<tr>
<td>Indicator</td>
<td>Definition</td>
<td>Region Current</td>
<td>Manitoba Current</td>
<td>Data Source</td>
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<tr>
<td>% of children very ready in Language and Cognitive Development</td>
<td></td>
<td>20.9%</td>
<td>32.5%</td>
<td>HCMO.</td>
</tr>
<tr>
<td>% of children very ready in Communication Skills and General Knowledge</td>
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<td>23.9%</td>
<td>36.0%</td>
<td>HCMO.</td>
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<tr>
<td>% of children very ready in one or more areas of development</td>
<td></td>
<td>53.7%</td>
<td>64.8%</td>
<td>HCMO.</td>
</tr>
<tr>
<td>% of children very ready in two or more areas of development</td>
<td></td>
<td>32.0%</td>
<td>45.5%</td>
<td>HCMO.</td>
</tr>
<tr>
<td>3.3.4.1.1 Percentage of EDI participating children with ESL/FSL</td>
<td>% of children with ESL/FSL</td>
<td>3.2%</td>
<td>11.6%</td>
<td>HCMO.</td>
</tr>
<tr>
<td>3.3.4.1.2 Children with special needs</td>
<td>% of children with special needs</td>
<td>6.4%</td>
<td>3.4%</td>
<td>HCMO.</td>
</tr>
<tr>
<td>3.3.4.1.3 Children who require further assessment for future needs</td>
<td>% of children who needs further assessment</td>
<td>9.9%</td>
<td>11.7%</td>
<td>HCMO.</td>
</tr>
<tr>
<td>3.3.4.2 Retention Rates</td>
<td>Retention rates from Kindergarten to Grade 8</td>
<td>9.9%</td>
<td>3.0%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.3.4.3 School changes</td>
<td>% of Grade 3 students with no school changes.</td>
<td>55.3%</td>
<td>79.8%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.3.4.4 Grade 12 exam performance</td>
<td>% of Grade 12 students who passed math exam.</td>
<td>68.1%</td>
<td>82.9%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>% of residents who have passed grade 12 math exam.</td>
<td></td>
<td>13.6%</td>
<td>49.0%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>% of Grade 12 students who have passed ELA exam.</td>
<td></td>
<td>71.2%</td>
<td>90.8%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>% of residents who have passed ELA exam.</td>
<td></td>
<td>15.5%</td>
<td>59.3%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.3.4.5 High school completion rate</td>
<td>High school completion rate.</td>
<td>54.0%</td>
<td>77.7%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.4.1 Active living</td>
<td>% of residents who are physically active.</td>
<td>24.96%</td>
<td>24.0%</td>
<td>MCHP, CCHS 1.1, 2.1, 2.2 and 2007 Combined</td>
</tr>
<tr>
<td>% of residents who are moderately active.</td>
<td></td>
<td>21.31%</td>
<td>24.4%</td>
<td>MCHP, CCHS 1.1, 2.1, 2.2 and 2007 Combined</td>
</tr>
</tbody>
</table>
## APPENDIX A: INDICATORS SUMMARY

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Definition</th>
<th>Region Current</th>
<th>Manitoba Current</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of residents who are physically inactive.</td>
<td>53.74%</td>
<td>51.5%</td>
<td>MCHP, CCHS 1.1, 2.1, 2.2 and 2007 Combined</td>
<td></td>
</tr>
<tr>
<td>% of residents who are moderately or physically active.</td>
<td>50.6%</td>
<td>52.8%</td>
<td>CCHS 2008.</td>
<td></td>
</tr>
<tr>
<td>% of residents who are physically inactive.</td>
<td>49.4%</td>
<td>47.2%</td>
<td>CCHS 2008.</td>
<td></td>
</tr>
<tr>
<td><strong>3.4.2 Healthy Eating</strong></td>
<td>% of residents who consume at least 5 servings of fruits and/or vegetables per day.</td>
<td>33.9%</td>
<td>34.5%</td>
<td>CCHS 2008</td>
</tr>
<tr>
<td><strong>3.4.3 Body Mass Index</strong></td>
<td>% of residents who are overweight or obese (self reported).</td>
<td>72.4%</td>
<td>54.5%</td>
<td>CCHS 2008</td>
</tr>
<tr>
<td><strong>3.4.4 Alcohol Use</strong></td>
<td>% of residents who have 5 or more drinks on one occasion.</td>
<td>26.1%</td>
<td>19.6%</td>
<td>CCHS 2008</td>
</tr>
<tr>
<td><strong>3.4.5 Smoking</strong></td>
<td>% of residents who are current daily or occasional smoker</td>
<td>41.3%</td>
<td>24.2%</td>
<td>CCHS 2008</td>
</tr>
<tr>
<td><strong>3.4.6 Complete physical exam</strong></td>
<td>% of residents who have had a complete physician exam within two years.</td>
<td>28.0%</td>
<td>39.8%</td>
<td>MCHP &quot;What Works&quot; report, 2007.</td>
</tr>
<tr>
<td><strong>3.4.7.1 Population with at least one prescription in fiscal year</strong></td>
<td>% of residents with at least one prescription in fiscal year</td>
<td>62.7%</td>
<td>66.1%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td><strong>3.4.7.2 Number of prescriptions per user</strong></td>
<td>Average number of prescriptions used per user</td>
<td>5.0</td>
<td>4.0</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td><strong>3.4.7.3 Antibiotic prescriptions(adults)</strong></td>
<td>% of females with at least one antibiotic prescription.</td>
<td>36.4%</td>
<td>37.1%</td>
<td>MCHP 2005, Sex Differences Report</td>
</tr>
<tr>
<td></td>
<td>% of males with at least one antibiotic prescription.</td>
<td>25.8%</td>
<td>30.4%</td>
<td>MCHP 2005, Sex Differences Report</td>
</tr>
<tr>
<td><strong>3.4.7.4 Statin use</strong></td>
<td>% of females aged 20+ with at least one prescription for statins.</td>
<td>13.8%</td>
<td>7.4%</td>
<td>MCHP 2005, Sex Differences Report</td>
</tr>
<tr>
<td></td>
<td>% of males aged 20+ with at least one prescription for statins.</td>
<td>14.1%</td>
<td>9.9%</td>
<td>MCHP 2005, Sex Differences Report</td>
</tr>
<tr>
<td><strong>3.4.7.5 ACE Inhibitor use</strong></td>
<td>% of female aged 20+ with at least one ACE inhibitor.</td>
<td>25.2%</td>
<td>8.7%</td>
<td>MCHP 2005, Sex Differences Report</td>
</tr>
<tr>
<td></td>
<td>% of male aged 20+ with at least one ACE inhibitor.</td>
<td>20.0%</td>
<td>10.0%</td>
<td>MCHP 2005, Sex Differences Report</td>
</tr>
<tr>
<td><strong>3.4.7.6 Antidepressant prescriptions</strong></td>
<td>% of residents with two or more prescriptions for antidepressants.</td>
<td>5.3%</td>
<td>6.9%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>Indicator</td>
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</tr>
<tr>
<td>3.4.8.1.1 Complete immunization for age 1</td>
<td>All infants age 1 with complete immunization per 100.</td>
<td>64.1</td>
<td>76.1</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td></td>
<td>FN infants age 1 with complete immunization per 100.</td>
<td>59.7</td>
<td>63.8</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td></td>
<td>Non-FN infants age 1 complete immunization per 100.</td>
<td>74.9</td>
<td>78.4</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>3.4.8.1.2 Complete immunization for age 2</td>
<td>All children infants age 2 with complete immunization per 100.</td>
<td>45.8</td>
<td>58.5</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td></td>
<td>FN children age 2 with complete immunization per 100.</td>
<td>38.5</td>
<td>41.7</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td></td>
<td>Non-FN children age 2 complete immunization per 100.</td>
<td>64.8</td>
<td>61.5</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>3.4.8.1.3 Complete immunization for age 7</td>
<td>All children age 7 with complete immunization per 100.</td>
<td>56.8</td>
<td>68.6</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td></td>
<td>FN children age 7 with complete immunization per 100.</td>
<td>50.7</td>
<td>54.1</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td></td>
<td>Non-FN children age 7 with complete immunization per 100.</td>
<td>70.1</td>
<td>70.8</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>3.4.8.1.4 Complete immunization for age 11</td>
<td>All children age 11 with complete immunization per 100.</td>
<td>40.4</td>
<td>54.4</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td></td>
<td>FN children age 11 with complete immunization per 100.</td>
<td>31.7</td>
<td>29.8</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td></td>
<td>Non-FN youth age 11 with complete immunization per 100.</td>
<td>56.4</td>
<td>57.6</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>3.4.8.1.5 Complete immunization for age 17</td>
<td>All youth age 17 with complete immunization per 100.</td>
<td>20.9</td>
<td>41.9</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td></td>
<td>FN youth age 17 with complete immunization per 100.</td>
<td>11.5</td>
<td>15.6</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td></td>
<td>Non-FN youth age 17 with complete immunization per 100.</td>
<td>39.3</td>
<td>45</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>3.4.8.2 Immunization among adults</td>
<td>Residents self-report having influenza immunization</td>
<td>29.2%</td>
<td>27.1%</td>
<td>CCHS 2008</td>
</tr>
<tr>
<td></td>
<td>All residents aged 18-64 complete immunization per 100.</td>
<td>15.2</td>
<td>13.9</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td></td>
<td>FN residents aged 18-64 complete immunization per 100.</td>
<td>12</td>
<td>11.6</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>Indicator</td>
<td>Definition</td>
<td>Region Current</td>
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</tr>
<tr>
<td>3.4.8.3.1 Influenza immunization</td>
<td>Non-FN residents aged 18-64 complete immunization per 100.</td>
<td>19.3</td>
<td>14</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>3.4.8.3.1 Influenza immunization</td>
<td>All seniors aged 65+ complete Influenza immunization per 100.</td>
<td>36.1</td>
<td>58.7</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>3.4.8.3.1 Influenza immunization</td>
<td>FN seniors aged 65+ complete Influenza immunization per 100.</td>
<td>28</td>
<td>31.4</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>3.4.8.3.1 Influenza immunization</td>
<td>Non-FN seniors aged 65+ complete Influenza immunization per 100.</td>
<td>47.5</td>
<td>59.2</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>3.4.8.3.2 Pneumococcal Immunization</td>
<td>All seniors aged 65+ complete Pneumococcal immunization.</td>
<td>49.1</td>
<td>63.9</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>3.4.8.3.2 Pneumococcal Immunization</td>
<td>FN seniors aged 65+ complete Pneumococcal immunization.</td>
<td>44.2</td>
<td>45.2</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>3.4.8.3.2 Pneumococcal Immunization</td>
<td>Non-FN seniors aged 65+ complete Pneumococcal immunization.</td>
<td>56.1</td>
<td>64.2</td>
<td>MIMS 2007</td>
</tr>
<tr>
<td>3.4.9.1 Cervical Cancer Screening</td>
<td>Cervical cancer screening rate per 1,000</td>
<td>313.4</td>
<td>546.1</td>
<td>MBH (HIM)</td>
</tr>
<tr>
<td>3.4.9.2 Breast Cancer Screening</td>
<td>Breast cancer screening rate per 1,000.</td>
<td>103.0</td>
<td>155.8</td>
<td>MBH (HIM)</td>
</tr>
<tr>
<td>3.5.1 Breastfeeding initiation</td>
<td>% of moms who initiated breastfeeding in hospital</td>
<td>64.5%</td>
<td>81.6%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.5.2 Infant feeding type</td>
<td>% of “formula fed” in hospital</td>
<td>46.6%</td>
<td></td>
<td>MBH, 2009</td>
</tr>
<tr>
<td>3.5.2 Infant feeding type</td>
<td>% of “fully breastfed” in hospital</td>
<td>12%</td>
<td></td>
<td>MBH, 2009</td>
</tr>
<tr>
<td>3.5.2 Infant feeding type</td>
<td>% of “May be too sick to be fed” in hospital</td>
<td>1.4%</td>
<td></td>
<td>MBH, 2009</td>
</tr>
<tr>
<td>3.5.2 Infant feeding type</td>
<td>% of “Partially Breastfed” in hospital</td>
<td>40%</td>
<td></td>
<td>MBH, 2009</td>
</tr>
<tr>
<td>3.5.3 Sexual Activity</td>
<td>% of children aged 15-19 who report having had sexual intercourse.</td>
<td>61.8%</td>
<td>41.9%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.5.4 Teen Pregnancy rate</td>
<td>Teen pregnancy rate per 1,000 females</td>
<td>125.0</td>
<td>49.8</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.5.5 Teen Birth rate</td>
<td>Teen birth rate per 1,000 teens age 12-19</td>
<td>101.1</td>
<td>30.1</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>Indicator</td>
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</tr>
<tr>
<td>3.5.6  Prevalence of children in care</td>
<td>Children taken into care rate.</td>
<td>7.4%</td>
<td>3.3%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.5.7  Child protection and support</td>
<td>Prevalence of children receiving protection/support.</td>
<td>11.5%</td>
<td>11.5%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.5.8  Youth Smoking</td>
<td>% of children aged 12-19 smoked 100 or more cigarettes.</td>
<td>26.2%</td>
<td>14.8%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.5.9  Alcohol and drug use among youth</td>
<td>% of children aged 12-15 drank alcohol in past 12 months.</td>
<td>26.1%</td>
<td>24.1%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td></td>
<td>% of children aged 16-19 drank alcohol less than once a week.</td>
<td>49.9%</td>
<td>55.0%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.5.10  Youth diet, Body mass index and Physical activity</td>
<td>% of children aged 12-19 with normal BMI or lower.</td>
<td>65.2%</td>
<td>76.3%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td></td>
<td>% of children aged 12-19 with overweight BMI.</td>
<td>26.0%</td>
<td>17.1%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td></td>
<td>% of children aged 12-19 with obese BMI.</td>
<td>8.7%</td>
<td>6.6%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.5.11.1  Children and youth with at least one prescription</td>
<td>Children aged 0-19 with at least one prescription rate per 1,000.</td>
<td>408.9</td>
<td>551.0</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.5.11.2  Antibiotic prescriptions use</td>
<td>Children aged 0-19 with at least one antibiotic prescription rate per 1,000.</td>
<td>249.1</td>
<td>389.9</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.5.11.2.1  Number of antibiotic prescriptions per user</td>
<td>Average number of antibiotic prescriptions used per children aged 0-19.</td>
<td>1.9</td>
<td>1.9</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.5.11.3  Antidepressant prescriptions for children</td>
<td>Children aged 0-19 with at least one antidepressant prescription rate per 1,000.</td>
<td>6.0</td>
<td>10.5</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>3.5.11.4  Psychostimulant prescription for children</td>
<td>Children aged 5-19 with at least one psychostimulant prescription rate per 1,000.</td>
<td>17.4</td>
<td>26.8</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>Indicator</td>
<td>Definition</td>
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</tr>
<tr>
<td>4.1.1 Self rated physical health</td>
<td>% of residents who self rated physical health as &quot;very good&quot; or &quot;excellent&quot;.</td>
<td>44.2%</td>
<td>54.1%</td>
<td>CCHS 2008</td>
</tr>
<tr>
<td>4.1.2 Self rated mental health</td>
<td>% of residents who self rated mental health as &quot;very good&quot; or &quot;excellent&quot;</td>
<td>72%</td>
<td>71.5%</td>
<td>CCHS 2008</td>
</tr>
<tr>
<td>4.1.3 Functional health status – physical health</td>
<td>% of residents who have perfect scores on physical functioning scale</td>
<td>50.3%</td>
<td>55.7%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>4.1.4 Functional health status – mental health</td>
<td>Predicted scores on general mental health scale.</td>
<td>84.5</td>
<td>84.0</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>4.2.1 Still births</td>
<td>Still birth rate per 1,000 births</td>
<td>6.7</td>
<td>6.7</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>4.2.2 Preterm birth rate</td>
<td>% live births born before 37 weeks gestation.</td>
<td>10.3%</td>
<td>8.2%</td>
<td>MBH (HIM)</td>
</tr>
<tr>
<td>4.2.3 Low birth weight infants (LBW)</td>
<td>% of live infants born weighing less than 2500 grams</td>
<td>6.0%</td>
<td>5.5%</td>
<td>MBH (HIM)</td>
</tr>
<tr>
<td>4.2.4 High Birth Weight infants (HBW)</td>
<td>% of live infants born weighing more than 4000 grams</td>
<td>19.5%</td>
<td>16.1%</td>
<td>MBH (HIM)</td>
</tr>
<tr>
<td>4.2.5 Diabetes prevalence in children</td>
<td>% of children diagnosed with diabetes.</td>
<td>0.9%</td>
<td>0.4%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>4.2.6 Asthma</td>
<td>% of children diagnosed with asthma.</td>
<td>6.1%</td>
<td>13.9%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>4.2.7 Attention Deficit - Hyperactivity Disorder (ADHD)</td>
<td>% of children diagnosed with ADHD.</td>
<td>2.1%</td>
<td>3.2%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>4.2.8 Autism</td>
<td>% of children diagnosed with Autism.</td>
<td>0.3%</td>
<td>0.6%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>4.2.9 Congenital Heart Defects</td>
<td>Infant congenital heart defects rate per 1,000 aged &lt;1 year.</td>
<td>13.0</td>
<td>7.4</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>4.2.10 Child Injury</td>
<td>Child injury hospitalization rate per 10,000 children aged 0-19.</td>
<td>239.3</td>
<td>57.8</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>4.2.11 Dental extractions in toddlers/children</td>
<td>Dental extractions rate per 1,000 children</td>
<td>68.0</td>
<td>14.2</td>
<td>MCHP Child Health Atlas 2008.</td>
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<tbody>
<tr>
<td>4.2.12 Infant Mortality</td>
<td>Infant mortality rate per 1,000 infants</td>
<td>8.9</td>
<td>6.7</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>4.2.13 Childhood mortality</td>
<td>Injury mortality rate per 100,000 children aged 0-19.</td>
<td>72.0</td>
<td>21.9</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td>4.3.1 Injury Hospitalization rates</td>
<td>% of female hospitalizations due to injury.</td>
<td>8.0%</td>
<td>5.0%</td>
<td>MBH</td>
</tr>
<tr>
<td></td>
<td>% of male hospitalizations due to injury.</td>
<td>15.0%</td>
<td>7.0%</td>
<td>MBH</td>
</tr>
<tr>
<td>4.3.2 Injury Hospitalization or death</td>
<td>Injury hospitalization or death rate per 1,000 females</td>
<td>28.4</td>
<td>8.8</td>
<td>MCHP &quot;What Works&quot; report, 2007.</td>
</tr>
<tr>
<td></td>
<td>Injury hospitalization or death rate per 1,000 males</td>
<td>25.4</td>
<td>9.7</td>
<td>MCHP &quot;What Works&quot; report, 2007.</td>
</tr>
<tr>
<td>4.4.1 Diabetes</td>
<td>% of residents diagnosed with diabetes.</td>
<td>21.4%</td>
<td>8.7%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td></td>
<td>Age standardized % of diabetes for treaty status</td>
<td>16.7%</td>
<td>17.8%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td></td>
<td>Age standardized % of diabetes for non-treaty status</td>
<td>7.1%</td>
<td>5.0%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td></td>
<td>Incidence - crude and age adjusted rate per 1,000.</td>
<td>6.9</td>
<td>5.7</td>
<td>MBH, Diabetes and Chronic Diseases Unit.</td>
</tr>
<tr>
<td></td>
<td>Chronic Kidney Disease among people with diabetes - crude and age adjusted rate per 1,000 with diabetes.</td>
<td>18.7</td>
<td>14.2</td>
<td>MBH, Diabetes and Chronic Diseases Unit.</td>
</tr>
<tr>
<td></td>
<td>Circulatory System Hospitalizations crude and age adjusted rate per 1,000 with diabetes.</td>
<td>125.3</td>
<td>120.9</td>
<td>MBH, Diabetes and Chronic Diseases Unit.</td>
</tr>
<tr>
<td></td>
<td>Hospitalization days crude and age adjusted rate per 1,000 with diabetes.</td>
<td>3,499.3</td>
<td>4,164.5</td>
<td>MBH, Diabetes and Chronic Diseases Unit.</td>
</tr>
<tr>
<td></td>
<td>Physician Visits crude and age adjusted rate per 1,000 with diabetes.</td>
<td>10,344.4</td>
<td>13,076.9</td>
<td>MBH, Diabetes and Chronic Diseases Unit.</td>
</tr>
<tr>
<td>4.4.1.1 Lower Limb amputation due to diabetes</td>
<td>Lower limb amputation rates with comorbid diabetes per 1,000 diabetics aged 19+</td>
<td>39.8</td>
<td>14.3</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
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<tr>
<td><strong>Lower limb amputation crude and age adjusted rate per 1,000 with diabetes.</strong></td>
<td>7.3 5.3</td>
<td>3.8 2.2</td>
<td>MBH, Diabetes and Chronic Diseases Unit.</td>
<td></td>
</tr>
<tr>
<td><strong>4.4.2 Hypertension treatment prevalence</strong></td>
<td>% of residents with high blood pressure.</td>
<td>35.4%</td>
<td>23.7%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td></td>
<td>% of residents who self report that they have high blood pressure.</td>
<td>14.3%</td>
<td>16.2%</td>
<td>CCHS 2007</td>
</tr>
<tr>
<td><strong>4.4.3 Osteoporosis</strong></td>
<td>% of residents diagnosed with Osteoporosis.</td>
<td>14.2%</td>
<td>12.7%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td><strong>4.4.4 Arthritis</strong></td>
<td>% of residents diagnosed with arthritis.</td>
<td>21.9%</td>
<td>20.2%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td></td>
<td>% of residents who self report having arthritis.</td>
<td>13.2%</td>
<td>15.7%</td>
<td>CCHS 2007</td>
</tr>
<tr>
<td><strong>4.4.5 Ischemic Heart Disease (IHD) treatment prevalence</strong></td>
<td>% of residents who have been treated for Ischemic Heart Disease (IHD).</td>
<td>11.8%</td>
<td>8.5%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td><strong>4.4.6 Respiratory Morbidity treatment prevalence</strong></td>
<td>% of residents who have been treated for Respiratory Illnesses.</td>
<td>7.2%</td>
<td>11.6%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td><strong>4.4.7 Asthma</strong></td>
<td>% of residents who self report that they have asthma.</td>
<td>8.5%</td>
<td>7.2%</td>
<td>CCHS 2007</td>
</tr>
<tr>
<td></td>
<td>Rate of treatment for asthma among males (rate per 1,000)</td>
<td>32.1</td>
<td>63.7</td>
<td>MBH(HIM)</td>
</tr>
<tr>
<td></td>
<td>Rate of treatment for asthma among females (rate per 1,000)</td>
<td>46.4</td>
<td>69.1</td>
<td>MBH(HIM)</td>
</tr>
<tr>
<td><strong>4.4.8 Treatment prevalence for renal failure</strong></td>
<td>% of females aged 20+ who been treated for renal failure.</td>
<td>3.5%</td>
<td>1.7%</td>
<td>MCHP 2005, Sex Differences Report.</td>
</tr>
<tr>
<td></td>
<td>% of males aged 20+ who have been treated for renal failure.</td>
<td>3.2%</td>
<td>2.5%</td>
<td>MCHP 2005, Sex Differences Report.</td>
</tr>
<tr>
<td><strong>4.4.9 Hospitalizations or deaths due to stroke</strong></td>
<td>Hospitalization rate or deaths per 1,000 aged 40+ due to stroke.</td>
<td>7.5</td>
<td>3.0</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td><strong>4.4.10 Hospitalizations or deaths due to AMI</strong></td>
<td>Hospitalization rate or deaths per 1,000 aged 40+ due to AMI.</td>
<td>6.1</td>
<td>4.6</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
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</tr>
<tr>
<td>4.4.11</td>
<td>Treatment prevalence for inflammatory bowel disease</td>
<td>% of female had inflammatory bowel disease treatment.</td>
<td>0.2%</td>
<td>0.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% of male had inflammatory bowel disease treatment.</td>
<td>0.2%</td>
<td>0.4%</td>
</tr>
<tr>
<td>4.5.1</td>
<td>Treatment prevalence of cumulative mental health disorders</td>
<td>% of residents treated for cumulative mental health disorder.</td>
<td>25.0%</td>
<td>24.4%</td>
</tr>
<tr>
<td>4.5.2</td>
<td>Treatment prevalence of anxiety disorders</td>
<td>% of residents treated for anxiety disorders.</td>
<td>5.0%</td>
<td>7.4%</td>
</tr>
<tr>
<td>4.5.3</td>
<td>Treatment prevalence of depression</td>
<td>% of residents treated for depression.</td>
<td>13.8%</td>
<td>19.1%</td>
</tr>
<tr>
<td>4.5.4</td>
<td>Treatment prevalence of schizophrenia</td>
<td>% of residents treated for schizophrenia.</td>
<td>0.9%</td>
<td>1.1%</td>
</tr>
<tr>
<td>4.5.5</td>
<td>Treatment prevalence of dementia</td>
<td>% of residents treated for dementia.</td>
<td>9.3%</td>
<td>10.8%</td>
</tr>
<tr>
<td>4.5.6</td>
<td>Treatment prevalence of personality disorders</td>
<td>% of residents treated for personality disorders.</td>
<td>0.6%</td>
<td>0.9%</td>
</tr>
<tr>
<td>4.5.7</td>
<td>Treatment prevalence for substance abuse</td>
<td>% of residents treated for substance abuse.</td>
<td>13.4%</td>
<td>4.9%</td>
</tr>
<tr>
<td>4.5.8</td>
<td>Adolescents/teenagers prescribed Selective Serotonin Re-Uptake Inhibitors (SSRIs)</td>
<td>Children with at least one SSRI prescription rate per 1,000.</td>
<td>8.8</td>
<td>14.5</td>
</tr>
<tr>
<td>4.5.9</td>
<td>Adolescents/teenagers prescribed antidepressants</td>
<td>Children with at least one antidepressant prescription rate per 1,000.</td>
<td>6.0</td>
<td>10.5</td>
</tr>
<tr>
<td>4.5.10</td>
<td>Attempted suicide</td>
<td>Attempted suicide rate.</td>
<td>0.8%</td>
<td>0.2%</td>
</tr>
<tr>
<td>4.6.1</td>
<td>Cancer Incidence</td>
<td>Female all cancer incidence per 100,000.</td>
<td>375.0</td>
<td>427.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male all cancer incidence per 100,000.</td>
<td>645.1</td>
<td>527.4</td>
</tr>
<tr>
<td>4.6.1.1</td>
<td>Female breast cancer incidence</td>
<td>Female breast cancer incidence per 100,000.</td>
<td>99.0</td>
<td>122.0</td>
</tr>
<tr>
<td>4.6.1.2</td>
<td>Cervical cancer incidence</td>
<td>Cervical cancer incidence per 100,000.</td>
<td>11.0</td>
<td>9.0</td>
</tr>
<tr>
<td>4.6.1.3</td>
<td>Colorectal cancer incidence</td>
<td>Female colorectal cancer incidence per 100,000.</td>
<td>62.0</td>
<td>52.0</td>
</tr>
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<tr>
<td>Male colorectal cancer incidence per 100,000.</td>
<td>107.0</td>
<td>78.0</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>4.6.1.4 Lung cancer incidence</td>
<td>Female lung cancer incidence per 100,000.</td>
<td>42.0</td>
<td>63.0</td>
<td>CancerCare Manitoba</td>
</tr>
<tr>
<td>Male lung cancer incidence per 100,000.</td>
<td>141.0</td>
<td>85.0</td>
<td>CancerCare Manitoba</td>
<td></td>
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<tr>
<td>4.6.1.5 Melanoma cancer incidence</td>
<td>Female melanoma cancer incidence per 100,000.</td>
<td>0.0</td>
<td>9.0</td>
<td>CancerCare Manitoba</td>
</tr>
<tr>
<td>Male melanoma cancer incidence per 100,000.</td>
<td>4.0</td>
<td>12.0</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>4.6.1.6 Prostate cancer incidence</td>
<td>Prostate cancer incidence per 100,000.</td>
<td>160.0</td>
<td>127.0</td>
<td>CancerCare Manitoba</td>
</tr>
<tr>
<td>4.6.2 Cancer Prevalence</td>
<td>Female all cancer prevalence per 100,000.</td>
<td>4,979</td>
<td>3,678</td>
<td>CancerCare Manitoba</td>
</tr>
<tr>
<td>Male all cancer prevalence per 100,000.</td>
<td>4,802</td>
<td>4,811</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>4.6.2.1 Colorectal cancer prevalence</td>
<td>Female colorectal cancer prevalence per 100,000.</td>
<td>479</td>
<td>461</td>
<td>CancerCare Manitoba</td>
</tr>
<tr>
<td>Male colorectal cancer prevalence per 100,000.</td>
<td>990</td>
<td>619</td>
<td>CancerCare Manitoba</td>
<td></td>
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<tr>
<td>4.6.2.2 Lung cancer prevalence</td>
<td>Female lung cancer prevalence per 100,000.</td>
<td>67</td>
<td>181</td>
<td>CancerCare Manitoba</td>
</tr>
<tr>
<td>Male lung cancer prevalence per 100,000.</td>
<td>542</td>
<td>204</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>4.6.2.3 Melanoma cancer prevalence</td>
<td>Female melanoma cancer prevalence per 100,000.</td>
<td>47</td>
<td>172</td>
<td>CancerCare Manitoba</td>
</tr>
<tr>
<td>Male melanoma cancer prevalence per 100,000.</td>
<td>68</td>
<td>162</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>4.6.2.4 Female breast cancer prevalence</td>
<td>Female breast cancer prevalence per 100,000.</td>
<td>1,149</td>
<td>1,571</td>
<td>CancerCare Manitoba</td>
</tr>
<tr>
<td>4.6.2.5 Cervical cancer prevalence</td>
<td>Female cervical cancer prevalence per 100,000.</td>
<td>551</td>
<td>220</td>
<td>CancerCare Manitoba</td>
</tr>
<tr>
<td>4.6.2.6 Prostate cancer prevalence</td>
<td>Male prostate cancer prevalence per 100,000.</td>
<td>1,219</td>
<td>1,440</td>
<td>CancerCare Manitoba</td>
</tr>
<tr>
<td>4.6.3 Cancer Survival</td>
<td>Female all cancer survival rate.</td>
<td>54%</td>
<td>59%</td>
<td>CancerCare Manitoba</td>
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<tr>
<td>Male all cancer survival rate.</td>
<td>51%</td>
<td>58%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>Female colorectal cancer survival rate.</td>
<td>64%</td>
<td>60%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>Male colorectal cancer survival rate.</td>
<td>61%</td>
<td>59%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>Female lung cancer survival rate.</td>
<td>10%</td>
<td>22%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>Male lung cancer survival rate.</td>
<td>21%</td>
<td>15%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>Female breast cancer survival rate.</td>
<td>78%</td>
<td>86%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>Male prostate cancer survival rate.</td>
<td>77%</td>
<td>94%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>4.6.4  Leading cause of death due to cancer (female)</td>
<td>Lung cancer mortality rate.</td>
<td>28.7%</td>
<td>25.6%</td>
<td>CancerCare Manitoba</td>
</tr>
<tr>
<td>Breast cancer mortality rate.</td>
<td>14.4%</td>
<td>10.0%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>Colorectal cancer mortality rate.</td>
<td>10.3%</td>
<td>10.8%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>Pancreas cancer mortality rate.</td>
<td>6.9%</td>
<td>6.6%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>Ovary cancer mortality rate.</td>
<td>2.3%</td>
<td>5.0%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>4.6.4  Leading cause of death due to cancer (male)</td>
<td>Lung cancer mortality rate.</td>
<td>31.7%</td>
<td>28.9%</td>
<td>CancerCare Manitoba</td>
</tr>
<tr>
<td>Prostate cancer mortality rate.</td>
<td>11.2%</td>
<td>8.0%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>Colorectal cancer mortality rate.</td>
<td>10.7%</td>
<td>11.6%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>Pancreas cancer mortality rate.</td>
<td>2.2%</td>
<td>5.3%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>Bladder cancer mortality rate.</td>
<td>1.3%</td>
<td>3.7%</td>
<td>CancerCare Manitoba</td>
<td></td>
</tr>
<tr>
<td>4.7.1.1 Sexually transmitted infection - Chlamydia</td>
<td>Female Chlamydia rate per 100,000.</td>
<td>3,515.3</td>
<td>757.2</td>
<td>MBH, CDC</td>
</tr>
<tr>
<td>Male Chlamydia rate per 100,000.</td>
<td>1,789.5</td>
<td>398.6</td>
<td>MBH, CDC</td>
<td></td>
</tr>
<tr>
<td>Total Chlamydia rate per 100,000.</td>
<td>2,635.7</td>
<td>580.4</td>
<td>MBH, CDC</td>
<td></td>
</tr>
<tr>
<td>Chlamydia rate per 100,000 people on reserve.</td>
<td>3,550.97</td>
<td></td>
<td>MBH, CDC</td>
<td></td>
</tr>
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<tr>
<td><strong>4.7.1.2</strong> Sexually transmitted infection - Gonorrhoea</td>
<td>Female Gonorrhoea rate per 100,000</td>
<td>1,110.8</td>
<td>124.5</td>
<td>MBH, CDC</td>
</tr>
<tr>
<td></td>
<td>Male Gonorrhoea rate per 100,000.</td>
<td>725.0</td>
<td>104.7</td>
<td>MBH, CDC</td>
</tr>
<tr>
<td></td>
<td>Total Gonorrhoea rate per 100,000.</td>
<td>914.2</td>
<td>114.8</td>
<td>MBH, CDC</td>
</tr>
<tr>
<td></td>
<td>Gonorrhoea rate per 100,000 people on reserve.</td>
<td>1,326.87</td>
<td></td>
<td>MBH, CDC</td>
</tr>
<tr>
<td></td>
<td>Gonorrhoea rate per 100,000 people off reserve.</td>
<td>489.45</td>
<td></td>
<td>MBH, CDC</td>
</tr>
<tr>
<td><strong>4.7.1.3</strong> Sexually transmitted infection - HIV</td>
<td>Female average rate per 100,000.</td>
<td>6.34</td>
<td>7.08</td>
<td>MBH, CDC</td>
</tr>
<tr>
<td></td>
<td>Male average rate per 100,000.</td>
<td>7.78</td>
<td>12.25</td>
<td>MBH, CDC</td>
</tr>
<tr>
<td><strong>4.7.2</strong> Verotoxogenic E.Coli</td>
<td>New cases rate per 100,000 for Verotoxogenic E.Coli</td>
<td>0</td>
<td>7.0</td>
<td>MBH, CDC</td>
</tr>
<tr>
<td><strong>4.7.3</strong> Salmonella</td>
<td>New cases rate per 100,000 for Salmonella.</td>
<td>8.82</td>
<td>12.7</td>
<td>MBH, CDC</td>
</tr>
<tr>
<td><strong>4.7.4</strong> Shigella</td>
<td>New cases rate per 100,000 for Shigella.</td>
<td>0.88</td>
<td>1.2</td>
<td>MBH, CDC</td>
</tr>
<tr>
<td><strong>4.7.5</strong> Tuberculosis</td>
<td>Tuberculosis incidence rate per 100,000.</td>
<td>86.3</td>
<td>12.9</td>
<td>MBH, Tuberculosis Control Unit</td>
</tr>
<tr>
<td></td>
<td>Female tuberculosis incidence rate per 100,000.</td>
<td>94.52</td>
<td></td>
<td>MBH, Tuberculosis Control Unit</td>
</tr>
<tr>
<td></td>
<td>Male tuberculosis incidence rate per 100,000.</td>
<td>78.38</td>
<td></td>
<td>MBH, Tuberculosis Control Unit</td>
</tr>
<tr>
<td></td>
<td>Tuberculosis incidence rate per 100,000 people on reserve.</td>
<td>149.50</td>
<td></td>
<td>MBH, Tuberculosis Control Unit</td>
</tr>
<tr>
<td></td>
<td>Tuberculosis incidence rate per 100,000 people off reserve.</td>
<td>21.33</td>
<td></td>
<td>MBH, Tuberculosis Control Unit</td>
</tr>
<tr>
<td><strong>4.8.1</strong> Life Expectancy</td>
<td>Female life expectancy in years.</td>
<td>76.0</td>
<td>81.5</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
</tbody>
</table>
### APPENDIX A: INDICATORS SUMMARY

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Male life expectancy in years.</td>
<td>69.7</td>
<td>76.3</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
<td></td>
</tr>
<tr>
<td><strong>4.8.2 Premature Mortality Rate</strong></td>
<td>Premature mortality rate per 1,000</td>
<td>5.8</td>
<td>3.3</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td><strong>4.8.3 Potential Years of Life Lost</strong></td>
<td>Potential years of life lost rate per 1,000</td>
<td>108.7</td>
<td>50.9</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td><strong>4.8.3.1 PYLL due to cancer</strong></td>
<td>Female potential years of life lost due to cancer rate per 1,000.</td>
<td>5.3</td>
<td>5.2</td>
<td>MBH, RHA profile 2008.</td>
</tr>
<tr>
<td></td>
<td>Male potential years of life lost due to cancer rate per 1,000.</td>
<td>11.8</td>
<td>14.8</td>
<td>MBH, RHA profile 2008.</td>
</tr>
<tr>
<td><strong>4.8.3.2 PYLL due to circulatory disease</strong></td>
<td>Female potential years of life lost due to circulatory disease rate per 1,000.</td>
<td>16.9</td>
<td>4.5</td>
<td>MBH, RHA profile 2008.</td>
</tr>
<tr>
<td></td>
<td>Male potential years of life lost due to circulatory disease rate per 1,000.</td>
<td>4.8</td>
<td>2.2</td>
<td>MBH, RHA profile 2008.</td>
</tr>
<tr>
<td><strong>4.8.3.3 PYLL due to respiratory disease</strong></td>
<td>Female potential years of life lost due to respiratory disease rate per 1,000.</td>
<td>39.3</td>
<td>10.5</td>
<td>MBH, RHA profile 2008.</td>
</tr>
<tr>
<td></td>
<td>Male potential years of life lost due to respiratory disease rate per 1,000.</td>
<td>10.2</td>
<td>14.4</td>
<td>MBH, RHA profile 2008.</td>
</tr>
<tr>
<td><strong>4.8.3.4 PYLL due to unintentional injuries</strong></td>
<td>Female potential years of life lost due to injuries rate per 1,000.</td>
<td>20.0</td>
<td>6.5</td>
<td>MBH, RHA profile 2008.</td>
</tr>
<tr>
<td></td>
<td>Male potential years of life lost due to injuries rate per 1,000.</td>
<td>4.3</td>
<td>1.6</td>
<td>MBH, RHA profile 2008.</td>
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<tr>
<td><strong>4.8.3.5 PYLL due to suicide</strong></td>
<td>Female potential years of life lost due to suicide rate per 1,000.</td>
<td>5.0</td>
<td>2.3</td>
<td>MBH, RHA profile 2008.</td>
</tr>
<tr>
<td></td>
<td>Male potential years of life lost due to suicide rate per 1,000.</td>
<td>13.7</td>
<td>13.1</td>
<td>MBH, RHA profile 2008.</td>
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<tr>
<td><strong>4.8.4 Mortality</strong></td>
<td>Mortality rate per 1,000</td>
<td>14.3</td>
<td>8.0</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
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<tr>
<td><strong>4.8.4.1 Leading causes of death</strong></td>
<td>% of female mortality due to Diseases of the Circulatory System</td>
<td>16.7%</td>
<td>33.0%</td>
<td>Manitoba Vital Statistics death data</td>
</tr>
<tr>
<td>Indicator</td>
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</tr>
<tr>
<td>% of female mortality due to Cancer</td>
<td>20.0%</td>
<td>26.3%</td>
<td>Manitoba Vital Statistics death data</td>
<td></td>
</tr>
<tr>
<td>% of female mortality due to Endocrine and Nutritional Disorders</td>
<td>10.8%</td>
<td>5.7%</td>
<td>Manitoba Vital Statistics death data</td>
<td></td>
</tr>
<tr>
<td>% of female mortality due to Respiratory Diseases</td>
<td>9.2%</td>
<td>7.9%</td>
<td>Manitoba Vital Statistics death data</td>
<td></td>
</tr>
<tr>
<td>% of female mortality due to External Causes (injury)</td>
<td>16.3%</td>
<td>4.9%</td>
<td>Manitoba Vital Statistics death data</td>
<td></td>
</tr>
<tr>
<td>% of female mortality due to All Other Causes</td>
<td>27.1%</td>
<td>22.1%</td>
<td>Manitoba Vital Statistics death data</td>
<td></td>
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<tr>
<td>% of male mortality due to Diseases of the Circulatory System</td>
<td>20.1%</td>
<td>32.3%</td>
<td>Manitoba Vital Statistics death data</td>
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<tr>
<td>% of male mortality due to Cancer</td>
<td>16.1%</td>
<td>28.5%</td>
<td>Manitoba Vital Statistics death data</td>
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<tr>
<td>% of male mortality due to Respiratory Diseases</td>
<td>7.5%</td>
<td>8.6%</td>
<td>Manitoba Vital Statistics death data</td>
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</tr>
<tr>
<td>% of male mortality due to External Causes (injury)</td>
<td>26.6%</td>
<td>8.3%</td>
<td>Manitoba Vital Statistics death data</td>
<td></td>
</tr>
<tr>
<td>% of male mortality due to Endocrine and Nutritional Disorders</td>
<td>8.1%</td>
<td>5.2%</td>
<td>Manitoba Vital Statistics death data</td>
<td></td>
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<tr>
<td>% of male mortality due to All Other Causes</td>
<td>21.4%</td>
<td>17.1%</td>
<td>Manitoba Vital Statistics death data</td>
<td></td>
</tr>
<tr>
<td>4.8.4.2.1 Mortality among residents with and without certain diseases</td>
<td>Mortality rates among residents with Total Respiratory Morbidity.</td>
<td>9.3%</td>
<td>7.8%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>4.8.4.2.2 Mortality among residents with and without certain diseases</td>
<td>Mortality rates among residents with arthritis.</td>
<td>8.7%</td>
<td>5.6%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>4.8.4.2.3 Mortality among residents with and without certain diseases</td>
<td>Mortality rates among residents with diabetes.</td>
<td>14.4%</td>
<td>11.7%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>4.8.4.2.4 Mortality among residents with and without certain diseases</td>
<td>Mortality rates among residents with hypertension.</td>
<td>6.8%</td>
<td>4.4%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>Indicator</td>
<td>Definition</td>
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</tr>
<tr>
<td>4.8.4.2.5 Mortality among residents with and without certain diseases <em>(Ischemic Heart Disease)</em></td>
<td>Mortality rates among residents with IHD.</td>
<td>10.7%</td>
<td>7.0%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>4.8.4.2.6 Mortality among residents with and without certain diseases <em>(Osteoporosis)</em></td>
<td>Mortality rates among residents with osteoporosis.</td>
<td>24.6%</td>
<td>17.0%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>4.8.4.3 Unintentional Injury deaths</td>
<td>Female unintentional injury death rate per 100,000.</td>
<td>62.1</td>
<td>29.1</td>
<td>MBH</td>
</tr>
<tr>
<td></td>
<td>Male unintentional injury death rate per 100,000.</td>
<td>94.1</td>
<td>42.5</td>
<td>MBH</td>
</tr>
<tr>
<td></td>
<td>Total unintentional injury death rate per 100,000.</td>
<td>77.8</td>
<td>35.7</td>
<td>MBH</td>
</tr>
<tr>
<td>4.8.4.3.1 Proportion of all deaths due to injury</td>
<td>% of all female deaths due to injury.</td>
<td>17.0%</td>
<td>5.0%</td>
<td>MBH</td>
</tr>
<tr>
<td></td>
<td>% of all male deaths due to injury.</td>
<td>27.0%</td>
<td>8.0%</td>
<td>MBH</td>
</tr>
<tr>
<td>4.8.4.4 Suicide</td>
<td>Suicide rate per 1,000</td>
<td>0.4</td>
<td>0.2</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
</tbody>
</table>
### HEALTH SYSTEM CHARACTERISTICS

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>5.1.1.1</strong> Physician visit rate for mental illness</td>
<td>Medical Separation rates per 1,000 females for mental illness</td>
<td>1,281.4</td>
<td></td>
<td>MBH (HIM)</td>
</tr>
<tr>
<td></td>
<td>Medical Separation rates per 1,000 males for mental illness</td>
<td>1,050.3</td>
<td></td>
<td>MBH (HIM)</td>
</tr>
<tr>
<td><strong>5.1.2</strong> Hospital separation</td>
<td>Acute care rate per 1,000 Non-First Nations residents.</td>
<td>158.2</td>
<td>109.6</td>
<td>MBH (HIM) 2007/08 Hospital report.</td>
</tr>
<tr>
<td></td>
<td>Acute care rate per 1,000 First Nations residents.</td>
<td>296.6</td>
<td>337.5</td>
<td>MBH (HIM) 2007/08 Hospital report.</td>
</tr>
<tr>
<td></td>
<td>Acute care rate per 1,000 residents.</td>
<td>227.5</td>
<td>116.1</td>
<td>MBH (HIM) 2007/08 Hospital report.</td>
</tr>
<tr>
<td></td>
<td>Acute care days per 1,000 Non-First Nations residents.</td>
<td>710.1</td>
<td>777.6</td>
<td>MBH (HIM) 2007/08 Hospital report.</td>
</tr>
<tr>
<td></td>
<td>Acute care days per 1,000 First Nations residents.</td>
<td>1,065.4</td>
<td>1,415.2</td>
<td>MBH (HIM) 2007/08 Hospital report.</td>
</tr>
<tr>
<td></td>
<td>Acute care days per 1,000 residents.</td>
<td>887.9</td>
<td>1,173.4</td>
<td>MBH (HIM) 2007/08 Hospital report.</td>
</tr>
<tr>
<td></td>
<td>Total hospital separation rate per 1,000 residents.</td>
<td>315.6</td>
<td>136.7</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td><strong>5.1.2.1</strong> Hospital separation rates for short stays and long stays</td>
<td>Hospital short stays (&lt;14 days) rate per 1,000.</td>
<td>780.1</td>
<td>321.6</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
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<tr>
<td></td>
<td>Hospital long stays (14 days or more) rate per 1,000.</td>
<td>1,076.7</td>
<td>608.3</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td><strong>5.1.2.2</strong> Hospital separation rate for mental illness</td>
<td>Hospital Separation rates per females 1,000 for mental illness</td>
<td>61.3</td>
<td></td>
<td>MBH (HIM)</td>
</tr>
<tr>
<td></td>
<td>Hospital Separation rates per 1,000 males for mental illness</td>
<td>66.7</td>
<td></td>
<td>MBH (HIM)</td>
</tr>
<tr>
<td><strong>5.1.3</strong> Hospital episode rates for children</td>
<td>Hospital episode rate per 1,000 children aged 0-19.</td>
<td>94.1</td>
<td>37.8</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
<tr>
<td><strong>5.1.4.1</strong> Cataract Surgery</td>
<td>Cataract surgery rate per 1,000.</td>
<td>23.0</td>
<td>26.9</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td><strong>5.1.4.2</strong> Hip replacement surgery</td>
<td>Hip replacement surgery rate per 1,000.</td>
<td>2.4</td>
<td>2.2</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
</tbody>
</table>
APPENDIX A: INDICATORS SUMMARY

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<tbody>
<tr>
<td>5.1.4.3 Knee replacement surgery</td>
<td>Knee replacement surgery rate per 1,000.</td>
<td>4.0</td>
<td>2.8</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>5.1.4.4 Cardiac Catheterization</td>
<td>Cardiac catheterization rate per 1,000.</td>
<td>9.3</td>
<td>6.9</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
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<tr>
<td>5.1.4.5 Angioplasty</td>
<td>Angioplasty rate per 1,000 females aged 40+.</td>
<td>1.2</td>
<td>1.2</td>
<td>MCHP 2005, Sex Differences Report.</td>
</tr>
<tr>
<td>5.1.4.6 Coronary stent insertion</td>
<td>Coronary stent insertion rates per 1,000 females aged 40+.</td>
<td>1.2</td>
<td>1.1</td>
<td>MCHP 2005, Sex Differences Report.</td>
</tr>
<tr>
<td>5.1.4.7 Coronary artery bypass graft (CABG) surgery</td>
<td>CABG surgery rate per 1,000.</td>
<td>2.0</td>
<td>1.5</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>5.1.4.8 Percutaneous coronary intervention (PCI)</td>
<td>PCI rate per 1,000.</td>
<td>2.4</td>
<td>2.3</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>5.1.4.9 Magnetic resonance imaging (MRI) Scan</td>
<td>MRI scan rate per 1,000.</td>
<td>12.5</td>
<td>22.0</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>5.1.4.10 Computed tomography (CT) scans</td>
<td>CT scan rate per 1,000 residents.</td>
<td>94.8</td>
<td>66.1</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>5.1.5.1 New home care cases</td>
<td>% of residents with a new home care case</td>
<td>1.8%</td>
<td>1.38%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>5.1.5.2 Open home care cases</td>
<td>% of residents with an open home care case</td>
<td>3.35%</td>
<td>3.19%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>5.1.5.3 Home care case closing rates</td>
<td>% of residents with a closed home care case</td>
<td>1.80%</td>
<td>1.47%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>5.1.5.4 Average length of home care cases</td>
<td>Average length (days) of home care case.</td>
<td>166.2</td>
<td>222.0</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>5.1.5.5 Home care days used</td>
<td>Number of days of home care used per year for female.</td>
<td>167.4</td>
<td>215.7</td>
<td>MCHP 2005, Sex Differences Report.</td>
</tr>
<tr>
<td>5.1.5.5 Home care days used</td>
<td>Number of days of home care used per year for male.</td>
<td>145.2</td>
<td>193.0</td>
<td>MCHP 2005, Sex Differences Report.</td>
</tr>
<tr>
<td>5.1.6.1 Rate of admission to personal care home (PCH)</td>
<td>% of residents aged 75+ admitted to a PCH.</td>
<td>2.39%</td>
<td>2.87%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>5.1.6.2 Residents in personal care home (PCH)</td>
<td>% of residents aged 75+ living in PCH for at least one day.</td>
<td>8.9%</td>
<td>12.7%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
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</tr>
<tr>
<td>5.1.6.3  Median wait time for personal care home (PCH) Admission</td>
<td>Median waiting time for PCH admission (weeks).</td>
<td>0.7</td>
<td>6.9</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>5.1.6.4  Level of care on PCH admission</td>
<td>Average level of care on admission.</td>
<td>3.1</td>
<td>2.7</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>% of cases with level 1 &amp; 2 care on admission.</td>
<td>suppressed</td>
<td></td>
<td>43.5%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>% of cases with level 3 &amp; 4 care on admission.</td>
<td>81.0%</td>
<td>56.4%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
<td></td>
</tr>
<tr>
<td>% of cases with level 3 care on admission.</td>
<td>52.4%</td>
<td>45.5%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
<td></td>
</tr>
<tr>
<td>% of cases with level 4 care on admission.</td>
<td>28.6%</td>
<td>10.9%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
<td></td>
</tr>
<tr>
<td>5.1.6.5  Median length of stay by level of care</td>
<td>Median length of stay by level of care (years).</td>
<td>0.44</td>
<td>1.9</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>5.2.1  Ratio between acute and community costs</td>
<td>% of acute costs.</td>
<td>46%</td>
<td>51%</td>
<td>MBH, MIS</td>
</tr>
<tr>
<td>% of PCH costs.</td>
<td>4%</td>
<td>14%</td>
<td>MBH, MIS</td>
<td></td>
</tr>
<tr>
<td>% of community costs.</td>
<td>32%</td>
<td>15%</td>
<td>MBH, MIS</td>
<td></td>
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</tbody>
</table>
### HEALTH SYSTEM PERFORMANCE

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>6.1.1 Regular Medical Doctor</td>
<td>% of residents who report having a regular medical doctor.</td>
<td>41.1%</td>
<td>84.6%</td>
<td>CCHS 2007</td>
</tr>
<tr>
<td>6.1.2 Contact with medical doctor in past 12 months</td>
<td>% of residents who report having had contact with medical doctor in past 12 months.</td>
<td>68.2%</td>
<td>76.4%</td>
<td>CCHS 2007</td>
</tr>
<tr>
<td>6.1.3 Physician visit rate</td>
<td>% of residents who have visited a physician in past year.</td>
<td>71.2%</td>
<td>82.6%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>6.1.4 Ambulatory visit rate</td>
<td>Ambulatory visit rate per resident.</td>
<td>3.8</td>
<td>5.0</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>6.1.4.1 Ambulatory visit rate to specialists</td>
<td>Ambulatory visit rates to specialists per resident.</td>
<td>0.7</td>
<td>1.3</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>6.1.5 Ambulatory consultation rate</td>
<td>Ambulatory consultation rate per resident.</td>
<td>0.3</td>
<td>0.3</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>6.1.6 Visit location rate per 1,000 residents</td>
<td>% of residents who visited their general physician within the district where they live.</td>
<td>67.4%</td>
<td>82.0%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td></td>
<td>% of residents who visited a specialist physician within the district where they live.</td>
<td>9.5%</td>
<td>76.7%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td>6.1.9 Inflow and outflow of RHA patients</td>
<td>Inflow and outflow of RHA patients overall ratio.</td>
<td>0.6</td>
<td></td>
<td>Health Indicator Report, CIHI.</td>
</tr>
<tr>
<td>6.1.10 Families First Program</td>
<td>% of off-reserve births screened through Families First Program</td>
<td>97.4%</td>
<td>93.9%</td>
<td>Healthy Child Manitoba, Families First Screening Form 2007.</td>
</tr>
<tr>
<td></td>
<td>% of births screened positive</td>
<td>45.9%</td>
<td>22.8%</td>
<td>Healthy Child Manitoba, Families First Screening Form 2007.</td>
</tr>
<tr>
<td></td>
<td>% of eligible families who declined service</td>
<td>21.2%</td>
<td>23.6%</td>
<td>Healthy Child Manitoba, Families First Screening Form 2007.</td>
</tr>
<tr>
<td>6.1.11 Families First Program Screening data (risk factors)</td>
<td>% of families with 3+ risk factors.</td>
<td>49.2%</td>
<td>25.0%</td>
<td>Healthy Child Manitoba, Families First Screening Form 2007.</td>
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## APPENDIX A: INDICATORS SUMMARY

<table>
<thead>
<tr>
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<tr>
<td>6.1.11.1 Alcohol and drugs during pregnancy</td>
<td>% of moms who used alcohol during pregnancy.</td>
<td>22.8%</td>
<td>12.7%</td>
<td>Healthy Child Manitoba, Families First Screening Form 2007.</td>
</tr>
<tr>
<td>6.1.11.2 Smoking during pregnancy</td>
<td>% of moms who smoked during pregnancy.</td>
<td>50.3%</td>
<td>20.8%</td>
<td>Healthy Child Manitoba, Families First Screening Form 2007.</td>
</tr>
<tr>
<td>6.1.11.3 Anxiety and Depression in Mothers of Newborns</td>
<td>% of moms with maternal depression.</td>
<td>11.3%</td>
<td>13.4%</td>
<td>Healthy Child Manitoba, Families First Screening Form 2007.</td>
</tr>
<tr>
<td>6.1.11.4 Mother with less than a Grade 12 education</td>
<td>% of moms with less than high school education.</td>
<td>40.5%</td>
<td>21.4%</td>
<td>Healthy Child Manitoba, Families First Screening Form 2007.</td>
</tr>
<tr>
<td>6.1.11.5 Relationship distress.</td>
<td>% of moms with relationship distress.</td>
<td>10.3%</td>
<td>6.0%</td>
<td>Healthy Child Manitoba, Families First Screening Form 2007.</td>
</tr>
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<td>6.1.11.6 Domestic Violence</td>
<td>% of moms who report domestic violence with parenting partner.</td>
<td>6.7%</td>
<td>2.5%</td>
<td>Healthy Child Manitoba, Families First Screening Form 2007.</td>
</tr>
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<td>6.1.11.7 Social assistance/Financial difficulties</td>
<td>% of families with income support or financial difficulties.</td>
<td>36.1%</td>
<td>17.3%</td>
<td>Healthy Child Manitoba, Families First Screening Form 2007.</td>
</tr>
<tr>
<td>6.2.1 Staff Immunization</td>
<td>Staff flu immunization rate</td>
<td>66%</td>
<td></td>
<td>Burntwood RHA</td>
</tr>
<tr>
<td>6.2.2 Polypharmacy rates for community dwelling seniors</td>
<td>Average annual proportion of community-dwelling seniors age 65+ taking 6 or more different drugs in 121 days</td>
<td>11.2%</td>
<td>6.3%</td>
<td>MCHP, &quot;What Works&quot; report, 2007.</td>
</tr>
<tr>
<td>6.4.1 Continuity of Care – Adults</td>
<td>% of adults who saw the same physician for 2 or more visits in a row.</td>
<td>47.5%</td>
<td>67.7%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
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<td><strong>6.4.2 Continuity of Care – Children</strong></td>
<td>% of children who saw the same physician for two or more visits in a row.</td>
<td>41.0%</td>
<td>56.2%</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
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<td><strong>6.4.3 Antidepressant Prescription Follow up</strong></td>
<td>% of patients with a new prescription for antidepressants and a diagnosis of depression within two weeks of each other, who then had three subsequent ambulatory visits within four months of the prescription being filled.</td>
<td>38.5%</td>
<td>58.2%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
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<td><strong>6.4.4 Diabetes care: eye exam</strong></td>
<td>% of diabetics who had an eye exam</td>
<td>25%</td>
<td>33.5%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
<tr>
<td><strong>6.5.1 Ambulatory Care Sensitive Conditions</strong></td>
<td>Hospitalizations rate per 1,000 for ambulatory care.</td>
<td>43.1</td>
<td>13.5</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
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<td><strong>6.5.2 Re-admission rates for infants within 28 days of birth</strong></td>
<td>Newborn readmission rate per 1,000 infants.</td>
<td>46.6</td>
<td>33.0</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
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<td><strong>6.5.3 Caesarean Section Rate</strong></td>
<td>% of women who gave birth by caesarean section.</td>
<td>16.9%</td>
<td>19.5%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
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<td><strong>6.5.4 Vaginal birth after caesarean section</strong></td>
<td>% of women who had a vaginal birth after a caesarean section birth.</td>
<td>49.6%</td>
<td>34.7%</td>
<td>MCHP Need to Know Project, 2009 Data Atlas.</td>
</tr>
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<td><strong>6.5.5 Hysterectomy Rate</strong></td>
<td>Hysterectomy rate per 1,000 women aged 25+.</td>
<td>2.9</td>
<td>3.6</td>
<td>MBH, Discharge Abstract Database</td>
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<td><strong>6.5.6 Tonsillectomy/adenoidectomy</strong></td>
<td>Tonsillectomy/adenoidectomy rate per 1,000 children aged 0-14.</td>
<td>2.9</td>
<td>4.7</td>
<td>MCHP Child Health Atlas 2008.</td>
</tr>
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SPIRITUAL CARE GROUP MINI SURVEY

1. How long have you lived in Burntwood? (please check one)
   - Less than one year
   - 1-4 years
   - 5-7 years
   - 8-10 years
   - More than 10 years

2. How old are you? (please check one)
   - 18-24 years old
   - 25-34 years old
   - 35-44 years old
   - 45-60 years old
   - Older than 60 years old

3. Are you (please check one)
   - Male
   - Female

4. Do you provide Spiritual Care education sessions for BRHA staff or volunteers?
   - Yes
   - No

   If Yes, can you describe the types of education you provide and how often you do this?
   ___________________________________________________________________________
   ___________________________________________________________________________
   ___________________________________________________________________________
   __________________________________________

5. Do you provide Spiritual Care support or services for BRHA patients?
   - Yes
   - No

   If Yes, can you describe your role, where and how often you do this?
   ___________________________________________________________________________
   ___________________________________________________________________________
   ___________________________________________________________________________
   ___________________________________________________________________________
   ___________________________________________________________________________
   ___________________________________________________________________________
BOARD MEMBER MINI SURVEY

Please take two minutes to fill in this anonymous survey.

4. How long have you lived in Burntwood? (please check one)
   - Less than one year
   - 1-4 years
   - 5-7 years
   - 8-10 years
   - More than 10 years

5. How old are you? (please check one)
   - 18-24 years old
   - 25-34 years old
   - 35-44 years old
   - 45-60 years old
   - Older than 60 years old

6. Are you (please check one)
   - Male
   - Female

7. How would you rate overall client satisfaction with accessibility to health care services within Burntwood? (please circle one)

   1 2 3 4 5
   Very unsatisfied  Very satisfied

Thank you!!
Burntwood RHA
2009 Community Health Assessment
Focus Group
Staff and Health Care Providers Mini Survey

Please take two minutes to fill in this anonymous survey.

1. How long have you been employed/worked in Burntwood? (please check one)
   - Less than one year
   - 1-4 years
   - 5-7 years
   - 8-10 years
   - More than 10 years

2. What category best describes your current role within Burntwood RHA? (please check one)
   - Health care provider
   - Administrative support
   - Policy or program staff
   - Management
   - Senior management
   - Other (please specify) __________________________

3. How would you rate overall client satisfaction with accessibility to health care services within Burntwood RHA? (please circle one)

   1                             2                             3                             4                             5
   Very unsatisfied                 Very satisfied

Thank you!!
1. How long have you lived in Burntwood?
   - [ ] Less than one year
   - [ ] 1-4 years
   - [ ] 5-7 years
   - [ ] 8-10 years
   - [ ] More than 10 years

2. How old are you? (please check one)
   - [ ] 18-24 years old
   - [ ] 25-34 years old
   - [ ] 35-44 years old
   - [ ] 45-60 years old
   - [ ] Older than 60 years old

3. Are you (please check one)
   - [ ] Male
   - [ ] Female

4. Do you have children? (please check one)
   - [ ] Yes
   - [ ] No

5. Did you complete high school?
   - [ ] Yes
   - [ ] No
   - [ ] Still in high school

6. How good are health care services in your community? (please circle one)
   1  2  3  4  5
Not good at all  Very good

Thank you!
1. How long have you lived in Burntwood?
   ☐ Less than one year
   ☐ 1-4 years
   ☐ 5-7 years
   ☐ 8-10 years
   ☐ More than 10 years

2. How old are you? (please check one)
   ☐ 18-24 years old
   ☐ 25-34 years old
   ☐ 35-44 years old
   ☐ 45-60 years old
   ☐ Older than 60 years old

3. How old is your youngest child? (please check one)
   ☐ Under 1 month
   ☐ Between 2 and 5 months old
   ☐ Between 6 and 9 months old
   ☐ Between 10 and 12 months old
   ☐ Older than one year old

4. Did you breastfeed any of your children?
   ☐ Yes
   ☐ No

5. Are you currently breastfeeding?
   ☐ Yes
   ☐ No

6. Did you complete high school?
   ☐ Yes
   ☐ No
   ☐ Still in high school

7. How good are health care services in your community? (please circle one)
   1 2 3 4 5
   Not good at all Very good
Community Health Assessment Focus Group Participation Consent Form

In accordance with the Manitoba Regional Health Authorities Act, Regional Health Authorities are required to “assess health needs in the health region on an ongoing basis”. The CHA is a process undertaken to identify the strengths and needs of the Region, to enable the community-wide establishment of health priorities, and to facilitate collaborative action planning.

You are invited to participate in a discussion about your community, changes that you have seen in the health of community members and any concerns and suggestions you might have about how people in your community can stay healthy.

The information you give to us in the discussion will remain confidential. If we choose to reference any of your words used in the discussion, we will attribute them only to “a focus group participant”. Your name, or any other identifying information, will not be used in a final report or in any other document available to the public.

If you have any questions or concerns about your experience in this focus group, please contact Cynthia Carr by phone at (204) 889-9939 or by e-mail at epiresearch@shaw.ca.

Thank you for your participation.
Burntwood RHA Focus Group Consent Form

I have read the statement on the previous attached page regarding my participation in a focus group discussion regarding my opinions related to health issues in Burntwood RHA.

I understand that:

- I am participating in this focus group to share my opinion about health issues in my community and region.
- There are no anticipated harms or known benefits to me resulting from my participation in this focus group.
- Information I give during the discussion may be used in the Community Health Assessment report but I will not be identified along with the information.
- My name will not be published.

☐ Yes  ☐ No

I agree to participate in this focus group.

☐ Yes  ☐ No

______________________________
Printed Name of Participant

______________________________
Participant Signature

______________________________
Date
## What Do We Want to Know?

- What are some key health issues and risk factors among community members?
- Are drugs, alcohol and mental health issues a concern in your community?
- Are there enough services and supports available in your community?
- What do people in your community need to be healthy?
- What is the key message that Burntwood Regional Health Authority sends about Health?
- Are the members of your organization aware of the 4 Pathways to Healthy Living?
- Do you see that your organization could assist with modelling these messages?
- Is breastfeeding taught as part of the teaching curriculum?

## Proposed Agenda and Supporting Materials Required

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<td>3. <strong>Discussion of Objectives (2 mins)</strong></td>
<td>Focus of this discussion is the health of our community. We want to talk about what you know about health and risk factors and what concerns you most. We also want your suggestions for how the health of community members can be improved, either through our actions and/or through health services.</td>
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| **4. Do you have concerns about addiction/violence/risky behaviour in your community?** | - What are you most concerned about?  
- How do you think drugs and alcohol affect your community?  
- Do you see drug and alcohol addiction as a problem? What group(s) are primarily affected?  
- Do you think that youth in your community use drugs and alcohol? Is it common?  
- Why are people using drugs and alcohol? (is it modelling what older/respected community members are doing, boredom, hopelessness, "something to do" etc.).  
- Is there "gang activity" in this community? If so, why do you think this is happening and how does it impact the community?  
- Is gambling a problem in the community? How does it affect community members?  
- Is violence a problem in the community? Is the issue family violence, community violence etc. That is, who is most likely to be impacted by, involved in, violence? Are there enough resources in the community to help people who are being affected by violence?  
- What do people need to help them to make better choices around drugs/alcohol/violence etc.?  
- Do kids in the community have enough resources/enough to do? What do they need? | |
| **5. Do you have concerns about depression and self-injury in your community?** | - What is your experience with people who are depressed or hurting themselves?  
- Do you know community members who have tried to hurt themselves?  
- Why do you think this is happening?  
- What do you have in your community for people who are depressed or need help?  
- What resources do you need as part of your job to be able to provide help to people? Do you see this as part of your job?  
- Where do you tell people to go for help if they need it? Do you know where to refer a student or other community member for help?  
- What kinds of things do you need in your community to help people who are depressed or who want to hurt themselves? | |
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| 6. We would like to talk about chronic disease and risk factors for chronic diseases. | - What do you think are some of the most important, or common chronic diseases among residents of our region?  
- Do you have, or know someone with a chronic disease? How well do you, or people you know manage their chronic disease?  
- What kinds of resources are available for people with chronic diseases? Have you, or someone you know, every used these resources? How have these resources helped? How do these resources need to be improved?  
- Do youth know the Burntwood Chronic Disease Prevention Pathways to Healthy Living? (Answer is Tobacco Cessation, Increased Physical Activity, Improved Nutrition, Improved Mental and Spiritual Well-being).  
- How does your lifestyle now impact your ability to prevent a chronic disease? ex. smoking.  
- What do community members need (or need to know) so that they don't get a chronic disease?  
- What can be done/should be done to help community members take care of their chronic diseases?  
- Are we involving you in the planning and implementation of programs that promote healthy living? Are there barriers and challenges to participating in healthy living programs? How can these barriers be addressed? | Inform the group - A chronic diseases is an illness that lasts for a long time. These diseases can impact our ability to work and participate fully in life. However, they can be managed so that there is as minimal an impact as possible to our health. Some examples of major chronic diseases are heart disease, stroke, cancer, kidney disease, lung disease and diabetes. |
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| 7. What do people in your community need to be healthy? | • Getting at "health care" vs. "personal responsibility"  
  o Guide discussion to address acute care but also community resources, ownership of health, partnerships etc.  
  • How well are you able to maintain or manage your own health?  
  • If you are caring for others, how well are you able to help them maintain or manage their health?  
  • How helpful have the BRHA services and programs been to you in helping you manage your own health?  
  • What, if anything, should the BRHA do to help you more with managing your health?  
  • What services would you like to have available in your community?  
  For teachers -  
  • What is your experience with children and youth in the school setting?  
  • Do many children seem to have additional needs and are you able to meet those needs in the school setting?  
  • Are children showing up for school, well-fed, rested and ready to learn?  
  • Do children seem happy and physically active (concerns about obesity? opportunity for physical activity etc).  
  • What suggestions do you have for helping kids be best prepared to learn?  
  • What do you need to help children in your class succeed?  
  • What resources do kids need? | |
| 8. Conclusion (5 minutes) | • Is there anything else that you would like to tell us or discuss before we end this meeting?  
  • Thank you’s & explain how we will use this information | |
What Do We Want to Know?

- What are some key health issues and risk factors among community members?
- Are drugs, alcohol and mental health issues a concern in your community?
- Are there enough services and supports available in your community?
- What do people in your community need to be healthy?
- What is the key message that Burntwood Regional Health Authority sends about Health?
- Are the members of your organization aware of the 4 Pathways to Healthy Living?
- Do you see that your organization could assist with modelling these messages?

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- If you are caring for others, how well are you able to help them maintain or manage their health?  
- How helpful have the BRHA services and programs been to you in helping you manage your own health?  
- What, if anything, should the BRHA do to help you more with managing your health?  
- What services would you like to have available in your community? |  |
| 8. Conclusion (5 minutes) | - Is there anything else that you would like to tell us or discuss before we end this meeting?  
- Thank you’s & explain how we will use this information |  |
What Do We Want to Know?

- What are some key health issues and risk factors for disease among people in your community?
- Are drugs, alcohol or mental health issues a concern in your community?
- Can you name services and supports in your community that you have used? Are there enough services and supports available in your community?
- What services would you like to see in your community that do not currently exist?
- Are we providing services in a culturally sensitive manner?
- What do people in your community need to be healthy?
- Are we involving you in the planning and implementation of programs that promote healthy living? Are there barriers and challenges to participating in healthy living programs? How can these barriers be addressed?

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- How well are you able to maintain or manage your own health?  
- If you are caring for others, how well are you able to help them maintain or manage their health?  
- How helpful have the BRHA services and programs been to you in helping you manage your own health?  
- What, if anything, should the BRHA do to help you more with managing your health?  
- What services would you like to have available in your community? | Inform the group - A chronic diseases is an illness that lasts for a long time. These diseases can impact our ability to work and participate fully in life. However, they can be managed so that there is as minimal an impact as possible to our health. Some examples of major chronic diseases are heart disease, stroke, cancer, kidney disease, lung disease and diabetes. |
| 5. We have spoken broadly about being “healthy”, now we would like to talk specifically about chronic disease and risk factors for chronic diseases. | - What do you think are some of the most important, or common chronic diseases among residents of our region?  
- Do you have, or know someone with a chronic disease? How well do you, or people you know manage their chronic disease?  
- What kinds of resources are available for people with chronic diseases? Have you, or someone you know, every used these resources? How have these resources helped? How do these resources need to be improved?  
- Do youth know the Burntwood Chronic Disease Prevention Pathways to Healthy Living? (Answer is Tobacco Cessation, Increased Physical Activity, Improved Nutrition, Improved Mental and Spiritual Well-being).  
- How does your lifestyle now impact your ability to prevent a chronic disease? ex. smoking.  
- What do community members need (or need to know) so that they don’t get a chronic disease?  
- What can be done/should be done to help community members take care of their chronic diseases?  
- Are we involving you in the planning and implementation of programs that promote healthy living? Are there barriers and challenges to participating in healthy living programs? How can these barriers be addressed? |
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| 6. We would like to talk about spiritual well-being and mental health.      | - Can you describe what "Spirituality" means to you?  
- How much does faith/spirituality impact your life?  
- Do you incorporate Spirituality into your life, and if so, can you share how you do this?  
- Is there anything that makes it difficult to follow your beliefs or be spiritual?  
- What Spiritual resources are available in your community? What do you need?  
- Is there very much discussion or information in your home or community about spirituality?  
- What makes you feel good about yourself?  
- What do you need to heal?  
- Who would you go to if you felt your spiritual being was in trouble?  
- In times of crisis, would you call a spiritual leader (and who would it be?)? If not, why not?  
- What is your experience with people who are depressed or hurting themselves?  
- Do you know of community members who have tried to hurt themselves?  
- Why do you think this is happening?  
- What resources do you have in your community for people who are depressed or need help?  
- Where would you go to get help for yourself or a friend if you needed it? (Do you have someone in your community that you can talk to - is it a friend or a healthcare provider?)  
- What kinds of things do you need in your community to help people who are depressed or have addictions or who want to hurt themselves? |                      |
| 7. We would like to discuss how addictions affect your community?            | - How do you think drugs and alcohol affect your community?  
- Do you think that youth in your community use drugs and alcohol? Is it common?  
- Why are people using drugs and alcohol?  
- What do people need to help them to make better choices around alcohol use?  
- Is there "gang activity" in this community? If so, why do you think this is happening and how does it impact the community?  
- Is gambling a problem in the community? How does it affect community members?  
- Is violence a problem in the community? Is the issue family violence, community violence etc. That is, who is most likely to be impacted by, involved in, violence? Are there enough resources in the community to help people who are being affected by violence?  
- What do people need to help them to make better choices around drugs/alcohol/violence etc.? |                      |
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<td>• What does &quot;Culturally sensitive&quot; health care mean to you?</td>
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<td>• Have you received services from BRHA in a culturally sensitive way?</td>
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<td>• How can the RHA provide services in a culturally sensitive way?</td>
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Burntwood RHA
2009 Community Health Assessment
FINAL Elders and Older People Focus Group Questions
JUNE 8 2009

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<td>• Are drugs, alcohol and mental health issues a concern in your community?</td>
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<td>4. What does &quot;independence&quot; mean to you?</td>
<td>• As an Elder, or older person, what do you need to help you maintain your independence?</td>
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<td>• How does transportation affect your independence?</td>
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<td>• How do you keep active - are there enough resources in your community to help you stay active?</td>
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<td>• When you need assistance to manage your daily activities, do you know where to go or who to call?</td>
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<td><strong>7. What do people in your community need to be healthy?</strong></td>
<td>- Getting at &quot;health care&quot; vs. &quot;personal responsibility&quot;&lt;br&gt;  o Guide discussion to address acute care but also community resources, ownership of health, partnerships etc.&lt;br&gt; - How well are you able to maintain or manage your own health?&lt;br&gt; - If you are caring for others, how well are you able to help them maintain or manage their health?&lt;br&gt; - How helpful have the BRHA services and programs been to you in helping you manage your own health?&lt;br&gt; - What, if anything, should the BRHA do to help you more with managing your health?&lt;br&gt;  - What services would you like to have available in your community?</td>
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<td><strong>8. We have spoken broadly about being &quot;healthy&quot;, now we would like to talk specifically about chronic disease and risk factors for chronic diseases.</strong></td>
<td>- What do you think are some of the most important, or common chronic diseases among residents of our region?&lt;br&gt; - Do you have, or know someone with a chronic disease? How well do you, or people you know manage their chronic disease?&lt;br&gt; - What kinds of resources are available for people with chronic diseases? Have you, or someone you know, every used these resources? How have these resources helped? How do these resources need to be improved?&lt;br&gt; - Do you know the Burntwood Chronic Disease Prevention Pathways to Healthy Living? (Answer is Tobacco Cessation, Increased Physical Activity, Improved Nutrition, Improved Mental and Spiritual Well-being).&lt;br&gt; - How does your lifestyle now impact your ability to prevent a chronic disease? ex. smoking.&lt;br&gt; - What do community members need (or need to know) so that they don’t get a chronic disease?&lt;br&gt; - What can be done/should be done to help community members take care of their chronic diseases?&lt;br&gt; - Are we involving you in the planning and implementation of programs that promote healthy living? Are there barriers and challenges to participating in healthy living programs? How can these barriers be addressed?</td>
<td>Inform the group - A chronic disease is an illness that lasts for a long time. These diseases can impact our ability to work and participate fully in life. However, they can be managed so that there is as minimal an impact as possible to our health. Some examples of major chronic diseases are heart disease, stroke, cancer, kidney disease, lung disease and diabetes.</td>
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<td><strong>9. What end of life issues concern you the most?</strong></td>
<td>- Remaining in community&lt;br&gt; - Availability of palliative care, pain control</td>
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APPENDIX C: BRHA Community Consultation Materials.

Burntwood RHA
2009 Community Health Assessment
Health Care Providers Focus Group Questions
FINAL JUNE 8, 2009

What Do We Want to Know?

- How important do you think Access to services is in impacting the health of Burntwood residents?
- Where along the continuum of care do you think patients encounter the most difficulty accessing services?
- What do you think makes it difficult for Burntwood residents to access these services?
- Are there cultural barriers to accessing services?
- Are there language barriers to accessing services?
- Is the RHA doing enough in making services accessible to its residents?
- What more can the RHA do to ensure accessibility to services?

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<td>3. Discussion of Objectives (2 mins)</td>
<td>Focus of this discussion is Accessibility to services within Burntwood RHA. As a staff member/health care provider/board member (insert as appropriate) of Burntwood RHA, we want to explore your experiences, concerns and suggestions.</td>
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| 4. Discussion: Thinking of the concept of “Timely and effective access to care” where along the continuum of care do you think residents encounter the most barriers in accessing services? (15 minutes) | • What makes it difficult for residents to access these services?  
  • Is the issue one of “none or limited” accessibility or more a matter of “timeliness” in accessing needed services? (i.e. how does geography/location impact vs. wait times).  
  • What are the challenges in referring patients to services within the RHA?  
  • What can the RHA do to ensure “timely and effective” access to care?  
  • Can the RHA do anything to ensure timely access to care within other regional jurisdictions? |                     |
| 5. Discussion: Thinking of “culturally sensitive” health care – we would like to discuss some successes and challenges that we are experiencing in our region. (15 minutes) | • Are there examples of where the RHA is doing a good job of providing culturally sensitive health care?  
  • How does the RHA identify and address gaps in programs and services in a culturally sensitive manner?  
  • Are there cultural barriers to accessing services? Where can the RHA improve?  
  • Do you think there are particular cultural groups within our region who are not accessing services?  
    o Why do you think this is happening – i.e. is it a choice, are the services provided not appropriate to their needs and/or beliefs, are there language or other issues that are creating barriers to accessibility?  
  • What needs to be done to improve this situation? |                     |
| 6. Is the RHA doing enough to ensure accessibility to appropriate services in the most appropriate settings? | • Are there new ways of engaging the community and/or developing partnerships to help identify service needs (appropriateness) as well as enable community members to access services (accessibility).  
  
  Suggestions as to how the RHA can improve overall to improve client satisfaction with accessibility to services. |                     |
| 7. Do you have concerns about depression and self-injury in your community? | • What is your experience with patients/clients who are depressed or hurting themselves?  
  • Why do you think this is happening?  
  • What resources do you currently have/currently use for people who are depressed or need help?  
  • What kinds of things do you need in your community to help people who are depressed or who want to hurt themselves? |                     |
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| **8. We would like to talk about chronic disease and risk factors for chronic diseases.** | • What do you think are some of the most important, or common chronic diseases among residents of our region?  
• How common is chronic disease among the patients/clients you see? How well do they manage their chronic disease?  
• What kinds of resources are available for people with chronic diseases? Do you refer your patients/clients to these resources? How have these resources helped? How do these resources need to be improved?  
• Are you aware of the Burntwood Chronic Disease Prevention Pathways to Healthy Living? (Answer is Tobacco Cessation, Increased Physical Activity, Improved Nutrition, Improved Mental and Spiritual Well-being).  
• Do patients/clients seem to understand how their current lifestyle impacts their ability to prevent a chronic disease? ex. smoking.  
• What do community members need (or need to know) so that they don’t get a chronic disease?  
• What can be done/should be done to help community members take care of their chronic diseases?  
• Are we involving you in the planning and implementation of programs that promote healthy living? Are there barriers and challenges to participating in healthy living programs? How can these barriers be addressed? | |
| **9. What do people in your community need to be healthy?** | • Getting at "health care" vs. "personal responsibility"  
  o Guide discussion to address acute care but also community resources, ownership of health, partnerships etc.  
• How well are your patients/clients able to maintain or manage their own health?  
• What challenges do you face in helping your patients/clients maintain or manage their health?  
• What BRHA services and programs do you refer patients to in order to help them manage their health?  
• What, if anything, should the BRHA do to help patients/clients more with managing your health?  
What services would you like to have available in your community? | |
| **10. Conclusion** (5 minutes) | • Is there anything else that you would like to tell us or discuss before we end this meeting?  
• Thank you’s & explain how we will use this information | |
# What Do We Want to Know?

- What are some key health issues and risk factors among people in your community?
- Are there enough services and supports available in your community for families?
- Why mothers do and do not breastfeed?
- What do people in your community need to be healthy?

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<td>Focus of this discussion is the health of our community, but particularly the health of young families and the types of choices new moms are making about feeding their babies. We want to talk about what you think are the most important health issues in your community. We want to know about what challenges are faced by young families and the supports that are needed. We would like to know about your experiences with breast feeding and what things have helped you or stopped you from breast feeding. We also want your suggestions for how the health of community members can be improved, either through our actions and/or through health services.</td>
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| 4. **What kinds of choices did you make about feeding your baby?**                                                                                           | - Did you attend a prenatal program while you were pregnant? Was this type of program available to you and did it suit your needs? Do you have any suggestions for prenatal programming in your area?  
  - While you were pregnant did you receive any information about infant feeding why breast feeding is a healthy option? If so, where did you get the information?  
  - Did you decide while you were pregnant how you were going to feed your baby? What were the main factors in helping you decide how you wanted to feed your baby? Did any one help you make this decision?  
  - After you gave birth, did you get help in breastfeeding your baby? Were the nurses in the hospital respectful of the choice you had made about how to feed your baby? Did you feel pressure to breastfeed?  
  - What makes breastfeeding easy for you? What makes breastfeeding difficult?  
  - What things did you consider when deciding how to feed your baby? What other things affected your decision (example, had to go to work, not enough milk, not a supportive partner etc.)  
  - Are there things from your culture and family background that you considered or that influenced you when you were deciding how to feed your baby?  
  - For those of you that did (or still do), breast feed, how long did you breast feed? Did any of you have a goal as to how long you wanted to breastfeed? Were there any reasons you were not able to reach your goal?  
  - Were you ever given any information about community breastfeeding support resources? If so, who gave it to you and when (ex. while pregnant, in hospital, by public health nurse etc).  
  - Do you feel that this community is a breastfeeding friendly community? For example, if you needed to feed your baby while out at the store, community centre etc. could you do it and would you feel comfortable?  
  - What other things are you feeding your babies and when did you start introducing other foods? |                      |
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<th><strong>5. What are the main concerns of families with young children in your community?</strong></th>
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| • What are your main concerns as parents of young children?  
• Is the RHA doing a good job of providing services that you needed while you were pregnant and that you need now with young children?  
• Are there enough programs and services available for new parents? Do you know who to ask if you have questions about how to care for your baby/children?  
• As a new parent, did you have enough support? Who did you turn to for support - family, friends, health care or community service workers?  
• If you have questions about your baby/child, do you know who to ask? For example, do you know about immunization, when you need to have your child immunized and where you would go for this service? Do you know about what you might have to pay for and what you don't need to pay for?  
• What suggestions do you have for improvements/or new programs services? |

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<tr>
<th><strong>6. What do people in your community need to be healthy?</strong></th>
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</table>
| • Getting at "health care" vs. "personal responsibility"  
• Guide discussion to address both acute care but also community resources, ownership of health, partnerships etc.  
• How well are you able to manage or maintain your own health?  
• How well are you able to help manage the health of your baby?  
• How helpful have the BRHA services and programs been in helping you manage your own health and those people in your care?  
• What does the BRHA need to do to help you more with managing your own health and those people in your care? |

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<tr>
<th><strong>7. Conclusion</strong></th>
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| • Is there anything else that you would like to tell us or discuss before we end this meeting?  
• Thank you’s & explain how we will use this information |
APPENDIX C: BRHA Community Consultation Materials.

Burntwood RHA
2009 Community Health Assessment
Spiritual Care FINAL Focus Group Questions

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What Do We Want to Know?

- What are some key health issues and risk factors for disease among people in your community?
- Are drugs, alcohol or mental health issues a concern in your community?
- Can you name services and supports in your community that you have used? Are there enough services and supports available in your community?
- What services would you like to see in your community that do not currently exist?
- Are we providing services in a culturally sensitive manner?
- What do people in your community need to be healthy?
- Are we involving you in the planning and implementation of programs that promote healthy living? Are there barriers and challenges to participating in healthy living programs? How can these barriers be addressed?

Proposed Agenda and Supporting Materials Required

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<td>Consent forms and surveys. Notebook for note taker. Tape recorder if wanted. Name tags</td>
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<td>Lay ground rules: - respecting each other's opinions - respecting confidentiality - &quot;what is said here, stays here&quot;; &quot;when you make comments, please do not use names (such as &quot;dr. X&quot;, or &quot;my sister Sarah&quot;)</td>
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<tr>
<td>3. Discussion of Objectives</td>
<td>Focus of this discussion is the health of our community. We want to talk about what you know about health and risk factors and what concerns you most. We also want your suggestions for how the health of community members can be improved, either through our actions and/or through health services. After we talk about health issues, we will focus more specifically on spiritual care, you experiences and your suggestions related to spiritual health and delivery of health care services.</td>
<td>Hand out with the Agenda Items.</td>
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| 4. We would like to start this group with a discussion of spirituality, spiritual care and spiritual well-being. | • What are your experiences with spiritual care in our region? (providing it, or with experience in trying to access it, or feedback from community members).  
• What is spirituality? How does it relate to, or differentiate from, religion?  
• What do people need to "heal"?  
• How would you distinguish between "healing" and "cure", and how may this be relevant to BRHA health care services?  
• Has the BRHA been successful in incorporating spirituality into health care services? If not, how do you suggest that we incorporate spirituality into health care/health services?  
  o What are some key elements of spiritual care?  
  o Why is it important for BRHA to do so?  
• What do health care providers and administrators in the BRHA need to know about spirituality?  
• How may a person's spiritual needs be assessed?  
• What knowledge, skills and attitudes pertaining to spirituality should be taught to health care providers and administrators?  
• Could these knowledge, skills and attitudes benefit staff/health care providers as well as patients?  
• What spiritual resources are available in communities? Is this sufficient? If not, what is needed?  
• Are there sufficient spiritual resources available in our health care system? If not, what do we need?  
• Do patients know how to access spiritual services? If not, how do we make them aware? |                               |
| 5. What do people in your community need to be healthy? | • Getting at "health care" vs. "personal responsibility"  
  o Guide discussion to address acute care but also community resources, ownership of health, partnerships etc.  
• How well are you able to maintain or manage your own health?  
• If you are caring for others, how well are you able to help them maintain or manage their health?  
• How helpful have the BRHA services and programs been to you in helping you manage your own health?  
• What, if anything, should the BRHA do to help you more with managing your health?  
• What services would you like to have available in your community? |                               |
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| **6. We have spoken broadly about being "healthy", now we would like to talk specifically about chronic disease and risk factors for chronic diseases.** | • What do you think are some of the most important, or common chronic diseases among residents of our region?  
• Do you have, or know someone with a chronic disease? How well do you, or people you know manage their chronic disease?  
• What kinds of resources are available for people with chronic diseases? Have you, or someone you know, every used these resources? How have these resources helped? How do these resources need to be improved?  
• Do youth know the Burntwood Chronic Disease Prevention Pathways to Healthy Living? (Answer is Tobacco Cessation, Increased Physical Activity, Improved Nutrition, Improved Mental and Spiritual Well-being).  
• How does your lifestyle now impact your ability to prevent a chronic disease? ex. smoking.  
• What do community members need (or need to know) so that they don’t get a chronic disease?  
• Are we involving you in the planning and implementation of programs that promote healthy living? Are there barriers and challenges to participating in healthy living programs? How can these barriers be addressed? | Inform the group - A chronic diseases is an illness that lasts for a long time. These diseases can impact our ability to work and participate fully in life. However, they can be managed so that there is as minimal an impact as possible to our health. Some examples of major chronic diseases are heart disease, stroke, cancer, kidney disease, lung disease and diabetes. |
| **7. We would like to talk about mental health and addictions.** | • What is your experience with people who are depressed or hurting themselves or addicted to drugs or alcohol?  
• Do you know of community members who have tried to hurt themselves?  
• Why do you think this is happening?  
• What kinds of things do you need in your community to help people who are depressed or have addictions or who want to hurt themselves?  
• How do you think drugs and alcohol affect your community?  
• Do you think that youth in your community use drugs and alcohol? Is it common?  
• Why are people using drugs and alcohol?  
• What do people need to help them to make better choices around alcohol use?  
• Is gambling a problem in the community? How does it affect community members?  
• Is violence a problem in the community? Is the issue family violence, community violence etc. That is, who is most likely to be impacted by, involved in, violence? Are there enough resources in the community to help people who are being affected by violence?  
• What do people need to help them to make better choices around drugs/alcohol/violence etc.? |
### Youth Focus Group

**What Do We Want to Know?**

- What are some key health issues and risk factors among youth?
- What are some key health issues in your community?
- Do you have enough information about risk factors and how to stay healthy?
- What do you know about chronic disease and prevention?
- Are there enough services and supports available in your community?
- What are your recommendations about key messages that we need to communicate to youth?

#### Proposed Agenda and Supporting Materials Required

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<td>Consent forms and surveys. Notebook for note taker. Tape recorder if wanted. Name tags</td>
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<tr>
<td>2. Introductions</td>
<td>Focus of this discussion is the health of youth. We want to talk about what you know about health in general, what may be harmful to your health and what concerns you most. We also want your suggestions for how the health of community members can be improved, either through our actions and/or through health services.</td>
<td>Lay ground rules: - respecting each other’s opinions - respecting confidentiality - “what is said here, stays here”; “when you make comments, please do not use names (such as “dr. X”, or “my sister Sarah”)</td>
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| 4. What do people in your community need to be healthy? | • Getting at "health care" vs. "personal responsibility"  
  o Guide discussion to address acute care but also community resources, ownership of health, partnerships etc.  
  • How well are you able to maintain or manage your own health?  
  • If you are caring for others, how well are you able to help them maintain or manage their health?  
  • How helpful have the BRHA services and programs been to you in helping you manage your own health?  
  • What, if anything, should the BRHA do to help you more with managing your health? | |
| 5. We have spoken broadly about being "healthy", now we would like to talk specifically about chronic disease and risk factors for chronic diseases. | • What do you think are some of the most important, or common chronic diseases among residents of our region?  
  • Do you have, or know someone with a chronic disease? How well do you, or people you know manage their chronic disease?  
  • What kinds of resources are available for people with chronic diseases? Have you, or someone you know, ever used these resources? How have these resources helped? How do these resources need to be improved?  
  • Do youth know the Burntwood Chronic Disease Prevention Pathways to Healthy Living? (Answer is Tobacco Cessation, Increased Physical Activity, Improved Nutrition, Improved Mental and Spiritual Well-being).  
  • How does your lifestyle now impact your ability to prevent a chronic disease? ex. smoking.  
  • What do community members need (or need to know) so that they don’t get a chronic disease?  
  • What can be done/should be done to help community members take care of their chronic diseases? | Inform the group - A chronic diseases is an illness that lasts for a long time. These diseases can impact our ability to work and participate fully in life. However, they can be managed so that there is as minimal an impact as possible to our health. Some examples of major chronic diseases are heart disease, stroke, cancer, kidney disease, lung disease and diabetes. |
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| 6. We would like to talk about "risky behaviours" that can impact our health. The first thing we’d like to talk about is sexual health. | • What kinds of things can happen if you have unprotected sex? What do you worry about most?  
• How are STIs passed from one person to another and how this can be prevented?  
• Do you think that young people know enough about birth control and protection? (i.e. getting at issue of what youth know and what is available in community).  
• If you wanted birth control/protection, where would you go to get it? Who’s responsibility is it (i.e. views of shared responsibility or more on the girl or boy)  
• Why do you think young people are having unprotected sex (ex. lack of planning, use of alcohol at time of sexual encounter, lack of availability etc).  
• Where would you go and who would you talk to if you had questions about birth control or sexually transmitted infections? (nurse, teacher, parent, friend etc).  
• Do you worry about your privacy in talking to a nurse or other adult?  
• How do people feel about teen pregnancy in your community? Is it seen as a problem or "ok" to get pregnant when you are young?  
• How would getting pregnant at a young impact your life? |
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| 7. Some other risky behaviours include participation in gang activity as well as drug and alcohol use. We would like to talk about these things now. Why do you think youth are involved in these activities? | - Do you have concerns about gangs in your community?  
- What does it mean to be part of a gang and why would you want to join a gang? (ex. feeling of "belonging" or having a family etc).  
- How do you think drugs and alcohol affect your community? This is your entire community, not just youth.  
- Do you think that youth in your community use drugs and alcohol? Is it common? Where would you go to get drugs or alcohol? (note: not naming names, just getting at generally is it easy to get in community)  
- What do people like to use the most? (ex. brew own, buy something, solvents etc).  
- Why are people using drugs and alcohol? (is it modelling what older/respected community members are doing, boredom, hopelessness, "something to do" etc).  
- What happens to people when they are using drugs or alcohol (i.e. is it "fun" or is there violence and other things that happen)  
- What can happen to the baby if a woman drinks while pregnant?  
- Why do you think women drink while they are pregnant and how can they be helped to make other choices?  
- Do you know what Fetal Alcohol Spectrum Disorder is? Does this affect young people in your community?  
- Do you think that FASD can be treated or cured?  
- What do youth need to help them to make better choices (avoid gangs and use of drugs/alcohol). |
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| 8. We would like to talk about spiritual well being and mental health.     | • Can you describe what “Spirituality” means to you?  
• How much does faith/spirituality impact your life?  
• Do you incorporate Spirituality into your life, and if so, can you share how you do this?  
• Is there anything that makes it difficult to follow your beliefs or be spiritual?  
• What Spiritual resources are available in your community? What do you need?  
• Is there very much discussion or information in your home or community about spirituality?  
• What makes you feel good about yourself?  
• What do you need to heal?  
• Who would you go to if you felt your spiritual being was in trouble?  
• In times of crisis, would you call a spiritual leader (and who would it be?)? If not, why not?  
• What is your experience with young people who are depressed or hurting themselves or addicted to drugs or alcohol?  
• Do you know of youth or other community members who have tried to hurt themselves?  
• Why do you think this is happening?  
• What do you have in your community for people who are depressed or need help?  
• Where would you go to get help for yourself or a friend if you needed it? (Do you have someone in your community that you can talk to - is it a friend or a healthcare provider?)  
• What kinds of things do you need in your community to help people who are depressed or have addictions or who want to hurt themselves?                                                                 |                      |
| 9. If it were up to you to get key messages out to your peers, what would they be and what is the best way to communicate these messages? | Open exercise to allow youth to summarize key issues and how to get the message out.                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |
| 10. Conclusion                                                             | • Is there anything else that you would like to tell us or discuss before we end this meeting?  
• Thank you’s & explain how we will use this information                                                                                                                                  |                      |
APPENDIX C: BRHA Community Consultation Materials.

Burntwood RHA
2009 Community Health Assessment
Staff, Board and Health Care Providers Focus Group Questions

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<thead>
<tr>
<th>Title</th>
<th>RMM Focus Group</th>
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<tr>
<td>Date</td>
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What Do We Want to Know?

- How important do you think Access to services is in impacting the health of Burntwood residents?
- Where along the continuum of care do you think patients encounter the most difficulty accessing services?
- What do you think makes it difficult for Burntwood residents to access these services?
- Are there cultural barriers to accessing services?
- Are there language barriers to accessing services?
- Is the RHA doing enough in making services accessible to its residents?
- What more can the RHA do to ensure accessibility to services?

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<tr>
<td>2. Introductions (5 mins)</td>
<td>Focus of this discussion is Accessibility to services within Burntwood RHA. As a staff member of Burntwood RHA, we want to explore your experiences, concerns and suggestions.</td>
<td>Lay ground rules: - respecting each other’s opinions - respecting confidentiality - “what is said here, stays here”; “when you make comments, please do not use names (such as “dr. X”, or “my sister Sarah”)</td>
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<tr>
<td>3. Discussion of Objectives (2 mins)</td>
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| 4. **Discussion:** Thinking of the concept of “Timely and effective access to care” where along the continuum of care do you think residents encounter the most barriers in accessing services? | - What makes it difficult for residents to access these services?  
  - Is the issue one of “none or limited” accessibility or more a matter of “timeliness” in accessing needed services? (i.e. how does geography/location impact vs. wait times).  
  - What are the challenges in referring patients to services within the RHA?  
  - What can the RHA do to ensure “timely and effective” access to care?  
  - Can the RHA do anything to ensure timely access to care within other regional jurisdictions? | Visual Aid – Continuum of Care |
| 5. **Discussion:** Thinking of “culturally sensitive” health care – we would like to discuss some successes and challenges that we are experiencing in our region. | - Are there examples of where the RHA is doing a good job of providing culturally sensitive health care?  
  - How does the RHA identify and address gaps in programs and services in a culturally sensitive manner?  
  - Are there cultural barriers to accessing services? Where can the RHA improve?  
  - Do you think there are particular cultural groups within our region who are not accessing services?  
    - Why do you think this is happening – i.e. is it a choice, are the services provided not appropriate to their needs and/or beliefs, are there language or other issues that are creating barriers to accessibility?  
    - What needs to be done to improve this situation? | |
| 6. **Is the RHA doing enough to ensure accessibility to appropriate services in the most appropriate settings?** | - Are there new ways of engaging the community and/or developing partnerships to help identify service needs (appropriateness) as well as enable community members to access services (accessibility).  
  - Suggestions as to how the RHA can improve overall to improve client satisfaction with accessibility to services. | |
| 7. **What do people in your community need to be healthy?** | - Getting at “health care” vs. “personal responsibility”  
  - Guide discussion to address both acute care but also community resources, ownership of health, partnerships etc. | |