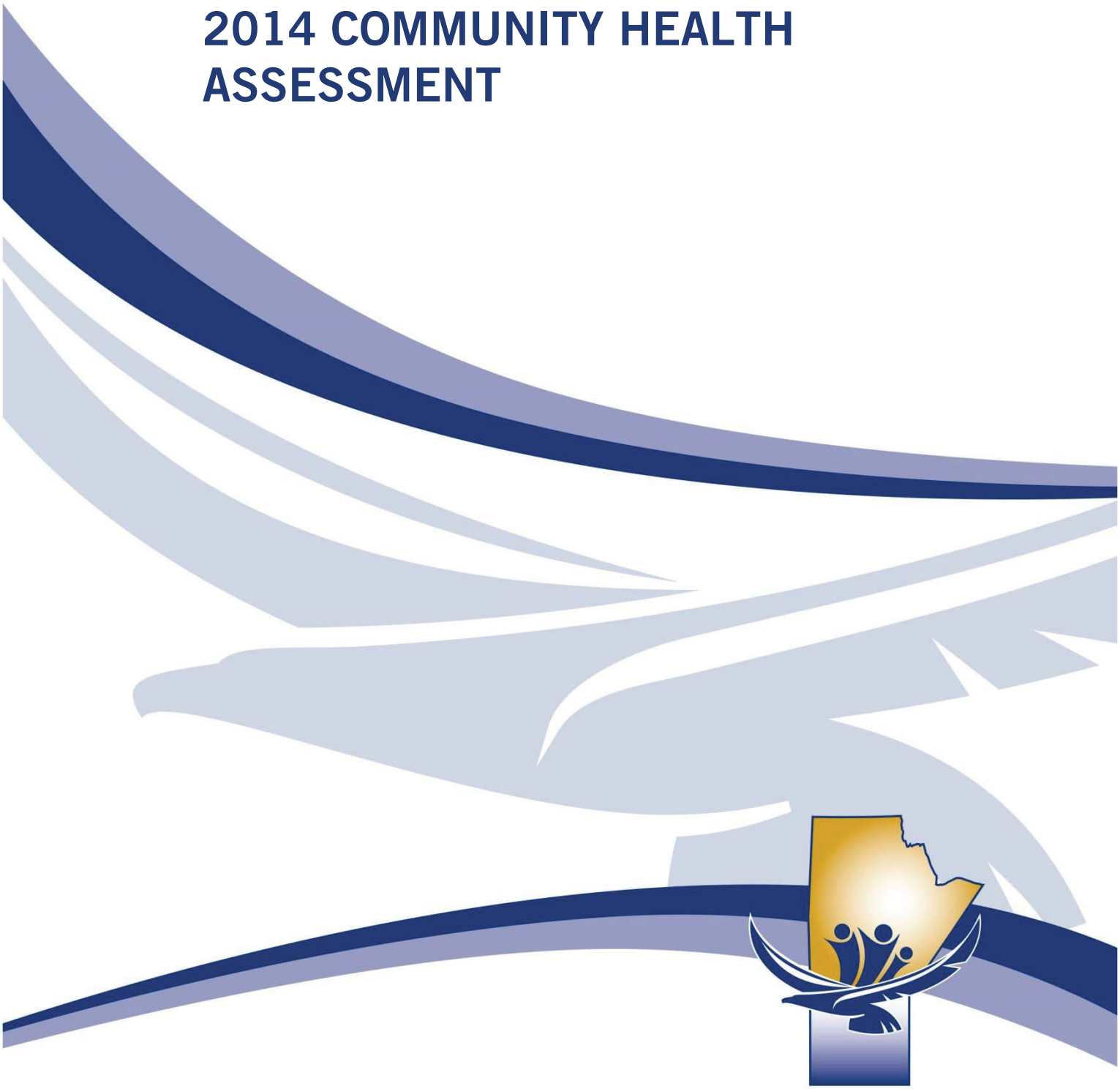
NORTHERN HEALTH REGION

2014 COMMUNITY HEALTH ASSESSMENT



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Dedication

"Catherine Hynes' passion and dedication to making sure that Northern Communities were accurately represented through data and real life descriptions were overwhelming for those of us working in the communities and with the community health assessment process. She would be pleased with the work that is ongoing to tell the story through the data".

NORTHERN
HEALTH REGION

Chief Executive Officer
84 Church Street
Flin Flon, MB R8A 1L8
Telephone: (204) 687-3011
Fax: (204) 687-6405
Email: hbryant@nrha.ca

A Message to the Citizens of the Northern Health Region
from Helga Bryant, Chief Executive Officer

The Northern Health Region's 2014 Community Health Assessment (CHA) is the product of an intensive year of work by our Community Health Assessment Working Group, staff, physicians, community partners, and residents.

This is the first Community Health Assessment for our newly amalgamated Region. Over the past three years, a true picture of the Northern Health Region has emerged and we are excited about the direction we are heading. While we still have many health challenges facing our Region, there are some very good news stories submitted by our team showing the great strides we have made toward the priorities set out in our latest Strategic Plan.

I would like to thank everyone who took part in the Community Health Assessment process. Whether you were on our working group or participated in one of our many community consultation activities, your commitment to health in our Region is greatly appreciated.

We are looking forward to the many initiatives planned in the coming years and our continued development as a Region. We have a dedicated team of health care providers and community partners who continue to work together towards our Vision of "Health People; Healthy North" as we continue to deliver on the promise of our Mission. We are dedicated to providing quality, accessible and compassionate health services. Meegwetch, Ekosi, Ekosani, Masi cho!

Sincerely,

Helga Bryant RN, BScN, MScA
Chief Executive Officer

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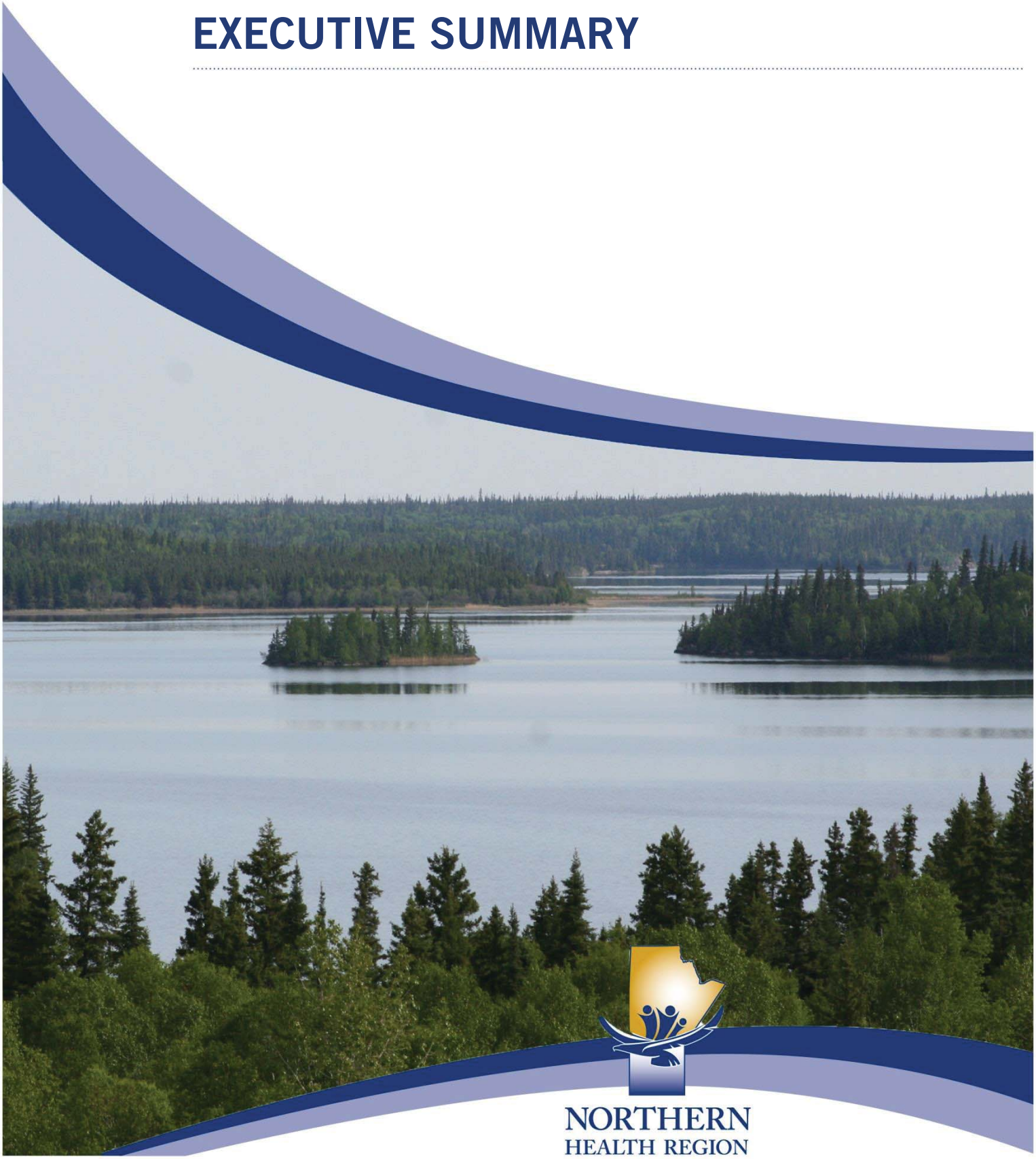
EXECUTIVE SUMMARY



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1.0 Introduction

Each Regional Health Authority is required by Manitoba Health, Health Living and Seniors (MHHLS) to undertake a comprehensive Community Health Assessment (CHA) of their region every five years. This document represents the first Community Health Assessment completed by the Northern Health Region.

For this Community Health Assessment, MHHLS required that each Regional Health Authority (RHA) report on a "Core" set of 80 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 adequately present a complete picture. The Northern Health Region have provided these other non-core indicators to provide the most comprehensive picture of the region as possible.

Many of the areas identified as challenges in the 2014 CHA 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. The RHA also has limited ability to influence health care outcomes on First Nation communities as it outside of their jurisdiction. 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 like First Nations and Health Canada to support all residents in the region.

2.0 About The Region

- With a total of 396,000 square kilometres and a population of 74,983, the Northern Health Region has the unique challenge of planning and providing health care services and programs to a small population to an area that totals 62 per cent of Manitoba's total land mass.

- The Northern Health Region has four distinct set of communities.

    - There are 2 cities and 6 towns under provincial jurisdiction, incorporated and governed by a Mayor or Reeve and a municipal council.
    - First Nations communities are within federal jurisdiction and are not directly served by the provincial government including the Northern Health Region. Most Indian Bands are governed by a Chief and Council elected for two year terms by the Band membership.
    - Northern Affairs Communities are communities which operate under the provincial Northern Affairs Act.
    - Unorganized territories are areas consisting of small hamlets and settlements in which the provincial government acts as the municipal government.

- In April 2012, the Government of Manitoba introduced amendments to the Regional Health Authorities Act which reduced the number of Regional Health Authorities in Manitoba from eleven (11) to five (5). This decision resulted in the merger of the NOR-MAN RHA and the Burntwood RHA into the Northern Health Region.

- The Northern Health Region continues to be a younger population compared to Manitoba with a greater percentage of people in the age categories up to age 19. The differences are particularly stark in the youngest age categories. That said, the Northern Health Region is becoming older over time. The highest population increases came in the 65-69 (51.3% increase from 2004-2014), 60-64 (45.3%) and 70-74 (40.2%) year age categories.

- According to a population projection report published by the Manitoba Bureau of Statistics, the Northern Health Region will grow up to 104,300 residents by 2042, an increase of 40.6 per cent.

- Over two-thirds of people living in the Northern Health Region self-identifies as Aboriginal (70.0%) compared to the provincial average of 15.5 per cent of the population. Just over half (50.7%) of regional residents lived on reserve.

- The proportion of lone parent families in our region is larger than in the province overall (30.0% versus 17.1%) and the highest among Manitoba RHAs. Census data shows the substantially lower income experienced by lone parent families compared to couple families (median family income of $30,919 versus $57,381) in the region.

- Almost a quarter (24.4%) of Northern residents speaks a non-official language at home. Of that number, the most predominant language is Cree (59.1%) and Oji-Cree (32.2%).

- Approximately 37 per cent of the Northern population reports a mother tongue other than English or French. These proportions are much higher than in Manitoba (21.5%)

- 10.8 per cent of our residents moved within the province in the last 5 years compared to 7.2 per cent of Manitobans. According to these data, the Northern Health Region has a relatively transient population.

3.0 Key Findings - Areas of Progress

Throughout this Community Health Assessment, areas of improvement have been identified. While we note that there have been incremental improvements made, it is also true that there is still room for further improvement. That said, the following results do show progress has been made in a range of indicators.

Socio-Economic Conditions

Socio-economic factors have been identified in past CHAs 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 Northern Health Region would like to see improvement include unemployment rates, higher income for lone parent families, as well as better education attainment levels.

- In 2011, the LICO (low income cut off) rate is in the middle of the province at just over 11.8 per cent of residents which is lower than the provincial rate of 15.4 per cent.

- A smaller proportions of residents spend 30 per cent of more on shelter costs compared to Manitoba overall, with 10.8 per cent of homeowners doing so (13.0% provincially) and 26.1 per cent of renters (35.4% in Manitoba).

Personal Health Practices

The degree to which 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 and healthier eating, smoking and exposure to second hand smoke continue to be unacceptably high.

- For readiness for school indicators, area of development measures remained relatively steady from 2006 to 2011. Some modest improvements were made in language and cognitive development, communication skills and general knowledge.

- The healthy eating rate in the region was 32.3 per cent between 2007/08 and 2011/12, which was an improvement from previous surveys.

Maternal, Infant and Child Health

Concern about parenting, child safety and child neglect were some of the most prevalent topics raised by community consultation participants. When asked generally what communities needed to be healthy, considerable attention was paid to parenting skills and the need for more maternal health programs to support new mothers and their children.

- The region has experienced a decline in teen pregnancy in recent years from a high of 62.8 per 1,000 in 2010/11 to 51.6 in 2012/13.
- There has been a gradual decline in high birth weight (HBW) rates from 20.6 per cent in 2002/03 to 17.8 per cent in 2011/12, reducing the gap between the region and the Manitoba average
- Generally, youth in the region feel safe at home (96.7% agree) in their school (81.9% agree) and have a supportive family (89.9%) and close friend (87.1%) support system they can use.

Chronic Disease

Both heart related condition and diabetes were rated in the top 3 of most serious health care issues facing the region. In the survey, 26.0 per cent of respondents had indicated that they had been treated for diabetes by a doctor or nurse in their lifetime which was second among conditions cited. Chronic disease management was an important theme of discussion for focus groups held in the region in 2014. Much of the prevailing sentiment was that there were enough treatment options for residents managing a chronic disease but that there needed to be more of an ongoing commitment from patients to live a healthier lifestyle to address the risk factors that people can control.

- Rates for some major chronic diseases such as heart attacks, chronic heart failure, hypertension, stroke, and breast cancer all declined over time in the region.
- The proportion of residents living with ischemic heart disease and osteoporosis also declined.
- While diabetes incidence and prevalence grew, the good news is that, out of the growing number of those diagnosed with diabetes and pre-diabetes, the Regional Diabetes program has implemented a free physical activity group class and provided access to dietitian services to help make more nutritious food choices.
- Lower limb amputations for diabetics did decrease slightly which suggests that patients and providers are more aware of the need for screening to prevent complications.

Mental Health

Mental health and addictions were priority areas identified by community residents and health care providers through the community consultation process, as well as in previous Community Health Assessments. It is now considered on the top health priorities as staff and resident surveys indicate. Considerable concern was expressed that community mental health services were not readily accessible to those who needed it. While the system responded to mental health crises well, it was not able to provide ongoing mental health support to prevent a crisis from occurring.

- The proportion of residents diagnosed with dementia declined to 8.5 per cent in 2007/08-2011/12, statistically below the Manitoba average of 10.6 per cent

- The proportion of residents with a mood or anxiety disorder remained relatively unchanged at 17.5 per cent in 2007/08 which was statistically below the Manitoba average of 23.3 per cent.

Accessibility and Effectiveness

The Northern Health Region staff survey highlighted staff concerns with accessibility as one of the main concerns expressed by staff. This included wait times for health services and programs, staff shortages, lack of health services and physician retention. These are all concerns that directly impact accessibility. In survey results, there was almost unanimity among staff about the importance of health accessibility to residents (97.4% agreed it was very important or important).

- Over half (56.8%) community residents feeling very satisfied or satisfied with accessibility and 55.3 per cent very satisfied or satisfied with the timeliness of health care services.
- Increases in the number of MRIs and CTs scan procedures shows the region is making key diagnostic procedures accessible to its residents.
- Most northern residents (89.1%) stay in their home RHA for hospitalization. Most hospital days are also spent at northern hospitals (78.4%).
- The median wait time for breast cancer assessment diagnosis improved for the 2008/09-2009/10 period going to 31 days for the Northern Health Region.
- In 2011/12, virtually all (98%) cancer patients were treated with radiation therapy within four weeks.
- The region experienced an increase in rates of continuity of care rates to 65.2 per cent in 2010/11-2011/12
- Prescription rates for benzodiazepine remained statistically below the Manitoba average of 20.5 per cent.
- The hospitalization rate for ambulatory care sensitive conditions declined significantly in the region to 14.9 cases per 1,000 population
- In 2012, 16.9 per cent of all births in region were by Caesarian Section which was lower than the Manitoba average of 21.9 per cent.

Health Care Utilization

Utilization indicators provide key information on how the health care system is used by residents in the Northern Health Region across the health care continuum from primary care, hospital care, diagnostics, surgeries, home care and long term care. The objective is to use health care resources as effectively and efficiently as possible, moving to a more community-based model of care where there is less reliance on acute care facilities for health care.

- While endocrine and metabolic diseases (thyroid diseases, diabetes, and osteoporosis are included in this category) were the top reason for physician visits in the Northern Health Region, the good news was that the proportion of visits due to injury and poisoning and respiratory conditions declined over time.
- As with physician visits, there was a smaller proportion of patients being hospitalized for injury and poisonings and more patients coming in for screening test and immunizations.
- The region experienced a decline in its hospital readmission rate from 12.2 per cent to 10.9 per cent between 2006/07 and 2011/12, a statistically significant decline.

- Hospital separation rates declined significantly in the region from 183.3 per 1,000 population in 2006/07 to 154.8 in 2011/12, a statistically significant decrease. It still remained statistically above the Manitoba average of 87.9.

- The Northern Health Region had a slight decline in long term hospital stays with a more significant decline for short hospital stays over time.

4.0 Key Findings - Areas of Challenge

Socio-Economic Factors

The large proportion of lone parent families is of concern given the lower income levels those families have. Wide ranges in income have been shown to negatively affect health status of communities. Socio-economic indicators have the greatest impact on health status and can significantly influence how Regional Health Authorities deliver health programs and services.

- The proportion of lone parent families in our region is larger than in the province overall (30.0% versus 17.1%) and the highest among Manitoba RHAs. Census data shows the substantially lower income experienced by lone parent families compared to couple families (median family income of $30,919 versus $57,381) in the region.

- The labour force participation rate was 57.8 per cent, below the Manitoba average of 67.7 per cent.

- The unemployment remained high in the region at 15.2 per cent of men and 12.7 per cent of women.

- Slight gains in educational attainment seem to have been made with just under one half (49.6%) of residents having no degree, certificate or diploma, though still substantially higher than the Manitoba average of 25.1 per cent.

Personal Health Practices

Based on the findings of the youth health survey in the region, particular attention will need to be focused on the older grades to build greater awareness of risky behaviours around drinking, smoking, drugs and sexual activity and information.

Adults

- The binge drinking rate was 31 per cent between 2007/08 to 20011/12, the highest in Manitoba and well above (and statistically different) the provincial average of 24 per cent.

- The cigarette smoke second hand exposure rate in the region between 2007/08 and 2011/12 was 20.9 per cent which was a statistically significant different from the Manitoba average of 11.2 per cent during the same time period.

Youth

- The youth smoking rate was 25.8 per cent in 2012. Smoking rates increased with each grade. In grade 7, 9.5 percent of students smoked occasionally or daily; by grade 12, 43.1 per cent of students were smoking.

- Overall, 82.4 per cent of youth were either moderately active or active. Inactive levels rose from grades 7 (12.9% inactive) to 11 (23.0% inactive) and then dropped in grade 12 (18.0% inactive).

- The region experienced an improvement in Body Mass Index (BMI) with a slight reduction in the number of residents who were overweight or obese which was 65 per cent between 2007/08 and 2011/12, well above and statistically different from the Manitoba average of 56 per cent.

- Fully 60.1 per cent of youth survey respondents had fruit and vegetable consumption below the Canada Food Guide recommendations at either 2 times or less a day (23.7%) or 3-6 times.

- In grade 7, 39.6 per cent of students were overweight or obese, in contracts the grade 12 cohort has a rate of 30.5 per cent. This is of concern as there are more young students who are overweight and obese compared to older students, we must continue to monitor to determine if the grade 7 group continues to experience higher rates of obesity as they age or if these rates decline as the students go through high school.

- Sex practices, discussion about birth control and STIs increased with each grade.

- The main sources of information about sex differ with each grade. In grade 7, the primary source for sexual health information was a parent or caregiver. By grade 12, the internet and friends become the most important sources of information.

- Once again, with other drug and alcohol indicators, binge drinking rates rise with each year in high school. In grade 7, 13.9 per cent of students had engaged in binge drinking. By grade 12, 85.8 per cent had done so.

- More casual drug use seems to continue to increase with each grade. In grade 7, 17.4 per cent of students indicated that they had taken drugs in the last year. By grade 12, 60.4 per cent had.

- The most common type of bullying that youth experienced in the past year was someone saying something about their appearance or shape (45.3%) or being bullied, taunted or ridiculed (44.2%).

- Overall use of sunscreen is low with only 31.2 per cent of youth indicating that they use it often or always. Use is higher among females 35.1 per cent saying they use it often or always versus 27.2 per cent for males who do.

Mental Health

While the incidence levels of some mental health conditions appear to be lower in the north, there is widespread concern about the availability of mental health supports for residents.

- 30 per cent of respondents to the 2014 Northern Health Region staff survey cited Mental Health as a weakness of the region. This was the highest response rate for a program area.

- Mental health was cited as one of the top three health care issues in the region both by staff (16% of respondents cited mental health conditions) and residents (12%).

- Mental health was also a major reason for nurse or doctor visits with 28.1 per cent of residents indicating that they had been seen for a mental health condition in their lifetime.

- While the proportion of residents diagnosed with substance abuse declined to 9.2 per cent in 2007/08-2011/12, it was still almost double the Manitoba rate of 5.0 per cent.

Maternal, Infant and Child Health

The region continues to see high birth rates and poorer outcomes for births. Given the concerns expressed about the level of maternal health support, more attention needs to be paid in this area to ensure improved outcomes for mothers and their infants.

- The birth rate was 22.2 births per 1,000 residents in 2011/12, the highest birth rate among Manitoba RHAs and well above the provincial average of 12.4. The pregnancy rate for 2011/12 are considerably higher in First Nations communities, particularly in the 15-19 and 20-24 years age categories.

- The teen birth rate in 2012/13 was 43.1 per 1,000 population, more than three times the Manitoba average of 12.8.

- In 2012/13, the preterm birth rate was 9.0 per cent of live births compared to the provincial average of 7.8 per cent. It was the highest rate among Manitoba RHAs

- The proportion of low birth weight infants was 6.1 per cent in 2011/12, the highest among Manitoba RHAs, above the provincial average of 5.3 per cent.

Chronic Disease

While some progress was noted on the incidence levels of some chronic diseases, those living with diabetes, arthritis and high blood pressure remains very high. Increased efforts to promote healthier living strategies to reduce the incidence of chronic disease remains a regional priority.

- The proportion of residents with arthritis remained high at 23.5 per cent in 2010/11-2011/12, above the Manitoba average for both time periods. The Lynn Lake and Gillam districts had prevalence rates of over 30 per cent in the most recent time period.

- The diabetes incidence rate rose slightly 1.81 new cases per 100 person years in 2004/05-2006/07 to 1.91. The regional rate was statistically higher than the Manitoba average in both time periods. The Island Lake Zone had the highest rates among all districts at 5.15, a statistically significant difference from the regional average

- The proportion of residents living with diabetes increased from 18.2 per cent in 2004/05-2006/07 to 20.9 per cent in 2009/10-2011/12, a statistically significant increase. The Island Lake Zone (48.9%) and the Non-Direct Service (28.0%) zones had rates statistically higher than the Northern Health Region rate.

- The proportion of residents with hypertension increased to 35.0 per cent in 2011/12, the highest prevalence rate in Manitoba. As with other chronic disease findings, the Northern Direct Service zone recorded the lowest prevalence rates (33.0%) while the Non-Direct Service zone (40.1%) and the Island Lake zone (53.7%) had significantly higher rates in comparison to the northern average.

- The overall cancer incidence rate was 523.3 new cases per 100,000 residents in 2008-2010. This incidence rate is higher than the Manitoba average of 471.2.

- Our region had higher incidence rates for long and colorectal cancer compared to Manitobans overall.

Communicable Diseases

The north continues to struggle with very high rates for communicable diseases, particularly for chlamydia, gonorrhea and tuberculosis. The region continues to work on providing greater awareness and information campaigns along with improved monitoring and surveillance.

- The chlamydia rate has generally increased over the 2004-2013 time period. By 2013, the chlamydia rate in the north was over four times higher than that of other RHAs in Manitoba.
- The rate of new gonorrhea cases was considerably higher than the Manitoba rate between 2004 and 2013. By 2013, the incidence rate of gonorrhea was six time higher than the Manitoba average.
- The tuberculosis rate remains well above the Manitoba average from 2000-2012. By 2012, the Northern rate was 75.0 cases per 100,000 population, over 7 times the Manitoba rate.

Accessibility and Effectiveness

Access to primary care providers, which is necessary in providing ongoing chronic condition management outside of a hospital setting, continues to be an area of concern for the Northern Health Region.

- Only 33.3 per cent of staff respondents to our Northern Health survey thought residents were either very satisfied or satisfied with accessibility to health care services offered with 30.5 per cent of respondents feeling that residents were dissatisfied with accessibility.
- From 2007/08 to 2011/12, 65.2 per cent of residents had access to a regular doctor, well below the Manitoba average of 86.0 per cent during the same time period. The Island Lake and Sayisi Dene districts had only 50 per cent access to physicians.
- The ambulatory visit rate declined to 3.3 visits per resident in 2011/12, statistically different from the Manitoba average of 4.4.
- Rates for antidepressant follow up declined to 36.1 per cent in 2007/08-2011/12, statistically different from the Manitoba average of 54.5 per cent.
- There was a slight decrease in eye exam rates for diabetes patients to 33.0 per cent in 2011/12, a statistically different rate from the Manitoba average of 37.5 per cent.
- The dental extraction rate was 72.8 per 1,000 in 2007/08-2011/12, significantly higher than the Manitoba average of 15.0 extractions per 1,000. The extraction rates were found to highest in the Northern Island Lake and Non-District zones where rates were statistically higher than the Northern Health Region average in both time periods.
- In 2008-2010, the late stage diagnosis rate for cancer was 23.6 per cent, statistically higher than the Manitoba average of 19.5 per cent. Late stage diagnoses ranged from 14.8 per cent for prostate cancer to 43.3 per cent for lung cancer in the Region.

Health System Utilization

Indicator results showed that the north had improved its performance with lower hospital use and lower hospital and physician use due to injury and poisoning. Increasingly though, the region, has seen long term care resources under strain which is impacting accessibility to PCHs. More efforts will need to be directed to independent living strategies for seniors and home care to reduce the reliance of PCHs. This is particularly important as the senior population continues to increase.

- The proportion of seniors aged 75 years and older who were admitted to a PCH remained stable at 13.4 per cent in 2005/06-2006/07 and 13.6 per cent in 2010/11-2011/12, above the provincial average of 11.9 per cent. All other RHAs experienced a statistically significant decline in admission rates between the two time periods.

- In 2010/11-2011/12, 71.2 per cent of PCH admissions were at a level 3 or 4 care, compared to 69.6 per cent for Manitoba as a whole. The Northern Health Region had the highest percentage of residents admitted at level 4.

- There was a statistically significant increase in wait times for PCH admission from 2.9 weeks to 8.7 weeks, above the Manitoba average of 5.1 weeks

- The personal care home bed supply rate increased from to 195.5 beds per 1,000 residents aged 75 and over, almost double the Manitoba average of 114.1.

Injury, Premature Death and Life Expectancy

Premature mortality and injury rates continue to be high in Northern Health Region. This underlines the point that to make measurable progress in improving life expectancy and reducing the number of premature deaths, injury prevention strategies need to be effective and 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 noted that cancer is the leading cause of death in the region.

- Life expectancy for males and females at 71.4 and 76.4 years respectively in 2007-2011, is statistically lower than the Manitoba average. The Northern Direct Service zone had the highest life expectancy.

- Falls continue to be the leading cause of hospitalization for injuries (particularly in the 75 years and older age category) followed by assaults and self-inflicted injury. Among females, self-inflicted injuries are the second leading reason for injury hospitalization, with more than two times the standardized rate and two times the cases of men.

- The leading causes of mortality in the region remained fairly constant between 2002-2006 and 2007-2011. Cancer increased in the proportion of deaths, from 20.6 per cent of all deaths in 2002-2006 to 23.3 per cent of deaths, the number one cause of mortality in 2007-2011.

- The age standardized rate for all injuries was 115.5 between 2000 and 2012. The rates were considerably higher for males both for unintentional and intentional injuries compared to females.

- The overall cancer mortality rate in 2008-2010 was 264.1 per 100,000 population, the highest rate among RHAs and statistically different from the Manitoba average of 202.7

- The findings for the top 10 causes of premature mortality are similar to the top 10 mortality. Premature deaths that increased from 2002-2006 to 2007-2011 were cancer (20.7% to 22.4% of all premature deaths), digestive diseases (4.4% to 6.2%) and respiratory diseases (4.4% to 6.3%).

- The Premature Mortality Rate (PMR) remained virtually unchanged at 5.3 per 1,000 population in 2002-2006 and 5.4 per 1,000 in 2007-2011; significantly higher than the Manitoba average of 3.1 per 1,000.

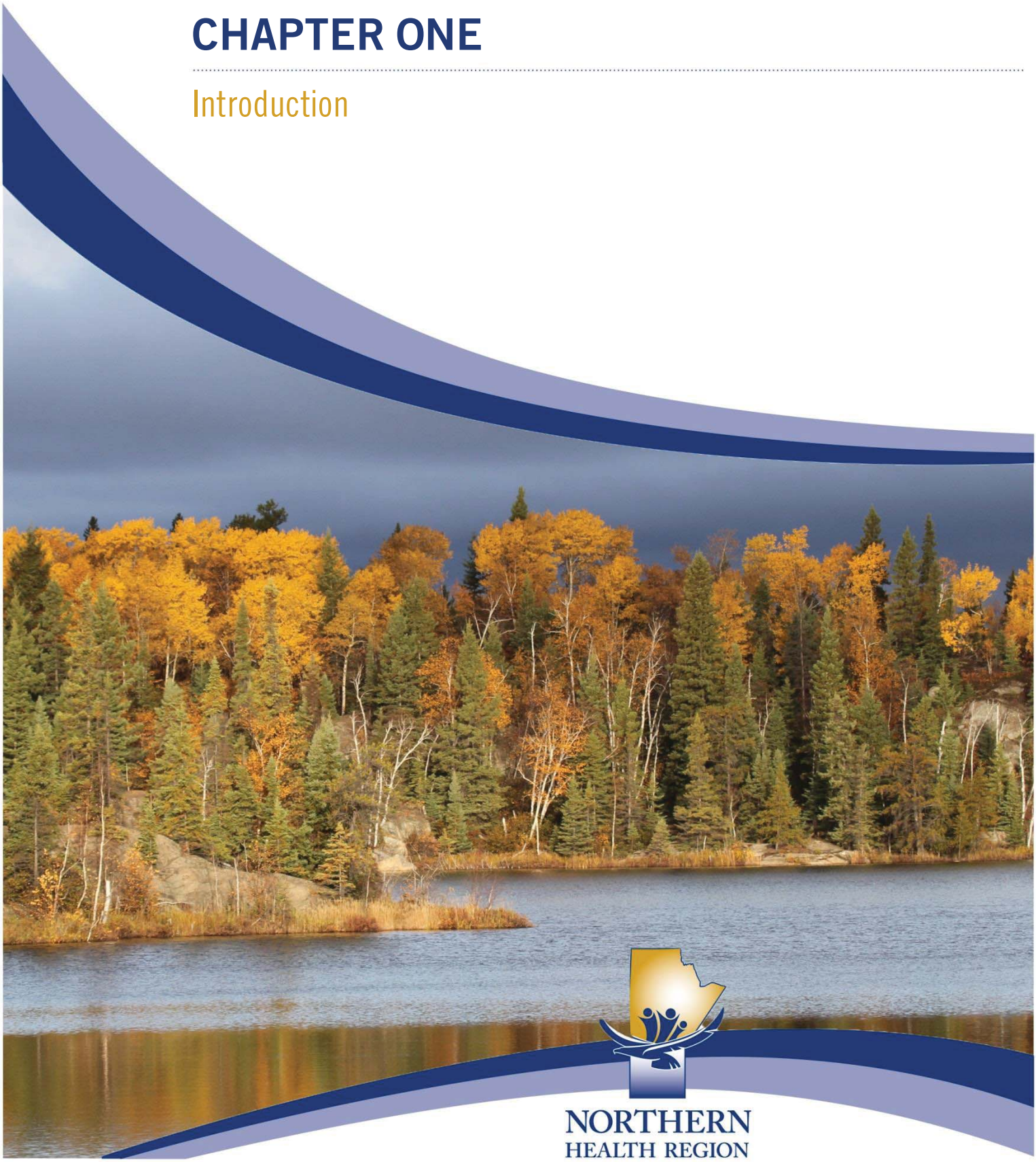
- The rate of Potential Years of Life Lost (PYLL) in the region remained steady at 100.2 per 1,000 residents in 2002-2006 and 102.4 in 2007-2011, almost double the Manitoba average of 51.5 per 1,000.

- From 2007/2008 to 2011/2012, the infant mortality rate was 10.1 deaths per 1,000 births, the highest among Manitoba RHAs. It significantly higher than the Manitoba average of 6.4 deaths per 1,000 infants.

- The child mortality rate of 91.9 deaths per 100,000 population from 2007/2008 to 2011/2012 is almost three times the Manitoba rate of 32.4 deaths per 100,000 population.

CHAPTER ONE

Introduction



NORTHERN
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Chapter 1 Introduction

This Community Health Assessment (CHA) is intended to identify key health needs and issues through systematic, comprehensive data collection and analysis. Assessing the health of a community is a critical component of improving health. By determining the factors that make us healthy, why we get ill, how we use the health care system, we can get a better sense of how to improve population health.

A more focused and comprehensive document such as this allows us to delve more deeply into the health of different sectors of the region whether it is geographical, by district, chronic disease patients or cancer survivors. It allows us the opportunity to examine what it means to be healthy using the definition used by the World Health Organization constitution signed in 1946 when it referred to health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."[i] While the definition is nearly 70 years old, it continues to resonate as it includes the notion that health is an ongoing process which is not simply the responsibility of the health care system but more a personal and societal responsibility.

The CHA is part of a larger ongoing, strategic and planning process that sets out to develop priorities, and facilitate an action plan in order to improve the health of the community and, ultimately, the quality of life of the population. Through review of our data and consultation with our staff and community members, this Community Health Assessment will form the basis for this region's planning and decision-making process. Given how important this document is, this CHA will need to achieve 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 the future.

The information presented in this CHA will be used to inform a wide array of stakeholders and processes including:

- RHA strategic planning process
- RHA communities and stakeholders
- Manitoba Health's strategic planning and performance deliverable processes
- To inform residents about the region
- To inform evidence-based decision making

While a CHA is important to how government and the region operates, it also an important public information resource for the many organizations and agencies that impact on our health, wellness and community development. It plays a key role in helping us engage with the public in our shared efforts to improve everyone's health in the Northern Health Region.

In Manitoba, the requirement that all Regional Health Authorities (RHAs) undertake a Community Health Assessment is mandated in the *Regional Health Authorities Act* This report is the fourth comprehensive CHA that Manitoba RHAs have completed: the first was published in 1997, the second in 2004 and the fourth in 2010. The Manitoba Community Health Assessment Network (CHAN) was established in 1999 to provide a forum for discussing the process of health assessment as well as the underlying factors of community health. This group has representatives from all RHAs, Manitoba health, the Manitoba Centre for Health Policy and CancerCare Manitoba. CHAN has played a vital role in developing and refining the CHA process and methods, encouraging RHA participation, and pointing to future priority areas for study Manitoba. CHAN has played a vital role in developing the CHA process and methods, encouraging RHA participation, and attracting funding.

Northern Health Region CHA Working Group:

Chair: Joy Tetlock, VP Planning & Innovation

Members: Rusty Beardy, VP Aboriginal Health Services & Chief Allied Health Officer
Dr. Randy Gesell, Medical Officer of Health
Tanis Campbell, Director Community Engagement
Don Gamache, Manager Behaviourial Health Community Development & Support Services
Leanne Pickering, Executive Assistant Planning & Innovation

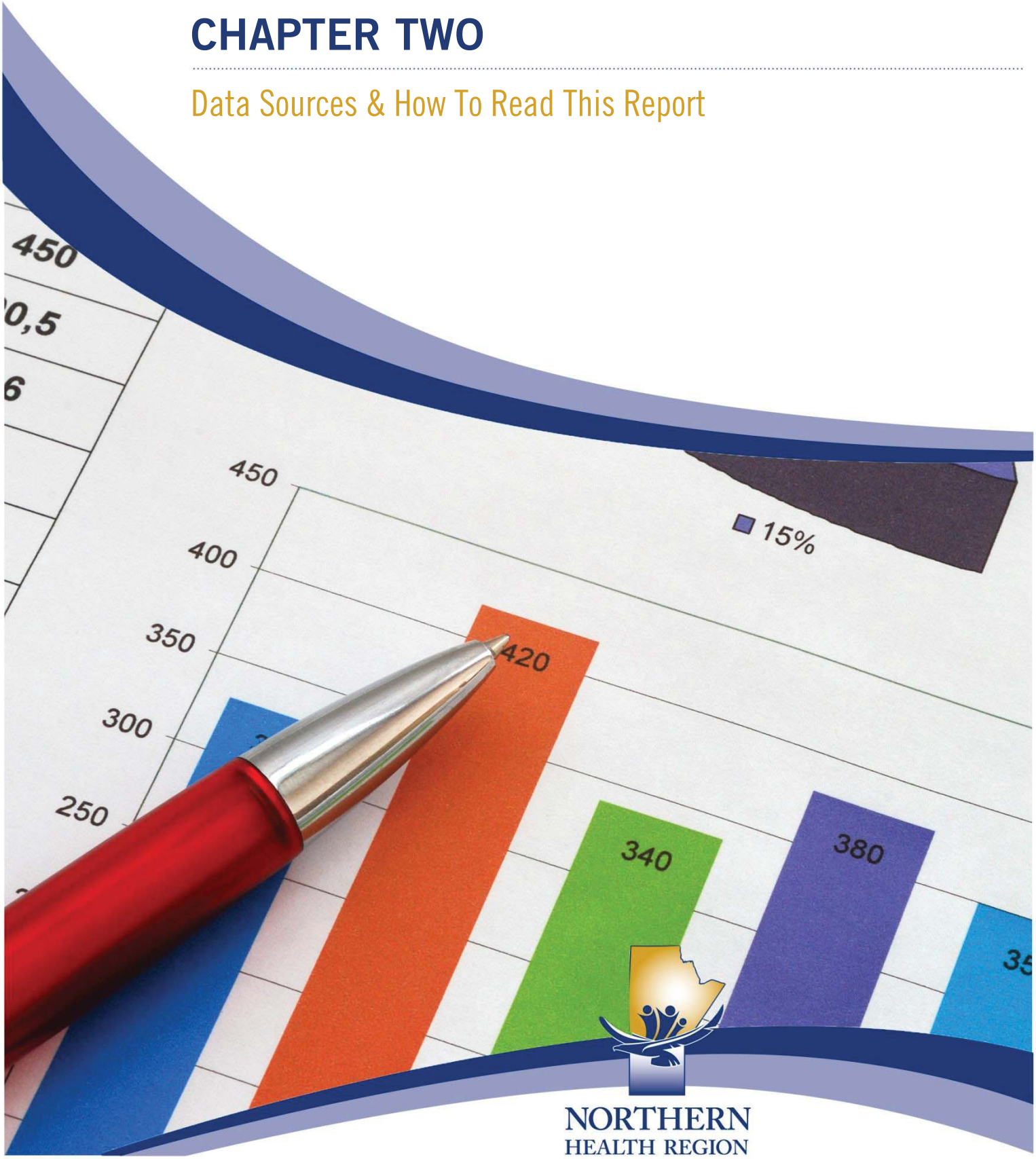
Written by: Cynthia Carr, EPI Research Inc, with assistance from Jamie Simard, Innovation Analyst & Corporate Support

Thank you to all staff that assisted in providing input.

[i] World Health Organization, http://www.who.int/about/definition/en/print.html

CHAPTER TWO

Data Sources & How To Read This Report



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2.1. Process and Methods

2.1.1. 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 2.1.2 Primary Data Sources); the second was through a series of consultations and surveys with staff and community members.

2.1.2. 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 (2003-2012)
- Statistics Canada, 2011 Census
- Manitoba Health, Health Information Management
- Manitoba Health, Communicable Disease Control
- Manitoba Centre for Health Policy, *Manitoba RHA Indicators Atlas 2013*
- Healthy Child Manitoba, *Families First Screening Data*
- CancerCare Manitoba, Community Health Assessment, 2013/14.
- Manitoba Health, Epidemiology & Surveillance Unit. *Injuries Report: Northern Regional Health Authority, 2000-2012.*
- Partners in Planning for Healthy Living, 2012/13 Youth Health Survey

Statistics Canada, Canadian Community Health Survey

The Canadian Community Health Survey (CCHS) is a cross-sectional survey that collects information related to health status, health care utilization and health determinants for the Canadian population, providing information on a health region level. It relies upon a large sample of respondents and is designed to provide reliable estimates at the health region level.

Since 2007, data for the Canadian Community Health Survey (CCHS) are collected yearly instead of every two years.

The CCHS is an important source of determinant data and self-reported health data; however, the survey is a Non First Nations Community, household survey only (for residents age 12 and older). This means that persons living in an institutional setting (including personal care homes) or in First Nations Communities 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.

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)

The Northern Health Region is classified by Statistics Canada as "Peer Group F". This Peer Group consists of five regions that account for 0.4 per cent of the Canadian population. These regions are characterized as:

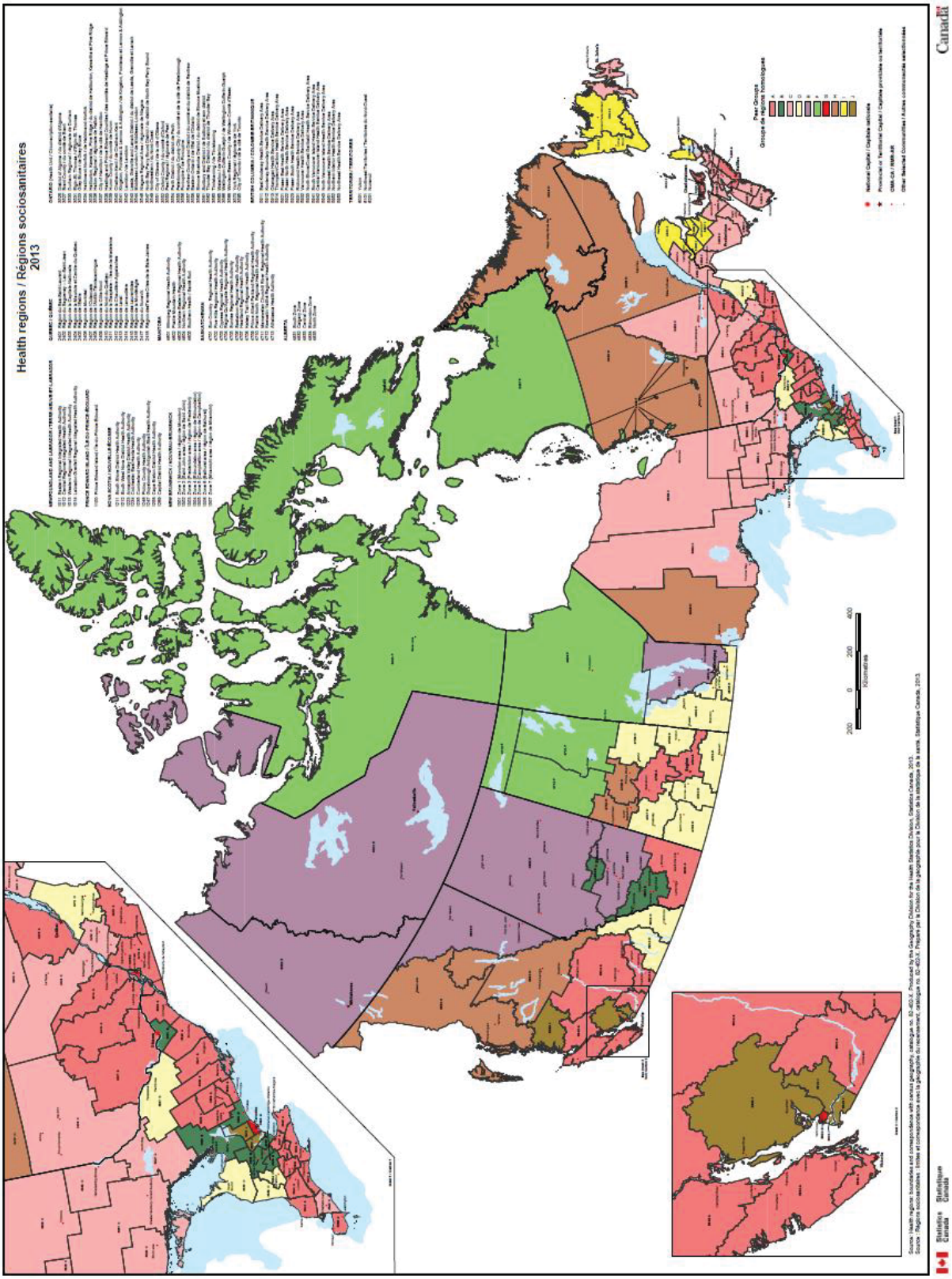
- Northern and remote regions
- Very high Aboriginal population
- Very low employment rates
- Low proportion of immigrants

The regions making up Peer Group F are:

- Athabasca Health Authority (4713-F), Saskatchewan
- Keewatin Yatthé Regional Health Authority (4712-F), Saskatchewan
- Mamawetan Churchill River Regional Health Authority (4711-F), Saskatchewan
- Mamawetan/Keewatin/Athabasca Regional Health Authorities (4714-F), Saskatchewan
- Northern Regional Health Authority (4604-F), Manitoba
- Nunavut (6201-F), Nunavut
- Région des Terres-Cries-de-la-Baie-James Quebec
- Région du Nunavik, Quebec

For more information, please visit:

http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3226



http://www.statcan.gc.ca/pub/82-402-x/2013003/maps/ca-eng.pdf

Statistics Canada, 2011 Census

The 2011 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 2011. However, there are some economic variables (such as annual median income) where the data being reported is actually from the year 2010 (that is, in 2011, people were asked about their income in the preceding full year).

For more information about the Census, please visit Statistics Canada website at: www.statcan.ca. Specific community profiles can be obtained at:

http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E

Manitoba Health, Health Information Management

The Health Information Management branch at Manitoba Health provided an extensive amount of population, birth and mortality data for this report.

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 Centre for Health Policy (MCHP), The 2013 RHA Indicators Atlas

Regions have been provided an extensive amount of statistical information through the Manitoba Centre for Health Policy (MCHP), Need to Know Project which has now lead to the second comprehensive data published in 2013 (the first in 2008).

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.

For more information about the Manitoba Centre for Health Policy and wealth of published research available, please visit:

http://umanitoba.ca/faculties/health_sciences/medicine/units/community_health_sciences/departmental_units/mchp/research.html

2.1.3. Consultation & Surveys

Community consultations were lead by Don Gamache and Tanis Campbell and took place between May-October 2014.

Community consultations took place mostly in Thompson but also in several other communities throughout the regiona. Consultations in Thompson occurred with the following groups:

- Keewatin Tribal Council
- Northern Health Region Board of Directors
- Northern Health Region Senior Management Team
- Northern Doorway Project
- Hub Membership for Youth Leadership
- Healthy Moose Lake
- Opsquia Health Authority Staff
- Bayline Communities RHA Staff

Key Informant interviews also took place with representatives from the following organizations

- Manitoba Hydro
- Manitoba Métis Federation
- Addictions Foundation Manitoba
- RCMP
- Mamaweetin Region Health Authority
- Cross Lake First Nation
- Thompson Friendship Centre
- Creighton Community Services
- Grand Rapids First Nation
- Moose Lake First Nation
- Sandy Bay Nursing Station
- Lynn Lake Friendship Centre

Surveys were conducted with Northern Health Region staff, northern community residents and youth between grades 7 and 12.

In order to supplement the administrative and other survey data collected for the 2014 Community Health Assessment, a short survey was developed for community residents living in the Northern Health Region. This survey focused on the client experiences of adults 18 years and older have had with regional health services. Advertisement in local newspapers, posters in health facilities and a smart tag was used to

encourage residents to fill out the survey on line. Recognizing that not everyone has access on line, facility staff were also asked to distribute paper copies of the survey to patients. In total, there were 531 responses, 515 valid for analysis.

A similar survey to the community survey was developed for Northern Health Region staff. This survey focused on what they thought resident experiences were like in the health care system along with their assessment of the Northern Health Region generally. Staff completed 564 surveys, 558 of which were valid for analysis. Of that total, 375 of the surveys were completed online and 189 by paper with responses sent in by July 4, 2014.

The northern results from the Partners in Planning, 2012/2013 Manitoba Youth Health Survey (YHS) provides an important basis of information reported in the child health section in chapter 4. The 2012/2013 version of the YHS was completed by grades 7 to 12 students across all RHAs. Northern Health region student from 37 schools took part (see complete listing below). The survey looked at physical activity, healthy eating, body mass index, tobacco use, alcohol and drug use, school and community connectedness, hopelessness and mental wellbeing, as well as sun/UF safety, bullying, injury prevention and healthy sexuality.

The report included the following schools:

Frontier School Division Schools
Cormorant Lake School
Cranberry Portage Elementary
Frontier Collegiate Institute
Grand Rapids School
Joseph H. Kerr School
Frontier Mosakahiken School
Brochet School
West Lynn Heights School
Leaf Rapids Education Centre
Gilliam School
Thicket Portage School
Mel Johnson School
D.R Hamilton School:
Ministic School
Disbrowe School
Stevenson Island School
Helen Betty Osbourne Ininiw Education Resource Center

First Nation Band Schools:
Oscar Lathlin College
Garden Hill First Nations High School
Nisichawayasihk Neyo Ohtinwak Collegiate School
Red Sucker Lake School
Abraham Beardy Memorial (Shamattawa)
Mikisew School

Flin Flon School Division:
Hapnot Collegiate
Many Faces Education Centre
École McIsaac School
Ruth Betts School

Kelsey School Division:
Margaret Barbour Collegiate
Mary Duncan School
Scott Bateman Middle School

Mystery Lake School Division:
Burntwood Elementary
Deerwood School
Juniper School
R.D. Parker School
Riverside School
Wapanohk Community School
Westwood Elementary

All community consultation materials developed for the Northern Health Region Community Health Assessment are provided in **Appendix C.**

2.1.4. How To Read This Report

This report around 80 core indicators as well as non-core indicators that are priority areas for the region. The report is broken down in the following chapters:

Chapter 1 – Key Findings
Chapter 2 - Introduction, Methodology and Data Sources
Chapter 3 - Regional Profile
Chapter 4 - Determinants of Health
Chapter 5 - Health Status
Chapter 6 - Health System Characteristics
Chapter 7 - Health System Performance and Quality

Chapters 3 to 7 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.

ICD-10 Classification

In order to assist with interpretation of the information provided, **Table 2.1** provides a brief description of the ICD-10[i] disease classifications that will be reported through the physician billing, hospitalization and mortality data.

Table 2.1. Description of International Classification of Disease (ICD-version 10) and Cause of Death Classifications.

Classification	Brief Description
I Certain Infectious and Parasitic Disease	These are diseases that are generally recognized as communicable or transmissible. This includes tuberculosis, bacterial diseases, hepatitis and sexually transmitted infections.
II Neoplasms (Cancer)	A group of diseases in which cells grow unusually and uncontrolled. Common forms of cancer include lung cancer, breast cancer, prostate cancer, colorectal cancer and skin cancer.
III Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	Diseases that are caused by not having enough blood cells. Iron deficiency anemia is a common disease in this category (person does not have enough iron in the diet).
IV Endocrine, nutritional and metabolic diseases	Diseases as a result of not eating properly, by glands that do not work properly or substances in the body which are toxic. Some conditions under this category include diabetes, malnutrition, obesity, and thyroid disease.
V Mental and behavioural disorders	Disorders that affect people's mood or thinking over time. Some common disorders include depression, disorders caused by drugs or alcohol, and schizophrenia. Also included are mental retardation and childhood and adolescent behavioural and emotional disorders.
VI Diseases of the nervous system	Those diseases which affect the ability to sense, feel and use reflexes. Some common nervous system diseases include Multiple Sclerosis, Alzheimer's disease and Parkinson's Disease.
VII Diseases of the eye and adnexa; VII Diseases of the ear and mastoid process	Diseases of the Eye and Ear are those that affect a person's ability to see and hear. The most common eye diseases include blindness, nearsightedness, farsightedness, and astigmatism. A number of ear conditions can affect hearing or balance. Ear infections are the most common among children, tinnitus (roaring in one's ears) and Meniere's disease (inner ear disease affecting balance).
IX Diseases of the circulatory system	Diseases that affect the movement of blood in heart and blood vessels. These diseases can cause problems for the lungs, the brain, kidneys or other parts of the body. The most common circulatory diseases are heart diseases and stroke.
X Diseases of the respiratory system	Diseases which affect breathing. Examples of respiratory diseases include the common cold, asthma, lung cancer, pneumonia, tuberculosis, Chronic Obstructive Pulmonary Disease (COPD) and cystic fibrosis.
XI Diseases of the digestive system	Conditions that affect the digestive tract in the body. Diseases included are appendicitis, Crohn's disease, colitis, ulcers, disorders of the gallbladder and liver disease.

XII Diseases of the skin and subcutaneous tissue	Diseases which affect the layers of skin. Acne, blisters and rashes are common conditions in this category. Many of these diseases may be related to quality and availability of clean water as well as personal hygiene practices.
XIII Diseases of the musculoskeletal system and connective tissue	This classification includes muscles disorders, arthritis, and osteopathies (disorders of bone density).
XIV Diseases of the genitourinary system	Diseases affecting the reproductive system of men and women. Some common examples include kidney and gall bladder stones, urinary tract infections, kidney failure, and prostate cancer.
XV Pregnancy, childbirth and the puerperium	Conditions related to, or aggravated by, the pregnancy, childbirth or by the puerperium (the six week period following childbirth). These can be due to maternal causes or obstetric causes. Some examples include pregnancy with abortive outcome, complications of labour and delivery and hypertension in pregnancy.
XVI Certain conditions originating in the perinatal period	These are conditions that originated perinatal period (the time period from about 20 weeks gestation until about 4 weeks after birth) even though death or illness occurs later. This includes birth trauma, disorders related to length of gestation and fetal growth and infections that occurred during the perinatal period.
XVII Congenital malformations, deformations and chromosomal abnormalities	Birth defects that develop before birth. Example include infants are born with heart defects, cleft lip or palate, Down syndrome, spina bifida, and limb defects.
XVIII Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	The conditions and signs or symptoms included consist of: ▸ cases for which no more specific diagnosis can be made even after all the facts bearing on the case have been investigated; ▸ signs or symptoms existing at the time of initial encounter that proved to be transient and whose causes could not be determined; ▸ provisional diagnoses in a patient who failed to return for further investigation or care; ▸ cases referred elsewhere for investigation or treatment before the diagnosis was made; ▸ cases in which a more precise diagnosis was not available for any other reason; ▸ certain symptoms, for which supplementary information is provided, that represent important problems in medical care in their own right
XIX Injury, poisoning and certain other consequences of external causes	This classification involves the specific injury type and site. For example injuries to the head, the neck etc with details. Burns and frostbite are also included in the category.

XX External causes of morbidity and mortality	This is the cause of the injury. For example, the external cause of a "head injury" may be motor vehicle accident. This classification would note the nature of the external cause (such as car accident) that lead to injury.
XXI Factors influencing health status and contact with health services	This classification is used for reasons other than disease or injury: ▸ When a person donates an organ or tissue, receives vaccination or discusses a problem which is in itself not a disease or injury. ▸ When some circumstance or problem is present which influences the person's health status but is not in itself a current illness or injury. They can be recorded as an additional factor to be considered when the person does receive care for an illness or injury

How to use and interpret "rates" and "statistical significance"

- In order to protect confidentiality, when there are less than 5 cases, deaths or other health related events, the actual number will not be presented. You will see a * in the data table. This means that data are suppressed due to small numbers.

- Unless otherwise noted, most rates presented in this document are "crude rates". This means that the rates represent the true number of events (such as births, deaths, hospitalizations etc) in your district. These rates can be used for your own planning but should not be used to compare to other communities or areas that have very different population distributions (for example a community, such as Winnipeg, that has a much larger proportion of older residents than your community). These rates also should not be used to make comparisons over time if there have been significant changes in your population (such as large growth, or large numbers who have left the community).

- Many hospitalization and physician visit indicators in this document are calculated using the entire population as the denominator. In other documents you might see rates described as, for example, "treatment prevalence for diabetes among adults age 20 and older", or "hospitalization rates for stroke among adults age 50 and older". These rates will be higher than what is presented in this document, because they use a smaller population (those just in the age group they are reviewing) to calculate rates.

- In some cases, such as with cancer data and some mortality data, the rates have been "age-standardized" by the source providing the data. This means that the rates have been calculated in a way that takes into account the different population distributions of the locations being compared. For example, if a regional rate is "standardized", you would interpret the rate as:

"If the population distribution of our area was the same as for Manitoba overall, what would the expected number of cases or deaths be in our area?"

- The expected number of cases or deaths are then used to calculate rates. This means that the rate is NOT a true rate from your district but it means that the rate can be used to compare to other areas that have been standardized in the same way. This way you can see how you rank compared to other communities and if there have truly been significant changes over time.

- Overall, standardized rates are best to use when you want to compare yourself to populations that are different or when looking at changes over time (in case your population has changed over time). Crude

rates (the actual rate of cases or deaths in your population) are best to use for your own planning in your district but you should be careful in using these rates to compare other communities that may be very different from your own.

- Health measurements cannot be made with perfect certainty. Many different things affect the accuracy of measurements and how close to the true value we actually get. Because of this, it is best to give the measurements with a range (rather than just a single number) that allows for some wiggle room. Then we can be very certain (95% sure) that the true value of the measurement lies somewhere within that range.

- 95% Confidence intervals (the range of the true value) have been calculated for many indicators in this report. You will see the confidence intervals either in brackets in the data tables, **under** the actual rate, or in graphs beside horizontal yellow lines. In the following table the numbers (562,726) are the 95% confidence intervals for the rate of 644 cases per 1,000 residents. This means that the calculated rate of a disease or other event is 644 cases per 1,000 and we are 95% confident that the range for the true value ranges between 562 and 726 per 1,000.

- When events are very rare and/or district numbers are very small, the confidence intervals can become very wide which tells us we need to be careful interpreting the data. If the confidence interval for your district does not overlap, the confidence interval for the comparison areas (such as region), we are 95% confident that the difference we see in the measured rates is "statistically significant" and likely not just a result of chance. In the table below, the region rate of 365.1 per 1,000 has confidence intervals ranging from 355.2 to 375. These intervals are much narrower than the district because the numbers are larger so need a narrower range to be "confident" the rates are accurate. Because the highest regional number of 375 is still lower than the lowest community number of 562, we can say that the difference in rates is statistically significant.

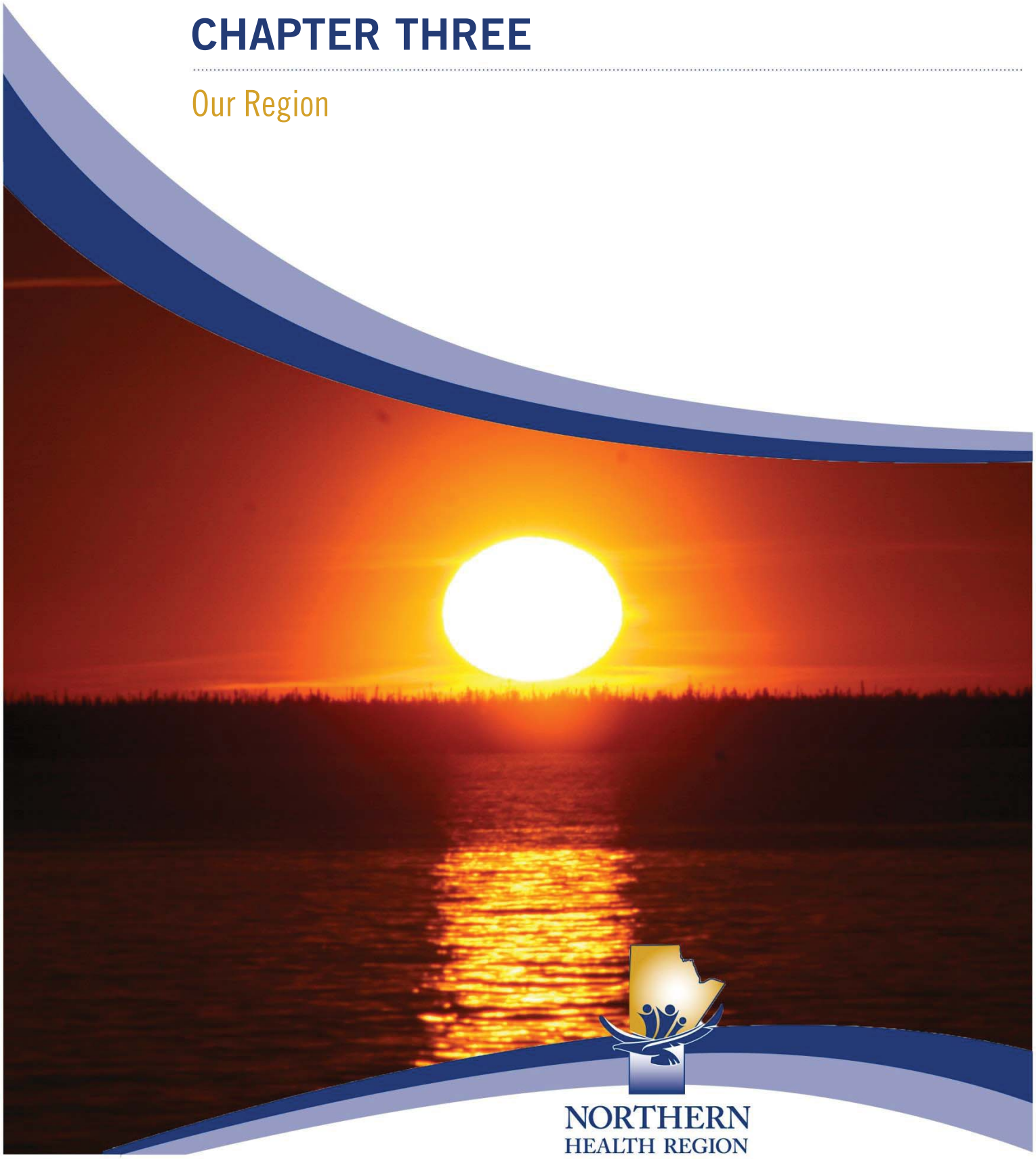
	Community		Region	
	Number	Rate per 1,000	Number	Rate per 1,000
Example: community rate is statistically higher than regional rate	237	644 (562, 726)	5,213	365.1 (355.2, 375)
Example: community rate is statistically lower than regional rate	45	134.3 (92.1, 195.8)	3,000	239.3 (212.3, 269.7)
Example: community rate is not statistically different than regional rate	38	107.3 (73.2, 141.4)	1,345	101.2 (95.8, 106.6)

References

[i] This disease classification system is endorsed by the World Health Organization and is used for all physician and hospital billing. Further information on all classifications in the current version, ICD-10, and all specific diseases, conditions and symptoms included within each classification can be found at:
http://www.who.int/classifications/icd/en/

CHAPTER THREE

Our Region



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3.1. Regional Profile

The geographic, economic and demographic features of any region in which we live will have considerable influence on how healthy we are, and on our ability to manage our own health. This section will look at the unique features of the Northern Health Region. More specifically, this chapter examines the geography, demographic features, the make-up of our population, the structure of our families, and our socio-economic profile. Special attention will be paid to reviewing the process to amalgamate Regional Heath Authorities in Manitoba and how this region is addressing this from a planning and governance point of view.

3.1.1. Geography and People

The land of the Northern is a mixture of Canadian Shield, as well as permafrost with a sub-arctic climate. Within the Canadian Shield, there are many lakes and rivers, making the region well-known to adventure tourists and outdoor enthusiasts. The boreal forest has a diverse mix of trees including balsam fir, tamarack, white spruce and black spruce. Deciduous trees such as white birch, aspen, and poplar are found more in the southern portions of the region. The permafrost in the Taiga shield is located in the north-western part of the region has small, slow growing coniferous trees. It is transitional area between the boreal forest in the south and the tundra further north. The Northern Health Region is an area rich in natural resources which is reflected in the economy. Hydroelectricity, fishing, mining, and tourism are key economic sectors.

With a total of 396,000 square kilometres and a population of 74,983, the Northern Health Region has the unique challenge of planning and providing health care services and programs to a small population to an area that totals 62 per cent of Manitoba's total land mass. Northern communities are widely dispersed in a rural and remote region where transportation access is limited. Many communities are accessible by air or rail only. Climate, distance, limited population and transportation infrastructure can be considerable barriers to both delivery of and accessing of health care services.

The Northern Health Region has four distinct set of communities:

- **Cities, towns and municipalities** are under provincial jurisdiction are incorporated and governed by a Mayor or Reeve and a municipal council. In the Northern Health Region, there are 2 cities (Thompson and Flin Flon) 6 towns (The Pas, Gillam, Grand Rapids, Leaf Rapids, Lynn Lake, Snow Lake) one Rural Municipality (Kelsey) and one Local Government District (Mystery Lake).

- **First Nations communities** are within federal jurisdiction (section 91(24) of the *Constitution Act*) and are not directly served by the province or the Northern Regional Health Authority. Most Indian Bands are governed by a Chief and Council elected for two year terms by the Band membership. There are 25 first nations communities in NRHA:

    - Barren Lands First Nation (Brochet)
    - Bunibonibee Cree Nation (Oxford House)
    - Chemawawin Cree Nation
    - Fox Lake Cree Nation
    - Garden Hill First Nation
    - God's Lake First Nation
    - Manto Sipi Cree Nation (God's River)
    - Marcel Colomb First Nation
    - Mathias Colomb Cree Nation (Pukatawagan)
    - Misipawistik Cree Nation
    - Mosakahiken Cree Nation
    - Nisichawayasihk Cree Nation (Nelson House)
    - Northlands First Nation (Lac Brochet)
    - Norway House Cree Nation
    - Opaskwayak Cree Nation
    - O-Pipon-Na-Piwin Cree Nation (South Indian Lake)
    - Pimicikamak Cree Nation (Cross Lake)
    - Red Sucker Lake First Nation
    - 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

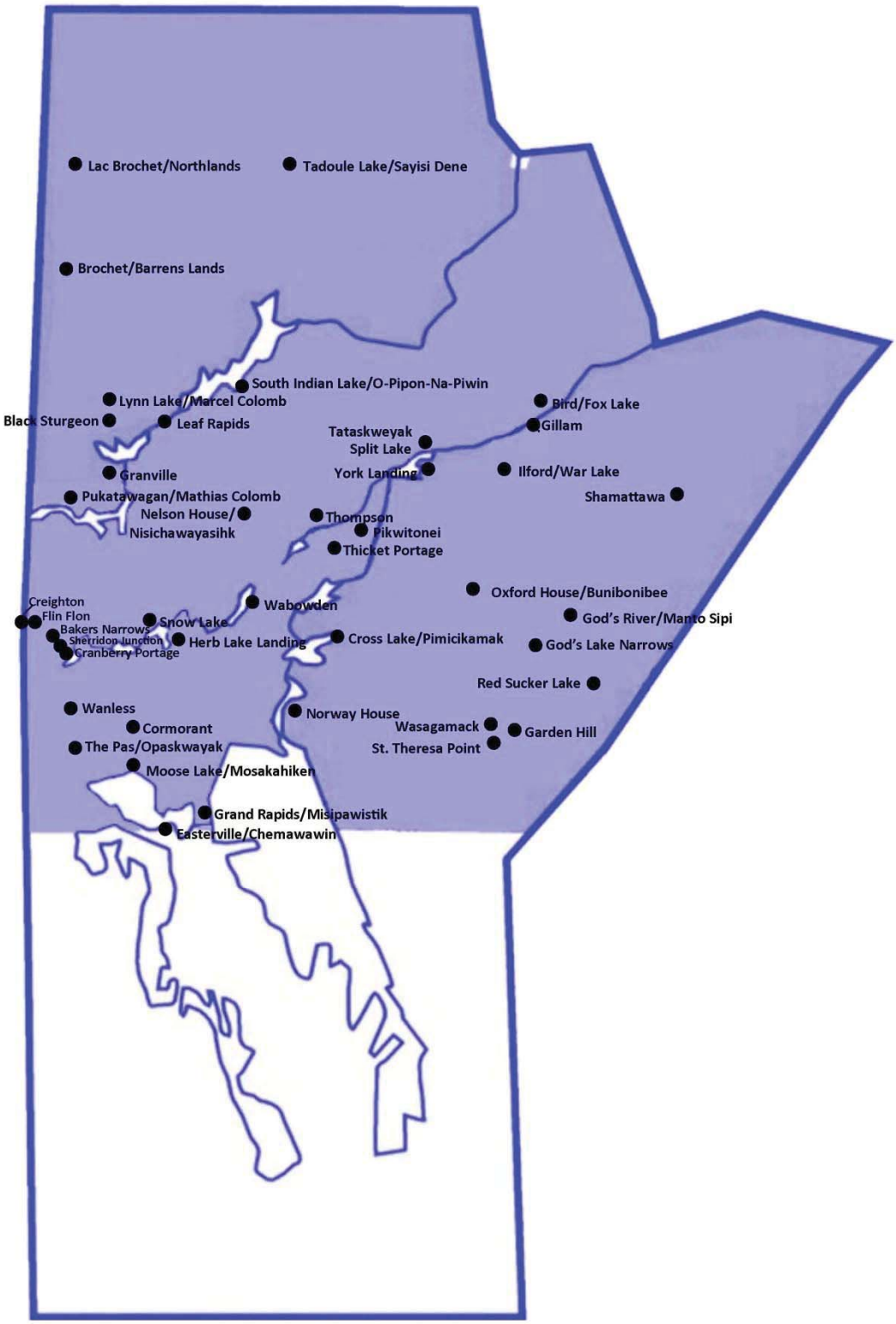
- York Factory First Nation (York Landing)

- **Northern Affairs Communities** are communities which operate under the provincial *Northern Affairs Act*. These communities are different from cities, towns and villages as they are dependent to some extent on provincial government funding support to provide local services. The *Northern Affairs Act* provides for a Mayor and Council with three to four year terms. In the Northern Health Region, the following are northern affairs communities:

  - Brochet
  - Cormorant
  - Cross Lake
  - Easterville
  - God's Lake Narrows
  - Granville Lake
  - Ilford
  - Moose Lake
  - Nelson House
  - Norway House
  - Oxford House
  - Pikwitonei
  - Red Sucker Lake
  - Sherridon/Cold Lake
  - Thicket Portage
  - Wabowden

- **Unorganized territories** are areas consisting of small hamlets and settlements in which the provincial government acts as the municipal government. They are categorized as being "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.

Figure 3.1. Northern Health Region Map.



3.1.2. Changes With Merger

In April 2012, the Government of Manitoba introduced amendments to the *Regional Health Authorities Act* which reduced the number of Regional Health Authorities in Manitoba from eleven (11) to five (5). The Minister of Health indicated that these amendments were introduced in order to improve financial accountability and community involvement. Savings generated from the merger would be re-directed to frontline care. All Manitoba regional health authority (RHA) boards voted to approve the government's proposal to reduce the number of health authorities which included the merger of the Nor-Man RHA and the Burntwood RHA into the Northern Health Region.

During the merger process, Helga Bryant was appointed Chief Executive Officer of the new Northern Health Region and Doug Lauvstad was appointed as Chair of the Northern Health Region Board. In June 2012, the board was appointed and is composed of 15 members with a broad cross section of experience, expertise and interest across the entire region. The board provides leadership, oversight and governance to the Northern Region. Monthly meetings are held to review and monitor progress being made by the region in fulfilling the strategic directions set out by the board.

Since its appointment, the board has approved new vision, mission and values statements. The region's vision is: **Healthy People, Healthy North**. The region's mission is that it is dedicated to providing quality, accessible, compassionate health services. The values that will guide the region's actions are trust, respect, integrity, compassion and collaboration. In order to achieve its vision, the Northern Health Region board set out four strategic directions along with their supporting strategic priorities to guide the organization between 2013 and 2016. The strategic directions include:

- **Improve Population Health -** focusing on prevention and promotion activities, helping communities choose healthy lifestyles, reducing chronic disease rates and to reduce health disparities with people in our communities to live in more healthy ways, to better care for their own.

- **Deliver Accessible, Quality Health Services -** providing seamless and accessible care by ensuring health provider access to patient health files, promote culture of safety in the organization, monitor levels of patient satisfaction is part of the

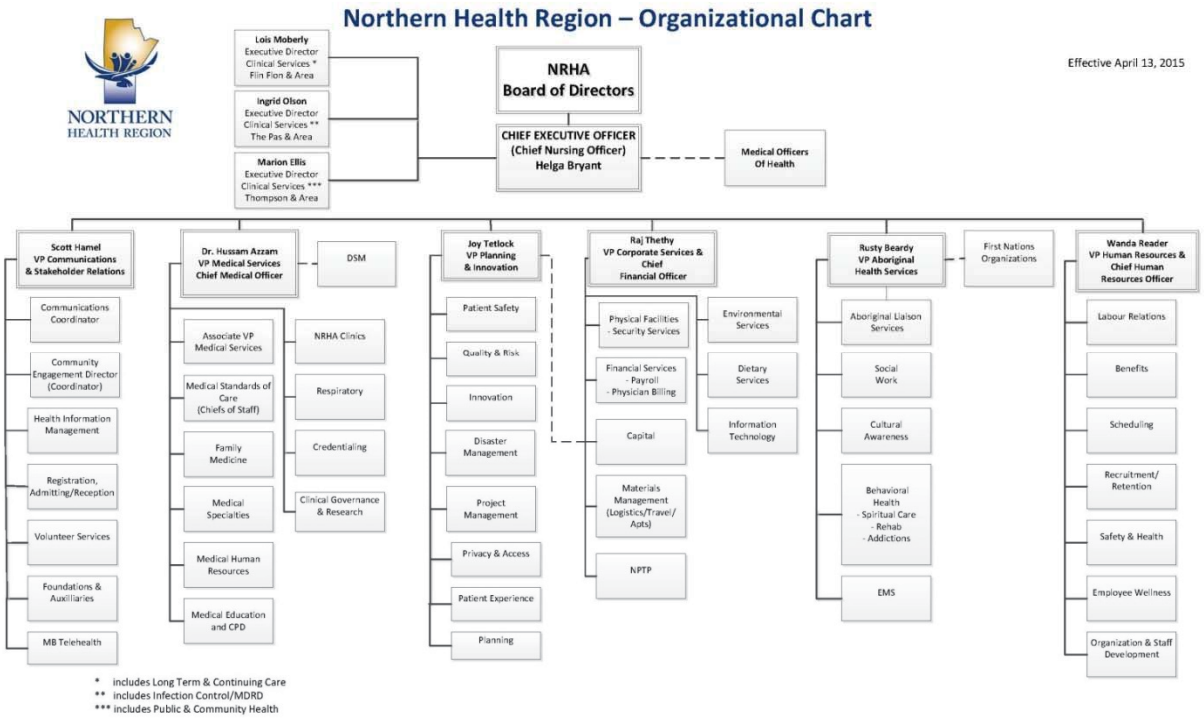
- **Be a Sustainable and Innovative Organization –** continuous improvement of services, fully utilize skills and abilities of employees to ensure best possible care, and operate in a transparent way.

- **Be an Employer of Choice –** focusing on recruitment and retention of local staff, building a healthy, safe, respectful and supportive work environment and providing opportunities for education and development.

In addition to the board, a number of Local Health Involvement Groups (LHIGs) have been established, composed of citizens interested in health and health services. LHIGs provide advice and input to the board on local issues that impact the delivery of health services. This community perspective provides another avenue for residents in the region to offer their input on designing the health care system.

The Northern Health Region is responsible for the operation and administration of facility and community-based health programs and services at a regional level. It is responsible, within the context of broader provincial government policy direction, for assessing and prioritizing those services and programs based on evidence-based needs.

Figure 3.2. Northern Health Region Organizational Chart, 2015.



Note: Not effective until April 13, 2015.

3.1.3. Zone and District Descriptions

The Northern Health Region has been divided into three zones and 15 districts to facilitate and co-ordinate the planning and provision of health services in the region.

Table 3.1. Northern Health Region Zones and Districts

Northern Health Region Zone	Communities in Each Zone and District	District Name
Zone 1 **Northern Direct Service Zone**	Flin Flon Snow Lake Cranberry Portage Sherridon/Cold Lake	Flin, Snow, Cran, Sher
	Lynn Lake Leaf Rapids South Indian Lake O-Pipon-Na-Piwin (South Indian Lake) Cree Nation Granville Lake Marcel Colomb First Nation	LL/MC,LR,O-P(SIL),PN(GVL)
	The Pas Opaskawayak Cree Nation RM of Kelsey	The Pas/OCN/Kelsey
	Thompson LGD of Mystery Lake	Thompson, Mystery Lake
	Thicket Portage Pikwitonei Wabowden Ilford War Lake First Nation Cormorant	Bay Line
	Gillam Fox Lake Cree Nation	Gillam/Fox Lake CN

Zone 2 **Northern Non-Direct Service Zone**	Grand Rapids Misipawistik Cree Nation Moose Lake Mosakahiken Cree Nation Easterville Chemawawin Cree Nation Unorganized Territory	Gr/Mis,ML/Mos, Eas/Che
	Pukatawagan Mathias Colomb Cree Nation	Puk/Mat Col CN
	Churchill/Sayisi Dene (Tadoule Lake) First Nation Barren Lands (Brochet) First Nation Brochet Northlands (Lac Brochet) First Nation	SayD(TL), Bro/BL, NoL (Lac)
	Nisichawayasihk (Nelson House) Cree Nation Incorporated Community of Nelson House	Nelson House/NCN
	Shamattawa First Nation York Factory First Nation Tataskweyak (Split Lake) Cree Nation	Sham, York FN, Tat(SPL)
	Bunibonibee (Oxford House) Cree Nation Manto Sipi (God's River) Cree Nation God's Lake First Nation God's Lake Narrows Oxford House	Bu(OH), MS(GR), GLN/GLFN
	Pimicikamak (Cross Lake) Cree Nation Incorporated Community of Cross Lake	Cross Lake/Pimi CN
	Norway House Noway House Cree Nation	Norway House/NHCN
Zone 3 **Northern Island Lake Zone**	Garden Hill First Nation Red Sucker Lake First Nation St. Theresa Point First Nation Wasagamack First Nation Island Lake Red Sucker Lake	Island Lake

3.1.4. Community Descriptions

The following provides a description of the major regional centres in the Northern Health Region.

Gillam

Gillam is located about 730 kilometres north of Winnipeg, midway between Thompson and Churchill. The town was named after Zachary Gillam, a captain of a fur trading vessel who wintered in the nearby Nelson River estuary in 1682. Gilliam was first settled in 1912-13. The arrival of the railroad in 1929 resulted in Gillam growing to a population of 350 largely consisting of Canadian National rail workers and business people. In the 1960s, significant change occurred with the construction of major power dams by Manitoba Hydro on the nearby Nelson River. The town today is serviced by an all-weather road leading to Thompson along with a Via Rail link, connecting the town to both Thompson and Churchill. There is also an airport in Gillam with regular flights to Churchill, Thompson and Winnipeg. Manitoba Hydro continues to be the economic and social driver in the town, allowing residents to enjoy a number of services and recreational facilities, including places to bowl, skate, curl, play hockey, and play badminton at the town's recreational hall.

Leaf Rapids

The town of Leaf Rapids is located 209 kilometres northwest of Thompson and 1000 kilometres northwest of Winnipeg. It was built between 1971 and 1974 for employees of the newly opened Ruttan Mine (owned originally by Sherritt Gordon and then the Hudson Bay Mining and Smelting Company). At one time, it was one of the largest copper and zinc mines in Canada and the primary driver of the local economy. The mine closed in 2002 which caused a significant decline in the town's population from 1300 in 2001 Census to approximately 400 in January 2003. As a result of this sharp decline in the town's population, the Leaf Rapids Hospital was converted to a community health centre.

Lynn Lake

The area around the town of Lynn Lake has historically been a hunting, fishing and trapping location for First Nations and Métis people who live in the area. In 1945, minerals were discovered which led to the opening of a mine opened by the Sherritt Gordon Mine Company. By the mid-1970s, the population had peaked at about 3,500 residents. Declining copper prices did force the company to layoff several of its employees. The mine stopped production entirely in 1985, though a new gold mine near the town did provide much needed economic activity in the local area. Lynn Lake is also a tourist destination, particularly for sport fisherman.

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 extensive transportation infrastructure which, including daily air service, overnight truck delivery, paved roads, and a railway system. Thompson was established 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 honour Dr. John Fairfield Thompson, the Chairman and Chief Executive Officer of INCO at the time. Thompson is home to approximately 14,000 residents and serves as many as another 65,000 people in its role as a hub for education, health care, and northern trade and transportation.

Flin Flon

The city of Flin Flon, which is built on basaltic rock, is a mining and tourism community. It is located on the Manitoba/ Saskatchewan border north of the 54th parallel, the Flin Flon area is part of the Precambrian Amisk Volcanic Belt. Minerals were first discovered in the area in 1915. The community of Flin Flon was formed in 1929. Global volatility and uncertainty caused Hudson Bay Mining and Smelting (HBM&S) to close their Flin Flon smelter in July 2010. The city shares an economic base with the nearby Saskatchewan communities of Creighton and Denare Beach.

Snow Lake

Snow Lake is a mining community midway between Flin Flon, The Pas and Thompson, 685 kilometers north of the City of Winnipeg. Mining is the primary industry of Snow Lake since the discovery of significant ore deposits in the 1950's. Although mining has traditionally been the mainstay of the local economy, tourism is growing in importance as a fishing destination.

The Pas

The Town of The Pas originally started as a fur trading post. Aboriginal people lived in the Pas area for thousands of years before the first permanent settlement was constructed in 1741. The Town of The Pas was incorporated in 1912. The Pas is located on the south shore of the Saskatchewan River 630 kilometers north of the City of Winnipeg and 144 kilometers south of the City of Flin Flon. It serves as a major centre for agriculture, forestry, transportation, tourism, government and other services.

3.2. Northern Health Region

3.2.1. Programs and Services

The Northern Health Region delivers a broad range of services and programs in a variety of facilities throughout the region. The region has:

- **Five hospitals** (Thompson, The Pas, Flin Flon, Gillam and Lynn Lake)
- **Seven long term care sites** (Thompson, Flin Flon, The Pas, Snow Lake, Lynn Lake (2))
- **Nine Health Centres** (Wabowden, Ilford, Snow Lake, Sherridon, Pikwitonei, Opaskwayak, Leaf Rapids, Cranberry Portage, Cormorant)
- **23 Nursing stations** (Brochet/Barren Lands, Cross Lake, Easterville/Chemawawin, Garden Hill, God's Lake, God's River/Manto Sipi , Grand Rapids/Misipawistik Lac Brochet/Northlands, Pikwitonei, Moose Lake/Mosakahiken, Nelson House/Nisichawayasihk, Norway House, Oxford House/Bunibonibee, Pukatawagan/Mathias Colomb Red Sucker Lake Shamattawa South Indian Lake/O-Pipon-Na-Piwin, Split Lake/Tataskweyak, Tadoule Lake/Sayisi, St Theresa Point, Thicket Portage, Wasagamack, York Landing).
  Note, the Nursing stations in Easterville/Chemawawin and Moose Lake/Mosakahiken are the responsibility of the provincial government. All other nursing stations are under federal jurisdiction.

The Northern Health Region provides the following core programs and services[i]:

- **Health Promotion / Education Services -** Supports individuals and communities to improve their health.
- **Health Protection Services -** Protects residents from preventable diseases and reducing the spread of communicable diseases.
- **Prevention & Community Health Services -** Community- based interventions that can prevent health problems from arising or mitigate their impacts on individuals, families and communities.
- **Treatment, Emergency & Diagnostic Services-** High quality, cost effective treatment, emergency and diagnostic services.
- **Developmental and Rehabilitation Support Services -** Services that help people to live productive lives in their communities.
- **Home Care Services –** Assists individuals to live independently at home.
- **Long Term Care Services -** Provides personal and extended care services for long term care residents in order to maintain their health and independence as long as possible.
- **Mental Health Services -** Access to a wide range of mental health services at a regional level, including wellness and prevention programs, community-based assessment and treatment, and in-patient treatment.
- **Substance Abuse/Addictions Services –**Services for those with Fetal Alcohol Stress Disorder (FASD) along with prevention services. Includes a 28-day residential/day rehabilitation program for

those seeking healing from all forms of addiction (substance and process), including group and individual therapy, assessment and referral.

- **Palliative Care Services -P**rovides care, comfort and support to people whose are in the terminal phase of their disease or illness.

- **Physician Services - Recruiting**, hiring and retaining physicians necessary to support the Northern region's core services.

3.3. Demographics

The most recent population figures from Manitoba Health, Healthy Living and Seniors (MHHLS) are in the June 2014 report. This report had the total population of the Northern Health Region at 74,677. At the time of the last Community Health Assessment in 2009, the population of what now comprises the Northern Health Region was 71,745, an increase of 4.2 per cent. The First Nations communities had a total of 30,092 residents in 2014. The First Nations Communities population accounts for 40.3 per cent of the entire population in the Northern Region, the remaining 59.7 per cent of residents live in Non First Nations Communities.

Another important source of population information is Statistics Canada census. The 2011 Census reported the population of the Northern Health Region at 70,090, an increase of 6.3 per cent from the 2006 Census when the reported population of the Northern Health Region area was 65,922.

According to the 2011 Census, the population of the Northern Health Region is roughly equal by gender (50.7% men, 49.3% women). Children under the age of 15 account for 30.7 per cent of the population which is just one-third of the total population. By contrast, only 19.1 per cent of resident are under the age of 15 in Manitoba.

3.3.1. Population Density

The Northern Health Region covers a geographic area of 396,000 square kilometres. The small population combined with this huge land mass results in a population density of 0.2 persons per square kilometre, compared to the provincial population density average of 2.2 persons per square kilometre[ii]. While the population density of Manitoba increased from 1.9 to 2.1 persons per square kilometre, the Northern Health Region population density has remained stable since the 1996 Census.

- **Table 3.2** provides the population density of each RHA, as well as Manitoba and Canada.

Table 3.2. Population Density by RHA, 2011.

Name	Density
Northern RHA	**0.19**
Interlake-Eastern	1.51
Southern	6.49
Winnipeg	1047.26
Prairie Mountain	2.49
Manitoba	2.19
Canada	3.73

Source: Statistics Canada, 2011 Census.

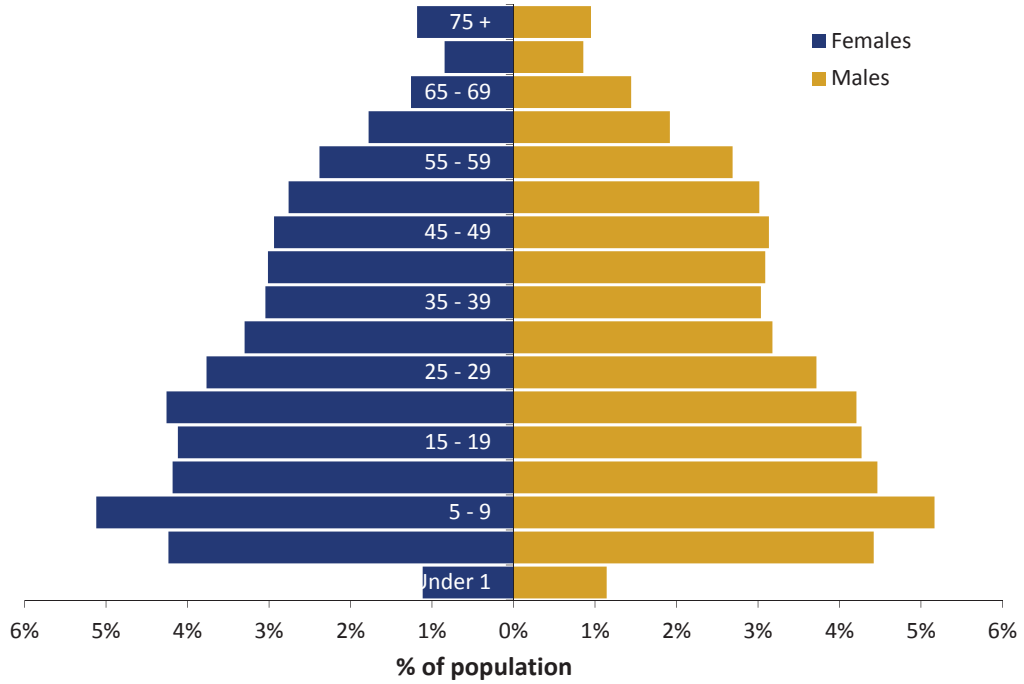
3.3.2. Population by Age Group

- The population pyramids in **Figure 3.3** and **Figure 3.4** demonstrate the differences in age make-up of the Northern Health Region and the population of Manitoba. The Northern Health Region continues to be characterized as having a younger population with a greater percentage of people in the age categories up to age 19. The differences are particularly stark in the youngest age categories.

- The proportion of the population between the ages of 25 to 49 is roughly similar between the Northern Health Region and Manitoba.

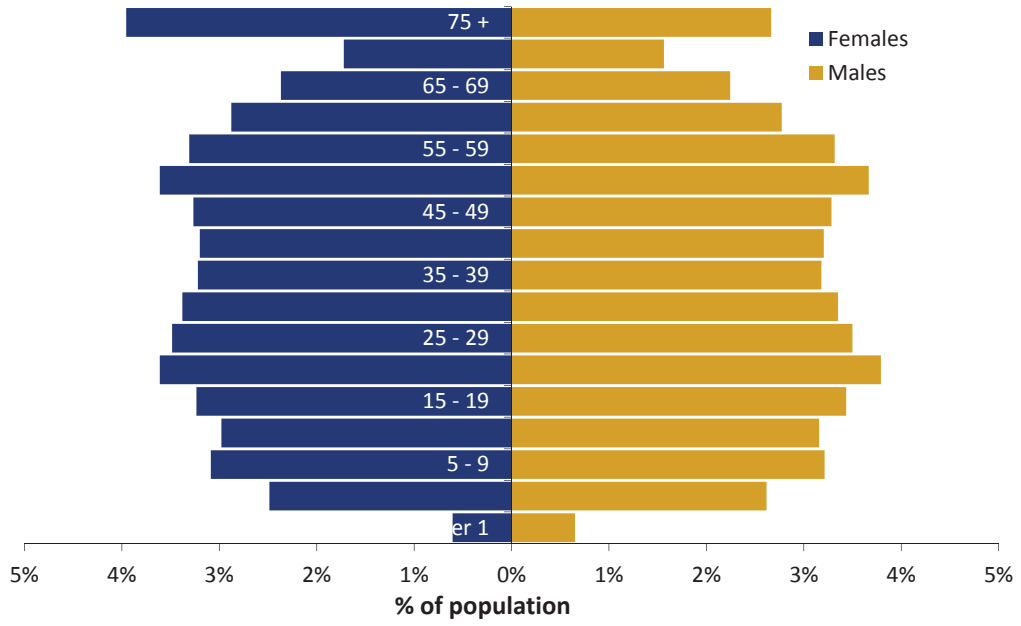
- The gap in age groups becomes wider after that with Manitoba having a far higher percentage of the population over the age of 65 (see **Figure 3.5**). In Manitoba, 14.5 per cent of the population is 65 or older while only 6.5 per cent of Northern Health Region residents are over 65. That said, from the 2009 Community Health Assessment, the Northern Health Region is becoming older over time. In 2009, the former Burntwood and NOR-MAN regions had, combined, 5.9 per cent of their population over 65 years of age

Figure 3.3. Population Pyramid, Northern Health Region, 2014.



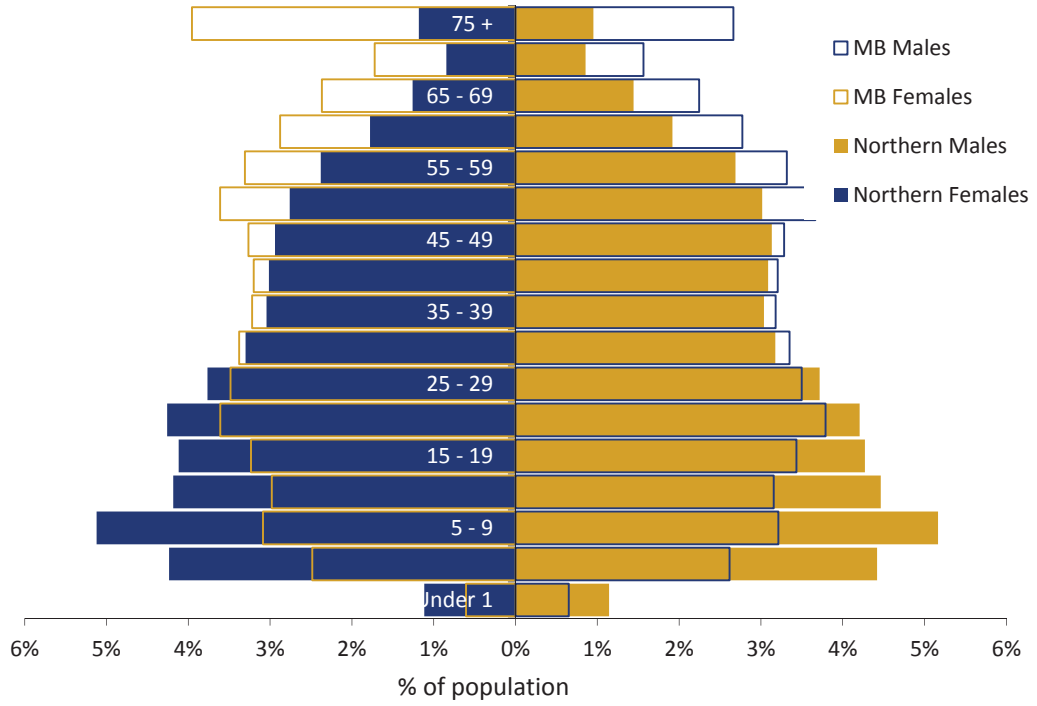
Source: Manitoba Health, Healthy Living and Seniors June 1, 2014 Population Report

Figure 3.4. Population Pyramid, Manitoba, 2014.



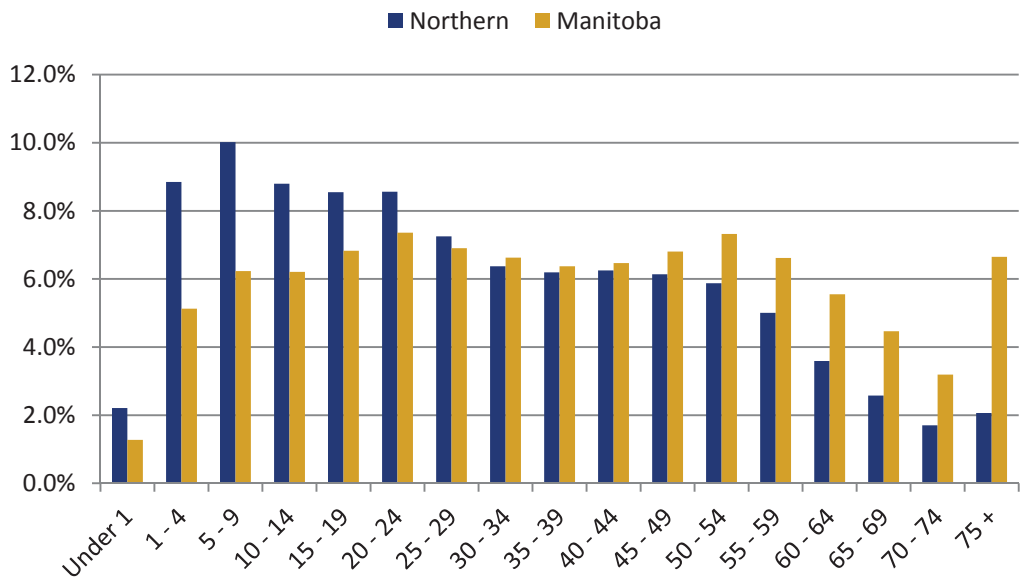
Source: Manitoba Health, Healthy Living and Seniors, June 1, 2014 Population Report

Figure 3.5. Population Pyramid, Northern Health Region and Manitoba, 2014.



Source: Manitoba Health, Healthy Living and Seniors, June 1, 2014 Population Report

Figure 3.6. Percentage of Population by Age Category, Northern Health Region and Manitoba, 2014.



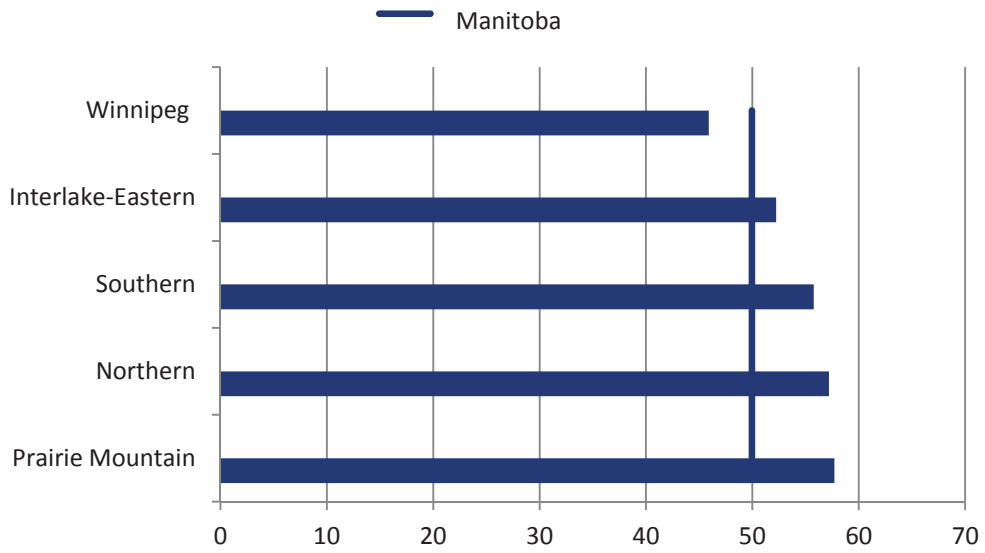
Source: Manitoba Health, Healthy Living and Seniors, June 1, 2014 Population Report

3.3.3. Dependency Ratio

The dependency ratio is a relationship between 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 represents the number of dependents for every 100 people in the working age population. This measure is important to consider within a family structure as people aged 65 and over as well as those under age 15, are more likely to be dependent socially and economically on working age individuals within the 15-64 age category.

- In 2009, the former Burntwood and NOR-MAN region had dependency ratios of 58.5 and 52.5 respectively.
- For 2014, the dependency ratio for the Northern Health Region was 57.2, higher than the Manitoba average of 50.0 (see **Figure 3.7**).

Figure 3.7. Dependency Ratio by RHA, 2014.



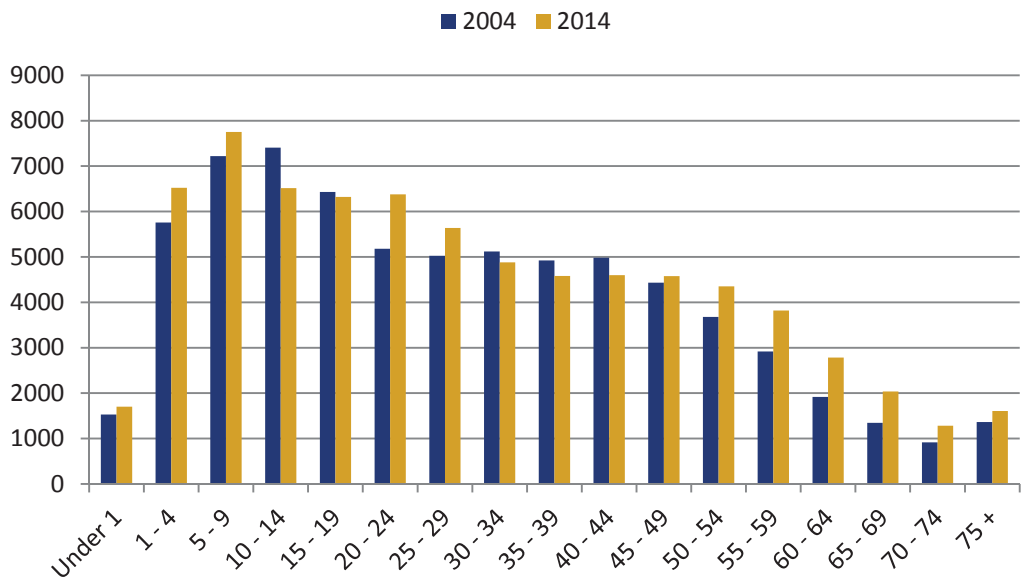
Source: Manitoba Health, Healthy Living and Seniors, June 1, 2014 Population Report

3.3.4. Changes in Population Over Time

- While the population structure of the Northern Health Region is different in comparison to Manitoba overall, it has also undergone a change in population that is different as well.
- **Figure 3.8** illustrates the population change between 2004 and 2014 by age group in the Northern Health Region. With the exception of the 10-19 age category, the Northern Health Region's population is increasing as a proportion of the total population in every age group until age 30.

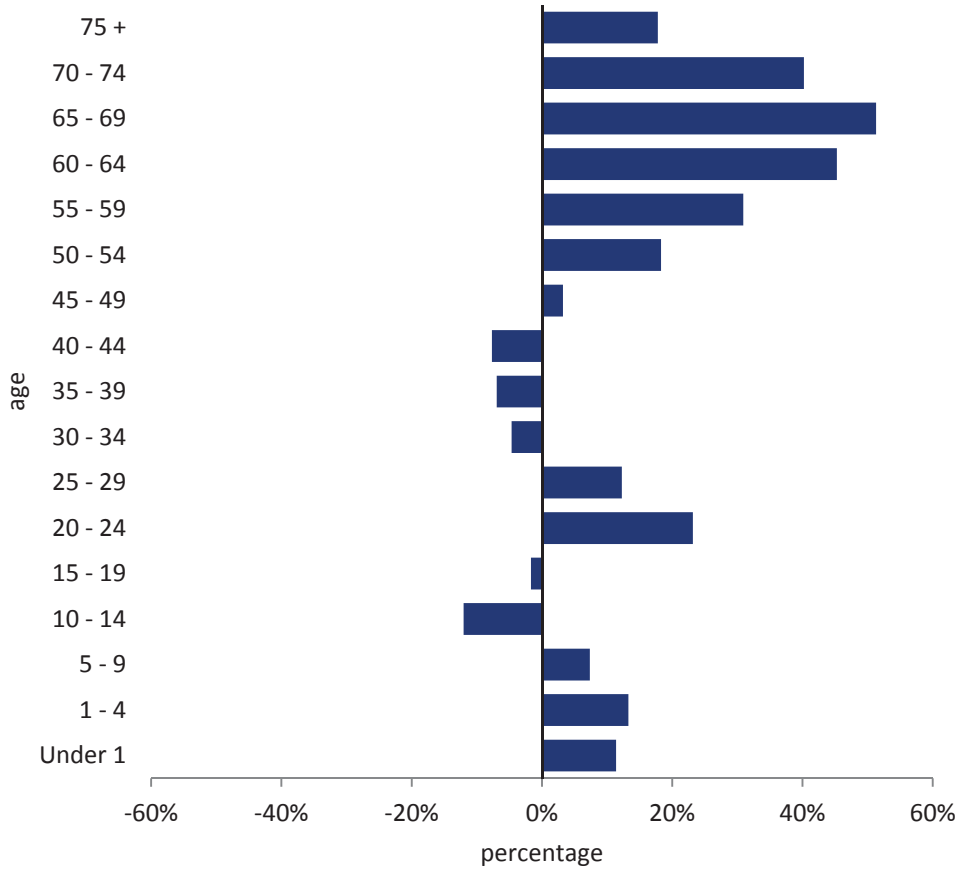
Between ages 30-44, the Northern population decreased. In every age category from 45-49 years and older, there were population increases with the highest increases coming in the 65-69 (51.3% increase from 2004-2014), 60-64 (45.3%) and 70-74 (40.2%) year age categories. It is important then to note that although the Northern Health Region continues to be comparatively young, the most significant population growth in the last ten years are coming in the 60 years and older age categories.

Figure 3.8. Population Figures by Age Category, Northern Health Region 2004 and 2014.



Source: Manitoba Health, Healthy Living and Seniors, June 1, 2014 Population Report

Figure 3.9. Percentage Change in Population by Age Category in Northern Health Region, 2004-2014.



Source: Manitoba Health, Healthy Living and Seniors, June 1, 2014 Population Report

3.3.5. Population Projections

Population projection data with seven projection scenarios been published by the Manitoba Bureau of Statistics. According to this population projection report, the Northern Health Region will grow to 104,300 residents by 2042, an increase of 40.6 per cent. This is a lower rate of growth than is projected for Manitoba overall (at 61.3%) (see **Table 3.3**).

- **Table 3.4** shows the projected rate of population growth to 2042 in each RHA. The population growth rate in the Northern Health Region is expected to increase over time but is still expected to be below the provincial population growth rate.
- **Figure 3.10** 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, these projections could change if new employment and industry opportunities come to the region.
- **Figure 3.11** shows the projected rate of population change by age group. The larger increases in the older age groups are consistent with the population trends that we have seen historically in this region.

Table 3.3. Population Projection (in thousands) by RHA for Seven Projection Scenarios, 2042.

	2012	MMI	LLL	HHL	MMM	LLH	MMH	HHH
Winnipeg	723.5	740.8	939.9	975.2	1070.3	1183.2	1195.3	1224.2
Prairie Mountain	165.7	160.2	180	191.1	201	215.4	221.1	228
Interlake-Eastern	124.7	150	140.6	150	154	159.3	164.7	169.5
Northern	**74.2**	**87.9**	**86.7**	**94.8**	**93.6**	**95.8**	**99.9**	**104.3**
Southern	183.3	245.5	273.6	290.5	303.6	306.3	314.1	324.5
Manitoba	1271.4	1384.4	1620.8	1701.6	1822.5	1960	1995.1	2050.5

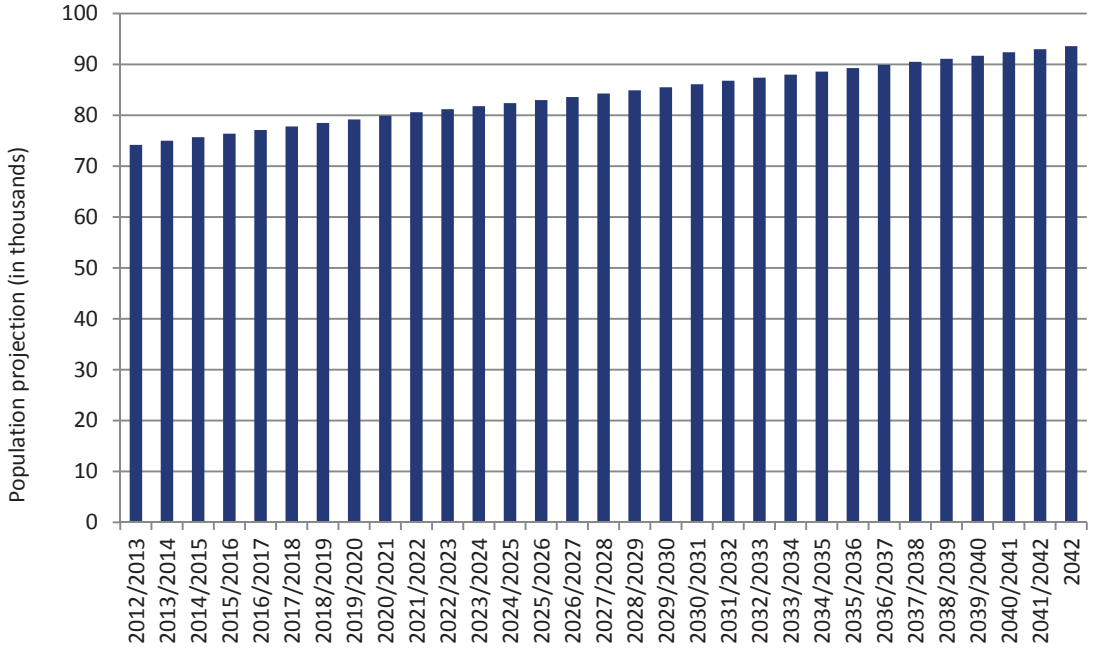
Source: Manitoba population projection report, May 2014.

Table 3.4. Population Projection Average Annual Growth Rate (%) by RHA for Seven Projection Scenarios, 2042.

	MMI	LLL	HHL	MMM	LLH	MMH	HHH
Winnipeg	0.08	0.88	1	1.31	1.65	1.69	1.77
Prairie Mountain	-0.11	0.28	0.48	0.65	0.88	0.97	1.07
Interlake-Eastern	0.62	0.4	0.62	0.71	0.82	0.93	1.03
Northern	**0.57**	**0.52**	**0.82**	**0.78**	**0.86**	**1**	**1.14**
Southern	0.98	1.34	1.55	1.7	1.73	1.81	1.92
Manitoba	0.28	0.81	0.98	1.21	1.45	1.51	1.61

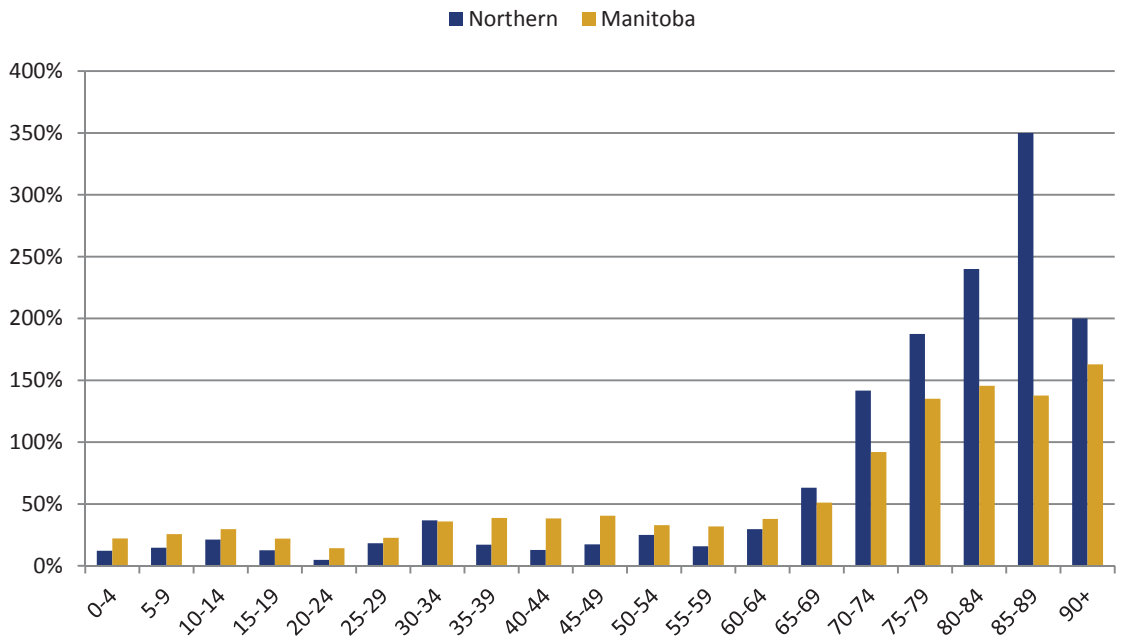
Source: Manitoba population projection report, May 2014.

Figure 3.10. Population Projections (in thousands) For Northern Health Region, 2012-2042.



Source: Manitoba population projection report, May 2014.

Figure 3.11. Population Change for Northern Health Region and Manitoba by Age Group from 2012 to 2042.



Source: Manitoba population projection report, May 2014.

3.3.6. Aboriginal Population

Information about the numbers of Aboriginal residents in our region is available through the 2011 Census data through the National Household Survey. This information allows respondent to "self-report" as being Aboriginal.

- These data indicate that over two-thirds of people living in the Northern Health Region self-identifies as Aboriginal (70.0%) compared to the provincial average of 15.5 per cent of the population (see **Figure 3.12**). This is an increase over rates reported in the 2006 census of 67.4 per cent.

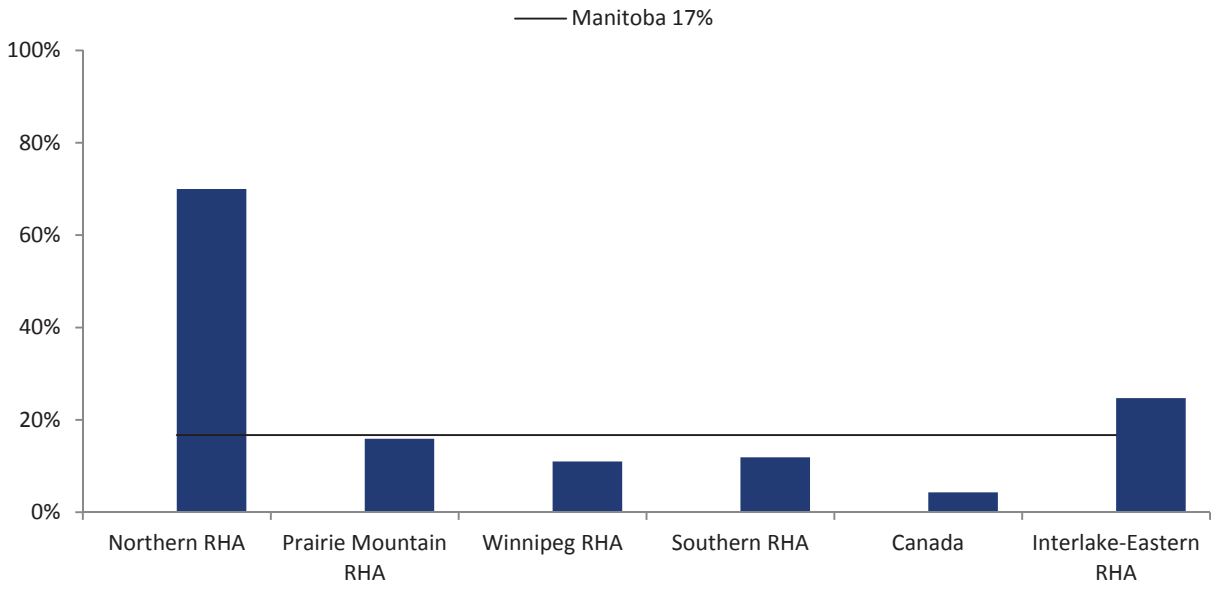
- As **Table 3.5** illustrates, the majority of Aboriginal residents in our region (44,260 or 90.9%) self-identify as North American Indian.

- Although 44,260 residents self-identify as Aboriginal, according to the Statistics Canada 2011 Population Profile, a slightly smaller number (43,540) are Registered or Treaty Indian. Overall, 62.6 per cent of Northern Health Region residents are Registered Indians compared to 9.4 per cent of Manitobans. In fact, Northern Health Region residents account for 39.3 per cent of all Registered Indians in Manitoba, while accounting for only 5.9 per cent of the entire population of Manitoba (see **Table 3.5**).

- According to the MHHLS Population Report of June 1, 2014, 30,092 residents of our region lived in First Nations Communities (40.3% of all residents). This represents an increase in population of six per cent since 2004, while the Aboriginal population living in Non First Nations Communities has only increased by one per cent in this time period.

- **Figure 3.13** shows the population pyramid for the Northern Health Region First Nations residents who lived in First Nations Communities in 2014. 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 3.12. Northern RHA Aboriginal Population.



Source: Statistics Canada, 2011 Census

Table 3.5. Aboriginal Population, 2011.

Aboriginal Population	**Northern RHA**		**Manitoba**	
	Total		Total	
Total - All persons		**69,565**		1,174,350
Aboriginal identity population	**48,700**	**70.0%**	**195,895**	**16.7%**
First Nations (North American Indian) single identity	44,260		114,225	
Métis - single response	4,320		78,830	
Inuit - Single Response	20		580	
Multiple Aboriginal Identity responses	35		1,200	
Aboriginal responses not classified elsewhere	70		1,055	
Non-Aboriginal population	**20,865**	**30.0%**	**978,445**	**83.3%**

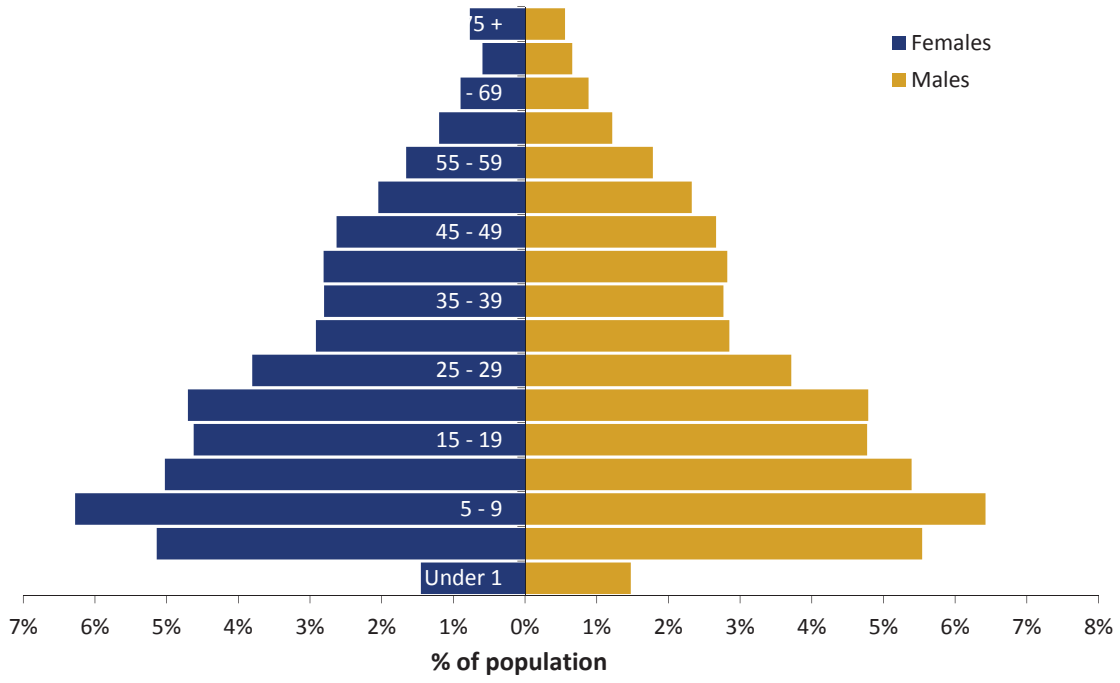
Source: Statistics Canada, National Household Survey Data, December 2013.
Information about the numbers of First Nations residents living in First Nations Communities is available from Manitoba Health, Healthy Living and Seniors

Table 3.6. Northern RHA Population by Community, First Nations and Non First Nations Communities.

Northern Communities					
First Nations Communities			Non First Nations Communiteis		
Community	**Population**	**Proportion of Northern population**	**Community**	**Population**	**Proportion of Northern population**
Barren Lands FN	303	0.4%	Flin Flon City	5,840	7.8%
Chemahawin FN	761	1.0%	Gillam Town	1,339	1.8%
Churchill FN	267	0.4%	Grand Rapids Town	732	1.0%
Cross Lake FN	3,614	4.8%	Kelsey RM	2,520	3.4%
Fox Lake FN	235	0.3%	Leaf Rapids Town	629	0.8%
Garden Hill FN	2,651	3.5%	Lynn Lake Town	789	1.1%
Gods Lake FN	982	1.3%	Mystery Lake LGD	2	0.0%
Gods River FN	532	0.7%	Snow Lake Town	925	1.2%
Marcel Colomb FN	1	0.0%	The Pas City	7,598	10.2%
Mathias Colomb FN	1,456	1.9%	Thompson City	14,459	19.4%
Misipawistik Cree Nation	498	0.7%	Unorganized Territories - Burntwood	7,203	9.6%
Moose Lake FN	499	0.7%	Unorganized Territories – NOR-MAN	2,549	3.4%
Nelson House FN	2,010	2.7%			
Northlands FN	579	0.8%			
Norway House FN	4,532	6.1%			
Opaskwayak Cree Nation	1,894	2.5%			
Oxford House FN	1,918	2.6%			
Red Sucker Lake FN	667	0.9%			
Shamattawa FN	869	1.2%			
Split Lake FN	1,574	2.1%			
St. Theresa Point FN	2,730	3.7%			
War Lake FN	68	0.1%			
Wasagamack FN	1,210	1.6%			
York Factory FN	240	0.3%			
FN Sub-Total	**30,092**	**40.3%**	**Non-FN Sub-Total**	**44,585**	**59.7%**
Northern Total Population	**74,677**				

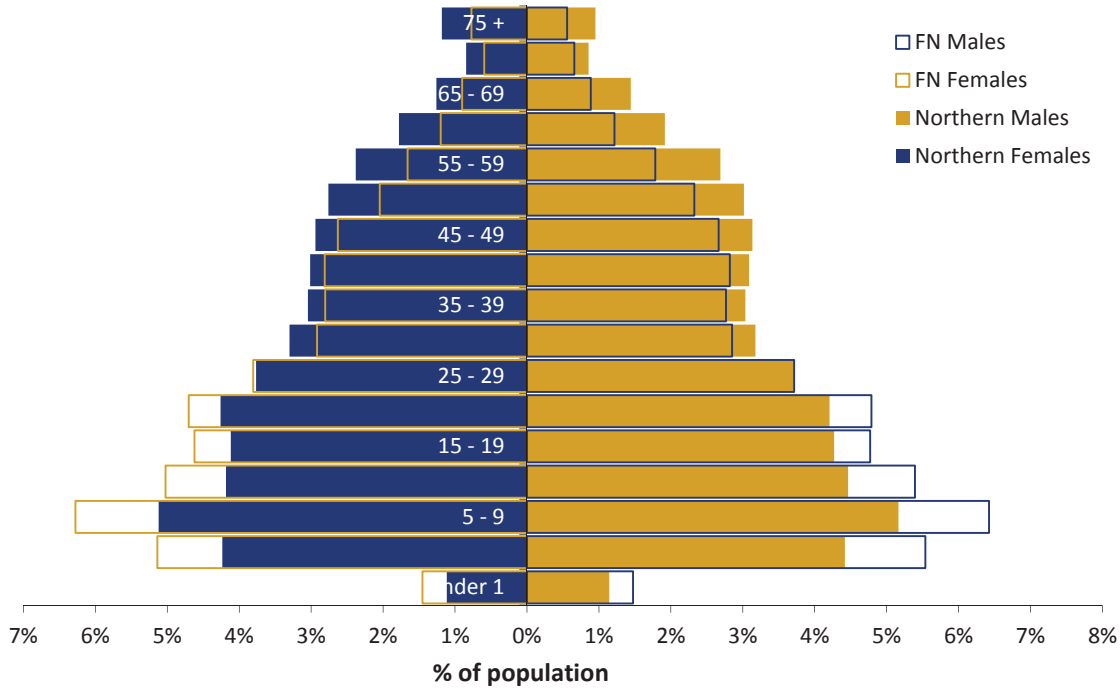
Source: Manitoba Health, Healthy Living and Seniors, June 1, 2014 Population Report

Figure 3.13. Northern Health Region First Nations On Reserve Population Pyramid, 2014.



Source: Manitoba Health, Healthy Living and Seniors, June 1, 2014 Population Report

Figure 3.14. Northern Health Region and Northern First Nations On Reserve Population Pyramid, 2014.



Source: Manitoba Health, Healthy Living and Seniors, June 1, 2014 Population Report

3.4. Census Indicators

3.4.1. Marital Status

Table 3.7 illustrates the marital status of residents aged 15 and over in Northern Health and in Manitoba.

- Due to the younger age profile of the Northern Health Region, only 39.2 per cent of northern residents aged 15 and over reported being married in the 2011 Census which is below the provincial average of 57.2 per cent of the population.
- Just over 3 per cent of Northern residents reported being divorced compared to 5.3 per cent of Manitobans overall.
- The lower rate of marriage and divorce along with the higher proportion of single people region generally.

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, 13.6 per cent of residents of the Northern Health Region live in common-law relationships, compared to 8.0 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.

Table 3.7. Legal Marital Status of Residents, 2011.

	Northern		Manitoba	
Total - All persons,15+		**48,560**		**977,105**
Never legally married (single)	18,155	37.4%	282,465	28.9%
Legally married (and not separated)	19,055	39.2%	558,510	57.2%
Separated, but still legally married	1,230	2.5%	23,620	2.4%
Living Common Law	6,580	13.6%	78,370	8.0%
Divorced	1,515	3.1%	52,215	5.3%
Widowed	2,020	4.2%	60,300	6.2%

Source: Statistics Canada, Census 2011.

3.4.2. Family Structure (Lone Parent Families)

This section describes what we know about families living in the Northern Health Region.

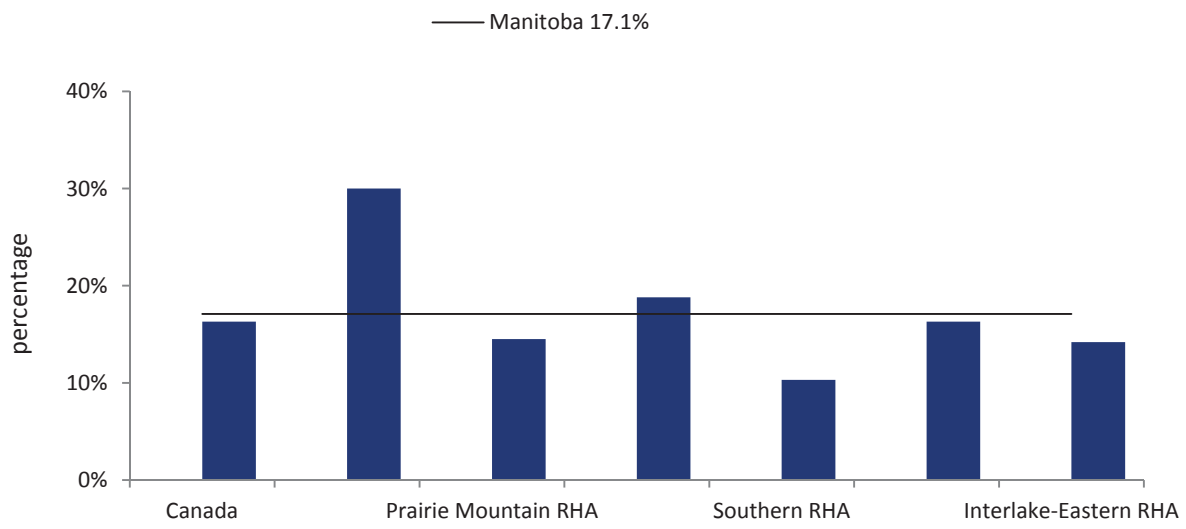
- The 2011 Census indicates there were 17,895 families living in the Northern Health Region in 2011. Just over half of the families in the North are married couple families which is very different from the province where 70 per cent of families are married couple families (see **Table 3.8**).
- On average, there were 5.1 persons in a married-couple family and 3.7 in a lone-parent family. These family sizes are bigger than the provincial average of 4.1 persons in a married-couple family, 2.8 in a lone-parent family.
- These family sizes are particularly important in relation to family incomes illustrated in **Table 3.8**. Family incomes in the Northern Health Region are lower for lone parent families than provincial family incomes and those families are taking care of more people with those smaller incomes.
- As **Figure 3.15** illustrates, the proportion of lone parent families in our region is larger than in the province overall (30.0% versus 17.1%) and the highest among Manitoba RHAs. 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 the Northern Health Region (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 3.8** also shows the substantially lower income experienced by lone parent families compared to couple families (median family income of $30,919 versus $57,381). This is an important finding given the relationship between income and health in which the poorest individuals have lower health status. In populations with more income equality, health status is better, regardless of the overall income level.

Table 3.8. Family Structure of Residents, 2011.

	Northern		Manitoba	
ALL RESIDENTS				
Total # of Census Families		**17,895**		**327,875**
Married Couple Families	9,240	51.6%	232,635	71.0%
Common-Law Couple Families	3,285	18.4%	33,720	10.3%
Single Parent Families	5,370	30.0%	53,210	16.2%
Female Single Parent	3,890	21.7%	42,930	13.1%
Male Single Parent	1,490	8.3%	10,280	3.1%
Median Family Income - All		$57,381		$72,404
Couple Families		$82,788		$67,414
Single Parent Families		$30,919		$41,379

Source: Statistics Canada, 2011 Community Profiles.

Figure 3.15. Lone Parent Families by RHA, 2011.



Source: Statistics Canada, 2011 Census

3.4.3. Language

Language was an area that was discussed during community focus group sessions in 2014. Most focus group participants agreed that the RHA is doing a good job of providing an opportunity for interpreter services for patients when required. With respect to receiving health care services, the primary concern seems to be with communication and cultural barriers between health care providers and patients. Participants noted that on some occasions they could not understand what a health care provider was saying and that they needed to learn how to communicate in ways that were understandable to people, sensitive to the cultural norms of their community.

- **Tables 3.9** to **3.11** illustrate what we know about language in our region and how we compare to Manitoba.
- Just under three-quarters (73.7%) in the Northern Health Region speak English at home, compared to 84.4% of Manitobans (see **Table 3.9**). Rates of English speaking at home appear to have increased over the last three census cycles.
- Almost a quarter (24.4%) of Northern residents speak a non-official language at home. Of that number, the most predominant language is Cree (59.1%) and Oji-Cree (32.2%). Of the small number of residents who speak a non-aboriginal, non-official language at home, the most common languages were Punjabi (0.8%) and Gujarti (0.6%) (see **Figure 3.16**).
- There are very few French speaking residents in the region. In fact, only 2.7 per cent of our residents report speaking both English and French when asked about knowledge of official languages.
- Approximately 37 per cent of the Northern population reports a mother tongue other than English or French. These proportions are much higher than in Manitoba (21.5%)(see **Table 3.11**).
- Consistent with what was found for other, non-official languages spoken at home, the vast majority of those who reported a non-official language as their mother tongue were Aboriginal languages with Cree (65.5%) Oji-Cree (23.5%) and Dene (3.7%) as the leading languages (see **Figure 3.17**).

Table 3.9. Language Spoken At Home, 2011.

	Northern		Manitoba	
Total - All Persons		**69,750**		**1,193,100**
English Only	51,390	73.7%	1,007,325	84.4%
French Only	135	0.2%	17,950	1.5%
Non-Official Language	17,045	24.4%	125,280	10.5%
Both English & French	5	0%	2,485	0.2%
English & Non-Official Language	10	0%	14,875	1.2%
French & Non-Official Language	50	0.1%	10	0%
English, French & Non-Official Language	10	0%	50	0%

Source: Statistics Canada, 2011 Community Profiles.

Figure 3.16. Non-Official Language Spoken At Home, 2011.

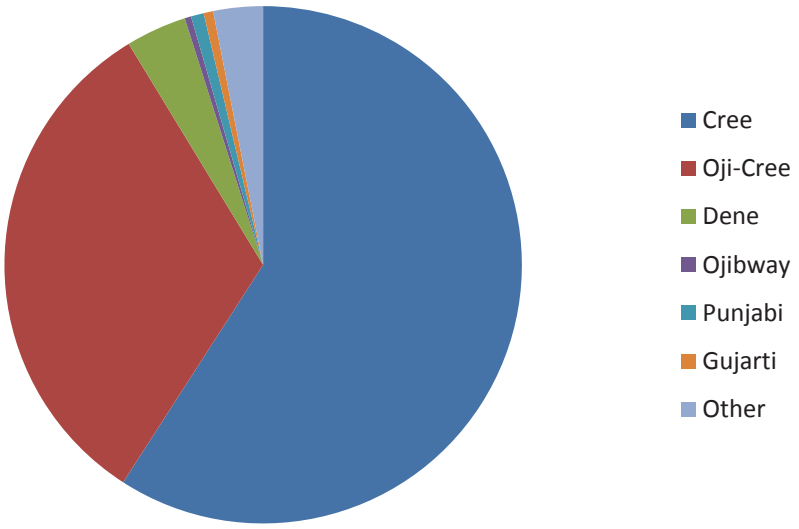


Table 3.10. Knowledge of Official Languages, 2011.

	Northern		Manitoba	
Total - All Persons		**69,750**		**1,193,095**
English Only	67,420	96.6%	1,074,335	90.0%
French Only	20	0.02%	1,490	0.1%
Both English & French	1,875	2.7%	103,140	8.6%
Other Language	430	0.6%	14,135	1.2%

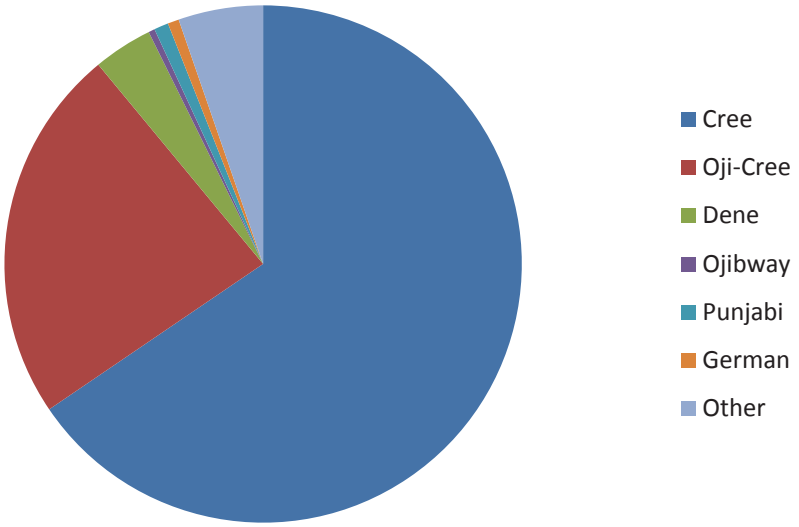
Source: Statistics Canada, 2011 Community Profiles.

Table 3.11. Mother Tongue

	Northern		Manitoba	
Total - All Persons		**69,750**		**1,193,095**
English Only	42,425	60.8%	869,990	72.9%
French Only	535	0.8%	42,090	3.5%
Both English & French	60	0.1%	3,795	0.3%
Other Language	25,750	36.9%	256,500	21.5%

Source: Statistics Canada, 2011 Community Profiles.

Figure 3.17. Other Languages Mother Tongue, 2011.



3.4.4. Internal / External Migration

- Given that the majority of Northern Health Region residents are Aboriginal, it is not surprising that the vast majority (97.4%) of our residents were born in Canada (see **Table 3.12**).
- Less than three per cent of residents of the Northern Health Region are immigrants compared to more than 15 per cent of all Manitoba residents (see **Table 3.12**).

Table 3.12. Internal / External Migration Status, 2011.

	Northern		Manitoba	
Total - All Persons		**69,565**		**1,174,345**
Canadian-Born Population	67,790	97.4%	981,200	83.6%
Foreign-Born Population	1660	2.4%	184,505	15.7%
Immigrated Before 1991	765	1.1%	55,670	4.7%
Immigrated 1991 - 2001	225	0.3%	25,010	2.1%
Immigrated 2001 - 2006	160	0.2%	81,875	7.0%
Immigrated 2006 - 2011	530	0.7%	57,655	4.9%
Non-Permanent Residents	110	0.2%	8,635	0.7%

Source: Statistics Canada, 2011 Community Profiles.

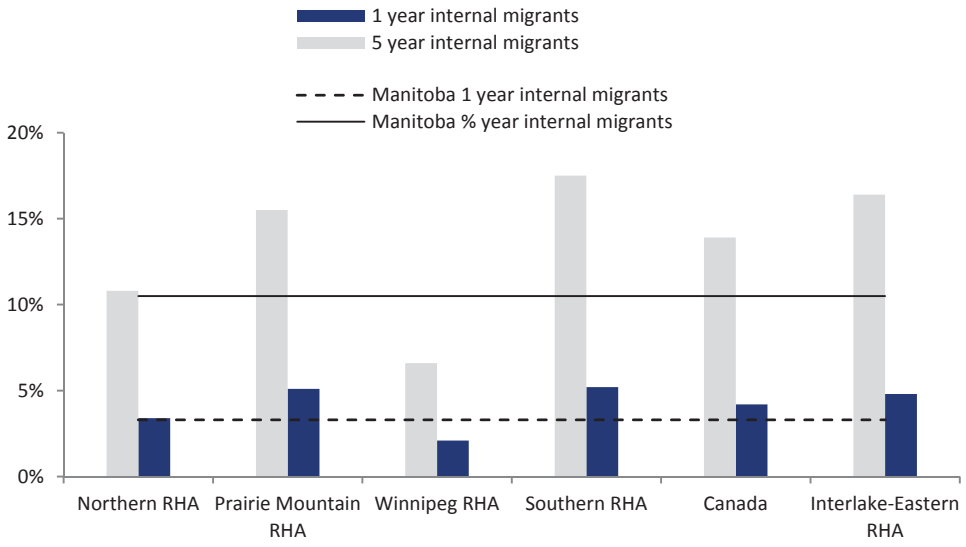
3.4.5. Mobility Status

Mobility status refers to whether people have moved from another jurisdiction or lived at the same location in the previous one or five years. This information is collected through the 2011 Census.

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

- Within the Northern region, 67.8 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 61.9 per cent of Manitobans (see **Table 3.13**).
- **Table 3.13** shows that 10.8 per cent of our residents moved within the province in the last 5 years compared to 7.2 per cent of Manitobans. According to these data, the Northern Health Region has a relatively transient population. Northern residents' mobility appears to be centered on moving within the community or moving in and out of different Manitoba regions.
- Few of our residents tend to move in and out of Manitoba. **Table 3.13** 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.

Figure 3.18. Rate of One and Five Year Migration by RHA, 2011.



Source: Statistics Canada, 2011 Census

Table 3.13. Northern RHA and Manitoba Mobility Status, 2011.

	Northern	Manitoba
Lived at same address one year ago	91.9%	87.5%
Lived at same address five years ago	67.8%	61.9%
Moved from another community within province in past five years	10.8%	7.2%
Lived in different province or territory five years ago	3.6%	3.4%
Lived in a different country five years ago	1.0%	5.0%

Source: Statistics Canada, 2011 Census

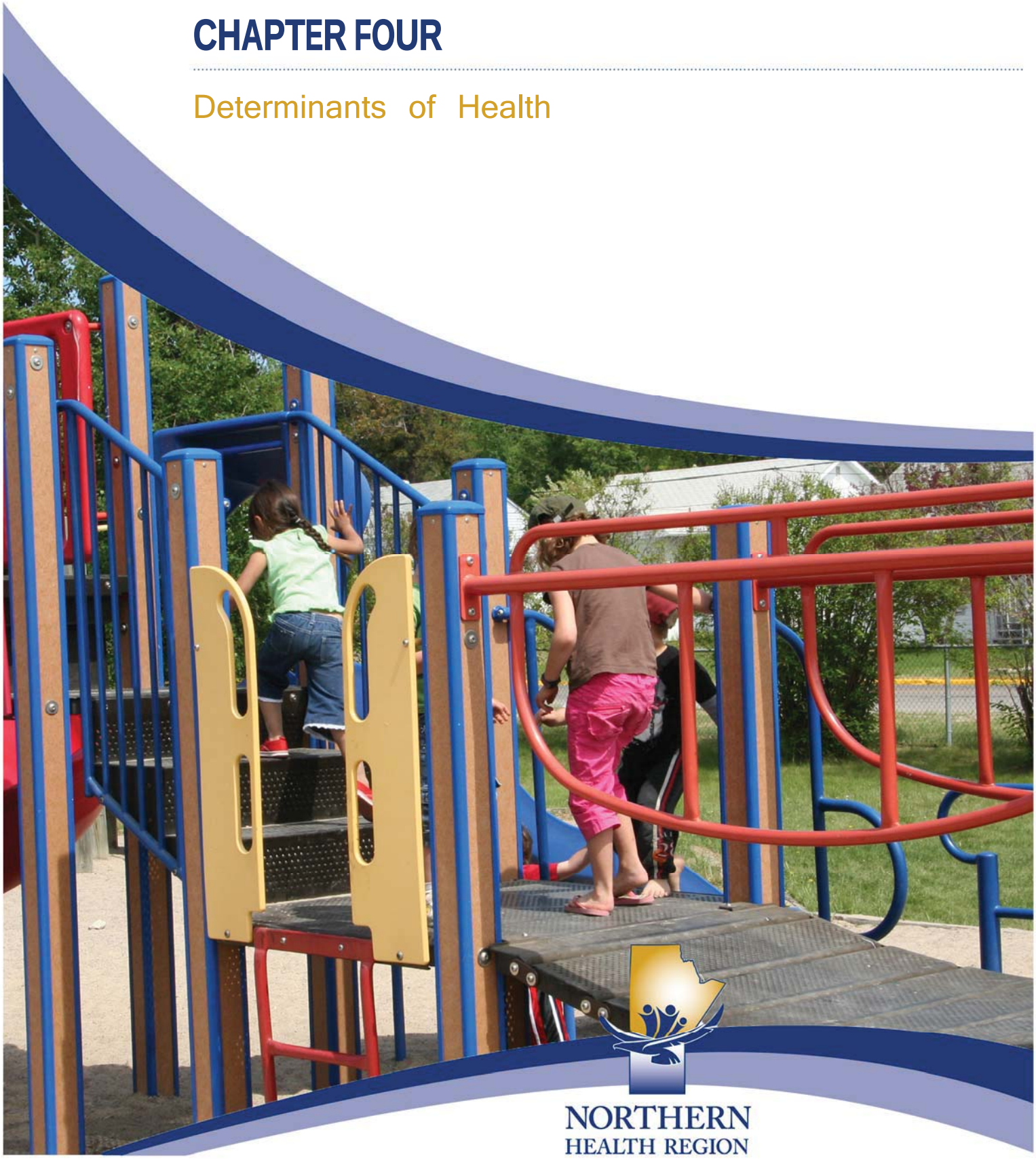
References

[i] Programs and services described here are found on the Northern region website: http://www.nrha.ca/default.aspx?cid=136&lang=1

[ii] Statistics Canada, 2001 Census.

CHAPTER FOUR

Determinants of Health



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4.1. Key Findings

- The second hand cigarette smoke exposure rate in the region between 2007/08 and 2011/12 was 20.9 per cent which was significantly higher than the Manitoba average of 11.2 per cent during the same time period.

- Among youth, the amount of exposure to second hand smoke rises with each grade. 19.9 per cent of Grade 7 students reported being exposed to second smoke either almost every day or daily. By grade 12, that figure rises to 55.8 per cent as more students take up the smoking habit.

- For readiness for school indicators, area of development measures remained relatively steady from 2006 to 2011. Some modest improvements were made in language and cognitive development, communication skills and general knowledge. Scores were down slightly in social competence and emotional maturity from 2006 to 2011.

- Physically active rates ranged from 25 to 40.7 per cent; Thompson was one of the most inactive areas in the region at 47.3 per cent.

- The healthy eating rate (servings of fruits and vegetables) in the region was 32.3 per cent between 2007/08 and 2011/12. While this was below the Manitoba average of 36.7 per cent, it does represent an improvement from previous surveys.

- There was an improvement in Body Mass Index (BMI) with a slight reduction in the number of residents who were overweight or obese (65% between 2007/08 and 2011/12). However, it was still well above and statistically different from the Manitoba average of 56 per cent. The proportion of overweight and obese residents in the region ranged from 79 per cent in Gillam/Fox Lake Cree Nation to 59 per cent in Flin Flon/Snow Lake district.

- The binge drinking rate was 31 per cent between 2007/08 to 20011/12, the highest in Manitoba and well above (and statistically different) the provincial average of 24 per cent.

- There were mixed results in vaccine coverage between 2007 and 2011. Ages 1, 2 and 17 saw increases in vaccine coverage while age 7 experienced a decline. Regional rates were higher than the provincial coverage rate for ages 2 and 7 by 2011. Polio and measles had notable increases in coverage rates while coverage for HBV at age 11 experienced a decline by 2011.

- Only 1.5 per cent of eligible men and women in the region were screened for colorectal cancer, below the Manitoba average of 31.9 per cent. When scopes are included, the colorectal screening rate in the region rises to 12.9 per cent which is still far short of the provincial average of 45.2 per cent.

- The breastfeeding initiation rate was 63.6 per cent in 2012/13, which was the lowest rate among Manitoba RHAs and below the provincial average of 82.9 per cent.

- On a positive note, there has been a decline in the number of families with three or more risk factors when screened through the Families First Home Visitor Program (from 48.1% in 2007 to 39.9% in 2011).

- For youth sex practices, discussion about birth control and STIs increased with each grade as do risky sexual behavior increased such as unplanned sex after taking alcohol or drugs.

- Overall, the Internet (17.4%), a friend (14.3%), parent/caregiver (14.1%), school (13.6%), and doctor (12.3%) were the top 5 sources of information youth use about sexual health. The main sources of information do change with each grade. In grade 7, the primary source for sexual health information was a parent or caregiver. By grade 12, the internet and friends become the most important sources of information.

- There has been a decline in teen pregnancy in recent years from a high of 62.8 per 1,000 in 2010/11 to 51.6 in 2012/13. The highest teenage pregnancy rates were recorded in the areas of Island Lake (167.5 which was statistically higher than the northern average), Norway House (156.6), Bunibonibee (149.0), and Shamattawa (148.6). The lowest rates were recorded in Gillam/Fox Lake (28.2) and Bay Line Communities (46.9).

- The regional youth smoking rate was 25.8 per cent in 2012 and increased with each grade. In grade 7, 9.5 percent of students smoked occasionally or daily. By grade 12, 43.1 per cent of students were smoking.

- A small majority (51.8%) of Northern Health Region students had never had a binge drinking session of 5 drinks or more. Once again, with other drug and alcohol indicators, binge drinking rates rise with each year in high school. In grade 7, 13.9 per cent of students had engaged in binge drinking. By grade 12, 85.8 per cent had done so.

- More casual drug use seems to continue to increase with each grade. In grade 7, 17.4 per cent of students indicated that they had taken drugs in the last year. By grade 12, 60.4 per cent had.

- Fully 60.1 per cent of youth survey respondents had fruit and vegetable consumption below the *Canada Food Guide* recommendations at either 2 times or less a day (23.7%) or 3-6 times.

- There is a contrast in perceived body weight by gender. For females, 29.1 per cent of respondents thought they were overweight while only 14.3 per cent of males thought they were.

- In grade 7, 39.6 per cent of students were overweight or obese, in contracts the grade 12 cohort has a rate of 30.5 per cent. This is of concern as there are more young students who are overweight and obese compared to older students, we must continue to monitor to determine if the grade 7 group continues to experience higher rates of obesity as they age or if these rates decline as the students go through high school.

- Overall, 82.4 per cent of youth were either moderately active or active. Inactive levels rose from grades 7 (12.9% inactive) to 11 (23.0% inactive) and then dropped in grade 12 (18.0% inactive).

- Generally, youth in the region feel safe at home (96.7% agree) in their school (81.9% agree) and have a supportive family (89.9%) and close friend (87.1%) support system they can use.

- Tthe most common type of bullying that youth experienced in the past year was someone saying something about their appearance or shape (45.3%) or being bullied, taunted or ridiculed (44.2%).

- Overall use of sunscreen is low with only 31.2 per cent of youth indicating that they use it often or always. Use is higher among females 35.1 per cent saying they use it often or always versus 27.2 per cent for males who do.

4.2. Socioeconomic Factors

4.2.1. Income Inequality

DEFINITION

Socioeconomic factors such as income are important because of the following evidence provided by Chief Provincial Public Health Officer's *Report on the Health Status of Manitobans 2010*[i]:

- In Manitoba's rural areas, the difference in life expectancy for men between the highest and lowest-income areas is seven years. For women, the difference is five years. In urban areas, the difference in life expectancy for men between the highest and lowest income areas is 10 and for women, the difference is five years.
- Infant mortality rates are higher among Manitobans living in lower-income neighbourhoods and in northern and Aboriginal populations.
- Rates of injury among Manitoba children are associated with socio-economic status; rates are higher in the lowest-income neighbourhoods and among Aboriginal children.
- Suicide attempts are more common among people in low-income areas. Among Manitobans living in areas with the lowest average household income, rates among males were found to be twice as high and females four times as high compared to those living in areas with the highest average household income.

Why Is This Indicator Important?

As the evidence above suggests, wide ranges in income have been shown to negatively affect health status of communities. By contrast, those communities whose residents earn uniformly higher incomes enjoy better health status. Socio-economic indicators have the greatest impact on health status and can significantly influence how Regional Health Authorities deliver health programs and services.

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; rather, 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, remote community could be higher in terms of absolute dollars than it is in a more affordable southern community.

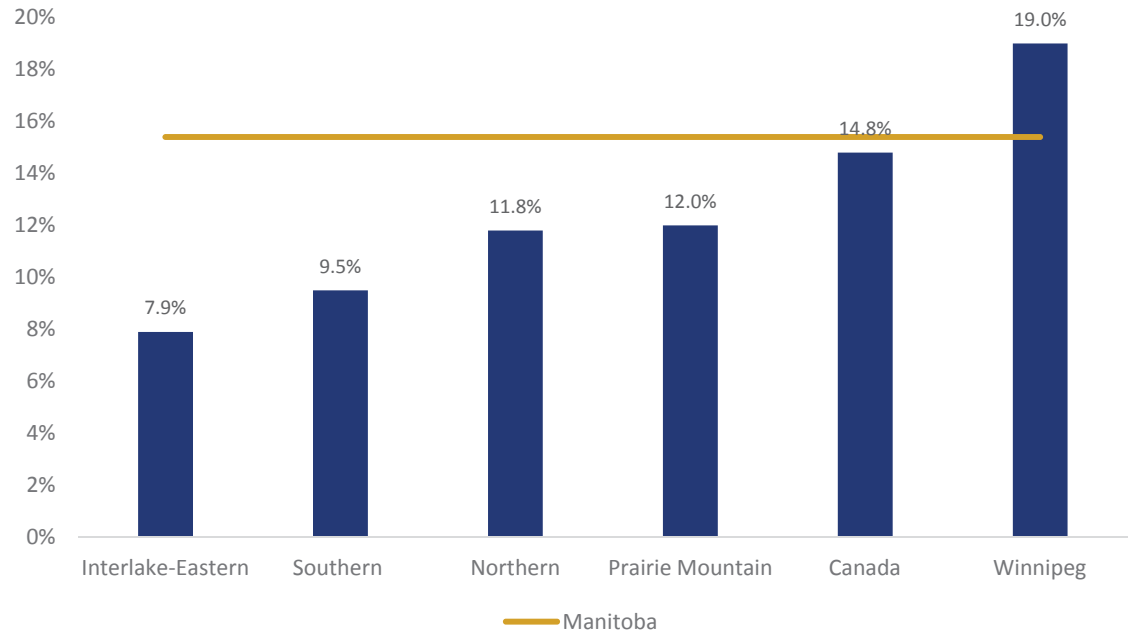
What did we learn in 2009?

- In the former Burntwood Region, 16 per cent of its residents lived below the LICO in 2005 which was just below the Manitoba average of 17 per cent.
- The former Nor-man Region had a LICO rate of 15 per cent in 2005.

What did we learn in 2014?

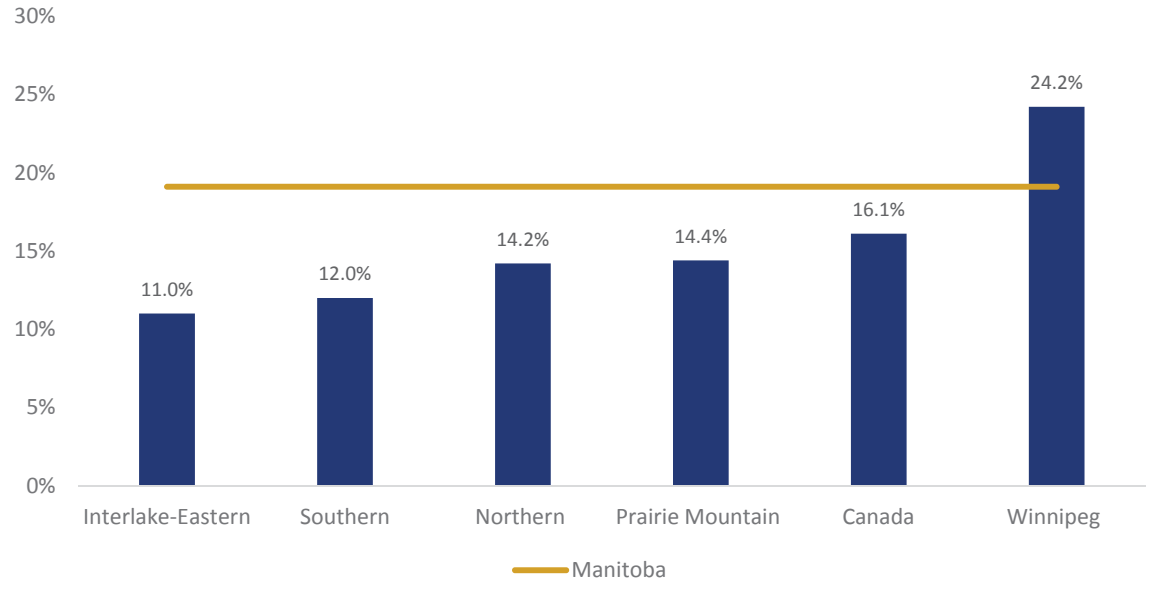
- In 2011 (see **Figure 4.1**), the regional rate is in the middle of the province at just over 11.8 per cent of residents which is lower than the provincial rate of 15.4 per cent.
- **Figure 4.2** presents LICO rates for children under age 17 specifically. Again the regional rate, at 14.2 per cent is much lower than the provincial average of 19 per cent.

Figure 4.1. Low Income Cut-Off, All Persons, 2011.



Source: Statistics Canada, 2011 Canada Census.

Figure 4.2. Low Income Cut-Off, Children Under Age 17, 2011.



Source: Statistics Canada, 2011 Canada Census.

4.2.2. Median Individual and Household Income

DEFINITION

Median individual income is calculated using the total income (pre-tax, post-transfer) for persons aged 15 and over who reported income in the Census of Canada. Median household income is calculated for all household units in the Census of Canada, whether or not they reported income.

Why Is This Indicator Important?

Median individual and household income is an important measure of the income inequality that exists in communities. "Median" is the point exactly between the lowest and highest incomes. This is the income that separates the bottom half of the population from the top half. This is an effective measure because communities with smaller differences between the top and bottom ends generally experience better health status than those with more disparate incomes.

What did we learn in 2009?

- The former Burntwood region reported both median individual and household incomes significantly below the provincial average, though they were increasing. It had the lowest median individual income among all Manitoba RHAs. Males out-earned females, and the median household income was significantly lower among Aboriginal residents.
- The median household income for the former Burntwood region in 2005 was $44,076, lower than the Manitoba median of $47,875. The median individual income for Burntwood in 2005 was $15,395, far below the Manitoba median of $24,194.
- NOR-MAN was also below the provincial average, though it was making increases similar to provincial trends. There was also significant disparity among the communities of this region.
- The median household income for the former NOR-MAN region in 2005 was $49,805. The median total income for the former NOR-MAN region was $23,320.

What did we learn in 2014?

- In 2010 (see **Table 4.1**), the median individual income for the Northern Health region was $18,570 and is higher among males ($22,323) than females ($16,780). The region had the lowest median individual income among Manitoba RHAs.
- **Table 4.2** shows that the regional median household income of $50,814 which is below the Manitoba median of $57,299 and much lower than the Canadian median of $76,000.
- Within the Northern region, 78.0 per cent of income came from employment (83.7% among males and 70.0% among females). This is slightly higher than the provincial rate of 75.4 per cent. 15.8 per cent of income for regional residents came from "Government Transfer" (24.5% for females, 9.6% for males) compared to 12.5 per cent of Manitobans. Government Transfer includes pension, old age security, child benefits and employment insurance.

Table 4.1. Median Individual Income (Age 15+) by Gender and Regional Health Authority, 2010.

Regional Health Authority	Total	Male	Female
Northern	**$18,570**	**$22,323**	**$16,780**
Interlake-Eastern	$28,136	$35,367	$22,585
Winnipeg	$30,461	$36,062	$21,551
Prairie Mountain	$27,190	$33,011	$22,521
Southern	$28,107	$35,588	$21,551
Manitoba	$29,029	$35,055	$24,227

Source: Statistics Canada, National Household Survey 2011.

Table 4.2. Median Household Income (Age 15+) by Regional Health Authority, 2010.

Regional Health Authority	Total
Northern	**$50,814**
Interlake-Eastern	$59,007
Winnipeg	$58,513
Prairie Mountain	$50,830
Southern	$59,014
Manitoba	$57,299
Canada	$76,000

Source: Statistics Canada, National Household Survey 2011.

4.2.3. Income In Single Parent Families

DEFINITION

This indicator measures the median income of single parent families specifically.

Why Is This Indicator Important?

Single parent households often have lower incomes than two parent households. They are at more risk and vulnerable to negative social outcomes such as poorer health status and lack of affordable housing. This indicator can highlight those more at risk households.

What did we learn in 2009?

- The median income for a single parent family in the former 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.
- The former Nor-Man region had a median income of $23,163 for single parent families households in 2005.

What did we learn in 2014?

- In 2010 (see **Table 4.3**), the median single parent family income in the Northern Health Region rose to $30,919 still well below the Manitoba average of $41,379.
- It is also very important to note the large difference income between single parent families and couple families.

Table 4.3. Median Family Income - All Families, 2010.

	Northern Health Region	Manitoba
Median family income - all families	$57,381.00	$72,404.00
Median family income of couples with children	$66,949.00	$90,519.00
Median family income of single parent families	$30,919.00	$41,379.00

4.2.4. Unemployment Rates

DEFINITION

The labor force aged 15 and over who did not have a job during the reference week.

Why Is This Indicator Important?

This was identified as a major concern in 2009 for Manitoba's Northern region. Unemployment can negatively affect social inclusion, leading to poorer health outcomes.

What did we learn in 2009?

- The former Burntwood region reported the highest unemployment rates in the province, at 18 per cent, triple the average. This was true among men, women, and male and female youth. There were significant differences between communities in the region.
- The former NOR-MAN reported rates that were approximately double the provincial average. However, female unemployment rates were below average.

What did we learn in 2014?

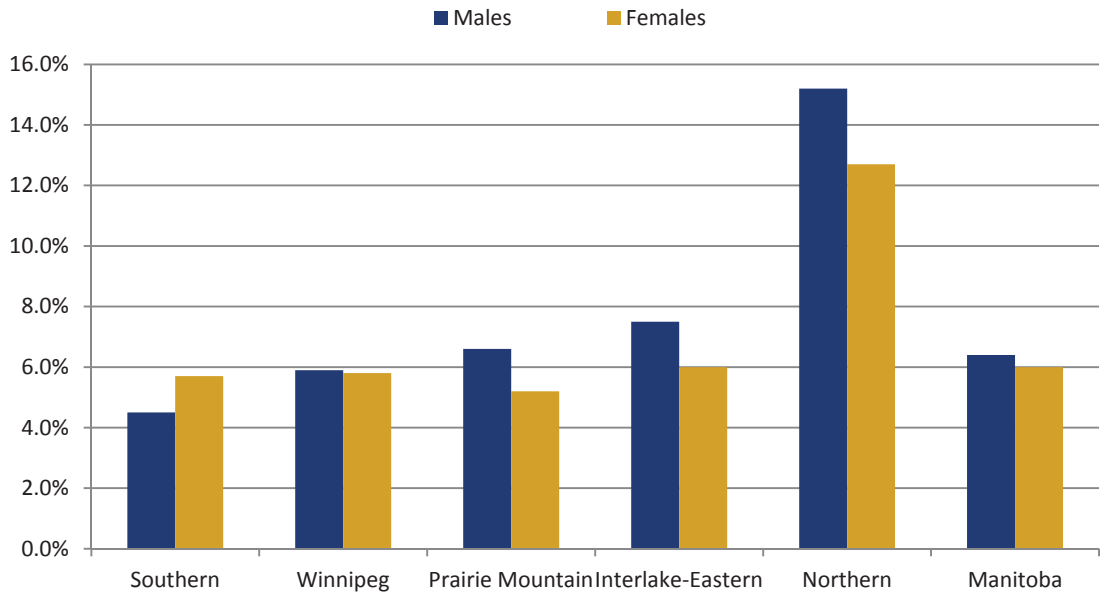
- The self-reported unemployment rate in Northern Health Region has risen in recent years from a low of 5.1 per cent in 2009 to 7.5 per cent in 2013 which was higher than the Manitoba overall unemployment rate of 5.3 per cent (see **Table 4.4**). It is important to note that these are self-reported rates through a labour force survey and appear to be lower than the 2011 Census rates reported.
- **Figure 4.3** illustrates the 2011 unemployment rates by both gender and region. The regional unemployment rate among females was 12.7 per cent and 7.5 per cent among males; both of which were the second highest in the province.

Table 4.4. Total Self-Reported Unemployment Rate (Age 15+) by RHA, 2009-2013.

	2009	2010	2011	2012	2013
Northern	5.1	6.4	6.6	8.2	7.5
Interlake-Eastern	5.4	5.5	5	4.9	4.4
Southern	5	4.3	4.4	3.6	3.5
Prairie Mountain	4.4	3.8	4.2	4.7	3.8
Manitoba	5.2	5.4	5.4	5.3	5.3

Source: Statistics Canada, Labour Force Survey, special tabulations. The CANSIM table 109-5324 is an update of CANSIM table 109-5304.

Figure 4.3. Unemployment Rate (Age 15+) by Gender and Regional Health Authorities, 2011.



Source: Statistics Canada, National Household Survey 2011

4.2.5. Labour Force-Participation Rates

DEFINITION

The percentage of the population aged 15 years and over, who were in the labour force in the week prior to the Census of Canada.

Why Is This Indicator Important?

Labour force participation indicates contribution to society and social belonging. Those who are employed generally experience fewer health difficulties and all-around better health than those who are not. Unemployment can be socially isolating and can affect health and well-being negatively.

What did we learn in 2009?

- The participation rate in the former Burntwood region was well below the provincial average (56.8% in 2006, versus 67.3%). Males (61.1%) were consistently participating more than females (52.4%). Non-Aboriginals were participating at significantly greater rates than Aboriginals (47.7% of Aboriginal residents reported labour force participation.
- NOR-MAN reported participation rates that were very similar to the provincial averages at 71.1 per cent. There was a gender gap in this region as well with 62.2 per cent participation among females.

What did we learn in 2014?

- In 2011, the labour force participation rate for the Northern Health was found to be 57.8 per cent, below the Manitoba average of 67.7 per cent.
- It is noted in that while females have lower labour force participation and employment rates, they do have a lower unemployment rate (12.7% for females, 15.2% for males).

WHAT DO WE KNOW?

In the Northern Community Survey conducted in the summer and fall 2014, 66.9 per cent of respondents indicated that they were employed in a full time, part time or casual capacity.

Table 4.5. Labour Force Participation Rates, 2011.

	Northern Health Region			Manitoba		
	Total	**Male**	**Female**	**Total**	**Male**	**Female**
Participation rate	57.8	62.0	53.5	67.3	72.2	62.6
Employment rate	49.7	52.5	46.7	63.1	67.6	58.8
Unemployment rate	14.1	15.2	12.7	6.2	6.4	6

Source: Statistics Canada, National Household Survey 2011.

4.2.6. Housing Affordability

DEFINITION

This indicator measures the percentage of the population who reported spending 30% or more of total household income on shelter costs from the Census of Canada. Shelter expenses include payments for electricity, oil, gas, coal, wood or other fuels, water and other municipal services, monthly mortgage payments, property taxes, condominium fees and rent. Band housing on First Nations reserves was not included in this calculation.

Why Is This Indicator Important?

High housing costs prevent people from spending on other basic necessities like healthy food, medication, warm clothing, and health care. Those who rent their homes are more likely to deal with the issue of unaffordable housing, often due to lack of financial resources to own and being subject to 'supply and demand' issues.

What did we learn in 2009?

- In the former Burntwood region, the rate of people who spent 30% or more on rent was significantly lower than the provincial average (22% in 2006, with a provincial rate of 35.3%). Of those who owned their homes, only 8.4 per cent spent more than 30%, the lowest rate in the province.
- In the former NOR-MAN region, 25 per cent of renters in 2006 spent 30 per cent or more of their total household income on shelter costs. For homeowners, 9 per cent spent more than 30 per cent on their shelter costs.

What did we learn in 2014?

- Consistent with findings in 2009, the Northern Health Region had smaller proportions of residents spending 30 per cent of more on shelter costs with 10.8 per cent of homeowners doing so (13.0% provincially) and 26.1 per cent of renters (35.4% in Manitoba overall).
- The average value of a private dwelling in the region rose to $162,345 which is lower than the provincial average of $238,861.
- In our region the median amount of money spent on monthly rent was $622 (lower than the provincial median of $689) and the median amount spent on an owned property was $653 per month (lower than the provincial median of $780 per month).
- One of the most important messages from these data is the large discrepancy between people who can afford to own their own homes and those who cannot (or choose not to). There is a much higher rate of housing unaffordability among renters (almost one in three residents) compared to people who own.

Table 4.6. Costs and Values of Housing, 2011.

	Northern Health Region	Manitoba
Total number of owner and tenant households with household total income greater than zero; in non-farm; non-reserve private dwellings by shelter-cost-to-income ratio	12,520	439,200
Spending less than 30% of household total income on shelter costs	10,495	354,135
Spending 30% or more of household total income on shelter costs	2,025	85,065
Number of owner households in non-farm; non-reserve private dwellings	8,115	314,425
% of owner households with a mortgage	51.6%	57.0%
% of owner households spending 30% or more of household total income on shelter costs	10.8%	13.0%
Median monthly shelter costs for owned dwellings	$653	$780
Average monthly shelter costs for owned dwellings	$827	$901
Median value of dwellings	$150,335	$219,915
Average value of dwellings	$162,345	$238,861
Number of tenant households in non-farm; non-reserve private dwellings	4,405	125,655
% of tenant households in subsidized housing	24.0%	19.9%
% of tenant households spending 30% or more of household total income on shelter costs	26.1%	35.4%
Median monthly shelter costs for rented dwellings	$622	$689
Average monthly shelter costs for rented dwellings	$688	$716

Source: Statistics Canada, National Household Survey 2011.

4.2.7. Occupation

DEFINITION

This indicator measures the type of work done by persons aged 15 and over. Occupation is based on the type of job the person holds and the description of work duties which may or may not be related to the industry that they are in. As an example, someone might work in a cultural Industry but in a managerial position. In this case, the occupation is "Management Occupation" as opposed to a cultural occupation.

Why Is This Indicator Important?

For the most part, better paying occupations have a positive impact on health status though there are some occupations which carry some health risks such as exposure to environmental risk factors.

What did we learn in 2009?

- As with Manitoba overall, the most common occupation in former Burntwood region in 2006 was sales and service occupations with 31 per cent of the workforce. It was the leading occupation for females and second for males. Trades, transport and equipment operators and related occupations was the second biggest employment category at 18 per cent of residents which was a male-dominated field with almost one in three men (31%) is employed in this field but only 2 per cent of females.
- In the former NOR-MAN region, sales and service occupations was the leading occupation at 28.1 per cent of the work force. Trades, transport and equipment was number two at 16.7 per cent. By gender, sales and service was first for females at 36.6 per cent and trades, transport and equipment was the leading occupation for males at 29.6 per cent.

What did we learn in 2014?

- Sales and service occupations continued to be the highest proportion of the northern workforce at 22.9 per cent while occupation in education, law and government was second overall at 19.9 per cent. Trades and transport and equipment continued to be a male dominated profession with 18.3 per cent of all occupations but 32.4 per cent for males, the number one occupation for males. By contrast, only 1.6 per cent of the female workforce was in trades, transport and equipment.
- **Table 4.7** presents the occupation categories for regional residents.

Table 4.7. Occupations of Northern RHA Residents, 2011.

	Total		Male		Female	
	#	%	#	%	#	%
Sales and service occupations	5,950	22.9%	2,505	17.8%	3,450	29.1%
Occupations in education; law and social; community and government services	5,175	19.9%	1,770	12.6%	3,410	28.7%
Trades; transport and equipment operators and related occupations	4,760	18.3%	4,560	32.4%	200	1.7%
Business; finance and administration occupations	2,965	11.4%	660	4.7%	2,310	19.5%
Natural resources; agriculture and related production occupations	1,660	6.4%	1,540	10.9%	125	1.1%
Health occupations	1,355	5.2%	250	1.8%	1,100	9.3%
Natural and applied sciences and related occupations	1,040	4.0%	860	6.1%	180	1.5%
Occupations in manufacturing and utilities	715	2.8%	670	4.8%	50	0.4%
Occupations in art; culture; recreation and sport	260	1.0%	100	0.7%	160	1.3%
Total	**25,960**		**14,080**		**11,875**	

Source: Statistics Canada, 2011 Census.

4.2.8. Industry

DEFINITION

Industry is not necessarily the type of work a person does but it refers to the business in which a person is employed. This indicator illustrates the breakdown of the labour force into the major sectors of the economy.

Why Is This Indicator Important?

The types of employment, irrespective of income level, may carry with it greater health risks due to exposure to harmful substances or there may be a greater risk of injuries.[ii]

What did we learn in 2009?

- The former Burntwood economy has a somewhat different mix of industry sectors with the agriculture and resource-based industry accounting for 15 per cent of employment in Burntwood, which was well above the Manitoba average of eight per cent. By contrast, manufacturing and construction was a much smaller industry sector.
- Health and education was also a major industry sector in the former Burntwood Region, 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.
- The former NOR-MAN region had a mix of industry with manufacturing (12.4%), health (13.6%), education (10.8%), agriculture and resourced-based industry (9.8%) and business services (8.9%) providing the bulk of employment to residents.

What did we learn in 2014?

- The breakdown of the labour force in the Northern Health Region again shows a wide range of employing industries in the region with public administration, health care, education and retail trade as the key sources of employment in 2011 (see **Table 4.8**).
- Almost a quarter (23.6%) of the male labour force in the region is employed in either construction or the mining, oil and gas sector. Construction and mining are the dominant sectors for males in the Northern Health Region in comparison with Manitoba overall.
- The predominant industry for women was the health and social assistance sector with almost one of every four women employed in that sector (24.9%). Educational services was also a key employing sector for women at 18.8 per cent of all employment.

Table 4.8. Employment by Major Industry, Northern RHA and Manitoba, 2011.

	Northern Health Region			Manitoba		
	Total	Male	Female	Total	Male	Female
Public administration	14.8%	16.0%	13.4%	8.6%	8.6%	8.6%
Health care and social assistance	14.1%	5.0%	24.9%	13.4%	4.9%	22.8%
Educational services	13.1%	8.2%	18.8%	8.4%	5.1%	12.0%
Retail trade	10.9%	8.8%	13.4%	11.0%	9.8%	12.3%
Mining, quarrying, oil and gas extraction	8.3%	14.3%	1.2%	0.9%	1.5%	0.2%
Construction	5.5%	9.3%	1.1%	6.6%	11.2%	1.5%
Transportation and Warehousing	4.8%	6.8%	2.5%	5.3%	8.0%	2.4%
Manufacturing	4.3%	6.5%	1.6%	8.8%	12.8%	4.5%
Agriculture; forestry; fishing and hunting	1.7%	2.8%	0.3%	4.4%	6.1%	2.5%
Other	22.5%	22.3%	22.8%	32.6%	32.0%	33.2%

Source: Statistics Canada, 2011 Census.

4.2.9. Education Attainment

DEFINITION

This indicator measures the highest level of schooling attained (less than high school, high school, trades, college, university).

Why Is This Indicator Important?

Education, along with income, is one of the key socio-economic status indicators that influences health status. As part of Manitoba's poverty reduction strategy, education and skills-building programs are identified as key components to reduce poverty and encourage low income Manitobans to be more active in the labour force, improving social inclusion.

What did we learn in 2009?

- Over half of the residents of the former Burntwood region had no certificate, degree, or diploma, much higher than the provincial average. Among Aboriginal residents, 68 per cent did not have a high school certificate, diploma or degree. Only 10 per cent of residents had a certificate, degree, or diploma at or below the bachelor level.
- The former NOR-MAN region also had a high proportion of residents without a certificate, degree, or diploma, also at over half. Only 26 per cent of residents had a high school certificate, degree, or diploma, and only 2 per cent had a certificate, degree, or diploma at or below the bachelor level.

What Did We Learn in 2014?

- **Table 4.10** shows the highest level of education achieved for our residents and Manitobans as of 2011. Slight gains in educational attainment seem to have been made with just under one half (49.6%) of northern residents having no degree, certificate or diploma, though will substantially higher than the Manitoba average of 25.1 per cent. The proportion of those with a post-secondary certificate, degree or diploma is 30.1 per cent which was below the Manitoba average of 47.2 per cent.
- The second half of the table presents education attainment only for those aged 25 to 64. This takes into account younger residents who may still be in school as well as older residents, for whom it may have been less common to complete high school, or pursue postsecondary education. Among this group, more than two in five residents (40.9%) have not completed any certificate diploma or degree compared to 17.2 per cent of Manitobans. In addition, 38.7 per cent of regional residents in this age group have a postsecondary diploma or degree.
- **Table 4.9** illustrates high school completion rates for residents age 25 to 29 by region. Northern RHA has the lowest rate of graduates at 52.6 per cent.

Table 4.9. High School Graduates (Age 25-29), 2011.

	Percentage
Northern RHA	52.6
Interlake-Eastern RHA	75.1
Southern RHA	76
Prairie Mountain RHA	82.3
Manitoba	83.2
Canada	88.4
Winnipeg RHA	88.7

Source: Statistics Canada, 2011 Census.

Table 4.10. Highest Level of Education Attainment, Northern RHA and Manitoba, 2011.

	Northern Health Region			Manitoba		
	Total	Male	Female	Total	Male	Female
Total population aged 15 years and over						
No certificate; diploma or degree	49.6%	51.2%	48.0%	25.1%	26.6%	23.6%
High school diploma or equivalent	20.3%	19.4%	21.3%	27.7%	27.3%	28.1%
Postsecondary certificate; diploma or degree	30.1%	29.4%	30.8%	47.2%	46.1%	48.2%
Apprenticeship or trades certificate or diploma	8.5%	12.4%	4.6%	9.4%	12.3%	6.7%
College; CEGEP or other non-university certificate or diploma	11.0%	8.5%	13.5%	15.9%	13.4%	18.2%
University certificate or diploma below bachelor level	2.3%	1.8%	2.8%	4.1%	3.6%	4.5%
University certificate; diploma or degree at bachelor level or above	8.3%	6.7%	10.0%	17.8%	16.8%	18.8%
Total population aged 25 to 64 years						
No certificate; diploma or degree	40.8%	43.6%	37.9%	17.2%	19.5%	14.9%
High school diploma or equivalent	20.4%	18.9%	21.9%	25.6%	25.5%	25.6%
Postsecondary certificate; diploma or degree	38.7%	37.5%	40.1%	57.3%	55.0%	59.4%
Apprenticeship or trades certificate or diploma	10.5%	15.5%	5.5%	10.6%	13.6%	7.7%
College; CEGEP or other non-university certificate or diploma	14.5%	11.3%	17.7%	19.3%	16.5%	21.9%
University certificate or diploma below bachelor level	2.8%	2.1%	3.4%	4.7%	4.2%	5.2%
University certificate; diploma or degree at bachelor level or above	11.0%	8.6%	13.4%	22.7%	20.7%	24.6%

Source: Statistics Canada, National Household Survey 2011.

4.3. Environment

4.3.1. Exposure To Second Hand Smoke

DEFINITION

Proportion of the non-smoking Canadian population aged 12 and older, exposed to environmental tobacco smoke at home on most days.

Why Is This Indicator Important?

Exposure to second-hand smoke can have a major impact on health. It is the number two cause of lung cancer. It increases the risk of COPD, arteriosclerosis, and heart disease. Babies born to smokers are more likely to have a low birth weight, be small for their gestational age, suffer from respiratory issues, including asthma, and the risk for Sudden Infant Death Syndrome is increased. It is also linked to increased risk for stillbirth and miscarriage.[iii]

Existing provincial legislation protects the public from second hand smoke in public spaces in Non First Nations Communities and more recently protects children and teens under 16 in a private vehicle by banning smoking in the vehicle. This leaves First Nations Communities and personal homes as the most important areas for targeting 2nd hand smoke education and reduction.

What did we learn in 2009?

- Residents of the former Burntwood region who did not smoke had a rate of 17.9 per cent, significantly higher than the provincial average of 7.9 per cent. Over half of children were being exposed.
- In the former NOR-MAN region, males reported a rate of 24.9 per cent and females reported a rate of 22.1 per cent.

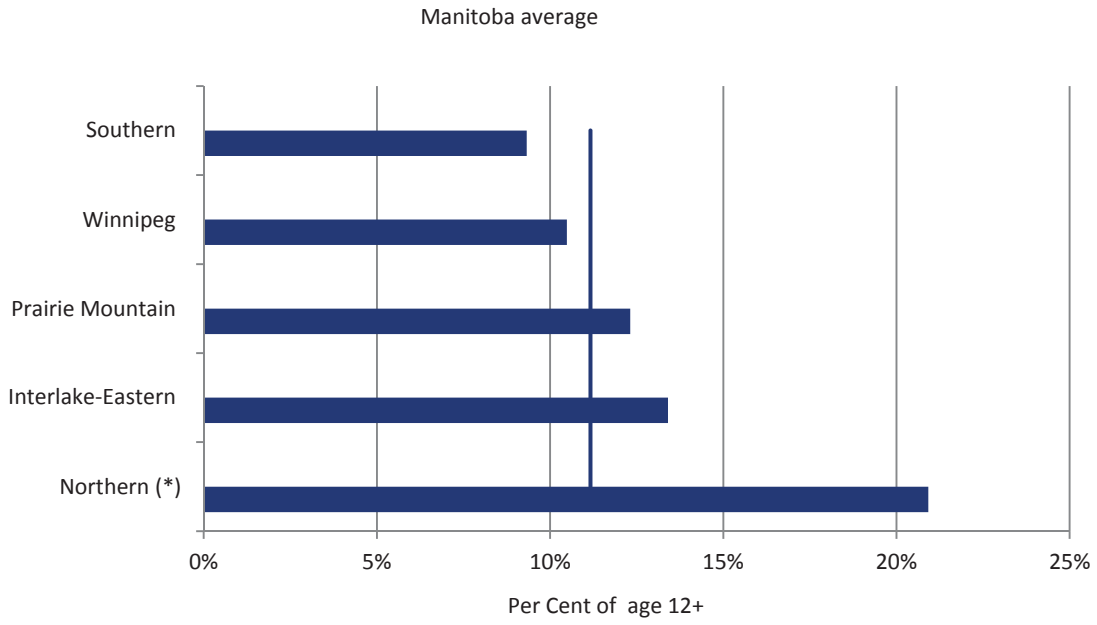
What did we learn in 2014?

- The second hand exposure rate in the Northern Health region between 2007/08 and 2011/12 was 20.9 per cent which was a statistically significant difference from the Manitoba average of 11.2 per cent during the same time period (see **Figure 4.4**).
- As **Figure 4.5** shows in the breakdown of figures by zone in the Northern region, the rate of second hand exposure to smoke was particularly high in the Bay Line communities at 61.2 per cent. Most of the community and district data was suppressed due to low numbers.

WHAT DO WE KNOW?

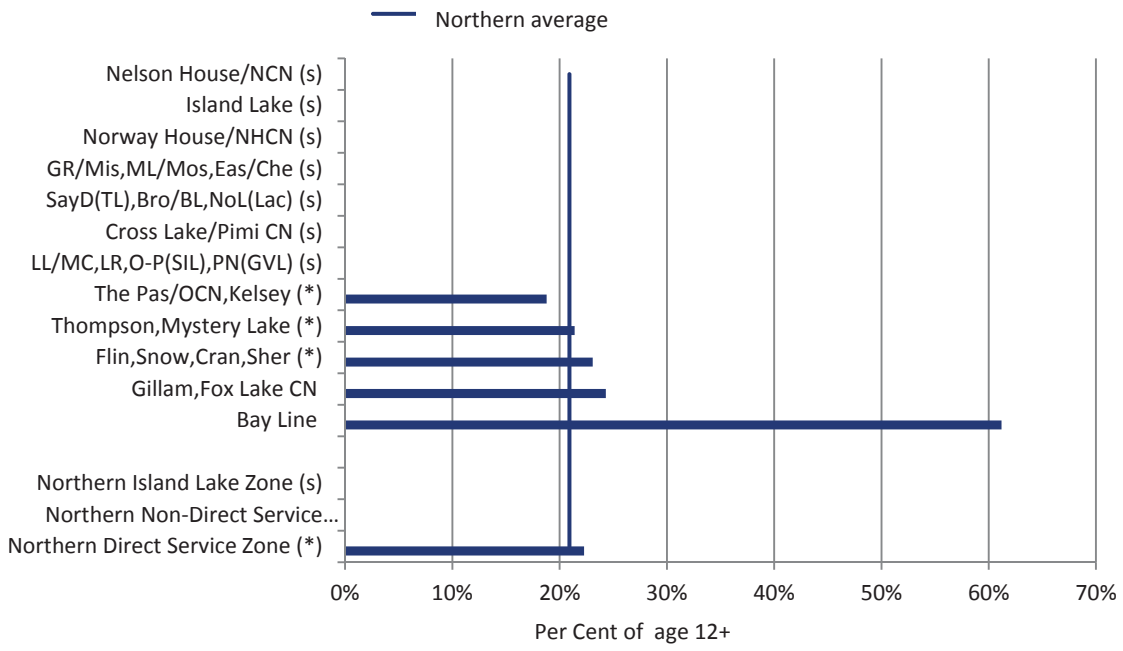
- In the past 2 years, the Health Promotion department did some education and supported apartment owners in Thompson to change their policies and encourage them to make their buildings smoke free. Making a whole building smoke free reduces the chemicals that seep through spaces and transfer from one unit to the next and into hallways.
- In the past 6 years-Communities affiliated with Healthy Together Now are supported with the Blue Light program if interested.
- Recently, partnerships with other organizations to provide resources and information around tobacco including Second Hand Smoke have been formed.
- All Northern Health Region grounds continue to be smoke free in all communities, on all properties.

Figure 4.4. Second Hand Smoke Exposure Rate by RHA, 2007/08 to 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

Figure 4.5. Second Hand Smoke Exposures by Zone, 2007/08 to 2001/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

4.3.2. Exposure To Second Hand Smoke Among Youth

DEFINITION

This indicator measure the proportion of youth from grades 7 to 12 exposed to varying levels of environmental tobacco smoke at home.

Why Is This Indicator Important?

While second-hand smoke harms everyone, it is especially harmful to children. Second-hand smoke can cause ear infections, breathing problems, other diseases in children.

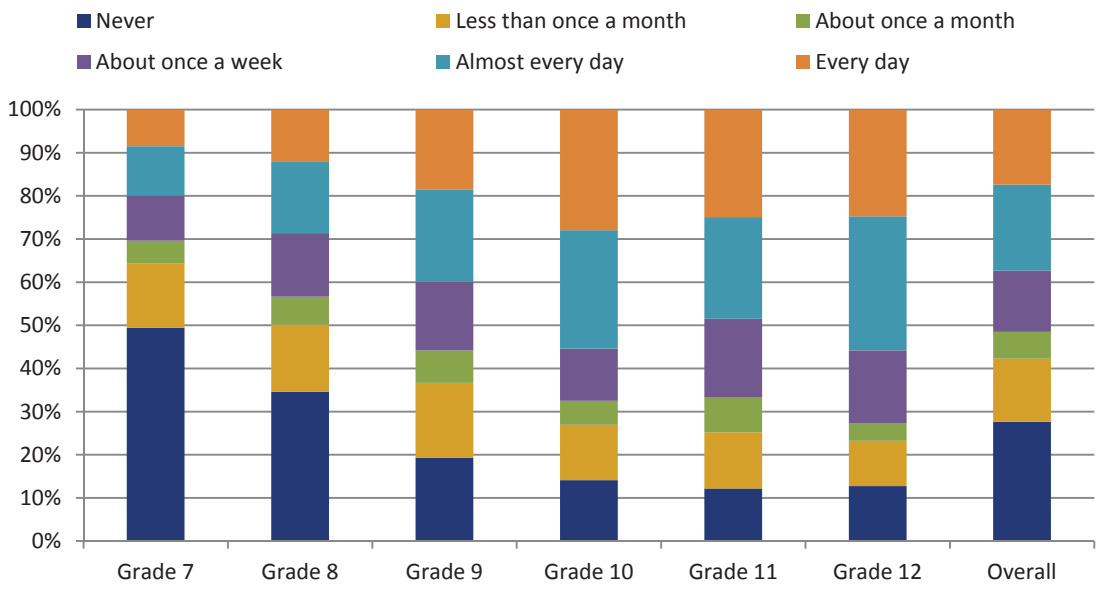
What did we learn in 2009?

- Residents of the former Burntwood region who did not smoke had a rate of 17.9 per cent, significantly higher than the provincial average of 7.9 per cent. Over half of children were being exposed.
- In the former NOR-MAN region, males reported a rate of 24.9 per cent and females reported a rate of 22.1 per cent.

What did we learn in 2014?

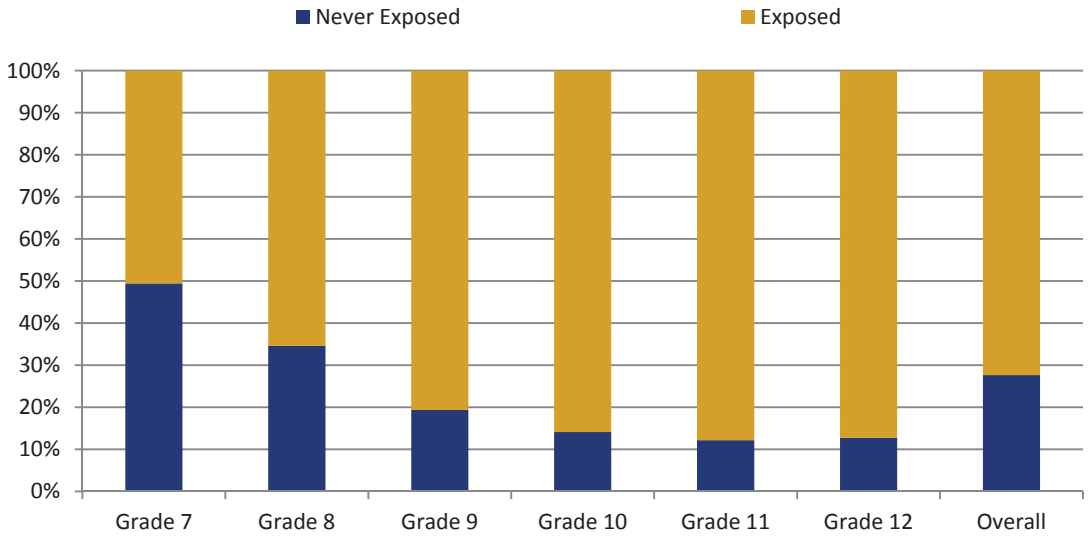
- As **Figure 4.6** shows, the amount of exposure to second hand smoke rises with each grade. Of the students responding to the survey, 19.9 per cent of grade 7 students reported being exposed to second smoke either almost every day or daily.
- By grade 12, that figure rises to 55.8 per cent as more students take up the smoking habit. (**Figure 4.6** and **Figure 4.7**).

Figure 4.6. Exposure to Second Hand Smoke Among Youth by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 91.8%, Grade 8 = 91.7%, Grade 9 = 95.6%, Grade 10 = 96.1%, Grade 11 = 94.5%, Grade 12 = 92.7%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

Figure 4.7. Exposure to Second Hand Smoke Among Youth by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 91.8%, Grade 8 = 91.7%, Grade 9 = 95.6%, Grade 10 = 96.1%, Grade 11 = 94.5%, Grade 12 = 92.7%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

4.4. Personal Resources

4.4.1. Self Perceived Life Stress

DEFINITION

This indicator measures the proportion of residents who reported having quite a lot of stress in their life.

Why Is This Indicator Important?

The emotions produced by stress can affect, along with a number of factors, the immune system, causing an increased risk of illness. Stress can also play a role in the onset of diseases such as rheumatoid arthritis and lupus.

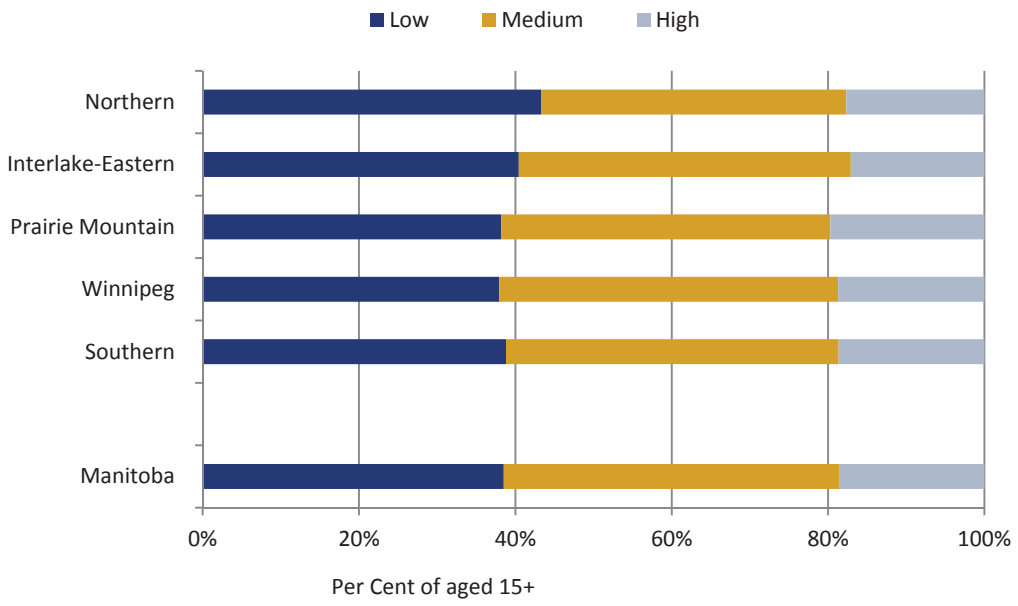
What did we learn in 2009?

- In the former Burntwood/Churchill region, 16.7 per cent of respondents reporting having quite a lot of stress in their life in 2007, below the Manitoba average of 19.4 per cent.
- In the former NOR-MAN region, the figure was 17.4 per cent.

What did we learn in 2014?

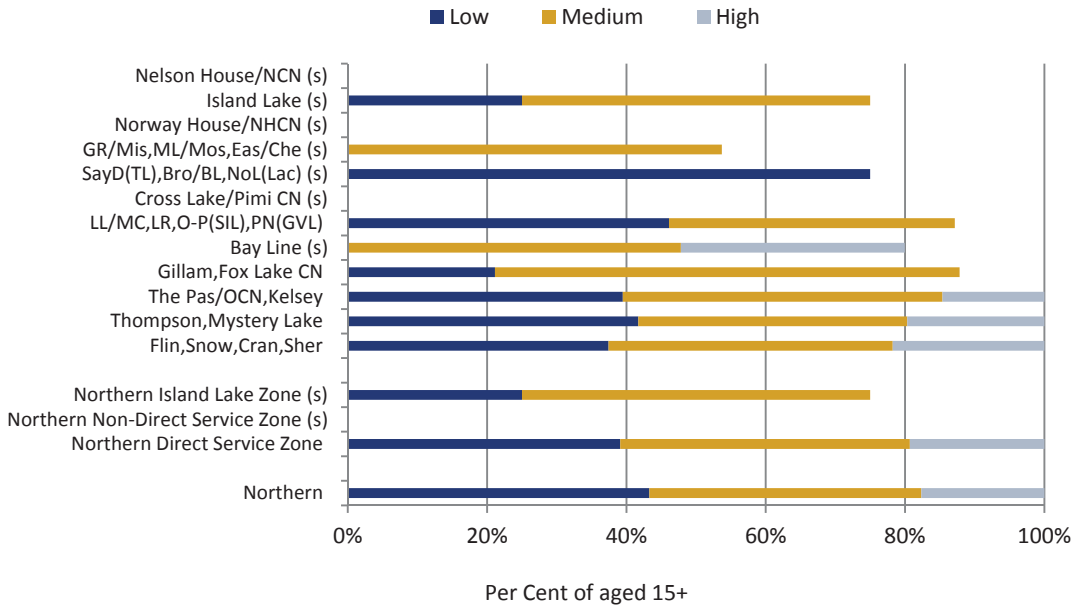
- As **Figure 4.8** shows, 17.7 per cent of Northern Health Region residents reported having high stress in their life between 2007/08 and 2011.12, slightly below the Manitoba average of 18.6 per cent.
- Of those communities where the data was reported, Bay Line communities recorded the highest stress rates among the Northern region zones at 32.2 per cent (see **Figure 4.9**).

Figure 4.8. Life Stress Rate by RHA, 2007/08 to 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

Figure 4.9. Life Stress Rate by Zone, 2007/08 to 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

4.4.2. Work Stress

DEFINITION

This indicator measures the proportion of residents reporting having high work stress.

Why Is This Indicator Important?

Work stress is one of the most common forms of stress experienced by Canadians which can lead to poor health and injuries. Work stress can cause mood and sleep disturbances, upset stomach and headaches. Work stress can also contribute to the development of chronic diseases and conditions including cardiovascular disease, musculoskeletal disorders, and psychological disorders.

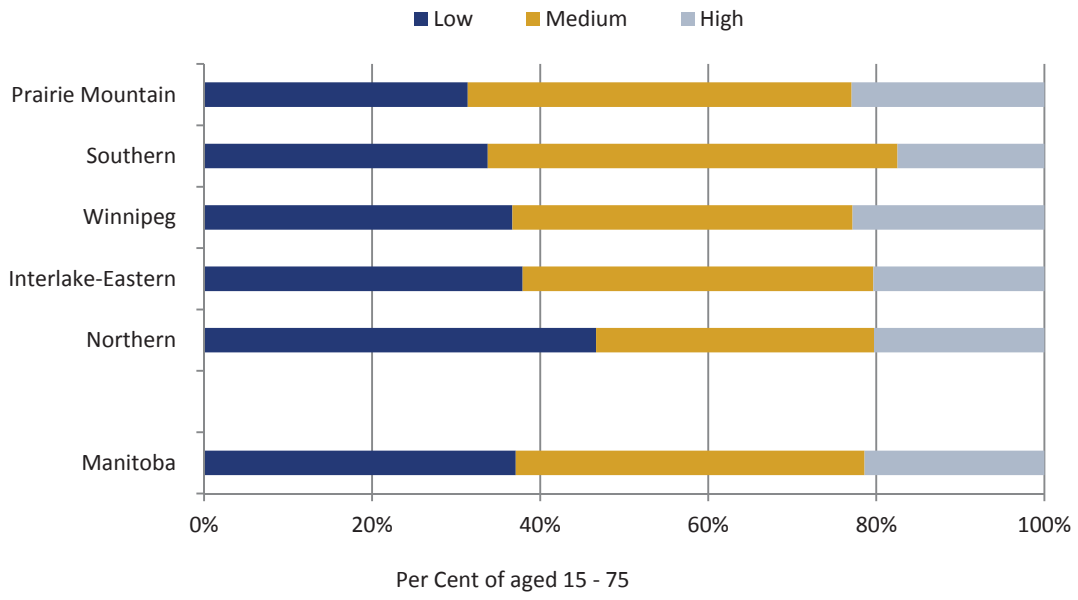
What did we learn in 2009?

- Residents of the former Burntwood/Churchill regions reported a work stress rate of 22.0 per cent, lower than the Manitoba average of 26.0 per cent in 2005.
- The former Nor-Man region had a lower work stress rate of 17.9 per cent.

What did we learn in 2014?

- The Northern Health Region had a high work stress rate of 20 per cent between 2007/08 and 2011/12 which was below the Manitoba average of 21 per cent (see **Figure 4.10**).

Figure 4.10. Work Stress Rate by RHA, 2007/08 to 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

4.4.3. Readiness To Learn At School Entry

DEFINITION

This indicator measures the proportion of children 'not ready' for school and 'very ready for school'. The average Early Development Instrument (EDI) scores, provided at the provincial, regional and district level, in each of the 5 areas of development:

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

Why Is This Indicator Important?

The EDI is completed by teachers in February, after they have interacted with their Kindergarten class for several months. It is an important measure of the well-being and health of children. It has been shown to be strongly linked to parental involvement in a child's early learning and income levels.

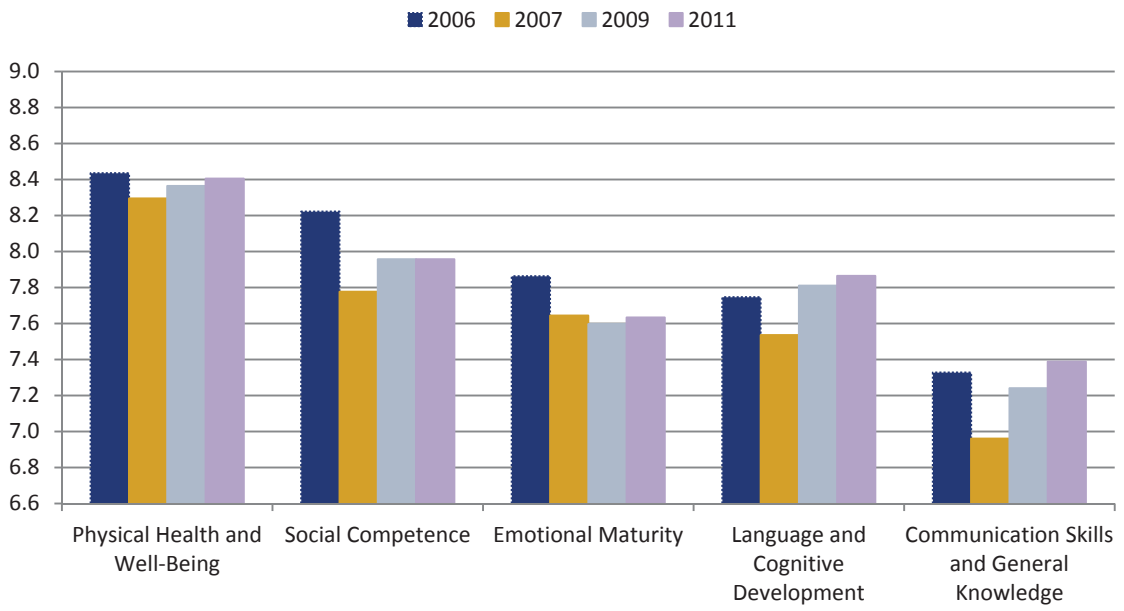
What did we learn in 2009?

- The former Burntwood region reported higher rates of 'not ready' children than the provincial average, and lower rates of 'very ready' children than the provincial average.
- The former NOR-MAN region was also above the provincial 'not ready' rates, but noted significant improvement.

What did we learn in 2014?

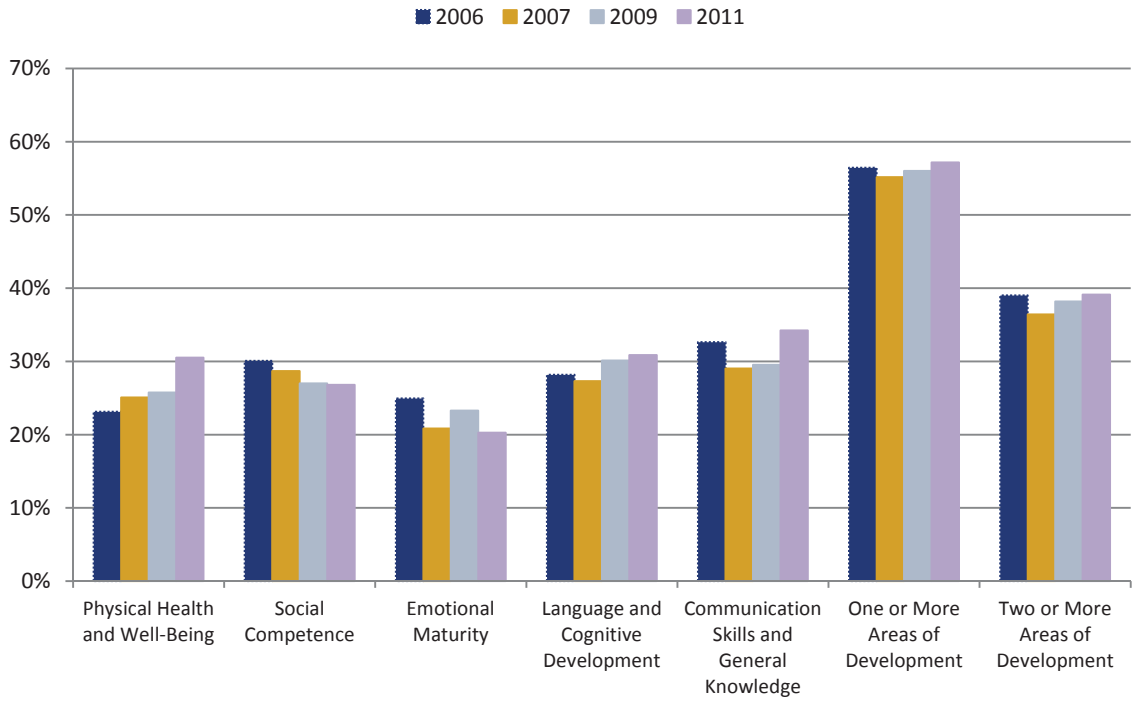
- As **Figure 4.11** illustrates, area of development measures remained relatively steady from 2006 to 2011. Some modest improvements were made in language and cognitive development (7.75 in 2006 to 7.86 in 2011) and communication skills and general knowledge (from 7.33 in 2006 to 7.39 in 2011). Scores were down slightly in social competence and emotional maturity from 2006 to 2011.
- With respect to areas where children were very ready (see **Figure 4.12**), there was also a mixed picture in results from 2006 to 2011. There was an improvement in physical health and well-being (23.1% very ready in 2006 and 30.5% in 2011) and language and cognitive development (28.2% in 2006, 30.9% in 2011). On the other hand, declines were experienced in emotional maturity (24.9% in 2006, 20.3% in 2011) and social competence (30.1% in 2006, 26.8% in 2011).

Figure 4.11. Average for Area of Development, 2006 to 2011.



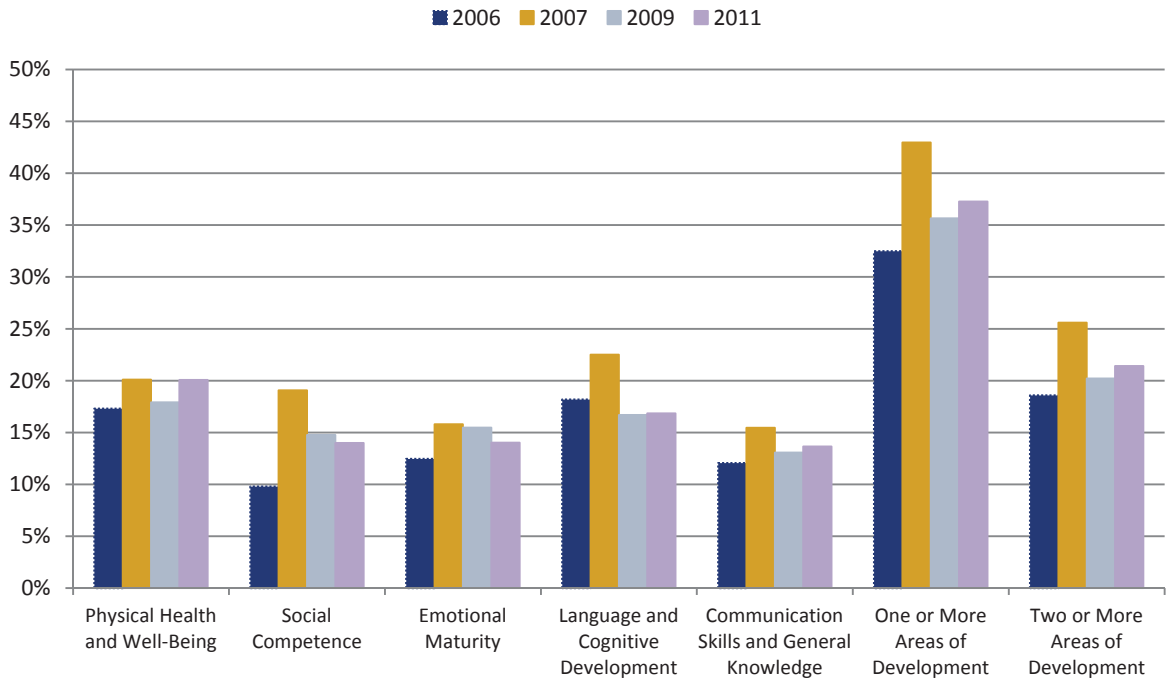
Source: Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014

Figure 4.12. Percentage of Very Ready For Area of Development, 2006 to 2011.



Source: Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014.

Figure 4.13. Percentage of Not Very Ready For Area of Development, 2006 to 2011.



Source: Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014.

4.5. Personal Health Practices and Lifestyle

4.5.1. Active Living

DEFINITION

An index was created to calculate total energy expenditure levels for respondents aged 15 to 75, based on physical activity undertaken during both work-time and leisure-time activities in the previous three months. The proportion of respondents that were active, moderately active, or inactive, is shown.

Why Is This Indicator Important?

Physical activity is a critical element in developing healthy lifestyle habits. If people are becoming more physically active, that may be a positive indicator that the region's attempt to promote healthier lifestyles is effective as awareness increases and spreads.

In community consultations, there was great emphasis placed on moving toward healthier lifestyle choices but with a recognition of how difficult it can be to achieve. As one participant noted, ***"When trying to engage the hard to reach parts of the community, communicating to them in a way that will keep them interested and want to become involved in their health is very much a huge challenge."*** Awareness is another important challenge, as another participant noted that, ***"it is surprising how people think that no connection with how they are living impacts on their body such as drug and alcohol use."***

What did we learn in 2009?

- In the former Burntwood region, residents had slightly higher levels of physical activity (25% in 2008) than the Manitoba average (24%). However, the level of physically inactive people was also higher than the provincial average (53.7%, with a provincial average of 51.5% in 2008).
- The former NOR-MAN region reported higher levels of activity than the Manitoba average.

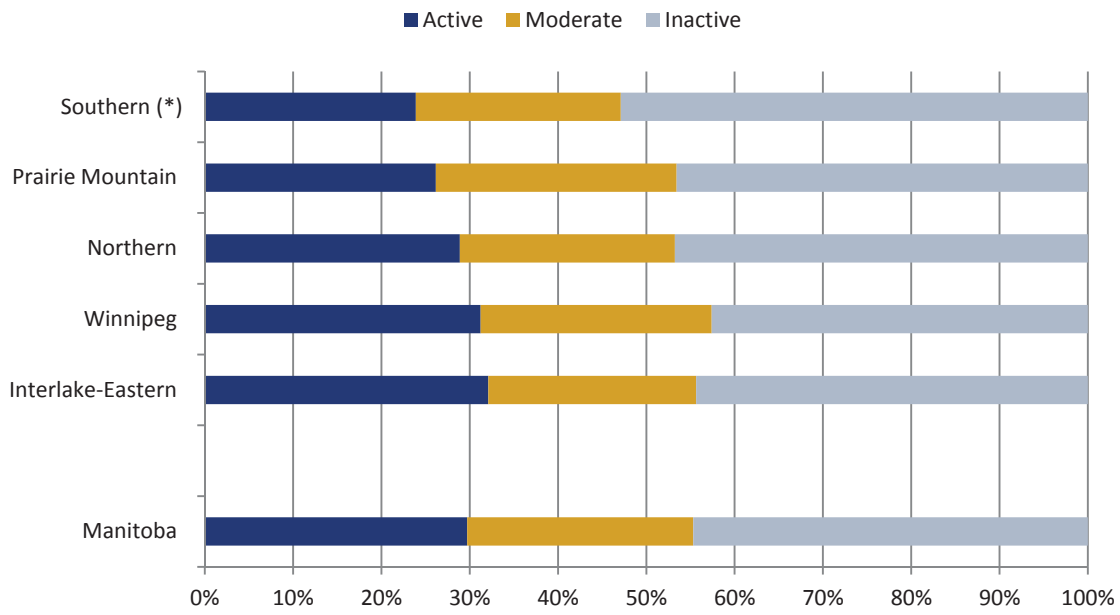
What did we learn in 2014?

- 28.9 per cent of regional residents reported being physically active, just slightly lower than the provincial average of 29.7 per cent between 2007/08 and 2011.12 (see **Figure 4.14**).
- As **Figure 4.15** shows, physically active rates ranged from 25 per cent to 40.7 per cent in Northern region zones. Thompson was one of the most inactive areas in the region at 47.3 per cent.

WHAT ARE WE DOING?

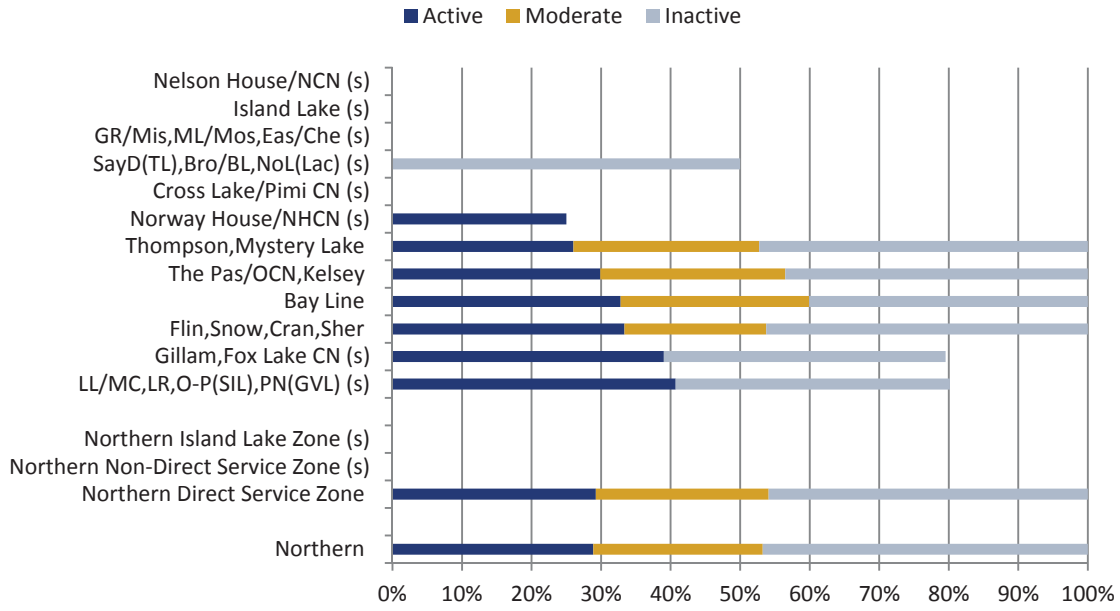
- The Mindful Movement Moment is a mind body exercise class designed for various participants in different settings hosted by the Northern Health Region. To date, one pilot site is up and running with the hopes of adding many more in the near future.

Figure 4.14. Physical Activity Rate by RHA, 2007/08 to 2011/12.



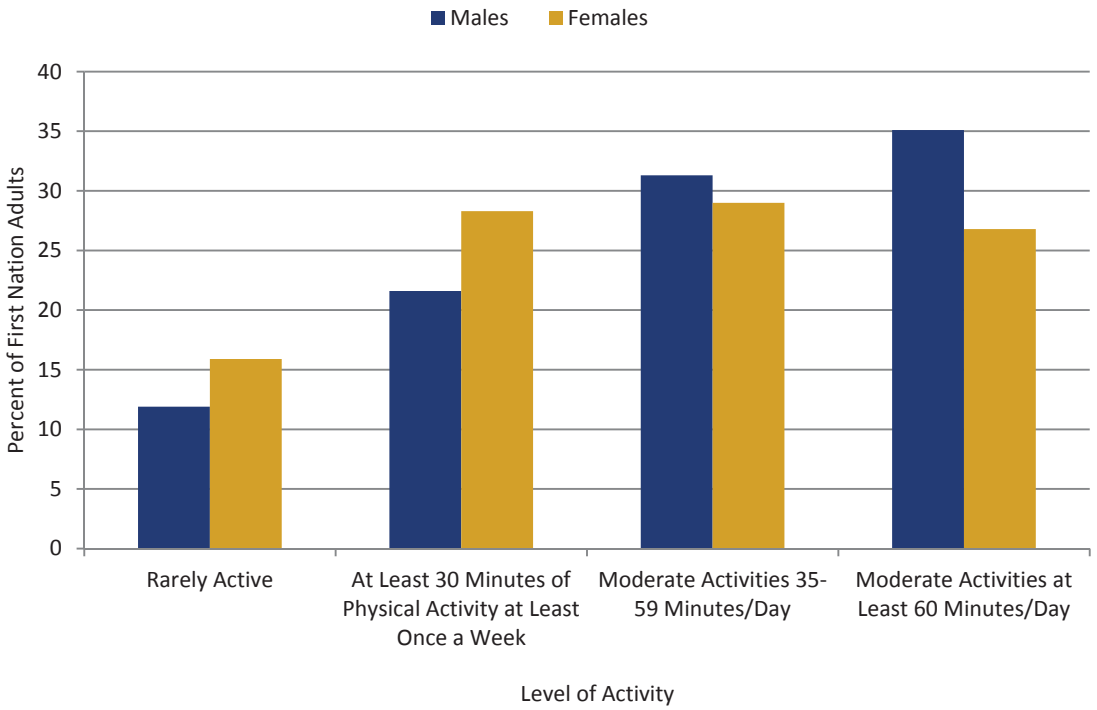
Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

Figure 4.15. Physical Activity Rate by Zone, 2007/08 to 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

Figure 4.16. Level of Physical Activity, First Nations People in First Nations Communities, Aged 18 Years and Over, 2008/10.



Source: Health Canada, A Statistical Profile on the Health of First Nations in Canada: Determinants of Health, 2006 to 2010

4.5.2. Mode of Transportation To Work

DEFINITION

This indicator breaks down ways people travelled to work, based on responses to the 2011 census.

Why Is This Indicator Important?

As part of efforts to promote healthier living, greater awareness has been raised about the ways people travel to work with efforts being made to encourage biking, walking and public transit as part of a healthier lifestyle which also brings environmental benefits.

What did we learn in 2009?

- In the former NOR-MAN region, 68.6 per cent of respondents reported driving to work (9.8% were passengers in a vehicle) with 18.1 per cent indicating that they either biked or walked to work.
- The former Burntwood region reported similar results with 60.2 per cent driving to work and another 19.1 per cent walking or biking to work.

What did we learn in 2014?

- Not a great deal of change occurred in how people travelled to work based on 2011 census results. On the whole, Northern residents used the car as a driver or passenger slightly less than Manitoba as a whole (78.3% versus 80.9% provincially) while walking was favoured more with 17.5 per cent saying they walked to work while only 6.8 per cent in Manitoba did so.

WHAT DO WE KNOW?

The Northern Health Region formed a citizen advisory group around Active Transportation in Thompson. Active Transportation is human powered transportation, the two most common activities being walking and cycling. The committee meets regularly to discuss, plan and implement activities around all aspects of Active Transportation. The initial focus of the group was to develop a use policy of both sidewalks and multiuse pathways and has now moved on to recommendations around future Active Transportation infrastructure, Public education and promoting Active Transportation related events.

Table 4.11. Mode of Transportation, Northern Health Region, 2011.

Mode of Transportation	Total	Male	Female	Manitoba Total	Male	Female
Car, Truck or van as driver	65.4%	68.5%	61.8%	73.7%	78.4%	68.7%
Car, truck or van as passenger	12.9%	11.8%	14.1%	7.2%	5.2%	9.4%
Public Transit	0.9%	0.9%	0.9%	9.2%	7.2%	11.3%
Walked	17.5%	15.1%	20.3%	6.8%	5.6%	8.1%
Bicycle	0.5%	0.8%	0.3%	1.4%	2.3%	1.1%
Other Methods	2.7%	2.9%	2.5%	1.4%	1.3%	1.5%

Source: Statistics Canada, 2011 Census.

4.5.3. Healthy Eating

DEFINITION

This indicator measures the proportion of the population aged 12 and over who reported that they consumed on average 5 or more servings of fruit and vegetables per day.

Why Is This Indicator Important?

Healthy eating is critical to healthy development at all stages of life. Healthy eating also contributes to lowering the risk of many chronic diseases including cancer, diabetes, and heart disease.

What did we learn in 2009?

- Though the rate in the former Burntwood region of 29.4 per cent in 2007 was below the provincial average of 37.2 percent, there was an improvement in fruit and vegetable consumption rate to 33.9 per cent in 2008.
- The former NOR-MAN region reported a lower rate than the Manitoba average at 34.0 per cent in 2007.

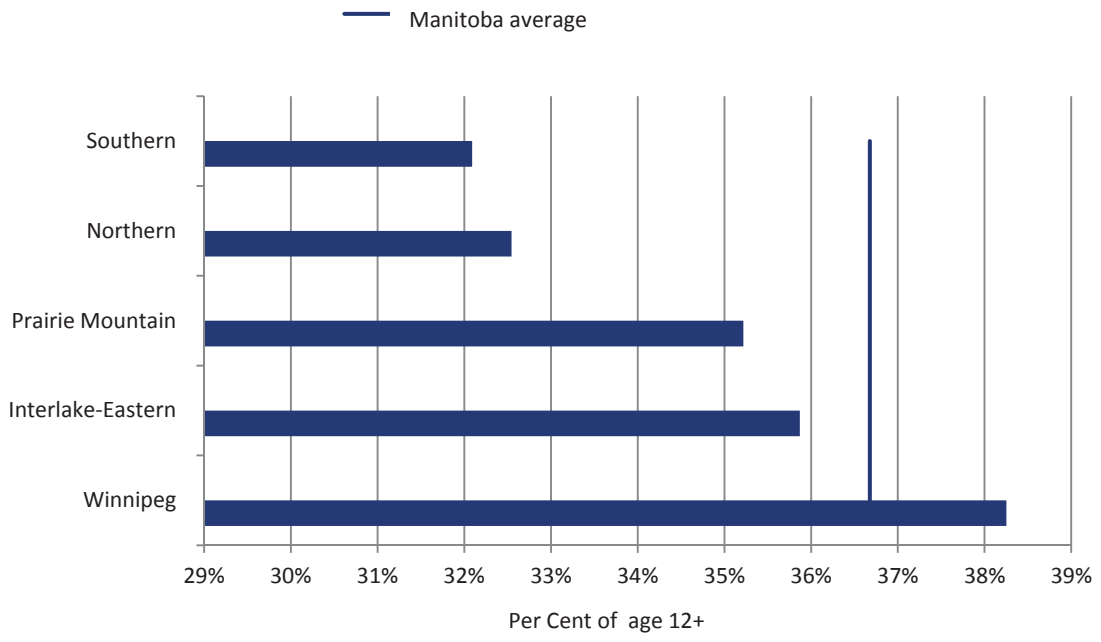
What did we learn in 2014?

- As **Figure 4.17** illustrates, the healthy eating rate in the Northern region was 32.3 per cent between 2007/08 and 2011/12. While this was below the Manitoba average of 36.7 per cent, it does represent an improvement from previous surveys.
- While most of the data was suppressed at community and zone level, of those that did report the Norway House zone had the highest healthy eating rate of 50 per cent (see **Figure 4.18**).
- Data from the 2008/10 First Nations Regional Health Survey show that 42% of First Nations adults living in First Nations communities report that they do not consume milk or milk products daily while 10% report never or hardly ever consuming milk or milk products. Canada's Food Guide recommends at least two servings (cups) of milk per day for adults.
- Nearly four in 10 (37%) state that they do not consume vegetables at least once a day, and 43% report not consuming fruit (excluding juice), at least once per day.
- The percentage of First Nations adults in First Nations communities reporting they often consumed traditional meats varied widely by location: urban (30%), rural (37%), remote (58%), and no road access (51%). Traditional fruit and vegetable consumption varied little: 18% for both urban and rural areas, 25% for remote regions and 22% for areas with no road access. Studies show that consumption of traditional foods leads to improved intake of several nutrients. (Source: Health Canada, A Statistical Profile on the Health of First Nations in Canada: Determinants of Health, 2006 to 2010).

WHAT ARE WE DOING?

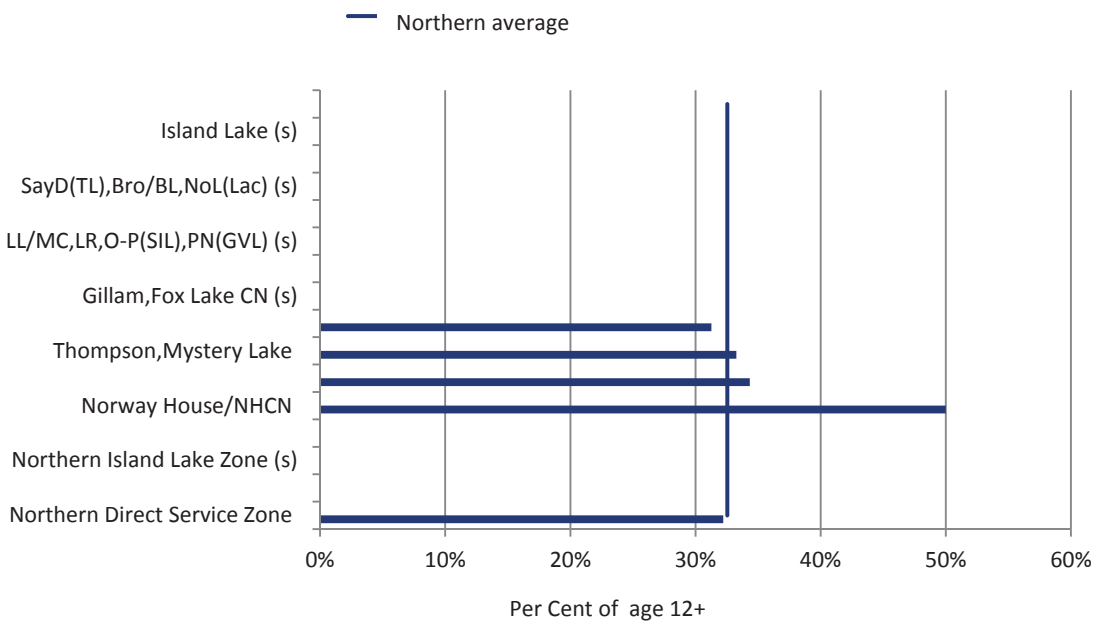
- The Northern Health Region has assisted the City of Thompson in developing and adopting a healthy food policy for City run facilities and events which outlines healthy food requirements for concessions and food vendors at City run events as well as requirements for events catered or sponsored by the city.
- In addition, the Northern Health Region also assisted in developing a resource binder available to community groups and food vendors with on-going support through the Health Promotion Department and Community Dietitians.
- In Thompson they do a healthy living class which focuses on physical activity and healthy eating. They also offer a craving change class which is a requirement for people seeking bariatric surgery.

Figure 4.17. Healthy Eating Rate by RHA, 2007/08 to 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

Figure 4.18. Healthy Eating Rate by Zone, 2007/08 to 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

4.5.3.1. Food Insecurity

DEFINITION

This indicator measures the level of food insecurity of individuals based on responses to the Canadian Community Health Survey in which questions are asked about people's ability to afford and to access nutritious foods in their community.

Why Is This Indicator Important?

Food insecurity has been recognized by many as a critical social determinant of health, particularly for those living in rural and remote communities. A number of studies have shown that increased food insecurity leads to a poorer diet which can negatively impact health status.[iv]

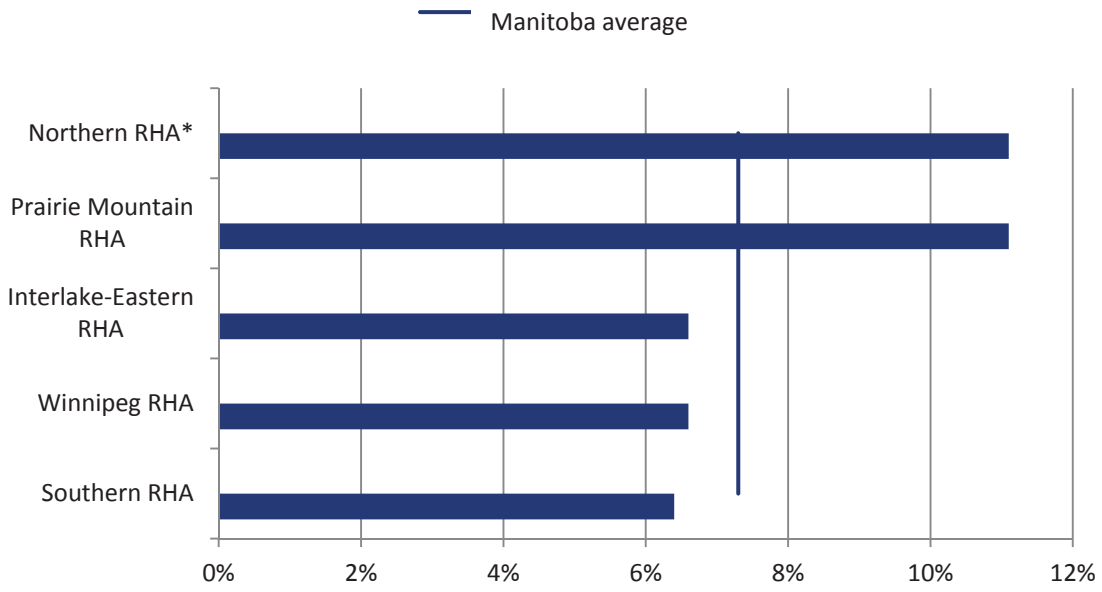
What did we learn in 2009?

- This indicator is new for 2014.

What did we learn in 2014?

- Based on Community Health Survey results, 11.1 per cent of Northern Health Region residents have moderate or severe levels of severe food insecurity based on their survey responses in 2011/12. This is well above the Manitoba average of 7.3 per cent (see **Figure 4.19**).

Figure 4.19. Food Insecurity Rates by RHA, 2011/12



Source: Statistics Canada, Canadian Community Health Survey, Table 105-0547
NOTE: '*' indicates area's rate was statistically higher than Manitoba rate at $p<0.05$

4.5.4. Body Mass Index

DEFINITION

This indicator measures the proportion of the population aged 18 and older, reported by three Body Mass Index (BMI) groupings: underweight/normal, overweight, and obese. BMI is calculated as follows: weight in kilograms divided by height in meters squared.

Why Is This Indicator Important?

The BMI is a helpful indicator of population health risks associated with being both overweight and underweight. It helps to provide an overall picture of the level of physical activity and healthy eating in a given region. Obesity is a major risk factor for many chronic diseases, impacting both quality and quantity of life. As obesity rises, the amount of health care interventions to address health complications due to obesity will also increase.

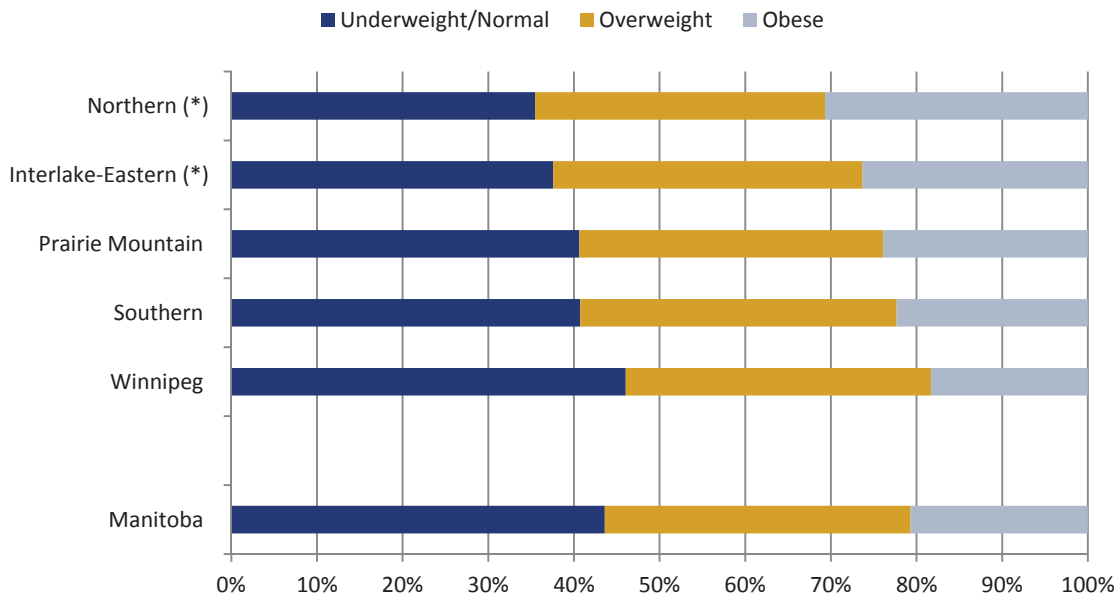
What did we learn in 2009?

- In the former Burntwood region, the proportion of residents who were overweight or obese was well over the provincial (54.5% in 2008) and national averages (50.8% in 2007), and increasing rapidly (going from 64.7% in 2007 to 72.4% in 2008).
- In the former NOR-MAN region, the proportion of residents who were overweight was slightly under the provincial average. However, the proportion of residents who were obese was significantly over the provincial rate.

What did we learn in 2014?

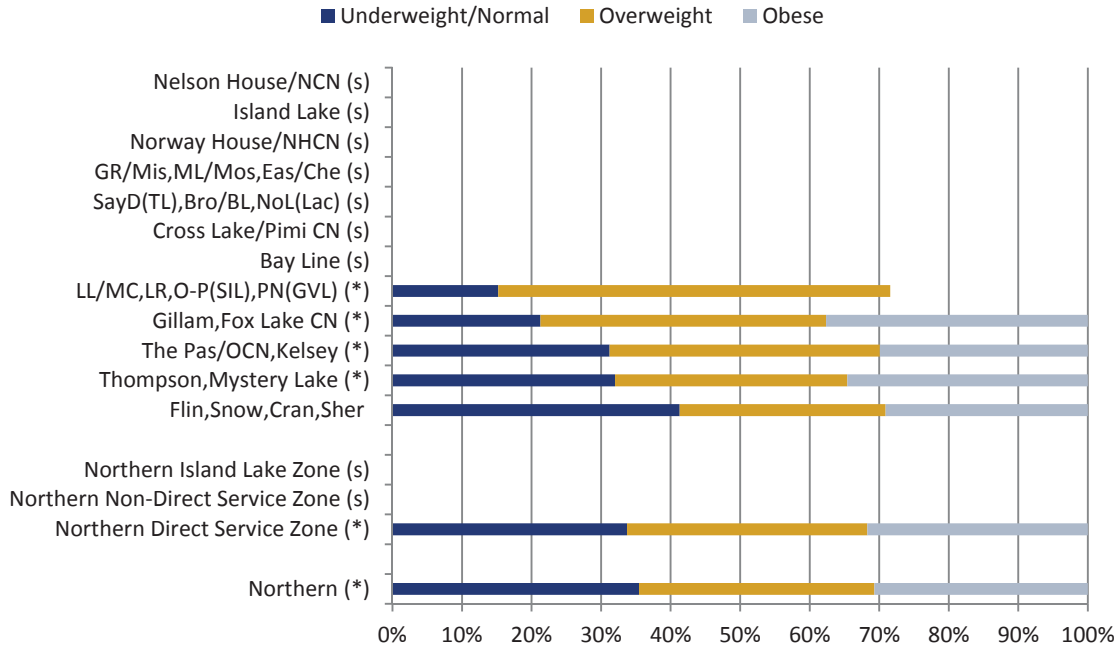
- The Northern Health region experienced an improvement in BMI with a slight reduction in the number of residents who were overweight or obese which was 65 per cent between 2007/08 and 2011/12 (see **Figure 4.20**). It was still well above and statistically different from the Manitoba average of 56 per cent.
- As **Figure 4.21** shows, the proportion of overweight and obese residents in the Northern region ranged from 79 per cent in Gillam/Fox Lake Cree Nation to 59 per cent in the Flin Flon/Snow Lake district.

Figure 4.20. Body Mass Index Rate by RHA, 2007/08 to 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

Figure 4.21. Body Mass Index Rate by District and Zone, 2007/08 to 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

4.5.5. Alcohol Use

DEFINITION

This indicator measures the percentage (%) of the population aged 12 and over who are current drinkers and who reported drinking 5 or more drinks on at least one occasion in the past 12 months.

Why Is This Indicator Important?

Excessive use of alcohol is related to chronic diseases such as alcohol dependence, cancer and cirrhosis of the liver as well as health problems such as injuries. It is one of the key indicators to monitor trends in alcohol-related health conditions.

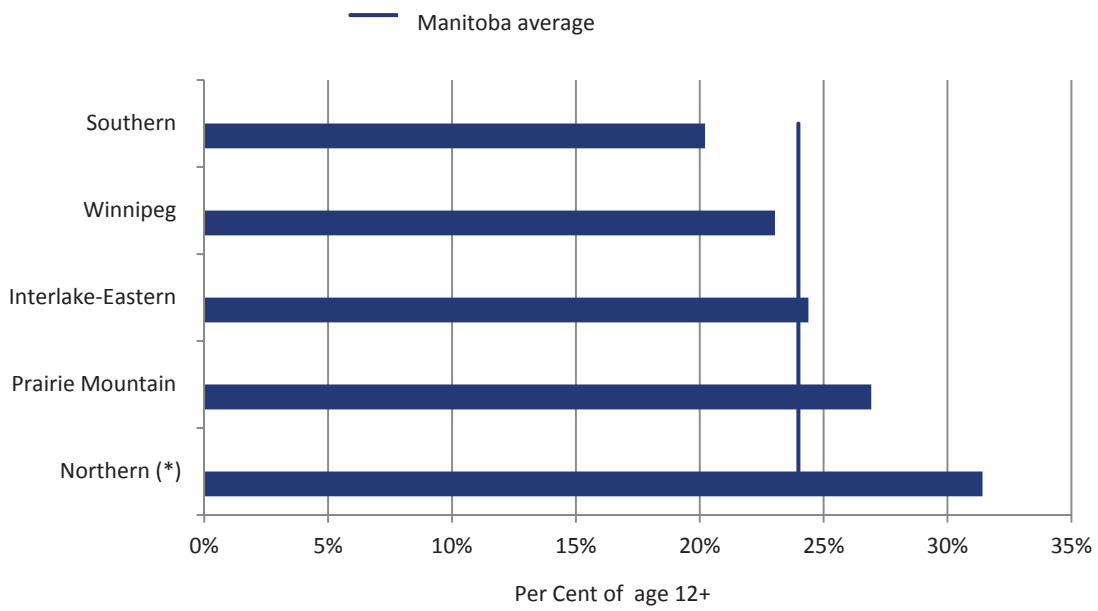
What did we learn in 2009?

- The proportion of residents of the former Burntwood region who reported heavy drinking was 26.1 per cent in 2008, higher than the provincial average (19.6% in 2008), and increasing (up from 21.6% in 2007).
- The former NOR-MAN region also reported rates higher than the provincial average.

What did we learn in 2014?

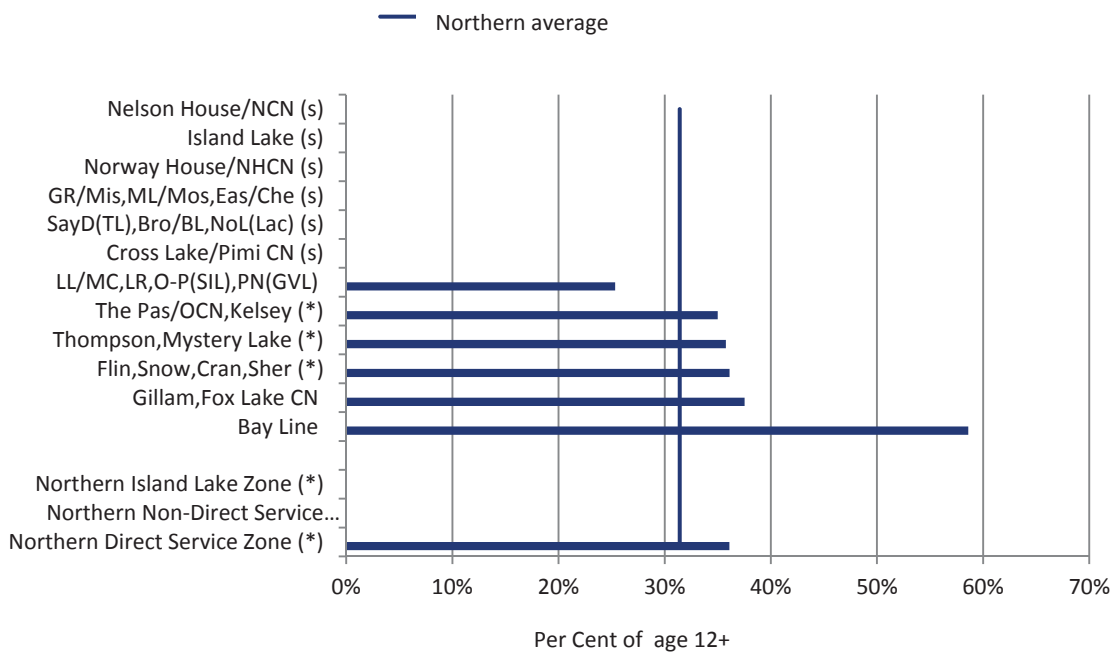
- The binge drinking rate in the Northern Health Region was 31 per cent between 2007/08 to 20011/12, the highest in Manitoba and well above (and statistically different) the provincial average of 24 per cent (see **Figure 4.22**).
- Of those communities that had data, the binge drinking rate was particularly high in Bay Line communities at 59 per cent during this time period. The Pas, Thompson, Flin Flon and Gillam areas all had binge drinking rates statistically higher than the provincial average between 35-40 per cent (see **Figure 4.23**).

Figure 4.22. Binge Drinking Rate by RHA, 2007/08 to 2011/12.



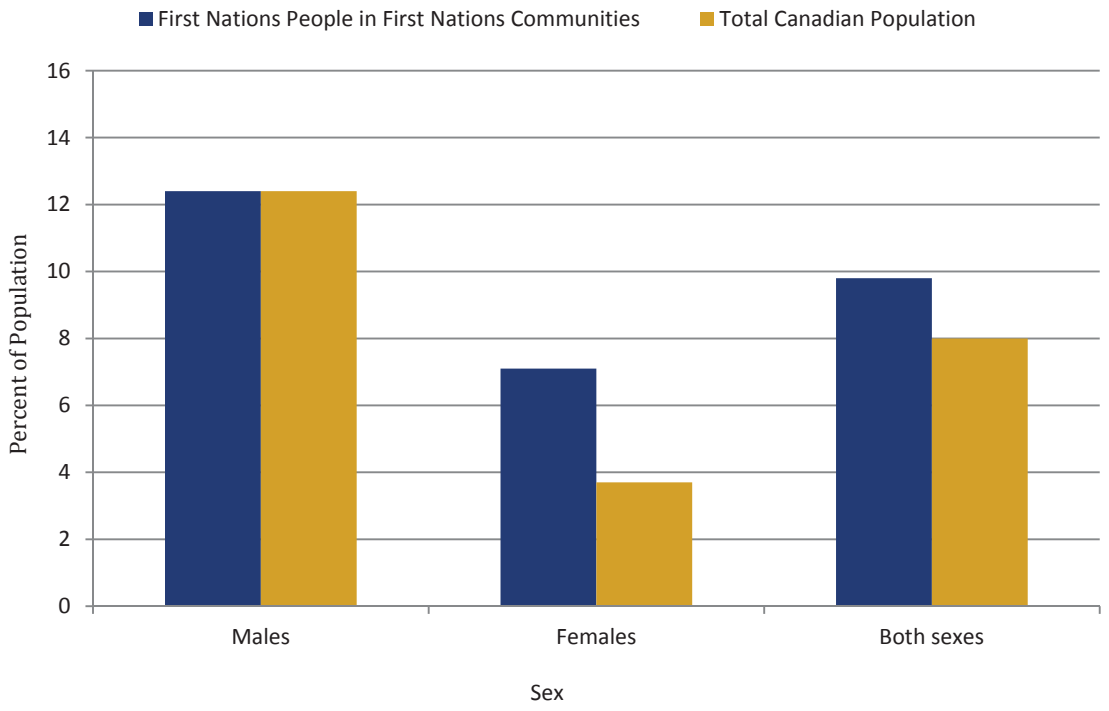
Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

Figure 4.23. Binge Drinking Rate by Zone, 2007/08 to 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

Figure 4.24. Heavy Drinking[1] on a Weekly Basis, First Nations People in First Nations Communities (2008/10) and Total Canadian Population[2] (2008), Aged 18 Years and Over.



Source: Health Canada, A Statistical Profile on the Health of First Nations in Canada: Determinants of Health, 2006 to 2010

NOTE: [1] Heavy drinking is defined here as having more drinks on one occasion at least once a week.

[2] Total Canadian population living outside First Nations communities.

The denominator includes those who did and did not consume alcohol in the past year. CCHS data have been age standardize to the RHS age structure

4.5.6. Smoking

DEFINITION

This indicator measures the percentage (%) of the population aged 12 and over who reported being either a current smoker (daily or occasional) or a former smoker (former, former daily, former occasional) or a non-smoker (never smoked).

Why Is This Indicator Important?

Tobacco continues to be the leading cause of preventable death in Canada, exceeding obesity, physical inactivity or high blood pressure. More than 37,000 Canadians will die prematurely this year due to tobacco use. Smoking and exposure to second-hand smoke are significant risk factors for lung cancer, respiratory diseases, and other health problems. There is also significant danger in smoking during pregnancy, which can lead to low birth weight, pre-term births, and poor future health of children.

What did we learn in 2009?

- The former NOR-MAN region reported a smoking rate of 27.2 per cent, significantly higher than the provincial average of 22.7 per cent.
- The former Burntwood region had the highest smoking rates in the province, at 35.1 per cent and increasing.

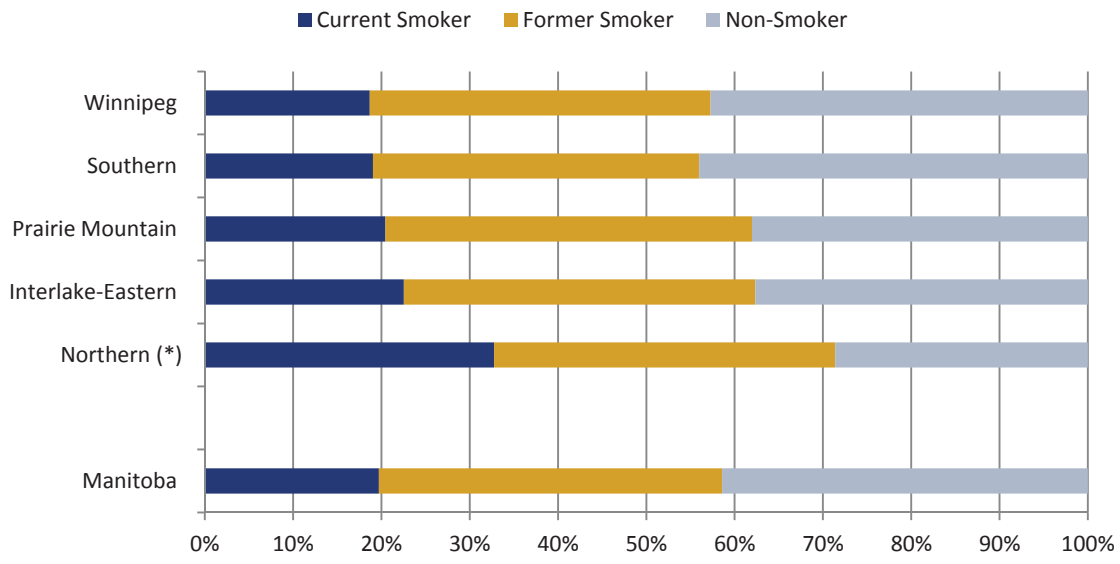
What did we learn in 2014?

- The Northern region had the highest smoking rate between 2007/08 to 2011/12 at 32.8 per cent, well above the Manitoba average of 19.7 per cent during the same time period (see **Figure 4.25**).
- In the Northern Community Survey conducted in the Summer and Fall 2014, 44.3 per cent of respondents indicated that they smoked (31.9% daily and 12.4% occasionally).
- Bay Line Communities recorded the highest smoking rate in the Northern Region at 50.9 per cent while Gillam/Fox Lake had the lowest at 26.4 per cent. The Pas, Flin Flon, Thompson and Bay Line areas all had smoking rates statistically above the provincial average (see **Figure 4.26**).

WHAT ARE WE DOING?

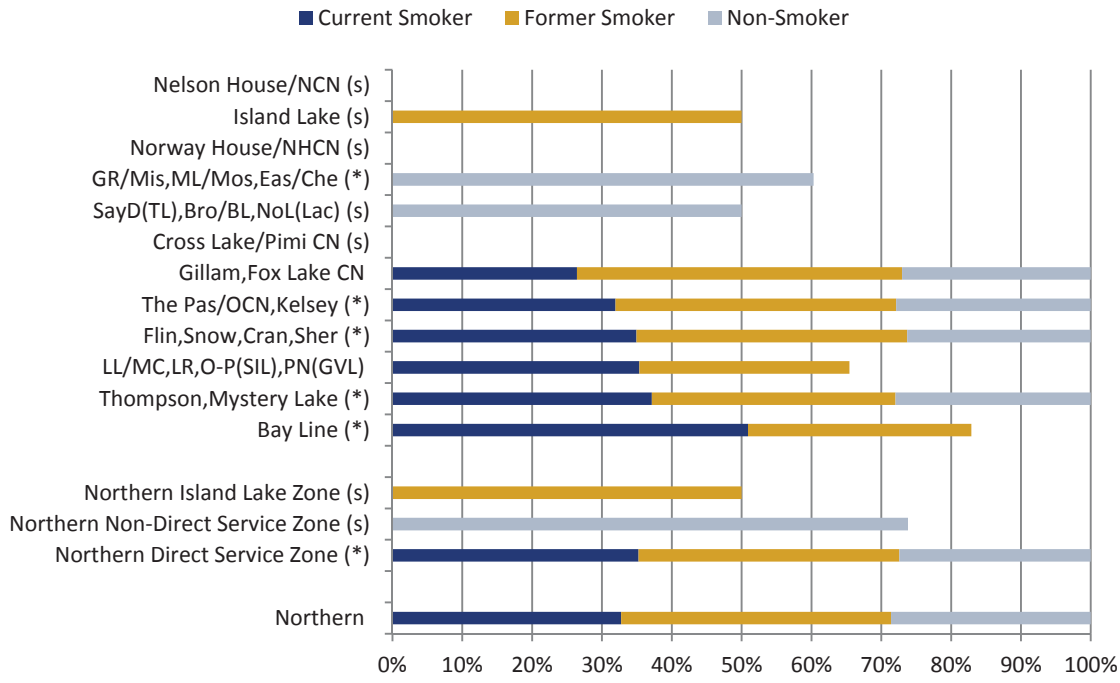
- Pikwitonei school hosts a community feast and education event around quitting smoking every year during National Non-Smoking week.
- The Northern Health Region has partnered with the provincial initiative Students Working Against Tobacco (SWAT) to create teams in various northern schools including R.D. Parker Collegiate in Thompson, Cross Lake. The SWAT teams do peer education with younger students to prevent elementary students from starting to smoke.
- Our region has been very active promoting the Provincial MB Quits Campaign; a quit smoking contest for all residents. We have had winners from the north on 2 occasions. The numbers participating from the north and interest in the contest continues to rise.
- The region is working on a policy to standardize support for patients who smoke when visiting their health care provider as an outpatient.
- The risk factor coach in Thompson, and the smoking reduction coordinator in Flin Flon see patients directly for cessation counselling.
- The Healthy Together Now program with over 22 outlying communities supports tobacco reduction activities by communities through funding, awareness and education.

Figure 4.25. Smoking Rate by RHA, 2007/08 to 2011/12.



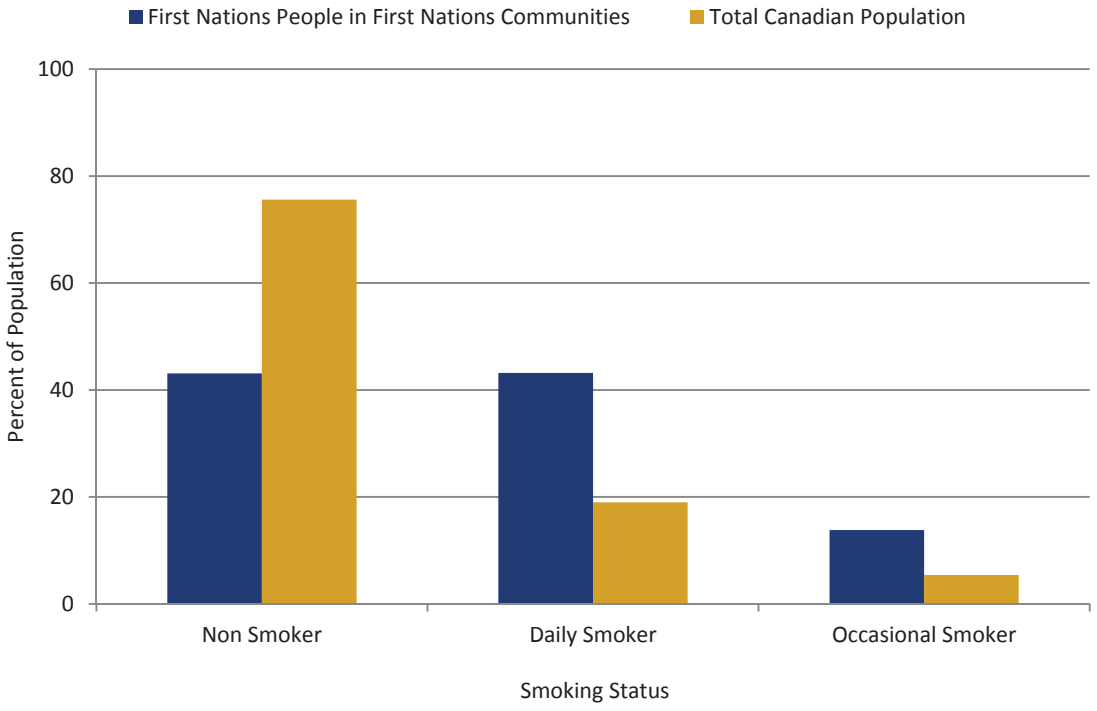
Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

Figure 4.26. Smoking Rate by Zone, 2007/08 to 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average
's' indicates data suppressed due to small numbers.

Figure 4.27. Smoking Status, First Nations People in First Nations Communities (2008/10) and Total Canadian Population[1] (2008), Aged 18 Years and Over



Source: Health Canada, A Statistical Profile on the Health of First Nations in Canada: Determinants of Health, 2006 to 2010
NOTE: [1] Total Canadian population living outside First Nations communities.
Percentages may not add up to 100% due to rounding. CCHS data have been age standardized to the RHS age structure.

Table 4.12. Smoking Status, First Nations People in First Nations Communities by Age Group, 2008/10.

Smoking Status	Age Group					
	All Ages (18+)	18-29	30-36	40-49	50-59	60+
Non Smoker						
Percent	43.1%	33.1%	37.3%	40.1%	52.1%	69.1%
Lower 95% C.I.	41.3%	30.3%	34.2%	36.7%	48.9%	66.6%
Upper 95% C.I.	44.9%	36.0%	40.6%	43.6%	55.2%	71.4%
Daily Smoker						
Percent	43.2%	51.5%	44.2%	44.8%	38.5%	25.4%
Lower 95% C.I.	41.6%	48.6%	40.9%	41.6%	35.5%	23.1%
Upper 95% C.I.	44.8%	54.4%	47.6%	48.2%	41.6%	28.0%
Occasional Smoker						
Percent	13.8%	15.4%	18.4%	15.0%	9.5%	5.5%
Lower 95% C.I.	12.7%	13.7%	15.1%	13.3%	7.8%	4.4%
Upper 95% C.I.	14.9%	17.2%	22.3%	17.0%	11.4%	6.8%

Source: Health Canada, A Statistical Profile on the Health of First Nations in Canada: Determinants of Health, 2006 to 2010

4.5.7. Immunization

WHAT ARE WE DOING?

- Immunizations are provided throughout the region by Public Health Nurses who are committed to improving the health of families.

- Immunizations in childhood and adulthood provide immunity and protection against serious diseases. Public Health Nurses in the Northern Health Region are committed to improving the health of families by providing immunizations for individuals across the life span. Immunizations are provided as individual appointments or drop-in mass clinics. Child Health Clinics, School Immunization Clinics, International Travel Health Clinics, Adult Immunization Clinics, Influenza and Pneumococcal Campaigns and an Annual Health Circus are provided in the NHR.

- Manitoba Health, Healthy Living and Seniors funded the TdaP vaccine in response to higher than normal rates of pertussis seen in Manitoba infants who were too young to be adequately immunized. Northern Health went the step further and said we see unimmunized infants with their parents most frequently at the time of delivery so developed a program to deliver the vaccine in hospital prior to discharge for moms and in community for fathers and family members at daily walk in clinics.

- Adult TdaP immunization is being offered to all women who deliver at the TGH and Daily walk in clinic is offered for any family members who will be in contact with infants who are not adequately immunized.

- TdaP is being used in all OPD facilities in the region. Individuals who are in need of a dose of Tetanus receive TdaP.

WHAT DO WE KNOW?

- Immunizations are provided according to the Manitoba Eligibility Criteria for Publically-Funded Vaccines (April. 2014) and the Canadian Immunization Guide Electronic Version. Principles for immunizations are guided by the National Advisory Committee on Immunizations (NACI).

- EMR was activated in the region in 2013 making access to Echart quicker. Appointment selection is easy and can be checked efficiently.

- Panorama a Public Health electronic immunization record is scheduled to become operational in Feb. 2015. Once reports have been scripted for Panorama, Regional Data will be more readily available.

- We often think of immunizations as a rigid program and forget it is more fluid in the face of an outbreak of a vaccine preventable disease.

4.5.7.1. Childhood Immunization

DEFINITION

This indicator measures the rate of immunization completeness in which an individual has all of the scheduled immunizations for each infectious disease.

Table 4.13. Routine Immunization for Infants and Children to six years.

Immunization	Age Given						
	2 month	4 month	6 month	12 month	18 month	4-6 years	Grade 4
DTaP-IPV-Hib Protects child against; Diphtheria, Tetanus, Pertussis, Polio and Haemophilus influenza type b	✓	✓	✓		✓		
Pneu C-13 Protects child against; 13 strains of pneumococcal infections, including; meningitis and bacterial pneumonia.	✓	✓		✓			
Rotavirus Oral solution used to protect child against gastroenteritis—diarrhea and vomiting caused by the rotavirus.	✓	✓					
MMRV Protects child against; Measles, Mumps, Rubella and Varicella (Chickenpox).				✓		✓	
Men-C-C Protects child against meningococcal infections, including; meningitis, bacteremia and septicemia.				✓			✓
DTaP-IPV Protects child against; Diphtheria, Tetanus, Pertussis and Polio						✓	
Influenza Protects child against; circulating influenza illnesses.	Given annually from ages 6 months to 5 years of age.						

Why Is This Indicator Important?

Vaccines are one of the most important parts of child health programs. They can prevent death, disability, and control the spread of infectious diseases within communities. Because of immunization programs, diseases preventable by vaccination now cause less than five per cent of all deaths in Canada, when in the early 1900s, they were the leading causes of death. Certain vaccines are free for children in Manitoba.

What did we learn in 2014?

- There were mixed results in vaccine coverage in the Northern Health Region between 2007 and 2011. Ages 1, 2 and 17 saw increases in vaccine coverage while age 7 experienced a decline. The Northern Health Region was above the provincial coverage rate for ages 2 and 7 by 2011 (see **Table 4.14**).
- Coverage of polio and measles had notable increases in coverage rates while coverage for HBV at age 11 experienced a decline in the Northern Health Region by 2011 (see **Table 4.15**).

Table 4.14. Vaccine Coverage Rates by Age for Northern Compared to Manitoba, 2007-2011.

		2007	2008	2009	2010	2011
Age 1	Northern	66.7%	68.1%	69.9%	71.6%	73.6%
	Manitoba	76.1%	76.2%	76.5%	76.1%	76.80%
Age 2	Northern	49.9%	58.5%	63.0%	62.8%	63.4%
	Manitoba	58.5%	60.8%	62.0%	60.8%	58.60%
Age 7	Northern	62.5%	66.5%	67.1%	67.3%	56.1%
	Manitoba	68.6%	68.9%	68.3%	66.2%	54.60%
Age 11	Northern	45.5%	48.0%	44.7%	49.1%	47.7%
	Manitoba	54.4%	53.7%	52.2%	53.1%	51.70%
Age 17	Northern	28.7%	28.6%	31.0%	39.5%	40.0%
	Manitoba	41.9%	44.6%	48.6%	48.9%	48.70%

Source: Manitoba Immunization Monitoring System Annual Report.

Table 4.15. Individual Antigens For Northern by Age Group, 2007-2011.

Age Group	Antigen	2007	2008	2009	2010	2011
Age1	Tetanus	74.1%	77.5%	78.9%	74.8%	75.0%
Age 2	Polio	71.6%	72.4%	74.9%	76.7%	90.3%
Age 7	Pertussis	77.9%	79.3%	84.5%	84.9%	73.6%
	Measles	69.9%	70.6%	71.8%	72.3%	84.8%
Age 11	HBV	75.8%	76.1%	76.5%	79.0%	63.7%
Age 17	Diptheria	62.8%	62.5%	61.2%	62.7%	58.0%

Source: Manitoba Immunization Monitoring System Annual Report.

4.5.7.1.1. Complete Immunization Rates for Age 1

DEFINITION

This indicator measures the proportion of children who had complete immunization schedules for DaPtp/HiB, Diphtheria, Acellular Pertussis, Tetanus, Polio, Haemophilus influenza B immunization rates, as of their first birthday.

What did we learn in 2009?

- The former Burntwood region had the lowest complete immunization rates in the province (64.1 per 100 children in 2007, with a provincial rate of 76.1). It also had the second lowest rates for First Nations immunizations (59.7/100 in 2007, with a provincial rate of 63.8).
- The former NOR-MAN region had a lower rate than the provincial average, but it was increasing.

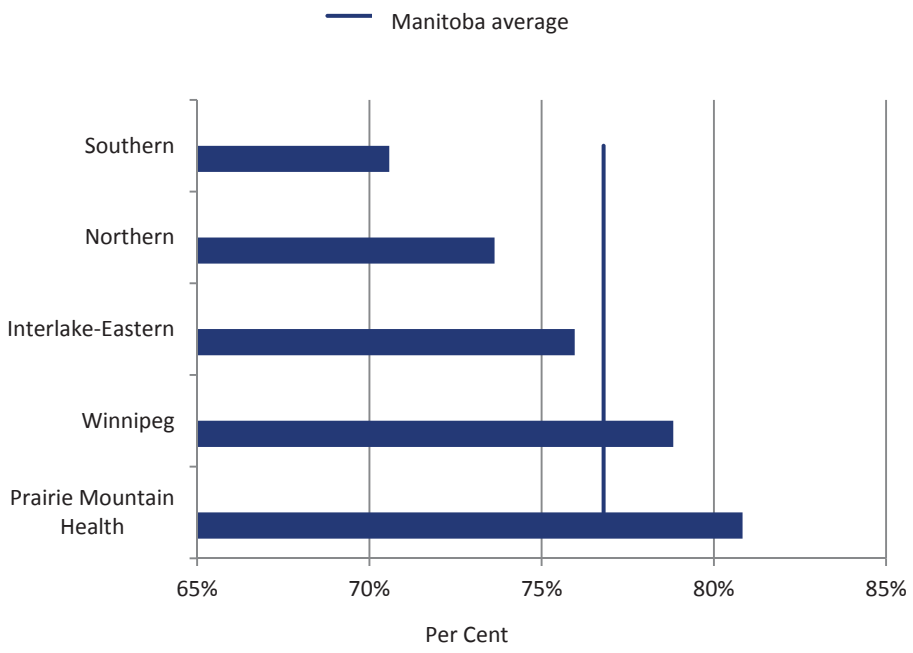
What did we learn in 2014?

- The Northern region immunization rate for infants that are one year old was 73.6 per cent in 2011 which was below the Manitoba average of 76.8 per cent but did represent an improvement in immunization coverage from 66.7 per cent in 2007 (see **Figure 4.28**).

WHAT ARE WE DOING?

We continue to supplement the Missing MIMS letters by checking infant records during their first year. Letters are sent out or infants who have no immunizations recorded in MIMS by 4 months of age. For infants who are missing doses of immunization a phone call is made offering them an appointment for immunization.

Figure 4.28. Complete Immunization Rates for All Infants Aged 1 Year by Region, 2011.



Source: Manitoba Immunization Monitoring System Annual Report.
NOTE: Northern and Southern have statistically lower than average rate.

4.5.7.1.2. Complete Immunization Rates for Age 2

DEFINITION

This indicator measures the crude proportion of children who had complete immunization schedules for DaPtp/HiB, Diphtheria, Acellular Pertussis, Tetanus, Polio, Haemophilus influenza B immunization rates, as of their second birthdays.

What did we learn in 2009?

- The former Burntwood region reported the lowest complete immunization rates (45.8/100 children in 2007) for this age group in the province (the average was 58.5 in 2007). It was fourth lowest among Aboriginal children (38.5/100 with a provincial average of 41.7). Among non-Aboriginal children, it was higher than the provincial average (64.8/100, higher than the provincial average of 61.5 in 2007).
- The former NOR-MAN region had a lower rate than the provincial average, and it was decreasing.

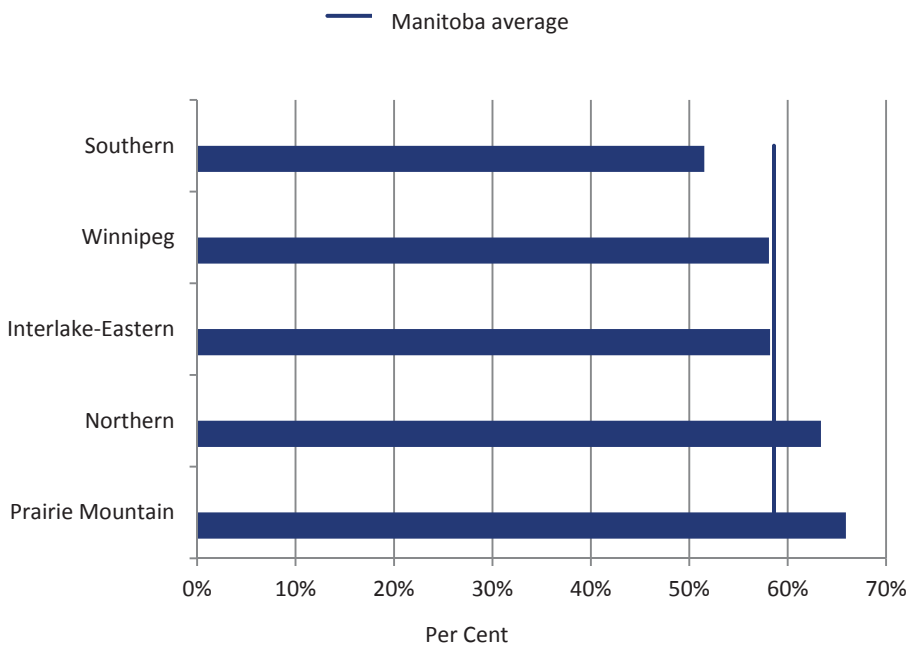
What did we learn in 2014?

- As with one year old infant coverage, there was an improvement in coverage rates in the Northern region (from 49.9% in 2007 to 63.4% in 2011). In 2011, it was 63.4 per cent which was above the Manitoba average of 58.6 per cent (see **Figure 4.29**).

WHAT DO WE KNOW?

When MIMS generated report of Missing Immunization is received it is reviewed and phone calls are made offering an appointment for immunization. Having an EMR in the NHR has streamlined the process and allowed appointments to be scheduled more efficiently.

Figure 4.29. Complete Immunization Rates for All Infants Aged 2 Year by Region, 2011.



Source: Manitoba Immunization Monitoring System Annual Report.
NOTE: Southern has statistically lower than average rate. Northern and Prairie Mountain have statistically higher than average rate.

4.5.7.1.3. Complete Immunization Rates for Age 7

DEFINITION

This is the crude proportion of children who had complete immunization schedules for DaPtp/HiB, Diphtheria, Acellular Pertussis, Tetanus, Polio, Haemophilus influenza B immunization rates, as of their seventh birthdays.

What did we learn in 2009?

- The former Burntwood region had the lowest complete immunization rates in the province for this age group (56.8/100, with an average of 68.6 in 2007). Immunization rates for both First Nations (50.7/100 with an average of 54.1) and non-First Nations children (70.1/100, with an average of 70.8) were below the provincial averages.
- The former NOR-MAN region had a significantly higher rate (86.0%) than the provincial average (76.4%), and reported increases over time.

What did we learn in 2014?

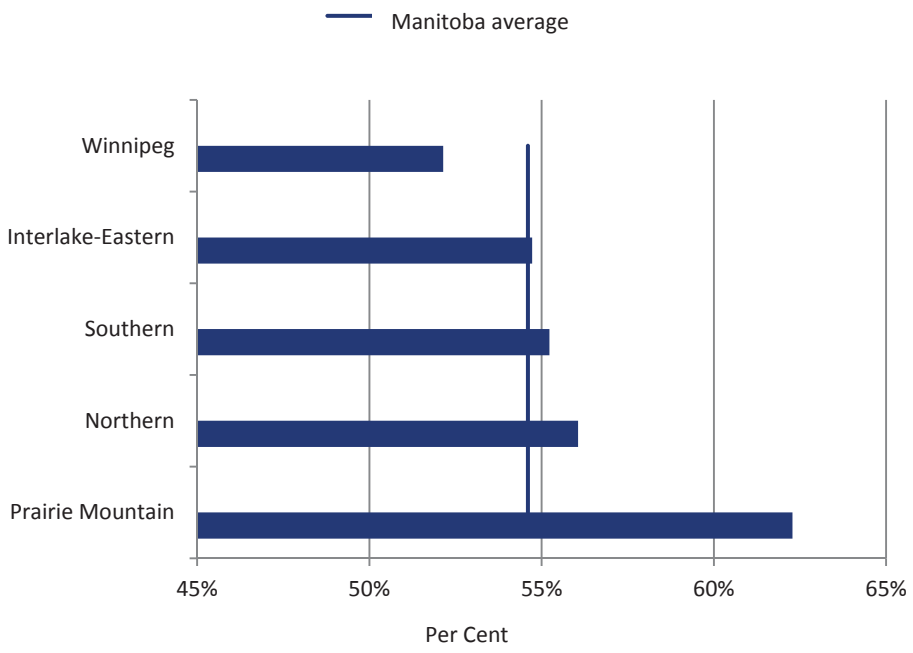
- While the Northern region immunization coverage rate at age 7 (56.1%) was above the Manitoba average of 54.6 per cent in 2011, it was a sharp decline from 2009 (67.1%) and 2010 (67.3%) as **Figure 4.30** shows. This decline was mirrored at the provincial level.

WHAT ARE WE DOING?

Preschool immunization continues to be offered in all RHA communities. During the visit any immunizations needed will be administered in an effort to provide immunization at every opportunity.

Immunization records for students enrolled in Grade 1 are reviewed annually and any student who is missing an antigen is set a letter and offered the antigen at a School Based Clinic.

Figure 4.30. Complete Immunization Rates for All Infants Aged 7 Year by Region, 2011.



Source: Manitoba Immunization Monitoring System Annual Report.
NOTE: Winnipeg has statistically lower than average rate. Prairie Mountain has statistically higher than average rate.

4.5.7.1.4. Complete Immunization Rates for Age 11

DEFINITION

This indicator measures the crude proportion of children who had complete immunization schedules for DaPtp/HiB, Diphtheria, Acellular Pertussis, Tetanus, Polio, Haemophilus influenza B immunization rates, as of their eleventh birthdays.

What did we learn in 2009?

- The former Burntwood region had the lowest immunization rates in the province, at 40.4 per 100 children (the average was 54.4/100 in 2007). The immunization rate for First Nations children was above the provincial average (31.7/100, with an average of 29.8 in 2007).
- The former NOR-MAN region had a rate of 58.3 per cent, above the provincial average.

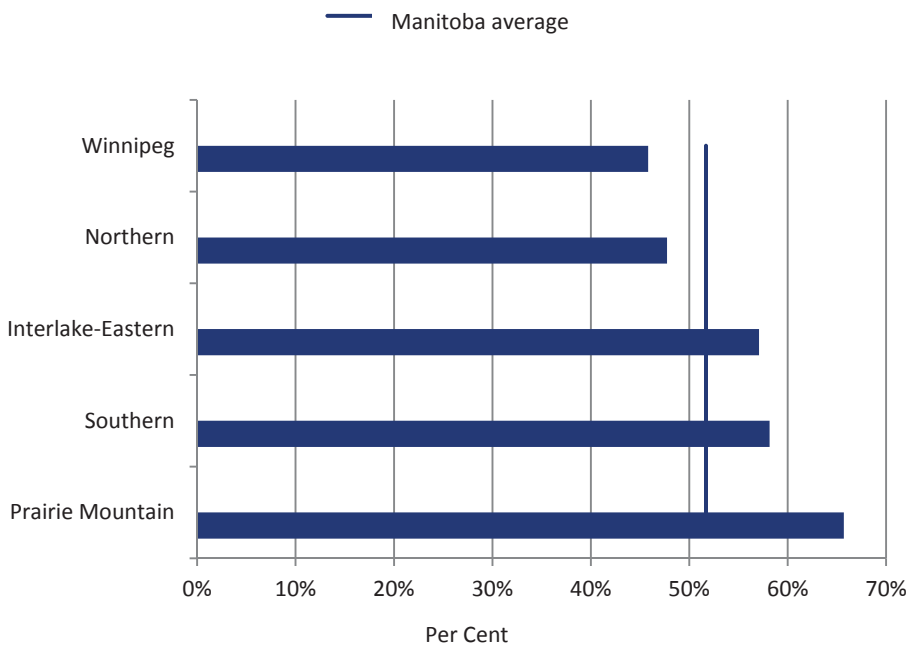
What did we learn in 2014?

- The immunization rate for children aged 11 years old was 47.7 per cent in 2011, below the Manitoba average of 51.7 per cent. Immunization rates for 11 year olds remained fairly steady from 2007 to 2011 (see **Figure 4.31**).

WHAT ARE WE DOING?

We offer the HB and HPV vaccines as school based immunization program. Any eligible vaccines are also offered during the school based clinic. Transfers and absenteeism continues to be the most significant factor influencing series completion in the school based program.

Figure 4.31. Complete Immunization Rates for All Infants Aged 11 Year by Region, 2011.



Source: Manitoba Immunization Monitoring System Annual Report.
NOTE: Winnipeg has statistically lower than average rate. Prairie Mountain, Interlake-Eastern and Southern have statistically higher than average rate.

4.5.7.1.5. Complete Immunization Rates for Age 17

DEFINITION

This indicator measures the crude proportion of children who had complete immunization schedules for DaPtp/HiB, Diphtheria, Acellular Pertussis, Tetanus, Polio, Haemophilus influenza B immunization rates, as of their seventeenth birthdays.

What did we learn in 2009?

- The former Burntwood region reported the lowest rate in the province (20.9/100, with an average of 41.9 in 2007). The rates for Aboriginal (11.5) and non-Aboriginal (39.3) youth were both below the provincial averages (15.6 and 45, respectively, in 2007).
- The former NOR-MAN region reported a higher rate than the provincial average. Both Aboriginal and non-Aboriginal children were above the provincial average.

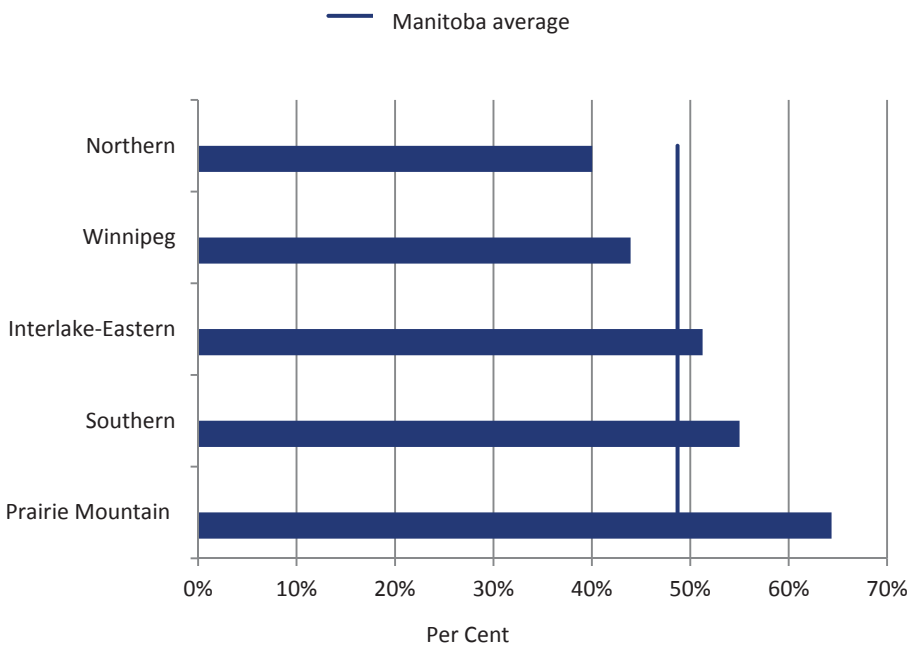
What did we learn in 2014?

- The immunization rate for 17 year olds in the Northern region was 40.0 per cent in 2011, below the Manitoba average of 48.7 per cent (see **Figure 4.32**). This was an improvement in 17 year old coverage as it was only 28.7 per cent in 2007.

WHAT ARE WE DOING?

In an effort to address the low immunization rate at age 17, NRHA communities continue to complete the Tetanus, Diphtheria, acellular Pertussis immunization in Grade 8. Immunization records are reviewed records are checked in Grade 9 for any missing immunizations. Other missing or eligible antigens are administered through the School Immunization Clinics.

Figure 4.32. Complete Immunization Rates for All Infants Aged 17 Year by Region, 2011.



Source: Manitoba Immunization Monitoring System Annual Report.
NOTE: Winnipeg and Northern have statistically lower than average rate. Prairie Mountain and Southern have statistically higher than average rate.

4.5.7.2. Immunization Among Seniors

Immunizing seniors is particularly important for influenza and pneumococcal disease to prevent mortality and morbidity. While senior vaccination rates for influenza have been rising gradually, Canada still falls well below the national target of 80 per cent coverage for adults over 65. In 2013, the coverage rate in Canada for those over 65 was 64 per cent.

WHAT ARE WE DOING?

We continue to provide outreach Influenza Clinics at Senior Housing locations as well as providing immunization during primary health care visits. Home Care Nurses provide immunization during visits. In Thompson vehicle parking has been cited as a barrier for immunization service for seniors. We are looking at viable clinic sites that will accommodate vehicles.

Provincially, the approval of Pharmacists providing Influenza and Pneumococcal immunization provides an addition service site for seniors.

4.5.7.2.1. Influenza Immunization Among Seniors

DEFINITION

This indicator measures the proportion of seniors (aged 65 and over) that have complete immunizations for influenza.

Why Is This Indicator Important?

Immunizing seniors is particularly important for influenza and pneumococcal disease to prevent mortality and morbidity. While senior vaccination rates for influenza have been rising gradually, Canada still falls well below the national target of 80 per cent coverage for adults over 65. In 2013, the coverage rate in Canada for those over 65 was 64 per cent.

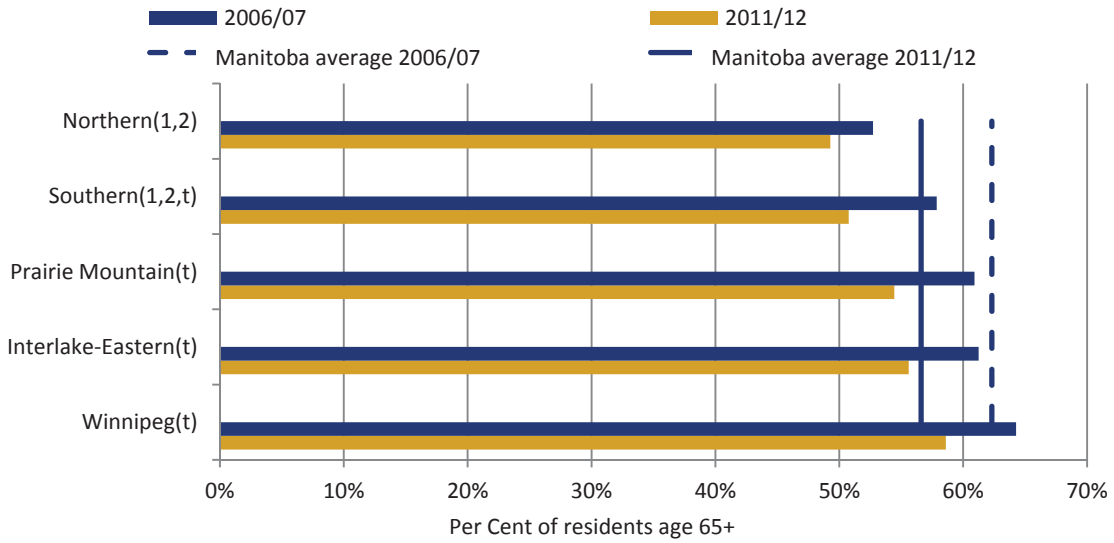
What did we learn in 2009?

- The former Burntwood region reported the lowest rate in Manitoba (36.1%), significantly lower than the provincial average (58.7%). Both First Nations (28%) and non-First Nations (47.5%) seniors were below their respective averages.
- The former NOR-MAN region was slightly below the provincial average, at 55.9 per cent. First Nations seniors had an above average immunization rate, non-First Nations seniors did not.

What did we learn in 2014?

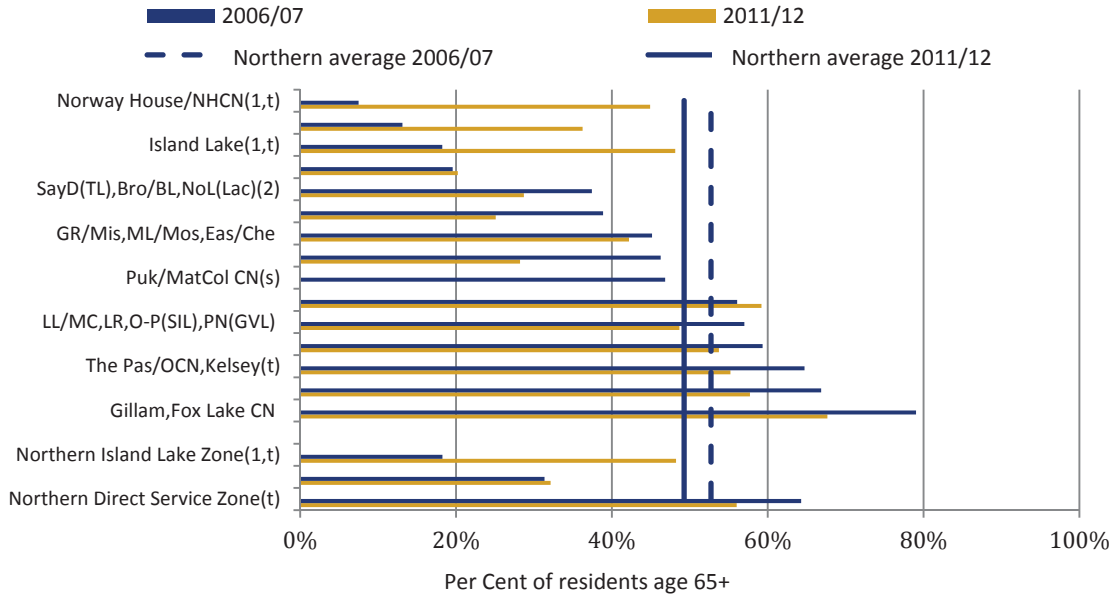
- In 2011/12, the Northern region influenza immunization rate declined to 49.3 per cent, again, below the Manitoba average. The difference in immunization rates between the region and the province is considered statistically significant (see **Figure 4.33**).
- As **Figure 4.34** shows, while immunization rates declined in the Northern Health Region, particularly the Northern Direct Service zone, the Northern Island Lake zone had a statistically significant increase from 18.3 per cent in 2006/07 to 48.2 per cent in 2011/12.

Figure 4.33. Influenza Immunization for Seniors by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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 4.34. Influenza Immunization for Seniors by Zone, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

4.5.7.2.2. Pneumococcal Immunization Among Seniors

DEFINITION

This indicator measures the proportion of seniors (aged 65 and over) that have complete immunizations for pneumonia.

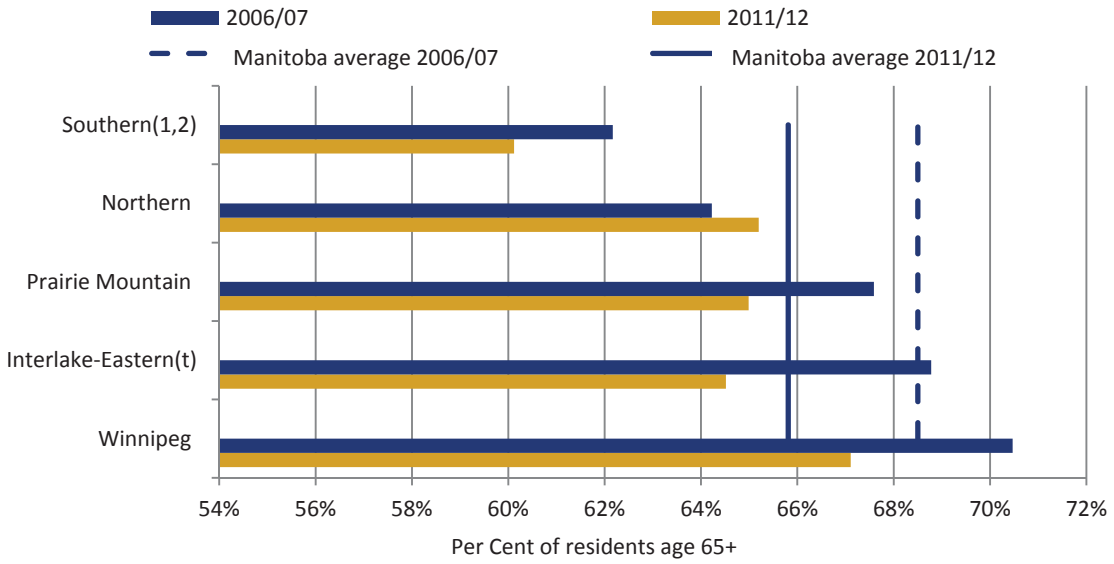
What did we learn in 2009?

- The pneumococcal immunization rate among all seniors in the former Burntwood region was 49.1 per 100 residents aged 65 and older, which was significantly lower than Manitoba at 63.9 in 2007. It was the lowest rate recorded among Manitoba RHAs.
- The former NOR-MAN region had an immunization rate of 64.4 for 2007 which was slightly above the provincial average.

What did we learn in 2014?

- The Northern Health Region pneumococcal immunization rate increased slightly from 64.2 per cent in 2006/07 to 65.2 per cent in 2011/12 (see **Figure 4.35**).
- Among Northern Health Region zones, it was the Northern Island Lake zone which had the most pronounced increase in pneumococcal immunization from 30.6 per cent coverage in 2006/07 to 61.7 per cent in 2011/12 (see **Figure 4.36**).

Figure 4.35. Pneumococcal Immunization for Seniors by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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 4.36. Pneumococcal Immunization for Seniors by Zone, 2006/07 and 2011/12.

Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

4.5.8. Cancer Screening

4.5.8.1. Cervical Cancer Screening

DEFINITION

This indicator measure the rate per 1,000 women in Manitoba age 18 to 69 with one or more PAP smears in a 3 year time period, by RHA of residence.

Why Is This Indicator Important?

In 2014, 1450 women in Canada will be diagnosed with cervical cancer, and 380 will die from it. Regular PAP smears can detect or prevent the early cell changes that can lead to cervical cancer.[v] It is expected that the introduction of the HPV (Human Papillomavirus) vaccine in schools will lead to dramatically reduced rates of cervical cancer diagnoses.

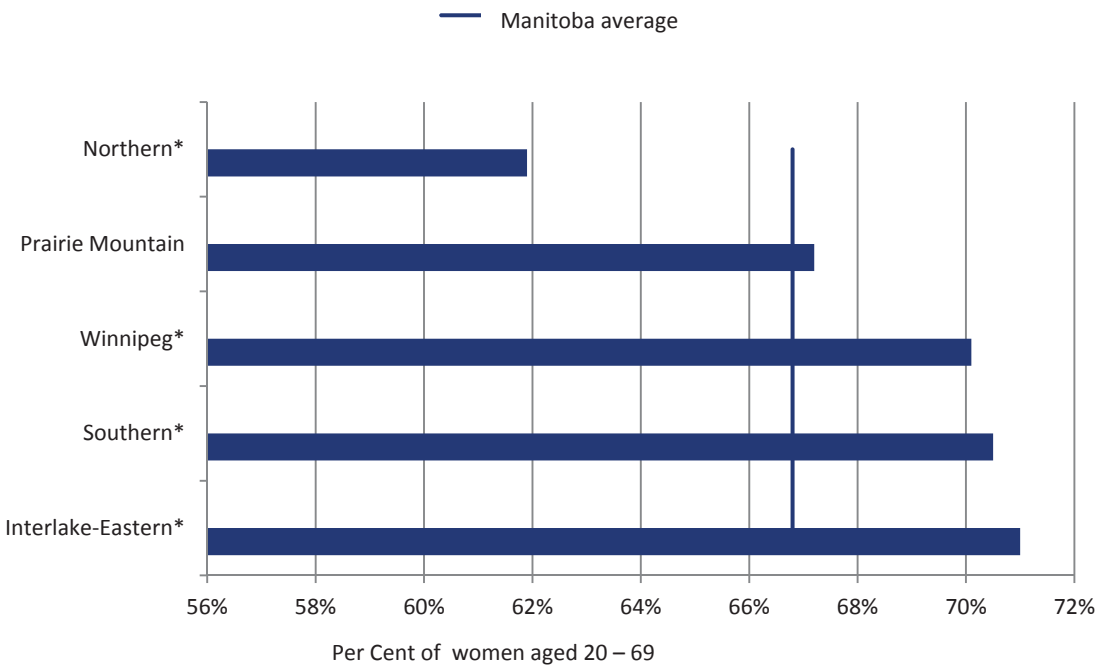
What did we learn in 2009?

- Cervical cancer screenings showed a significant decline in the former Burntwood region, which had the lowest rate in Manitoba. No age group reached 50 per cent screening.
- The former NOR-MAN region had the third lowest rate in the province, and the rate was decreasing rapidly.

What did we learn in 2014?

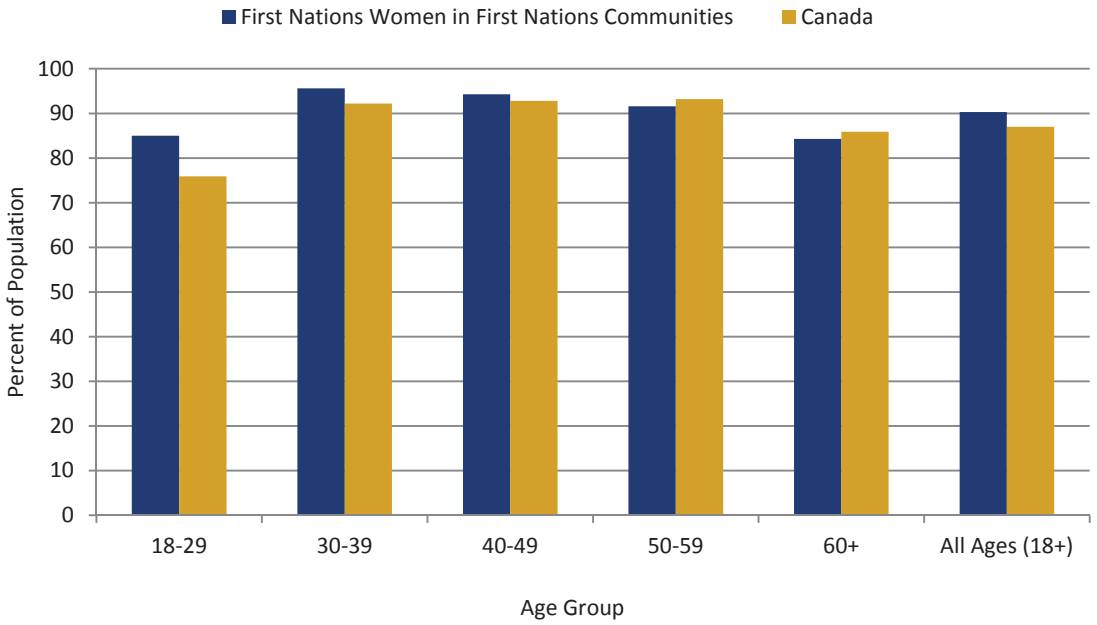
- As **Figure 4.37** shows, the cervical cancer screening rate in the Northern Health Region between 2009/10-2011/12 was 61.9 per cent, statistically below the Manitoba average of 66.8 per cent.

Figure 4.37. Cervical Cancer Screening by RHA, 2009/10 - 2011/12.



Source: CervixCheck Registry April 1, 2009 – March 31, 2012.
NOTE: * Significantly different from Manitoba rate ($p<0.05$)。

Figure 4.38. Women Ever Having a Pap Test, First Nations Women in First Nations Communities (2008/10) and All Women in Canada[1] (2008), by Age Group.



Source: Health Canada, A Statistical Profile on the Health of First Nations in Canada: Determinants of Health, 2006 to 2010
NOTE: [1] Total population living outside First Nations communities.

4.5.8.2. Breast Cancer Screening

DEFINITION

Rate per 1,000 women in Manitoba aged 50 to 69, receiving at least one mammogram in two years, screened by RHA of residence.

Why Is This Indicator Important?

Each year, 23,800 Canadian women will be diagnosed with breast cancer and 5,000 will die from it. Mammograms have been shown to reduce the chance of dying from breast cancer and increase early diagnosis rates. This is important, as many women who are diagnosed have no clear risk factors, like family history.

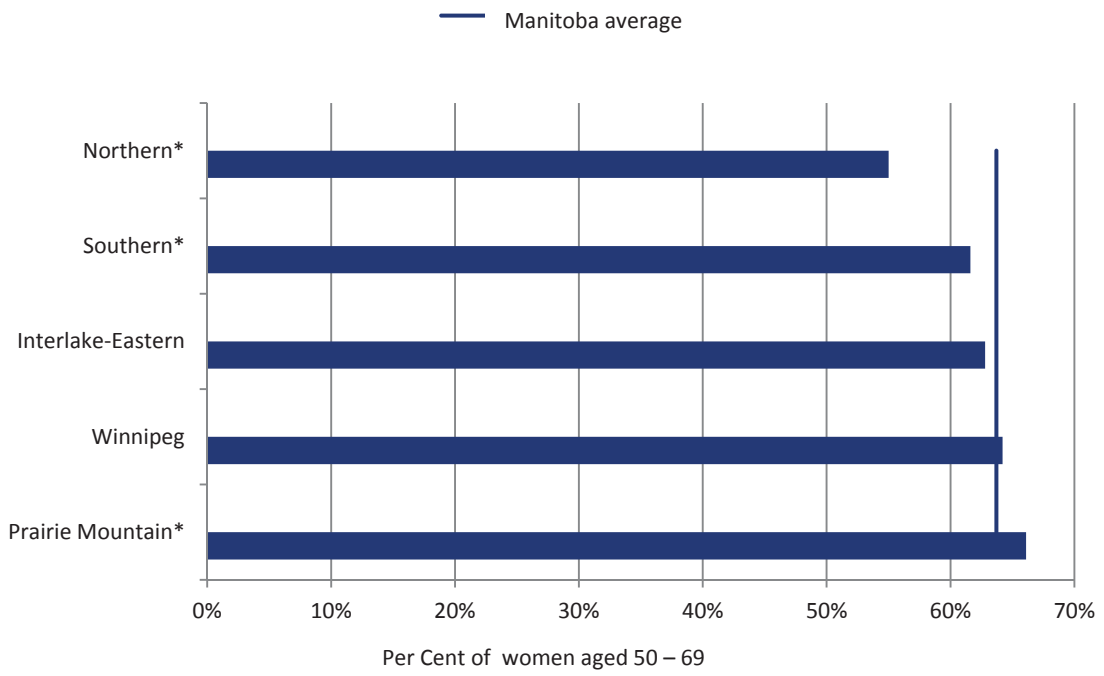
What did we learn in 2009?

- The former Burntwood region reported the lowest breast cancer screening rates in the province, though improvement was being seen over time.
- The former NOR-MAN region saw a significant increase in screening rates, and was only slightly lower than the provincial average.

What did we learn in 2014?

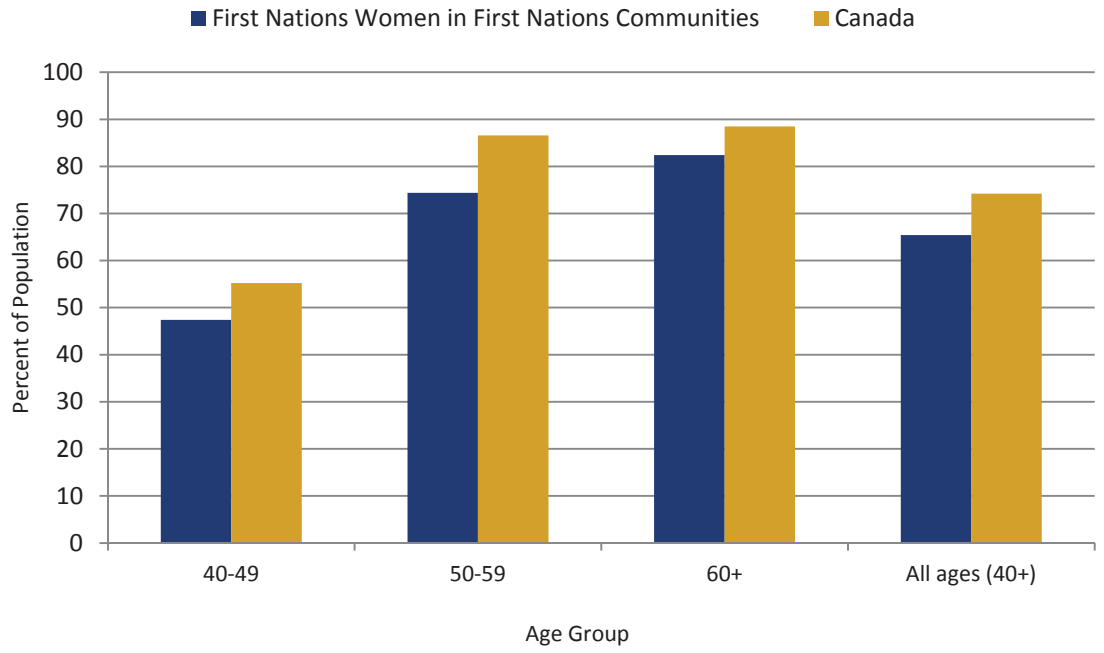
- The Northern Health Region breast cancer screening rate was 55.0 per cent between 2008/09-2009/10 which was statistically below the provincial average of 63.7 per cent (see
- **Figure 4.39**).

Figure 4.39. Breast Cancer Screening by RHA, 2008/09 - 2009/10.



Source: Manitoba Health, Healthy Living and Seniors, Medical claims data for mammography April 1, 2008 – March 31, 2010.
NOTE: * Significantly different from Manitoba rate ($p<0.05$)。

Figure 4.40. Women Ever Having a Mammogram, First Nations Women in First Nations Communities (2008/10) and all Women in Canada[1] (2008), Aged 40 Years and Over.



Source: Health Canada, A Statistical Profile on the Health of First Nations in Canada: Determinants of Health, 2006 to 2010
NOTE: [1] Total population living outside First Nations communities.

4.5.8.3. Colorectal Cancer Screening

DEFINITION

This indicator measures the proportion of residents, 50 years and over, who were screened for colon cancer with the Hemoccult test within the past 24 months.

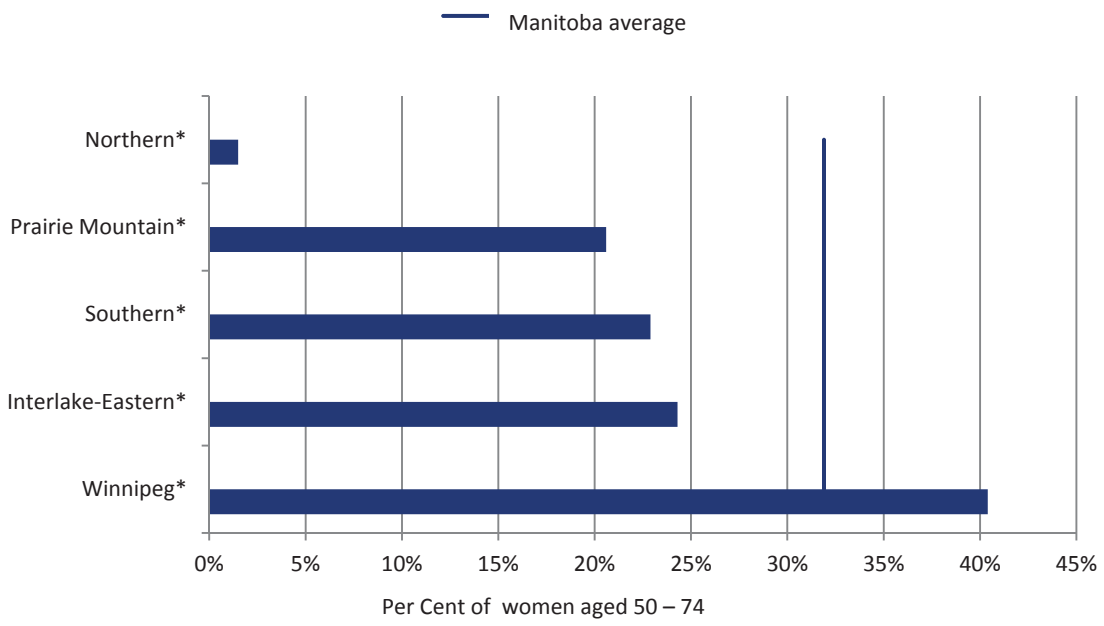
Why Is This Indicator Important?

Every year, 23,900 Canadians will be diagnosed with colorectal cancer and 9,200 will die from it. 25 Canadians die from colorectal cancer each day. The Hemoccult test, also known as the FOBT test, tests for hidden blood in the stool. It is considered the most effective method of early detection for colorectal cancer.

What did we learn in 2014?

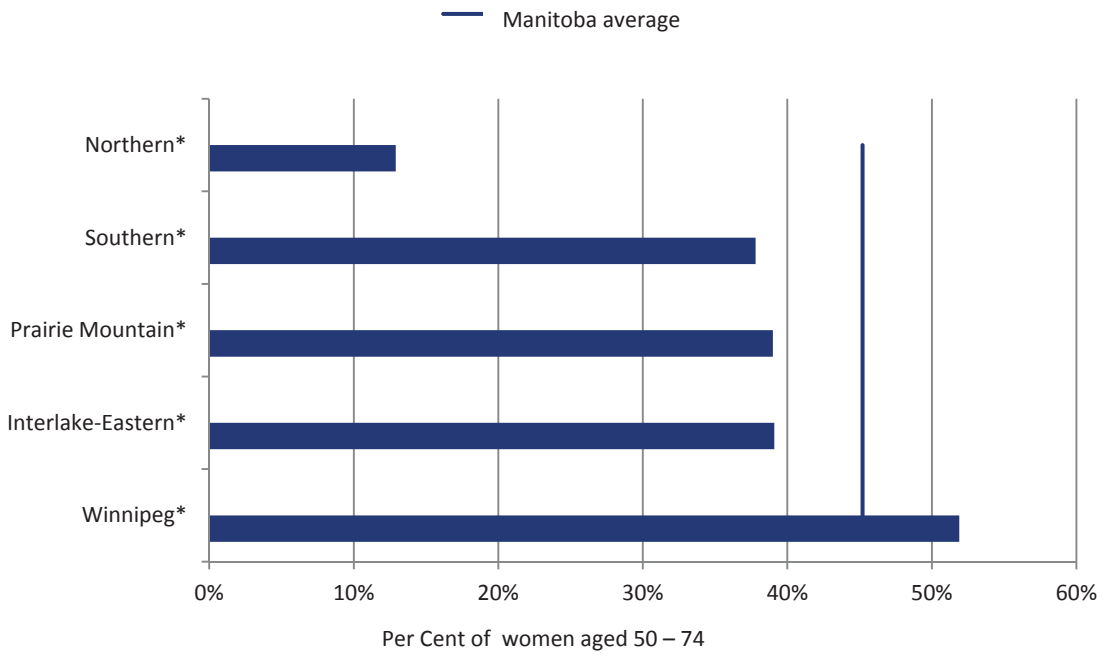
- As **Figure 4.41** demonstrates, only 1.5 per cent of eligible men and women in the Northern Health Region from 2009-10 were screened FOBT screening for colorectal cancer below the Manitoba average of 31.9 per cent.
- When scopes are included, the colorectal screening rate in the Northern Health Region rises to 12.9 per cent which is still far short of the provincial average of 45.2 per cent (see **Figure 4.42**).

Figure 4.41. Colorectal Cancer Screening (FOBT only) by RHA, 2009-2010.



Source: Manitoba Health, Healthy Living and Seniors, Medical claims data and ColonCheck Registry, January 1, 2009 – December 31, 2010.
NOTE： * Significantly different from Manitoba rate (p<0.05)。

Figure 4.42. Colorectal Cancer Screening (FOBT or scope) by RHA, 2009-2010.



Source: Manitoba Health, Healthy Living and Seniors, Medical claims data and ColonCheck Registry, January 1, 2009 – December 31, 2010.
NOTE：* Significantly different from Manitoba rate (p<0.05)。

4.6. Child & Maternal Health

WHAT DO WE KNOW?

Child and maternal health was a particular focus for the participants at the Northern Health Summit held in 2014. Participants cited suicide/mental health, youth smoking rates, obesity, substance abuse, youth diabetes, teen pregnancy, sexually transmitted infections, school bullying physical activity as particular health concerns for youth and families.

Summit participants generally thought that Healthy Child initiatives, the Family First program and efforts to keep kids in class were positive child health initiatives but that the region needed to engage youth more in their health and wellbeing.

4.6.1. Pregnancy Rate

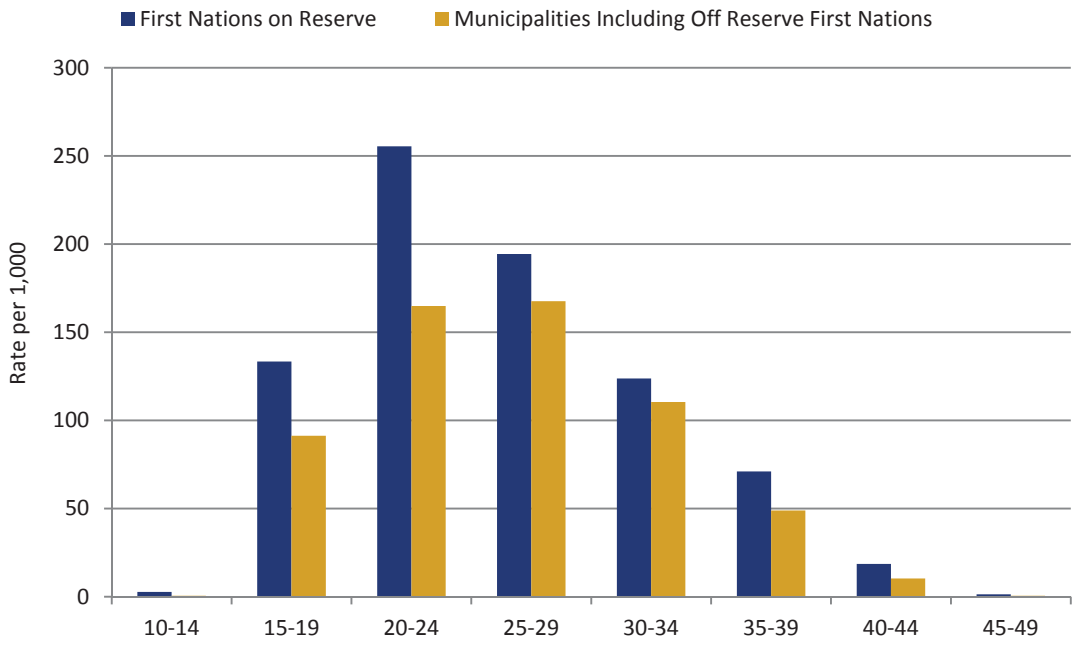
Why Is This Indicator Important?

Pregnancy can be a considerable public health issue in many countries, particularly for teens. Pregnancy for older mothers can cause health complications due to pre-existing conditions such as diabetes, thyroid disease, high or low blood pressure or fibroids, which can affect your pregnancy and birth. Pregnancy complications can also result for older moms such as high blood pressure and bleeding in the third trimester.

What did we learn in 2014?

- As **Figure 4.43** indicates, pregnancy rates were generally higher in First Nations Communities than in Non First Nations Communities in the Northern Health Region. First Nations Community pregnancy rates were particularly high in the 15-19 (133.4 per 1,000 population), 20-24 (255.4) and 25-29 (194.4).

Figure 4.43. Pregnancy Rate in Northern Health Region, 2011-2012.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management.

4.6.2. Breastfeeding Initiation

DEFINITION

This indicator measures the proportion of women who deliver in hospital and initiate breastfeeding (either breast only or breast and bottle) while in hospital.

Why Is This Indicator Important?

Breastfeeding is a key part of the healthy development and growth of infants. The Public Health Agency of Canada recommends exclusive breastfeeding up to 6 months of age with continued breastfeeding along with appropriate complementary foods up to 2 years of age and beyond. Breastfeeding has been shown to decrease the risk of ear infection and diarrhea in infants, as well as obesity, asthma, and diabetes in childhood and adulthood. It has also been shown to have health benefits for mothers, including lower risk for breast cancer, ovarian cancer, and weak bones in later life.

What did we learn in 2009?

- 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.
- The former NOR-MAN region experienced an increase in breastfeeding initiation from 66.9 per cent in 1996/97-2000/01 to 69.6 per cent in 2001/02-2005/06 though it still remained statistically below the provincial average.

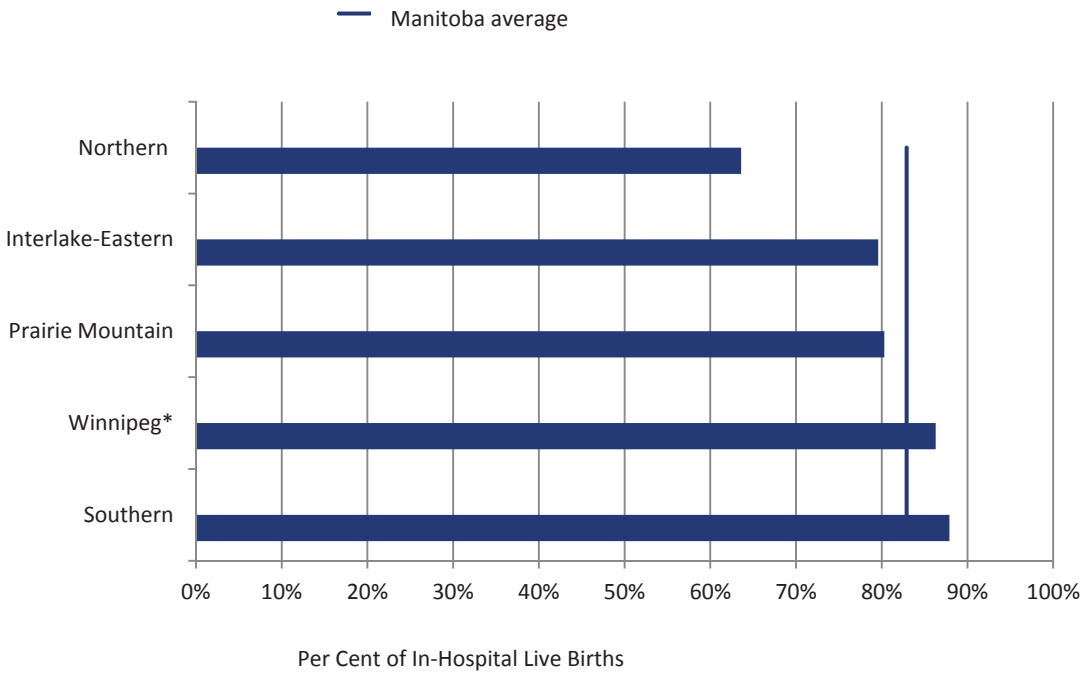
What did we learn in 2014?

- The breastfeeding initiation rate for the Northern Health Region was 63.6 per cent in 2012/13, which was the lowest rate among Manitoba RHAs and below the provincial average of 82.9 per cent (see **Figure 4.44**).
- As **Figure 4.45** shows, Northern Health Region breastfeeding initiation rates have stayed consistently below the Manitoba average from 2010/11-2012/13 in the 60 per cent range.

WHAT ARE WE DOING?

- Working towards BFI (Baby Friendly Initiative) Accreditation, A new NRHA BFI committee was formed to work towards BFI Accreditation. The Pas has completed their pre-assessment and Thompson has a target date of July/15.
- Mandatory on line education for all staff to ensure BFI accreditation.
- New NRHA Breastfeeding Policies
- Breastfeeding support groups
- Breastfeeding education to all 4 prenatal classes
- Staff have become or are working on their Lactation consultant certification.
- Currently developing information to be added to our website on breastfeeding
- WHO 20 hour breastfeeding course for staff offered several times /year

Figure 4.44. Breastfeeding Initiation Rate by RHA, 2012/13.

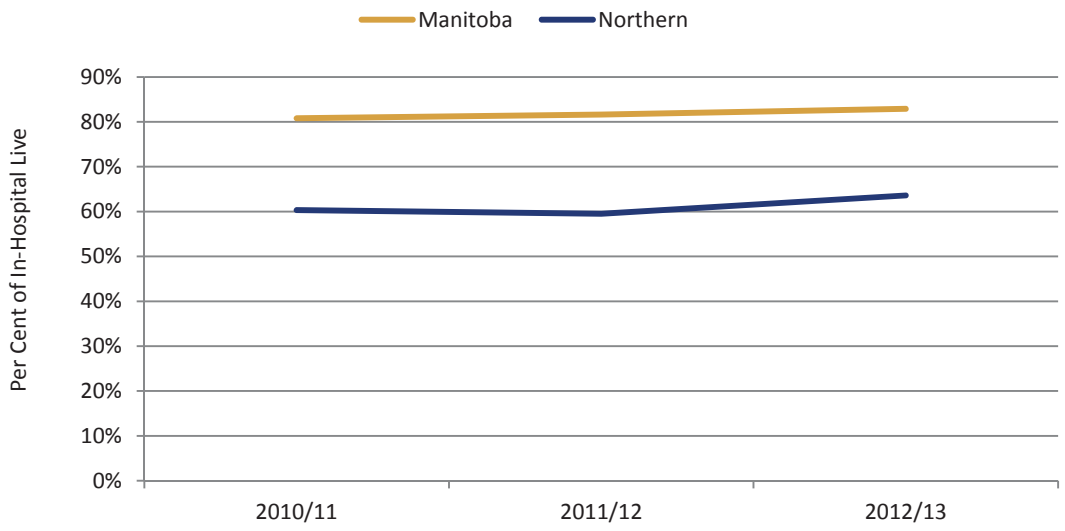


Note 1: The Breastfeeding Initiation Rate was calculated by taking the ratio of live born babies who were exclusively or partially breast fed on hospital discharge, to the total number of live born babies
Note 2: Rates based on counts less than five are suppressed
Source: Manitoba Health, Healthy Living and Seniors, Health Information Management, Discharge Abstract Database

Table 4.16. Breastfeeding Initiation Rate by Year, by Direct and Non-Direct Service Zones.

	2010/2011		2011/2012		2012/2013	
Area of Residence	**Count**	**%**	**Count**	**%**	**Count**	**%**
Northern	998	60.3%	964	59.5%	1,047	63.6%
Northern Direct Service Zone	459	77.9%	468	79.3%	527	82.2%
Northern Non-Direct Service Zone	386	49.5%	377	48.4%	380	51.9%
Northern Island Lake Zone	153	53.5%	119	47.2%	140	51.1%

Figure 4.45. Breastfeeding Initiation Rate by Year, 2010/11 - 2012/13.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management, Discharge Abstract Database

4.6.3. Inadequate Prenatal Care

DEFINITION

The adequacy of prenatal care (PNC) is determined by the number of physician visits received by a prospective mother, taking into account when the first prenatal visit took place.

For the purpose of calculating these indicators of PNC, a prenatal visit was defined as a visit to a health professional (i.e., physician, midwife or nurse practitioner) where some kind of medical or healthcare was performed to take care of the pregnancy. Other forms of prenatal health services were not included in this definition, such as attendance at prenatal classes or Healthy Baby Community Support Programs.

It is important to note that the number and timing of PNC visits was estimated from hospital discharge abstracts and physician claims files, and the accuracy of our estimates may be affected by several factors, such as missing PNC records in the hospital chart or receipt of PNC from healthcare providers who do not submit physician claims for PNC. This may be particular import to our region given the differences in service delivery methods in northern communities and many encounters with a health professional, especially at nursing station may not be reported and are likely not included in these data. Inaccurate ascertainment of gestational age may affect assignment to a PNC utilization category. It is also noted that these indicators only reflect the quantity of PNC; they do not address the content, clinical adequacy, or quality of PNC.

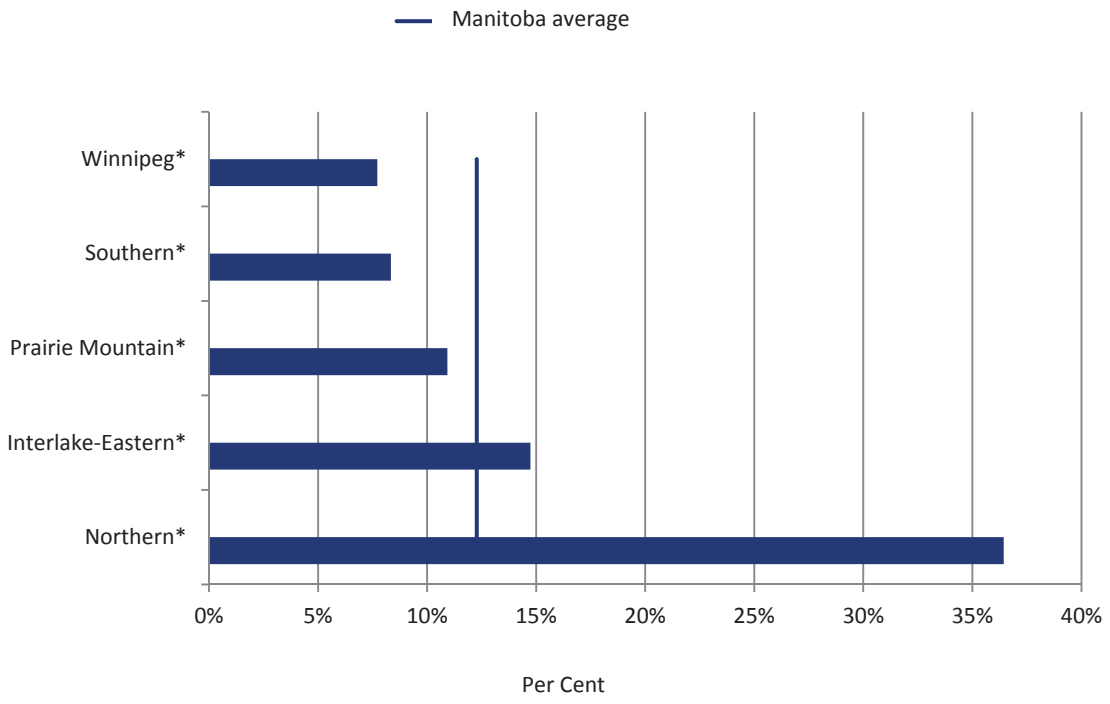
Why Is This Indicator Important?

Women who get regular access to prenatal receive with a full series of prenatal visits are at lower risk for having a low birth weight infant compared to women who receive no prenatal care. Low birth weight is one of the key risk factors for infant mortality which is controllable. There are also studies which show associations between other risk factors, such as alcohol use during pregnancy or maternal isolation and inadequate prenatal care. It has also be shown that women who have inadequate prenatal care are less likely to initiate breastfeeding.

What did we learn in 2014?

- The proportion of new mothers who had inadequate prenatal care was 36.4 per cent in the Northern Health Region from 2007/08-2008/09, well above the provincial average of 12.3 per cent (see **Figure 4.46**).

Figure 4.46. Rates of Inadequate Prenatal Care by RHA, 2007/08 - 2008/09.



Source: Manitoba Centre for Health Policy, Perinatal Services and Outcomes in Manitoba, 2012.
NOTE：* Significantly different from Manitoba rate ($p<0.05$)。

4.6.4. Families First Program

DEFINITION

The Families First Program provides prevalence rates of risk factors for poor child outcomes based on risk factor percentages (%) of the regional post partum population screened for enrollment in the Families First Program.

Why Is This Indicator Important?

This assessment tool is used by public health nurses through a Families First screening form. It is used to identify families who may need further support and assistance to ensure children are raised in a healthy environment. It can be an indicator of how well adjusted families are in a region to have children.

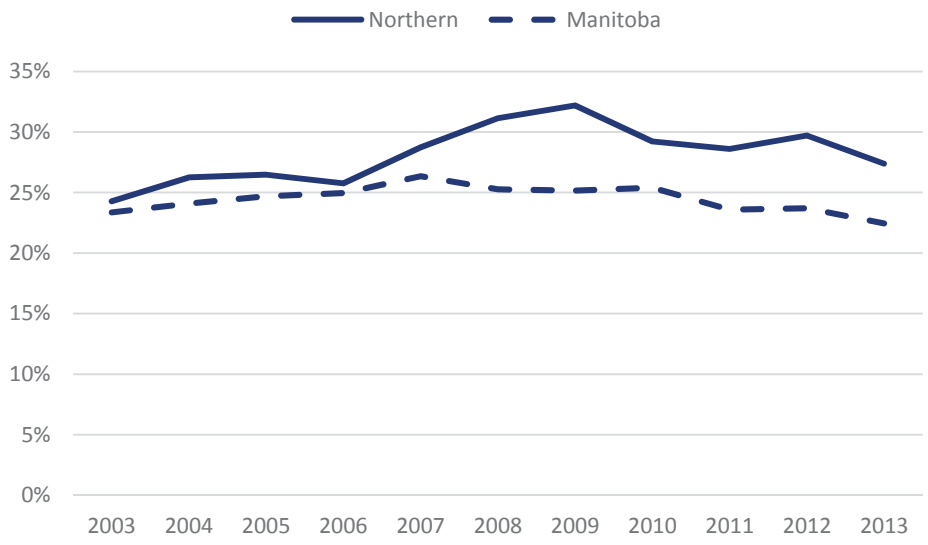
What did we learn in 2009?

- The proportion of families with three or more risk factors in the former Burntwood region from 2003 to 2006 was 49.0 per cent, well above the Manitoba average of 24.4 per cent.
- In the former NOR-MAN region, 40.9 per cent of families had three or more risk factors.

What did we learn in 2014?

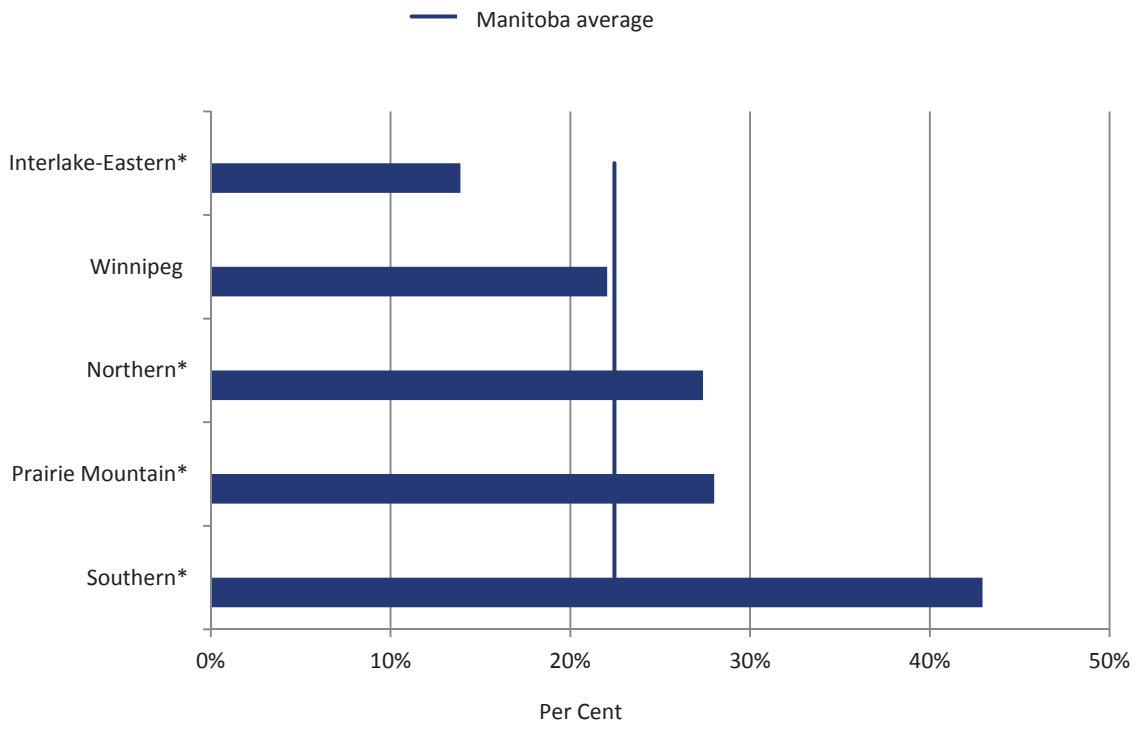
- The Northern Health Region has since a recent decline in the number of families with three or more risk factors from 48.1 per cent in 2007 to 39.9 per cent in 2011 (see **Figure 4.47**).

Figure 4.47. Three or More Risk Factors on Screen, 2003-2013.



Source: Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.

Figure 4.48. Three or More Risk Factors on Screen by Region, 2013.



Source: Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.
NOTE： * Significantly different from Manitoba rate ($p<0.05$)。

4.6.4.1. Alcohol and Drug Use During Pregnancy

DEFINITION

This indicator measures the proportion of women living in Non First Nations Communities who were screened through the Families First Home Visiting Program and indicated that they used drugs or alcohol during pregnancy.

Why Is This Indicator Important?

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.

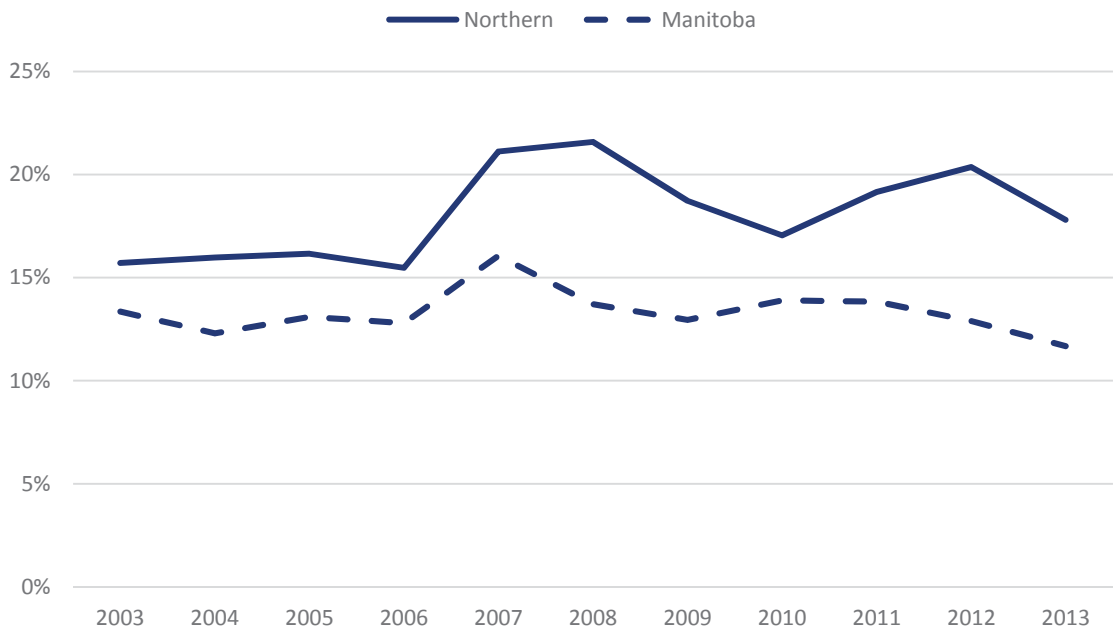
What did we learn in 2009?

- The combined four-year average of alcohol use during pregnancy in the former Burntwood Region was 22.8 per cent, above the Manitoba average of 12.7 per cent. The rate of drug use during pregnancy increased from 10.9 per cent to 14.6 per cent between 2003 and 2006.
- The combined four-year average of alcohol use during pregnancy in the former NOR-MAN Region was 26.3 per cent. Rates for drug use were not available.

What did we learn in 2014?

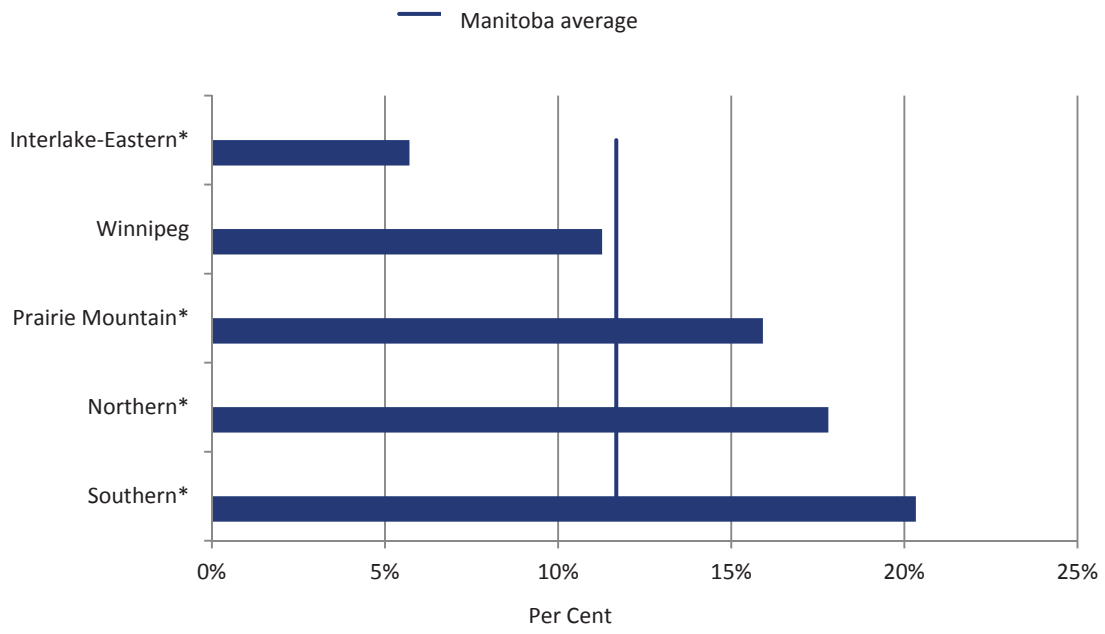
- As **Figure 4.49** shows, maternal alcohol use rates have fluctuated in the Northern Health Region, declining from 24.4 per cent to 17.5 per cent between 2007 and 2009, then rising to 22.7 per cent in 2011.

Figure 4.49. Maternal Alcohol Use, 2003-2013.



Source: Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.

Figure 4.50. Maternal Alcohol Use by Region, 2013.



Source: Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.
NOTE: * Significantly different from Manitoba rate ($p<0.05$)。

4.6.4.2. Smoking During Pregnancy

DEFINITION

This indicator refers to the percentage of women living in Non First Nations Communities who were screened through the Families First Home Visiting Program and indicated that they smoked during pregnancy.

Why Is This Indicator Important?

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, leukemia and lymphomas. Maternal smoking during pregnancy is also a risk factor for asthma in young children.

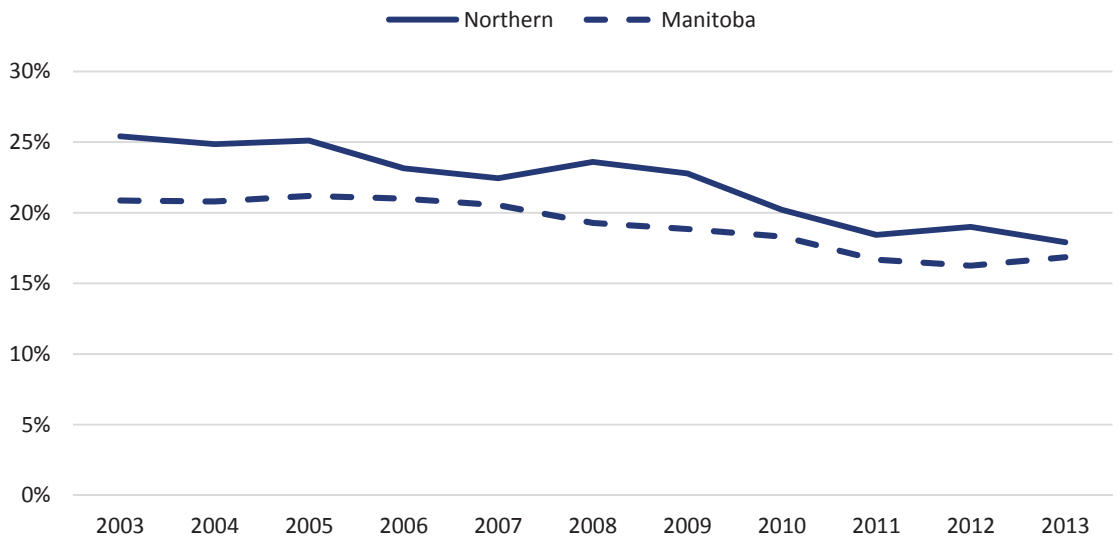
What did we learn in 2009?

- In the former Burntwood Region, the proportion of women who smoked during pregnancy was 47.9 per cent between 2003 and 2006.
- In the former NOR-MAN Region, the proportion between 200 and 2006 was 38.2 per cent.

What did we learn in 2014?

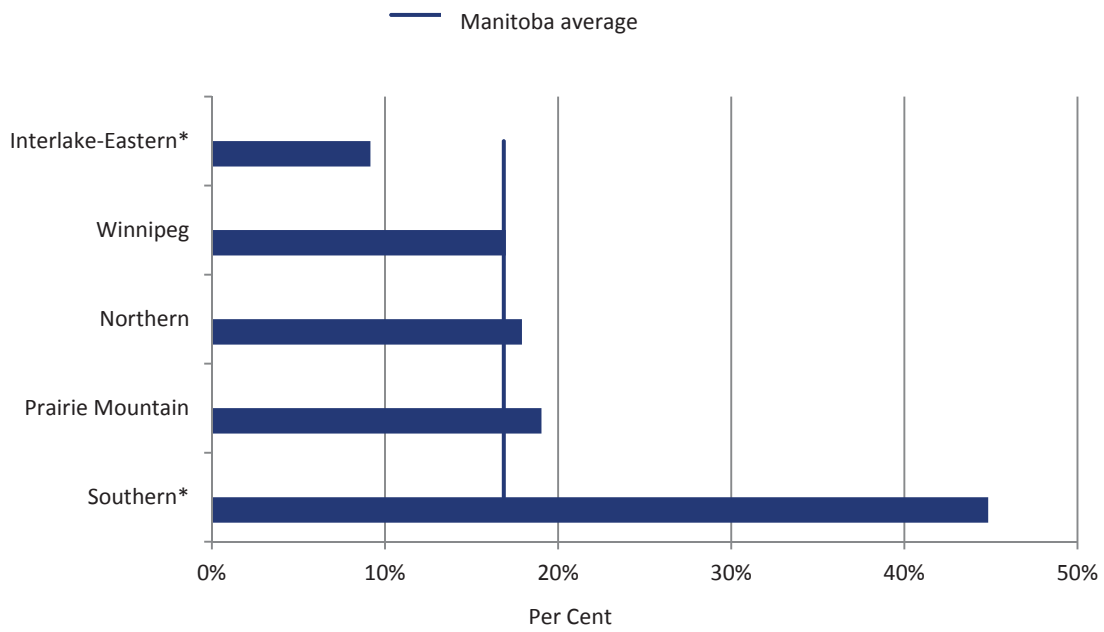
- Maternal smoking rates in the Northern Health Region have remained in the 40-45 per cent range from 2003 to 2011. There has been a recent decline in rates from 46.3 per cent in 2010 to 41.4 per cent in 2011 (see **Figure 4.51**).

Figure 4.51. Maternal Smoking, 2003-2013.



Source: Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.

Figure 4.52. Maternal Smoking by Region, 2013.



Source: Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.
NOTE: * Significantly different from Manitoba rate ($p<0.05$)。

4.6.4.3. Anxiety & Depression in Mothers of Newborns

DEFINITION

This indicator measures the percentage of mothers of newborns living in Non First Nations Communities who were screened through the Families First Home Visiting Program and indicted feeling anxious or depressed.

Why Is This Indicator Important?

Mothers of newborns who suffer from depression can negatively affect 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.

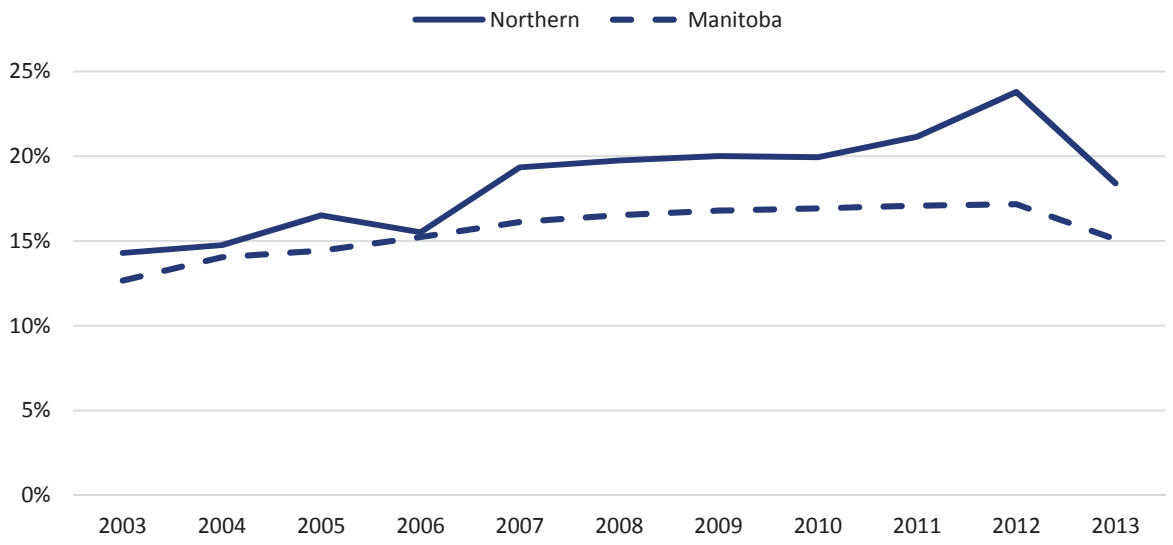
What did we learn in 2009?

- In the former Burntwood Region in the period 2003-2006, the percentage of mothers experiencing depression was 14.4 per cent, slightly higher than the Manitoba average of 14.1 per cent
- In the former NOR-MAN Region in the period 2003-2006, the percentage of mothers experiencing depression was 15.7 per cent.

What did we learn in 2014?

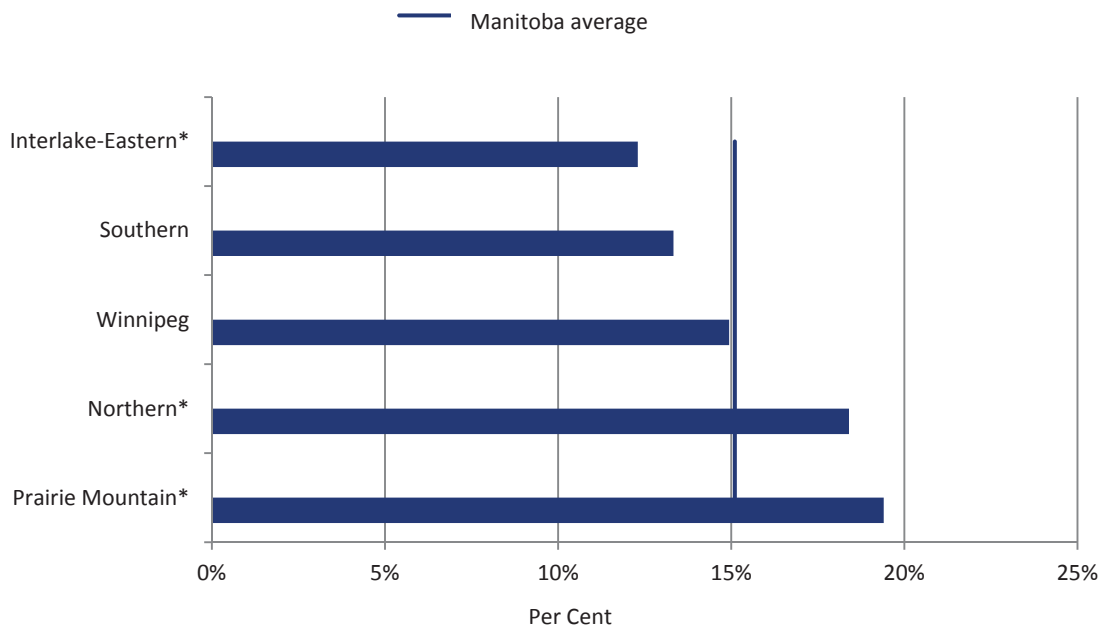
- Maternal Depression rates in the Northern Health Region experienced a steady rise between 2006 (13.6% of mothers experiencing depression) and 2010 (18.8%) before declining again in 2011 where it reached 15.1 per cent (see **Figure 4.53**).

Figure 4.53. Maternal Depression and/or Anxiety, 2003-2013.



Source: Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.

Figure 4.54. Maternal Depression and/or Anxiety by Region, 2013.



Source: Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.
NOTE： * Significantly different from Manitoba rate ($p<0.05$)。

4.6.4.4. Mother With Less Than A Grade 12 Education

DEFINITION

This indicator measures the proportion of women living in Non First Nations Communities who were screened through the Families First Home Visiting Program and indicated that they had less than a grade 12 education.

Why Is This Indicator Important?

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.

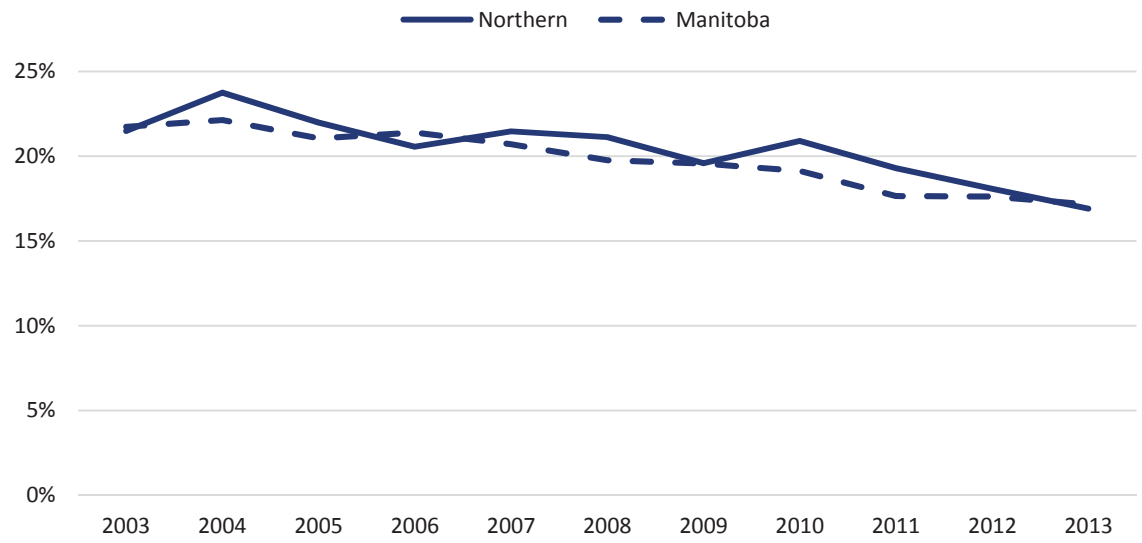
What did we learn in 2009?

- The former Burntwood Region experienced a decrease in mothers of newborns with less than a grade 12 education, from 43.8 per cent to 40.5 per cent between 2003 and 2006.
- The former NOR-MAN Region reported a combined four year rate of 30.1 per cent in 2003-2006.

What did we learn in 2014?

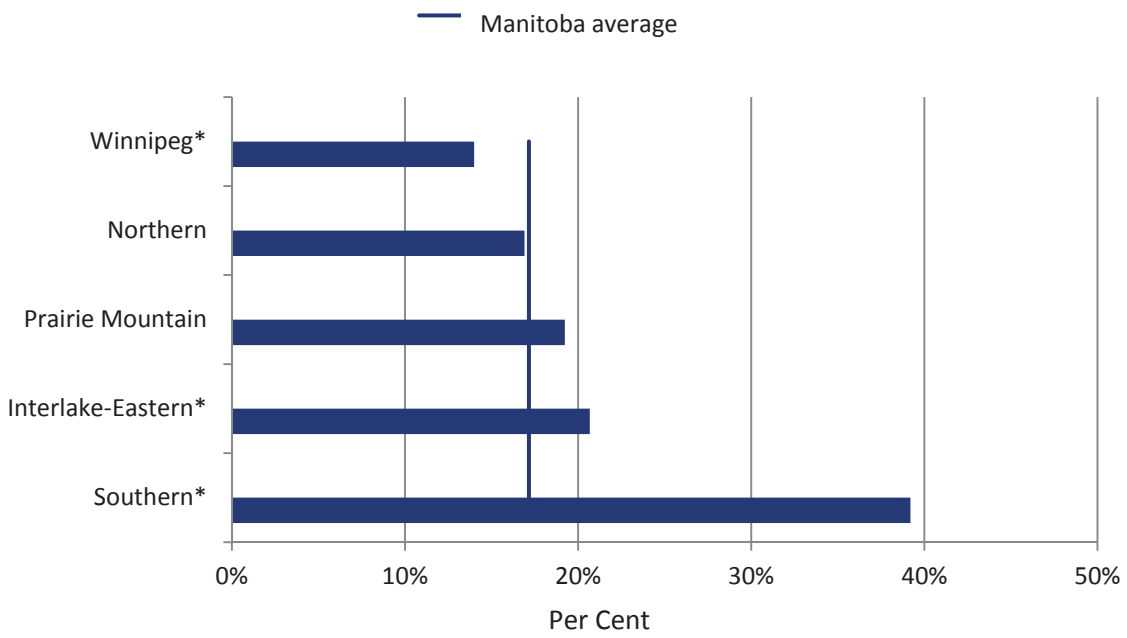
- In the Northern Health Region, the proportion of mothers with less than high school education declined slightly from 2003-2011, peaking at 39.9 per cent in 2004 to 32.9 per cent in 2011 (see **Figure 4.55**).

Figure 4.55. Mother Has Less Than High School Education, 2003-2013.



Source: Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.

Figure 4.56. Mother Has Less Than High School Education by Region, 2013.



Source: Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.
NOTE: * Significantly different from Manitoba rate ($p<0.05$)。

4.6.4.5. Social Assistance / Financial Difficulties

DEFINITION

Percentage of women living in Non First Nations Communities who were screened through the Families First Home Visiting Program and indicated some form of social assistance/financial difficulties.

Why Is This Indicator Important?

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 socio-economic status have been found to be at higher risk for poorer coping skills and are more vulnerable to mental health disorders.

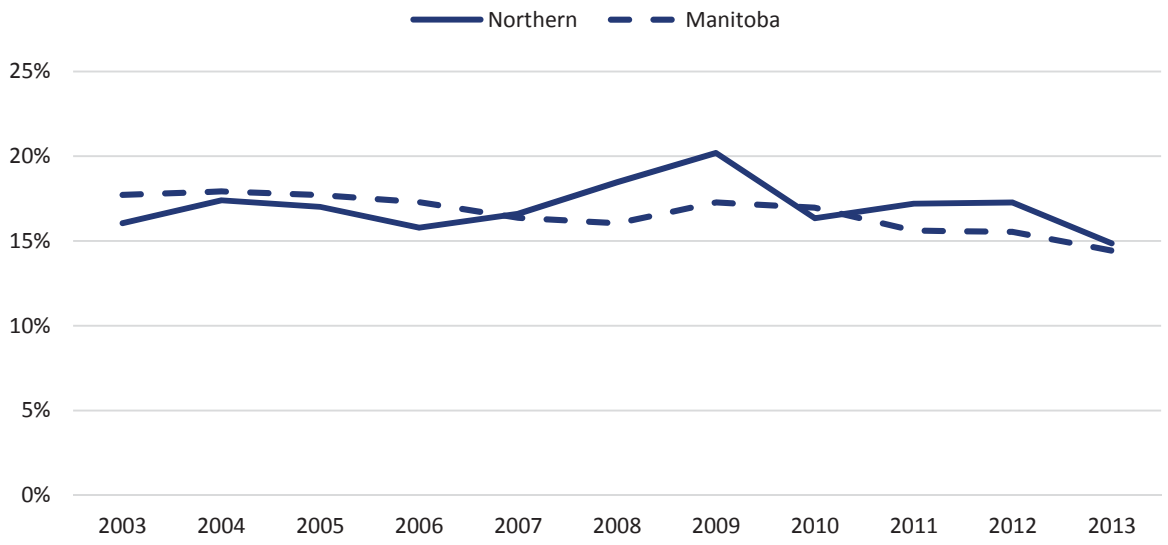
What did we learn in 2009?

- In the former Burntwood Region, families with newborns who receive social assistance increased from 32.6 per cent to 36.1 per cent between 2003 and 2006. This is much higher than the provincial average of 17.3 per cent in 2006.
- The former NOR-MAN Region reported a rate of 26.5 per cent in 2003-2006.

What did we learn in 2014?

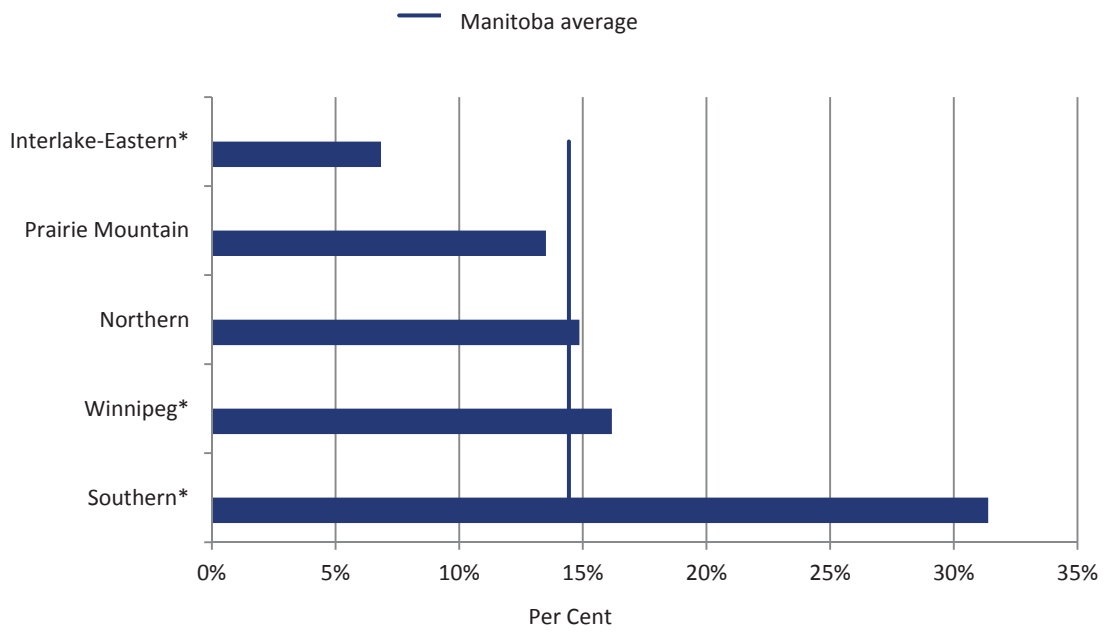
- The proportion of families receiving social assistance did experience a steady decline in the Northern Health Region from a high of 35.9 per cent in 2004 to 30.6 per cent in 2011 (see **Figure 4.57**).

Figure 4.57. Financial Difficulties, 2003-2013.



Source: Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.

Figure 4.58. Financial Difficulties by Region, 2013.



Source: Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.

NOTE： * Significantly different from Manitoba rate ($p<0.05$)。

4.7. Child & Youth Health

WHAT ARE WE DOING?

- The Youth Leadership Project is a multi-community project which focuses on building youth leadership skills for community engagement. The youth receive training to organize projects and activities that not only benefit the community, but also promotes the four modifiable risk factors (mental wellbeing, physical activity, healthy eating, and tobacco reduction). For the past two years, there has been a Youth Summit to bring all of the youth together to promote their projects, further their skill development, provide certification and to connect the communities in a fun way. The project is supported and guided by a team of community workers from the various communities called the HUB. Members of the HUB also receive specialized training to help guide the youth with their community projects. To date, the Youth Leadership Project is active in four communities and has trained 100 youth. We are excited to see all of the great work and success stories at our 3rd Youth Leadership Summit taking place May 2015

- Good news, RDPC high school has an addictions foundation of Manitoba counselor, who provides addictions counseling 5 days a week. Students may self-refer or be referred.

- In Thompson there is a PHN nurse in the high school Monday, Tuesdays and Thursdays and the Nurse Practitioner provides general health services to the students once a week.

- In The Pas and Flin Flon PHN nurses go into each school one day a week, plus hold a teen clinic at the Primary Health Care Centre one day a week.

4.7.1. Youth Sexual Health

DEFINITION

This indicator measures the proportion of 15 to 19 year old youth who reported having sexual intercourse.

Why Is This Indicator Important?

Youth sexual activity is an important measure of child health status. Sexually Transmitted Infections (STIs) and HIV contribute to poorer health status among youth. This helps measure the effectiveness of ways of intervention like public health awareness campaigns and other measures that advocate the importance of contraception. This indicator shows if these interventions are effective and accessible. In the former Burntwood region, the young age at which people began to engage in sexual activity was seen as an example of the lack of information available to students.

What did we learn in 2009?

- The former Burntwood region reported that 61.8 per cent of youth engaged in sexual activity from 2003-2005, which was considerably higher than the provincial average of 41.9 per cent.
- The former NOR-MAN region reported sexual activity rates of 47.0 per cent that were higher than the provincial rate.

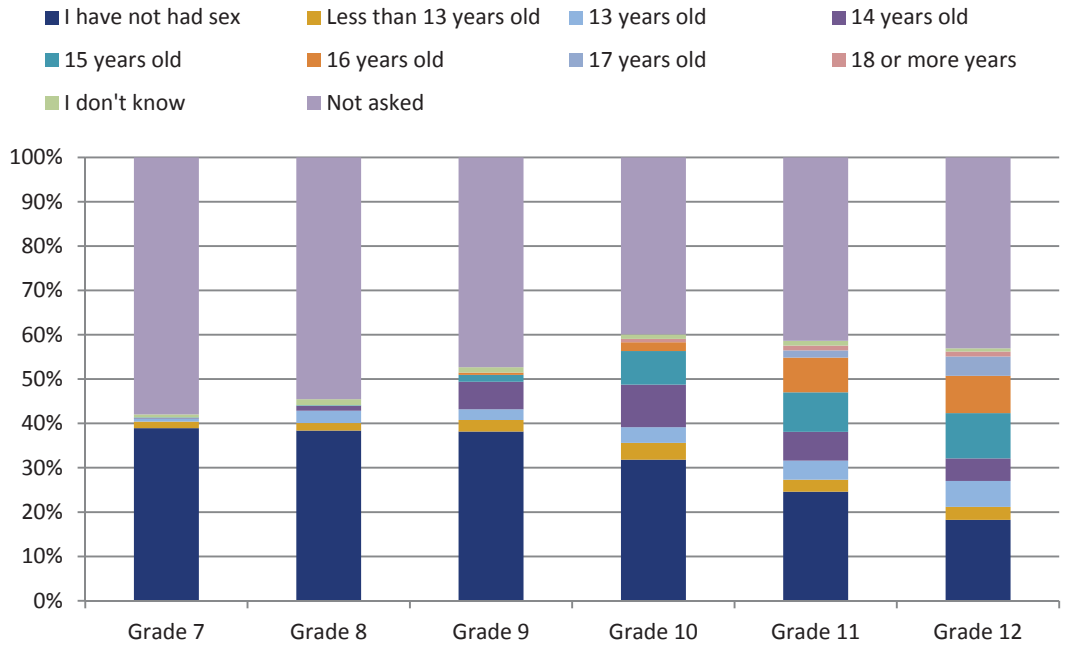
What did we learn in 2014?

- According to results from the Youth Healthy Survey, 67.4 per cent of grade 7 to 12 students in the Northern Health Region reported not having sex, ranging from 92.6 per cent in grade 7 to 32.1 per cent in grade 12 (see **Figure 4.60**).
- As **Figure 4.59** shows, most grade 12 students reported having sex either at age 15 (17.9%) or 16 (14.7%).

WHAT ARE WE DOING?

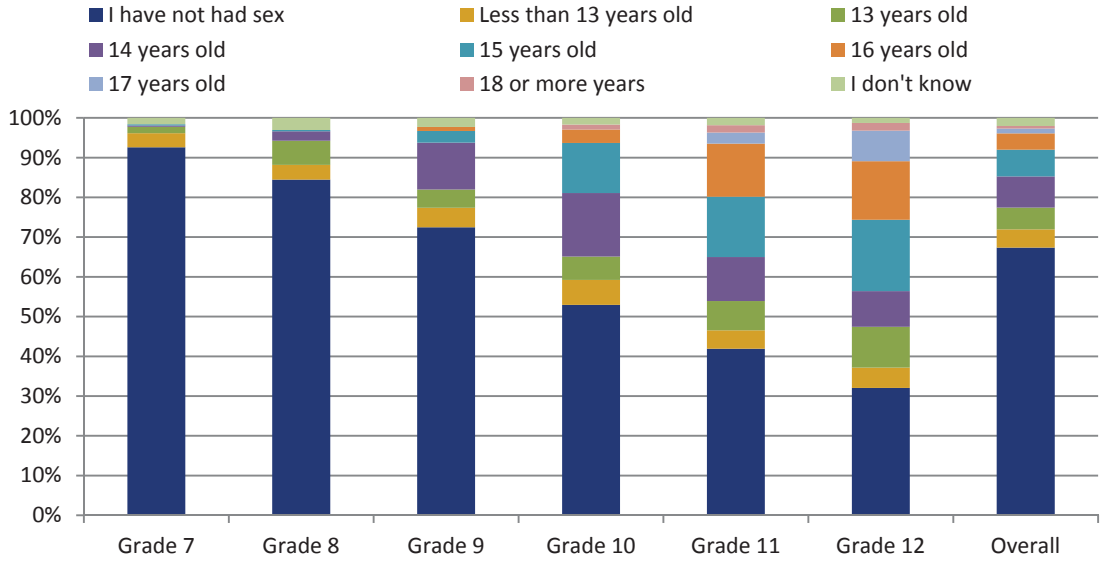
- Public health nurses provide sexual health presentations for grades 5-12. The increase in inebriated sexual intercourse among high school students was identified in the 2013 youth behavior survey. As a result of these findings, the high school PHN has increased sexual health presentations for grades 9-12. Sexual consent, the harmful effects/consequences of inebriated sex and harm reduction strategies have been a specific focus. Also included in the presentations is abstinence, birth control, and STI/HIV. Harm reduction strategies have also been included in the individual appointments with the high school PHN.
- In the 2013 Youth behavior survey, grades 7 and 8's identified that "talking to a parent about sexual topics" as one of the top three main concerns. As a result a parent night for the spring of 2015 has been organized for all 6 elementary school junior high parents. Presentation topics to include sexual health, internet safety, and how to talk to your child about sex.
- All Thompson PHN's are Teentalk trained to provide sexual health presentations for grades 7-12 on a number of subject areas.

Figure 4.59. How Old Were You When You First Had Sex by Grade, 2012.



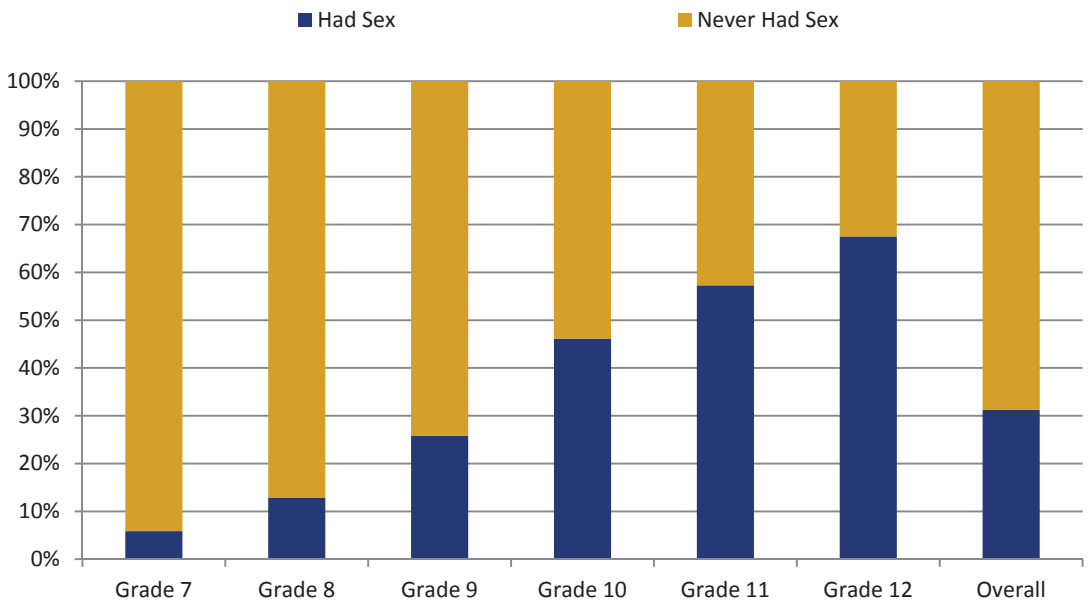
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 96.0%, Grade 8 = 96.6%, Grade 9 = 94.8%, Grade 10 = 95.9%, Grade 11 = 96.9%, Grade 12 = 95.1%.

Figure 4.60. How Old Were You When You First Had Sex by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 96.0%, Grade 8 = 96.6%, Grade 9 = 94.8%, Grade 10 = 95.9%, Grade 11 = 96.9%, Grade 12 = 95.1%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

Figure 4.61. Ever Had Sex by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 96.0%, Grade 8 = 96.6%, Grade 9 = 94.8%, Grade 10 = 95.9%, Grade 11 = 96.9%, Grade 12 = 95.1%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

Table 4.17. Ever Had Sex by Grade, 2012

	Had Sex	Never Had Sex
Grade 7	5.8%	92.6%
Grade 8	12.5%	84.5%
Grade 9	25.2%	72.5%
Grade 10	45.4%	52.9%
Grade 11	56.2%	41.9%
Grade 12	66.7%	32.1%
Overall	30.6%	67.4%

Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 96.0%, Grade 8 = 96.6%, Grade 9 = 94.8%, Grade 10 = 95.9%, Grade 11 = 96.9%, Grade 12 = 95.1%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

4.7.1.1. Sex Practices Among Youth

DEFINITION

This indicator measures responses to questions related to sexual activity by youth, specifically their comfort level in discussing birth control with their partner.

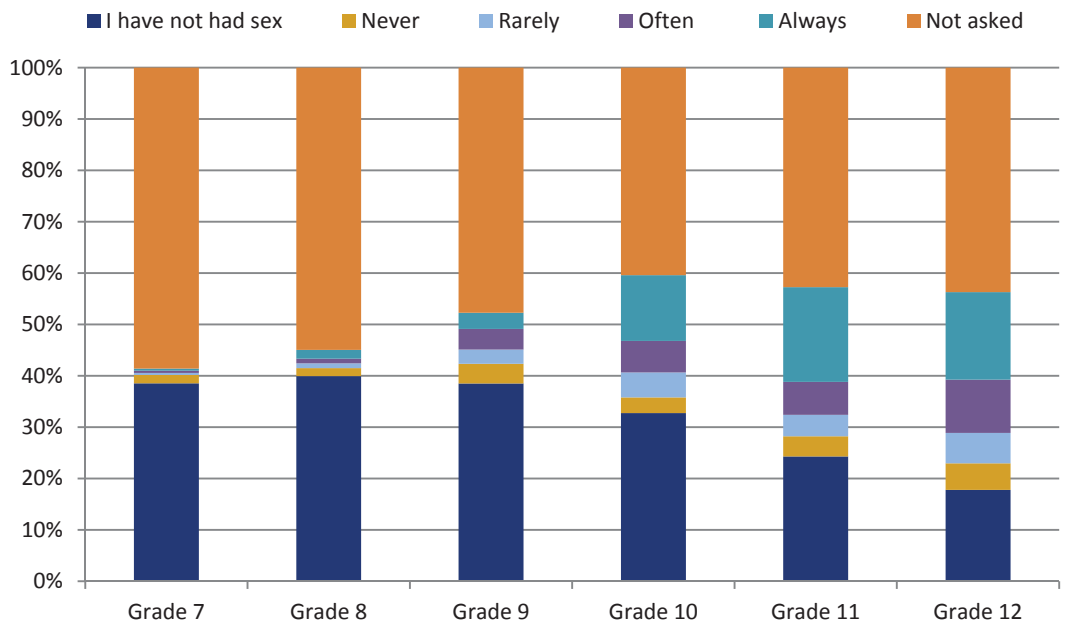
Why Is This Indicator Important?

Sexually active youth and young adults may engage in behaviours that could put them at risk for negative health outcomes, such as Sexually Transmitted Infections (STIs) and the health complications that may arise from it or the risk of an unplanned pregnancy. If youth are able to talk openly and freely about birth control and STIs, it will likely lead to less risky sexual activity and the complications that arise from it. Young, sexually active adolescents do not have the foresight, knowledge or understanding of the consequences of their behaviours.[vi]

What did we learn in 2014?

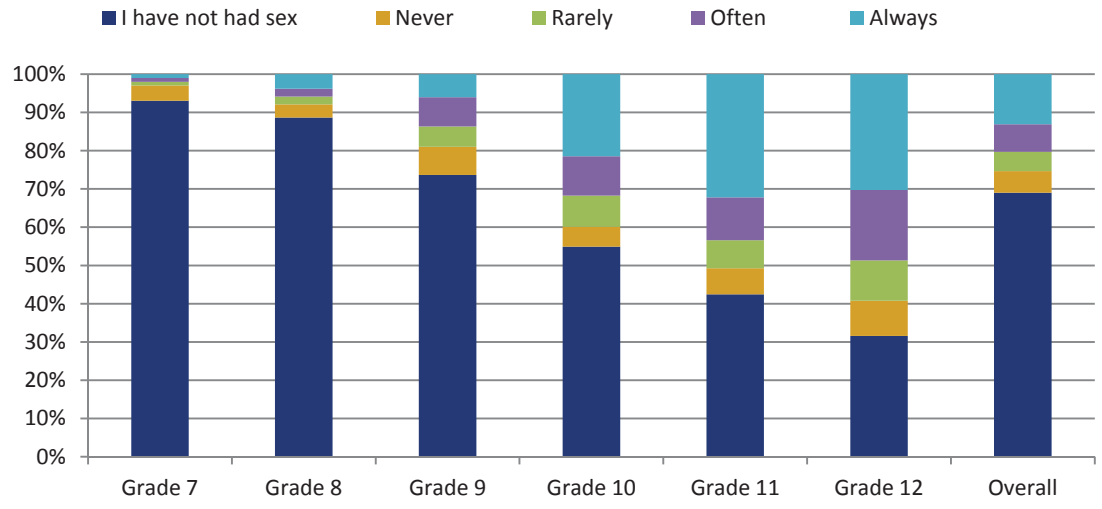
- Discussion about birth control increased with each grade. In grade 7, between those that had not had sex or never discussed birth control, only 2.9 per cent had discussed birth control at all. By grade 12, 48.7 per cent of students had always or often felt comfortable talking about birth control (see **Figure 4.63**).
- As with birth control, comfort levels in discussing STIs increased with each grade. In grade 7, only 2.6 per cent of students were comfortable talking about STIs in any frequency, while 34.0 per cent of grade 12 students could comfortably talk about STIs always or often with the person they are having sex (see **Figure 4.65**).
- On the other hand, other risky sexual behavior increased with each grade. In grade 7, only 1.3 per cent of students had unplanned sex after taking alcohol or drugs. By grade 12, 37.1 per cent did (see **Figure 4.67**).

Figure 4.62. How often do you feel comfortable talking to the person(s) you are having sex with about using condoms or birth control by grade, 2012.



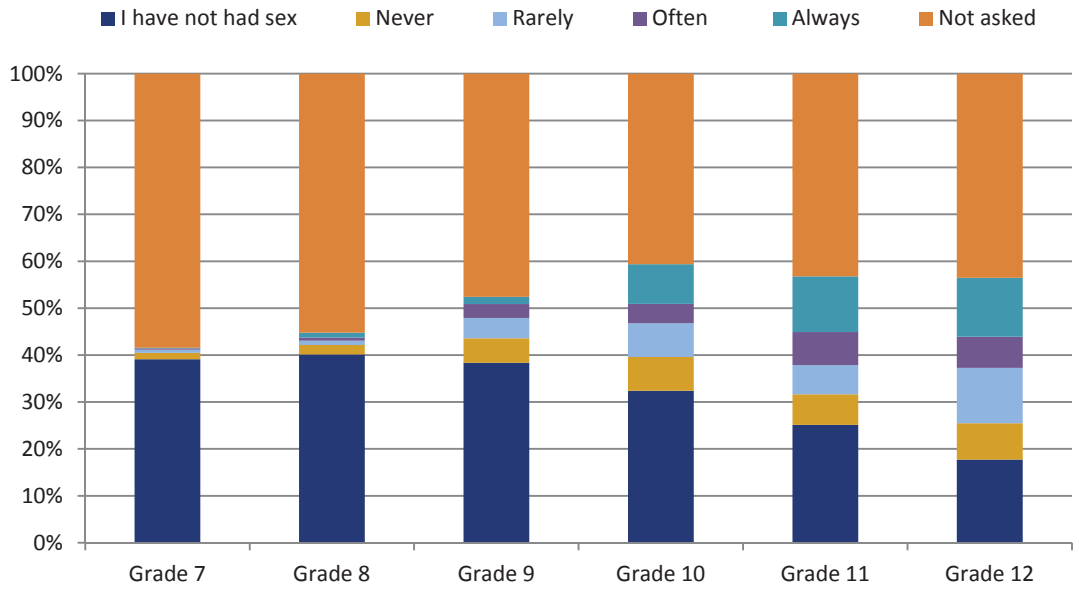
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 94.9%, Grade 8 = 95.8%, Grade 9 = 93.9%, Grade 10 = 94.7%, Grade 11 = 93.7%, Grade 12 = 93.8%.

Figure 4.63. How often do you feel comfortable talking to the person(s) you are having sex with about using condoms or birth control by grade, 2012.



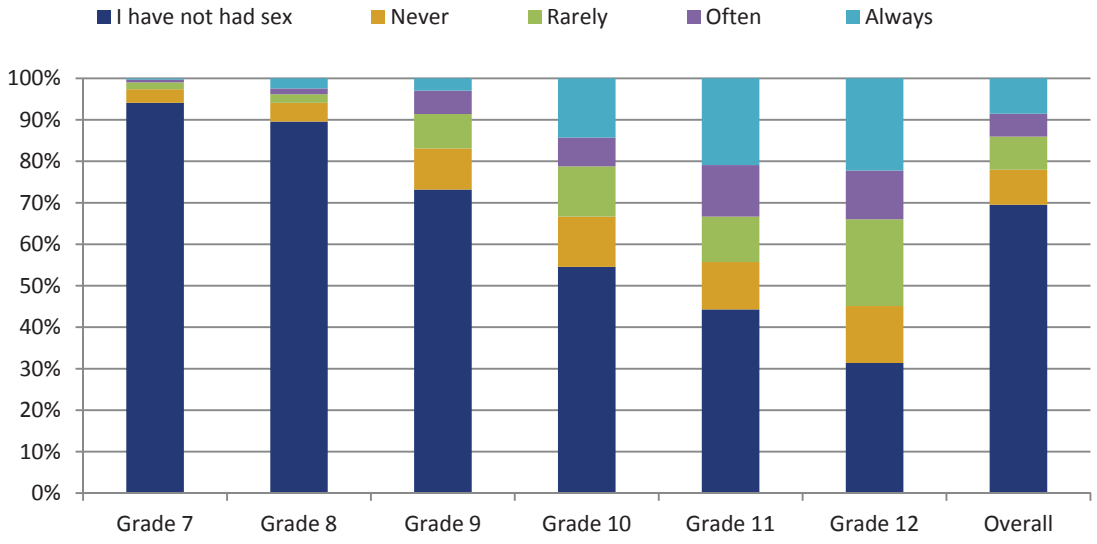
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 39.3%, Grade 8 = 43.2%, Grade 9 = 49.1%, Grade 10 = 56.4%, Grade 11 = 53.7%, Grade 12 = 52.8%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

Figure 4.64. How often do you feel comfortable talking to the person(s) you are having sex with about STIs by grade, 2012.



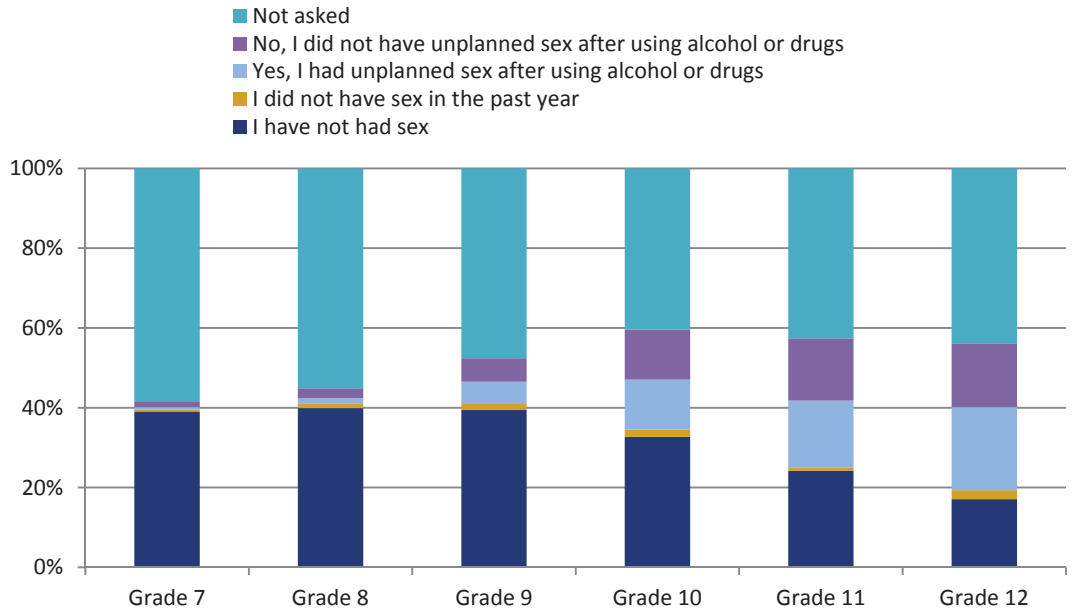
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 95.2%, Grade 8 = 95.4%, Grade 9 = 94.3%, Grade 10 = 94.2%, Grade 11 = 92.7%, Grade 12 = 94.1%.

Figure 4.65. How often do you feel comfortable talking to the person(s) you are having sex with about STIs by grade, 2012.



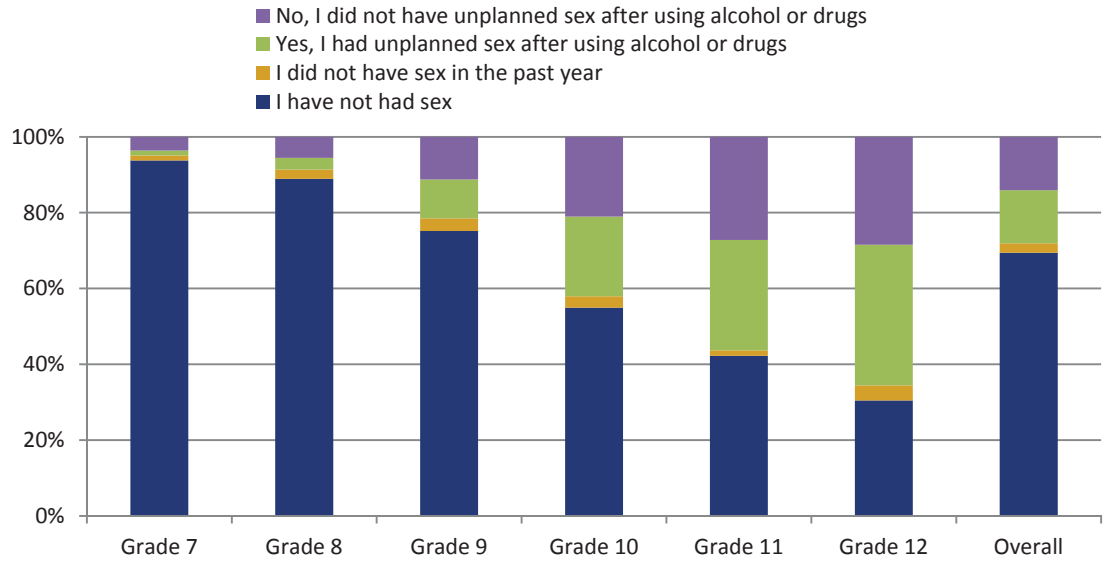
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 39.6%, Grade 8 = 42.7%, Grade 9 = 49.4%, Grade 10 = 55.9%, Grade 11 = 52.6%, Grade 12 = 53.1%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

Figure 4.66. In the past year, did you have unplanned sex after using alcohol or drugs by grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 95.3%, Grade 8 = 95.5%, Grade 9 = 94.3%, Grade 10 = 94.7%, Grade 11 = 94.0%, Grade 12 = 93.4%.

Figure 4.67. In the past year, did you have unplanned sex after using alcohol or drugs by grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 39.7%, Grade 8 = 42.9%, Grade 9 = 49.4%, Grade 10 = 56.4%, Grade 11 = 53.9%, Grade 12 = 52.4%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

4.7.1.2. Preferred Information Sources

DEFINITION

This indicator measures the responses of youth to where they seek information about sexual health.

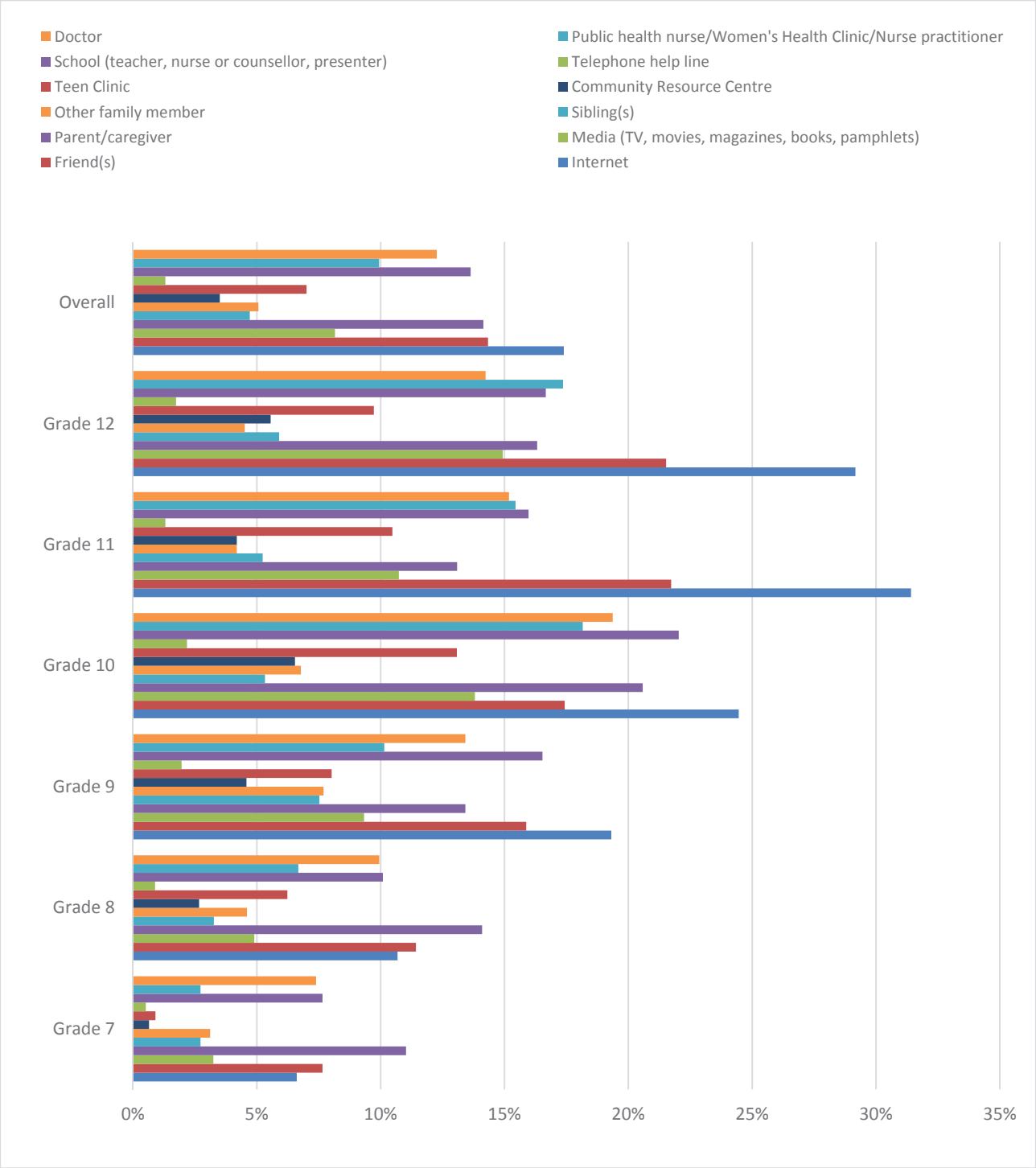
Why Is This Indicator Important?

The source of sexual health information is important to monitor as many sources do not have the expertise or knowledge needed to credibly provide youth with necessary information. This may result in riskier sexual practices among youth.

What did we learn in 2014?

- Overall, the Internet (17.4%), a friend (14.3%), parent/caregiver (14.1%), school (13.6%), and doctor (12.3%) were the top 5 sources of information about sexual health (see **Figure 4.68**).
- The main sources of information do change with each grade. In grade 7, the primary source for sexual health information was a parent or caregiver (11%). By grade 12, the internet (29.2%), followed by friends (21.5%), are the most important sources of information for just over half the students (see **Table 4.18**).

Figure 4.68. What are your preferred Sources of Information about Sexuality, Puberty, Birth Control and STIs by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

Table 4.18. What Are Your Preferred Sources of Information About Sexuality, Puberty, Birth Control and STIs by Grade, 2012.

	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Overall
Internet	6.6%	10.7%	19.3%	24.5%	31.4%	29.2%	17.4%
Friend(s)	7.7%	11.4%	15.9%	17.4%	21.7%	21.5%	14.3%
Media (TV, movies, magazines, books, pamphlets)	3.2%	4.9%	9.3%	13.8%	10.7%	14.9%	8.2%
Parent/caregiver	11.0%	14.1%	13.4%	20.6%	13.1%	16.3%	14.1%
Sibling(s)	2.7%	3.3%	7.5%	5.3%	5.2%	5.9%	4.7%
Other family member	3.1%	4.6%	7.7%	6.8%	4.2%	4.5%	5.1%
Community Resource Centre	0.6%	2.7%	4.6%	6.5%	4.2%	5.6%	3.5%
Teen Clinic	0.9%	6.2%	8.0%	13.1%	10.5%	9.7%	7.0%
Telephone help line	0.5%	0.9%	2.0%	2.2%	1.3%	1.7%	1.3%
School (teacher, nurse or counsellor, presenter)	7.7%	10.1%	16.5%	22.0%	16.0%	16.7%	13.6%
Public health nurse/Women's Health Clinic/Nurse practitioner	2.7%	6.7%	10.1%	18.2%	15.4%	17.4%	9.9%
Doctor	7.4%	9.9%	13.4%	19.4%	15.2%	14.2%	12.3%

Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

4.7.1.3. Teen Pregnancy Rate

DEFINITION

This indicator measures the number of pregnancies per 1,000 females aged 15 through 19. Pregnancies include live births, stillbirths, abortions and ectopic pregnancies.

Why Is This Indicator Important?

Teen pregnancy is a significant public health issue as pregnant teens are at an increased risk for many health problems, including, among others, anemia, eclampsia, and depressive disorders. Children of teen mothers are more likely to have low birth weights, preterm births and more prone to increased mortality and childhood morbidities including developmental problems, learning difficulties, hearing and visual impairments, and chronic respiratory problems.[vii]

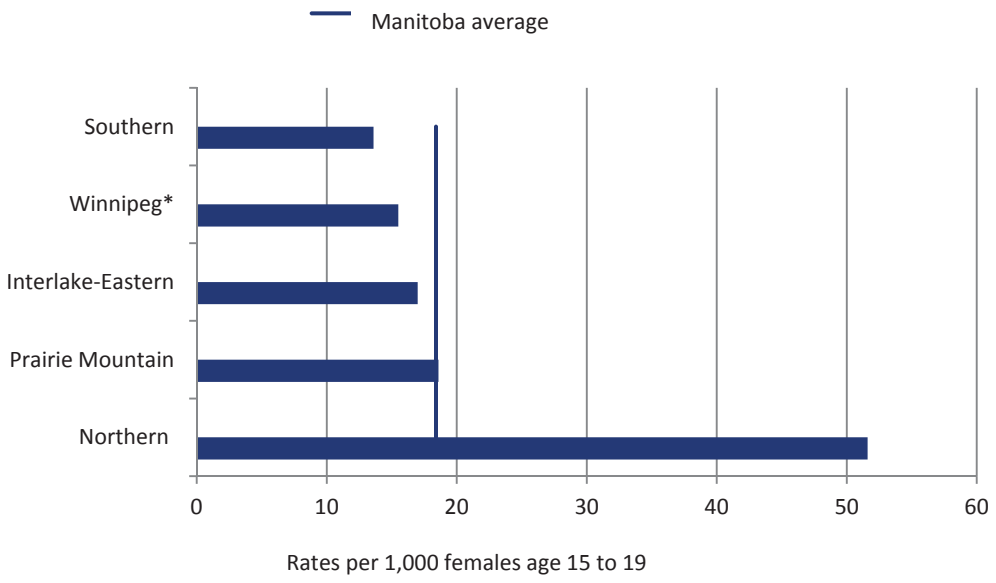
What did we learn in 2009?

- 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. Despite the decrease, the rate was significantly higher than the Manitoba average of 49.8 in 2001/02-2005/06.
- The former NOR-MAN region had a decline in rates from 60.7 to 55.7 during the two time periods.

What did we learn in 2014?

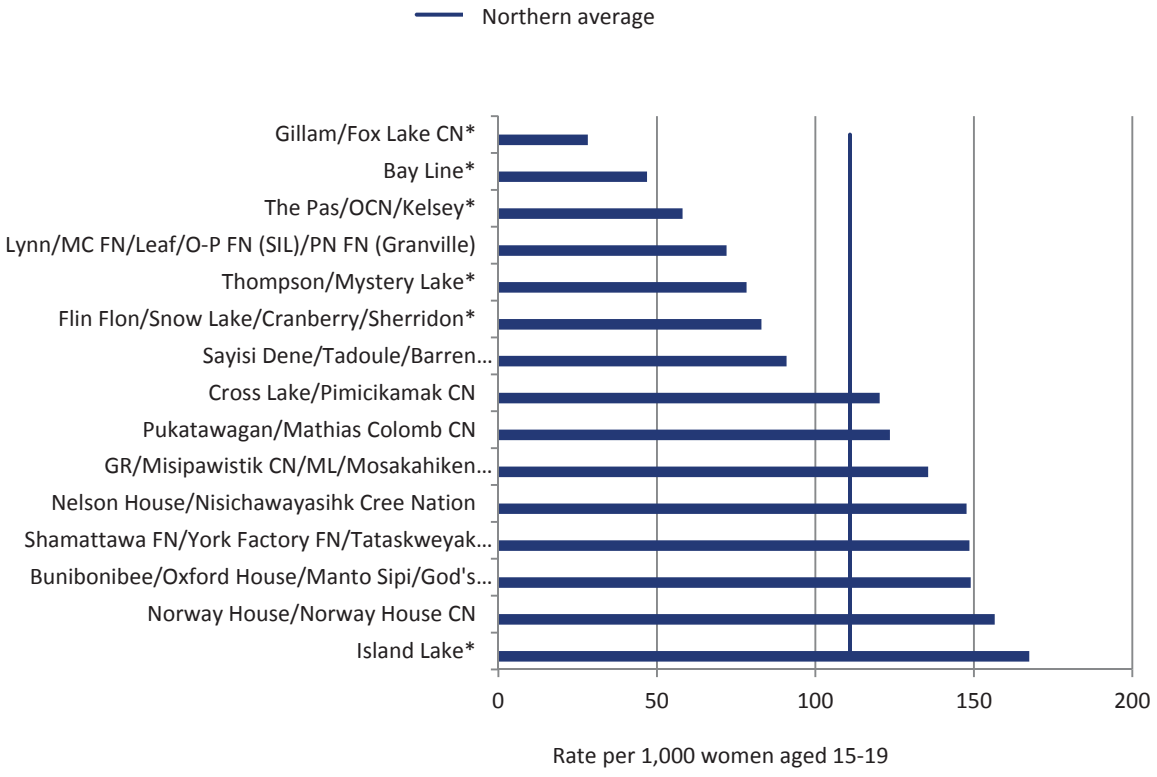
- As **Figure 4.69** illustrates, the Northern Health Region had the highest teen pregnancy rate among Manitoba RHAs at 51.6 per 1,000 female population between 15-19 years of age in 2012/13, well above the Manitoba average of 18.4.
- The Northern Health Region has experienced a decline in teen pregnancy in recent years from a high of 62.8 per 1,000 in 2010/11 to 51.6 in 2012/13 (see **Figure 4.71**).
- In looking at Northern Health Region districts in 2011/12, the highest teenage pregnancy rates were recorded in the areas around Island Lake (167.5 which was statistically higher than the northern average), Norway House (156.6), Bunibonibee (149.0), and Shamattawa (148.6). The lowest rates were recorded in Gillam/Fox Lake (28.2) and Bay Line Communities (46.9) (see **Figure 4.70**).

Figure 4.69. Teen Pregnancy (age 15-19) Rate by RHA, 2012/13.



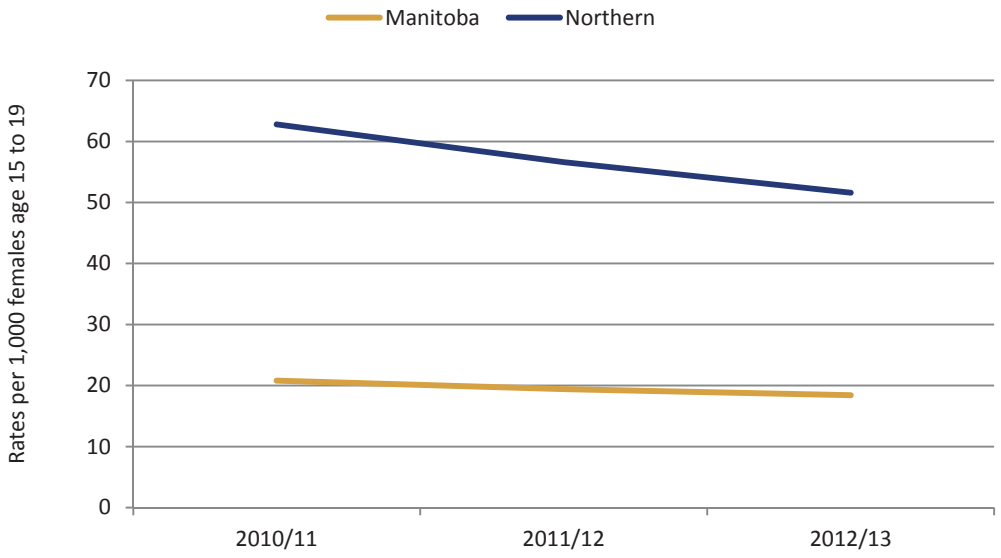
Source: Manitoba Health, Healthy Living and Seniors, Health Information Management, Pregnancy and Newborn Reports.

Figure 4.70. Teen Pregnancy Rate by Northern District, 2011/12.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management, Pregnancy and Newborn Reports.
NOTE: '*' indicates area's rate was statistically different from Northern average.

Figure 4.71. Teen Pregnancy (age 15-19) Rate by Year, 2010/11 - 2012/13.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management, Pregnancy and Newborn Reports.

4.7.2. Youth Smoking

DEFINITION

This indicator measures smoking frequency of youth. Students who reported smoking at least 100 cigarettes in their life and reported smoking 'every day' or 'almost every day' were considered 'Daily smokers'. Occasional smokers were defined as students who reported smoking at least 100 cigarettes in their life and/or reported smoking 'some days'.

Why Is This Indicator Important?

Smoking is the leading preventable cause of death in Canada, killing approximately 47,000 Canadians every year. The younger someone is when they quit smoking, the less likely they are to develop respiratory diseases, especially lung cancer. Smoking is responsible for a number of diseases, including heart disease, stroke, and many lung diseases. The younger people start smoking, the less likely they are to quit and the more likely they are to become addicted to nicotine. They are more likely to be smokers as adults.[viii]

What did we learn in 2009?

- The former Burntwood region had the highest rate in the province, at 26.2 per cent. 47 per cent of girls and 30 per cent of boys between grades six to twelve smoke.
- In the former NOR-MAN region, 22 per cent of boys and 29 per cent of girls in grades six to twelve smoke.

What did we learn in 2014?

- Overall, the youth smoking rate was 25.8 per cent in 2012 in the Northern Health Region. Smoking rates increased with each grade. In grade 7, 9.5 percent of students smoked occasionally or daily. By grade 12, 43.1 per cent of students were smoking (see **Figure 4.72**).
- As **Figure 4.73** shows, there were higher smoking rates for girls than boys, particularly for occasional smoking, with 29.9 per cent of girl smoking versus 23.4 per cent of boys.

WHAT ARE WE DOING?

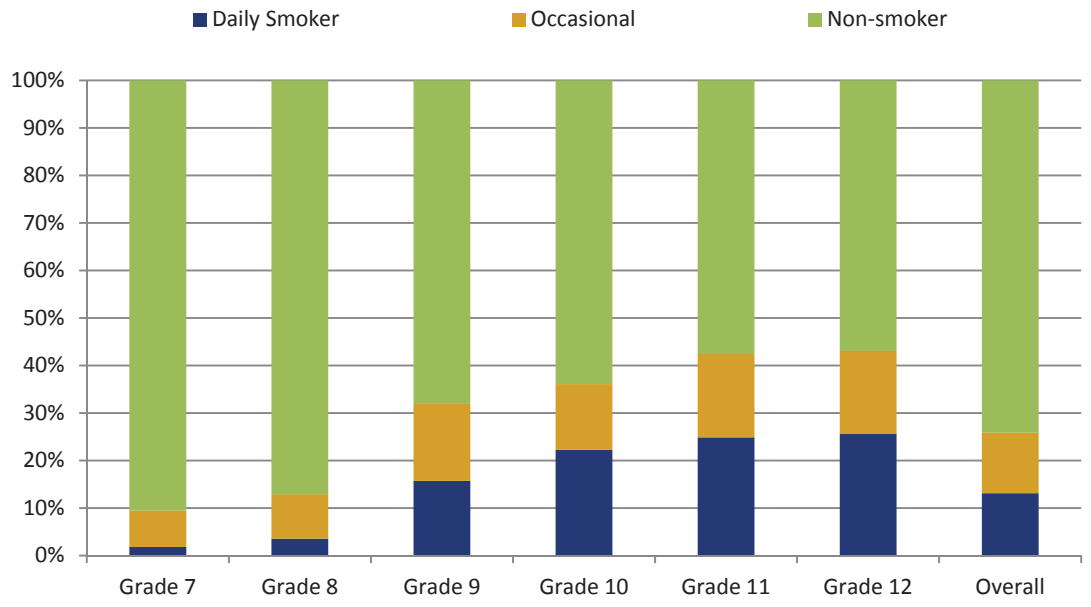
- The Northern Health Region has partnered with the provincial initiative Students Working Against Tobacco to create SWAT teams (Students Working Against Tobacco) in various northern schools including R.D. Parker Collegiate in Thompson, Cross Lake. The SWAT teams do peer education with younger students to prevent elementary students from starting to smoke.

- Focus is also on Lungs Are For Life Training for teachers prior to SWAT, prevention messaging and activities for teachers to direct grade 4-6 students which are critical ages for forming ideas about smoking.

- Tobacco tackle teams are peer mentoring programs with a focus on school and community-based activities that help to bring awareness to the issues of tobacco products. Schools that have participated in this program are Ruth Betts Community School in Flin Flon, Mary Duncan School in The Pas, Cormorant Lake School in Cormorant and Frontier Collegiate Institute in Cranberry Portage. Recent implemented activities include writing their own public service announcements and reciting them on the radio, Blue Light Project which encourages smoke free homes, creating storyboards and producing videos for their own anti-tobacco commercials, and cleaning up butts on school grounds and community. This brought greater awareness to the amount of cigarettes smoked on and around the school as well as the environmental issue of cigarette butts littering our playgrounds and community.

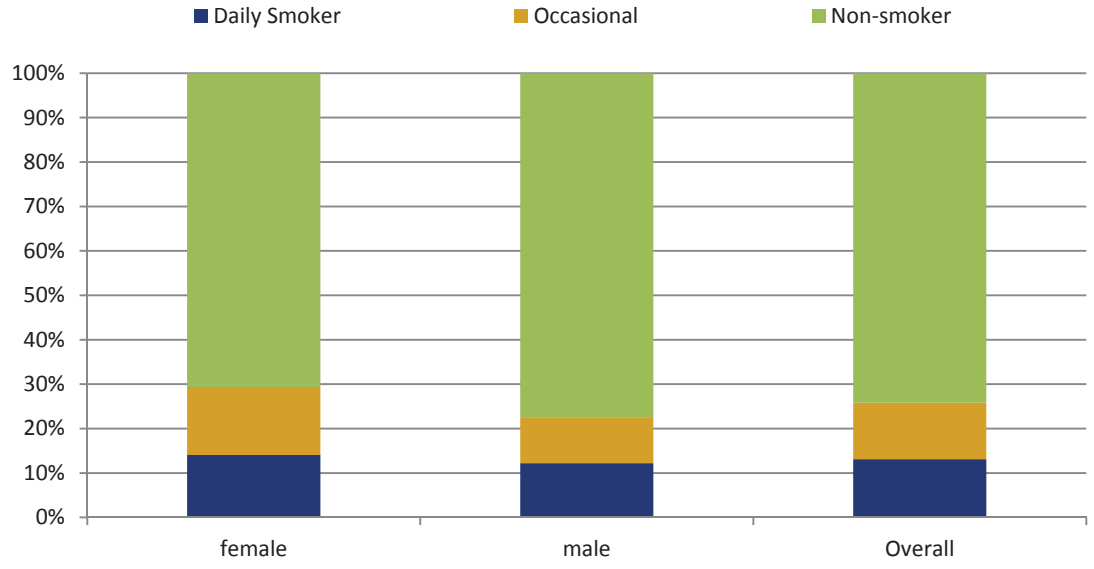
- The tobacco reduction project focuses on reducing the initiation of tobacco and smokeless tobacco products as well as a reduction in the use of these products. This is accomplished through creating a supportive environment and developing skills of the youth participating in tobacco tackle teams in addition to increasing the capacity within the community to address tobacco issues by strengthening their skills in health behaviour change. These activities range from addressing local policies related to tobacco use, community awareness programs such as “the blue light project” and reducing the barriers to tobacco cessation.

Figure 4.72. Youth Smoking by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
Statistical testing at level = 0.05.
There is statistical difference between grades.

Figure 4.73. Youth Smoking by Gender, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
Statistical testing at level = 0.05.
There is statistical difference between genders.

4.7.2.1. Means of Obtaining Cigarettes

DEFINITION

This indicator measures responses by youth on how they access cigarettes.

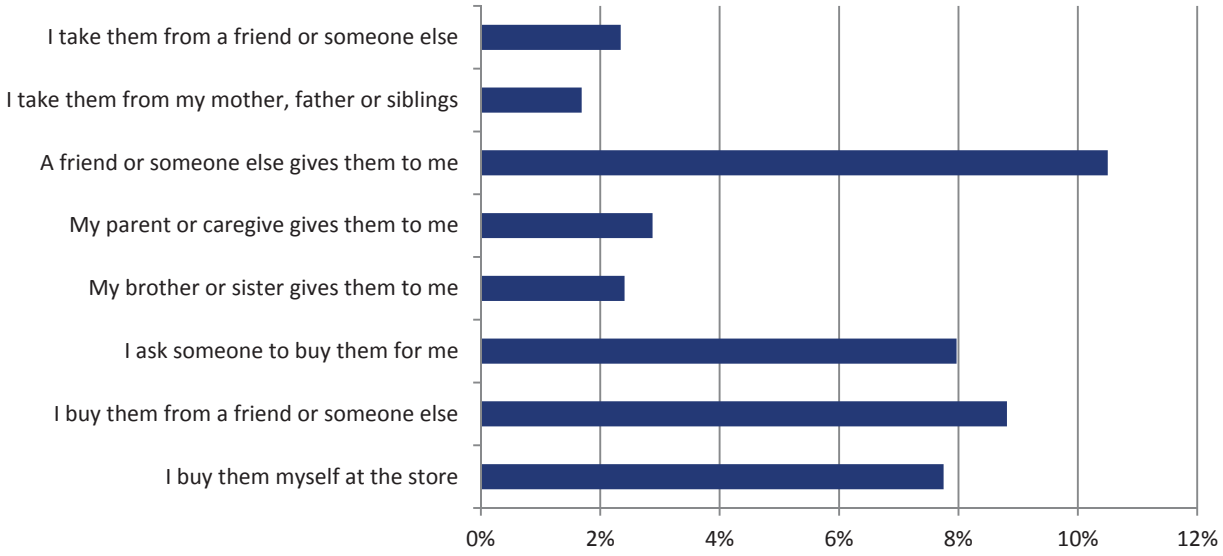
Why Is This Indicator Important?

It is important in know how youth are accessing cigarettes as it will impact the effectiveness of any non-smoking campaign if there is a wide acceptance and access to cigarettes from friends and family. It may also point to underage children accessing cigarettes illegally at retailers.

What did we learn in 2014?

- Students obtained cigarettes mostly from their friends who either give it to them (10.5%) or sell them (8.8%). In addition, 7.8 per cent reported buying their own cigarettes even though it would be against the law to do so for children under 18 (see **Figure 4.74**).

Figure 4.74. How Students Obtained Cigarettes, 2012



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

4.7.2.2. Susceptibility To Smoking Among Non-Smokers

DEFINITION

This indicator measures the degree to which youth are susceptible to taking up smoking in the future

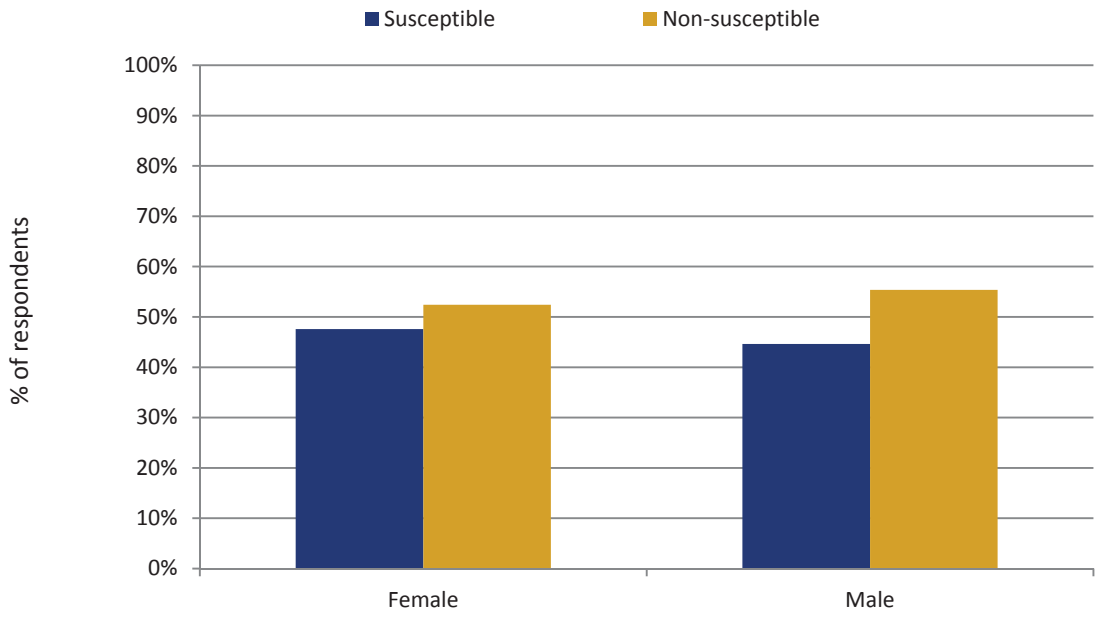
Why Is This Indicator Important?

Youth that may be vulnerable to starting smoking are important to identify to target any anti-smoking awareness campaigns.

What did we learn in 2014?

- In looking at youth who are susceptible to smoke, females were found to be slightly more susceptible than males with 47.6 per cent of females considerable susceptible compared to 44.6 per cent of males (see **Figure 4.75**).

Figure 4.75. Susceptibility To Smoking Among Non-Smokers by Gender, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

4.7.3. Alcohol & Drug Use Among Youth

4.7.3.1. Use of Alcohol In Past 30-Days

DEFINITION

This indicator measures whether the youth have had alcohol at least once in the past month.

Why Is This Indicator Important?

Looking at current alcohol use in a 30 day time period can provide a good impression about the level of alcohol being consumed and whether there are a large number of students drinking considerable amounts of alcohol. It is these students who will be most at risk to engage in riskier behaviours and have health problems.

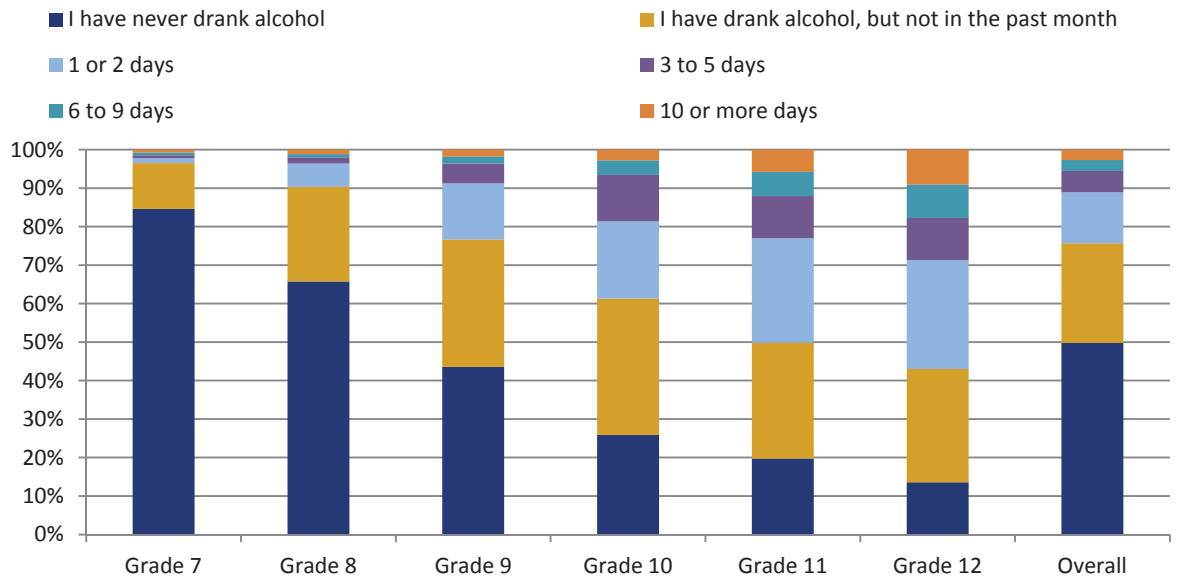
What did we learn in 2009?

- In the former Burntwood region, 26.1 per cent of youth aged 12-15 reported having drank alcohol in the previous 12 months, and 68 per cent of grade 12 students reported drinking in the previous 30 days. 38 per cent of grade 12 students reported having used illegal drugs at least once.
- In the former NOR-MAN region, 37.9 per cent of youth aged 12-15 years reported drinking alcohol in the past year.

What did we learn in 2014?

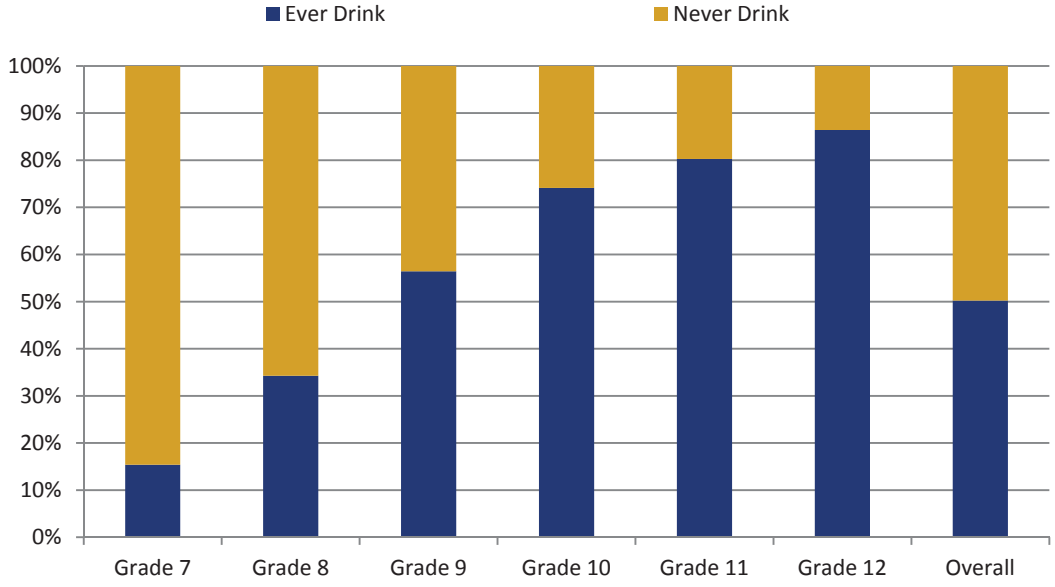
- Overall, 24.3 per cent of students had least one day when they had a drink with almost half (49.8%) reporting that they had never had alcohol. Alcohol use increases with each grade. In grade 7, 15.4 per cent of students had ever had alcohol and only 3.5 per cent had had alcohol in the last 30 days. By grade 12, 43.0 per cent of students reported having alcohol in the last 30 days; only 13.6 per cent of respondents indicated that they never had any alcohol (see **Figure 4.76**).

Figure 4.76. During the Past Month (30 days), On How Many Days Did You Have At Least One Drink of Alcohol by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 89.4%, Grade 8 = 90.5%, Grade 9 = 95.4%, Grade 10 = 96.4%, Grade 11 = 95.5%, Grade 12 = 92.0%.
Statistical testing at level = 0.05. There is statistical difference between grades.

Figure 4.77. During The Past Month (30 days), On How Many Days Did You Have At Least One Drink of Alcohol by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 89.4%, Grade 8 = 90.5%, Grade 9 = 95.4%, Grade 10 = 96.4%, Grade 11 = 95.5%, Grade 12 = 92.0%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

Table 4.19. During The Past Month (30 days), On How Many Days Did You Have At Least One Drink of Alcohol by Grade, 2012.

	Ever Drink	Never Drink
Grade 7	15.4%	84.6%
Grade 8	34.3%	65.7%
Grade 9	56.4%	43.6%
Grade 10	74.1%	25.9%
Grade 11	80.3%	19.7%
Grade 12	86.4%	13.6%
Overall	50.2%	49.8%

Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 89.4%, Grade 8 = 90.5%, Grade 9 = 95.4%, Grade 10 = 96.4%, Grade 11 = 95.5%, Grade 12 = 92.0%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

4.7.3.2. Binge Drinking In Past 30-Days

DEFINITION

This indicator measures the proportion of times youth have had a binge drinking session of 5 drinks or more at one time.

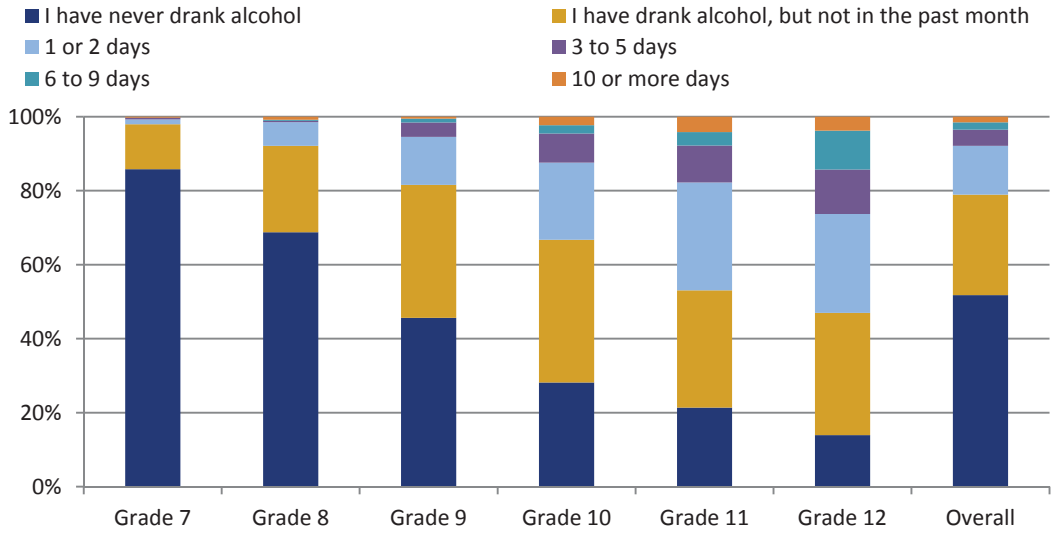
Why Is This Indicator Important?

Frequent binge drinking will often lead to risky behaviour by youth so it is important to identify how many times alcohol is consumed during a binge drinking session.

What did we learn in 2014?

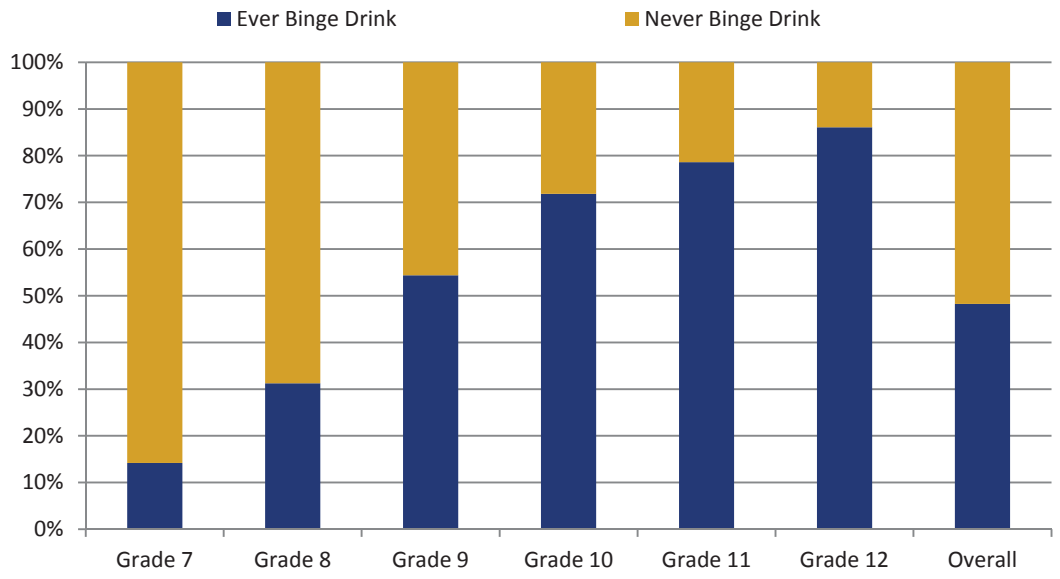
- A small majority (51.8%) of Northern Health Region students had never had a binge drinking session of 5 drinks or more. Once again, with other drug and alcohol indicators, binge drinking rates rise with each year in high school. In grade 7, 13.9 per cent of students had engaged in binge drinking. By grade 12, 85.8 per cent had done so (see **Figure 4.78**).

Figure 4.78. During The Past Month (30 days), On How Many Days Did You Have Five (5) or More Drinks of Alcohol Within a Couple of Hours by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 89.5%, Grade 8 = 90.2%, Grade 9 = 93.3%, Grade 10 = 95.4%, Grade 11 = 94.2%, Grade 12 = 92.4%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

Figure 4.79. During The Past Month (30 days), On How Many Days Did You Have Five (5) or More Drinks of Alcohol Within a Couple of Hours by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 89.5%, Grade 8 = 90.2%, Grade 9 = 93.3%, Grade 10 = 95.4%, Grade 11 = 94.2%, Grade 12 = 92.4%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

Table 4.20. During The Past Month (30 days), On How Many Days Did You Have Five (5) or More Drinks of Alcohol Within a Couple of Hours by Grade, 2012.

	Ever Binge Drink	Never Binge Drink
Grade 7	14.2%	85.8%
Grade 8	31.3%	68.8%
Grade 9	54.4%	45.6%
Grade 10	71.8%	28.2%
Grade 11	78.6%	21.4%
Grade 12	86.1%	13.9%
Overall	48.2%	51.8%

Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 89.5%, Grade 8 = 90.2%, Grade 9 = 93.3%, Grade 10 = 95.4%, Grade 11 = 94.2%, Grade 12 = 92.4%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

4.7.3.3. Drug Use

DEFINITION

This indicator measures the proportion of youth who report having used drugs.

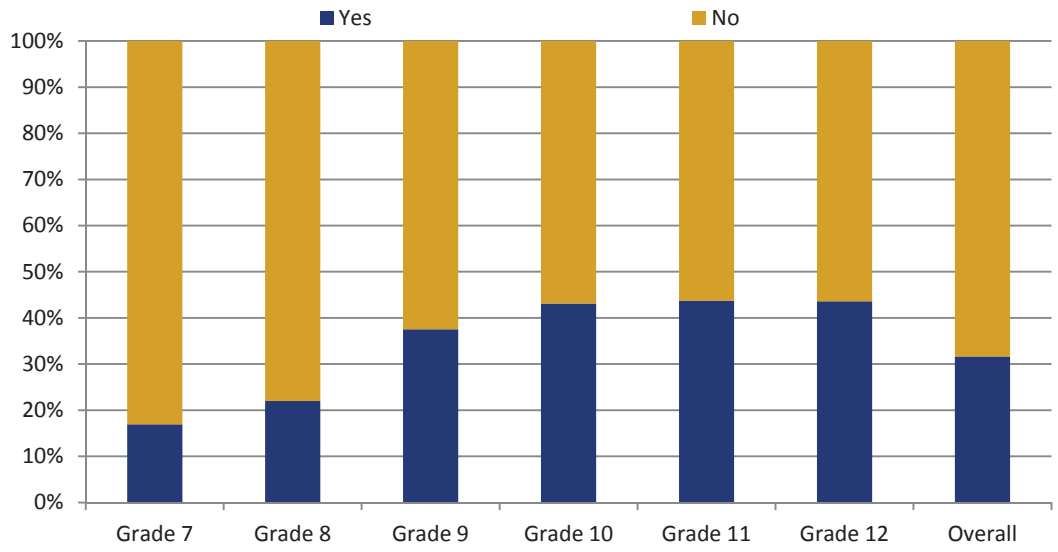
Why Is This Indicator Important?

Young people are more likely to use drugs in a risky way which is more likely to lead to harmful results. Drug use among youth can also be a significant risk factor for developing long term problems into adulthood, including drug dependence and chronic disease incidence. Youth drug use also increases the risk factors for violent and criminal behaviour in youth.[ix]

What did we learn in 2014?

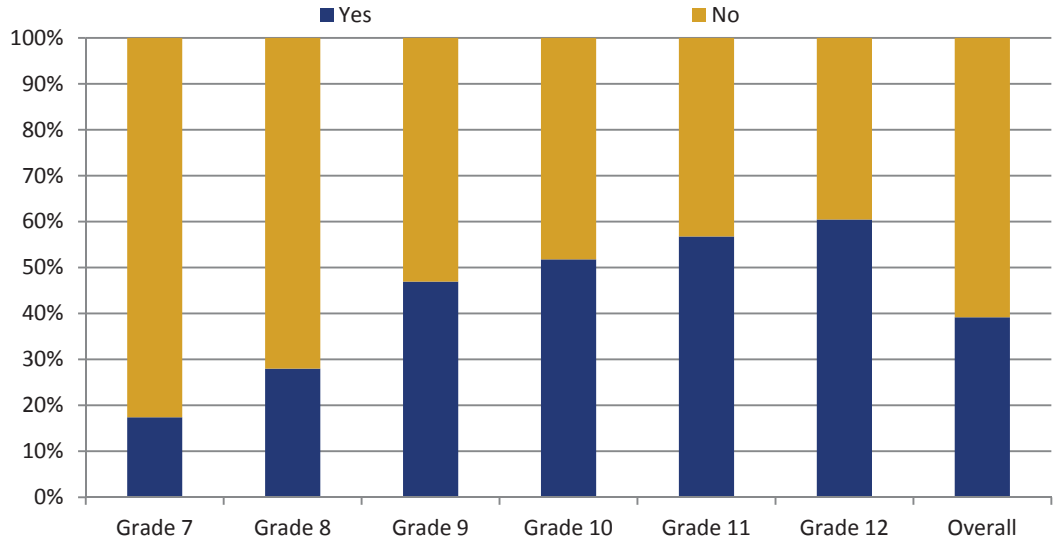
- Overall, 31.6 per cent of students in the Northern Health Region reported having taken drugs during the last month. By grade, drug use in the North increased from grade 7-10 but then levelled off for grades 11 and 12. In grade 7, 16.9 per cent of students reporting using drugs, going up to 43.1 per cent in grade 10. Drug use in grade 12 was 43.6 per cent (see **Figure 4.80**).
- More casual drug does seem to continue to increase with each grade. In grade 7, 17.4 per cent of students indicated that they had taken drugs in the last year. By grade 12, 60.4 per cent had.

Figure 4.80. Any Drug Use During Last Month by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 85%, Grade 8 = 88.3%, Grade 9 = 93.8%, Grade 10 = 93.2%, Grade 11 = 94%, Grade 12 = 92.4%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

Figure 4.81. Any Drug Use During Last Year by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 87.3%, Grade 8 = 90.7%, Grade 9 = 93.5%, Grade 10 = 95.4%, Grade 11 = 95%, Grade 12 = 93.1%.
Statistical testing at level = 0.05.
There is statistical difference between grades.

4.7.4. Youth Diet

As the concern for youth obesity increases, RHAs need to know more about what youth are eating to focus and prioritize strategies to promote healthier eating options for youth. It is particularly important to establish healthy eating habits early.

WHAT ARE WE DOING?

- In The Pas there is a bi-monthly after school cooking group at the drop-in centre with youth who live in low income housing. In the summers they alternate cooking and gardening. The dietitian also goes into the schools and works with parents on how to make healthy snacks with a focus on milk and alternatives and fruits and vegetables.
- In Flin Flon they hold a “kids in the Kitchen” group every summer to teach youth how to cook healthy foods.

4.7.4.1. Frequency of Fruit & Vegetable Consumption

DEFINITION

This indicator measures the proportion of youth reporting the number of servings of fruits and vegetables they consume.

Why Is This Indicator Important?

Fruit and vegetable consumption is a key cornerstone to healthy eating, particularly for youth. The *Canada Food Guide* recommends that youth aged 14-18 years have at least 7 (females) or 8 (males) servings of fruit and vegetables daily.

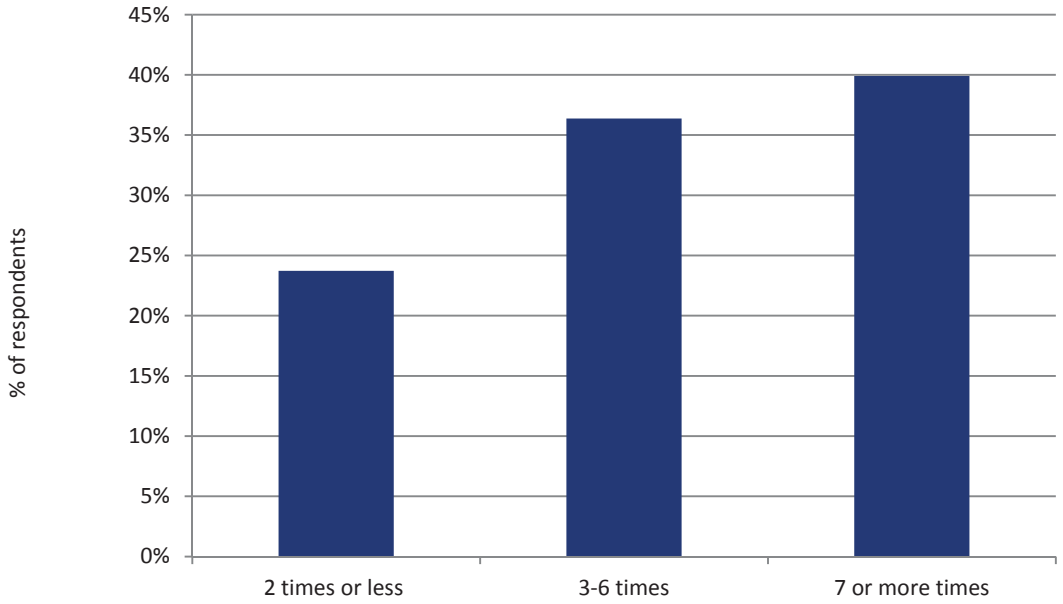
What did we learn in 2009?

- 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.

What did we learn in 2014?

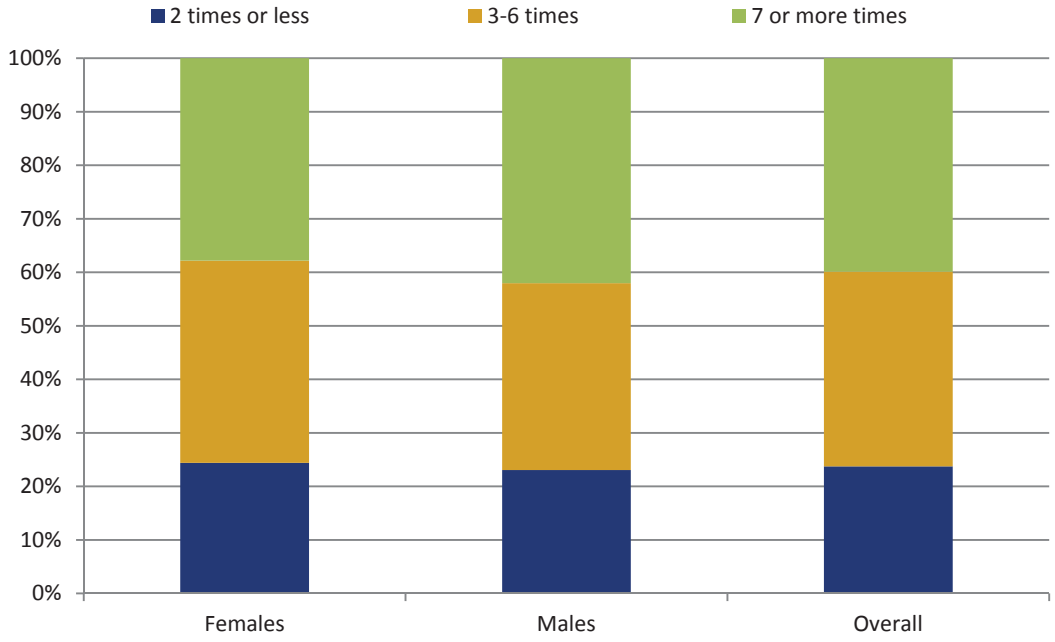
- As **Figure 4.82** shows, fully 60.1 per cent of respondents had fruit and vegetable below the Canada Food Guide recommendations at either 2 times or less a day (23.7%) or 3-6 times (36.4%).
- Males had slightly higher levels of fruit and vegetable consumption with 42.0 per cent of male respondents indicating 7 or times daily consumption of fruit and vegetables versus 37.8 per cent of females (see **Figure 4.83**).

Figure 4.82. Daily Fruits and Vegetable Consumption, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

Figure 4.83. Daily Fruits and Vegetable Consumption by Gender, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: Statistical testing at level = 0.05.
There is statistical difference between genders.

4.7.4.2. Less Healthy Food Consumption (include salty snacks, drinks, fast food)

DEFINITION

This indicator measures the proportion of youth reporting the number of times they eat less healthy food such as salty snacks, soft drinks or fast food.

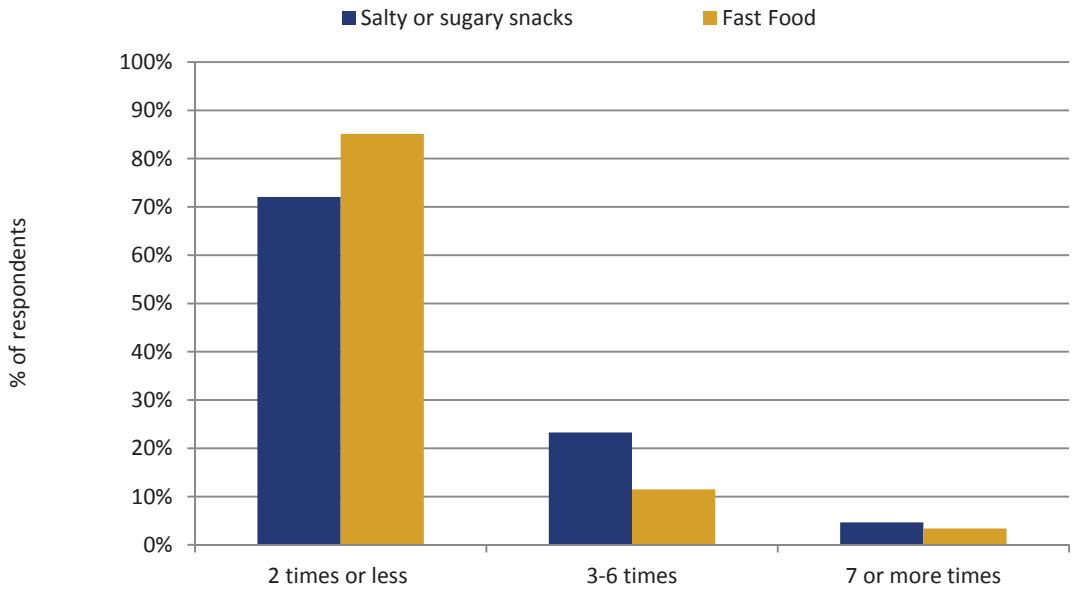
Why Is This Indicator Important?

Healthier eating habits for youth have been associated with improved student performance in school while consumption of less healthy foods has been associated with poorer achievement in both language and math classes. If youth are not eating a healthy diet, they will lack the necessary nutrients needed to maximize their learning potential.[x]

What did we learn in 2014?

- In the Northern Health Region, 85.1 per cent of youth reported having fast food two times a week or less and 72.0 per cent had salty or sugary snacks twice or less a week. A considerable number of youth reported having salty and sugary snacks 3-6 times a week at 23.3 per cent (see **Figure 4.84**).

Figure 4.84. Daily Consumption of Salty or Sugary Snacks and Fast Food, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

4.7.5. Healthy Weight

Childhood obesity is becoming a significant public health concern in Canada. Being overweight or obese carries increased risk for a wide range of serious diseases and conditions including hypertension, heart disease, diabetes, stroke osteoarthritis and some cancers.

4.7.5.1. Perception of Weight

DEFINITION

This indicator measures the responses of youth who assess whether they are overweight.

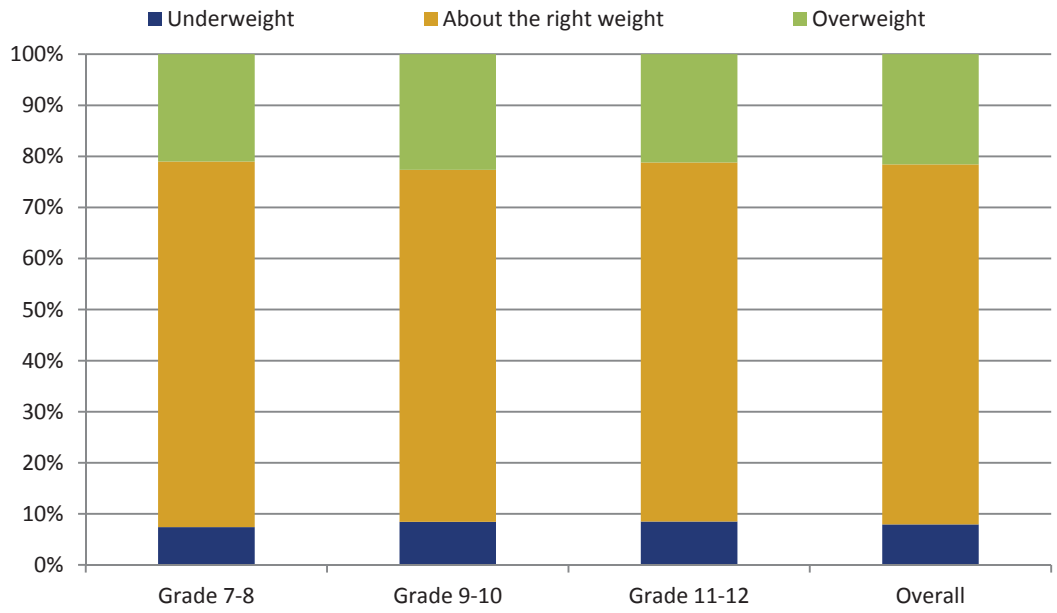
Why Is This Indicator Important?

Measuring youth perception of their weight is important to monitor for potential eating disorders among youth. Given the importance placed on physical appearance, girls in particular, feel societal pressure to strive to achieve the ideal body image or become dissatisfied with their appearance. There is also pressure on boys, which can also lead to eating disorders, steroid use and excessive exercise.[xi]

What did we learn in 2014?

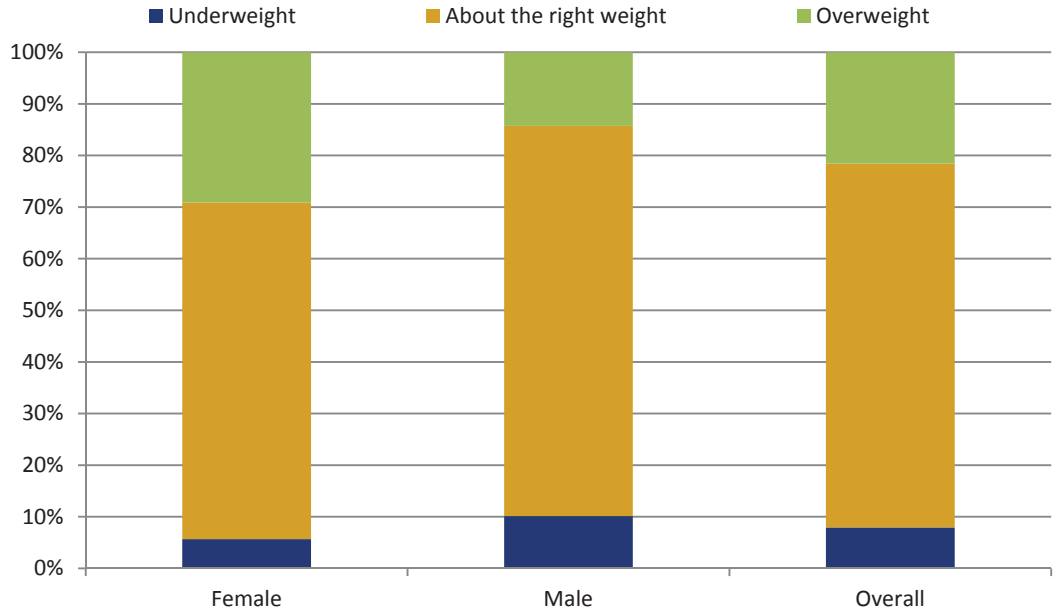
- Results were fairly consistent across grades with 70.5 per cent overall feeling they were at the right weight and 21.6 percent thinking they were overweight (see **Figure 4.85**).
- There is a contrast in perceived body weight by gender. For females, 29.1 per cent of respondents thought they were overweight while only 14.3 per cent of males thought they were (see **Figure 4.86**).

Figure 4.85. Self-Perceived Body Weight by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: Statistical testing at level = 0.05.
There is statistical difference between grades.

Figure 4.86. Self-Perceived Body Weight by Grade and Gender, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: Statistical testing at level = 0.05.
Female underweight, female about the right weight and male overweight are statistically lower than average.
Male underweight, male about the right weight and female overweight are statistically higher than average.
There is statistical difference between genders.

4.7.5.2. Actual Weight by Gender & Grade

DEFINITION

This indicator measures the responses of youth who report their weight and height.

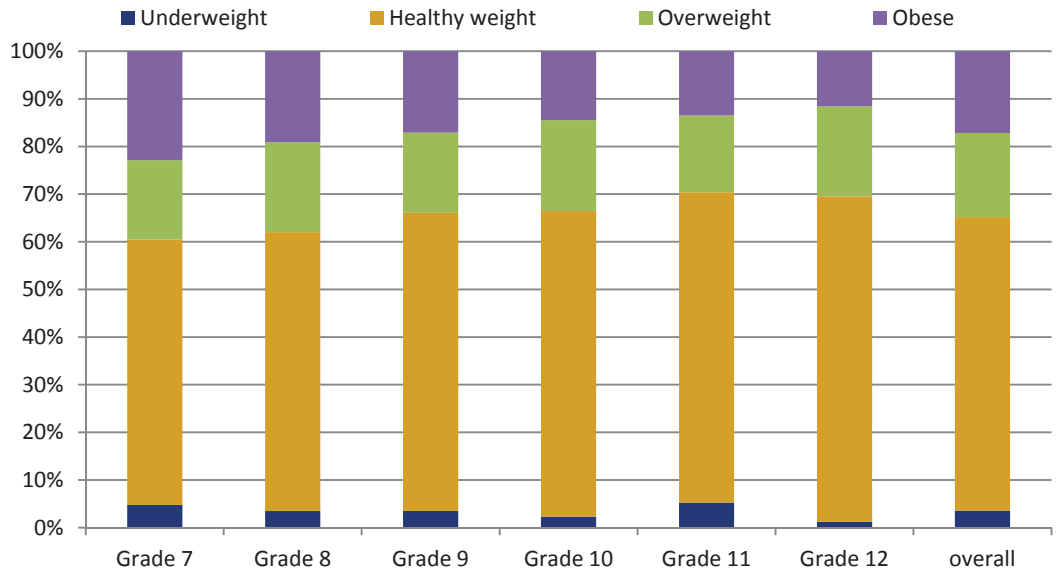
Why Is This Indicator Important?

The Body Mass Index (BMI) is considered to be the most useful indicator of population health risks associated with being overweight or obese. 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. It is particularly important among youth to instill good healthy living habits including a healthy diet and physical activity to avoid health care costs for treating conditions associated with obesity.

What did we learn in 2014?

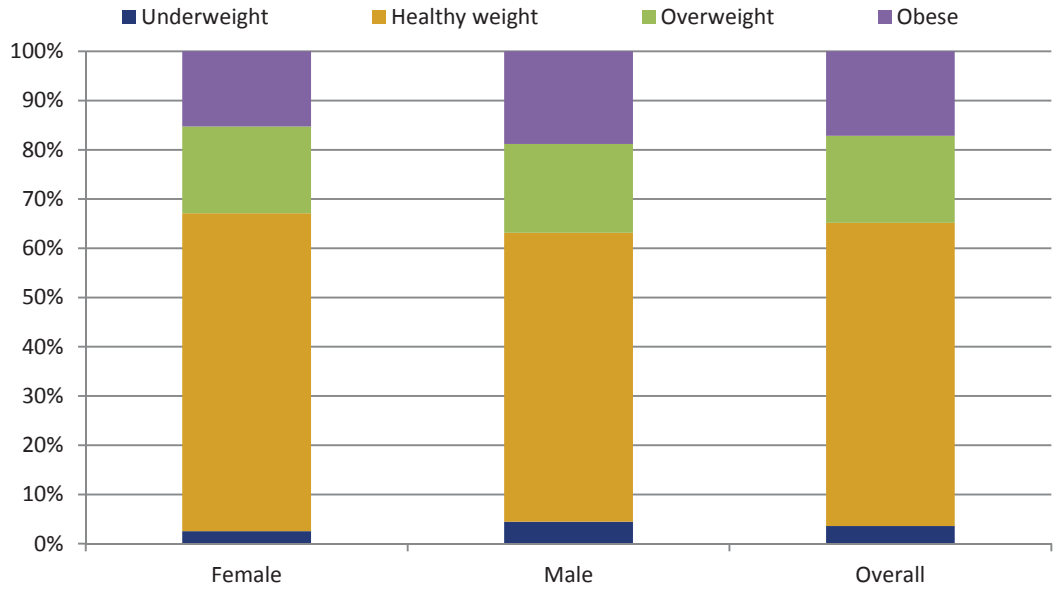
- The Northern Health Region experienced a slight improvement in overweight and obesity levels with each grade. In grade 7, 39.6 per cent of students were overweight or obese. By grade 12, 30.5 per cent of students were overweight or obese. In addition, only 30.4 per cent of grade 7 students were at a healthy weight while 55.2 per cent of grade 12 students were at a healthy weight (see **Figure 4.87**).
- Actual weight by gender shows that boys have slightly higher weight levels with 36.9 per cent of males overweight or obese while 32.9 per cent of girls are overweight or obese (see **Figure 4.88**).
- The results for actual weight versus perceived weight show that males underestimated their weight levels (14.3% of boys thought they were overweight versus 36.9 per cent who were actually overweight or obese) while females had a more realistic assessment of their weight.

Figure 4.87. BMI by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 54.5%, Grade 8 = 63.6%, Grade 9 = 65.1%, Grade 10 = 73.6%, Grade 11 = 79.6%, Grade 12 = 80.9%.
statistical testing at level = 0.05.
There is statistical difference between grades.

Figure 4.88. BMI by Gender, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Female = 65.3%, Male = 68.1%.
Statistical testing at level = 0.05.
There is statistical difference between genders.

4.7.6. Physical Activity

DEFINITION

This indicator measures responses to questions about the level of physical activity by youth.

Why Is This Indicator Important?

Lower physical activity levels among youth are more likely to lead to increased body weight and an increased risk of developing obesity-related disease and adverse health outcomes.

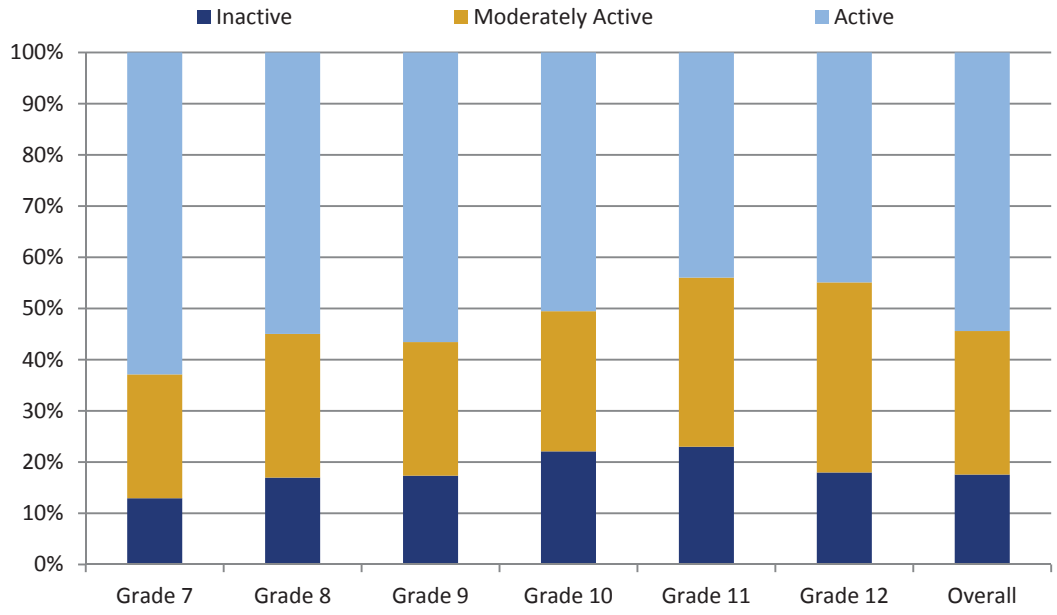
What did we learn in 2014?

- Overall, 82.4 per cent of youth were either moderately active or active. Inactive levels rose from grades 7 (12.9% inactive) to 11 (23.0% inactive) and then dropped in grade 12 (18.0% inactive) (see **Figure 4.89**).
- Students were generally active before (14.9%) or after school (68.0%) with fewer students choosing school time (spares, lunch or recess) to be active (see **Figure 4.90**).
- In terms of school activities (**Figure 4.91**) males and females participated at similar rates. Overall, 42.9 per cent of students never participate in school physical activities with 41.8 per cent participating 1-3 times a week or 4 or more times a week.
- Similar level of participation in physical activity outside the school with a coach were seen with 43.4 per cent of student never participating in outside school physical activities when 43.4 per cent did so either 1-3 times or 4 or more times a week (see **Figure 4.92**).
- The most popular form of physical activity for both males and females was done outside the school without a coach's involvement. Almost 60 per cent (59.8%) did so one or more times a week. This was particularly popular with males with 65.5 per cent participation in unorganized physical activity outside school (see **Figure 4.93**).
- As **Figure 4.95** reveals, physical activity tends to be done with friends. Just under 70 per cent (69.1%) of youth indicated that their physical activities were done with 3 or more friends.

WHAT ARE WE DOING?

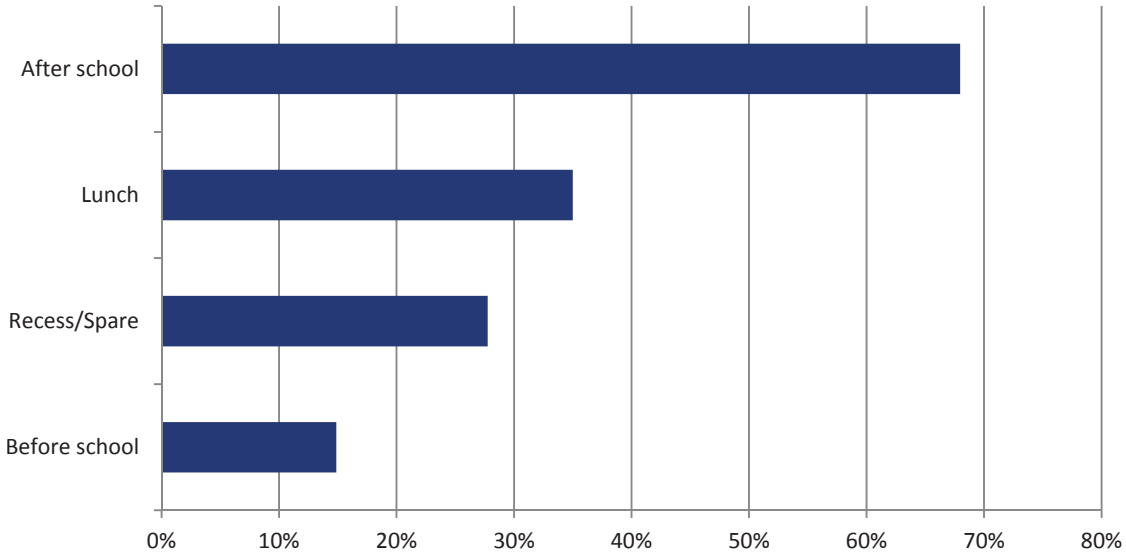
In cooperation with the School District of Mystery Lake, the Northern Health Region has assisted in creating the "Active and Safe Routes to School" program which assists each of the six elementary schools in Thompson in preparing a School Travel Plan, promoting active transportation to get to school. The physical and attitudinal barriers to walking, cycling and other environmentally friendly and healthy modes of travel are addressed. The program has seen many successes such as new bike racks installed at each of the participating schools, and Walking Wednesdays at Riverside and RD Parker Collegiate. Juniper School does a one month Golden Sneaker Challenge and there are walking school busses at Deerwood School and Westwood School to name a few.

Figure 4.89. Physical Activity Level by Grade, 2012.



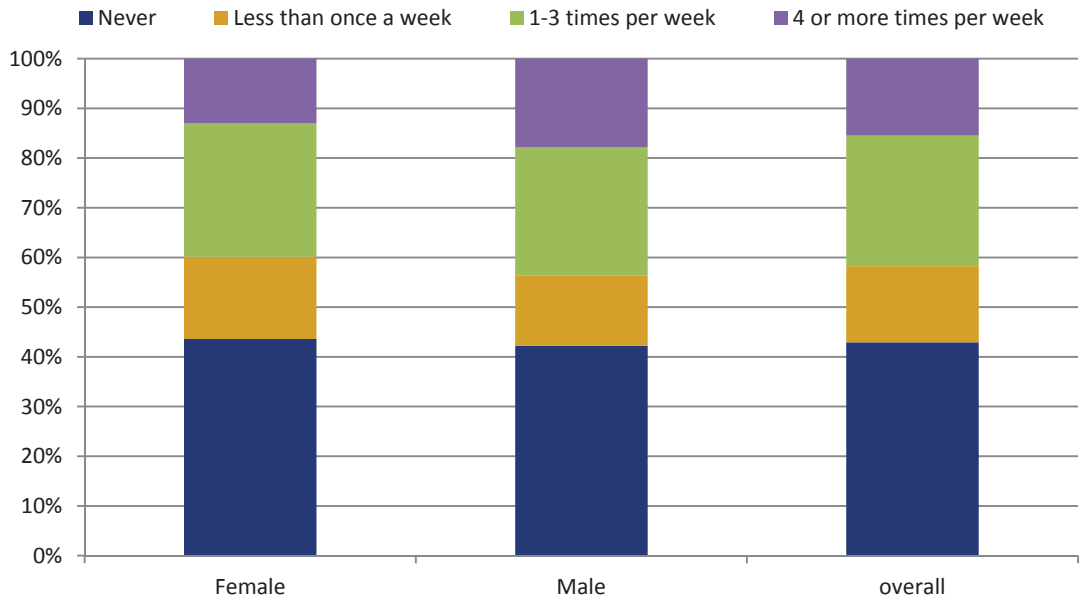
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: response rate: Grade 7 = 91.2%, Grade 8 = 90.9%, Grade 9 = 93.5%, Grade 10 = 92%, Grade 11 = 91.1%, Grade 12 = 88.9%.
Statistical testing at level = 0.05.
There is statistical difference between genders.

Figure 4.90. Time of Day When Students Are Active, 2012.



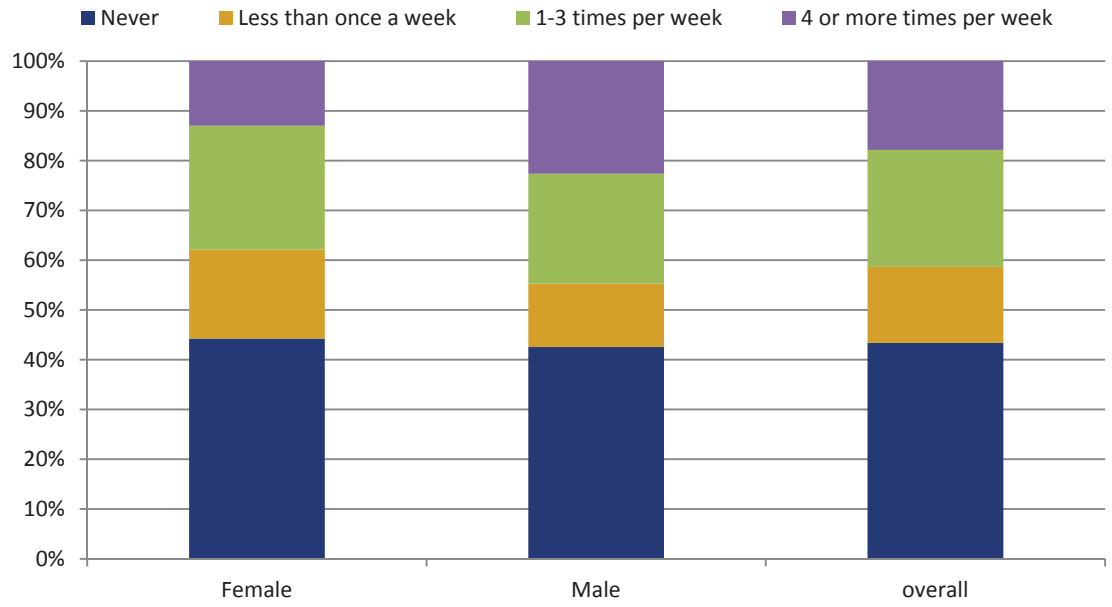
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

Figure 4.91. In The Past Month (30 days), How Often Did You Participate In Before School, Lunch Time or After School Physical Activities Organized By Your School by Gender, 2012.



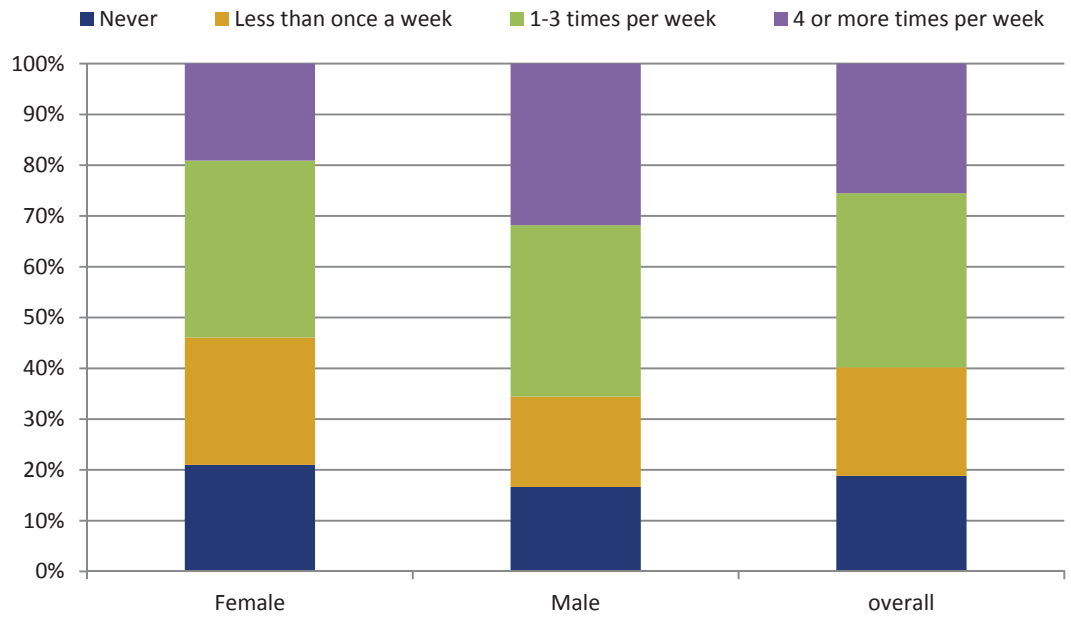
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: Statistical testing at level = 0.05.
There is statistical difference between genders.

Figure 4.92. In The Past Month (30 days), How Often Did You Participate In Physical Activities Organized Outside Your School With A Coach by Gender, 2012.



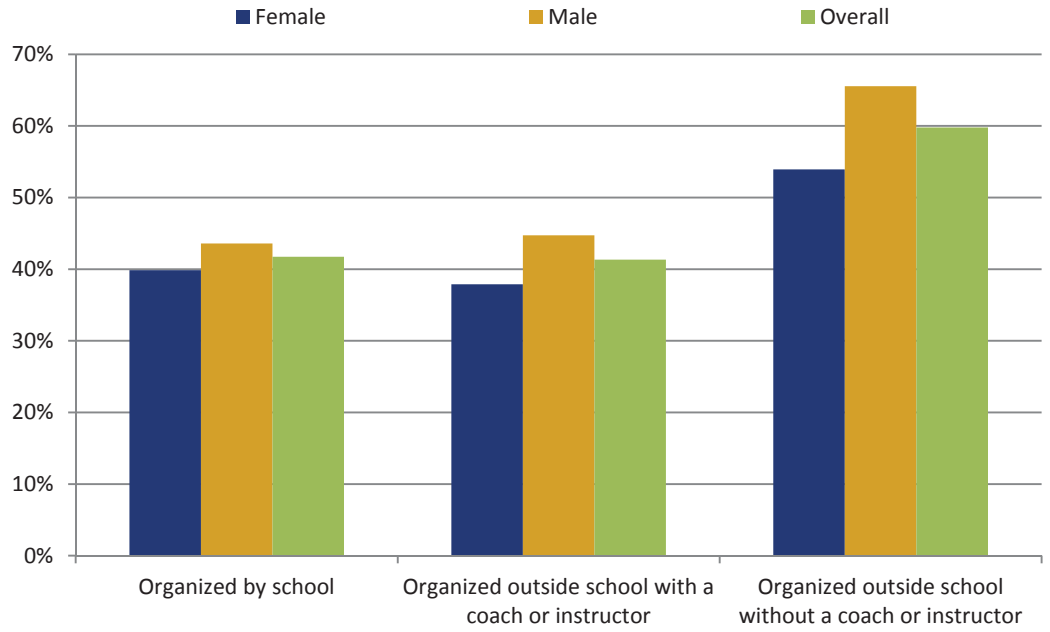
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: Statistical testing at level = 0.05.
There is statistical difference between genders.

Figure 4.93. In The Past Month (30 days), How Often Have You Played Sports or Been Physically Active Without A Coach or Instructor Present by Gender, 2012.



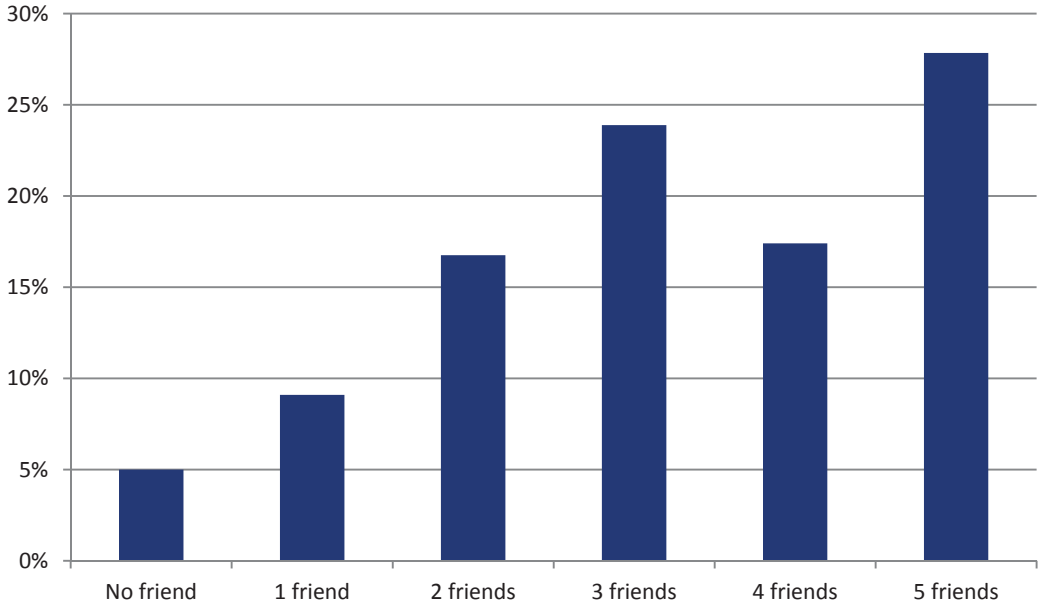
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: Statistical testing at level = 0.05.
There is statistical difference between genders.

Figure 4.94. Participation In Physical Activities One or More Times Per Week by Gender, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

Figure 4.95. Physical Activity With Friends, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

4.7.7. Youth Mental Well-Being

Monitoring mental health well-being is particularly important as mental illnesses often emerge in youth. Early mental health assessment, diagnosis and treatment of children and youth may avoid long term mental health disabilities, which can lead to unemployment, involvement with the law, and homelessness.

4.7.7.1. Social Environment & Bullying

DEFINITION

This indicator measures responses to questions on youth safety and instances of bullying.

Why Is This Indicator Important?

The social environment that youth reside within has a significant impact on school performance as well as on physical and mental health. Specifically, bullying can be a significant problem in the school environment as youth who are bullied are more likely to feel bad about themselves and be depressed. They may lose interest in going to school and can even engage in employ drastic measures such as carrying weapons, use violence to exact revenge, or try to harm themselves. Kids who bully others are more likely to drop out of school, have drug and alcohol problems, and break the law.[xii]

What did we learn in 2014?

- Generally, youth in the Northern Health Region safe at home (96.7% agree) in their school (81.9% agree) and have a supportive family (89.9%) and close friend (87.1%) support system they can use (see **Table 4.21**).
- The community scored lower with only 73 per cent agreeing that they felt safe in their community and 55.3 per cent felt they were involved in the community.
- As **Table 4.22** shows, while youth generally felt adults care about them (76.2% agree), fewer youth thought they could trust an adult (65.7%) or talk to an adult or counselor (63.5%).
- With respect to bullying, the most common type of bullying that youth experienced in the past year was someone saying something about their appearance or shape (45.3%) or being bullied, taunted or ridiculed (44.2%) (see **Table 4.23**).

Table 4.21. Percentage of Students Who Agree With The Feelings Expressed In The Statements, 2012.

	% Agree	% Disagree
I feel close to people at this school	69.1%	30.9%
I feel I am part of this school	78.0%	22.0%
I am happy to be at this school	76.4%	23.6%
I feel safe at my school	81.9%	18.1%
I feel safe in my community	73.0%	27.0%
I feel safe in my home	96.7%	3.3%
I feel I have at least 1 close friend that I can share things with	87.1%	12.9%
I feel my family supports me	89.9%	10.1%
I feel involved in my community	55.3%	44.7%

Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
Note: >10% of students did not have a valid response.

Table 4.22. Percentage of Youth Who Are Able to Identify Adults in the Community Who Know and Care About Them Tend To experience A Greater Sense of Wellbeing, 2012.

	% Agree	% Disagree
At my school adults care about people	76.2%	23.8%
At my school there is an adult who I trust	65.7%	34.3%
If I need help, I believe a counselor or other adult could help me	73.7%	26.3%
If I need help, I would talk to a counselor or other adult	63.5%	36.5%

Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
Note: >10% of students did not have a valid response.

Table 4.23. Percentage of Students About Bullying and Personal Threats In The Past Year, 2012.

	Never in the past year	1 or more times in the past year
Physically threatened or injured you	64.6%	35.4%
Threatened or injured you with a weapon such as a gun, knife or club	90.2%	9.8%
Bullied, taunted or ridiculed you	55.8%	44.2%
Said something bad about your race or culture	72.7%	27.3%
Said something bad about your sexual orientation or gender identity	84.5%	15.5%
Said something bad about your body shape, size or appearance	54.7%	45.3%
Asked for personal information over the internet (e.g. address, phone # or last name)	75.4%	24.6%
Made you feel unsafe when you were in contact with them over the internet	85.9%	14.1%
Bullied or picked on you through the internet (e.g., posted something on Facebook or emailed you)	76.9%	23.1%

Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
Note: >10% of students did not have a valid response.

4.7.7.2. Overall Mental Health Indicator

DEFINITION

This indicator measures responses of youth to how they assess their overall mental health.

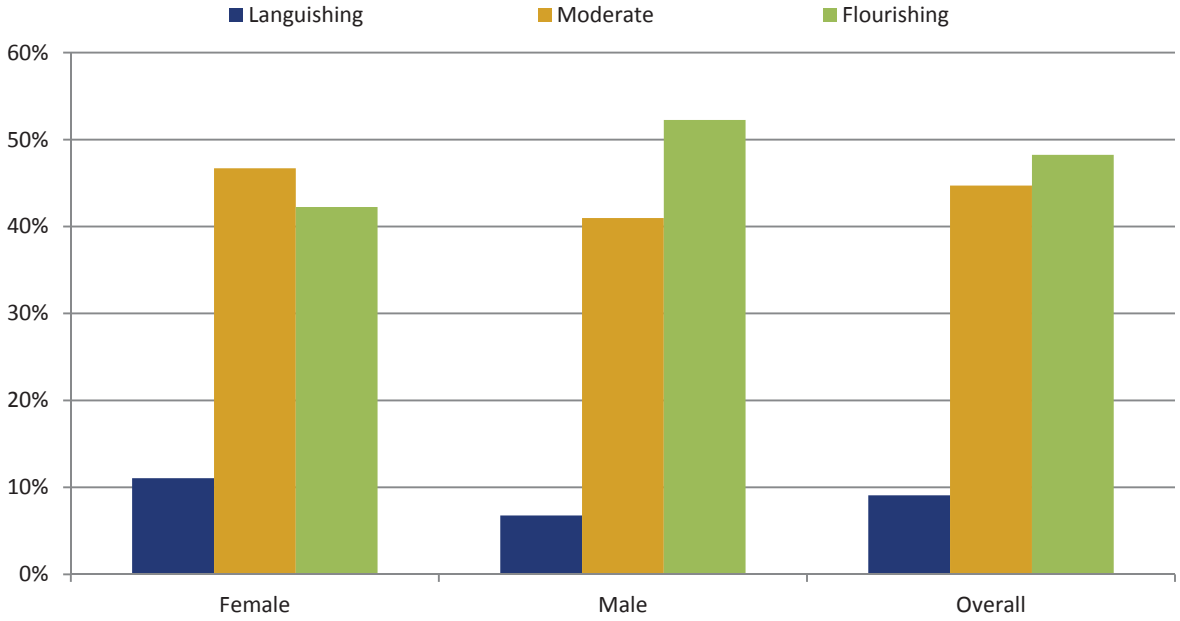
Why Is This Indicator Important?

An overall self-assessment of mental health is important to monitor among youth to gauge the extent to which youth mental health services ought to be made available for youth in schools to make timely interventions.

What did we learn in 2014?

- Overall, just under half (48.2%) of youth were considered to be flourishing from a mental health perspective. Females tended to score poorer than males with more females (11.1%) than males (6.8%) reported to be languishing (see **Figure 4.96**).

Figure 4.96. Mental Health Continuum by Gender, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: Statistical testing at level = 0.05.
Female flourishing and male languishing are statistically lower than average.
Male flourishing and female languishing are statistically higher than average.
There is statistical difference between genders.

4.7.8. Sun Safety & Youth

4.7.8.1. Use of Artificial Tanning Equipment

DEFINITION

This indicator measures responses to tanning bed use by youth.

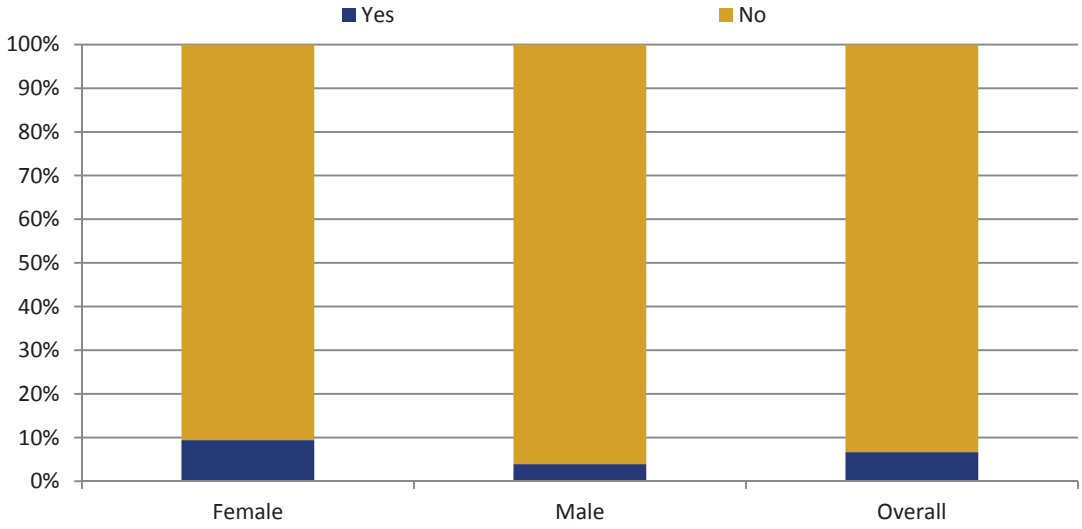
Why Is This Indicator Important?

The use of tanning beds is a concern as a tan from the lights in a tanning salon will damage the skin and cause other adverse health effects, including an increased risk of skin cancer particularly for young people. There is no safe way to get a tan and both Health Canada and the Canadian Cancer Society recommend not using them.xiii.

What did we learn in 2014?

- As **Figure 4.97** shows, tanning equipment use is quite low among youth in the Northern Health Region. Female is higher with 9.4 per cent indicating that they have used tanning equipment while only 3.6 per cent of males have.

Figure 4.97. Use Of Indoor Tanning Equipment by Gender, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: Statistical testing at level = 0.05.
Male with tanning equipment is statistically lower than average.
Female with tanning equipment is statistically higher than average.

4.7.8.2. Use of Sunscreen

DEFINITION

This indicator measures youth responses to whether they use sunscreen and how frequently.

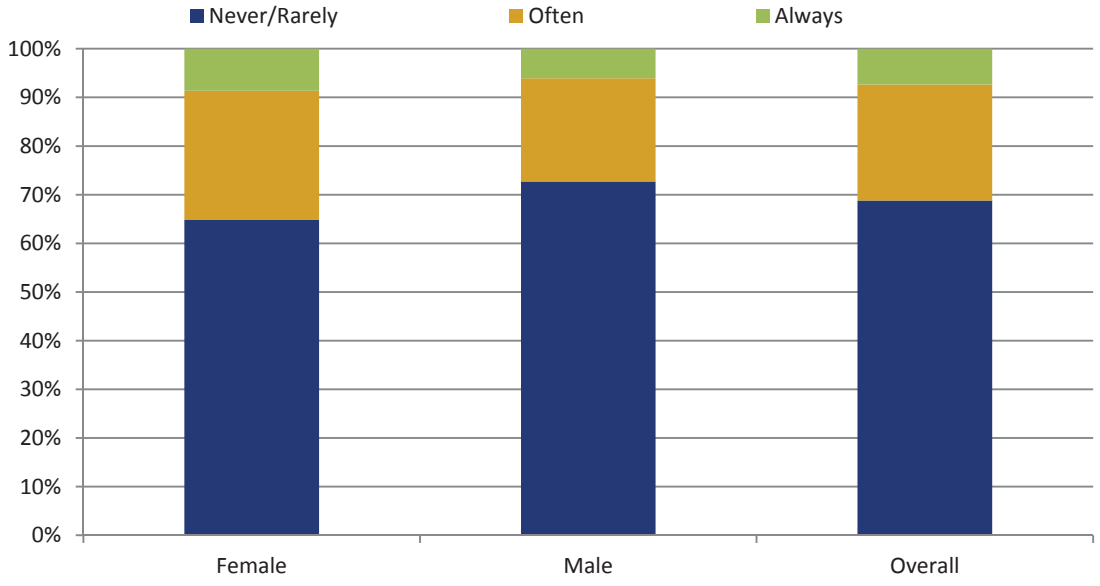
Why Is This Indicator Important?

While outdoor activities is an important component of a healthy lifestyle, exposure to too much ultraviolet radiation damages the skin and can cause skin cancer, eye cataracts and suppression of the immune system. Skin cancer is the most common cancer in Canada, with an estimated 6,500 new cases of malignant melanoma and another 76,100 cases of non-melanoma skin cancers projected for 2014.xiv Melanoma is the deadliest form of skin cancer, with 1,050 Canadians expected to die from it this year. It is important that children begin good habits by learning early to protect themselves from UV radiation including covering up, using sunscreen and limiting time in the sun.

What did we learn in 2014?

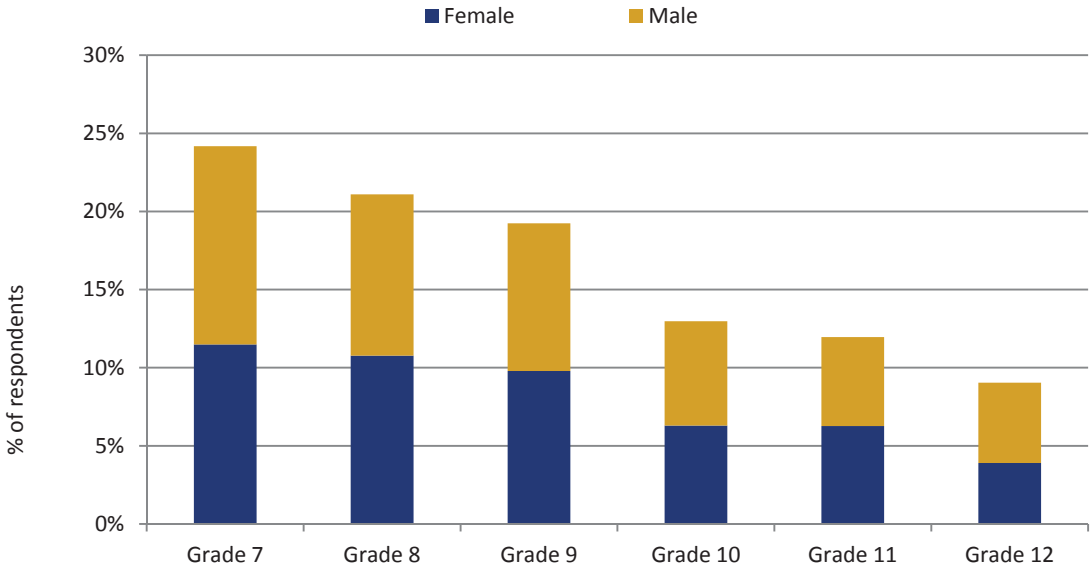
- Overall use of sunscreen is low with only 31.2 per cent of youth indicating that they use it often or always. Use is higher among females 35.1 per cent saying they use it often or always versus 27.2 per cent for males who do (see **Figure 4.98**).

Figure 4.98. Use Of Sun/UV Protection by Gender, 2012.



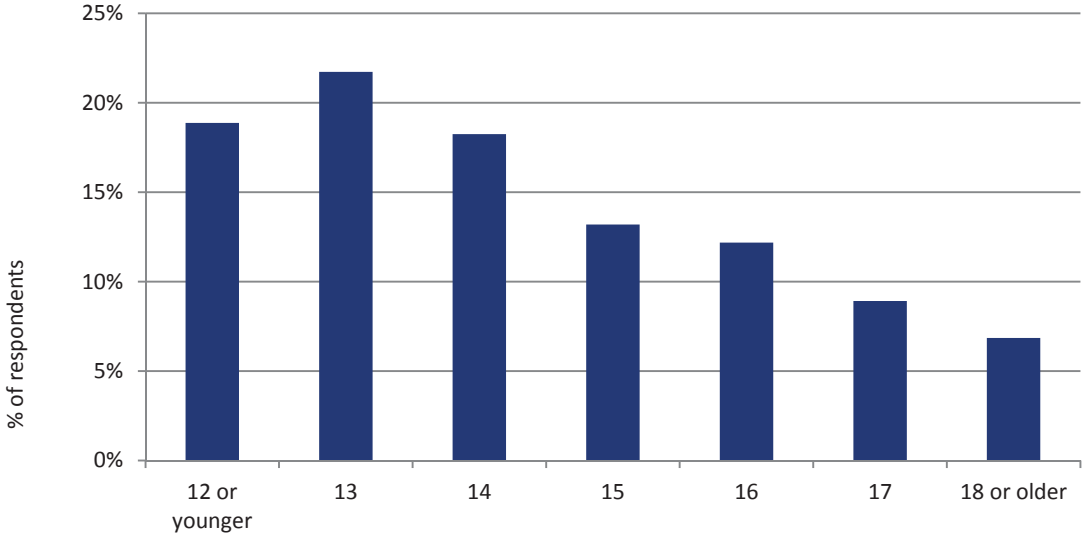
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: Statistical testing at level = 0.05.

Figure 4.99. Percentage of Respondents by Grade and Gender, 2012.



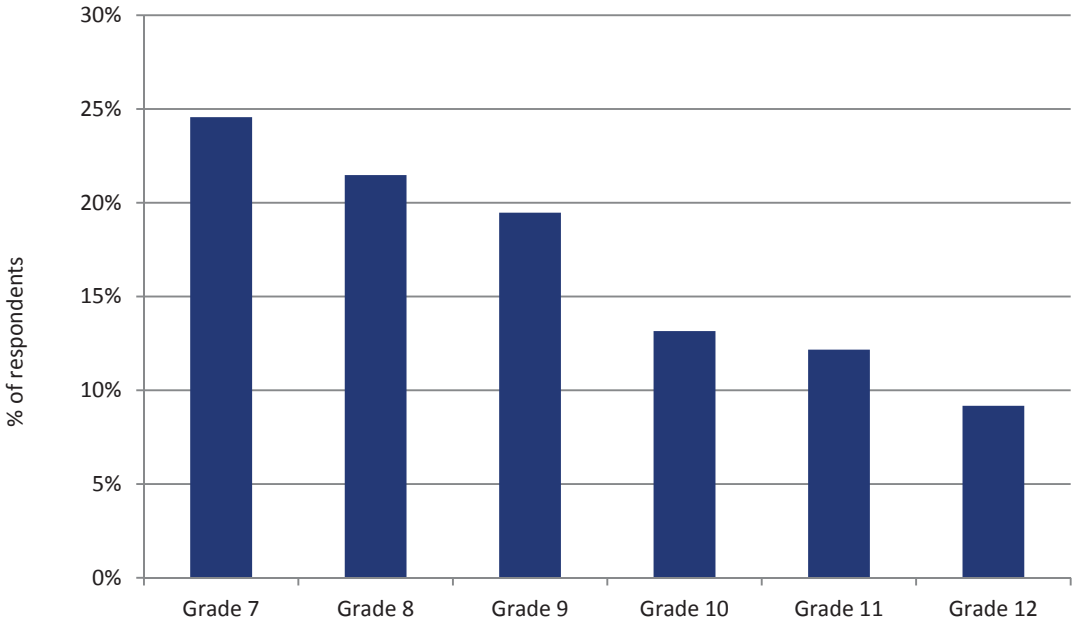
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

Figure 4.100. Percentage of Respondents by Age, 2012.



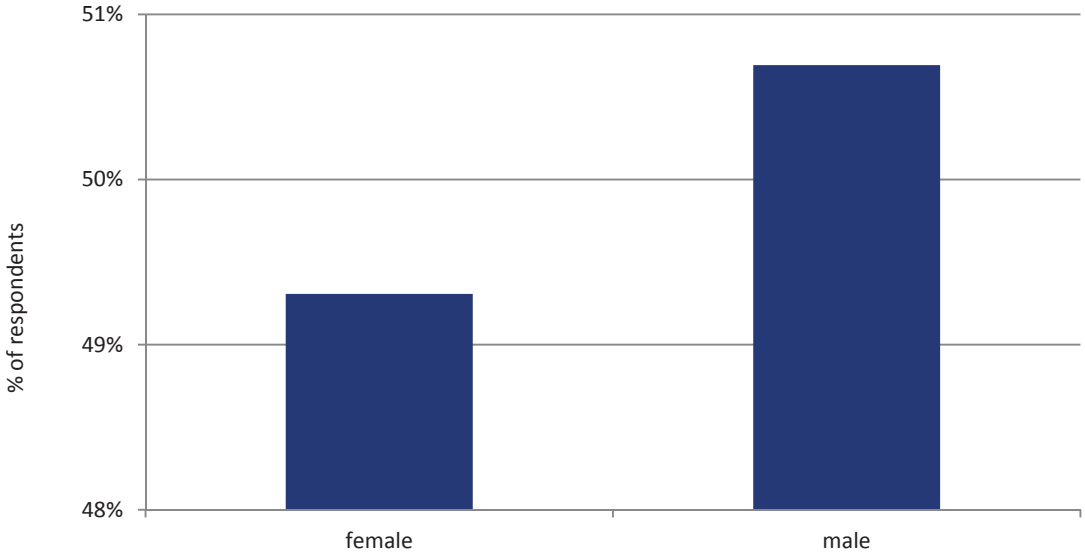
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

Figure 4.101. Percentage of Respondents Provided by Grade, 2012.



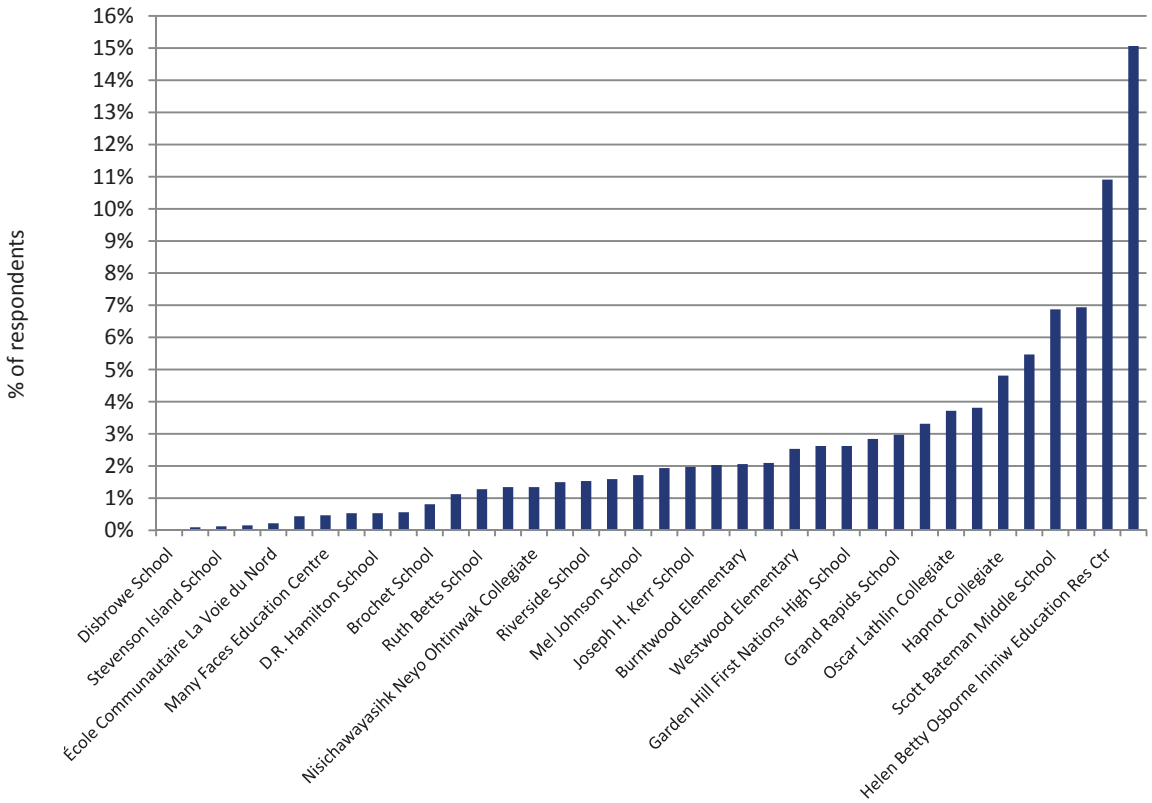
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

Figure 4.102. Percentage of Respondents by Gender, 2012.



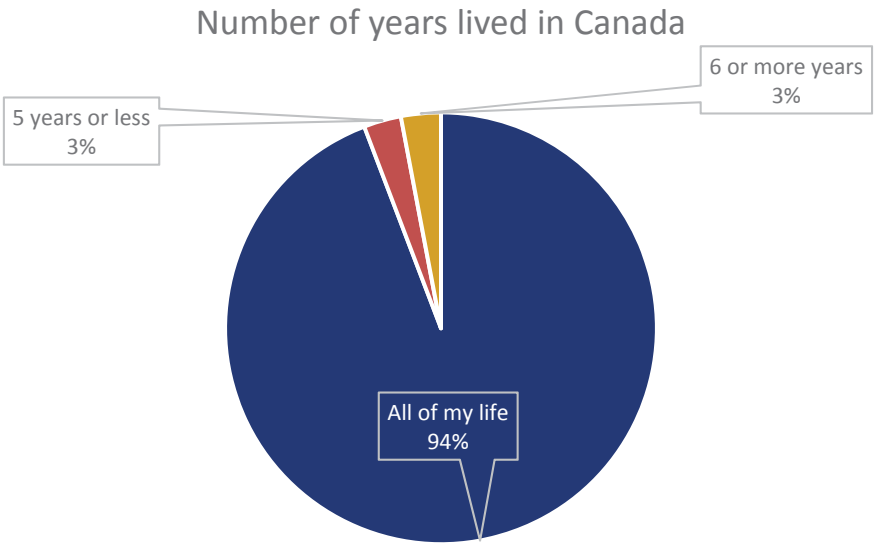
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

Figure 4.103. Percentage of Respondents by School, 2012.



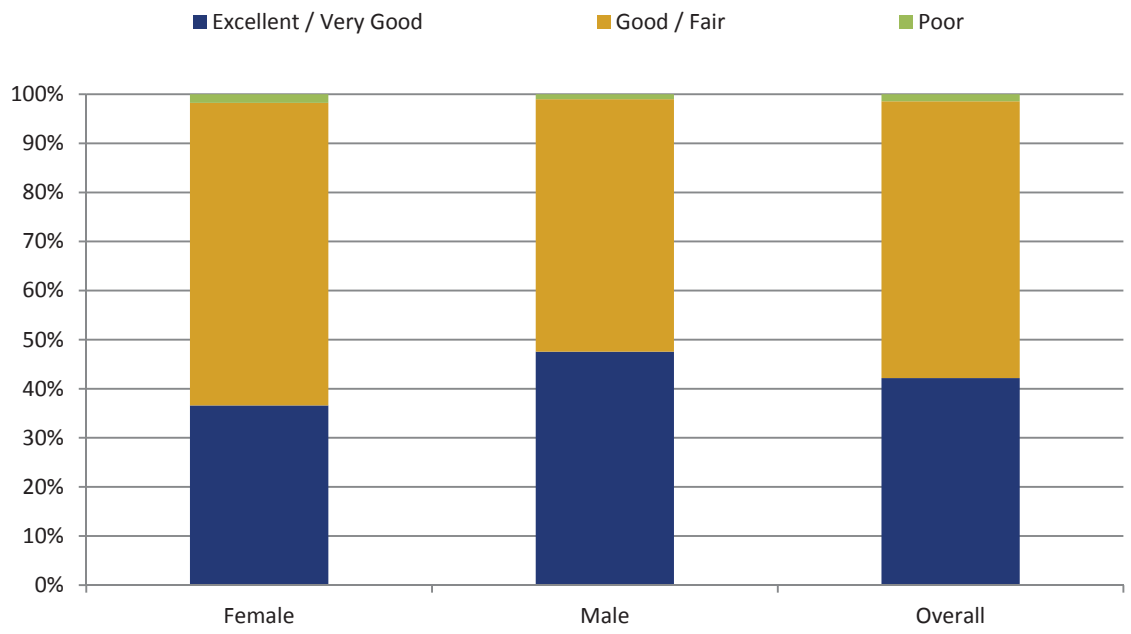
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

Figure 4.104. Percentage of Respondents by Years Lived In Canada, 2012.



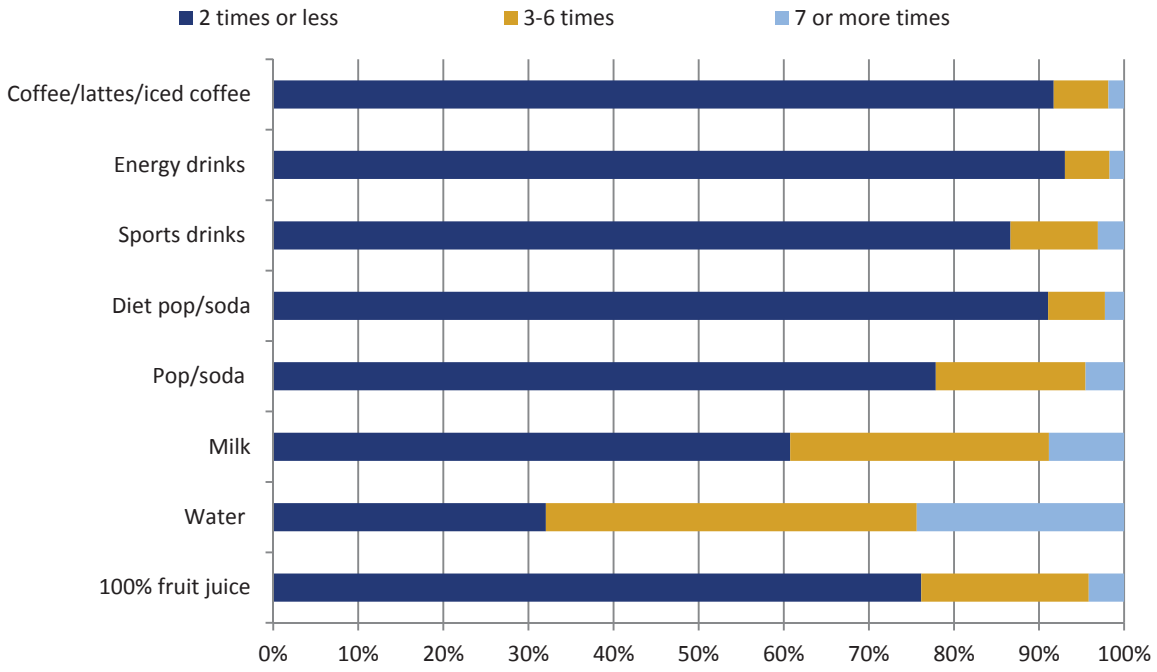
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

Figure 4.105. Perception of Health by Gender, 2012.



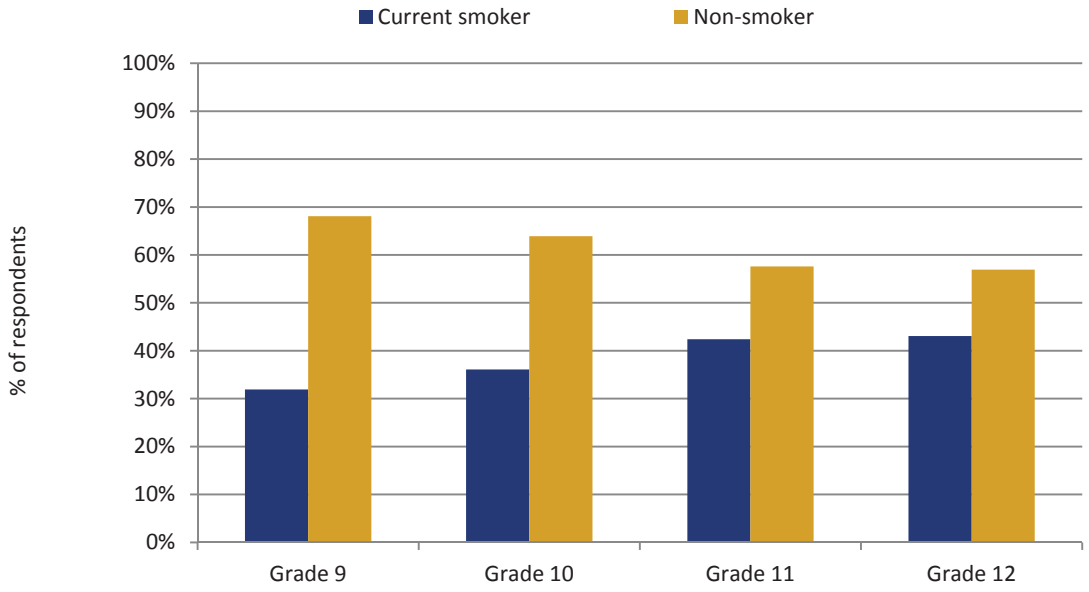
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: Statistical testing at level = 0.05.
There is statistical difference between genders.

Figure 4.106. Daily Drink Consumption, 2012



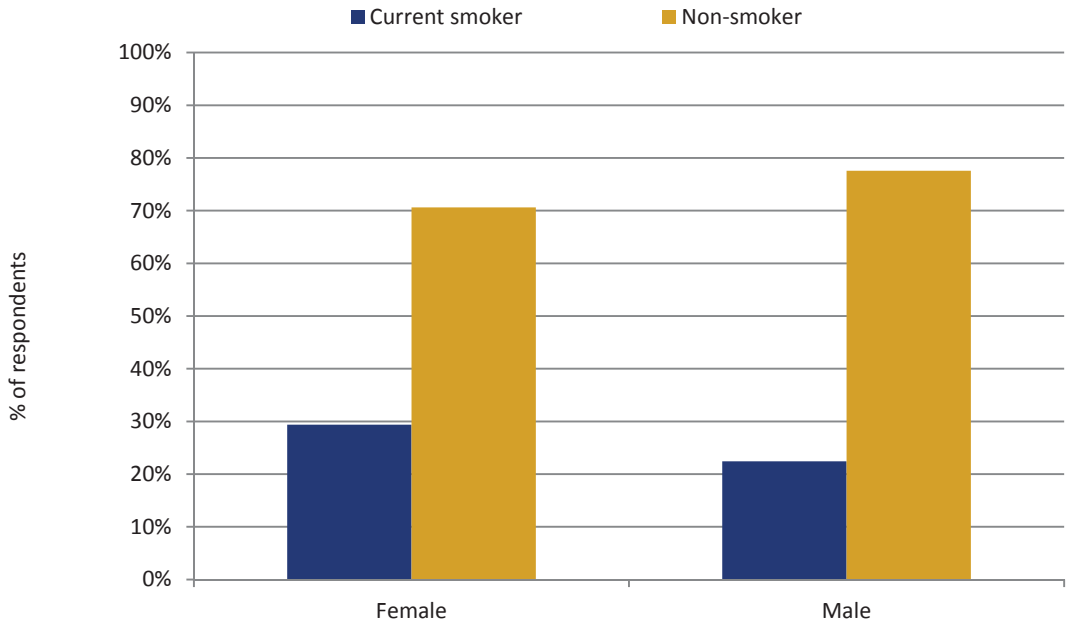
Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

Figure 4.107. Student Smoking Status by Grade, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: Statistical testing at level = 0.05.
Grade 11 and Grade 12 non-smoker are statistically lower than average.
Grade 10, Grade 11 and Grade 12 current smoker are statistically higher than average.

Figure 4.108. Student Smoking Status by Gender, 2012.



Source: Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.
NOTE: Statistical testing at level = 0.05.
Male current smoker is statistically lower than average.
Female current smoker is statistically higher than average.

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CHAPTER FIVE

Health Status

NORTHERN
HEALTH REGION

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Chapter 5 Health Status

Chapter four analyzed in detail the many social, environmental, economic, and cultural factors that can contribute both positively and negatively to health outcomes. This chapter examines health status, analyzing how the factors that affect overall health are actually impacting the health status of residents in the Northern Health Region.

As with the determinants of health, there are a great number of indicators that could be analyzed in examining health status. This chapter attempts to pinpoint those health status indicators which have the greatest impact on health along with those areas the Northern Health Region can work to improve and prioritize. Focus group discussions in Northern Health Region confirmed that participants are more aware than ever that the determinants of health have the considerable impact on the overall health of residents. Participants were also more aware of the wide range of health status challenges facing their communities such as mental illnesses, substance abuse, and chronic disease.

The broad categories of health status indicators that are covered in this chapter are:

1. Well-being
2. Chronic diseases
3. Communicable diseases
4. Cancer
5. Injuries
6. Infant/Child health
7. Life expectancy and mortality

Please note that in this chapter, in many cases causes of illness and death may be presented based on broader classification of disease and not specific causes. For example, a broad classification is "external causes such as injury and poisoning" and a specific causes could be suicide, motor vehicle accident etc. Similarly a broad classification is "endocrine and metabolic disorder" and a specific cause within this classification is diabetes. For further details about the ICD-10 classification system that is used for all physician, hospitalization and mortality data, please see **Chapter 2.1.4**.

5.1. Key Findings

- The region has experienced a decline in teen pregnancy in recent years from a high of 62.8 per 1,000 in 2010/11 to 51.6 in 2012/13.
- There has been a gradual decline in high birth weight (HBW) rates from 20.6 per cent in 2002/03 to 17.8 per cent in 2011/12, reducing the gap between the region and the Manitoba average
- In grade 7, 39.6 per cent of students were overweight or obese, in contracts the grade 12 cohort has a rate of 30.5 per cent. This is of concern as there are more young students who are overweight and obese compared to older students, we must continue to monitor to determine if the grade 7 group continues to experience higher rates of obesity as they age or if these rates decline as the students go through high school.
- Generally, youth in the region feel safe at home (96.7% agree) in their school (81.9% agree) and have a supportive family (89.9%) and close friend (87.1%) support system they can use.
- The breastfeeding initiation rate ion was 63.6 per cent in 2012/13, which was the lowest rate among Manitoba RHAs and below the provincial average of 82.9 per cent. Time trend data show that breastfeeding rates are consistently lower than provincial rates.
- The birth rate was 22.2 births per 1,000 residents in 2011/12, the highest birth rate among Manitoba RHAs and well above the provincial average of 12.4. The pregnancy rate for 2011/12 are considerably higher in First Nations communities, particularly in the 15-19 and 20-24 years age categories.
- The teen birth rate in 2012/13 was 43.1 per 1,000 population, more than three times the Manitoba average of 12.8.
- In 2012/13, the preterm birth rate was 9.0 per cent of live births compared to the provincial average of 7.8 per cent. It was the highest rate among Manitoba RHAs
- The proportion of low birth weight infants was 6.1 per cent in 2011/12, the highest among Manitoba RHAs, above the provincial average of 5.3 per cent.
- Rates for some major chronic diseases such as heart attacks, chronic heart failure, hypertension, stroke, and breast cancer all declined over time in the region.
- The proportion of residents living with ischemic heart disease and osteoporosis also declined.
- While diabetes incidence and prevalence grew, the good news is that, out of the growing number of those diagnosed with diabetes and pre-diabetes, the Regional Diabetes program has implemented a free physical activity group class and provided access to dietitian services to help make more nutritious food choices.
- Lower limb amputations for diabetics did decrease slightly which suggests that patients and providers are more aware of the need for screening to prevent complications.
- The proportion of residents diagnosed with dementia declined to 8.5 per cent in 2007/08-2011/12, statistically below the Manitoba average of 10.6 per cent
- The proportion of residents with a mood or anxiety disorder remained relatively unchanged at 17.5 per cent in 2007/08 which was statistically below the Manitoba average of 23.3 per cent.

- The proportion of residents with arthritis remained high at 23.5 per cent in 2010/11-2011/12, above the Manitoba average for both time periods. The Lynn Lake and Gillam districts had prevalence rates of over 30 per cent in the most recent time period.

- The diabetes incidence rate rose slightly 1.81 new cases per 100 person years in 2004/05-2006/07 to 1.91. The regional rate was statistically higher than the Manitoba average in both time periods. The Island Lake Zone had the highest rates among all districts at 5.15, a statistically significant difference from the regional average

- The proportion of residents living with diabetes increased from 18.2 per cent in 2004/05-2006/07 to 20.9 per cent in 2009/10-2011/12, a statistically significant increase. The Island Lake Zone (48.9%) and the Non-Direct Service (28.0%) zones had rates statistically higher than the Northern Health Region rate.

- The proportion of residents with hypertension increased to 35.0 per cent in 2011/12, the highest prevalence rate in Manitoba. As with other chronic disease findings, the Northern Direct Service zone recorded the lowest prevalence rates (33.0%) while the Non-Direct Service zone (40.1%) and the Island Lake zone (53.7%) had significantly higher rates in comparison to the northern average.

- The overall cancer incidence rate was 523.3 new cases per 100,000 residents in 2008-2010. This incidence rate is higher than the Manitoba average of 471.2.

- Our region had higher incidence rates for long and colorectal cancer compared to Manitobans overall.

- The chlamydia rate has generally increased over the 2004-2013 time period. By 2013, the chlamydia rate in the north was over four times higher than that of other RHAs in Manitoba.

- The rate of new gonorrhea cases was considerably higher than the Manitoba rate between 2004 and 2013. By 2013, the incidence rate of gonorrhea was six time higher than the Manitoba average.

- The rate for tuberculosis remains well above the Manitoba average from 2000-2012. By 2012, the Northern rate was 75.0 cases per 100,000 population, over 7 times the Manitoba rate.

- Life expectancy for males and females in the Northern region at 71.4 and 76.4 years respectively in 2007-2011, is statistically below the Manitoba average. The Northern Direct Service zone had the highest life expectancy.

- Falls continue to be the leading cause of hospitalization for injuries (particularly in the 75 years and older age category) followed by assaults and self-inflicted injury. Among females, self-inflicted injuries are the second leading reason for injury hospitalization, with more than two times the standardized rate and two times the cases of men.

- The leading causes of mortality in the region remained fairly constant between 2002-2006 and 2007-2011. Cancer increased in the proportion of deaths, from 20.6 per cent of all deaths in 2002-2006 to 23.3 per cent of deaths, the number one cause of mortality in 2007-2011.

- The age standardized rate for all injuries was 115.5 from 2000-2012 in the Northern RHA. The rates were considerably higher for males both for unintentional and intentional injuries compared to females.

- The overall cancer mortality rate in 2008-2010 in the Northern Health Region was 264.1 per 100,000 population, the highest rate among RHAs and statistically different from the Manitoba average of 202.7

- The findings for the top 10 causes of premature mortality are similar to the top 10 mortality. Premature deaths that increased from 2002-2006 to 2007-2011 were cancer (20.7% to 22.4% of all premature deaths), digestive diseases (4.4% to 6.2%) and respiratory diseases (4.4% to 6.3%).

- The Premature Mortality Rate (PMR) remained virtually unchanged at 5.3 per 1,000 population in 2002-2006 and 5.4 per 1,000 in 2007-2011; significantly higher than the Manitoba average of 3.1 per 1,000.

- The rate of Potential Years of Life Lost (PYLL) in the region remained steady at 100.2 per 1,000 residents in 2002-2006 and 102.4 in 2007-2011, almost double the Manitoba average of 51.5 per 1,000.
- From 2007/2008 to 2011/2012, the infant mortality rate was 10.1 deaths per 1,000 births, the highest among Manitoba RHAs. It significantly higher than the Manitoba average of 6.4 deaths per 1,000 infants.
- The child mortality rate of 91.9 deaths per 100,000 population from 2007/2008 to 2011/2012 is almost three times the Manitoba rate of 32.4 deaths per 100,000 population.

5.2. Life Expectancy

DEFINITION

The number of years a person would be expected to live, starting from birth (for life expectancy at birth), on the basis of the mortality statistics for a given observation period, typically a calendar year. Report by age and sex.

Why Is This Indicator Important?

Life expectancy is one of the most widely used indicators of the health of a population and the overall effectiveness of its health care system. It is important to note that this measures quantity, not quality, of life.

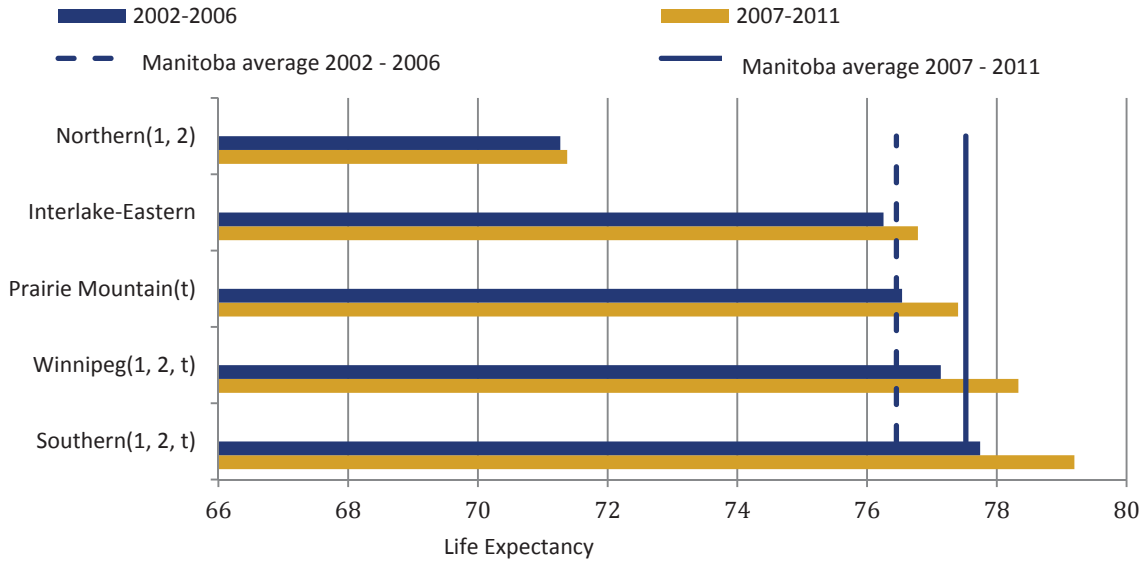
What did we learn in 2009?

- The former Burntwood Region had the lowest life expectancy for both men (69.7 years) and women (76 years) among all regions in Manitoba. There was also a decline in life expectancy between 1996-2000 and 2001-2005, which was only seen in a few regions.
- The former NOR-MAN Region reported a life expectancy below the provincial average. Males experienced an increase in life expectancy (from 72.9 years in 1996-2000 to 73.4 years in 2001-2005), while females experienced a decrease (from 77.9 years in 1996-2000 to 77.6 years in 2001-2005).

What did we learn in 2014?

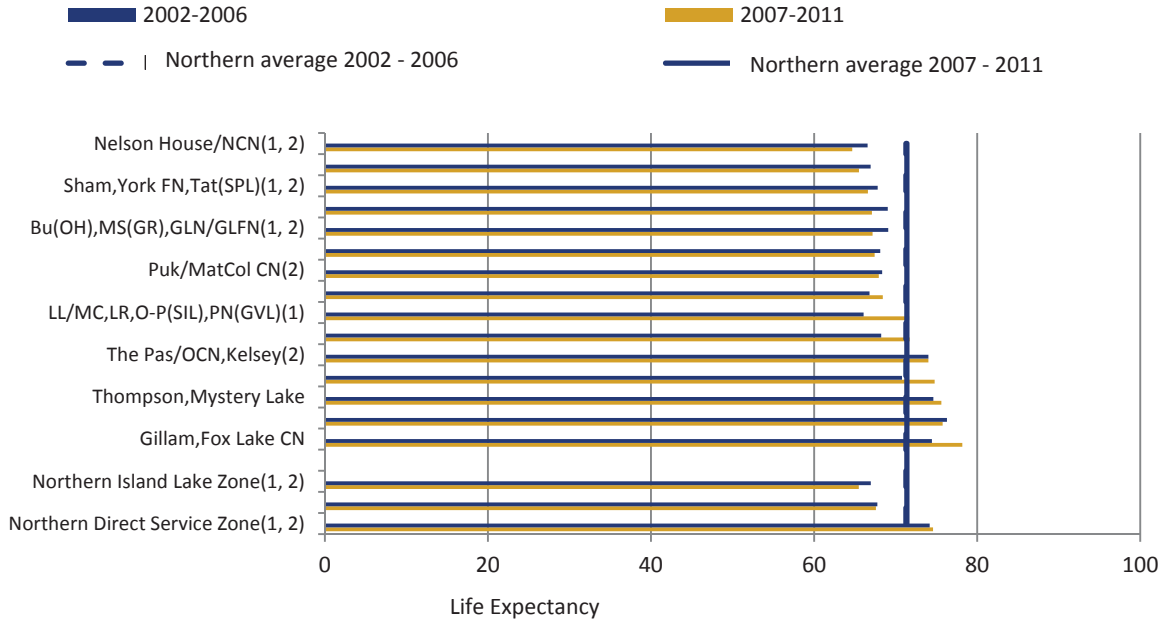
- The life expectancy for males in the Northern region was virtually unchanged, rising very slightly from 71.3 years in 2002-2006 to 71.4 in 2007-2011.
- Among Northern Health Region zones, the Northern Direct Service zone had the highest male life expectancy at 74.8 years in 2007-2011 which was statistically above the regional average while the two other zones were statistically below the average.
- A similar picture emerges for female life expectancy as it remained at 76.4 years in both 2002-2006 and 2007-2011, below the provincial average of 82.2 years.
- As with men, the female life expectancy was higher in the Northern Direct Service zone and lower in the other two zones.

Figure 5.1. Life Expectancy at Birth by RHA, 2002-2006 and 2007-2011.



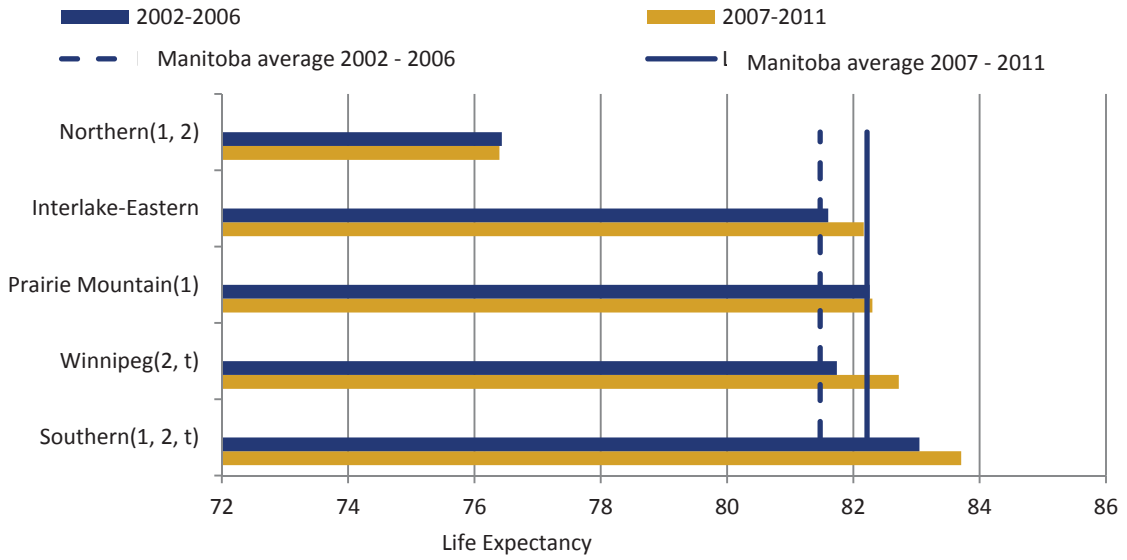
Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area

Figure 5.2. Male Life Expectancy at Birth by Northern District and Zone, 2002-2006 and 2007-2011.



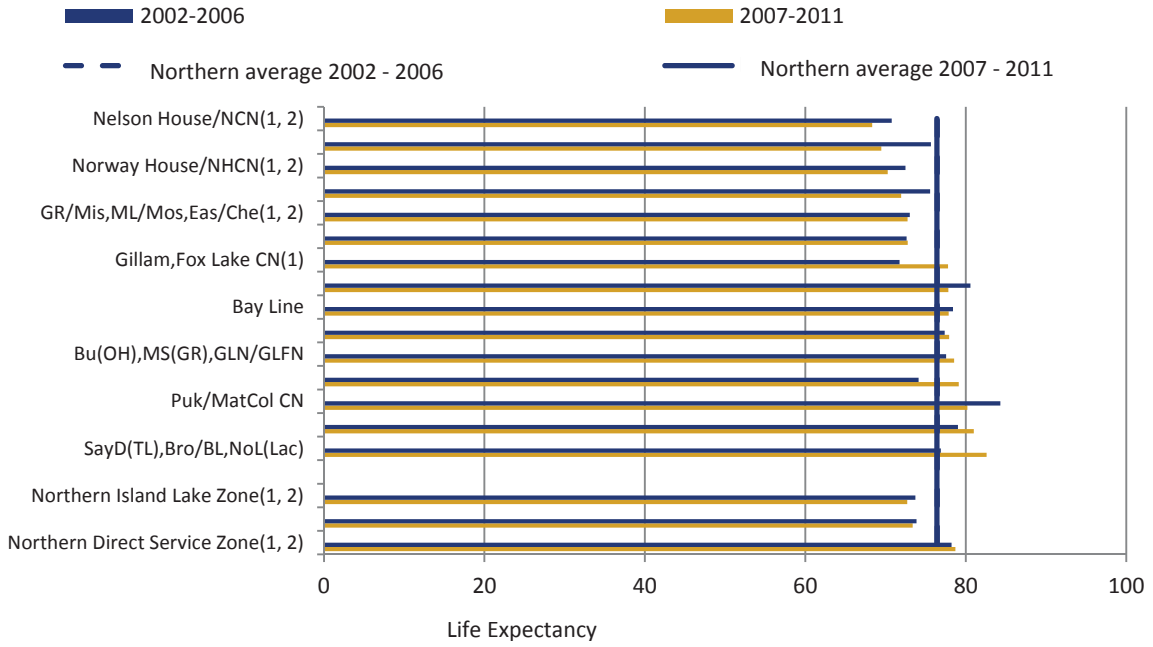
Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area

Figure 5.3. Female Life Expectancy at birth, 2002-2006 and 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.4. Life Expectancy at Birth for Female by Northern District and Zone, 2002-2006 and 2007-2011



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.3. Self-Rated Health

5.3.1. Self-Rated Physical Health

DEFINITION

This indicator measures the percentage (%) of the population age 12 and over who report that their health is excellent, very good, good, or fair/poor.

Why Is This Indicator Important?

Self-rated health serves as an indicator of overall well-being and health status. It shows aspects of health not tracked by other indicators, including social and mental function, physiological and psychological reserves, decline in functional ability, and health care utilization and hospitalization. It reflects not only the current psycho-social, socio-economic and physical health status, but changes that have occurred in these areas over time.

It is important to note that this indicator comes from the Canadian Community Health Survey which does not include residents living in First Nations communities.

What did we learn in 2009?

- The former Burntwood Region saw a downward trend in those who reported excellent, very good, or good physical health (from 56 per cent in 2007 to 44.2 per cent in 2008). In the same time the provincial rate also declined from 59.9 per cent to 54.1 per cent.
- In 2009, 56.9 per cent of former NOR-MAN Region residents reported positive health status. This was lower than the provincial average of 60.7 per cent.

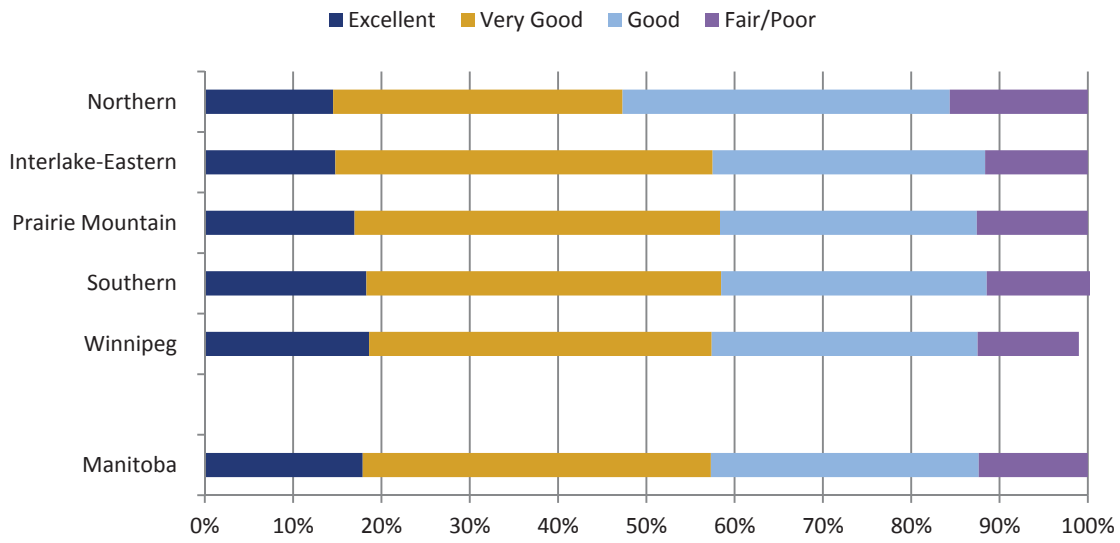
What did we learn in 2014?

- In 2011/12, 84.4 per cent of Northern Health Region residents reported excellent, very good, or good physical health. The Manitoba average was 87.6 per cent (see **Figure 5.5**). This is an improvement over rates reported in the 2009 Community Health Assessments.
- While much of the zone data was suppressed due to small numbers, 20 per cent of Flin Flon area residents reported poor health which was higher than the regional average. In the Thompson area, 88 per cent of respondents reported excellent, very good or good health (see **Figure 5.6**).

WHAT DO WE KNOW?

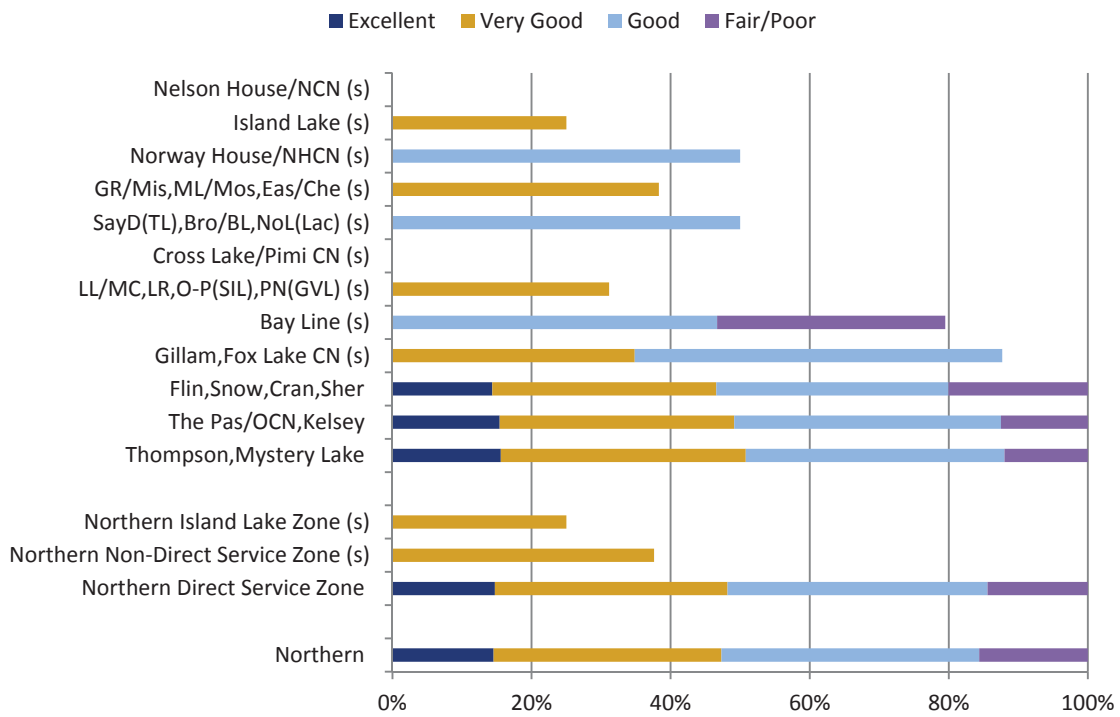
In the spring and summer of 2014, a Northern Community Survey found that of 504 total responses from Northern Health Region residents, 72.0 per cent rated their overall health as either good, very good or excellent.

Figure 5.5. Self-Perceived Health by RHA, 2011-2012.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

Figure 5.6. Self-Perceived Health by Northern District and Zone, 2011-2012.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: 's' indicates data suppressed due to small numbers

5.3.2. Self-Rated Health among Youth

DEFINITION

The percentage of students who report in the Youth Health Survey that their health is "poor", "good or fair" or "excellent or very good'.

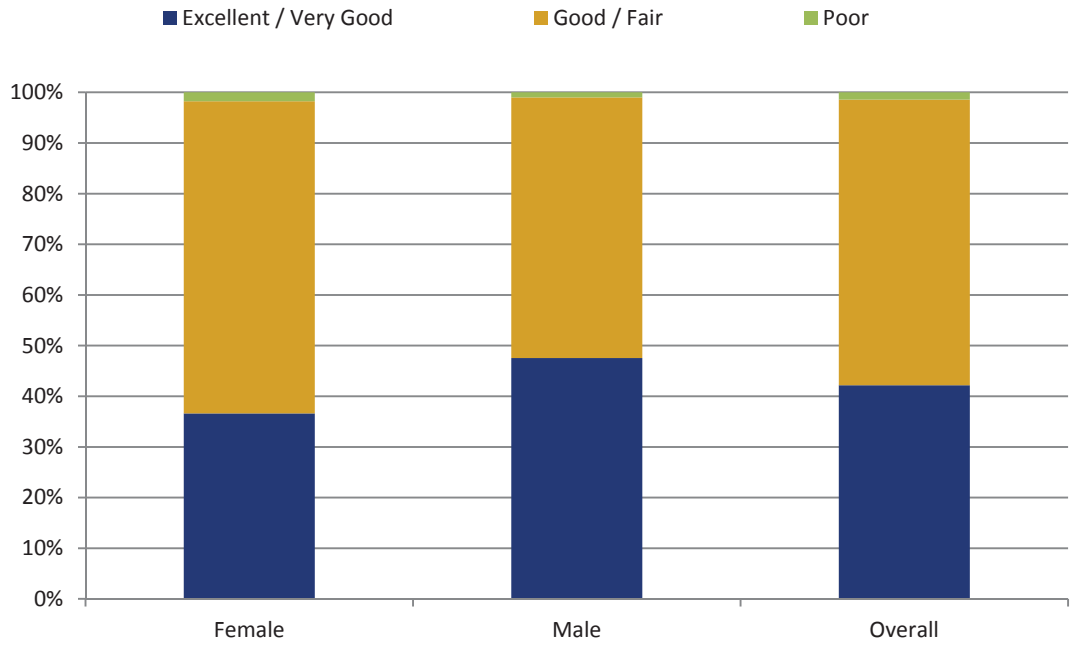
Why Is This Indicator Important?

By getting an overall assessment of youth health, planners are able to better predict the health care needs of youth and make the necessary interventions early to ensure positive outcomes occur later in life.

What did we learn in 2014?

- According to the 2012 Youth Health Survey, less than half of students in grade 7 to 12 rate their health as "very good" or "excellent".
- Only 47.6 per cent of young males report that their health is excellent or very good as do an even smaller percentage of female students at just over one in three (36.6%) (see **Figure 5.7**).

Figure 5.7. Youth, Self-Rated Health by Gender, 2012.



Source: CancerCare Manitoba, Partners in Planning for Healthy Living, 2012/13 Youth Health Survey.

5.3.3. General Mental Health Scale

DEFINITION

The general mental health scale is a derived measure from the SF-36 questionnaire, addressing overall mental health on a scale of 0 to 100 (higher is better).

Why Is This Indicator Important?

This is an important indicator, as it can provide more consistent information about a region's health status than more traditional health status indicators, like income or education attainment, in some instances. It is important to note that this indicator comes from the Canadian Community Health Survey which does not include First Nations communities.

What did we learn in 2009?

- Former Burntwood Region residents had an average score of 84.5, slightly above the provincial average. However, much of the data was suppressed due to low population, and does not include First Nations communities.
- Residents of the former NOR-MAN Region had the highest average score at 85.6. There was a notable difference between males and females in this region, with males reporting better mental health by a considerable margin, with much lower rates of poor mental health among males (14.5%) than females (23.8%).

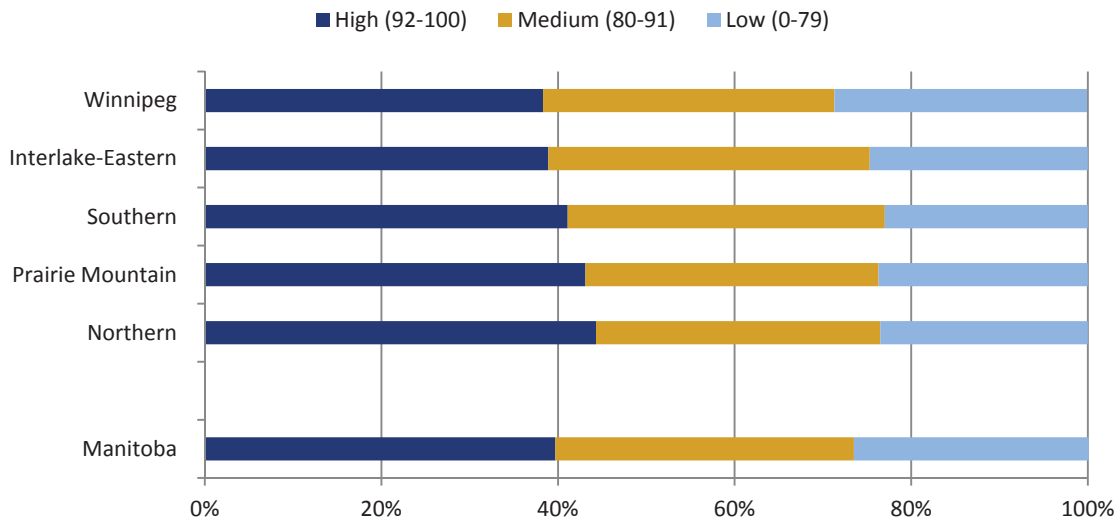
What did we learn in 2014?

- In the general mental health scale of 2009/10, 44.3 per cent of Northern Health Region residents scored 'high' on the mental health scale, which is above the provincial average of 39.7 per cent (see **Figure 5.8**).
- As **Figure 5.9** shows, among the Northern Health Region communities, much of the data was suppressed due to low numbers. In the Gillam/Fox Lake CN area, 28.9 per cent scored low on the mental health scale which was considerably over the regional average of 23.5 per cent.

WHAT DO WE KNOW?

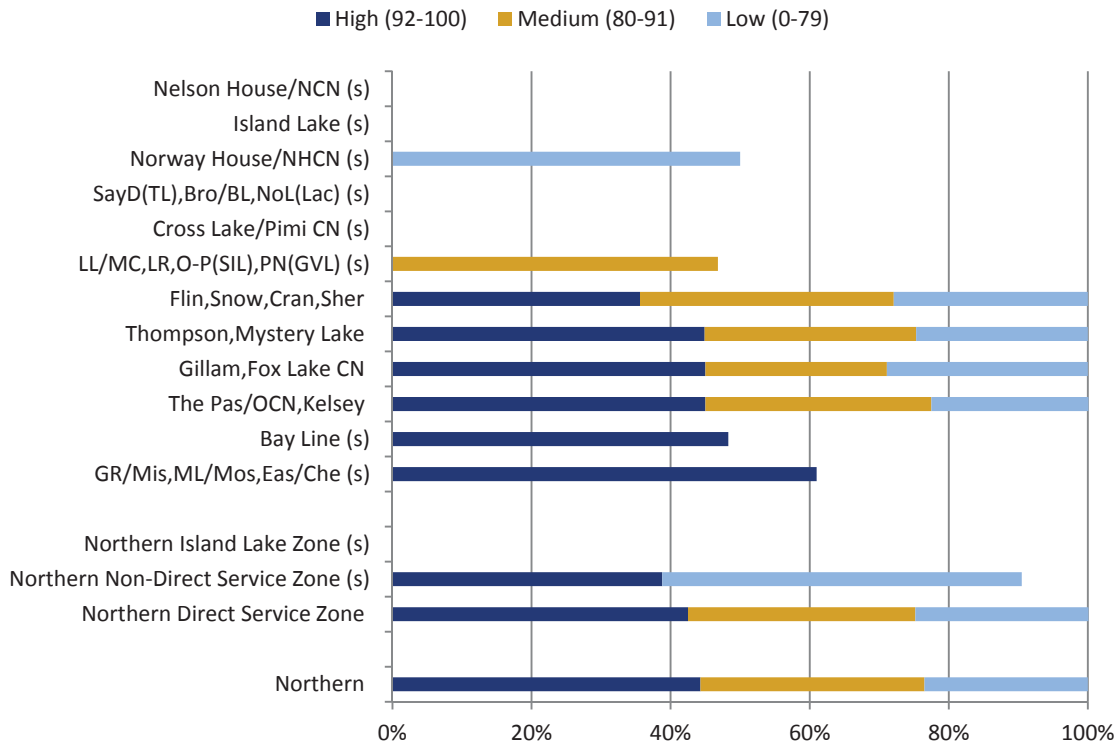
The Northern Community Survey in the Summer/Fall 2104, found that 85.3 per cent of respondents rated their mental health as either good, very good or excellent.

Figure 5.8. General Mental Health Scale by RHA, 2009-2010.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

Figure 5.9. General Mental Health Scale by Northern District and Zone, 2009-2010.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: 's' indicates data suppressed due to small numbers.

5.3.4. Physical Functioning Scale

DEFINITION

This indicator refers to the proportion of the population age 12 and over with a score of 100 per cent on the Physical Functioning Scale of the SF36 in 2007.

Why Is This Indicator Important?

This is a health utility index that uses eight dimensions of functioning (vision, hearing, speech, mobility, dexterity, feelings, cognition, and pain) to create a description of an individual's overall health status.

It is important to note that this indicator comes from the Canadian Community Health Survey which does not include First Nations communities.

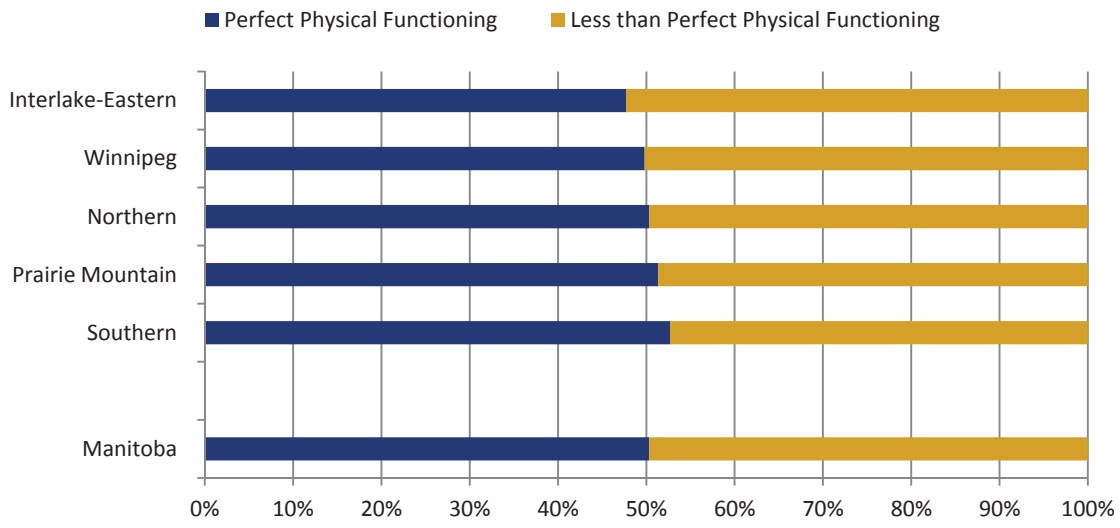
What did we learn in 2009?

- Approximately one-half (50.3%) of former Burntwood Region residents not living in First Nations communities had perfect scores. This was lower than the provincial average of 55.7 per cent.
- Rates in the former NOR-MAN Region were better at 57.9 per cent, which was higher than the provincial average.

What did we learn in 2014?

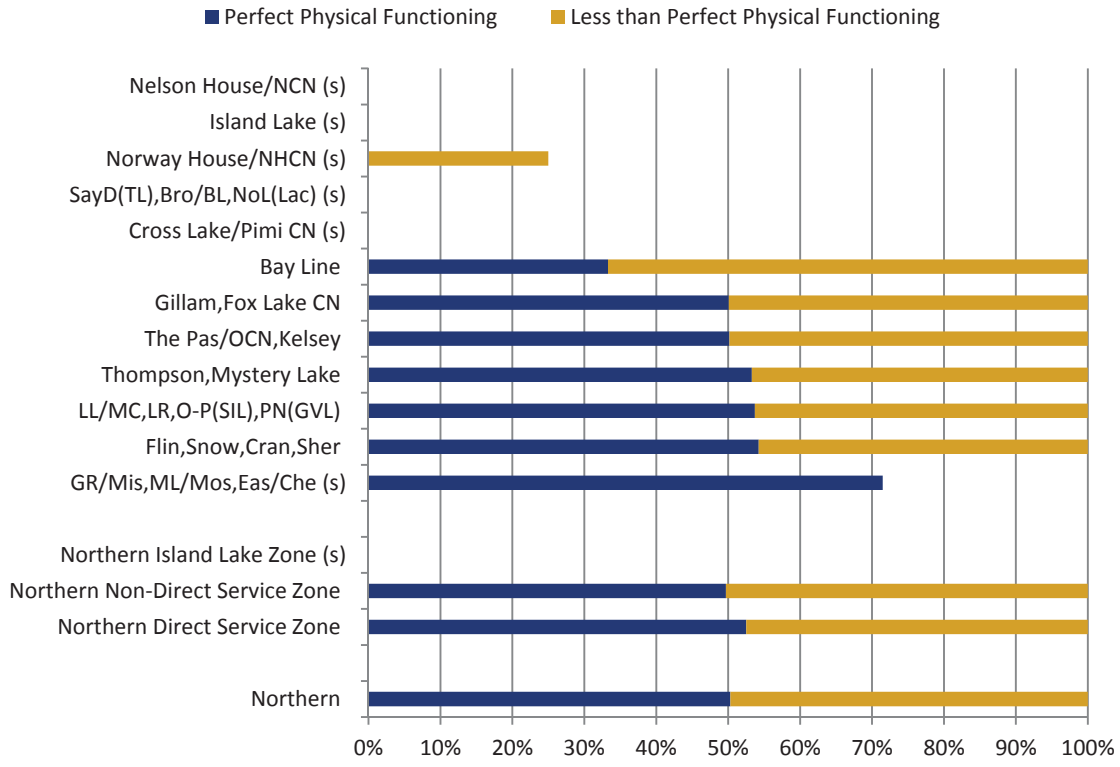
- On the 2009/10 Physical Functioning scale, 50.3 per cent of Northern Health Region residents had perfect physical functioning which is equal to that of the provincial average (see **Figure 5.10**).
- Among the Northern Health Region zones, the Northern Direct Service zone had the highest perfect physical functioning rate of 52.5 per cent (see **Figure 5.11**).

Figure 5.10. Physical Functioning Scale by RHA, 2009-2010.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

Figure 5.11. Physical Functioning by Northern District and Zone, 2009-2010.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: 's' indicates data suppressed due to small numbers.

5.4. Infant and Child Health

Infant and child health are important priorities, as a number of significant inequalities can develop right at birth which can continue to affect their health status well into adulthood. Some groups of children are more likely to be injured, and/or experience physical and mental health challenges. With effective interventions, many adverse health outcomes for children can be prevented. It does require action on a number fronts beyond the health care system given that health status of young people in Canada is influenced by a wide range of social, cultural, physical and economic factors.

Child and infant health was identified as a key health challenge in a number of Northern communities during focus group discussions in 2014. Participants noted the high birth rates in their community along with a number of child health conditions they were encountering such as ADHD, autism, respiratory illness and FASD. As one participant noted, ***"These things [child health conditions] are burdening our health care and education system and we have no supports to do anything."***

5.4.1. Birth Rate

DEFINITION

This indicator measures the number of births in an area as a rate of 1,000 women.

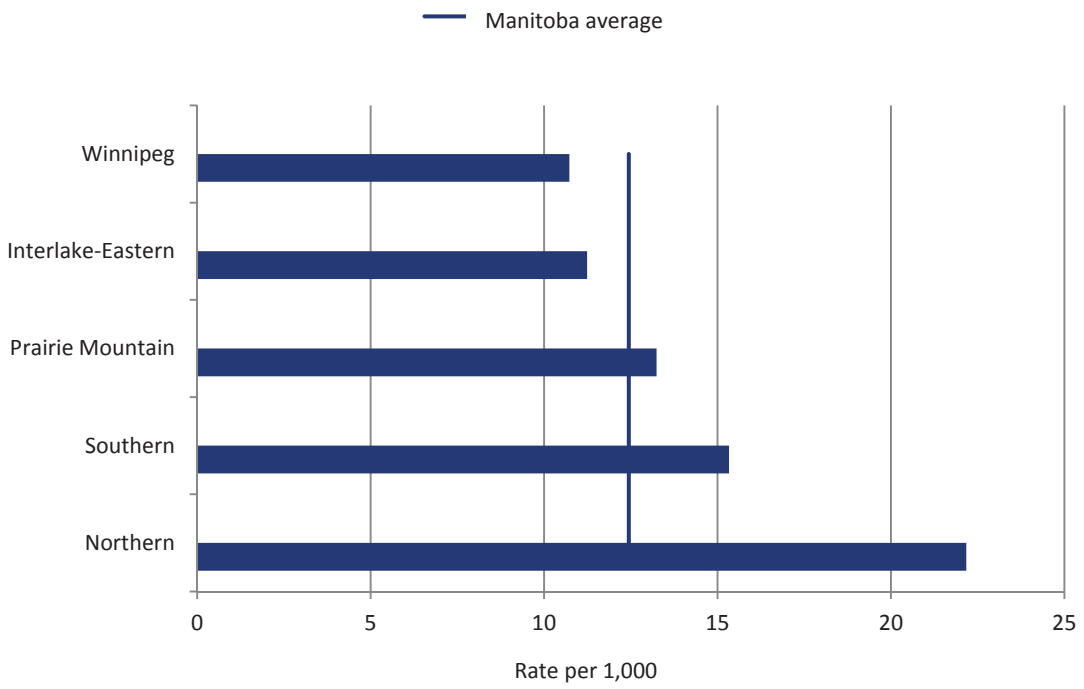
Why Is This Indicator Important?

Birth rate information can provide important information about the age structure of a region as younger women tend to have more births than older ones. It can also provide important planning information about the resources needed to address maternal and child health needs going forward.

What did we learn in 2014?

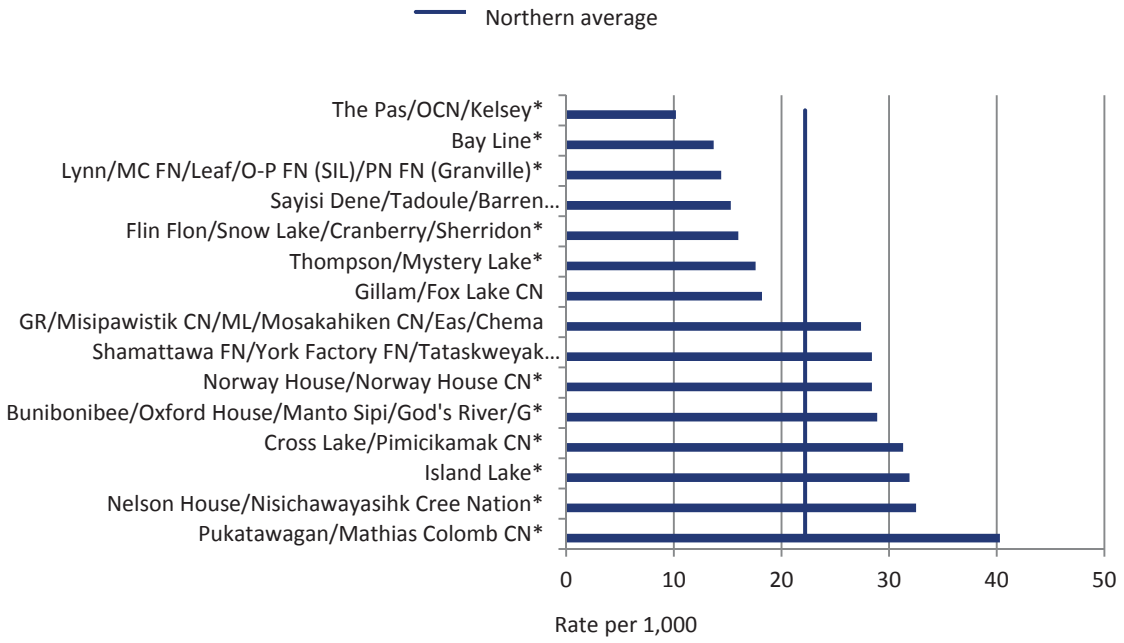
- The birth rate in the Northern Health Region was 22.2 births per 1,000 residents in 2011/12, the highest birth rate among Manitoba RHAs and well above the provincial average of 12.4 (see **Figure 5.12**).
- Among Northern Health Region communities, there was a wide range of birth rates with several communities being statistically below the regional average (The Pas/OCN/Kelsey, Bay Line communities, Flin Flon/Snow Lake, and Thompson) while Pukatawagan, Nelson House, Island Lake, Cross Lake and Norway House all have birth rates that are statistically above the regional average (see **Figure 5.12**).
- As **Figure 5.13** illustrates, the annual birth rate in the Northern Health Region has ranged between 20-25 births per 1,000 population, well above the provincial average from 2002/03 to 2011/12.

Figure 5.12. Birth Rate by RHA, 2011-2012.



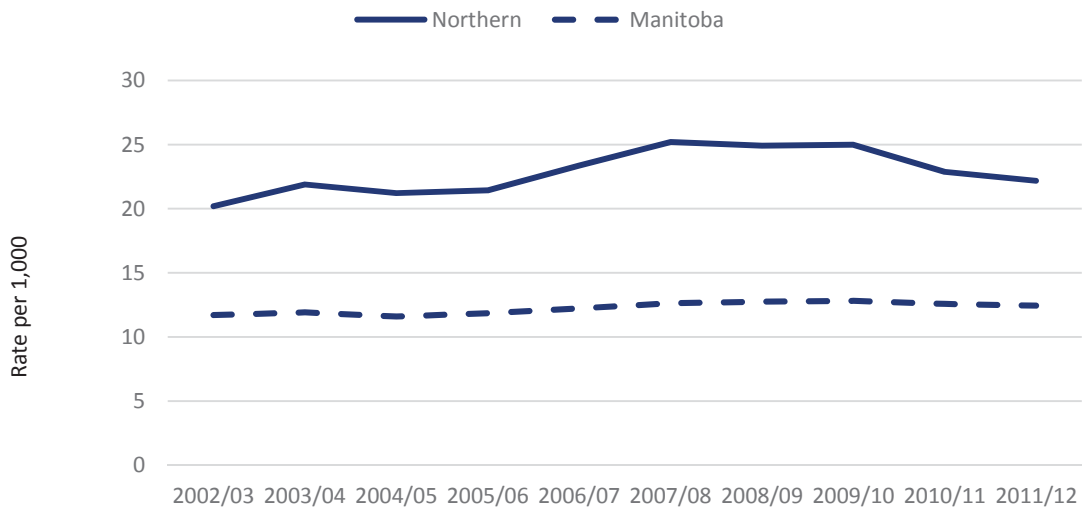
Source: Manitoba Health, Healthy Living and Seniors, Health Information Management.
NOTE: Northern and Southern have statistically higher than average rate. Interlake-Eastern and Winnipeg have statistically lower than average rate.

Figure 5.13. Birth Rate by Northern District and Zone, 2011-2012.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management.
NOTE: '*' indicates area's rate was statistically different from Northern average.

Figure 5.14. Birth Rate by Year, 2002/03-2011/12.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management.

5.4.2. Teen Birth Rate

DEFINITION

The teen birth rate indicator measures the number of births from teenage mothers aged 15-19 years per 1,000 females in this age group.

Why Is This Indicator Important?

Very similar to teen pregnancy rate, teen birth rates are a concern because of the increased risks of babies born to teen mothers, including low birth rate, death during infancy, and preterm birth. There are also strong economic consequences, since teenage mothers are more likely to drop out of school and suffer from fewer economic opportunities. Teenage mothers between the ages of 15-17 are also more likely to be single parents, resulting in no household income to provide support.

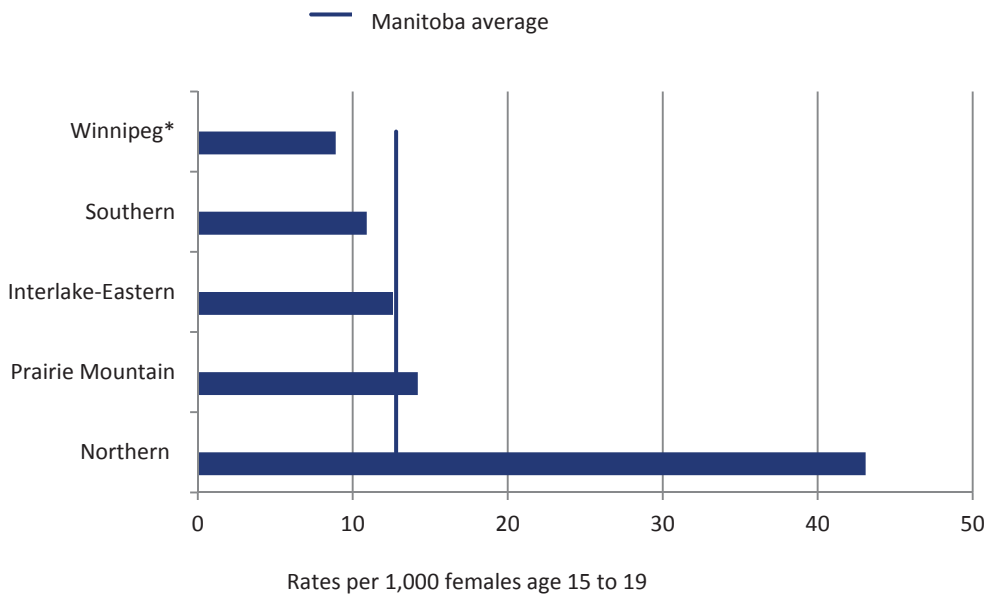
What did we learn in 2009?

- While the teen birth rate in the former Burntwood region decreased from 109.3 in 1996/97-2000/01 to 101.1 per 1,000 women in 2001/02-2005/06, the rate remained significantly higher than the Manitoba average of 30.1 in 2001/02-2005/06.
- The former NOR-MAN region experienced an increase in teen birth rates from 70.0 to 79.3 per 1,000 population between the two time periods.

What did we learn in 2014?

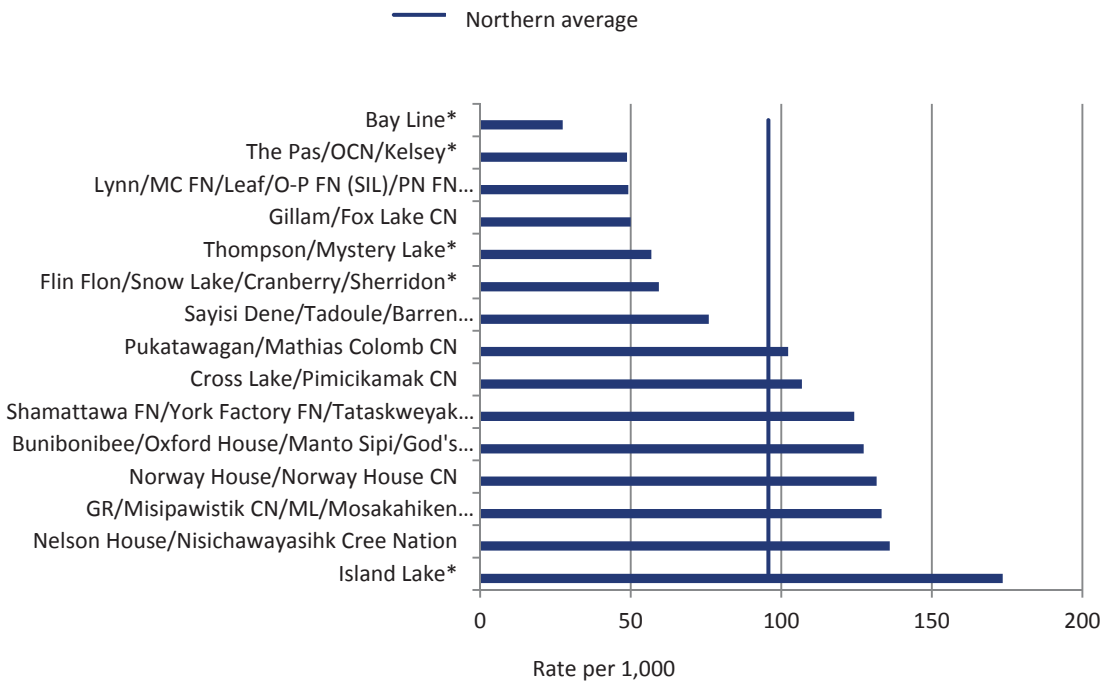
- The teen birth rate in the Northern Health Region in 2012/13 was 43.1 per 1,000 population, more than three times the Manitoba average of 12.8 (see **Figure 5.15**).
- As **Figure 5.16** illustrates, Island Lake had the highest teen birth rate among Northern Health Region districts in 2011/12 with a rate that is statistically higher than the Northern average. Both the Bayline communities and Thompson had rates statistically below the regional average.
- The Northern Health Region experienced a decline in teen birth rates from 51.1 per 1,000 teens in 2010/11 to 43.1 per 1,000 in 2012/13 (see **Figure 5.17**).
- **Table 5.1** presents differences in teen birth rates within the region. Although the regional rate remains much higher than the provincial rate, this table shows the differences between our direct service communities and First Nations communities where we do not provide direct services. While the teen birth rate is lower in our direct service communities, the rate is actually increasing over time while the opposite is true for our First Nation communities.

Figure 5.15. Teen Birth Rate by RHA, 2012/13.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management, Special Data Run.
NOTE: '*' indicates area's rate was statistically different from Manitoba average.

Figure 5.16. Teen Birth Rate by Northern District, 2011/12.



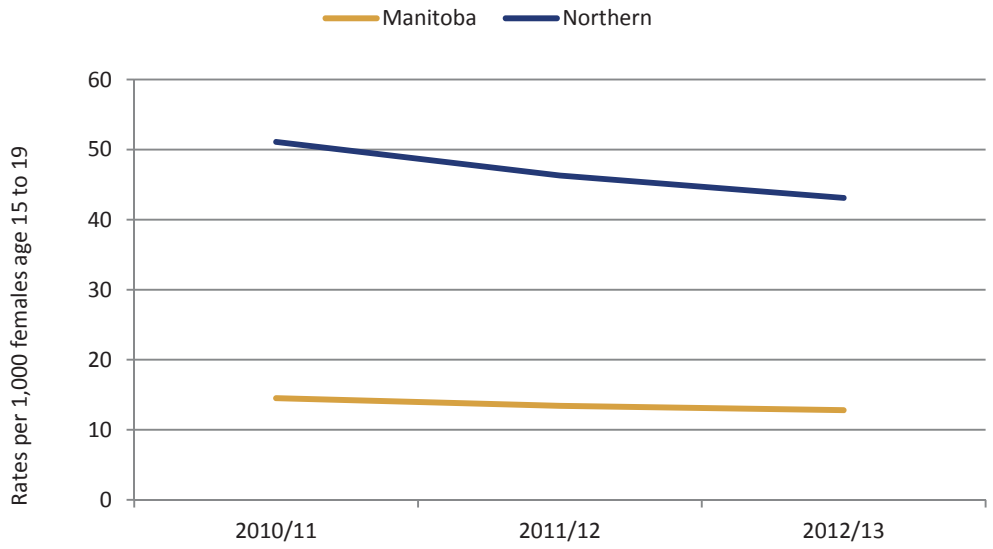
Source: Manitoba Health, Healthy Living and Seniors, Health Information Management, Special Data Run.
NOTE: '*' indicates area's rate was statistically different from Northern average.

Table 5.1. Teen Births by Year and Northern Zones, 2010/11-2012/13.

	2010/2011		2011/2012		2012/2013	
Area of Residence	Count	Rate	Count	Rate	Count	Rate
Northern	347	51.1	309	46.3	282	43.1
Northern Direct Service Zone	83	27.6	83	26.9	98	32.2
Northern Non-Direct Service Zone	185	62.0	165	58.6	130	47.5
Northern Island Lake Zone	79	99.6	61	78.4	54	71.2

Source: Manitoba Health, Healthy Living and Seniors, Health Information Management, Special Data Run.

Figure 5.17. Teen Birth Rate by Year, 2010/11-2012/13.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management, Special Data Run.

5.4.3. Preterm Birth Rate

DEFINITION

This indicator measures the number of live infants born prior to 37 weeks gestation expressed as a percentage of all live births (40 weeks gestation is considered 'full term').

Why Is This Indicator Important?

Preterm births are the leading cause of Canadian infant mortality, accounting for 75 per cent of deaths in the perinatal period (the time right before and after birth).

They are responsible for a wide variety of health issues in the long and short term, including slower brain development, mental health illnesses, and respiratory conditions. These can exist into adulthood and contribute to increased health care costs.

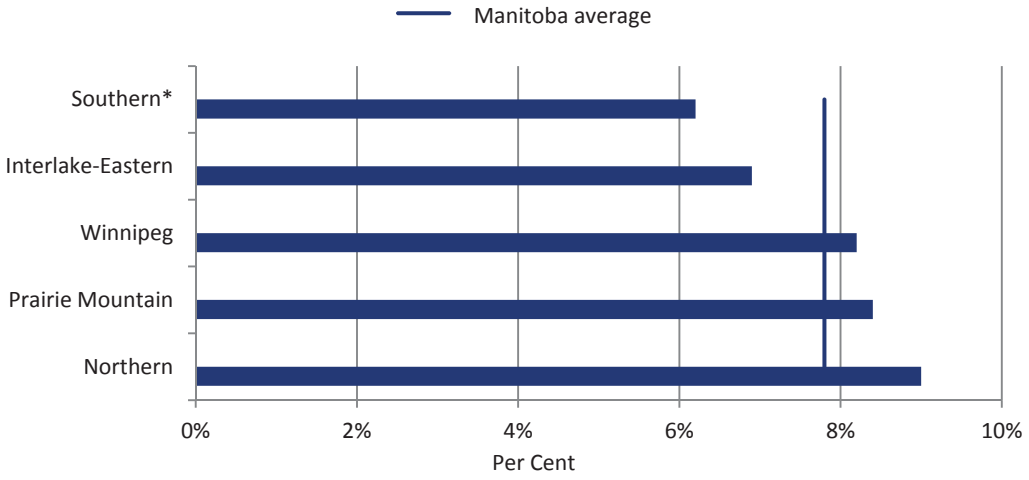
What did we learn in 2009?

- The former Burntwood Region identified this as a key area to focus in child health as rates of preterm births (10.3%) were among the highest in Manitoba and were increasing over time (from 8.5% in 2002/3 to 10.3% in 2006/7).
- The former NOR-MAN Region reported rates lower (6.5%) than the provincial average (8.0%), though increases were being seen over time.

What did we learn in 2014?

- In 2012/13, the Northern Health Region recorded a preterm birth rate of 9.0 per cent, above the provincial average of 7.8 per cent. It was the highest rate among Manitoba RHAs (see **Figure 5.18**) but was not statistically higher than the provincial average.

Figure 5.18. Preterm Birth Rate by RHA, 2012-2013.



Source: Report CB1 2014, Canadian Institute for Health Information.
NOTE: '*' indicates area's rate was statistically different from Manitoba average.

5.4.4. Low Birth Weight Rate

DEFINITION

This indicator measures the percentage of live infants born weighing less than 2500 grams to the number of births (birth weight known and greater than 500 grams).

Why Is This Indicator Important?

This is an important indicator of infant health, development, and survival, as low birth weight infants are more likely to suffer from disability or disease, including visual problems, respiratory problems, learning disabilities, and cerebral palsy.

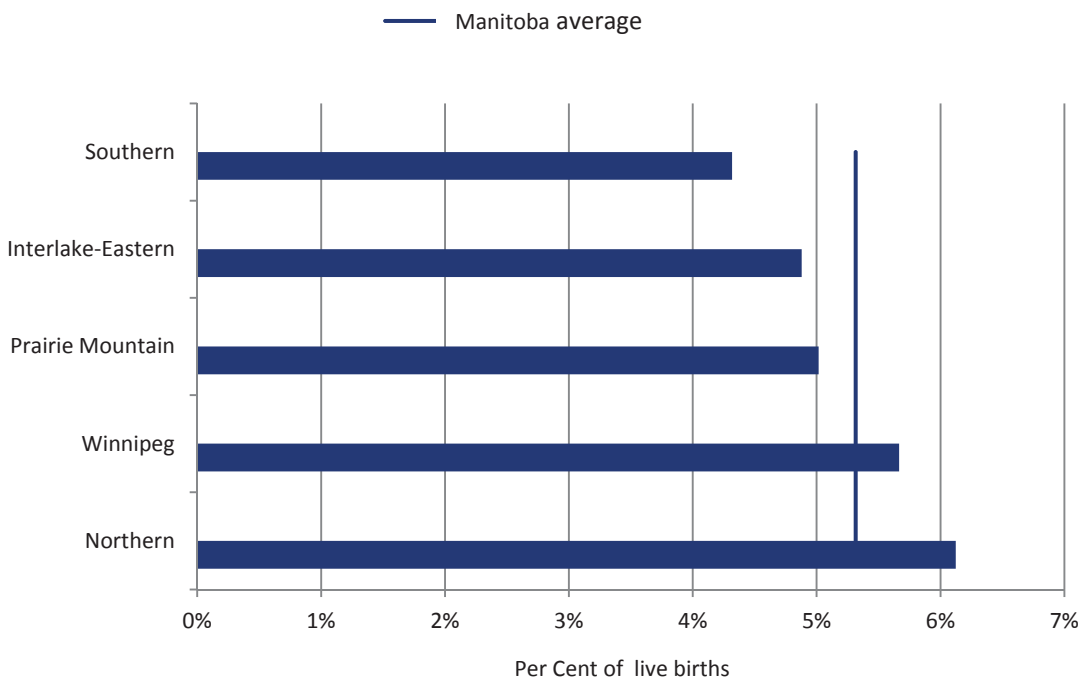
What did we learn in 2009?

- The rate of low birth weight (LBW) infants in the former NOR-MAN Region (4.7%) was similar to the provincial average (5.3%), when viewed over 5 years.
- Although actual numbers of low birth weight infants are relatively small, the LBW rate in the former Burntwood Region was among the highest in the province, and has been consistently higher than the provincial average (5.5% over 5 years), though it was statistically insignificant.

What did we learn in 2014?

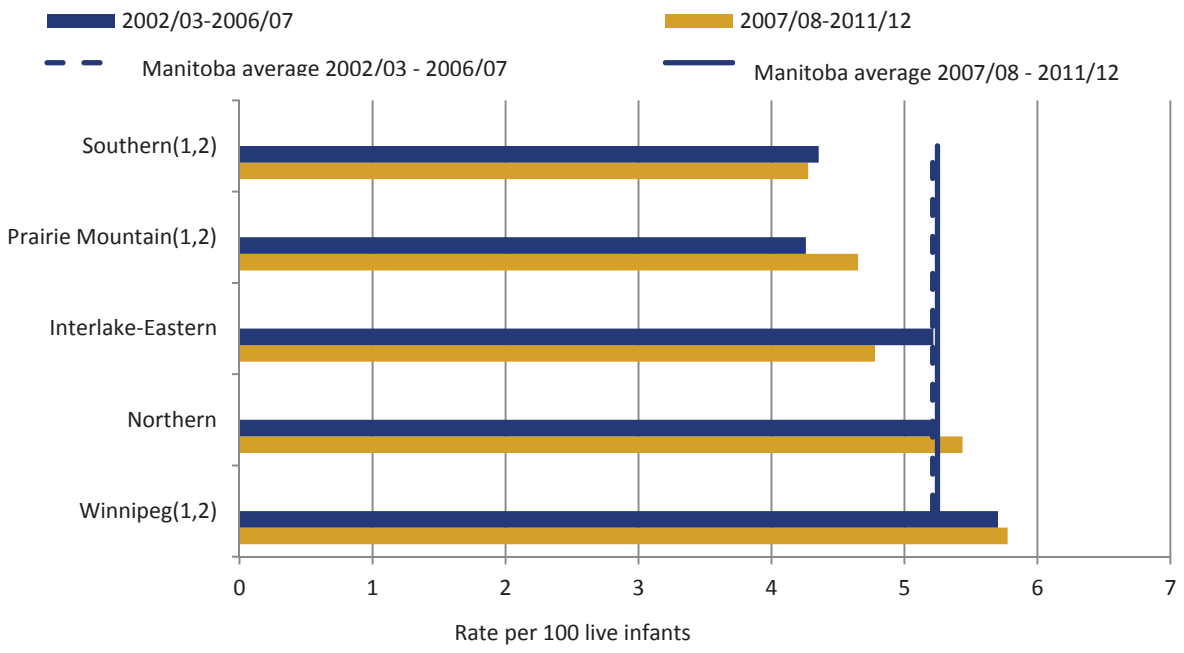
- The proportion of low birth weight infants in the Northern Health Region was 6.1 per cent in 2011/12, the highest among Manitoba RHAs, above the provincial average of 5.3 per cent (see **Figure 5.19**). However, this difference is not statistically significant.
- As **Figure 5.20** shows, the low birth weight rate rose slightly in the Northern Health Region from 5.2 per 100 live infants in 2002/03-2006/07 to 5.4 in 2007/08-2011/12. The Manitoba average was 5.2.
- The low birth weight rate fluctuated yearly between 2002/03 and 2011/12 in the Northern Health Region from 4.6 per cent in 2002/03 to 6.6 per cent in 2006/07 (see Figure 5.20).
- Among Northern Health Region zones, low birth weight rates had statistically significant increases in Island Lake and Flin Flon/Snow Lake from 2002/03-2006/07 to 2007/08-2011/12. Shamattawa experienced a statistically significant decrease over those two time periods. Nelson House FN had the highest rate in the Northern Health Region at 9.4 per 100 live infants (see **Figure 5.21**).

Figure 5.19. Low Birth Weight Rate by RHA, 2011-2012.



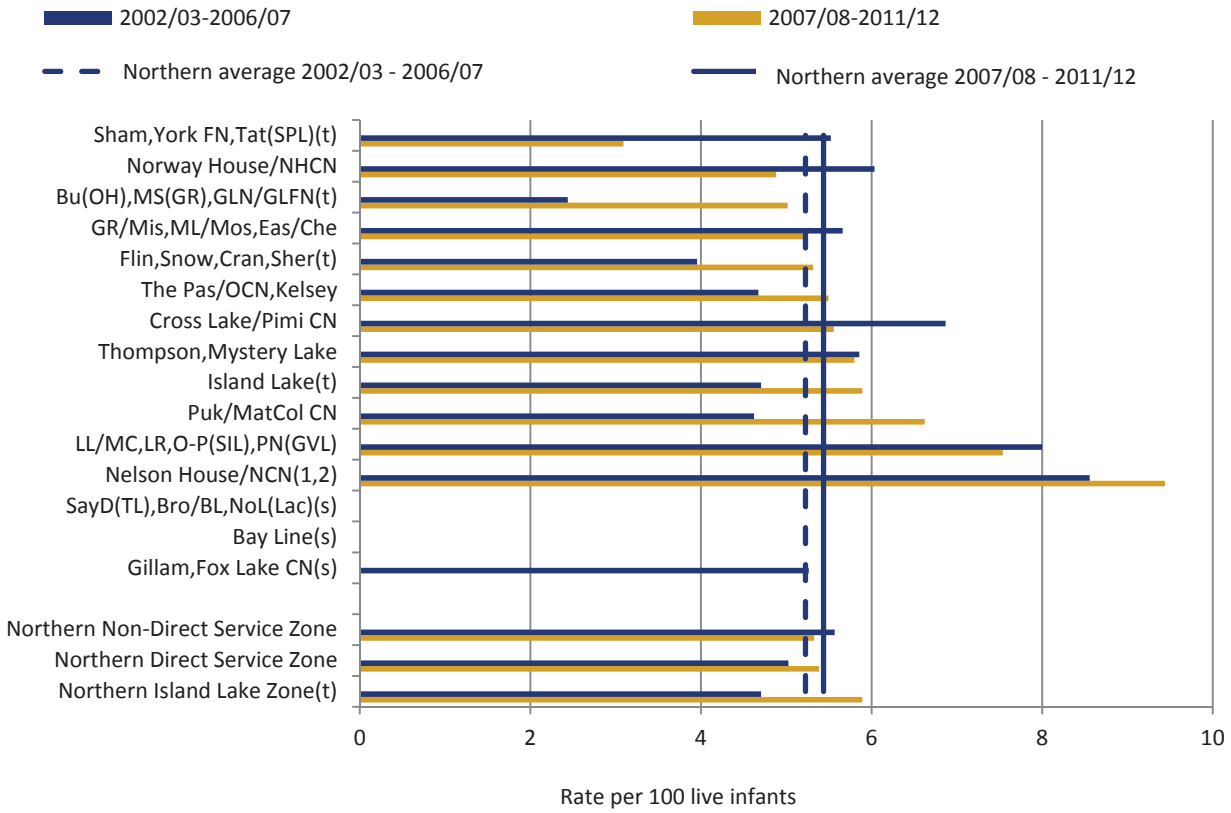
Source: Manitoba Health, Healthy Living and Seniors, Health Information Management.
NOTE: Southern has statistically lower than average rate.

Figure 5.20. Annual Low Birth Weight Rates by RHA, 2002/03 and 2007/8-2011/12.



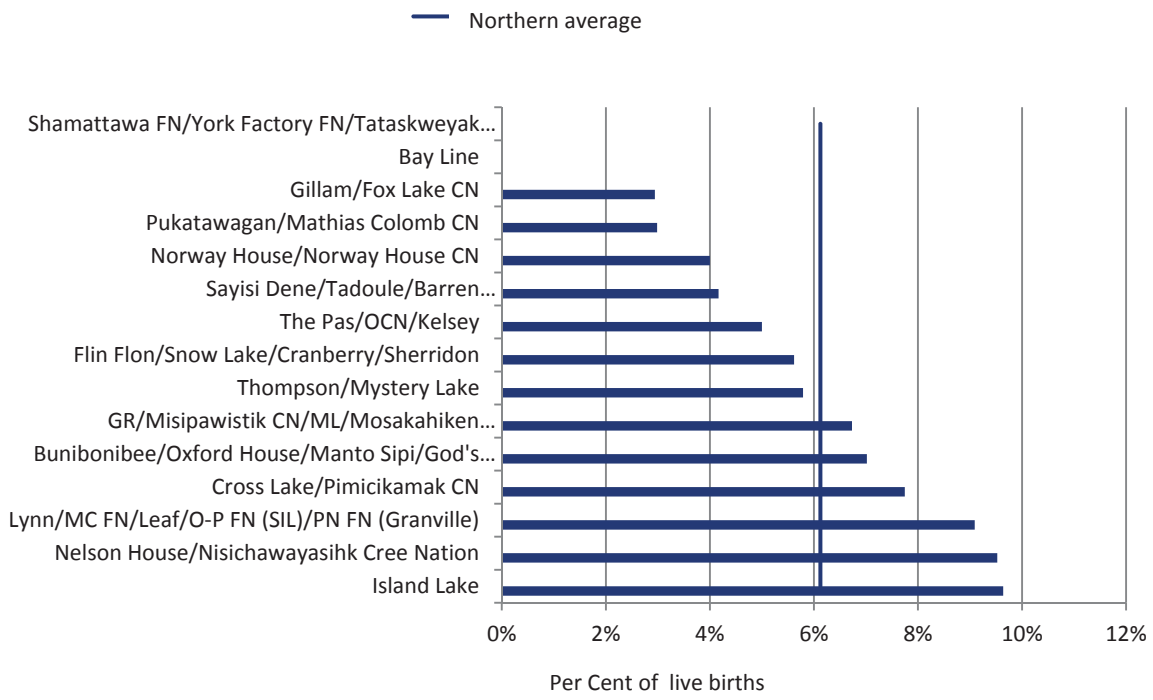
Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area

Figure 5.21. Annual Low Birth Weight Rates by Northern District and Zone, 2002/03-2006/07 and 2007/08-2011/12.



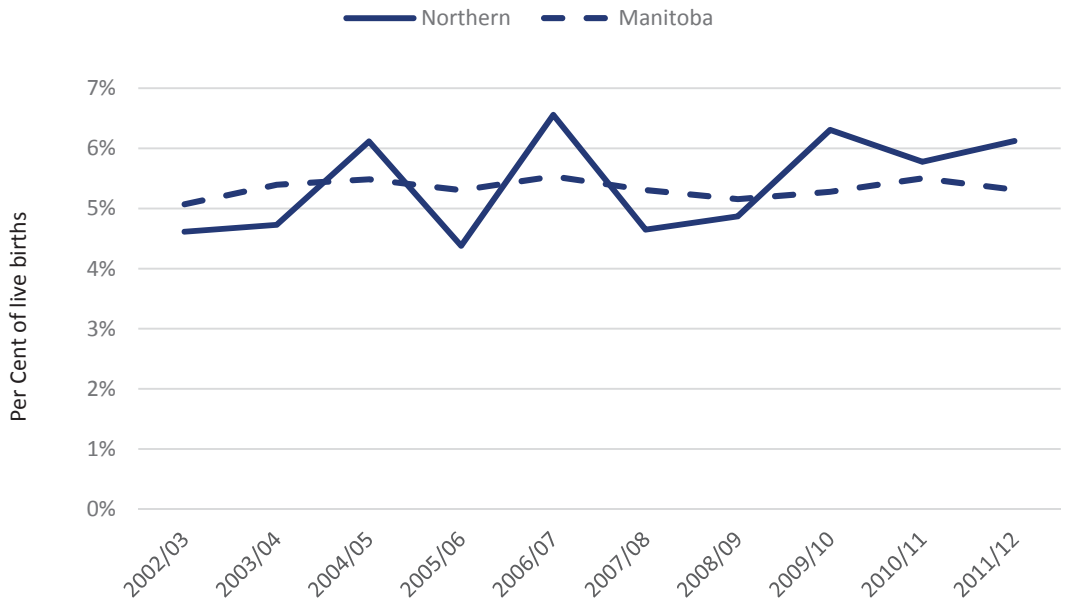
Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area
's' indicates data suppressed due to small numbers.

Figure 5.22. Low Birth Weight Rate by Northern District and Zone, 2011-2012.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management.
NOTE: '*' indicates area's rate was statistically different from Northern average.

Figure 5.23. Low Birth Weight Rate by Year, 2002/03-2011/12.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management.

5.4.5. High Birth Weight Rate

DEFINITION

This indicator measures the proportion of live infants born who are over 4500 grams in weight at birth.

Why Is This Indicator Important?

HBW infants are more likely to develop Type 1 Diabetes, and are at a greater risk of infant mortality than normal weight infants. It is also tied to much higher rates of gestational diabetes.[i]

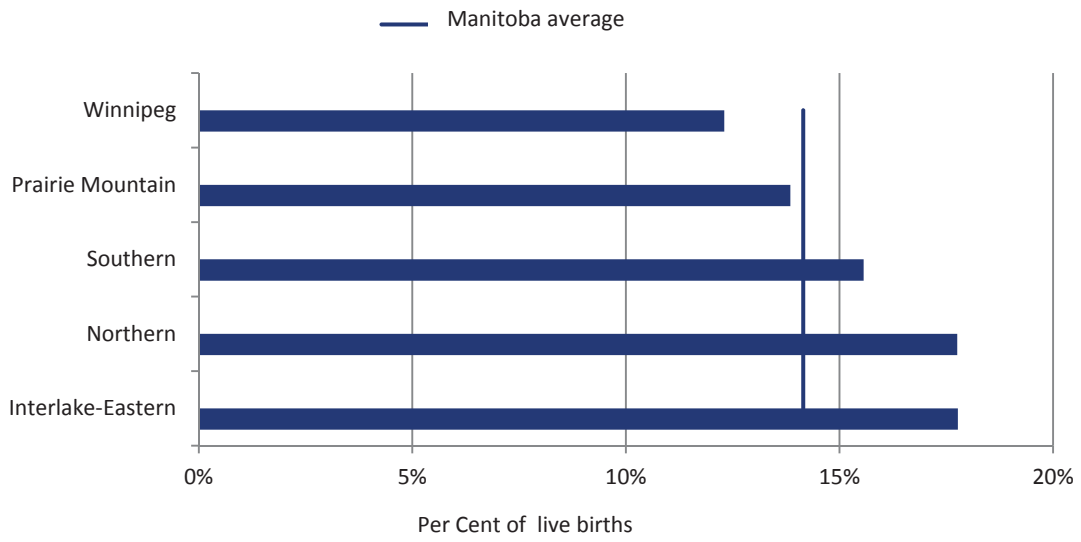
What did we learn in 2009?

- Rates of HBW infants in the former Burntwood Region declined slightly from 21.3 per cent in 2000/2001 to 19.5 per cent in 2006/7. However, the rate remained above the provincial average of approximately 16 per cent.
- Similarly, in the former NOR-MAN Region, although there was a decline in HBW infants from 20.5 per cent to 17.6 per cent, the rate also remained above the Manitoba average (16.1%).

What did we learn in 2014?

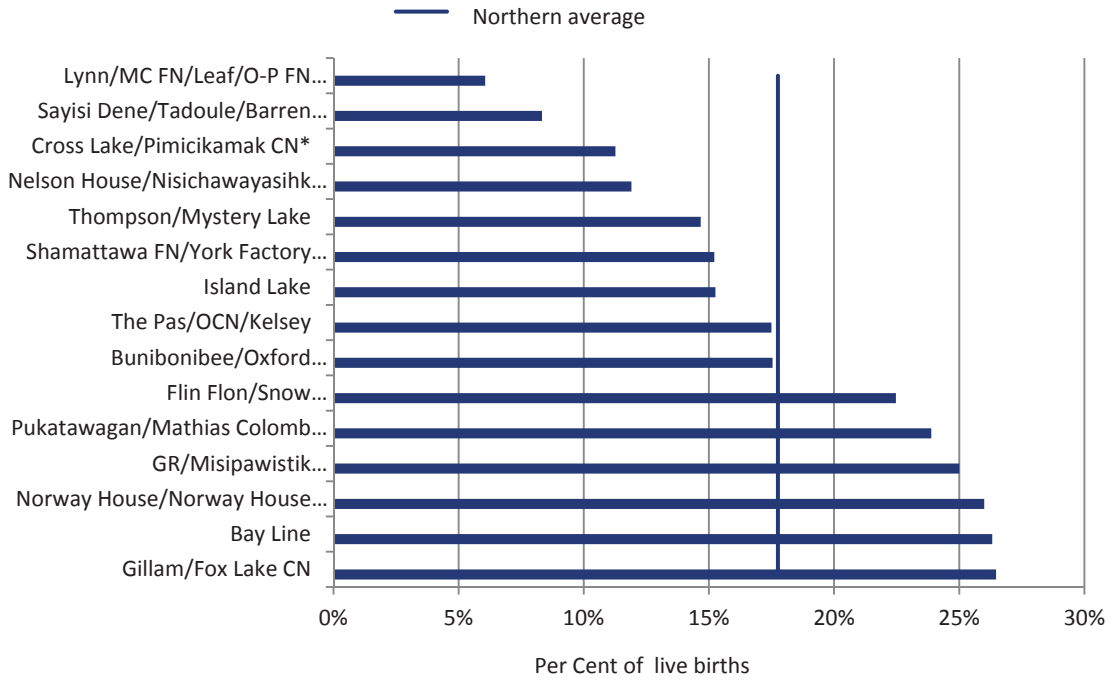
- As **Figure 5.24** shows, the rate of HBW infants in the Northern Health Region was 17.8 per cent in 2011/12 which was higher than the Manitoba average of 14.2 per cent.
- The Northern Health Region has had a gradual decline in HBW rates from 20.6 per cent in 2002/03 to 17.8 per cent in 2011/12, reducing the gap between the region and the Manitoba average (see **Figure 5.26**).
- **Figure 5.25** shows that four Northern Health Region districts had HBW rates of 25 per cent and over in 2011/12: Gillam/Fox Lake, Bay Line communities, Norway House and Grand Rapids. Lynn Lake/Leaf Rapids and Sayisi Dene/Tadoule Lake districts had rates below 10 per cent.

Figure 5.24. High Birth Weight Rate by RHA, 2011-2012.



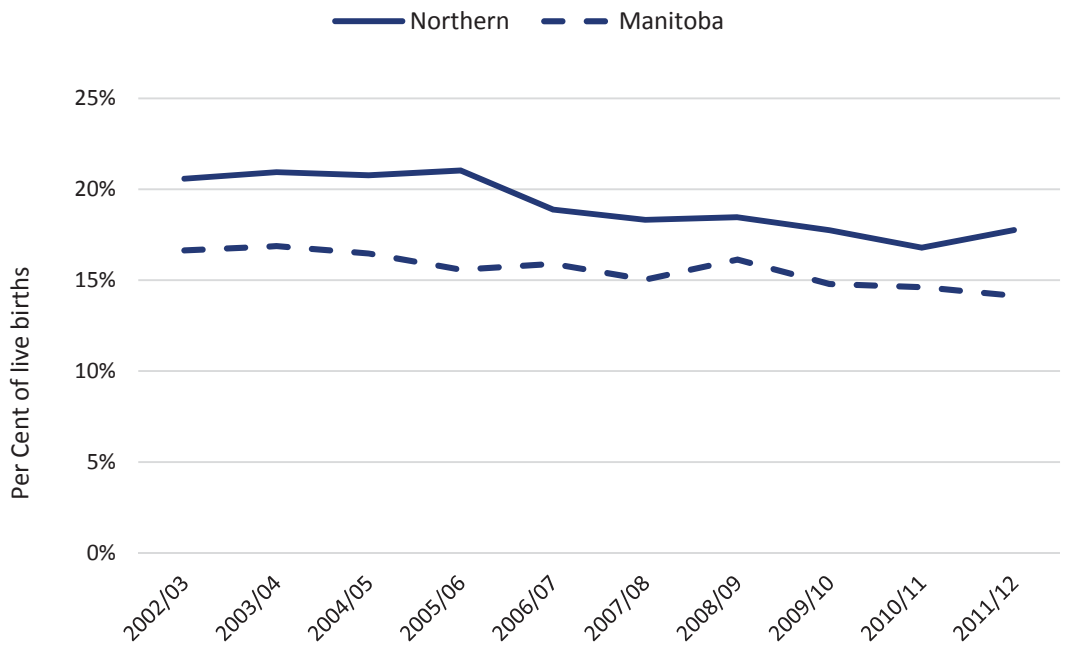
Source: Manitoba Health, Healthy Living and Seniors, Health Information Management.
NOTE: Winnipeg has statistically lower than average rate. Interlake-Eastern and Northern have statistically higher than average rate.

Figure 5.25. High Birth Weight by Northern District and Zone, 2011-2012.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management.
NOTE: '*' indicates area's rate was statistically different from Northern average.

Figure 5.26. High Birth Weight by Year, 2002/03-2011/12.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management.

5.4.6. Large for Gestational Age (LGA)

DEFINITION

This indicator is calculated by including infants large for preterm, large for term and large for post term births in the numerator and total live born deliveries in the denominator. To provide an indication of the size of these babies, in 2001/02 - 2005/06, the average birth weight for Manitoba newborns was 7.6 pounds and for LGA was 9.3 pounds.

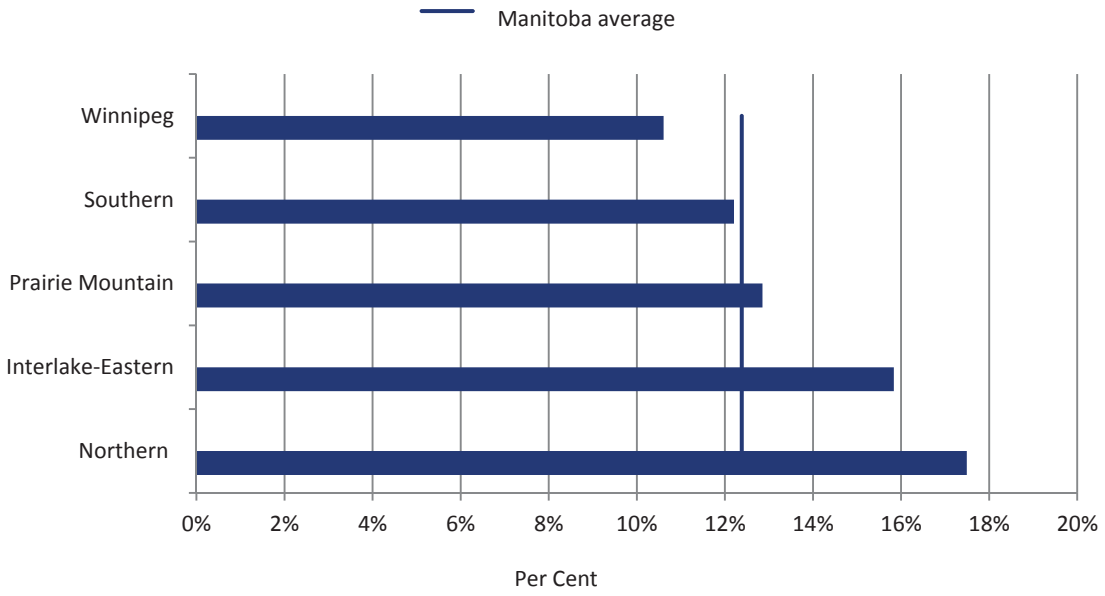
Why Is This Indicator Important?

This indicator is based on the estimated gestational age of a baby. An infant who is LGA has a higher risk for injury during birth and low blood sugar post birth. LGA infants are also tied to prolonged pregnancies and gestational diabetes.[ii]

What did we learn in 2014?

- The proportion of LGA infants was 17.5 per cent in the Northern Health Region in 2011/12, well above the Manitoba average of 12.4 per cent (see **Figure 5.27**). This difference is statistically significant.

Figure 5.27. Large For Gestational Age by RHA, 2011/12.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management.
NOTE: Winnipeg has statistically lower than average rate. Interlake-Eastern and Northern have statistically higher than average rate.

5.4.7. Small for Gestational Age (SGA)

DEFINITION

Rates for Small for Gestational Age (SGA) are calculated by taking all live–born small for preterm, small for term and small for post term births and dividing by the total number of live–born deliveries. To provide an indication of the size of these babies, in 2001/02 - 2005/06, the average birth weight for Manitoba newborns was 7.6 pounds and for SGA was 5.8 pounds.

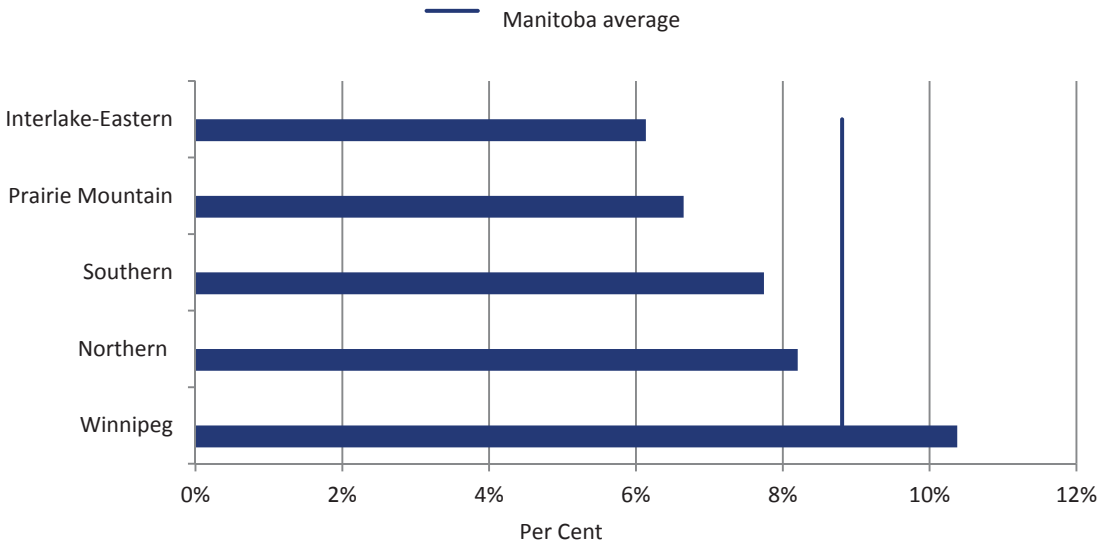
Why Is This Indicator Important?

An infant who is SGA is more likely to face both short-term and long-term health issues, including diabetes, hypertension, and cardiovascular disease. It is related to maternal smoking, poor nutrition during pregnancy, placental insufficiency, and other conditions.[iii]

What did we learn in 2014?

- The proportion of SGA infants in the Northern Health Region was 8.2 per cent in 2011/12, below the Manitoba average of 8.8 per cent (see **Figure 5.28**), however this difference is not statistically different.

Figure 5.28. Small for Gestational Age by RHA, 2011-2012.



Source: Manitoba Health, Healthy Living and Seniors, Health Information Management.
NOTE: Winnipeg has statistically higher than average rate. Interlake-Eastern and Prairie Mountain have statistically lower than average rate.

5.5. Selected Chronic Disease Incidence & Treatment Prevalence

Chronic diseases such as cancer, heart disease, diabetes, chronic lung disease, and arthritis not only impact life expectancy and premature death rates, they affect our ability to live independently and free of illness and disability. Chronic diseases have in common the same risk factors, such as tobacco use, excessive alcohol use, unhealthy diet, inactivity, and being overweight. Many of these behaviours and risk factors are also associated with other, more fundamental determinants of health, such as socioeconomic status, racial or ethnic status, sex and geographic area of residence.

A recent study published in the *Canadian Medical Association Journal,* underlined that the burden of chronic disease continues to be high for the Northern Health Region. The study found that the incidence and prevalence of End Stage Renal Disease in Manitoba, a condition resulting from diabetes or hypertension, has continued to increase over the entire 1989-2010 period. Despite overall Canadian trends which show a levelling off of ESRD prevalence and incidence in the rest of Canada, Manitoba continued to see increases fueled in part by increases in Northern Manitoba. The rural north saw an increase in incidence of 450 per cent from 1989 to 2010.[iv]

As outlined later in this section, chronic disease management was an important theme of discussion for focus groups held in the Northern Health Region in 2014. Much of the prevailing sentiment was that there were enough treatment options for residents managing a chronic disease but that there needed to be more of an ongoing commitment from patients to live a healthier lifestyle to address the risk factors that people can control.

As one participant in community consultations pointed out, ***"Good public education about preventing chronic disease can be designed for families to learn together, maybe through the schools."***

Some participants did suggest that there is a considerable barrier to chronic disease prevention as one participant noted that, ***"Those that are highest risk for chronic disease often need to have their basic needs met before they are going to be able to address health needs. Basic needs such as running water, proper housing, and healthy food options that are affordable."***

WHAT DO WE KNOW?

- The Northern Community Survey conducted in the Summer and Fall of 2014 illustrated that chronic diseases continue to be a major health issue and concern among residents in the Northern Health Region. Of the 281 responses, 45.9 per cent indicated that they had been seen by a nurse or a doctor for high blood pressure or hypertension. Another 26.0 per cent were seen for diabetes and 22.1 per cent for arthritis.

WHAT ARE WE DOING?

- Once a year, the Northern Health Region hosts a 6 Week Community Wellness Challenge, a fun and easy way to improve your lifestyle with a chance to win great prizes. Community members are encouraged to become healthier by being committed to following simple wellness tips over a six week period.

- Healthy Together Now (HTN) is a community-led program where communities, regions and government work together to help prevent chronic disease in Manitoba. Community members identify and lead prevention activities that focus on the areas of healthy eating, physical activity, tobacco prevention and reduction and mental wellbeing. HTN activities target all age groups from toddlers to seniors and aim to engage individuals, families and communities. In 2014-2015 HTN supported activities in 18 communities across our region including community gardening, cooking circles, exercise programs for seniors, community wellness challenges, youth wilderness programs, smoking awareness campaigns and much more.

- The Northern Health Region Physiotherapy Department in The Pas has been partnering with the Town to lease space in the Wellness Centre, enabling us to provide enhanced therapy services and run programs to provide a work reconditioning program that is aimed towards more chronic injury cases and workers who have been off work for extended periods of time, as well as a STEP ("Start to Exercise with Physio") program, aimed primarily towards cardiac patients to allow them to exercise in a safe and supervised environment after experiencing a cardiac event.

5.5.1. Acute Myocardial Infarction

DEFINITION

The annual rate of hospitalization (3 or more days) or death due to AMI per 1,000 residents age 40 or older, over a five year period.

Why Is This Indicator Important?

There are an estimated 70,000 heart attacks in Canada each year. Approximately 16,000 of these result in death. This number has been increasing nationwide for over a decade.[v] Residents of areas with a large population of First Nations people are 76 per cent more likely to suffer from a heart attack.[vi]

Heart disease was cited by many participants as a significant health challenge in their community during focus group discussions in Northern Health Region communities in 2014. Participants noted that while some people manage their chronic disease well by attending appointments, taking medication and being active, most do not manage their condition well. It is an ongoing challenge to find ways to support residents to more effectively manage their chronic diseases.

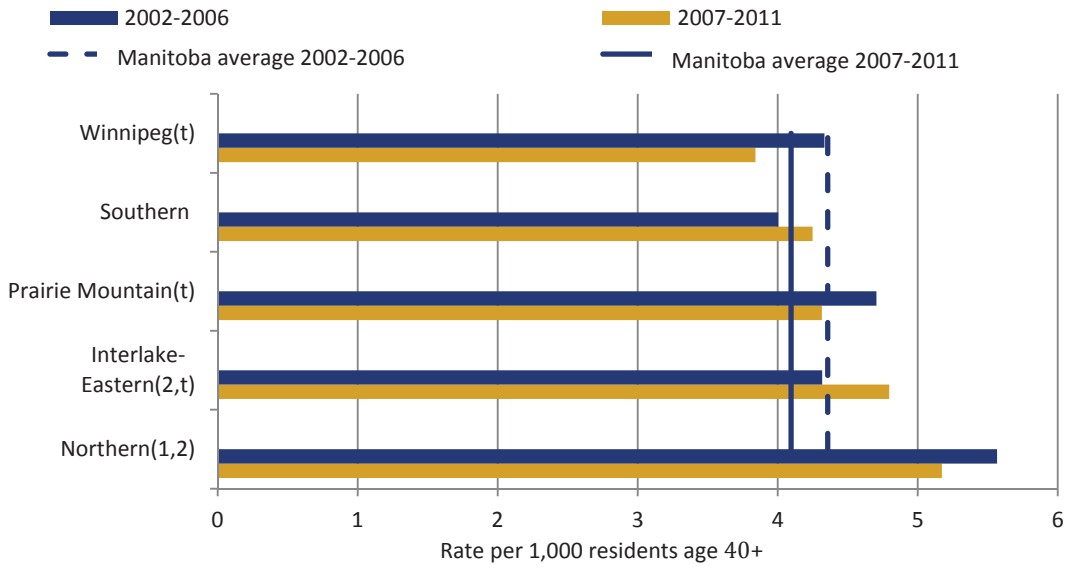
What did we learn in 2009?

- The former Burntwood Region reported a significant decline in hospitalizations due to AMI (from 7.2 per 1,000 in 1996/7-2000/1 to 6.1 in 2000/1-2005/6), but still significantly above the provincial average (4.6 per 1,000 in 2001/2-2005/6).
- The former NOR-MAN Region reported AMI rates (5.2 per 1,000 in 2000/1-2005/6) significantly above the provincial average, but they were decreasing steadily (from 5.9 per 1,000 in 1996/7-2000/1).

What did we learn in 2014?

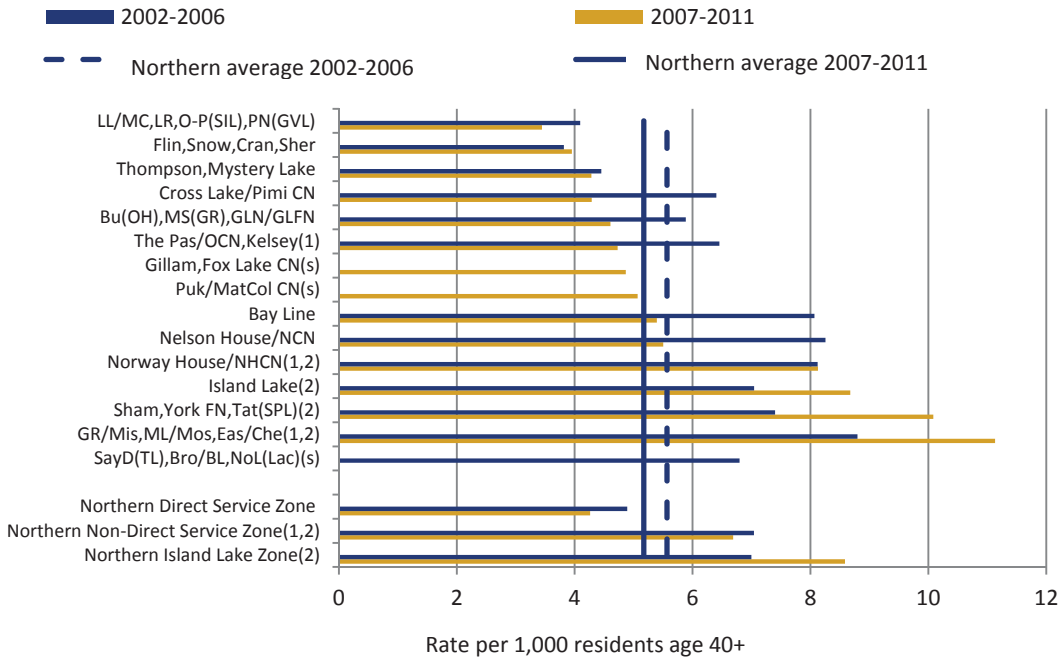
- The AMI rate in the Northern Health Region declined from 5.6 per 1,000 population in 2002-2006 to 5.2 in 2007-2011. The northern rate was statistically higher than the Manitoba average for both time periods (see **Figure 5.29**).
- Among Northern Health Region zones, the Northern Island Lake zone had the highest AMI rates, statistically above the regional average. The Grand Rapids district had the highest AMI rate at 11.1 in 2007-2011 (see **Figure 5.30**).

Figure 5.29. AMI Rates by RHA, 2002-2006 and 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.30. AMI Rates by Northern District and Zone, 2002-2006 and 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.5.2. Arthritis Prevalence

DEFINITION

This indicator measures the percentage of residents aged 19 or older diagnosed with arthritis (osteo or rheumatoid) using a combination of data in physician visits, hospitalizations, and prescription drugs.

Why Is This Indicator Important?

According to the Public Health Agency of Canada, 16 per cent of Canadians over the age of fifteen are living with arthritis, the majority of whom are women. [vii] Physical inactivity and obesity can play a large role in the onset and severity of arthritis.

What did we learn in 2009?

- Although regional residents have fairly high rates of risk factors, residents of the former Burntwood Region reported the lowest arthritis rate (13.2%in 2007) in the province (of 15.7% in 2007).
- In the former NOR-MAN Region, rates (25.9% in 1999/2000-2000/2001 declining slightly to 24.9% in 2004/2005-2005/2006) were higher than the provincial average (of 20.2% in most recent time period), which experienced a similar slight decline.

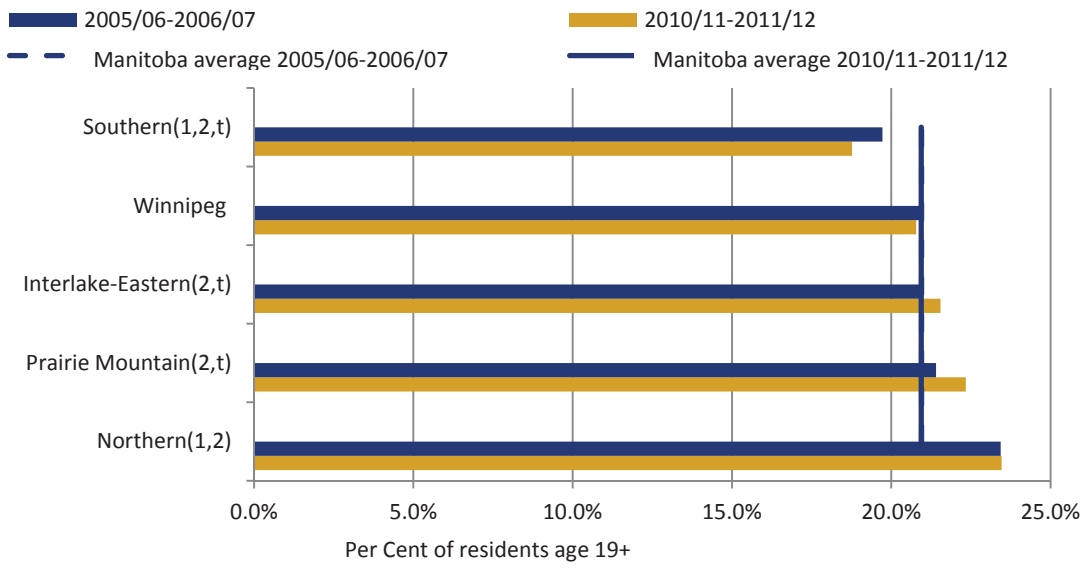
What did we learn in 2014?

- The proportion of Northern Health Region residents with arthritis remained virtually unchanged from 23.4 per cent in 2005/06-2006/07 to 23.5 per cent in 2010/11-2011/12. Arthritis prevalence was statistically above the Manitoba average for both time periods (see **Figure 5.31**).
- There was a wide range of prevalence rates in the Northern Health Region districts with Nelson House, Shamattawa, and The Pas districts all recording arthritis prevalence at under 20 per cent in 2010/11-2011/12 while the Lynn Lake and Gillam districts had prevalence rates of over 30 per cent in the most time period (see **Figure 5.32**).

WHAT DO WE KNOW?

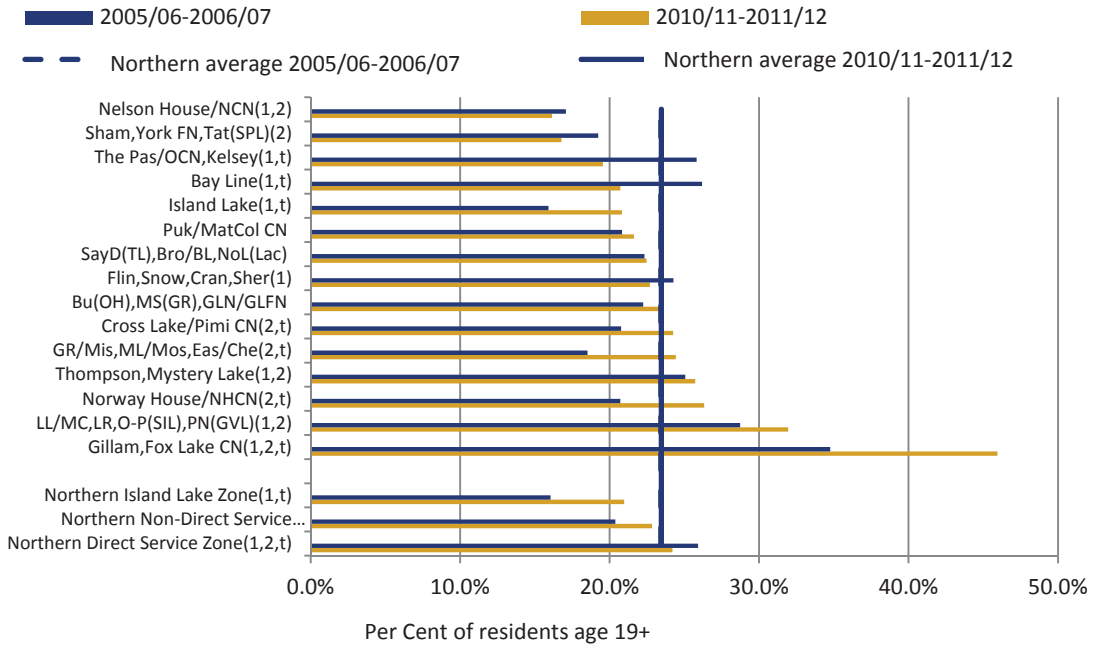
Arthritis is an important health issue for the Northern Health region. In the Northern Community Survey, 22.1 per cent of respondents indicated that they had been treated for arthritis by a nurse or a doctor in their life time.

Figure 5.31. Arthritis Prevalence by RHA, 2005/06-2006/07 and 2010/11-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.32. Arthritis Prevalence by Northern District and Zone, 2005/06-2006/07 and 2010/11-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.5.3. Congestive Heart Failure (40+)

DEFINITION

This indicator measure the proportion of people aged 40 and older with congestive heart failure in a three–year period.

Why Is This Indicator Important?

Congestive Heart failure (HF) is a complex condition in which the heart is unable to pump a sufficient amount of blood throughout the body which results in heart attacks and other medical conditions. It is estimated half a million Canadians live with CHF with prevalence increasing with age. Those with CHF can manage this heart condition through lifestyle changes and ongoing treatment.

What did we learn in 2009?

- The former Burntwood region had a CHF prevalence rate of 4.25 per cent between 2004/05 and 2006/07 which was the highest in Manitoba and above the provincial average of 1.82 per cent.
- The former Nor-man region recorded a CHF prevalence rate of 2.07 per cent during the 2004/05-2006/07 period.

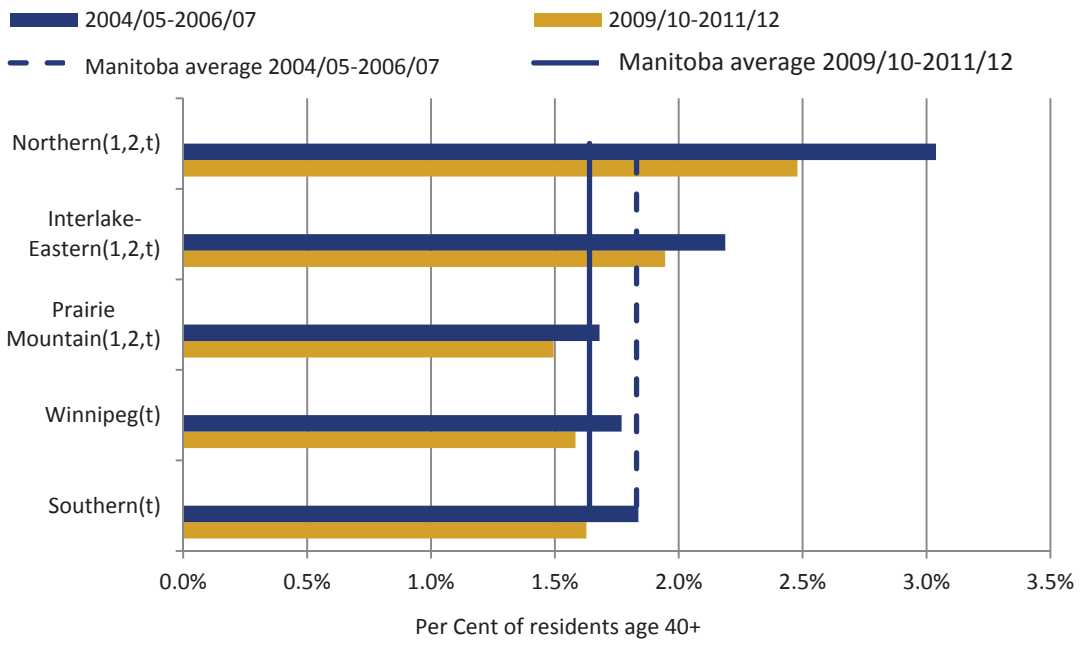
What did we learn in 2014?

- The CHF prevalence rate declined from 3.0 per cent in 2004/05-2006/07 to 2.5 per cent. Although it remained statistically higher than the provincial average of 1.7 per cent, the Northern region did experience a statistically significant decline between the two time periods (see **Figure 5.33**).
- Most Northern Health Region districts experienced a decline in CHF prevalence though Island Lake did see a statistically significant increase over the two time periods. The Shamattawa FN had the highest prevalence rates of 7.1 per cent in 2009/10-2011/12 (see **Figure 5.34**).

WHAT ARE WE DOING?

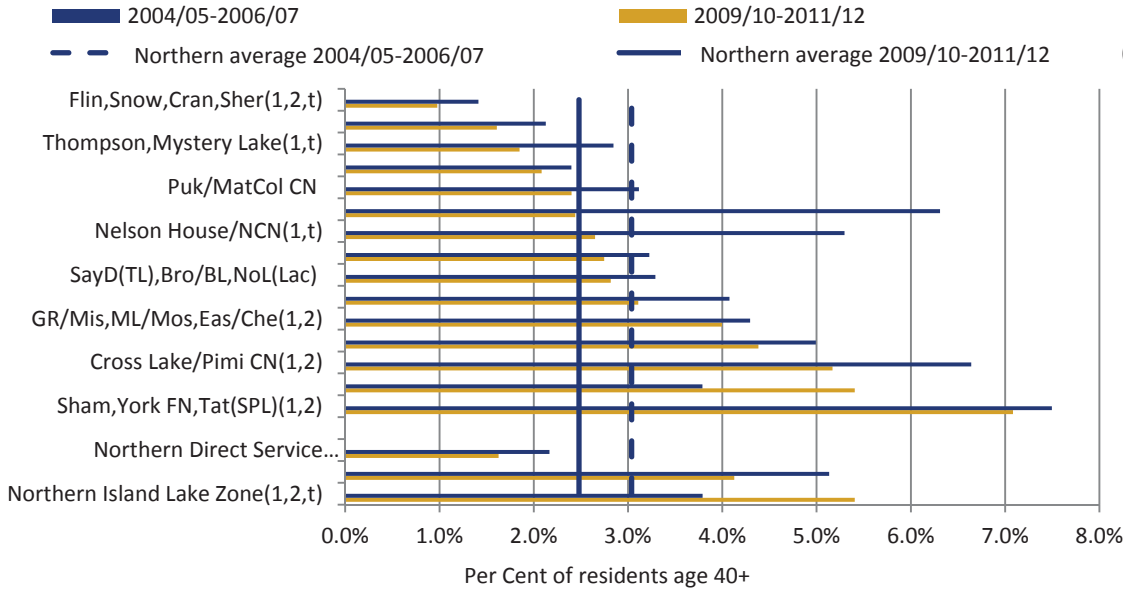
- The Northern Health Region hosts a Heart Health Program based out of The Pas Wellness Centre. This program grew out of the need to coordinate existing services from Health Care Professionals, while offering a new entry point to access care. The program has been flexible to the community's needs by offering group education sessions to clients that are recovering from and living with heart disease as well as making this open to the general public. The program gives participants a chance to become more aware of the existing services offered by the Northern Health Region and an opportunity to collaborate with many partners such as Public Health Nurses, the Regional Diabetes Team, Heart and Stroke Foundation, and UCN 4th year Nursing Students.
- Health promotion and prevention programs are used to increase awareness. Some parts of the region provide community support for cardiac counseling both individual and group. There are nurse-led blood pressure clinics, and nurse and physiotherapy led STEP programs, both of which accept self-referrals.

Figure 5.33. Congestive Heart Failure Prevalence Rate by RHA, 2004/05-2006/07 And 2009/10-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.34. Congestive Heart Failure by Northern District and Zone, 2004/05-2006/07 And 2009/10-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.5.4. Diabetes Incidence (19+)

DEFINITION

This indicator measures the number of new cases of diabetes diagnosed per 100 person years in residents age 19 and older.

Why Is This Indicator Important?

More than 200,000 Canadians are diagnosed with diabetes every year. While it does not often lead directly to death, diabetes has a significant health and economic burden on Canada in efforts to manage the disease and its symptoms.

What did we learn in 2009?

- The former Burntwood region had a diabetes incidence rate of 2.15 in 2004/05-2006/07, well above the Manitoba average of 0.90.
- The diabetes incidence rate was 1.38 in the former Nor-man region in 2004/05-2006/07.

What did we learn in 2014?

- The diabetes incidence rate rose slightly in the Northern Health Region from 1.81 in 2004/05-2006/07 to 1.91. The northern rate was statistically higher than the Manitoba average in both time periods (see
- **Figure** 5.35).
- At the district and zone levels, the lowest diabetes incidence rates were in the Northern direct service zone while the highest incidence rates were found in the Northern Island Lake district. The Island Lake district had the highest rates among all districts at 5.15, a statistically significant difference from the regional average (see **Figure 5.36**).

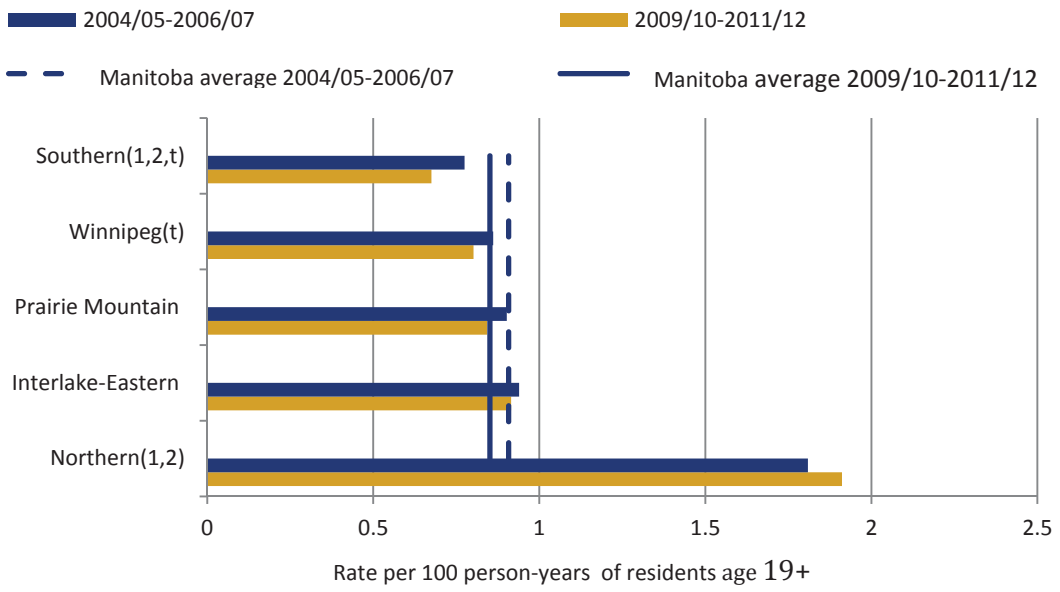
WHAT DO WE KNOW?

- The good news is that, out of the growing number of those diagnosed with diabetes and pre-diabetes, the Regional Diabetes program has implemented a free physical activity group class focusing on resistance exercises with the use of thera-band. The implementation of this free programming has allowed the Regional Diabetes Program (RDP) to provide additional information and resources to those who may not have had access to this type of service prior for various reasons including financial constraints, stigma, etc.

- Due to the ongoing issues with food insecurity in the north, the RDP has implemented access to a registered dietitian upon diagnosis and follow up as requested. This has enabled our dietitians to help those who may have limited access to nutritious foods make better choices within their limitations. Grocery store tours have been provided in Northern communities and continue to be provided annually.

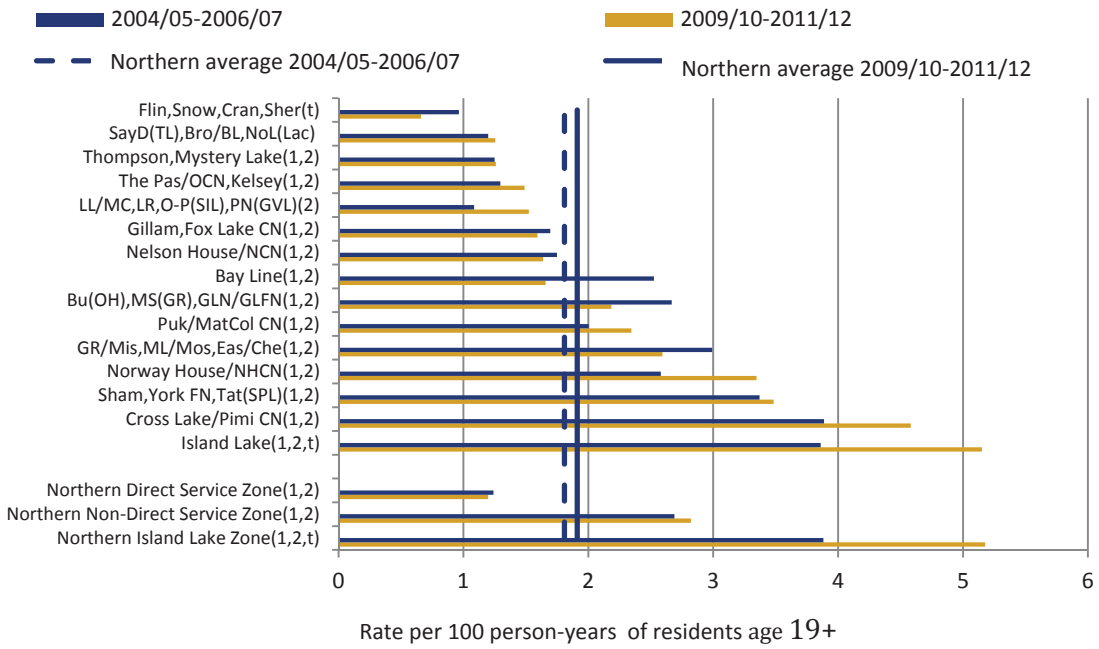
- While the incidence of diabetes continues to rise, data notes that lower limb amputations have decreased slightly. This suggests that care providers/clients are becoming more aware of the importance of screening for diabetes and associated complications, allowing for more focused support to be implemented.

Figure 5.35. Diabetes Incidence by RHA, 20004/05-2006/07 And 2009/10-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.36. Diabetes Incidence by Northern District and Zone, 2004/05-2006/07 and 2009/10-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.5.5. Diabetes Prevalence (19+)

DEFINITION

The number of individuals aged 19 and over who have been diagnosed by a health professional as having diabetes. Data derived from a population based database of individuals diagnosed with diabetes, expressed as a rate per 10,000 population.

Why Is This Indicator Important?

It is generally believed that for every person diagnosed with and being treated for diabetes, there is another who is not. Type 2 diabetes was identified as a major concern in both former regions. 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.[viii] As persons with diabetes better manage their disease and they live longer, this may also lead to an increase in the number of persons living with diabetes.

Diabetes continues to be one of the most important ongoing health challenges in Northern Health Region communities as was evident during focus group discussions in 2014. Participants did note that those with diabetes need to take greater ownership of their care, feeling that there enough resources in diabetes education and clinics. The bigger barriers are the need to have recreational opportunities and access to healthy foods which would help manage their diabetes better. Sometimes, managing diabetes gets sacrificed due to economic issues. As one participant noted, ***"You need to have food for your kids. It comes down to what is going to feed your family the longest and it usually is cheap food full of not so healthy things."***

What did we learn in 2009?

- The diabetes treatment rate increased significantly in the former Burntwood Region (from 15.9% in 1998/99-2000/01 to 21.4% in 2003/04-2005/06) and was likely underreported (due to service provision outside of the "fee for service" model).
- Diabetes had an increased burden on young residents in age-adjusted statistics (10.9 cases per 1,000 residents), with diagnoses at double the provincial average (5.4 cases per 1,000 residents). The difference in diabetes incidence between Aboriginal (17.8%) and non-Aboriginal residents (5%) was noted in Burntwood. It is also important to note that this does not include those living on reserve, and are not included in Manitoba Health, Healthy Living and Seniors statistics.
- The diabetes treatment rate in the former NOR-MAN region was also increasing from 10.7 per cent in 1998/99-2000/01 to 13.0 per cent in 2003/04-2005/06. It was significantly above the provincial average (8.7%).

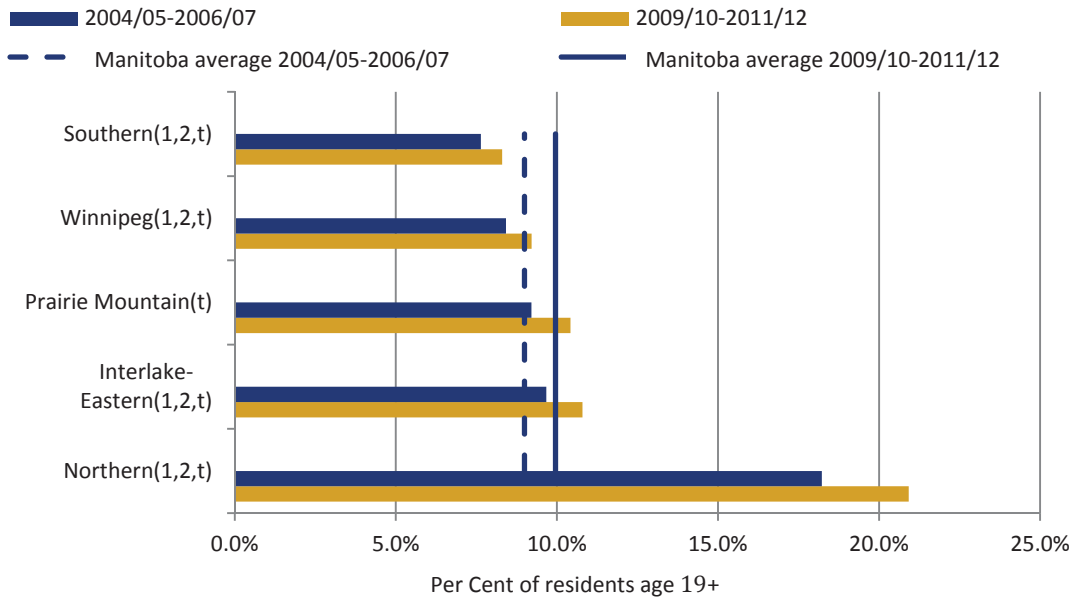
What did we learn in 2014?

- The proportion of Northern Health Region residents with diabetes increased from 18.2 per cent in 2004/05-2006/07 to 20.9 per cent in 2009/10-2011/12, a statistically significant increase.
- All Northern Health Region zones experienced increases in diabetes prevalence rates though there was a wide range in rates. The Northern Direct Service zone had a prevalence rate of 14.3 per cent, statistically below the regional rate while the Northern Island Lake (48.9%) and the Non-Direct Service (28.0%) zones had rates statistically above the Northern Health Region rate.

WHAT DO WE KNOW?

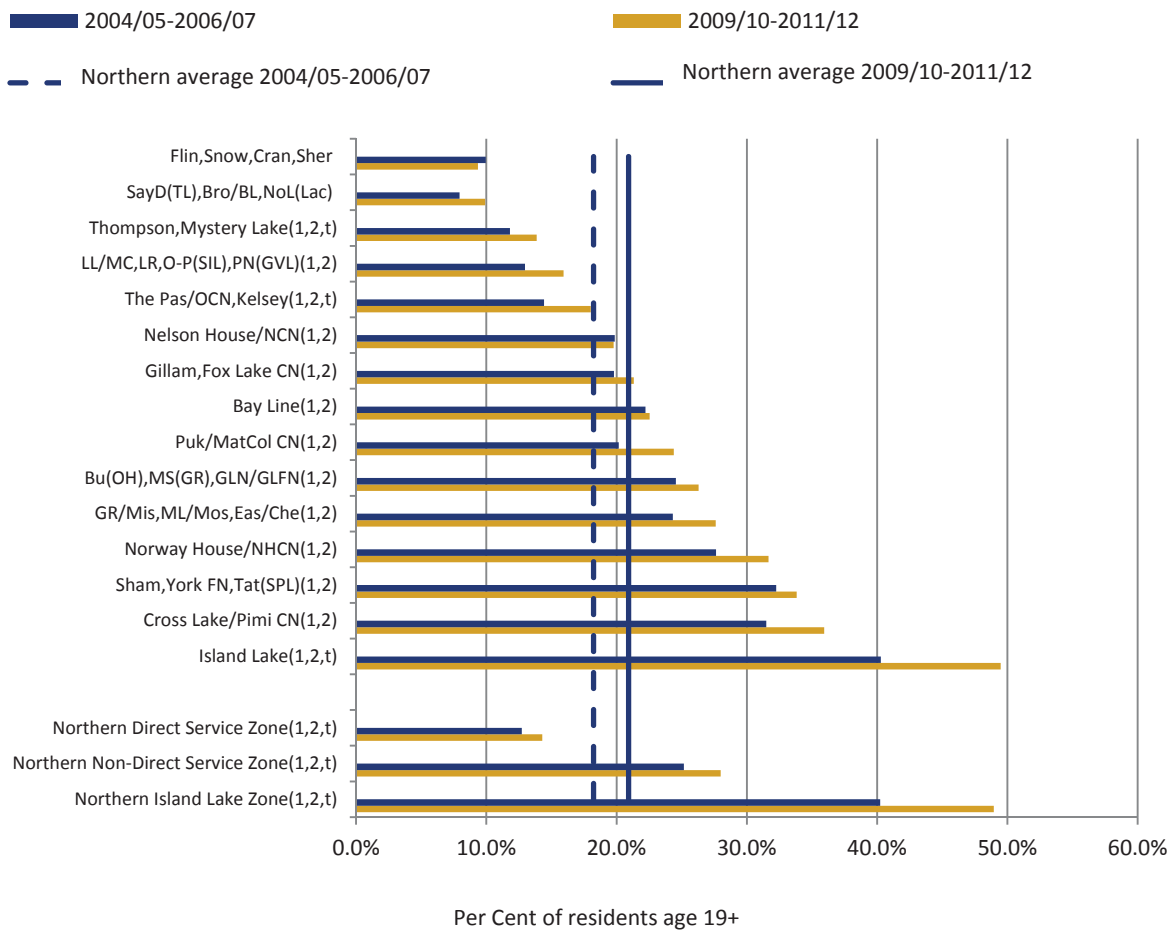
The Northern Community Survey also confirmed that diabetes remains one of the most important health challenges facing the Northern Health Region. In the survey, 26.0 per cent of respondents had indicated that they had been treated for diabetes by a doctor or nurse in their lifetime which was second among conditions cited. Respondents also considered diabetes the second most important health issue either by itself or in combination with other chronic conditions.

Figure 5.37. Diabetes Prevalence by RHA, 2004/05-2006/07 and 2009/10-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.38. Diabetes Prevalence by Northern District and Zone, 2004/05-2006/07 and 2009/10-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

5.5.6. Lower Limb Amputation Due To Diabetes

DEFINITION

This indicator measures the percentage of residents with diabetes (age 19+) who had lower limb amputation (below or including the knee) in a 5 year period.

Why Is This Indicator Important?

Diabetics with lower limb amputations face a lowered quality of life and an increased mortality rate. Frequent hospitalizations are common, as treatments are time-consuming and painful. Effective foot care can help prevent the need for amputation. Though rates are still low, this is an important indicator due to the prevalence of diabetes in the north. 24% of diabetics reported issues with foot and leg health.[ix]

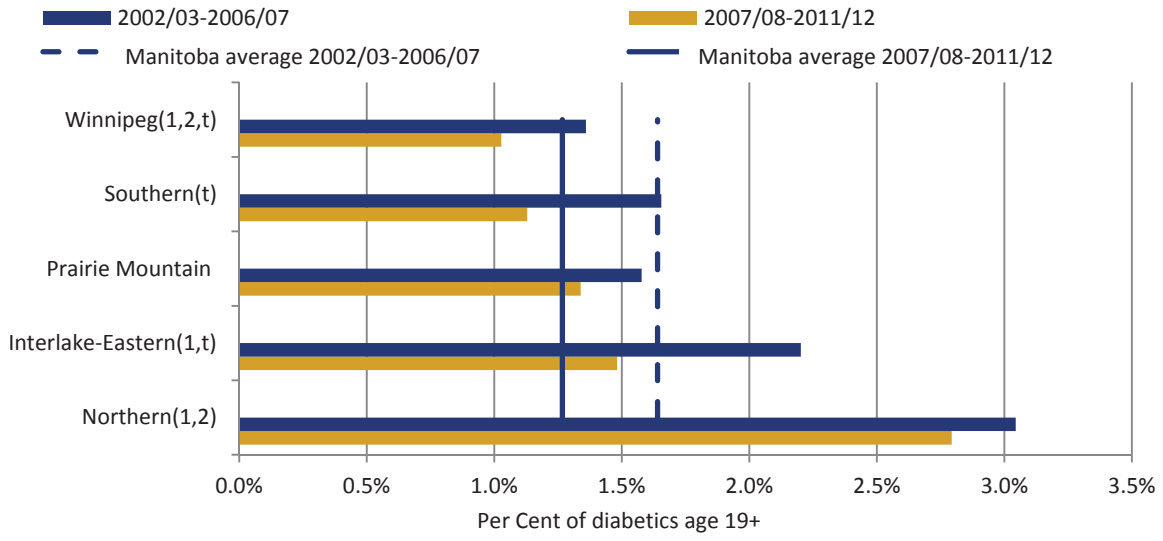
What did we learn in 2009?

- In the former Burntwood region, the number of diabetes-related lower-limb amputations decreased significantly from the previous report (from 46.1 per 1,000 diabetics in 1998/99-2000/01 to 39.8 in 2003/04-2005/06). However, it remained significantly above the provincial average (14.3 per 1,000 in the latter time period).
- In the former NOR-MAN region, there was a statistically significant decrease from the previous report (from 3.33% to 1.87%).

What did we learn in 2014?

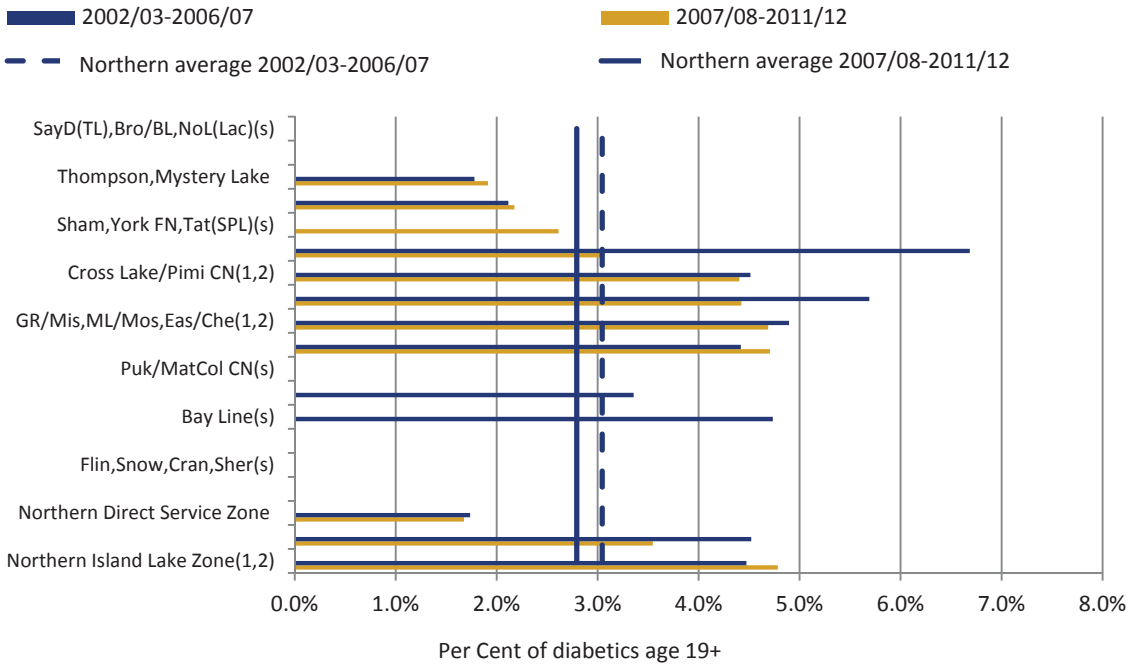
- The Northern Health Region experienced a slight decline in the proportion of residents who have had lower limb amputations, at 3.0 per cent in 2002/03-2006/07 to 2.8 per cent in 2007/08-2-011/12 (see **Figure 5.39**).
- As **Figure 5.40** shows, consistent with other diabetes findings, the Northern direct service zone had considerably smaller lower limb amputation prevalence rates (1.7%) than the Non-Direct service zone (3.5%) or the Northern Island Lake zone (4.8%).

Figure 5.39. Proportion of Diabetics with 1+ Lower Limb Amputations by RHA, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.40. Proportion of Diabetes with 1+ Lower Limb Amputations by Northern District and Zone, 2002/03-2006/07-2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

5.5.7. Hypertension Incidence

DEFINITION

This indicator measures the age and sex-adjusted incidence rate per 100 person-years for residents aged 19+, 2006/07 and 20011/12.

Why Is This Indicator Important?

People with hypertension have a greater risk to have a heart attack and stroke. It will continue to be important for individuals to be aware of the dangers of high blood pressure and to take active steps to lower high blood pressure. Increased public awareness along with prevention and health promotion efforts will help to lower incidence and hospitalizations. Managing high blood pressure continues to be an ongoing challenge in the Northern Health Region.

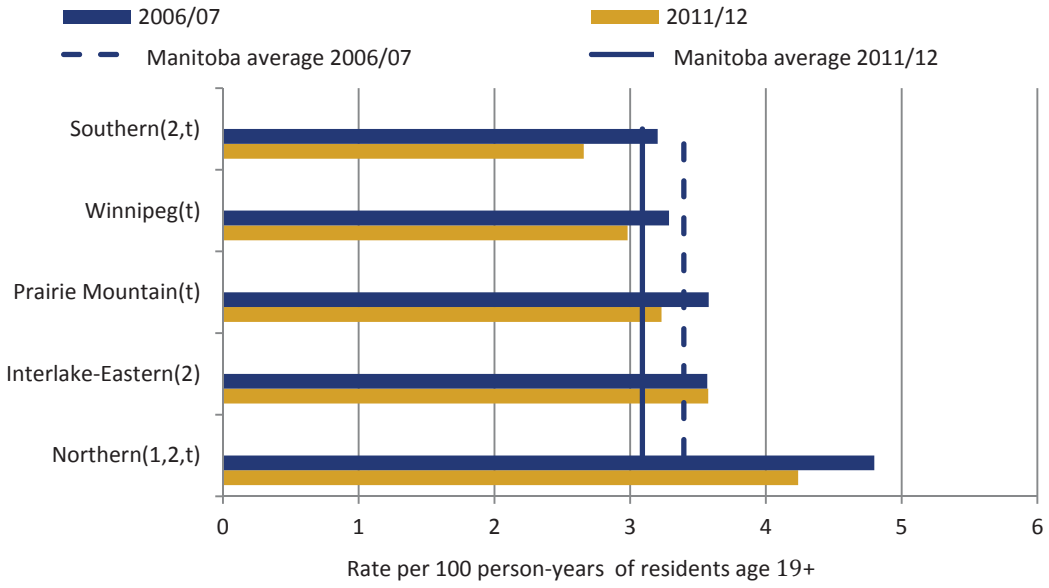
What did we learn in 2014?

- While prevalence rates increased, the incidence rate for hypertension declined from 4.8 per cent in 2006/07 to 4.2 per cent in 2011/12 which was still statistically above the provincial average (see **Figure 5.41**).
- As **Figure 5.42** shows, while the incidence rate declined in the Northern Health Region, it went up in the Northern Island Lake zone to 8.2 per cent in 2011/12, a statistically significant increase.

WHAT DO WE KNOW?

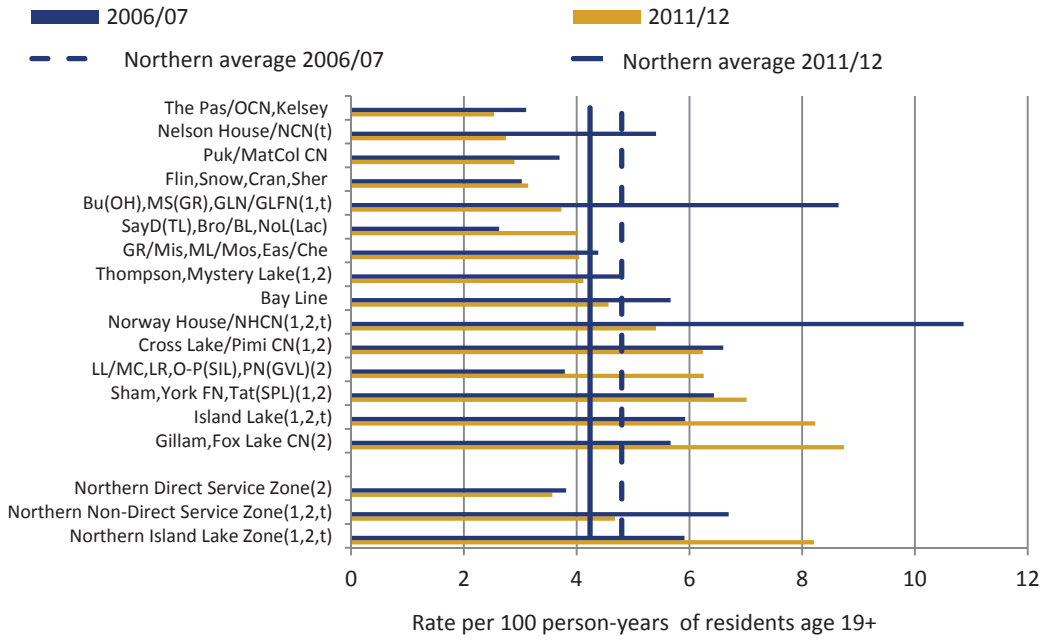
In the Community Health Survey of 2014, 45.9 per cent of respondents indicated that they had gone to a doctor or nurse to be treated for high blood pressure in their lifetime. It was the number one health condition cited, well ahead of diabetes (26.0%) and mental illness (28.1%).

Figure 5.41. Hypertension Incidence by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.42. Hypertension Incidence by Northern District and Zone, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.5.8. Hypertension Prevalence

DEFINITION

This indicator measures the percentage of persons aged 25 or older who had at least one physician visit for hypertension in a three-year period.

Why Is This Indicator Important?

Hypertension is the medical term for high blood pressure. It is defined as any blood pressure reading of 140 over 90 or higher. It is the most common reason to visit a doctor in Canada, and the most common reason to take medication. It can lead to heart attack, stroke, and other cardiovascular diseases. It is also strongly linked to undiagnosed diabetes, unmanaged diabetes and kidney disease.[x] Hypertension is the silent killer, damage is done to the blood vessels before knowing you have hypertension. Therefore, screening and health promotion is important. As persons with hypertension better manage their disease and they live longer, this may also lead to an increase in the number of persons living with hypertension.

What did we learn in 2009?

- In the former Burntwood Region, the hypertension rate (35.4% in 2005/06 from 26.7% in 2000/01) was above the provincial average (23.7% in 2005-2006), and every district except two saw a significant increase in hypertension treatment rates.
- In the former NOR-MAN Region, hypertension was above the provincial average and increasing (from 21.4% in 2000-2001 to 25.7% in 2005-2006).

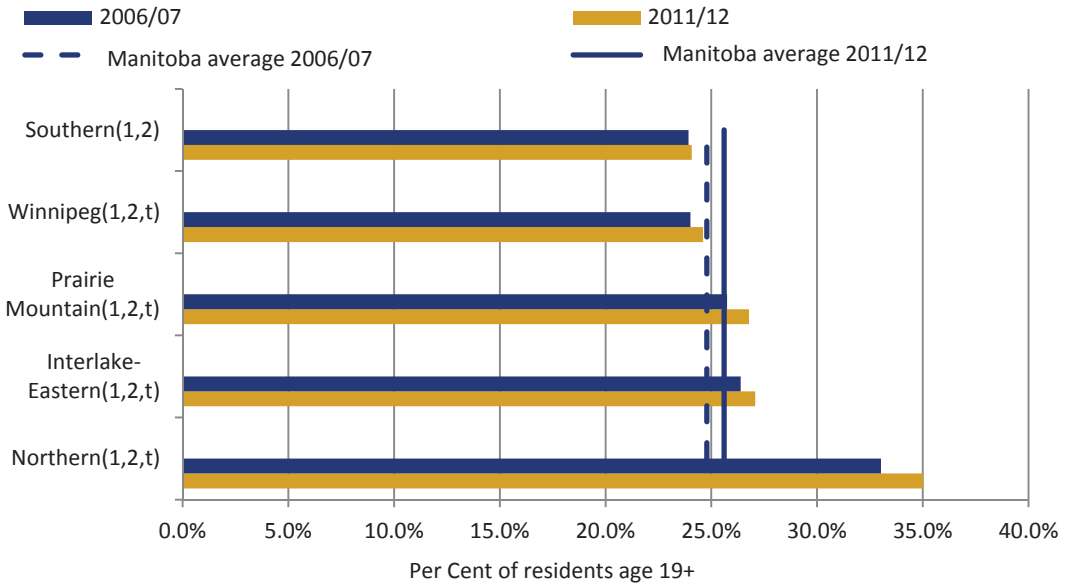
What did we learn in 2014?

- The proportion of Northern Health Region residents with hypertension increased from 33.0 per cent in 2006/07 to 35.0 per cent in 2011/12. The increase is considered statistically significant and is the highest prevalence rates in Manitoba (see **Figure 5.43**).
- As with other chronic disease findings, there was a wide range in prevalence rates with the Northern Direct Service zone recording the lowest prevalence rates (33.0%) while the Non-Direct Service zone (40.1%) and the Northern Island Lake zone (53.7%) had significantly higher rates in comparison to the northern average (see **Figure 5.44**).

WHAT ARE WE DOING?

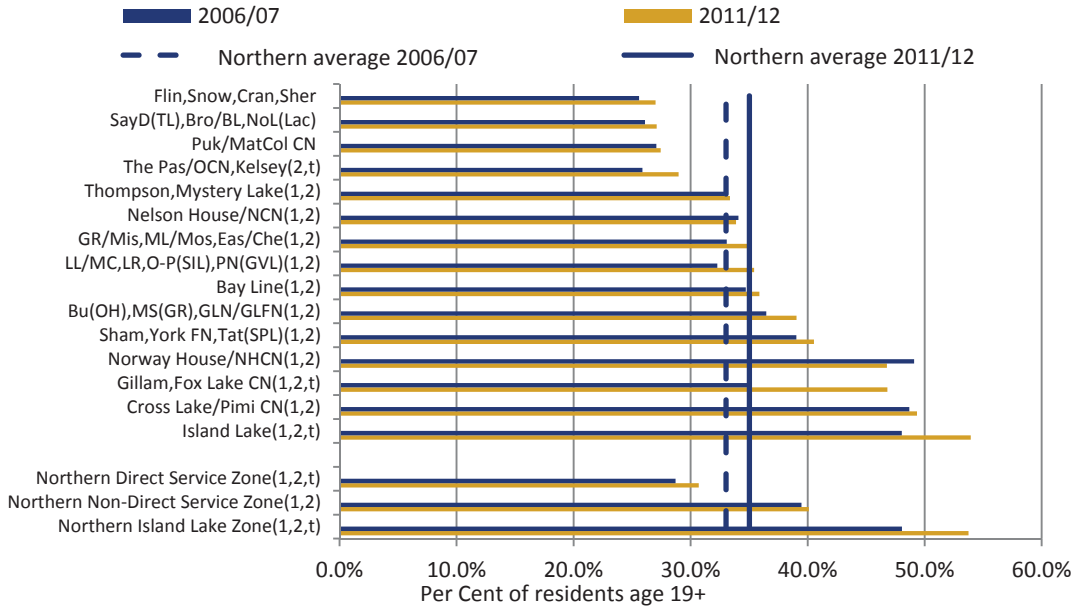
- Partnership with Heart and Stroke to promote screening and provide education.
- Outreach clinics to at risk populations for the purpose of screening and education on the modifiable risk factors.

Figure 5.43. Hypertension Prevalence by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.44. Hypertension Prevalence by Northern District and Zone, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.5.9. Ischemic Heart Disease (IHD) Incidence

DEFINITION

This indicator measures the average number of new cases of ischemic heart disease (IHD) for residents aged 19 and older expressed as a rate per 100 person–years as defined by either. A new case of IHD is defined as a hospitalization, two physician visits or a physician visit with at least two prescriptions for IHD medications.

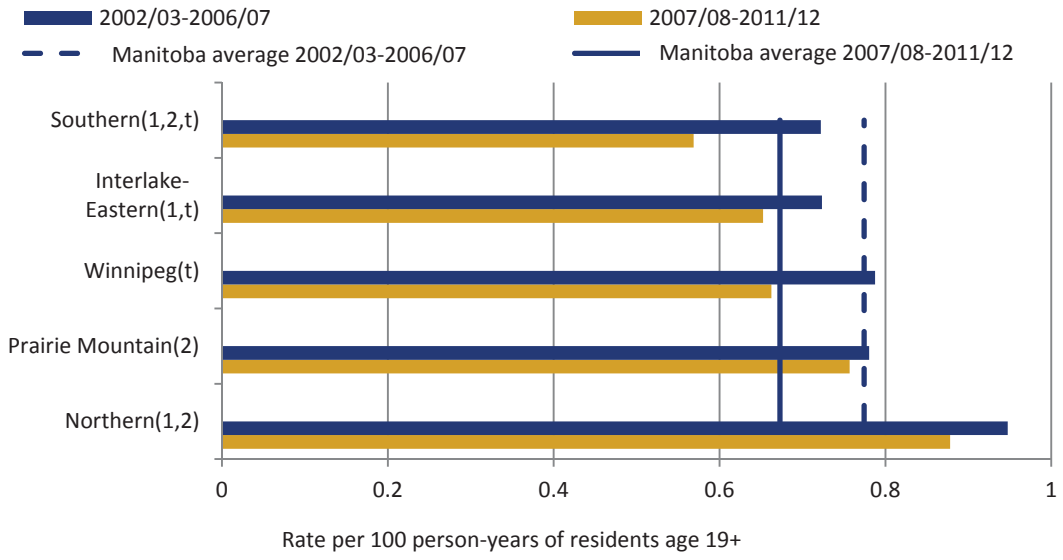
Why Is This Indicator Important?

Ischemic heart disease is the most hospitalized cardiac-related condition in Canada so it is particularly important that we monitor incidence rates in order to prevent costly hospitalization follow ups to treat this cardiac condition.[xi]

What did we learn in 2014?

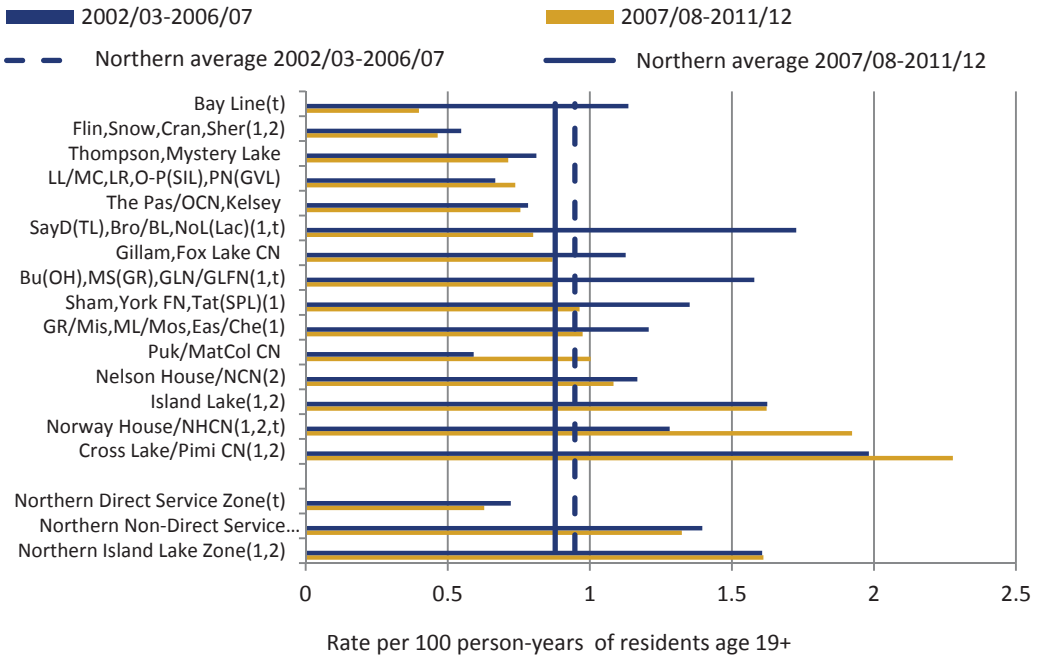
- The incidence rate for ischemic heart disease also declined in the Northern Health Region from 0.95 per 100 person years in 2002/03-2006/07 to 0.88 in 2007/08-2011/12 (see **Figure 5.45**).
- As **Figure 5.46** shows, most districts in the Northern Health Region experienced incidence rate declines though the areas with the highest incident rates had increases over the two time periods: Norway House and Cross Lake both had statistically significant increases.

Figure 5.45. Ischemic Heart Disease Incidence by RHA, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.46. Ischemic Heart Disease Incidence by Northern District and Zone, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.5.10. Ischemic Heart Disease (IHD) Prevalence

DEFINITION

The treatment prevalence rate of IHD (restriction to flow to coronary arteries) in residents age 40 or older is defined by a combination of data in physician visits, hospitalizations, and prescription drugs, over a 3 year period.

Why Is This Indicator Important?

Heart disease is the costliest disease for our health care system, and it puts the most strain on our health care system. It is our nation's leading cause of death. It was identified as a major concern in previous reports. Educational resources to help manage heart disease were also noted as a major concern. Major risk factors include smoking, lack of physical activity and unhealthy eating, stress, diabetes, hypertension, and high cholesterol.[xii] As persons with IHD better manage their disease and they live longer, this may also lead to an increase in the number of persons living with IHD.

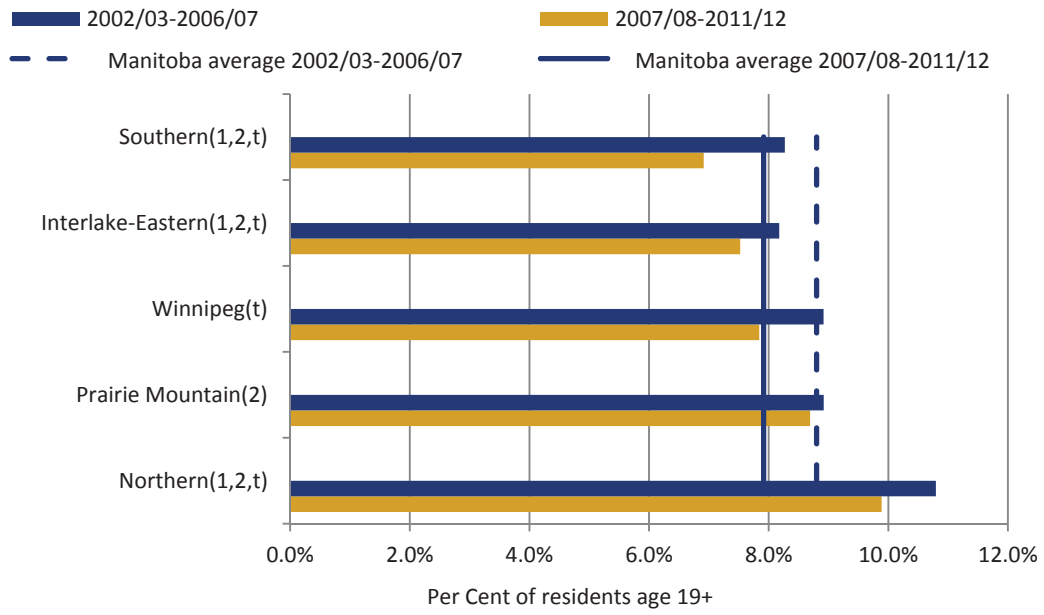
What did we learn in 2009?

- The former Burntwood Region had a statistically insignificant increase (11.5% in 1996/97-2000/01 to 11.8% in 2001/02-2005/06), and remained significantly higher than the provincial average (8.5% in 2001/02-2005/06).
- The former NOR-MAN Region decreased by a statistically significant rate (from 9.0% in 2001/02 to 8.5% in 2005/06).

What did we learn in 2014?

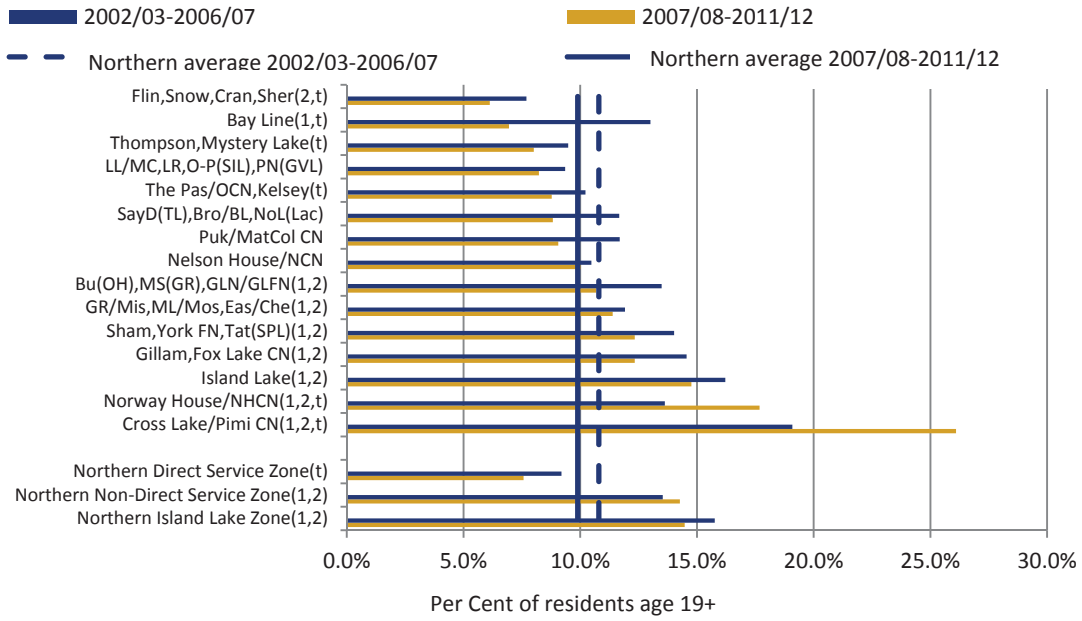
- Prevalence for ischemic heart disease declined in the Northern Health Region from 10.8 per cent in 2002/03-2006/07 to 9.9 per cent in 2007/08-2011/12, a statistically significant decline. It still remained above the provincial average of 7.9 per cent (see **Figure 5.47**).
- As **Figure 5.48** illustrates, most Northern Health Region districts experienced declines in prevalence with the Direct Service Zone having a statistically significant decline between the two time periods. The other two zones remained statistically above the regional average.

Figure 5.47. Ischemic Heart Disease Prevalence by RHA, 2002/03-2006/07 And 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.48. Ischemic Heart Disease by Northern District and Zone, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.5.11. Osteoporosis Treatment Prevalence (19+)

DEFINITION

This indicator refers to the percentage of residents aged 50 or older diagnosed with osteoporosis.

Why Is This Indicator Important?

Approximately ten per cent of Canadians over forty have been diagnosed with osteoporosis. It is four times more likely to develop in women. It has an enormous impact on quality of life, causing fractures, deformity, and disability. It also results in decreased mobility and independence. The rates of treatment are seen by many as an indicator of the success of prevention efforts by primary care physicians and specialists.[xiii]

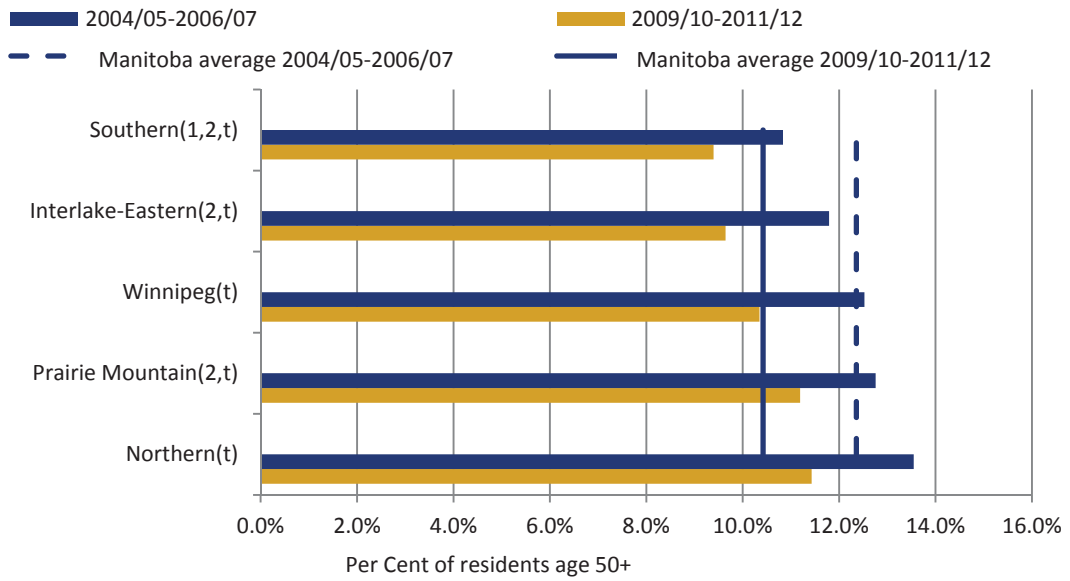
What did we learn in 2009?

- The former Burntwood Region reported increased osteoporosis treatment rates by four per cent (from 10.2% in 1998/99-2000/01 to 14.2% in 2003/04-2005/06), and was above the Manitoba average (12.7% in 2003/04-2005/06).
- In the former NOR-MAN Region, rates (14.6% in 2003/04-2005/06) were above the provincial average and increasing.

What did we learn in 2014?

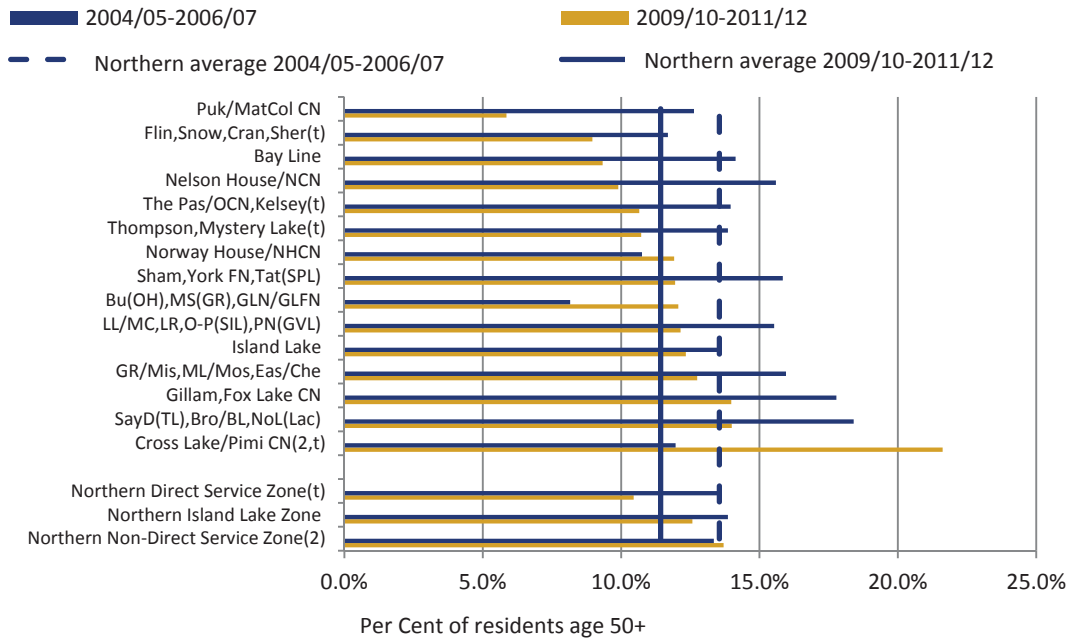
- The proportion of Northern Health Region residents with osteoporosis declined from 13.5 per cent in 2004/05-2006/07 to 11.4 per cent in 2009/10-2011/12, a statistically significant reduction (see **Figure 5.49**).
- While the communities in the areas of Flin Flon, Thompson and the Pas recorded statistically significant declines in osteoporosis prevalence between the two time periods, the Northern Non-Direct zone had a slight increase in prevalence and was statistically higher than the regional average. The Cross Lake area recorded the highest osteoporosis prevalence at 21.6 per cent in 2009/10-2011/12 (see **Figure 5.50**).

Figure 5.49. Osteoporosis Prevalence by RHA, 2004/05-2006/7 and 2009/10-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.50. Osteoporosis Prevalence by Northern District and Zone, 2004/05-2006/07 and 2009/10-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.5.12. Respiratory Disease Prevalence

DEFINITION

This indicator measures the proportion of persons having at least one physician visit or hospitalization for a respiratory disease within a two-year period.

Why Is This Indicator Important?

Over 3 million Canadians live with a serious respiratory disease, and that number is only increasing with our aging population. Smoking is the largest risk factor, and easily the most preventable. Pollution and second-hand smoke are also major risk factors, as is air quality in the workplace and at home.[xiv]

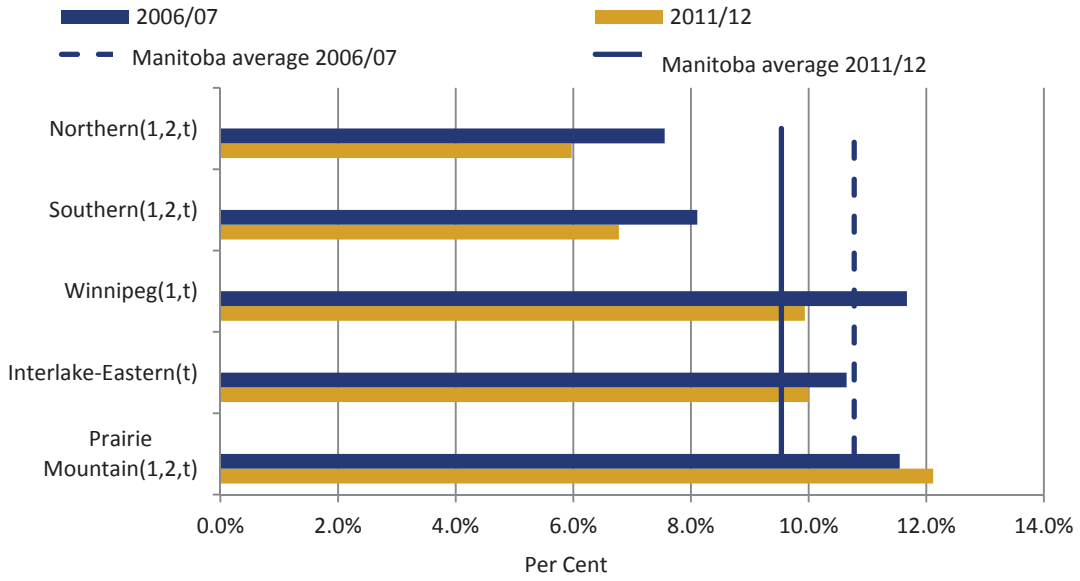
What did we learn in 2009?

- The former Burntwood Region reported a significant decrease, from 8.4 to 7.2 per cent between 2000/01 and 2005/06. It remained significantly below the provincial rate.
- The former NOR-MAN Region was also below the provincial average, and saw a statistically significant decrease, from 11.3 per cent in 2000/01 to 9.7 per cent in 2005/06.

What did we learn in 2014?

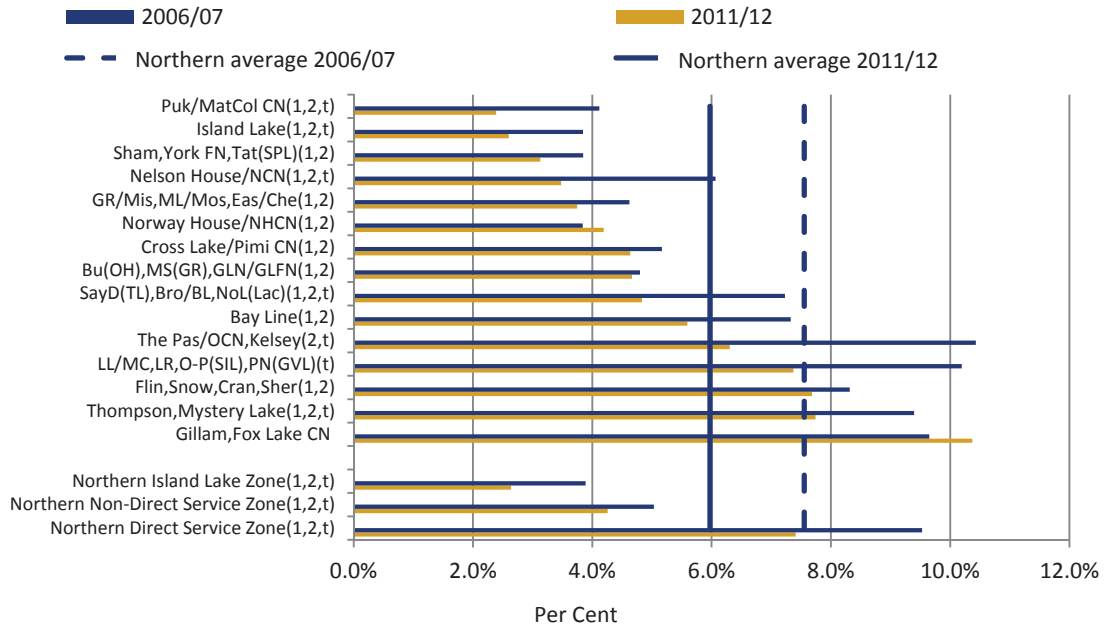
- Respiratory morbidity prevalence decreased in the Northern Health Region from 7.6 per cent in 2006/07 to 6.0 per cent in 2011/12, a statistically significant decrease. It was also statistically below the Manitoba average of 9.5 per cent in 2011/12 (see **Figure 5.51**).
- Both the Northern Island Lake and Non-Direct Service zone experienced declines in prevalence and were statistically below the regional average. The Northern Direct Service zone also had declines in prevalence but was statistically above the regional average (see **Figure 5.52**).

Figure 5.51. Total Respiratory Morbidity Prevalence by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.52. Total Respiratory Morbidity by Northern District and Zone, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.5.13. Stroke Incidence Rate

DEFINITION

This indicator measures the annual rate of hospitalization or death due to stroke, in a five year period, per 1,000 residents age 40 or older.

Why Is This Indicator Important?

Stroke is one of the biggest causes of death and disability in Canada, responsible for approximately 10,000 deaths every year. There are many risk factors, both uncontrollable, like ethnicity and gender, and controllable, like high blood pressure and smoking.[xv]

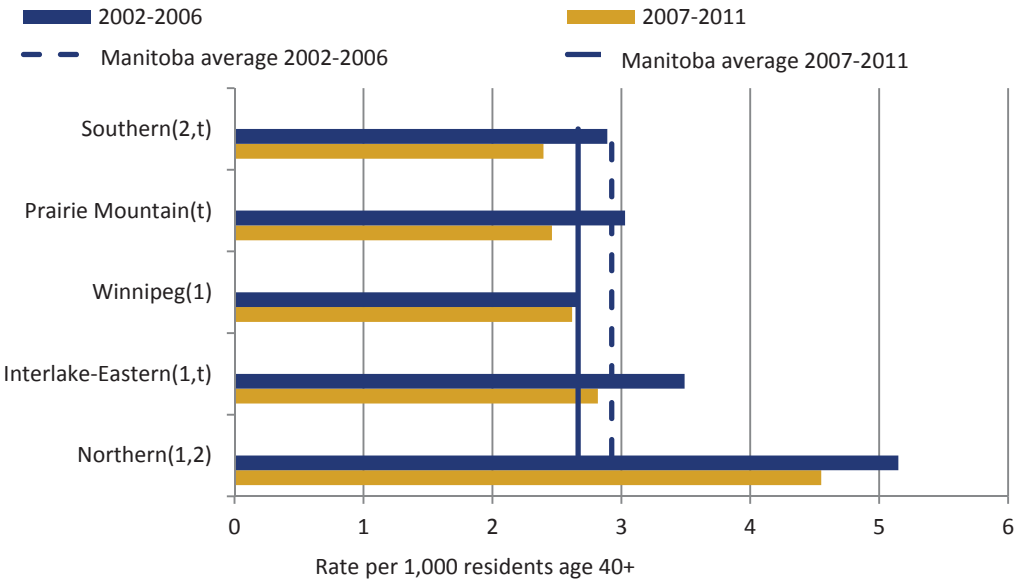
What did we learn in 2009?

- Meaningful reductions in rates occurred in most of the districts of the former Burntwood Region (from 9.3 per 1,000 in 1996/97-2000/01 to 7.5 per 1,000 in 2001/02-2005/06), though the region remained significantly above the provincial average (3.0 per 1,000 during 2001/02-2005/06).
- In the former NOR-MAN Region, the rate went from 4.9 per 1,000 in 1996/97-2000/01 to 3.7 per 1,000 in 2001/02-2005, showing a statistically significant decrease over time.

What did we learn in 2014?

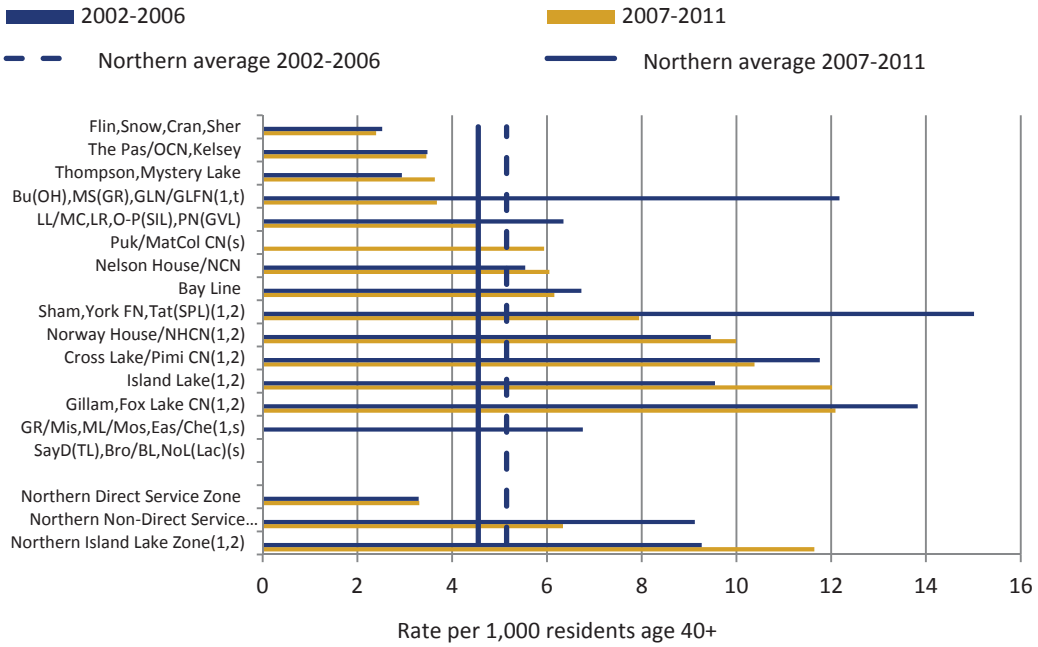
- There were declines in stroke rates in the Northern Health Region from 5.1 per 1,000 population in 2002-2006 to 4.6 in 2007-2011. It still remained statistically above the provincial average of 2.9 (see **Figure 5.53**).
- As **Figure 5.54** shows, there is a wide range in stroke rates across Northern Health Region communities. The Direct Service zone has the lowest stroke rates while the Northern Island Lake zone had the highest with a rate of 11.6 in 2011/12, statistically higher than the regional average.

Figure 5.53. Stroke Rates by RHA, 2002-2006 and 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.54. Stroke Rates by Northern District and Zone, 2002-2006 and 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

5.6. Mental Health

The challenges in managing mental health conditions in the Northern Health Region communities were a major theme of discussion for focus groups in 2014. The prevailing sentiment among participants was that while mental health workers in communities are dedicated and doing what they can to help local residents, there were not enough resources to deal with ongoing mental health conditions. While participants agreed there was much greater awareness of mental health issues and conditions, communities are only able to deal with crises but not manage the condition. As one participant noted, ***"Mental health workers only deal with mental illness and not mental health issues. That needs to change to have time for them to see other people with other mental health issues."*** There was a general consensus that the most pressing mental health needs in communities are access to mental health professionals such as psychologists and addressing long waiting lists for mental health services.

That said, there still remains a stigma with seeing a mental health professional. As one community consultation participant remarked, ***"Having the community feel comfortable in coming to see the mental health professionals and accessing the service is the challenge."*** There was also a frustration about the timeliness of mental health services in a crisis. As one participant recounted, ***"Suicides that occurred last year in our community happened during the evenings and weekends. This is outside the time frame that professionals are working from health or educational. Supports are not available when crisis happen during evenings and weekends."***

WHAT DO WE KNOW?

- Another indicator of the concern around mental health services in the north, 30 per cent of respondents in the 2014 Northern Health Region staff survey cited Mental Health as a weakness of the region which was the highest response rate for a program area.
- Mental health was cited as one of the top three health care issues in the Northern Health Region both by Northern Health Region staff (16% of respondents cited mental health conditions) and northern residents (12%). Mental health was also a major reason for nurse or doctor visits with 28.1 per cent of northern residents indicating that they had been seen for a mental health condition in their lifetime.

5.6.1. Prevalence of Dementia (55+)

DEFINITION

This indicator measures the proportion of residents aged 55 years and older with dementia.

Why Is This Indicator Important?

Dementia is the most common cause of disability among the elderly, with approximately 500,000 Canadian seniors suffering from it. It is also rising along with the rising number of seniors, as are the associated costs. There are a number of ways to reduce one's dementia risk factors, including a healthy diet and exercise.[xvi]

What did we learn in 2009?

- The former Burntwood Region reported decreased dementia rates (from 10.1% in 1996/97-2000/01 to 9.3% in 2001/02-2005/06) that were also lower than the provincial average (10.8% in 2001/02-2005/06).
- In the former NOR-MAN Region, rates were lower than the provincial average, and remained relatively stable (from 9.1% in 1996/97-2000/01 to 9.2% in 2001/02-2005/06).

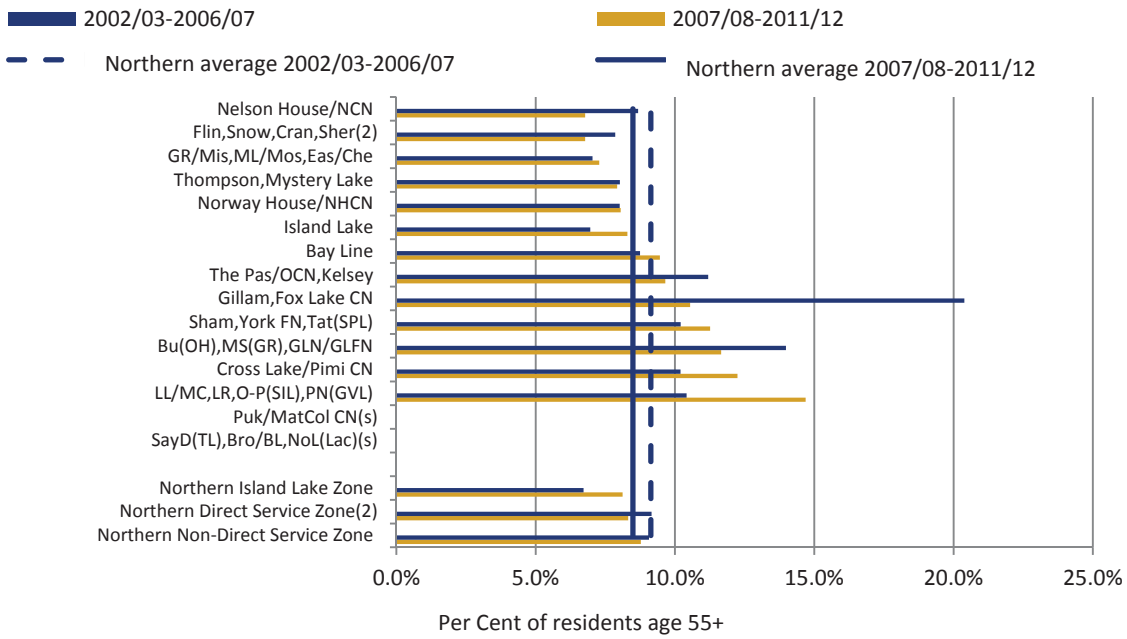
What did we learn in 2014?

- The proportion of residents diagnosed with dementia in the Northern Health Region declined from 9.1 per cent in 2002/03-2006/07 to 8.5 per cent in 2007/08-2011/12. The Northern Health Region remained statistically below the Manitoba average of 10.6 per cent (see **Figure 5.55)**.
- As **Figure 5.56** illustrates, dementia rates were fairly consistent across Northern Health Region communities and zones. The Lynn Lake/Leaf Rapids area had the highest rates at 14.7 per cent in 2007/08-2011/12.

Figure 5.55. Dementia Prevalence by RHA, 2002/03-2006/07 and 2007/08-2011/12.

Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.56. Dementia Prevalence by Northern District and Zone, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

5.6.2. Prevalence of Mood and Anxiety Disorders (10+)

DEFINITION

This indicator measures the proportion of residents age 10 or older diagnosed with an anxiety or mood disorder.

Why Is This Indicator Important?

Anxiety disorders are among the most common of all mental health disorders in Canada with up to 12 per cent of people affected by it. 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 through psychotherapy or medication.

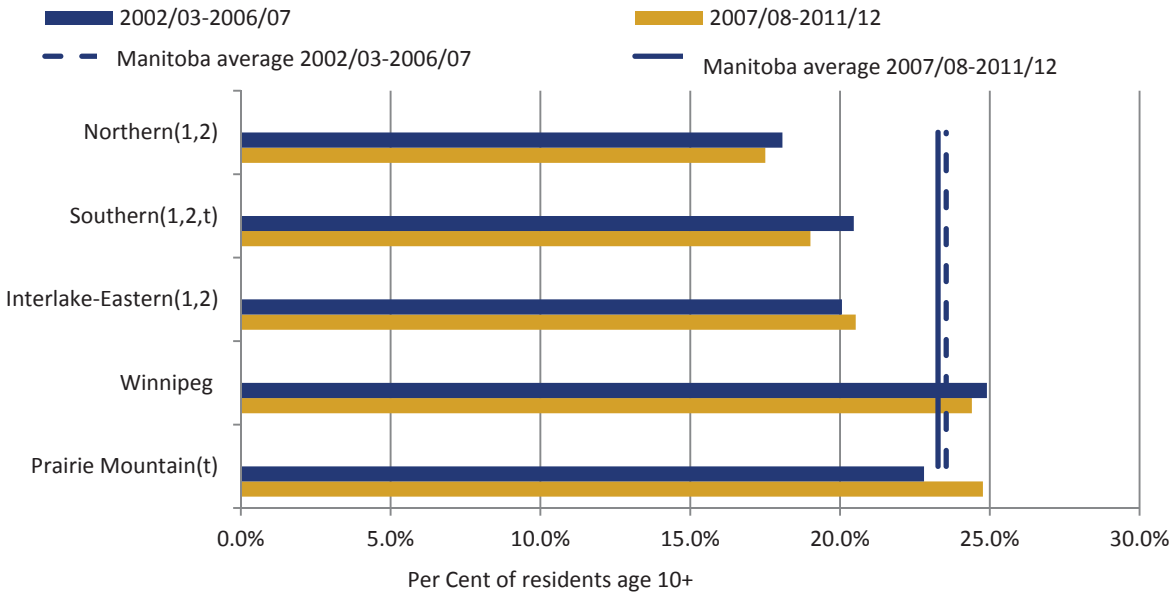
What did we learn in 2009?

- In the former Burntwood Region, the proportion of residents with a mood or anxiety disorder was 16.2 per cent in 2002/03-2006/07, below the Manitoba average of 23.5 per cent.
- The former Nor-man Region had a prevalence rate of 20.5 per cent for mood and anxiety disorders in 2002/03-2006/07.

What did we learn in 2014?

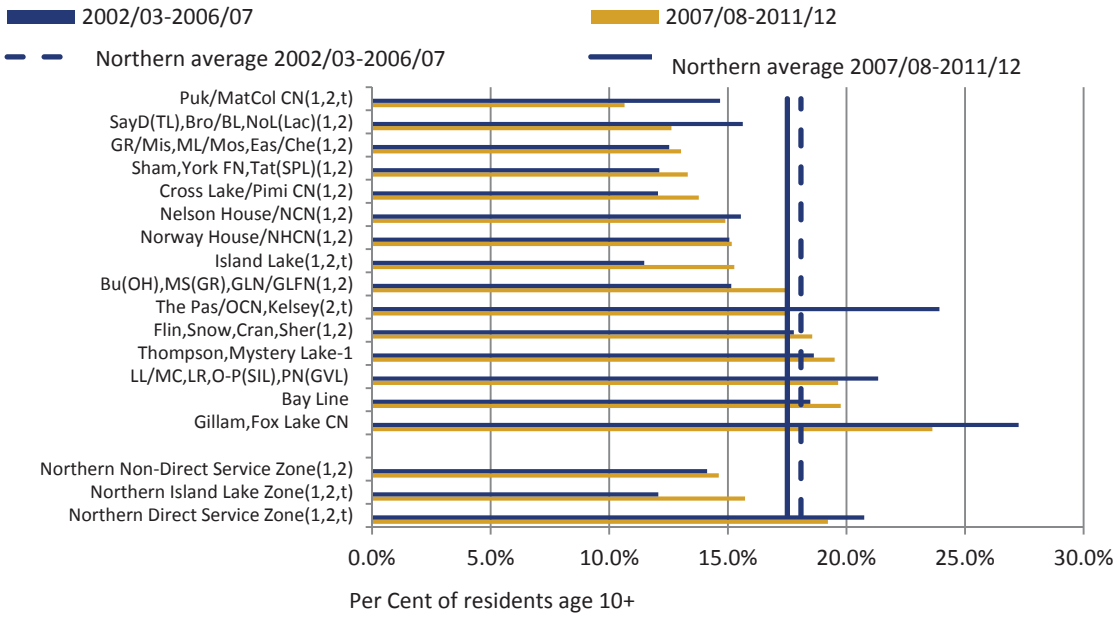
- The proportion of Northern Health Region with a mood or anxiety disorder remained relatively unchanged from 18.1 per cent in 2002/03-2006/07 to 17.5 per cent in 2007/08 which was statistically below the Manitoba average of 23.3 per cent (see **Figure 5.57**).
- As **Figure 5.58** demonstrates, both the Northern Island Lake and Northern Non-Direct zone had lower prevalence rates than in the Northern Direct zone. The Northern Island lake zone experienced a statistically significant increase in prevalence while the Northern Direct Service zone had a statistically significant decline between the two time periods.

Figure 5.57. Mood and Anxiety Disorders Prevalence, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.58. Mood and Anxiety Disorders Prevalence by Northern District and Zone, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.6.3. Prevalence of Substance Abuse (10+)

DEFINITION

This indicator measures the percentage of residents aged 10 years and older with substance abuse.

Why Is This Indicator Important?

Substance abuse was identified as a major concern in both former regions. It can be a significant influence in the onset, course, and outcome of mental illness. High rates of substance abuse were noted for drugs like marijuana, crack, ecstasy and pharmaceuticals in addition to alcohol.

Substance abuse continues to be an important health care concern in Northern Health Region communities. Participants noted the pervasiveness of substance abuse and the effects this have on the community such as high crime rates, spousal abuse, child neglect, and family violence. It has significant impact on children as that it what they know and they become involved in drug and alcohol use at an early age. While focus groups did note that there substance abuse programs for residents outside the community, it has very little for ongoing treatment and support in the community. As one participant remarked, ***"They go through the treatment and they are then left to go right back into the situations that they left. It is a cycle."*** Another participant echoed this saying, ***"If they are getting the treatment outside their own communities – this leads to no supports. They're being set up for failure. If they have the supports in the community they would have a better success."***

Substance abuse was also considered an important health issue in their community by respondents to the Northern Community Survey. Drugs and substance abuse was ranked the most important health issue, cited by 19 per cent of survey participants.

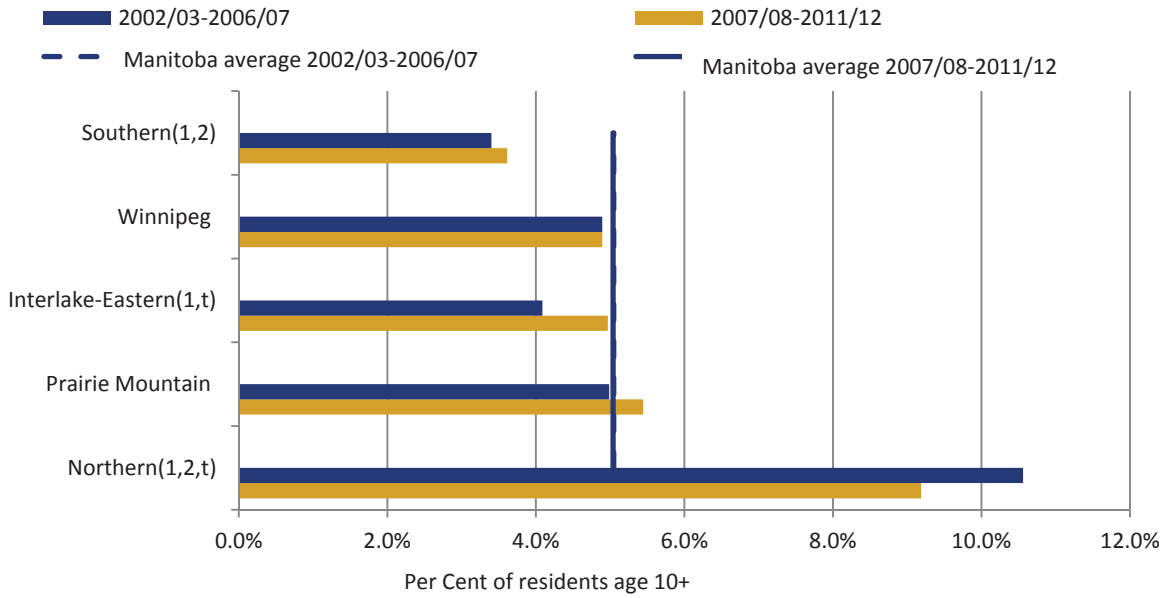
What did we learn in 2009?

- In the former NOR-MAN Region, rates remained significantly higher than the provincial rate (4.9% in 2001/02-2005/06), though there was a statistically significant decrease (from 18.1% in 1996/97-2000/01 to 13.4% in 2001/02-2005/06).
- The former Burntwood Region reported stability in substance abuse rates (7.6% in both 1996/97-2000/01 and 2001/02-2005/06), but remained significantly above the Manitoba average.

What did we learn in 2014?

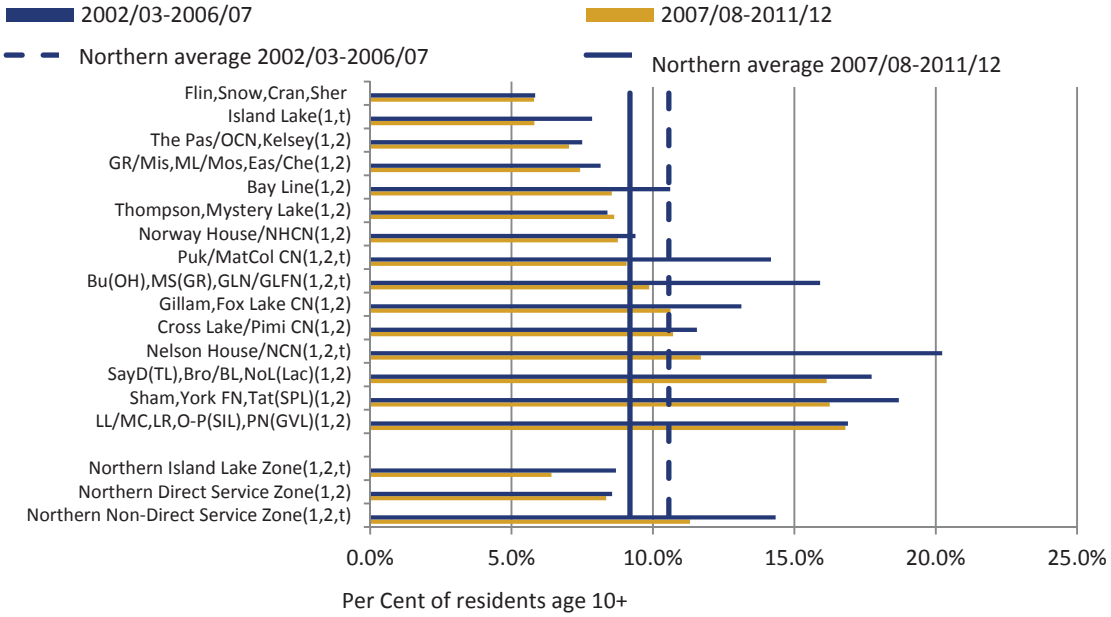
- The proportion of Northern Health Region residence diagnosed with substance abuse declined from 10.6 per cent in 2002/03-2006/07 to 9.2 per cent in 2007/08-2011/12, a statistically significant decline. It still remained statistically above the Manitoba average of 5.0 per cent (see **Figure 5.59**).
- As **Figure 5.60** shows, declines in Northern Health Region communities and zones were seen throughout the region with the most significant declines occurring in the Northern Island Lake and Northern Non-Direct Service zones.

Figure 5.59. Substance Abuse Prevalence, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.60. Substance Abuse Prevalence by Northern District and Zone, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.7. Injury

Injuries are the leading cause of death and hospitalization among younger adults in Manitoba. Injury deaths are more common among men than women. Injuries fall into two main categories of intentional injuries (self-directed such as suicide, or self harm or directed at others such as family violence, child abuse, assault, or murder). Unintentional injuries are unintended occurrences such as motor vehicle collisions, falls, fires and poisonings.

5.7.1. Injury Hospitalization Rates

DEFINITION

This indicator measures the proportion of all hospitalizations related to injuries.

Why Is This Indicator Important?

Lower hospitalization rates may be in an indicator of how effective a region is in its injury prevention efforts.

5.7.1.1. Intentional Injury Hospitalizations by Year

DEFINITION

This indicator measures the rate of hospitalizations due to intentional injury per 1,000 population.

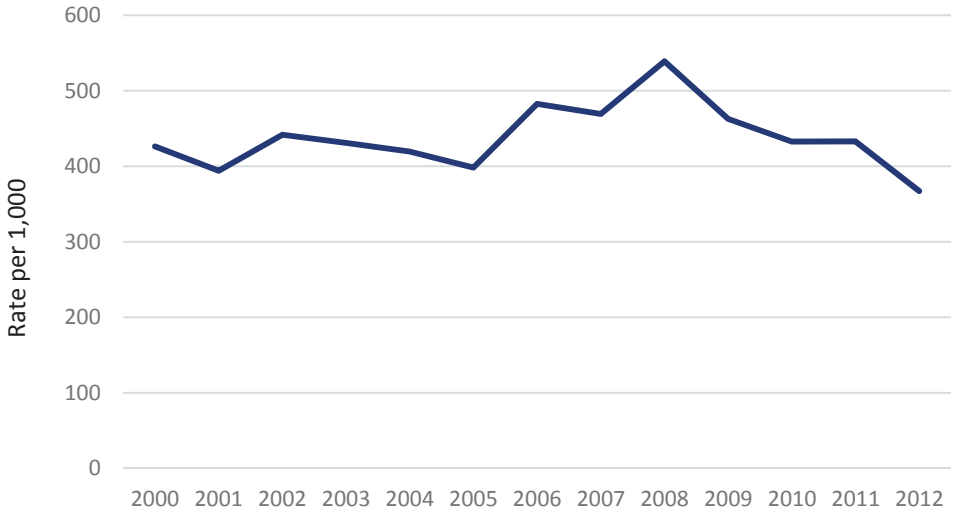
Why Is This Indicator Important?

Intentional injuries are either self-directed actions such as suicide, or self-harm or it is directed at others (family violence, child abuse, assault, murder). This measurement is a way to gauge how effective the region is in prevention efforts particularly related to suicide and family violence.

What did we learn in 2014?

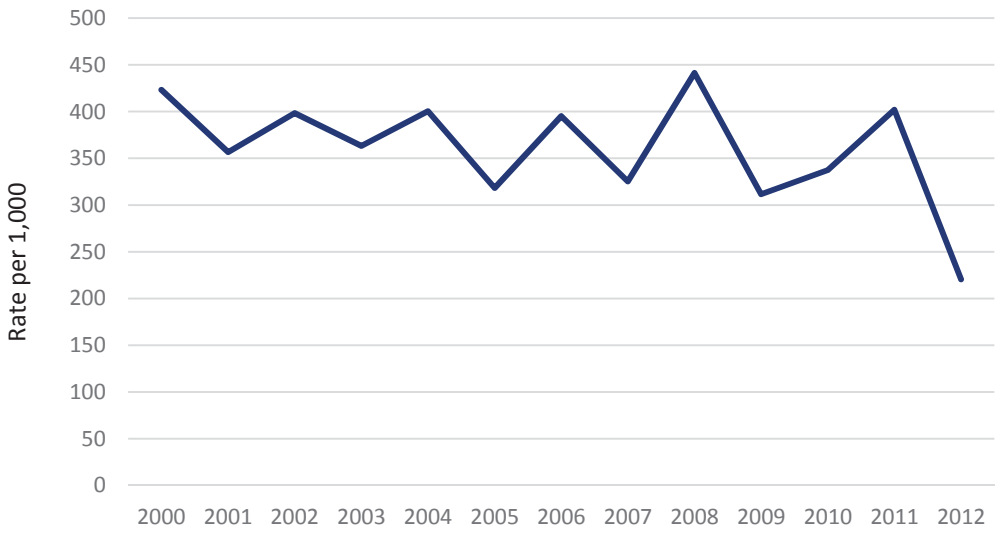
- Intentional injury hospitalization rates remained fairly flat in the range of 400 hospitalizations per 1,000 population from 2000-2005. The rate rose from 2005 (398 per 1,000) to 2008 (539 per 1,000). Since 2008, there has been a decline in rates to 367 per 1,000 in 2012 (see **Figure 5.61**).
- Hospitalization rates by gender reveal that female rates have, with some fluctuation year to year, declined from 2000 to 2012 (see **Figure 5.62**). Rates went from 423 per 1,000 population in 2000 to 220 per 1,000 in 2012, which was the lowest rate for females seen during the time period studied.
- Rates for males were on the rise from 2000 to 2008, peaking at 638 per 1,000 population in 2008 before declining to 511 per 1,000 in 2012 (see **Figure 5.63**).

Figure 5.61. Intentional Injury Hospitalizations Rate for the Northern Health Region, 2000-2012.



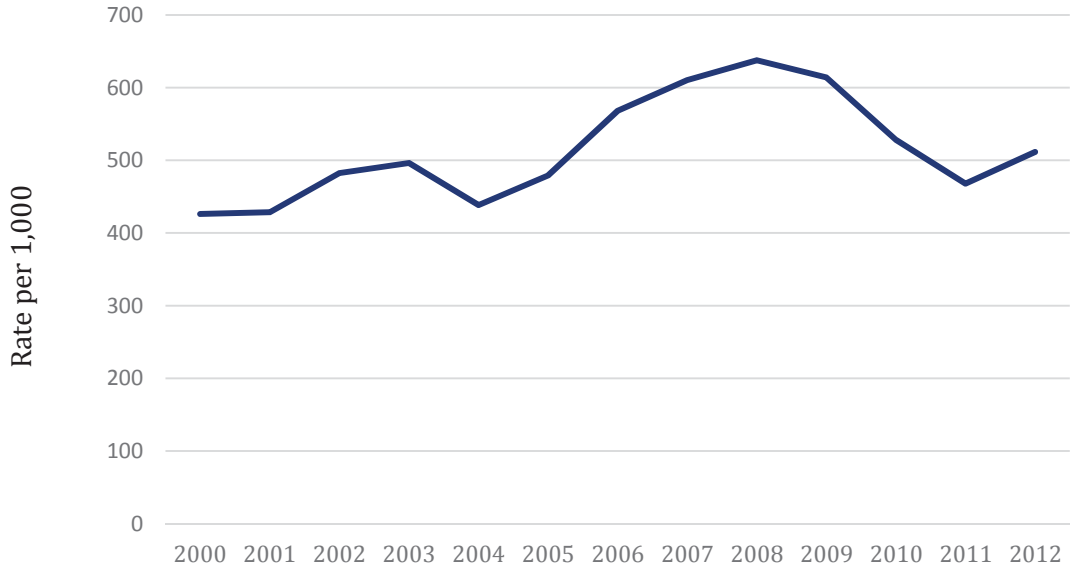
Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region.

Figure 5.62. Intentional Injury Hospitalizations Rate for Females in Northern Health Region, 2000-2012.



Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region.

Figure 5.63. Intentional Injury Hospitalizations for Male Residents in Northern Health Region, 2000-2012.



Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region.

5.7.1.2. Injury Related Hospitalization Rates and Counts

DEFINITION

This indicator measures the rate of hospitalizations due to injuries both intentional and unintentional per 1,000 residents.

Why Is This Indicator Important?

Similar to intentional injuries, unintentional hospitalization rates measures long-term success in reducing the number of 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, and prevention.

Intentional injuries are either self-directed actions such as suicide, or self-harm or it is directed at others (family violence, child abuse, assault, murder). This measurement is a way to gauge how effective the region is in prevention efforts particularly related to suicide and family violence.

What did we learn in 2014?

- The overall standardized hospitalization rate for both intentional and unintentional injuries was 1716.2 per 100,000 population. The male rate for both intentional and unintentional injury was higher than the female rate with more cases (see **Table 5.2**).

Table 5.2. Northern Health Region Injury Related Hospitalization Counts and Age Standardized Rates, 2000-2012.

Injuries	Female		Male		Total	
	# of Cases	Rate	# of Cases	Rate	# of Cases	Rate
Unintentional	3,754	1,186.9	4,894	1,231.7	8,648	1,223.8
Intentional	1,807	360.7	2,503	513.2	4,310	437.6
All Injuries	5,792	1,600.9	7,655	1,802.2	13,447	1,716.2

Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region

5.7.1.3. Injury Hospitalization by Age for Intentional & Unintentional Injuries

DEFINITION

This indicator measures the rate of intentional and unintentional injuries per 100,000 population by age category.

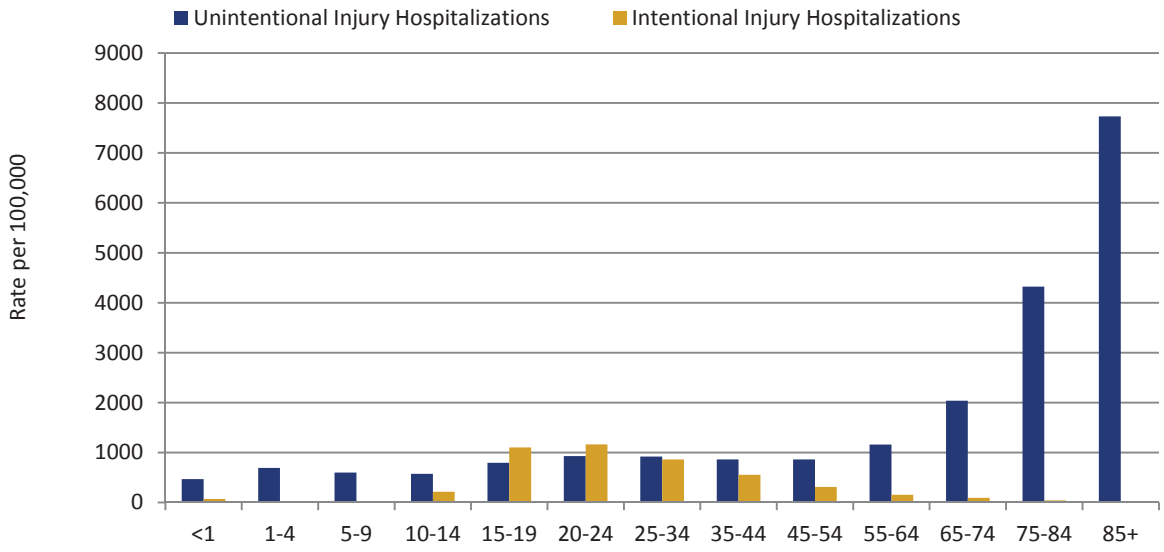
Why Is This Indicator Important?

It is important to determine which age categories are suffering from both intentional and unintentional injuries in order to hone any injury prevention efforts to the right audience.

What did we learn in 2014?

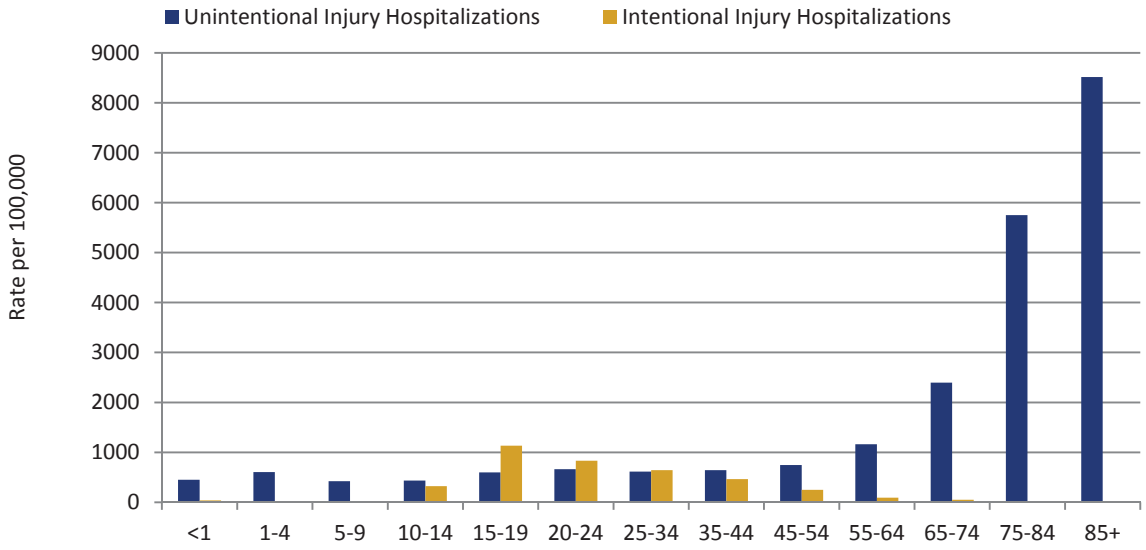
- In looking at unintentional injury hospitalizations by age group from 2000 to 2012, unintentional injuries stays relatively flat until age 15-19 when it rises more steeply before levelling off again at ages 25-34. A much steeper increase occurs with the 65-74 age group with considerable increases with older seniors (see **Figure 5.64**).
- As **Figure 5.64** shows, the intentional injury hospitalization rate is very low in the younger age categories with considerable increases seen in the 15-19 and 20-24 age groups. The rate then declines with every age group to near zero by age 75-84.
- Breaking the rates down by gender (see **Figure 5.65** and **Figure 5.66**), female rates for intentional injuries tend to be lower and peak sooner in the 15-19 age category. Unintentional injuries rates tend to be lower at earlier age categories, but soon become considerably higher than male rates by the 55-64 age category.
- Male rates for both intentional and unintentional injuries are considerably higher than female rates up to the 55-64 age category when female unintentional injuries start to overtake male rates.

Figure 5.64. Injury Hospitalizations Rate for All Northern Health Region by Age Category, 2000-2012.



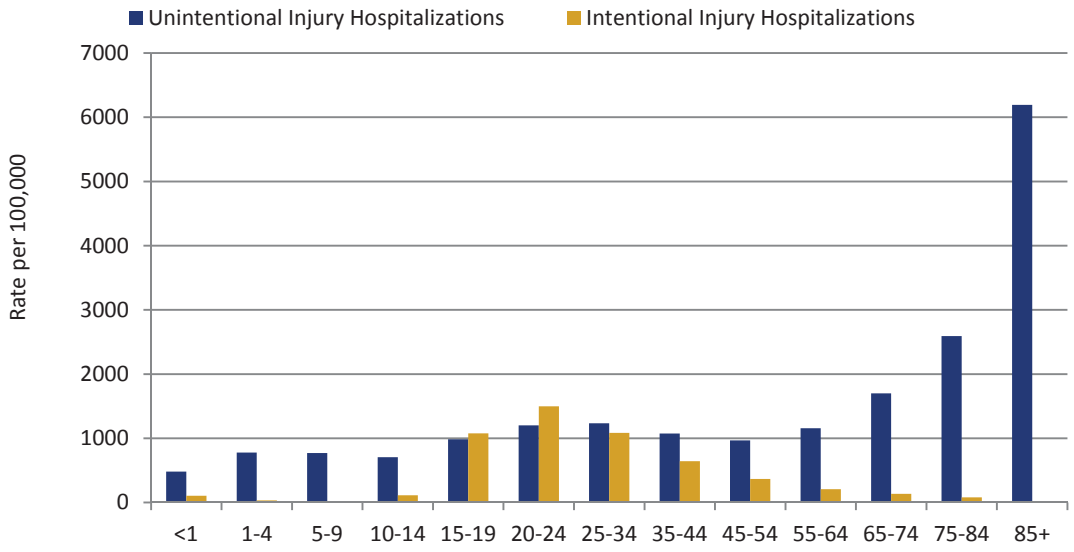
Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region.

Figure 5.65. Injury Hospitalizations Rate for Females by Age Category in Northern Health Region, 2000-2012.



Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region.

Figure 5.66. Injury Hospitalizations Rate for Males in Northern Health Region, 2000-2012.



Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region.

5.7.2. Injury Causes of Hospitalization

DEFINITION

This indicator illustrates the numbers of cases and rates for the leading causes of injury hospitalization.

Why Is This Indicator Important?

Finding out which injuries are residents are sustaining can provide important clues about whether people are engaging in risky behaviour and whether new strategies are needed to reduce the number of preventable injuries.

What did we learn in 2014?

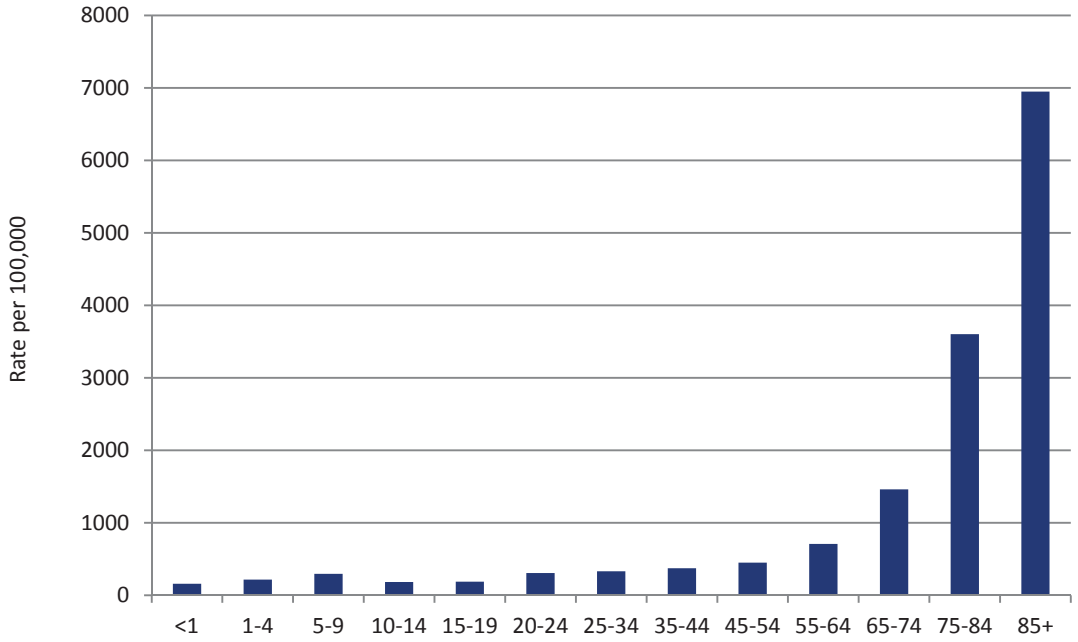
- As **Table 5.3** demonstrates, falls continues to be the leading cause of injuries followed by assaults and self-inflicted injury. Among females, self-inflicted injury is the second leading cause of injury hospitalization with more than two times the standardized rate and two times the cases of men.
- When we focus on falls by age category, it is clear that they continue to occur in later age categories with very considerable increases in the rate of falls beginning with the 55-64 year age category (see **Figure 5.67**).

Table 5.3. Northern Health Region Injury Cause of Hospitalization, Age Standardized Rates, 2000-2012.

	Female			Male			Total		
	# of Cases	Crude Rate	Age Standardized	# of Cases	Crude Rate	Age Standardized	# of Cases	Crude Rate	Age Standardized
Falls	2,138	470.8	805.5	2,009	427.7	611.5	4,147	448.9	718.5
Assault	550	121.1	111.5	1,954	416.0	404.6	2,504	271.0	259.8
Self-Inflicted	1,257	276.8	249.2	549	116.9	108.5	1,806	195.5	177.8
MVC (Total)	418	92.0	101.0	498	106.0	111.5	916	99.1	106.3
Transport, Other	184	40.5	38.5	402	85.6	83.0	586	63.4	60.7
Struck By or Against	109	24.0	24.2	384	81.7	78.3	493	53.4	51.9
Poisoning	211	46.5	47.3	194	41.3	42.1	405	43.8	45.2

Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Interlake-Eastern RHA

Figure 5.67. Northern Health Region, Injury Hospitalization for Falls, By Age, 2000-2012.



Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region.

5.8. Cancer

According to Canadian Cancer Statistics 2014[xvii], it is estimated that 6,500 Manitobans will develop cancer, and 2,700 will die of cancer. It is estimated that more than half of new cancer cases (52%) will be lung, breast, colorectal and prostate cancer. Lung cancer is the leading cause of cancer death accounting for 25 per cent of all cancer deaths in Manitoba.

Estimates suggest that fully one half of all cancers could be prevented based on what we know about the causes of cancer.[xviii] Controllable risk factors for cancer include:

- Tobacco Use
- Alcohol Use
- Unhealthy Diet
- Physical Inactivity
- Overweight And Obesity

WHAT ARE WE DOING?

Working with ColonCheck, CervixCheck and BreastCheck to optimize screening rates, new initiatives were introduced to encourage screening. For BreastCheck, targeted booking was implemented in 2015 (providers send referral to BreastCheck to book screening mammogram) and same day booking (implemented process to contact DI to determine if they have same day appointment available). The region also worked with CervixCheck for 2014 Pap day and did a targeted mail out inviting under screened women to attend a Pap clinic. The Thompson Clinic won a Colon Check award 2014 for best colon cancer screening display.

5.8.1. Overall Cancer Incidence

DEFINITION

This indicator measures the age standardized rate and crude rate of all cancers per 100,000 population.

Why Is This Indicator Important?

Cancer was identified as a major concern in both former regions. This can tell us about the effectiveness of screening programs, major risk factors, and cancer treatment access. It also tells us how well our system works to prevent major risk factors and cancer from happening.

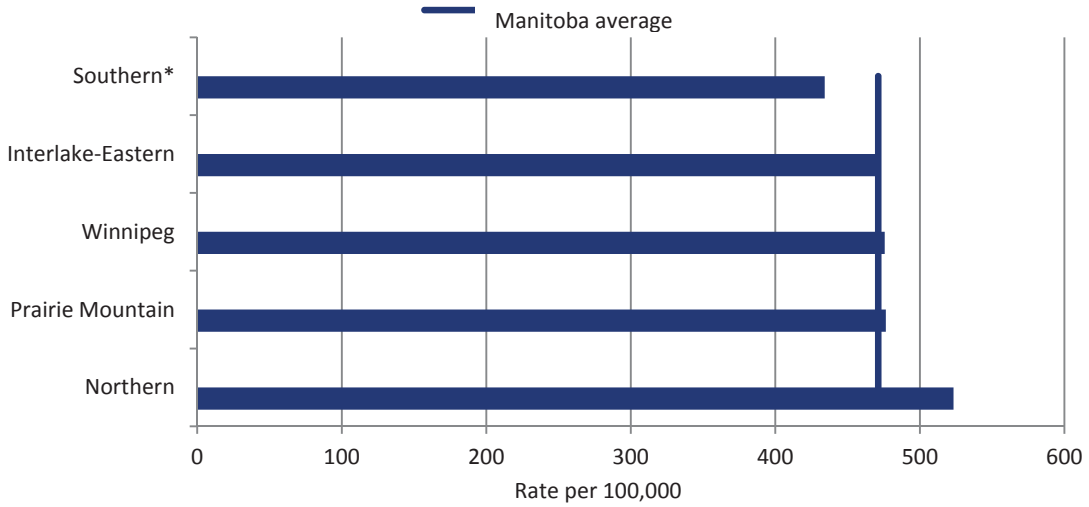
What did we learn in 2009?

- The former NOR-MAN region experienced an overall decrease in cancer incidence, for both men (from 666.8 per 100,000 in 2000-02 to 541.2 in 2003-05) and women (from 507.2 per 100,000 in 2000-02 to 461.8 in 2003-05). However, it also saw statistically significant increases in cervical cancer, lung cancer, and melanoma.
- The former Burntwood region experienced an increase in cancer incidence in both men (from 464.7 to 645.1 per 100,000 between 2000-02 and 2003-05) and women (330.7 to 375.0 per 100,000 during the same periods). Females remained below the provincial average (427.1 in 2003-05), while males had the highest rate in the province (the average was 527.4 in 2003-05).

What did we learn in 2014?

- The overall cancer incidence rate for the Northern Health Region was 523.3 per 100,000 population based on patients seen 2005-2007 and 2008-2010. This incidence rate is over the Manitoba average of 471.2 (see **Figure 5.68**).

Figure 5.68. Overall Cancer Incidence by RHA, 2008-2010.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate ($p<0.05$).

5.8.2. Breast Cancer Incidence

DEFINITION

This indicator measures the rate of breast cancer diagnoses per 100,000 women.

Why Is This Indicator Important?

It is estimated that 850 women from Manitoba will be diagnosed with breast cancer this year with 190 dying from the disease. Breast cancer has the highest incidence rate for all cancers among Manitoba women and the second highest mortality rate.[xix]

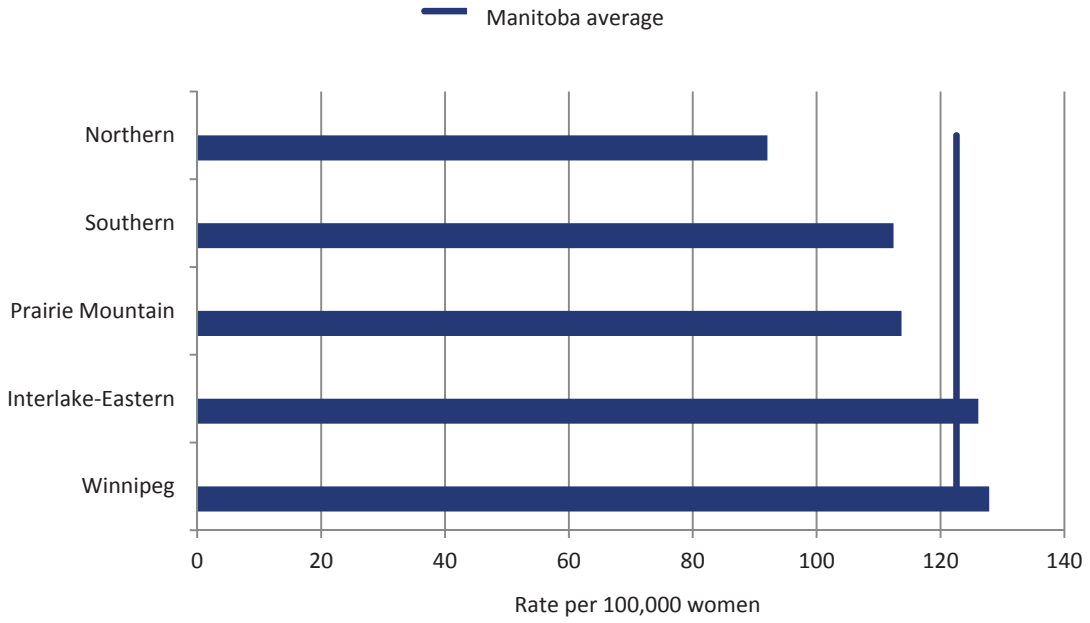
What did we learn in 2009?

- 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.
- The breast cancer incidence rate declined from 1416 to 114 cases per 100,000 residents in the former NOR-MAN region over the two time periods.

What did we learn in 2014?

- The breast cancer incidence rate in the Northern Health region was 92.1 per 100,000 population, below the Manitoba average of 122.6 (see **Figure 5.69**).

Figure 5.69. Breast Cancer Incidence by RHA, 2008-2010.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate (p<0.05).

5.8.3. Prostate Cancer Incidence

DEFINITION

This indicator measures the rate of prostate cancer diagnoses per 100,000 men.

Why Is This Indicator Important?

It is estimated that 730 Manitoba men will be diagnosed with prostate cancer in 2014 with 180 men in the province dying from the disease. Prostate cancer has the highest incidence rate among all cancers in Manitoba and the 3rd highest mortality rate.[xx]

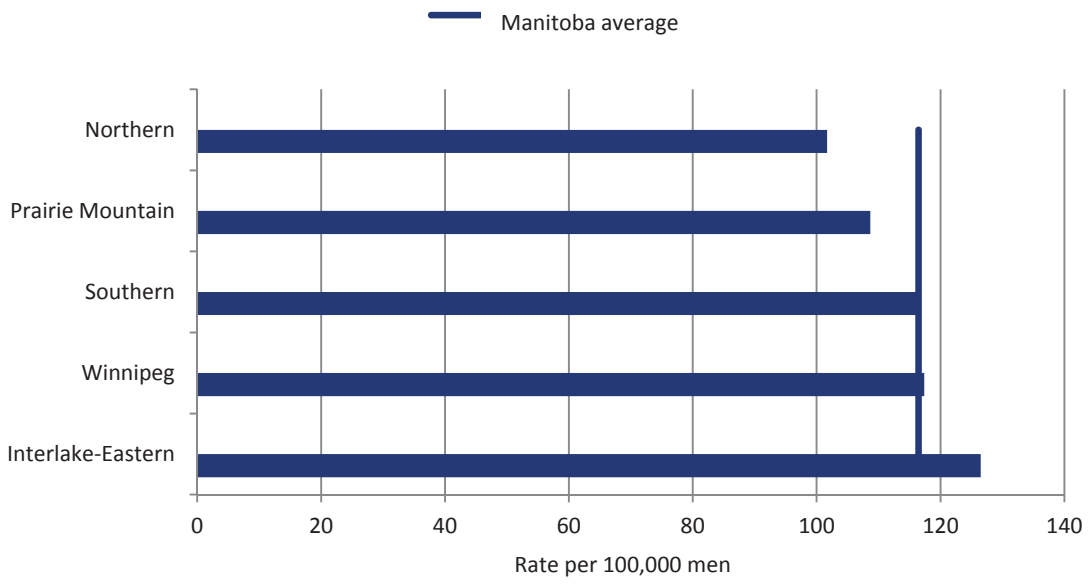
What did we learn in 2009?

- The prostate cancer incidence rate in the former Burntwood region increased from 100 to 160 new cases per 100,000 between 2000-02 and 2003-05, below the Manitoba average of 127 cases.
- The former NOR-MAN region had a prostate cancer incidence rate of 184 cases per 100,000 in 2000-02, declining to 108 cases in 2003-05 which was below the Manitoba average.

What did we learn in 2014?

- The prostate cancer incidence rate was 101.7 per 100,000 population in the Northern Health Region which was below the provincial average of 116.4 (see **Figure 5.70**).

Figure 5.70. Prostate Cancer Incidence by RHA, 2008-2010.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate (p<0.05).

5.8.4. Lung Cancer Incidence

DEFINITION

This indicator measures the rate of lung cancer diagnoses per 100,000 population.

Why Is This Indicator Important?

It is estimated that 430 Manitobans will be diagnosed with lung cancer in 2014 with 360 in the province dying from the disease. Lung cancer has the highest mortality rate in Manitoba.[xxi]

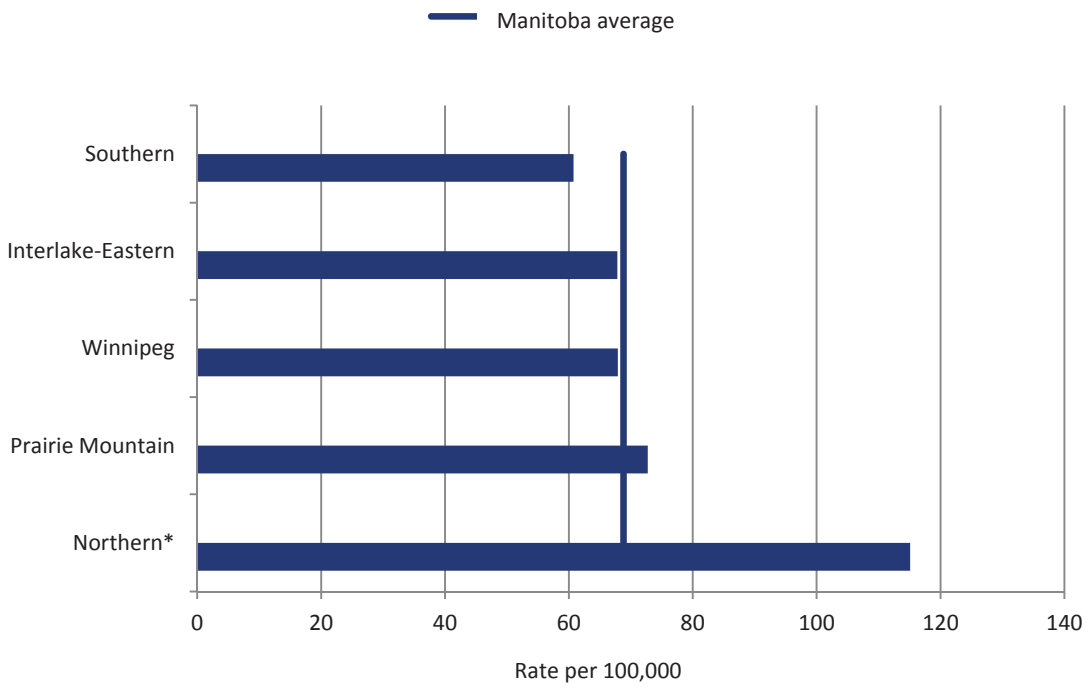
What did we learn in 2009?

- 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
- 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, higher than the Manitoba average of 85.0 in 2003-2005, and ranks the highest (along with NORMAN RHA) among all RHAs in the province.
- For the former NOR-MAN region the lung cancer incidence rate for males increased from 131 to 142 new cases per 100,000 residents between the two time periods.
- The female incidence rate for lung cancer in the former NOR-MAN region also increased from 74 to 98 cases per 100,000 residents which was higher than the Manitoba average of 63.

What did we learn in 2014?

- The lung cancer incidence rate in the Northern Health Region was 115.1 per 100,000 residents, well above the provincial average of 68.8. The difference in rates is considered statistically significant (see **Figure 5.71**).

Figure 5.71. Lung Cancer Incidence by RHA, 2008-2010.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate ($p<0.05$).

5.8.5. Colorectal Cancer Incidence

DEFINITION

This indicator measures the rate of colorectal cancer diagnoses per 100,000 population.

Why Is This Indicator Important?

It is estimated that 930 Manitobans will be diagnosed with colorectal cancer in 2014 with 340 in the province dying from the disease. Colorectal cancer has the 3rd highest mortality rate and the 2nd highest cancer incidence rate in Manitoba.[xxii]

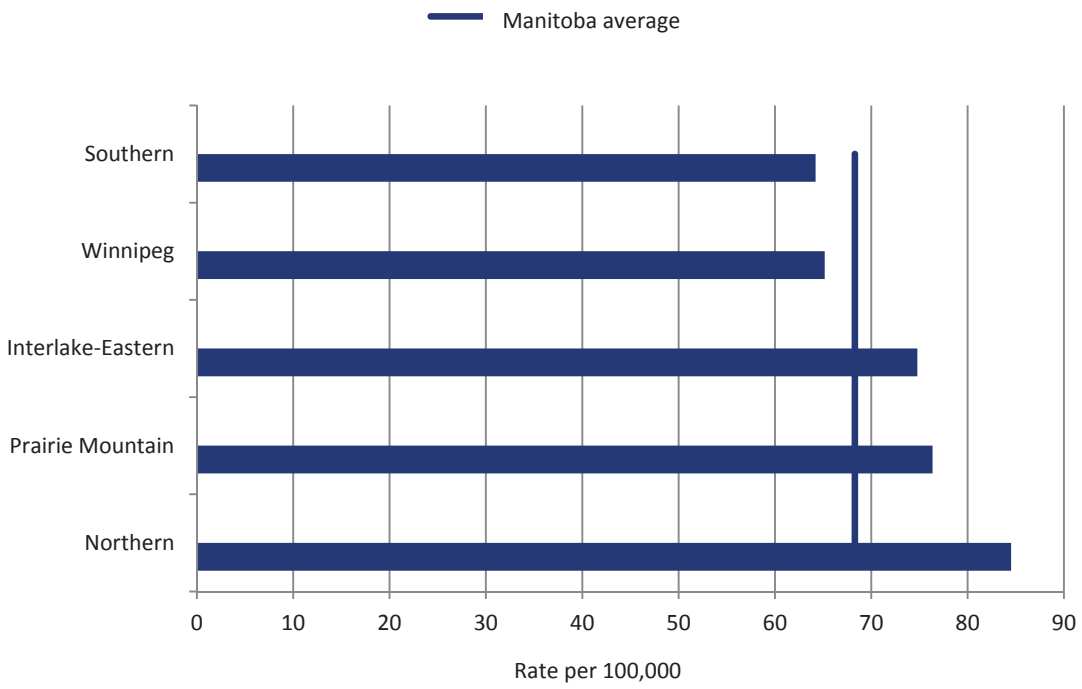
What did we learn in 2009?

- The colorectal cancer incidence rate for females in former Burntwood region 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.
- 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.
- In the former NOR-MAN region, the colorectal cancer incidence rate declined for both males and females. For males, it went from 87 to 71 cases per 100,000 population between the two time periods. The female rate declined from 88 to 51 cases per 100,000 population.

What did we learn in 2014?

- The colorectal cancer incidence rate for the Northern Health Region was 84.5 per 100,000 population which was above the provincial average of 68.3 (see **Figure 5.72**).

Figure 5.72. Colorectal Cancer Incidence by RHA, 2008-2010.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate ($p<0.05$).

5.9. Communicable Disease

WHAT ARE WE DOING?

- A partnership has begun between Safer Choices Northern Network (SCNN), Play it Safer (PIS), the Northern Health Authority and the 595 Prevention Team.
- Harm Reduction Policy has been approved and implemented. Harm reduction initiatives such as the needle exchange has been implemented in The Pas and Flin Flon with a roll out plan being developed for Thompson.
- Health Promotion Activities continue such as World Aids Day, Nickel Days condom blitz, Condom blitz at local bars, sexual reproductive health month, condom distribution to local agencies. Residents are encouraged to know their HIV status as HIV testing is considered an important part of routine sexual health screening.
- HIV testing with immediate results is now being made available for mothers delivering babies to help prevent transmission to newborns.
- STI and CDC presentations were made to local agencies with high risk populations such as homeless shelter, Project Northern Doorway, Addictions Foundation of Manitoba and Crisis Centre.
- The regional structure of the TB Program ensures optimal care and treatment for clients with TB. The program has a NRHA Regional Coordinator, LPN and Direct Observed Therapy Staff. This provides the case management and outbreak response and prevention required for optimal client outcomes. There is also TB Case Management Meetings for NRHA, WRHA and First Nations clients.
- HIV services for clients have been developed and the TB model has been followed for case management. Close working relationship with Nine Circles Primary Care Centre and First Nations Inuit Health Branch.

5.9.1. Sexually Transmitted Infection

In Canada and Manitoba, Chlamydia and Gonorrhea are the most commonly diagnosed sexually transmitted infections (STIs) in Manitoba and in Canada. Given that STI rates in Manitoba have been on the rise in recent years and the potential long term health impacts of STIs, it is important that we continue to monitor STI rates in order to gauge how effective public health prevention messages are in reaching Manitobans and young people in particular around the importance of safe sexual practices.

5.9.1.1. Chlamydia

DEFINITION

This indicator measures the number of cases of the notifiable sexually transmitted infection (STI) Chlamydia trachomatis per 100,000 population per year.

Why Is This Indicator Important?

Chlamydia is the most common sexually transmitted bacterial infection in Canada. Chlamydia can lead to Pelvic Inflammatory Disease (PID) in many women if left untreated.

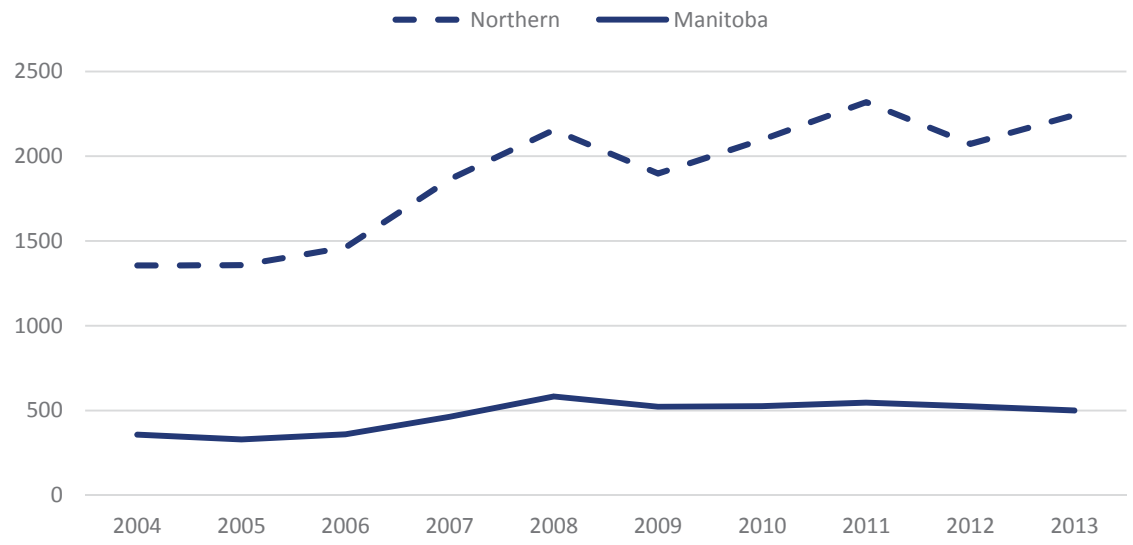
What did we learn in 2009?

- In the former Burntwood Region, the Chlamydia rate for women (3153.3 per 100,000 residents in 2008) was almost five times higher than the Manitoba average (757.2 in 2008) and more than four times higher for men (1789.5 per 100,000 in 2008 with an average of 398.6). On-reserve residents were more likely to be diagnosed (2739.6 per 100,000 in 2001 to 3551 in 2008), though rates of diagnoses were rising among off-reserve residents at a higher rate (454.5 per 100,000 in 2000 to 1693.6 in 2008).
- In the former NOR-MAN Region, women had the highest rates in the province, at 6.6/1,000 from 2002-2005. NOR-MAN males had a rate of 2.4/1,000, the third-highest in the province, during the same period.

What did we learn in 2014?

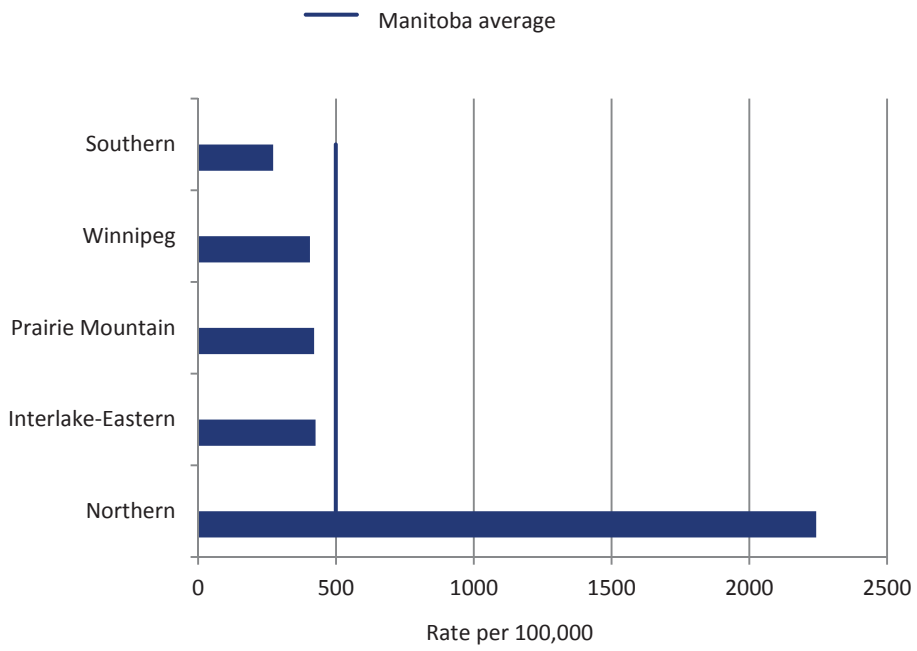
- As **Figure 5.73** illustrates, the chlamydia rate for the Northern Health Region has generally increased over the 2004-2013 time period with rates starting at 1355.9 per 100,000, climbing to 2242 in 2013. On the other hand, the Manitoba average climbed modestly from 2004-2008 while remaining relatively flat thereafter in the range of 500 cases per 100,000 population.
- The Northern Health Region chlamydia rate was over four times higher than that of other RHAs in Manitoba in 2013 (see **Figure 5.74**).

Figure 5.73. Chlamydia Rate for Northern Health Region and Manitoba, 2004-2013.



Source: Monthly Communicable Disease Reports , Manitoba Monthly Surveillance Unit Reports.

Figure 5.74. Chlamydia Rate by RHA, 2013.



Source: Monthly Communicable Disease Reports , Manitoba Monthly Surveillance Unit Reports.
NOTE: Northern has statistically higher than average. Interlake-Eastern, Prairie Mountain, Winnipeg and Southern have statistically lower than average.

5.9.1.2. Gonorrhea

DEFINITION

This indicator measures the number of cases of the notifiable sexually transmitted infection (STI) Gonorrhea per population per year.

Why Is This Indicator Important?

After a long decline, Gonorrhea is back on the rise in Canada, with infections over the last ten years increasing over fifty three per cent. This is due both to inconsistent use of safer sex methods and better screening methods. It has a disproportionate effect on young people, especially young men under the age of twenty four.[xxiii]

What did we learn in 2009?

- In the former Burntwood Region, Gonorrhea infection rates were higher among those living on reserve (58% in 2008), though off-reserve cases were rising at a higher rate. First Nations residents were being diagnosed with a significant proportion of the cases, at eighty four per cent. The rate of infection was also much higher than the Manitoba average. Females had a rate of 1110.6 cases per 100,000 residents, and 725.0 per 100,000 for males.

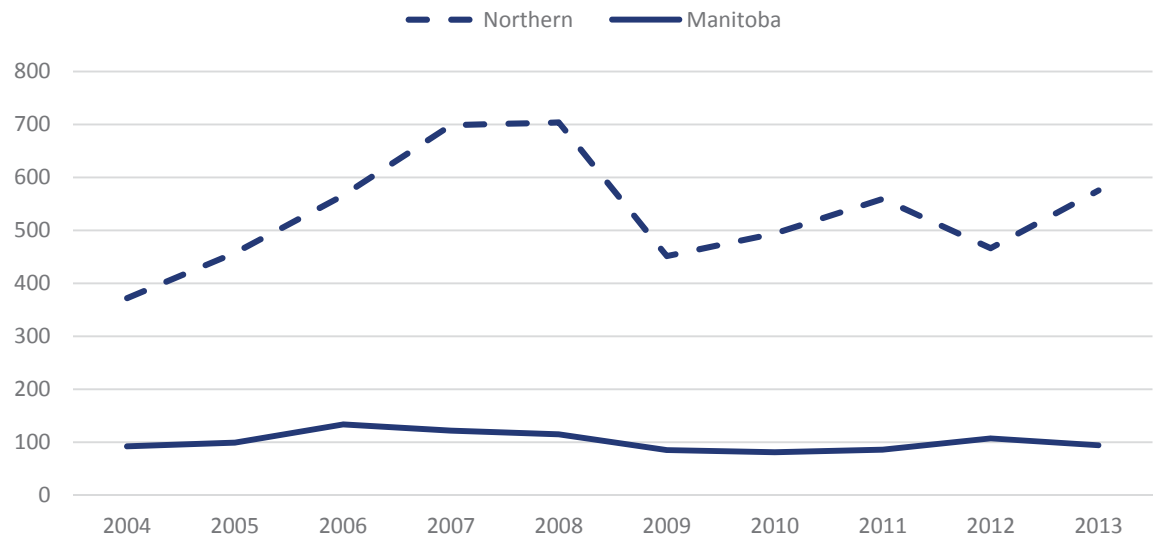
- In the former NOR-MAN Region, women had the second highest rates in the province, at 110/100,000. At 60/100,000, NOR-MAN males had the fourth highest in the province.

What did we learn in 2014?

- The rate for gonorrhea in the Northern Health Region was considerably higher than the Manitoba rate from 2004-2013. The regional rate rose substantially between 2004 and 2007, from 372.1 per 100,000 in 2004 to 698.8 in 2007. Beyond 2007, the rate declined and fluctuated in the 500 cases per 100,000 range. The Manitoba generally hovered in the 100 cases per 100,000 area (see **Figure 5.75**).

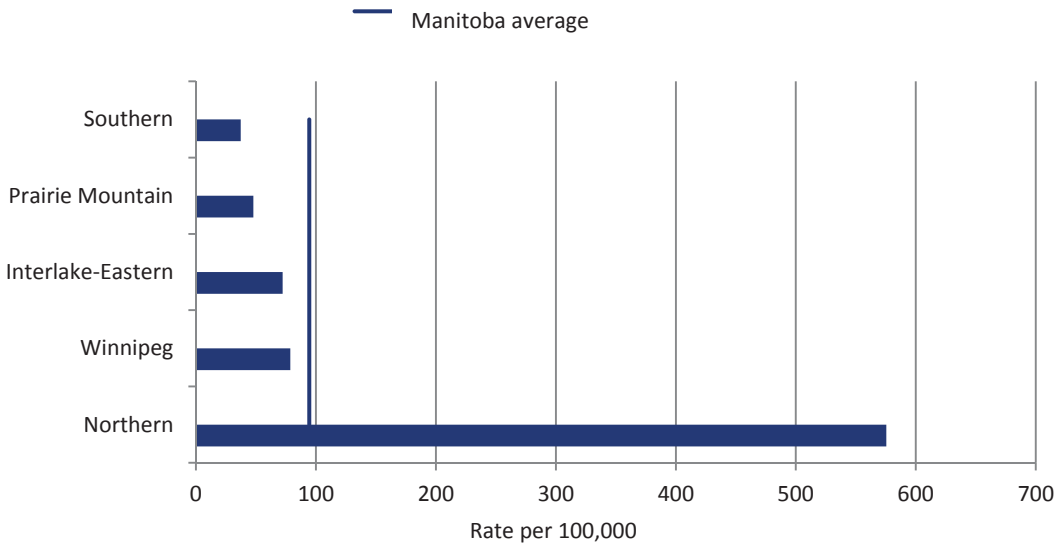
- As with Chlamydia, the Northern Health Region rate for gonorrhea was six time higher than the Manitoba average for 2013 (see **Figure 5.76**).

Figure 5.75. Gonorrhea Rate for Northern Health Region and Manitoba, 2004-2013.



Source: Monthly Communicable Disease Reports , Manitoba Monthly Surveillance Unit Reports.

Figure 5.76. Gonorrhea Rate by RHA, 2013.



Source: Monthly Communicable Disease Reports , Manitoba Monthly Surveillance Unit Reports.
NOTE: Northern has statistically higher than average. Interlake-Eastern, Prairie Mountain, Winnipeg and Southern have statistically lower than average.

5.9.1.3. HIV

DEFINITION

This indicator measures the rate of new laboratory-confirmed infections with HIV per 100,000 per population per year.

Why Is This Indicator Important?

HIV (Human Immunodeficiency Virus) is the virus that leads to AIDS. Although persons with HIV can often lead long, productive lives with proper management, HIV cannot be cured, and there is no vaccine to prevent it. It is widely preventable through safer sex methods. According to the Public Health Agency of Canada, infection rates are rising, as is the number of Canadians living with HIV. It also affects Aboriginal Canadians disproportionately, especially Aboriginal women, who are infected at a much higher rate than non-Aboriginal women.[xxiv]

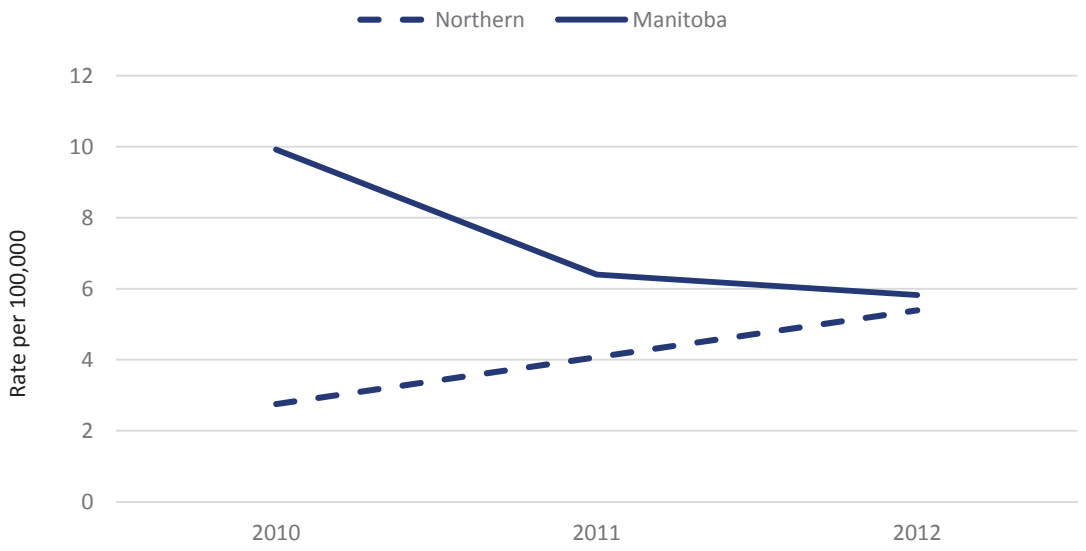
What did we learn in 2009?

- In the former Burntwood Region, women had the second highest rate in Manitoba, and men had the third highest in the province, although still quite uncommon, with low numbers. There were only 24 cases diagnosed in Burntwood between 1985 and 2007, 15 in males and 9 in females.
- In the former NOR-MAN Region, HIV rates were very low, and decreasing for both sexes. (exact numbers unavailable).

What did we learn in 2014?

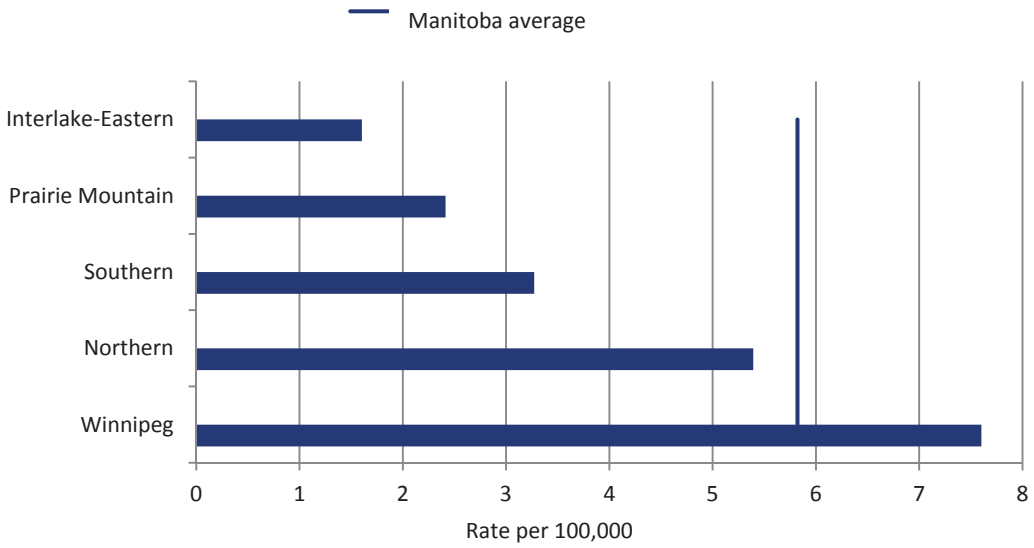
- The Northern Health Region HIV rate did experience an increase from 2010 to 2012, rising from 2.8 per 100,000 to 5.4 in 2012, close to the Manitoba average of 5.8 (see **Figure 5.77**).
- The HIV rate for the Northern Health Region was 5.4 per 100,000 population which was below the Manitoba average of 5.8 (see **Figure 5.78**).

Figure 5.77. HIV Rate for Northern Health Region and Manitoba, 2010-2012.



Source: Monthly Communicable Disease Reports , Manitoba Monthly Surveillance Unit Reports.

Figure 5.78. HIV Rate by RHA, 2012.



Source: Monthly Communicable Disease Reports , Manitoba Monthly Surveillance Unit Reports.
NOTE: Interlake-Eastern and Prairie Mountain have statistically lower than average.

5.9.2. Tuberculosis

DEFINITION

This indicator measures the rate of new tuberculosis cases per 100,000 population per year.

Why Is This Indicator Important?

Tuberculosis (TB) is an infectious disease, caused by the bacterium *Mycobacterium tuberculosis*, which is spread through the air from person to person. Although not nearly as infectious as other common respiratory illnesses such as influenza, with prolonged exposure, an individual with active TB disease of the lungs or airways can potentially spread TB to others through actions such as coughing, sneezing, singing or sometimes even just talking. TB can also spread to other parts of the body such as the lymph nodes, kidneys, bones and joints, intestines, and the brain and spinal cord.

While TB rates in Canada are low overall and have been declining in recent years, rates continue to be higher for our northern population.

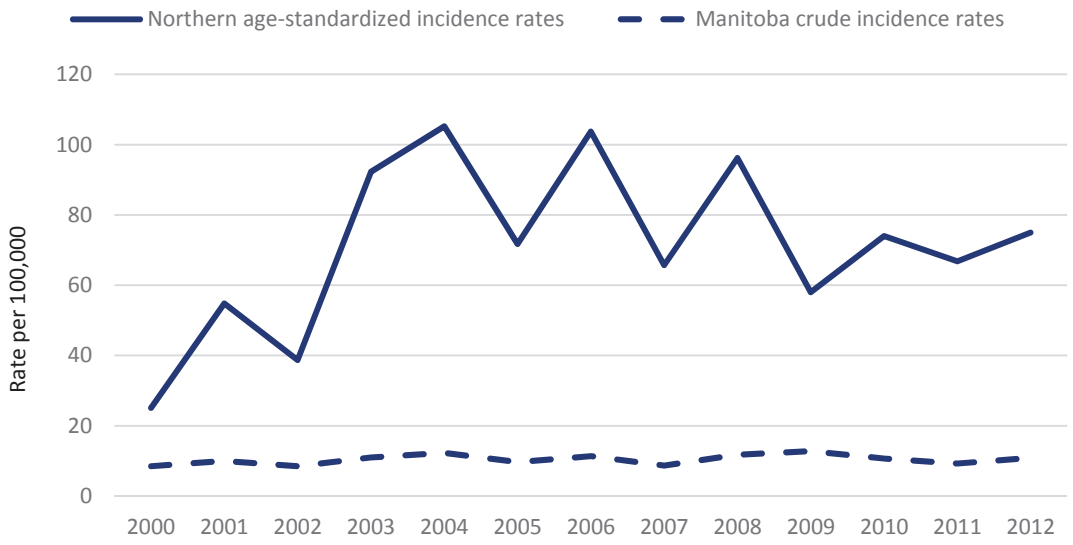
What did we learn in 2009?

- Between 2007 and 2009, incidence rates of TB for the former Burntwood Region ranged from 86 to 126 cases per 100,000 population.

What did we learn in 2014?

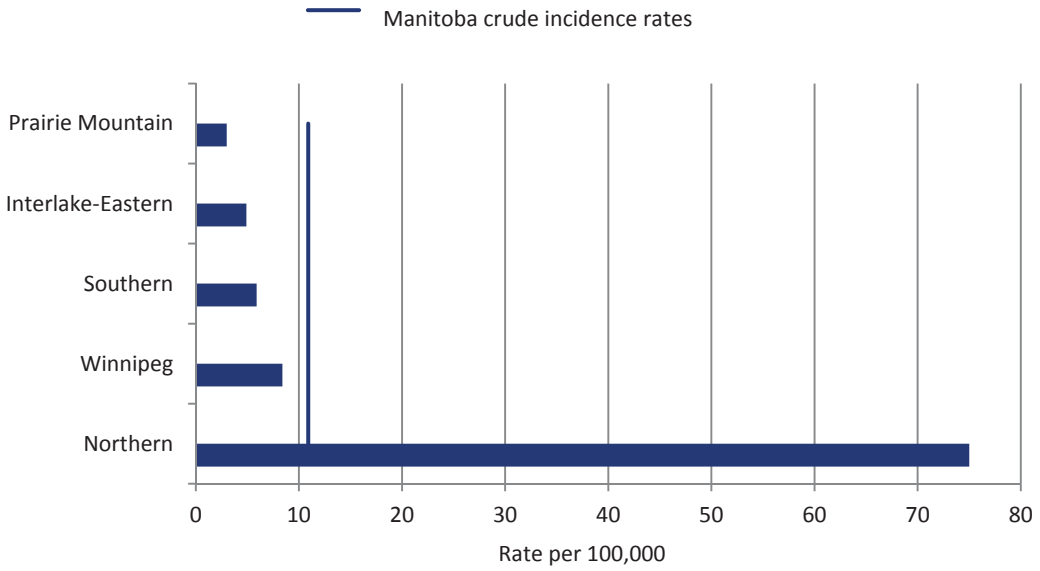
- In the Northern Health Region from 2000-2012, the incidence rates peaked around 2004 (105 TB cases per 100,000 persons) and fluctuated from 2004 to 2011, between 72 and 75 TB cases per 100,000 persons (see **Figure 5.79**).

Figure 5.79. Tuberculosis Incidence Rate for Northern Health Region and Manitoba, 2000-2012.



Source: Surveillance update: Active tuberculosis in Manitoba, 2000-2012, Epidemiology and Surveillance Unit Public Health.

Figure 5.80. Tuberculosis Incidence Rate by RHA, 2012.



Source: Surveillance update: Active tuberculosis in Manitoba, 2000-2012, Epidemiology and Surveillance Unit Public Health.
NOTE: Northern has statistically higher than average. Prairie Mountain and Southern have statistically lower than average..

5.10. Mortality

Ultimately, the key priority of public health is to reduce premature and preventable deaths and improve the quality of life. Looking at how many people die and what caused their death can provide vital information about the health of a population. Tracking patterns and trends in mortality can help explain differences and changes in the health of a population, help determine the effectiveness of health strategies and interventions, and guide planning and policy-making.

Mortality rates for particular causes can be significantly reduced in short periods of time. Examples include suicide or other injury prevention programs that can have an immediate impact on risky behaviours. Mortality rates that take longer to change include cancer or mental illness-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 may take an entire generation to have an impact on lung cancer mortality rates. It is particularly important to focus on deaths that occur at younger ages as these deaths are more likely to be preventable. Premature mortality rates as well as Potential Years of Life Lost focus exclusively on deaths that occurred before the age of 75, helping health planners to prioritize health prevention efforts.

5.10.1. Mortality Rates

DEFINITION

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.

Why Is This Indicator Important?

It is helpful to review the mortality rates as it gives us a baseline from which to measure changes over time, particularly for certain diseases and condition. Life expectancy does not typically change very much over the short term but some mortality rates can be considerably reduced through sustained prevention and awareness campaigns. This section looks extensively at deaths due to injuries which, through safety measures, greater public awareness and prevention efforts can be considerably reduced. Other mortality rates such as those for cancer and cardiac conditions can take longer to change because the risk factors are the result of daily habits which can take a long time to change and ultimately impact mortality rates.

What did we learn in 2009?

- Total mortality rates in Burntwood increased from 13.2 to 14.3 per 1,000 population between 1996-2000 and 2001-2005. This was significantly higher than the Manitoba average of 8.0 in 2001-2005.
- The former NOR-MAN region experienced a slight increase in rates from 10.2 to 10.5 between the two time periods.

What did we learn in 2014?

- There was only a very slight increase in mortality rates in the Northern Health Region from 13.1 per 1,000 population in 2002-2006 to 13.2 in 2007-2011, above the provincial average of 7.3.

5.10.2. Leading 10 Causes of Mortality

DEFINITION

This indicator measures the percentage of deaths represented by the ten most prevalent causes.

Why Is This Indicator Important?

This indicates the prevalence of causes of mortality, and makes it easier to detect regional trends, and whether or not they follow broader trends. It also tells us about the preventability of these causes, and how to best address them.

What did we learn in 2009?

- The former Burntwood Region largely followed provincial trends in terms of causes of mortality. Circulatory diseases (in females, 16.7%, and in males, 20.1%, in 2002-06) and cancer (in females, 20%, and in males, 16.1%, in 2002-06) had lower rates than average (in females 33% and 26.3% in the same period, respectively. In males, it was 32.3% and 28.5%). Endocrine and nutritional disorders were rising (in females, it rose from 7.5% in 1997-2001 to 10.8% in 2002-06. In males, it rose from 5.1% in 1997-2001 to 8.1% in 2002-06.) However, the number of injury-related deaths was notably higher than the provincial average.

What did we learn in 2014?

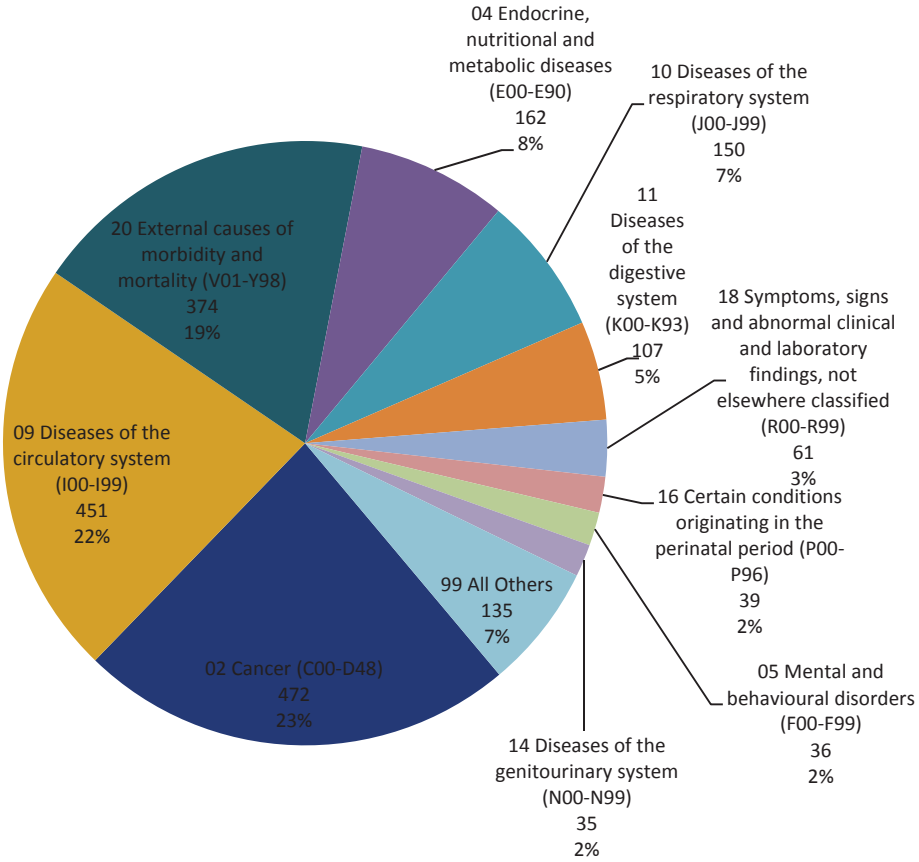
- As **Table 5.4** shows, there was not a great deal of change in the top causes of mortality in the Northern Health Region between 2002-2006 and 2007-2011. Cancer mortality did see an increase in the proportion of deaths, rising from 20.6 per cent in 2002-2006 to 23.3 per cent of death, the number one cause of mortality in 2007-2011. Endocrine, nutritional and metabolic disease deaths did see a notable decline in the proportion of death from 9.3 per cent in 2002-2006 to 8.0 per cent in 2007-2011.

Table 5.4. Causes of Mortality in Northern Health Region, 2002-2006 and 2007-2011.

	Category	Number	Per Cent
2002-2006	09 Diseases of the circulatory system (I00-I99)	401	22.4%
	02 Cancer (C00-D48)	369	20.6%
	20 External causes of morbidity and mortality (V01-Y98)	300	16.8%
	04 Endocrine, nutritional and metabolic diseases (E00-E90)	166	9.3%
	10 Diseases of the respiratory system (J00-J99)	142	7.9%
	18 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	90	5.0%
	11 Diseases of the digestive system (K00-K93)	73	4.1%
	14 Diseases of the genitourinary system (N00-N99)	49	2.7%
	06 Diseases of the nervous system (G00-G99)	47	2.6%
	05 Mental and behavioural disorders (F00-F99)	41	2.3%
	99 All Others	111	6.2%
	Total	**1,789**	
2007-2011	02 Cancer (C00-D48)	472	23.3%
	09 Diseases of the circulatory system (I00-I99)	451	22.3%
	20 External causes of morbidity and mortality (V01-Y98)	374	18.5%
	04 Endocrine, nutritional and metabolic diseases (E00-E90)	162	8.0%
	10 Diseases of the respiratory system (J00-J99)	150	7.4%
	11 Diseases of the digestive system (K00-K93)	107	5.3%
	18 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	61	3.0%
	16 Certain conditions originating in the perinatal period (P00-P96)	39	1.9%
	05 Mental and behavioural disorders (F00-F99)	36	1.8%
	14 Diseases of the genitourinary system (N00-N99)	35	1.7%
	99 All Others	135	6.7%
	Total	**2,022**	

Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
Note: See Chapter 2 for further explanations about the disease classification system.

Figure 5.81. Top Ten Causes of Mortality in Northern Health Region, 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

5.10.3. Injury Mortality Rates

DEFINITION

This indicator measures the number of deaths due to injury per 1,000 residents per year, based on Vital Statistics death codes.

Why Is This Indicator Important?

This tells us how serious of an issue this is in a region, and allows us to properly allocate resources in order to reduce it.

What did we learn in 2009?

- The former Burntwood Region reported the highest rates in the province (8% was the provincial average in 2000-06) among males, though they were decreasing (from 32% in 1993-1999 to 27% in 2000-06). Females were also ranked the highest in the province (5% in 2000-2006), though they were decreasing as well (21% in 1993-1999 to 17% in 2000-2006).
- In the former NOR-MAN Region, it remained the third leading cause of death.

What did we learn in 2014?

- The age standardized rate for all injuries was 115.5 from 2000-2012 in the Northern RHA. The rates were considerably higher for males both for unintentional and intentional injuries compared to females.

Table 5.5. Northern Health Region Injury deaths Counts and Age standardized Rates, 2000-2012.

Injuries	# of Cases	Female	# of Cases	Male	# of Cases	Overall
Unintentional	172	**37.9**	385	**75.6**	527	**57.0**
Intentional	93	**20.5**	281	**59.8**	374	**40.5**
All Injuries	275	**71.6**	666	**157.4**	941	**115.5**

Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region

5.10.3.1. Suicide Rates

DEFINITION

The annual rate of deaths due to suicide, per 1,000 residents aged 10 and older. The data are by calendar year rather than fiscal year. Suicide is the act of intentionally killing oneself through self-inflicted injury (e.g. cutting or poisoning).

Why Is This Indicator Important?

Suicide is a complex phenomenon, with many risk factors. Approximately 90 per cent of suicidal people have a psychiatric disorder, most commonly depression or psychosis. Aboriginal youth are five to seven times more likely to commit suicide than non-Aboriginal youth, according to Health Canada.[xxv]

What did we learn in 2009?

- The former Burntwood Region reported the highest suicide rates in Manitoba at 0.4 suicides 1,000 in 2001-2005 which was an increase from 0.2 per 1,000 in 1996-2000.
- In the former NOR-MAN Region, there was a slight increase in rates from 0.17 per 1,000 in 1996-2000 to 0.23 in 2001-2005, which was close to the Manitoba average of 0.2 in 2001-2005.

What did we learn in 2014?

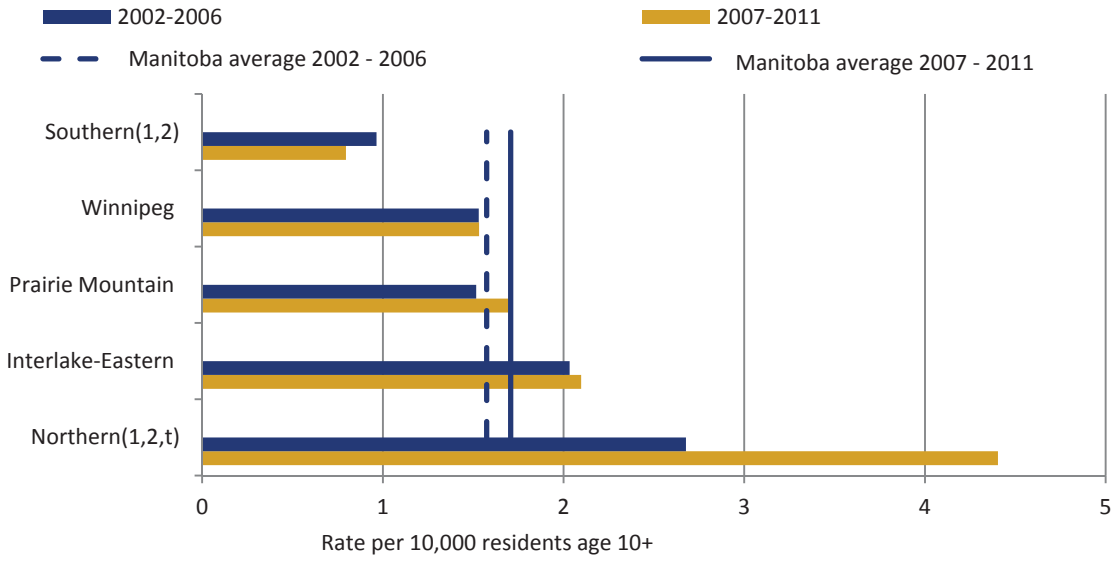
- The Northern Health Region experienced a statistically significant increase in suicide rates from 2.7 per 10,000 population in 2002-2006 to 4.4 in 2007-2011. The Manitoba average was 1.7 (see **Figure 5.82**).
- Among Northern Health Region zones, the highest suicide rates were seen in the Northern Island Lake zone (7.6 in 2007-2011) and the Northern Non-Direct Service zone (6.0 in 2007-2011) which had a statistically significant increase between the two time periods (see **Figure 5.83**).

WHAT ARE WE DOING?

The HOPE North Suicide Prevention Committee's goal is to enhance protective factors for individuals, families and communities within the region, while reducing suicide rates and promoting life through a myriad of initiatives and activities. All the activities of HOPE North are centered on life promotion. Some recent initiative include:

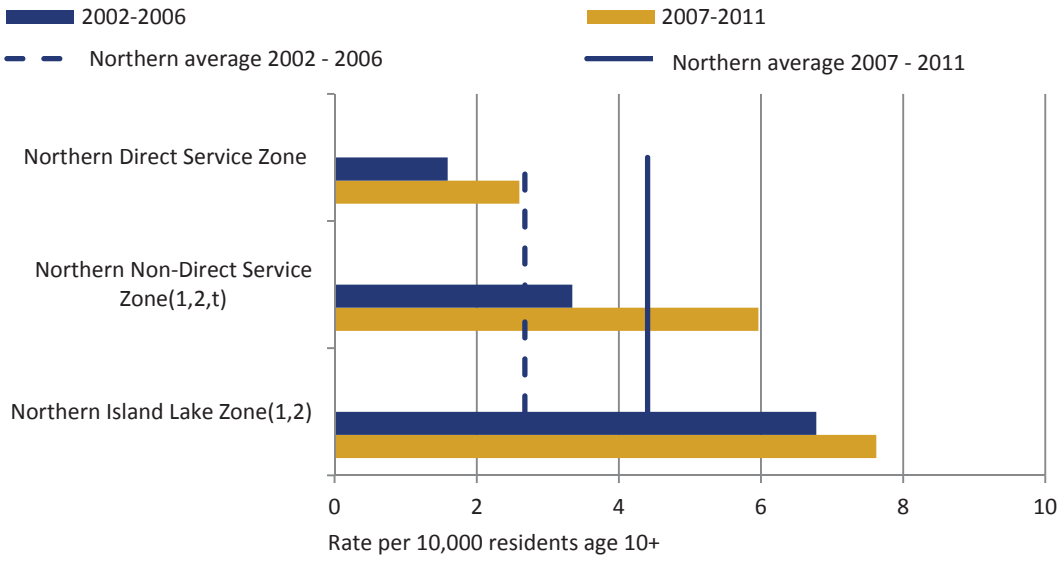
- Health promotion (raising awareness while reducing stigma),
- Gatekeeper training such as Safe Talk, Mental Health First Aid and ASIST School Based Training and Initiatives, including Youth Suicide Prevention Education (ie. Reaching Out & Signs of Suicide offered in Thompson on an annual basis),
- Opportunities for communities to partner, network, share information and resources
- Capacity building in regional communities, through provision of training, support to trainers, provision of resources
- Support to existing programs and initiatives within the region that promote life and hope, meaningful opportunities for recreation and social engagement for youth.

Figure 5.82. Average Annual Suicide Rates by RHA 2002-2006 and 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.83. Average Annual Suicide Rates by Northern Health Region Zone, 2002-2006 and 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.10.3.2. Unintentional Injury Death Rate

DEFINITION

This indicator refers to the age-adjusted rate of death from unintentional injuries per 100,000 population. Unintentional ("accidental") injuries include injuries due to causes such as motor vehicle collisions, falls, drowning, burns and poisoning, but not medical misadventures/complication, homicide.

Why Is This Indicator Important?

Data from this indicator can tell us how successful injury prevention efforts have been, including community and road design, public education, treatment resources, prevention and emergency care.

What did we learn in 2009?

- Males in the former Burntwood Region saw an increase in injury deaths (from 83.9 per 100,000 in 1993-1999 to 94.1 in 2000-2006), and remained significantly above the provincial average (42.5 in 2000-2006). Burntwood females had the highest rate in the province (the provincial average was 29.1 in 2000-2006), and increasing (40.4 per 100,000 in 1993-1999 to 62.1 in 2000-06.).

What did we learn in 2014?

- The overall unintentional injury death rate in the Northern Health Region was 57.0 per 100,000 population between 2000-2012. The male rate was almost double (75.6) the female rate (37.9) with over three times the cases (see **Table 5.7**).

Table 5.6. Northern Health Region unintentional Injury deaths Counts and Age standardized Rates, 2000-2012.

Injuries	# of Cases	Female	# of Cases	Male	# of Cases	Overall
Unintentional	172	**37.9**	385	**75.6**	527	**57.0**

Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region

5.10.3.3. Motor Vehicle Deaths

DEFINITION

This indicator measures the rate of deaths due to motor vehicle accidents per 100,000 population.

Why Is This Indicator Important?

Motor vehicle death rates are an important indicator of the effectiveness of road safety education, road design as well as traffic enforcement activities within a region.

What did we learn in 2009?

- The injury death rate due to motor vehicle accident increased in the former Burntwood region from 7.4 deaths per 100,000 in 1993-1999 to 10.1 in 2000-2006.
- In the former NOR-MAN region, there was a decline in the motor vehicle accident rate from 18.0 per 100,000 in 1993-1999 to 16.7 in 2000-2006.

What did we learn in 2014?

- The total motor vehicle standardized rate for deaths in the Northern RHA between 2000 and 2012 was 13.1 with an average PYLL of 44.3. The average PYLL was substantially higher for females at 48.7 compared to 41.4 for males. There were, however, more male cases (68) than male cases (45).

Table 5.7. Northern RHA Motor Vehicle Deaths by Gender, 2000-2012.

	Female				Male				Total			
	# of Cases	Crude Rate	Age Standardized Rate	Avg. PYLL	# of Cases	Crude Rate	Age Standardized Rate	Avg. PYLL	# of Cases	Crude Rate	Age Standardized Rate	Avg. PYLL
MVC (Total)	**45**	**9.9**	**10.1**	**48.7**	**68**	**14.5**	**16.0**	**41.4**	**113**	**12.2**	**13.1**	**44.3**
Occupant	7	1.5	1.7	44.0	8	1.7	2.3	43.0	15	1.6	2.0	43.5
Motorcyclist	0	0.0	0.0	0.0	2	0.4	0.4	43.5	2	0.2	0.2	43.5
Pedal-cyclist	0	0.0	0.0	0.0	2	0.4	0.4	47.5	2	0.2	0.2	47.5
Pedestrian	12	2.6	1.9	58.5	19	4.0	3.9	46.5	31	3.4	2.9	51.1
Unspecified	26	5.7	6.5	45.3	37	7.9	9.0	38.0	63	6.8	7.9	40.9

Note 1: All rates per 100,000; no deaths due to Overexertion were reported in this time period.
Note 2: Crude rates are calculated using the corresponding year's mid-point population as the denominator. Population data were Insurance Registry
Note 3: Rates are age-standardized to the 2006 Canadian population (provided by Statistics Canada)
Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern RHA

5.10.3.4. Deaths Due To Drowning

DEFINITION

This indicator measures the rate of deaths due to drowning per 100,000 population.

Why Is This Indicator Important?

Death due to drowning is an important indicator for determining the relative effectiveness of water safety awareness campaigns and efforts to teach youth swimming basics.

What did we learn in 2014?

- The standardized rate for deaths due to drowning between 2000 and 2012 in the Northern RHA was 6.4 with an average PYLL of 43.9. The rate and average PYLL was higher for females than it was for males (see **Table 5.8**).

Table 5.8. Northern RHA Deaths Due to Drowning by Gender, 2000-2012.

Female				Male				Total			
# of Cases	Crude Rate	Age Standardized Rate	Avg. PYLL	# of Cases	Crude Rate	Age Standardized Rate	Avg. PYLL	# of Cases	Crude Rate	Age Standardized Rate	Avg. PYLL
10	2.2	2.1	47.4	48	10.2	10.4	43.2	58	6.3	6.4	43.9

Note 1: All rates per 100,000; no deaths due to Overexertion were reported in this time period.
Note 2: Crude rates are calculated using the corresponding year's mid-point population as the denominator.
the Manitoba Health, Healthy Living and Seniors Insurance Registry
Note 3: Rates are age-standardized to the 2006 Canadian population (provided by Statistics Canada)
Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern RHA

5.10.3.5. Deaths Due To Falls

DEFINITION

This indicator measures the rate of deaths due to falls per 100,000 population.

Why Is This Indicator Important?

Death due to falls occur more frequently in the senior population. Evaluating the effectiveness of efforts to improve seniors' safety in housing facilities, improving access to independent living options is important for health planners.

What did we learn in 2014?

- The age standardized rate for deaths due to falls between 2000 and 2012 in the Northern RHA was 15.1 with an average PYLL of 22.9 (see **Table 5.9**).

Table 5.9. Northern RHA Deaths Due to Falls by Gender, 2000-2012.

Female				Male				Total			
# of Cases	Crude Rate	Age Standardized Rate	Avg. PYLL	# of Cases	Crude Rate	Age Standardized Rate	Avg. PYLL	# of Cases	Crude Rate	Age Standardized Rate	Avg. PYLL
30	6.6	16.0	14.6	25	5.3	13.6	28.1	55	6.0	15.1	22.9

Note 1: All rates per 100,000; no deaths due to Overexertion were reported in this time period.
Note 2: Crude rates are calculated using the corresponding year's mid-point population as the denominator.
Population data were derived from the Manitoba Health, Healthy Living and Seniors Insurance Registry
Note 3: Rates are age-standardized to the 2006 Canadian population (provided by Statistics Canada)
Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern RHA

5.10.4. Cancer Mortality

DEFINITION

This indicator measures the number of deaths due to cancer over a given time period, expressed as a rate per 100,000 population.

Why Is This Indicator Important?

This tells us about where we should target our cancer prevention strategies, and what our greater risk factors might be.

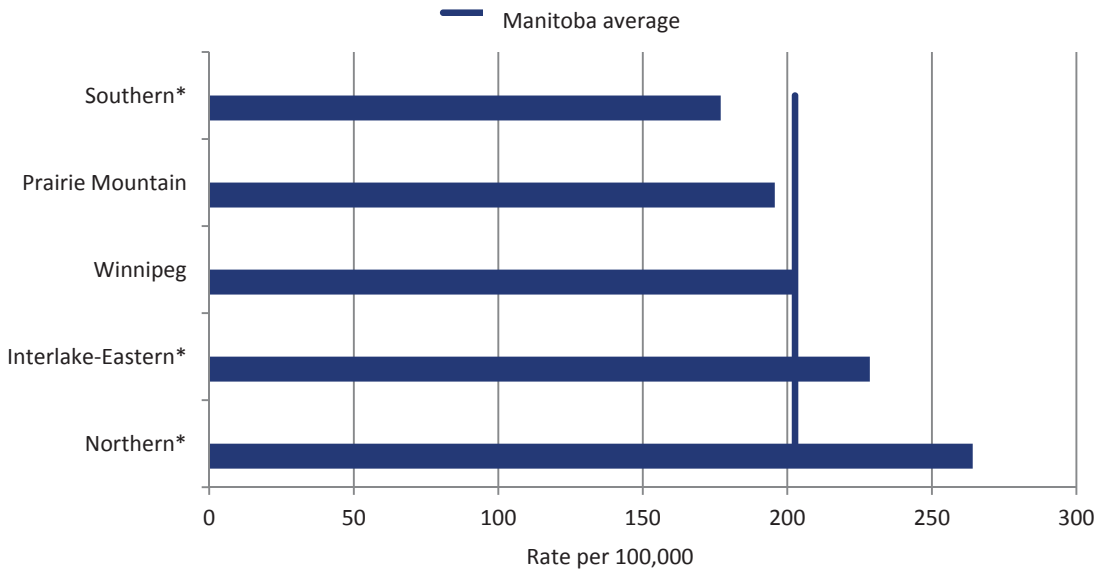
What did we learn in 2009?

- Stats were only available for the Northern Region as a whole, including both former regions. The top 5 cancers causing in men were lung (31.7%), colorectal (10.7%), prostate (11.2%), pancreas (2.2%), and bladder (1.3%). Other cancers comprised 42.9 per cent. In women, they were lung (28.7%), colorectal (10.3%), breast (14.4%), pancreas (6.9%), and ovary (2.3%). Other cancer deaths were 37.4 per cent.
- The former NOR-MAN region had an overall cancer mortality rate in 2005-2007 of 278.1 per 100,000 while the former Burntwood region had a rate of 255.2, the highest mortality rates among RHAs. The NOR-MAN rate was considered statistically different from the Manitoba average of 209.0.

What did we learn in 2014?

- The overall cancer mortality rate in 2008-2010 in the Northern Health Region was 264.1 per 100,000 population, the highest rate among RHAs and statistically different from the Manitoba average of 202.7 (see **Figure 5.84**).

Figure 5.84. Overall Cancer Mortality by RHA, 2008-2010.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate ($p<0.05$).

5.10.4.1. Lung Cancer Mortality

DEFINITION

This indicator measures the number of deaths due to lung cancer over a given time period, expressed as a rate per 100,000 population.

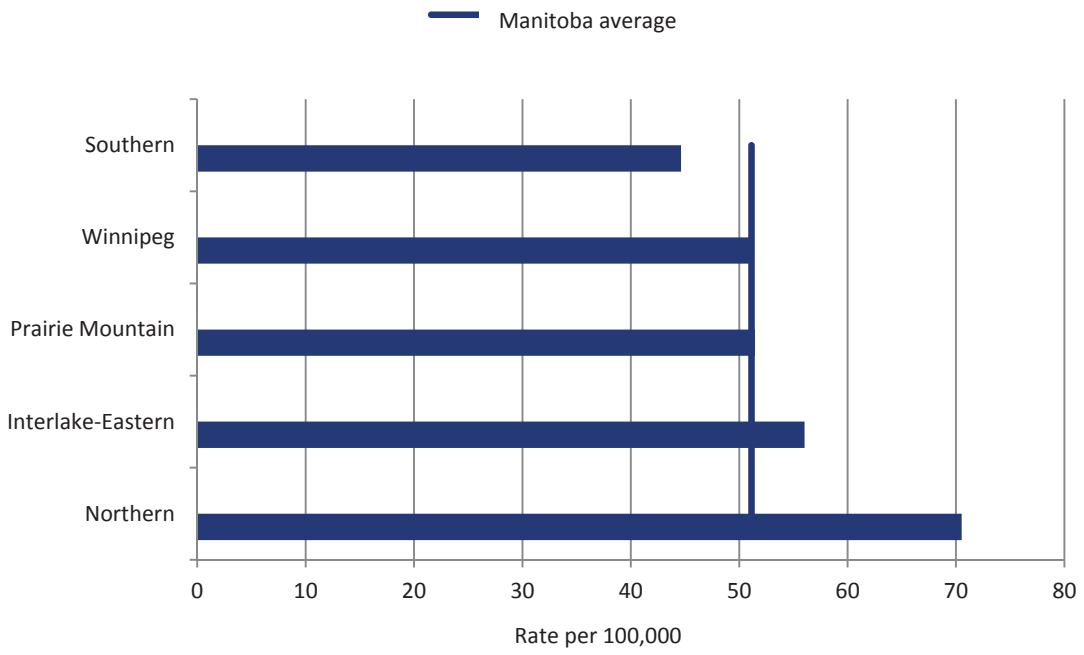
What did we learn in 2009?

- The former NOR-MAN region had a lung cancer mortality rate in 2005-2007 of 62.7 per 100,000 while the former Burntwood region had a rate of 59.0. These regional rates were above the Manitoba average of 50.4 though the differences were not considered statistically significant.

What did we learn in 2014?

- The lung cancer mortality rate in 2008-2010 in the Northern Health Region appeared to rise to 70.5 per 100,000 population, the highest rate among RHAs though not statistically different from the Manitoba average of 52.7 (see **Figure 5.85**).

Figure 5.85. Lung Cancer Mortality by RHA, 2008-2010.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate (p<0.05).

5.10.4.2. Colorectal Cancer Mortality

DEFINITION

This indicator measures the number of deaths due to colorectal cancer over a given time period, expressed as a rate per 100,000 population.

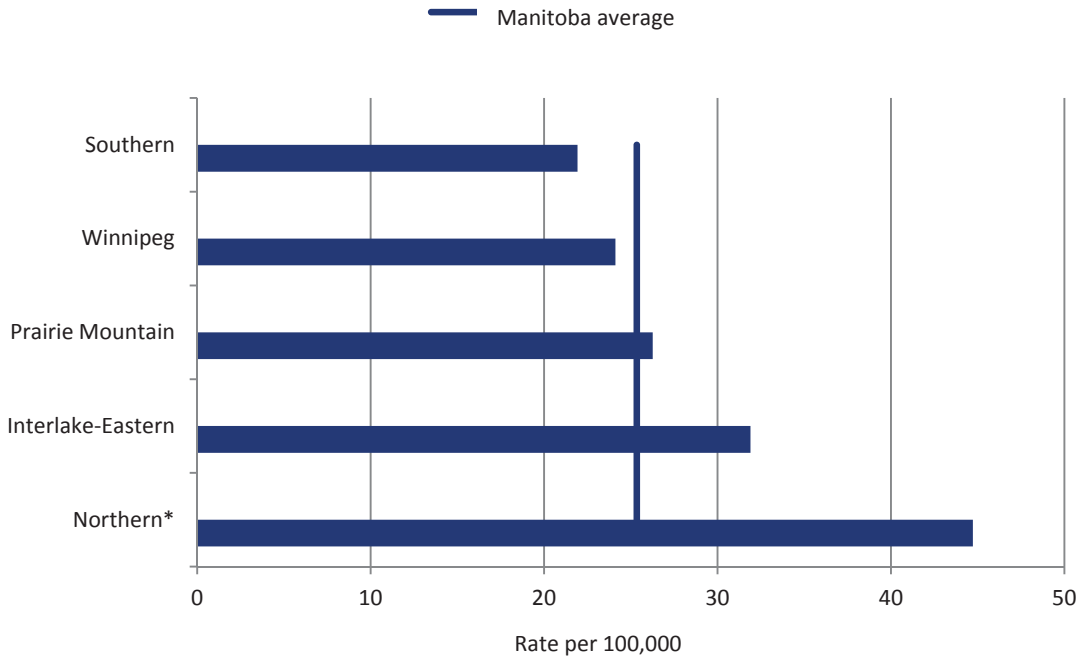
What did we learn in 2009?

- The former NOR-MAN region had a colorectal cancer mortality rate in 2005-2007 of 36.4 per 100,000 while the former Burntwood region had a rate of 25.6. The NOR-MAN rate was the highest among RHAs though the difference with the Manitoba average of 26.2 was not considered statistically significant.

What did we learn in 2014?

- The colorectal cancer mortality rate in 2008-2010 in the Northern Health Region appeared to rise to 44.7 per 100,000 population, the highest rate among RHAs and statistically different from the Manitoba average of 25.3 (see **Figure 5.86**).

Figure 5.86. Colorectal Cancer Mortality by RHA, 2008-2010.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate (p<0.05).

5.10.4.3. Breast Cancer Mortality

DEFINITION

This indicator measures the number of deaths due to breast cancer over a given time period, expressed as a rate per 100,000 population.

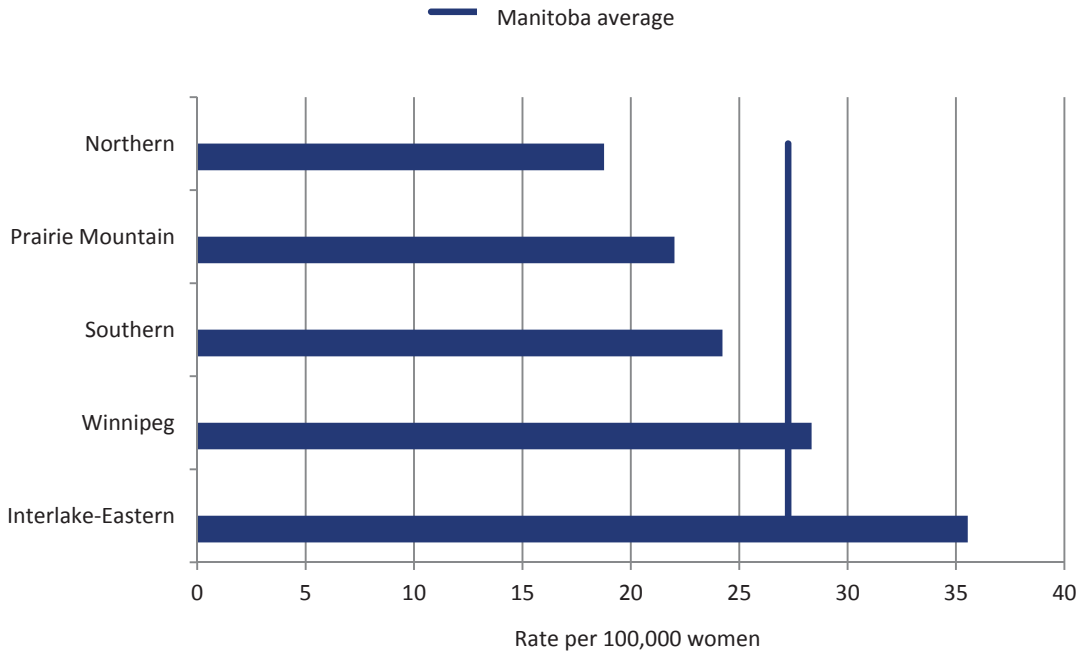
What did we learn in 2009?

- The former NOR-MAN region had a breast cancer mortality rate in 2005-2007 of 36.4 per 100,000 while the former Burntwood region had a rate of 14.8. The NOR-MAN rate was the highest among RHAs though the difference with the Manitoba average of 28.9 was not considered statistically significant.

What did we learn in 2014?

- The breast cancer mortality rate in 2008-2010 in the Northern Health Region appeared to drop to 18.8 per 100,000 population, the lowest rate among RHAs though not statistically different from the Manitoba average of 27.3 (see **Figure 5.87**).

Figure 5.87. Breast Cancer Mortality by RHA, 2008-2010.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate (p<0.05).

5.10.4.4. Prostate Cancer Mortality

DEFINITION

This indicator measures the number of deaths due to prostate cancer over a given time period, expressed as a rate per 100,000 population.

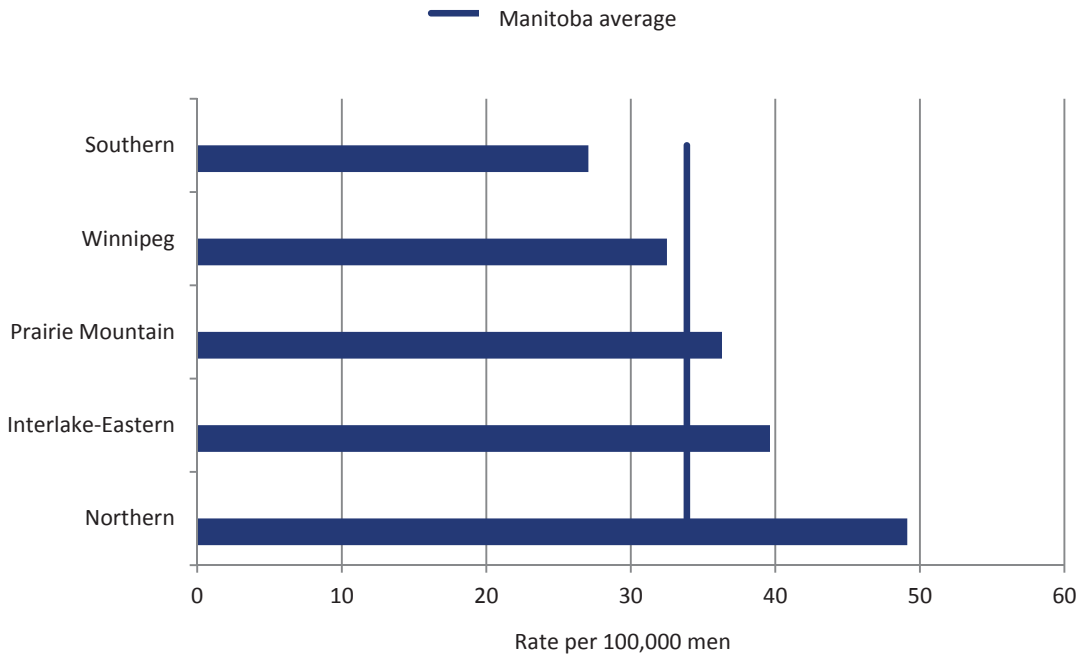
What did we learn in 2009?

- The former NOR-MAN and Burntwood regions had high prostate cancer mortality rates of 90.4 and 86.8 per 100,000 population respectively, well above the Manitoba average of 38.5 in 2005-2007. The differences in rates were considered statistically significant for both regions.

What did we learn in 2014?

- The prostate cancer mortality rate in 2008-2010 in the Northern Health Region appeared to drop to 49.1 per 100,000 population, the highest rate among RHAs though not statistically different from the Manitoba average of 33.9 (see **Figure 5.88**).

Figure 5.88. Prostate Cancer Mortality Rate, 2008-2010.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate (p<0.05).

5.10.5. Leading 10 Causes of Premature Mortality

DEFINITION

This indicator refers to the annual proportion (%) of premature deaths for the 10 most prevalent ICD-9 and ICD-10 code groupings for cause of death, for aggregate areas.

Why Is This Indicator Important?

It is important that regions are aware of which diseases and conditions are causing premature death in order to target treatment, management and prevention programs for those conditions in order that residents live longer and at a higher quality of life.

What did we learn in 2014?

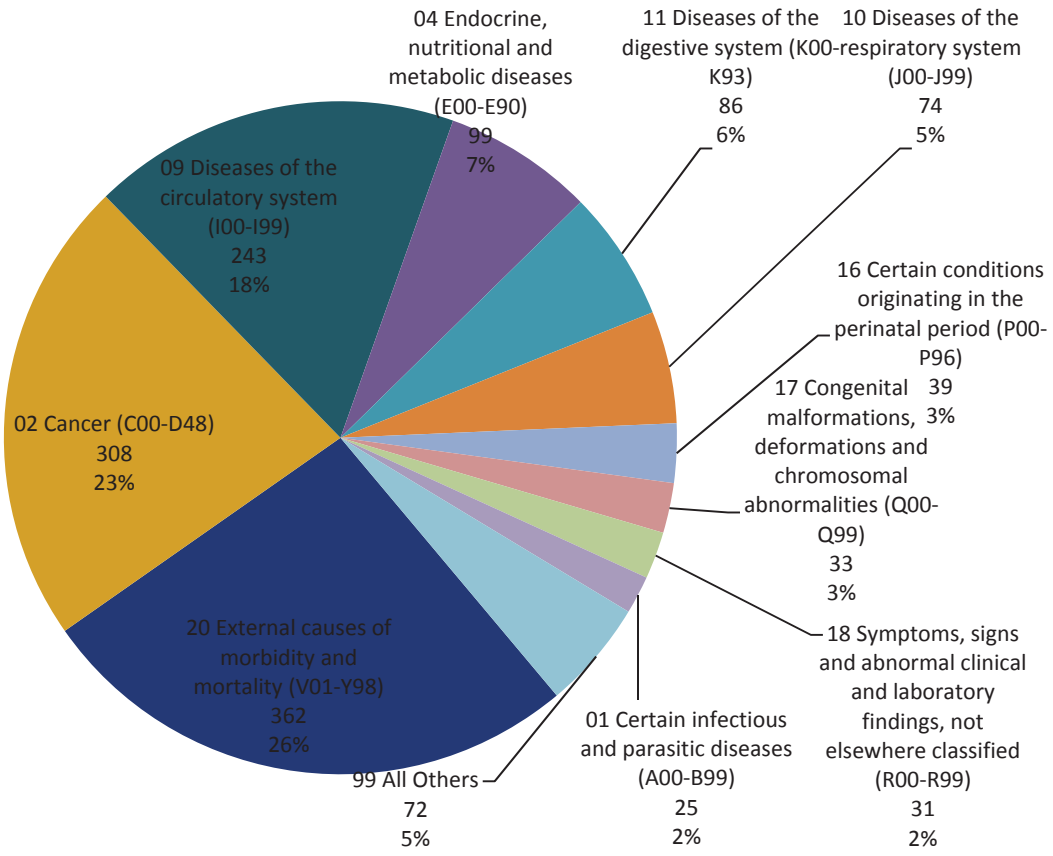
- The findings for the top 10 causes of premature mortality are similar to the top 10 mortality rates discussed earlier in this chapter. The proportion of premature deaths that increased from 2002-2006 to 2007-2011 were cancer (20.7% to 22.4%), digestive diseases (4.4% to 6.2%) and respiratory diseases (4.4% to 6.3%). Endocrine, nutritional and metabolic diseases had a reduction in the proportion of PMR from 8.9 per cent in 2002-2006 to 7.2 per cent in 2007-2011 (see **Table 5.10**).

Table 5.10. Causes of Premature Mortality, 2002-2006 and 2007-2011.

	Category	Number	Per Cent
2002-2006	20 External causes of morbidity and mortality (V01-Y98)	279	24.1%
	02 Cancer (C00-D48)	240	20.7%
	09 Diseases of the circulatory system (I00-I99)	211	18.2%
	04 Endocrine, nutritional and metabolic diseases (E00-E90)	103	8.9%
	10 Diseases of the respiratory system (J00-J99)	69	6.0%
	11 Diseases of the digestive system (K00-K93)	51	4.4%
	18 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	41	3.5%
	17 Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	31	2.7%
	05 Mental and behavioural disorders (F00-F99)	26	2.2%
	14 Diseases of the genitourinary system (N00-N99)	26	2.2%
	99 All Others	82	7.1%
	Total	**1,159**	
2007-2011	20 External causes of morbidity and mortality (V01-Y98)	362	26.4%
	02 Cancer (C00-D48)	308	22.4%
	09 Diseases of the circulatory system (I00-I99)	243	17.7%
	04 Endocrine, nutritional and metabolic diseases (E00-E90)	99	7.2%
	11 Diseases of the digestive system (K00-K93)	86	6.3%
	10 Diseases of the respiratory system (J00-J99)	74	5.4%
	16 Certain conditions originating in the perinatal period (P00-P96)	39	2.8%
	17 Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	33	2.4%
	18 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	31	2.3%
	01 Certain infectious and parasitic diseases (A00-B99)	25	1.8%
	99 All Others	72	5.2%
	Total	**1,372**	

Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

Figure 5.89. Top 10 Causes of PMR in Northern Health Region, 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

5.10.6. Premature Mortality Rates

DEFINITION

This indicator measures the annual number of deaths occurring before the age of 75 per 1,000 population for individuals which is adjusted to a reference (or standard) population of individuals under 75 years of age.

Why Is This Indicator Important?

Premature Mortality Rate (PMR) is considered by many health researchers to be the single best indicator of a population's health status. Higher PMRs indicate poorer overall health and greater need for health services.

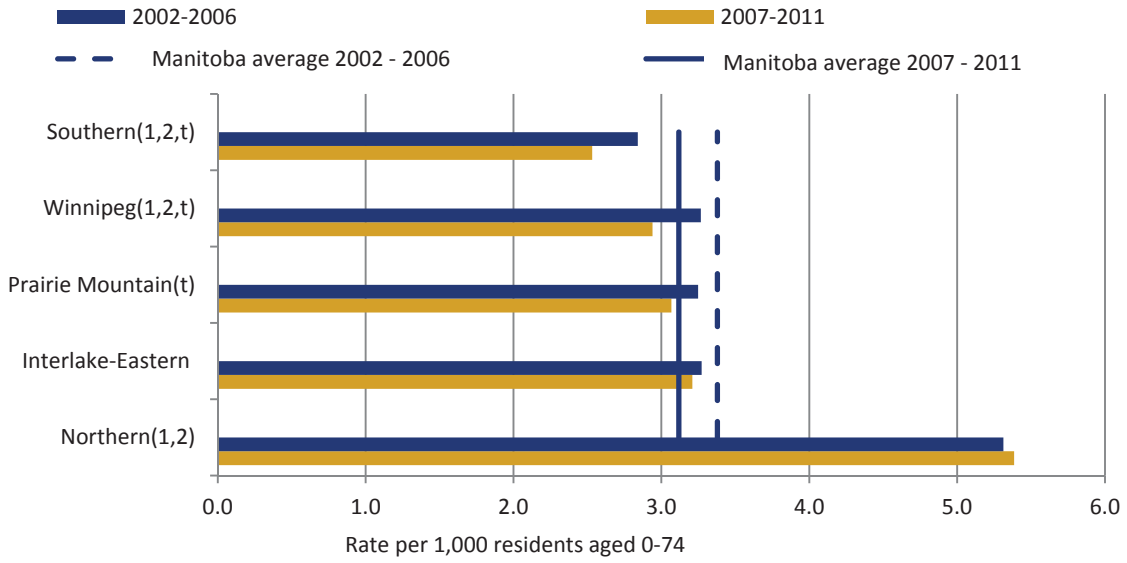
What did we learn in 2009?

- The former Burntwood Region had a slight increase in PMR from 5.3 deaths per 1,000 in 1996-2000 to 5.8 per 1,000 residents in 2001-2005 which was the highest rate recorded among Manitoba RHAs for that time period.
- The former NOR-MAN Region had the second highest rates, but there was a slight decrease from 4.55 death per1,000 residents in 1996-2000 to 4.4 in 2001-2005.

What did we learn in 2014?

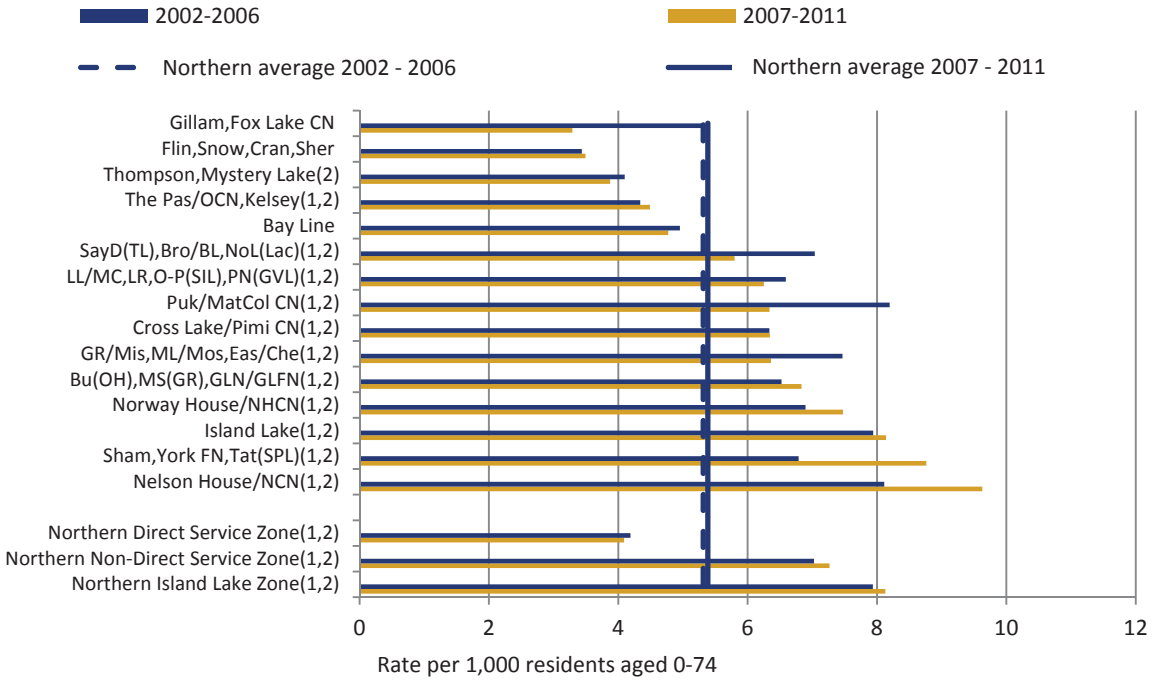
- The Premature Mortality Rate stayed virtually unchanged in the Northern Health Region moving from 5.3 per 1,000 population in 2002-2006 to 5.4 in 2007-2011. It was statistically above the Manitoba average of 3.1 (see **Figure 5.90**).
- Consistent with other findings in this chapter, PMR rates were higher in the Northern Island Lake (statistically above the Manitoba average) and the Non-Direct Service zones (see **Figure 5.91**).

Figure 5.90. PMR Rates by RHA, 2002-2006 and 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.91. PMR Rates by Northern District and Zone, 2002-2006 and 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.10.7. Potential Years of Life Lost (PYLL)

DEFINITION

Potential years of life lost (PYLL) is the number of years of life "lost", when a person dies "prematurely" before age 75. A person dying at age 25, for example, has lost 50 years of life.

Why Is This Indicator Important?

For premature mortality, PYLL is the most useful measurement to use. It is usually grouped by cause of death, as this measure emphasizes causes of death that particularly affect young people, such as suicide.

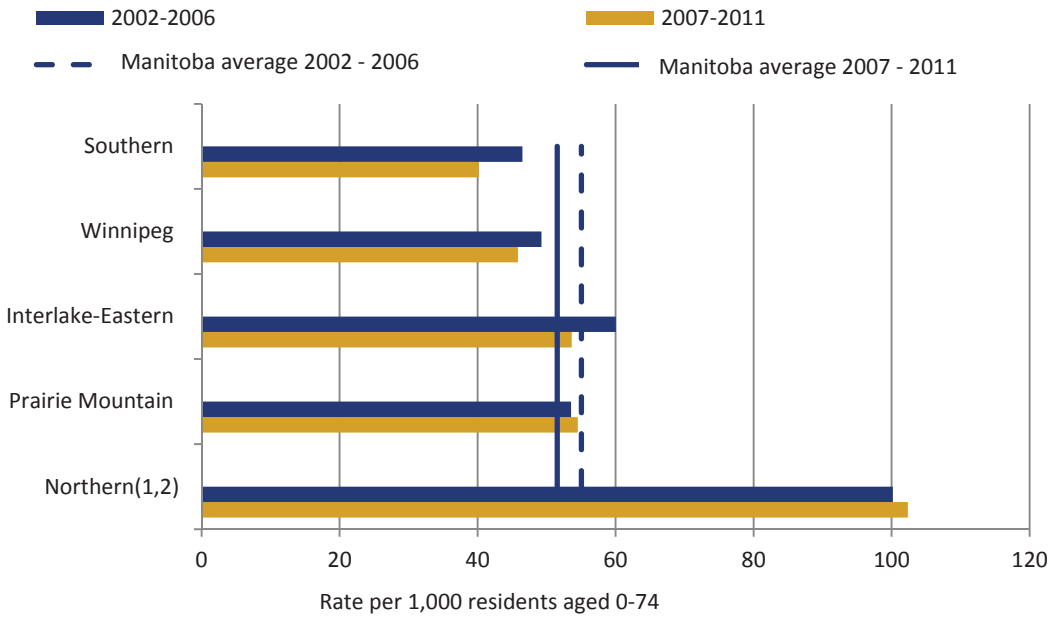
What did we learn in 2009?

- In the former Burntwood Region, rates remained relatively constant with PYLL rates of 109 per 1,000 residents in 1996-2000 and 108.7 in 2001-2005. The region was significantly above the provincial average of 50.9 in 2001-2005.
- In the former NOR-MAN Region, rates decreased significantly from 80.8 in 1996-2000 to 72 in 2001-2005 but remained above the provincial average.

What did we learn in 2014?

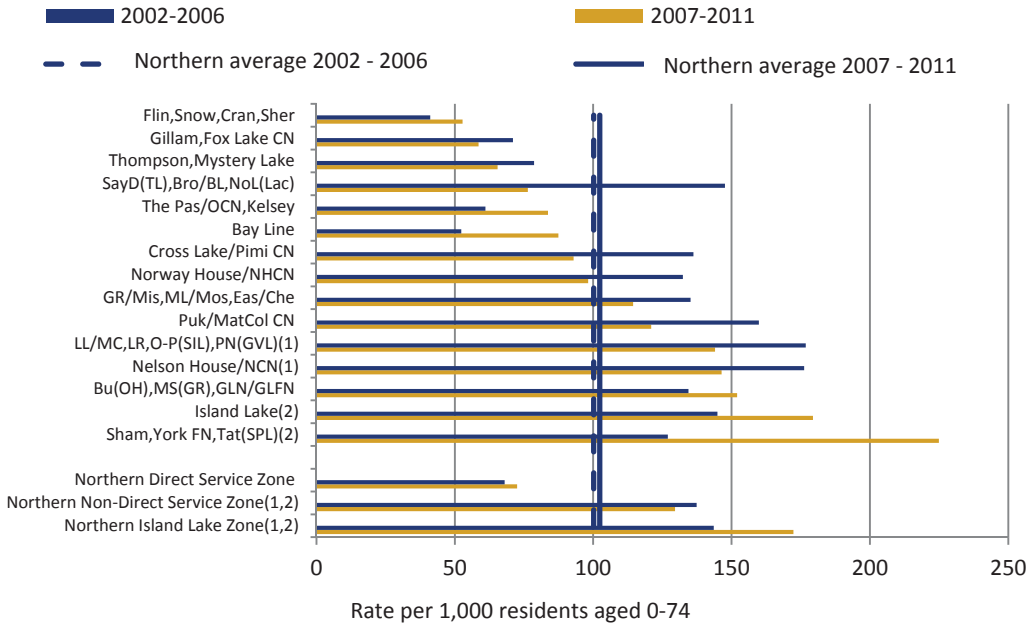
- As **Figure 5.92** illustrates, the PYLL rate in the Northern Health Region remained steady moving from 100.2 per 1,000 residents in 2002-2006 to 102.4 in 2007-2011. This rate was statistically above the Manitoba average of 51.5.
- There was a wide range of PYLL rates across the Northern Health Region with a number of communities experiencing declines in PYLL rates. Both Island Lake and the Shamattawa FN districts had PYLL rates statistically above the Manitoba average by 2007-2011 (see **Figure 5.93**).

Figure 5.92. Potential Years of Life Lost By RHA, 2002-2006 and 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 5.93. Potential Years of Life Lost by Northern District and Zone, 2002-2006 and 2007-2011.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.10.7.1. PYLL Due To Cancer Deaths

DEFINITION

Potential years of life lost (PYLL) for all malignant neoplasms, is the number of years of life "lost" when a person dies "prematurely" from malignant neoplasms before age 75.

Why Is This Indicator Important?

Cancer is typically seen among older people, reducing its impact on PYLL. However, some cancers are more commonly seen among young people and may place a higher burden of deaths than other types.

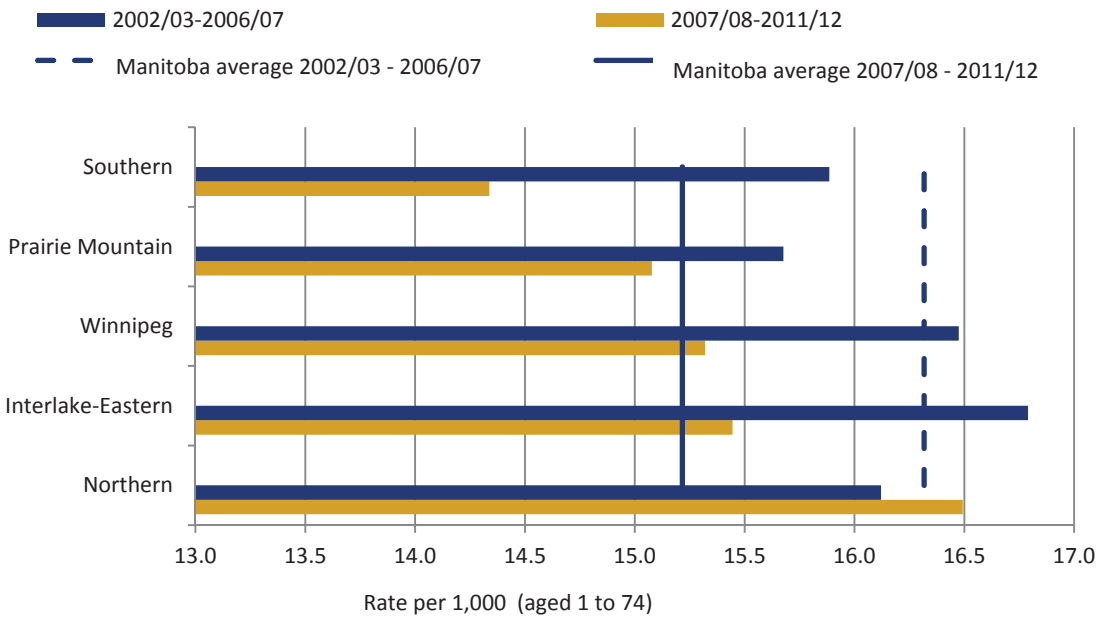
What did we learn in 2009?

- In the former Burntwood Region, the PYLL rate among women was 5.3 per 1,000 residents, only slightly higher than the Manitoba average of 5.2. The male average was 11.8, which was among the lowest in the province among Manitoba RHAs.
- In the former NOR-MAN Region, males had a rate of 12.6 per 1,000 with a provincial average of 14.2. Females in the region had a rate of 15.6 per 1,000, above the provincial average of 13.8.

What did we learn in 2014?

- The cancer PYLL rate in the Northern Health Region increased from 16.1 per 1,000 in 2002/03-2006/07 to 16.5 in 2007/08-2011/12. Every other RHA saw declines in cancer PYLL. The Manitoba average was 15.2 (see **Figure 5.94**).

Figure 5.94. Annual Cancer PYLL Rates by RHA, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.10.7.2. PYLL Due To Circulatory Disease Deaths

DEFINITION

Potential years of life lost (PYLL) for all circulatory disease deaths, is the number of years of life "lost" when a person dies "prematurely" from circulatory disease before age 75.

Why Is This Indicator Important?

Circulatory disease is one of the most common causes of death in Canada, and stroke and heart attack are more common among young people than other chronic disease symptoms.

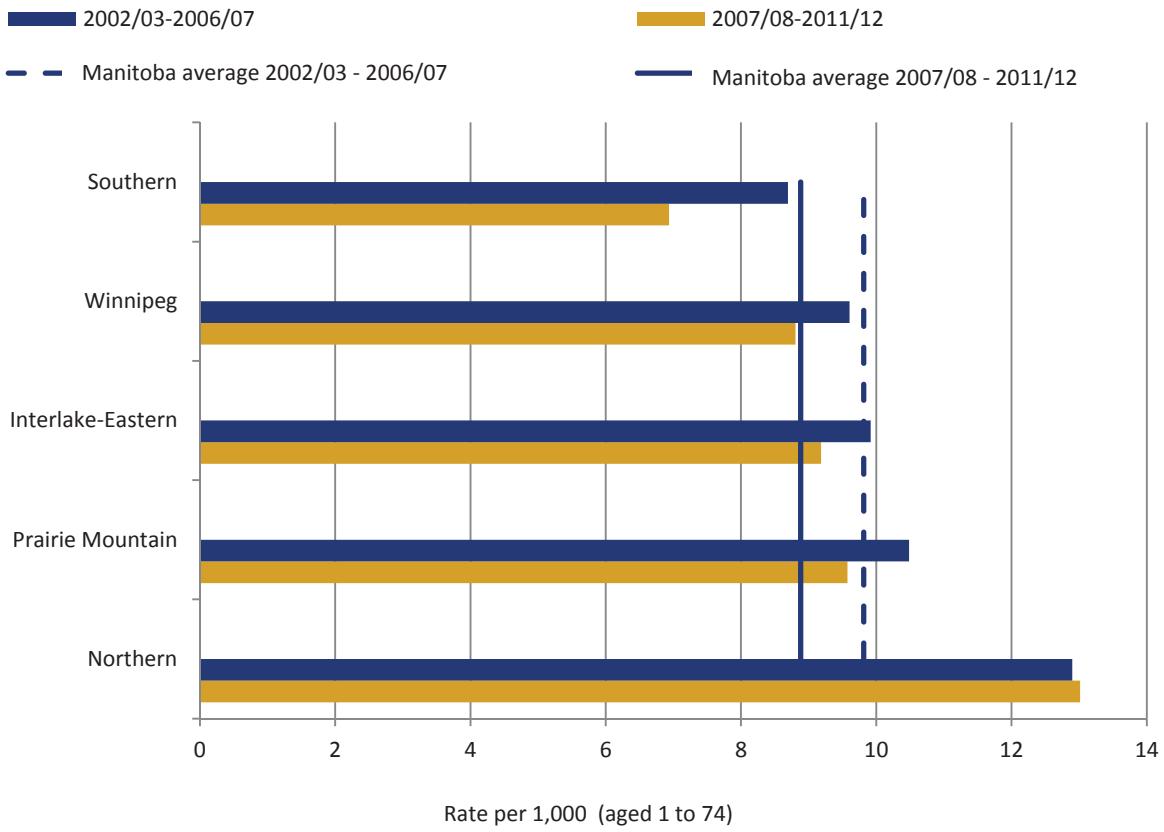
What did we learn in 2009?

- Females in the former Burntwood Region had the highest rate in the province, at 16.9 per 1,000 residents, with a provincial average of 4.5. The male rate was 4.8, which was also highest in the province, with the provincial average at 2.2.
- In the former NOR-MAN Region, the female rate was 8.2/1,000 with a provincial rate of 5.1/1,000. The male rate was 13.1/1,000 against a provincial average of 12.6/1,000.

What did we learn in 2014?

- The Northern Health Region PYLL rate for circulatory diseases remained relatively unchanged from 12.9 per 1,000 population in 2002/03-2006/07 to 13.0 in 2007/08-2011/12, well above the Manitoba average of 8.9 (see **Figure 5.95**).

Figure 5.95. Annual Circulatory PYLL Rates by RHA, 2002/3-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.10.7.3. PYLL Due To Respiratory Disease Deaths

DEFINITION

Potential years of life lost (PYLL) for all respiratory disease deaths, is the number of years of life "lost" when a person dies "prematurely" from any respiratory disease before age 75.

Why Is This Indicator Important?

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 can occur at any age, and rates often rise with a population's age. Improved air quality and tobacco cessation can have the greatest effect on the PYLL of respiratory disease.

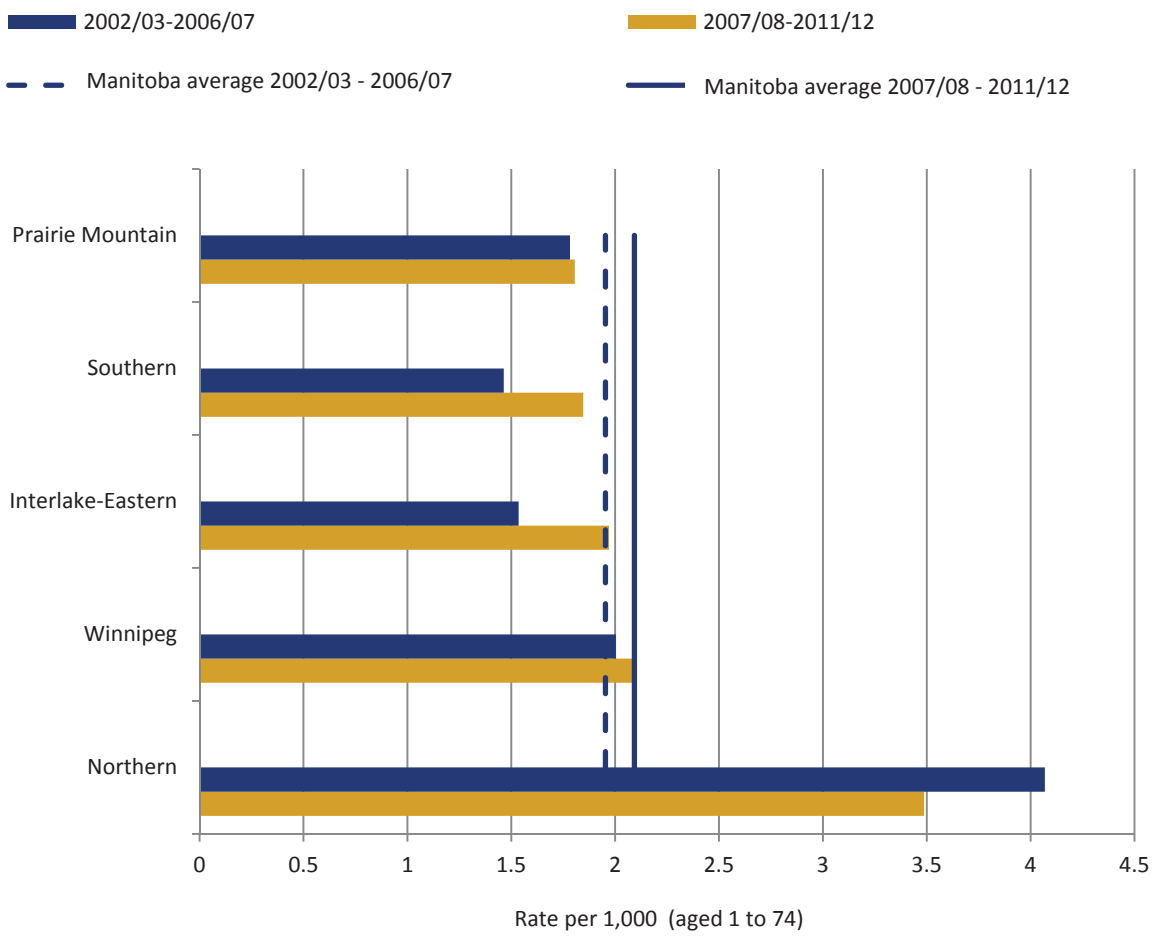
What did we learn in 2009?

- In the former Burntwood Region, the male rate was among the lowest in the province at 10.2 years per 1,000 residents, lower than the provincial average of 14.4. The female rate was the highest PYLL rate for respiratory disease at 39.3 years per 1,000 residents which was almost four times the provincial average of 10.5.
- In the former NOR-MAN Region, women had a rate of 2.2/1,000 with a provincial average of 1.6/1,000. Men had a rate of 3.1/1,000 versus an average of 2.1/1,000.

What did we learn in 2014?

- Respiratory PYLL rates declined in the Northern Health Region from 4.1 years per 1,000 population in 2002/03-2006/07 to 3.5 in 2007/08-2011/12, still well above the Manitoba average of 2.1 (see **Figure 5.96**).

Figure 5.96. Annual Respiratory PYLL Rates by RHA, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

5.10.7.4. PYLL Due To Unintentional Injury

DEFINITION

Potential years of life lost (PYLL) for all unintentional injuries, is the number of years of life "lost" when a person dies "prematurely" from unintentional injuries before age 75.

Why Is This Indicator Important?

Unintentional injury is the most preventable and most likely to fluctuate indicator in this category. Injury prevention can have a great short-term impact on rates, as this disproportionately affects young people.

What did we learn in 2009?

- The former Burntwood Region had the highest rates in the province for both men and women, at double the average for men and triple for women.
- In the former NOR-MAN Region, men reported rates of 19.6 per 1,000, well over the provincial average of 10.6/1,000. Women reported 7.2/1,000 against an average of 4.6/1,000.

What did we learn in 2014?

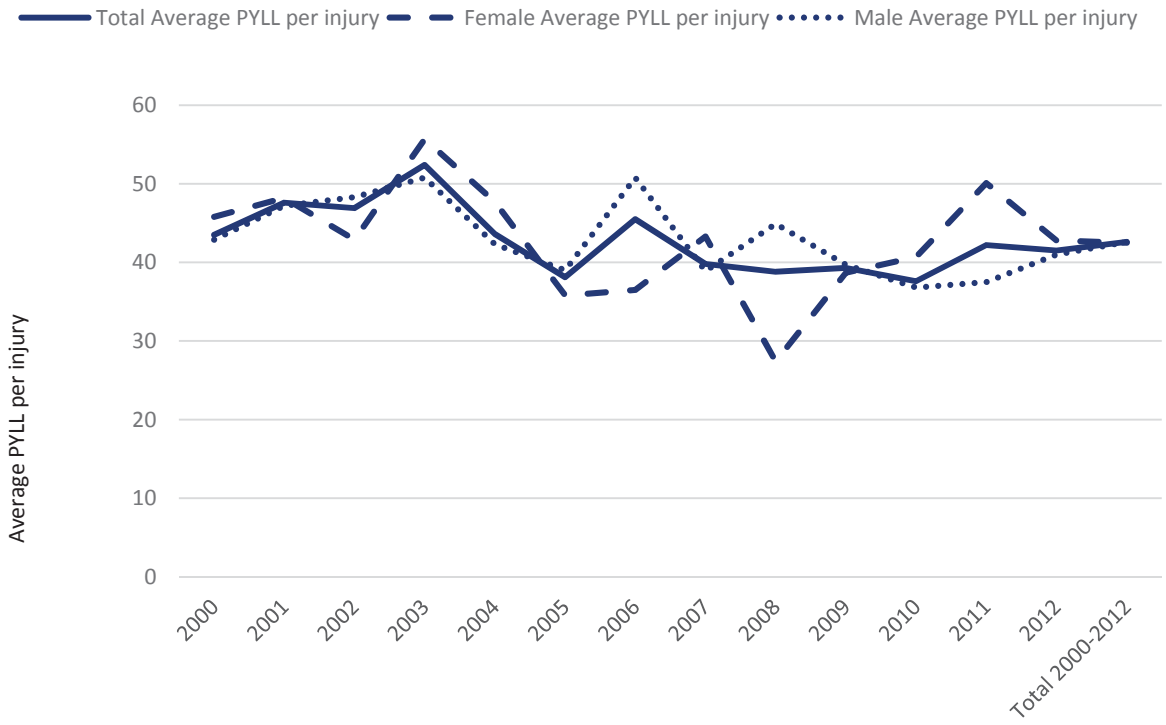
- The PYLL due to unintentional injury averaged 42.6 PYLL per injury between 2000 and 2012 (see **Table 5.11**) based on 485 deaths.
- The female and male PYLL per injury were virtually identical though as **Table 5.11** shows, there were far more male deaths (342) than female deaths (143). This resulted in a much higher total number of PYLL among males (14,570) compared to females (6,081).
- PYLL rates for unintentional injuries tended to be volatile on a year to year basis for both males and females (see **Figure 5.97**).

Table 5.11. Northern RHA PYLL Due To Unintentional Injury, Age Standardized, by Gender, 2000-2012.

Females			Males			Total		
# of Cases	PYLL Sum	Average PYLL per injury	# of Cases	PYLL Sum	Average PYLL per injury	# of Cases	PYLL Sum	Average PYLL per injury
143	6,081	42.5	342	14,570	42.6	485	20,651	42.6

Note 1: PYLL is derived using injuries occurring in those under the age of 75; therefore, not all injuries are captured
Note 2: Calculated by dividing PYLL sum by number of injuries for that year.
Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012

Figure 5.97. Northern RHA PYLL Due To Unintentional Injury Deaths, Age Standardized, by Gender, 2000-2012.



Note 1: PYLL is derived using injuries occuring in those under the age of 75; therefore, not all injuries are captured
Note 2: Calculated by dividing PYLL sum by number of injuries for that year.
Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern RHA.

5.10.7.5. PYLL Due To Suicide

DEFINITION

Potential years of life lost (PYLL) due to suicides, is the number of years of life "lost" when a person dies "prematurely" from suicide, before age 75.

Why Is This Indicator Important?

Suicide tends to be seen in younger categories which can have significant impact of PYLL rates. Successful anti-suicide awareness strategies can have a considerable impact on PYLL rates.

What did we learn in 2009?

- The PYLL suicide rate for women in the former Burntwood Region was 5.0 years per 1,000 population which was more than double the provincial average of 2.3. The rate for men was 13.7 per 1,000 which was just slightly higher than the provincial average of 13.1.
- In the former NOR-MAN Region, both males and females were below the provincial average, with men at 5.7 years per 1,000 and women at 2.1 per 1,000.

What did we learn in 2014?

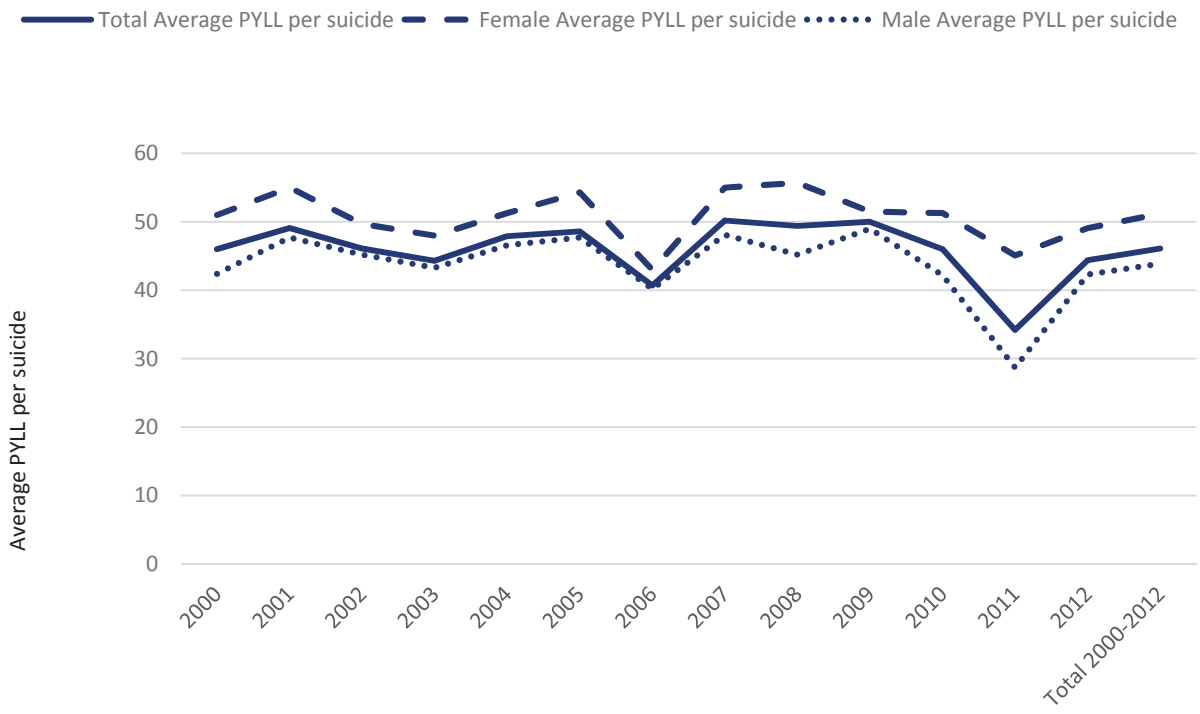
- **Table 5.12** shows the average PYLL due to suicide in the Northern Health Region from 2000-2012 was 46.1 with the female average (51.2) higher than the male average (43.9).
- As **Figure 5.98** shows, the female PYLL average remained slightly higher year to year than the male average. Overall PYLL rates for suicide remained fairly consistent over the 2000-2012 period.
- It is important to note that this does measure the number of suicides; rather, it suggests that female suicides may have occurred at a younger age which results in higher PYLL rates.

Table 5.12. Northern RHA PYLL Due To Suicide, Age Standardized, by Gender, 2000-2012.

Female	Males	Total
Average PYLL per suicide	Average PYLL per suicide	Average PYLL per suicide
51.2	43.9	46.1

Note 1:PYLL is derived using injuries occurring in those under the age of 75; therefore, not all suicides are captured
Note 2: Calculated by dividing PYLL sum by number of suicides for that year
Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern RHA

Figure 5.98. Northern RHA Average PYLL Due To Suicide, by Gender, 2000-2012.



Note 1:PYLL is derived using injuries occurring in those under the age of 75; therefore, not all injuries are captured
Note 2:Calculated by dividing PYLL sum by number of injuries for that year.
Source: Manitoba Health, Healthy Living and Seniors, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern RHA.

5.10.8. Infant Mortality

DEFINITION

This indicator measures the proportion of live births weighing 500 grams or more that die within 0 to 364 days of birth, reported as a rate per 1,000 live births for a given period of time. This measure excludes stillbirths and infants less than 500 grams or 20 weeks of gestation.

Why Is This Indicator Important?

Infant mortality is a very important indicator, as it informs us about health status, quality and access to prenatal care, and mortality. It also tells us about the attention paid to maternal and children's health, and the effectiveness of preventative care, as well as the accessibility of health care and the status of women.

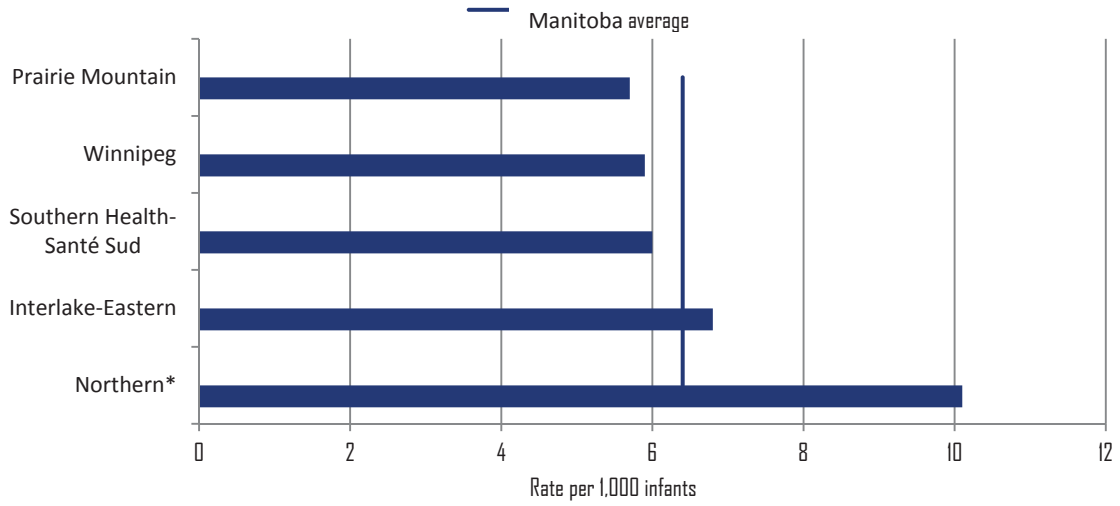
What did we learn in 2009?

- In the former Burntwood Region, infant mortality decreased from 10.2 deaths per 1,000 in 1996-2000 to 8.9 in 2001-2005, remaining above the Manitoba average of 6.7.
- In the former NOR-MAN Region, there was a considerable increase in infant mortality rates from 6.3 per 1,000 in 1996-2000 to 10.2 per 1,000 in 2001-2005.

What did we learn in 2014?

- From 2007/2008 to 2011/2012, the Northern Health Region had an infant mortality rate of 10.1 deaths per 1,000 births, the highest among Manitoba RHAs. It was considered statistically different from the Manitoba average of 6.4 deaths per 1,000 infants (see **Figure 5.99**).

Figure 5.99. Infant Mortality by RHA, 2007/208-2011/12.



Source: Manitoba Health, Healthy Living and Seniors, RHA Profile 2013.
NOTE: '*' indicates area's rate was statistically different from Manitoba average.

5.10.9. Child Mortality

DEFINITION

Child mortality rates are calculated as the total number of deaths aged 1 to 19 years divided by the total population of the same age in that time period. It is reported as rate of deaths per 100,000 children aged 1 to 19 years, for a given period of time.

Why Is This Indicator Important?

Injury is the leading cause of child mortality in Canada, with cancer coming second. This was identified as a key area of concern for the former Burntwood region.

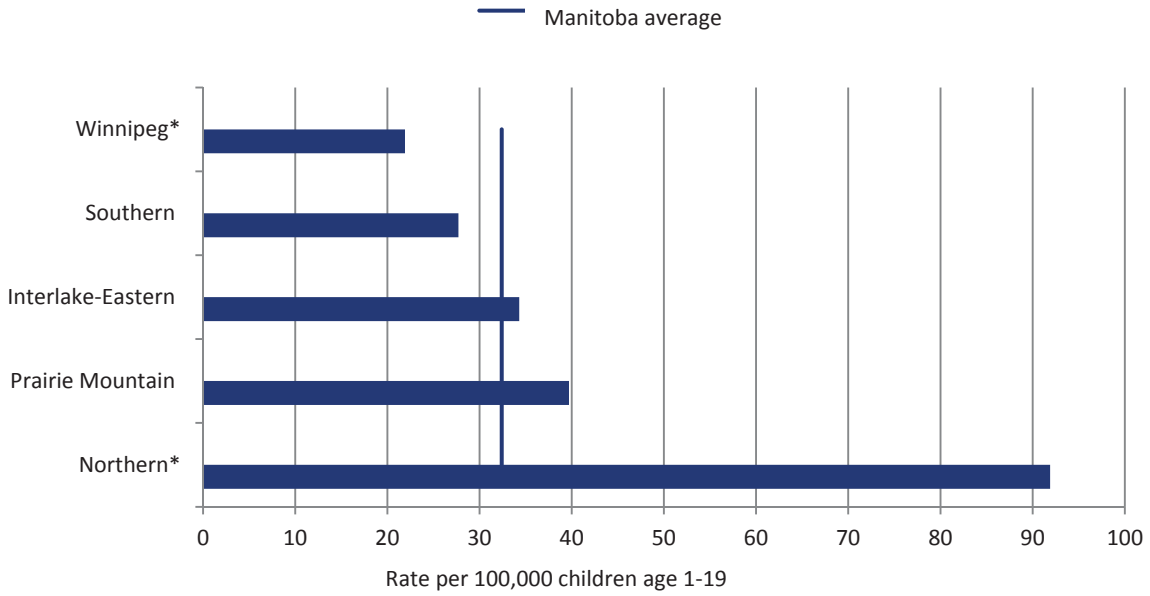
What did we learn in 2009?

- In the former Burntwood Region, child mortality rates remained stable with a slight decrease from 72.6 deaths per 100,000 population in 1996-2000 to 72 in 2001-2005 which was still significantly above the provincial average of 21.9.

What did we learn in 2014?

- From 2007/2008 to 2011/2012, the Northern Health Region had a child mortality rate of 91.9 deaths per 100,000 population, which is almost three times the Manitoba rate of 32.4 deaths per 100,000 population. The Northern rate is considered to be statistically above the Manitoba average (see **Figure 5.100**).

Figure 5.100. Child Mortality by RHA, 2007/08-2011/12.



Source: Manitoba Health, Healthy Living and Seniors, RHA Profile 2013.
NOTE: '*' indicates area's rate was statistically different from Manitoba average.

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[xxiii] http://healthycanadians.gc.ca/health-sante/sexual-sexuelle/gonorrh-eng.php

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[xxv] http://www.hc-sc.gc.ca/fniah-spnia/promotion/suicide/index-eng.php

CHAPTER SIX

Health System Performance and Quality

NORTHERN
HEALTH REGION

Chapter 6 Health System Performance and Quality

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6.1. Key Findings

- More than two-thirds (68.7%) of all births to Northern residents occurred in the Northern Health Region with 30 per cent delivered in Winnipeg.
- From 2007/08 to 2011/12, 65.2 per cent of residents in the Northern Health Region had access to a regular doctor, well below the Manitoba average of 86.0 per cent during the same time period. The Lynn Lake and the Pas districts had access levels of over 80 per cent while the Island Lake and Sayisi Dene districts had only 50 per cent access to physicians. However, we know that there are different service delivery methods throughout our region so this difference in physician access specifically is not surprising and does not necessarily mean that that there is less access to healthcare.
- The ambulatory visit rate declined to 3.3 visits per resident in 2011/12. The change was statistically significant and different from the Manitoba average of 4.4. There were in the Northern Island Zone (2.7 visits versus 3.2) and the Northern Non-Direct Service Zone (2.6 visits versus 3.5). Again, due to differences in service delivery, it is unclear as tow either there really are fewer visits (ambulatory visit simply means a visit to a doctor when not in hospital, such as regular appointment), or whether this is a reporting issue.
- With respect to a gender breakdown of ambulatory visits, women in the north consistently have higher visit rates than men though the gap narrows starting at age 60.
- More than three-quarters (76.9%) of Northern resident saw their physicians in their home district. Specialist visits for Northern residents tended to be in Winnipeg with 71.7 per cent of visits there in 2011/12 while 16.2 per cent of specialist visits were within the region.
- In 2012, the overall inflow/outflow ratio for the Northern Health Region was 0.72. A ratio of greater than 1 would indicate the people come from outside the region to the region for care, while less than indicates that some proportion from our region leave to access services elsewhere. Most Northern residents (89.1%) stay in their home RHA for hospitalization. Most hospital days are also spent at Northern hospitals (78.4%).
- The median wait time for breast cancer assessment diagnosis improved for the 2008/09-2009/10 period, to 31 days for the Northern Health Region though it was still above the Manitoba average of 21 days.
- In 2011/12, virtually all (98%) Northern Health Region cancer patients were treated with radiation therapy within four weeks
- Just over half (52.5%) of Northern cancer patients were treated with surgery from 2008 to 2010 which is similar to the Manitoba average of 54.5 per cent.
- The Northern Health Region experienced an increase in rates of continuity of care to 65.2 per cent in 2010/11-2011/12. However, this was still statistically below the Manitoba average of 73.2 per cent. Both the Northern Non-Direct and Northern Island Lake zones had statistically significant increases in continuity of care between the two time periods. Continuity of care is a measure of visits with the same care provider for 2 or more visits in a row in a specific period. Again, due to the differences in service delivery in the region, it is not surprising that these rates are lower than the Manitoba average and do not necessarily reflect poorer access to healthcare or quality of patient care.
- Rates for antidepressant follow up declined to 36.1 per cent in 2007/08-2011/12, statistically different from the Manitoba average of 54.5 per cent. Antidepressant follow up rates actually rose in the Northern Island and Northern Non-direct Service zones.
- There was a slight decrease in eye exam rates to 33.0 per cent in 2011/12, a statistically different rate from the Manitoba average of 37.5 per cent. The Northern Direct Service Zone had the highest rates at 38.5 per cent.

- In the Northern Health Region, benzodiazepine prescription rates for seniors increased from to 14.8 per cent in 2010/11-2011/12, statistically below the Manitoba average of 20.5 per cent.

- The hospitalization rate for ambulatory care sensitive conditions declined significantly in the Northern Health Region to 14.9 cases per 1,000 population, but remained statistically higher than the Manitoba average of 6. The Northern Island Lake Zone experienced a statistically significant decline between the two time periods.

- In 2012, 16.9 per cent of all births in the Northern Health region were by Caesarian Section which was below the Manitoba average of 21.9 per cent.

- The dental extraction rate was 72.8 per 1,000 in 2007/08-2011/12, significantly higher than the Manitoba average of 15.0 per 1,000. The extraction rates were found to highest in the Northern Island Lake and Non-District zones where rates were statistically over the Northern Health Region average in both time periods.

- In 2008-2010, the late stage diagnosis rate for cancer in the Northern Health Region was 23.6 per cent, statistically higher than the Manitoba average of 19.5 per cent. Late stage diagnoses ranged from 14.8 per cent for prostate cancer to 43.3 per cent for lung cancer in the Region.

- Just over three-quarters (76.7%) of cancer patients in the north who died had an acute care stay in the last two weeks of their life in 2008-2010.

6.2. Accessibility

Health care accessibility emerged as a major focus of discussion and priority for Northern residents, health professionals and Northern Health Region staff in 2014. At the Northern Health Summit in 2014, a key priority and gap identified in the Northern Health Region was the need to make primary care more accessible to residents in order to encourage patients to address their health care needs outside of the hospital. There was a belief that accessibility to health care in the north was improving particularly through the opportunities afforded by technology such as telehealth. In focus group discussions with Northern community residents, most participants seemed to agree health services available locally were of high quality and easy to access. The difficulty becomes in accessing more specialized health services that residents need outside of their community, due to the dislocation that occurs and the barriers created by transportation policies which create financial barriers to residents.

The Northern Health Region staff survey also highlighted staff concerns with accessibility as among the main concerns expressed by staff included wait times for health services and programs, staff shortages, lack of health services and physician retention. These are all concerns that directly impact accessibility. In survey results, there was almost unanimity among staff about the importance of health accessibility to residents (97.4% agreed it was very important or important). Given the importance placed on accessibility, it is concerning that only 33.3 per cent of staff respondents thought residents were either very satisfied or satisfied with accessibility to health care services offered by the Northern Health Region with 30.5 per cent of respondents feeling that residents were dissatisfied with accessibility. Interestingly, community residents seemed to think accessibility was better than staff members with 56.8 per cent of residents feeling very satisfied or satisfied with accessibility and 55.3 per cent very satisfied or satisfied with the timeliness of health care services. Similarly, only 40.8 per cent of staff thought residents were satisfied or very satisfied with quality of health services while 62.8 per cent of residents who were satisfied or very satisfied with the quality of health care services. It is worth noting that when identifying Northern Health Region weaknesses and strengths, both staff and Northern residents focused on accessibility issues and did not identify concerns with the quality of health care services.

6.2.1. Births by Location of Birth

DEFINITION

This indicator measures the proportion of births that occur within the Region the mother is residing as well as measuring births that occur outside of the Region.

Why Is This Indicator Important?

This indicator provides a snapshot into a common health care experience of giving birth to see how well a Region is doing in providing delivery services locally. As a Northern and rural Region, the Northern Health Region will not always be able to provide delivery services for complicated births in particular. This indicator can also demonstrate how effective prenatal care was for expectant mothers as well as the health status of new mothers. It is expected that uncomplicated births would be performed within the Region and that this would be a good indication that prenatal care and the health of the mother was adequate.

What did we learn in 2014?

- In 2011/12, as **Table 6.1** shows, 68.7 per cent of all births of Northern residents occurred in the Northern Health Region. Almost all out of Region birth occurred in the Winnipeg Regional Health Authority (30.0%).

Table 6.1. Deliveries by Patient RHA and Hospital RHA, 2011/12.

Patient RHA	Winnipeg Health Region		Prairie Mountain Health Region		Interlake-Eastern Health Region		Northern Health Region		Southern Health Region		Out of Province		Total
	N	%	N	%	N	%	N	%	N	%	N	%	
Winnipeg	7,456	98.7%	23	0.3%	14	0.2%	15	0.2%	27	0.4%	21	0.3%	7,556
Prairie Mountain	119	5.5%	1,840	85.7%	0	0.0%	16	0.7%	31	1.4%	142	6.6%	2,148
Interlake-Eastern	1,097	81.4%	5	0.4%	217	16.1%	2	0.1%	22	1.6%	4	0.3%	1,347
Northern	486	30.0%	10	0.6%	3	0.2%	1,112	68.7%	1	0.1%	7	0.4%	1,619
Southern	1,044	38.3%	74	2.7%	2	0.1%	0	0.0%	1,598	58.6%	7	0.3%	2,725
Non Manitoba	505	67.9%	97	13.0%	2	0.3%	112	15.1%	28	3.8%	0	0.0%	744
Total	10,707	66.3%	2,049	12.7%	238	1.5%	1,257	7.8%	1,707	10.6%	181	1.1%	16,139

Source: Manitoba Health, Healthy Living and Seniors (MHHLS), Health Information Management.

6.2.2. Regular Medical Doctor

DEFINITION

This is the percentage of area residents who had at least one ambulatory visit to a physician (including GP/FPs and specialists) in a given Region in a one year period.

Why Is This Indicator Important?

Access to a regular family physician is critical to any health care strategy that wants to manage and treat patients in an outpatient setting. If residents are unable to access a regular family physician, they are more likely to access hospital ERs for their health care needs which will be more costly to the system. During focus group sessions in Northern communities in 2014, regular access to physicians was viewed as a barrier to health care access, particularly in smaller communities.

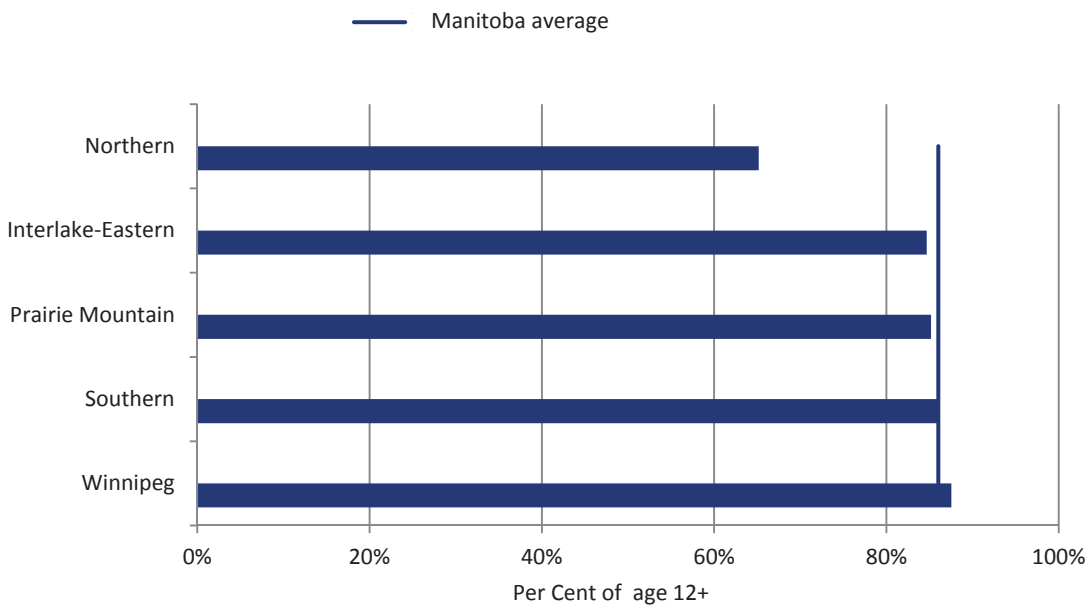
What did we learn in 2009?

- In the former Burntwood Region, the proportion of residents accessing a medical doctor was 41.1 per cent in 2007, significantly lower than the provincial average of 84.6 per cent. This result may be somewhat misleading as the former Burntwood Region established practice methods which are different from the typical "same doctor for the patient" system that we see elsewhere.
- The average in the former NOR-MAN Region was 77.8 per cent in 2005/06, down from 79.8 per cent in 2000/01.

What did we learn in 2014?

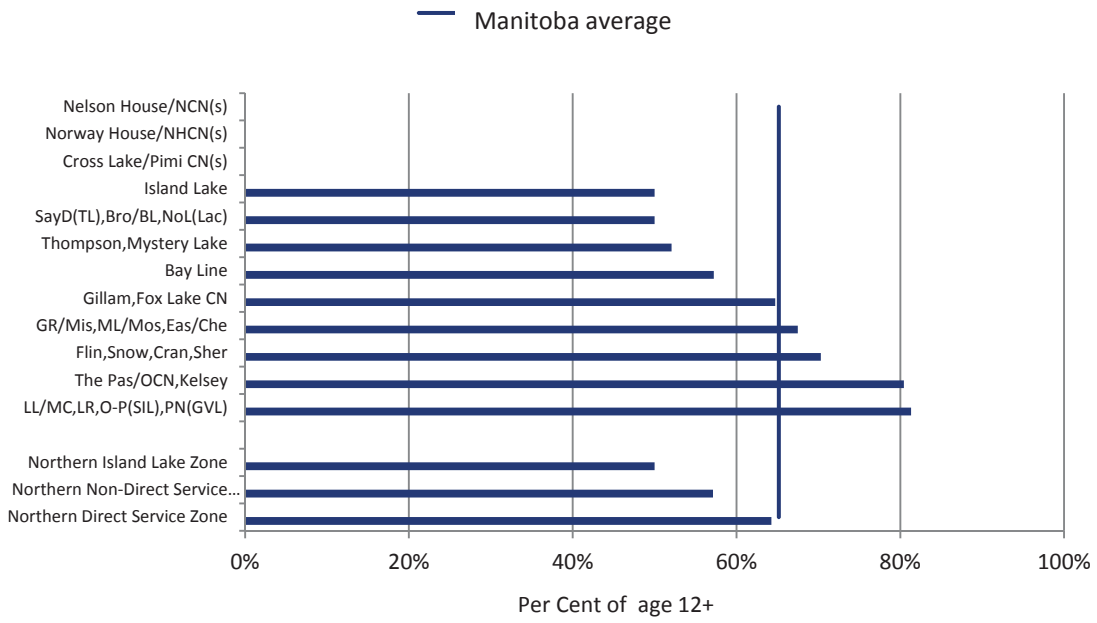
- From 2007/08 to 2011/12, 65.2 per cent of residents in the Northern Health Region had access to a regular doctor, well below the Manitoba average of 86.0 per cent during the same time period (see **Figure 6.1**).
- Among Northern districts and zones, the Lynn Lake and the Pas districts had access levels of over 80 per cent while the Island Lake and Sayisi Dene districts had only 50 per cent access (see **Figure 6.2**).

Figure 6.1. Residents Having a Regular Medical Doctor by RHA, 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

Figure 6.2. Residents Having a Regular Medical Doctor by Northern District and Zone, 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: 's' indicates data suppressed due to small numbers.

6.2.3. Ambulatory Visit Rate

DEFINITION

This indicator refers to the average annual number of ambulatory visits to all physicians, per resident on an outpatient or appointment basis.

Why Is This Indicator Important?

The ambulatory visit rate can show us, along with a number of other indicators examined in this chapter, how well chronic care patients are being managed outside of hospital settings which is the preferred model of health care delivery as it ensures more regular ongoing management of chronic conditions and avoids more costly hospital care.

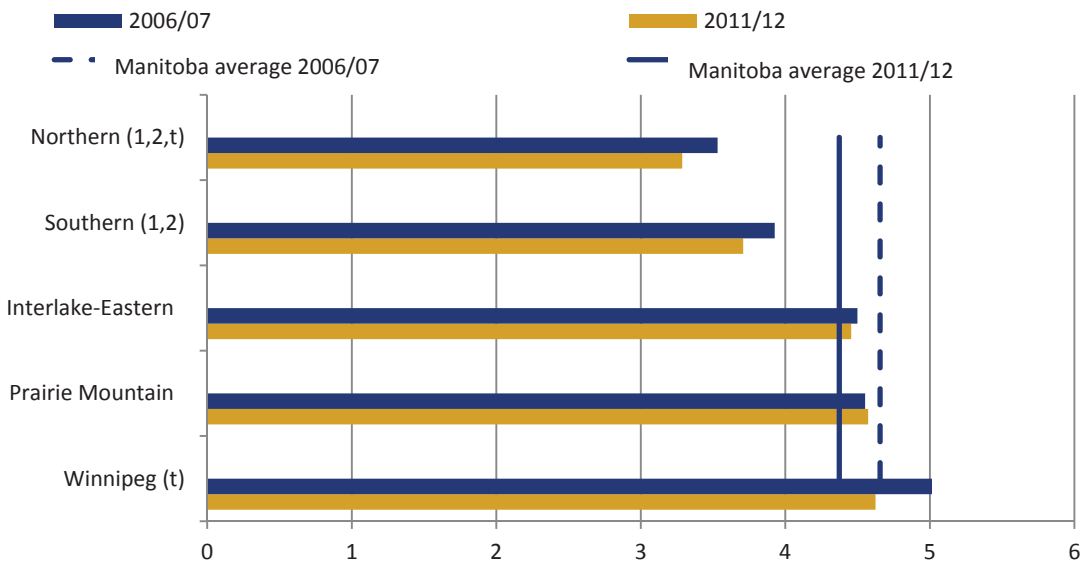
What did we learn in 2009?

- The former Burntwood Region reported the lowest rate in the province in 2005/06, at 3.8 visits per resident, down from 4.5 in 2000/01. The Manitoba average was 5.0 in 2005/06.
- The former NOR-MAN Region had a slight decrease, from 5.1 in 2000/01 to 4.9 in 2005/06.

What did we learn in 2014?

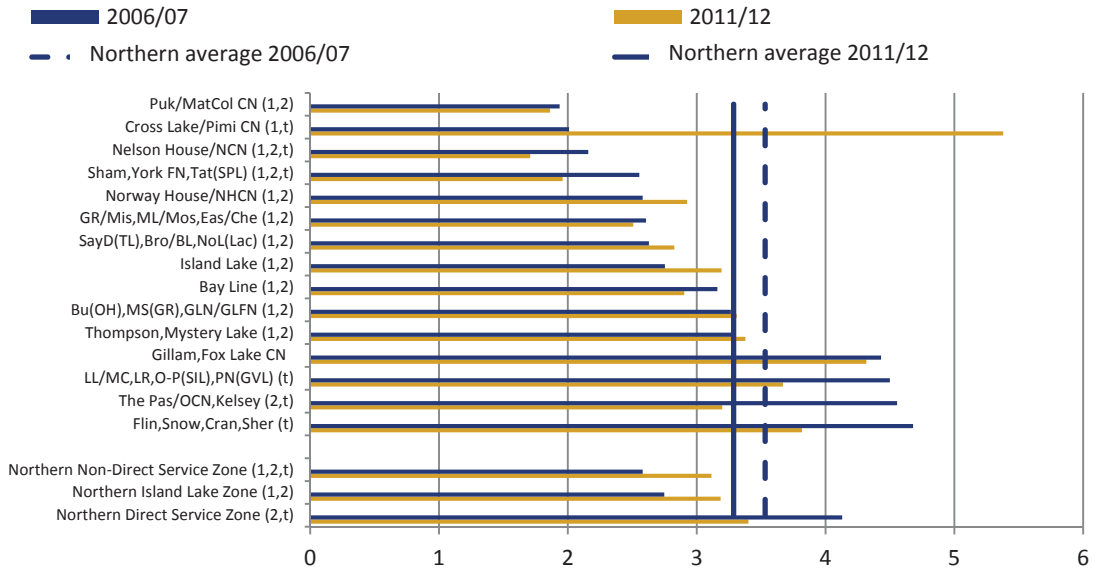
- The Northern Health Region experienced a decline in its ambulatory visit rate from 3.5 visits per resident in 2006/07 to 3.3 in 2011/12. The change was statistically significant and different from the Manitoba average of 4.4 (see **Figure 6.3**).
- While the Northern Direct Service Zone experienced a decline in visit rates between the two time periods, there were increases in both the Northern Island Zone (2.7 visits versus 3.2) and the Northern Non-Direct Service Zone (2.6 visits versus 3.5) (see **Figure 6.4**).

Figure 6.3. Ambulatory Visit Rate by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 6.4. Ambulatory Visit Rates by Northern District and Zone, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

6.2.3.1. Ambulatory Visit Rate by Age and Gender

DEFINITION

The average number of visits to physicians by resident age and sex in a given year.

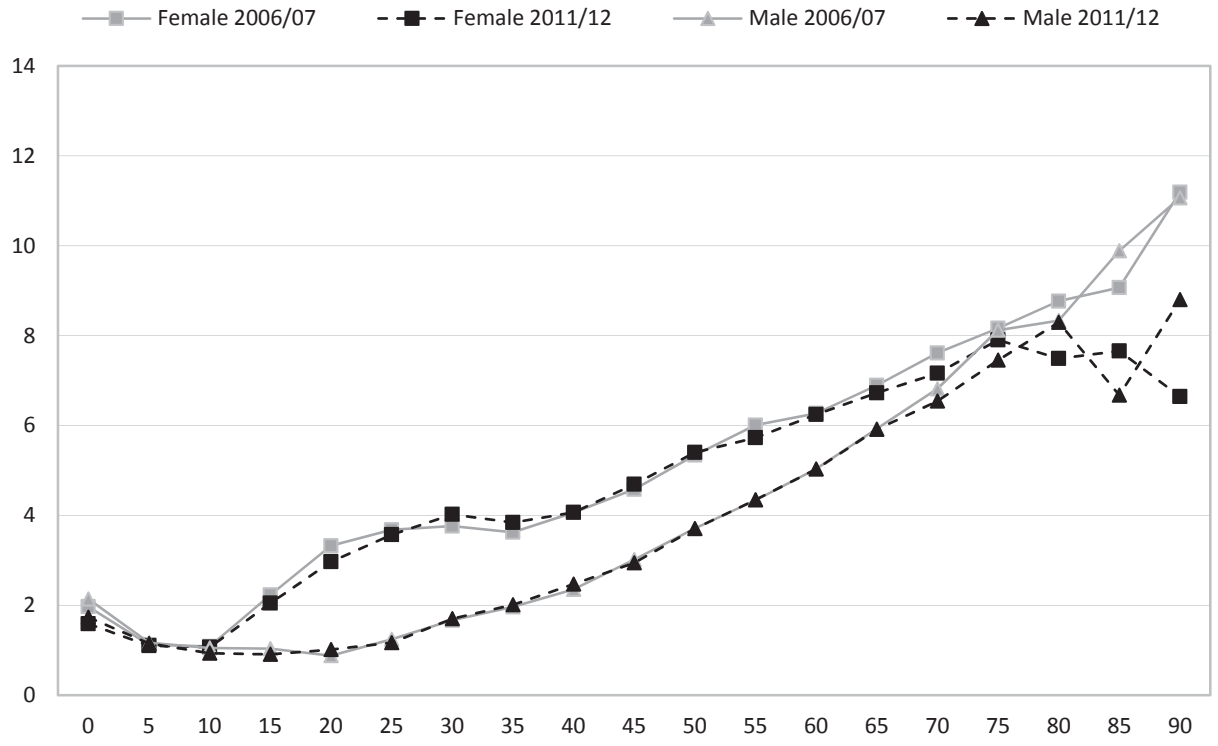
Why Is This Indicator Important?

Age and gender information provides more detailed information about which groups of people are accessing the primary care system, allowing the Region to know which groups need to be encouraged more to make ambulatory visits.

What did we learn in 2014?

- **Figure 6.5** illustrates ambulatory visit rates by age group and gender in two different time periods.
- In both periods, there is a similar pattern of increasing visits with increasing patient age.
- For the most part, visit rates in both time periods are higher among females than males in every age group. The exception is that in the very elderly age groups, there are similar patient visits, and perhaps more among males in the more recent 85 and older age group.

Figure 6.5. Ambulatory Visit Rates by Age and Sex, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

6.2.4. Ambulatory Consultation Rate

DEFINITION

This is the age-adjusted average number of ambulatory consultations (first referrals) per resident to all physicians in a fiscal year. Consultations are a subset of ambulatory visits: they occur when one physician refers a patient to another physician.

Why Is This Indicator Important?

These types of appointments are primarily with specialists. This can tell us about the accessibility of specialists in a given area. It is especially important in Northern and rural areas; to ensure that specialist visits are timely and available.

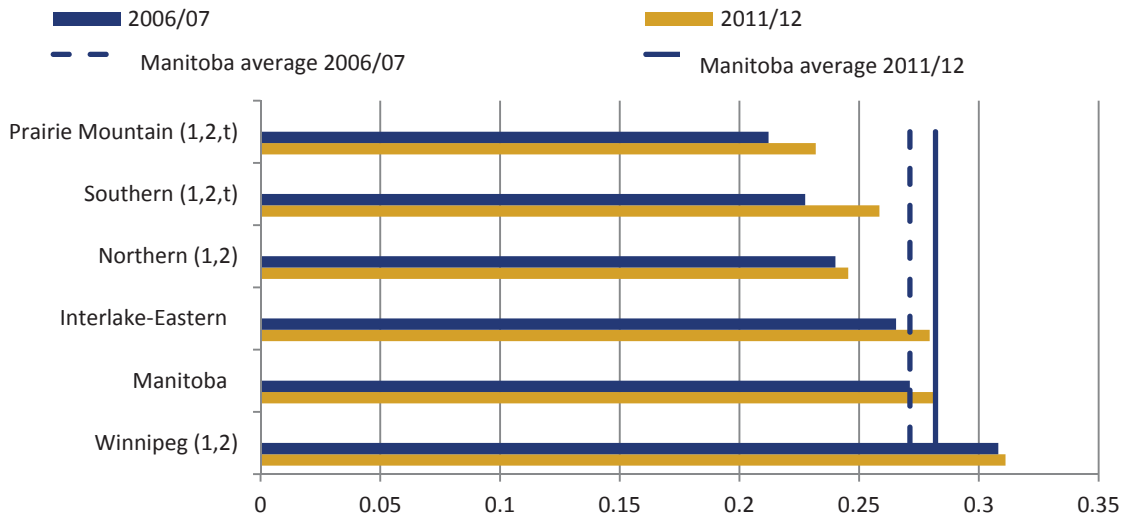
What did we learn in 2009?

- In the former Burntwood Region, specialist rates remained virtually unchanged at 0.27 visits per resident in 2000/01 and 2005/06. This was equal to the provincial average in 2005/06.
- The former NOR-MAN Region reported a slight increase from 0.20 visits to 0.21 between the two time periods which was statistically below the provincial average.

What did we learn in 2014?

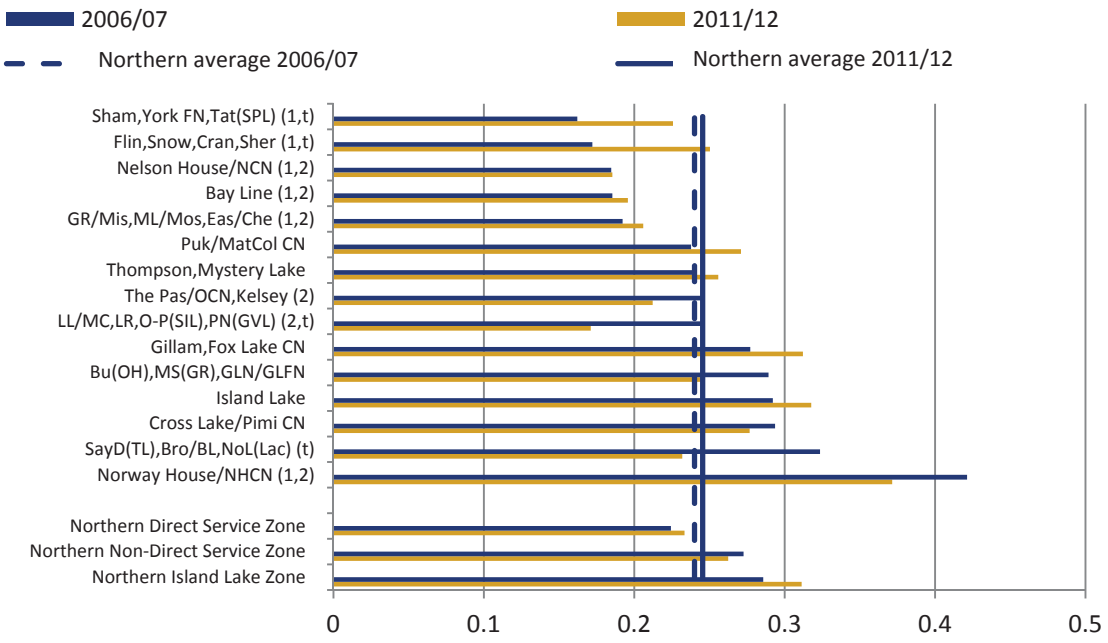
- Between 2006/07 and 2011/12, the ambulatory consultation rate rose very slightly in the Northern Health Region from 0.24 visits per resident to 0.25. This rate was statistically below the Manitoba average of 0.28 visits in 2011/12 (see **Figure 6.6**).
- Among Northern districts and zones, Flin Flon, Nelson House, Bay Line, The Pas and Lynn Lake districts all had consult rates statistically below the Northern average in 2011/12. The Northern Island Lake Zone had higher consultation rates rising from 0.29 visits to 0.31 between the two time periods (see **Figure 6.7**).

Figure 6.6. Ambulatory Consultation Visit Rate by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 6.7. Ambulatory Consult Visit Rates by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

6.2.5. Visit Location within District

DEFINITION

This indicator measures the proportion of residents who visit their family physician in their Region.

Why Is This Indicator Important?

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.

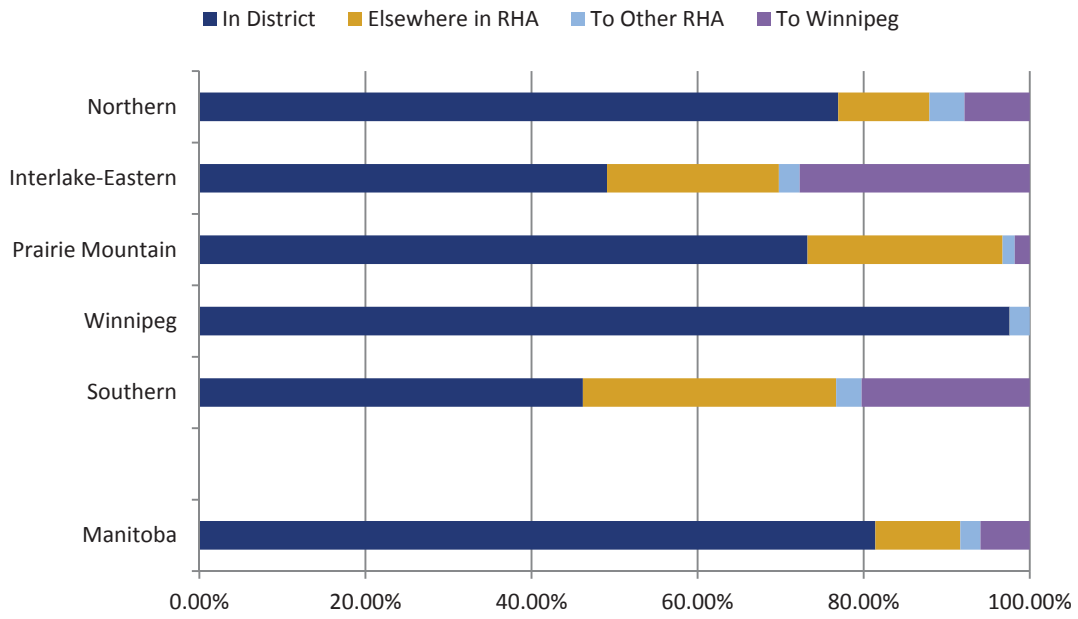
What did we learn in 2009?

- In the former Burntwood Region, the rate of 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.
- The former NOR-MAN Region reported an increase, from 80.9 per cent in 2000/01 to 82.5 per cent in 2005/06.

What did we learn in 2014?

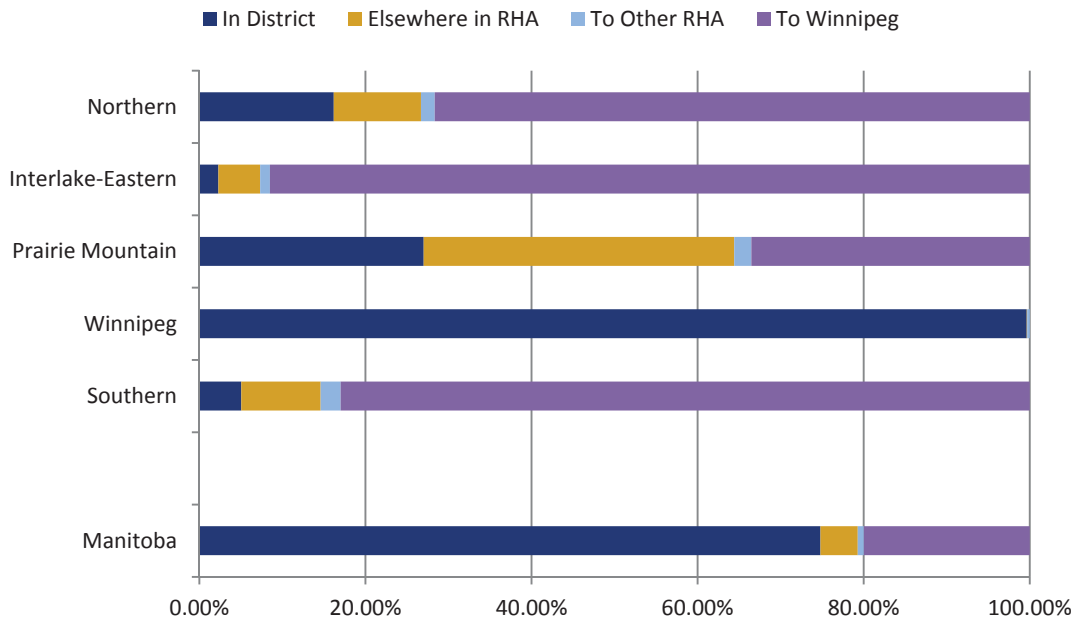
- In 2011/12, the visit rate within their home district for the Northern Health Region was 76.9 per cent. The remaining residents either visited their physician in another district in their RHA (11.0%) in Winnipeg (7.9%) or another RHA (2.2%). The Manitoba average for in district visits was 81.4 per cent (see **Figure 6.8).**
- As **Figure 6.9** shows, Specialist visits for Northern residents tended to be in Winnipeg with 71.7 per cent of visits there in 2011/12 while 16.2 per cent of specialist visits were within the region. Among other RHAs, there was a wide range of specialist visit location rates.

Figure 6.8. Location of Visits to Family Physicians by RHA, 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

Figure 6.9. Location of Visits to Specialist by RHA, 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

6.2.6. Inflow and Outflow of RHA Patients

DEFINITION

The in and out flow of the RHA residents measures the relationship between hospital services provided in a region and the utilization of those services by local residents. In 2014, it also measures the proportion of regional residents that are hospitalized in their RHA and outside their region as well as the proportion of hospital days spent in regional hospitals.

Why Is This Indicator Important?

A ratio of less than 1 indicates that health care utilization by residents of a Region exceeded care provided within that Region, suggesting an outflow effect which is typical of Northern and rural Regions which do not provide all specialty health care services. Inflow/outflow data as well as hospitalization data can provide information on ongoing trends of health care use by regional residents. Health planners in rural and remote regions need strike a balance of meeting as many health care needs locally as possible within the resources allocated to the region. Services within the Northern Health Region continues to be an issue of discussion for residents in Northern Communities who are concerned with the dislocation that comes with travelling for health services outside the Northern Health Region as well as the transportation costs associated with travelling for care. This was expressed in many community focus groups in 2014.

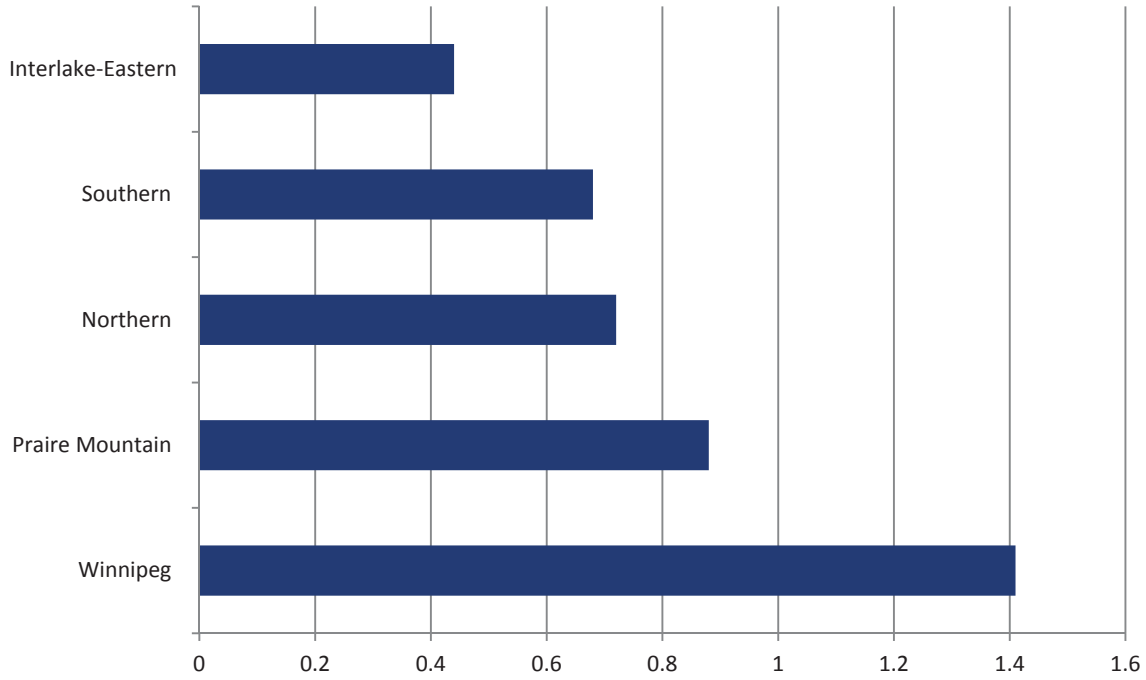
What did we learn in 2009?

- The Inflow/Outflow ratio in the former Burntwood Region was 0.6 in 2006, which is consistent with expectations for a smaller region.
- The ratio in the former NOR-MAN Region was 1.1 in 2006.

What did we learn in 2014?

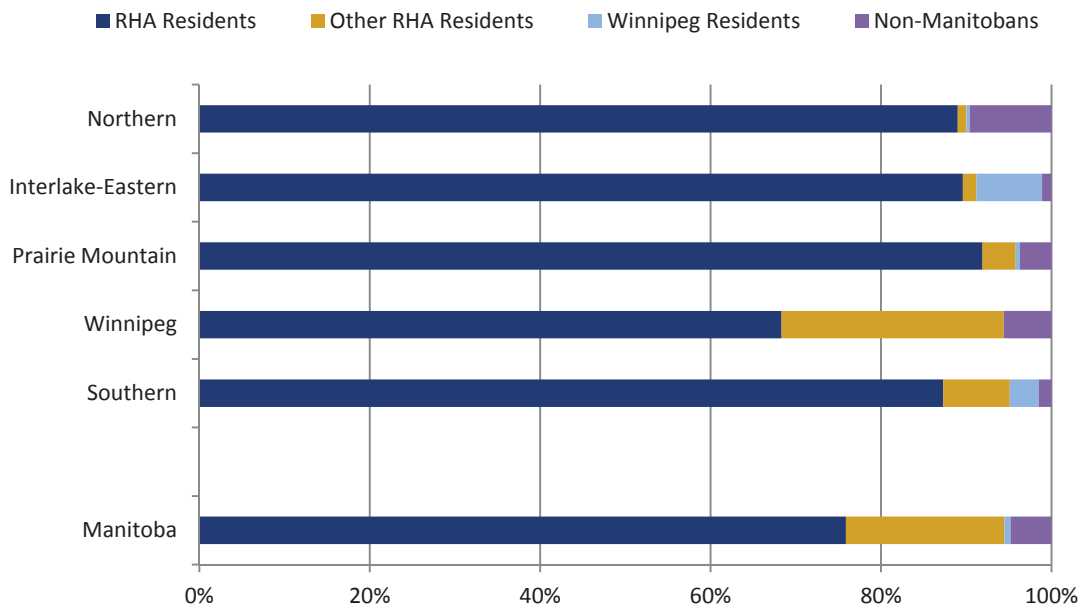
- In 2012, the overall inflow/outflow ratio for the Northern Health Region was 0.72 (see **Figure 6.10**).
- The proportion of Interlake-Eastern residents staying in their home RHA for hospitalization declined from 94.2 per cent in 2006/07 to 89.6 per cent in 2011/12. The proportion of Winnipeg residents hospitalized in the Interlake-Eastern region rose from 4.1 to 7.7 per cent between the two time periods (see **Figure 6.11**).
- When calculating as a proportion of hospital days, only 37.7 per cent of hospital days in 2011/12 were spent in Interlake-Eastern RHA hospitals by local residents, a slight decline (38.7%) from 2006/07 figures. The majority of hospital days were spent in Winnipeg regional hospitals at 58.5 per cent (see Figure **6.12**).

Figure 6.10. Overall Inflow/Outflow Ratio by RHA, 2012



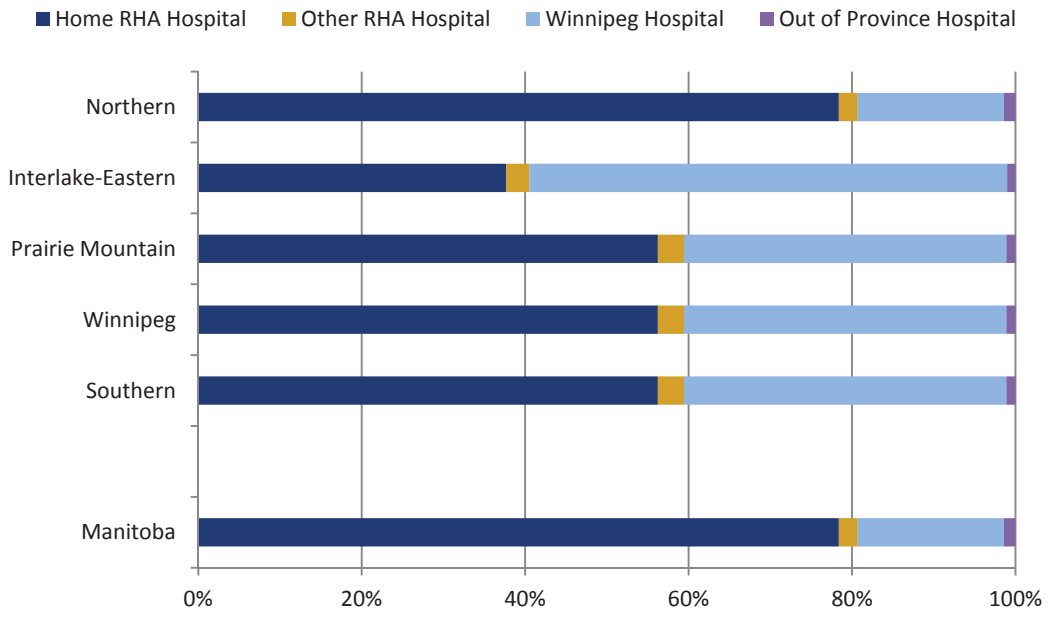
Source: CIHI Health Indicators Interactive Tool, http://www.cihi.ca/hirpt/search.jspa?href=http%3A//www.cihi.ca/hirpt/SearchServlet&href=http%3A//www.cihi.ca/hirpt/SearchServlet&href=http%3A//www.cihi.ca/hirpt/SearchServlet

Figure 6.11. Where RHA Hospital Patients Came From For Hospital Separations, 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

Figure 6.12. Where RHA Residents Went for Hospital Separations, 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

6.2.7. Cancer Care

6.2.7.1. Breast Assessment Waits

DEFINITION

This indicator measures the median time it takes for final diagnosis for women who have an abnormal finding on their mammogram.

Why Is This Indicator Important?

Timely diagnosis of cancer has an important psychological impact on patients as well as impacting treatment outcomes.

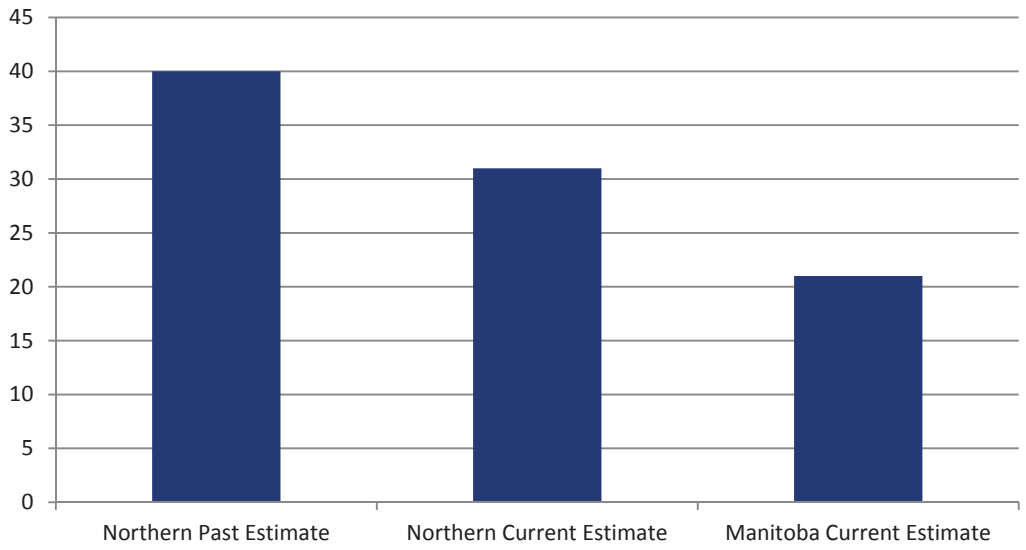
What did we learn in 2009?

- The former Burntwood Region had breast assessment wait times of 41.5 days based on 2006-2008 data which was significantly different from the Manitoba average of 26 days based on 2006-2008 data.
- The former NOR-MAN Region had a wait time of 39 days which was also significantly higher than the provincial average.

What did we learn in 2014?

- The median wait time for breast assessment diagnosis improved for the 2008/09-2009/10 period going to 31 days for the Northern Health Region though it was still above the Manitoba average of 21 days (see **Figure 6.13**).

Figure 6.13. Breast Wait in Days, Northern Health Region, 2008/09-2009/10.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.2. Radiation Therapy Waits

DEFINITION

This indicator measures the proportion of cancer patients who receive radiation therapy within four weeks of being ready to be treated.

Why Is This Indicator Important?

Providing timely cancer care treatment is important in improving patient outcomes and reducing the psychological stress that can result from long waiting times for health care treatment.

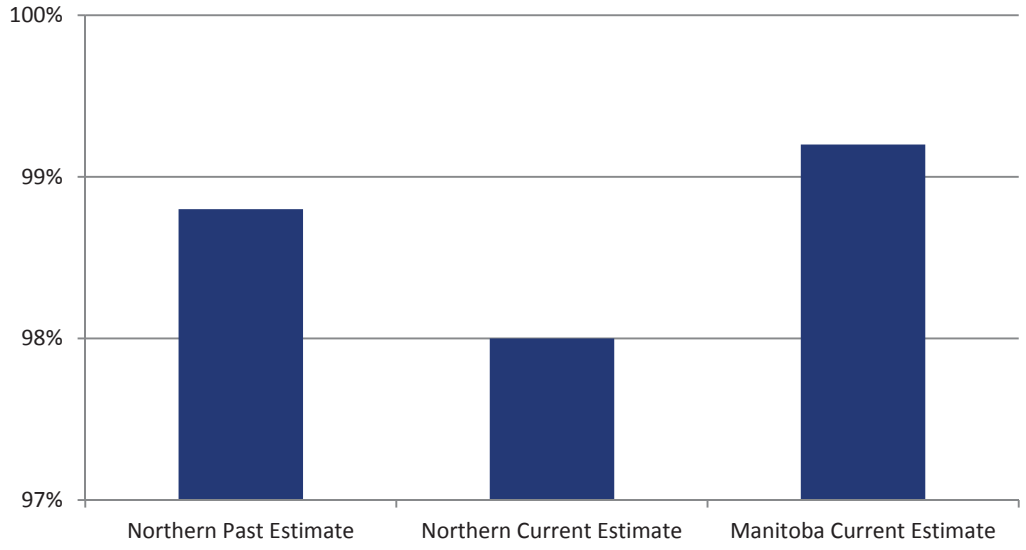
What did we learn in 2009?

- In 2007-08, 100 per cent of patients in the former Burntwood Region received radiation therapy within four weeks as did 94.7 per cent of former NOR-MAN Region residents. This compares to the Manitoba average of 97.1 per cent.

What did we learn in 2014?

- In 2011/12, virtually all (98%) Northern Health Region cancer patients were treated with radiation therapy within four weeks (see **Figure 6.14**).

Figure 6.14. Radiation Therapy Waits, Northern Health Region and Manitoba, 2011/12.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.2.1. Lung Cancer

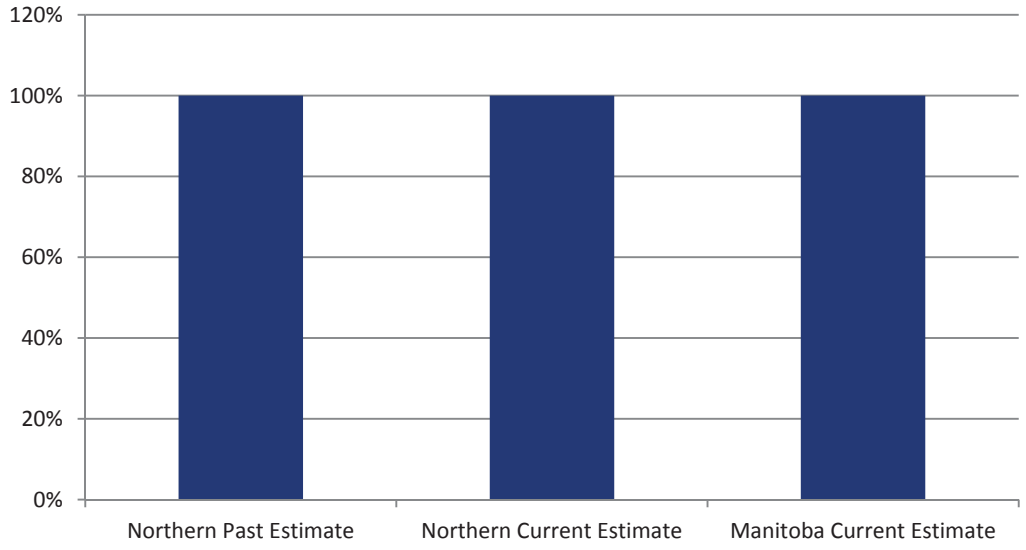
What did we learn in 2009?

- In 2007-08, 100 per cent of patients in the former NOR-MAN Region received radiation therapy within four weeks. Data from the former Burntwood Region were suppressed due to low numbers.

What did we learn in 2014?

- The Northern Health Region had all of its lung cancer patients seen within 4 weeks for radiation therapy in 2011/12 which equaled the Manitoba average (see **Figure 6.15**).

Figure 6.15. Radiation Therapy Waits for Lung Cancer Patients, Northern Health Region and Manitoba, 2011/12.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.2.2. Colorectal Cancer

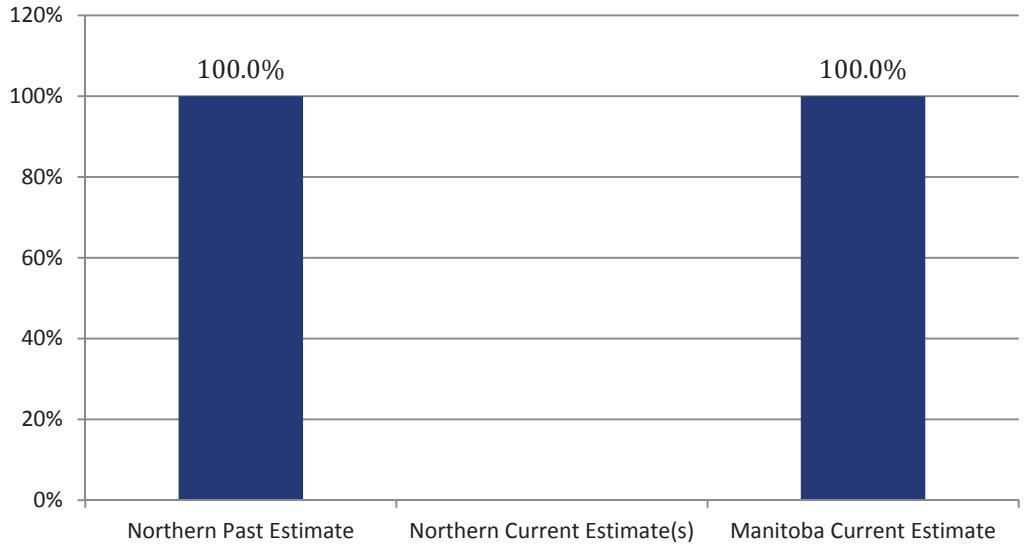
What did we learn in 2009?

- In 2006-08, data was suppressed in the former Burntwood Regions due to low numbers.
- Similarly, the former NOR-MAN Region did not report any data for this indicator due to low numbers.

What did we learn in 2014?

- The Northern Health Region data for colorectal cancer patients waiting for radiation therapy were suppressed due to small numbers in 2011/12 (see **Figure 6.16**). However, the past estimate (2006/08) was revised for the entire region and the estimate was 100 per cent which is identical to the provincial rate.

Figure 6.16. Radiation Therapy Waits for Colorectal Cancer Patients, Northern Health Region and Manitoba, 2011/12.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
NOTE: 's' indicates data suppressed due to small numbers.

6.2.7.2.3. Female Breast Cancer

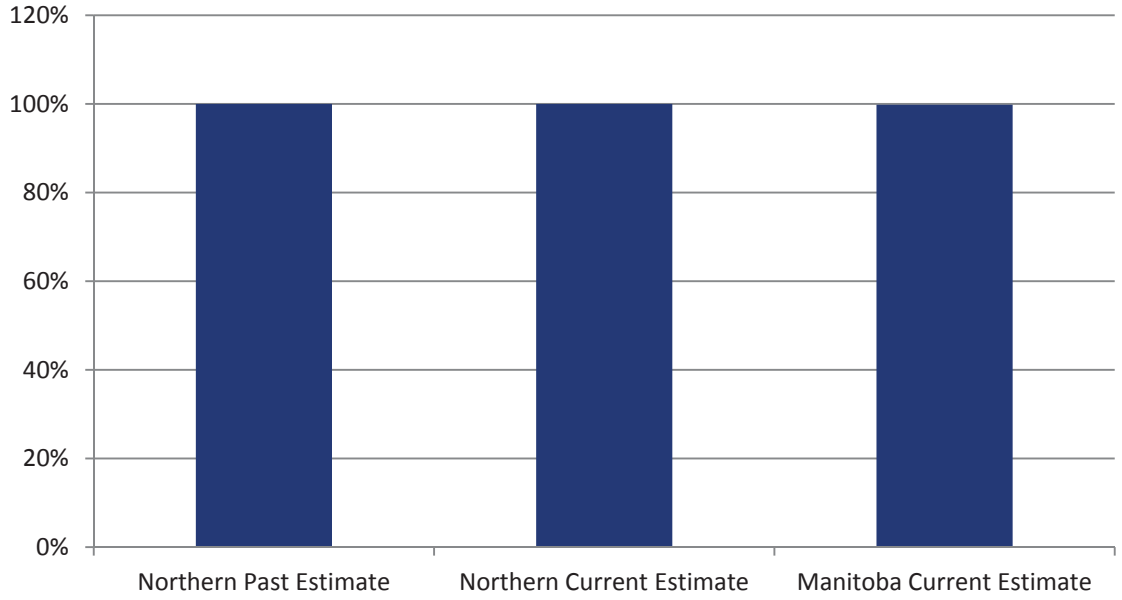
What did we learn in 2009?

- In 2007-08, all NOR-MAN Region breast cancer patients were seen within four weeks for radiation therapy. Data for the former Burntwood Region were suppressed due to low numbers.

What did we learn in 2014?

- All Northern Health Region breast cancer patients were treated with radiation therapy within four weeks in 2011/12. The Manitoba average was 99.8 per cent (see **Figure 6.17**).

Figure 6.17. Radiation Therapy Waits for Breast Cancer, Northern Health Region and Manitoba, 2011/12.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.2.4. Prostate Cancer

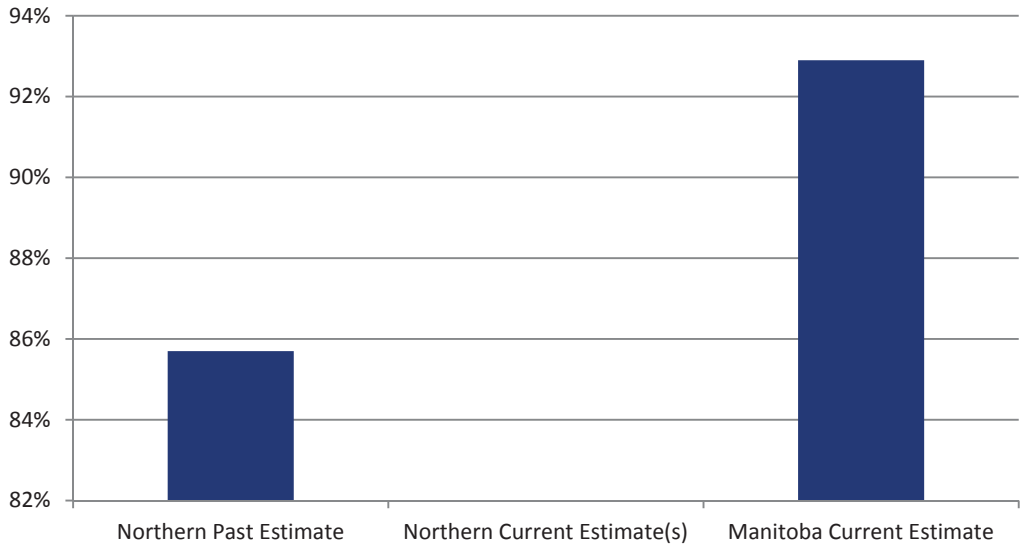
What did we learn in 2009?

- In 2007-08, data was suppressed in both the former Burntwood and NOR-MAN Regions due to low numbers.

What did we learn in 2014?

- The Northern Health Region data for prostate cancer patients waiting for radiation therapy was suppressed due to small numbers in 2011/12 (see **Figure 6.18**). The Manitoba average was 92.9 per cent of prostate cancer patients were treated with radiation therapy within four weeks.

Figure 6.18. Radiation Therapy Waits For Prostate Cancer, Northern Health Region and Manitoba, 2011/12.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
NOTE: 's' indicates data suppressed due to small numbers.

6.2.7.3. Cancer Surgery

DEFINITION

This indicator measures the proportion of cancer patients who are treated with surgery.

Why Is This Indicator Important?

Surgery rates can provide important information both about the appropriateness of cancer care as well as the point at which cancers are being diagnosed.

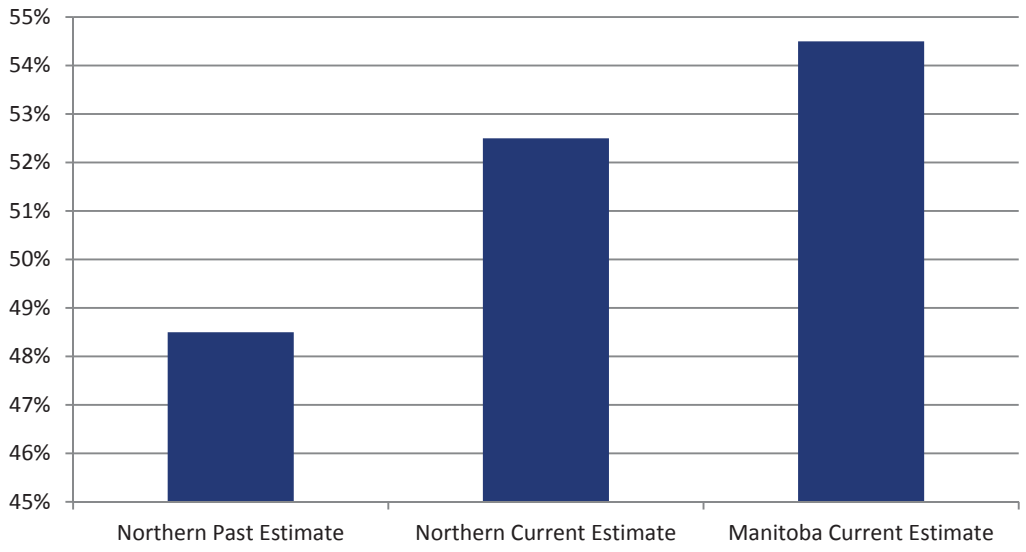
What did we learn in 2009?

- In 2006-07, the former Burntwood Region had a surgery rate of 53.6 per cent, slightly under the provincial average of 54.9 per cent.
- The former NOR-MAN Region had a rate of 44.1 per cent. NOR-MAN's rate was statistically lower than the Manitoba overall average.

What did we learn in 2014?

- In the Northern Health Region, 52.5 per cent of cancer patients were treated with surgery from 2008 to 2010 which is slightly below the Manitoba average of 54.5 per cent (see **Figure 6.19**).

Figure 6.19. Proportion of Patients Treated With Surgery in Northern Health Region and Manitoba, All Cancers, 2008-2010.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.3.1. Lung Cancer

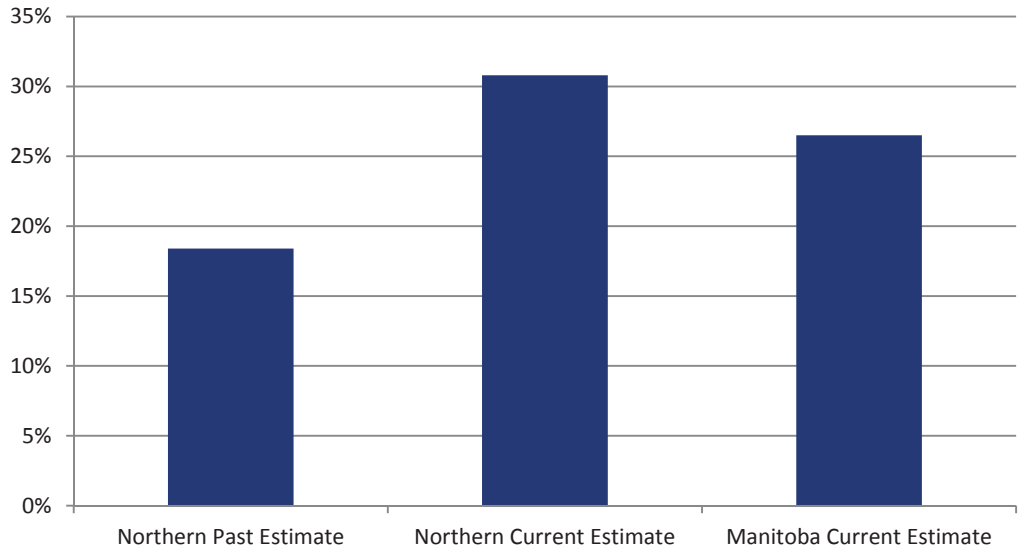
What did we learn in 2009?

- In 2006-07, the former NOR-MAN Region had a surgery rate for lung cancer patients of 20.0 per cent, below the Manitoba average was 24.4 per cent. Data from the former Burntwood Region were suppressed due to small numbers.

What did we learn in 2014?

- From 2008-2010, 30.8 per cent of lung cancer patients were treated with surgery and increase from the past estimate of 18.4 per cent. The Manitoba average was 26.5 per cent (see **Figure 6.20**).

Figure 6.20. Proportion of Lung Cancer Patients Treated With Surgery, 2008-2010.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.3.2. Colorectal Cancer

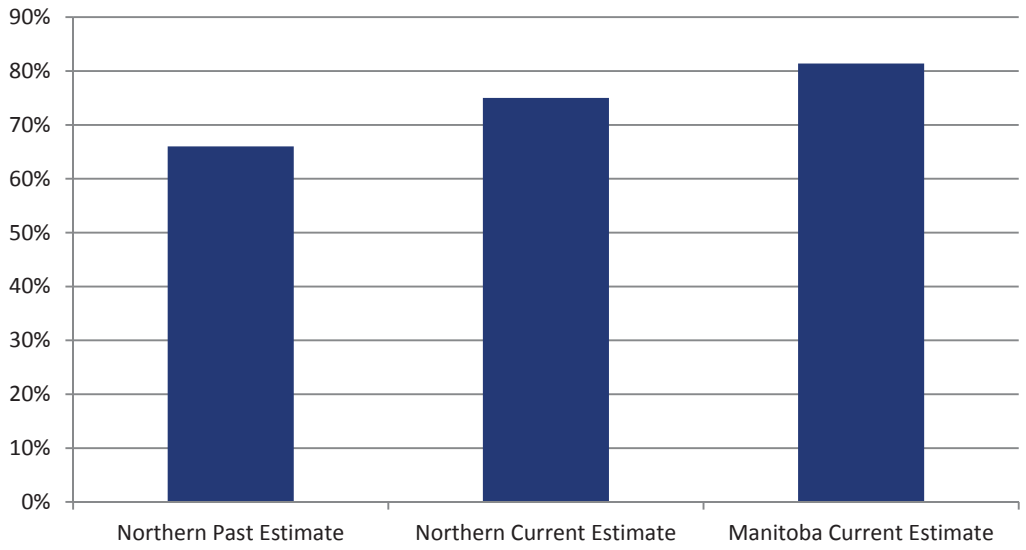
What did we learn in 2009?

- From CancerCare Manitoba data in 2006-07, the former NOR-MAN Region had a surgery rate for colorectal cancer patients of 55.0 per cent, which was statistically below the Manitoba average of 80.5 per cent.
- The former Burntwood Region had a rate of 73.3 per cent.

What did we learn in 2014?

- From 2008-2010 data, 75.0 per cent of colorectal cancer patients were treated with surgery which is higher than the past estimate of 66.0 per cent. The Manitoba average was 81.4 per cent (see **Figure 6.21**).

Figure 6.21. Proportion of Colorectal Cancer Patients Treated With Surgery, Northern Health Region and Manitoba, 2008-2010.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.3.3. Female Breast Cancer

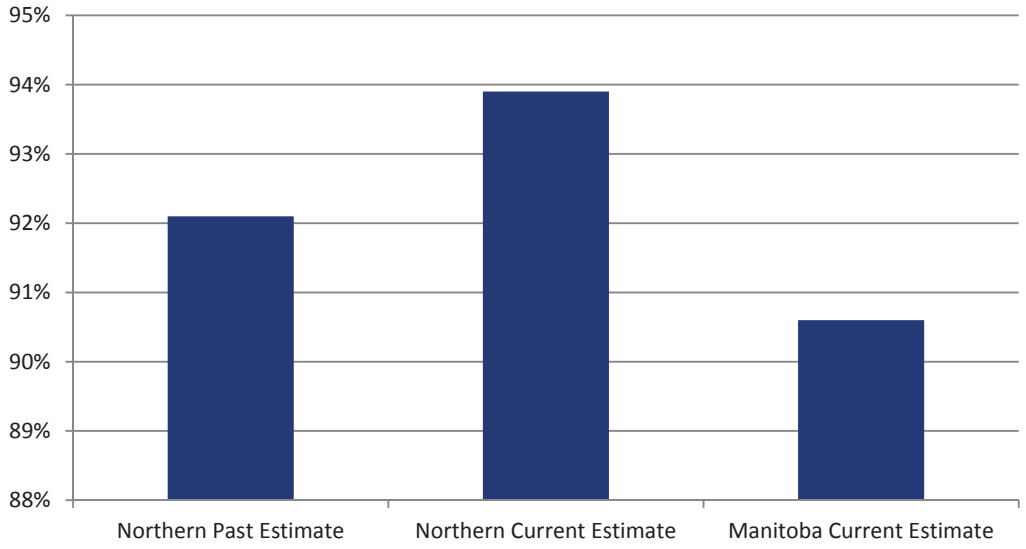
What did we learn in 2009?

- From CancerCare Manitoba data in 2006-07, the former NOR-MAN Region had a surgery rate for breast cancer patients of 90.0 per cent, slightly below the Manitoba average was 92.1 per cent.
- The former Burntwood Region had a rate of 94.7 per cent.

What did we learn in 2014?

- In 2008-2010, 93.9 per cent of Northern Health Region's breast cancer patients were treated with surgery, up from the past estimate for the north of 92.1 per cent. It was also over the Manitoba average of 90.6 per cent (see **Figure 6.22**).

Figure 6.22. Proportion of Breast Cancer Patients Treated With Surgery, Northern Health Region and Manitoba, 2008-2010.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.3.4. Prostate Cancer

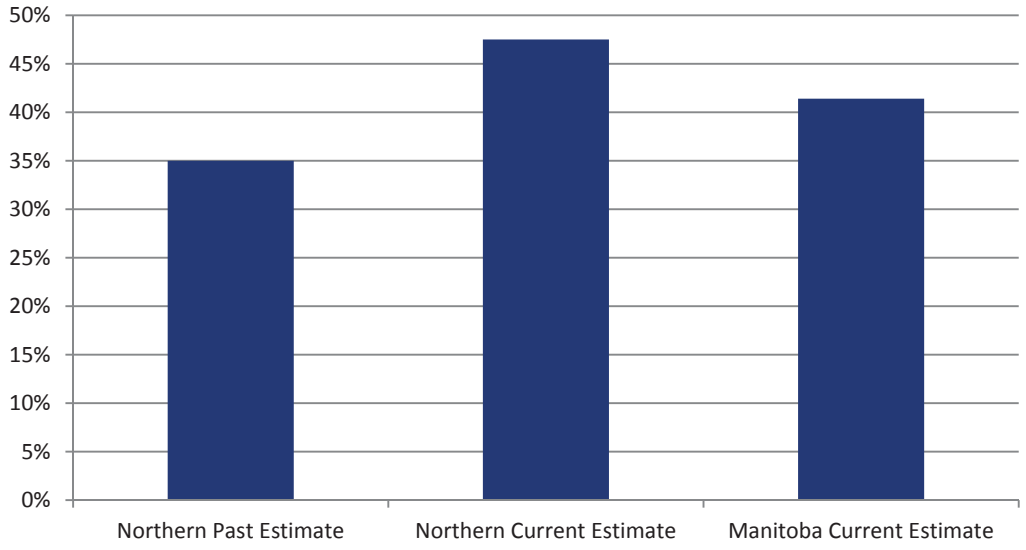
What did we learn in 2009?

- From CancerCare Manitoba data in 2006-07, the former NOR-MAN Region had a surgery rate of 33.3 per cent for prostate cancer patients, below the Manitoba average of 49.1 per cent.
- The former Burntwood Region had an identical surgery rate of 33.3 per cent.

What did we learn in 2014?

- The Northern Health Region had a surgery rate of 47.5 per cent for prostate cancer patients which was higher than the past estimate of 35.0 per cent. It is also higher than the Manitoba average of 41.4 per cent (see **Figure 6.23**).

Figure 6.23. Proportion of Prostate Cancer Patients treated with Surgery, Northern Health Region and Manitoba, 2008-2010.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.4. Radiation Therapy Treatment

DEFINITION

This indicator measures the proportion of all cancer patients who are treated with radiation therapy.

Why Is This Indicator Important?

Radiation therapy treatment rates can provide important information both about the appropriateness of cancer care as well as on when cancers are being diagnosed in patients which can be an indicator of how successful cancer prevention initiatives are in a given Region.

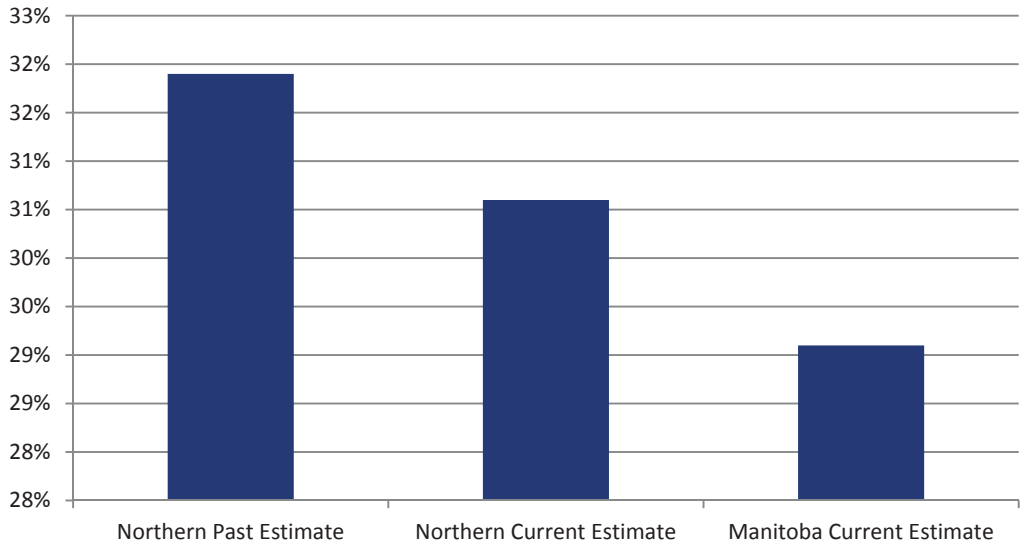
What did we learn in 2009?

- From CancerCare Manitoba data in 2005-06, the former NOR-MAN Region had a radiation therapy treatment rate of 28.5 per cent for prostate cancer patients. The Manitoba average was 30.3 per cent.
- The former Burntwood Region had a rate of 30.8 per cent.

What did we learn in 2014?

- In 2008-2010, the radiation therapy treatment rate for the Northern Health Region was 30.6 per cent, below the past estimate for the Region of 31.9 per cent. The Manitoba average was 29.1 per cent (see **Figure 6.24**).

Figure 6.24. Proportion of Cancer Patients Receiving Radiation Therapy, Northern Health Region and Manitoba, 2008-2010.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.4.1. Lung Cancer

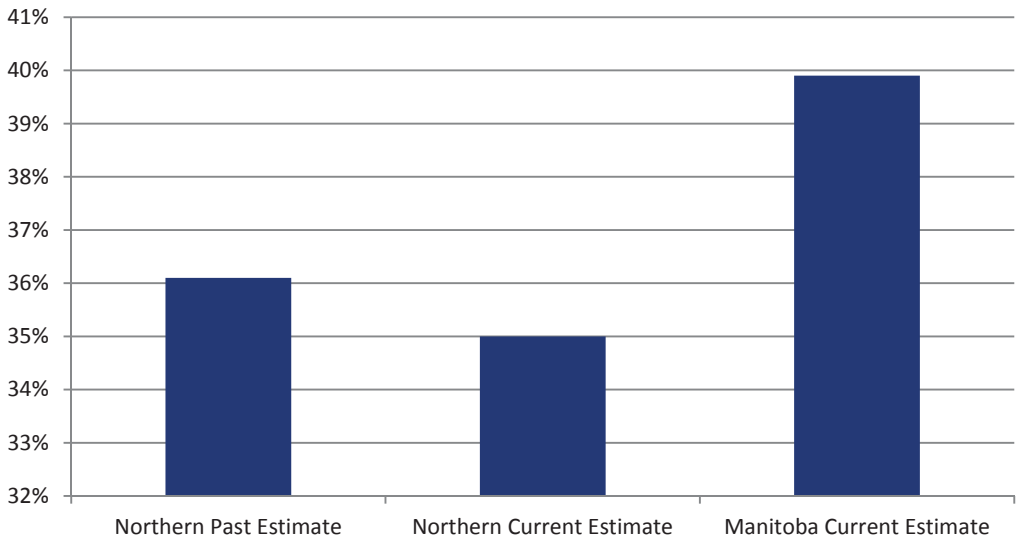
What did we learn in 2009?

- From CancerCare Manitoba data in 2005-06, the former NOR-MAN Region had a radiation therapy treatment rate for lung cancer patients of 26.7 per cent, significantly below the Manitoba average of 42.5 per cent.
- The former Burntwood Regions had a rate of 41.9 per cent.

What did we learn in 2014?

- From 2008-2010 data, the Northern Health Region had a radiation therapy treatment rate of 35.0 per cent for lung cancer patients, below the past estimate for the Region of 36.1 per cent. It is also under the Manitoba average of 39.9 per cent (see **Figure 6.25**).

Figure 6.25. Proportion of Lung Cancer Patients Receiving Radiation Therapy, Northern Health Region and Manitoba, 2008-2010.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.4.2. Colorectal Cancer

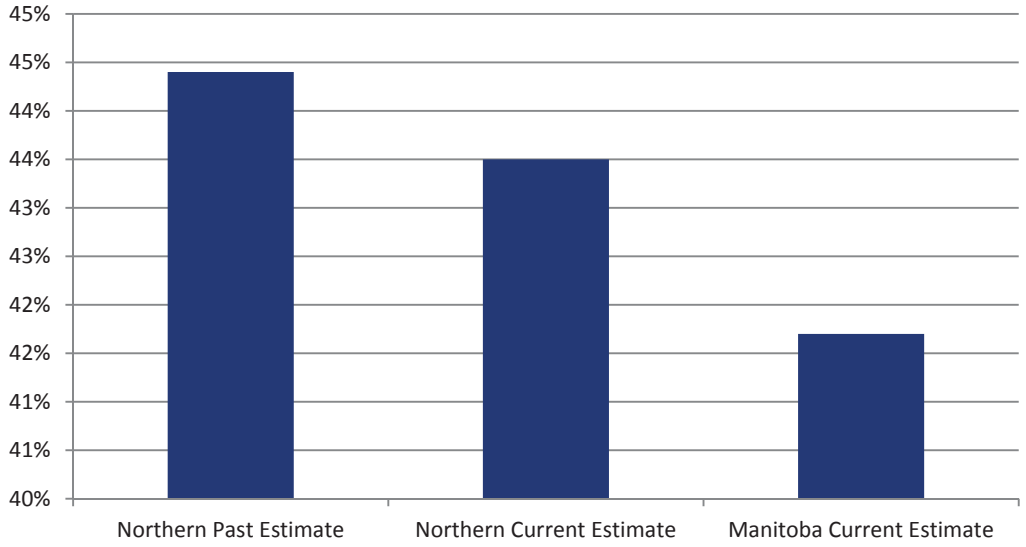
What did we learn in 2009?

- The former NOR-MAN Region had their 2005/06 data suppressed due to small numbers. The Manitoba average treatment rate was 42.0 per cent.
- Similarly, the former Burntwood Region did not report this data due to small numbers.

What did we learn in 2014?

- The Northern Health Region had a radiation therapy treatment rate for colorectal cancer patients of 43.5 per cent in 2008-2010, a decrease from the past estimate of 44.4 per cent but above the Manitoba average of 41.7 per cent (see **Figure 6.26**).

Figure 6.26. Proportion of Colorectal Cancer Patients Receiving Radiation Therapy, Northern Health Region and Manitoba, 2008-2010.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.4.3. Female Breast Cancer

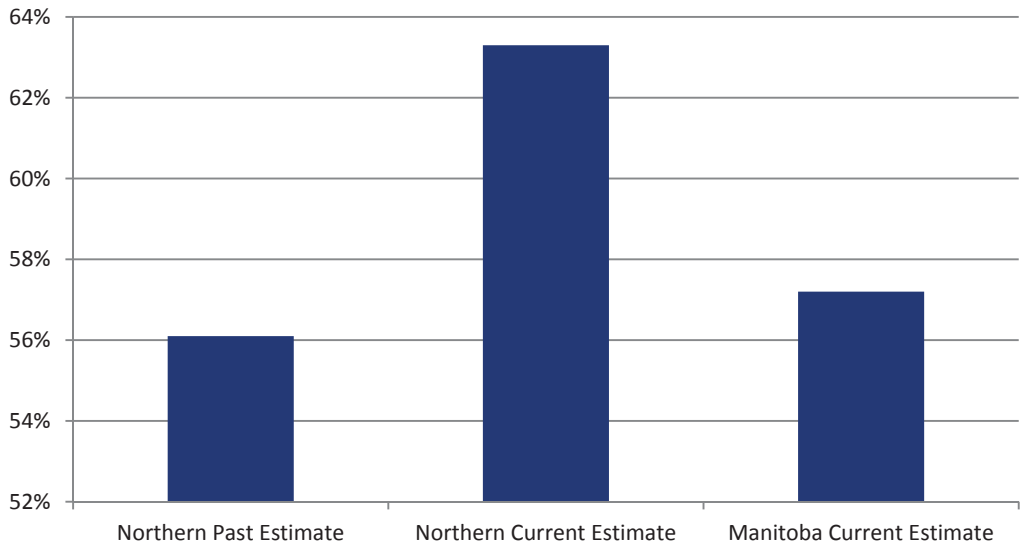
What did we learn in 2009?

- The former NOR-MAN Region had a radiation therapy treatment rate of 62.5 per cent for breast cancer patients in 2005/06. The Manitoba average was 59.1 per cent.
- The former Burntwood Region had a rate of 50.0 per cent.

What did we learn in 2014?

- The Northern Health Region has a treatment rate of 63.6 per cent for breast cancer patients, above the past estimate for the North of 56.1 per cent. It was also above the Manitoba average of 57.2 per cent (see **Figure 6.27**).

Figure 6.27. Proportion of Breast Cancer Patients Receiving Radiation Therapy, Northern Health Region and Manitoba, 2008-2010.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.4.4. Prostate Cancer

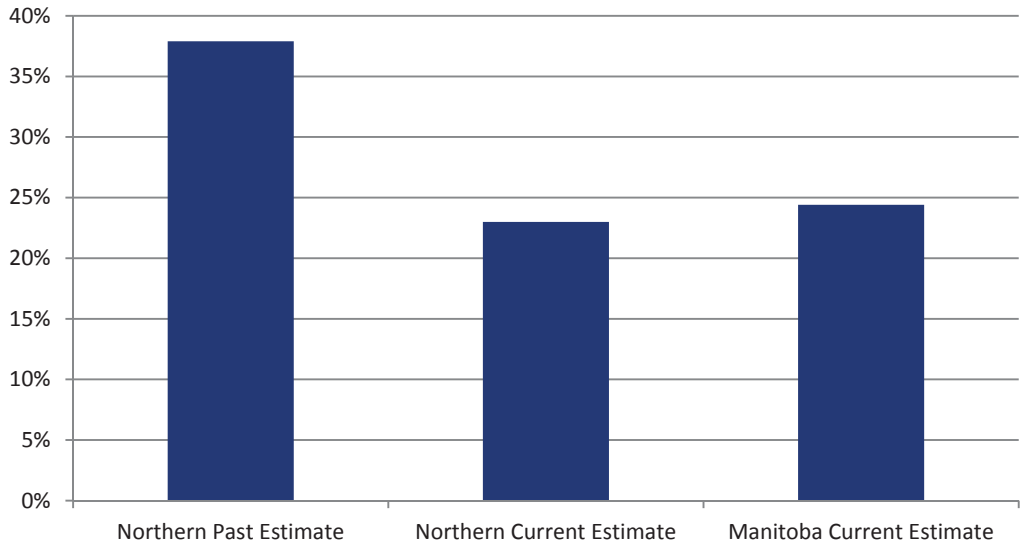
What did we learn in 2009?

- The former NOR-MAN Region had their 2005/06 data suppressed due to small numbers.
- The former Burntwood Region had a radiation therapy treatment rate of 45.0 per cent for prostate cancer patients, above the Manitoba average treatment rate of 28.6 per cent.

What did we learn in 2014?

- The Northern Health Region had a radiation therapy treatment rate for prostate cancer patients of 23.0 per cent, well below the past estimate of 37.9 per cent. The Northern rate was slightly below the Manitoba average of 24.4 per cent (see **Figure 6.28**).

Figure 6.28. Proportion of Prostate Cancer Patients Receiving Radiation Therapy, Northern Health Region and Manitoba, 2008-2010.



Source: CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.

6.2.7.5. Cancer End-Of-Life Care

DEFINITION

This indicator measures the proportion of patients who die of cancer with an acute care hospital stay in the last two weeks of life.

Why Is This Indicator Important?

By tracking hospital utilization near end-of-life, health planners can ensure appropriate care options are made available to those patients and their families for cancer patients during the terminal phase of their disease. It can also gauge the success of efforts to provide palliative care options for cancer patients that avoid end of life hospitalizations.

What did we learn in 2009?

- In the former NOR-MAN Region, 73.4 per cent of its cancer patients had acute care stays in the last two weeks of their life.
- In the former Burntwood Region, the figure was 70.1 per cent. Both Regions were below the Manitoba average of 77.5 per cent.

What did we learn in 2014?

- In the Northern Health Region, 76.7 per cent of cancer patients who died had an acute care stay in the last two weeks of their life in 2008-2010 which was slightly below the Manitoba average of 78.4 per cent.

6.3. Continuity of Service

6.3.1. Continuity of Care

DEFINITION

This indicator measures the proportion of residents who have had 50 per cent of more or their ambulatory visits with the same health care provider.

Why Is This Indicator Important?

If patients are able to see the same health care provider, the quality of care has been shown to improve as health providers discover their unique health care needs. Continuity of care was one of the most significant concerns for Northern residents, expressed during focus group sessions in 2014. Beyond the concern of access to doctors, the greater concern was around turnover of physician resources. As one participant noted, "…[patients are] always feeling like they have to start all over again with their medical history. This gets people frustrated. This also leads to different treatment methods because of getting different doctors."

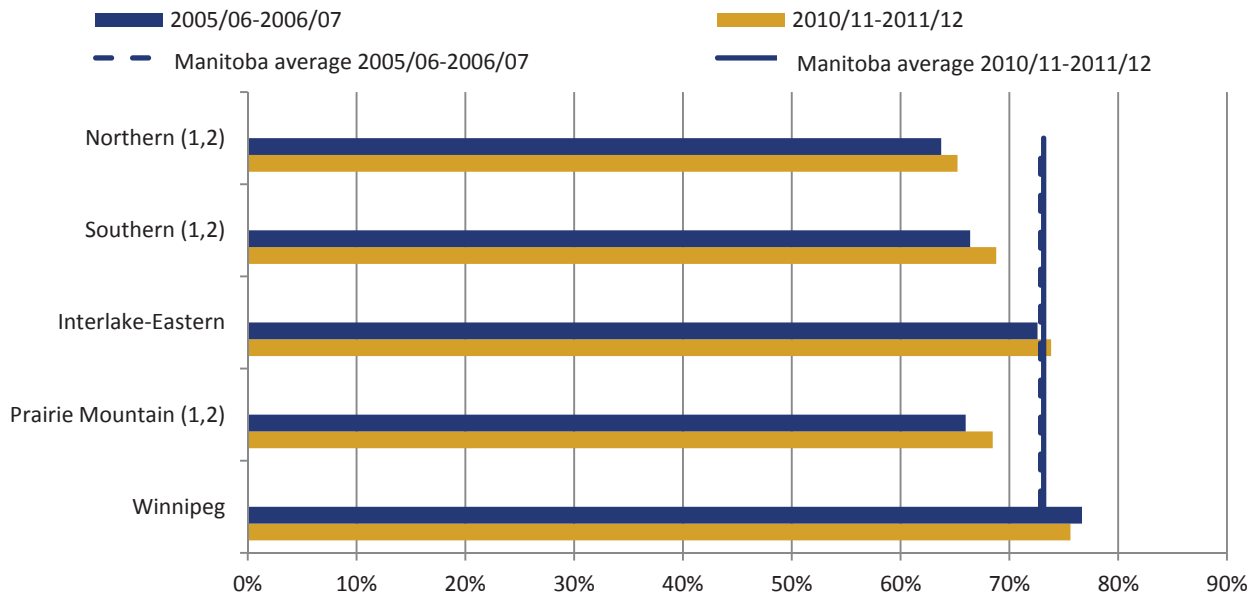
What did we learn in 2009?

- In the former Burntwood Region, the rate remained stable at 48.2 per cent between 1999/00-2000/01 and 47.5 per cent in 2004/05-2005/06. This was still significantly lower than the provincial rate of 67.7 per cent in 2004/05-2005/06.
- The former NOR-MAN Region saw a slight decrease from 70.4 per cent in 1999/00-2000/01 to 67.5 per cent in 2004/05-2005/06.

What did we learn in 2014?

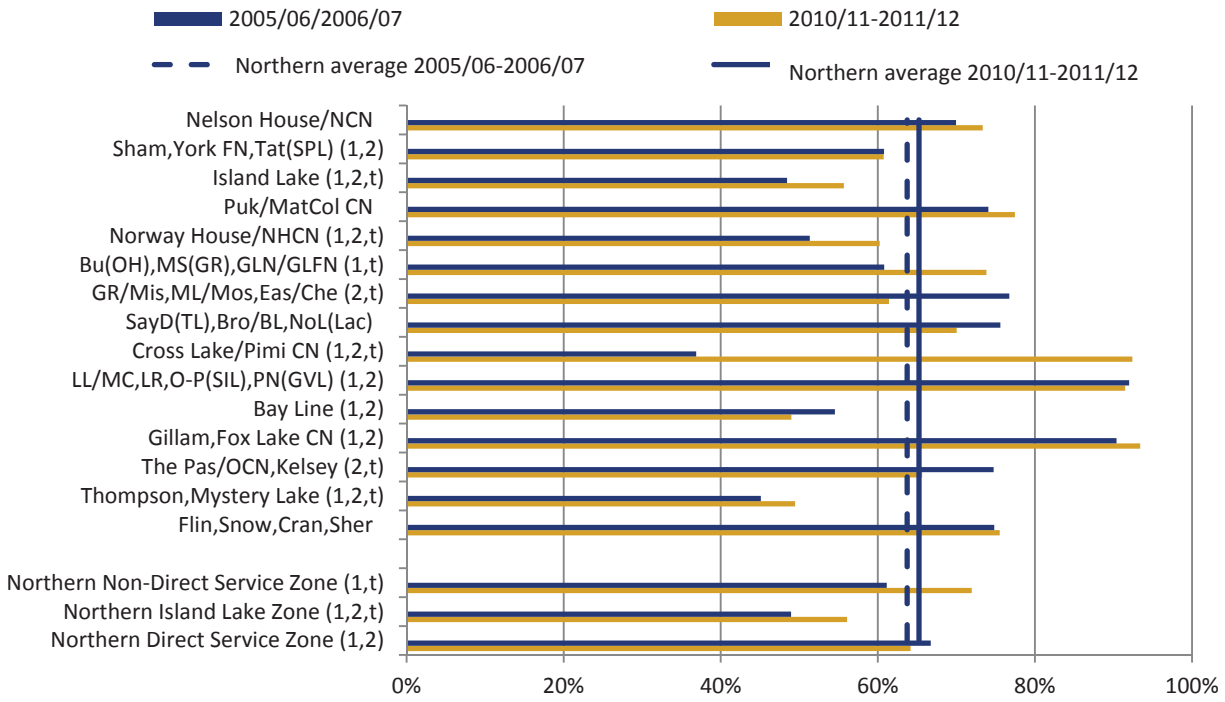
- The Northern Health Region experienced an increase in rates of continuity of care from 63.7 per cent of residents seeing the same physician more than 50 per cent of the time in 2005/06-2006/07 to 65.2 per cent in 2010/11-2011/12. Despite the increase, the Region remained statistically below the Manitoba average of 73.2 per cent in 2010/11-2011/12 (see **Figure 6.29**).
- Among Northern districts, both the Northern non-direct and Northern Island Lake zones had statistically significant increases in continuity of care between the two time periods (see **Figure 6.30**).

Figure 6.29. Continuity of Care by RHA, 2005/06-2006/07 and 2010/11-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 6.30. Continuity of Care by Northern District and Zone, 2005/06-2006/07 and 2010/11-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

6.3.2. Antidepressant Prescription Follow Up

DEFINITION

This indicator measures 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.

Why Is This Indicator Important?

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 effectively treating depression.

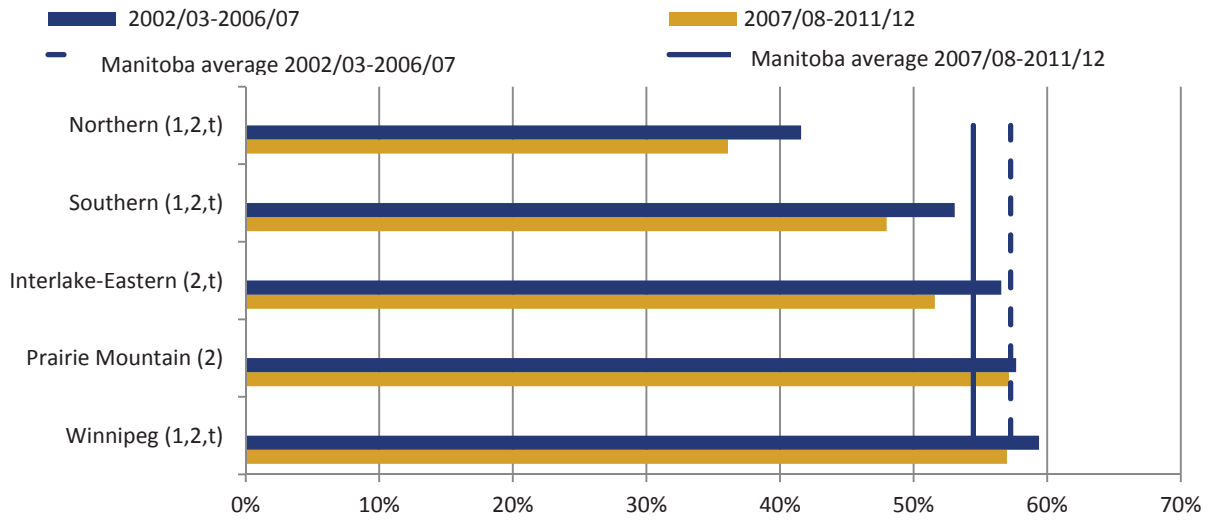
What did we learn in 2009?

- In the former Burntwood Region, antidepressant follow up rates dropped significantly from 43.8 per cent in 1999/00-2000/01 to 38.5 per cent in 2003/04-2005/06. In the second time period, this was the lowest in the province.
- In the former NOR-MAN Region, the rate increased from 53.9 per cent in 1998/99-2000/01 to 56.4 per cent in 2003/04-2005/06.

What did we learn in 2014?

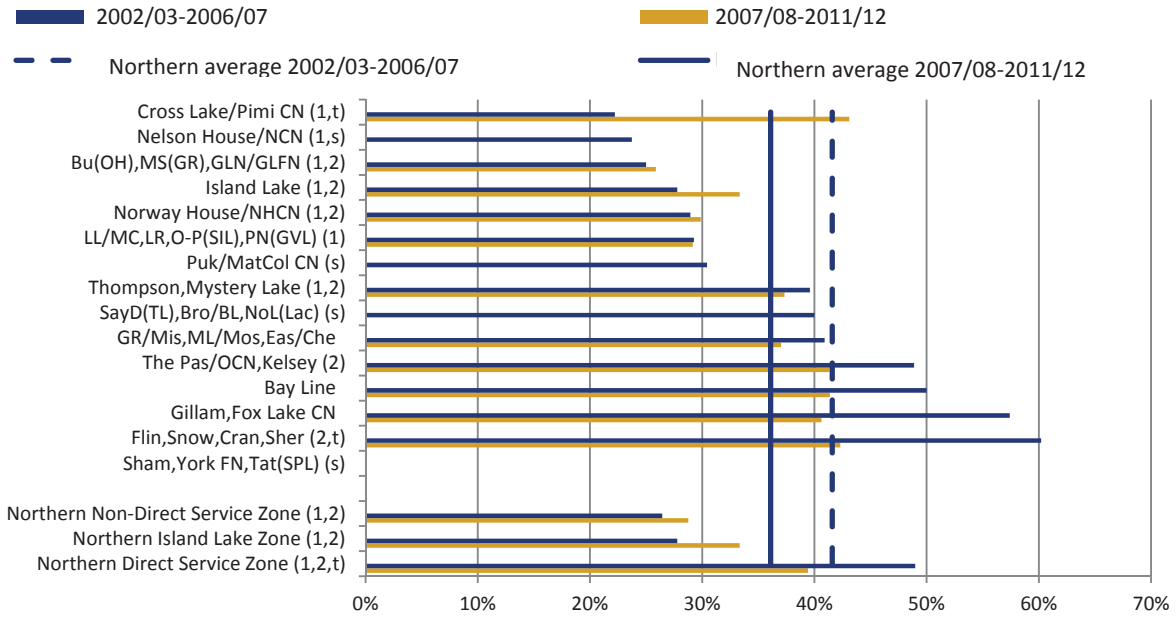
- In the Northern Health Region, the rates for antidepressant follow up declined from 41.6 per cent in 2002/03-2006/07 to 36.1 per cent in 2007/08-2011/12. The decline was considered statistically significant. It was also statistically different than the Manitoba average of 54.5 per cent in 2007/8-2011/12 (see **Figure 6.31**).
- Among Northern zones and districts, the antidepressant follow up rates actually rose in the Northern Island and Northern Non-direct Service zones between the two time period but declined significantly in the Northern Direct Service Zone between the two time periods (see **Figure 6.32**).

Figure 6.31. Proportion of Antidepressant Follow Up by RHA, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 6.32. Proportion of Antidepressant Follow Up by Northern District and Zone, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

6.3.3. Asthma Care

DEFINITION

This indicator measures the proportion of patients with asthma who filled at least one prescription for medications that control the symptoms for asthma.

Why Is This Indicator Important?

This is another key indicator measuring the effectiveness of managing chronic conditions within a primary care setting.

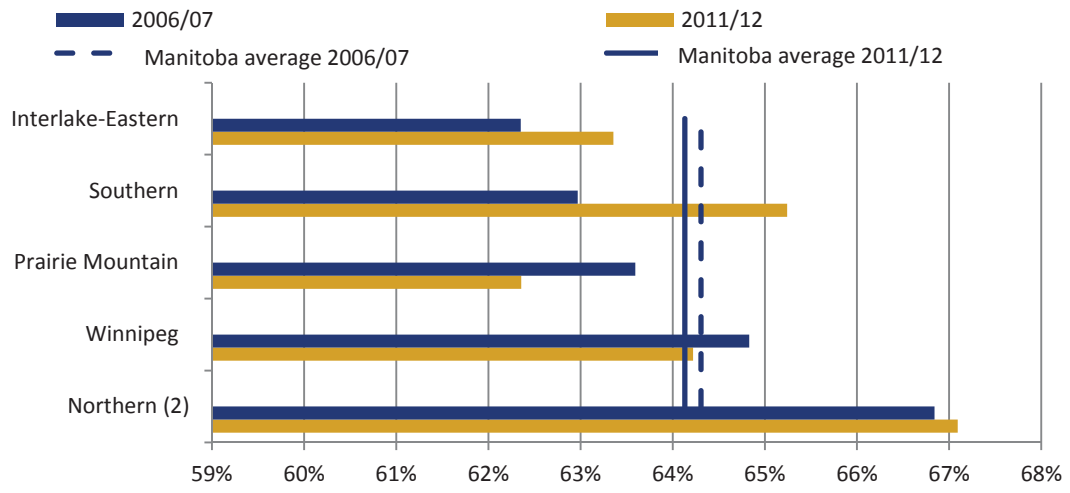
What did we learn in 2009?

- The former NOR-MAN Region held steady, from 64.7 per cent in 2006/07 to 64.1 per cent in 2011/12.
- The former Burntwood Region experienced an increase to 68.6 per cent in 2011/12, up from 64.1 per cent in 2006/07.

What did we learn in 2014?

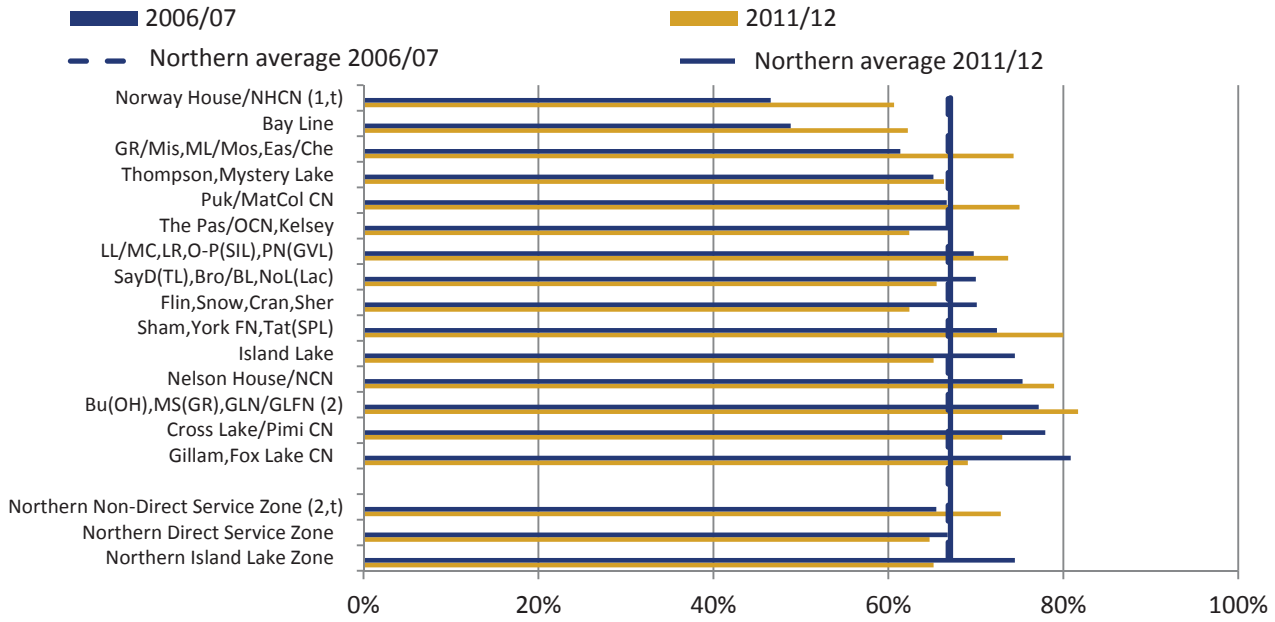
- Asthma care rates rose slightly in the Northern Health Region from 66.8 per cent in 2006/07 to 67.1 per cent in 2011/12, the highest care rates among RHAs. The Northern Health Region rate was considered statistically higher to the Manitoba average of 64.1 per cent in 2011/12 (see **Figure 6.33**).
- Among Northern zones and districts, the Northern Non-direct Zone had the high highest rates of asthma care at 72.8 per cent in 2011/12 while the Northern Island and Direct Service Zones both experienced slight declines in asthma care rates between the two time periods (see **Figure 6.34**).

Figure 6.33. Asthma Care Rate by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 6.34. Asthma Care Rates by Northern District and Zone, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

6.3.4. Diabetes Care: Eye Exams

DEFINITION

This indicator measures the percentage of diabetics aged 20 to 79 that had an eye exam in a given time period.

Why Is This Indicator Important?

Eye exams are critical for people with diabetes requiring ongoing care. Not only do eye exams assist in diagnosing diabetic retinopathy but can also help to discover other eye conditions such as glaucoma, cataracts, retinal detachments, vitreous hemorrhages and eye cancer. This indicator also monitors how well the primary care system performs in managing chronic diseases.

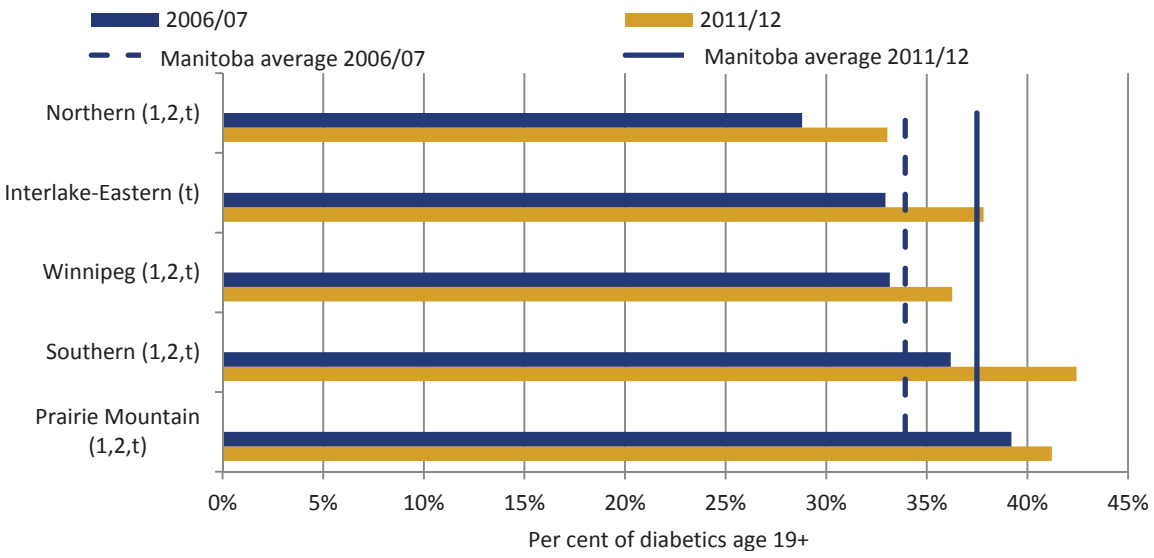
What did we learn in 2009?

- The former Burntwood Region experienced an increase in eye exam rates from 23.9 per cent in 2000/01 to 25.0 per cent in 2005/06, which was still significantly below the provincial average of 33.5 per cent.
- The former NOR-MAN Region reported a very small decrease, from 36.9 per cent in 2000/01 to 36.5 per cent in 2005/06.

What did we learn in 2014?

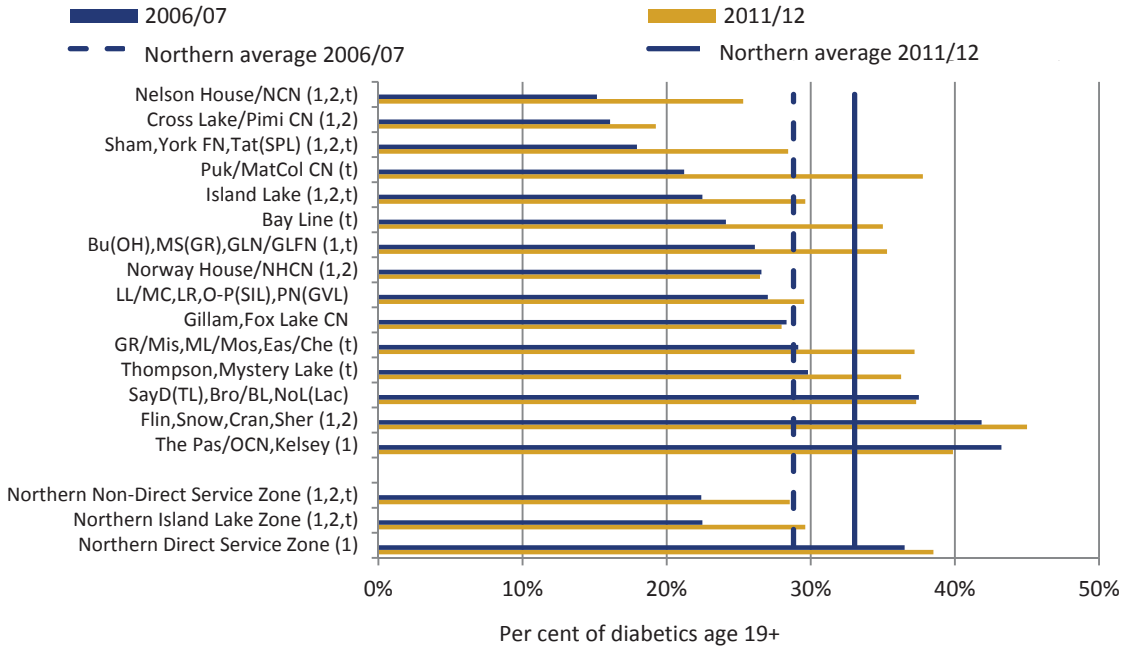
- The Northern Health Region experienced a slight decrease in eye exam rates for diabetics from 33.9 per cent in 2006/07 to 33.0 per cent in 2011/12. Nevertheless, the Region remained below the provincial average of 37.5 per cent in 2011/12. That difference was considered statistically significant (see **Figure 6.35**).
- Among Northern Districts and Zones, each zone experienced an increase in eye exams for diabetes patients over the two time periods. The Northern Direct Service Zone had the highest rates at 38.5 per cent in 2011/12 (see **Figure 6.36**).

Figure 6.35. Eye Exam Rates by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 6.36. Eye Exam Rates by Northern Zone and District, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

6.4. Safety

Patient safety has become a greater priority for the health care system in recent years with the recognition that patient errors need to monitored and improved in order to achieve better health outcomes. The Manitoba Institute for Patient Safety was first established in 2004 to help identify best practices in quality of care and patient safety. The process to get health facilities accredited through the *Accreditation Canada* process has also been a way for Regions to focus on quality of care standards and expectations.

The Northern Health Region is dedicated to providing safe, quality care to all clients, patients and residents. In order to continuously improve the region has implemented a number of provincially and nationally recognized patient safety initiatives such as:

- Medication Reconciliation (Med Rec) at Admission, Discharge and Transfer. Med Rec is a process to reduce medication incidents that can occur at transition points in a patient's healthcare journey. Transition points can include when a patient is admitted or discharged from a hospital, admitted or transferred to a nursing home, transferred to a different unit within a hospital or seen by a physician in an emergency department or a primary care provider in a clinic. Patients are encouraged to know their medication history and carry medication cards with a list of their current medication to show their healthcare providers. These cards are available at all sites.

- "It's Safe to Ask" Campaign. Patients and their families are encouraged to become partners in their health care by asking the questions:
  - "What is my health problem?"
  - "What do I need to do?"
  - "Why do I need to do this?"
  - Health care providers listen to these questions and answer them as honestly and openly as they are able.

- The region has adopted the Manitoba Institute for Patient Safety's list of "Do Not Use" dangerous abbreviations. This ensures than mistakes due to the misinterpretation of abbreviated medical terms are avoided.

- Fall Prevention and Management Program: Research has shown that certain patients and residents are at risk for falling and that those falls may result in injury. The region has implemented a falls prevention and management program throughout acute and long term care sites and will soon be including ambulatory care areas. This program strives to:
  - Provide a safe environment for patients by identifying and addressing falls risk factors
  - To reduce the incidence of falls and minimize the risk of injury to patients and staff.

- Critical Incident Reviews: A critical incident (CI) is an *unintended* event that occurs when health services are provided to a person and result in an effect that is serious and undesired. Once a Critical Incident has been identified it will be disclosed to the patient by the most appropriate health care provider. As well a Critical Incident Review Committee will be formed to review the event in order to learn how to prevent the same thing from happening to someone else by identifying what lead to the incident and identifying recommendation that will improve the healthcare system.

6.4.1. Benzodiazepines Prescriptions in Older Adults

DEFINITION

This indicator measures the proportion of seniors age 75 and older living in the community who have had at least two prescriptions, or a greater than 30 day supply of benzodiazepines in a given time period.

Why Is This Indicator Important?

Use of benzodiazepines is generally not advised for seniors, so it is preferable to see lower rates of use for this drug. This is a good indicator of prescription practices in a Region and how important drug safety and drug prescription monitoring is.

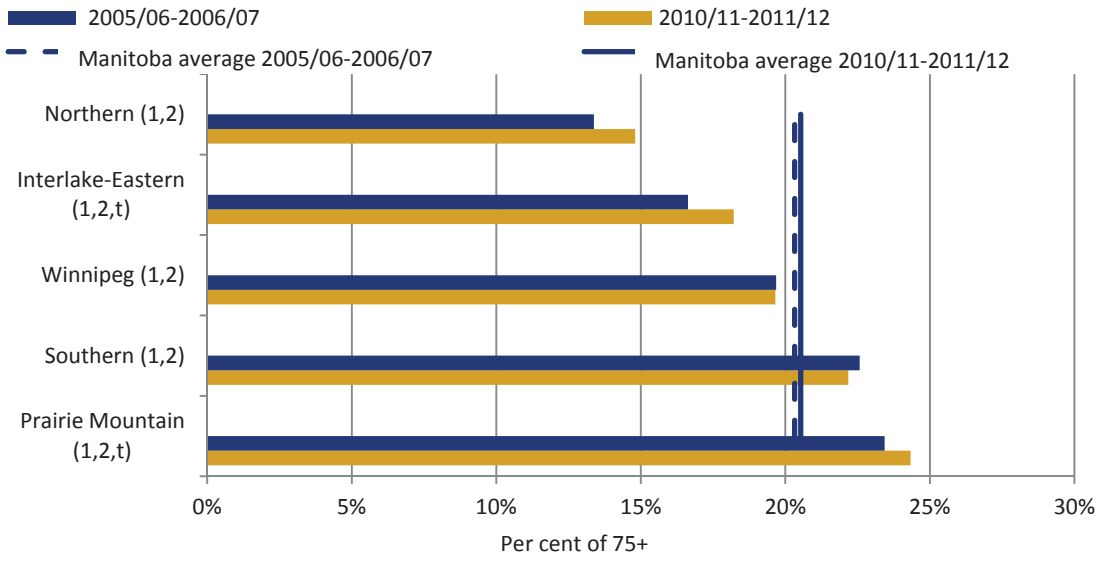
What did we learn in 2009?

- The former Burntwood Region experienced an increase in Benzodiazepine prescriptions for senior rising from 10.7 per cent in 2005/06-2006/07 to 12.0 per cent in 2010/11-2012. This rate was still well below and statistically different from the Manitoba average of 20.5 per cent.
- The former NOR-MAN Region also experienced an increase between the two time periods from 15.2 to 16.9 per cent.

What did we learn in 2014?

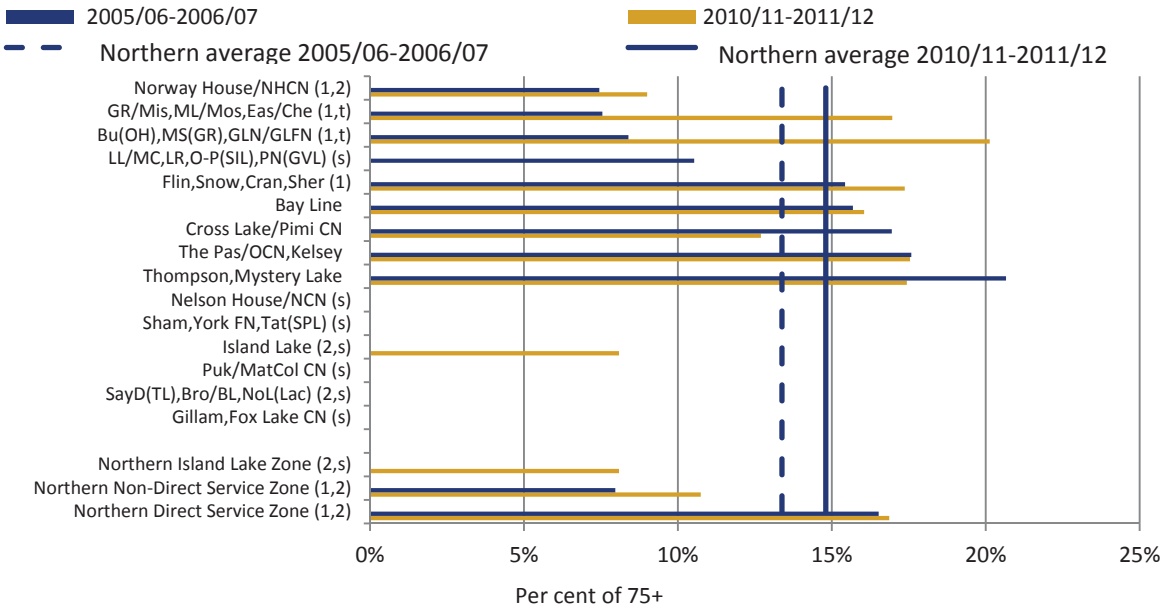
- In the Northern Health Region, benzodiazepine prescription rates for seniors increased from 13.4 per cent in 2005/06-2006/07 to 14.8 per cent in 2010/11-2011/12 (see **Figure 6.37)**. This rate still remained statistically below the Manitoba average of 20.5 per cent.
- Prescription rates within the Northern Health Region were highest in the Northern Direct Service Zone at 17 per cent in 2010/11-2011/12 (see **Figure 6.38**).

Figure 6.37. Proportion of Seniors with Benzodiazepine Prescriptions by RHA, 2005/06-2006/07 and 2010/11-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 6.38. Proportion of Seniors with Benzodiazepine Prescriptions by Northern District and Zone, 2005/06-2006/07 and 2010/11-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

6.4.2. Staff Immunization

DEFINITION

This indicator measures the proportion of regional staff that were immunized for infectious diseases.

Why Is This Indicator Important?

Health care workers are at greater risk for exposure to serious infectious diseases as they work directly with patients or handle material that could spread infection. Many communicable diseases can be prevented with vaccination at the recommend intervals. Vaccinating health care providers helps protect their health and prevent disease transmission between patients and providers and among providers and their family and friends. Particular attention has been paid to vaccination against influenza. Higher influenza vaccine rates among health care staff has been found to result in fewer influenza outbreaks in hospitals and PCHs, reduced the amount of influenza-related death and illness and reduced staff illness and absenteeism.[i]

What did we learn in 2014?

- During the 2014/15 influenza season, 68 per cent of eastern campus staff received a flu vaccine which was down slightly from the flu vaccine coverage in 2013/14 (69%) and 2012/13 (73%).
- Flu vaccination rates in Flin Flon was 28 per cent and in the Pas 39 per cent.
- Hepatitis B vaccination rates have improved from 38% to 64% from December 31, 2013 to December 31, 2014 (see Table **6.2**).

Table 6.2 Hepatitis B Vaccination Rates, Eastern Campus

	Immune	In Progress	Refused	Non-Responder	Unknown
Q4 2013	289 (38%)	64 (8%)	2 (0%)	1 (0%)	408 (53%)
Q4 2014	507 (64%)	238 (30%)	4 (1%)	3 (0%)	44 (6%)

Source: Northern Health Region, Eastern Campus Infection Control Report, October to December 2014 Report

6.5. Effectiveness

6.5.1. Hospitalization for Ambulatory Care Sensitive Conditions

DEFINITION

This indicator measures the acute care hospitalization rate for ambulatory care conditions for the population under age 75 years.

Why Is This Indicator Important?

Many hospitalizations for ambulatory care conditions can be avoided by providing ongoing care in a primary care setting, particularly for illnesses and chronic diseases and conditions. Higher hospitalization rates may indicate that access to appropriate primary care may not be available.

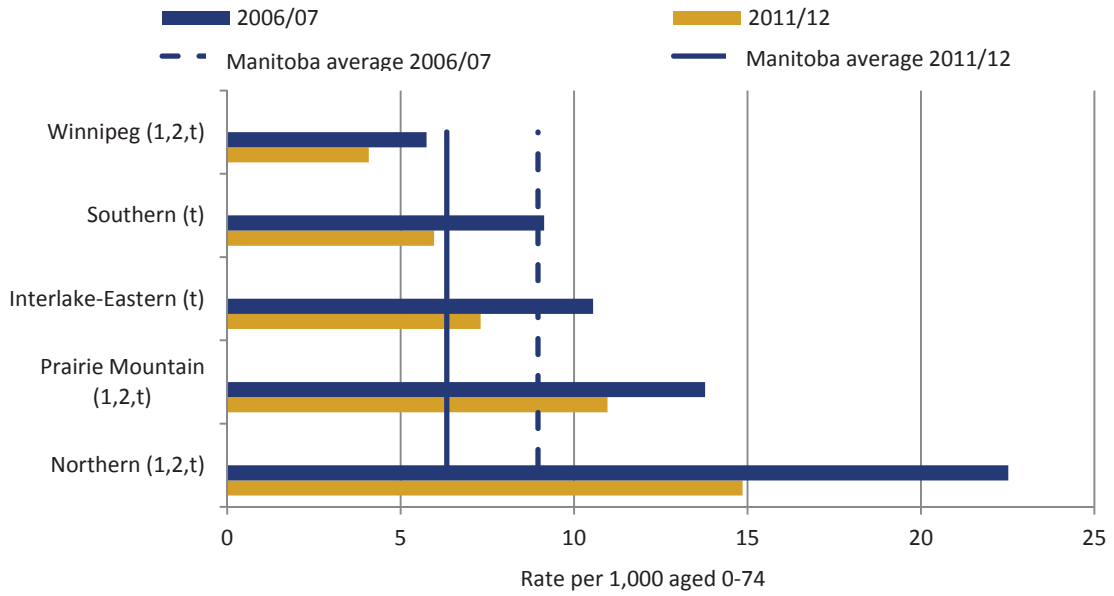
What did we learn in 2009?

- The former Burntwood Region experienced an increase in the hospitalization rate from 37.8 to 43.1 per 1,000 residents between 2000/01 and 2005/06. This was the highest rate among Manitoba RHAs.
- Rates in the former NOR-MAN Region decreases from 29.8 to 27.5 in the same time period. This was still above the provincial average of 13.5 per 1,000 population in 2005/06.

What did we learn in 2014?

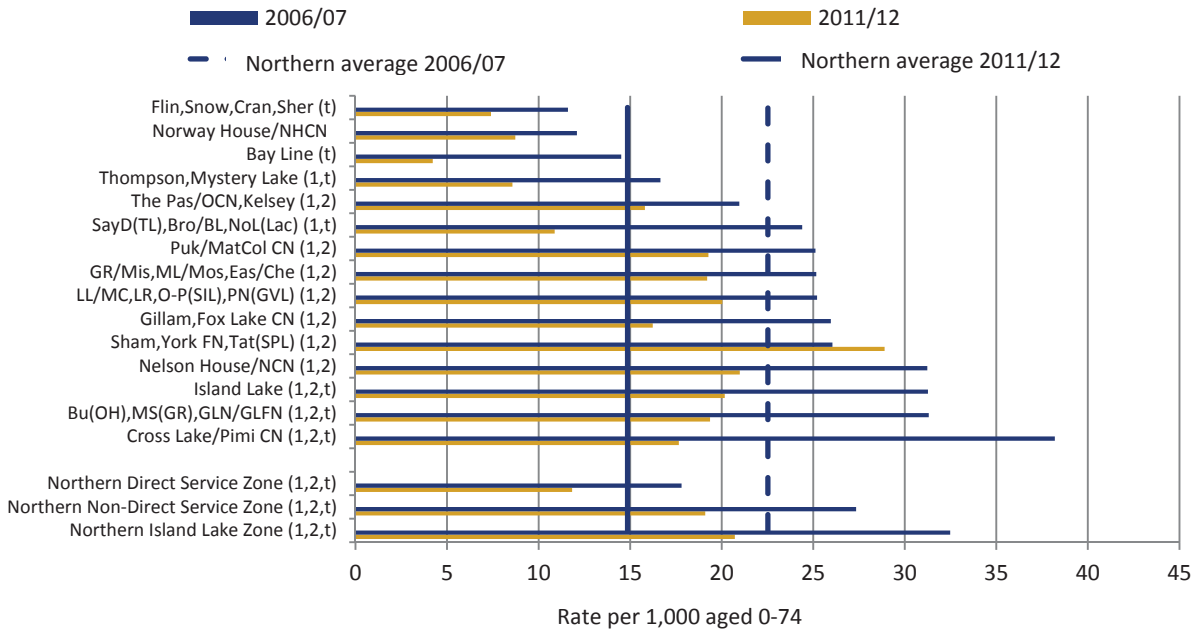
- The hospitalization rate for ambulatory care sensitive conditions declined significantly in the Northern Health Region from 22.5 cases per 1,000 population in 2006/07 to 14.9. Despite the decline, it remained statistically above the Manitoba average of 6.3 (see **Figure 6.39**).
- Each Northern Zone reported declines in hospitalization rates with the Northern Island Lake Zone experiencing a statistically significant decline between the two time periods (see **Figure 6.40**).

Figure 6.39. Ambulatory Care Sensitive Conditions by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 6.40. Ambulatory Care Sensitive Conditions by Northern District and Zone, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

6.5.2. Caesarean Section Rate

DEFINITION

This indicator measures the percentage of all births delivered by Caesarean Section.

Why Is This Indicator Important?

Unnecessary caesarean sections are associated with higher costs to the health care system and greater risk of maternal morbidity. These rates can show the quality and adherence to clinical practice guidelines as lower rates of caesarian section are associated with better care for mothers and newborns.

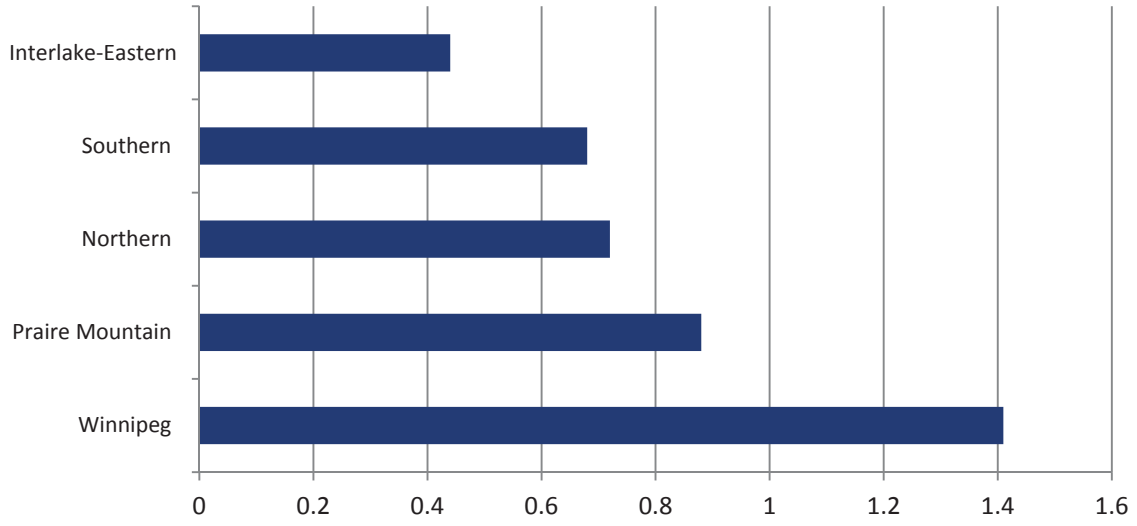
What did we learn in 2009?

- In the former Burntwood Region, there was a slight increase from 16.1 per cent in 1996/97-2000/01 to 16.9 per cent in 2000/01-2005/06. This was significantly below the Manitoba average of 19.5 per cent in the latter time period.
- The former NOR-MAN Region reported an increase from 23.6 per cent in 1996/97-2000/01 to 24.5 per cent in 2000/01-2005/06, significantly above the provincial average.

What did we learn in 2014?

- In 2012, 16.9 per cent of all births in the Northern Health region was by Caesarian Section which was lower than the Manitoba average of 21.9 per cent (see **Figure 6.41**).

Figure 6.41. Caesarian Section Rate by Region, 2012.



Source: CIHI Health Indicators Interactive Tool, http://www.cihi.ca/hirpt/search.jspa?href=http%3A//www.cihi.ca/hirpt/SearchServlet&href=http%3A//www.cihi.ca/hirpt/SearchServlet&href=http%3A//www.cihi.ca/hirpt/SearchServlet

6.5.3. Dental Extractions among Children

DEFINITION

This indicator measures the number of surgical dental extractions performed expressed as a rate of 1,000 children 0 to 5 years of age.

Why Is This Indicator Important?

This indicator is an important gauge of how well a Region does in providing ongoing access to high quality dental services for children. If children are able to have regular dental checkups, this can often prevent the need to surgically extract teeth. This indicator can also highlight socio-economic inequalities as low income families cannot afford to have regular visits to the dentist.

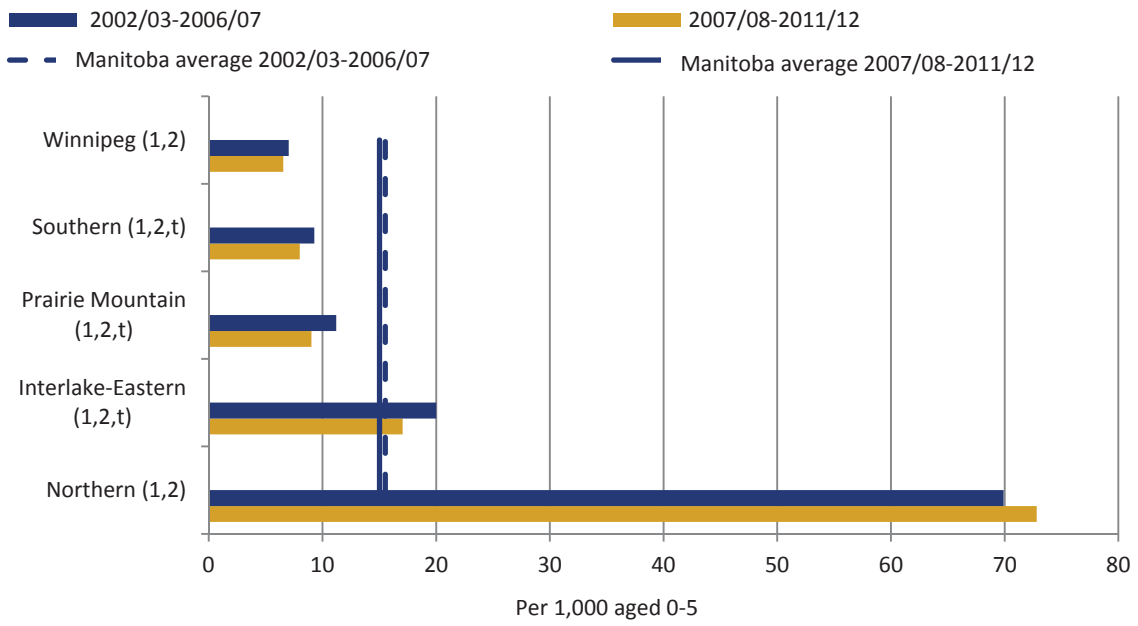
What did we learn in 2009?

- The former Burntwood Region had a dental extraction rate that increased from 75.6 extractions per 1,000 children in 2002/03-2006/07 to 78.5 in 2007/08-2011/12. It was significantly above the Manitoba average of 15.0 I 2007/08-2011/12.
- The former NOR-MAN Region also experienced an increase in rates from 55.8 to 57.2 between the two time periods which was also considered statistically over the Manitoba average.

What did we learn in 2014?

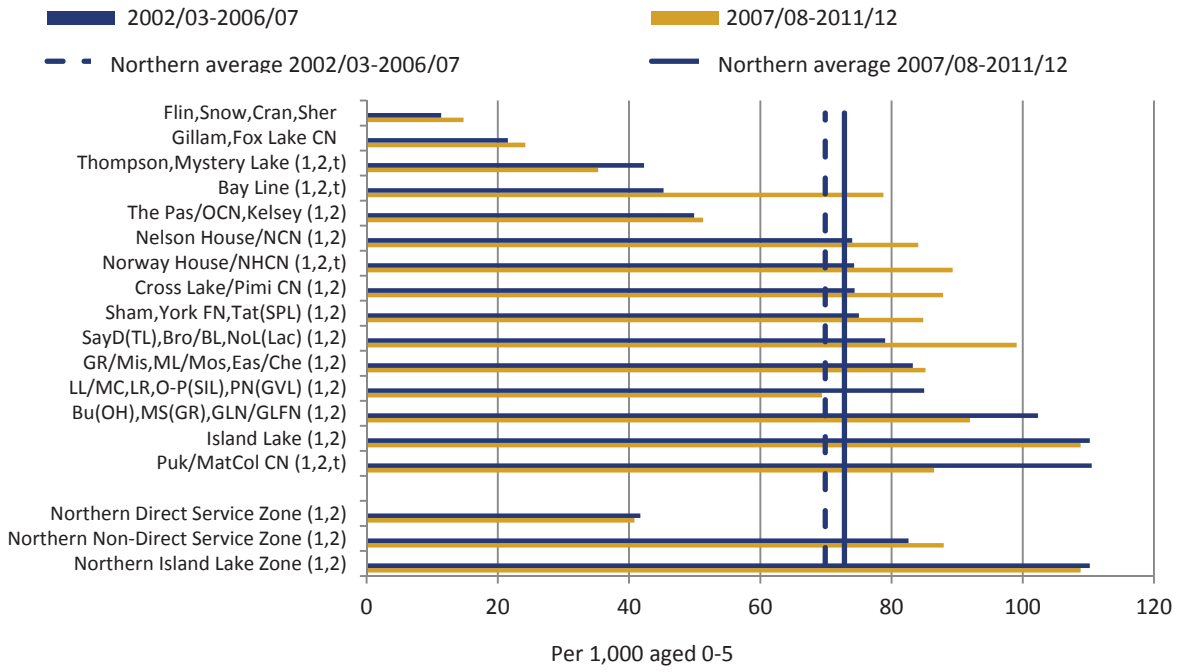
- The Northern Health Region experienced an increase in the extraction rate from 69.9 in 2002/03-2006/07 to 72.8 in 2007/08-2011/12, significantly over the Manitoba average of 15.0 (see **Figure 6.42**).
- In the Northern Health Region zones, the extraction rates were found to highest in the Northern Island Lake and Non-District zones where rates were statistically over the Northern Health Region average in both time periods (see **Figure 6.43**).

Figure 6.42. Dental Extraction Surgery Rates by RHA, 2002/03-2006/07 and 2007/08 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 6.43. Dental Extraction Rates by Northern District and Zone, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

6.5.4. Cancer Late Stage Diagnosis

DEFINITION

This indicator measures the proportion of cancer patients who were diagnosed at stage 4 of their cancer.

Why Is This Indicator Important?

Patients with late stage cancer diagnosis have poorer treatment outcomes and a lower chance of survival. The objective is to reduce the number of late stage cancer diagnoses by promoting cancer prevention strategies and the use of cancer screening programs to detect cancers early to improve treatment outcomes. CancerCare Manitoba is also working to reduce the time it takes from diagnosis to treatment as it improves the efficiency of their health delivery system through the use of patient navigators.

What did we learn in 2009?

- In 2005-2007, the proportion of cancer patients in the former NOR-MAN Region with a late stage cancer diagnosis was 29.2 per cent, the highest among Manitoba RHAs. It was significantly over the Manitoba average of 19.7 per cent.
- The former Burntwood Region had a rate of 20.6 per cent.

What did we learn in 2014?

- In 2008-2010, the late stage diagnosis rate for cancer in the Northern Health Region was 23.6 per cent, statistically over the Manitoba average of 19.5 per cent (see **Table 6.3**).
- Late stage diagnoses ranged from 14.8 per cent for prostate cancer to 43.3 per cent for lung cancer in the Region.

Table 6.3. Cancer Late Stage Diagnosis by Cancer Type.

Percent of Cancer Patients Diagnosed At Late Stage (IV)	
All Cancers	23.6%
Lung	43.0%
Colorectal	23.0%
Breast (female)	s
Prostate	14.8%

's' indicates data suppressed due to small numbers.
Source: CancerCare Manitoba, Regional Profile, 2014

6.5.5. Cancer Survival Rates

DEFINITION

This indicator measures the proportion of cancer patients who are still alive five years after diagnosis.

Why Is This Indicator Important?

Cancer survival rates are an important indicator of the burden of cancer on the health care system as well as how effective treatment and access to cancer care system is. Cancer survival data is also important for health planners to determine the level of services needed for the ongoing management of cancer as a chronic disease.

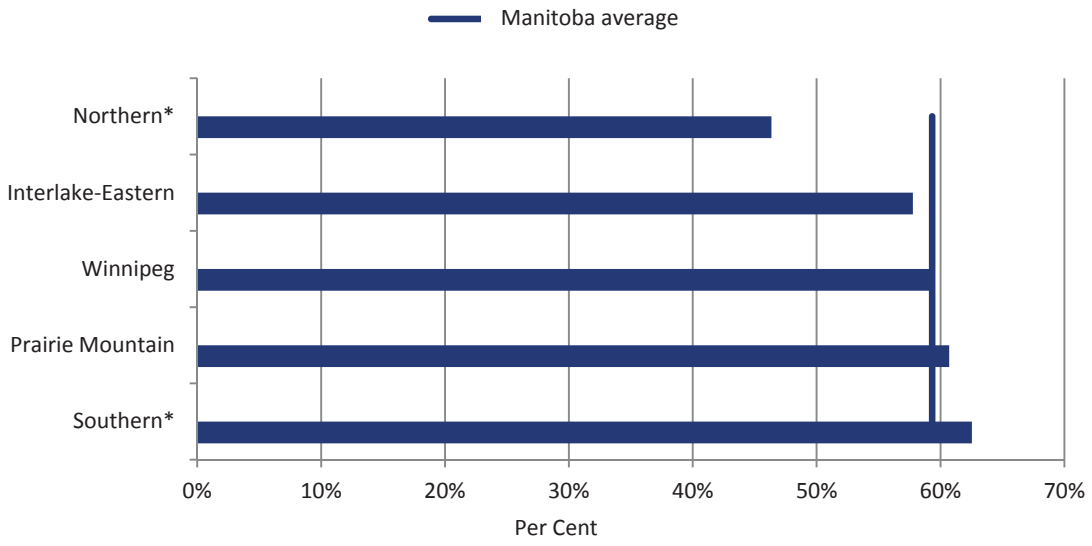
What did we learn in 2009?

- In 2000-2002, overall cancer survival rate in the former Burntwood Region was 53.7 per cent.
- The former NOR-MAN region had a 53.9 survival rate. Both Regions were below the Manitoba average of 56.4 per cent.

What did we learn in 2014?

- Cancer survival rates appear to have worsened in the Northern Health Region. In 2006-2008, the cancer survival rate overall was 46.4 per cent, significantly below the Manitoba average of 59.3 per cent (see **Figure 6.44**).

Figure 6.44. Overall Cancer Survival Rates by RHA, 2006-2008.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate ($p<0.05$).

6.5.5.1. Colorectal Cancer Survival Rates

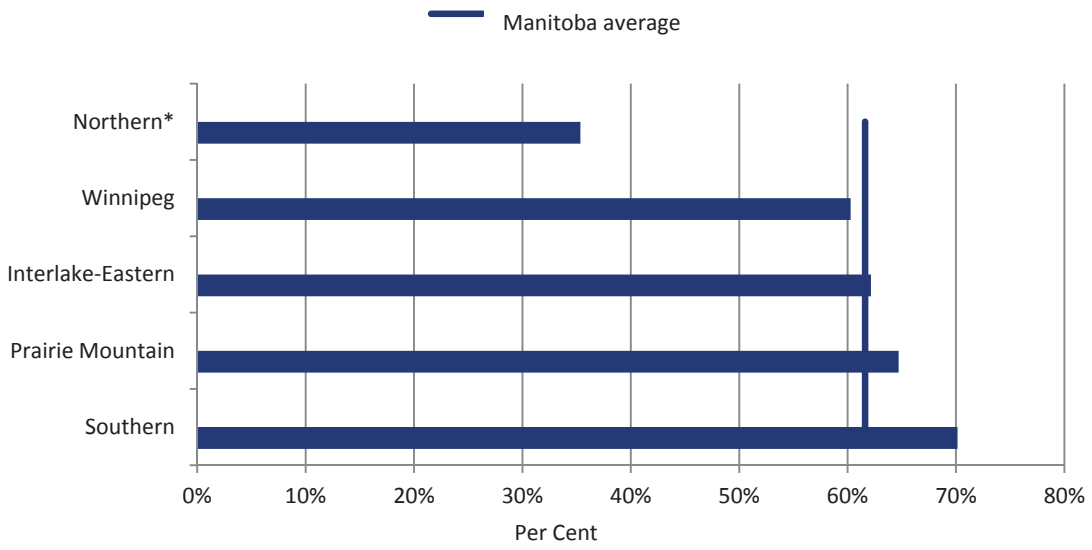
What did we learn in 2009?

- In 2000-2002, the colorectal cancer survival rate in the former Burntwood Region was 68.1 per cent respectively. The Burntwood rate was the highest among Manitoba RHAs. The Manitoba average was 56.9 per cent.
- The NOR-MAN survival rate was 55.7 per cent.

What did we learn in 2014?

- In 2006-2008, the colorectal cancer survival rate in the Northern Health Region was found to be 35.3 per cent, well below the Manitoba average of 61.6 per cent. The Northern rate needs to be treated with caution, however, as the rate is based on a low number of cases (see **Figure 6.45**).

Figure 6.45. Five Year Colorectal Cancer Survival by RHA, 2006-2008.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate ($p<0.05$).

6.5.5.2. Breast Cancer Survival Rates

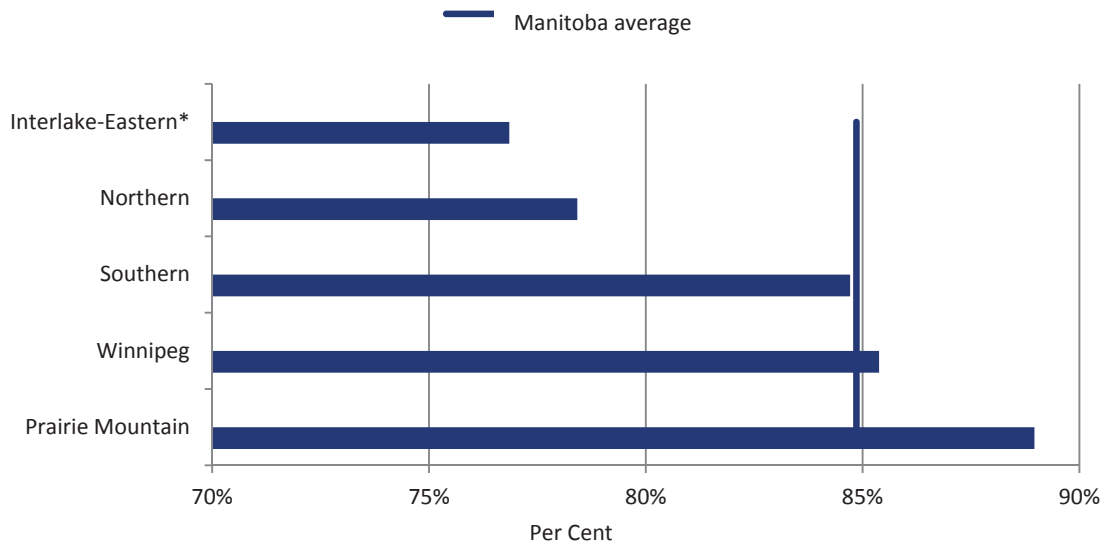
What did we learn in 2009?

- In 2000-2002, the breast cancer survival rate in the former Burntwood Region was 73.2 per cent, the lowest among Manitoba RHAs. The Manitoba average was 83.6 per cent.
- The NOR-MAN survival rate was 87.4 per cent.

What did we learn in 2014?

- In 2006-2008, the breast cancer survival rate in the Northern Health Region was found to be 78.4 per cent, below the Manitoba average of 84.9 per cent. The Northern rate needs to be treated with caution, however, as the rate is based on a low number of cases (see **Figure 6.46**).

Figure 6.46. Five Year Breast Cancer Survival by RHA, 2006-2008.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate ($p<0.05$).

6.5.5.3. Prostate Cancer Survival Rates

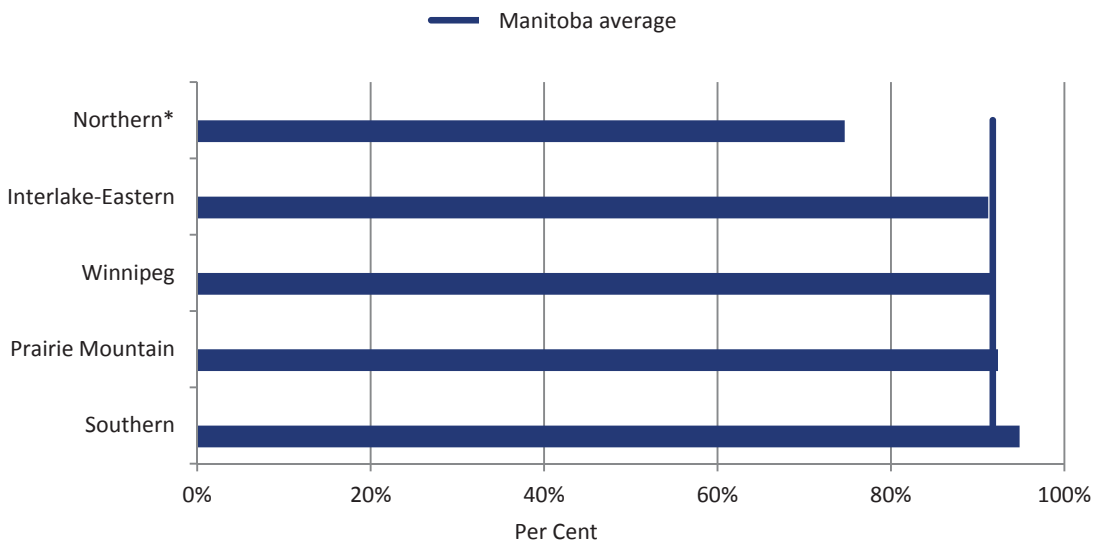
What did we learn in 2009?

- In 2000-2002, the prostate cancer survival rate in the former Burntwood Region was 69.9 per cent, the lowest among Manitoba RHAs and considered statistically different from the Manitoba average was 91.1 per cent.
- The NOR-MAN rate was 82.7 per cent.

What did we learn in 2014?

- In 2006-2008, the prostate cancer survival rate in the Northern Health Region was found to be 74.7 per cent, well below the Manitoba average of 91.7 per cent. The Northern rate needs to be treated with caution, however, as the rate is based on a low number of cases (see **Figure 6.47**).

Figure 6.47. Five Year Prostate Cancer Survival by RHA, 2006-2008.



Source: CANCERCARE MANITOBA.
NOTE: *Significantly different from Manitoba rate ($p<0.05$).

6.5.5.4. Lung Cancer Survival Rates

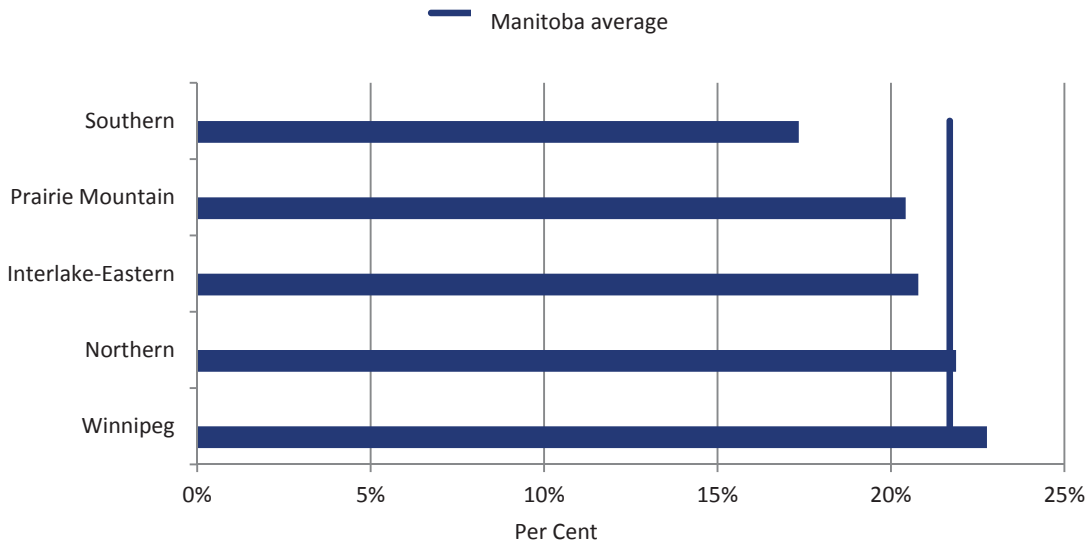
What did we learn in 2009?

- In 2000-2002, the lung cancer survival rate in the former Burntwood Region was 20.4 per cent, above the Manitoba average was 18.9 per cent.
- The former NOR-MAN Region rate was 16.4 per cent.

What did we learn in 2014?

- In 2006-2008, the lung cancer survival rate in the Northern Health Region was found to be 21.9 per cent, slightly above the Manitoba average of 21.7 per cent. (see **Figure 6.48**).

Figure 6.48. Five Year Lung Cancer Survival, by RHA, 2006-2008.



Source: CANCERCARE MANITOBA.

6.5.6. Cancer End-Of-Life Care

DEFINITION

This indicator measures the proportion of patients who die of cancer with an acute care hospital stay in the last two weeks of life.

Why Is This Indicator Important?

By tracking hospital utilization near end-of-life, health planners can ensure appropriate care options can be made available to those patients and their families for cancer patients during the terminal phase of their disease. It can also gauge the success of efforts to provide palliative care options for cancer patients that avoid end of life hospitalizations.

What did we learn in 2009?

- In the former NOR-MAN region, 73.4 per cent of its cancer patients had acute care stays in the last two weeks of their life. In the former Burntwood region, the figure was 70.1 per cent. Both regions were below the Manitoba average of 77.5 per cent.

What did we learn in 2014?

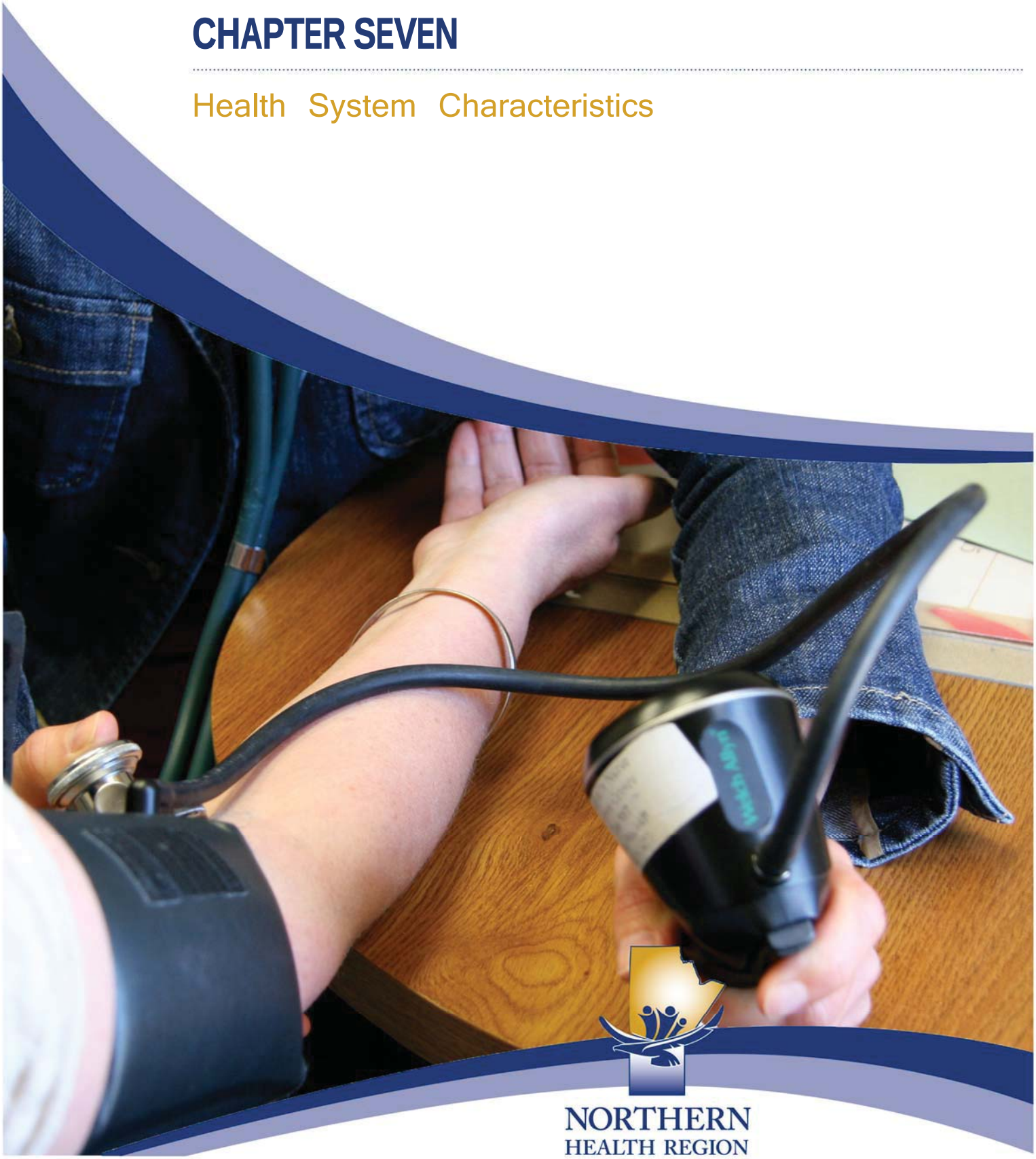
- In the Northern Health Region, 76.7 per cent of cancer patients who died had an acute care stay in the last two weeks of their life in 2008-2010 which was slightly below the Manitoba average of 78.4 per cent.

References

[i] Simcoe Muskoka District Health Unit, **The Influenza Immunization Challenge, (Barrie:2012).** http://www.simcoemuskokahealth.org/Libraries/JFY_Health_Care_Professionals/IIC_Report_For_External_Partners_Apr_2013.sflb.ashx

CHAPTER SEVEN

Health System Characteristics



NORTHERN
HEALTH REGION

7.0 Health System Characteristics

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Chapter 7 Health System Characteristics

Previous chapters have looked at geography, social structure, determinants of health, health status and, in the last chapter, accessibility of the Northern Health Region and its residents. This chapter looks further into how the health care system is used by residents in the Northern Health Region, across the health care continuum from primary care, hospital care, diagnostics, surgeries, home care and long term care. These select indicators provide additional information about how accessible the health care is and how it is changing over time. It can also provide information on how well the system is working together. If, for example, we are looking for residents to utilize primary care and home care resources, it would be ideal if demand would ease for more costly services offered in hospitals and in long term care facilities. Reduction in hospital and long term care can also be an indicator that the population is getting healthier. This chapter can also help to pinpoint those parts of region's health care system that require more resources or more targeted use of existing resources.

7.1. Key Findings

- Just over three-quarters (75.1%) of residents reported that they have had at least one physician visit over a twelve month time period, slightly below the Manitoba average of 79.8 per cent.
- Endocrine and metabolic diseases (thyroid diseases, diabetes, and osteoporosis are included in this category) was the leading reason for physician visits in the region while the proportion of visits due to injury and poisoning and respiratory conditions declined over time.
- Hospital separation rates declined significantly in the region from 183.3 per 1,000 population in 2006/07 to 154.8 in 2011/12, a statistically significant decrease. It still remained statistically above the Manitoba average of 87.9 but the trend is in a positive direction.
- There has been a slight decline in long term hospital stays with a more significant decline for short hospital stays over time.
- In 2011/12, pregnancy and child birth continue to be the leading cause of hospitalization at 24 per cent, followed by health services and contact (see Chapter 2 for a description of the disease classification system for help with interpretation). As with physician visits, there was a smaller proportion of patients being hospitalized for injury and poisonings and more patients coming in for screening test and immunizations.
- Hospital readmission rates declined from 12.2 per cent to 10.9 per cent between 2006/07 and 2011/12, a statistically significant decline. In spite of this positive news, the region remained statistically above the Manitoba average of 8.5 per cent.
- Rates for key procedures such as CT scans, MRIs, hip and knee replacements and cardiac procedures (cardiac catheterizations, PCI) increased over the time period studied. This may be the result of increased availability of these services and it may also be a reflection of increased morbidity in the region.
- Given the increase in cardiac procedures, it is not surprising to find that 10 per cent of all Northern Health Region staff survey respondents felt cardiac and heart conditions were the third most serious health issue facing the region after mental health and diabetes.
- The proportion of seniors aged 75 years and older who were admitted to a Personal Care Home (PCH) remained relatively stable at 13.4 per cent in 2005/06-2006/07 and 13.6 per cent in 2010/11-2011/12, above the provincial average of 11.9 per cent. All other RHAs experienced a statistically significant decline in admission rates between the two time periods.
- In 2010/11-2011/12, 71.2 per cent of PCH admissions in the region were at a level 3 or 4 care of admission, compared to 69.6 per cent for Manitoba as a whole. The Northern Health Region had the highest percentage of residents admitted at level 4.
- There was a statistically significant increase in wait times for PCH admission from 2.9 weeks to 8.7 weeks, above the Manitoba average of 5.1 weeks
- The personal care home bed supply rate increased from to 195.5 beds per 1,000 residents aged 75 and over, almost double the Manitoba average of 114.1.

7.2. Physician Utilization

7.2.1. Physician Visits

DEFINITION

This indicator measures the proportion of residents who have had at least one ambulatory visit in a given year.

Why Is This Indicator Important?

It is important to know how broad access is to residents for both general practitioners and specialist services. It can also be an important gauge of equity of access and general attitudes of residents to the importance of physician visits to maintain good health status.

What did we learn in 2009?

- The proportion of residents in the former Burntwood region 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.
- The former NOR-MAN region experienced a slight decrease in physician rates from 79.8 per cent of residents who had at least one ambulatory visit in a year in 2000/01 to 77.8 per cent in 2005/06.

What did we learn in 2014?

- According to results from the Canadian Community Health Survey in 2011/12, 75.1 per cent of Northern Health region residents saw a physician at least in a year which was below the Manitoba average of 79.8 per cent. However, the difference was not statistically significant.

7.2.2. Physician Visits by Leading 10 Causes

DEFINITION

This indicator measures the average annual number of ambulatory visits to all physicians by category of illness, ranking the causes by relative frequency of visits.

Why Is This Indicator Important?

This indicator tells us what illnesses and conditions are generating the most frequent ambulatory visits to physicians are in a region.

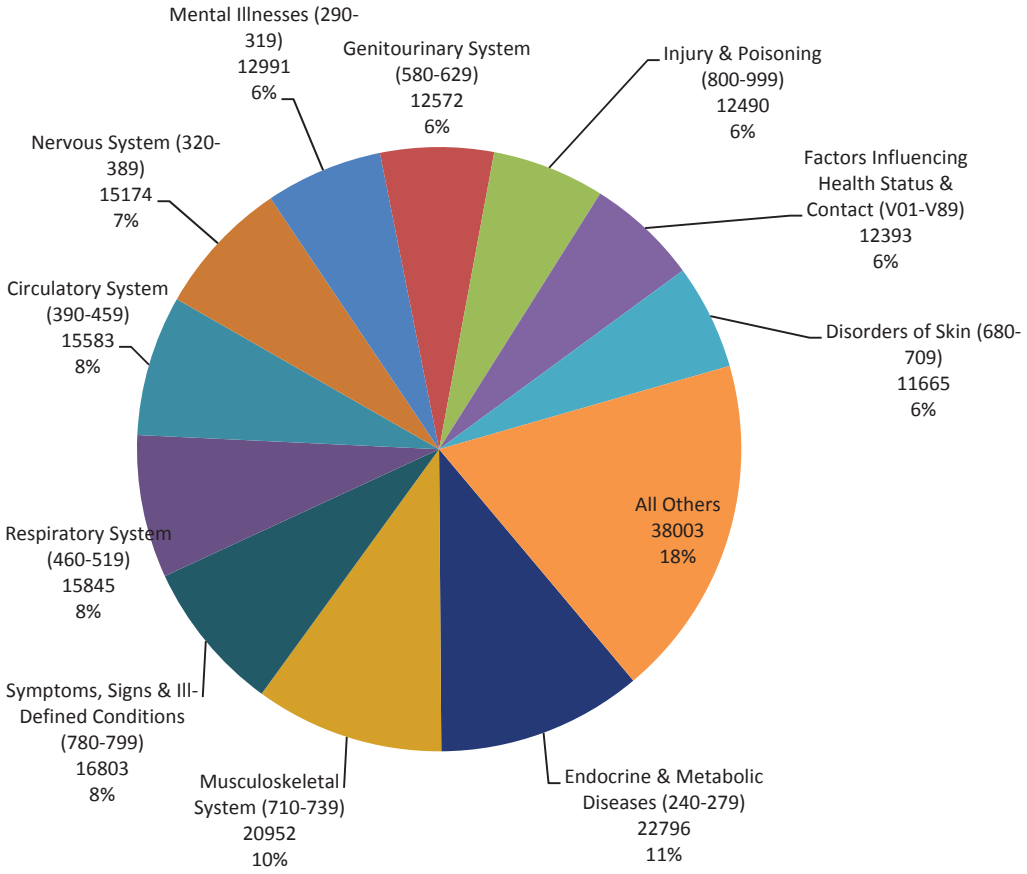
What did we learn in 2009?

- In 2005/06, the leading reasons for visits to physicians in the North (the former Burntwood, NORMAN and Churchill RHAs were included) were for respiratory diseases followed by injury and poisoning. These two reasons combined account for more than one in five physician visits. Injury and poisoning physician visits were found to be a smaller proportion of physician visits in Manitoba overall.

What did we learn in 2014?

- In 2011/12, endocrine and metabolic diseases (thyroid diseases, diabetes, and osteoporosis are included in this category) was the leading reason for physician visits in the Northern Health Region at 11 per cent while the musculoskeletal system was number two at 10 per cent of all visits. The proportion of visits due to injury and poisoning and respiratory conditions declined from 2005/06 (see **Figure 7.1**).

Figure 7.1. Top 10 Physician Visits by Cause, 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

7.3. Hospital Utilization

7.3.1. Total Hospital Separation Rates

DEFINITION

This indicator measures the rate of hospitalizations per 1,000 area residents, counting cases for which a hospital abstract is created (all inpatient cases plus day surgery cases). Multiple admissions of the same person are counted as separate events.

Why Is This Indicator Important?

Hospital separation rates are important indicators to track to determine how accessible hospital beds are and how quickly the hospital is in moving patients through the health care system. Separation rates can also indicate the severity of the health conditions residents have, particularly if they are longer stays.

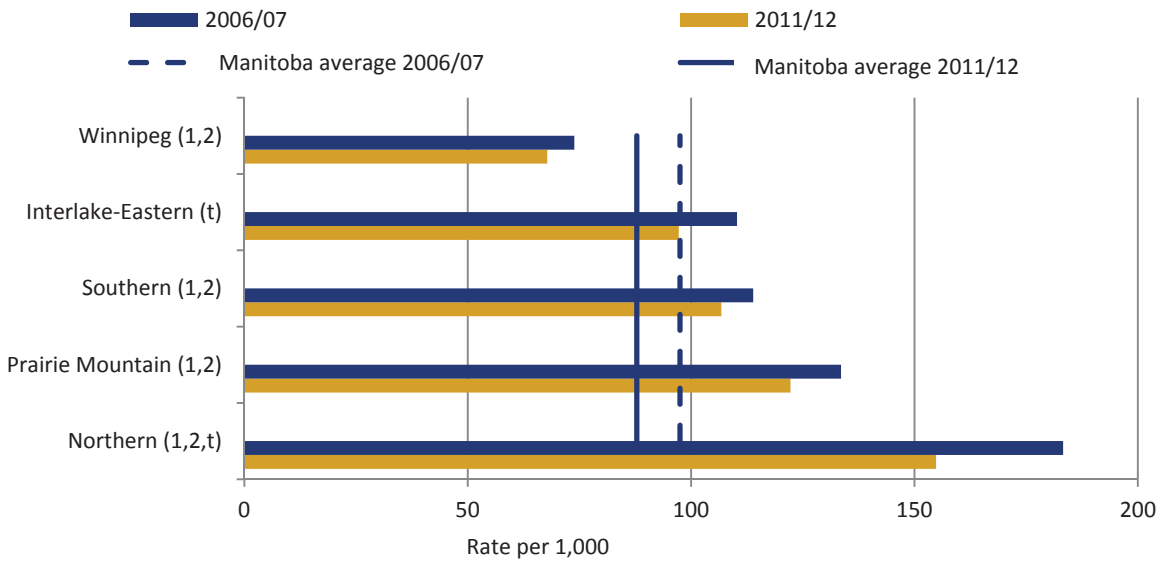
What did we learn in 2009?

- The former Burntwood region experienced an increase in its hospital separation rate from 277.5 per 1,000 area residents in 2000/01 to 315.6 in 2005/06. It was significantly higher than the Manitoba average in 2005/06 of 136.7 per 1,000 area residents.
- The former NOR-MAN region decreased their total hospital separation rates from 221.2 to 201.5 between the two time periods.

What did we learn in 2014?

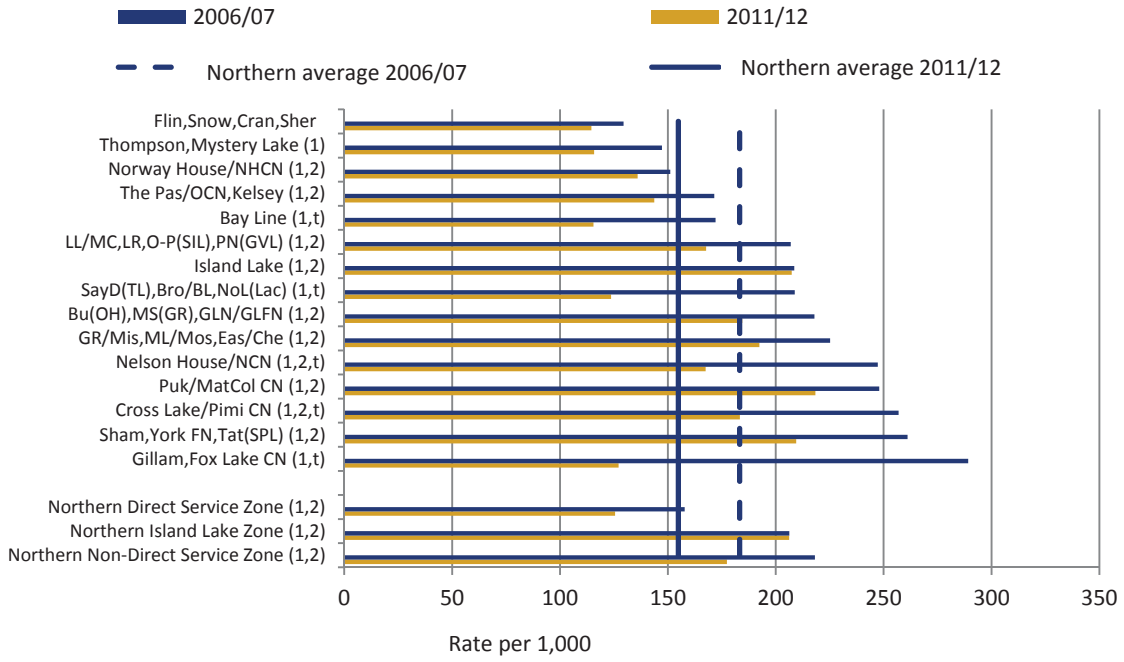
- Hospital separation rates declined in the Northern Health Region from 183.3 per 1,000 population in 2006/07 to 154.8 in 2011/12, a statistically significant decrease. The Northern rate remains statistically above the Manitoba average of 87.9 in 2011/12 (see **Figure 7.2**).
- Among Northern districts and zones, statistically significant declines in separation rates were experienced in the Gillam, Bay Line, and Cross Lake districts between the two time periods. The Northern Island Lake zone had the highest separation rates in the Northern Health Region (see **Figure 7.3**).

Figure 7.2. Hospital Separation rates by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 7.3. Hospital Separation rates by Northern District and Zone, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

7.3.2. Hospital Separation Rates For Short and Long Stays

DEFINITION

The short stay indicator measures the hospital separations for short stays (defined as hospital stays of between 1 to 14 days) expressed as a rate per 1,000 area residents in a fiscal year. Long stays measures hospital stays that are 30 days or longer.

Why Is This Indicator Important?

Reducing both short term and long term stays can be indicators of improved health status in the population as well as improved processes in hospitals to treat and discharge patients to more appropriate settings in the community.

What did we learn in 2009?

- For short stays, the former Burntwood region experienced an increase from 735.3 short stays per 1,000 residents in 2000/01 to 780.1 per 1,000 in 2005/06. It was significantly higher than the Manitoba average of 321.6 per 1,000 residents in 2005/06. The NOR-MAN rate in both time periods (615.5/1,000 in 2000/01 and 537.7/1.000 in 2005/06) were statistically higher than the provincial rates.

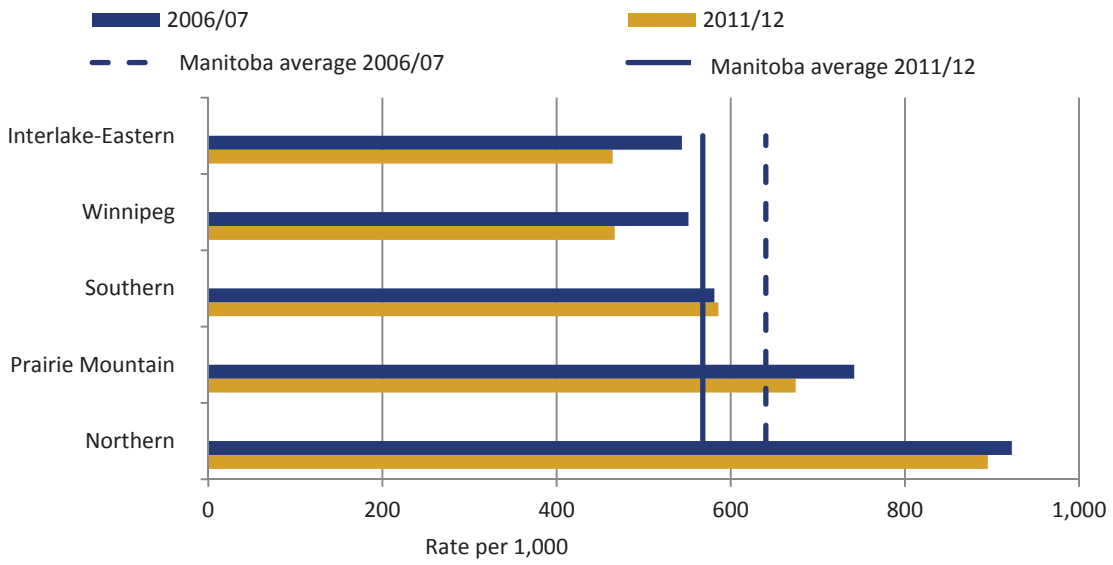
- For long stays, the former Burntwood region experienced an increase from 706.3 days per 1,000 residents in 2000/01 to 1076.7 in 2005/06. The rate remains significantly higher than the Manitoba average of 608.3 per 1,000 residents in 2005/06. The former NOR-MAN region had a decline in long term rates starting at 1003.2 days 1,000 residents to 659.5 days. It still remained statistically higher than the provincial average.

What did we learn in 2014?

- The Northern Health Region had a slight decline in long term hospital stays from 922.8 days per 1,000 population in 2006/07 to 895.3 days in 2011/12 (see **Figure 7.4**). As **Figure 7.5** shows, among the Northern districts and zones, declines were experienced in each zone over the two time periods with the Pas and Gillam districts recording statistically significant declines.

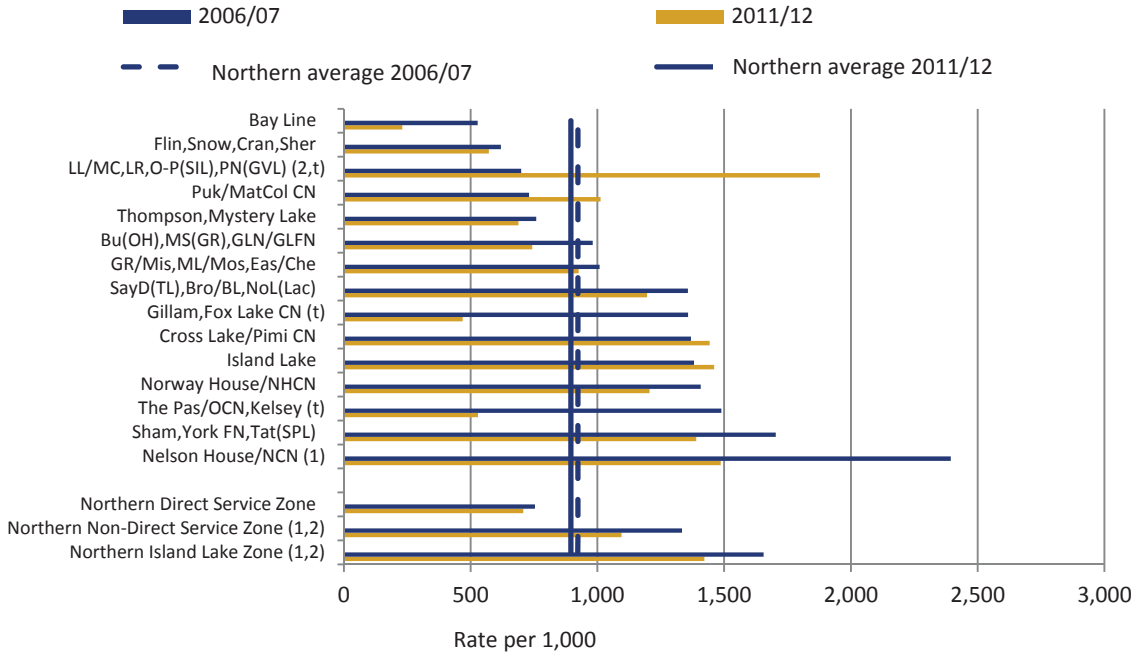
- For short hospital stays, the Northern health region also experienced a decline from 569.0 days per 1,000 population in 2006.07 to 426.4 days in 2011/12, a statistically significant decline. It still remained statistically above the Manitoba average of 247.4 days in 2011/12 (see **Figure 7.6**). All Northern zones experienced a decline in short term hospital stays over the two time periods. Island Lake district remained statistically above the Manitoba average for both time periods (see **Figure 7.7**).

Figure 7.4. Hospital Day rates for long stays by RHA, 2006/07 and 2011/12.



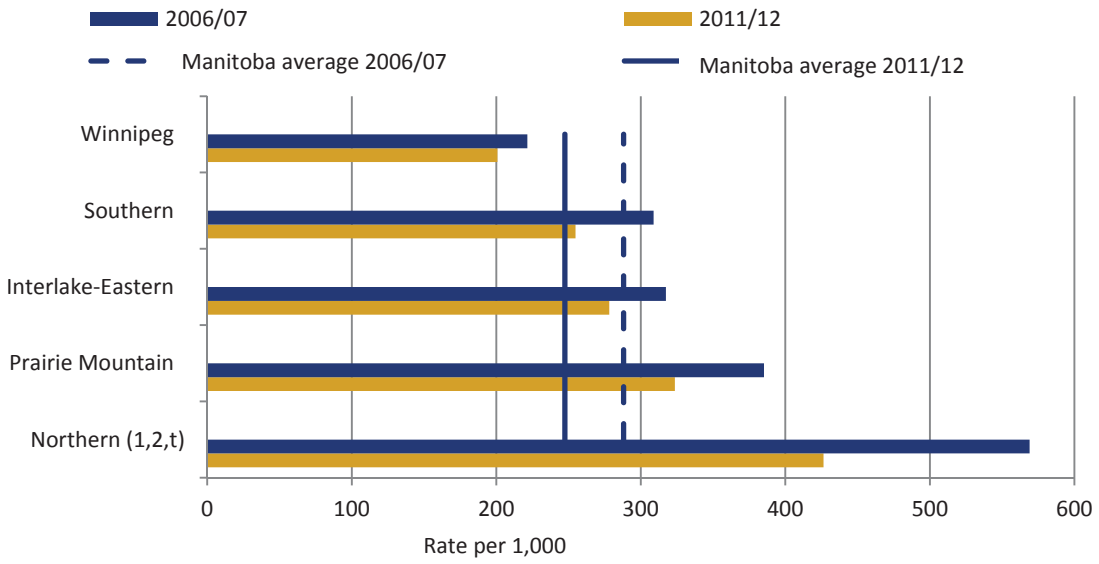
Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area

Figure 7.5. Hospital Day Rates for long term stays by Northern District and Zone, 2006/07 and 2011/12.



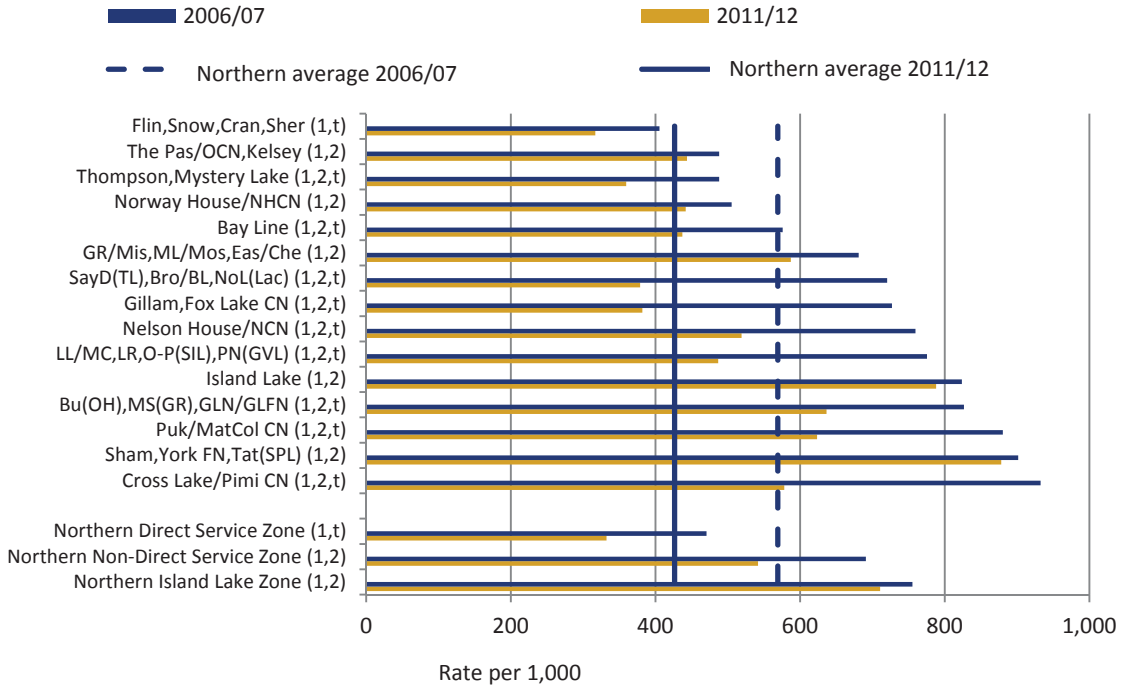
Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
't' indicates change over time was statistically significant for that area

Figure 7.6. Hospital Day rate for short stays by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 7.7. Hospital Day Rates for short stays by Northern District and Zone, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

7.3.3. Causes of Hospitalization

DEFINITION

This indicator breaks down hospitalization by cause, examining the top 10 causes of hospitalization over a fiscal year.

Why Is This Indicator Important?

This data can shows us how the causes of hospitalization have changed over time and can be a good gauge of how well the health care system is doing to avoid hospitalizations for conditions that can be treated in an outpatient setting. It can also provide important information about the health status of regional residents.

What did we learn in 2009?

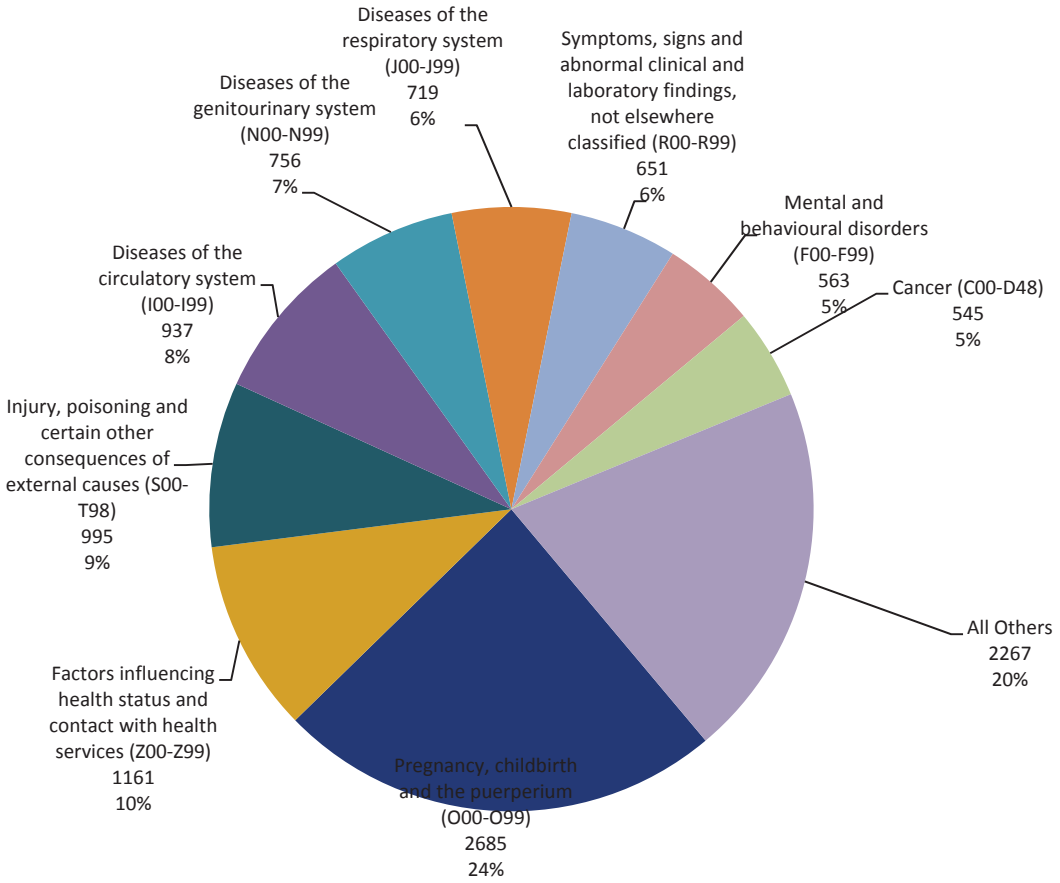
- For the North (including the former regions of Burntwood, NOR-MAN and Churchill), the top causes of hospitalization in 2005/06 were pregnancy and birth (22.7%), Injury and Poisoning (13.5%), Digestive (10.0%), Respiratory (10.0%) and Circulatory (7.5%). The most notable difference with the Manitoba averages was that there was a higher proportion of people hospitalized for injury and poisoning in the north compared to Manitoba overall (9.1% of hospitalizations provincially).

What did we learn in 2014?

- In 2011/12, pregnancy and child birth continue to be the top cause of hospitalization at 24 per cent, followed by health services and contact (for immunizations, screening tests, etc.) at 10 per cent, injury and poisoning at 9 per cent and circulatory diseases at 8 per cent (see **Figure 7.8**).

- Compared to 2005/06, there was a smaller proportion of patients being hospitalized for injury and poisonings and more patients coming in for screening test and immunizations.

Figure 7.8. Top 10 Hospitalizations by cause, 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

7.3.4. Hospital Readmission Rate

DEFINITION

This indicator measures the proportion of patients who have an unplanned, inpatient readmission to an acute care facility within 30 days after being discharged from the hospital.

Why Is This Indicator Important?

Unplanned readmissions data can be important gauge of how effective hospital care is in a given region as well as how sick residents are who require readmission.

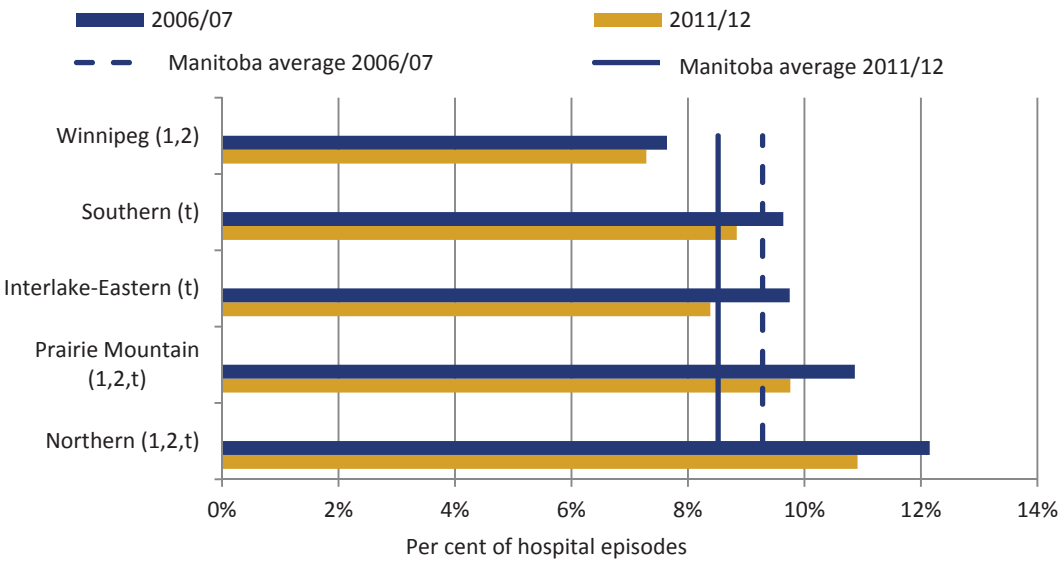
What did we learn in 2014?

- The Northern Health Region experienced a decline in the readmission rate from 12.2 per cent of patients being readmitted in 2006/07 to 10.9 per cent in 2011/12, a statistically significant decline. The region remained statistically above the Manitoba average of 8.5 per cent (see **Figure 7.9**).
- Each Northern zone experienced a decline in readmission with the Northern Island Lake zone undergoing a statistically significant decrease from 12.5 to 8.9 per cent. Statistically significant declines were recorded in the Pas and Island Lake districts (see **Figure 7.10**).

WHAT ARE WE DOING?

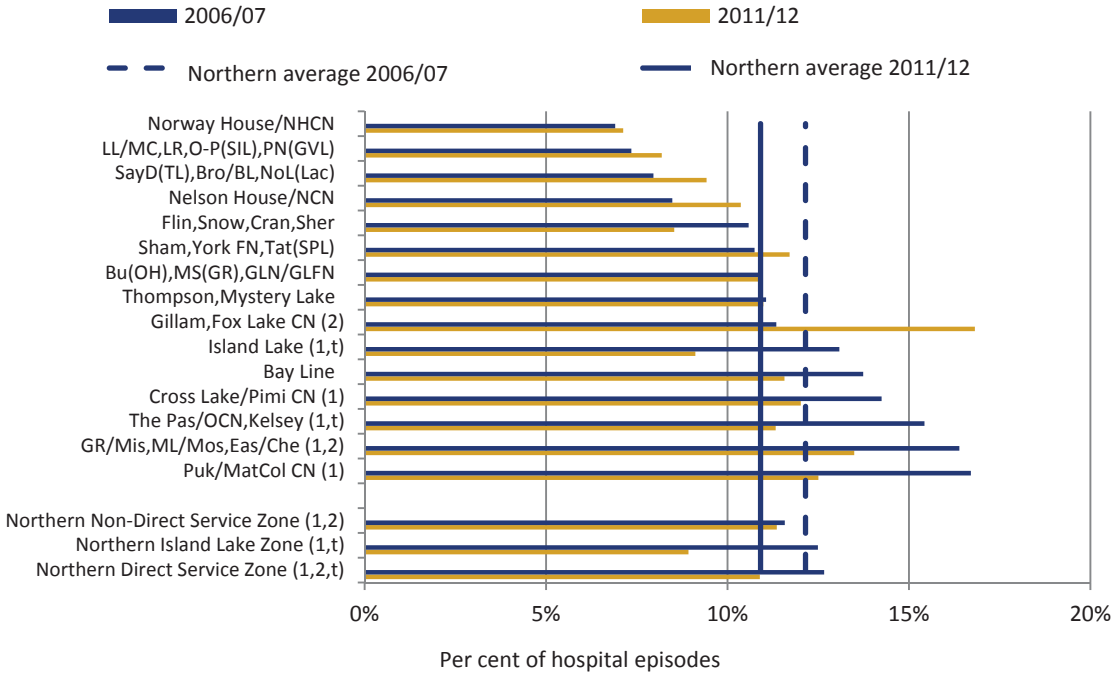
Process in place to book follow up with primary care provider when follow up needed to enhance continuity and decrease readmission rates

Figure 7.9. Proportion of Hospital Episodes with Readmission by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 7.10. Proportion of Hospital Episodes with Readmission by Northern District and Zone, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

7.4. High Profile Procedures

7.4.1. Computed Tomography (CT) Scans

DEFINITION

This indicator measures the number of computed tomography (CT) scans, expressed as a rate per 1,000 residents.

Why Is This Indicator Important?

This indicator provides information about the level of availability for CT scans, an important diagnostic tool. Being able to diagnosis conditions and illnesses tells us whether or not there has been an increase in illnesses and suspected illnesses that require the use of CT scans.

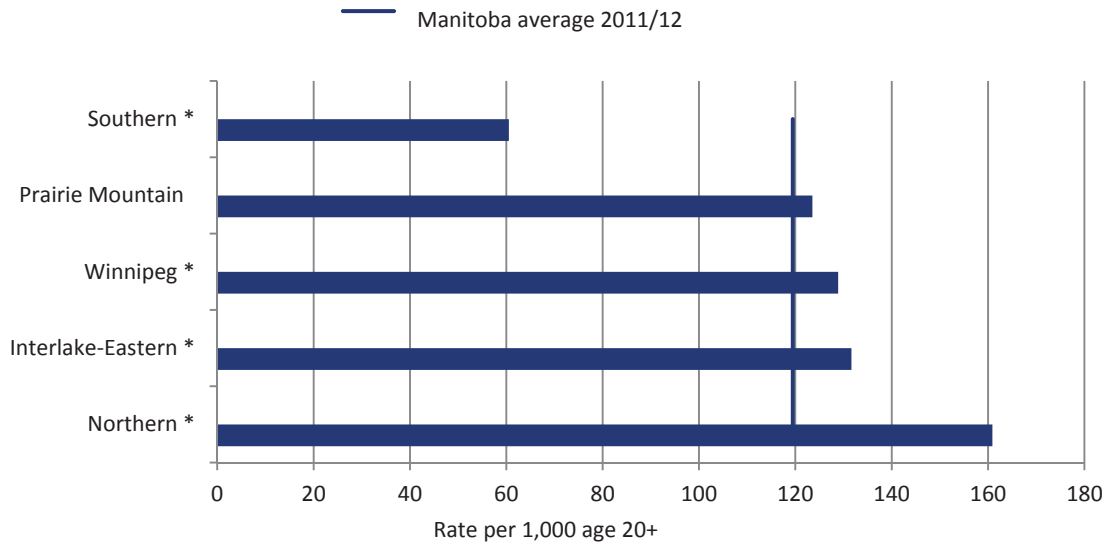
What did we learn in 2009?

- The CT scan rate for the former Burntwood region increased from 43.3 scans per 1,000 residents to 94.8 between 1998/99-2000/01 and 2003/04-2005/06, a statistically significant increase. It was highest CT scan rate among Manitoba RHAs, significantly higher than the Manitoba average of 66.1 per 1,000 in 2003/04-2005/06.

What did we learn in 2014?

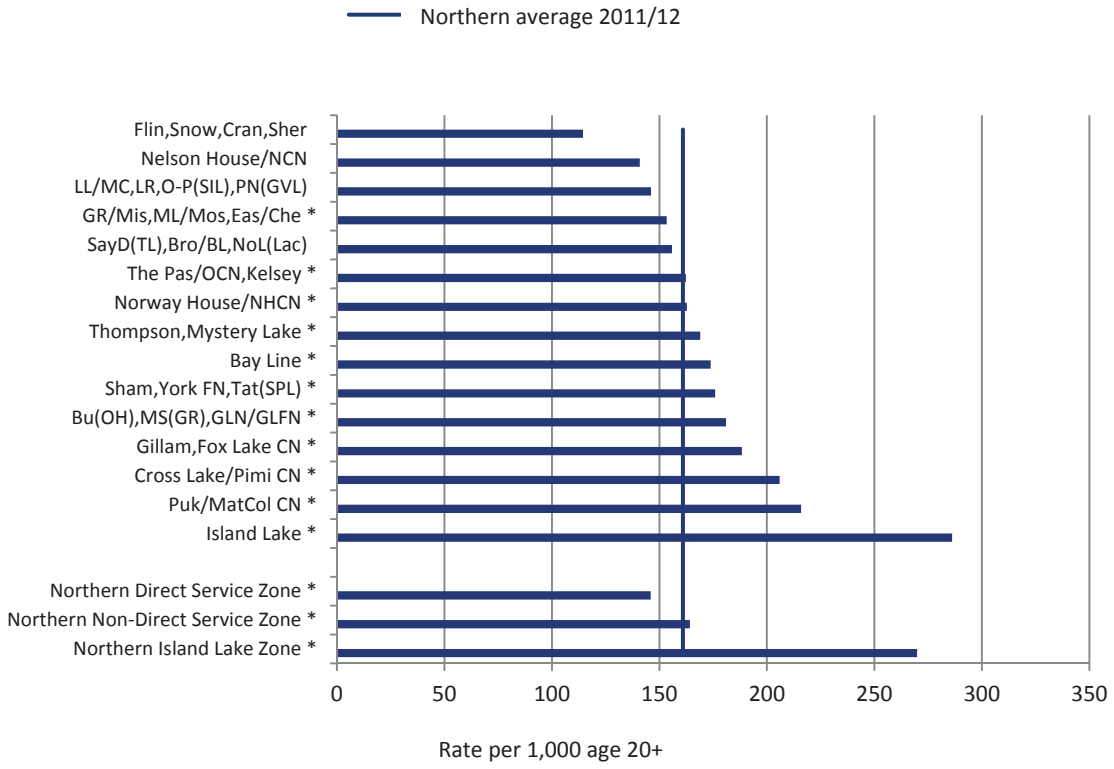
- In 2011/12, the CT scan rate was 160.9 scans per 1,000 population over the age of 20. This rate was statistically over the Manitoba average of 119.5 (see **Figure 7.11**).
- With respect to Northern zones and districts, the Northern Island Lake zone had the highest CT scan rate at 269.8 scans per 1,000. Most of Northern districts were found to have statistically higher CT scan rates compared to the Manitoba average (see **Figure 7.12**).

Figure 7.11. CT Scan rate by RHA, 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average.

Figure 7.12. CT Scan rate by Northern District and Zone, 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.
NOTE: '*' indicates area's rate was statistically different from Manitoba average

7.4.2. Magnetic Resonance Imaging (MRI) Scans

DEFINITION

This indicator measures the Rate for magnetic resonance imaging (MRI) scans per 1,000 residents by area of residence.

Why Is This Indicator Important?

The use of MRI scans for diagnosis can tells us whether or not there has been an increase in illnesses and suspected illnesses.

What did we learn in 2009?

- MRI scan rates for the former Burntwood Region 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, the rate remained significantly lower than the provincial rate of 22.0 per 1,000 residents in 2003/04-2005/06.

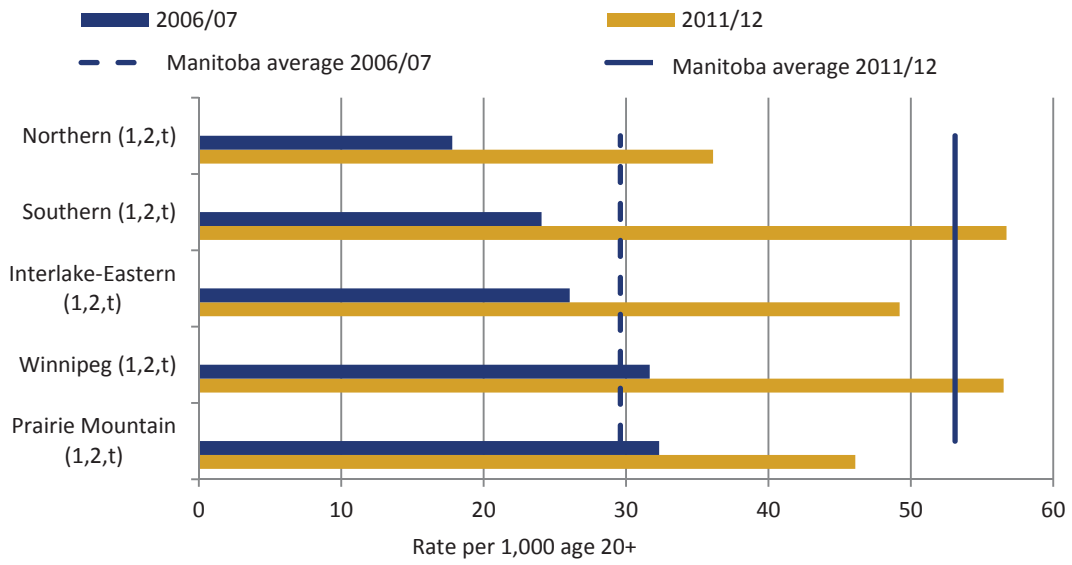
- The former NOR-MAN region also had a statistically significant increase in MRI scan from 7.5 to 13.2 scans per 1,000 population over the two time periods. It was also statistically below the Manitoba average.

What did we learn in 2014?

- MRI rates increased significantly from 17.8 scans per 1,000 population to 36.1 scans in 2011/12. As **Figure 7.13** shows, each RHA experienced a statistically significant increase with the introduction of more MRI machines in the province over the period studied.

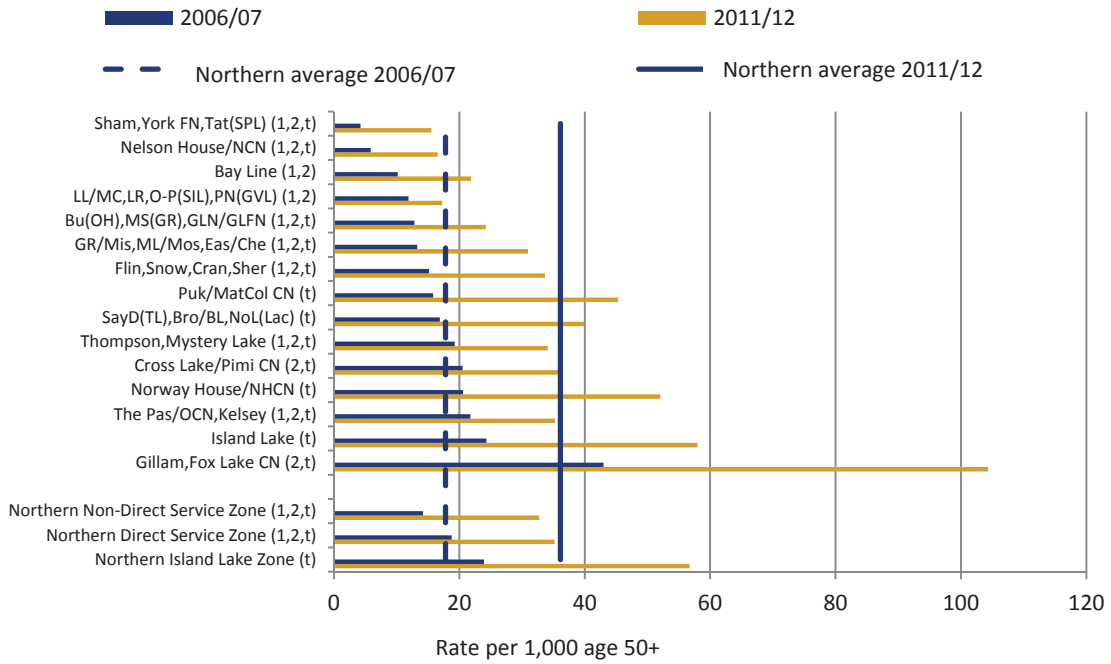
- The Northern Health Region continues to have the lowest MRI rate among Manitoba RHAs. The Northern Island Lake zone was the only zone to have statistically significant increase in MRI rates over the two time periods (see **Figure 7.14**).

Figure 7.13. MRI Rates by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 7.14. MRI Rate by Northern District and Zone, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

7.4.3. Cataract Scans

DEFINITION

This indicator measures the number of cataract surgeries, expressed as a rate per 1,000 residents aged 50 years or older.

Why Is This Indicator Important?

In cataract surgery, the lens of the eye is replaced with an artificial one. It is a common procedure used to improve vision. It is important to continue monitor surgery rates to ensure timely access to this procedure.

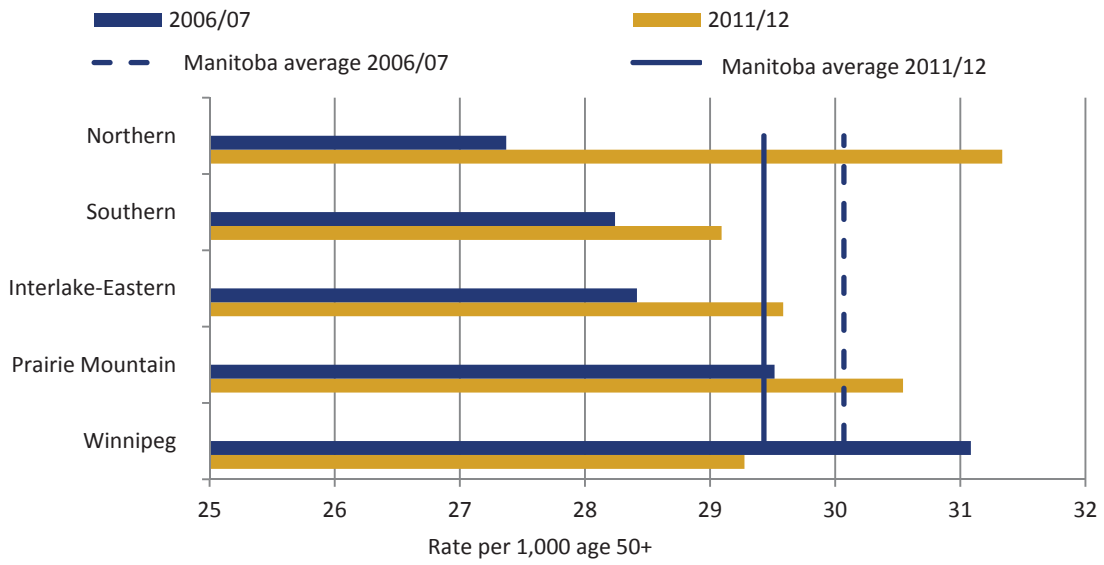
What did we learn in 2009?

- In the former Burntwood Region, rates decreased slightly from 24.7 per 1,000 residents over fifty years in 1998/99-2000/01 to 23.0 in 2003/04-2005/06. This rate was slightly lower than the provincial average of 26.9 in 2003/04-2005/06.
- The former NOR-MAN Region reported increased rates, from 22.2 to 26.4 over the two time periods.

What did we learn in 2014?

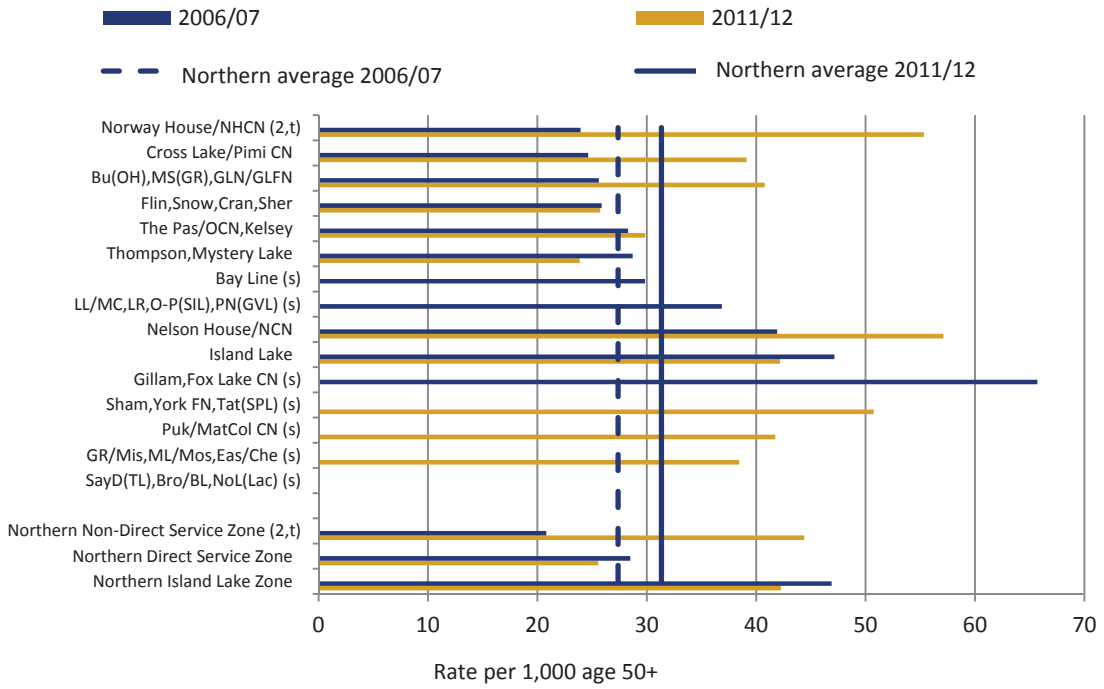
- The Northern Health Region experienced an increase in cataract surgery rates from 27.4 surgeries per 1,000 residents fifty years and older in 2006/07 to 31.3 in 2011/12. It was the highest surgery rate among Manitoba RHAs though the difference in rates from the Manitoba average (29.4) was not considered statistically significant (see **Figure 7.15**).
- Two of the three Northern zones experienced slight declines in surgery rates while rates more than doubled in the Northern non-Direct Service zone from 20.8 to 44.3 scans per 1,000 residents, a statistically significant increase (see **Figure 7.16**).

Figure 7.15. Cataract Surgery rates by RHA, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 7.16. Cataract Surgery rates by Northern District and Zone, 2006/07 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

7.4.4. Hip Replacement Surgery

DEFINITION

This indicator measures the number of hip replacement surgeries, expressed as rate of 1,000 residents aged 40 years or older.

Why Is This Indicator Important?

Hip replacements surgery rates is primarily for older residents so it can provide key information about how well seniors in a region are living active, healthy lives free of disability.

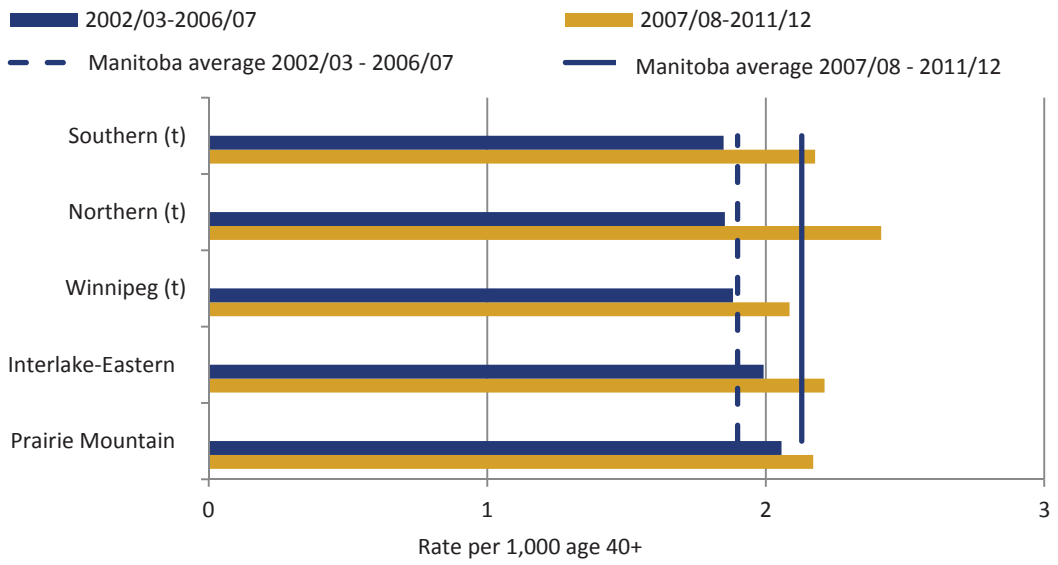
What did we learn in 2009?

- In the former Burntwood Region, there was a statistically insignificant increase from 2.0 hip replacements per 1,000 in 1996/97-2000/01 to 2.4 in 2001/02-2005/06. This was slightly higher than the Manitoba rate of 2.2 in the latter period.
- The former NOR-MAN Region increased from 1.5 per 1,000 in 1996/97-2000/01 to 1.9 in 2001/02-2005/06.

What did we learn in 2014?

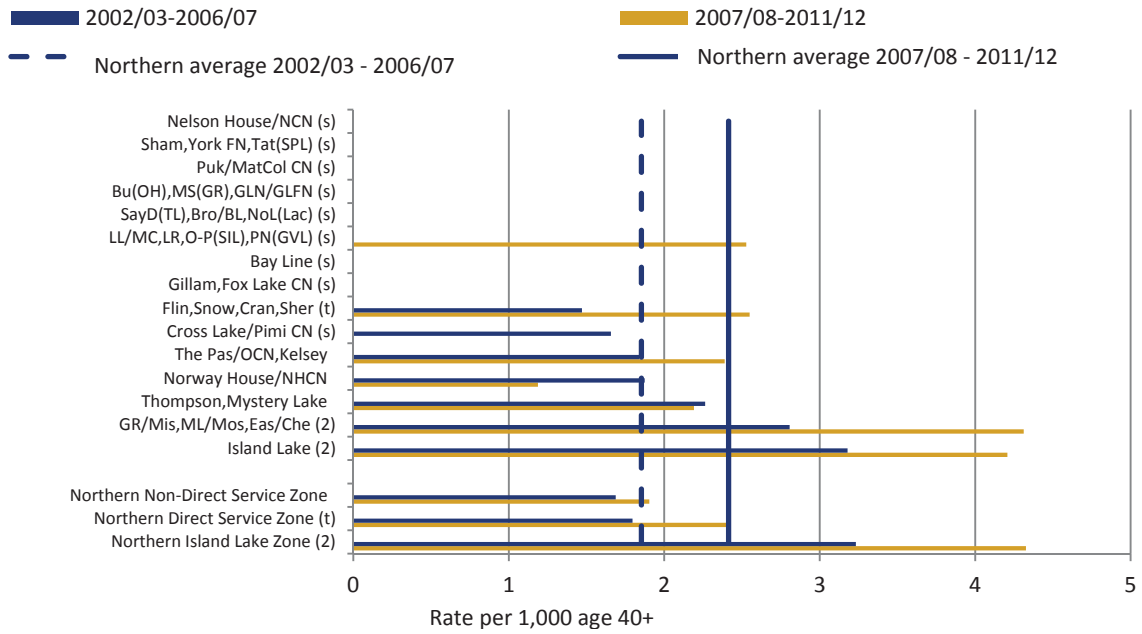
- The Northern Health Region experienced an increase in hip replacement rates from 1.9 per 1,000 population over 40 years in 2002/03-2006/07 to 2.4 in 2007/08-2011/12, a statistically significant increase. It was not, however, statistically different than the provincial average of 2.1 (see **Figure 7.17**).
- While much of the data was suppressed at the Northern district level, hip replacement rates did increase in each zone with the Northern Direct zone experiencing a statistically significant increase over the two time periods. The Northern Island Lake zone rate in 2007/08-2011/12 of 4.3 was found to statistically over the Manitoba average (see **Figure 7.18**).

Figure 7.17. Hip Replacement rates by RHA, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 7.18. Hip Replacement rates by Northern District and Zone, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

7.4.5. Knee Replacement Surgery

DEFINITION

This indicator measures the number of knee replacement surgeries performed, expressed as a rate per 1,000 residents aged 40 years or older.

Why Is This Indicator Important?

Similar to hip replacements, knee replacement surgery is often needed by seniors whose knees have become damaged due to arthritis. It has become increasingly common in obese patients as well. Increases in knee replacements may be indicators of increasing obesity as well as greater disabilities among the senior population.

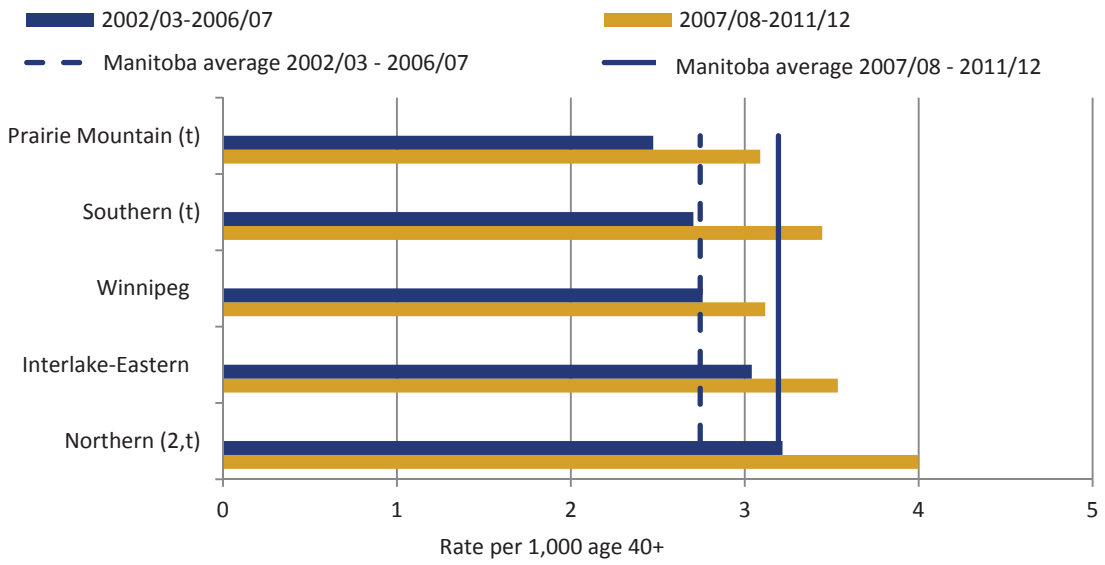
What did we learn in 2009?

- Rates in the former Burntwood Region increased from 2.8 per 1,000 residents over forty in 1996/97-2000/01 to 4.0 in 2001/02-2005/06. This was significantly higher than the provincial average of 2.8 in 2001/02-2005/06.
- The former NOR-MAN Region saw a significant increase in rates as well from 1.7 in 1996/97-2000/01 to 2.8 in 2001/02-2005/06.

What did we learn in 2014?

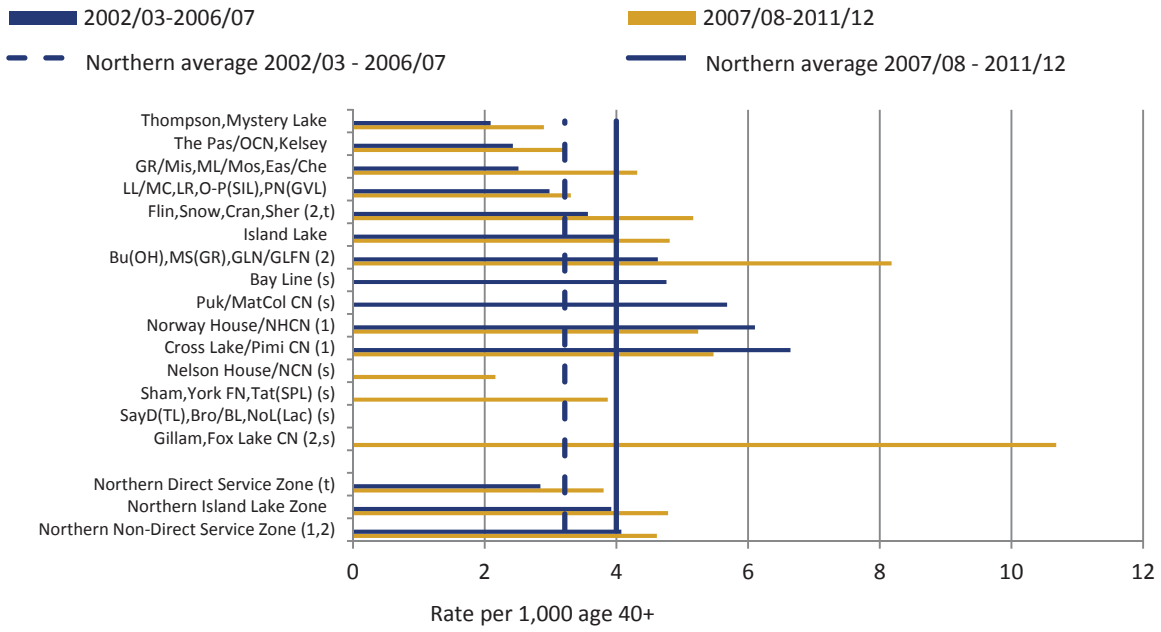
- Rates for knee replacement increased in the Northern Health Region from 3.2 knee replacements per 1,000 population over forty in 2002/03-2006/07 to 4.0 in 2007/08-2011/12 (see **Figure 7.19**).
- All three Northern zones had increases in knee replacement rates though the only statistically significant increase was in the Northern Direct Service Zone. While much of the district data was suppressed due to low numbers, the Flin Flon, Gillam and the Bunibonibee Cree Nation districts all had knee replacement rates that were statistically above the Manitoba average (see **Figure 7.20**).

Figure 7.19. Knee Replacement rates by RHA, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 7.20. Knee Replacement rates by Northern District and Zone, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

7.4.6. Cardiac Catheterization

DEFINITION

This indicator measures the number of cardiac catheterizations performed, expressed as a rate per 1,000 residents aged 40 years or older.

Why Is This Indicator Important?

This procedure helps physicians evaluate the functioning of the heart. This indicator can provide information about the health status of older residents in a region.

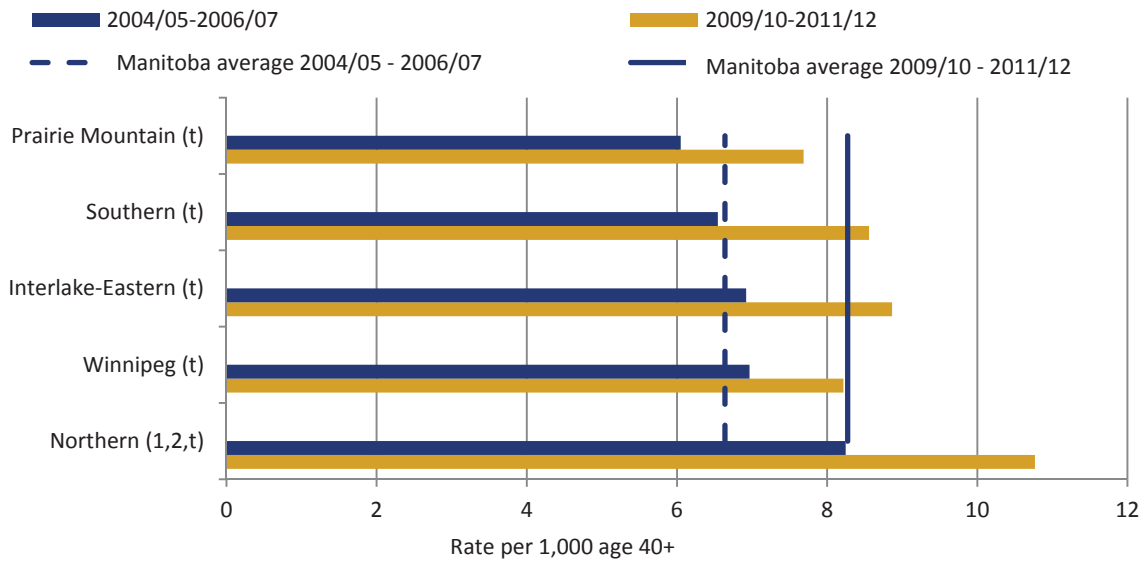
What did we learn in 2009?

- The former Burntwood Region experienced an increase in cardiac catheterizations, from 8.4 per 1,000 residents over 40 years in 1998/99-2000/01 to 9.3 in 2003/04-2005/06. This was significantly higher than the Manitoba rate of 6.9 in 2003/04-2005/06.
- The former NOR-MAN Region also had an increase in rates, from 6.3 in 1998/99-2000/01 to 7.9 in 2003/04-2005/06.

What did we learn in 2014?

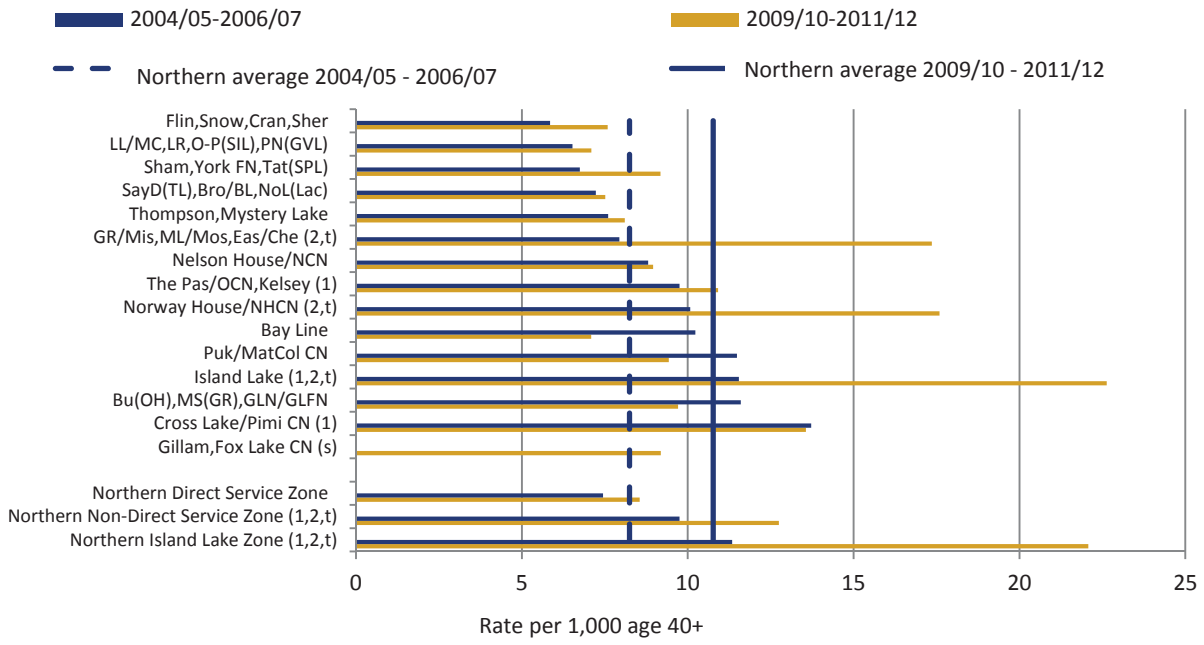
- The rate of cardiac catheterizations was found to have increased significantly in the Northern Health Region from 8.2 per 1,000 population over forty in 2004/05-2006/07 to 10.8 in 2009/10-2011/12 (see **Figure 7.21**), statistically above the provincial average of 8.3.
- The Northern Island Lake and Northern non-Direct zones had statistically significant increases in rates for this procedure over the two time periods (see **Figure 7.22**).

Figure 7.21. Cardiac Catheterization rates by RHA, 2004/05-2006/07 and 2009/10-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 7.22. Cardiac Catheterization rates by Northern District and Zone, 2004/05-2006/07 and 2009/10-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

7.4.7. Percutaneous Coronary Intervention Rates

DEFINITION

This indicator measures the number of percutaneous coronary interventions (PCI), expressed as a rate per 1,000 residents aged 40 years or older.

Why Is This Indicator Important?

Percutaneous coronary intervention is another cardiac surgical procedure that is used specifically to ease or eliminate the symptoms of coronary artery disease.

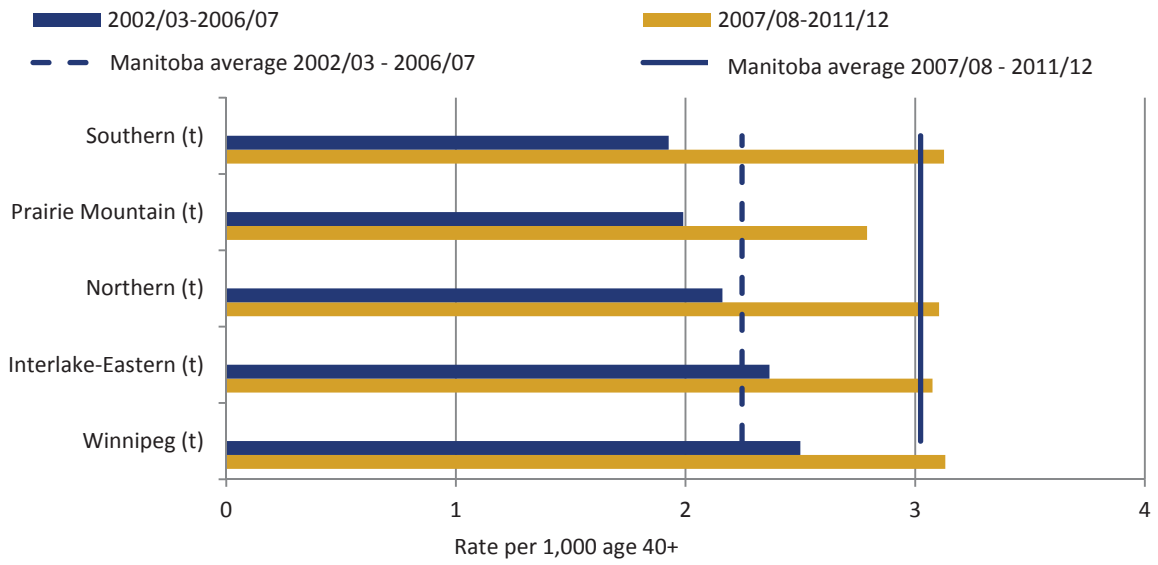
What did we learn in 2009?

- In the former Burntwood Region, PCI rates increased from 1.7 per 1,000 residents in 1996/97-2000/01 to 2.4 in 2001/02-2005/06, slightly higher than the provincial average of 2.3 in 2001/02-2005/06.
- In the former NOR-MAN Region, rates increased from 1.4 per 1,000 residents in 1996/97-2000/01 to 2.0 in 2001/02-2005/06.

What did we learn in 2014?

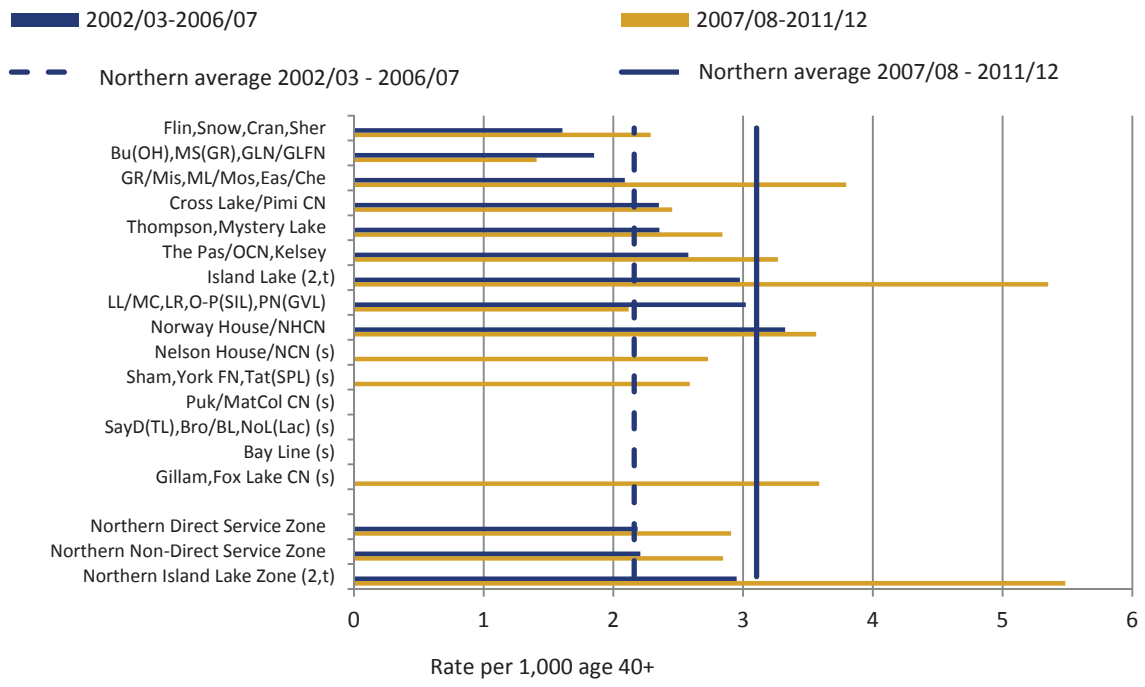
- The PCI rate in the Northern Health Region increased from 2.2 per 1,000 residents in 2002/03-2006/07 to 3.1 in 2007/08-2011/12, a statistically significant increase. It was slightly above the Manitoba average of 3.0. Each RHA had a statistically significant increase over the two time periods (see **Figure 7.23**).
- The only Northern zone to experience a statistically significant increase in PCI rates was the Northern Island Lake zone which had a rate of 5.5 per 1,000 population, statistically over the Manitoba average (see **Figure 7.24**).

Figure 7.23. PCI rates by RHA, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 7.24. PCI rates by Northern Zone and District, 2002/03-2006/07 and 2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

7.4.8. Coronary Artery Bypass Graft (CABG) Surgery

DEFINITION

This indicator measures the rate of coronary bypass graft surgeries per 1,000 residents aged 40 years or older.

Why Is This Indicator Important?

CABG is performed on patients to create new routes for flow around arteries that have been blocked or narrowed

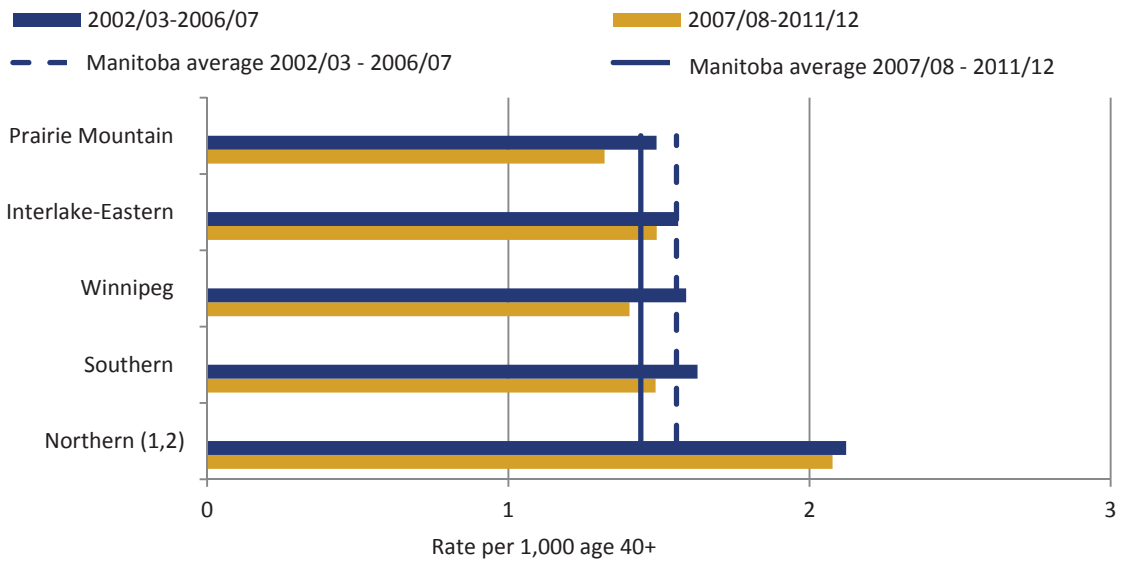
What did we learn in 2009?

- CABG surgery rates for the former Burntwood Region residents increased from 1.8 to 2.0 per 1,000 residents between 1996/97-2000/01 and 2001/02-2005/06. The rate was higher than Manitoba average of 1.5 in 2001/02-2005/06.
- In the former NOR-MAN Region, rates increased to 2.0/1,000 in 2001/02-2005/06, from 1.8/1,000 in 1996/97-2000/01.

What did we learn in 2014?

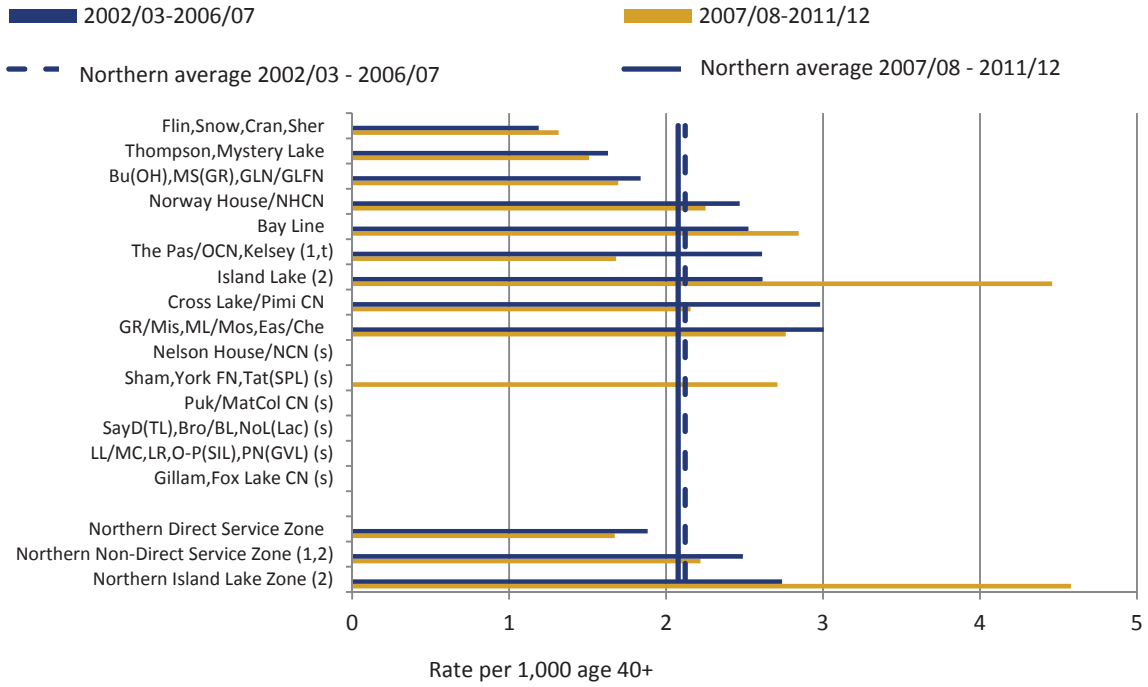
- The Northern Health Region was virtually unchanged at 2.1 CABG procedures per 1,000 population over forty years in both 2002/03-2006/07 and 2007/08-2011/12 (see **Figure 7.25**). The Northern rate was statistically above the Manitoba average in both time periods.
- While two of the three Northern zones experienced declines in CABG rates, the Northern Island Lake Zone had an increase rates. The 2007/08-2011/12 rate was 4.6, statistically above the Northern average (see **Figure 7.26**).

Figure 7.25. CABG rates by RHA, 2002/03-2006/07 and 2007/08 and 2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

Figure 7.26. CABG rates by Northern District and Zone, 2002/03-2006/07-2007/08-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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.

7.5. Dialysis Services

DEFINITION

Dialysis services are offered as part of the Manitoba Renal Program which provides treatment and support to patients with kidney disease. This indicator measures the numbers of patients treated and those on wait list for dialysis. Acute and urgent dialysis is not included, only schedule chronic hemodialysis.

Why Is This Indicator Important?

According to the Kidney Foundation of Canada, people of Aboriginal ancestry are at higher risk for kidney disease compared to the rest of the population. The foundation also reports that Aboriginal people in Canada have experienced a disproportionately high rise I the rate of end-stage kidney disease.

Hemodialysis (scheduled for chronic patients, not urgent or acute) is offered in three centres in the region and because each treatment can take four to five hours or more, there is significant use of resources and impact on patients, particularly for those who do not have access in their home communities. In addition, due to numbers needing services, wait time to begin dialysis in the region can be many months.

What did we learn in 2014?

- Both Thompson and The Pas have potential to treat up to 40 patients but are only funded for 32 and 24 respectively. Flin Flon has the capacity to treat 16 patients but is currently funded only for eight.
- Wait time for dialysis can be many months for service within the region.
- The region has submitted a proposal to the Manitoba Regnal Program for funding to allow for an increase in numbers of patients treated.
- One of the biggest obstacles for patients, particularly those who live in smaller communities without the services, is housing, funding for accommodation during treatment and individuals not wanting to leave their families and communities for treatment at the dialysis centres. In addition, although the goal is local treatment, all patients are referred to Winnipeg for assessment before being considered for dialysis at a local centre.
- Many patients must travel two the three hours each way, and each day, for treatment three times per week.
- Table 7.1 presents numbers of patients by centre as well as those on wait lists as of January, 2015. Note that Island Lake and Norway House are Federal sites and not under the RHA. Also not that patients on waitlist are patients from our region who are dialyzing outside the region who are ready for treatment at a local centre. This number does not include all patients from the region receiving dialysis in Winnipeg as they must meet certain criteria in order to be placed on a local centre waitlist.

Table 7.1. Hemodialysis patients being treated at local centres and on waitlists, January 2015.

Centre	Number of patients treated	Number of eligible patients on waitlist
Flin Flon	8	0
The Pas	32	4
Thompson	24	8
Island Lake	18	12
Norway House	8	13

Note 1: For Norway House all the patients on the Norway House wait list are the same patients on the Thompson wait list.
Note 2: Wait list includes patients who have met criteria for local centres and being treated in Winnipeg.
Note 3: Island Lake and Norway House are Federal sites.
Source: Northern Health Region, program data, 2015.

7.6. Home Care

7.6.1. Home Care Prevalence

DEFINITION

This indicator measures the total number of open or active home care cases in a region expressed as a percentage of the population.

Why Is This Indicator Important?

This indicator is important to monitor to gauge the ongoing home care needs of a region and to plan when additional home care resources need to be added.

What did we learn in 2014?

- Between April 1, 2014 and January 31, 2015, the average number of monthly Home Care Program cases has been 585.
- There are differences within the region, with the average number in what is the geographic area of the former Burntwood Region being lower at 235 cases on average compared to the former NOR-MAN Region geographic area with an average monthly caseload of 351 cases.

7.7. Personal Care Home

7.7.1. Residents in PCH

DEFINITION

This indicator measures the proportion of residents aged 75 and older who were living in a provincial PCH for at least one day over a given period.

Why Is This Indicator Important?

It is important to gauge the personal care home usage in the region to plan for ongoing needs. PCH usage can also be an indicator of how well a region is doing to keep seniors living in the community as independently as possible as well as an overall indicator of the health status of seniors.

What did we learn in 2009?

- The former Burntwood Region saw a statistically significant increase in PCH residents from 4.5 per cent in 1999/00-2000/01 to 8.9 per cent in 2004/05-2005/06. This was significantly below the Manitoba average, at 12.7 per cent.
- The former NOR-MAN region also experienced an increase in PCH residents from 12.0 to 13.9 per cent between the two time periods.

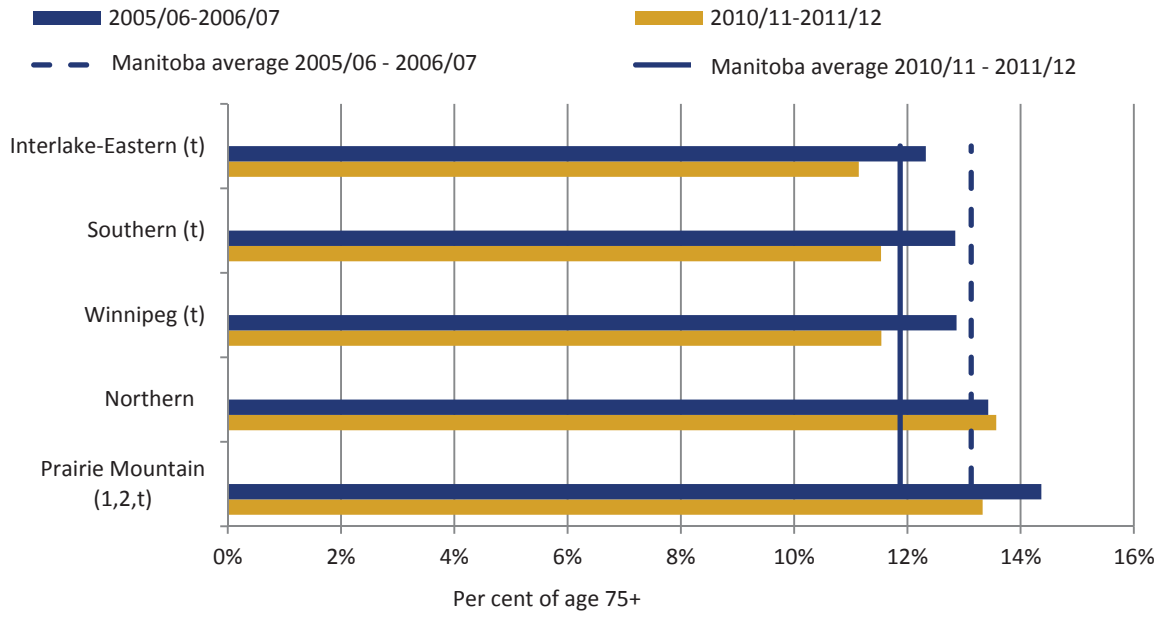
What did we learn in 2014?

- The proportion of seniors aged 75 years and older who were admitted to a PCH rose very slightly from 13.4 per cent in 2005/06-2006/07 to 13.6 per cent in 2010/11-2011/12, above the provincial average of 11.9 per cent.
- As **Figure 7.27** shows, all other RHAs experienced a statistically significant decline in admission between the two time periods.

WHAT ARE WE DOING?

In 2014, Thompson implemented Nurse Practitioner care to enhance continuity for residents. One nurse practitioner is responsible for residents versus 3 rotating physicians.

Figure 7.27. Proportion of Residents in a PCH by RHA, 2005/06-2006/07 and 2010/11-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

7.7.2. Level of Care on Admission

DEFINITION

This indicator measures the distribution of new personal care home admissions by level of care (1 to 4) at admission. Level 1 represents the lowest level of need, and Level 4 represents the highest.

Why Is This Indicator Important?

This indicator can measure the appropriateness of seniors care in a region and how well it is doing in keeping seniors living as independently as possible with a range of seniors programs and housing options.

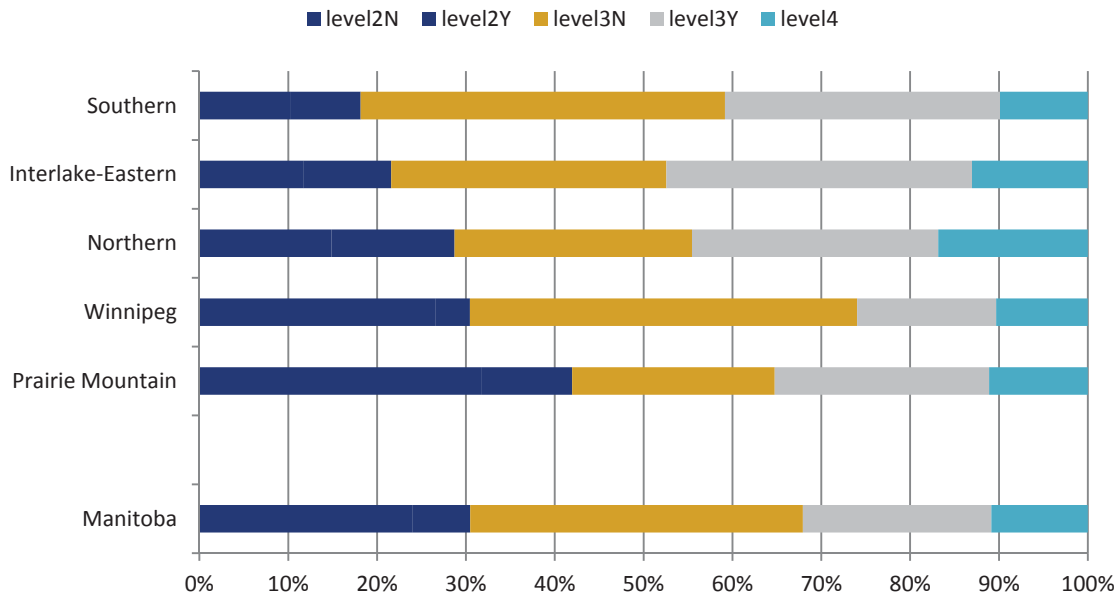
What did we learn in 2009?

- In the former Burntwood Region, the average level of care decreased slightly from 3.3 to 3.1 between 2001 and 2005. The provincial average in 2005 was 2.7. Level 1 and 2 proportions were suppressed due to small numbers. The proportion of Level 3 and 4 admissions decreased from 90.9 per cent to 81.0 between 2000 and 2005, above the Manitoba average of 56.4 in 2005.
- In the former NOR-MAN Region, 75 per cent of admissions in 2004/05-2005/06 were in Level 3 or 4. 25 per cent were in Level 1 or 2.

What did we learn in 2014?

- In 2010/11-2011/12, 71.2 per cent of PCH admissions in the Northern Health Region were at a level 3 or 4 care of admission, compared to 69.6 per cent for Manitoba as a whole (see **Figure 7.28**).
- The Northern Health region had the highest percentage of resident admitted at level 4 at 16.8 per cent of all admissions.

Figure 7.28. Proportion of New PCH Admissions by Level of Care by RHA, 2010/11-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators Atlas.

7.7.3. Personal Care Home Median Wait Times from Paneling to Admission

DEFINITION

This indicator measures the time it took for half of all residents to be admitted after being assessed as eligible for PCH placement.

Why Is This Indicator Important?

PCH wait time can be an indicator to determine whether additional PCH beds are needed to address ongoing and future demand. It may also indicate whether new processes or procedures are needed to deal with PCH admissions.

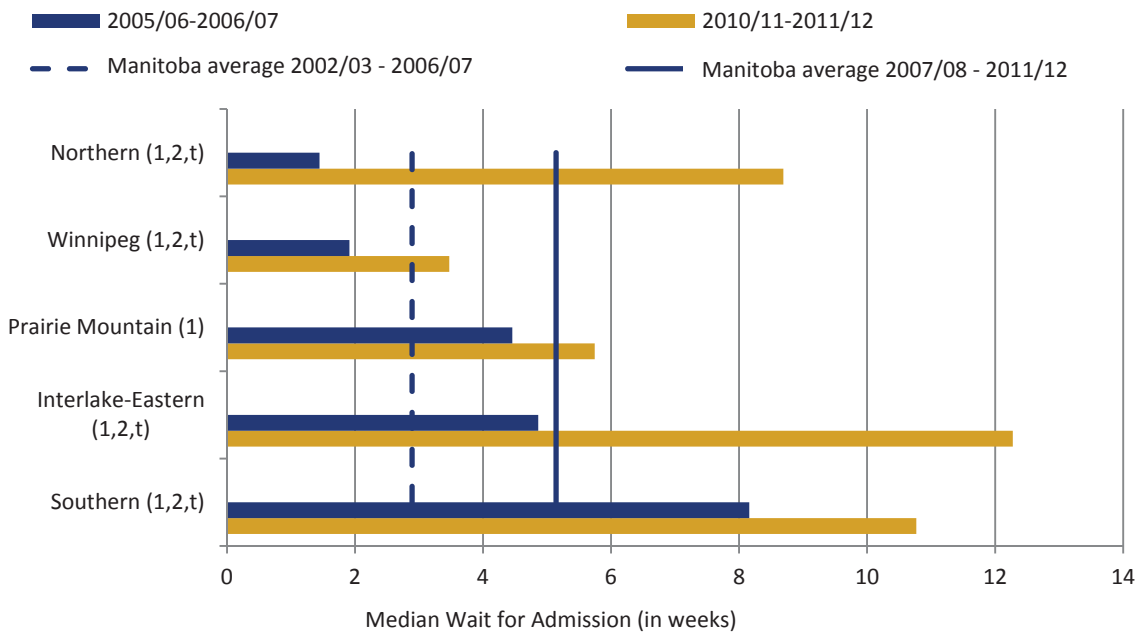
What did we learn in 2009?

- The median wait time for admission to PCHs in the former Burntwood Region increased slightly from 0.6 to 0.7 weeks between 1999/00-2000/01 and 2004/05-2005/06, well below the Manitoba average of 6.9 weeks.
- The former NOR-MAN region experienced a steep decline in wait times from 48.1 weeks to 2.9 weeks during the two time periods.

What did we learn in 2014?

- The Northern Health Region experienced a statistically significant increase in wait times for PCH admission from 2.9 weeks in 2004/05-2006/07 to 8.7 weeks in 2010/11-2011/12, above the Manitoba average of 5.1 weeks (see **Figure 7.29**).

Figure 7.29. PCH Median Wait time for Admission by RHA, 2005/06-2006/07 and 2010/11-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

7.7.4. Personal Care Home Bed Supply

DEFINITION

This indicator measures the number of Personal Care Home (PCH) beds per 1,000 residents over 75 years of age.

Why Is This Indicator Important?

Monitoring PCH bed supply numbers is very important for health planners to plan for near and long term future, particularly if additional PCH beds are needed to meet anticipated demand. Manitoba Health, Healthy Living and Seniors has identified a supply standard of 110 PCH beds per 1,000 residents. If regions fall below this figure, it can cause accessibility to PCH beds to decrease, resulting in long wait times and using hospital facilities to house seniors.

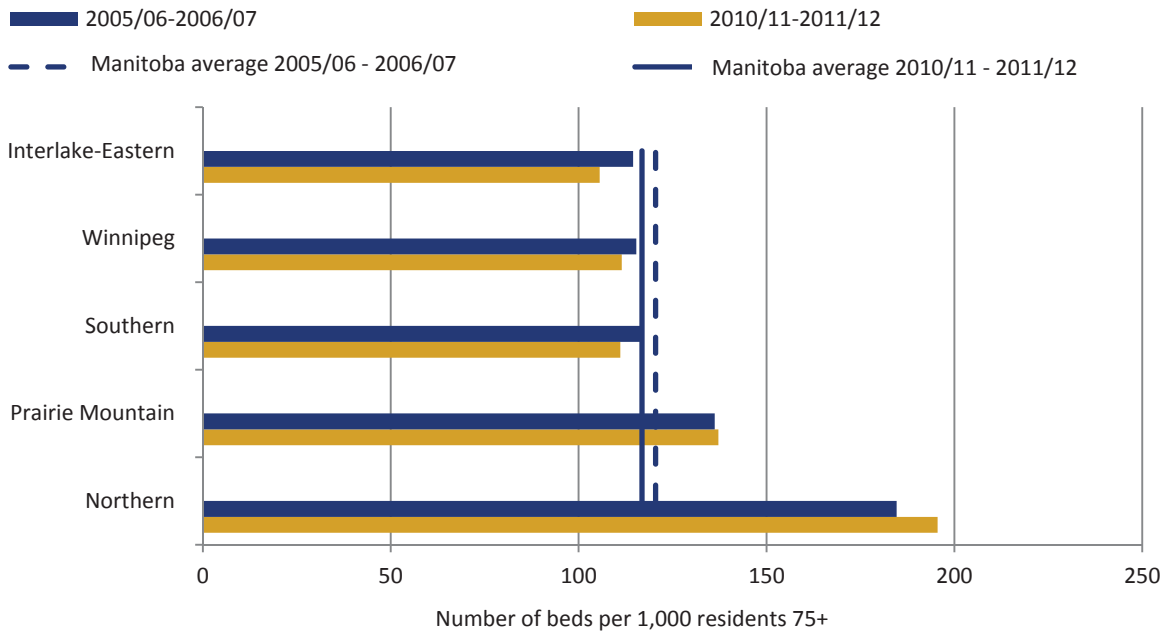
What did we learn in 2009?

- In the former Burntwood region, the PCH bed supply went from 151.2 beds per 1,000 residents over 75 in 1999/2000-2000/01 to 195.8 PCH beds per 1,000 in 2004/05-2005/06. The Manitoba average was 122.
- The former NOR-MAN region saw a slight increase in supply rising from 140.4 to 147.8 beds per 1,000 residents between the two time periods.

What did we learn in 2014?

- The personal care home bed supply rate increased from 184.6 beds per 1,000 residents over 75 years of age in 2005/06-2006/07 to 195.5 in 2010/11-2011/12, above the Manitoba average of 114.1 (see **Figure 7.30**).

Figure 7.30. Personal Care Home Bed Supply Rate by RHA, 2005/06-2006/07 and 2010/11-2011/12.



Source: Manitoba Centre for Health Policy, 2013 RHA Indicators 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

APPENDICES

NORTHERN
HEALTH REGION

OUR REGION					
Indicator	Definition	Region Baseline	Region Current	Manitoba Current	Data Source
3.3.1 Population density	Population per kilometer		0.19	2.1	2011 Census
3.3.3.1 Dependency ratio	Population <15 and >65 to rest of population	B: 58.5 N: 52.5	57.2	50.0	Manitoba Health Population Report 2011
3.3.4 Population change					
3.3.5 Population projection	Projected population in 2036(Burntwood/NOR-MAN)		74200	104300	Manitoba population projection report, May 2014
3.3.6 Aboriginal population	% of population that self identifies as Aboriginal		70.0%	15.5%	2011 Census
3.4.1 Marital status	% of population age 15+ who are legally married		39.2%	57.2%	2011 Census
3.4.2 Family structure	% of families that are single parent families		30.0%	17.1%	2011 Census
3.4.3 Language spoken at home	% of families that speak only English in the home		73.7%	84.4%	2011 Census
	% of families that speak only French in the home		0.2%	1.5%	2011 Census
	% of residents that speak only English as official language		96.6%	90.0%	2011 Census
	% of residents that speak only French as official language		0.02%	0.1%	2011 Census
	% of residents that speak only English as mother tongue		60.8%	72.9%	2011 Census
	% of residents that speak only French as mother tongue		0.8%	3.5%	2011 Census
3.4.4 Internal/External migration	% of residents who are Canadian born		97.4%	83.6%	2011 Census
3.4.5 Migrant status	% of residents who lived at same address 5		67.8%	61.9%	2011 Census

	years ago.				
	% of residents who move within province in last 5 years.		10.8%	7.2%	2011 Census
	% of residents who lived in different province or territory 5 years ago.		3.6%	3.4%	2011 Census

DETERMINANTS OF HEALTH					
Indicator	Definition	Region Baseline	Region Current	Manitoba Current	Data Source
4.2.1 Income inequality	% of children<17 living in low income family.		14.2%	19%	2011 Census
	% of residents living below LICO.	B: 17% N: 15%	11.8%	15.4%	2011 Census
4.2.2 Families receiving income assistance	%of children aged 0-17 in family receiving income assistance		12.7%	13.2%	2011 Census
	%of young adult aged 18-19 in family receiving income assistance		8.9%	9.1%	2011 Census
4.2.3 Median individual income		B: $15,395 N: $23,320	$18,570	$29,029	Statistics Canada, National Household Survey 2011
4.2.3 Median household income		B: $44,076 N: $49,805	$50,814	$57,299	Statistics Canada, National Household Survey 2011
4.2.4 Income in single parent household		B: $17,773 N: $23,163	$30,919	$41,379	Statistics Canada, National Household Survey 2011
4.2.5 Unemployment rate	The labour force aged 15 and over who did not have a job during the reference week.	B: 18%	7.5%	5.3%	Statistics Canada
	Male unemployment rate		15.2%		Statistics Canada
	Female unemployment rate		12.7%		Statistics Canada
4.2.6 Labour Force Participation Rates	% of the population aged 15 years and over, who were in the labor force in the week prior to the Census of	B: 56.8% N: 71.1%	57.8%	67.3%	Statistics Canada, National Household Survey 2011

	Canada.				
4.2.7 Housing affordability	Average value of owned dwelling.		$162,345	$238,861	Statistics Canada, National Household Survey 2011
	Tenant spending per dwelling	B: 22% N: 25%	26.1%	35.4%	Statistics Canada, National Household Survey 2011
	Owner spending per dwelling	B: 8.4% N: 9%	10.8%	13%	Statistics Canada, National Household Survey 2011
4.2.10 Educational attainment	% of population aged 15+ with less than high school certificate.		49.6%	25.1%	Statistics Canada, National Household Survey 2011
	% of population aged 25-64 with less than high school certificate.		40.8%	17.2%	Statistics Canada, National Household Survey 2011
4.3.1 Exposure to Second Hand Smoke	% of residents 12+ who exposures to second hand smoke.	B: 17.9% N: 24.9% (M) 22.1% (F)	20.9%	11.2%	MCHP 2013
4.3.1 Exposure to Second Hand Smoke among youth	% of youth from grades 7 to 12 who exposures to second hand smoke.		50.6%(Grade 7) 65.4%(Grade 8) 80.7%(Grade 9) 85.9%(Grade 10) 87.8%(Grade 11) 87.3%(Grade 12) 72.4%(overall)		CancerCare Manitoba, Youth Health Survey 2012
4.4.1 Self Perceived Life Stress	% of residents who has “quite a lot” life stress.	B: 16.7% N: 17.4%	17.7%	18.6%	MCHP 2013
4.4.2 Work Stress	% of residents reporting having high work stress	B: 22% N:17.9%	20%	21%	MCHP 2013
4.4.3 Readiness to learn at school entry.	Average of children for Physical Health and Well-Being		8.41		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014

	Average of children for Social Competence		7.96		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	Average of children for Emotional Maturity		7.63		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	Average of children for Language and Cognitive Development		7.86		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	Average of children for Communication Skills and General Knowledge		7.39		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children not ready for Physical Health and Well-Being		20.1%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children not ready for Social Competence		14.0%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children not ready for Emotional Maturity		14.0%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children not ready for Language and Cognitive Development		16.8%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children not ready for Communication Skills and General Knowledge		13.7%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children not ready		37.3%		Healthy Child Manitoba,

	for One or more areas of development				Early Development Instrument Data, Special data run, 2014
	% of children not ready for Two or more areas of development		21.4%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children very ready for Physical Health and Well-Being		30.5%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children very ready for Social Competence		26.8%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children very ready for Emotional Maturity		20.3%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children very ready for Language and Cognitive Development		30.9%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children very ready for Communication Skills and General Knowledge		34.2%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children very ready for One or more areas of development		57.2%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
	% of children very ready for Two or more areas of development		39.1%		Healthy Child Manitoba, Early Development Instrument Data, Special data run, 2014
4.5.1 Active living	% of residents who are physically active.	B: 25%	28.9%	29.7%	MCHP 2013

	% of residents who are physically moderate.		24.4%	25.6%	MCHP 2013
	% of residents who are physically inactive.	B:53.7%	46.8%	44.7%	MCHP 2013
4.5.2 Healthy Eating	% of residents 12+ who consume at least 5 servings of fruits and/or vegetables per day.	B: 33.9% N: 34.0%	32.3%	36.7%	MCHP 2013
4.5.3 Body Mass Index	% of residents 18+ who are aged 18 and older, reported underweight/normal.		35%	44%	MCHP 2013
	% of residents 18+ who are aged 18 and older, reported overweight.		31%	36%	MCHP 2013
	% of residents 18+who are aged 18 and older, reported obese.		34%	31%	MCHP 2013
4.5.4 Alcohol Use	% of residents 12+ who have 5 or more drinks on one occasion.	B: 26.1%	31%	24%	MCHP 2013
4.5.5 Smoking	% of residents who are current smoker	B: 35.1% N: 27.2%	32.8%	19.7%	MCHP 2013
4.5.6.1 Childhood Immunization	All infants aged 1 complete immunization per 100.	B: 64.1	73.6	76.8	Manitoba Immunization Monitoring System Annual Report
	All infants aged 2 complete immunization per 100.	B: 45.8	63.4	58.6	Manitoba Immunization Monitoring System Annual Report
	All infants aged 7 complete immunization per 100.	B: 56.8 N: 86.0	56.1	54.6	Manitoba Immunization Monitoring System Annual Report
	All infants aged 11 complete immunization per 100.	B: 40.4 N: 58.3	47.7	51.7	Manitoba Immunization Monitoring System Annual Report
	All infants aged 17 complete immunization	B: 20.9	40.0	48.7	Manitoba Immunization Monitoring System

	per 100.				Annual Report
4.5.6.2.1 Influenza Immunization among Seniors	All seniors aged 65+ complete Influenza immunization per 100.	B: 36.1 N: 55.9	49.3	56.6	MCHP 2013
4.5.6.2.2 Pneumococcal Immunization among Seniors	All seniors aged 65+ complete Pneumococcal immunization.	B: 49.1 N: 64.4	65.2	65.8	MCHP 2013
4.5.7.1 Cervical Cancer Screening	% of women (ages 20 – 69) who had a Pap test in a 3 three year period.		61.9%	66.8%	CervixCheck Registry April 1, 2009 – March 31, 2012
4.5.7.2 Breast Cancer Screening	% of women (ages 50 – 69) who had a mammogram in a two year period.		55.0%	63.7%	Manitoba Health Medical claims data for mammography April 1, 2008 – March 31, 2010
4.5.7.3 Colorectal Cancer Screening	Percent of men and women (ages 50 – 74) who had a Fecal Occult Blood Text (FOBT) in a two year period, or a flexible sigmoidoscopy or colonoscopy in a five year period.		1.5%(FOBT only) 12.9%(FOBT or scope)	31.9% 45.2%	Manitoba Health Medical claims data and ColonCheck Registry, January 1, 2009 – December 31, 2010
4.6.2 Breastfeeding initiation	% of mom breastfeeding initiation	B: 64.5% N: 69.6%	63.6%	82.9%	Manitoba Health, Health Information Management, Special Data Run
4.6.3 Inadequate Prenatal Care	number of physician visits received by a prospective mother, taking into account when the first prenatal visit took place		36.4%	12.3%	Manitoba Centre for Health Policy, Perinatal Services and Outcomes in Manitoba, 2012
4.6.4 Families First Program	% of families has 3+ risk factors.	B: 49.0% N: 40.0%	27.4%	22.5%	Healthy Child Manitoba, Families First Screening Data, Special Data Run,

					2014.
4.6.4.1 Alcohol and Drug Use During Pregnancy	% of mom use alcohol during pregnancy.	B: 22.8% N: 26.3%	17.8%	11.7%	Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.
4.6.4.2 Smoking during Pregnancy	% of mom smoking during pregnancy.	B: 47.9% N: 38.2%	17.9%	16.9%	Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.
4.6.4.3 Anxiety and Depression in Mothers of Newborns	% of mom has maternal depression.	B:14.4% N:15.7%	18.4%	15.1%	Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.
4.6.4.4 Mother with Less than a Grade 12 Education	% of mom with less than high school education.	B: 40.5% N: 30.1%	16.9%	17.2%	Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.
4.6.4.7 Social Assistance/Financial Difficulties	% of families has income support or financial difficulties.	B: 36.1% N: 26.5%	14.9%	14.4%	Healthy Child Manitoba, Families First Screening Data, Special Data Run, 2014.
4.7.1 Youth Sexual Health	% of children aged 15-19 had sexual intercourse.	B: 61.8% N: 47.0%	30.6%		CancerCare Manitoba, Youth Health Survey 2012.
4.7.1.1 Sex Practices among Youth	feel comfortable talking to the person(s) you are having sex with about using condoms or birth control		69%(not had sex) 5.7%(Never) 5.1%(Rarely) 7.2%(Often) 13.1%(Always)		CancerCare Manitoba, Youth Health Survey 2012.
	feel comfortable talking to the person(s) you are having sex with about		69.5%(not had sex) 8.4%(Never) 8.0%(Rarely)		CancerCare Manitoba, Youth Health Survey

	STIs		5.5%(Often) 8.5%(Always)		2012.
	have unplanned sex after using alcohol or drugs		69.4%(not had sex) 2.5%(not had sexing the past year) 14.1%(Yes) 14.1%(No)		CancerCare Manitoba, Youth Health Survey 2012.
4.7.1.3 Teen Pregnancy rate	Teen pregnancy rate or 1,000 females	B: 125.0 N: 55.7	51.6	18.4	Manitoba Health, Health Information Management, Special Data Run.
4.7.2 Youth Smoking	% of children aged 12-19 smoked.	B: 26.2%	13.1%(daily smoker) 12.7%(occasional) 74.1%(Non-smoker)		CancerCare Manitoba, Youth Health Survey 2012.
4.7.3.1 Use of Alcohol in Past 30-Days	% of children aged 12-15 drank alcohol in past 12 months.	B: 26.1% N: 37.9%	24.3%		CancerCare Manitoba, Youth Health Survey 2012.
4.7.3.2 Binge Drinking in Past-30 days	% of children binge drinking in past-30 days		21%		CancerCare Manitoba, Youth Health Survey 2012.
4.7.3.3 Drug Use	% of children used any drug last month		31.6%		CancerCare Manitoba, Youth Health Survey 2012.
	% of children used any drug last year		39.2%		CancerCare Manitoba, Youth Health Survey 2012.
4.7.4.1 Frequency of Fruit and Vegetable Consumption	Daily Fruits and Vegetable Consumption		23.7%(2 times or less) 36.4%(3-6 times) 39.9%(7 or more)		CancerCare Manitoba, Youth Health Survey 2012.
4.7.4.1.1 Less Healthy Food Consumption (include salty snacks, drinks, fast food)	Daily Consumption of Salty or Sugary Snacks		72%(2 times or less) 23.3%(3-6 times) 4.7%(7 or more)		CancerCare Manitoba, Youth Health Survey 2012.

	Daily Consumption of Fast Food		85.1%(2 times or less) 11.5%(3-6 times) 3.4%(7 or more)		CancerCare Manitoba, Youth Health Survey 2012.
4.7.5 Healthy Weight	Perception of Weight		7.9%(underweight) 70.5%(right weight) 21.6%(overweight)		CancerCare Manitoba, Youth Health Survey 2012.
4.7.5.1 Actual Weight by Gender and Grade			3.6%(underweight) 61.6%(healthy weight) 17.7%(overweight) 17.1%(obsess)		CancerCare Manitoba, Youth Health Survey 2012.
4.7.6 Physical Activity	% of children physical activity level		54.4%(active) 28%(moderately active) 17.6%(inactive)		CancerCare Manitoba, Youth Health Survey 2012.
	In The Past Month (30 days), How Often Did You Participate In Before School, Lunch Time or After School Physical Activities Organized By Your School		42.9%(never) 15.3%(less than once a week) 26.3%(1-3 times per week) 15.5%(4+ times per week)		CancerCare Manitoba, Youth Health Survey 2012.
	In The Past Month (30 days), How Often Did You Participate In Physical Activities Organized Outside Your School With A Coach		43.4%(never) 15.3%(less than once a week) 23.5%(1-3 times per week) 17.9%(4+ times per week)		CancerCare Manitoba, Youth Health Survey 2012.
	In The Past Month (30 days), How Often Have You Played Sports or Been Physically Active Without A Coach or Instructor Present		18.8%(never) 21.4%(less than once a week) 34.3%(1-3 times per week) 25.5%(4+ times per		CancerCare Manitoba, Youth Health Survey 2012.

			week)		
4.7.7.2 Overall Mental Health Indicator	self assessment of mental health		9.1%(languishing) 44.7%(moderate) 48.2%(flourishing)		CancerCare Manitoba, Youth Health Survey 2012.
4.7.8.1 Use of Artificial Tanning Equipment	Use Of Indoor Tanning Equipment		6.7%		CancerCare Manitoba, Youth Health Survey 2012.
4.7.8.2 Use of Sunscreen	Use Of Sun/UV Protection		68.8%(never/rarely) 23.8%(often) 7.4%(always)		CancerCare Manitoba, Youth Health Survey 2012.

HEALTH STATUS					
Indicator	Definition	Region Baseline	Region Current	Manitoba Current	Data Source
5.2 Life Expectancy	Female life expectancy in years.	B: 76.0 N: 77.6	76.4	82.2	MCHP, 2013
	Male life expectancy in years.	B: 69.7 N: 73.4	71.4	77.5	MCHP, 2013
5.3.1 Self rated physical health	% of residents 12+ who self rated physical health good.	B: 44.2% N: 56.9%	84.4%%	87.6%	MCHP, 2013
5.3.2 Self-Rated Health Among Youth	% of students who report their health is “poor”, “good or fair” or “excellent or very good’.		42.2%(excellent or very good) 56.4%(good or fair) 1.4%(poor)		CancerCare Manitoba, Youth Health Survey 2012.
5.3.3 General Mental Health Scale	The general mental health scale is a derived measure from the SF-36 questionnaire, addressing overall mental health on a scale of 0 to 100 (higher is better).	B: 84.5 N: 85.6	44.3%(high) 32.2%(medium) 23.5%(low)	39.7%(high) 33.8%(medium) 26.6%(low)	MCHP, 2013
5.3.4 Physical Functioning Scale	% of residents who has perfect scores on physical functioning scale	B: 50.3% N: 57.9%	50.3%	50.3%	MCHP, 2013
5.4.1 Birth Rate	number of births in an area as a rate of 1,000 women		22.2	12.4	Manitoba Health, Health Information Management
5.4.2 Teen Birth Rate	number of births from teenage mothers aged 15-19 years per 1,000 females	B: 101.1 N: 79.3	43.1	12.8	Manitoba Health, Health Information Management, Special Data Run
5.4.3 Preterm Birth Rate	number of live infants born prior to 37 weeks gestation expressed as a percentage of all live	B: 10.3% N: 6.5%	9.0%	7.8%	Report CB1 2014, Canadian Institute for Health Information

	births				
5.4.4 Low Birth Weight Rate	% of live infants born weighing less than 2500 grams	N: 4.7%	6.1%	5.3%	Manitoba Health, Health Information Management
			5.4%	5.2%	MCHP, 2013
5.4.5 High Birth Weight Rate	% of live infants born weighing more than 4500 grams	B:19.5% N:17.6%	17.8%	14.2%	Manitoba Health, Health Information Management
5.4.6 Large For Gestational Age (LGA)	This indicator is calculated by including infants large for preterm, large for term and large for post term births in the numerator and total live born deliveries in the denominator.		17.5%	12.4%	Manitoba Health, Health Information Management
5.4.7 Small For Gestational Age (SGA)	calculated by taking all live–born small for preterm, small for term and small for post term births and dividing by the total number of live–born deliveries.		8.2%	8.8%	Manitoba Health, Health Information Management
5.5.1 Acute Myocardial Infarction	The annual rate of hospitalization (3 or more days) or death due to AMI per 1,000 residents age 40 or older, over a five year period.	B: 6.1 N: 5.2	5.2	4.1	MCHP, 2013
5.5.2 Arthritis Prevalence	% of residents aged 19 or older diagnosed with arthritis.	B: 13.2% N: 24.9%	23.5%	20.9%	MCHP, 2013
5.5.3 Congestive Heart Failure (40+)	% of people aged 40 and older with congestive heart failure	B: 4.25% N: 2.07%	2.5%	1.7%	MCHP, 2013

	in a three–year period.				
5.5.4 Diabetes Incidence (19+)	number of new cases of diabetes diagnosed per 100 person years in residents age 19 and older.	B: 2.15 N: 1.38	1.91	0.85	MCHP, 2013
5.5.5 Diabetes Prevalence (19+)	% of residents has diabetes.	B: 21.4% N: 13.0%	20.9%	10%	MCHP, 2013
5.5.6 Lower Limb Amputation Due To Diabetes	percentage of residents with diabetes (age 19+) who had lower limb amputation	B: 3.98 N: 1.87	2.8%	1.3%	MCHP, 2013
5.5.7 Hypertension Incidence	incidence rate per 100 person-years for residents aged 19+.		4.2	3.1	MCHP, 2013
5.5.8 Hypertension Prevalence	% of residents has high blood pressure.	B: 35.4% N: 25.7%	35%	25.6%	MCHP, 2013
5.5.9 Ischemic Heart Disease (IHD) Incidence	number of new cases of ischemic heart disease (IHD) for residents aged 19 and older expressed as a rate per 100 person–years		0.88	0.67	MCHP, 2013
5.5.10 Ischemic Heart Disease (IHD) Prevalence	% of residents has IHD treatment.	B:11.8% N: 8.5%	9.9%	7.9%	MCHP, 2013
5.5.11 Osteoporosis Treatment Prevalence (19+)	% of residents aged 50 or older diagnosed with osteoporosis	B: 14.2% N: 14.6%	11.4%	10.4%	MCHP, 2013
5.5.12 Respiratory Disease Prevalence	% of residents has Respiratory Morbidity treatment.	B: 7.2% N: 9.7%	6.0%	9.5%	MCHP, 2013
5.5.13 Stroke Incidence Rate	annual rate of hospitalization or death due to stroke, in a five year period, per 1,000 residents age 40 or older.	B: 7.5 N: 3.7	4.6	2.7	MCHP, 2013

5.6.1 Prevalence of Dementia (55+)	% of residents aged 55 years and older with dementia.	B: 9.3% N: 9.2%	8.5%	10.6%	MCHP, 2013
5.6.2 Prevalence of Mood and Anxiety Disorders (10+)	% of residents age 10 or older diagnosed with an anxiety or mood disorder.	B: 16.2% N: 20.5%	17.5%	23.3%	MCHP, 2013
5.6.3 Prevalence of Substance Abuse (10+)	% of residents aged 10 years and older with substance abuse.	B: 13.4% N: 7.6%	9.2%	5.0%	MCHP, 2013
5.7.1.1 Intentional Injury Hospitalizations by Year	rate of hospitalizations due to intentional injury per 1,000 population.		367		Manitoba Health, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region.
5.7.1.2 Injury Related Hospitalization Rates and Counts	rate of hospitalizations due to injuries both intentional and unintentional per 1,000 residents.		1223.8(Unintentional) 437.8(intentional) 1716.2(all)		Manitoba Health, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region.
5.8.1 Overall Cancer Incidence	rate of all cancers per 100,000 population.		523.3	471.2	CancerCare Manitoba
5.8.2 Breast Cancer Incidence	rate of breast cancer diagnoses per 100,000 women.	B: 99 N: 114	92.1	122.6	CancerCare Manitoba
5.8.3 Prostate Cancer Incidence	rate of prostate cancer diagnoses per 100,000 men.	B: 160 N: 108	101.7	116.4	CancerCare Manitoba
5.8.4 Lung Cancer Incidence	rate of lung cancer diagnoses per 100,000 population.		115.1	98	CancerCare Manitoba
5.8.5 Colorectal Cancer Incidence	rate of colorectal cancer diagnoses per 100,000 population.	B: 62	84.5	68.3	CancerCare Manitoba
5.9.1.1 Chlamydia	number of cases of the		2242	500	Monthly

	notifiable sexually transmitted infection (STI) Chlamydia trachomatis per 100,000 population per year.				Communicable Disease Reports , Manitoba Monthly Surveillance Unit Reports
5.9.1.2 Gonorrhea	number of cases of the notifiable sexually transmitted infection (STI) Gonorrhea per population per year.		575.4	94.5	Monthly Communicable Disease Reports , Manitoba Monthly Surveillance Unit Reports
5.9.1.3 HIV	rate of new laboratory-confirmed infections with HIV per 100,000 population		5.4	5.8	Monthly Communicable Disease Reports , Manitoba Monthly Surveillance Unit Reports
5.9.2 Tuberculosis	rate of new tuberculosis cases per 100,000 population	B: 126	75	10.9	Surveillance update: Active tuberculosis in Manitoba, 2000-2012, Epidemiology and Surveillance Unit Public Health.
5.10.1 Mortality Rates	total number of deaths among all residents (all ages and all causes) per 1,000 residents.	B: 14.3 N: 10.5	13.2	7.3	MCHP, 2013
5.10.3 Injury Mortality Rates	number of deaths due to injury per 1,000 residents.		57.0(Unintentional) 40.5(intentional) 115.5(all)		Manitoba Health, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region
5.10.3.1 Suicide Rates	rate of deaths due to suicide, per 1,000 residents aged 10 and	B: 0.4 N:0.23	4.4	1.7	MCHP, 2013

	older.				
5.10.3.2 Unintentional Injury Death Rate	rate of death from unintentional injuries per 100,000 population.		57		Manitoba Health, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern Health Region
5.10.3.3 Motor Vehicle Deaths	rate of deaths due to motor vehicle accidents per 100,000 population.	B: 10.1 N: 16.7	13.1		Manitoba Health, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern RHA
5.10.3.4 Deaths Due To Drowning	rate of deaths due to drowning per 100,000 population.		6.4		Manitoba Health, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern RHA
5.10.3.5 Deaths Due To Falls	rate of deaths due to falls per 100,000 population.		15.1		Manitoba Health, Public Health and Primary Health Care Division epiREPORT 2000-2012 Northern RHA
5.10.4 Cancer Mortality	number of deaths due to cancer over a given time period, expressed as a rate per 100,000 population.		264.1	202.7	CancerCare Manitoba
5.10.4.1 Lung Cancer Mortality	number of deaths due to lung cancer over a given time period, expressed as a rate per 100,000 population.	B: 59 N: 62.7	70.5	51.1	CancerCare Manitoba
5.10.4.2 Colorectal Cancer Mortality	number of deaths due to Colorectal cancer	B: 25.6 N: 36.4	44.7	25.3	CancerCare Manitoba

	over a given time period, expressed as a rate per 100,000 population.				
5.10.4.3 Breast Cancer Mortality	number of deaths due to breast cancer over a given time period, expressed as a rate per 100,000 population.	B: 14.8 N: 36.4	18.8	27.3	CancerCare Manitoba
5.10.4.4 Prostate Cancer Mortality	number of deaths due to prostate cancer over a given time period, expressed as a rate per 100,000 population.	B: 86.8 N: 90.4	49.1	33.9	CancerCare Manitoba
5.10.6 Premature Mortality Rates	annual number of deaths occurring before the age of 75 per 1,000 population	B: 5.8 N: 4.4	5.4	3.1	MCHP, 2013
5.10.7 Potential Years of Life Lost (PYLL)	number of years of life "lost" by sex, when a person dies "prematurely" before age 75.	B: 108.7 N: 72	102.4	51.5	MCHP, 2013
5.10.7.1 PYLL Due To Cancer Deaths	Potential years of life lost (PYLL) for all malignant neoplasms.		16.5	15.2	MCHP, 2013
5.10.7.2 PYLL Due To Circulatory Disease Deaths	Potential years of life lost (PYLL) for all circulatory disease deaths.		13	8.9	MCHP, 2013
5.10.7.3 PYLL Due To Respiratory Disease Deaths	Potential years of life lost (PYLL) for all respiratory disease deaths.		3.5	2.1	MCHP, 2013
5.10.7.4 PYLL Due To Unintentional Injury	Potential years of life lost (PYLL) for all unintentional injuries.		42.6		Manitoba Health, Public Health and Primary Health Care

					Division epiREPORT 2000-2012
5.10.7.5 PYLL Due To Suicide	Potential years of life lost (PYLL) due to suicides.		46.1		Manitoba Health, Public Health and Primary Health Care Division epiREPORT 2000-2012
5.10.8 Infant Mortality	proportion of live births weighing 500 grams or more that die within 0 to 364 days of birth, reported as a rate per 1,000 live births	B: 8.9 N: 10.2	10.1	6.4	Manitoba Health, RHA Profile 2013.
5.10.9 Child Mortality	total number of deaths aged 1 to 19 years divided by the total population as a rate per 100,000children.	B: 72	91.9	32.4	Manitoba Health, RHA Profile 2013.

HEALTH SYSTEM PERFORMANCE AND QUALITY					
Indicator	Definition	Region Baseline	Region Current	Manitoba Current	Data Source
6.1.1 Births by Location of Birth	% of births that occur within the Region the mother is residing as well as measuring births that occur outside of the Region.		68.7%		Manitoba Health, Health Information Management
6.1.2 Regular Medical Doctor	% of residents who has a regular medical doctor.	B: 41.1% N: 79.8%	65.2%	86%	MCHP 2013
6.1.4. Ambulatory visit rate	Ambulatory visit rate per resident.	B: 3.8 N: 4.9	3.3	4.4	MCHP 2013
6.1.5 Ambulatory Consultation Rate	Ambulatory consultation rate per resident.	B: 0.27 N: 0.21	0.25	0.28	MCHP 2013
6.1.6 Visit Location Within District	% of residents visit general physician within district.	B: 67.4% N: 82.5%	76.9%	81.4%	MCHP 2013
	% of residents visit special physician within district.		16.2%	74.8%	MCHP 2013
6.1.7 Inflow and Outflow of RHA Patients	measures the relationship between hospital services provided in a region and the utilization of those services by local residents.	B: 0.6 N: 1.1	0.72		CIHI Health Indicators Interactive Tool
6.1.8.1 Breast Assessment Waits	median time it takes for final diagnosis for women who have an abnormal finding on their mammogram.	B: 41.5 N: 39	31	21	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.2 Radiation Therapy Waits	% of cancer patients who receive radiation therapy within four weeks of being ready to be treated.	B: 100% N: 94.7%	98%	99%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.2.1 Lung Cancer	% of Lung cancer patients who receive radiation therapy	B: s N: 100%	100%	100%	CANCERCARE MANITOBA,

	within four weeks of being ready to be treated.				COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.2.2 Colorectal Cancer	% of Colorectal cancer patients who receive radiation therapy within four weeks of being ready to be treated.	B: s N: s	s	100%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.2.3 Female Breast Cancer	% of Breast cancer patients who receive radiation therapy within four weeks of being ready to be treated.	B: s N: 100%	100%	100%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.2.4 Prostate Cancer	% of Prostate cancer patients who receive radiation therapy within four weeks of being ready to be treated.	B: s N: s	s	92.9%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.3 Cancer Surgery	% of cancer patients who are treated with surgery	B: 53.6% N: 44.1%	52.5%	54.5%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.3.1 Lung Cancer	% of Lung cancer patients who are treated with surgery	B: s N: 20%	18.4%	26.5%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.3.2 Colorectal Cancer	% of Colorectal cancer patients who are treated with surgery	B: 73.3% N: 55%	75%	81.4%	CANCERCARE MANITOBA, COMMUNITY

					HEALTH ASSESSMENT 2013 – 2014.
6.1.8.3.3 Female Breast Cancer	% of Breast cancer patients who are treated with surgery	B: 94.7% N: 90%	93.9%	90.6%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.3.4 Prostate Cancer	% of Prostate cancer patients who are treated with surgery	B: 33.3% N: 33.3%	47.5%	41.4%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.4 Radiation Therapy Treatment	% of all cancer patients who are treated with radiation therapy	B: 30.8% N: 28.5%	30.6%	29.1%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.4.1 Lung Cancer		B: 41.9% N: 26.7%	35.0%	39.9%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.4.2 Colorectal Cancer		B: s N: s	43.5%	41.7%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.4.3 Female Breast Cancer		B: 50.0% N: 62.5%	63.6%	57.2%	CANCERCARE MANITOBA, COMMUNITY HEALTH

					ASSESSMENT 2013 – 2014.
6.1.8.4.4 Prostate Cancer		B: 45% N: s	23%	24.4%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.1.8.5 Cancer End-Of-Life Care	% of patients who die of cancer with an acute care hospital stay in the last two weeks of life.	B: 70.1% N: 73.4%	76.7%	78.4%	CANCERCARE MANITOBA, COMMUNITY HEALTH ASSESSMENT 2013 – 2014.
6.2.1 Continuity of Care	% of adults has continuity of care.	B: 47.5% N: 67.5%	65.2%	73.2%	MCHP 2013
6.2.3 Antidepressant Prescription Follow up	% 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.	B: 38.5% N: 56.4%	36.1%	54.5%	MCHP 2013
6.2.4 Asthma Care	% of patients with asthma who filled at least one prescription for medications that control the symptoms for asthma.	B: 68.6% N: 64.1%	67.1%	64.1%	MCHP 2013
6.2.5 Diabetes Care: Eye Exams	% of diabetics aged 20 to 79 that had an eye exam in a given time period	B: 25% N: 36.5%	33.0%	37.5%	MCHP 2013
6.3.1 Benzodiazepines Prescriptions In Older Adults	% of seniors age 75 and older living in the community who have had at least two	B: 12 N: 16.9	14.8%	20.5%	MCHP 2013

	prescriptions, or a greater than 30 day supply of benzodiazepines in a given time period				
6.4.1 Hospitalization For Ambulatory Care Sensitive Conditions	measures the acute care hospitalization rate for ambulatory care conditions for the population under age 75 years.	B: 43.1 N: 27.5	14.9	6.3	MCHP 2013
6.4.2 Caesarean Section Rate	% of all births delivered by Caesarean Section.	B: 16.9% N: 24.5%	16.9%	21.9%	CIHI Health Indicators Interactive Tool
6.4.3 Dental Extractions Among Children	number of surgical dental extractions performed expressed as a rate of 1,000 children 0 to 5 years of age.	B: 78.5 N: 57.2	72.8	15	MCHP 2013
6.4.4 Cancer Late Stage Diagnosis	% of cancer patients who were diagnosed at stage 4 of their cancer	B: 20.6% N: 29.2%	23.6%	19.5%	CancerCare Manitoba, Regional Profile, 2014
6.4.5 Cancer Survival Rates	% of cancer patients who are still alive five years after diagnosis	B: 53.7% N: 53.9%	46.4%	53.9%	CANCERCARE MANITOBA
6.4.5.1 Colorectal Cancer Survival Rates	% of Colorectal cancer patients who are still alive five years after diagnosis	B: 68.1% N: 55.7%	35.3%	61.6%	CANCERCARE MANITOBA
6.4.5.2 Breast Cancer Survival Rates	% of Breast cancer patients who are still alive five years after diagnosis	B: 73.2% N: 87.4%	78.4%	84.9%	CANCERCARE MANITOBA
6.4.5.3 Prostate Cancer Survival Rates	% of Prostate cancer patients who are still alive five years after diagnosis	B: 69.9% N: 82.7%	74.7%	91.7%	CANCERCARE MANITOBA
6.4.5.4 Lung Cancer Survival Rates	% of Lung cancer patients who are still alive five years after diagnosis	B: 20.4% N: 16.4%	21.9%	21.7%	CANCERCARE MANITOBA

Indicator	Definition	Region Baseline	Region Current	Manitoba Current	Data Source
7.1.1 Physician visit rate	% of residents visit physician.	B: 71.2% N: 77.8%	75.1%	79.8%	Canadian Community Health Survey
7.1.2 Total hospital separation rates	Total hospital separation rate per 1,000.	B: 315.6 N: 201.5	154.8	87.9	MCHP 2013
7.2.3 Hospital separation rates for short stays and long stays	Hospital short day stays(<14 days) rate per 1,000.	B: 780.1 N: 537.7	426.4	247.4	MCHP 2013
	Hospital long day stays(14 days or more) rate per 1,000.	B: 1076.7 N: 659.5	895.3	247.4	MCHP 2013
7.2.5 Hospital Readmission Rate	% of patients who have an unplanned, inpatient readmission to an acute care facility within 30 days after being discharged from the hospital.		10.9%	8.5%	MCHP 2013
7.3.1 Computed Tomography (CT) Scans	number of computed tomography (CT) scans, expressed as a rate per 1,000 residents.	B: 94.8	160.9	119.5	MCHP 2013
7.3.2 Magnetic Resonance Imaging (MRI) Scans	Rate for magnetic resonance imaging (MRI) scans per 1,000 residents	B: 12.5 N: 13.2	36.1	53.1	MCHP 2013
7.3.3 Cataract Surgery	number of cataract surgeries, expressed as a rate per 1,000 residents aged 50 years or older.	B: 23.0 N: 26.4	31.3	29.4	MCHP 2013
7.3.4 Hip Replacement Surgery	number of hip replacement surgeries, expressed as rate of 1,000 residents aged 40 years or older.	B: 2.4 N: 1.9	2.4	2.1	MCHP 2013
7.3.5 Knee Replacement Surgery	number of knee replacement surgeries performed, expressed as a rate per 1,000 residents aged 40 years or older.	B: 4.0 N: 2.8	4.0	3.2	MCHP 2013
7.3.6 Cardiac	number of cardiac	B: 9.3	10.8	8.3	MCHP 2013

Catheterization	catheterizations performed, expressed as a rate per 1,000 residents aged 40 years or older.	N: 7.9			
7.3.9 Percutaneous Coronary Intervention Rates	number of percutaneous coronary interventions (PCI), expressed as a rate per 1,000 residents aged 40 years or older.	B: 2.4 N: 2.0	3.1	3.0	MCHP 2013
7.3.10 Coronary Artery Bypass Graft (CABG) Surgery	rate of coronary bypass graft surgeries per 1,000 residents aged 40 years or older.	B: 2.0 N: 2.0	2.1	1.4	MCHP 2013
7.6.1 Residents in PCH by RHA	% of residents aged 75 and older who were living in a provincial PCH	B: 8.9 N: 13.9	13.6	11.9	MCHP 2013
7.6.2 Level of Care on Admission	distribution of new personal care home admissions by level of care (1 to 4) at admission.		14.9%(2N) 13.9%(2Y) 26.7%(3N) 27.7%(3Y) 16.8%(4)	24%(2N) 6.5%(2Y) 37.5%(3N) 21.2%(3Y) 10.9%(4)	MCHP 2013
7.6.3 Personal Care Home Median Wait Times From Paneling to Admission	time it took for half of all residents to be admitted after being assessed as eligible for PCH placement.	B: 0.7 N: 2.9	8.7	5.1	MCHP 2013
7.6.4 Personal Care Home Bed Supply	number of Personal Care Home (PCH) beds per 1,000 residents over 75 years of age.	B: 195.8 N: 147.8	195.5	114.1	MCHP 2013

Appendix B 2014 Northern CHA Indictors By District and Zone

DISTRICT CODE	DISTRICT
D1	Flin,Snow,Cran,Sher
D2	Thompson,Mystery Lake
D3	The Pas/OCN,Kelsey
D4	Gillam,Fox Lake CN
D5	Bay Line
D6	LL/MC,LR,O-P(SIL),PN(GVL)
D7	Cross Lake/Pimi CN
D8	SayD(TL),Bro/BL,NoL(Lac)
D9	GR/Mis,ML/Mos,Eas/Che
D10	Bu(OH),MS(GR),GLN/GLFN
D11	Norway House/NHCN
D12	Puk/MatCol CN
D13	Island Lake
D14	Sham,York FN,Tat(SPL)
D15	Nelson House/NCN

Appendix B 2014 Northern CHA Indictors By District and Zone

	Determinants of Health														
	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15
4.3.1 Exposure to Second Hand Smoke	23.1%	21.4%	18.8%	24.3%	61.2%	(s)	(s)	(s)	(s)	N/A	(s)	N/A	(s)	N/A	(s)
4.4.1 Self Perceived Life Stress	21.8%	19.7%	14.6%	(s)	32.2%	(s)	(s)	(s)	(s)	N/A	(s)	N/A	(s)	N/A	(s)
4.5.1 Active living(active)	33.4%	26.0%	29.9%	39.0%	32.8%	40.7%	(s)	(s)	(s)	N/A	25.0%	N/A	(s)	N/A	(s)
4.5.1 Active living(moderate)	20.4%	26.7%	26.6%	(s)	27.1%	(s)	(s)	(s)	(s)	N/A	(s)	N/A	(s)	N/A	(s)
4.5.1 Active living(inactive)	46.2%	47.3%	43.5%	40.5%	40.1%	39.4%	(s)	50.0%	(s)	N/A	(s)	N/A	(s)	N/A	(s)
4.5.2 Healthy Eating	31.3%	33.3%	34.3%	(s)	(s)	(s)	(s)	(s)	(s)	N/A	50.0%	N/A	(s)	N/A	(s)
4.5.3 Body Mass Index(underweight/normal)	41%	32%	31%	21%	(s)	15%	(s)	(s)	(s)	N/A	(s)	N/A	(s)	N/A	(s)
4.5.3 Body Mass Index(overweight)	30%	33%	39%	41%	(s)	56%	(s)	(s)	(s)	N/A	(s)	N/A	(s)	N/A	(s)
4.5.3 Body Mass Index(obese)	29%	35%	30%	38%	(s)	(s)	(s)	(s)	(s)	N/A	(s)	N/A	(s)	N/A	(s)
4.5.4 Alcohol Use	36%	36%	35%	38%	59%	25%	(s)	(s)	(s)	N/A	(s)	N/A	(s)	N/A	(s)
4.5.5 Smoking	34.9%	37.1%	31.9%	26.4%	50.9%	35.4%	(s)	(s)	(s)	N/A	(s)	N/A	(s)	N/A	(s)
4.5.6.2.1 Influenza Immunization among Seniors	57.7%	53.7%	55.2%	67.7%	59.2%	48.7%	28.2%	28.7%	42.2%	25.1%	44.9%	(s)	48.1%	36.2%	20.2%
4.5.6.2.2 Pneumococcal Immunization among Seniors	72.0%	66.8%	68.6%	76.8%	69.0%	64.9%	61.3%	79.9%	63.5%	74.3%	27.0%	23.3%	61.6%	42.2%	50.1%

Appendix B 2014 Northern CHA Indictors By District and Zone

	Health Status														
	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15
5.2 Male Life Expectancy	75.8	75.6	74.0	78.2	74.8	71.7	67.1	67.4	71.7	67.2	68.4	67.9	65.5	66.6	64.7
5.2 Female Life Expectancy	81.0	77.8	77.9	77.8	77.9	72.0	79.1	82.6	72.7	78.5	70.3	80.2	72.8	69.5	68.3
5.3.1 Self rated physical health	80.0%	88.0%	87.5%	(s)	(s)	(s)	(s)	(s)	(s)	N/A	(s)	N/A	(s)	N/A	(s)
5.3.3 General Mental Health Scale(high)	35.6%	44.9%	45.0%	45.0%	48.3%	(s)	(s)	(s)	61.0%	N/A	(s)	N/A	(s)	N/A	(s)
5.3.3 General Mental Health Scale(medium)	36.5%	30.4%	32.5%	26.1%	(s)	46.8%	(s)	(s)	(s)	N/A	(s)	N/A	(s)	N/A	(s)
5.3.3 General Mental Health Scale(low)	27.9%	24.7%	22.6%	28.9%	(s)	(s)	(s)	(s)	(s)	N/A	50.0%	N/A	(s)	N/A	(s)
5.3.4 Physical Functioning Scale	54%	53%	50%	50%	33%	54%	(s)	(s)	71%	N/A	(s)	N/A	(s)	N/A	(s)
5.4.1 Birth Rate	16	17.6	10.2	18.2	13.7	14.4	31.3	15.3	27.4	28.9	28.4	40.3	31.9	28.4	32.5
5.4.2 Teen Birth Rate	59.3	56.9	48.8	50.0	27.4	49.2	106.8	75.9	133.3	127.4	131.7	102.3	173.6	124.2	136.1
5.4.4 Low Birth Weight Rate(MH)	5.6%	5.8%	5.0%	2.9%	0.0%	9.1%	7.7%	4.2%	6.7%	7.0%	4.0%	3.0%	9.6%	0.0%	9.5%
5.4.4 Low Birth Weight Rate(MCHP)	4.3%	5.8%	4.7%	4.8%	5.4%	5.2%	5.3%	5.8%	5.5%	(s)	(s)	7.5%	5.6%	(s)	5.2%
5.4.5 High Birth Weight Rate	22.5%	14.7%	17.5%	26.5%	26.3%	6.1%	11.3%	8.3%	25.0%	17.5%	26.0%	23.9%	15.3%	15.2%	11.9%
5.5.1 Acute Myocardial Infarction	4.0	4.3	4.7	4.9	5.4	3.4	4.3	(s)	11.1	4.6	8.1	5.1	8.7	10.1	5.5
5.5.2 Arthritis Prevalence	22.7%	25.7%	19.6%	46.0%	20.7%	31.9%	24.2%	22.5%	24.4%	23.4%	26.3%	21.6%	20.8%	16.8%	16.1%
5.5.3 Congestive Heart Failure (40+)	1.0%	1.8%	2.1%	2.4%	2.7%	1.6%	5.2%	2.8%	4.0%	3.1%	4.4%	2.4%	5.4%	7.1%	2.6%
5.5.4 Diabetes Incidence (19+)	0.66	1.26	1.49	1.59	1.66	1.52	4.58	1.25	2.59	2.19	3.35	2.34	5.15	3.48	1.64
5.5.5 Diabetes Prevalence (19+)	9.4%	13.9%	18.0%	21.3%	22.5%	15.9%	35.9%	9.9%	27.6%	26.3%	31.7%	24.4%	49.5%	33.8%	19.8%
5.5.6 Lower Limb Amputation Due To Diabetes	(s)	1.9%	2.2%	(s)	(s)	0.0%	4.4%	0.0%	4.7%	(s)	4.4%	(s)	4.7%	2.6%	3.0%
5.5.7 Hypertension Incidence	3.14	4.12	2.53	8.74	4.57	6.25	6.24	4.03	4.05	3.73	5.41	2.90	8.23	7.02	2.75

5.5.8 Hypertension Prevalence	27.0%	33.4%	29.0%	46.8%	35.9%	35.4%	49.3%	27.1%	34.9%	39.0%	46.8%	27.4%	53.9%	40.5%	33.9%
5.5.9 Ischemic Heart Disease (IHD) Incidence	0.46	0.71	0.76	0.87	0.40	0.74	2.28	0.80	0.97	0.87	1.92	1.00	1.62	0.96	1.08
5.5.10 Ischemic Heart Disease (IHD) Prevalence	6.1%	8.0%	8.8%	12.3%	7.0%	8.2%	26.1%	8.8%	11.4%	10.7%	17.7%	9.1%	14.8%	12.3%	10.0%
5.5.11 Osteoporosis Treatment Prevalence (19+)	9.0%	10.7%	10.7%	14.0%	9.3%	12.1%	21.6%	14.0%	12.7%	12.1%	11.9%	5.9%	12.3%	12.0%	9.9%
5.5.12 Respiratory Disease Prevalence	7.7%	7.7%	6.3%	10.4%	5.6%	7.4%	4.6%	4.8%	3.7%	4.7%	4.2%	2.4%	2.6%	3.1%	3.5%
5.5.13 Stroke Incidence Rate	2.4	3.6	3.5	12.1	6.2	4.5	10.4	(s)	(s)	3.7	10.0	5.9	12.0	7.9	6.1
5.6.1 Prevalence of Dementia (55+)	6.8%	7.9%	9.7%	10.5%	9.5%	14.7%	12.2%	(s)	7.3%	11.7%	8.0%	(s)	8.3%	11.3%	6.8%
5.6.2 Prevalence of Mood and Anxiety Disorders (10+)	18.6%	19.5%	17.6%	23.6%	19.8%	19.6%	13.8%	12.6%	13.0%	17.6%	15.2%	10.6%	15.3%	13.3%	14.9%
5.6.3 Prevalence of Substance Abuse (10+)	5.8%	8.6%	7.0%	10.6%	8.5%	16.8%	10.7%	16.1%	7.4%	9.9%	8.8%	9.1%	5.8%	16.2%	11.7%
5.10.6 Premature Mortality Rates	3.5	3.9	4.5	3.3	4.8	6.3	6.3	5.8	6.4	6.8	7.5	6.3	8.1	8.8	9.6
5.10.7 Potential Years of Life Lost (PYLL)	52.8	65.4	83.7	58.6	87.5	144.0	92.9	76.4	114.4	152.0	98.2	121.0	179.4	224.9	146.4

Appendix B 2014 Northern CHA Indictors By District and Zone

Health System Performance and Quality															
	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15
6.1.2 Regular Medical Doctor	70.3%	52.1%	80.4%	64.7%	57.2%	81.3%	(s)	50.0%	67.5%	N/A	(s)	N/A	50.0%	N/A	(s)
6.1.4. Ambulatory visit rate	3.8	3.4	3.2	4.3	2.9	3.7	5.4	2.8	2.5	3.3	2.9	1.9	3.2	2.0	1.7
6.2.1 Continuity of Care	75.5%	49.5%	65.6%	93.4%	49.0%	91.4%	92.4%	70.0%	61.4%	73.4%	65.2%	77.4%	55.7%	60.8%	73.3%
6.2.3 Antidepressant Prescription Follow up	42.3%	37.3%	41.4%	40.6%	41.4%	29.2%	43.1%	(s)	37.0%	25.9%	29.9%	(s)	33.3%	(s)	(s)
6.2.4 Asthma Care	62.4%	66.4%	62.4%	69.1%	62.2%	73.7%	73.0%	65.5%	74.3%	81.7%	60.7%	75.0%	65.2%	80.0%	78.9%
6.2.5 Diabetes Care: Eye Exams	45.0%	36.3%	39.9%	28.0%	35.0%	29.5%	19.3%	37.3%	37.2%	35.3%	26.5%	37.8%	29.6%	28.4%	25.3%
6.3.1 Benzodiazepines Prescriptions In Older Adults	17.4%	17.4%	17.5%	(s)	16.0%	(s)	12.7%	0.0%	17.0%	20.1%	9.0%	(s)	8.1%	(s)	(s)
6.4.1 Hospitalization For Ambulatory Care Sensitive Conditions	7.4	8.6	15.8	16.2	4.2	20.0	17.7	10.9	19.2	19.4	8.7	19.3	20.2	28.9	21.0
6.4.3 Dental Extractions Among Children	14.8	35.3	51.3	24.2	78.8	69.4	87.8	99.1	85.2	92.0	89.3	86.5	108.8	84.8	84.1

Appendix B 2014 Northern CHA Indictors By District and Zone

Health System Characteristics															
	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15
7.1.2 Total hospital separation rates	114.5	115.8	143.7	127.2	115.5	167.7	183.4	123.7	192.4	184.5	136.0	218.4	207.4	209.5	167.5
7.2.3 Hospital separation rates for long stays	571.8	688.5	528.8	468.4	230.3	1877.8	1442.7	1196.1	926.2	742.9	1205.3	1012.3	1460.5	1389.9	1486.4
7.2.3 Hospital separation rates for short stays	316.8	359.5	443.6	381.9	437.1	486.7	578.2	378.8	587.3	636.4	441.8	623.5	788.0	878.1	519.0
7.2.5 Hospital Readmission Rate	8.5%	11.0%	11.3%	16.8%	11.6%	8.2%	12.0%	9.4%	13.5%	11.0%	7.1%	12.5%	9.1%	11.7%	10.4%
7.3.1 Computed Tomography (CT) Scans	114.4	169.0	162.3	188.4	173.9	146.1	205.9	155.9	153.4	181.0	162.8	215.9	286.1	176.0	140.8
7.3.2 Magnetic Resonance Imaging (MRI) Scans	33.7	34.1	35.2	104.3	21.9	17.3	36.3	39.9	31.0	24.2	52.0	45.4	58.0	15.5	16.5
7.3.3 Cataract Surgery	25.7	23.9	29.9	(s)	(s)	(s)	39.1	(s)	38.4	40.8	55.3	41.7	42.2	50.7	57.1
7.3.4 Hip Replacement Surgery	2.5	2.2	2.4	(s)	(s)	2.5	(s)	(s)	4.3	(s)	1.2	(s)	4.2	(s)	(s)
7.3.5 Knee Replacement Surgery	5.2	2.9	3.2	10.7	(s)	3.3	5.5	(s)	4.3	8.2	5.2	(s)	4.8	3.9	2.2
7.3.6 Cardiac Catheterization	7.6	8.1	10.9	9.2	7.1	7.1	13.6	7.5	17.4	9.7	17.6	9.4	22.6	9.2	9.0
7.3.9 Percutaneous Coronary Intervention Rates	2.3	2.8	3.3	3.6	(s)	2.1	2.5	(s)	3.8	1.4	3.6	(s)	5.4	2.6	2.7
7.3.10 Coronary Artery Bypass Graft (CABG) Surgery	1.3	1.5	1.7	(s)	2.8		2.2	(s)	2.8	1.7	2.3	(s)	4.5	2.7	(s)

Appendix B 2014 Northern CHA Indictors By District and Zone

Determinants of Health			
	Northern Direct Service Zone	Northern Non-Direct Service Zone	Northern Island Lake Zone
4.3.1 Exposure to Second Hand Smoke	22.3%	(s)	(s)
4.4.1 Self Perceived Life Stress	19.3%	(s)	(s)
4.5.1 Active living(active)	29.2%	(s)	(s)
4.5.1 Active living(moderate)	24.8%	(s)	(s)
4.5.1 Active living(inactive)	45.9%	(s)	(s)
4.5.2 Healthy Eating	32.2%	(s)	(s)
4.5.3 Body Mass Index(underweight/normal)	34%	(s)	(s)
4.5.3 Body Mass Index(overweight)	35%	(s)	(s)
4.5.3 Body Mass Index(obese)	32%	(s)	(s)
4.5.4 Alcohol Use	36%	(s)	(s)
4.5.5 Smoking	35.2%	(s)	(s)
4.5.6.2.1 Influenza Immunization among Seniors	56.0%	32.1%	48.2%
4.5.6.2.2 Pneumococcal Immunization among Seniors	69.7%	53.8%	61.7%
4.6.2 Breastfeeding initiation	82.2%	51.9%	51.1%

Appendix B 2014 Northern CHA Indictors By District and Zone

Health Status			
	Northern Direct Service Zone	Northern Non-Direct Service Zone	Northern Island Lake Zone
5.2 Male Life Expectancy	74.6	67.6	65.5
5.2 Female Life Expectancy	78.7	73.4	72.7
5.3.1 Self rated physical health	85.6%	(s)	(s)
5.3.3 General Mental Health Scale(high)	42.5%	38.8%	(s)
5.3.3 General Mental Health Scale(medium)	32.7%	(s)	(s)
5.3.3 General Mental Health Scale(low)	24.9%	51.7%	(s)
5.3.4 Physical Functioning Scale	52%	50%	(s)
5.4.2 Teen Birth Rate	32.2	47.5	71.2
5.4.4 Low Birth Weight Rate(MCHP)	5.4%	5.3%	5.9%
5.5.1 Acute Myocardial Infarction	4.3	6.7	8.6
5.5.2 Arthritis Prevalence	24.2%	22.8%	21.0%
5.5.3 Congestive Heart Failure (40+)	1.6%	4.1%	5.4%
5.5.4 Diabetes Incidence (19+)	1.20	2.82	5.18
5.5.5 Diabetes Prevalence (19+)	14.3%	28.0%	48.9%
5.5.6 Lower Limb Amputation Due To Diabetes	1.7%	3.5%	4.8%
5.5.7 Hypertension Incidence	3.57	4.68	8.21
5.5.8 Hypertension Prevalence	30.7%	40.1%	53.7%
5.5.9 Ischemic Heart Disease (IHD) Incidence	0.63	1.32	1.61
5.5.10 Ischemic Heart Disease (IHD) Prevalence	7.6%	14.3%	14.5%
5.5.11 Osteoporosis Treatment Prevalence (19+)	10.5%	13.7%	12.6%
5.5.12 Respiratory Disease Prevalence	7.4%	4.3%	2.6%
5.5.13 Stroke Incidence Rate	3.3	6.3	11.6
5.6.1 Prevalence of Dementia (55+)	8.3%	8.8%	8.1%
5.6.2 Prevalence of Mood and Anxiety Disorders (10+)	19.2%	14.6%	15.7%
5.6.3 Prevalence of Substance Abuse (10+)	8.3%	11.3%	6.4%
5.10.3.1 Suicide Rates	2.6	6.0	7.6
5.10.6 Premature Mortality Rates	4.1	7.3	8.1
5.10.7 Potential Years of Life Lost (PYLL)	72.5	129.6	172.4

Appendix B 2014 Northern CHA Indictors By District and Zone

Health System Performance and Quality			
	Northern Direct Service Zone	Northern Non-Direct Service Zone	Northern Island Lake Zone
6.1.2 Regular Medical Doctor	64.3%	57.1%	50.0%
6.1.4. Ambulatory visit rate	3.4	3.1	3.2
6.2.1 Continuity of Care	64.2%	72.0%	63.7%
6.2.3 Antidepressant Prescription Follow up	39.4%	28.8%	33.3%
6.2.4 Asthma Care	64.7%	72.8%	65.2%
6.2.5 Diabetes Care: Eye Exams	38.5%	28.5%	29.6%
6.3.1 Benzodiazepines Prescriptions In Older Adults	16.9%	10.7%	8.1%
6.4.1 Hospitalization For Ambulatory Care Sensitive Conditions	11.8	19.1	20.7
6.4.3 Dental Extractions Among Children	40.8	87.9	108.8

Appendix B 2014 Northern CHA Indictors By District and Zone

Health System Characteristics			
	Northern Direct Service Zone	Northern Non-Direct Service Zone	Northern Island Lake Zone
7.1.2 Total hospital separation rates	125.5	177.3	206.2
7.2.3 Hospital separation rates for long stays	707.3	1094.8	1422.4
7.2.3 Hospital separation rates for short stays	332.3	541.9	710.6
7.2.5 Hospital Readmission Rate	10.9%	11.4%	8.9%
7.3.1 Computed Tomography (CT) Scans	146.0	164.2	269.8
7.3.2 Magnetic Resonance Imaging (MRI) Scans	35.2	32.7	56.7
7.3.3 Cataract Surgery	25.6	44.4	42.3
7.3.4 Hip Replacement Surgery	2.4	1.9	4.3
7.3.5 Knee Replacement Surgery	3.8	4.6	4.8
7.3.6 Cardiac Catheterization	8.5	12.7	22.1
7.3.9 Percutaneous Coronary Intervention Rates	2.9	2.8	5.5
7.3.10 Coronary Artery Bypass Graft (CABG) Surgery			

Northern Health Region

COMMUNITY CONSULTATION TOOL KIT

Overview Document

PREPARED BY

EPI RESEARCH INC.

MAY 29, 2014

LIST OF TOOLS

All tools with the exception of expense information are provided in separate files on the flash drive provided. This "tool kit" kit document is meant as an additional resource to provide you with a way to view all of the tools in one place without needing to open all files.

When you need to use documents for your community consultation, please do use the individual files provided as there may be some formatting changes that have occurred in this document.

If you have any questions about any of these tools, please contact Cynthia Carr at epiresearch@shaw.ca

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SCHEDULING TEMPLATE

Northern Region 2014 Community Health Assessment
Community Consultation Scheduling and Tracking

Type of consultation (focus group, community meeting or key informant interview)	Date	Number of Participants invited	Specific type of group (ex. community members, staff, teachers etc)	Location (community name and location)	Name of Facilitator(s), note taker and any other staff	Number of participants that attended	Any notes/comments about group/interview

INVITATION TEMPLATE

- PLEASE FILL IN HIGHLIGHTED AREAS TO SUIT YOUR SPECIFIC DETAILS

NORTHERN
HEALTH REGION

Focus Group Participation Invitation

The Northern Health Region is required to complete a Community Health Assessment every five years. We are working on this project now and an important part of this work involves talking to community members about their experiences with health and health care in their community.

You are invited to participate in a discussion about your community, changes that you have seen in the health of community members and any suggestions you might have about how people in your community can stay healthy.

Type of Group:
Location:
Date:
Time:

The information you give to us in the discussion will remain confidential. When we use your information in our report, we will attribute it 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.

A light snack will be served at this discussion. You will not be paid for your participation.

Please contact INSERT NAME at INSERT PHONE NUMBER to confirm that you can attend this important meeting. Please let us know by DATE.

If you have any questions or concerns about your experience in this focus group, please call Cynthia Carr at 204-889-9939.

We look forward to seeing you soon!

Sincerely,

Joy Tetlock, Vice President Planning and Innovation, Northern Health Region
and INSERT NAME (Focus Group Facilitator)

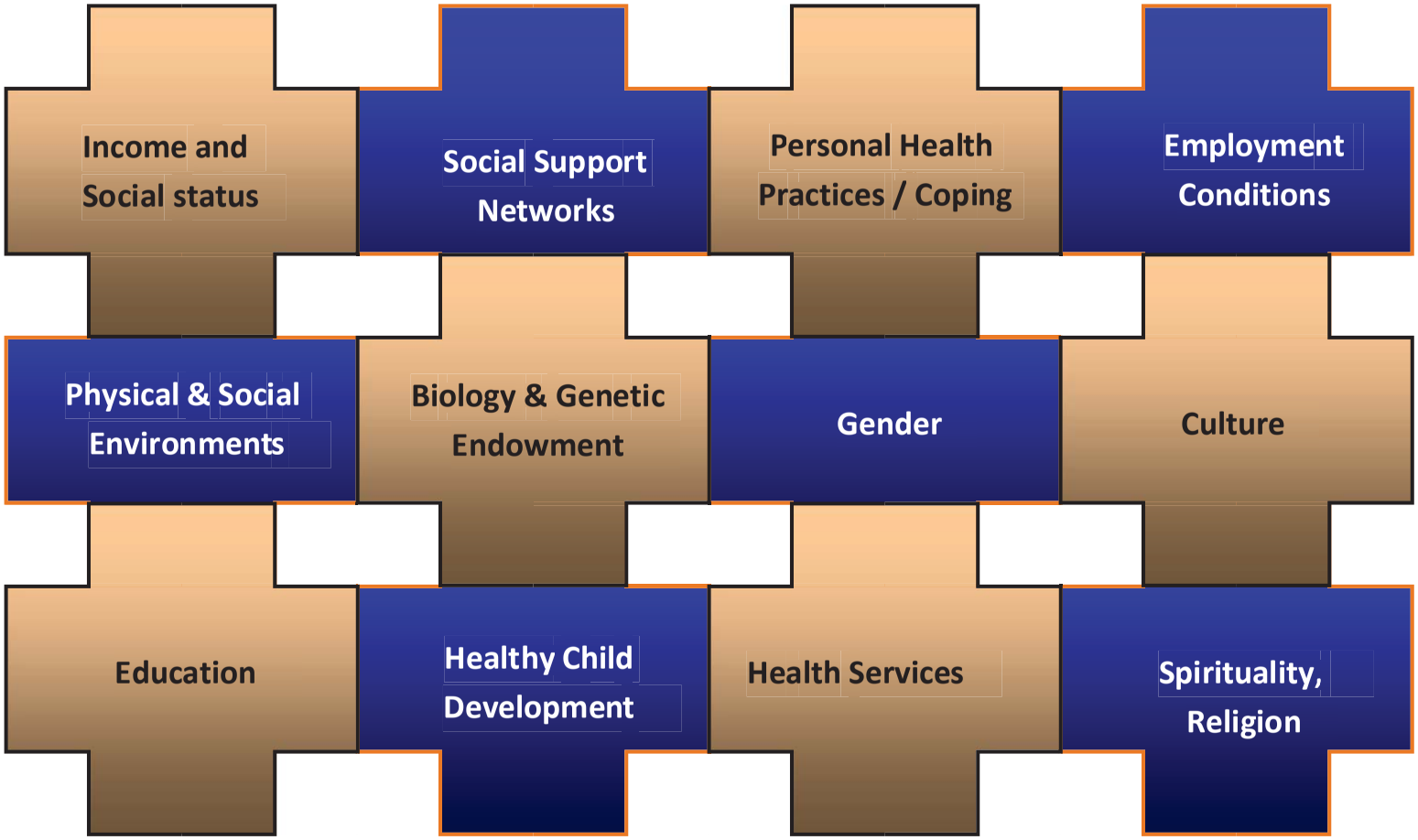
FACILITATOR MINI POWERPOINT

- 3 SLIDES
- TO USE AT START OF FOCUS GROUP
- IF YOU DO NOT HAVE A PROJECTOR, YOU CAN PRINT OFF A COPY OR TWO TO SHARE AROUND THE TABLE.

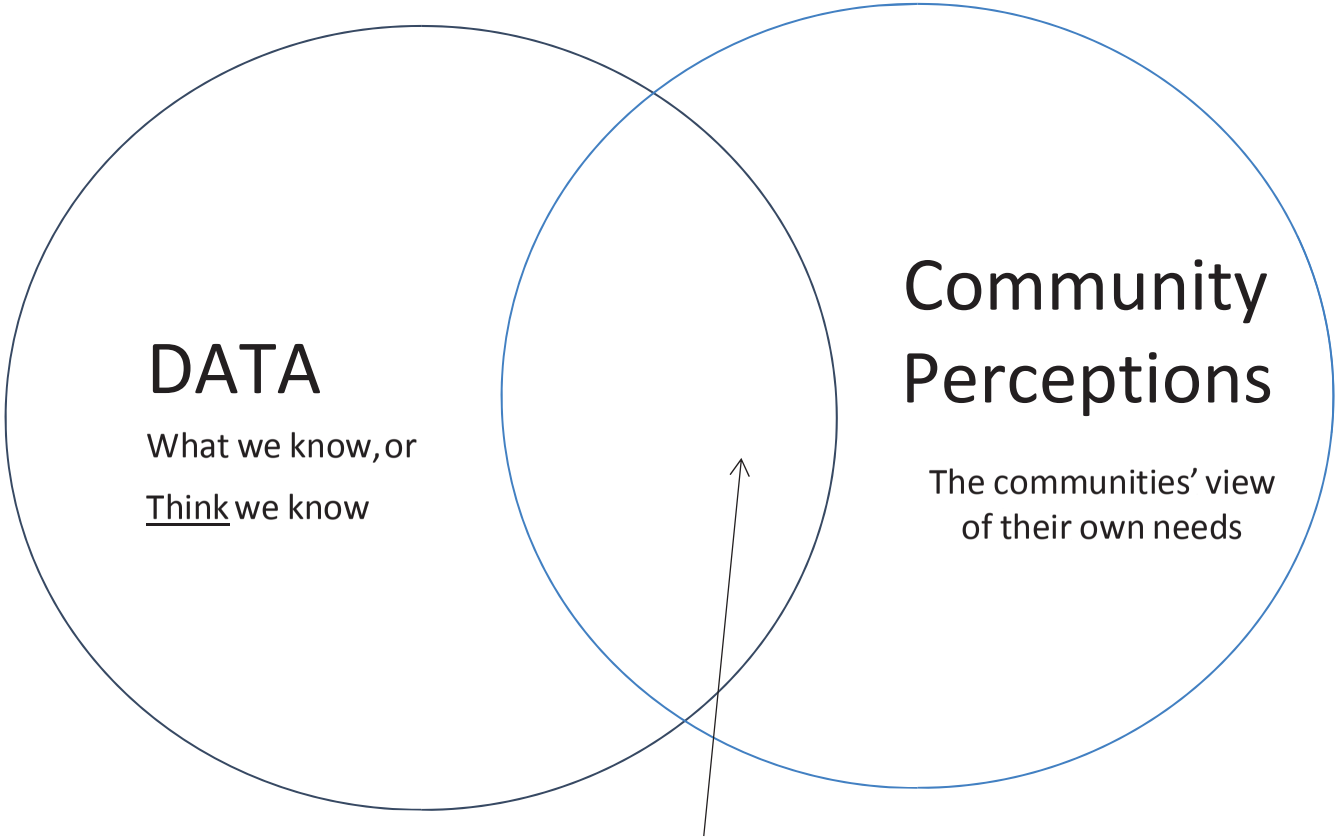
What is the purpose of a Community Health Assessment (CHA)?

- To answer questions
- How healthy are we?
- What makes us sick?
- What other factors determine our health?
- How do we use the services available?
- **To support Strategic Planning**
- Other?

Determinants of Health "Puzzle"



What is community consultation used for?



Informs CHA – where are perceptions same (where circles overlap) and different?? If different, what can we learn from community to help explain difference? (that is why we are here!)

FOCUS GROUP PARTICIPANTS TRACKING TEMPLATE

- USE TO TRACK AND SCHEDULE PARTICIPANTS.
- ENSURE INVITATIONS AND REMINDERS TAKE PLACE.

Northern Region 2014 Community Health Assessment
Community Consultation Scheduling and Tracking

To be completed and submitted to Cynthia Carr as consultations are scheduled. Cynthia will keep the master list of all scheduled consultations.						To be completed/Updated After Consultation completed and submitted to Cynthia.	
Type of consultation (focus group, community meeting or key informant interview)	Date	Number of Participants invited	Specific type of group (ex. community members, staff, teachers etc)	Location (community name and location)	Name of Facilitator(s), note taker and any other staff	Number of participants that attended	Any notes/comments about group/interview

Please scan mini surveys and e-mail to Cynthia Carr (Epiresearch@shaw.ca) along with your typed verbatim notes from the focus groups within two days of focus group completion. Once your consultations are complete, please e-mail this tracking sheet to Cynthia as well.

CONSENT FORM

- PLEASE ENSURE THAT ALL FOCUS GROUP PARTICIPANTS SIGN CONSENT FORMS
- THE CONSENT FORM IS SET UP SO THAT THE TOP PORTION CAN BE DETACHED AND KEPT BY PARTICIPANT IF DESIRED (IT HAS CONTACT DETAILS IF THE PARTICIPANT HAS QUESTIONS OR CONCERNS).
- USE FILE VERSION AS THIS EXAMPLE HAS SOME FORMATTING CHALLENGES.

NORTHERN HEALTH REGION

Community Health Assessment (CHA) Key Informant Consent Form

The CHA is a process undertaken to identify the strengths and needs of the community, 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, access to healthcare, changes that you have seen in the health of community members and any suggestions you might have about how people in your community can stay healthy.

The information you provide will remain confidential. If we choose to reference any of your words used in the discussion, we will attribute them only to "a community member". Your name and other personal information will not be used in any report or document.

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.

(Detach top portion if you would like to keep it for your records. Sign and submit bottom portion)

I have read the statement above about participating in a key informant interview to share opinions related to health issues in my community and region.

I understand that:

- I am participating in this interview 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.
- Information I give during the discussion may be used in the Community Health Assessment report but I will not be identified with the information.
- My name will not be published.

❑ Yes ❑ No

I agree to participate in this interview:

❑ Yes ❑ No

_____
Printed Name of Participant

_____
Signature of Participant

_____
Date

NORTHERN HEALTH REGION

Community Health Assessment (CHA) Survey Consent Form

The CHA is a process undertaken to identify the strengths and needs of the community, to enable the community-wide establishment of health priorities, and to facilitate collaborative action planning.

You are invited to complete a survey to tell us about your experience with health care in the community. This survey is completely voluntary and you do not have to complete the survey in order to receive any services.

The information you give to us in the discussion will remain confidential. Please do not put your name on the survey. Your name and other personal information will not be used in any report or document.

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 help.

(Detach top portion if you would like to keep it for your records. Sign and submit bottom portion)

I have read the statement above about completing a survey to share opinions related to health issues in my community and region.

I understand that:

- I am completing a survey to share my opinion about health issues in my community and region.
- There are no anticipated harms or known benefits to me resulting from completing a survey.
- Information I give may be used in the Community Health Assessment report but I will not be identified with the information.
- My name is not on the survey and will not be published.

❑ Yes ❑ No

I agree to complete this survey:

❑ Yes ❑ No

_____
Printed Name

_____
Signature

_____
Date

FOCUS GROUP AGENDA AND QUESTIONS

- USE THE FOLLOWING AS A GUIDE FOR YOUR FOCUS GROUPS.
- USE THE FOLLOW UP/GUIDING QUESTIONS TO HELP YOU WITH YOUR CONVERSATION WITH FOCUS GROUP PARTICIPANTS.

NORTHERN
HEALTH REGION

2014 Community Health Assessment
Key Informant Interview Questions –RCMP, COMMUITY LEADERS, TEACHERS

In General, purpose of Key Informant Interview and what we are hoping to learn:

The Northern Health Region is required to complete a Community Health Assessment every five years. We are working on this project now and an important part of this work involves talking to community members about their experiences with health and health care in their community.

Today I want to talk to you, as an expert in your community, about your community and the most important things that you think are needed in a community to support health. I have a small number of questions and then at the end of the interview, please feel free to add any further information that you think is important for us to learn about the community. For this interview, I am interested to learn about changes that you have seen in the health of community members, positive changes in your community and any suggestions you might have about how people in your community can stay healthy.

I also want to talk to you about accessibility to services and any experiences you have had that made accessibility easier or barriers/challenges you have encountered. We want to know if the region is doing enough in making services available to residents or if you have suggestions for changes. We want to know more about how to make encounters with the healthcare system a positive experience - where we are doing a good job, we want to continue building on these areas of strength and where there is room for improvement, we want to hear about it so that we can explore this more.

Consent:

I want you to know that this information may be published in our Community Health Assessment document. For the most part, the information will be presented as 'key themes' from all of our consultations. However, we may also add quotes throughout the document. Your name will never be published in association with any key themes or quotes. Please only participate to the extent that you are comfortable. It is just fine if you do not wish to answer some of the questions that I will ask. Do you agree to participate in this interview to support the Community Health Assessment?

NORTHERN
HEALTH REGION

Key Informant Interview Questions

INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.
Start of Interview – Introduction, VERBAL Consent, and survey.	• See notes in introduction above. • Be clear that we are looking for "key themes" but may add quotes (without names) in our final CHA document to give more context • Be clear that you are not there to answer for the region, address any complaint or concerns. You are there to ask for feedback to support a health planning process. If participants have complaints/concerns that need to be addressed - collect name and contact information. • Ask for verbal consent to participate in the interview (notes above) • Please be clear that they are not expected to be experts in all areas and that if there are any questions they do not wish to discuss, that is just fine.

NORTHERN
HEALTH REGION

INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.

1. What Makes a Community Healthy?
 	
Give time for in-depth discussion as this question sets stage for the following questions and discussion.
	Initiate discussion of the many factors that can influence health and **use the "determinants of health" puzzle to help you discuss the concept that health is impacted by many areas. Mention choices, education, income, life style for example.**
	
	• Guide discussion to address healthcare services but also community resources, ownership of health, partnerships etc. (Getting at "health care" vs. "personal responsibility").
	
	Follow up Questions include:
	
	• **"In your opinion, what are the three most important factors (things) that are needed to make, or keep, a community healthy?"**
	
	• **"How well are community members able to maintain or manage their health?"**
	  • Are there barriers/challenges for community members in managing their health and staying healthy? (This can include access to affordable/nutritious food, choices we make, access to services, compliance with treatment plans etc. This is a broad focus on community, not just people who are unhealthy.)
	  • Do family members support each other (for example, younger members helping elders?)
	  • What, if anything, should the Region do to help community members more with managing their health?
	
	• **"What do people need to help them to make better choices around healthy lifestyles?"**
	  • For example, education, resources, exercise, nutrition, attending programs etc.
	  • "What would be some important components of programs that promote healthy living?"
	  • What do community members need (or need to know) so that they can try to avoid developing a chronic disease?
	  • Do you know about any healthy living programs in the community?
	  • Do community members seem to know about/attend these programs?
	  • Are there barriers and challenges to participating in healthy living programs?
	  • How can these barriers be addressed?

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INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.
2. What are some key health issues or challenges amongst people in your community? **(common examples are travel both within community to appointments and outside of community to appointments, clinic hours, access to healthy food and issues related to chronic disease, diabetes, substance use and abuse, mental health)**	• After the KII names, the issues – please use the appropriate questions as follow up. Starting with: **"Can you tell me more about why XXX, is a concern or challenge in the community?" (use questions below as guide as needed for areas that might be identified)** • If diabetes and other chronic disease identified and have not been discussed in question 1 above (chronic disease), please explore further. If already discussed in depth, please do not repeat. **Diabetes/Chronic Disease:** • Are there enough supports for people living with chronic disease? If yes, what are they? If no, what more is needed? • Do people in the community understand how to prevent diabetes and other chronic disease? If no, what would help? **Drugs Alcohol:** • 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 and why is it happening? • Why are people using drugs and alcohol? (is it modelling what older/respected community members are doing, boredom, hopelessness, "something to do" etc). • What do people need to help them to make better choices around alcohol use? • How does the community support people who are trying not to drink alcohol (i.e. is there enough programming/support) **Mental Health:** • Is mental health an area of concern in the community? • What do you have in your community to help people who are depressed or need help? • What kinds of things do you need in your community to help people who are facing challenges with mental health and addictions? • Do you know of community members who have tried to hurt themselves? Why do you think this is happening?

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INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.
3. How does Access to healthcare services impact the health of residents?	• What makes an encounter with the healthcare system or service provider a "positive experience"? • Are there areas of strength in our Region where you have seen accessibility to services improve or where you have had positive experiences? • Are there enough services, supports and healthy living opportunities available in your community? Where do you see gaps or barriers? (this may have been addressed under Question 1 already) • Are there enough supports in place for members when returning to community from hospital or treatment? If not, where are the key gaps? • If you had one suggestion on how to improve access to care for individuals in the community, what would that be?

4. Thinking of "culturally sensitive" health care –discuss some successes and challenges in our region.	• What does culturally sensitive health care/services mean to you and community members?
	
	• Are there examples of where the RHA is doing a good job of providing culturally sensitive health care?
	
	• Are there cultural barriers to 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?

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5. Do you have concerns about risky behaviours in your community? **NOTE: some of the specific topics such as drugs and alcohol may have already been identified and discussed in question 2. Skip if already sufficiently discussed.**	• **What are you most concerned about and what are some potential solutions?** • 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? (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? **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?
6. Conclusion **(5 minutes)**	• Is there anything else that you would like to tell me or discuss before we end this meeting? • Thank you.

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2014 Community Health Assessment
Key Informant Interview Questions – HEALTHCARE PROVIDERS

In General, purpose of Key Informant Interview and what we are hoping to learn:

The Northern Health Region is required to complete a Community Health Assessment every five years. We are working on this project now and an important part of this work involves talking to community members about their experiences with health and health care in their community.

Today I want to talk to you, as an expert in your community, about your community and the most important things that you think are needed in a community to support health. I have a small number of questions and then at the end of the interview, please feel free to add any further information that you think is important for us to learn about the community. For this interview, I am interested to learn about changes that you have seen in the health of community members, positive changes in your community and any suggestions you might have about how people in your community can stay healthy.

I also want to talk to you about accessibility to services and any experiences you have had that made accessibility easier or barriers/challenges you have encountered. We want to know if the region is doing enough in making services available to residents or if you have suggestions for changes. We want to know more about how to make encounters with the healthcare system a positive experience - where we are doing a good job, we want to continue building on these areas of strength and where there is room for improvement, we want to hear about it so that we can explore this more.

Consent:

I want you to know that this information may be published in our Community Health Assessment document. For the most part, the information will be presented as 'key themes' from all of our consultations. However, we may also add quotes throughout the document. Your name will never be published in association with any key themes or quotes. Please only participate to the extent that you are comfortable. It is just fine if you do not wish to answer some of the questions that I will ask. Do you agree to participate in this interview to support the Community Health Assessment?

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Key Informant Interview Questions

INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.
Start of Interview – Introduction, VERBAL Consent, and survey.	• See notes in introduction above. • Be clear that we are looking for "key themes" but may add quotes (without names) in our final CHA document to give more context • Be clear that you are not there to answer for the region, address any complaint or concerns. You are there to ask for feedback to support a health planning process. If participants have complaints/concerns that need to be addressed - collect name and contact information. • Ask for verbal consent to participate in the interview (notes above) • Please be clear that they are not expected to be experts in all areas and that if there are any questions they do not wish to discuss, that is just fine.

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INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.

1. What Makes a Community Healthy?
 	
Give time for in-depth discussion as this question sets stage for the following questions and discussion.
	Initiate discussion of the many factors that can influence health and **use the "determinants of health" puzzle to help you discuss the concept that health is impacted by many areas. Mention choices, education, income, life style for example.**
	
	• Guide discussion to address healthcare services but also community resources, ownership of health, partnerships etc. (Getting at "health care" vs. "personal responsibility").
	
	Follow up Questions include:
	
	• **"In your opinion, what are the three most important factors (things) that are needed to make, or keep, a community healthy?"**
	
	• **"How well are community members able to maintain or manage their health?"**
	  • Are there barriers/challenges for community members in managing their health and staying healthy? (This can include access to affordable/nutritious food, choices we make, access to services, compliance with treatment plans etc. This is a broad focus on community, not just people who are unhealthy.)
	  • Do family members support each other (for example, younger members helping elders?)
	  • What, if anything, should the Region do to help community members more with managing their health?
	
	• **"What do people need to help them to make better choices around healthy lifestyles?"**
	  • For example, education, resources, exercise, nutrition, attending programs etc.
	  • "What would be some important components of programs that promote healthy living?"
	  • What do community members need (or need to know) so that they can try to avoid developing a chronic disease?
	  • Do you know about any healthy living programs in the community?
	  • Do community members seem to know about/attend these programs?
	  • Are there barriers and challenges to participating in healthy living programs?
	  • How can these barriers be addressed?

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INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.
Further discussion from Question 1 **Discussion of chronic disease and risk factors for chronic diseases if not addressed already in question 1.**	• 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? • 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 develop 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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HEALTH REGION

INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.
2. What are some key health issues or challenges amongst people in your community? **(common examples are travel both within community to appointments and outside of community to appointments, clinic hours, access to healthy food and issues related to chronic disease, diabetes, substance use and abuse, mental health)** **3.**	• After the KII names, the issues – please use the appropriate questions as follow up. Starting with: **"Can you tell me more about why XXX, is a concern or challenge in the community?" (use questions below as guide as needed for areas that might be identified)** • If diabetes and other chronic disease identified and have not been discussed in question 1 above (chronic disease), please explore further. If already discussed in depth, please do not repeat. **Diabetes/Chronic Disease:** • Are there enough supports for people living with chronic disease? If yes, what are they? If no, what more is needed? • Do people in the community understand how to prevent diabetes and other chronic disease? If no, what would help? **Drugs Alcohol:** • 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 and why is it happening? • Why are people using drugs and alcohol? (is it modelling what older/respected community members are doing, boredom, hopelessness, "something to do" etc). • What do people need to help them to make better choices around alcohol use? • How does the community support people who are trying not to drink alcohol (i.e. is there enough programming/support) **Mental Health:** • Is mental health an area of concern in the community? • What do you have in your community to help people who are depressed or need help? • What kinds of things do you need in your community to help people who are facing challenges with mental health and addictions? • Do you know of community members who have tried to hurt themselves? Why do you think this is happening? •

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INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.
3. How does Access to healthcare services impact the health of residents?	• What makes an encounter with the healthcare system or service provider a "positive experience"? • Are there enough services, supports and healthy living opportunities available in your community? Where do you see gaps or barriers? (this may have been addressed under **Question 1** already) • Are there enough supports in place for members when returning to community from hospital or treatment? If not, where are the key gaps? • What makes it difficult for residents to access 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). • Is the Region the barrier? • What are the challenges in referring patients to services within the Region and outside of the Region? • What can the Region do to ensure “timely and effective” access to care? • If you had one suggestion on how to improve access to care for individuals in the community, what would that be?

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INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.

4. Thinking of "culturally sensitive" health care –discuss some successes and challenges in our region.	• What does culturally sensitive health care/services mean to you and community members?
	
	• Are there examples of where the RHA is doing a good job of providing culturally sensitive health care?
	
	• Are there cultural barriers to 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?

5. Conclusion **(5 minutes)**	• Is there anything else that you would like to tell me or discuss before we end this meeting? • Thank you.

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2014 Community Health Assessment
Key Informant Interview Questions - GENERAL

In General, purpose of Key Informant Interview and what we are hoping to learn:

The Northern Health Region is required to complete a Community Health Assessment every five years. We are working on this project now and an important part of this work involves talking to community members about their experiences with health and health care in their community.

Today I want to talk to you, as an expert in your community, about your community and the most important things that you think are needed in a community to support health. I have a small number of questions and then at the end of the interview, please feel free to add any further information that you think is important for us to learn about the community. For this interview, I am interested to learn about changes that you have seen in the health of community members, positive changes in your community and any suggestions you might have about how people in your community can stay healthy.

I also want to talk to you about accessibility to services and any experiences you have had that made accessibility easier or barriers/challenges you have encountered. We want to know if the region is doing enough in making services available to residents or if you have suggestions for changes. We want to know more about how to make encounters with the healthcare system a positive experience - where we are doing a good job, we want to continue building on these areas of strength and where there is room for improvement, we want to hear about it so that we can explore this more.

Consent:

I want you to know that this information may be published in our Community Health Assessment document. For the most part, the information will be presented as 'key themes' from all of our consultations. However, we may also add quotes throughout the document. Your name will never be published in association with any key themes or quotes. Please only participate to the extent that you are comfortable. It is just fine if you do not wish to answer some of the questions that I will ask. Do you agree to participate in this interview to support the Community Health Assessment?

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Key Informant Interview Questions

INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.
Start of Interview – Introduction, VERBAL Consent, and survey.	• See notes in introduction above. • Be clear that we are looking for "key themes" but may add quotes (without names) in our final CHA document to give more context • Be clear that you are not there to answer for the region, address any complaint or concerns. You are there to ask for feedback to support a health planning process. If participants have complaints/concerns that need to be addressed - collect name and contact information. • Ask for verbal consent to participate in the interview (notes above) • Please be clear that they are not expected to be experts in all areas and that if there are any questions they do not wish to discuss, that is just fine.

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INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.

1. What Makes a Community Healthy?
 	
Give time for in-depth discussion as this question sets stage for the following questions and discussion.
	Initiate discussion of the many factors that can influence health and **use the "determinants of health" puzzle to help you discuss the concept that health is impacted by many areas. Mention choices, education, income, life style for example.**
	
	• Guide discussion to address healthcare services but also community resources, ownership of health, partnerships etc. (Getting at "health care" vs. "personal responsibility").
	
	Follow up Questions include:
	
	• **"In your opinion, what are the three most important factors (things) that are needed to make, or keep, a community healthy?"**
	
	• **"How well are community members able to maintain or manage their health?"**
	  • Are there barriers/challenges for community members in managing their health and staying healthy? (This can include access to affordable/nutritious food, choices we make, access to services, compliance with treatment plans etc. This is a broad focus on community, not just people who are unhealthy.)
	  • Do family members support each other (for example, younger members helping elders?)
	  • What, if anything, should the Region do to help community members more with managing their health?
	
	• **"What do people need to help them to make better choices around healthy lifestyles?"**
	  • For example, education, resources, exercise, nutrition, attending programs etc.
	  • "What would be some important components of programs that promote healthy living?"
	  • What do community members need (or need to know) so that they can try to avoid developing a chronic disease?
	  • Do you know about any healthy living programs in the community?
	  • Do community members seem to know about/attend these programs?
	  • Are there barriers and challenges to participating in healthy living programs?
	  • How can these barriers be addressed?

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INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.
2. What are some key health issues or challenges amongst people in your community? **(common examples are travel both within community to appointments and outside of community to appointments, clinic hours, access to healthy food and issues related to chronic disease, diabetes, substance use and abuse, mental health)**	• After the KII names, the issues – please use the appropriate questions as follow up. Starting with: **"Can you tell me more about why XXX, is a concern or challenge in the community?" (use questions below as guide as needed for areas that might be identified)** • If diabetes and other chronic disease identified and have not been discussed in question 1 above (chronic disease), please explore further. If already discussed in depth, please do not repeat. **Diabetes/Chronic Disease:** • Are there enough supports for people living with chronic disease? If yes, what are they? If no, what more is needed? • Do people in the community understand how to prevent diabetes and other chronic disease? If no, what would help? **Drugs Alcohol:** • 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 and why is it happening? • Why are people using drugs and alcohol? (is it modelling what older/respected community members are doing, boredom, hopelessness, "something to do" etc). • What do people need to help them to make better choices around alcohol use? • How does the community support people who are trying not to drink alcohol (i.e. is there enough programming/support) **Mental Health:** • Is mental health an area of concern in the community? • What do you have in your community to help people who are depressed or need help? • What kinds of things do you need in your community to help people who are facing challenges with mental health and addictions? • Do you know of community members who have tried to hurt themselves? Why do you think this is happening?

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INTERVIEW QUESTIONS	DISCUSSION POINTS – TRY TO COVER THESE AREAS WITH EACH KII – THE EXTENT TO WHICH YOU ARE ABLE WILL DEPEND ON THEIR EXPERTISE AND WILLINGNESS TO DISCUSS. USE AS A GUIDE TO TRY TO ADDRESS EACH POINT – SOME WILL BE IN MORE DETAIL THAN OTHERS DEPENDING ON KII.
3. How does Access to healthcare services impact the health of residents?	• What makes an encounter with the healthcare system or service provider a "positive experience"? • Are there areas of strength in our Region where you have seen accessibility to services improve or where you have had positive experiences? • Are there enough services, supports and healthy living opportunities available in your community? Where do you see gaps or barriers? (this may have been addressed under Question 1 already) • Are there enough supports in place for members when returning to community from hospital or treatment? If not, where are the key gaps? • If you had one suggestion on how to improve access to care for individuals in the community, what would that be?

4. Thinking of "culturally sensitive" health care –discuss some successes and challenges in our region.	• What does culturally sensitive health care/services mean to you and community members?
	
	• Are there examples of where the RHA is doing a good job of providing culturally sensitive health care?
	
	• Are there cultural barriers to 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?

5. What end of life issues concern you the most?	• Remaining in community • Availability of palliative care, pain control
6. What does "independence" mean to you?	• As an elder, what do you need to help you maintain your independence? • How does transportation affect your independence? • How do you keep active - are there enough resources in your community to help you stay active? • When you need assistance to manage your daily activities, do you know where to go or who to call?
7. Conclusion **(5 minutes)**	• Is there anything else that you would like to tell me or discuss before we end this meeting? • Thank you.

Optional KII Questions

Target Group	Potential Agenda Item	Potential Questions
Healthcare Providers **Northern Health Region Staff**	**Discussion of 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? • Do patients/clients seem to understand ho 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?

Target Group	Potential Agenda Item	Potential Engagement Questions
Healthcare Providers **Northern Health Region Staff** **Community Leaders**	**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). • Is the Region the barrier? • What are the challenges in referring patients to services within the Region? • What can the Region do to ensure "timely and effective" access to care? • Can the Region do anything to ensure timely access to care within other regional jurisdictions?
Elders	**What end of life issues concern you the most?**	• Remaining in community • Availability of palliative care, pain control
	What does "independence" mean to you?	• As an elder, what do you need to help you maintain your independence? • How does transportation affect your independence? • How do you keep active - are there enough resources in your community to help you stay active? • When you need assistance to manage your daily activities, do you know where to go or who to call?

Target Group	Potential Agenda Item	Potential Engagement Questions
RCMP, Community Leaders, Teachers	**Do you have concerns about risk behaviours in your community?**	• What are you most concerned about? • 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? (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? • **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?

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2014 Community Health Assessment
Focus Group Questions

In General, purpose of focus group and what we are hoping to learn:

The Northern Health Region is required to complete a Community Health Assessment every five years. We are working on this project now and an important part of this work involves talking to community members about their experiences with health and health care in their community.

Today we want to talk to you about your community and the most important things that you think are needed in a community to support health. We want to hear about changes that you have seen in the health of community members, positive changes in your community and any suggestions you might have about how people in your community can stay healthy.

We also want to talk to you about accessibility to services and any experiences you have had that made accessibility easier or barriers/challenges you have encountered. We want to know if the region is doing enough in making services available to residents or if you have suggestions for changes. We want to know more about how to make encounters with the healthcare system a positive experience - where we are doing a good job, we want to continue building on these areas of strength and where there is room for improvement, we want to hear about it so that we can explore this more.

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Proposed Agenda and Supporting Materials Required

Agenda Item (Broad "Exploration Question")	Questions for Discussion ("Engagement Questions" - key areas of importance to address - do not read question by question, use as guide to draw out responses and fill in discussion as needed.)	Supporting Materials
1. Arrive, Meet, Greet, Signing/Collecting Consent Forms and surveys **10 minutes**	• All focus group staff introduce selves. • Thank people for coming. Ask people to put first name only on name tag and wear name tag. • Discussion of purpose of focus group and "ground rules" • Privacy and confidentiality is respected (and addressed in consent form) - no one is ever identified by name. • We are looking for "key themes" but may add quotes (without names) in our final CHA document to give more context • Ask that we all agree that what is discussed during focus group, stays "in the room". • Be clear that people are asked to participate to the extent they feel comfortable. If they do not wish to answer certain questions, they do not need to do so. • Ask that everyone respects the opinion of others and gives each other sufficient time to speak. • Be clear that you are not there to answer for the region, address any complaint or concerns. You are there to ask for feedback to support a health planning process. If participants have complaints/concerns that need to be addressed - collect name and contact information. • Discussion of consent forms and mini-survey - quick overview, give time to complete and be available to answer questions, assist with reading forms etc. • Logistics - quick overview of focus group time (ideally no more than 90 minutes), refreshments, location of washroom etc. • Ask if anyone has any questions before you start. • Ensure all consent forms completed and collected before starting focus group questions.	Consent forms and surveys. Pens 8.5"X11" envelopes to store completed consent forms and surveys (separately). Notebook or laptop for note taker. Name tags for participants. Large post-it notes and markers if needed (dependent on group size and meeting style).

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Agenda Item (Broad "Exploration Question")	Questions for Discussion ("Engagement Questions" - key areas of importance to address - do not read question by question, use as guide to draw out responses and fill in discussion as needed.)	Supporting Materials

2. What Makes a Community Healthy?
 	
Give time for in-depth discussion as this question sets stage for the following questions and discussion.
	Initiate discussion of the many factors that can influence health and use the "determinants of health" puzzle as illustration.
	
	• Guide discussion to address healthcare services but also community resources, ownership of health, partnerships etc. (Getting at "health care" vs. "personal responsibility").
	
	• Of the determinants, which do you think are the most important and why? (for example - what is possible to change and show impact on the health of a community).
	
	• What do people need to help them to make better choices around healthy lifestyles?
	  • For example, education, resources, programs etc.
	  • What would be some important components of programs that promote healthy living?
	  • What do community members need (or need to know) so that they can try to avoid developing a chronic disease?
	  • Do you know about/attend any healthy living programs currently?
	  • Are there barriers and challenges to participating in healthy living programs?
	  • How can these barriers be addressed?
	
	• 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 regional services and programs been to you in helping you manage your own health and those people in your care?
	  • What, if anything, should the Region do to help you more with managing your health?
		Determinants of Health Puzzle - illustration that shows wide range of things that can impact our health - not just health services (although this is one important indicator).
		
		Post-it notes and markers if needed (if large group, consider asking each participant to use 3 separate notes and post their three top suggestions about what makes a community health). From there you would work with the group to "theme" the individual choices and use this as the forum for discussion. The "three post-its" approach ensures in a large group that everyone has a chance to be heard in presenting their priorities.

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Agenda Item (Broad "Exploration Question")	Questions for Discussion ("Engagement Questions" - key areas of importance to address - do not read question by question, use as guide to draw out responses and fill in discussion as needed.)	Supporting Materials
3. What are some key health issues or challenges amongst people in your community? **Are there concerns around mental health and addictions?**	• 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? (is it modelling what older/respected community members are doing, boredom, hopelessness, "something to do" etc). • What do people need to help them to make better choices around alcohol use? • What is your experience with people who are depressed or hurting themselves or addicted to drugs or alcohol? • 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? • 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?	

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Agenda Item (Broad "Exploration Question")	Questions for Discussion ("Engagement Questions" - key areas of importance to address - do not read question by question, use as guide to draw out responses and fill in discussion as needed.)	Supporting Materials

4. How does Access to healthcare services impact the health of residents?	• Where do you usually get health care when you need it? (ex. just in general - scheduled healthcare provider visit, Quick Care etc. not asking for name of doctor etc.)
	
	• 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).
	  o Suggestions as to how the Region can improve overall to improve client satisfaction with accessibility to services.
	
	• If you had one suggestion on how to improve access to care for individuals in the community, what would that be?
	
	• Are there areas of strength in our Region where you have seen accessibility to services improve or where you have had positive experiences?
	  • Can you tell us from a community member perspective - what makes an encounter with the healthcare system or you service provider a "positive experience"?
	
	• Did you or someone you know have difficulty obtaining health care services in the past few years?
	  • If yes, what are the reasons/examples of barriers or difficulty?
	  • Are there cultural /language barriers to accessing services in the region?
	
	• Are there enough services, supports and healthy living opportunities available in your community? Where do you see gaps and what would you like to see in your community?
		Post-it notes and markers if needed for topics such as "one suggestion" about improving access to care (or use round table discussion approach).
		
		Description of **Primary Health Care** from Tool Kit.

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Agenda Item (Broad "Exploration Question")	Questions for Discussion ("Engagement Questions" - key areas of importance to address - do not read question by question, use as guide to draw out responses and fill in discussion as needed.)	Supporting Materials
5. 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? 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. Other Questions (if needed and time permits) **(See following pages for samples, copy and paste here)**		
7. Conclusion **(5 minutes)**	• Is there anything else that you would like to tell us or discuss before we end this meeting? • Thank you to everyone (stand at door and shake hands as participants leave).	

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Optional Focus Group Questions

Target Group	Potential Agenda Item	Potential Engagement Questions
Young Mom's/Young Families	**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?

Target Group	Potential Agenda Item	Potential Engagement Questions
Young Mom's/Young Families	**What are the main concerns of families with young children in your community?**	• What are your main concerns as parents of young children? • Is the region 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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Target Group	Potential Agenda Item	Potential Engagement Questions
Healthcare Providers **Northern Health Region Staff**	**Discussion of 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? • Do patients/clients seem to understand ho 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?
	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?

Target Group	Potential Agenda Item	Potential Engagement Questions
Healthcare Providers **Northern Health Region Staff** **Community Leaders**	**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). • Is the Region the barrier? • What are the challenges in referring patients to services within the Region? • What can the Region do to ensure "timely and effective" access to care? • Can the Region do anything to ensure timely access to care within other regional jurisdictions?
Elders	**What end of life issues concern you the most?**	• Remaining in community • Availability of palliative care, pain control
	What does "independence" mean to you?	• As an elder, what do you need to help you maintain your independence? • How does transportation affect your independence? • How do you keep active - are there enough resources in your community to help you stay active? • When you need assistance to manage your daily activities, do you know where to go or who to call?

Target Group	Potential Agenda Item	Potential Engagement Questions
RCMP, Community Leaders, Teachers	**Do you have concerns about risk behaviours in your community?**	• What are you most concerned about? • 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? (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? • **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?

FOCUS GROUP REPORTING TEMPLATE

- PLEASE SUBMIT A REPORT FOR EACH FOCUS GROUP
- THIS TEMPLATE INCLUDES DETAILS ABOUT PARTICIPANTS, ANY CONCERNS OR THINGS THAT YOU'D LIKE NOTED, YOUR OVERALL QUESTIONS AND THEN SECTIONS FOR VERBATIM NOTES FROM FOCUS GROUPS.
- TRY TO CAPTURE KEY THEMES AND WHERE POSSIBLE SOME KEY QUOTES THAT WE CAN USE IN OUR CHA DOCUMENT.

Focus Group Reporting Template

Focus Group Facilitator	
Focus Group Date	
Focus Group Location	
Specific Type of Group	
Number of Participants	
Number Female	
Number Male	

Name and Contact Information for any participants who indicated interest in volunteering to participate in future healthcare planning initiatives:

Name	Home Community	Phone Number	E-Mail Address

Concerns or notes about focus group:

Overall impressions/Key Themes from focus group discussions

Key areas of strength identified: **Key areas of opportunity**:

Once complete, please submit electronic copy to Cynthia Carr at: epiresearch@shaw.ca.

Verbatim Notes From Focus Group (bullet point is fine)

1. **What makes a community healthy?**

Once complete, please submit electronic copy to Cynthia Carr at: epiresearch@shaw.ca.

2. **What are some key health issues or challenges amongst people in your community?**

Once complete, please submit electronic copy to Cynthia Carr at: epiresearch@shaw.ca.

3. **How does Access to healthcare services impact the health of residents?**

Once complete, please submit electronic copy to Cynthia Carr at: epiresearch@shaw.ca.

4. **Thinking of "culturally sensitive" health care – we would like to discuss some successes and challenges that we are experiencing in our region.**

Once complete, please submit electronic copy to Cynthia Carr at: epiresearch@shaw.ca.

5. **Other Questions (indicate questions and add notes as needed)**

Once complete, please submit electronic copy to Cynthia Carr at: epiresearch@shaw.ca.

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Community Health Assessment Survey

If you are 18 or older, we are asking for your help!! We would like to know more about our clients and your opinions of our programs and services.

Please complete a short survey by following the link below:

http://fluidsurveys.com/s/2014NHRCommunitySurvey/

OR

By scanning this QR Code with your smart phone to go directly to the survey:

OR

By asking for a paper copy of the survey from a staff member.

NEWSPAPER ADVERTISEMENT INFORMATION

The Northern Health Region is asking for your help! The new region is currently working on the first Community Health Assessment and would like to include as much direct feedback from community residents as possible. We have a very short survey that can be completed by residents age 18 and older. The survey asks some basic health questions and then about your experiences with health services in the region. All responses are confidential and there is no link your IP address or e-mail address.

The survey is live now and ready for your responses!! You can access it easily:

http://fluidsurveys.com/s/2014NHRCommunitySurvey/

OR

Scan this QR Code with your smart phone to go directly to the survey:

OR

IF YOU WOULD LIKE A PAPER COPY OF THIS SURVEY, PLEASE CONTACT

INSERT CONTACT INFO.

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NORTHERN HEALTH REGION, 2014 CHA STAFF SURVEY

We are still looking for feedback from staff to support our 2014 Community Health Assessment. Our response rate so far is about 30% and we would like to hear from more of you! If you **DID NOT** complete this survey in May or June 2014, please take a few minutes to complete the following staff survey. Your answers will assist the Region in enhancing the 2014 Community Health Assessment Community Consultation Process. Your answers will be confidential and anonymous. Please note that the electronic survey is set up so that responses are anonymous – there is no tracking of respondents by computer or email address.

Deadline to respond is October 31, 2014.

Paper copies of this survey are to be returned to:

Jamie Simard
Innovation Analyst & Corporate Support
Northern Health Region
84 Church Street
Flin Flon, MB R8A 1L8
F: 204.687.6405

If possible, it is preferred that you access and answer this survey electronically.

This survey can be accessed and answered on-line at: http://fluidsurveys.com/s/NHRStaffSurvey2014/

Or, scan this smart tag with your phone to be taken directly to the survey:

A. A "snapshot" of your opinion

Key Instructions for questions 1 to 13:

- P**lease circle only one answer from the scale for each statement**.
- Please pay close attention to the scale types. **Agreement, satisfaction and importance scales have been used.**
- We are asking for **your opinion** on health system performance by the Northern Health Region
- Throughout the survey the term "resident" is used to refer to those we provide services to.

	Strongly Agree	Mostly Agree	Agree	Mostly Disagree	Strongly Disagree
1. I believe that the NHR is responsive to residents' health care needs.	5	4	3	2	1
2. I believe that when residents need health care service they know where to go.	5	4	3	2	1

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
3. How satisfied do you feel residents are with the accessibility of NHR services and programs?	5	4	3	2	1
4. How satisfied do you feel residents are with the friendliness of NHR staff?	5	4	3	2	1
5. How satisfied do you feel residents are with the quality of NHR services and programs?	5	4	3	2	1
6. How satisfied do you feel residents are with the delivery methods of NHR services and programs?	5	4	3	2	1
7. How satisfied do you feel residents are with the timeliness of NHR services and programs?	5	4	3	2	1
8. **Overall, how satisfied do you feel residents are with the NHR?**	**5**	**4**	**3**	**2**	**1**

	Very Important	Important	Neutral	Unimportant	Very Unimportant
9. How important do you believe accessibility of NHR services and programs is to residents?	5	4	3	2	1
10. How important do you believe friendliness of NHR staff is to residents?	5	4	3	2	1
11. How important do you believe the quality of NHR services and programs is to residents?	5	4	3	2	1
12. How important do you believe the delivery method of NHR services and programs is to residents?	5	4	3	2	1
13. How important do you believe timeliness of NHR services and programs is to residents?	5	4	3	2	1

B. What do you think of the Organization?

Please tell us about your opinions in the following five questions, using bullet points or lists is just fine.

14. What are the strengths of the Northern Health Region?

15. What are the weaknesses of the Northern Health Region?

16. What ideas / suggestions do you have to improve health service delivery?

17. What do you believe to be the top three (3) health issues in the Region?

18. What do you think is preventing Northern Health Region residents from making healthy lifestyle choices?

C. Staff Demographics Questions

19. What is your gender? Male _____ Female _____

20. What community do you work in? _____

21. How long have you been in your current position (include time prior to amalgamation) _____years

22. What best describes your work setting? (select only one)

- ☐ Acute Care
- ☐ Administration
- ☐ Ambulatory Care
- ☐ Community / Public Health
- ☐ EMS
- ☐ Home Care
- ☐ Long Term Care
- ☐ Maintenance/Materials/Dietary/ Environmental
- ☐ Mental Health
- ☐ Other (please specify): _____
- ☐ Pharmacy
- ☐ Rehabilitation

23. What best describes your staff role? (select only one)

- ☐ Activities/ Recreation Worker
- ☐ Administrative / Clerical Support
- ☐ Clinical Care Manager
- ☐ Clinical Educator
- ☐ Community Health Worker
- ☐ Dietitian
- ☐ Director / Senior Executive
- ☐ Doctor
- ☐ Health Care Aide
- ☐ Home Care Attendant
- ☐ Home visitor/family first home visitor
- ☐ Mental Health Worker
- ☐ Nurse
- ☐ Other (please specify)_____
- ☐ Paramedic
- ☐ Pharmacist
- ☐ Pharmacy Technician
- ☐ Rehabilitation (OT, PT, RT, SLP, Audiologist)
- ☐ Resource Coordinator
- ☐ Supervisor / Manager
- ☐ Support Services(food/housekeep/mainten/laundry)
- ☐ Unit Clerk / Clinic Reception

Thank You!

NORTHERN HEALTH REGION

Northern Health Region 2014 Community Survey

We would like to hear about your recent experiences with healthcare in our region! This will help to add valuable information to our current Community Health Assessment process. These questions are about your experiences as a patient within the communities of the health region. If you had an appointment in Winnipeg, for example, please do not provide feedback about that appointment, but think to the most recent appointment you have had within our region.
If you are18 or older, we invite you to complete this short survey. This survey is confidential and anonymous, please do not put your name on it.

Please return paper copies of this completed survey to your health centre before October 31, 2014. This survey can also be completed on-line at:
http://fluidsurveys.com/s/2014NHRCommunitySurvey/
or by scanning this QR Code with your smart phone:

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1. I am:

- ○ Female
- ○ Male

2. I have completed high school:

- ○ Yes
- ○ No
- ○ Still attending school

3. I am:

- ○ Under 18 years old
- ○ 18-24 years old
- ○ 25-34 years old
- ○ 35-44 years old
- ○ 45-60 years old
- ○ Older than 60 years

4. I am employed (full time, part time, or casual):

- ○ Yes
- ○ No, but looking for work
- ○ No, but not looking for work

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5. I live in: (name community)

6. I have lived in this community:

- ○ Less than one year
- ○ 1-4 years
- ○ 5-7 years
- ○ 8-10 years
- ○ More than 10 years

7. How would you rate your overall physical health?

- ○ Poor
- ○ Fair
- ○ Good
- ○ Very Good
- ○ Excellent

8. How would you rate your overall mental health?

- ○ Poor
- ○ Fair
- ○ Good
- ○ Very Good
- ○ Excellent

9. Are you currently being treated by a doctor or nurse for any of the following? *(check all that apply)*

- ○ Arthritis
- ○ Asthma
- ○ Chronic Obstructive Pulmonary Disease (COPD)
- ○ Diabetes
- ○ Depression or Anxiety
- ○ Heart Disease
- ○ High Blood Pressure
- ○ Osteoporosis
- ○ Other chronic disease (please specify): _____

10. Do you smoke cigarettes?

- ○ Yes, daily
- ○ Yes, occasionally
- ○ Not at all

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11. Have you seen a healthcare provider or been in hospital in the past year?

- ○ Yes
- ○ No

12. The types of services I have used in the past year are:
(check all that apply)

- ○ None
- ○ Emergency Room
- ○ Hospital in-patient (I stayed overnight)
- ○ "Walk-in" or "same day appointment" type clinic
- ○ Regular healthcare provider (scheduled appointment)
- ○ Other healthcare provider (please specify) _____

	Strongly Agree	Mostly Agree	Agree	Mostly Disagree	Disagree
13. I believe that the region is responsive to my health care needs.	○	○	○	○	○
14. I know where to go for the health care services I need.	○	○	○	○	○

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
15. How satisfied are you with the accessibility of our services and programs?	○	○	○	○	○
16. How satisfied are you with the friendliness of our staff?	○	○	○	○	○
17. How satisfied are you with the quality of our services and programs?	○	○	○	○	○
18. How satisfied are you with the timeliness of our services and programs?	○	○	○	○	○

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19. What do you think are the three (3) most important health issues in your community?

1. _____
2. _____
3. _____

20. Overall, my experience with healthcare services in Northern Health Region has been positive:

- ○ Strongly Disagree
- ○ Disagree
- ○ Agree
- ○ Strongly Agree
- ○ Does not apply

Thank you for completing this survey!!

Appendix D Northern Health Region Community Consultation Themes

Chronic Diseases

Focus group discussions in Northern Health Region confirmed that participants are more aware than ever that the determinants of health have the considerable impact on the overall health of residents. Participants were also more aware of the wide range of health status challenges facing their communities such as mental illnesses, substance abuse, and chronic disease.

Chronic disease management was an important theme of discussion for focus groups held in the Northern Health Region in 2014. Much of the prevailing sentiment was that there were enough treatment options for residents managing a chronic disease but that there needed to be more of an ongoing commitment from patients to live a healthier lifestyle to address the risk factors that people can control.

Heart disease was cited by many participants as a significant health challenge in their community during focus group discussions in Northern Health Region communities in 2014. Participants noted that while some people manage their chronic disease well by attending appointments, taking medication and being active, most do not manage their condition well. It is an ongoing challenge to find way to get people to take chronic care more seriously.

Diabetes

Diabetes continues to be one of the most important ongoing health challenges in Northern Health Region communities as was evident during focus group discussions in 2014. Participants did note that those with diabetes need to take greater ownership of their care as the support, feeling that there enough resources in diabetes education and clinics. The bigger barriers are the need to have recreational opportunities and access to healthy foods which would help manage their diabetes better. Sometimes, managing their diabetes gets sacrificed due to economic issues. As one participant noted, “You need to have food for your kids. It comes down to what is going to feed your family the longest and it usually is cheap food full of not so healthy things.”

Mental Health

The challenges in managing mental health conditions in the Northern Health Region communities were a major theme of discussion for focus groups in 2014. The prevailing sentiment among participants was that while mental health workers in communities are dedicated and doing what they can to help local residents, there were not enough resources to deal with ongoing mental health conditions. While participants agreed there was much greater awareness of mental health issues and conditions, communities are only able to deal with crises but not manage the condition. As one participant noted, “Mental health workers only deal with mental illness and not mental health issues. That needs to change to have time for them to see other people with other mental health issues.” There was a general consensus that the most pressing mental health needs in communities are access to mental health professionals such as psychologists and addressing long waiting lists for mental health services.

Substance Abuse

Substance abuse continues to be an important health care concern in Northern Health Region communities. Participants noted the pervasiveness of substance abuse and the effects this have on the community such as high crime rates, spousal abuse, child neglect, and family violence. It has significant impact on children as that it what they know and they become involved in drug and alcohol use at an early age. While focus groups did note that there substance abuse programs for residents outside the community, it has very little for ongoing treatment and support in the community. As one participant remarked, "They go through the treatment and they are then left to go right back into the situations that they left. It is a cycle."

Child and Maternal Health

Child and maternal health was a particular focus for the participants at the Northern Health Summit held in 2014. Participants cited suicide/mental health, youth smoking rates, obesity, substance abuse, youth diabetes, teen pregnancy, sexually transmitted infections, school bullying physical activity as particular health concerns for youth and families.

Summit participants generally thought that Healthy Child initiatives, the Family First program and efforts to keep kids in class were positive child health initiatives but that the region needed to engage youth more in their health and wellbeing.

Accessibility

Health care accessibility emerged as a major focus of discussion and priority for northern residents, health professionals and Northern Health Region staff in 2014. At the Northern Health Summit in 2014, a key priority and gap identified in the Northern Health Region was the need to make primary care more accessible to residents in order to encourage patients to address their health care needs outside of the hospital. There was a belief that accessibility to health care in the north was improving particularly through the opportunities afforded by technology such as telehealth. In focus group discussions with northern community residents, most participants seemed to agree health services available locally were of high quality and easy to access. The difficulty becomes in accessing more specialized health services that residents need outside of their community, due to the dislocation that occurs and the barriers created by transportation policies which create financial barriers to residents.

The Northern Health Region staff survey also highlighted staff concerns with accessibility as among the main concerns expressed by staff included wait times for health services and programs, staff shortages, lack of health services and physician retention. These are all concerns that directly impact accessibility. In survey results, there was almost unanimity among staff about the importance of health accessibility to residents (97.4% agreed it was very important or important). Given the importance placed on accessibility, it is concerning that only 33.3 per cent of staff respondents thought residents were either very satisfied or satisfied with accessibility to health care services offered by the Northern Health Region with 30.5 per cent of respondents feeling that residents were dissatisfied with accessibility. Interestingly, community residents seemed to think accessibility was better than staff members with 56.8 per cent of residents feeling very satisfied or satisfied with accessibility and 55.3 per cent very satisfied or satisfied with the timeliness of health care services. Similarly, only 40.8 per cent of staff thought residents were satisfied or very satisfied with quality of health services while 62.8 per cent of residents who were satisfied or very satisfied with the quality of health care services. It is worth noting

that when identifying Northern Health Region weaknesses and strengths, both staff and northern residents focused on accessibility issues and did not identify concerns with the quality of health care services.

Primary Care Access

Access to a regular family physician is critical to any health care strategy that wants to manage and treat patients in an outpatient setting. If residents are unable to access a regular family physician, they are more likely to access hospital ERs for their health care needs which will be more costly to the system. During focus group sessions in northern communities in 2014, regular access to physicians was viewed as a barrier to health care access, particularly in smaller communities.

Services within the Northern Health Region continues to be an issue of discussion for residents in Northern Communities who are concerned with the dislocation that comes with travelling for health services outside the Northern Health Region as well as the transportation costs associated with travelling for care. This was expressed in many community focus groups in 2014.

Continuity of care was one of the most significant concerns for northern residents, expressed during focus group sessions in 2014. Beyond the concern of access to doctors, the greater concern was around turnover of physician resources. As one participant noted, "…[patients are] always feeling like they have to start all over again with their medical history. This gets people frustrated. This also leads to different treatment methods because of getting different doctors."

Northern Region Staff Survey 2014

Survey Background

In order to supplement the administrative and other survey data collected for the 2014 Community Health Assessment, a short survey was developed for northern health region staff. Similar to the community survey, this survey focused on what they thought resident experiences were like in the health care system along with their assessment of the Northern Health Region generally.

Staff completed 564 total responses, 558 of which were valid for analysis. Of that total, 375 of the surveys were completed online and 189 by paper with responses sent in by July 4, 2014.

- Most staff members felt the Northern Health Region were responsive to residents' health needs with 46.1 per cent agreeing or mostly agreeing that. Only 10.7 of staff respondent mostly or strongly disagreed with that.

- There was more disagreement around whether they thought resident knew where to go for health services with only 34.9 per cent strongly or mostly agreeing with that while 23.4 per cent mostly or strongly disagreed.

	Strongly Agree	Mostly Agree	Agree	Mostly Disagree	Strongly Disagree	Total Responses
1. I believe that the NHR is responsive to residents' health care needs.	58 (12.4%)	157 (33.7%)	201 (43.1%)	47 (10.1%)	3 (0.6%)	466
2. I believe that when residents need health care service they know where to go.	30 (6.4%)	133 (28.5%)	194 (41.6%)	94 (20.2%)	15 (3.2%)	466

- Opinion was split about the level of satisfaction residents had with the accessibility of health care with 33.3 per cent very satisfied or satisfied but 34.4 per cent dissatisfied or very dissatisfied.
- Staff gave friendliness of regional staff high marks feeling residents were very satisfied (7.1%) or satisfied (57.7%) and only 10.4 per cent dissatisfied or very dissatisfied.
- Health delivery methods were also well received by staff with 39.3 per cent feeling residents were very satisfied or satisfied and only 24.0 per cent dissatisfied or very dissatisfied.
- Staff were more critical with the timeliness of services with only 24.7 per cent feeling resident were very satisfied or satisfied with it while 43.4 per cent were dissatisfied or very dissatisfied.

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Total Responses
3. How satisfied do you feel residents are with the accessibility of NHR services and programs?	11 (2.4%)	143 (30.9%)	150 (32.4%)	141 (30.5%)	18 (3.9%)	463
4. How satisfied do you feel residents are with the friendliness of NHR staff?	33 (7.1%)	267 (57.7%)	115 (24.8%)	41 (8.9%)	7 (1.5%)	463
5. How satisfied do you feel residents are with the quality of NHR services and programs?	12 (2.6%)	176 (38.2%)	172 (37.3%)	89 (19.3%)	12 (2.6%)	461
6. How satisfied do you feel residents are with the delivery methods of NHR services and programs?	7 (1.5%)	173 (37.8%)	168 (36.7%)	98 (21.4%)	12 (2.6%)	458
7. How satisfied do you feel residents are with the timeliness of NHR services and programs?	5 (1.1%)	109 (23.6%)	147 (31.9%)	172 (37.3%)	28 (6.1%)	461
8. Overall, how satisfied do you feel residents are with the NHR?	8 (1.7%)	153 (33.4%)	182 (39.7%)	100 (21.8%)	15 (3.3%)	458

- In terms of what staff thought was important to residents, staff felt quality of services was the most important with 80.0 per cent feeling it was very important. After quality, accessibility (75.9%), timeliness (74.4%), friendliness (69.5%), and delivery method (65.1%) were very important values for residents.

	Very Important	Important	Neutral	Unimportant	Very Unimportant	Total Responses
9. How important do you believe accessibility of NHR services and programs is to residents?	350 (75.9%)	99 (21.5%)	9 (2.0%)	1 (0.2%)	2 (0.4%)	461
10. How important do you believe friendliness of NHR staff is to residents?	319 (69.5%)	124 (27.0%)	13 (2.8%)	1 (0.2%)	2 (0.4%)	459
11. How important do you believe the quality of NHR services and programs is to residents?	369 (80.0%)	80 (17.4%)	9 (2.0%)	1 (0.2%)	2 (0.4%)	461
12. How important do you believe the delivery method of NHR services and programs is to residents?	298 (65.1%)	137 (29.9%)	19 (4.1%)	2 (0.4%)	2 (0.4%)	458
13. How important do you believe timeliness of NHR services and programs is to residents?	343 (74.4%)	99 (21.5%)	15 (3.3%)	2 (0.4%)	2 (0.4%)	461

What are the strengths of the Northern Health Region?

- A wide range of responses were given to this question on the strengths of the region. The most popular responses were around positive characteristics of staff. Of the 429 responses, respondents thought staff were friendly and caring (64 responses or 14.9%), dedicated and committed (55 responses or 12.8%) or knowledgeable (26 responses or 6.1%).
- The range of health care services and programs offered regionally or locally were cited in 69 responses or 16.1 per cent of all responses.

Response	Chart	Percentages	Count
Ability		3%	10
Access to Services		5%	13
Caring Professionals		2%	6
Committed		5%	15
Dedicated		9%	24
Easy		2%	7
Facility		3%	8
Focused		3%	8
Friendly Staff		11%	30
Healthcare		2%	7
Help		5%	14
Innovative		3%	9
Local		2%	6
Northern Region		2%	6
Open		1%	5
Physicians		2%	6
Primary Health		2%	6
Residents		9%	23
Services Offered		3%	10
Specialists		3%	9
Strengths		3%	9
Strong Leadership		1%	5
Team Work		2%	6
Training		2%	6
Wait Times		2%	6

What are the weaknesses of the Northern Health Region?

- Wait times were seen as the most important weakness either as a general concern about timeliness but also with waits for specific services such as specialists or to get referrals or tests. Of the 335 responses, 79 referred to wait times issues or 23.6 per cent of responses. The next major weakness cited was a lack of services expressed either as staff shortages or burnout or a lack of resources generally at 48 responses or 14.3 per cent of all responses.

Response	Chart	Percentages	Count
Communication		8%	39
Doctors Nurses		2%	10
Due to Lack		1%	9
Employees		3%	15
Facility		2%	14
Family Physicians		2%	10
Funding		2%	11
Lack of Communication		3%	17
Lack of Educational		2%	11
Large Region		1%	9
Long Time		6%	29
Mental Health		3%	16
Outlying Communities		2%	12
Patients		9%	43
Providing the Service		3%	19
Recruitment		2%	12
Residents		4%	22
Services Limited		1%	7
Skills		1%	9
Specialists		3%	17
Support Staff		3%	18
Time Waits		13%	62
Training		3%	18
Upper Management		1%	8
Wait to see a Doctor		4%	22
Walk in Clinic		3%	17

What ideas / suggestions do you have to improve health service delivery?

- Solutions to the health care challenges of the region were primarily centered about adding staff, doctors, nurse practitioners, primary care providers, and recruiting staff generally. Over a quarter (25.7%) of responses addressed the need for more staff. The other main area for improvement cited was improving wait times at 6 per cent of responses
- Many solutions proposed were around improvements in management and inclusion of staff in the decision making process.

response	Chart	Percentages	Count
Activities		1%	6
Address		1%	6
Appointments		4%	14
Continue		3%	11
Family Doctor		1%	5
Flin Flon		2%	8
Hire		8%	28
Improve		6%	20
Job		3%	11
Meetings		2%	8
North		2%	7
Nurse Practitioners		2%	9
Patients		8%	28
Primary Health		2%	8
Professionals		3%	10
Promotion		1%	6
Recruit		3%	13
Region		8%	29
Service Delivery		2%	8
Staff Training		3%	13
Stay		3%	12
Training		7%	24
Treated		3%	10
Wait Times		6%	20
Walk in Clinic		5%	17

What do you believe to be the top three (3) health issues in the Region?

- The top health issue for the region cited by staff was diabetes in 96 responses total or 29.8 per cent of total responses. Mental health or mental illness was cited in 82 responses or 25.5 per cent of total responses. Addictions/alcohol and drug abuse was cited 45 times while cardiac-related conditions was raised in 41 responses. There were also many responses which referenced a lack of health resources, access to services or the need for more health professionals. Those responses came up in 52 responses.

Response	Chart	Percentages	Count
Access to Specialists		1%	7
Addictions		7%	27
Alcohol Drugs		2%	10
Cardiac		2%	8
Cardiovascular		2%	10
Children		1%	5
Communication		3%	13
Depression		1%	6
Diabetes Cancer		9%	35
Diabetes Obesity		12%	45
Diabetes Obesity Cancer		1%	7
Diabetes TB		2%	9
Education		2%	10
Getting to see a Doctor		1%	7
Having enough Doctors		1%	6
Heart Disease		6%	23
Hypertension		1%	7
Lack of Resources		1%	6
Mental Health		15%	57
Mental Illness		3%	13
Service Delivery		1%	7
Smoking		2%	8
STI		3%	12
Substance Abuse		2%	8
Wait Times		5%	19

What do you think is preventing Northern Health Region residents from making healthy lifestyle choices?

- Once again, there were a range of responses to the question of barriers to making healthy life choices. The lack of access to healthy foods got the highest number of responses at 9 per cent of the total closely followed by lack of education (8%), healthy choices (7%), 'people do what people do' (7%) and lifestyle (7%).

Response	Chart	Percentages	Count
Alcohol and Drugs		1%	8
Available		3%	16
Change		4%	19
Determinants of Health		1%	9
Education Lack		8%	40
Finances		2%	11
Healthy Choices		7%	36
Healthy Food		9%	42
High		5%	23
Isolation		3%	14
Issues		3%	15
Lack of Knowledge		4%	21
Laziness		1%	9
Lifestyle		7%	32
Lot		2%	13
Low Income		1%	8
Mental Health		1%	9
Money		2%	12
Motivation		3%	14
People will do what People		7%	34
Population		2%	10
Poverty		2%	13
Promotion		1%	8
Properly		1%	7
Residents		3%	14

Services		4%	20

What is your gender?

- Most of the respondents to this survey were female at 88.6 per cent of total respondents.

Response	Chart	Percentage	Count
Male		11.4%	42
Female		88.6%	326
		Total Responses	**368**

What community do you work in?

- Over half (55%) of respondents were from Thompson with Flin Flon as the next biggest community (31%).

Response	Chart	Percentages	Count
		0%	0
Flin Flon		31%	82
Gillam		3%	8
Lynn Lake		1%	4
Regional		4%	11
Snow Lake		4%	12
Thompson		55%	147

How long have you been in your current position (include time prior to amalgamation)

- Of the respondents, 30.1 per cent were in their current position between 3-5 years while 28.4 per cent had been an employee in the region for over 10 years. One-tenth of respondents had been employees for less than one year.

Response	Chart	Percentages	Count
time		0	0

What best describes your work setting? (select only one)

- There was a wide range of health care settings respondents work in with acute care as the number one setting at 19.5 per cent of total responses. Community or public health came next at 18.9 per cent and administration at 14.8 per cent.

- Diagnostics or support services were the most frequent responses for the other category.

Response	Chart	Percentage	Count
Acute Care		19.5%	71
Administration		14.8%	54
Ambulatory Care		4.4%	16
Community/Public Health		18.9%	69
EMS		2.2%	8
Home Care		5.2%	19
Long Term Care		6.3%	23
Maintenance/Materials/Dietary/Environmental		4.9%	18
Mental Health		5.2%	19
Other (please specify):		16.4%	60
Pharmacy		1.1%	4
Rehabilitation		1.1%	4
		Total Responses	**365**

NORTHERN HEALTH REGION

NORTHERN HEALTH REGION, 2014 CHA STAFF SURVEY

We are still looking for feedback from staff to support our 2014 Community Health Assessment. Our response rate so far is about 30% and we would like to hear from more of you! If you **DID NOT** complete this survey in May or June 2014, please take a few minutes to complete the following staff survey. Your answers will assist the Region in enhancing the 2014 Community Health Assessment Community Consultation Process. Your answers will be confidential and anonymous. Please note that the electronic survey is set up so that responses are anonymous – there is no tracking of respondents by computer or email address.

Deadline to respond is October 31, 2014.

Paper copies of this survey are to be returned to:

Jamie Simard
Innovation Analyst & Corporate Support
Northern Health Region
84 Church Street
Flin Flon, MB R8A 1L8
F: 204.687.6405

If possible, it is preferred that you access and answer this survey electronically.

This survey can be accessed and answered on-line at: http://fluidsurveys.com/s/NHRStaffSurvey2014/

Or, scan this smart tag with your phone to be taken directly to the survey:

A. A "snapshot" of your opinion

Key Instructions for questions 1 to 13:

- P**lease circle only one answer from the scale for each statement**.
- Please pay close attention to the scale types. **Agreement, satisfaction and importance scales have been used.**
- We are asking for **your opinion** on health system performance by the Northern Health Region
- Throughout the survey the term "resident" is used to refer to those we provide services to.

	Strongly Agree	Mostly Agree	Agree	Mostly Disagree	Strongly Disagree
1. I believe that the NHR is responsive to residents' health care needs.	5	4	3	2	1
2. I believe that when residents need health care service they know where to go.	5	4	3	2	1

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
3. How satisfied do you feel residents are with the accessibility of NHR services and programs?	5	4	3	2	1
4. How satisfied do you feel residents are with the friendliness of NHR staff?	5	4	3	2	1
5. How satisfied do you feel residents are with the quality of NHR services and programs?	5	4	3	2	1
6. How satisfied do you feel residents are with the delivery methods of NHR services and programs?	5	4	3	2	1
7. How satisfied do you feel residents are with the timeliness of NHR services and programs?	5	4	3	2	1
8. **Overall, how satisfied do you feel residents are with the NHR?**	**5**	**4**	**3**	**2**	**1**

	Very Important	Important	Neutral	Unimportant	Very Unimportant
9. How important do you believe accessibility of NHR services and programs is to residents?	5	4	3	2	1
10. How important do you believe friendliness of NHR staff is to residents?	5	4	3	2	1
11. How important do you believe the quality of NHR services and programs is to residents?	5	4	3	2	1
12. How important do you believe the delivery method of NHR services and programs is to residents?	5	4	3	2	1

13. How important do you believe timeliness of NHR services and programs is to residents?

5	4	3	2	1

B. What do you think of the Organization?

Please tell us about your opinions in the following five questions, using bullet points or lists is just fine.

14. What are the strengths of the Northern Health Region?

15. What are the weaknesses of the Northern Health Region?

16. What ideas / suggestions do you have to improve health service delivery?

17. What do you believe to be the top three (3) health issues in the Region?

18. What do you think is preventing Northern Health Region residents from making healthy lifestyle choices?

C. Staff Demographics Questions

19. What is your gender? Male _____ Female _____

20. What community do you work in? _____

21. How long have you been in your current position (include time prior to amalgamation) _____years

22. What best describes your work setting? (select only one)

- ☐ Acute Care
- ☐ Administration
- ☐ Ambulatory Care
- ☐ Community / Public Health
- ☐ EMS
- ☐ Home Care
- ☐ Long Term Care
- ☐ Maintenance/Materials/Dietary/ Environmental
- ☐ Mental Health
- ☐ Other (please specify): _____
- ☐ Pharmacy
- ☐ Rehabilitation

23. What best describes your staff role? (select only one)

- ☐ Activities/ Recreation Worker
- ☐ Administrative / Clerical Support
- ☐ Clinical Care Manager
- ☐ Clinical Educator
- ☐ Community Health Worker
- ☐ Dietitian
- ☐ Director / Senior Executive
- ☐ Doctor
- ☐ Health Care Aide
- ☐ Home Care Attendant
- ☐ Home visitor/family first home visitor
- ☐ Mental Health Worker
- ☐ Nurse
- ☐ Other (please specify)_____
- ☐ Paramedic
- ☐ Pharmacist
- ☐ Pharmacy Technician
- ☐ Rehabilitation (OT, PT, RT, SLP, Audiologist)
- ☐ Resource Coordinator
- ☐ Supervisor / Manager
- ☐ Support Services(food/housekeep/mainten/laundry)
- ☐ Unit Clerk / Clinic Reception

Thank You!

Northern Region Community Survey 2014

Survey Background

In order to supplement the administrative and other survey data collected for the 2014 Community Health Assessment, a short survey was developed for community residents living in the Northern Health Region. This survey did not focus on health status but rather on the experiences adults have had with regional health services. The following advertisement and link was used to encourage residents to fill out the survey:

> Residents of Northern Health Region, we need your help! We would like to hear about your recent experiences with healthcare in our region! This will help to add valuable information to our current community Health Assessment process. If you are 18 years old or older, please take a few minutes to fill in our short survey by clicking on the following link:
>
> http://fluidsurveys.com/s/2014NHRCommunitySurvey/

The advertisement went into northern newspapers in July 2014, including the *Flin Flon Reminder*, *Opasquia Times* in The Pas and in the *Thompson Citizen.* Posters were also displayed in health facilities. The advertisement also appeared in the northernhealthregion.ca website. The online survey was "live" from July 2014 to January 28, 2015. There were 515 responses to the survey included for analysis.

1.gender:

- Almost three-quarters of respondents to the Northern Community Survey were women at 72.4 percent of 515 total responses.

Response	Chart	Percentage	Count
Female		72.4%	373
Male		27.6%	142
		Total Responses	**515**

2. I have completed high school:

- Almost 7 in 10 respondents (69.1%) have completed high school.

Response	Chart	Percentage	Count
Yes		69.1%	356
No		29.3%	151
Still attending school		1.6%	8
		Total Responses	**515**

3. age

- Most respondents were 35 years of age and older at 72.5 per cent of all responses. The largest age cohort was 45-60 year olds at 30.1 per cent.

Response	Chart	Percentage	Count
Under 18 years old		0.0%	0
18-24 years old		9.7%	50
25-34 years old		17.9%	92
35-44 years old		21.2%	109
45-60 years old		30.1%	155
Older than 60 years		21.2%	109

	Total Responses	**515**

4. I am employed (full time, part time, or casual):

- Most respondents were employed (66.9%) or looking for work (12.1%).

Response	Chart	Percentage	Count
Yes		66.9%	331
No, but looking for work		12.1%	60
No, but not looking for work		21.0%	104
		Total Responses	**495**

5. I live in:

Respondents lived in a wide range of northern communities with Cranberry Portage (and Portage) receiving the largest share of responses at 18% or 80 responses. Thompson was next at receiving the most responses at 15 per cent and 64 responses. Snow Lake was third at 13% of responses.

Response	Chart	Percentages	Count
		0%	0
Cormorant		6%	25
Cranberry Portage		6%	29
Flin Flon		8%	37
Ilford		10%	45
Snow Lake		13%	58
live		0%	0
Pikwitonei		5%	23
Portage		12%	51
Sherridon		5%	23
Snow Lake		7%	30
Thompson		15%	64
Wabowden		7%	31

6. I have lived in this community:

- Respondents were primarily long term residents in their community with almost three-quarters (74.5%) responding that they had lived in their current home community for 10 or more years.

Response	Chart	Percentage	Count
Less than one year		4.5%	23
1-4 years		9.9%	50
5-7 years		5.7%	29
8-10 years		5.3%	27
More than 10 years		74.5%	377
		Total Responses	**506**

7. How would you rate your overall physical health?

- The most popular response for community residents rating their overall health was 'good' at 38.1 per cent. Over a third (33.9%) rated their health as either 'very good' or 'excellent'. Only 6.5 per cent felt their health was poor.

Response	Chart	Percentage	Count
Poor		6.5%	33
Fair		21.4%	108
Good		38.1%	192
Very Good		24.2%	122
Excellent		9.7%	49
		Total Responses	**504**

8. How would you rate your overall mental health?

- Respondents tended to rate their mental health higher than their physical health with 38.6 per cent rating their mental health as 'good' and 46.7 percent rating it as 'very good' or excellent. Only 14.7 per cent thought their mental health was only 'fair' or 'poor'.

Response	Chart	Percentage	Count
Poor		4.4%	22
Fair		10.3%	51
Good		38.6%	192
Very Good		30.4%	151
Excellent		16.3%	81
		Total Responses	**497**

9. Have you ever been treated by a doctor or nurse for any of the following?

- Respondents were treated by a doctor or nurse for a wide range of conditions (responses were over 100% as respondents had multiple chronic conditions that they have seen a doctor or nurse). High blood pressure received the highest number of responses at 45.9 per cent of all responses, followed by depression or anxiety at 28.1 per cent and diabetes at 26.0 per cent.
- In terms of other areas for treatment, thyroid conditions (8 responses), cholesterol (6 responses) and Crohn's disease (6 responses) were the most common ones mentioned.

Response	Chart	Percentage	Count
Arthritis		22.1%	62
Asthma		18.9%	53
Chronic Obstructive Pulmonary Disease		1.1%	3
Diabetes		26.0%	73
Depression or Anxiety		28.1%	79
Heart Disease		4.6%	13
High Blood Pressure		45.9%	129
Osteoporosis		5.3%	15
Other chronic disease (please specify):		19.9%	56
		Total Responses	**281**

9. Have you ever been treated by a doctor or nurse for any of the following? (Other chronic disease (please specify):)

#	Response

10. Do you smoke cigarettes?

- Almost half (44.3%) either smoked daily (31.9%) or occasionally (12.4%) with 55.7 indicating they had not smoked at all.

Response	Chart	Percentage	Count
Yes, daily		31.9%	157
Yes, occasionally		12.4%	61
Not at all		55.7%	274
		Total Responses	**492**

11. Have you seen a healthcare provider or been in hospital in the past year?

- Almost 8 in 10 respondents (78.7%) have seen a healthcare provider or had been to the hospital in the past 12 months.

Response	Chart	Percentage	Count
Yes		78.7%	389
No		21.3%	105
		Total Responses	**494**

12. The types of services I have used in the past year are:

- In terms of the type of health care respondents received, a scheduled appointment with their regular health care provider was the most popular response at 59.6 per cent of responses. Walk in or same day clinics were next at 44.3 per cent and Emergency Room visits were third at 37.2 per cent.
- Of the other responses, respondents mentioned foot specialists, Obstetrician Gynecologist or a mental health provider.

Response	Chart	Percentage	Count
None		7.7%	36
Emergency Room		37.2%	175
Hospital in-patient (I stayed overnight)		14.0%	66
"Walk-in" or "same day appointment" type clinic		44.3%	208
Regular healthcare provider (scheduled appointment)		59.6%	280
Other healthcare provider (please specify)		9.8%	46
		Total Responses	**470**

- Most respondents felt their region met their health care needs with 44.6 per cent mostly or strongly agreeing and 38.1 per cent agreeing. Only 17.3 per cent disagreed or mostly disagreed with the statement.
- Respondents seemed sure they knew where to go for health services with 56.7 per cent strongly or mostly agreeing that they knew where to go with only 7.6 per cent mostly disagreeing or disagreeing with that.

	Strongly Agree	Mostly Agree	Agree	Mostly Disagree	Disagree	Total Responses
13. I believe that the region is responsive to my health care needs.	106 (22.1%)	108 (22.5%)	183 (38.1%)	59 (12.3%)	24 (5.0%)	480
14. I know where to go for the health care services I need.	160 (33.6%)	110 (23.1%)	170 (35.7%)	29 (6.1%)	7 (1.5%)	476

- Satisfaction was high for accessibility (56.7% satisfied or very satisfied), friendliness of staff (74% satisfied or very satisfied), quality (62.8% satisfied or very satisfied) and timeliness (55.3% satisfied or very satisfied). Timeliness was the one issue that had the highest dissatisfaction responses with 22.6 per cent of respondents reporting that they were dissatisfied or very dissatisfied with the timeliness of services and programs.

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Total Responses
15. How satisfied are you with the	72 (15.1%)	199 (41.7%)	113 (23.7%)	57 (11.9%)	36 (7.5%)	477

accessibility of our services and programs?						
16. How satisfied are you with the friendliness of our staff?	179 (37.5%)	174 (36.5%)	73 (15.3%)	29 (6.1%)	22 (4.6%)	477
17. How satisfied are you with the quality of our services and programs?	115 (24.3%)	182 (38.5%)	104 (22.0%)	42 (8.9%)	30 (6.3%)	473
18. How satisfied are you with the timeliness of our services and programs?	104 (21.8%)	160 (33.5%)	105 (22.0%)	64 (13.4%)	44 (9.2%)	477

19. What do you think are the three (3) most important health issues in your community?

- Of the top health issues in their community, drug or alcohol abuse was cited in 25 per cent of the responses. Accessibility-related concerns were cited in 20 per cent of the responses, with diabetes-related issues at 14 per cent and mental health at 12 per cent.

Response	Chart	Percentages	Count
Accessibility to Specialist		2%	11
Aging Population		1%	6
Alcohol Drugs		6%	26
Alcoholism Diabetes		7%	27
Arthritis		1%	7
Cancer Diabetes High BP		1%	6
Chronic		2%	10
Depression		3%	14
Diabetes High		4%	15
Diabetes High Blood Pressure		1%	5

Diabetes Hypertension	1%	7
Doctor Visits	5%	20
Doctors come in Community	4%	16
Drugs	10%	38
Elderly Health	2%	11
Exercise	2%	8
Healthy Foods	1%	4
Illness	2%	10
Lab and X-ray	1%	6
Lack of Exercise	1%	5
Medivacs	2%	10
Mental Health	9%	37
Poor Poor	3%	12
Regular	3%	12
Social Issues	1%	4
Substance Abuse	2%	8
Wait Times	9%	35
Walk in Clinics	1%	5

Northern Health Region 2014 Community Survey

We would like to hear about your recent experiences with healthcare in our region! This will help to add valuable information to our current Community Health Assessment process. These questions are about your experiences as a patient within the communities of the health region. If you had an appointment in Winnipeg, for example, please do not provide feedback about that appointment, but think to the most recent appointment you have had within our region.
If you are18 or older, we invite you to complete this short survey. This survey is confidential and anonymous, please do not put your name on it.

Please return paper copies of this completed survey to your health centre before October 31, 2014. This survey can also be completed on-line at:
http://fluidsurveys.com/s/2014NHRCommunitySurvey/
or by scanning this QR Code with your smart phone:

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1. I am:

- ○ Female
- ○ Male

2. I have completed high school:

- ○ Yes
- ○ No
- ○ Still attending school

3. I am:

- ○ Under 18 years old
- ○ 18-24 years old
- ○ 25-34 years old
- ○ 35-44 years old
- ○ 45-60 years old
- ○ Older than 60 years

4. I am employed (full time, part time, or casual):

- ○ Yes
- ○ No, but looking for work
- ○ No, but not looking for work

5. I live in: (name community)

6. I have lived in this community:

- ○ Less than one year
- ○ 1-4 years
- ○ 5-7 years
- ○ 8-10 years
- ○ More than 10 years

7. How would you rate your overall physical health?

- ○ Poor
- ○ Fair
- ○ Good
- ○ Very Good
- ○ Excellent

8. How would you rate your overall mental health?

- ○ Poor
- ○ Fair
- ○ Good
- ○ Very Good
- ○ Excellent

9. Are you currently being treated by a doctor or nurse for any of the following? *(check all that apply)*

- ○ Arthritis
- ○ Asthma
- ○ Chronic Obstructive Pulmonary Disease (COPD)
- ○ Diabetes
- ○ Depression or Anxiety
- ○ Heart Disease
- ○ High Blood Pressure
- ○ Osteoporosis
- ○ Other chronic disease (please specify): _____

10. Do you smoke cigarettes?

- ○ Yes, daily
- ○ Yes, occasionally
- ○ Not at all

11. Have you seen a healthcare provider or been in hospital in the past year?

- ○ Yes
- ○ No

12. The types of services I have used in the past year are:
(check all that apply)

- ○ None
- ○ Emergency Room
- ○ Hospital in-patient (I stayed overnight)
- ○ "Walk-in" or "same day appointment" type clinic
- ○ Regular healthcare provider (scheduled appointment)
- ○ Other healthcare provider (please specify) _____

	Strongly Agree	Mostly Agree	Agree	Mostly Disagree	Disagree
13. I believe that the region is responsive to my health care needs.	○	○	○	○	○
14. I know where to go for the health care services I need.	○	○	○	○	○

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
15. How satisfied are you with the accessibility of our services and programs?	○	○	○	○	○
16. How satisfied are you with the friendliness of our staff?	○	○	○	○	○
17. How satisfied are you with the quality of our services and programs?	○	○	○	○	○
18. How satisfied are you with the timeliness of our services and programs?	○	○	○	○	○

19. What do you think are the three (3) most important health issues in your community?

1. _____
2. _____
3. _____

20. Overall, my experience with healthcare services in Northern Health Region has been positive:

- ○ Strongly Disagree
- ○ Disagree
- ○ Agree
- ○ Strongly Agree
- ○ Does not apply

Thank you for completing this survey!!