Community Health Assessment 2009
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Brandon Regional Health Authority
# Table of Contents

**Executive Summary** ................................................................. xxii

**Introduction** ........................................................................... xxix

**Chapter 1: Overview of the Region**
Overview of the Region ................................................................. 1-1
City of Brandon ............................................................................. 1-1
RM of Cornwallis .......................................................................... 1-2
RM of Elton .................................................................................. 1-2
RM of Whitehead .......................................................................... 1-2
The People .................................................................................... 1-2
Demographics ................................................................................. 1-2
Population projections ................................................................. 1-5
Aboriginal population ................................................................. 1-6
Newcomer populations ............................................................... 1-7
Francophone community ............................................................ 1-8
Military deployments ................................................................. 1-9
Dependency ratio .......................................................................... 1-10
Lone-parent families ................................................................. 1-10
Population density ....................................................................... 1-12
Migration to the region ............................................................... 1-12
Housing affordability ................................................................. 1-13
Education .................................................................................... 1-14
Income ......................................................................................... 1-15
Social supports ............................................................................. 1-21
Stress .......................................................................................... 1-22
The Environment .......................................................................... 1-24
City of Brandon Environmental Strategic Plan .......................... 1-24
Landfill composting ..................................................................... 1-25
Brandon Energy Efficiency Program ........................................... 1-26
Community Led Emission Reduction ......................................... 1-26
Brandon Emergency Alerting Project ...................................... 1-26
Greenway Village Condominium Project ................................. 1-27
Bill 5 The Highway Traffic Amendment Act ............................. 1-27
Blue Light Campaign ................................................................. 1-27
So, what does this mean? ........................................................... 1-28

**Chapter 2: Health System Characteristics and Performance**
Health System Infrastructure ...................................................... 2-1
Finances ......................................................................................... 2-1
Buildings and Equipment ........................................................... 2-7
Information Technology (IT) ....................................................... 2-7
Human Resources ......................................................................... 2-8
Health System Performance ......................................................... 2-10
Work life ....................................................................... 2-11
System capacity ................................................................. 2-16
Safety ............................................................................. 2-22
Use of Health Services .......................................................... 2-24
Physician visits ................................................................. 2-24
Prescription use ................................................................. 2-33
Emergency Room visits ....................................................... 2-34
Same Day Care visits .......................................................... 2-38
Hospitalizations ................................................................. 2-39
Diagnostic Imaging .............................................................. 2-50
Client-Centered Services ....................................................... 2-52
Participation in planning & delivery of programs & services .... 2-52
Confidentiality ................................................................. 2-52
Satisfaction with services ..................................................... 2-54
Wait times ..................................................................... 2-54
Primary Health Care Initiative Programs ............................... 2-59
Interpretation Services ......................................................... 2-60
Spiritual Care Services ......................................................... 2-61
Hospice and Palliative Care Services ..................................... 2-62
New Programs and Services .................................................. 2-62
Aboriginal Workforce Initiative ........................................... 2-62
Brandon Community Language Centre .................................. 2-63
Clinical Documentation Coordinator Position ....................... 2-63
Completion of Phase Two of the new Clinical Services
Redevelopment Project (CSRP) at BRHC ................................ 2-64
Health Promotion Program .................................................. 2-64
Hospitalist Model ............................................................... 2-64
Interfacility Ambulance Transportation .................................. 2-64
Philippine Nurse Provincial Initiative ................................... 2-65
Physician Recruitment ......................................................... 2-65
PreHab Joint Replacement Program ..................................... 2-65
Rivers Rehabilitation Unit ................................................... 2-66
Stroke Prevention Clinic ....................................................... 2-66
Telehealth ..................................................................... 2-66
Western Manitoba Cancer Program ....................................... 2-66
So, what does this mean? ....................................................... 2-67

Chapter 3: Children and Youth

Demographics ................................................................... 3-2
Healthy Development ......................................................... 3-3
Communicable disease control ............................................ 3-3
Social supports ................................................................. 3-5
Developmental assessments ............................................... 3-8
Special health care needs .................................................... 3-9
Education ..................................................................... 3-11
Healthy Living ................................................................. 3-15
   Physical activity ....................................................... 3-16
   Healthy eating .......................................................... 3-17
   Tobacco use ............................................................. 3-19
   Alcohol and illegal drug use ....................................... 3-20
Chronic Conditions ..................................................... 3-21
   Asthma ................................................................. 3-21
   Diabetes ............................................................... 3-22
   Congenital anomalies .......................................... 3-23
Use of Health Services .................................................. 3-24
   Physician visits ...................................................... 3-24
   Use of prescription medications ................................. 3-25
   Emergency Room .................................................... 3-27
   Same Day Care ...................................................... 3-29
   Hospitalizations .................................................... 3-30
Sexual Health ............................................................. 3-33
Injury ........................................................................... 3-39
Mental Health ............................................................. 3-42
   Child and Adolescent Treatment Centre ........................ 3-42
Mortality ....................................................................... 3-48
New Programs and Services ........................................... 3-50
   Dental Checkup for Children ...................................... 3-51
   Balanced School Day .................................................. 3-51
   Gardasil Immunization .............................................. 3-51
   Teen Health Clinic ...................................................... 3-52
   Crocus Plains Early Learning Centre ............................ 3-52
   School Resource Officer Program ............................... 3-52
   Y South Early Learning Centre .................................... 3-52
   Fetal Alcohol Spectrum Disorder (FASD) Services ........ 3-53
   Project Hero ............................................................. 3-53
   Crisis Stabilization Unit Policy Amendment .................. 3-53
So, what does this mean? ................................................. 3-53

Chapter 4: Adults in our Community

Demographics ............................................................... 4-2
   Life expectancy ......................................................... 4-2
Healthy Living ........................................................... 4-4
   Self-rated health ....................................................... 4-4
   Physical activity ....................................................... 4-7
   Tobacco use ........................................................... 4-8
   Alcohol use ............................................................ 4-9
   Healthy eating ......................................................... 4-10
Communicable Diseases ................................................. 4-12
Chronic Conditions ................................................................. 4-12
   Respiratory diseases.......................................................... 4-12
   Diabetes .............................................................................. 4-15
   Hypertension ...................................................................... 4-17
   Ischemic heart disease ....................................................... 4-18
   Stroke ................................................................................. 4-19
   Cancer ............................................................................... 4-20
   Arthritis .............................................................................. 4-24
   Osteoporosis ...................................................................... 4-25
   Infertility ............................................................................. 4-25
   Renal failure ....................................................................... 4-26
   Inflammatory bowel disease .............................................. 4-27

Use of Health Services ......................................................... 4-27
   Emergency Room .................................................................. 4-27
   Same Day Care ................................................................... 4-29
   Hospitalizations ................................................................... 4-31

Cardiac Care ......................................................................... 4-33

Injury ...................................................................................... 4-40

Mental Health ........................................................................ 4-50
   Adult Community Mental Health program ....................... 4-58
   Psychosocial Rehabilitation program ............................. 4-58
   Centre for Adult Psychiatry .............................................. 4-60
   Westman Crisis Services ................................................. 4-61
   Manitoba Farm and Rural Stress Line .............................. 4-62

Sexual Health ........................................................................ 4-63

Women ................................................................................. 4-64

Premature Mortality .............................................................. 4-77
   Premature mortality rate.................................................... 4-77
   Causes of premature death .............................................. 4-78
   Potential Years of Life Lost ............................................. 4-80

New Programs and Services ................................................ 4-83
   Healthy Brandon ................................................................. 4-83
   Early Intervention Services ............................................. 4-84
   Tobacco Dependence Program ....................................... 4-84
   H1N1 Immunization program ........................................ 4-85
   Co-Occurring Disorders Initiative .................................. 4-85

So, what does this mean? ..................................................... 4-86

Chapter 5: Seniors

Demographics ........................................................................ 5-1

Communicable Disease Control ........................................... 5-3
   Influenza ........................................................................ 5-3
   Pneumococcal .................................................................. 5-3
Use of Health Services .................................................. 5-4
  Emergency Room ..................................................... 5-4
  Same Day Care ....................................................... 5-6
  Hospitalizations .................................................... 5-8
High Profile Procedures .............................................. 5-10
  Hip replacements .................................................... 5-10
  Knee replacements .................................................. 5-11
  Cataract extractions ............................................... 5-12
Injury ................................................................. 5-13
  Emergency Room visits due to injury .......................... 5-13
  Hospitalizations due to injury .................................. 5-14
  Hip fractures .......................................................... 5-15
Mental Health ......................................................... 5-17
  Benzodiazepine use ............................................... 5-17
  Dementia ............................................................. 5-18
  Mental Health Services for the Elderly ....................... 5-19
  Centre for Geriatric Psychiatry ................................. 5-20
Home Care ............................................................. 5-21
  Home Care cases .................................................. 5-21
Respite Care services ............................................... 5-24
Personal Care Homes ............................................... 5-25
  Personal Care Home beds ....................................... 5-25
  Personal Care Home admissions ................................. 5-27
Mortality .............................................................. 5-29
  Mortality rates ..................................................... 5-29
  Causes of death .................................................... 5-29
New Programs and Services ....................................... 5-31
  Specialized Support in Group / Home / Mobile Living .... 5-31
So, what does this mean? .......................................... 5-32

References ..................................................................... R-1

Appendix A: Brandon RHA Districts Map .................. A-1

Appendix B: Brandon RHA Programs and Services ....... A-3
List of Tables and Figures

Chapter 1: Overview of the Region

Table 1.1: Population of Brandon and area, 2001 and 2008 .......... 1-3
Figure 1.2: Manitoba and Brandon population pyramid, 2005 .......... 1-4
Figure 1.3: Brandon population pyramid, 2000 and 2005 .......... 1-4
Figure 1.4: Brandon population projections........................................ 1-5
Table 1.5: Projected population changes by age groupings, 2006 to 2036, Brandon and Manitoba ................. 1-5
Table 1.6: Percentage of Aboriginal people in the Brandon region in comparison to Manitoba (1996 – 2006) ......................... 1-6
Figure 1.7: Aboriginal population pyramid, 2006............................. 1-7
Table 1.8: Maple Leaf foreign workers dependant arrivals................. 1-8
Table 1.9: Deployments from Canadian Forces Base Shilo by year .... 1-9
Figure 1.10: Dependency ratio, (Dependents per 100 working-age individuals), 2006................................................................. 1-10
Figure 1.11: Proportion of lone parent families over total population, Brandon and Manitoba ......................... 1-11
Figure 1.12: Percentage of lone parent families by sex of parent, Brandon and Manitoba........................................ 1-11
Figure 1.13: Urban Population, proportion of total population, 2006................................................................................. 1-12
Figure 1.14: Internal/external migration, 2006................................. 1-12
Figure 1.15: Internal migrant mobility, 2006 ...................................... 1-13
Figure 1.16: Tenant spending 30% or more of income on shelter ..... 1-13
Figure 1.17: Owner spending 30% or more of income on shelter .... 1-14
Figure 1.18: Education level, ages 15 – 24, 2006 ......................... 1-14
Figure 1.19: Average household income........................................... 1-15
Figure 1.20: Median individual income by gender ......................... 1-16
Figure 1.21: Median household income............................................ 1-16
Figure 1.22: Low income rate, 2006 ................................................ 1-17
Figure 1.23: Percent of children in families receiving income assistance, ages 0-17 by RHA ........................................ 1-18
Figure 1.24: Labour force participation rate, 2006 ......................... 1-18
Table 1.25: Occupation groups by gender, 2006 ......................... 1-19
Figure 1.26: Unemployment rate by gender ..................................... 1-20
Figure 1.27: Youth unemployment rate by gender ......................... 1-20
Figure 1.28: Living arrangements, 2006 ........................................... 1-21
Figure 1.29: Marital status, 2006 ..................................................... 1-22
Figure 1.30: Self rated satisfaction with life ....................................... 1-22
Figure 1.31: Self perceived life stress ......................................................... 1-23
Figure 1.32: Self-perceived work stress...................................................... 1-24
Figure 1.33: Second hand smoke exposure (at home), 2003 to 2005 ..1-28

Chapter 2: Health System Characteristics and Performance
Figure 2.1: Percent of total operating budget spent on acute care costs ................................................................. 2-2
Figure 2.2: Percent of total operating budget spent on long term care costs ............................................................... 2-2
Figure 2.3: Percent of total operating budget spent on community care costs ............................................................... 2-2
Figure 2.4: Percent of operating budget spent on administration.......2-3
Figure 2.5: Acute medical and surgical supply costs as a % of total operating costs ......................................................... 2-4
Figure 2.6: Acute medical and surgical costs per patient day, 2007/2008 ........................................................................ 2-4
Figure 2.7: Drug cost per patient day ....................................................... 2-5
Figure 2.8: Personal Care Home medical and surgical costs per resident day, 2007/2008 ......................................................... 2-5
Figure 2.9: Drug cost per resident day.................................................... 2-6
Figure 2.10: Total food services expense per meal day......................... 2-6
Figure 2.11: Percent of operating budget spent on information system costs.................................................................. 2-7
Figure 2.12: Percent of budget spent on IT support and Electronic Health Records..................................................... 2-8
Table 2.13: Staff breakdown by age and gender for the Brandon RHA, 2009 .......................................................... 2-9
Figure 2.14: Total number of volunteer hours...................................... 2-9
Figure 2.15: Brandon RHA Organizational Chart, 2009/10 .............. 2-10
Figure 2.16: Position vacancy rate, monthly average ...................... 2-11
Figure 2.17: WCB claims (medical and/or time loss) ....................... 2-12
Figure 2.18: Staff satisfaction survey .................................................. 2-12
Figure 2.19: Percentage of staff with a current performance appraisal ........................................................................ 2-13
Figure 2.20: Cumulative turnover rate ................................................... 2-15
Figure 2.21: Number of community health EFT ......................... 2-17
Figure 2.22: Health Links contact rates ................................................. 2-18
Figure 2.23: Number of Brandon RHA staff who received influenza immunizations .................................................. 2-23
Figure 2.24: Use of physicians ............................................................. 2-24
Figure 2.25: Physician visits by cause (ICD-9-CM), Rural South and Brandon, 2005/06 ...........................................................2-25
Figure 2.26: Ambulatory visits rates .........................................................2-26
Figure 2.27: Ambulatory consultation rates .............................................2-27
Figure 2.28: Ambulatory visits to specialists ............................................2-28
Figure 2.29: Continuity of care rates .......................................................2-28
Figure 2.30: Where RHA residents went for visits to GP/FPs ....................2-29
Figure 2.31: Where RHA residents went for visits to specialists ..............2-30
Figure 2.32: Proportion of Brandon residents who have a family physician by age group, 2010 .................................................2-30
Figure 2.33: Proportion of Brandon residents who have a family physician by income level, 2010 .................................................2-31
Figure 2.34: Proportion of Brandon residents who had walk in clinic visits during the last year, 2010 ...........................................2-31
Figure 2.35: Proportion of Brandon residents that follow up with their family physician after a visit to a walk-in clinic, 2010 .........................2-32
Figure 2.36: Proportion of Brandon residents who visited the Emergency Room over the last year, 2010 ...........................................2-32
Figure 2.37: Pharmaceutical use by RHA, 2000/01 and 2005/06 ...............2-33
Figure 2.38: Number of different drugs used, 2000/01 and 2005/06 .........................2-33
Figure 2.39: Visits to Emergency Room department at Brandon Regional Health Centre by fiscal year .............................................2-35
Figure 2.40: Region of residence of Emergency Room users at Brandon Regional Health Centre, 2008/09 ...........................................2-35
Figure 2.41: Age breakdown of Emergency Room users atBrandon Regional Health Centre, 2008/09 ...........................................2-36
Table 2.42: Reasons for Emergency Room visits at Brandon Regional Health Centre, 2008/09 .......................................................2-37
Figure 2.43: Patient disposition after a visit to ER at Brandon Regional Health Centre, 2008/09 .......................................................2-37
Figure 2.44: Volume of Same Day Care visits to Brandon Regional Health Centre by fiscal year and place of residence ..........................2-38
Table 2.45: Reasons for Same Day Care visits at Brandon Regional Health Centre, all visits .................................................................2-38
Figure 2.46: Hospital bed supply by RHA ...................................................2-39
Figure 2.47: Acute Care occupancy rate (Adult/Child) ..............................2-40
Figure 2.48: Use of hospitals .................................................................2-41
Figure 2.49: Total hospital separation rates ..............................................2-42
Figure 2.50: Hospital days used in short stays (1 to 13 days) .................2-43
Figure 2.51: Hospital days used in long stays .................................2-44
Chapter 3: Children and Youth

Figure 3.1: Brandon RHA births by year ........................................3-2
Figure 3.2: Proportion of children ages 0 to 19 by district, Brandon RHA .................................................................3-2
Figure 3.3: Complete immunization rates by age, 2008/09 ........................................3-3
Figure 3.4: Complete immunization rates for infants age 1 ........................................3-4
Figure 3.5: Complete immunization rates for children age 2 ........................................3-4
Figure 3.6: Complete immunization rates for children age 7 ........................................3-5
Figure 3.7: Licensed child care spaces by RHA, 2006 ........................................3-6
Figure 3.8: Prevalence of children in families receiving protection/support services from CFS by RHA .................. 3-7
Figure 3.9: Prevalence of children in care by RHA .................. 3-7
Figure 3.10: Number of children requiring further assessment, Milestones Wellness Fair, 2005 – 2009 .................. 3-8
Figure 3.11: EDI scores, percent of children not ready in one or more areas .................................................. 3-9
Figure 3.12: Health care interventions for children enrolled in URIS, Brandon, 2009/10 ........................................ 3-10
Figure 3.13: ADHD prevalence, ages 5 to 19 .................................. 3-10
Figure 3.14: Autism spectrum disorder prevalence, ages 0 to 19 by RHA .................................................. 3-11
Figure 3.15: Grade 3 students with no school changes in 4 years ........ 3-12
Figure 3.16: Retention rates from Kindergarten to Grade 8 .................. 3-12
Figure 3.17: On-time pass rates for the Grade 12 Standard LA Test .... 3-13
Figure 3.18: Students completing high school within 6 years of enrolling in Grade 9 ........................................ 3-14
Figure 3.19: Number of students attending by month (n=158) 2007-08, Neelin Off-Campus Program .................................. 3-14
Figure 3.20: Student placement at end of year (n=158) 2007-08, Neelin Off-Campus Program .................................. 3-15
Figure 3.21: Youth Health Survey respondents by gender and grade level, Brandon RHA, 2008 ........................................ 3-16
Figure 3.22: Physical activity rate from Grade 6 to 12, Brandon RHA, 2008 .................................................. 3-16
Figure 3.23: Adequacy of number of sports offered at school, Brandon RHA, 2008 .................................................. 3-17
Figure 3.24: Time spent reading and doing homework, Brandon RHA, 2008 .................................................. 3-17
Figure 3.25: Number of daily servings of fruit and vegetable consumed, Brandon RHA, 2008 ........................................ 3-18
Figure 3.26: Perception of body weight, Brandon RHA, 2008 .................. 3-18
Figure 3.27: Body weight, Brandon RHA, 2008 .................................. 3-19
Figure 3.28: Students smoking status by grade, Brandon RHA, 2008 .................................................. 3-19
Figure 3.29: Alcohol use, Brandon RHA, 2008 .................................. 3-20
Figure 3.30: Alcohol use by grade, Brandon RHA, 2008 .................. 3-20
Figure 3.31: Illegal drug use, Brandon RHA, 2008 .................. 3-21
Figure 3.32: Illegal drug use by grade, Brandon RHA, 2008 .................. 3-21
Figure 3.33: Asthma prevalence by RHA .................................. 3-22
Figure 3.34: Diabetes prevalence by RHA .................................. 3-23
Figure 3.35: Congenital heart defects rates .................................. 3-23
Figure 3.36: Physician visit rates by RHA..................................................3-24
Figure 3.37: Continuity of care rates by RHA.........................................3-25
Figure 3.38: Number of antibiotic prescriptions per user .........................3-26
Figure 3.39: Rate of children with at least one NSAID prescription ....3-26
Figure 3.40: Rate of children with at least one narcotic analgesic
prescription............................................................................3-27
Figure 3.41: Top 5 reasons for ER visits for children ages 0 to 19,
2008/09 .............................................................................. 3-28
Figure 3.42: Final disposition after a visit to ER at Brandon Regional
Health Centre for children ages 0 to 19, 2008/09 ........3-28
Figure 3.43: Same Day Care visits- Brandon Regional Health Centre,
age 0 to 19 ........................................................................3-29
Table 3.44: Reasons for Same Day Care visits- Brandon Regional
Health Centre, ages 0 to 19 ........................................3-30
Figure 3.45: Hospital episode rates ..................................................3-30
Figure 3.46: Hospital visits for children ages 0 to 19 by fiscal year.......3-31
Table 3.47: Reasons for hospital visits, ages 0 to 19 ......................3-31
Figure 3.48: Hospital-based dental extractions rates by RHA ..........3-32
Figure 3.49: Tonsillectomy and adenoidectomy rates by RHA ..........3-33
Figure 3.50: Condom use by RHA, ages 15 to 19, 2003 and 2005.......3-34
Figure 3.51: Reported birth control use by RHA, ages 15 to 19, 2003
and 2005 ........................................................................3-34
Figure 3.52: Average age of first sexual intercourse by RHA, ages 15
to 19, 2003 and 2005 ..........................................................3-35
Figure 3.53: Cervical screening rates, ages 15 to 19, 2006-2009 ..........3-36
Figure 3.54: Number of positive tests for Chlamydia and Gonorrhea,
age breakdown..................................................................3-36
Figure 3.55: Teen pregnancy rate of women, ages 15 to 19..........3-37
Figure 3.56: Age at first pregnancy - Manitoba women, 2001/02 to
2003/04 ..............................................................................3-38
Figure 3.57: Teen birth rate of women, ages 15 to 19 .......................3-38
Figure 3.58: External causes of injury visits to children, 2008/09....3-39
Figure 3.59: Injury hospitalization rates for children, ages 0 to 19.....3-40
Table 3.60: Causes for injury hospitalization among children ages 0
to 19, 2005/07 and 2007/09..................................................3-41
Figure 3.61: Injury mortality rates by RHA ......................................3-41
Table 3.62: School connectedness, Grades 6 to 12, Brandon RHA,
2008 .................................................................................3-42
Figure 3.63: Athletic ability............................................................3-42
Figure 3.64: School work ..............................................................3-43
Figure 3.65: Feelings of hopelessness............................................3-43
Figure 3.66:  Rate of children with at least one antidepressant prescription................................................................. 3-44
Figure 3.67:  Rate of children with at least one SSRI prescription...... 3-44
Figure 3.68:  Rate of children with at least one anxiolytic prescription by RHA............................................................... 3-45
Figure 3.69:  Rate of children with at least one antipsychotic prescription by RHA............................................................... 3-46
Figure 3.70:  Rate of children with at least one psychostimulant prescription by RHA............................................................... 3-47
Figure 3.71:  CATC admission rate by RHA from 2006 to 2009........ 3-48
Figure 3.72:  Number of admissions to CATC by year, 1999/00 – 2008/09........................................................................... 3-49
Figure 3.73:  Trends of presenting concerns, CATC, 2008/2009 ...... 3-49
Figure 3.74:  Infant mortality rates by RHA......................................................... 3-50
Figure 3.75:  Child mortality rates by RHA......................................................... 3-50

Chapter 4: Adults in our Community

Figure 4.1:  Population by district 2008, ages 20 to 44 and 45 to 64 ...4-2
Figure 4.2:  Male life expectancy................................................................. 4-3
Figure 4.3:  Female life expectancy................................................................. 4-4
Figure 4.4:  Self-rated health ................................................................. 4-5
Figure 4.5:  Percentage of perfect scores on Physical Functioning Scale........................................................................ 4-6
Figure 4.6:  SF-36 General Mental Health Scale Tertiles ................. 4-6
Figure 4.7:  Self-physical activity levels by RHA ................................................................. 4-7
Figure 4.8:  Activity limitations by RHA......................................................... 4-8
Figure 4.9:  Smoking rates by RHA, age 12+ ................................................................. 4-9
Figure 4.10:  Self reported heavy drinking, age 12+ ................................................................. 4-9
Figure 4.11:  Body Mass Index (BMI) by RHA, age 18+......................... 4-10
Figure 4.12:  Dietary practices: Fruits & vegetables ................................................................. 4-11
Figure 4.13:  Complete physical exams by RHA................................................................. 4-11
Figure 4.14:  New cases for select communicable infections, five- year average (per 100,000) ................................................................. 4-12
Figure 4.15:  Total respiratory morbidity rates by RHA, 2000/01 and 2005/06................................................................. 4-13
Figure 4.16:  Asthma prevalence - Standardized cases per 1,000 residents (Males) ................................................................. 4-13
Figure 4.17:  Asthma prevalence - Standardized cases per 1,000 residents (Females) ................................................................. 4-14
Figure 4.18:  Asthma care ................................................................. 4-14
Figure 4.19: Age standardized diabetes incidence, 2001/02 to 2005/06 ................................................................. 4-15
Figure 4.20: Diabetes prevalence by RHA, 1998/99 – 2000/01 and 2003/04 – 2005/06 ......................................................... 4-15
Figure 4.21: Diabetes care: eye examinations by RHA .................. 4-16
Figure 4.22: Diabetes-related lower limb amputation rates by RHA, 1996/97-2000/01 and 2001/02-2005/06 ............... 4-17
Figure 4.23: Hypertension prevalence by RHA ......................... 4-18
Figure 4.24: Ischemic heart disease prevalence by RHA ............... 4-18
Figure 4.25: Stroke incidence rates ........................................ 4-19
Figure 4.26: 30-day Stroke in-hospital mortality rate - Risk adjusted %, 2005/2006 to 2007/2008 ............................................ 4-19
Table 4.27: Cancer incidence by gender, Brandon and Manitoba, age standardized rate per 100,000 population, 1998 to 2007 ........................................................................................................ 4-20
Table 4.28: Male cancer prevalence rates per 100,000 (Rates have been standardized by age to Manitoba’s 2001 population) ........................................................................................................... 4-21
Table 4.29: Female cancer prevalence rates per 100,000 (Rates have been standardized by age to Manitoba’s 2001 population) ........................................................................................................... 4-22
Figure 4.30: Male cancer survival, Brandon and Manitoba ......... 4-22
Figure 4.31: Female cancer survival, Brandon and Manitoba ....... 4-23
Figure 4.32: Male relative survival by large geographic region, and time period, 2000-2004 ............................................. 4-23
Figure 4.33: Female relative survival by large, geographic region, and time period, 2000-2004 ............................................. 4-24
Figure 4.34: Arthritis prevalence by RHA .................................. 4-24
Figure 4.35: Osteoporosis prevalence by RHA ........................... 4-25
Figure 4.36: Infertility treatment prevalence by RHA, 1999/00 – 2003/04 ................................................................. 4-26
Figure 4.37: Renal failure treatment prevalence by RHA, 1999/00 – 2003/04 ................................................................. 4-26
Figure 4.38: Inflammatory bowel disease treatment prevalence, 2003/04 ................................................................. 4-27
Figure 4.39: Top 5 reasons for ER visits for adults 20 to 44 years, 2008/09 ................................................................. 4-28
Figure 4.40: Top 5 reasons for ER visits for adults 45 to 64 years, 2008/09 ................................................................. 4-28
Figure 4.41: Final disposition after a visit to ER at Brandon Regional Health Centre for adults by age group, 2008/09 .......... 4-29
Figure 4.42: Same Day Care visits for adults by fiscal year and age group ................................................................. 4-29
Table 4.43:  Reasons for Same Day Care visits for adults aged 20 to 44

Table 4.44:  Reasons for Same Day Care visits for adults aged 45 to 64

Table 4.45:  Hospital visits for adults by fiscal year and age group

Table 4.46:  Reasons for hospitalization for adults age 20-44

Table 4.47:  Reasons for hospitalization for adults age 45 to 64

Figure 4.48:  Heart attack (AMI) rates

Figure 4.49:  Cardiac catheterization rates

Figure 4.50:  Angioplasty rates by RHA, 1999/2000 – 2003/04

Figure 4.51:  Stent insertion rates by RHA, 1999/2000 – 2003/04

Figure 4.52:  Percutaneous coronary intervention rates by RHA

Figure 4.53:  Coronary artery bypass surgery rates

Figure 4.54:  Statin use by RHA, 2003/04

Figure 4.55:  ACE inhibitors use, 2003/04

Figure 4.56:  Post AMI care: Beta-Blocker prescribing

Figure 4.57:  30-day AMI in-hospital mortality rate, risk adjusted %, 2005/2006 to 2007/2008

Figure 4.58:  AMI Re-admission rates - Risk adjusted %, 2005/2006 to 2007/2008

Figure 4.59:  External causes of injury visits to ER for adults, 2008/09

Figure 4.60:  Injury hospitalization rates

Figure 4.61:  Injury Hospitalization or death rates for males

Figure 4.62:  Injury hospitalization or death rates for females

Table 4.63:  Causes of hospitalization and death due to injury, males and females, Brandon and Manitoba, 1994/95-2003/04

Table 4.64:  Reasons for injury hospitalization for adults age 20 to 44

Table 4.65:  Reasons for injury hospitalization for adults age 45 to 64

Figure 4.66:  Injury mortality rates

Figure 4.67:  Causes of injury deaths (ICD-9-CM), Rural South & Brandon, 1996-2000

Figure 4.68:  Causes of injury deaths (ICD-9-CM), Rural South & Brandon, 2001-2005

Figure 4.69:  Male unintentional injuries deaths per 100,000 residents, Brandon and Manitoba

Figure 4.70:  Female unintentional injuries deaths per 100,000 residents, Brandon and Manitoba
Figure 4.71: Suicide rates by RHA .......................................................... 4-49
Figure 4.72: Prevalence of individuals completing or attempting suicide.......................................................... 4-50
Figure 4.73: Prevalence of cumulative disorders by RHA ...... 4-51
Figure 4.74: Hospital separations for those with mental illness, 2003/2004-2007/2008 ................................................. 4-51
Figure 4.75: Five-year mortality for people with and without cumulative mental illness (CMI), 2001/02 to 2005/06 ... 4-52
Figure 4.76: Prevalence of depression by RHA ....................... 4-53
Figure 4.77: Antidepressant use by RHA ................................. 4-54
Figure 4.78: Antidepressant prescription follow-up by RHA ........ 4-54
Figure 4.79: Prevalence of anxiety disorders by RHA .......... 4-55
Figure 4.80: Prevalence of substance abuse by RHA .......... 4-56
Figure 4.81: Prevalence of personality disorders by RHA .......... 4-56
Figure 4.82: Prevalence of schizophrenia by RHA .... 4-57
Figure 4.83: Prevalence of individuals in MHMIS by RHA 1997/98- 2001/02 .......................................................... 4-57
Figure 4.84: Psychosocial Rehabilitation program clients by age, 2005-2009 .......................................................... 4-58
Figure 4.85: Psychosocial Rehabilitation program clients by sex, 2005-2009 .......................................................... 4-59
Figure 4.86: Psychosocial Rehabilitation diagnosis breakdown, 2006 to 2009 .......................................................... 4-59
Figure 4.87: Psychosocial Rehabilitation clients with Co-Occurring Disorders, 2006 to 2009 ................................................. 4-60
Figure 4.88: Centre for Adult Psychiatry readmission <30 Days, 2006 to 2009 .......................................................... 4-60
Figure 4.89: Centre for Adult Psychiatry region of residence on referral, 2006 to 2009 .......................................................... 4-61
Figure 4.90: Westman Crisis Services description of clients with suicide ideation, 2008 to 2009 .......................................................... 4-62
Figure 4.91: Manitoba Farm and Rural Stress Line average calls per month, 2001-2007 .......................................................... 4-62
Figure 4.92: Chlamydia and Gonorrhea male crude cases per 1000, five-year average, 2002-2006 .......................................................... 4-63
Figure 4.93: Chlamydia and Gonorrhea female crude cases per 1000, five-year average, 2002-2006 .......................................................... 4-63
Figure 4.94: Cervical cancer screening rates by RHA .................. 4-64
Figure 4.95: Cervical cancer screening by age group, Brandon RHA .... 4-65
Figure 4.96: Age at first pregnancy - Manitoba women, 2001/02 – 2003/04 .......................................................... 4-65
Figure 4.97: Pre-term birth rate by RHA, 2002/03 to 2006/07 .... 4-66
Figure 4.98: Brandon RHA births.......................................................... 4-66
Figure 4.99: Low birth weight rate by RHA, 2002/03 - 2006/07........4-67
Figure 4.100: High birth weight rate by RHA, 2002/03 - 2006/07..... 4-68
Figure 4.101: Small-for-gestational age rates by RHA..................... 4-69
Figure 4.102: Travelling to give birth – Women leaving their RHA, 2002/03.................................................................................. 4-70
Figure 4.103: All inductions of labour, 1988/89 to 2002/03.............4-70
Figure 4.104: Any analgesia/anaesthesia during birth, 1988/89 to 2002/03.................................................................................. 4-71
Figure 4.105: Assisted vaginal births, Brandon and Manitoba, 1988/89 to 2002/03.......................................................... 4-71
Figure 4.106: Caesarean section rates by RHA.................................4-72
Figure 4.107: Vaginal birth after Caesarean section by RHA.........4-73
Figure 4.108: Births by area of residence (Midwifery), 2001-2009 ......4-73
Figure 4.109: Percentage of home births by Midwives, Brandon RHA..4-74
Figure 4.110: Breastfeeding initiation rates by RHA.......................4-74
Figure 4.111: Maternal hospital readmissions, 1988/89 to 2002/03....4-75
Figure 4.112: Families First Program risk factors, 2003-2006...........4-76
Figure 4.113: Hysterectomy rate, Brandon and Manitoba (age-adjusted per 1,000 women age 25 or older).............. 4-76
Figure 4.114: Mammography rates by RHA...................................4-77
Figure 4.115: Premature mortality rates ............................................4-78
Figure 4.116: Causes of premature death, Rural South and Brandon, 1996 - 2000..........................................................4-79
Figure 4.117: Causes of premature death, Rural South and Brandon, 2001 - 2005..........................................................4-79
Figure 4.118: Potential years of life lost by RHA......................... 4-80
Figure 4.119: PYLL rates per 1000 residents for select causes of death, 5 year average 2002-2006 Male.................................4-81
Figure 4.120: PYLL rates per 1000 residents for select causes of death, 5 year average 2002-2006 Female.................................4-81
Table 4.121: Percentage of deaths from cancer by region, sex, and cancer site for 2000 to 2005 .................................4-82
Figure 4.122: Tobacco Dependence Program data....................... 4-85

Chapter 5: Seniors

Figure 5.1: Proportion of seniors age 65+ by district ....................5-2
Figure 5.2: Adult influenza immunization rates by RHA ...............5-3
Figure 5.3: Pneumococcal immunization rates by RHA..............5-4
Figure 5.4: Reasons for emergency room visits for seniors, ages 65 to 84..........................................................5-5
Figure 5.5: Reasons for emergency room visits for seniors, age 85+ .... 5-5
Figure 5.6: Final disposition after a visit to ER at Brandon Regional Health Centre for seniors by age group, 2008/09 ................................................................. 5-6
Figure 5.7: Same Day Care visits for seniors by fiscal year and age group ................................................................. 5-7
Table 5.8: Reasons for Same Day Care visits for seniors ages 65 to 84 ................................................................. 5-7
Table 5.9: Reasons for Same Day Care visits for seniors 85 years and older ................................................................. 5-8
Figure 5.10: Hospital visits for seniors by fiscal year and age group ................................................................. 5-8
Table 5.11: Reasons for hospitalization for seniors, ages 65 to 84 ................................................................. 5-9
Table 5.12: Reasons for hospitalization for seniors, age 85+ ................................................................. 5-10
Figure 5.13: Hip replacement surgery rates ................................................................. 5-11
Figure 5.14: Knee replacement rates ................................................................. 5-12
Figure 5.15: Cataract surgery rates by RHA ................................................................. 5-13
Figure 5.16: External causes of injury visits to ER for seniors, 2008/09 ................................................................. 5-14
Table 5.17: Causes for injury hospitalizations, seniors ages 65 to 84 ................................................................. 5-15
Table 5.18: Causes for injury hospitalizations, seniors 85 years and older ................................................................. 5-15
Figure 5.19: Hip fracture rates by RHA, 1999/2000 – 2003/04 ................................................................. 5-16
Figure 5.20: Hip fracture cases by gender, Brandon Regional Health Centre ................................................................. 5-16
Table 5.21: Percentage of hip fracture cases by age and gender, Brandon Regional Health Centre ................................................................. 5-17
Figure 5.22: Community-dwelling seniors receiving benzodiazepine prescriptions by RHA ................................................................. 5-18
Figure 5.23: Prevalence of dementia by RHA ................................................................. 5-18
Figure 5.24: Mental Health Services for the elderly gender breakdown, 2006-2009 ................................................................. 5-19
Figure 5.25: Mental Health Services for the Elderly age breakdown, 2008-2009 ................................................................. 5-19
Figure 5.26: Centre for Geriatric Psychiatry gender breakdown, 2006-2009 ................................................................. 5-20
Figure 5.27: Centre for Geriatric Psychiatry diagnosis breakdown, 2006-2009 ................................................................. 5-20
Figure 5.28: New Home Care cases by RHA ................................................................. 5-22
Figure 5.29: Open Home Care cases ................................................................. 5-22
Figure 5.30: Home Care days used by RHA, 2002/03 – 2003/04 ................................................................. 5-23
Figure 5.31: Average length of Home Care cases ................................................................. 5-23
Figure 5.32: Home Care case closing rates ................................................................. 5-24
Figure 5.33: Brandon RHA respite beds: Occupancy rates ...............5-25
Figure 5.34: Supply of Personal Care Home beds by RHA ...............5-26
Figure 5.35: Residents in Personal Care Homes by RHA ..................5-26
Figure 5.36: Admissions to Personal Care Homes by RHA ................5-27
Figure 5.37: Median waiting times for PCH admission by RHA ..........5-27
Figure 5.38: Level of Care on Admission to PCH, age 75+ by RHA .....5-28
Table 5.39: Median length of stay (years) by level of care at admission to PCH by RHA, Brandon / Manitoba ............5-28
Figure 5.40: Total mortality rates .............................................5-29
Figure 5.41: Causes of death (ICD-9-CM) Rural South & Brandon, 1996-2000 .................................................................5-30
Figure 5.42: Causes of death (ICD-9-CM), Rural South & Brandon, 2001-2005 .................................................................5-30
Figure 5.43: Top 5 causes of death (as a percentage of all deaths) ......5-31
Executive Summary

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

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

Process and methods

The Community Health Assessment Network (CHAN), a provincial committee, oversees the community health assessment process in Manitoba. This committee includes representatives from each regional health authority as well as CancerCare Manitoba and Manitoba Health. A set of core indicators was needed to ensure consistent regional reporting across the province. A small working group was established, known as the Indicator Working Group, to create a set of indicators for the 2009 report. Members of the working group included representatives from the Brandon, Central, Interlake, Nor-Man and Winnipeg Regional Health Authorities as well as the Manitoba Centre for Health Policy and Manitoba Health. The working group reviewed previous data, identified gaps and sought to access datasets that would ensure a comprehensive set of indicators for regional reporting.

Information was gathered from many sources. Manitoba Health developed a regional profile document, a collection of data based on core indicators that were approved by CHAN. We also gathered information from traditional databases including Statistics Canada, the Manitoba Centre for Health Policy, the Brandon Regional Health Authority and local agencies. We used three methods to learn about the people in the region. These methods included focus groups, a review of Emergency Room charts and a telephone survey.

Focus groups with new immigrants were conducted as part of the Improving Access project, an initiative to improve access to health and social services for immigrants and refugees in Brandon and Winnipeg. A total of 93 individuals from African and Latin American countries participated.

A focus group was conducted with Francophone residents in the region. The purpose of the focus group was to hear about their experiences with services and supports in the region. The focus group was held with community residents, staff of the French-language day care centre and the principal of the Division scolaire franco-manitobaine (DSFM) school in Shilo.
A review of Emergency Room health records was completed to augment hospitalization and mortality data. The intent was to gain an understanding of health issues and patterns of health care utilization from an outpatient perspective. Specific areas of investigation included injury, abuse, mental health issues, circulatory conditions and respiratory conditions. Randomly selected charts from the middle month of each quarter of the 2008-2009 fiscal year were selected. A total of 791 charts were reviewed.

A telephone survey was conducted by a contracted agency (Probe Research). The purpose of this survey was to explore physician office visits, use of walk-in clinics and use of the Emergency Room at the Brandon Regional Health Centre. Four hundred residents from the Brandon region were surveyed.

**Format**

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

**Chapter 1** Overview of the region - provides information about the demographic and geographic characteristics of the region.

**Chapter 2** Health system characteristics and performance – addresses finances, information technology, human resources, work life, system capacity and safety issues as the basic framework for the RHA. There is also information about health services utilization, client-centred services, and new programs and services.

**Chapter 3** Children and Youth – provides information demographics, healthy development, healthy living, chronic conditions, use of health services, sexual health, injury, mental health and mortality.

**Chapter 4** Adults – provides detailed information including demographics, healthy living, communicable diseases, chronic conditions and use of health services. There is also information about cardiac care, injury, mental health, sexual health, women and premature mortality.

**Chapter 5** Seniors – focuses on use of health services, high profile procedures, injury, mental health, home care and respite services, personal care homes and mortality.

**Findings**

**Overview of the Region**

**The people**

- Brandon is growing. Brandon grew by 6.1% between 2001 and 2008
- Over one-third of the Aboriginal population (35.1%) in the Brandon region are 0 to 14 years old
- Projections for 2011 indicate visible minorities will comprise 9.2% or greater
Approximately 95% of temporary foreign workers apply for landed immigrant status and are then able to sponsor their families.

Military deployments have a significant impact on mental health, orthopedic and maternal-child programs.

Access to affordable housing is a challenge for many residents.

**The environment**

The City of Brandon has several eco-friendly initiatives underway.

Pending amendments to Bill 5 The Highway Traffic Amendment Act will have a significant social impact in the region.

**Health System Characteristics and Performance**

**Health system infrastructure**

Brandon spends a similar proportion of the total operating budget on acute care, long-term care and community health as the province but less on administration.

The Brandon RHA workforce is aging.

An external review of all building and equipment is needed to determine future priorities.

**Health system performance**

In 2008/09, Staff/Management ratio is 1:26.

The Critical Incident Review Process identified miscommunication as the top theme.

**Health services utilization**

A significant proportion of people who access walk-in clinics also follow-up with their family physician.

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

Same Day Care visits are increasing over time.

Brandon’s hospital separation rates decrease significantly over time.

**Client-Centered services**

Almost 50% of our hospital admissions are from outside the region.
The Brandon has a website with the opportunity for the public to email questions, comments and concerns

**New programs and services**
- Access to trained, qualified interpreters is available through the Brandon Community Language Centre
- Several initiatives to address waiting times are place

**Children and Youth**

**Healthy development**
- Immunization rates decrease, as children get older
- Brandon has the second highest number of licensed childcare spaces in the province
- Vision and dental concerns account for the majority of follow-up referrals from the Milestones Wellness Fair

**Healthy living**
- The majority of Grade 6 to 12 students spend less than one hour reading and doing homework per week
- Smoking rates progressively increase by grade

**Chronic conditions**
- The most common reason for a health plan in the school setting is asthma and anaphylaxis

**Use of health services**
- Injury is the most common reason for ER visits

**Sexual health**
- Brandon has the second highest rate of cervical screening among adolescents in the province
- Condom and birth control pill use is lower among youth in Brandon than the province overall

**Injury**
- Accidental falls are the most common reason for injury-related hospitalizations
Mental health

There is high use of SSRIs, antidepressant and anxiolytic medications in the Brandon region

A total of 34% of students grades 6 to 12 reported feeling so sad or hopeless in the past 12 months that they stopped doing some usual activities for a while

New programs and services

There are several new programs including Crocus Plains Early Learning Centre, Y South Early Learning Centre and the School Resource Officer Program

Adults

Healthy living

Approximately half of the residents are physically inactive in any district

The highest percentage of smokers live in Brandon East and the lowest proportion live in Brandon Rural

Communicable diseases

Brandon has a higher volume of new cases of Shigella than the province

Chronic conditions

There is a significant increase in respiratory disease in Brandon West and Brandon North End but a significant decrease over time in Brandon East and Brandon Central

Diabetes and hypertension are increasing significantly over time in every district

There is a significant decrease of strokes over time in Brandon Rural, Brandon West and Brandon East

The incidence of prostate cancer is higher in Brandon than Manitoba

There is a significant increase of arthritis over time in Brandon Rural and Brandon West

There are significant increases of osteoporosis over time in every district except Brandon Southeast and Brandon Southwest

Use of health services

Gastrointestinal procedures are the most common reason for Same Day Care visits
Heart attack rates are significantly higher in the region than the province, but are decreasing over time

**Injury**
- Injury is the number one reason for hospitalization for all adults
- Accidental falls are the primary reason for injury-related hospitalization

**Mental health**
- The prevalence of cumulative disorders is significantly higher in Brandon than the province
- There is appropriate physician follow up in Brandon for individuals receiving antidepressant prescriptions

**Sexual health**
- The number of cases of chlamydia is higher in Brandon than the province for both men and women

**Women health**
- Brandon West has the highest rate of low birth weight babies and Brandon East has the highest rate of high birth weight babies in the region
- The Caesarean section rate for Brandon is significantly increasing over time

**Premature mortality**
- Cancer is the top cause of premature death

**New programs and services**
- Healthy Brandon, the Chronic Disease Prevention Initiative, focuses on developing and supporting healthy living in the community
- The Tobacco Dependence Program was selected by the University of Ottawa Heart Institute to participate in the Ottawa Model for Smoking Cessation

**Seniors**

**Communicable disease control**
- Immunization rates are significantly higher for Brandon than Manitoba
Use of health services

- A significant proportion of seniors are hospitalized for non-specific reasons such as failure to cope
- Accidental falls account for the vast majority of injury-related hospitalizations for both younger and older seniors

High profile procedures

- Gastrointestinal procedures account for the majority of Same Day Care visits

Injury

- Injury is the second most common reason for ER visits among 65 – 84 year olds and the number one reason for those ages 85+
- Hip fractures are more common among females than males

Mental health

- Benzodiazepine prescription use among seniors living in the community has increased over time
- The prevalence of dementia is significantly lower than the province

Home Care

- Residents in Brandon used fewer days of Home Care than the province

Personal Care Homes

- A higher percentage of area residents were admitted to a personal care home than the Manitoba average

Mortality

- The top three causes of death are circulatory disease, cancer and respiratory diseases.

New programs and services

- Under the Long Term Care Strategy, the Brandon RHA has implemented the Specialized Support in Group/Home/Mobile Living Program
In conclusion, the purpose of this report is to support evidence-based planning processes within the Brandon Regional Health Authority. Specifically, the report will be useful for assessing health needs and capacities of community residents, monitoring health status and evaluating health-related programs and services. An accurate analysis of available data combined with a firm understanding of the lived experiences of people in the region will result in informed health planning processes.

Ordering Information

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

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

Telephone: (204) 571 - 8455
Fax: (204) 726 – 8505
Introduction
What is a Community Health Assessment?

A community health assessment describes how healthy we are as a region. Data analysis helps to figure out what is working well and what is not. The Brandon Regional Health Authority (Brandon RHA) is the managing body for the publicly funded health services and programs that are available in the Brandon region. Assessing community health is an essential part of health planning within the region. It is an on-going process to identify the strengths and needs of a region.

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

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

Assessment is putting together all the information gathered and analyzing it to determine needs and priorities that are specific to the Brandon region.

Where did the information come from?

Information was collected from many sources. We gathered information from traditional databases including Manitoba Health, Statistics Canada, Manitoba Centre for Health Policy, Prairie Women’s Health Centre of Excellence and the Brandon Regional Health Centre.

Historically, the Brandon Region was divided into three areas for reporting purposes. Using the Federal electoral boundaries as parameters, data was available from Manitoba Health and the Manitoba Centre for Health Policy for Brandon East, Brandon West and Brandon Rural. The 2004 comprehensive Community Health Assessment report contains data showing the Brandon region in comparison to Manitoba overall and findings for the three areas wherever possible.
Regional data proved that health challenges typically manifest in Brandon East in comparison to Brandon West and Brandon Rural. The challenge was that Brandon East encompassed an area from 18<sup>th</sup> Street through to 65<sup>th</sup> Street East. From a service delivery perspective, it was difficult to determine where and how to address specific health issues. It became clear that we needed a much higher level of inquiry in order to make evidence-informed decisions that would improve the health of the population.

A new Geographical Monitoring System for the Brandon Regional Health Authority was launched in November 2006. Public Health Services had previously implemented the concept of Neighbourhood Nursing whereby the region was divided into six districts with one or more Public Health Nurses assigned to each district. Staff in the Planning & Evaluation department led the development of new reporting processes using residential postal codes to align with the Public Health districts. Data are now available for:

- Brandon Rural
- Brandon Southeast
- Brandon West
- Brandon Southwest
- Brandon North End
- Brandon East
- Brandon Central

Please refer to Appendix A for a map of the region and a physical description of each district.

We also used other methods to gather information about our region. Some methods allowed us hear directly from people in the region such as focus groups and a telephone survey while other efforts involved a review of Emergency Room charts.

**Focus groups with New Immigrants** were conducted in 2007 through the Improving Access to Services for Immigrant and Refugee Communities project, a three-year federally funded initiative. A needs assessment involving five focus groups was conducted resulting in 17 recommendations for improved services in the region.

**A focus group with the Francophone Community** was conducted in May 2009 with Francophone residents in the region. The purpose of the focus group was to hear about their experiences with services and supports in the region. Although the Government of Manitoba’s policy on French-language services (FLS) does not apply to the Brandon Regional Health Authority, there is a significant proportion of Francophones living in the region. The number of Francophones has varied through the years because it is directly aligned with military transfers to the Canadian Forces Base Shilo, primarily from eastern Canada. A focus group was held with residents, staff of the French-language day care centre and the principal of the Division scolaire franco-manitobaine (DSFM) school in Shilo.
A review of Emergency Room health records was completed in the summer of 2009. An assessment tool was developed to explore specific areas including injury, abuse, mental health issues, circulatory conditions and respiratory conditions. Randomly selected charts from the middle month of each quarter of the 2008-2009 fiscal year were selected. A total of 791 charts were reviewed.

A telephone survey was conducted in the winter of 2009 by a contracted agency (Probe Research). The purpose of this survey was to explore physician office visits, use of walk-in clinics and use of the Emergency Room at the Brandon Regional Health Centre. Four hundred residents from the Brandon region were surveyed. The research used random digit dialing which assured access to unlisted numbers and recently connected phones. When someone refused a survey, another person was called through the random digit dialling until the 400 surveys were completed.
OVERVIEW
Chapter 1
Overview of the Region

The Brandon region was established in 1997/98 as a result of provincial regionalization of health care services. The Region includes the City of Brandon and three rural municipalities – Cornwallis, Elton and Whitehead. A physical description of the region is provided as well as an overview of the people and the environment. Specifically, this section includes:

- Description of the City of Brandon and three rural municipalities
- Demographics of the population
- Social determinants of health including income, education levels, housing, employment and social supports
- Environmental programs including eco-friendly initiatives

City of Brandon

Brandon is the second largest city in Manitoba covering an area of approximately 67 square kilometres. It is located on the Trans-Canada Highway 200 km west of Winnipeg and 100 km north of the United States border. Brandon is the centre of a large and varied agricultural area surrounded by the Rural Municipalities of Elton, Cornwallis and Whitehead.

Brandon’s business districts are located in distinct areas of the city – the Brandon Shopper’s Mall on the south side, independently owned shops downtown and the newly developed Corral Centre in the north end. Brandon offers the full spectrum of educational options including twenty-two public schools and one private religious school, as well as Assiniboine Community College and Brandon University. Key facilities in the city include the Canada Games Sportsplex, Riverbank Discovery Centre and Westman Place, an agricultural and recreational complex.

The Brandon Regional Health Authority (Brandon RHA) provides services in a variety of settings. A regional referral acute care centre serves residents of southwestern and central Manitoba and to southeastern Saskatchewan as well as Parkland region for some specialty services. Physician services are available through group and independent practices, as well as walk-in clinics.
RM of Cornwallis

With a population of approximately 2,820 the RM of Cornwallis features several smaller communities including Brandon Hills, Little Souris, Grand Valley, Chater, Cottonwoods and Sprucwoods. Spring Valley Hutterite colony is also located in the municipality. The major economic impetus is agriculture. Most residents of working age in the RM of Cornwallis are either employed in farming or in agricultural businesses and services. The Canadian Forces Base (CFB) Shilo is located on the eastern border of the municipality and is the municipality’s largest employer. Currently, CFB Shilo has 438 civilian employees working in a variety of capacities. There are several new residential subdivisions under development that will provide new residents with the opportunity to live in the country with easy access to amenities in the City of Brandon.

RM of Elton

The RM of Elton is predominantly an agricultural area situated north of Brandon. With a population of approximately 1,200, the municipality has been home to families for generations with many resident families being descendents of original pioneers and owners of Century farms. The village of Forrest is the major community in the municipality and it is home to two schools that are part of the Rolling River School Division. Smaller communities of Justice and Douglas are also located in the municipality. The Hillside Hutterite colony is also located in the municipality.

RM of Whitehead

The RM of Whitehead is located approximately 25 kilometres west of the City of Brandon. The villages of Alexander, Kemnay and Beresford are located within the municipality.

Agriculture is a strong element in the RM of Whitehead’s economy. The municipality of approximately 760 residents boasts two grain dealers, two grain elevators, two seed plants and two fertilizer dealers. The RM of Whitehead is serviced by both CN and CP main rail lines. This provides a direct link to agricultural markets and services located in Brandon, as well as other western municipalities in Manitoba and southeastern Saskatchewan.

The People

Demographics

There are a number of challenges in trying to report accurate numbers of people living in a specific area. Data sources may gather information during different time periods, use different calculation formulas or use a different reporting structure. Although Census data is the most common data source for population reporting, the information in Table 1.1 is taken from Manitoba Health because it is the most current data available. Manitoba Health gathers information by postal code and, ideally, residents update their personal health information within 90 days of a change. Census data, on the other hand, is collected every five years so the numerical counts are
often less than more current data sources. But the issues are more complex than simply time periods. For example, a rural resident with a mailing address in Brandon will be registered as a Brandon resident even though the individual lives in a rural municipality. A similar situation is seen with the Canadian Forces Base (CFB) Shilo whereby the residential section of the base is in the RM of Cornwallis but the residents collect their mail on base at a different postal code. These challenges inevitably result in a discrepancy in data.

Table 1.1 is a population comparison from 2001 to 2008 for the city of Brandon and the surrounding rural municipalities.

In 2001/02, the population of the Brandon region was 47,652, which is 4.1% of the total population of Manitoba. Between 2001 and 2008, there was an overall growth of 6.1% in the region. It is interesting to note that an increase in the population is observed in the City of Brandon and the RM of Cornwallis whereas the population in the other two rural municipalities of Elton and Whitehead declined in the same time period.

**Table 1.1: Population of Brandon and area, 2001 and 2008**

<table>
<thead>
<tr>
<th></th>
<th>2001 Population</th>
<th>2008 Population</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td><strong>Brandon City</strong></td>
<td>20,409</td>
<td>22,430</td>
<td>22,198</td>
</tr>
<tr>
<td><strong>RM of Cornwallis</strong></td>
<td>1,178</td>
<td>1,491</td>
<td>1,250</td>
</tr>
<tr>
<td><strong>RM of Elton</strong></td>
<td>672</td>
<td>648</td>
<td>618</td>
</tr>
<tr>
<td><strong>RM of Whitehead</strong></td>
<td>443</td>
<td>381</td>
<td>394</td>
</tr>
<tr>
<td><strong>Brandon RHA</strong></td>
<td>22,702</td>
<td>24,950</td>
<td>24,460</td>
</tr>
<tr>
<td><strong>Total region</strong></td>
<td>47,652</td>
<td>50,541</td>
<td></td>
</tr>
</tbody>
</table>

Source: Manitoba Health Population Reports

Figure 1.2 shows the population proportions of the Brandon region as compared to Manitoba, by gender, and by 5-year age increments for 2005. Brandon is similar to the province overall with exceptions noted in the young adult population. There are more males and females in the 20 – 24 and 25 – 29 age groupings and slightly more females in the 30 – 34 year old category. There are also differences in the youngest and older populations – a slight increase in males age 0 – 4 in the Brandon region, a slight increase in females age 75-79 and a slight increase in both males and females between 85 and 89 years in Brandon when compared to Manitoba.
Figure 1.2: Manitoba and Brandon population pyramid, 2005

Brandon Population: 49,225
Manitoba Population: 1,175,235

Source: Manitoba Centre for Health Policy, 2009

Figure 1.3 shows the population in the Brandon region, by gender and by five-year age increments, comparing 2000 with 2005. Differences are seen in the young, mid adult and older populations. Between 2000 and 2005, there is a similar decrease in the number of children age 5-9 for both males and females, and a decrease in the number of males age 10-14. The most significant decrease is in the 35-39 year old grouping with a greater decrease among females. Overall, there are slightly fewer children, slightly more adults and an average proportion of seniors.

Figure 1.3: Brandon population pyramid, 2000 and 2005

Source: Manitoba Centre for Health Policy, 2009
Population projections

The growth or decline of the population depends upon the number of babies born, the number of people who die, and the number of people who move in and out of the region every year. Typically, births out-number deaths, and therefore, the population will grow unless a lot of people move away.

Figure 1.4 shows the population projections for the Brandon region between 2005 and 2035. It is anticipated that the most significant increase will be among the seniors population.

Figure 1.4: Brandon population projections

The most significant increase is expected to be among the seniors population.

Table 1.5 shows the trend for projected population changes by age grouping for Brandon and Manitoba. Brandon will be losing more children, youth and young adults than the province; and the proportion of seniors age 55 and older will be greater in Brandon than the province overall.

Table 1.5: Projected population changes by age groupings, 2006 to 2036, Brandon and Manitoba

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 14 years</td>
<td>-2.8%</td>
<td>-1.3%</td>
</tr>
<tr>
<td>15 to 19 years</td>
<td>-1.2%</td>
<td>-0.7%</td>
</tr>
<tr>
<td>20 to 54 years</td>
<td>-5.8%</td>
<td>-2.2%</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>+1.9%</td>
<td>-0.5%</td>
</tr>
<tr>
<td>65 to 74 years</td>
<td>+3.5%</td>
<td>+2.2%</td>
</tr>
<tr>
<td>75 to 84 years</td>
<td>+3.1%</td>
<td>+1.8%</td>
</tr>
<tr>
<td>85 years and older</td>
<td>+1.2%</td>
<td>+0.8%</td>
</tr>
</tbody>
</table>

Source: Manitoba Bureau of Statistics
Aboriginal population

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

The proportion of Aboriginal people in the Brandon region remains stable over many years. According to Table 1.6, 9% of the residents in the Brandon region identity as Aboriginal ancestry compared to 15% for Manitoba overall in 2006.

Table 1.6: Percentage of Aboriginal people in the Brandon region in comparison to Manitoba (1996 – 2006)

<table>
<thead>
<tr>
<th></th>
<th>Brandon RHA</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>7%</td>
<td>15%</td>
</tr>
<tr>
<td>2001</td>
<td>12%</td>
<td>15%</td>
</tr>
<tr>
<td>2006</td>
<td>9%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, Aboriginal Profiles, Census 2006

Figure 1.7 illustrates the age breakdown of the Aboriginal population in the Brandon region in 2006. The largest proportion of children is in the 0 – 4 years age group, while the largest number of adults is 20 to 24 years. There are relatively small numbers of Aboriginal people over the age of 59 years.

It is interesting to note the larger proportion of males (9%) age 0 to 4 years than females (5%), versus a larger proportion of females age 25 to 34 years (11%) than males on the same age group (6%). Overall, the Aboriginal population in the Brandon region is young.
**Newcomer populations**

Minority populations are identified as those persons, other than Aboriginal people, who identified themselves as non-Caucasian in race or non-white in colour in the 2006 Census of Canadians. The population in Brandon and area is primarily of British or Eastern European descent and the vast majority are English-speaking. However Brandon has experienced unprecedented growth in the number of immigrant arrivals in recent years and has become a more culturally diverse city. In 2004, the percentage of visible minorities in the Brandon region was 2% and, by 2006, this proportion increased to 4%.

There are several different immigration streams by which individuals and families arrive in the region. Each citizenship status is defined as follows:

*Landed Immigrants* are people who have been granted the right to live in Canada permanently by immigration authorities including permanent residents who have not yet received their Canadian citizenship. The term permanent resident is often used interchangeably with Landed Immigrant. Permanent residents must live in Canada for a minimum of two years within a five-year period.

*Refugees* are temporary residents who request refugee protection upon or after arrival to Canada. Once a refugee’s claim is accepted, the individual may apply for permanent residence.

*Foreign Workers* are temporary residents who have come to Canada primarily for work. They are issued a work permit, which is an official document that allows individuals who are not Canadian citizens or permanent residents to work in the country.
**Provincial Nominees** are immigrants who have been selected by a Province for specific skills that help meet local labour market needs or individuals who have a close relative who is an established resident of Manitoba and who is willing to help with settlement in the province.

**Foreign Students** are temporary residents who have arrived in Canada to study and have obtained a study permit.

The City of Brandon recorded the arrival of 172 immigrants in 2006 and another 641 in 2007, representing 5.8% of the total immigration for Manitoba. In 2007, Brandon welcomed over 1000 foreign workers, many of whom arrived on a temporary foreign work visa. In addition to English, several other languages are now heard throughout the community including Amharic, French, Mandarin, Ukrainian, Russian and Spanish.

A total of 95% of eligible workers have applied for landed immigrant status. Once an individual obtains landed immigrant status, he/she is able to sponsor family members to join them in Canada.

As displayed in Table 1.8, almost 4000 dependent arrivals [spouses and children] are expected by 2011. This projection does not include the number of children who are born in our region.

**Table 1.8: Maple Leaf foreign workers dependant arrivals**

<table>
<thead>
<tr>
<th>Year</th>
<th>Spouses</th>
<th>Children (0-12)</th>
<th>Children (13+)</th>
<th>Total per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>149</td>
<td>274</td>
<td>194</td>
<td>617</td>
</tr>
<tr>
<td>2008</td>
<td>178</td>
<td>209</td>
<td>180</td>
<td>567</td>
</tr>
<tr>
<td>2009</td>
<td>285</td>
<td>301</td>
<td>327</td>
<td>913</td>
</tr>
<tr>
<td>2010</td>
<td>458</td>
<td>485</td>
<td>525</td>
<td>1468</td>
</tr>
<tr>
<td>2011</td>
<td>70</td>
<td>74</td>
<td>80</td>
<td>224</td>
</tr>
<tr>
<td>Total all years</td>
<td>1140</td>
<td>1343</td>
<td>1306</td>
<td>3789</td>
</tr>
</tbody>
</table>

Source: City of Brandon, Brandon Economic Development, 2009

Projections for 2011 indicate visible minorities will comprise 9.2% or greater of the total population.

**Francophone community**

Over 46,000 Manitobans speak French as their first language and nearly 104,000 Manitobans are bilingual. The *French Language Services Regulation of The Regional Health Authorities Act* requires seven designated regional health authorities in Manitoba to address the health needs of Francophones in their communities. A provincial working group organized focus groups in the seven regions to gather information from Francophones about perceived health issues and needs, and possible ways of addressing them.
Although the Brandon RHA is not one of the designated regional health authorities, we recognize there is a significant Francophone community in our region. For example, there are a number of military members and their families who have been transferred to CFB Shilo from eastern Canada living in the region, either on the Base, in the City of Brandon or in the surrounding municipalities. There is a Francophone childcare centre and a Division scolaire franco-manitobaine (DSFM) school in Shilo, which draws Francophone children from across the region.

One focus group was held in Shilo with staff from the DSFM School, the French-language childcare centre and community residents. For Francophones, the experience of health and well-being is closely linked to having opportunities to use French and connect with their culture in daily life. This is reflected in their identification of French-language activities, services, organizations and institutions in the areas of education, health, early childhood, social environment and culture. Findings from the community consultation include:

- The French-language childcare centre and DSFM school are valuable resources
- There is a need for French-language health services; mental health services in particular
- A plan to enhance recruitment and retention efforts of Francophone and other bilingual health professionals is needed

### Military deployments

Canadian Forces Base (CFB) Shilo is an army base east of Brandon in the RM of Cornwallis. Members of CFB Shilo have contributed to the international campaign against terrorism for several years and are currently working with partners to help rebuild Afghanistan. Table 1.9 shows the actual number of deployments from CFB Shilo and projected numbers from 2005 to 2011. Military deployments have a significant impact on health services; specifically mental health, orthopedics and maternal-child programs.

<table>
<thead>
<tr>
<th>Year</th>
<th>Numbers Deployed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>30</td>
</tr>
<tr>
<td>2006</td>
<td>400</td>
</tr>
<tr>
<td>2007</td>
<td>30</td>
</tr>
<tr>
<td>2008</td>
<td>800</td>
</tr>
<tr>
<td>2009</td>
<td>450</td>
</tr>
<tr>
<td>2010</td>
<td>450+200</td>
</tr>
<tr>
<td>2011</td>
<td>600</td>
</tr>
</tbody>
</table>

Source: CFB Shilo, Health Promotion, 2009
Dependency ratio

The dependency ratio is the ratio of the combined child population (aged 0 to 14) and elderly population (aged 65 and over) to the working age population (aged 15 to 64). This ratio is presented as the number of dependants for every 100 people in the working age population. As shown in Figure 1.10, the dependency ratio is decreasing for the Brandon region over three time periods. In 1996, there were 58 people of non-working age for every 100 people of working age in the region, followed by 55 in 2001 and 50 in 2006. The trend for the Brandon region is similar to Manitoba as a whole. It is interesting to note that the dependency ratio for the Assiniboine region is much higher at 71, 67 and 63 respectively.

According to the 2004 Community Health Assessment report, it was anticipated that the dependency ratio for the Brandon region would increase as the population ages. This trend has not been observed largely due to the demographics of new immigrants to the region.

Figure 1.10: Dependency ratio, (Dependents per 100 working-age individuals), 2006

Lone-parent families

Single-parent families have become increasingly prevalent as rates of divorce increase. While there is research that indicate there is a greater chance that children in single-parent families will grow up in poverty, many children do grow up to be healthy, mature adults if given the nurturing that all children need. Although parents face more challenges with raising a family independently, parents conclude that raising children in a single-parent family is preferable to raising children when two parents continually fight.

According to Figure 1.11, the percentage of families in the Brandon region headed by one parent is similar to the Province over three time periods and remains relatively stable over time.
Figure 1.11: Proportion of lone parent families over total population, Brandon and Manitoba

![Bar chart showing the percentage of lone parent families over the total population in Brandon and Manitoba from 1996, 2001, and 2006.]

Source: Statistics Canada, Census 2006

According to Figure 1.12, the percentage of males and females in Brandon who are parenting independently is similar to the provincial average over three time periods. More females head lone parent households in the region and the province.

Figure 1.12: Percentage of lone parent families by sex of parent, Brandon and Manitoba

![Bar chart showing the percentage of lone parent families by sex of parent in Brandon and Manitoba from 1996, 2001, and 2006.]

Source: Statistics Canada, Census 2006
**Population density**

Population density refers to the number of people living in a square kilometre of a particular region. The Brandon region is the second most densely populated region in the Province. In 2006, the population density had increased slightly according to the Census data (2001) from 27.02 people per square kilometre to 28.2 people per square kilometre.

As shown in Figure 1.13, more residents in the Brandon region live in an urban setting (88.2%) than rural (11.8%). This pattern is consistent with provincial and national trends.

Figure 1.13: Urban Population, proportion of total population, 2006

![Population density chart]

Source: Statistics Canada, Census 2006

**Migration to the region**

Internal/external migration refers to the percentage of people, age one year and older, who had moved within one year of the 2006 Census of Canada. Internal migrants are people who resided in a different Census sub division one year earlier. External migrants are people who resided outside of Canada one year earlier.

In 2006, Brandon appeared to have a higher rate of internal migrants (7%) than Manitoba as a whole (4%), and a similar rate of external migrants when compared to Manitoba as a whole.

Figure 1.14: Internal/external migration, 2006

![Migration to the region chart]

Source: Statistics Canada, Census 2006
Internal Migrant Mobility is the percentage of the population who had migrated, either in or out of the Brandon region, in the five years prior to the 2006 Census of Canada. External migrants who were living outside Canada are excluded in this data.

In Brandon, 7% of the population had moved within one year of the 2006 Canadian Census, compared to 4% of all Manitobans. As well, 19% of Brandon residents had moved within five years of the 2006 Census of Canada, compared to 11% of all Manitobans.

**Figure 1.15: Internal migrant mobility, 2006**

![Bar chart showing internal migrant mobility in Brandon and Manitoba.](chart)

In 2006, Brandon appears to have a higher rate of mobility than Manitoba as a whole.

Source: Statistics Canada, Census 2006

**Housing affordability**

Access to safe and affordable housing has been an issue for residents in Brandon for many years. A shortage of affordable and adequate housing for mental health consumers was identified in the mid to late 90s and the recent influx of newcomers has pushed the need for housing across the region. Intersectoral partnerships and creative strategies have contributed to the recent development of housing and related supports in Brandon. Several private developers and organizations such as Habitat for Humanity have committed resources to address this need.

Figure 1.16 shows housing affordability for renters in the Brandon region and compared to Manitoba overall. A similar proportion of renters in Brandon were living in unaffordable housing in 1996 when compared to the province. This trend did not continue into 2001 however. A higher proportion of renters in Brandon (43%) were living in unaffordable housing when compared to the province (37%). Rates are similar for the Brandon region and the province in 2006.

**Figure 1.16: Tenant spending 30% or more of income on shelter**

![Bar chart showing tenant spending in Brandon and Manitoba.](chart)

Source: Statistics Canada, Census 2006
According to Figure 1.17, the proportion of homeowners who live in unaffordable housing is similar to the province at 11% for 2001 and 2006.

**Figure 1.17: Owner spending 30% or more of income on shelter**

![Bar chart showing the proportion of homeowners spending 30% or more of income on shelter in 1996, 2001, and 2006.]

Source: Statistics Canada, Census 2006

**Education**

Health status increases with level of education. People with less education are more likely to have low paying jobs that are not very satisfying. They may also have higher risks for occupational injuries. Higher levels of education also improve people’s ability to access and understand information to help keep them healthy. Education is an important characteristic to consider in health planning as it helps to determine appropriate and effective communication mechanisms with the people we serve.

Levels of education attainment for 15 to 24 year olds are found in Figure 1.18. The highest proportion of residents in this age grouping in the Brandon region has achieved high school graduation (25%), followed by university (22%). Approximately 18% of this population has not secured a certificate, diploma or degree.

**Figure 1.18: Education level, ages 15 – 24, 2006**

![Bar chart showing the percentage of 15-24 year olds with different levels of education in the Brandon region and province.]

Source: Statistics Canada, Census 2006
### Income

Income is the single most important factor that affects the health of a population. The health of individuals and families improves at each step up the income and social ladder. As well, societies that are reasonably prosperous and have an equitable distribution of wealth have the healthiest populations, regardless of how much they spend on health care. Generally speaking, the better educated you are and the more you earn, the longer you’ll live.

As shown in Figure 1.19, the average household income for residents in the Brandon region is slightly lower than the provincial average for 1996 ($41,727/$43,404), for 2001 ($48,287/$50,756) and 2006 ($58,356/$60,242). Overall, there has been a steady increase in average household income for Brandon residents over the past decade.

**Figure 1.19: Average household income**

![Bar chart showing average household income for Brandon and Manitoba from 1996 to 2006](chart)

Source: Statistics Canada, Census 2006

Median individual income is the amount that divides the income distribution of a group into two halves or the mid point. This measure reflects the point at which half of the population has less income and one half of the population has more income. As shown in Figure 1.20, median individual incomes for males in the Brandon region are higher than for all Manitoba males in 1996, 2001 and 2006. Median individual incomes for females in the Brandon region are similar to all Manitoba females for the three time periods.
Median household income is the mid point of household income. This measure reflects the point at which half of the households have less income and one half of the households have more income. Median household income is calculated for all household units in the Census of Canada, whether or not they reported income. As shown in Figure 1.21, median household income for the Brandon region is similar to Manitoba overall.

Figure 1.21: Median household income

Figure 1.22 shows the percentage of the population with a low income in 2006. The population is separated into three categories: economic families, unattached individuals and the population in private households. Economic families are defined as a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law or adoption. Unattached individuals are defined as a group of two or more persons who live in the same dwelling and are not related to each other by
blood, marriage, common-law or adoption. A private household is a separate set of living quarters with a private entrance either from outside the building or from a common hall, lobby, vestibule or stairway inside the building. The entrance must be one that can be used without passing through the living quarters of some other person or group of persons. In an urban area the size of Brandon (30,000 to 99,999), low-income cut-offs (based on 2005 income) are defined as:

- 1 person: $17,784
- 2 persons: $22,139
- 3 persons: $27,217
- 4 persons: $33,046
- 5 persons: $37,480
- 6 persons: $42,271
- 7 or more persons: $47,063

According to data shown in Figure 1.22, the proportion of unattached individuals, private households and economic families in the Brandon region that are experiencing a low income is similar to the province overall.

There are significant differences at the district level however (refer to Appendix A for a map of the districts). In terms of Unattached Individuals in the region, low-income earners are highest in Brandon Central (48%) as compared to Brandon Rural (14%). In terms of Private Households, the rate of low-income households is highest for Brandon Central at 28% while Brandon Rural is at 7%. Low income among Economic Families is highest in Brandon Central (19%), followed by Brandon East (15%) and Brandon North End (14%).

**Figure 1.22: Low income rate, 2006**

Source: Statistics Canada, Census 2006
Because income is the single most important factor that affects the health of a population, it is important to understand the distribution of wealth in society. Simply put, financial security increases opportunities to buy a better life. Measuring the proportion of families who receive income assistance helps to determine the distribution of income across the gradient.

According to Figure 1.23, the percentage of children ages 0 to 17 in families receiving income assistance in the Brandon region is increasing significantly over time.

**Figure 1.23: Percent of children in families receiving income assistance, ages 0-17 by RHA**

![Age and Sex-adjusted rates per 100 children](chart)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>South Eastman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assiniboine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brandon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winnipeg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interlake</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Eastman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parkland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Churchill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nor-Man</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burntwood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manitoba</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 '1' indicates area's rate was statistically different from Manitoba average in first time period
2 '2' indicates area's rate was statistically different from Manitoba average in second time period
3 '4' indicates change over time was statistically significant for that area
4 's' indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2008

According to Figure 1.24, the percentage of residents in the Brandon region who are gainfully employed is similar to the province overall for both females and males. There is a marked difference between the sexes in that 76% of males in the region participate in the labour force while 65% of females are employed. This trend is consistent over time for both the region and the province overall.

**Figure 1.24: Labour force participation rate, 2006**

![Labour force participation rate](chart)

Source: Statistics Canada, Census 2006
The proportions of males and females working in various occupation groupings over three time periods are found in Table 1.25. There are some distinct similarities and differences between the sexes when looking at career paths. A large proportion of both males and females are involved in sales and service occupations. This is not surprising because Brandon is an agricultural trading centre for southwestern Manitoba and eastern Saskatchewan. There is a significantly higher proportion of females working in business, finance and administration occupations over the three time periods and health occupations remain predominately female. Significantly more males are involved in trades, transport and equipment operators and related occupations across the three time periods. Between 1996 and 2001, there is a significant reduction in the proportion of males and females working in occupations unique to primary industry, and this trend has continued through 2006. Occupations unique to primary industry are related to operating farms and supervising or doing farm work.

Table 1.25: Occupation groups by gender, 2006

<table>
<thead>
<tr>
<th>Occupation Group</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management occupations</td>
<td>8%</td>
<td>11%</td>
</tr>
<tr>
<td>Business, finance and administration occupations</td>
<td>4%</td>
<td>8%</td>
</tr>
<tr>
<td>Natural and applied sciences and related occupations</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Health occupations</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Occupations in social science, education, government service and religion</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>Occupations in art, culture, recreation and sport</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Sales and service occupations</td>
<td>14%</td>
<td>25%</td>
</tr>
<tr>
<td>Trades, transport and equipment operators and related occupations</td>
<td>24%</td>
<td>27%</td>
</tr>
<tr>
<td>Occupations unique to primary industry</td>
<td>35%</td>
<td>6%</td>
</tr>
<tr>
<td>Occupations unique to processing, manufacturing and utilities</td>
<td>6%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, Census 2006

The labour force comprises people who are currently employed and people who are unemployed, but were available to work in the reference week and had looked for work in the previous four weeks. The unemployment rate refers to the average percentage of people in the labour force, 15 years of age and over, who did not have a job during a specific reference week.
According to Figure 1.26, the unemployment rate in the Brandon region remains stable. The stable unemployment rate in our region is likely due to two key factors: the ongoing local demand for skilled and unskilled labour in the region and the agricultural industry where no one is ever unemployed.

**Figure 1.26: Unemployment rate by gender**

![Unemployment rate by gender graph](image)

Source: Statistics Canada, Census 2006

The unemployment rate in the Brandon region remains stable over time.

The unemployment rate for youth in Figure 1.27 refers to individuals 15 to 24 years of age who were not working during the reference week in the given year. Overall, the youth unemployment rate for the Brandon region is lower than the provincial average for males and females over three time periods. When separated by sex, however, the unemployment rate for males is higher than females.

**Figure 1.27: Youth unemployment rate by gender**

![Youth unemployment rate by gender graph](image)

Source: Statistics Canada, Census 2006

The unemployment rate is slightly higher for males than for females.
Social supports

Support from families, friends and neighbours is vital to help people cope with difficult situations and maintain a sense of control over their lives. The literature endorses the notion that those who have strong social support networks are happier and have fewer health concerns than those who do not.

According to Figure 1.28, fewer Brandon residents live in a private household with family members than Manitobans overall. Similarly, more people in Brandon live in a private household with non-family members than the Province overall. The higher percentage of persons living alone and those living in non-family/living with non-relatives households is likely related to the many shared living arrangements among university/community college students in the city, the increase in international recruits at the Maple Leaf Pork plant and the number of personal care home beds in the region.

Figure 1.28: Living arrangements, 2006

Source: Statistics Canada, Census 2006

Figure 1.29 reflects the marital status of residents in the Brandon region in comparison to Manitobans in general. Marriage is a measure of social support. Overall, the marital status of residents in the region is consistent with the Province, although Brandon shows a slightly higher proportion of residents who are divorced. The largest proportion of residents is married, followed by the category never married (single).
Figure 1.29: Marital status, 2006

Source: Statistics Canada, Census 2006

Stress

Stress is an important modifiable risk factor for chronic disease. The negative effect of ongoing stress in terms of cardiac diseases and mental health issues is well documented. As shown in Figure 1.30, the vast majority of residents in the Brandon region report being ‘satisfied’ or ‘very satisfied’ when asked how satisfied they feel about their life in general. When compared to the Province overall, a higher proportion of Brandon residents report feeling ‘very satisfied’ and the proportion that report ‘neutral or unsatisfied’ is similar. At a district level, a higher proportion of residents in Brandon Central report feeling ‘neutral or unsatisfied’ and lower proportion of residents report ‘very satisfied’ with life. Data for Brandon Rural, Brandon Southeast, Southwest and North End are suppressed due to small numbers.

Figure 1.30: Self rated satisfaction with life

Source: Manitoba Centre for Health Policy, 2009
Figure 1.31 illustrates levels of self-perceived life stress by residents in the Brandon region, age 15 and older. Participants in the Canadian Community Health Survey were asked the question, “Thinking about the amount of stress in your life, would you say that most days are: not at all stressful, not very stressful, a bit stressful, quite a bit stressful or extremely stressful?” Responses are grouped into three categories – low stress, medium stress and high stress. A slightly higher proportion of Brandon residents report none/low stress than Manitoba overall, a slightly higher proportion of Brandon residents report medium level of stress and results for high stress in Brandon are similar to the Province. At the district level, the highest proportion of residents with none/low stress levels live in Brandon Rural, followed by Brandon West and Brandon North End. The highest proportion of residents living with high stress live in Brandon Southeast, Brandon West and Brandon East respectively.

**Figure 1.31: Self perceived life stress**

Source: Manitoba Centre for Health Policy, 2009

Figure 1.32 illustrates self-perceived work stress among residents aged 15-75 who had worked at a job or business anytime in the previous 12 months. Responses are grouped into three categories – low, medium and high. Overall, the Brandon region is similar to Manitoba however differences are noted at the district level. Brandon Central has the highest proportion of residents who report none/low work related stress, followed by Brandon Rural and Brandon West. Conversely, Brandon West has the highest proportion of residents who report a high level of work related stress followed by Brandon Southwest and Brandon East. Overall, self-perceived work stress seems to be related to income.
**The Environment**

The environmental movement is a diverse scientific, social and political movement that has gained significant momentum in recent years. In general terms, environmentalists advocate the sustainable management of resources, protection and restoration, when necessary, of the natural environment through changes in individual behaviours and public policy.

Several eco-friendly activities have been initiated in the Brandon region in recent years. A brief description of these initiatives is provided below.

**City of Brandon Environmental Strategic Plan**

The City of Brandon has developed an Environmental Strategic Plan (ESP) for its operations that focuses on protecting and improving air, land and water quality and promoting energy efficiency.

Several ESP initiatives are currently underway that are intended to streamline citywide environmental actions, improve the environmental performance for the city and the community, increase environmental awareness among staff and residents and reduce overlap and gaps in municipal environmental service delivery. Below are some of the initiatives identified in the ESP:
- **Municipal Building Energy Audit** – energy audits by KGS Engineering of Winnipeg on 12 city buildings identified areas for improvement and the pay back period for each recommendation.

- **LED Conversion** – in 2005, most of the city’s Christmas decorations were converted to LED lights through a Manitoba Hydro program. Conversion of traffic lights is near completion and Brandon’s Winter Light Park is completely lit using LED lights.

- **Commercial Building Optimization Program** – Various methods to reduce energy costs at the Canada Games Sportsplex have been identified through this Manitoba Hydro program.

- **Bio-diesel Project** – in 2005, the City tested a transit bus fuelled by bio-diesel made with waste fryer oil from restaurants. Work is taking place to construct a bio-fuel processor at the landfill site. The fuel processed will be used internally to fuel heavy off-road equipment.

- **Municipal Vehicles** – fuel mileage is now part of the selection criteria for all City owned equipment. The City has purchased eight hybrid vehicles and has ordered more fuel-efficient buses to be incorporated into the fleet in 2010. This purchase will cut fuel cost in addition to lowering emission levels.

- **Methane Gas at the Landfill** – research is underway to examine the quality and quantity of methane gas generated from the landfill and the economic feasibility of recovering the gas for use as an energy source by the City.

- **Membrane Technology** – the City is reviewing membrane technology as part of a multiple barrier approach to water treatment. The City is working with Maple Leaf Foods and Wyeth Organics to develop a partnership for Waste Water Treatment Plant operations and planned upgrades.

- **Anti-idling Campaign** – The City has installed signage at railway crossings throughout the city asking residents to turn off their vehicles while waiting for trains. Signage is also at government and institutional buildings throughout the city.

- **Pesticide By-law** – a by-law has been implemented in pesticide use in the city. The by-law includes established barriers around homes of residents medically verified to have chemical reactions, and prohibits the application of pesticides on government and institutional properties except under specific circumstances.

- **Parking Lot Controllers** – these devices save energy by adjusting the length of time that electricity is provided to parking stall outlets. Controllers have been installed at most city facilities with a plan to have all facilities done over the next few years.

### Landfill composting

Through the composting initiative at Brandon’s Waste Management and Landfill, tonnes of yard waste, wood, straw and animal manure has been diverted from landfill cells and transformed into a useful product. This product is used on-site and by the Parks department to prepare sites for sod installation and on city flowerbeds.
Brandon Energy Efficiency Program

The Brandon Energy Efficiency Program (BEEP) seeks to increase energy and water efficiency within low income housing units in Brandon. BEEP is funded through partnerships with Green Manitoba Energy Fund, Competitiveness Training and Trade, Manitoba Hydro, City of Brandon, and Manitoba Water Stewardship. Individuals through Westbran Human Resources Centre are trained in basic construction skills and they complete home insulation projects.

Since 2007, retrofits have been completed in 235 Manitoba Housing units and 12 private homes. A total of 164 water retrofits have been completed on multi-level apartments. Based on actual 2007 retrofits, the following savings have been realized:

- Hydro consumption is reduced an average of 15% - $250 to $300 per year, per home
- Water consumption is reduced an average of 40% - $200 to $250 per year, per home
- 16 million litres of water saved annually on 200 retrofitted homes
- GHG emissions reduction reduced by approximately 3 tonnes per house annually
- Over $300,000 of building material sales for Brandon businesses per year

Community Led Emission Reduction

The Community-Led Emissions Reduction Program (CLER) is a four-year pilot program funded by the Province of Manitoba to support community led actions to reduce greenhouse gas (GHG) emissions. Brandon is one of fourteen communities participating in this program. The five milestones of this program include:

1. Establish a GHG emissions inventory
2. Set a GHG emissions reduction target
3. Develop a climate change action plan with public input
4. Implement GHG emissions reduction projects
5. Monitor progress and report results

Brandon Emergency Alerting Project

The Brandon Emergency Alerting Project (BEAP) was initiated in 2003 with Federal grant funding through Industry Canada. The goal of the project is to improve the City’s ability to alert the public to emergency situations and initiate protective action. Examples of potential emergency situations include warning of a tornado, a chemical spill or toxic smoke from a fire. Since 2003, the warning system has been upgraded and expanded with financial support from the Municipal government and local industry. The system is tested on a monthly basis and public feedback has been sought through a telephone survey.
Greenway Village Condominium Project

Greenway Village is a new condominium development in Brandon’s south end. It is the first neighbourhood in Canada to offer sustainable homes. The developers are committed to building a sustainable community by building ‘green’ – designing and constructing healthy, comfortable buildings that conserve energy, water and material resources to reduce the environmental impact. Features include use of a modular structural insulating panel (SIP) system, geothermal heating/cooling system, non-combustible fibre-cement plank siding, energy star appliances, low-flow toilets and taps, low-emission cabinetry and eco-friendly flooring.

Bill 5 The Highway Traffic Amendment Act (Promoting Safer and Healthier Conditions in Motor Vehicles)

Efforts are underway in the Province of Manitoba to ensure safer and healthier conditions in motor vehicles. Bill 5 The Highway Traffic Amendment Act (Promoting Safer and Healthier Conditions in Motor Vehicles) has been presented to the Legislative Assembly of Manitoba and is awaiting proclamation. This bill amends the Highway Traffic Act to prohibit smoking in a vehicle by a person younger than 16, and by anyone else if a person younger than 16 is present. The Bill also prohibits drivers from using a cell phone or similar electronic communication device except to make a hands-free telephone call, while pulled over and stopped or to communicate with a police, fire or ambulance service in an emergency. See http://web2.gov.mb.ca/bills/39-3/b005e.php for details.

Blue Light Campaign

Healthy Brandon, the local Chronic Disease Prevention Initiative, launched a new campaign called Blue Light. The intent of the campaign is to protect people from second-hand smoke by encouraging smokers to light up outside, not inside, their homes. This campaign builds on successes in several First Nations communities that adopted the blue light as a symbol of a smoke free home. Canadian Tire has partnered with Healthy Brandon by offering incandescent and compact fluorescent bulbs at a reduced price.

Figure 1.33 illustrates the percentage of the non-smoking population age 12 and older that are exposed to environmental tobacco smoke at home on most days from 2003 to 2005. Overall, the proportion of Brandon residents is slightly lower than the province, however differences are observed at the district level. Brandon North End is home to the highest proportion of residents who are exposed to second hand smoke (23%), followed by Brandon East (22%) and Brandon Central (18%). The lowest proportion of residents who are exposed to second hand smoke live in Brandon West (10%) followed by Brandon Southeast (12%). Data for Brandon Southwest was suppressed due to small numbers.
Figure 1.33: Second hand smoke exposure (at home), 2003 to 2005

Age/sex standardized rates of second hand smoke exposure at home, aged 12+

Source: Manitoba Centre for Health Policy, 2009

So, what does this mean?

Brandon is the trading centre for the southwestern Manitoba and southeastern Saskatchewan serving a population of 180,000.

Brandon is growing. Brandon’s population grew by 6.1% between 2001 and 2008.

The population of the Rural Municipality of Cornwallis has increased 5.3% between 2001 and 2008 while the Rural Municipality of Elton and Whitehead have decreased (-8.9%/-5.3%).

By 2035, the most significant increase in the population will be among seniors.

Over one third of the Aboriginal population in the Brandon region is between 0 and 14 years old.

Approximately 95% of temporary foreign workers apply for landed immigrant status and are then eligible to sponsor their families to join them.

There has been an unprecedented growth in new immigrants to the region. Based on projections, visible minorities will comprise 9.2% or greater of the population by 2011.

Military deployments have a significant impact on mental health, orthopedic and maternal-child programs.
The dependency ratio for the Brandon region is decreasing due to the volume of new immigrants to the region who are young and employed.

Access to affordable housing is a challenge for many residents.

Approximately 18% of 15-24 year olds do not have a certificate, diploma or degree.

While there has been a steady increase in average household income over the past decade, the percentage of children in families receiving income assistance is increasing significantly over time.

Between 1996 and 2001, there was a significant reduction in the number of males and females working in farming operations.

The majority of residents report feeling satisfied or very satisfied with their life in general.

The City of Brandon is committed to the environmental movement through several initiatives that are underway.

Pending amendments to Bill 5 The Highway Traffic Amendment Act (Promoting Safer and Healthier Conditions in Motor Vehicles) will have a significant social impact for residents in the region.

Brandon North End is home to the highest proportion of people who are exposed to second hand smoke.
Chapter 2
Health System Characteristics and Performance

This chapter contains information on the following:

- Health system infrastructure including finances, buildings and equipment, information technology and human resources

- Health system performance including work life, system capacity and safety

- Accessibility of the health system including physician visits, emergency room visits, same day care and hospitalization visits and diagnostic imaging

- Client-centered programs and services including confidentiality, patient satisfaction, timeliness and special programs such as interpretation services, spiritual care, respite care, and palliative care.

Health System Infrastructure

Infrastructure is the basic framework or features of a system. In this chapter, infrastructure refers to finances, human and technological resources.

Finances

*Human, financial and capital resources, including equipment that support and sustain programs and services that are people-centered, evidence-based and needs-driven* is one of the five corporate strategic priorities of the Brandon RHA.

The total operating budget for the Brandon RHA has been broken into four categories: acute care, long-term care, community care and administration.

Acute care costs include emergency room, all inpatient programs (including mental health) and ambulatory programs such as dialysis, chemotherapy, laboratory, diagnostic imaging and STEP. As seen in Figure 2.1 the proportion of total operating budget spent on acute care in Brandon has remained stable across five reporting periods, while the proportion for Manitoba has steadily decreased.
Figure 2.1: Percent of total operating budget spent on acute care costs

![Bar chart showing percentage of budget spent on acute care costs over years]

The proportion of total budget spent on acute care has remained stable in Brandon over five reporting periods, while the proportion for Manitoba has decreased.

Source: Manitoba Health – RHA Profile 2008

Figure 2.2 shows the proportion of total operating budget spent on long-term care (personal care homes). Similar to acute care, the proportion spent on long term care in Brandon has remained stable over five reporting periods. For Manitoba, the proportion spent has decreased over time and is similar to Brandon for the last three fiscal years.

Figure 2.2: Percent of total operating budget spent on long term care costs

![Bar chart showing percentage of budget spent on long-term care costs over years]

Source: Manitoba Health – RHA Profile 2008
Community Care costs, as shown in Figure 2.3, have also remained stable and are slightly below the provincial level over five fiscal years. These costs include primary health care, public health, home care and community mental health.

**Figure 2.3: Percent of total operating budget spent on community care costs**

![Bar chart showing the percentage of total operating budget spent on community care costs for Brandon and Manitoba from 2003/2004 to 2007/2008.]

Brandon consistently spends a lower proportion on administration costs than the province.

According to Figure 2.4, there is a marked difference between the proportions of operating budget spent on Administration by the Brandon region when compared to Manitoba. Brandon consistently spends a lower proportion on administration than the province. Administration costs are described as general administration, support services, information management and communication costs.

**Figure 2.4: Percent of operating budget spent on administration**

![Bar chart showing the percentage of total operating budget spent on administration for Brandon and Manitoba from 2003/2004 to 2007/2008.]

Source: Manitoba Health – RHA Profile 2008

Source: Management Information Systems (MIS)
Medical and surgical supplies for acute care programs represent a significant expense within the regional health authorities’ budget. According to Figure 2.5 Brandon consistently spends approximately three percent of the total operating costs on medical and surgical supplies, which is similar to Manitoba overall. These costs for Brandon are increasing steadily over time.

**Figure 2.5: Acute medical and surgical supply costs as a % of total operating costs**

![Bar chart showing medical and surgical supply costs for Brandon and Manitoba over years from 2003/2004 to 2007/2008.]

Source: Management Information Systems (MIS)

As seen on Figure 2.6, the Brandon region spends approximately $14 per patient per day on acute medical and surgical supplies, similar to Manitoba.

**Figure 2.6: Acute medical and surgical costs per patient day, 2007/2008**

![Bar graph showing acute medical and surgical costs per patient day for different regions in 2007/2008.]

Source: Manitoba Health – RHA Profile 2008
Pharmaceutical costs for acute care programs are higher for Brandon than for Manitoba overall. Drug costs peaked at $23 per patient day in 2003/04 and have decreased to $21 per patient day in 2006/07, but remain higher than the province.

**Figure 2.7: Drug cost per patient day**

Pharmaceutical costs for acute care programs are higher for Brandon than Manitoba overall.

As seen earlier with medical and surgical costs in acute care, the Brandon region spends a similar dollar value per day to Manitoba in personal care homes. There are wide variations with these costs among RHAs.

**Figure 2.8: Personal Care Home medical and surgical costs per resident day, 2007/2008**

Source: Management Information Systems (MIS)

Source: Manitoba Health – RHA Profile 2008
Pharmaceutical costs for long term care programs are significantly higher for Brandon than for the province overall. In 2002/2003, Brandon’s drug cost per resident day was double the drug cost per resident day for Manitoba. Over time, drug costs increase slightly for Brandon to $7 per resident day and remain stable for Manitoba at $3 per day.

**Figure 2.9: Drug cost per resident day**

Source: Management Information Systems (MIS)

Finally, the total food services expense per meal day is also significantly higher for Brandon than for Manitoba. While the province’s food service expense has remained stable over time at approximately $11 per meal day, Brandon’s food service expense per meal day increased from $18 in 2002/2003 to $22 in 2006/2007. Brandon spends twice as much as the province on food services per meal day.

**Figure 2.10: Total food services expense per meal day**

Source: Management Information Systems (MIS)
Buildings and Equipment

The Capital Planning department oversees buildings and equipment for the organization. Investigations are conducted as issues arise and proposals are reviewed by the Executive Management Committee to determine priorities for action. There are several safety and security issues currently being addressed such as the installation of a sprinkler system in the General Centre. It has been suggested that an independent assessment of all buildings, both internal and external, is needed to identify capital projects for the future.

Information Technology (IT)

An Information Systems Advisory Committee (ISAC) provides the expertise and advice to the CEO with regard to the planning, implementation, operation and evaluation of information technology services for the Brandon RHA. ISAC develops the IT strategic plan and the plan is reviewed on an annual basis. Priorities are developed based on an environmental scan.

The proportion of operating budget spent on information system cost has remained stable over five reporting periods at approximately 1.2%. Manitoba, on the other hand, has shown a slight increase every year for the past four fiscal years. (Figure 2.11)

**Figure 2.11: Percent of operating budget spent on information system costs**

Source: Management Information Systems (MIS)
In November 2003, the Information Systems Advisory Committee (ISAC) identified the requirements for the Electronic Health Record (EHR) for the Clinical Services Redevelopment Project as a priority. The major components of the EHR were installed in late spring 2004 and implementation in acute care began in the fall. To date, multiple applications such as Lab Information System (LIS), Radiology Information and Picture Archiving Communication Systems (RIS/PACS), Pharmacy, Dietary and OR scheduling have been implemented. There is continued implementation of Community EHR (Procura) into programs including Home Care, Mental Health and Public Health.

The percent of budget spent on Electronic Health Records (EHR) is also stable over five reporting periods at about 0.6%, approximately half of the proportion spent on IT support.

**Figure 2.12: Percent of budget spent on IT support and Electronic Health Records**

![Graph showing the percentage of budget spent on IT systems and EHR]

Source: Management Information Systems (MIS)

**Human Resources**

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

Staff of the Brandon RHA is made up of approximately 2600 full time/part time/casual employees. These employees fill 1755 equivalent full time positions.

One of the challenges facing health care in Canada is an aging workforce. This challenge is not foreign to the Brandon RHA. Table 2.13 shows the age and gender breakdown for the staff working for the Brandon RHA in 2009. Over half of the staff (56%) are over the age of 40 and a quarter of the staff are over the age of 50. The majority of the staff are female.

Over half of the staff is over the age of 40 and a quarter of the staff is over the age of 50.
Table 2.13: Staff breakdown by age and gender for the Brandon RHA, 2009

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<th>Age 30-40</th>
<th>Age 41-50</th>
<th>Age 51-60</th>
<th>Age 61-70</th>
<th>Age 70+</th>
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<td>614</td>
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</tr>
<tr>
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<td>28%</td>
<td>24%</td>
<td>5%</td>
<td>0.3%</td>
<td></td>
</tr>
</tbody>
</table>

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

Figure 2.14 shows the total number of volunteer hours for the Brandon RHA from 2004/05 to 2008/09. The number of hours has increased steadily over time from 33,818 in 2004/05 to 41,081 hours in 2008/09.

Figure 2.14: Total number of volunteer hours

Source: Brandon RHA Performance Measurement Project, 2009
Health System Performance

The health system encompasses a wide range of programs and services across the continuum of care with the intent to improve the health of the population. The continuum of care includes policy and change in social and physical environment, behaviour change and harm reduction, risk factor detection and early screening, early case management, emergency and acute care, rehabilitation and long-term care management, and end of life care.

Health systems with the same level of resources can achieve very different results. Monitoring specific components of the health system can determine how well the system is doing overall and identify areas for improvement. In this section, information is provided about work life, system capacity and safety.
Work life

Work life is important for organizational productivity, personal wellness and a healthy organization. Adequate staffing levels have a profound impact on work life.

Figure 2.16 shows the monthly average for position vacancies within the organization over four reporting periods. The position vacancy rate has steadily increased over the reporting periods. It’s important to recognize that there are many factors that affect an organization’s ability to fill vacant positions. The Brandon RHA has an aging workforce and retirements often happen in clusters so it can be challenging to fill all vacancies in a timely fashion. As well, there is an ongoing scarcity of some specialty professions.

Figure 2.16: Position vacancy rate, monthly average

Source: Brandon RHA Performance Measurement Project, 2009

Staff Education Budget

The Coordinator of Staff Education is a staff member of the Human Resources department. This position is responsible for the overall development and coordination of regional education activities for the organization. Direction for educational activities comes through a variety of sources including Managers, Program Educators and the Executive Management Committee. Examples of staff education include Employee Assistance Program workshops, and CPR and Non-Violent Crisis Intervention training. A sub-group of the Program Educators committee meets regularly and has developed a regional education action plan, which will be rolled out in the near future. The Coordinator has an annual budget, which is provided below for two fiscal years.

- 2007/2008 - $49,733.00
- 2008/2009 - $52,549.00

In terms of work life, it’s also important to look at work-related injuries among employees. Figure 2.17 shows Worker’s Compensation Board (WCB) claims for five fiscal years. The volume of WCB claims remained stable until 2007 and has increased for 2008 and 2009.
Figure 2.17: WCB claims (medical and/or time loss)

An increase in WCB claims is seen in 2008 and 2009.

Source: Brandon RHA Performance Measurement Project, 2009

Staff Satisfaction

A staff satisfaction survey was conducted as part of the 2009 Accreditation process. Survey results are presented by six physical sites or program and for the organization overall. The statement was posed, “Overall, I am satisfied with this organization” and 60% of the survey respondents agreed with the statement. Responses to the question ranged from 48% at Rideau Park Personal Care Home to 78% for staff working in Community and Mental Health Services.

Figure 2.18: Staff satisfaction survey

Source: Accreditation Worklife Survey Results, 2009

Staff Orientation

The Coordinator of Staff Education coordinates a regional orientation for all new staff. Orientations occur twice monthly on a regular basis. Following regional orientation, all staff participates in a comprehensive orientation in the department or program in which they will be working.
Performance Appraisals

According to the Brandon RHA policy regarding performance appraisals, every new employee is to have a performance appraisal during their probationary period and every two years following. Figure 2.19 shows the proportion of casual and full/part time employees with a current performance appraisal, for six fiscal years. Approximately two-thirds of casual employees have a current performance appraisal while about half of the full/part time employees have a current one.

**Figure 2.19: Percentage of staff with a current performance appraisal**

Source: Brandon RHA Performance Measurement Project, 2009

**Professional Competency Requirements**

The Brandon RHA is committed to supporting employees’ professional competency requirements. The level and type of organizational support is dependent on the profession, the area of employment and staff responsibilities. In the acute care setting, required professional education and competency testing is usually coordinated through the Program Educator and Manager of an area.

Examples of efforts to support professional competencies among staff include:

- Self-learning packages combined with classroom discussion and demonstration of the required skill such as moderate sedation and analgesia sessions.

- Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS) and Trauma Nursing Core Course (TNCC) are available to ICU and ER staff. The staff are required to pay for the course and they receive one or two paid days (depending on session) to attend.

- Public Health Nurses are encouraged to enroll in the on-line Skills Enhancement program through the Public Health Agency of Canada. Work time is made available when possible and the department has purchased resources for staff use.
Workplace Wellness Initiatives

An Employee Wellness Committee was formed several years ago. Committee members focused on exploring opportunities for employee wellness throughout the organization. They developed a business case for an Employee Wellness Initiative requesting annualized funding from the RHA. In 2005, organizational funding in the amount of $35,000 was secured and has continued each year since. The committee has supported many wellness initiatives over the past few years. Examples include:

- Weight Watchers at Work
- Curling Funspiel
- Yoga Classes
- Step-by-Step Challenge
- Ski trips to Assissippi Ski Hill
- RHA Hockey

Subsidized Health-Related Programs

There are also two subsidized health-related opportunities for staff of the Brandon RHA.

1. The Tobacco Dependence Program provides $100 subsidy to approximately 20 staff each year for tobacco cessation aids

2. Health Spending Account

Effective April 1, 2010, Brandon RHA staff and their families’ will have access to a Health Care Spending Account (HSA) through Manitoba Blue Cross. The intent of this initiative is to support employees with healthcare and dental expenses in excess of their or their existing benefit maximum. This new account will be available to all staff enrolled in the Enhanced Group Healthcare Plan. The HSA will provide an annual benefit of $250 for full time employees and $125 for part-time employees for 2010. The benefit will increase to $500 for full time employees and $250 for part-time employees in 2011.

Internal Communication

The Brandon RHA has several mechanisms in place to communicate with staff. The Regional Responder is a newsletter that outlines happenings within the RHA including quality improvement projects, introduction of new programs, upcoming workshops, a health promotion column and a risk management column. The newsletter also features staff profiles and highlights the many employment opportunities within the organization. EMC Updates is a monthly newsletter to staff providing a brief overview about what is happening at the executive level. Currently, a Brandon RHA Staff Intranet is under development to improve internal communication.
Staff Turnover

Staff turnover is the calculated by the number of workers that had to be replaced in a given period to the average number of workers. Staff turnover can have a significant impact on health service delivery and staff morale.

Figure 2.20 illustrates the cumulative turnover rate for the organization over six fiscal years. A substantial decrease is seen for 2006/07 and has remained stable since then.

**Figure 2.20: Cumulative turnover rate**

Source: Brandon RHA Performance Measurement Project, 2009

Exit Interviews and Surveys

The Brandon RHA is committed to hearing from all employees who leave the organization through retirement or voluntary departure. Input is not sought from staff who are dismissed from the organization. There are two primary mechanisms to gather insights from departing staff; an interview with the department Manager and a written survey.

In terms of the personal interview, a standardized exit interview guide is sent to each Manager of the respective program. The Manager shares information gleaned from the interview as necessary. An exit survey is also mailed to employees and returned to the Human Resources department. Feedback is compiled and reviewed by the Director of Human Resources. Themes are then shared with senior management as necessary. The most common reason cited is holidays or travel, followed by return to school. The majority of departing staff would consider continuing their employment with the Brandon RHA under different circumstances.
Staff / Management Ratio

The ratio of staff to managers ranges from few to many, depending on area and expertise. For example, nurses make up the highest percentage of the workforce in the RHA so there is a higher staff to manager ratio in departments with a nursing component. Conversely, the Information Technology department has a lower staff complement so the manager to staff ratio is lower. Staff/management ratios are provided for the organization overall for two fiscal years:

- 2007/2008 - Staff 2310 / Management 94  
  Ratio - 1:25
- 2008/2009 - Staff 2573 / Management 99  
  Ratio - 1:26

Management Development Program

A new Management Development Program was implemented three years ago. All new managers are required to complete the training that is provided over a ten-week period. Topics include:

- An overview of the Brandon RHA
- Management vs. leadership
- Project management
- Health plan process
- Human resources
- Finance and information systems
- Quality, utilization and risk management
- Mental health for managers
- Patient safety

System capacity

System capacity refers to the ability of the organization to deliver health services in an efficient, effective and safe manner. It requires an adequate number of people and appropriate processes to be successful. This section provides information on Community Health staffing, contacts with Health Links and Public Health Surveillance Systems.

As seen on Figure 2.21 the percent of EFT dedicated to community health by program has remained relatively stable over time. In the last time period (2009/10), the percent of EFT dedicated to Primary Care at 7th Street increased from 2% to 8% of the total Community Health EFT. This change is related to several new positions at the Centre including Cultural Facilitators, a Social Worker, Community Support Facilitator and staff with the long-term care strategy and the transfer of the Consumer Peer Support Facilitator position from Community Mental Health Services. In the same year, the proportion of EFT dedicated to Community Mental Health (CMH) decreased to 60% from 70% in the previous year (2008/09). It is important to note that the EFT allocated to each department is affected by vacancies and retirements. The data presented in Figure 2.22 accounts for the
employees EFT’s filling the position at the time, and does not account for the total EFT allotted to each program.

**Figure 2.21: Number of community health EFT**

![Bar Chart](Image)

Source: Brandon RHA Performance Measurement Project, 2009

**Health Links/Info Sante**

Data on Health Links / Info Sante service used at the regional level became available recently. Statistics Canada reported on provincial and national use (8.5% for Manitoba and 10% for Canada), however their indicator was based on the last 12 months and included only those ages 15+. Figure 2.22 presents the proportion of all residents who contacted Manitoba’s toll free Health Links / Info Sante service at least once in two years (2004/05 to 2005/06). This includes calls placed on a person’s behalf by another person (i.e. a family member calling on behalf of a child of parent).

Health Links contact rates for Brandon (8%) are lower than Manitoba (10%) but the difference is not statistically significant. Rates between districts are similar and not significantly different than the provincial rate.
Figure 2.22: Health Links contact rates

Regional Research Relative to Population Health

In the spring of 2005, funding was obtained through the AIDS Community Action Program of the Public Health Agency of Canada for a three-year initiative, the Improving Access Project. The intent of the project was to improve access to health and social services for immigrants and refugees living with or affected by HIV in Brandon and Winnipeg. A comprehensive needs assessment was conducted with the Amharic and Spanish-speaking communities to better understand their experiences and identify opportunities for improvement.

Ethics approval for the study was obtained through the Brandon University Research Ethics Committee prior to holding a series of focus groups and key informant interviews. A total of 93 individuals, both women and men participated in the study. A final report with 17 recommendations for action was produced. There have been three significant outcomes of this project:

1. Cultural Facilitator positions at the 7th Street Health Access Centre have been created to strengthen connections between newcomers and service sectors and to improve service delivery
2. The Brandon Community Language Centre is established to ensure qualified interpretive services are available throughout the community
3. The Take Care Down There, a sexual health campaign is underway

Source: Manitoba Centre for Health Policy, 2009
In early 2008, the Brandon RHA received funding approval for a proposal to address the health needs of Aboriginal people through the Aboriginal Health Transition Fund Adaptation Envelope. The intent of the Closing the Cultural Gap project was to develop an Aboriginal lens by which to examine current programs and services, identify barriers to service delivery based on personal experiences of the Aboriginal population, implement necessary changes and evaluate the impact. In time, it is anticipated that there will be a demonstrated improvement in the health status of the Aboriginal population as a result of strategic actions taken.

A team was hired to develop connections with the Aboriginal community, and to collect and analyze data. Information was gathered through key informant interviews and focus groups with First Nations and Metis people, and program staff. To date, seven departments or programs have been assessed including Emergency Room, Renal Unit, Spiritual Care, 400 Medicine, Prairie Health Matters, 7th Street Health Access Centre and Pregnancy Care. Findings have been organized by theme and a final report is underway. Senior management will review recommendations for action in the near future.

In the spring of 2009, the Brandon RHA participated in a community consultation process with the intent to identify the perceived health issues and needs of Francophones in Manitoba. This consultation was led by the seven RHAs that are designated under the French Language Services Regulation Act of The Regional Health Authorities Act to submit a plan for French Language Services. Although Brandon is not one of the designated RHAs, we recognize there are a number of Francophones in the community and we need to better understand their experiences living in the region. A focus group was held in Shilo where there are a number of French-speaking military members and their families who have been transferred from Eastern Canada. Results of the focus group have been included in other relevant chapters of this report.

Public Health Surveillance Systems

Surveillance is the ongoing, systematic collection, analysis and interpretation of data for use in planning, implementing and evaluating public health practice. National, provincial and regional Public Health surveillance systems are available and assist with the monitoring of trends over time. Staff in the Brandon RHA, Planning and Evaluation department assists programs with obtaining and analysis of data.

Chronic disease surveillance

Chronic disease surveillance involves activities related to the ongoing tracking and monitoring of chronic diseases. The region utilizes data from a variety of provincial and national systems including Statistics Canada, Public Health Agency of Canada, Canadian Institute for Health Information, Manitoba Healthy Living, Youth and Seniors and the Manitoba Centre for Health Policy. Programs collect data from clients, both with disease diagnosis and those at risk, who access services.

Injury surveillance

Surveillance includes the monitoring of injuries, both intentional and non-intentional. Limited local data is available from the Emergency Department
at the Brandon Regional Health Centre. The region accesses local or provincial data such as Brandon Police Service statistical reports, Brandon School Division injury reports, Worker’s Compensation Board reports, Manitoba Agriculture on farm related injuries, and the Canadian Red Cross on water related injuries. Other surveillance systems that inform local practice include Public Health Agency of Canada, Manitoba Centre for Health Policy, Manitoba Health, Manitoba Healthy Living, Youth and Seniors, Statistics Canada, and Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP).

**Communicable disease surveillance**

The Communicable Disease Branch of Manitoba Health directs communicable disease surveillance. Passive surveillance is established to ensure the direct reporting of events from laboratories to Manitoba Health through to the region. Periodic active surveillance is initiated (outreach to community physicians to stimulate reporting, case finding). Syndromic surveillance is used as a means to identify potential outbreaks before diagnosis is made. Examples of syndromic surveillance include monitoring of school absentee rates in relation to influenza and dead birds for West Nile Virus.

The Region supports surveillance at the provincial level by entering vaccination data into the Manitoba Immunization Monitoring System and reporting and investigating diseases and infections that are reportable by legislation under the Public Health Act.

The Region has access to a provincial epidemiologist and Medical Officer of Health, as well as the Public Health Agency of Canada’s electronic communication system to support sharing of infectious disease alerts and the management of outbreaks. Manitoba Health generates monthly communicable disease reports, broken down by age, gender and region. A local database was created to assist with more rapid detection of outbreaks.

**2009 Accreditation**

In October 2009, the Brandon Regional Health Authority participated in the accreditation process with Accreditation Canada. This process allows Accreditation Canada and the regional health authority to evaluate the quality of the organization’s services by comparing them to nationally accepted standards.

Every three years, as part of the accreditation process, the RHA completes a self-assessment followed by a survey visit. The survey consists of surveyors doing tracers during their visit. During a tracer, surveyors use direct observation and interaction with a wide variety of people to gather evidence about a sector or service area’s quality and safety of care and services. Tracers are used to evaluate both clinical (direct client care) and administrative (governance, leadership, management) processes.

Site visits were conducted at all the Brandon RHA sites including the Brandon Regional Health Centre, Child & Adolescent Treatment Centre, Community Mental Health Services, Fairview Home Inc., Home Care Services, Public Health Services and Rideau Park Personal Care Home.

The Accreditation team found many significant achievements by the Brandon Regional Health Authority. They include:
o The staff of Brandon RHA is its greatest asset: professional, collegial, caring and loved by their clients and patients.

o The organization has developed a culture of ‘No Blame’ related to incident reporting that is well recognized by the frontline staff. This has led to a very positive approach to quality improvement initiatives related to incident reporting.

o The organization is actively working with their community partners. Community partners participate on a number of committees within the health region, which they report has been very useful and beneficial for both parties. Strong supportive community partnerships are in place that recognize and work collaboratively on the determinants of health to contribute to a healthy population.

o The organization is to be commended on its medication management practices within the BRHC, which include new technology in care areas (PYXIS) and excellent progress implementing best-practice error prevention strategies.

o Reprocessing, Environmental, Nutrition and Food Services managers and staff – across both acute and long-term care facilities – are integral members of the care teams and have well established processes that support safety and quality patient care.

o Comprehensive mental health programs are in place, which aims to build on acute care services, provide access to community support and provide resources that empower individuals.

o The leadership has developed a culture that supports the engagement of staff in quality improvement, risk management and patient safety.

o The region has made noticeable progress in their recruitment efforts.

Overall areas for improvement include:

o The organization is very supportive of regionalization; however some programs in the organization continue to operate within their own silos. The organization has recently created a regional education position to address regional education. They are encouraged to continue with these types of regional development initiatives.

o The Coordinating committees have access to robust utilization data to assist them in developing indicators for their quality initiatives and performance indicators. They are encouraged to start developing their outcome indicators and to use these outcome measures to evaluate whether the quality initiatives they have implemented are achieving expected results.

o The region is encouraged to improve compliance with their performance review policy. They have up to 51% noncompliance in full time and part time categories.

o The results of occurrence reporting root cause analysis, and any subsequent system improvements, should be shared with front line
staff to ensure that the excellent participation in this important
patient safety activity is sustained.

- Despite the improvements in staff recruitment, the organization will
be challenged to maintain suitable levels of staffing as their
workforce ages.

- The organization has an established Quality/Risk Management
Service. More support is needed for individual programs in data
collection, analysis and outcome measurement.

**Safety**

**Safer Healthcare Now!**

Safer Healthcare Now! (SHN) was launched in April 2005. It is a campaign
to enlist Canadian healthcare organizations in implementing evidence-
based interventions known to save lives. The Brandon RHA joined the
campaign in the summer of 2005, enrolling four teams to work on the
following initiatives:

- **AMI** – Improved care for acute myocardial infarction to increase survival
  rates by ensuring that six key elements are part of each AMI patient’s care,

- **MedRec** – Medication reconciliation to catch drug errors before they can do
  harm by checking prescriptions against an up-to-date list of patient’s home
  medications (Acute Care, Home Care and Long-term care),

- **SSI** – Prevention of surgical site infection and deaths from such infections
  by taking specific precautions before and after surgery, and

- **VAP** – Prevention of ventilator-associated pneumonia by implementing four
  essential practices.

In 2008, the following initiative was added to the local campaign:

- **Falls in Long-term care** – Preventing harm resulting from falls in long-term
  care settings.

**Culture of Safety**

The Brandon RHA has implemented several new safety initiatives in recent
years. A brief description is provided below:

- In 2007, *It’s Safe To Ask*, a health literacy and patient safety campaign,
  was launched across Manitoba. The campaign encourages all
  Manitobans, along with their doctors, nurses and pharmacists, to
discuss three simple questions:
  1. What is my health problem?
  2. What do I need to do?
  3. Why do I need to do this?

- A new communication tool, known as SBAR, was introduced throughout
  the organization in January 2008 as a means to reduce risks associated
  with miscommunication. The format – Situation, Background,
  Assessment and Recommendation – is designed to structure
  communication that is clear and decisive.
Currently, 130 of 166 policies need to be reviewed.

The Critical Incident Review Process identified miscommunication as the top theme.

There was a significant increase in staff flu immunizations in 2008/09.

- Patient Safety Leadership WalkRounds were also implemented in 2008. A team including the Manager for Quality/Patient Safety and Risk, the Vice President for the respective area and at least one other member of the Executive Management Committee conduct a periodic walk about in a specific unit or department to assess and discuss risk issues.

Regional Policies

A new position to coordinate the development, revision and review of regional policies was created in 2009. New processes are being designed and implemented to increase the organization’s efficiency regarding all aspects of regional policy development and maintenance. Currently, 130/166 policies need to be reviewed.

Critical Incidents

A critical incident is an unintended event that occurs when health services are provided to an individual and results in a consequence to him or her that is serious and undesired, such as death, disability, injury or harm, unplanned admission to hospital or unusual extension of stay and does not result from the individual’s underlying health condition or from risk inherent in proving the health service.

The Brandon RHA has a Critical Incident Review Process in place. The review follows a systematic process for investigation, analysis and development of improvement strategies. The end result of a review is the creation of actions to establish a safer environment for patients, residents, clients and health care providers.

Through the Critical Incident Review Process, the top five themes are:

- Miscommunication
- Absence of policy, procedure, guidelines
- Training/education
- Equipment related issues
- Resources/staffing

Staff Immunization

Figure 2.23 shows the number of Brandon RHA staff who received influenza immunizations from 2004/05 to 2008/2009. A significant increase on the number of immunizations given is noted for the last time period (2008/09).

Figure 2.23: Number of Brandon RHA staff who received influenza immunizations

Source: Brandon RHA Performance Measurement Project, 2009
Use of Health Services

Health system utilization refers to the extent to which a given group uses a particular service in a specified period. Although usually expressed as the number of services used per year per 100 or per 1000 persons eligible for the service, utilization rates may be expressed in other ratios. In this section, information is provided about physician visits, continuity of care rates, where residents seek services, prescription use, Emergency Room and Same Day Care visits, hospitalization rates and reasons for hospitalizations and diagnostic imaging rates.

Physician visits

Figure 2.24 shows the percent of residents with at least one ambulatory visit per year to any physician during the fiscal years 2000/2001 and 2005/06. Brandon has a similar use of physicians at around 85% as the province overall for the two time periods. The rate has remained stable over time. At the district level, the rate is also similar to the province for both time periods.

Figure 2.24: Use of physicians

As seen in Figure 2.25, the main cause for physician visits in the Rural South and Brandon regions is respiratory diseases and disorders (12.3%) followed by circulatory diseases and disorders (9.7%) and musculoskeletal system diseases (9.0%). This is consistent with Manitoba except for the third cause; mental diseases and disorders rank third for Manitobans at 8.9%. For Rural South and Brandon, mental diseases and disorders rank 7th at 6.7% of the total visits.
Ambulatory visits include all contact with physicians (general and family practitioners (GP/FP) and specialists): office visits, walk-in clinics, home visits, nursing home visits, visits to outpatient departments, and some emergency room visits (where data recorded). Excluded are services provided to patients while admitted to hospital and visits for prenatal care.

The ambulatory visit rate to all physicians is approximately 5.5 visits per resident per year.
Figure 2.26: Ambulatory visits rates

Age- & sex - adjusted annual rate of ambulatory visits to all physicians, per resident

Source: Manitoba Centre for Health Policy, 2009

Consultations are a subset of ambulatory visits. They occur when one physician refers a patient to another physician (usually a specialist or surgeon) because of the complexity, obscurity or seriousness of the patient’s condition, or when the patient requests a second opinion.

Ambulatory consultation rates for Brandon are significantly higher than the province in 2000/01 but decrease significantly over time and are similar to the province on 2005/06. At the district level, most districts show the same pattern as the region overall except Brandon Southwest, which is similar to the province for both time periods and Brandon Rural which is also similar to the province but decreased significantly over time.
Figure 2.27: Ambulatory consultation rates

Specialist physicians include all Internal Medicine specialists, Pediatricians, Psychiatrists, Obstetricians and Gynecologists, and Surgeons. Ambulatory visits refer to all visits (including consultations) made to specialist physicians per resident per year. Brandon’s ambulatory visits are lower than Manitoba for both time periods and are decreasing significantly over time. A similar pattern is observed for Brandon West. Brandon Rural is significantly lower than Manitoba for both time periods but remains stable over time. Brandon Southeast is significantly lower than the province for the second time period only, with no change over time. All other districts are significantly lower than the province for the second time and decrease significantly over time.

Source: Manitoba Centre for Health Policy, 2009
Figure 2.28: Ambulatory visits to specialists

Age- & sex-adjusted annual rate of all visits to specialist physicians, per resident

Brandon’s rates of ambulatory visits to specialists are decreasing significantly over time.

Source: Manitoba Centre for Health Policy, 2009

Continuity of care is defined as the percentage of residents receiving at least 50% of their ambulatory visits over a two-year period from the same physician. For children 0 to 14, it could be a GP/FP or a Pediatrician; for those 15 to 59, only GP/FP were used; for those 60 years and older, it could be a GP/FP or an Internal Medicine specialist. Residents with less than three ambulatory visits over the two-year period were excluded.

Continuity of care for Brandon residents is significantly lower than Manitoba for both time periods and does not change over time. The same pattern is observed for all districts.

Figure 2.29: Continuity of care rates

Source: Manitoba Centre for Health Policy, 2009
Brandon has the second highest rate of ‘in district’ visits to a family doctor in the province.

Figure 2.30 shows the proportion of visits to GPs/FPs, which took place within the resident’s district, elsewhere in their RHA, in another RHA, or in Winnipeg. In Winnipeg and Brandon, all visits within the RHA are considered ‘in district’. For the year 2000/01, 91.2% of the visits for Brandon residents are within the RHA, this percentage increased to 92.7% in 2005/06. Brandon has the second highest percentage of ‘in district’ visits in the province.

**Figure 2.30: Where RHA residents went for visits to GP/FPs**

![Graph showing the proportion of visits to GPs/FPs in different regions]

*For Winnipeg and Brandon residents, visits to physicians anywhere within their RHA are considered ‘In District’*

Source: Manitoba Centre for Health Policy, 2009

Figure 2.31 shows the proportion of visits to Specialist physicians, which took place within the resident’s district, elsewhere in the RHA, in another RHA or in Winnipeg. In 2000/01, 81.50% of specialist visits are within the RHA and 16.4% are in Winnipeg. In 2005/06 the percentage of visit within the RHA decreases to 74.6% and the percentage of visits in Winnipeg increases to 24.9%. Again, Brandon has the second highest rate of specialists visits “in district” in Manitoba.
Figure 2.31: Where RHA residents went for visits to specialists

![Bar Chart](chart.png)

% In District % Elsewhere in RHA % To Other RHA % To Winnipeg

South Eastman 00/01
South Eastman 05/06
Central 00/01
Central 05/06
Assiniboine 00/01
Assiniboine 05/06
Brandon 00/01 *
Brandon 05/06 *
Winnipeg 00/01 *
Winnipeg 05/06 *
Interlake 00/01
Interlake 05/06
North Eastman 00/01
North Eastman 05/06
Parkland 00/01
Parkland 05/06
Churichill 00/01
Churichill 05/06
Nor-Man 00/01
Nor-Man 05/06
Burntwood 00/01
Burntwood 05/06
Manitoba 00/01
Manitoba 05/06

* For Winnipeg and Brandon residents, visits to physicians anywhere within their RHA are

Source: Manitoba Centre for Health Policy, 2009

In December 2009, the Brandon RHA contracted Probe Research to survey community residents about their use of specific health services. A total of 400 telephone surveys were conducted with adults 18 years or older using random dialing to land lines. Data collected included whether the respondent had a family physician, walk-in clinic use and emergency room use.

Overall, 85% of respondents have a family physician with an average of 5.2 visits during the past year. Figure 2.32 shows the proportion of respondents who have a family physician by six different age groupings. Data suggests that the likelihood of having a family physician increases with age. Only 16% of respondents aged 18 to 24 years have a family physician, while 96% of respondents 65 years and older have a family physician.

Figure 2.32: Proportion of Brandon residents who have a family physician by age group, 2010

![Bar Chart](chart.png)

<table>
<thead>
<tr>
<th>Age Grouping</th>
<th>18-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent with Family Physician</td>
<td>16%</td>
<td>40%</td>
<td>67%</td>
<td>60%</td>
<td>82%</td>
<td>96%</td>
</tr>
</tbody>
</table>

Source: Probe Research, 2010

The likelihood of having a family physician increases with age and income.
Similarly, data from Figure 2.33 suggests that the likelihood of having a family physician also increases with income. Approximately 15% of respondents with an income lower than $10,000 a year have a family physician, versus 71% of respondents with an annual income of $80,000 or more.

**Figure 2.33: Proportion of Brandon residents who have a family physician by income level, 2010**

![Bar chart showing the proportion of Brandon residents who have a family physician by income level.](image)

Source: Probe Research, 2010

A total of 37% of respondents visited a walk-in clinic 1 or 2 times in the previous year.

Respondents were asked whether they had visited a walk-in clinic during the last year and how many times that had used the walk-in clinic service over the same time period. About 70% of respondents visited a walk-in clinic in the past year. As seen in Figure 2.34, 37% percent of respondents visited the walk-in clinic 1 or 2 times a year and approximately 7% of respondents had as much as 10 or more visits.

**Figure 2.34: Proportion of Brandon residents who had walk in clinic visits during the last year, 2010**

![Bar chart showing the number of walk-in clinic visits by respondents.](image)

Source: Probe Research, 2010
Respondents with a family physician who had used a walk-in clinic during the last year were asked whether they followed up their visit to the walk-in clinic with a visit to their family physician. Over half (56%) of respondents with family physician, state they follow-up with their doctor after a visit to the walk-in clinic always, usually or sometimes (Figure 2.35).

**Figure 2.35: Proportion of Brandon residents that follow up with their family physician after a visit to a walk in clinic, 2010**

![Bar chart showing proportion of respondents following up with their family physician after a walk-in clinic visit.]

Source: Probe Research, 2010

Finally, survey respondents were asked if they had visited an Emergency Room over the last year and how many times during the same time period. Figure 2.36 shows that 28% of respondents have one or more visits to the Emergency room in the past year with an average of 1.8 visits per person.

**Figure 2.36: Proportion of Brandon residents who visited the Emergency Room over the last year, 2010**

![Bar chart showing number of visits to the ER in the past year.]

Source: Probe Research, 2010

Over half of the respondents’ follow-up with their family doctor after a walk in clinic visit.

Respondents averaged 1.8 visits per person to the ER in the past year.
Prescription use

Figure 2.37 shows the proportion of residents who had at least one prescription filled in 2000/01 and 2005/06. This includes all prescriptions dispensed from community-based pharmacies and does not include prescriptions given to hospitalized patients. The Brandon region has a significantly higher proportion of residents with at least one prescription for any drug than the province for both time periods. Rates shown for all of the districts are similar to Manitoba with the exception of Brandon Central, which is significantly higher than the province for the second reporting period.

**Figure 2.37: Pharmaceutical use by RHA, 2000/01 and 2005/06**

According to Figure 2.38, the average number of different drug types used per resident with one or more prescriptions filled is significantly higher in the Brandon region when compared to Manitoba overall. Although Brandon Southeast, Brandon North End, Brandon East and Brandon Central are significantly higher than the province for the second time period, a significant increase over time is observed in every district.
Figure 2.38: Number of different drugs used, 2000/01 and 2005/06

Age- and sex-adjusted average number of different drugs used per resident, with one or more prescriptions

<table>
<thead>
<tr>
<th>Area</th>
<th>2000/01</th>
<th>2005/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDN Rural (t)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN Southeast (2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN West (t)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN Southw est (t)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN North End (2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN East (1,2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN Central (1,2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brandon (1,2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Eastman (1,2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central (1,2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assiniboine (t)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winnipeg (t)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interlake (2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Eastman (2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parkland (1,2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Churchill (1,2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nor-Man (1,2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bunkw ood (1,2,1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manitoba (t)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

'T' 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

Source: Manitoba Centre for Health Policy, 2009

Emergency Room visits

The Emergency Room is an essential service within every health care system. It is an area in an institution that is staffed and equipped to provide rapid and varied emergency care, especially for those who experience sudden and acute illness or who are the victims of severe trauma. The emergency department at the Brandon Regional Health Centre uses a triage system of screening and classifying clients to determine priority needs for the most efficient use of available personnel and equipment.

The number of visits to the Emergency Room (ER) at the Brandon Regional Health Centre has increased steadily over the last few years. As shown in Figure 2.39, the number of visits per year increases from 19,921 in 2005/06 to 23,705 in 2008/09. These visits include Brandon residents and residents from outside our region.

There were 23,705 ER visits in 2008/09.
**Figure 2.39: Visits to Emergency Room department at Brandon Regional Health Centre by fiscal year**

![Bar chart showing visits to ER department at Brandon Regional Health Centre by fiscal year from 2005/06 to 2008/09.](chart)

Source: Management Information Systems (MIS) Utilization Reports, MB Health

Although, exact numbers of place of residence for ER users are not available, data from the chart review conducted in 2009 presented in Figure 2.40 shows that 70% of the visits for the region are for Brandon RHA residents, 22% for Assiniboine RHA residents, 5% from other RHA’s and 3% from Out of Province residents.

**Figure 2.40: Region of residence of Emergency Room users at Brandon Regional Health Centre, 2008/09**

![Bar chart showing proportion of total visits for each region in 2008/09.](chart)

In 2008/09, 70% of ER visits are for Brandon RHA residents, 22% from Assiniboine RHA, 5% from other RHAs and 3% from out of province.

Source: Brandon RHA ER Chart Review, 2009
Figure 2.41 presents the age breakdown for Emergency Room users at the Brandon Regional Health Centre as found in the ER Chart review. The age group with the higher percent of visits is adults 20 to 44 years (41%), followed by adults age 45 to 64 years (20%). Children 0 to 19 years account for 23% of the visits while seniors 65 or older account for 17% of the visits.

**Figure 2.41: Age breakdown of Emergency Room users at Brandon Regional Health Centre, 2008/09**

As seen in Table 2.42, the main reasons for ER visits at the Brandon Regional Health Centre for Brandon residents and Non-Brandon residents of all ages are trauma, coma and toxic effects (lacerations, fractures, medication overdose, suicide attempts, etc) and diseases and disorders of the digestive system (abdominal pain, gastroenteritis, constipation, etc).

For Brandon residents, diseases and disorders of the circulatory system (angina, chest pain, congestive heart failure, heart attack, etc) are the third cause of visits to the ER; diseases and disorders of the skin, subcutaneous tissue and breast (cellulitis, herpes, soft tissue injuries, hematomas, etc) are fourth reason for visits; and diseases and disorders of the ear, nose, mouth and throat (upper respiratory tract infections, otitis, dental pain, etc) are the fifth cause of ER Visits.

For Non-Brandon residents the ranking of causes varies slightly, diseases and disorders of the musculoskeletal system (rheumatoid arthritis, back pain, knee pain, etc) are the third cause of visits to ER; diseases and disorders of the ear, nose, mouth and throat are the fourth reason for visits; and diseases and disorders of the respiratory system (asthma, bronchitis, pneumonia, etc) are the fifth cause of visits.
Table 2.42: Reasons for Emergency Room visits at Brandon Regional Health Centre, 2008/09

<table>
<thead>
<tr>
<th>Major Clinical Category</th>
<th>Brandon Residents</th>
<th>Non-Brandon Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Trauma, Coma and Toxic Effects</td>
<td>1</td>
<td>29%</td>
</tr>
<tr>
<td>Diseases and Disorders of Digestive System</td>
<td>2</td>
<td>12%</td>
</tr>
<tr>
<td>Diseases and Disorders of Circulatory System</td>
<td>3</td>
<td>8%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Skin, subcutaneous tissue and breast</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Ear, Nose, Mouth and Throat</td>
<td>5</td>
<td>7%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Kidney and Genitourinary Tract</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Respiratory System</td>
<td>7</td>
<td>5%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Nervous System</td>
<td>8</td>
<td>5%</td>
</tr>
<tr>
<td>Mental Diseases and Disorders</td>
<td>9</td>
<td>5%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Musculoskeletal System and Connective Tissue</td>
<td>10</td>
<td>4%</td>
</tr>
<tr>
<td>Examination and Other Health Factors</td>
<td>11</td>
<td>4%</td>
</tr>
<tr>
<td>Pregnancy, Childbirth, Newborn and Neonate</td>
<td>12</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: Brandon RHA ER Chart Review, 2009

The majority of patients are discharged home from ER yet health planning is typically based on hospitalization and mortality data.

Figure 2.43 shows the breakdown of patient disposition after a visit to ER at the Brandon Regional Health Centre. The majority of patients are discharged home. There is a slight difference between Brandon and Non-Brandon Residents. A higher proportion of Non-Brandon residents (23%) are admitted to hospital or transferred to another acute care facility after an ER visits than Brandon residents (15%). The proportion of patients that died in ER or left against medical is very low (1%).

Figure 2.43: Patient disposition after a visit to ER at Brandon Regional Health Centre, 2008/09

Source: Brandon RHA ER Chart Review, 2009
Same Day Care visits

Same Day Care visits are those where patients are admitted and discharged home the same day. Same Day Care involves a wide range of procedures such as laparoscopic cholecystectomy, hernia repairs, excisions and scopes.

The volume of visits to Same Day Care is presented in Figure 2.44. The total volume of visits increases from 8,830 in 2005/06 to 9,305 in 2008/09. Both Brandon residents and Non-Brandon residents show similar increases in the volume of visits per year. Visits from out of region residents are slightly higher than visit from Brandon residents. This trend is consistent over time.

Figure 2.44: Volume of Same Day Care visits to Brandon Regional Health Centre by fiscal year and place of residence

Source: Brandon Regional Health Centre, Health Records Department, CIHI Portal

The five top reasons for all Same Day Care visits are presented in Table 2.45 for the fiscal years 2005/06, 2006/07, 2007/08 and 2008/09 grouped in two two-year time periods, 2005/07 and 2007/08. It is important to note that the grouping methodology changed from 2005/06 to 2006/07. In 2005/06, all gastrointestinal procedures were grouped together while starting in 2006/07 they were divided into three categories; endoscopy with biopsy, endoscopy for inspection and minor digestive interventions. For the purposes of this analysis, all gastrointestinal procedures from the year 2005/06 are grouped with diagnostic endoscopy of the gastrointestinal tract with biopsy or function study for 2006/07 and presented as one group for the 2005/07 two-year time period.

Gastrointestinal procedures, including endoscopies with biopsy, endoscopies for inspection and minor digestive interventions, account for 38% of Same Day Care visits on the first time period and 45% of the visits on the second time period. The second highest proportion of procedures done in Same Day Care is cataract extractions.
Table 2.45: Reasons for Same Day Care visits at Brandon Regional Health Centre, all visits

<table>
<thead>
<tr>
<th>Day Procedure Groups</th>
<th>2005/07</th>
<th>2007/09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Diagnostic Endoscopy</td>
<td>1</td>
<td>30%</td>
</tr>
<tr>
<td>Gastrointestinal Tract - Biopsy/Function Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cataract Extractions</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>D&amp;C and Other Uterus Interventions</td>
<td>3</td>
<td>7%</td>
</tr>
<tr>
<td>Diagnostic Endoscopy</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Gastrointestinal Tract - Inspection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor Digestive Intervention</td>
<td>5</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database

Hospitalizations

Hospitalizations account for the greatest proportion of health care spending. Hospital bed supply is defined as the number of beds in acute care hospital within an RHA, divided by the population of the RHA. The bed counts come from the ‘Setup Beds’ data kept by Manitoba Health and Healthy Living from 2000/01 and 2005/06. These values need to be interpreted with caution because the actual number of beds in use in each hospital varies through the year and beds can be used for ‘non-acute’ care. The values are shown to provide an overall indication of the relative supply of beds across the province, and to track major changes over time.

According to Figure 2.46, Brandon has the second highest bed supply among RHAs. However, it is important to note that residents of other RHAs, particularly Assiniboine RHA, use much of that resource. Over time, the supply of hospital beds per capita decreases from 6.8 to 6.3 beds per 1,000 residents in Brandon as it does in Manitoba (3.8 to 3.6 beds per 1,000 residents).

Figure 2.46: Hospital bed supply by RHA

Source: Manitoba Centre for Health Policy, 2009
The acute care occupancy rate is calculated by dividing the total numbers of days the beds are occupied by the total number of days the bed is available. Figure 2.47 shows the acute care occupancy rate for adult and children beds at the Brandon Regional Health Centre from 2007 to 2009. As not all the beds available are open for operation every day of the year, two different occupancy rates are calculated, one over the total numbers of beds available and the second one over the total number of beds staffed and in operation (blocked bed adjusted). The occupancy rate is stable at 75% for the three year periods shown in Figure 2.47. The blocked bed adjusted occupancy rate however, is consistently higher than the first one and increased to over 80% in 2009.

**Figure 2.47: Acute Care occupancy rate (Adult/Child)**

![Graph showing occupancy rate and blocked bed adjusted rate from 2007 to 2009]

Source: Management Information Systems (MIS) Utilization Reports, Brandon RHA

Use of hospitals is measured by the proportion of area residents who are admitted to an acute care hospital at least once in a fiscal year. All inpatient hospitalizations of area residents are included, regardless of the location of the hospital; outpatient services are excluded.

In **2000/01**, Brandon has a slightly higher use of hospitals than the province (7.9% versus 7.4%). In **2005/06**, Brandon residents use of hospitals decreases significantly to 6.9% and is now equal to the province. At the district level, Brandon Central and East has significantly higher use of hospitals in 2000/01 at 9.5% and 9% respectively. The rate for both districts decreases over time along with Brandon North End (Figure 2.48).
Figure 2.48: Use of hospitals

Age- & sex-adjusted percent of residents with at least one inpatient hospital stay per year

Brandon RHA, 2009 Community Health Assessment - Health System

Source: Manitoba Centre for Health Policy, 2009

Hospital separation rates include the total number of inpatient and outpatient hospital separations of area residents, per 1,000 residents per year. In any given period, a resident could be hospitalized more than once, so this indicator shows the total number of separations from acute care facilities by all residents of the area regardless of the location of the facility.

As shown in Figure 2.49 Brandon hospital separation rates decrease significantly over time but are similar to the province overall. At the district level, Brandon Central and East have significantly higher rates than the province. Four districts decrease significantly over time: Brandon Rural, Brandon Southwest, Brandon East and Brandon Central. All districts have hospital separation rates similar to the province in 2005/06.
Figure 2.49: Total hospital separation rates

Age- & sex-adjusted rate of hospital separations, per 1,000 residents

Source: Manitoba Centre for Health Policy, 2009

Figure 2.50 show the number of hospital days used in short stays (less than 14 days), per 1,000 residents per year. If a resident had more than one short hospitalization in the period, then the days used in all short hospitalizations are summed. Brandon’s rate is not statistically different than the province for both time periods, but unlike Manitoba, Brandon’s rate decreases significantly over time (From 382 to 314) days per 1,000 residents.

Most districts, within the Brandon RHA, show significant decreases over time including Brandon Rural, Brandon Southwest, Brandon East and Brandon Central. Brandon Central is significantly higher than the province in 2000/01 at 475 days per 1,000 residents but decreases significantly over time to 375 days per 1,000 residents in 2005/06.
Figure 2.50: Hospital days used in short stays (1 to 13 days)

Age- & sex-adjusted rate of hospital days used in stays of less than 14 days, per 1,000

<table>
<thead>
<tr>
<th>Location</th>
<th>2000/01</th>
<th>2005/06</th>
<th>MB Avg 2000/01</th>
<th>MB Avg 2005/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDN Rural (t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN Southeast</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN West</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN Southw est</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN North End (t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN East (t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN Central (1,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brandon (t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Eastman (t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central (1,2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assiniboine (1,2,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winnipeg (1,2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interlake</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Eastman</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parkland (1,2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Churchill (1,2,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nor-Man (1,2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burntw ood (1,2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Manitoba</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

'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

Source: Manitoba Centre for Health Policy, 2009

There are variations in rate of hospital days used for long stays between the districts.

Figure 2.51 presents the number of hospital days used in long stays (14 or more days), per 1,000 residents per year. If a resident had more than one long hospitalization in the period, then the days used in all long hospitalizations were summed. Each hospitalization was limited to 365 days maximum length of stay. Hospitalizations in long-term care facilities were excluded.

Brandon decreases from 835 hospital days per 1,000 residents used in long stays in 2000/01 to 729 days per 1,000 residents in 2005/06, but the difference does not reach statistical significance. Compared with Manitoba, Brandon has a higher rate of hospital days used in long stays for both time periods. By district, Brandon Rural, Brandon East and Brandon Central show decreases over time and Brandon Southeast, Brandon West and Brandon Southwest increase. The district variations over time did not reach statistical significance.
Figure 2.51: Hospital days used in long stays

Age- and sex-adjusted rate of hospital days used in stays of 14 days or more, per 1,000

Source: Manitoba Centre for Health Policy, 2009

Figures 2.52 and 2.53 show the distribution of “most responsible” diagnosis attributed during inpatient hospitalizations, grouped according to the International Classification of Diseases (ICD) system, for Rural South and Brandon in 2000/01 and 2005/06 respectively.

Diseases of the circulatory system decrease from first place in 2000/01 at 15.1% to third place in 2005/06 at 10.1%. Pregnancy and birth cases decrease from 12.7% to 10.9% in 2000/06 but became the first cause of hospitalization in the second time period. Diseases of the digestive system decrease from 11.9% to 10.5% but ascend from third to second cause of hospitalization in the second time period.

Health status and contact contains a variety of cases such as convalescence and aftercare following surgery, rehabilitation procedures and physical therapy, sterilization, and palliative care. This group of cases increases from 6.5% in 2000/01 to 10.2% of the hospitalization cases in 2005/06.
Pregnancy and birth cases became the first cause of hospitalization in the second time period, likely due to the immigration trends in Rural South and Brandon.

Source: Manitoba Centre for Health Policy, 2009
Hospital location refers to where RHA Residents were hospitalized. Of all hospitalizations of Brandon residents anywhere in the province, 80% occur at the Brandon Regional Health Centre, 13% occur in Winnipeg, 5% occur in other RHAs and 2% occur out of province. The same is true for the proportion of hospital days for Brandon residents, 90% of the hospital days are spent at the Brandon Regional Health Centre, 5% in a Winnipeg hospital, 4% in another RHA hospital and 1% in a hospital out of the province.

Hospital catchment refers to where patients using RHA hospitals came from. Figure 2.54 shows the separations for two time periods, 2000/01 and 2005/06. Brandon RHA has the lowest proportion of separations in the province for RHA residents and the highest proportion of separations for residents of other RHA’s. In 2000/01, 52% of hospital separations at the Brandon Regional Health Centre are for RHA residents, in 2005/06 the proportion of separations for RHA residents decrease to 49.8%, mainly due to an increase of separations for Non-Manitobans from 3% in 2000/01 to 4.7% in 2005/06. The proportion of separations for residents of other RHA’s and residents of Winnipeg remain stable at 44% and 1% respectively.

Figure 2.54: Where RHA hospital patients came from: separations

![Bar chart showing hospital separations for different regions]

Source: Manitoba Centre for Health Policy, 2009

Figure 2.55 presents a second indicator of hospital catchment showing the proportion of hospital days in RHA hospitals used by RHA residents, residents of other RHA’s, residents of Winnipeg and Non-Manitobans. Brandon residents use 67% of hospital days at the Brandon Regional Health Centre, other RHA residents use 29% of the days, residents of Winnipeg use 1% and Non-Manitobans use 2% of the hospital days. This trend is consistent over time.
The information in Figures 2.55 and 2.56 suggest that although only half of the separations are for Brandon residents, their stays tend to be longer than those of out of region residents as they account for 67% of the days.

**Figure 2.55: Where RHA hospital patients came from: days**

The crude volume of visits to the Brandon Regional Health Centre has increased over the last few years. In 2005/06, as seen in Figure 2.56, there were 8,463 hospital visits, 53% of them for Brandon residents. In 2008/09, the total of visits increased to 9,016, but the proportion of residents of the region remain the same.
Table 2.57 presents the top 5 reasons for hospital visit to the Brandon Regional Health Centre for Brandon residents and out of region residents for four fiscal years combined in two time periods. Pregnancy and childbirth and newborn admissions account for 31% of the visits in 2005/07 and 33% of the visits in 2007/09. Diseases and disorders of the digestive system remain as the third reason for hospital visits, representing 11% of the visits for both time periods. Visits related to mental diseases and disorders rank fourth in 2005/07 and fifth in 2007/09. Diseases and disorders of the circulatory system are the fifth reason for hospital visits in 2005/07 at 7% and increase to 9% in 2007/09 ranking fourth in this time period.

Table 2.57: Reasons for hospital visits at Brandon Regional Health Centre, all visits

<table>
<thead>
<tr>
<th>Major Clinical Category</th>
<th>2005/07</th>
<th>2007/09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Pregnancy and Childbirth</td>
<td>1</td>
<td>16%</td>
</tr>
<tr>
<td>Newborns and Neonates with Conditions Originating in Perinatal Period</td>
<td>2</td>
<td>15%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Digestive System</td>
<td>3</td>
<td>11%</td>
</tr>
<tr>
<td>Mental Diseases and Disorders</td>
<td>4</td>
<td>9%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Circulatory System</td>
<td>5</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database
Ambulatory Care Sensitive conditions (ACS) comprise a grouping of 17 diseases/diagnoses including: asthma, angina, gastroenteritis, congestive heart failure, congenital syphilis, immunization-related and preventable conditions, epilepsy, convulsions, severe ENT infections, tuberculosis, chronic obstructive pulmonary disease, acute bronchitis, bacterial pneumonia, hypertension, cellulitis, diabetes, hypoglycemia, kidney/urinary infections, dehydration, iron deficiency anemia, nutritional deficiencies, failure to thrive, pelvic inflammatory disease and dental conditions.

The idea behind this measure is that if people receive an adequate level of good primary health care, they should not need to be hospitalized for these conditions.

According to Figure 2.58 the rate for hospitalization for ACS conditions in Brandon decrease significantly over time and is significantly lower than Manitoba for 2005/06. At the district level, all districts with the exception of Brandon Central show significant decreases over time. Brandon Southeast is significantly higher than the province in 2000/01 but decreases significantly and is similar to the province in 2005/06. Brandon West and Brandon Southwest are lower than the province in the second time period.

**Figure 2.58: Rate of hospitalization for ACS conditions**

Source: Manitoba Centre for Health Policy, 2009
Diagnostic Imaging

The Magnetic Resonance Imaging (MRI) scan rates count the number of “person-visits” to the MRI service each day even if scans of different body sites were performed during the same scanning session. In other words, if a person had and MRI scan of the head and the abdomen on the same day (two services), only a single “visit” to the MRI service for that person that day was counted.

Due to missing data for MRI scans for children & youth (patients treated in the Children’s hospital in Winnipeg are referred to adjacent Health Sciences Centre for MRI scans but individual-level data for these services are not recorded) the MRI scan rates in this report include only residents 20 years or older.

The MRI scan rate in Manitoba, as seen on Figure 2.59, almost doubled over five years. Increases are seen in all areas, but the rate for Brandon residents more than quadruples – from below the provincial average to near double the provincial average. This finding requires further study to understand variations in scan rates in relation to clinical indications for use of MRI.

Figure 2.59: MRI scan rates

![Figure 2.59: MRI scan rates graph]

Analysis of CT scan rates had to be omitted because collection of individual-level data is not mandatory for all CT scans performed in rural hospitals.

Figure 2.60 present the total number of diagnostic imaging (DI) procedures per year performed at the Brandon Regional Health Centre from 2005/06 to 2008/09. Diagnostic procedures include MRI, CT scans, Ultrasound, Echocardiography, Stress MIBI, Bone Density, and Mammography. The total volume of diagnostic procedures increases from 39,986 in 2005/06 to 45,538 in 2008/09. Procedures with the greatest increases are Stress MIBI that almost tripled and Echocardiography that doubled the volume per year. MRI and CT scans volumes also increase by 23% and 31% respectively. On
the other hand, Mammography decreases by 15%, Ultrasound by 8% and Bone Density by 3%.

**Figure 2.60: Number of diagnostic imaging procedures**

![Bar chart showing the number of diagnostic imaging procedures](chart)

Source: Brandon RHA Performance Measurement Project, 2009

Figure 2.61 shows the DI procedures average length of wait in weeks for MRI, CT scans, Ultrasound, Echocardiography, Stress MIBI, Bone Density, and Mammography at the Brandon Regional Health Centre. In 2005/06, the length of wait in weeks for DI procedures varies from 5 weeks for a Mammography to 21 weeks for an Echocardiography. In 2006/07, the average lengths of wait for all procedures increased. In 2008/09, the procedure with the shortest length of wait is CT (3 weeks) and the procedure with the longest wait is Ultrasound (16 weeks). Some procedures, like MRI, Ultrasound, and Mammography have increased their average length of wait over the years while others, like CT scans, Echocardiography, Stress MIBI, and Bone Density have experienced significant decreases in the average length of wait in weeks.

**Figure 2.61: Diagnostic imaging average length of wait in weeks by fiscal year**

![Bar chart showing the average length of wait in weeks](chart)

Source: Brandon RHA Performance Measurement Project, 2009
Client-Centered Services

Client-Centered services refer to services that are delivered in a way that considers the ‘customer’ first and are inclusive and respectful. The Brandon RHA strives to connect with the people it serves and respond appropriately.

Notice of an Annual General Meeting is circulated broadly and the organization presents an annual report to the public. Monthly Board meetings are also held in the City Hall Council Chambers that are open to the public. Board meetings are aired on WCG-TV in an effort to reach a broader audience.

The Brandon RHA maintains a website with information about programs and services across the region. The website also provides the opportunity for the general public to e-mail questions, comments or concerns.

The Brandon RHA hosts Dudley’s DASH Tent yearly in partnership with Westman Dreams for Kids as part of the Children’s Country Fair. This event is an opportunity for children and families to experience simulated health care services and an opportunity for the staff to engage with the community.

Participation in planning and delivery of programs and services

Several Advisory committees support the Brandon RHA Board of Directors. A brief description of four committees is provided:

**Medical Advisory Committee** (MAC) is comprised of physician clinical department chiefs, with representation from the Assiniboine RHA and the Brandon RHA Executive Management Team. The Vice President Medical & Diagnostic Services acts as the Chair. MAC reviews department issues, makes recommendations for medical staff appointments and provides advice on other matters.

**Provider Advisory Council** (PAC) is an advisory group that includes providers from a number of programs throughout the region. PAC offers professional and paraprofessional expertise and advice to the Brandon RHA Board of Directors. The Council promotes collaboration and effective working relationships among health care providers. PAC provides consultation and/or advice to the RHA on matters having an impact on, or otherwise involving, the delivery of health services in the region.

**Spiritual Care Advisory Committee** acts as a forum for discussing issues of how the local faith communities, clergy, Aboriginal Elders and the Brandon RHA might offer spiritual care in a collaborative and effective fashion.

**Ethics Committee** is a group of health professionals and community members from Brandon and Assiniboine regions who assist families, individuals and healthcare providers to work through ethical issues.

Confidentiality

Personal Health Information is any information that is recorded in any form, can be linked to an identifiable individual, and relates to an individual’s health, health history, genetic makeup, health care, personal health identification number (PHIN) or other identifying information collected in the course of providing health care.
The Personal Health Information Act (PHIA) was proclaimed in force on December 11, 1997. This Act affects nearly every person or organization that maintains health information in Manitoba, including Regional Health Authorities and the facilities and programs managed by them (i.e. hospitals, personal care homes, community programs, etc).

The Brandon RHA includes PHIA training as part of the regular orientation for all new employees, students and volunteers. Figure 2.62 shows the total number of persons trained by category from 2006/07 to 2008/09. Data on number volunteers trained is not available for all fiscal years.

**Figure 2.62: PHIA training**

![Bar chart showing PHIA training from 2006/07 to 2008/09](chart)

Source: Brandon RHA Performance Measurement Project, 2009

The Act establishes the right of an individual to access his or her own personal health information. There are three elements to this right:

- A right to examine personal health information,
- A right to obtain a copy of personal health information, and
- A right to seek a correction of personal health information

The Act imposes on trustees, like the Brandon RHA, an obligation to assist an individual in gaining access to his or her personal health information and to respond to access requests “without delay, openly, accurately and completely”. Figure 2.63 presents the average turnaround time in days for access requests to patient’s charts. This time has improved over time; in 2006/07, the average turnaround time was close to 10 days and in 2008/09 the same time decreased by 2 days.
Figure 2.63: Average turnaround time in days for access requests to patients’ charts, 2006/07 to 2008/09

Source: Brandon RHA Performance Measurement Project, 2009

Satisfaction with services

Over the past 12 months, all of the Brandon RHA satisfaction surveys have been reviewed and standardized. A trial of the new surveys has been completed and final changes are being made. In April 2010, the first set of surveys will be distributed with a focus on safety, confidentiality and system performance. In standardizing the questions we ask, our goal is to be able to compare departments and facilities across the region.

Complaint Management Process

The Brandon RHA has a complaint management process for the region. Complaints are received primarily through a designated ‘Comment Line’, a voice mail system whereby callers report their complaints, compliments or queries. Complaints are also received via an access point through the RHA website, letters, or through direct verbal communications with staff.

Each complaint is entered into a database, assigned a tracking number and sent to the appropriate managers for investigation and follow up with the complainant. A copy of the complaint is also sent to the Director and Vice President of the relevant department for information purposes. The goal is to follow up with an initial acknowledgment of the receipt of the complaint within five business days and final investigative findings within two weeks.

Wait times

Wait times are an important measure of client-centered services and are a quality indicator for health system performance. Consistent with a corporate priority, the Brandon RHA strives to reduce waiting times for key services when possible.
**Wait List Initiative**

Since 2006, the Brandon RHA has participated in the Provincial Wait List Reduction Strategy, in collaboration with Manitoba Health and the Assiniboine RHA. Several initiatives have been implemented including:

- Efforts to increase the number of hip and knee replacements/revisions performed at the Brandon Regional Health Centre
- Efforts to increase the number of cataract surgeries performed at the Brandon Regional Health Centre and Minnedosa
- A Prehab Program commenced in the spring of 2006
- A short-term acute Rehab Unit in Rivers
- An Arthroscopy service in Minnedosa
- Reconfigure A2 and A3 inpatient units to create compatible patient groupings and improve utilization

The Orthopaedic Surgeon who performed hip replacements left Brandon in May 2006. The Wait List Initiative was modified to increase the number of knee surgeries. Patients on the wait list for hip surgery were referred to Winnipeg and Boundary Trails Health Centre for surgery. In January 2007, an itinerant surgeon commenced in Brandon to address the need for hip replacement surgery in Brandon. A full-time permanent surgeon was secured in January 2008.

As seen on Figure 2.64, the number of hip replacements performed at the Brandon Regional Health Centre peak in 2005/06 but decrease in the two following two years due to the surgeon’s departure. In 2008/09, the hip replacement volumes start to climb.

**Figure 2.64: Number of hip replacements**

The number of hip replacement surgeries is reflective of surgeon availability.

Source: Brandon RHA Performance Measurement Project, 2009
Figure 2.65 shows that the average wait time in weeks for hips replacements at the Brandon Regional Health Centre decreases by 7 weeks from 2005/06 to 2006/07. Wait times were not collected in 2007/08 as the orthopedist service was not available. The average wait time in weeks for the procedures performed in 2008/09 was 16 weeks.

Figure 2.65: Average wait time – hips

As seen on Figure 2.66 the number of knee replacements performed at the Brandon Regional Health Centre increases significantly in 2006/07 and decreases in the following two fiscal years.

Figure 2.66: Number of knee replacements

Source: Brandon RHA Performance Measurement Project, 2009
Accordingly, as demonstrated by Figure 2.67, the average wait time in weeks for knee replacements drops from 46 weeks in 2005/06 to 28 weeks in 2006/07. The average time in weeks for knee replacements at the Brandon Regional Health Centre continues decreasing to 13 weeks in 2007/08 and 11 weeks in 2008/09 despite the decrease in number of procedures completed.

**Figure 2.67: Average wait time – knees**

Source: Brandon RHA Performance Measurement Project, 2009

**Home Care Wait Times**

Figure 2.68 shows the response time for Home Care Aides and Home Support Workers of the Home Care program. The wait time for clients with a community referral is longer than that for clients with a hospital referral. Over time, the response time for both groups is higher in 2006/07, decreases in 2007/08 and remains stable after.

**Figure 2.68: Home Care Aide/Home Support Worker response time**

Source: Brandon RHA Performance Measurement Project, 2009
Figure 2.69 show the average response time for nursing services from the Home Care program. The response time for nurses is lower than the response time for home care aides and home support workers showed on Figure 2.68. As seen in the previous figure, the wait time for clients with a community referral is longer than that for clients with a hospital referral. Over time, the response time for both groups is higher in 2006/07, decreases in 2007/08 and remains stable since.

**Figure 2.69: Nursing response time**

![Nursing response time chart](chart.png)

Source: Brandon RHA Performance Measurement Project, 2009

**Rehabilitation Wait Times**

Rehabilitation services are in great demand but the organization capacity to meet this demand is limited by the scarcity of rehabilitation professionals.

For adults, Speech Language Therapy is the rehabilitation service that has the longest wait time in 2007/08.

**Figure 2.70: Rehabilitation wait list adults**

![Rehabilitation wait list chart](chart2.png)

Source: Brandon RHA Performance Measurement Project, 2009
For children, the wait time for Speech Language Therapy is the longest wait time in 2006/07 but decreases substantially for 2007/08.

**Figure 2.71: Rehabilitation wait list children**

![Bar chart showing the wait list for different therapies in 2006/07 and 2007/08.](chart)

Source: Brandon RHA Performance Measurement Project, 2009

**Primary Health Care Initiative Programs**

**7th Street Health Access Centre**

**Consumer Peer Support Position formalized** – this is a peer support role, which promotes positive mental health and builds self-esteem, available to anyone receiving mental health or family members of individuals receiving services.

**Cultural Facilitators** – provide language support and cultural education and awareness between newcomers (Spanish, Russian/Ukrainian and Mandarin speaking) and the health care team. This role initially began on a contract basis through the Improving Access to Health and Social Services for Immigrants and Refugees project (in partnership with the Sexuality Education Resource Centre and Nine Circles Health Centre in Winnipeg). Transitional funding was then received from Manitoba Labour and Immigration for a 10-month period, until a permanent funding arrangement was made with the Brandon RHA.

**Multi-lingual electronic intake form** - established to address the initial needs of the non-English speaking population. This is a self-administered, web-based intake form, created through a contracted service. The form allows individuals to complete an intake assessment in their own language, which is then printed in English. Staff determines which service or staff member is the most appropriate for the individual. Current languages available in this electronic form include Spanish, Ukrainian, Mandarin, French, Amharic, Cree and English.

**Nurse Practitioner** – the most recent staffing addition to the multi-disciplinary team. The nurse practitioner provides primary care services to individuals and families who do not have a family physician. The nurse also collaborates with the health care team regarding multiple and complex needs to the marginalized population served by the 7th Street Health Access Centre.
Community Based Social Worker - provides short and long term counseling, practical problem solving supports, collaboration and case management for any individual or family in the community who are not otherwise connected to a counselor or case manager.

Benevolent Fund — established in partnership with Brandon Ministerial Association and local churches to provide financial assistance to urgent and emergent needs of low-income individuals and families.

Prairie Health Matters

Insulin Dose Adjustment Competency — through a delegation of function, 50% of the staff complement have successfully completed a competency based certification process that allows them to adjust insulin dosages for insulin-dependent diabetics.

Pre-Diabetes Research Project, in partnership with Public Health Agency of Canada and Manitoba Health, the program conducted a research project to validate a screening tool for predicting lifestyle and risk factors that may lead to diabetes onset in future years. Over 1000 Brandon residents were screened for pre-diabetes and risk factors in the one-year period between March 2008 and March 2009.

Foot assessment clinics — occur monthly for prevention and early identification of circulatory difficulties, skin breakdown and other foot care difficulties in clients who have diabetes.

Weight management sessions — based on feedback from the Regional Diabetes Advisory Committee and the incidence of obesity and associated risk factors for diabetes and heart health, a weight management session was added to the interactive, educational sessions offered by Prairie Health Matters in 2008 for individuals with a BMI greater than 35.

Interpretation Services

On August 2005, the Brandon RHA developed a policy for the use of interpreter services. The staff could draw support from three different sources: family members (if appropriate), RHA staff members, volunteers and physicians or a contracted service such as CanTalk Inc. Requests for services from the contracted agency were monitored on a monthly basis, however information on the use of family members or staff has not been collected.

Figure 2.72 shows the top six languages accessed through the CanTalk service. Between 2006 and 2009, the majority of requests have been for Spanish (87), followed by Mandarin (57) and Cantonese (50).
Figure 2.72: Language requested most frequently for interpretation, 2006 to 2009

As seen in Figure 2.73, the number of minutes of interpreter services through CanTalk peaked in 2008 at 1720 minutes, which is consistent with the immigration trend for the region.

Figure 2.73: Total number of minutes of interpreter services, 2006 to 2009

Source: CanTalk Report, 2009

Spiritual Care Services

The delivery of Spiritual Care takes place in many ways in a variety of places. It may be a conversation with a dying patient or prayer with family members who have just lost a loved one. It may be sitting with families in the Emergency Room while they wait to find out if their parent or child is going to survive the crisis of that day. It may also mean bringing sage and the smoke eater to a patient’s room, seeking a traditional Elder for an Aboriginal family or leading Sunday worship for patients and families in the Assiniboine Spiritual Centre.
The Brandon RHA has served as a learning site for supervised pastoral education or clinical pastoral education. The University of Winnipeg, under the auspice of the Canadian Association, offers this program for pastoral practice and education to train people to serve in institutional ministries such as prisons.

The focus of Spiritual Care Services is to provide support to patients, clients and residents of the Brandon RHA however services are also provided to staff of the Brandon RHA. Examples of services include support through the Critical Incident Stress Management Team, counseling for a staff member who is dealing with family issues at home or a supportive presence during a disciplinary hearing.

Spiritual Care Services are available at the Brandon Regional Health Centre 24 hours, 365 days per year. Spiritual Care staff attends clinical rounds at the Child & Adolescent Treatment Centre, the Centre for Adult Psychiatry and Rideau Park Personal Care Home as well as regular visitation. The 7th Street Health Access Center, Crisis Stabilization Unit, Centre for Geriatric Psychiatry and Fairview Home are able to call for Spiritual Care Services as required. The team will also provide in-home visits for people on the Palliative Care Registry through referrals from Home Care.

**Hospice and Palliative Care Services**

Hospice and Palliative Care focuses on comfort and quality of life when cure is no longer possible. A team of specially trained professionals, paraprofessionals and volunteers provide services, which include involving the individual and their family in planning care, pain management, spiritual and emotional support, and support after the death of a loved one. Access to the program may be through self-referral or referral by a doctor, family, friends or community agencies.

WATCH (Westman Hospice) is a free service that provides trained volunteers to help with shopping, meal preparation, transportation, and relief for caregivers and grief support.

Camp Bridges is an annual event for children and youth ages seven to 17 who have experienced the death of a parent or other loved one. The goal is to provide a camping experience for bereaved children and teens in a safe, supportive and fun environment. This is a partnership between the Assiniboine, Brandon and Central regional health authorities and is provided at no charge to the participants.

**New Programs and Services**

**Aboriginal Workforce Initiative**

Aboriginal people have lower levels of education, higher unemployment and underemployment rates, lower income levels and inadequate housing compared to other Manitobans. There is ample evidence that demonstrates such factors determine whether people are healthy, which explains why the Aboriginal population has poorer health status overall than non-Aboriginal people in the Brandon Region. Population pyramids illustrate that Aboriginal youth make up the fastest growing potential workforce at the
same time as the health care workforce is aging. Recognizing the implications of these facts, the Brandon RHA set out to develop strategies that would facilitate the participation of Aboriginal people into healthcare occupations. To that end, a partnership agreement was signed on September 25, 2003 and included the following parties: Brandon RHA, Brandon Friendship Centre, Manitoba Métis Federation Southwest, Manitoba Advanced Education & Training, Indian & Northern Affairs Canada, Canadian Union of Public Employees Brandon, Manitoba Government & General Employees Union Brandon, Assiniboine Community College, Council of Indigenous Elders, Dakota Ojibway Tribal Council, Manitoba Health, Manitoba Aboriginal & Northern Affairs, City of Brandon, Manitoba Association of Health Care Professionals Brandon, Brandon University, and Brandon School Division. The Agreement committed the partners to work together to identify possible solutions to issues related to healthcare employment.

Upon inception of the Aboriginal Workforce Initiative, there were 30 self-identified Aboriginal people working for the Brandon RHA (1% of the total workforce). Employees of Aboriginal descent now make up 10% of our workforce, which is representative of the Brandon region population.

Representatives of the signatory parties to the Agreement now form the membership of the “Aboriginal Health Sharing Circle”, a forum that meets quarterly and strives to achieve its mission ... “Promotion of employment and education opportunities to the Aboriginal community, through partnerships with Aboriginal groups, other sectors, organizations, and service providers.”

Brandon Community Language Centre

Five years ago, a working group representing the Brandon Regional Health Authority, City of Brandon, Manitoba Labour & Immigration and Westman Immigrant Services set out to prepare a plan of action to address the need for interpretative services in the Brandon region. They recognized that as Brandon was becoming a more cosmopolitan city, it was becoming increasingly more difficult to provide service to new immigrants due to language barriers.

With funding from the United Way of Brandon and District, the City of Brandon and Manitoba Labour and Immigration, the Brandon Community Language Centre opened up to the first ever service option for trained interpretation services in Brandon. To date, there are ten trained interpreters providing support in Amharic, French, Mandarin and Spanish. Over 200 bookings have been filled with requests from various sectors including Justice, Health, Education, Social Services and private businesses. A second training session is planned for spring 2010 with a focus on adding Russian and Ukrainian languages to the services available.

Clinical Documentation Coordinator Position

The Brandon RHA created a new position in 2009 to promote the integration of clinical documentation standards and processes across portfolios within the Brandon RHA. In collaboration with a Clinical Documentation Steering Committee, the individual coordinates the development of protocols, policies and procedures and supports the
transition of clinical documentation from paper form to electronic health records.

**Completion of Phase Two of the new Clinical Services Redevelopment Project (CSRP) at BRHC**

Since the last Community Health Assessment was published in 2004, Phase two of the CSRP has been completed. This phase saw the redevelopment of part of the main floor of the Brandon Regional Health Centre, to provide a new home for the following programs and services:

- Emergency Department and Observation Unit
- Day Treatment
- Renal Unit
- Single Room Maternity Care
- GI Unit
- STEP
- Operating Rooms
- Cancer Program
- Ambulatory Clinics
- Health Resource Centre (Library)
- Gift Shop

**Health Promotion Program**

In the spring of 2009, new funding was received from Manitoba Health and Healthy Living for additional staff positions to support health promotion activities in the region. Using a community development approach, staff work with population sub-groups including girls and women, Aboriginal people, immigrants and older adults to identify and address barriers to healthy living. Staff also delivers Mobile Wellness Screens, a community-based assessment of risk factors for chronic disease, in a variety of settings and the Get Better Together Program, a chronic disease self-management model.

**Hospitalist Model**

The Brandon RHA created a modified Hospitalist model to care for patients without a family physician or for those whose family physician does not have admitting privileges. As of March 2009 the program had one full-time and one part-time Hospitalist on staff caring for an average of 27 to 35 unassigned patients per day who are admitted under this model.

**Interfacility Ambulance Transportation**

In November 2006, the Manitoba government announced important changes to the interfacility ambulance transportation policy resulting in the service becoming a funded program. All Manitobans are now eligible for coverage providing they have a valid Manitoba Health card, medically require transportation as determined by a physician, are being transferred between healthcare faculties for diagnostic tests or treatment or from a
more specialized level of care to another facility closer to home for rehabilitation or recovery, and do not have coverage by any other provider.

**Philippine Nurse Provincial Initiative**

The Brandon Regional Health Authority has experienced nursing vacancies for a number of years. In 1999/2000, a Philippine Nurse Provincial Initiative was very successful and a number of those nurses continue to work in the region. Building on this previous recruitment strategy, Manitoba Health met with representatives from Assiniboine, Brandon, Central and Parkland RHAs in the summer of 2008 to discuss another nurse recruitment mission offshore. Other stakeholders involved in the discussions were Manitoba Labour & Immigration, Citizenship & Immigration Canada (CIC), College of Registered Nurses of Manitoba (CRNM), as well as the Nurses Recruitment and Retention Fund (NRRF). The Brandon RHA applied for and received 25 Labour Market Opinions (LMO), which is the approval required to recruit nursing positions outside of Canada. This initiative was funded and sponsored by Manitoba Health.

A recruitment agency was engaged and the testing and interviewing processes occurred in November 2008. Brandon has received 21 nurses from 24 offers of employment; all 21 are currently working in Brandon. One nurse has moved from ARHA to join the Brandon RHA increasing the total number of nurses to 22. All of the nurses have written and passed the CRNM exam except for one who has just arrived and will write for the first time in June 2010. Most of the nurses are in the process of making application for and waiting results of the Provincial Nominee Program and Landed Immigrant status.

**Physician Recruitment**

Manitoba’s Office of Rural and Northern Health, along with Manitoba regional health authorities put on an annual retreat every year outside of Winnipeg for people who have completed medical school and are currently training to become family practitioners. In September 1009, the Brandon Regional Health Authority hosted this event as a way to attract these practitioners to our community. More than 50 students had the opportunity to explore our city, see the Brandon Regional Health Centre and talk with those in the health field.

**PreHab Joint Replacement Program**

Patients waiting for orthopedic surgery in Brandon can now benefit by seeing members of the PreHab Team in the Ambulatory Clinics area of the Brandon Regional Health Centre. They can consult with a physician, nurse, physiotherapist, occupational therapist, rehab assistant, pharmacist, and dietitian, all of whom work together to ensure that the patient is as fit as possible for their orthopedic surgery.
**Rivers Rehabilitation Unit**

The Rivers Rehabilitation Unit was established in November 2005 as one component of the Manitoba Wait List Reduction Strategy. In collaboration with the Assiniboine Regional Health Authority, the program was established to facilitate orthopaedic surgical throughput at the Brandon Regional Health Centre and to provide focused intensive rehabilitation for patients following orthopaedic surgery.

**Stroke Prevention Clinic**

In partnership with the Manitoba Heart and Stroke Foundation, the Brandon regional Health Authority opened a new Stroke Prevention Clinic in December 2008. The intent of this initiative is to provide local residents with the best medical care available to prevent strokes by addressing the needs of patients at high risk for stroke through evidence-informed protocols, improved management and referral services. Clinical evaluation of this new service is currently focused on stroke mortality, hospital stays and long-term care costs.

**Telehealth**

A significant number of consultation services for patients are now being offered by videoconference through the Manitoba Telehealth program. In many cases, patients in Brandon can be linked by video to specialists in Winnipeg, so that the patient does not have to travel to see a consultant.

**Western Manitoba Cancer Program**

Construction is underway on a new Cancer Care facility for western Manitoba. The new centre, which is located east of the Nurses Residence on the Brandon Regional Health Centre campus, will offer “one-stop” services in radiation therapy, chemotherapy, and follow-up clinic visits. The new facility is expected to be completed in fall 2010/winter 2011.
So, what does this mean?

The Brandon RHA spends a similar proportion of total operating budget on acute care, long-term care and community care as the province but less on administration.

Acute medical and surgical supply costs for Brandon are increasing steadily while costs remain stable for the province.

Pharmaceutical costs for acute care are higher for Brandon than Manitoba overall.

Brandon RHA has an aging workforce.

There are many popular employee wellness initiatives in place.

The system capacity to deliver primary health care services is enhanced through increased EFT at 7th Street Health Access Centre.

A comprehensive Public Health surveillance system is in place.

The Critical Incident Review Process identifies miscommunication as the top theme.

Brandon Central has the highest ambulatory visit rate of all districts.

Brandon has the second highest ‘in district’ visits to family physicians and specialists in the province.

The likelihood of having a family physician increases with income and age.

Approximately 7% of survey respondents had 10 or more walk-in clinic visits in the past year.

Over half of survey respondents follow-up with their family physician after a walk-in clinic visit.

A significant increase over time is seen in every district for the number of different drugs used per resident.

Adults, age 20 – 44, have the highest rate of ER visits, followed by adults, age 45 to 64, children and seniors.

Trauma, coma and toxic effects are the main reason for all ages to visit ER.

The majority of patients are discharged home from ER yet health planning is traditionally based on hospitalization and mortality data.

Gastrointestinal procedures account for the majority of Same Day Care visits.
Brandon Central and Brandon East have a significantly higher use of hospital beds.

Pregnancy and childbirth is the primary cause of hospitalization for 2005/06 and 2007/09 which is consistent with immigration trends.

About half of the hospital separations for the Brandon Regional Health Centre are for Brandon residents.

The MRI scan rate for Brandon more than quadruples between two time periods.

There are several Wait Time initiatives underway (hips and knees, cataracts a PreHab program, Rehab Unit and Arthroscopy service).

There has been a decrease in the wait time for hip and knee surgeries.

Response time for Home Care services is longer with a community referral than a hospital referral.

There are several new primary health care initiatives at 7th Street Health Access Centre.

Employees of Aboriginal descent make up 10% of the Brandon RHA workforce.

There are several new programs and services in place throughout the organization.
CHILDREN & YOUTH
Chapter 3

Children and Youth

The importance of a child’s first few years of life is overwhelming. Early experiences directly affect brain development and set the stage for health in later life. The physical, social, mental, emotional and spiritual development of children and youth is greatly affected by many factors including the environment they grow up in. In fact, if we want to improve the health status of the people in our region, we need to begin with children to make sure they have a healthy start in a positive, nurturing environment.

There are a number of measures that can provide a picture of the health of children and youth in our region. This chapter provides information on:

- Demographics of children and youth living in the region including the number of children and youth and the proportion of children and youth by district
- Healthy development including immunizations, social supports, developmental assessments, special health care needs and measures of educational success
- Healthy living including physical activity, healthy eating, tobacco, and alcohol and illegal drug use
- Chronic conditions such as asthma and diabetes and congenital heart defects
- Use of health services by children, including physician visits, emergency room and same day care use and hospitalization visits
- Specific health topics of interest including sexual health, injury and mental health
- Causes of death for infants and children
- New programs and services offered to children in the Brandon region
Demographics

According to Figure 3.1, the number of babies born to Brandon residents is increasing slightly over time. The highest number of births recorded between 2004/05 and 2008/09 was in 2006/07 at 695 births. This increase in births is aligned with the immigration trend for the region.

Figure 3.1: Brandon RHA births by year

![Bar chart showing number of births by year from 2004/05 to 2008/09.](chart1)

Source: Manitoba Health Reports, 2009

According to Figure 3.2, there is a high degree of variation on the proportion of children 0 to 19 years of age at the district level. The highest proportion of children lives in Brandon West (22%), Brandon Central (17%) and Brandon Southwest (15%). Brandon Southeast is home to the lowest proportion of children (9%).

Figure 3.2: Proportion of children ages 0 to 19 by district, Brandon RHA

![Bar chart showing percentage of children by district.](chart2)

Source: Manitoba Population Reports, June 1, 2008

The increase in volume of births is consistent with immigration trends in the region.

The highest proportion of children age 0-19 live in Brandon West, followed by Brandon Central and Brandon Southwest.
Healthy Development

Prenatal and early childhood experiences have a lifelong impact on health. Studies show that what happens to a child in the first six years of life is a strong indicator how well the child will do throughout the lifespan – success in school, ability to cope with life experiences and health status as an adult.

This section includes information on immunizations for communicable disease control, social supports in place, results of developmental assessments such as Milestones and Early Development Instrument (EDI), statistics from the Unified Referral Intake System (URIS) for children with special needs, prevalence of certain conditions like Attention-Deficit Hyperactivity Disorder (ADHD) and Autism; and education indicators such as school changes, school retention rates, high school completion rates and alternative school models.

Communicable disease control

Communicable disease control is achieved primarily through comprehensive immunization programs. In the Brandon region, immunization coverage for children includes Measles, Mumps and Rubella (MMR), Diphtheria, Pertussis, Tetanus, Polio and Hemophilus Influenza B (DaPTP/Hib) and Hepatitis B.

An adequate level of coverage against vaccine-preventable childhood diseases is crucial to reduce the risk of disease outbreaks. Figure 3.3 shows the complete immunization rate at ages 1, 2, 7, 11 and 17 years old in 2008/09. The highest rate is for children age 1 year old at 83%, the rate declines to 64% at age 2 and peaks again to 73% at age 7, the time when children are entering school and are required to show proof of complete immunizations. After that, the rate declines to 67% for 11 years old and the lowest rate is 49.9% for 17 years old.

Figure 3.3: Complete immunization rates by age, 2008/09

As seen in Figure 3.4, Brandon has significantly higher complete immunization rates for infants age 1 than Manitoba for both time periods. However, while the rate for Brandon remains stable, Manitoba’s rate increases significantly over time. At the district level, Brandon West has a significantly higher rate than the province for the first time period; Brandon Rural and Brandon North End have significantly higher rates than the
province for the second time period. Rates for all districts are above 80% for both time periods.

**Figure 3.4: Complete immunization rates for infants age 1**

Source: Manitoba Centre for Health Policy, 2008

As seen in Figure 3.5, complete immunization rates for children age 2 years are similar in Brandon and Manitoba. While Manitoba’s rate increases significantly over time, Brandon’s rate remains stable. At the district level, Brandon West is the only district that has a rate significantly higher than the province for the second time period.

**Figure 3.5: Complete immunization rates for children age 2**

Source: Manitoba Centre for Health Policy, 2008
Complete immunization rates for children age 7 years, as shown in Figure 3.6, are significantly higher in Brandon than Manitoba for both time periods. Brandon’s rate has remained stable over time while Manitoba’s rate has increased significantly. At the district level, Brandon Southwest has significantly higher rates than the province for the first time period and Brandon West has significantly higher rates than the province for both time periods.

**Figure 3.6: Complete immunization rates for children age 7**

![Immunization Rates Chart]

Brandon has the second highest number of licensed childcare space per 1000 children in the province.

**Social supports**

Support from family, friends and by the community as a whole is associated with better health. Social support networks help people solve problems and cope with challenges in life; external supports can also help people gain control over life circumstances.

High quality childcare is associated with positive outcomes in preschoolers. As shown in Figure 3.7, the Brandon region has the second highest number of licensed childcare spaces per 1,000 children ages 0-12 years in the province in 2006 at approximately 160 spaces per 1,000 children.
Figure 3.7: Licensed child care spaces by RHA, 2006

Food For Thought

In the fall of 1997, a group of concerned community leaders took action on the issue of children going to school hungry. This committed group secured grant funding through the Community Living Foundation/Breakfast for Learning and the Eaton Community Partner Program to implement a pilot project in three Kindergarten to Grade 8 schools. Initially, the program operated two days per week but it expanded to five days per week by the third year of operation. At that time, a strong partnership was developed with the Brandon School Division to continue offering this program on a larger scale. The program has grown over the years and there are currently 15 schools, out of 19 Kindergarten to Grade 8 schools, participating within the Brandon School Division. During the 2008/09 school year, the program served 19,261 breakfast and snacks to students. Through a partnership with the Child Nutrition Council of Manitoba, Food For Thought also provides a strong educational component addressing nutrition and healthy lifestyles. Over 60 volunteers on a yearly basis support the program. Local banks, service clubs, churches, the United Way and businesses are the major sponsors of the program. Many other fundraising activities also take place yearly in the community.

Figure 3.8 depicts the percentage of children age 0-17 in families receiving one or more protective or supportive services from the Child & Family Services sector. Rates for children in families receiving these services in the Brandon region are significantly higher than the province in both time periods.

Brandon’s Food For Thought program operates in 15 out of 19 K-8 schools.
The percentage of children age 0-17 in families receiving one or more services from CFS is significantly higher than the province.

Figure 3.8: Prevalence of children in families receiving protection/support services from CFS by RHA

The percentage of children in foster care in the Brandon region is significantly increasing over time.

Figure 3.9: Prevalence of children in care by RHA

Source: Manitoba Centre for Health Policy, 2008
Developmental assessments

Developmental assessments are used to observe the functional ability in children to determine whether or not a problem exists. Specific tests provide information regarding the milestones that a child has attained and can help in determining an appropriate course of action to attain further milestones.

The Milestones Wellness Fair is an annual event that is delivered through a partnership with Brandon School Division, Child & Family Services of Western Manitoba, Brandon Regional Health Authority, Super Thrifty Pharmacy and Manitoba Family Services and Housing. Free, professional health screening, including speech & language, vision, hearing, developmental and preschool immunization, is provided for three and four year olds. Figure 3.10 shows the proportion of children requiring further assessment from 2005 to 2009. Overall, a low percentage of children requires further assessment for developmental concerns however a significant proportion of children requires follow-up for dental and vision concerns. The proportion of children requiring follow-up for speech & language and hearing problems is relatively stable over time.

Figure 3.10: Number of children requiring further assessment, Milestones Wellness Fair, 2005 – 2009

Source: Milestones Wellness Fair Database, 2009

The Early Development Instrument (EDI) is a tool to measure Kindergarten children’s readiness for school across several areas of child development. It is an annual questionnaire completed by Kindergarten teachers for all children in their classroom. The EDI measures how a group of Kindergarten children is developing compared to children in other communities. It is never used to assess the development of individual children. The EDI helps communities guide programs and services for children, based on the strengths and needs of each community. Areas of child development assessment include:

- Physical health and well-being
- Social competency
- Emotional maturity
- Language and thinking skills
- Communication skills and general knowledge
School readiness is adversely affected by children’s mastery of electronic devices rather than manual skills such as holding a pencil.

According to Figure 3.11, Brandon has a similar proportion of children not ready for school in one or more areas as the province in the first time period and a higher proportion of children not ready in one or more areas than Manitoba in the second time period. This may be related to the types of activities that Brandon children are engaging in prior to entering school. Discussion with local educators identified concern with preschoolers’ mastery of electronic devices and not as much practice with manual skills such as holding a pencil or using scissors.

Figure 3.11: EDI scores, percent of children not ready in one or more areas

Source: Healthy Child Manitoba, 2009

Special health care needs

The Unified Referral System and Intake System (URIS), a partnership between Family Services, Education and Health, has been coordinated by the Brandon RHA Public Health Services since 2004. In the 2009/10 school year, 22 schools in the Brandon School Division, one private school and two Child Care Centres were involved in the program. Overall, approximately 10% of the students in Brandon are enrolled in URIS.

Figure 3.12 shows the type of health care interventions required by children enrolled in the URIS program. The most common health plans are for asthma and anaphylaxis, followed by seizure disorders, diabetes, cardiac conditions, and bleeding disorders. Other interventions include: gastrostomy care, osteogenesis imperfecta, ostomy care, pre-set oxygen, steroid dependence and suctioning (oral and nasal).
Attention-Deficit Hyperactivity Disorder (ADHD) is the most common behavioural disorder identified in school-aged children affecting about 3 to 7% of this population. ADHD can have a debilitating effect on functioning, with affected children more likely to experience learning difficulties, school failure, poor peer relationships and family conflict.

According to Figure 3.13, the Brandon region has a significantly higher proportion of children age 5-19 diagnosed with ADHD than the province overall for 2000/01 and 2005/06 and has significantly increased over time. At the district level, Brandon Rural, Brandon Southeast, Brandon Southwest and Brandon North End are similar to the province for both time periods. Brandon West and Brandon East are significantly higher than the province in the first time period whereas Brandon East and Brandon Central are significantly higher than the province in the second time period and are increasing significantly over time.

Figure 3.13: ADHD prevalence, ages 5 to 19

Source: Manuel Centre for Health Policy, 2008

Brandon RHA, 2009 Community Health Assessment – Children and Youth
Autism Spectrum Disorders (ASDs) are characterized by social, communicative and behavioural impairments, which range in severity. There is no genetic marker for diagnosis and no clear etiology for these disorders, which include Autistic Disorder, Asperger’s Disorder, Pervasive Developmental Disorder, Rett’s Disorder and Childhood Disintegrative Disorder. It is not known if there has been a true increase in Autism Disorder prevalence or if the increase is related to broader case definitions and awareness among parents and health care providers.

The rate of children 0-19 years diagnosed with Autism is similar to the province for both time periods and continues to increase over time.

**Figure 3.14: Autism spectrum disorder prevalence, ages 0 to 19 by RHA**

Age- and sex- adjusted percent of children aged 0-19 years diagnosed with autism

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1 't' indicates area’s rate was statistically different from Manitoba average in first time period
2 '2' indicates area’s rate was statistically different from Manitoba average in second time period
3 '*' indicates change over time was statistically significant for that area
4 's' indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2008

**Education**

Students who change schools frequently may have more difficulty with school performance and social development. Frequent school moves are associated with a higher rate of grade retention often leading to school failure and withdrawal.

Figure 3.15 shows the proportion of grade three students who have remained in the same school for the first four years of their education. Brandon is similar to the province for both time periods, 1997/87 – 2000/01 and 2002/03 – 2005/06. At the district level, the percentage of students who did not change schools is decreasing significantly in Brandon Rural.
Figure 3.15: Grade 3 students with no school changes in 4 years

Source: Manitoba Centre for Health Policy, 2008

Figure 3.16 shows the percentage of students who were retained at least once or held back in the same grade for consecutive years between Kindergarten and Grade 8 for 1997/98 – 2001/02 and 2001/02 – 2005/06. Brandon rates are similar to the province overall for both time periods and are significantly decreasing over time. At the district level, significant decreases over time are seen in Brandon Southeast, Brandon West, Brandon North End, and Brandon East. Brandon Central is significantly higher than the province in the second time period.

Figure 3.16: Retention rates from Kindergarten to Grade 8

Source: Manitoba Centre for Health Policy, 2008
Student performance on scholastic examinations is often used as a measure of educational outcomes. Figure 3.17 looks at the performance of those individuals who remained in Manitoba until the year they turned 18 years of age – the year they should have written the standard Language Arts test if they had progressed through the school system in the expected time frame. The percentage of Brandon youth is similar to the province overall for both reporting periods.

**Figure 3.17: On-time pass rates for the Grade 12 Standard LA Test**

Source: Manitoba Centre for Health Policy, 2008

High school completion is a critical milestone in an individual’s life as it is the gateway for further educational studies and employment opportunities. The lack of a high school diploma is a strong predictor of higher rates of unemployment, low paying jobs and poorer health overall. As shown in Figure 3.18, the percentage of students in the Brandon region who completed high school within six years of enrolling in Grade 9 is similar to Manitoba for 2002/03 and significantly lower than the province in the second time period (2005/06). Rates for Brandon are increasing significantly over time however.
Figure 3.18: Students completing high school within 6 years of enrolling in Grade 9

Sex-adjusted percent of students completing high school within 6 years of enrolling in grade 9

South Eastman (12)
Central (t)
Assiniboine (12,1)
Brandon (2,1)
Winnipeg (t)
Interlake (t)
North Eastman (¶)
Parkland
Churchill (s)
Nor-Man (12,1)
Burntwood (12)
Manitoba (t)

Note: Band-operated schools were excluded from the analysis

'1' indicates area's rate was statistically different from Manitoba average in first time period
'2' indicates area's rate was statistically different from Manitoba average in second time period
'¶' indicates change over time was statistically significant for that area
's' indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2008

In the fall of 2001, the Brandon School Division hosted a community forum to hear from young people who had left school early. The need for alternative and flexible learning opportunities for students who do not fit into the current system was identified. The Neelin High School Off Campus (NHSOC) program was launched in the 2007–2008 school year. Figure 3.19 shows student enrolment in the NHSOC program by month in the first year of operation.

Figure 3.19: Number of students attending by month (n=158) 2007-08, Neelin Off-Campus Program

Source: Brandon School Division, 2008

Neelin High School Off Campus program has graduated in excess of 130 students since it opened its doors in 2007.
As shown in Figure 3.20, 71% of the students enrolled in the NHSOC program planned to continue their studies at the end of the school year. A total of 25% graduated upon receiving their high school diploma while 3% returned to another high school and 1% was removed from the program.

**Figure 3.20: Student placement at end of year (n=158) 2007-08, Neelin Off-Campus Program**

Source: Brandon School Division, 2010

**Healthy Living**

According to the Public Health Agency of Canada, healthy living refers to the practices of a population that are consistent with supporting, improving, maintaining and/or enhancing health. At the individual level, it is the practice of living in healthy ways. Healthy living includes making healthy food choices, being physically active, not smoking and managing stressors in life. This section includes results from the Youth Health Survey on physical activity, healthy eating, tobacco use, and alcohol and drug use.

In June 2008, the Brandon Regional Health Authority, in partnership with Brandon and Rolling River School Divisions, conducted a census survey of students in grades six to 12. The purpose of the Youth Health Survey (YHS) is to provide RHAs and school divisions with current information on youth health, with emphasis on risks factors for chronic disease.

The Youth Health Survey (YHS) was originally developed by Interlake Regional Health Authority as a means to gather information on health behaviours among youth in their region. Building on the success of the Interlake RHA, every health authority in Manitoba committed to a similar process using the YHS tool. The YHS tool consisted of 51 multiple choice questions related to physical activity, nutrition, smoking, alcohol and drug use, and well-being. The survey was anonymous, confidential and participation was voluntary. A total of 24 schools in the Brandon region participated in this initiative. Ongoing surveillance activities are planned to determine changes in health behaviors among youth over time.

A total of 3,118 surveys were completed which represents 72% of the student population in grades six to 12. According to Figure 3.21, there is an equal distribution between boys and girls participating in the survey.
Physical activity

Overall, 67% of males and 57% of females participate in the recommended amount of physical activity. Figure 3.22 shows the proportion of students who self-report as inactive, moderately active or active by grade. There is a significant decrease in physical activity levels among students after grade nine.

Figure 3.22: Physical activity rate from Grade 6 to 12, Brandon RHA, 2008

According to Figure 3.23, approximately half (56%) of the students report the number of sports offered at school as ‘just right’, however 20% report that the number of sports offered ‘does not matter’.

A total of 3,118 students participated in the survey with equal representation of girls and boys.

Physical activity levels decrease significantly after grade nine.
Figure 3.23: Adequacy of number of sports offered at school, Brandon RHA, 2008

Source: Brandon RHA Youth Health Survey Report, 2008

Students were asked to identify the amount of total time spent reading or doing homework in the previous week. As shown in Figure 3.24, the majority of students spend less than one hour reading (51%) and less than one hour doing homework (50%). A total of 36% spend one to six hours reading while 41% spend the same amount of time doing homework. A small proportion of students reported spending seven or more hours reading (11%) and doing homework (8%).

Figure 3.24: Time spent reading and doing homework, Brandon RHA, 2008

Source: Brandon RHA Youth Health Survey Report, 2008

Healthy eating

Canada’s Food Guide recommends that females 14 to 18 years of age consume at least seven servings of fruits and vegetables daily and males in the same age grouping consume at least eight servings. According to Figure 3.25, consumption is similar between genders with both males and females in the Brandon region consuming well below the recommended intake of fruits and vegetables.
Figure 3.25: Number of daily servings of fruit and vegetable consumed, Brandon RHA, 2008

Students were asked to classify their body weight into one of three categories – underweight, healthy weight or overweight. Figure 3.26 shows that 57% of males and 54% of females select a healthy weight. A total of 18% of males and 11% of females classify their weight as underweight while 23% of males and 32% of females classify their weight as overweight.

Figure 3.26: Perception of body weight, Brandon RHA, 2008

Healthy body weight can be assessed using the body mass index (BMI) formula using height and weight measures. Students were asked, “How much do you weight without your shoes on?” and “How tall are you without your shoes on?” Results were calculated using the BMI-for-age, which is deemed appropriate for children and teens. Of the students with a valid BMI, 63% of males and 67% of females fall within the recommended healthy weight category for their age. A total of 20% of males and 22% of females fall within the underweight category while 17% of males and 10% of females are overweight.

It is interesting to note the difference between actual body weight and perception of body weight when compared to the previous chart – the proportion of males and females whose body weight falls within the healthy range are significantly higher than those who perceived their weight to be in the healthy range.
Tobacco use

The Canadian Tobacco Use Monitoring Survey (CTUMS) indicates that 15% of youth aged 15 to 19 years in Canada and 20% of youth aged 15 to 19 years in Manitoba were current smokers in 2007. Figure 3.28 illustrates the smoking status of students who completed the YHS in the Brandon region. A total of 5% of students in Grades six to eight are total smokers (occasional and daily combined) while 23% of students in Grades nine through 12 are total smokers. When broken down by grade, data shows that the smoking rate among students increases progressively from Grade six (2%) to Grade 12 (30%).

Figure 3.28: Students smoking status by grade, Brandon RHA, 2008

Source: Brandon RHA Youth Health Survey Report, 2008

Students were also asked about their access to cigarettes. Despite provincial legislation banning the sale of cigarettes to citizens less than 18 years, 29% of the students report personally buying cigarettes and another 27% answer ‘I get them from my friends’. A total of 15% answers ‘someone buys them for me’ while 3% said they get them from home. The most common places for youth to buy cigarettes are convenience stores, gas stations and friends. It is interesting to note that these are the retail settings where a significant proportion of youth are also employed.
**Alcohol and illegal drug use**

Figure 3.29 illustrates alcohol use among students. When asked, “During the past 30 days, on how many days did you have at least one drink of alcohol?”, 35% of students indicate they have consumed at least one drink of alcohol in the past 1 to 30 days while 63% have not consumed any alcohol during the same time frame.

**Figure 3.29: Alcohol use, Brandon RHA, 2008**

![Alcohol use by grade, Brandon RHA, 2008](image)

Source: Brandon RHA Youth Health Survey Report, 2008

Figure 3.30 shows alcohol use, between one and five days and six and 30 days, by grade. The most significant increase in alcohol use appears to be between Grade nine and 10.

**Figure 3.30: Alcohol use by grade, Brandon RHA, 2008**

![Alcohol use by grade, Brandon RHA, 2008](image)

Source: Brandon RHA Youth Health Survey Report, 2008

Figure 3.31 shows illegal drug use. For the purpose of the YHS, illegal drug use includes marijuana, cocaine, heroin, methamphetamines, ecstasy, steroid pills/shots or sniff glue. Students were asked how many times they had used illegal drugs in the past 30 days. The vast majority of students have not used illegal drugs within the time frame and results are similar between the sexes. A total of 7% of males and 9% of females report they have used illegal drugs between one and nine times while 6% of males and 4% of females have used illegal drugs 10 times or more in the previous 30 days.

The majority of students had not consumed any alcohol in the previous 30 days.

The vast majority of students had not used illegal drugs in the previous 30 days.
Figure 3.31: Illegal drug use, Brandon RHA, 2008

Source: Brandon RHA Youth Health Survey Report, 2008

As shown in Figure 3.32, the most significant increase in illegal drug use among students is between Grade nine and Grade 10. This finding is consistent with alcohol use among the same population.

Figure 3.32: Illegal drug use by grade, Brandon RHA, 2008

Source: Brandon RHA Youth Health Survey Report, 2008

Chronic Conditions

Asthma

Chronic conditions are not common in childhood, but asthma is the most frequent chronic condition in children. Asthma prevalence, as measured in Figure 3.33, is identified through diagnoses received during hospital visits or physician visits, or through asthma prescription medications. It is possible that children suffering from untreated asthma are not captured.

Prevalence of asthma in Brandon is similar to the province for both time periods at approximately 15% of children 5 to 19 years. At the district level, Brandon Central has a significantly higher prevalence of asthma for the first time period but decreases significantly over time to be similar to the province on the second time period.
**Figure 3.33: Asthma prevalence by RHA**

Age- and sex-adjusted percent of children aged 5-19 diagnosed with asthma

- BDN Rural
- BDN Southeast
- BDN West
- BDN Southwest
- BDN North End
- BDN East
- BDN Central (1,1)
- Brandon
- South Eastman (1,2)
- Central (1,2)
- Assiniboine (1,2)
- Winnipeg (1,2)
- Interlake
- North Eastman
- Parkland (1,2)
- Churchill
- Nor-Man (1,2,1)
- Burntwood (1,2)
- Manitoba

- 999/2000-2000/01
- 2004/05-2005/06
- MB Avg 999/2000-2000/01
- MB Avg 2004/05-2005/06

*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
*1 indicates change over time was statistically significant for that area
*2 indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2008

**Diabetes**

Diabetes is a chronic condition in which the pancreas no longer produces enough insulin (Type 1 diabetes) or when cells stop responding to the insulin that is produced (Type 2 diabetes), so that glucose in the blood cannot be absorbed into the cells of the body. Type 1 diabetes typically develops in childhood and adolescence, and is probably caused by a combination of genetic and environmental factors. Type 2 diabetes typically develops in adulthood and tends to be associated with diet, body weight and physical activity.

In Figure 3.34, diabetes prevalence is determined by using three years of hospital discharge, physician visit and prescription data. Children who had one or more hospital visits and/or two or more physician visits with a diabetes diagnosis and/or filled two or more prescriptions for a diabetes medication were counted as having diabetes. Because diabetes Type 1 and 2 cannot be distinguished on physician claims, the diabetes prevalence reported here is for both types combined.

The prevalence of diabetes for Brandon children 5 to 19 years is similar to that of Manitoba’s children. However, Manitoba’s rate increases significantly over time while Brandon’s rate remains stable. At the district level, several district’s data is suppressed due to small number of cases, making comparisons among districts unreliable.

Brandon’s rate of diabetes among children ages 5 to 19 remains stable while Manitoba’s rate increases significantly.
**Figure 3.34: Diabetes prevalence by RHA**

Age- and sex-adjusted percent of children aged 5-19 diagnosed with diabetes

<table>
<thead>
<tr>
<th>Age- and sex-adjusted percent of children aged 5-19 diagnosed with diabetes</th>
</tr>
</thead>
</table>

- BDN Rural (s)
- BDN Southeast (s)
- BDN West
- BDN Southw est (s)
- BDN North End (s)
- BDN East
- BDN Central Brandon
- South Eastman (1,2)
- Central Assiniboine
- Winnipeg (t)
- Interlake
- North Eastman (t)
- Parkland
- Churchill (s)
- Nor-Man
- Burntw ood (2,1)
- Manitoba (t)

* alternative diabetes definition: one hospitalization or 2 physician visits

| Source: Manitoba Centre for Health Policy, 2008 |

**Congenital anomalies**

Congenital anomalies refer to medical conditions or abnormalities that are present at birth. Congenital anomalies can be the result of genetic or environmental factors, or both, and often the cause is unknown. According to Figure 3.35, rates of congenital heart defects among infants under one year of age are similar to the province for 1996/97–2000/01 and 2001/02–2005/06.

**Figure 3.35: Congenital heart defects rates**

Sex-adjusted rates per 1,000 infants aged <1 year

- South Eastman
- Central
- Assiniboine
- Brandon
- Winnipeg
- Interlake
- North Eastman (t)
- Parkland
- Churchill (s)
- Nor-Man
- Burntw ood (1,2)
- Manitoba

* indicates area’s rate was statistically different from Manitoba average in first time period
** indicates area’s rate was statistically different from Manitoba average in second time period
† indicates change over time was statistically significant for that area
’ indicates data suppressed due to small numbers

| Source: Manitoba Centre for Health Policy, 2008 |
Use of Health Services

Use of health services is important to monitor to ensure appropriate program development and allocation of resources. This section includes information about physician visits, use of prescription medications including antibiotics, anti-inflammatories and narcotics, Emergency Room visits, Same Day Care visits and hospitalizations.

Physician visits

Physician visits include all contacts with physicians through office visits, walk-in clinic visits, visits to outpatient departments, some emergency room visits and in northern/remote nursing stations if applicable. This indicator accounts for visits to General Practitioners, Paediatricians and other practitioners including Psychiatrists, Obstetricians and Gynaecologists, Medical Specialists, General Surgeons, Surgical Specialists and Technical Specialists.

According to Figure 3.36, the physician visit rate among children in the Brandon region age 0 to 19 is higher than the Manitoba average for 2005/06.

Figure 3.36: Physician visit rates by RHA

Source: Manitoba Centre for Health Policy, 2008
Continuity of care examines the percentage of residents who receive more than 50% of their ambulatory visits from the same physician in a two-year period. According to Figure 3.37, the adjusted proportion of children aged 0 to 19 years with at least 50% of visits to the same physician is significantly lower than the province overall for both 1999/2000–2000/01 and 2004/05–2005/06. The continuity of care rate for children is also significantly decreasing over time.

**Figure 3.37: Continuity of care rates by RHA**

There is a significant increase in antibiotic use among children living in Brandon Central.

**Use of prescription medications**

The information about use of prescription medications comes from the Drug Programs Information Network (DPIN) database. Any medications that are purchased without a prescription (over the counter medications) will not be captured in the data, as well as medications provided to patients through physician samples. In this section, data about antibiotic, anti-inflammatory and narcotic medications use will be reviewed. Prescription medications related to mental health conditions will be reviewed under the Mental Health section of this chapter.

According to Figure 3.38, the average rate of antibiotic prescriptions for children age 0 to 19 is significantly higher in the Brandon region for 2005/06 when compared to 2000/01. At the district level, there is a significant increase in antibiotic use among children living in Brandon Central between the two time periods.
Figure 3.38: Number of antibiotic prescriptions per user

Non-steroidal anti-inflammatory drugs (NSAID) are medications that are used to reduce pain, inflammation and fever. Figure 3.39 shows the rates of children 0 to 19 years with at least one prescription for an NSAID for two, one-year time periods. Overall, rates for Brandon were similar to the province for both 2000/01 and 2005/06. Differences were noted at the district level however. The proportion of children in Brandon Rural was significantly lower than the province in the second time period and significantly higher in Brandon Central during the first time period.

Figure 3.39: Rate of children with at least one NSAID prescription

The proportion of children in Brandon Rural with at least one NSAID prescription is significantly lower than the province.
Narcotic analgesic medications are used to control or relieve pain. The rates of Brandon children with one or more prescriptions for narcotic analgesic for 2000/01 and 2005/06 are similar to the province overall. Although the rates are different between districts, there are no statistically significant differences between Brandon RHA districts and the province for the two time periods.

**Figure 3.40: Rate of children with at least one narcotic analgesic prescription**

Children ages 0-19 in the Brandon region account for approximately 22% of ER visits in 2008/09.

**Emergency Room**

The Emergency Room is an essential service within every health care system. It is an area in an institution that is staffed and equipped to provide rapid and varied emergency care, especially for those who experience sudden and acute illness or who are the victims of severe trauma. The emergency department at the Brandon Regional Health Centre uses a triage system of screening and classifying clients to determine priority needs for the most efficient use of available personnel and equipment.

Children age 0 to 19 account for approximately 22% of visits to the Emergency Room at the Brandon Regional Health Centre in 2008/09.

Figure 3.41 illustrates the top five reasons for children age 0 to 19 to access the Emergency Room at the Brandon Regional Health Centre. The primary reason for children to present for care is trauma, coma and toxic effects (36%) followed by diseases and disorders of the digestive system (14%), ear, nose, mouth and throat (13%), respiratory system (9%) and skin, subcutaneous tissue and breast (8%).

Source: Manitoba Centre for Health Policy, 2008
As shown in Figure 3.42, the majority of children (92%) are discharged home after a visit to ER. It is important to note that ER utilization data was collected as part of the community health assessment process; it is not readily available because the technological infrastructure is not in place. This is a significant gap in terms of evidence-informed practice because health planning is traditionally based on hospitalization and/or mortality data yet the vast majority of outpatients are discharged home.

Source: Brandon RHA ER Chart Review, 2009
Same Day Care

Same Day Care visits are those where patients are admitted and discharged home the same day. Same Day Care involves a wide range of procedures such as laparoscopic cholecystectomy, hernia repairs, excisions and scopes.

As shown in Figure 3.43, the number of visits to the department is relatively consistent over four reporting periods.

Figure 3.43: Same Day Care visits- Brandon Regional Health Centre, ages 0 to 19

![Same Day Care visits chart](chart)

Source: Brandon Regional Health Centre, Health Records Department, CIHI Portal

Table 3.44 shows the top six reasons for Same Day Care visits for children aged 0 to 19 years for two reporting periods: 2005/07 and 2007/09. In 2005/07, the primary reason for children to present for care is dental intervention (19%), followed by circumcision (18%), termination of pregnancy (17%), diagnostic endoscopy gastrointestinal tract – biopsy and function (7%), knee procedures (4%) and hernia intervention (3%). This same trend is not observed in 2007/09 however. Although the top six reasons remained the same, there is a significant increase in the demand for circumcision. Therefore the primary reason for care in the second reporting period is circumcision (30%), followed by dental intervention (20%), diagnostic endoscopy gastrointestinal tract – biopsy and function (7%), and termination of pregnancy (7%), hernia intervention (2%) and knee procedures (1%).
### Table 3.44: Reasons for Same Day Care visits- Brandon Regional Health Centre, ages 0 to 19

<table>
<thead>
<tr>
<th>Day Procedure Groups</th>
<th>2005/07</th>
<th>2007/09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Dental Intervention</td>
<td>1</td>
<td>19%</td>
</tr>
<tr>
<td>Circumcision</td>
<td>2</td>
<td>18%</td>
</tr>
<tr>
<td>Termination of Pregnancy</td>
<td>3</td>
<td>17%</td>
</tr>
<tr>
<td>Diagnostic Endoscopy</td>
<td>4</td>
<td>7%</td>
</tr>
<tr>
<td>Gastrointestinal Tract - Biopsy/Function Study</td>
<td>5</td>
<td>4%</td>
</tr>
<tr>
<td>Knee Procedures</td>
<td>6</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, CIHI Portal

### Hospitalizations

Hospital utilization is measured by hospital episode rates. If a child is hospitalized in one hospital and transferred to a different hospital, it is counted as one episode. A hospital episode is attributed to the region in which the child lives, regardless of where the child was hospitalized.

According to Figure 3.45, the hospitalization rate for children age 0 to 19 in the Brandon region is significantly decreasing over time. At the district level, the hospital episode rate for Brandon East is significantly higher than the province in the first time period (2000/01) and rates for Brandon West and Brandon East are decreasing over time. The decrease is statistically significant.

**Figure 3.45: Hospital episode rates**

Source: Manitoba Centre for Health Policy, 2008
Figure 3.46 shows the number of hospital visits for children ages 0 to 19 living in the Brandon region. The number of visits has remained stable between 2005/06 and 2008/09.

**Figure 3.46: Hospital visits for children ages 0 to 19 by fiscal year**

![Bar chart showing hospital visits for children ages 0 to 19 by fiscal year.](image)

Source: Brandon Regional Health Centre, Health Records Department, CIHI Portal

Table 3.47 depicts the top five reasons for hospital visits by children aged 0 to 19 years by four fiscal years, which have been collapsed into two reporting periods. The reasons for visits are ranked one through five based on percentage of visits by major clinical category. The ranking is consistent between reporting periods with newborns and neonates with conditions originating in the perinatal period as number one, followed by diseases and disorders of the respiratory system, diseases and disorders of the digestive system, pregnancy and childbirth and significant trauma, injury, poisoning and toxic effects of drugs respectively.

**Table 3.47: Reasons for hospital visits, ages 0 to 19**

<table>
<thead>
<tr>
<th>Major Clinical Category</th>
<th>2005/07</th>
<th>2007/09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Newborns and Neonates with Conditions Originating in Perinatal Period</td>
<td>1</td>
<td>63%</td>
</tr>
<tr>
<td>Diseases and Disorders of Respiratory System</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Diseases and Disorders of Digestive System</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>Pregnancy and Childbirth</td>
<td>4</td>
<td>6%</td>
</tr>
<tr>
<td>Significant Trauma, Injury, Poisoning and Toxic Effects of Drugs</td>
<td>5</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database
The presence of decay in the primary teeth in children less than six years old can often progress to more rampant disease processes called severe early childhood caries. Poor oral health affects a child’s ability to speak and eat properly and can lead to poorer overall health as an adult.

Figure 3.48 illustrates the extent of severe early childhood tooth decay by examining the rates of pediatric dental extractions performed in a hospital under general anesthesia. Rates for children aged 0 to 5 years in the Brandon region are significantly lower than Manitoba overall for the 1996/97–2000/01 and 2001/02–2005/06 reporting periods. At the district level, all districts are similar to the province with the exception of Brandon West, which is much lower than the province in both time periods, and Brandon Southwest which is significantly lower than the province in the second time period. It is important to note however that these data reflect hospital-based services only; they do not reflect procedures performed in dentists’ offices so the rates reported here may underestimate the extent of severe early childhood tooth decay.

**Figure 3.48: Hospital-based dental extractions rates by RHA**

Adjusted rates per 1,000 children aged 0-5 years

Source: Manitoba Centre for Health Policy, 2008

Figure 3.49 illustrates rates of tonsillectomy and adenoidectomy for children aged 0 to 14 years for two different five-year time periods: 1996/97–2000/01 and 2001/02–2005/06. Overall, the Brandon region is significantly higher than Manitoba for both time periods. Brandon East is higher than the province for the first time period but is similar to Manitoba in the second time period. Brandon North End exceeds the province in the first time period and shows a significant decrease over time. Brandon West, on the other hand, is significantly higher than the province in the second time period and is increasing significantly over time.
Figure 3.49: Tonsillectomy and adenoidectomy rates by RHA

Age- and sex-adjusted rates per 1,000 children aged 0-14

Tonsillectomy & Adenoidectomy rates for children in Brandon West are significantly increasing over time whereas rates for Brandon North End are decreasing.

Source: Manitoba Centre for Health Policy, 2008

Sexual Health

Healthy sexual practices are a critical component of health sexuality. Knowledge about preventing unplanned pregnancy and sexually transmitted infections is essential to ensure effective personal health practices are in place. This section includes information about rates of condom and birth control pill use, average age of first sexual intercourse, cervical screening and sexually transmitted infection rates, teen pregnancy, age at first pregnancy and teen births.

Information on adolescent sexual activity in the next three figures comes from two cycles of the Canadian Community Health Survey (CCHS). Respondents aged 15 to 19 years were asked if they had ever had sexual intercourse. If they responded yes to this question, they were also asked about condom use, birth control pill use and their age at first sexual intercourse.

Figure 3.50 shows condom use by adolescents ages 15 to 19 who reported condom use during last sexual activity by RHA. Condom use is lower in the Brandon region at 69% than the provincial average at 75%.
Figure 3.50: Condom use by RHA, ages 15 to 19, 2003 and 2005

Sex-adjusted percent of sexually active sample from the CCHS 2.1 & 3.1 cycles combined (2003 & 2005)
Adolescents ages 15-19 years who reported condom use during last sexual activity

As shown in Figure 3.51, birth control pill use by adolescents’ ages 15 to 19 is lower in the Brandon region than the province at 69% compared to almost 80%.

Figure 3.51: Reported birth control use by RHA, ages 15 to 19, 2003 and 2005

Crude percent of sexually active females from the CCHS 2.1 & 3.1 cycles combined (2003 & 2005)
Females aged 15-19 who reported birth control pill use

Source: Manitoba Centre for Health Policy, 2008
According to Figure 3.52, the average age of first sexual intercourse by adolescents 15 to 19 years in the Brandon region is 16 years which is similar to the province overall.

**Figure 3.52: Average age of first sexual intercourse by RHA, ages 15 to 19, 2003 and 2005**

Sex-adjusted average age of sample from the CCHS 2.1 & 3.1 cycles combined (2003 & 2005)

- **South Eastman Central**
- **Assiniboine**
- **Brandon**
- **Winnipeg**
- **Interlake**
- **North Eastman Parkland**
- **Churchill (s)**
- **Nor-Man * Burntwood *”**
- **South Mid**
- **North * Manitoba**

**Source:** Manitoba Centre for Health Policy, 2008

Early sexual activity is believed to increase the risk of cervical cancer because cervical tissue undergoes many changes during puberty that might make the area more vulnerable to damage. Multiple sexual partners or becoming sexually active at an early age are also known risk factors for cervical cancer. Using barrier-type protection such as condoms reduces the risk of sexually transmitted infections such as HPV. Some strains of HPV are known to cause cervical cancer.

According to Figure 3.53, Brandon has a higher rate of Cervical Screening than the province overall. This trend is consistent across all districts with Brandon Southeast having the highest rate, closely followed by Brandon Central. The lowest rate of Cervical screening among adolescents is in Brandon Rural.
Figure 3.53: Cervical screening rates, ages 15 to 19, 2006-2009

Brandon region has the second highest rate of cervical screening among adolescents in the province.

According to Manitoba Health, Manitoba has the highest rate of chlamydia and gonorrhea among 15 to 24 year olds of all provinces in Canada.

Figure 3.54 shows the number of positive tests for Chlamydia and Gonorrhea for different age groups from 2005 to 2009. Very few positive tests are reported among children 0 to 14 years old. Children 15 to 19 years show an increase in the number of positive tests from approximately 50 in 2005 to approximately 150 in 2008. During 2009, the number of positive tests for this age group decreased to 111.

Figure 3.54: Number of positive tests for Chlamydia and Gonorrhea, age breakdown

There is an increase in the volume of cases of chlamydia and gonorrhea among youth.


Brandon RHA, 2009 Community Health Assessment – Children and Youth
The teen pregnancy rate is calculated using hospital records by taking the ratio of live and stillbirths, abortions and ectopic pregnancies for females aged 15 to 19 years to the total female population of the same age. Rates are shown for two time periods: 1996/97–2000/01 and 2001/02–2005/06. According to Figure 3.55, Brandon is significantly lower than province overall in the first time period and is similar to Manitoba in the second time period. Variations are noted at the district level. Brandon Rural follows the same trend as the region as it is significantly lower than the province in the first time period and is similar to the province in the second time period; Brandon West is lower than the province in both reporting periods whereas Brandon Central is higher than the province in the same time periods.

**Figure 3.55: Teen pregnancy rate of women, ages 15 to 19**

![Crude rates per 1,000 females graph]

1’ indicates area’s rate was statistically different from Manitoba average in first time period
2’ indicates area’s rate was statistically different from Manitoba average in second time period
3’ indicates change over time was statistically significant for that area
4’ indicates data is suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2008

Figure 3.56 illustrates the age of first pregnancy their first pregnancy, by RHA from 2001/02 to 2003/04. A lower proportion of women in the Brandon region (19%) are less than 18 years of age at the time of their first pregnancy when compared to Manitoba (24%). The most common age for first pregnancy among Brandon women is from 18 to 21 years old, followed by 22 to 29 years old.
Figure 3.56: Age at first pregnancy - Manitoba women, 2001/02 to 2003/04

The teen birth rate is calculated using the hospital data by taking the ratio of live births to females aged 15 to 19 years to the total female population of the same age. The teen birth rate for Brandon women is similar to the province overall, but while the provincial rate is decreasing significantly over time, Brandon’s teen birth rate remains stable. For the first time period (1996/97 to 2000/01), three districts have rates much lower than the province: Brandon Rural, Brandon West and Brandon Southwest; Brandon Central, on the other hand, has a teen birth rate significantly higher than the provincial rate. For the second time period (2001/02 to 2005/06), only two districts show rates different than Manitoba: Brandon West is significantly lower and Brandon Central is significantly higher.

Figure 3.57: Teen birth rate of women, ages 15 to 19

The teen birth rate for Brandon West is significantly lower than the province while Brandon Central is significantly higher than the province.

Source: Women’s Health Profile, 2008

Source: Manitoba Centre for Health Policy, 2008
Injury

Injuries are the most common cause of death in children ages 1 to 19 years, comprising about half of all deaths in children 1 to 4 years of age and almost three-quarters of the deaths in adolescents 15 to 19 years. They are also one of the most common reasons for children being hospitalized.

Injury data has been collected consistently over the past decade from hospital databases and mortality statistics, however, in the province of Manitoba, data from Emergency Room visits is not available from administrative databases.

Recognizing that injury is one of the primary causes of visits to Emergency Room, a chart review was conducted at the Brandon Regional Health Centre on randomly selected charts from the fiscal year 2008/09.

Findings from the Brandon RHA ER Chart review done in 2009 show that during the fiscal year 2008/2009, 26% of injury related ER visits are for children 0 to 19 years old. Males account for 51% of the visits and females for 49% of them.

The most common injuries for children presenting to ER are:

- open wounds without complications (lacerations)
- sprains of ankle and wrist
- closed fractures and dislocations of extremities
- other injuries (knee injuries and soft tissue injuries), and
- head injuries

Figure 3.58 shows the breakdown of external causes of injury for children 0 to 19 years old found on the ER chart review. The top five causes of injury are accidental falls, other accidents, sport related injuries, transport accidents and contact with animals (e.g. dog bite).

**Figure 3.58: External causes of injury visits to children, 2008/09**

Accidental falls account for the majority of external causes of injury to children.

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Source: Brandon RHA ER Chart Review, 2009
The majority of injury cases are discharged home after a visit to the emergency room. Only 2% of ER injury cases for 0-19 years old are admitted to hospital.

Injury hospitalization rates for children 0 to 19 are presented in Figure 3.59 for two time periods: 1996/97 to 2000/01 and 2001/02 to 2005/06. The injury hospitalization rate for Brandon children remains stable over time while the rate for Manitoba children and several other RHAs is decreasing significantly over the same time periods. At the district level, all districts within the Brandon region are similar to the province overall with the exception of Brandon Central, which has a significantly higher rate of injury hospitalizations among children for the second time period.

**Figure 3.59: Injury hospitalization rates for children, ages 0 to 19**

Table 3.60 shows the top five causes for injury-related hospitalization among children, ages 0 to 19 in the Brandon region by two, two-year reporting periods. The top two reasons for both reporting periods are accidental falls and other accidents respectively. There is a slight variation in ranking order of transport accidents and intentional self-harm between the two time periods and accidental poisoning remains the fifth most common cause for both reporting periods.

Source: Manitoba Centre for Health Policy, 2008
Table 3.60: Causes for injury hospitalization among children ages 0 to 19, 2005/07 and 2007/09

<table>
<thead>
<tr>
<th>Cause of Injury</th>
<th>2005/07</th>
<th>2007/09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Accidental Falls</td>
<td>1</td>
<td>43%</td>
</tr>
<tr>
<td>Other Accidents</td>
<td>2</td>
<td>15%</td>
</tr>
<tr>
<td>Intentional Self-Harm</td>
<td>3</td>
<td>14%</td>
</tr>
<tr>
<td>Transport Accidents</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>Accidental Poisoning</td>
<td>5</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database

Figure 3.61 shows the injury mortality rates for children 0 to 19 years by RHA. Rates for the Brandon region are similar to the provincial average for both 1996–2000 and 2001–2005 reporting periods.

**Figure 3.61: Injury mortality rates by RHA**

![Graph showing injury mortality rates by RHA]

Source: Manitoba Centre for Health Policy, 2008

Although injury deaths can be divided in unintentional injury deaths and intentional injury deaths, data for this age group is not available. Suicide deaths during the time period for this age group (2003-2007) is suppressed due to small numbers.

Suicide deaths are suppressed due to small numbers.
Mental Health

Prevalence of mental illnesses is not reported separately for children. For this reason, all of the data related to prevalence of mental illness will be reported on Chapter 4 Adults under the mental health section.

The Youth Health Survey included a few questions about well-being, school connectedness, athletic ability and school work. Athletic ability and school work are used as proxy measures for how students feel about themselves.

As shown in Table 3.62, students were asked to agree/strongly agree or disagree/strongly disagree with four statements about their school. Overall, the majority of students report a positive connection with their school, however, 16% of the respondents do not feel part of their school and 14% do not feel safe.

Table 3.62: School connectedness, Grades 6 to 12, Brandon RHA, 2008

| How strongly do you agree or disagree with the following statements? | Percentage of Students Responding |
|---|---|---|
| | Agree/ Strongly Agree | Disagree/ Strongly Disagree |
| I feel close to people at this school | 79% | 18% |
| I feel I am part of this school | 81% | 16% |
| I am happy to be at this school | 78% | 18% |
| I feel safe in my school | 82% | 14% |

Source: Brandon RHA Youth Health Survey Report, 2008

According to Figure 3.63, the majority of students (74%) report their athletic ability as ‘excellent’ or ‘good’ while 23% report it as ‘fair’ or ‘poor’.

Figure 3.63: Athletic ability

While the majority of students report a positive connection with their school, 16% do not feel part of their school and 14% do not feel safe.
A total of 88% of respondents report their school work as ‘above average’ or ‘average’ while 10% answer ‘below average’.

Figure 3.64: School work

![Bar chart showing school work satisfaction]

Source: Brandon RHA Youth Health Survey Report, 2008

Figure 3.65 shows the students’ responses to the question, “During the past 12 months, did you ever feel so sad or hopeless that you stopped doing some usual activities for a while?” Although the majority of students reply “no” to this question, 34% acknowledge such feelings of hopelessness.

Figure 3.65: Feelings of hopelessness

![Pie chart showing feelings of hopelessness]

Source: Brandon RHA Youth Health Survey Report, 2008

Use of antidepressant medications has increased substantially in Canada since the early 1990s, and research suggests that these medications are often used to treat conditions other than depression.

As seen in Figure 3.66, antidepressant use among children ages 0 to 19 in the Brandon region is much higher than the province for both time periods. Rates for the second time period (2005/06) are significantly higher than the province in Brandon North End, Brandon East and Brandon Central.
Selective Serotonin Reuptake Inhibitors (SSRIs) are a newer generation of antidepressant medications that also have an anti-anxiety effect. According to Figure 3.67, Brandon has a significantly higher rate of youth with at least one SSRI prescription in the second time period (20.4/1000) when compared to the provincial average. The only variation noted at the district level is the significant increase over time in Brandon Southwest.
Anxiolytic medications are used to treat anxiety disorders and associated symptoms, which are among the most common psychological conditions in childhood. Figure 3.68 shows the proportion of children age 0 to 19 with at least one Anxiolytic prescription in two, one-year periods. There is a statistically significant increase in the proportion of children with at least one prescription between 2000/01 and 2005/06.

Figure 3.68: Rate of children with at least one anxiolytic prescription by RHA

Age- and sex-adjusted rates per 1,000 children aged 0-19

Source: Manitoba Centre for Health Policy, 2008

Antipsychotic medications have traditionally been used to treat children with psychoses or Tourette syndrome. In some cases, these medications may also be used to reduce aggressive behaviours and self-injury that can be associated with autism and mental retardation. Figure 3.69 shows the proportion of children with at least one prescription for an antipsychotic medication in two, one-year time periods. The rate for Brandon is significantly higher in the second time period and the increase in the region over time is statistically significant.

At the district level, Brandon West, Brandon Southwest and Brandon North End are similar to the province. Brandon East and Brandon Central increase significantly over the two reporting periods and the rates for these two districts are significantly higher than the province for 2005/06. Brandon Rural and Brandon Southeast have been suppressed due to small numbers.
Figure 3.69: Rate of children with at least one antipsychotic prescription by RHA

Age- and sex-adjusted rates per 1000 children aged 0-19

Source: Manitoba Centre for Health Policy, 2008

Psychostimulant medications are used to treat Attention-Deficit/Hyperactivity Disorder (ADHD) in children.

Figure 3.70 shows the rates per 1,000 children ages 5 to 19 with at least one psychostimulant prescription in two, one-year time periods – 2000/01 and 2005/06. The rates for children in the Brandon region is significantly higher the province for both time periods and is increasing over time.

At the district level, rates for children living in Brandon East and Brandon Central are much higher than the province for both time periods and there is a significant increase in Brandon Rural, Brandon East and Brandon Central over time.
Figure 3.70: Rate of children with at least one psychostimulant prescription by RHA

Age- and sex-adjusted rates per 1,000 children aged 5-19

Source: Manitoba Centre for Health Policy, 2008

The overall increase in psychiatric medication use among children and youth in the Brandon region is astounding. Investigation into potential reasons for this trend uncovered a multitude of personal, familial and societal factors.

At a personal level, many children and youth are facing stressful life experiences that are often overwhelming. There are cultural and economic tensions within school settings and social networks that are new to children and youth in Brandon. Many children are involved in a host of activities that keep them very busy and, at times, sleep-deprived.

Lifestyles have become more complex and there might be fewer social supports available to help manage stressors. Family disintegration through separation and/or divorce is an emotional stressor and may lead to custody issues. Many children spend a significant amount of time alone when both parents are working.

At a societal level, the world is broader with instant communication so major issues seem very personal. Children and youth who are sensitized to the challenges and disasters in the world may have the tendency to catastrophize more readily, creating unmanageable levels of anxiety.

And finally, there is a societal move towards medications as the preferred course of treatment for many conditions.


**Child and Adolescent Treatment Centre**

The Child & Adolescent Treatment Centre (CATC) provides mental health programs and services to children, adolescents and their families. CATC has five primary program component services: Community Services, Crisis Stabilization Unit (CSU), Day Program, Education, and Early Intervention Service (EIS).

Figure 3.71 shows admission rates by RHA over three reporting periods: 2006/07, 2007/08 and 2008/09. For the three time periods shown, the majority of clients are from the Brandon RHA, followed by Assiniboine and Parkland RHAs. Few clients live in Central and other RHAs.

**Figure 3.71: CATC admission rate by RHA from 2006 to 2009**

![Bar chart showing CATC admission rate by RHA from 2006 to 2009]

Source: Brandon RHA, CATC Annual Report, 2009

In November 2005, CATC was no longer able to ensure 24-hour psychiatry coverage. As a result, the Centre did not have Mental Health Admission Status under the Mental Health Act. The decision was made to operate under a new model of service delivery, which became the Crisis Stabilization Unit. Because of the success of the new service delivery model, the Crisis Stabilization Unit has remained to present day, even with having recruited Psychiatrists to the program.

Figure 3.72 shows the number of admissions to the Inpatient Unit from 1999/00 to 2004/05 and admissions to the Crisis Stabilization Unit from 2005/06 to 2008/09. Since 2005, the number of admissions per year to the CSU has increased steadily.
The largest proportion of CATC clients present with suicidal ideation (32%), followed by anger/hostility (23%), self-harming (17%), depression (11%), impulsivity (10%) and psychosis (7%).

**Figure 3.73: Trends of presenting concerns, CATC, 2008/2009**

Suicidal ideation is the primary reason for youth to access CATC, followed by anger/hostility.
Mortality

Infant mortality is calculated by taking the number of infants born alive during a specific reporting period and dying before their first birthday over all infants born alive during the same time frame. According to Figure 3.74, the infant mortality rate for the Brandon region is similar to Manitoba for both reporting periods.

Figure 3.74: Infant mortality rates by RHA

![Chart showing infant mortality rates by RHA](chart_url)

Brandon’s infant and child mortality rates are similar to the province overall.

Source: Manitoba Centre for Health Policy, 2008

Child mortality is calculated by taking the number of deaths of children aged 1 to 19 years per 100,000 children in the same age group for two, five-year periods: 1996-2000 and 2001-2005. Figure 3.75 shows child mortality rates by RHA. Brandon is similar to the province overall for both reporting periods.

Figure 3.75: Child mortality rates by RHA

![Chart showing child mortality rates by RHA](chart_url)

Source: Manitoba Centre for Health Policy, 2008
New Programs and Services

Dental Checkup for Children
The Manitoba Dental Association is offering a new program beginning April 1, 2010. The Association is covering the cost of a dental checkup for every child in Manitoba under the age of three. The intent of the program is to intercept the onset of dental disease and to teach parents or primary caregivers how to help their kids take care of their teeth. This checkup is available to all children in Manitoba regardless of income. The program is voluntary and there are approximately 250 dentists currently participating throughout the province. The program is slated to continue until March 31, 2013.

Balanced School Day
In September 2008, the Alexander School, an innovative kindergarten to Grade 8 school in a small community, was the first school to launch a new approach to learning. The Balanced School Day model is a pilot project of the Brandon School Division. The intent of this approach is to organize instruction time into larger blocks interspersed with regular nutrition and physical activity breaks at key times of day. There is a significant focus on healthy eating habits and lifelong physical education activities to help sustain healthy lifestyle practices and increase students’ educational success.

The school day begins at 8:45 a.m. and students receive 100 minutes of uninterrupted learning time. Students then have a 15-minute nutrition break followed by a 15-minute activity break. There are another 100 minutes of uninterrupted learning time followed by and hour for nutrition and activity and another 100 minutes of learning time. The longer instruction time and two transition times support children to stay focused on their tasks.

Gardasil Immunization
A new immunization program targeting the Human Papillomavirus (HPV) was initiated in the fall of 2008. HPV is a common sexually transmitted virus that has been linked with cervical cancer in later life. An HPV vaccine, Gardasil was approved for use in Canada in 2006. The vaccine provides protection against four types of HPV: HPV 6, 11, 16 and 18. HPV 6 and 11 cause 90% of all genital warts while HPV 16 and 18 causes over 70% of all cervical cancers. (CancerCare Manitoba, 2008).

The vaccine has been approved for use in females between the ages of 9 and 26 years. The National Advisory Committee on Immunization recommends the use of Gardasil for females between 9 and 13 years before they start having sexual contact and for females between 14 and 26 years who are already sexually active, have already been exposed to HPV or have already had an abnormal Pap test result.

The HPV vaccine is free of charge for grade six girls through the provincial HPV Immunization Program and involves a series of three immunizations over the school year. Brandon RHA, Public Health Services initiated this new immunization program at the beginning of the 2008/09 school year.
Teen Health Clinic

With funding from Manitoba Health, the Brandon RHA, Public Health Services launched a mobile Teen Health Clinic in the spring of 2009. The clinic is offered once a month at each of the four high schools; Crocus Plains Regional Secondary School, Elton Collegiate, Neelin High School and Vincent Massey School, which are all within the Brandon region. The intent of this initiative is to offer a safe, confidential and accessible place for youth to engage in their health care needs. A team of professionals including a Public Health Nurse, physician, Community Mental Health Worker and an Addictions Counselor, promote healthy lifestyle choices, and deliver primary care services and support through counseling. An average of 22 students per month have attended the clinics, most often seeking support related to sexual and mental health issues.

Crocus Plains Early Learning Centre

The Crocus Plains Regional Secondary School held an official ribbon cutting ceremony on October 22, 2007 to honour a newly established Early Learning Centre. The goal of the Centre is to provide the necessary supports for pregnant and/or parenting teens to finish their high school education. This is the first of its kind in Brandon and it is the result of a strong partnership between the Brandon RHA, Brandon School Division, Child & Family Services of Western Manitoba. Additional funding support also came from the provincial government and the Rotary Foundation. The Centre is licensed according to provincial legislation and provides childcare for up to eight infants while the mothers participate in an individualized education program, which includes parenting courses, and allows time for mothers and babies to bond.

School Resource Officer Program

In September 2005, the Brandon School Division, in partnership with Brandon Police Service, launched a new program called School Resource Officer Program. The intent of this program is to foster positive relationships between police officers and youth that will hopefully extend into adulthood. While there is a well-defined enforcement role within the context of the school community, the presence of specialized officers in the school setting has created a significant cultural shift toward viewing police officers as a supportive resource both within the school and in the larger, external community. There is currently an officer working across all three high schools in Brandon as well as parallel, additional support assigned to the Kindergarten to Grade 8 schools in the Brandon School Division.

Y South Early Learning Centre

In November 2009, the YMCA opened a new Early Learning Centre in partnership with the Brandon Regional Health Authority. Located in the southeast corner of 1st Street and Richmond Avenue, the Centre boasts a large spacious learning area offering the Playing to Learn curriculum and a large indoor play area within close proximity to the new neighbourhood Kin Park. Up to 21 child care spaces are available to RHA employees on a preferential basis.
**Fetal Alcohol Spectrum Disorder (FASD) Services**

Since January 2010, Western Manitoba parents of children with Fetal Alcohol Spectrum Disorder (FASD) will benefit from the services of an FASD Coordinator who is based in Brandon and working from the 7th Street Health Access Centre.

**Project Hero**

Project hero is a national program that provides university and college scholarships to the children of fallen soldiers. Brandon University (BU) and Assiniboine Community College (ACC) have recently signed on to this initiative and a full tuition scholarship known as the Afghanistan Mission Memorial Awards is now available at BU. Tuition is provided for full or part-time students in their undergraduate degree program. To be eligible, a student must have had a parent or legal guardian die while employed by the Canadian Forces in either active duty in Afghanistan or in preparation to serve as part of the mission. BU’s award also extends to children of members of the diplomatic corps who lost their lives in the cause. Eligible students must have also graduated from high school and begun their first year of study prior to age 21.

**Crisis Stabilization Unit Policy Amendment**

A recent change to a policy with the Crisis Stabilization Unit (CSU) allows parents of adolescents age 15 and younger (to a minimum of 10 years of age) to provide consent for treatment regardless of the agreement of the adolescent or child. The previous crisis model of service delivery required agreement of the client to admission, including clear goal setting and contracting for safety. Experience showed that too frequently clients who would benefit from assessment and treatment on the CSU were opposed to receiving service and lacked the necessary judgment and objectivity to make this important decision while in crisis. Therefore, the policy was amended. Clients age 16 or older provide consent under the Mental Health Act, which remains the governing legislation at CATC.

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**So, what does this mean?**

- Volume of births in the region peaked in 2006/07 and since levelled off, which is consistent with immigration trends
- The majority of children live in the West end (Brandon West and Brandon Southwest) followed by Brandon Central; the fewest live in Brandon Southeast
- Immunization rates decrease as children get older
- The Brandon region has the second highest number of licensed childcare space in the province
- Brandon’s Food For Thought program is operating in 15 schools
The percentage of children in the Brandon region who are in foster care is increasing significantly over time.

Vision and dental concerns account for the majority of follow up assessments from the Milestones Wellness Fair.

School readiness is adversely affected by children’s mastery of electronic devices rather than manual skills such as using scissors.

The most common health plans in schools are for asthma and anaphylaxis.

The proportion of children diagnosed with ADHD and Autism is increasing.

The proportion of students who have completed high school within the expected time frame is increasing significantly over time.

There is a significant decrease in physical activity level after Grade 9.

The majority of Grade 6 to 12 students spend less than one hour reading and doing homework per week.

There is a difference between Grade 6 to 12 students perception of their body weight in comparison to actual weights.

Smoking rates among students progressively increase from Grade 6 to 12.

The majority of students have not consumed alcohol or illegal drugs in the past 30 days.

Rates of asthma in the Brandon region are similar to the province with a significant decrease in Brandon Central.

Injury is the most common reason for ER visits.

There has been a marked increase in the demand for circumcisions.

Condom and birth control pill use is lower among youth in the Brandon region than the province.

Brandon has the second highest rate of cervical screening among adolescents in the province.

Brandon’s teen pregnancy rate is similar to Manitoba overall.

Children account for 26% of injury-related ER visits for 2008/09 and accidental falls account for the majority of injuries among children.

A total of 34% of students Grade 6 to 12 reported they felt so sad or hopeless in the past 12 months that they stopped doing some usual activities for a while.

There is high use of SSRI, antidepressant and anxiolytic medications among children in the Brandon region.
- Suicidal ideation is the most common reason for seeking help at the Child & Adolescent Treatment Centre
- Infant and child mortality rates for the Brandon region are the same as the province
- There are several new programs and services to support child and youth health in the region
Chapter 4
Adults in our Community

When we think about the health of adults, we often think about them in terms of the roles they assume in society. Where they live and work, what they do for recreation and who they care for are important factors in their overall health status. This chapter provides a broad range of information about residents in the Brandon region who are between 20 and 64 years. Most often, data is broken down by two age groupings: 20 to 44 years and 45 to 64 years. Specifically, this chapter includes:

- Demographics of adults living in the region including the number of adults, the proportion of adults by district and life expectancy
- Healthy living measures such as self-rated health and the modifiable risk factors for chronic disease
- Communicable diseases
- Chronic disease including respiratory diseases, diabetes, hypertension, ischemic heart disease, stroke, cancer, arthritis, osteoporosis, infertility, renal failure, and inflammatory bowel disease
- Use of health services including reasons for Emergency Room, and Same Day Care visits and hospitalizations
- Specific health topics of interest including cardiac care, injury, mental health, and sexual health
- Women health measures such as cervical cancer screening, reproductive health and mammography rates
- Causes of premature death
- New programs and services for adults in the region
Demographics

Figure 4.1 shows the distribution of males and females age 20 to 44 and 45 to 64 by district in the Brandon region. The largest proportion of males age 20 to 44 live in Brandon Central (48%), followed by Brandon East (43%), Brandon Southeast (36%), Brandon West (35%), Brandon Southwest (34%), Brandon North End (34%) and Brandon Rural (27%). In the 45 to 64 year old age grouping, the largest proportion of males live in Brandon Rural (28%), followed by Brandon North End (27%) and Brandon Southeast (26%). The fewest males in this age group live in Brandon Central (21%).

The largest proportion of females age 20 to 44 live in Brandon Central (39%), followed by Brandon Southeast (37%) and Brandon Rural (36%). Brandon North End is home to the lowest proportion of females in this age grouping (33%). For females age 45 to 64 years, the largest proportion live in Brandon Southeast (38%) and North End (38%) while the lowest proportion live in Brandon East (20%), followed by Brandon Central (21%). The district with the most diverse age spread is Brandon Central where the younger adult population is almost two times the number of older adults.

Figure 4.1: Population by district 2008, ages 20 to 44 and 45 to 64

Source: Manitoba Health Population Reports, 2008

Life expectancy

Life expectancy is defined as the expected length of life from birth, based on patterns of mortality in the population for the preceding five years. Figure 4.2 presents the life expectancy for males for two 5-year periods. Although the Brandon region is similar to the province for both time periods, the increase over time is significant.
At the district level, male life expectancy in Brandon Rural and Brandon Southeast is significantly higher than the province for 1996–2000 and 2001–2005 while life expectancy for males in Brandon Central is significantly lower than the province for both reporting periods.

**Figure 4.2: Male life expectancy**

Source: Manitoba Centre for Health Policy, 2009

Figure 4.3 reflects the expected length of life for females. The Brandon region is similar to the province in the first time period (1996–2000) and significantly higher than the province in the second time period (2001-2005). Considerable variation is seen at the district level. Brandon Rural, Brandon Southwest and Brandon North End are significantly higher than the province for the 1996–2000 and 2001–2005 reporting periods with a significant increase over time noted in Brandon Southwest. Brandon Central however is significantly lower than the province in the second time period.
Figure 4.3: Female life expectancy

![Life expectancy graph]

Source: Manitoba Centre for Health Policy, 2009

Healthy Living

According to the Public Health Agency of Canada, healthy living refers to the practices of a population that are consistent with supporting, improving, maintaining and/or enhancing health. At the individual level, it is the practice of living in healthy ways. Healthy living includes making healthy food choices, being physically active, not smoking and managing stressors in life. This section includes information about self-rated health and the modifiable risk factors for chronic disease: physical activity levels, tobacco and alcohol use, Body Mass Index scores, dietary practices and physical examinations by physicians.

Self-rated health

Figure 4.4 shows the age and sex standardized rates of the population age 12 and older who report their health as excellent, very good or fair/poor. Overall, self-rated health by Brandon residents is similar to the province. At the district level, the largest proportion of residents who report their health as ‘excellent’ live in Brandon North End in comparison to the smallest proportion who live in Brandon East. The largest proportion of residents who report their health as ‘fair/poor’ live in Brandon Central, followed by Brandon West. Data for Brandon Rural and Brandon Southeast is suppressed due to small numbers.

More residents in Brandon North End report their health as ‘excellent’.
Figure 4.4: Self-rated health

Age/sex standardized rates of the population age 12 & over who report that their health is excellent.

Source: Manitoba Centre for Health Policy, 2009

Figure 4.5 illustrates the percentage of the population age 12 and over with a score of 100% on the Physical Functioning scale of the SF36 questionnaire, addressing basic physical functioning on a scale of 0 to 100 (0 meaning unable to bathe or dress or walk one block; 100 meaning capable of vigorous activity). The rate for Brandon is slightly less (51.3%) than the provincial average (55.7%). Rates vary at the district level with Brandon Central having the lowest percentage of residents at approximately 47% and Brandon Rural having the highest percentage of residents with a perfect score of almost 60%.
General mental health is shown in Figure 4.6. These scores were derived from the SF-36 questionnaire, addressing overall mental health on a scale of 0 to 100. Based on the distribution of scores, three groups were created with approximately one-third of respondents in each group: Low (0-79), Medium (80-91) and High (92-100). For this measure, a higher score is better.

Brandon residents score slightly lower than the province in the Low score category (23.2%/25.4%), similar to the province on the Medium score (33.4%/34.5%) and higher than the province on the High score (43.4%/40.1%).
Physical activity

As shown in Figure 4.7, Brandon residents age 12+ are slightly more active than Manitobans overall. Differences in self-reported physical activity patterns are noted at the district level however. The highest proportion of residents who are active or moderately active live in Brandon West (56%), followed closely by Brandon Southwest (54%) and Brandon Rural (52%) and Brandon Southeast (52%). Conversely, the districts with the highest proportion of inactive residents are Brandon North End (52%), Brandon East (52%) and Brandon Central (51%). As a region, approximately half of the residents are physically active in any district.

Figure 4.7: Self-physical activity levels by RHA

<table>
<thead>
<tr>
<th>Age/sex standardized rates of physical activity combined, aged 12+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bdn Rural</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Active</td>
</tr>
</tbody>
</table>

Source: Manitoba Centre for Health Policy, 2009

Activity limitations are determined by survey respondents’ answers to questions on the frequency that they experience activity limitations related to long-term physical and/or mental health problems. According to Figure 4.8, approximately 33% of residents aged 12+ years in the Brandon region report activity limitations which is similar to the province overall. Proportions of residents vary at the district level, from almost 40% of residents in Brandon Central to 29% of residents in Brandon Rural reporting limitations.
Figure 4.8: Activity limitations by RHA

Crude and age/sex standardized rates of limitation in participation and activity, aged 12+

Source: Manitoba Centre for Health Policy, 2009

Tobacco use

Smoking rates are calculated for current smokers, former smokers and non-smokers. Current smokers include daily smokers, occasional daily smokers who previously were a daily smoker and always an occasional smoker. Former smokers include former daily smokers and former occasional smokers while non-smokers are those who have never smoked.

According to Figure 4.9, the Brandon region is similar to the province overall in all three categories but there are marked differences at the district level. The highest percentage of current smokers live in Brandon East (32%) followed closely by Brandon Southeast (31%) and Brandon Central (30%). The lowest percentage of current smokers lives in Brandon Rural (17%). In terms of non-smokers, the highest proportion live in Brandon Rural (41%) followed closely by Brandon Southwest (40%) and Brandon West (38%).
Almost half of Brandon residents report heavy drinking in the past 12 months.

**Alcohol use**

Figure 4.10 illustrates self-reported alcohol consumption into two categories: having 5+ drinks on one occasion in the past 12 months and ‘never/light drinker’. Approximately 46% of residents in the Brandon region aged 12+ report having had 5+ drinks at one time in the past 12 months with percentages varying between 40% for Brandon Rural and 57% in Brandon East.

**Figure 4.10: Self reported heavy drinking, age 12+**
Healthy eating

Body Mass Index (BMI) is a statistical measure used to compare individuals according to their height and weight. BMI for respondents age 18+ were classified into three groups – underweight/normal, overweight and obese.

According to Figure 4.11, the percentage of residents in the Brandon region who are underweight/normal is higher than the province (42%/36%), the percentage who are overweight in Brandon is similar to the province (38%/36%) and the percentage who are obese is lower than the province (21%/28%). At the district level, residents with underweight/normal BMIs range between Brandon East (29%) and Brandon Rural (50%).

Figure 4.11: Body Mass Index (BMI) by RHA, age 18+

There is a high degree of variation in body weight among residents across districts.

Using data from the Canadian Community Health Survey (CCHS), survey respondents aged 12+ were grouped into two categories – those eating fruits and vegetables 0 to 4 times per day or 5 or more times per day. The Brandon region is similar to the province overall with approximately 32% eating 5+ servings per day. There is little variation at the district level however data for Brandon Rural and Brandon Southeast are suppressed due to small numbers.
Figure 4.12: Dietary practices: Fruits & vegetables

Age/sex standardized rates of average daily fruit & vegetable consumption, aged 12+

Source: Manitoba Centre for Health Policy, 2009

Figure 4.13 shows the average percentage of residents with at least one complete history and physical examination by RHA. The proportion of Brandon residents is significantly lower than the province in the first time period (1988/89–1995/96) and similar to the province for the second time period (1996/97–2003/04). This trend also applies to Brandon Southeast, Brandon West, Brandon East, Brandon Southwest and Brandon Central. Percentages of residents in Brandon Rural and Brandon North End are significantly lower than the province for both reporting periods, however, a significant increase over time is noted in Brandon Rural.

Figure 4.13: Complete physical exams by RHA

Source: Manitoba Centre for Health Policy, 2008
Communicable Diseases

Figure 4.14 shows a five-year average of new cases for select communicable infections, specifically Verotoxogenic E Coli, Salmonella and Shigella. Between 2002 and 2006, the average number of new cases of Verotoxogenic E Coli and Salmonella in the Brandon region are similar to Manitoba however the average number of new cases of Shigella are higher in Brandon than the province overall.

**Figure 4.14: New cases for select communicable infections, five-year average (per 100,000)**

Source: Manitoba Health, RHA Profiles, 2008

Chronic Conditions

A chronic condition or disease generally cannot be prevented through immunization or cured through medical interventions, nor do they just disappear. Chronic diseases, such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes, are by far the leading cause of mortality in the world. Health damaging behaviours - particularly tobacco use, lack of physical activity and poor eating habits - are major contributors to the leading chronic diseases. Chronic diseases tend to become more common with age. This section provides information about respiratory disease including asthma, diabetes, hypertension, ischemic heart disease, stroke, cancer, arthritis, osteoporosis, kidney disease and inflammatory bowel disease.

Respiratory diseases

Total respiratory morbidity is defined as the proportion of residents (all ages) diagnosed with any of the following diseases by at least one physician office visit or hospitalization in one year – asthma, acute bronchitis, chronic bronchitis, unspecified bronchitis, emphysema or chronic airway obstruction.
According to Figure 4.15, the percentage of residents in the Brandon region with a respiratory disease is significantly higher in both reporting periods (2000/01 and 2005/06). A significant increase is noted in Brandon West and Brandon North End in the second time period while a significant decrease over time is noted for Brandon East and Brandon Central and the region overall.

**Figure 4.15: Total respiratory morbidity rates by RHA, 2000/01 and 2005/06**

Source: Manitoba Centre for Health Policy, 2009

Figure 4.16 and Figure 4.17 show the prevalence of asthma among males and females in the Brandon region in comparison to Manitoba overall. Brandon is similar to the province for both sexes over the five reporting periods shown. Rates for both males and females in the region and Manitoba are stable over time.

**Figure 4.16: Asthma prevalence - Standardized cases per 1,000 residents (Males)**

Source: Manitoba Health and Healthy Living (MHHL), Health Information Management (HIM)
Figure 4.17: Asthma prevalence - Standardized cases per 1,000 residents (Females)

Source: Manitoba Health and Healthy Living (MHHL), Health Information Management (HIM)

Figure 4.18 illustrates the proportion of residents with asthma receiving one or more medications recommended for long-term control of their disease. Recommended long-term controller medications include inhaled corticosteroids, leukotriene modifiers or combination drugs. Brandon is similar to the province for both time periods shown and there are no differences noted at the district level.

Figure 4.18: Asthma care

Crude percent of residents with asthma receiving 1+ prescriptions for inhaled steroids

Source: Manitoba Centre for Health Policy, 2009
Diabetes

Figure 4.19 shows the age standardized diabetes incidence for males and females from 2001/02 to 2005/06 by RHA. Brandon is similar to the province for this reporting period with a slightly higher incidence of diabetes among males than females.

Figure 4.19: Age standardized diabetes incidence, 2001/02 to 2005/06

Source: Women’s Health Profile, 2008

Diabetes prevalence is defined as the proportion of residents age 19 or older who were diagnosed with diabetes in a three year period by either at least two physician visits or one hospitalization with a diagnosis of diabetes or one or more prescriptions for medications used to treat diabetes. According to Figure 4.20, rates for residents in the Brandon region are similar to the province for both reporting periods however a significant increase over time is noted. While diabetes prevalence is significantly higher in Brandon Central than the province for both time periods, a significant increase over time is observed in every district.

Figure 4.20: Diabetes prevalence by RHA, 1998/99 – 2000/01 and 2003/04 – 2005/06

Source: Manitoba Centre for Health Policy, 2009
Individuals living with diabetes are at higher risk of developing eye disease such as diabetic retinopathy, macular degeneration, cataracts and glaucoma. Regular eye examinations are recommended to identify eye disease early and prevent vision loss. All residents in Manitoba with diabetes qualify for an annual eye exam at no cost.

Figure 4.21 shows the crude percentage of residents with diabetes who have an eye examination in a given year as defined by a visit to an Ophthalmologist or an Optometrist. It’s important to note that this indicator may under-estimate eye examination rates to some degree because some residents do not report their diabetic status to care providers and those who access service through Family Practitioners would not be included.

According to Figure 4.21, the Brandon region is significantly higher than the provincial average for both 2000/01 and 2005/06. At the district level, this trend is also observed in Brandon Rural, Brandon West and Brandon Southwest. Brandon Central is significantly higher in the first time period but is similar to the province in the second time period while Brandon North End and Brandon East are both significantly higher than the province in the second time period. The increase over time for Brandon West is also statistically significant.

**Figure 4.21: Diabetes care: eye examinations by RHA**

- **Crude percent of residents with diabetes who had an eye examination**

  - BDN Rural (1,2)
  - BDN Southeast
  - BDN West (1,2,1)
  - BDN Southwest (2)
  - BDN North End (2)
  - BDN East (2)
  - BDN Central (1)
  - Brandon (1,2)
  - South Eastman (t)
  - Central (1,2,1)
  - Assiniboine (1,2,1)
  - Winnipeg (1,2)
  - Interlake
  - North Eastman
  - Parkland
  - Churchill
  - Nor-Man (1,2)
  - Burntwood (1,2)
  - Manitoba (t)

  - 2000/01
  - 2005/06
  - MB Avg 2000/01
  - MB Avg 2005/06

  *'t' 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

*Source: Manitoba Centre for Health Policy, 2009*
Figure 4.22 shows the percentage of residents with diabetes age 19 or older who had a limb amputation, below or including the knee, in a five-year period. Data are presented for two reporting periods: 1996/97-2000/01 and 2001/02-2005/06. The Brandon region is similar to the provincial average for both reporting periods. At the district level, Brandon West is also similar to the province for both time periods, while data for the other districts is suppressed due to small numbers.

Figure 4.22: Diabetes-related lower limb amputation rates by RHA, 1996/97-2000/01 and 2001/02-2005/06

Age- & sex-adjusted annual rate of amputations per 1,000 people with diabetes age 19+

- BDN Rural (s)
- BDN Southeast (s)
- BDN West
- BDN Southwest (s)
- BDN North End (s)
- BDN East (s)
- BDN Central
- Brandon (12)
- South Eastman
- Central
- Assiniboine
- Winnipeg (12t)
- Interlake
- North Eastman (12t)
- Parkland (12t)
- Churchill (s)
- Nor-Man (1t)
- Burntwood (12)
- Manitoba (t)

Indicates:
'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

Source: Manitoba Centre for Health Policy, 2009

**Hypertension**

Hypertension prevalence is defined as the proportion of residents age 19 or older who have been diagnosed with hypertension in a one-year period by either at least one physician visit or one hospitalization with a hypertension-related ICD code or two or more prescriptions for hypertension drugs. Although the proportion of residents in the Brandon region and living in each district are similar to the province overall for both reporting periods, a significant increase over time is observed in every district.
Ischemic heart disease

Figure 4.24 shows the proportion of residents age 19 or older diagnosed with ischemic heart disease (IHD) in a five-year period through either at least two physician visits or one hospitalization for IHD or at least one physician visit with a code related to IHD or two or more prescriptions for IHD medications. As a region, Brandon is significantly lower than the province for the first time period shown but is similar to the province in the second time period. There are no significant differences noted at the district level.

Source: Manitoba Centre for Health Policy, 2009
Stroke

Figure 4.25 looks at the number of hospitalizations or deaths due to stroke in residents age 40 or older for two, five-year periods. Rates for the Brandon region are significantly lower than the provincial average for both time periods and the decrease over time is significant. A significant decrease over time is observed in three specific districts - Brandon Rural, Brandon West and Brandon East.

Figure 4.25: Stroke incidence rates

Source: Manitoba Centre for Health Policy, 2009

Figure 4.26 shows the in-hospital mortality rate for patients within 30 days of experiencing a stroke. Brandon has a lower risk adjusted percentage (13.5%) than the province (18.2%) for 2005/06–2007/08 reporting period.

Figure 4.26: 30-day Stroke in-hospital mortality rate - Risk adjusted %, 2005/2006 to 2007/2008

Source: Canadian Institute for Health Information, 2010
Cancer

Incidence is the frequency with which something, such as a disease, appears in a particular population or area. In disease epidemiology, the incidence is the number of newly diagnosed cases during a specific time period.

Table 4.27: Cancer incidence by gender, Brandon and Manitoba, age standardized rate per 100,000 population, 1998 to 2007

<table>
<thead>
<tr>
<th>Cancer site</th>
<th>Males Brandon</th>
<th>Males Manitoba</th>
<th>Females Brandon</th>
<th>Females Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Invasive Cancer</td>
<td></td>
<td>Invasive Cancer</td>
<td></td>
</tr>
<tr>
<td>Prostate</td>
<td>161.30</td>
<td>135.60</td>
<td>Breast</td>
<td>122.00</td>
</tr>
<tr>
<td>Lung and Bronchus</td>
<td>102.80</td>
<td>85.76</td>
<td>Lung and Bronchus</td>
<td>65.32</td>
</tr>
<tr>
<td>Colon excluding rectum</td>
<td>58.70</td>
<td>50.92</td>
<td>Colon excluding rectum</td>
<td>46.75</td>
</tr>
<tr>
<td>Rectum and Rectosigmoid</td>
<td>31.22</td>
<td>29.37</td>
<td>Corpus Uteri</td>
<td>30.58</td>
</tr>
<tr>
<td>Other ill-defined and unknown</td>
<td>25.43</td>
<td>25.05</td>
<td>Cervix Uteri</td>
<td>13.87</td>
</tr>
<tr>
<td>Non-Hodgkin’s lymphoma</td>
<td>21.97</td>
<td>24.55</td>
<td>Other ill-defined and unknown</td>
<td>13.74</td>
</tr>
<tr>
<td>Kidney</td>
<td>18.73</td>
<td>19.62</td>
<td>Rectum and Rectosigmoid</td>
<td>13.29</td>
</tr>
<tr>
<td>Melanomas of the skin</td>
<td>18.38</td>
<td>12.97</td>
<td>Ovary</td>
<td>11.38</td>
</tr>
<tr>
<td>Pancreas</td>
<td>16.58</td>
<td>12.74</td>
<td>Melanomas of the skin</td>
<td>10.35</td>
</tr>
<tr>
<td>Total All-invasive</td>
<td>607.20</td>
<td>539.20</td>
<td>Total All-invasive</td>
<td>441.50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cancer site</th>
<th>In-situ Cancer Brandon</th>
<th>In-situ Cancer Manitoba</th>
<th>In-situ Cancer Brandon</th>
<th>In-situ Cancer Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other skin</td>
<td>276.80</td>
<td>229.10</td>
<td>Other skin</td>
<td>205.40</td>
</tr>
<tr>
<td>Other (excl. Breast, Skin, Prostate, Bladder)</td>
<td>16.14</td>
<td>8.81</td>
<td>Cervix</td>
<td>88.33</td>
</tr>
<tr>
<td>Bladder</td>
<td>16.01</td>
<td>16.20</td>
<td>Breast</td>
<td>14.46</td>
</tr>
<tr>
<td>Prostate</td>
<td>1.33</td>
<td>2.37</td>
<td>Other (excl. Breast, Skin, Prostate, Bladder)</td>
<td>11.67</td>
</tr>
<tr>
<td>Breast</td>
<td>0.84</td>
<td>0.10</td>
<td>Bladder</td>
<td>2.32</td>
</tr>
<tr>
<td>Total Invasive and in-situ</td>
<td>918.30</td>
<td>795.80</td>
<td>Total Invasive and in-situ</td>
<td>763.70</td>
</tr>
</tbody>
</table>

The incidence of invasive prostate and lung and bronchus cancers for males is substantially higher in the Brandon region than Manitoba, while invasive lung and bronchus, and colon excluding rectum and cervix uteri are substantially higher among women in the region when compared to the province.

Source: CancerCare Manitoba, 2009
Table 4.27 (previous page) shows the incidence of the top ten invasive cancers and the top five in-situ cancers for males and females in the Brandon region compared to Manitoba. For males, the incidence of prostate, lung and bronchus, colon excluding rectum, melanomas of the skin and pancreas are higher in the Brandon region while Non-Hodgkin's lymphoma is lower. In terms of in-situ cancers, the incidence of other skin and other (excluding breast, skin, prostate and bladder) are higher in the region than the province.

For females, the incidence of lung and bronchus, colon excluding rectum, corpus uteri, Non-Hodgkin’s lymphoma, cervix uteri and melanomas of the skin are higher in the Brandon region while other ill-defined and unknown, rectum and recto sigmoid and ovary are lower. In terms of in-situ cancers, the incidence of other skin, cervix and other (excluding breast, skin, prostate and bladder) are higher in the region than the province. In-situ breast and bladder cancers are lower than Manitoba overall.

Prevalence is the proportion of individuals in a population having a disease. It refers to the number of cases of a disease that are present in a particular population at a given time. Table 4.28 shows the cancer prevalence rates for males for 2005. The cancer prevalence rate for males in the Brandon region is lower than the province for all cancers but higher than the province for colorectal, prostate and melanoma.

Table 4.28: Male cancer prevalence rates per 100,000
(Rates have been standardized by age to Manitoba’s 2001 population)

<table>
<thead>
<tr>
<th>RHA of Residence</th>
<th>All Cancers</th>
<th>Colorectal Cancer</th>
<th>Lung Cancer</th>
<th>Prostate Cancer</th>
<th>Melanoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. Eastman</td>
<td>4,088</td>
<td>607</td>
<td>145</td>
<td>1,117</td>
<td>108</td>
</tr>
<tr>
<td>Central</td>
<td>3,614</td>
<td>550</td>
<td>178</td>
<td>1,281</td>
<td>146</td>
</tr>
<tr>
<td>Assiniboine</td>
<td>3,808</td>
<td>680</td>
<td>192</td>
<td>1,483</td>
<td>198</td>
</tr>
<tr>
<td>Brandon</td>
<td>4,300</td>
<td>779</td>
<td>197</td>
<td>1,683</td>
<td>214</td>
</tr>
<tr>
<td>Winnipeg</td>
<td>4,548</td>
<td>624</td>
<td>213</td>
<td>1,456</td>
<td>170</td>
</tr>
<tr>
<td>Interlake</td>
<td>4,114</td>
<td>526</td>
<td>191</td>
<td>1,532</td>
<td>167</td>
</tr>
<tr>
<td>N. Eastman</td>
<td>4,124</td>
<td>591</td>
<td>213</td>
<td>1,479</td>
<td>144</td>
</tr>
<tr>
<td>Parkland</td>
<td>3,892</td>
<td>577</td>
<td>147</td>
<td>1,361</td>
<td>112</td>
</tr>
<tr>
<td>Churchill</td>
<td>3,867</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nor-Man</td>
<td>5,145</td>
<td>665</td>
<td>353</td>
<td>1,695</td>
<td>72</td>
</tr>
<tr>
<td>Burntwood</td>
<td>4,802</td>
<td>990</td>
<td>542</td>
<td>1,219</td>
<td>68</td>
</tr>
<tr>
<td>Manitoba</td>
<td>4,811</td>
<td>619</td>
<td>204</td>
<td>1,440</td>
<td>162</td>
</tr>
</tbody>
</table>

Source: Manitoba Health, RHA Profiles, 2008

Table 4.29 shows the cancer prevalence rates for females for 2005. The cancer prevalence rate for females in the Brandon region is higher than the province for all cancers. This trend is also seen with breast, cervical, colorectal, lung and melanomas.
Table 4.29: Female cancer prevalence rates per 100,000
(Rates have been standardized by age to Manitoba’s 2001 population)

<table>
<thead>
<tr>
<th>RHA of Residence</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Cancers</td>
</tr>
<tr>
<td>S. Eastman</td>
<td>4,151</td>
</tr>
<tr>
<td>Central</td>
<td>3,933</td>
</tr>
<tr>
<td>Assiniboine</td>
<td>3,717</td>
</tr>
<tr>
<td>Brandon</td>
<td>4,291</td>
</tr>
<tr>
<td>Winnipeg</td>
<td>4,611</td>
</tr>
<tr>
<td>Interlake</td>
<td>4,198</td>
</tr>
<tr>
<td>N. Eastman</td>
<td>4,104</td>
</tr>
<tr>
<td>Parkland</td>
<td>3,968</td>
</tr>
<tr>
<td>Churchill</td>
<td>4,011</td>
</tr>
<tr>
<td>Nor-Man</td>
<td>7,074</td>
</tr>
<tr>
<td>Burntwood</td>
<td>4,979</td>
</tr>
<tr>
<td>Manitoba</td>
<td>3,678</td>
</tr>
</tbody>
</table>

Source: Manitoba Health, RHA Profiles, 2008

Cancer prevalence for all cancers among females is higher in the Brandon region when compared to Manitoba.

Figure 4.30 presents cancer survival rates for males in the Brandon region compared to Manitoba for four time periods. Overall, Brandon is similar to the province.

Figure 4.30: Male cancer survival, Brandon and Manitoba

Source: Manitoba Health, RHA Profiles, 2008
Figure 4.31 presents cancer survival rates for females in the Brandon region compared to Manitoba for four time periods. Survival rates are slightly higher for the Brandon region in the last three time periods when compared to Manitoba.

**Figure 4.31: Female cancer survival, Brandon and Manitoba**

![Graph showing female cancer survival rates for Brandon and Manitoba from 1985-1989 to 2000-2004.](image)

Source: Manitoba Health, RHA Profiles, 2008

Relative cancer survival rates for males by large geographic region for 2000 to 2004 are shown in Figure 4.32. Overall, males in the Brandon region have a similar survival rate when compared to the other geographic areas.

**Figure 4.32: Male relative survival by large geographic region, and time period, 2000-2004**

![Graph showing male cancer survival rates for different geographic regions in the Brandon region.](image)

Source: Manitoba Health, RHA Profiles, 2008

Relative cancer survival rates for females by large geographic region for 2000 to 2004 are shown in Figure 4.33. Overall, females in the Brandon region have a similar survival rate when compared to the other geographic areas with the exception of colorectal cancer. It is interesting to note that the survival rate for colorectal cancer among females is higher in South Rural than any other geographic area.
Figure 4.33: Female relative survival by large, geographic region, and time period, 2000-2004

![Female relative survival by large, geographic region, and time period, 2000-2004](image)

Source: Manitoba Health, RHA Profiles, 2008

Arthritis

Arthritis prevalence is defined as the proportion of residents age 19 or older diagnosed with arthritis (rheumatoid or osteoarthritis) in a two-year period by either at least two physician visits or one hospitalization with a related ICD code or one physician visit with one of the same ICD codes, and two or more prescriptions for arthritis medication. As shown in Figure 4.34, arthritis prevalence in the Brandon region is significantly higher than the province for the 2004/05 – 2005/06 reporting period and the increase over time is significant. At the district level, a significant increase over time is observed in Brandon Rural and Brandon West while Brandon North End and Brandon Central are both significantly higher than the provincial average in the second time period.

Figure 4.34: Arthritis prevalence by RHA

Source: Manitoba Centre for Health Policy, 2009
**Osteoporosis**

Osteoporosis prevalence is defined as the proportion of residents age 50 or older who are diagnosed with osteoporosis in a three-year period through either at least one physician visit or hospitalization for any of the following diagnoses: osteoporosis, hip fracture, spine fracture, humerus fracture, wrist fracture or one or more prescriptions for medications to treat osteoporosis. As shown in Figure 4.35, Brandon is significantly higher than the provincial average for both reporting periods (1998/99–2000/01 and 2003/04–2005/06) with significant increases over time observed in every district with the exception of Brandon Southeast and Brandon Southwest.

**Figure 4.35: Osteoporosis prevalence by RHA**

Only 3 – 4% of Manitoba women are getting bone scans with higher income women getting scans at twice the rate of lower-income women.

Dr. Bill Leslie, researcher

*’f* 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

Source: Manitoba Centre for Health Policy, 2009

**Infertility**

Infertility treatment prevalence is the percentage of residents age 15 to 55 years receiving at least one diagnosis of infertility in physician visits over the five-year period 1999/2000 to 2003/04. As shown in Figure 4.36, the percentage of Brandon males is significantly lower than the Manitoba average for males. There is also a statistically significant difference between the proportion of males and females in the region who are treated for infertility.
Figure 4.36: Infertility treatment prevalence by RHA, 1999/00 – 2003/04

Age-adjusted percent of residents treated for infertility age 15-55

<table>
<thead>
<tr>
<th>Area</th>
<th>Males</th>
<th>Females</th>
<th>MB avg males</th>
<th>MB avg females</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Eastman (d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central (d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assiniboine (d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brandon (m,d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parkland (m,d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interlake (d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Eastman (d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Churchill (s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nor-Man (m,d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burntwood (m,d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manitoba (d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

'\text{m}' indicates area's rate for males was statistically different from Manitoba average for males
'T' indicates area's rate for females was statistically different from Manitoba average for females
'd' indicates difference between male and female rates was statistically significant for that area
's' indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2005

Renal failure

Renal failure treatment prevalence is defined as the percentage of residents aged 20 or older diagnosed with renal failure in a physician visit or hospitalization. Figure 4.37 shows the renal failure treatment prevalence for 1999/00 – 2003/04 by region. The proportion of females for the Brandon region is significantly lower than the Manitoba average for females and the difference between rates for males and females is statistically significant for the region.

Figure 4.37: Renal failure treatment prevalence by RHA, 1999/00 – 2003/04

Age-adjusted percent of residents treated for renal failure age 20+

<table>
<thead>
<tr>
<th>Area</th>
<th>Males</th>
<th>Females</th>
<th>MB avg males</th>
<th>MB avg females</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Eastman (d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central (m,f,d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assiniboine (d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brandon (f,d)</td>
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<tr>
<td>Parkland (d)</td>
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<tr>
<td>Interlake (d)</td>
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<tr>
<td>North Eastman (d)</td>
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<tr>
<td>Churchill (s)</td>
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<tr>
<td>Nor-Man (f)</td>
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<tr>
<td>Burntwood (m,f)</td>
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<tr>
<td>Manitoba (d)</td>
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</tbody>
</table>

'm' indicates area's rate for males was statistically different from Manitoba average for males
'T' indicates area's rate for females was statistically different from Manitoba average for females
'd' indicates difference between two groups' rates was statistically significant for that area
's' indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2005
Inflammatory bowel disease

Inflammatory bowel disease (IBD) treatment prevalence is the percentage of residents receiving at least five diagnoses of Crohn’s disease or Colitis in 10 years of hospital or medical claims, for people residing in Manitoba for at least two years. The proportion of Brandon residents is similar to the provincial average for 2003/04 as seen in Figure 4.38.

Figure 4.38: Inflammatory bowel disease treatment prevalence, 2003/04

Age-adjusted percent of residents treated for inflammatory bowel disease (Crohn's or Colitis)

Source: Manitoba Centre for Health Policy, 2005

Use of Health Services

Emergency Room

The Emergency Room is an essential service within every health care system. It is an area in an institution that is staffed and equipped to provide rapid and varied emergency care, especially for those who experience sudden and acute illness or who are the victims of severe trauma. The emergency department at the Brandon Regional Health Centre uses a triage system of screening and classifying clients to determine priority needs for the most efficient use of available personnel and equipment.

Findings from the 2009 ER Chart Review show that for the fiscal year 2008/09 62% of ER Visits were for Adults: 42% of visits for adults 20 to 44 years old and 20% for adults 45 to 64 years old.

Figure 4.39 shows the top five reasons for Emergency Room visits among adults age 20 to 44. Trauma, coma and toxic effects are the primary reason for this age group to seek care through the Emergency Room. Diseases and disorders of the kidney and genitourinary tract (11%) are the second most common reason followed by diseases and disorders of the digestive system (10%), diseases and disorders of the skin, subcutaneous tissue and breast (8%) and diseases and disorders of the ear, nose, mouth and throat (7%) respectively.
Figure 4.39: Top 5 reasons for ER visits for adults 20 to 44 years, 2008/09

Trauma, coma and toxic effects are the most common reason for all adult visits to the ER.

Source: Brandon RHA ER Chart Review, 2009

Figure 4.40 shows the top five reasons for Emergency Room visits among adults age 45 to 64. Similar to the younger adult population, Trauma, coma and toxic effects are the primary reason for this age group to seek care through the Emergency Room. Diseases and disorders of the circulatory system (12%) are the second most common reason for presentation to the department followed by diseases and disorders of the digestive system (11%), diseases and disorders of the nervous system (11%) and mental diseases and disorders (6%).

Figure 4.40: Top 5 reasons for ER visits for adults 45 to 64 years, 2008/09

Source: Brandon RHA ER Chart Review, 2009

Figure 4.41 illustrates the disposition of patients after receiving care through the Emergency Room at the Brandon Regional Health Centre for adults by two age groupings – 20 to 44 years and 45 to 64 years. The vast majority of patients in both age groupings are discharged home – younger adults (91%) and older adults (82%). While 7% of younger adults are admitted or transferred, 14% of older adults are admitted or transferred. A small proportion of both ages left against medical advice.
Health planning is traditionally based on hospitalization and/or mortality data, yet the vast majority of outpatients are discharged home.

Figure 4.41: Final disposition after a visit to ER at Brandon Regional Health Centre for adults by age group, 2008/09

Source: Brandon RHA ER Chart Review, 2009

Same Day Care

Same Day Care visits are those where patients are admitted and discharged home the same day. Same Day Care involves a wide range of procedures such as laparoscopic cholecystectomy, hernia repairs, excisions and scopes.

Figure 4.42 illustrates the volume of Same Day Care visits for both adult age grouping for four fiscal years. The volume of visits by adults 20 to 44 years is stable across four reporting periods however a slight increase in the volume of visits by older adults, age 45 to 64 is observed.

Figure 4.42: Same Day Care visits for adults by fiscal year and age group

Source: Brandon Regional Health Centre, Health Records Department, CIHI Portal
The six most common reasons for Same Day Care visits for adults age 20 to 44 for two reporting periods are shown in Table 4.43 – 2005/07 and 2007/09. The top three reasons for accessing the program are consistent for both time periods – diagnostic endoscopy of the gastrointestinal tract with biopsy/function study is the primary reason, followed by D & C and other uterus interventions and termination of pregnancy. There are slight variations in the ranking of the other three reasons as shown below.

**Table 4.43: Reasons for Same Day Care visits for adults aged 20-44**

<table>
<thead>
<tr>
<th>Day Procedure Group</th>
<th>2005/07</th>
<th>2007/09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Diagnostic Endoscopy Gastrointestinal Tract-Biopsy/Function Study</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>D&amp;C and Other Uterus Interventions</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>Termination of Pregnancy</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>Knee Procedures</td>
<td>4</td>
<td>6%</td>
</tr>
<tr>
<td>Cholecystectomy</td>
<td>5</td>
<td>4%</td>
</tr>
<tr>
<td>Diagnostic Endoscopy Gastrointestinal Tract-Inspection</td>
<td>6</td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database

The six most common reasons for Same Day Care visits for adults 45 to 64 years for two reporting periods are shown in Table 4.44 – 2005/07 and 2007/09. Diagnostic endoscopy of the gastrointestinal tract with biopsy/function study comprise the bulk of visits for both time periods – 2005/07 (41%) and 2007/09 (33%). The second most common reason for visits in the first time period is knee procedures (7%) but is replaced by minor digestive interventions (11%) in the second time period. Diagnostic endoscopy of the gastrointestinal tract with inspection ranks third for both time periods (7%/11%). There is a slight variation in the fourth most common reason between minor digestive interventions and knee procedures. The ranking of D & C and other uterus interventions and cataract extractions are consistent at fifth and sixth for both reporting periods.
Table 4.44: Reasons for Same Day Care visits for adults aged 45 to 64

<table>
<thead>
<tr>
<th>Day Procedure Group</th>
<th>Adults (45-64)</th>
<th>2005/07</th>
<th>2007/09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Diagnostic Endoscopy Gastrointestinal Tract-Biopsy/Function Study</td>
<td></td>
<td>1</td>
<td>41%</td>
</tr>
<tr>
<td>Knee Procedures</td>
<td></td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>Diagnostic Endoscopy Gastrointestinal Tract-Inspection</td>
<td></td>
<td>3</td>
<td>7%</td>
</tr>
<tr>
<td>Minor Digestive Interventions</td>
<td></td>
<td>4</td>
<td>5%</td>
</tr>
<tr>
<td>D&amp;C and Other Uterus Interventions</td>
<td></td>
<td>5</td>
<td>4%</td>
</tr>
<tr>
<td>Cataract Extractions</td>
<td></td>
<td>6</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database

**Hospitalizations**

Hospitalizations account for the greatest proportion of health care spending. In 2008/09, there were 2146 hospitalizations for Brandon residents between 20 and 64 years.

Table 4.45 shows the volume of hospital visits for adults 20 to 44 years and 45 to 64 years by four fiscal years. The volume of hospital visits has remained stable for both age groups over the reporting periods with a higher number of visits among the younger adult population.

Table 4.45: Hospital visits for adults by fiscal year and age group

![Bar chart showing hospital visits for adults 20-44 and 45-64 by fiscal year](chart.png)

Source: Brandon Regional Health Centre, Health Records Department, CIHI Portal
The top six reasons for hospitalization for adults 20 to 44 years for two reporting periods are shown in Table 4.46. The top three reasons are consistent between 2005/07 and 2007/09 - pregnancy and childbirth (51%/50%), mental diseases and disorders (12%/13%) and diseases and disorders of the digestive system (8%/9%). There is slight variation in the ranking of the fourth, fifth and sixth most common reasons between the two time periods but the most important change is that that significant trauma, injury, poisoning and toxic effects of drugs ranks higher in the second time period than the first.

Table 4.46: Reasons for hospitalization for adults age 20-44

<table>
<thead>
<tr>
<th>Major Clinical Category</th>
<th>2005/07</th>
<th>2007/09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Pregnancy and Childbirth</td>
<td>1</td>
<td>51%</td>
</tr>
<tr>
<td>Mental Diseases and Disorders</td>
<td>2</td>
<td>12%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Digestive System</td>
<td>3</td>
<td>8%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Musculoskeletal System</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Female Reproductive System</td>
<td>5</td>
<td>3%</td>
</tr>
<tr>
<td>Significant Trauma, Injury, Poisoning and Toxic Effects of Drugs</td>
<td>6</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database

Table 4.47 shows the top five reasons for hospitalization for adults 45 to 64 years for two reporting periods. The top three reasons for both time periods – diseases and disorders of the digestive system, mental diseases and disorders, and diseases and disorders of the circulatory system - remained the same however slight variation in ranking was noted between the two time periods.

Table 4.47: Reasons for hospitalization for adults age 45 to 64

<table>
<thead>
<tr>
<th>Major Clinical Category</th>
<th>2005/07</th>
<th>2007/09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Diseases and Disorders of the Digestive System</td>
<td>1</td>
<td>15%</td>
</tr>
<tr>
<td>Mental Diseases and Disorders</td>
<td>2</td>
<td>13%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Circulatory System</td>
<td>3</td>
<td>13%</td>
</tr>
<tr>
<td>Diseases and Disorders of the Musculoskeletal System</td>
<td>4</td>
<td>9%</td>
</tr>
<tr>
<td>Other Reasons for Hospitalizations</td>
<td>5</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database
Cardiac Care

Heart attacks, also known as acute myocardial infarction (AMI), are costly to the healthcare system. According to the Canadian Institute for Health Information, ischemic heart disease, including heart attacks, cost the Canadian healthcare system $8.1 billion in 2000. There are several surgical and medical interventions that are associated with positive outcomes following a heart attack including percutaneous coronary intervention, coronary artery bypass graft, statin use and Beta-blocker prescribing post myocardial infarction. This section provides information on AMI rates and several surgical and medical intervention rates, followed by readmission and mortality rates.

Acute myocardial infarction (heart attack) rates are defined as the number of hospitalizations or deaths due to acute myocardial infarction (AMI) in residents, age 40 or older. Rates are calculated for two five-year periods – 1996/97-2000/01 and 2001/02-2005/06 and presented on Figure 4.48. Heart attack rates in the Brandon region are significantly higher than the province as whole for both reporting periods but are decreasing significantly over time. Significant decreases are observed in the Brandon Southeast district.

Figure 4.48: Heart attack (AMI) rates

Source: Manitoba Centre for Health Policy, 2009
Cardiac catheterization is a diagnostic procedure to identify the exact location and severity of coronary artery disease. It is also known as diagnostic angiogram. Figure 4.49 illustrates the number of cardiac catheterization performed on area residents age 40 or older, per 1,000 residents age 40 or older. Since heart attack rates in the Brandon region are significantly higher than the province overall in two reporting periods, it would be expected that cardiac catheterization rates would also be higher than the province. However Brandon’s rate of cardiac catheterization is significantly lower than the provincial average for both reporting periods. At the district level, Brandon West is significantly lower than the province for both time periods.

Figure 4.49: Cardiac catheterization rates

Age- & sex-adjusted cardiac catheterization rates per 1,000 residents aged 40+

Source: Manitoba Centre for Health Policy, 2009

Figure 4.50 shows angioplasty rates per 1,000 residents age 40 or older. Angioplasty is a procedure that involves using a balloon-tipped catheter to enlarge a narrowing in an artery. It would be expected that angioplasty rates would follow the same trend as cardiac catheterization rates. As shown in Figure 4.50, angioplasty rates for both males and females are significantly lower than the provincial average for both sexes. It is also interesting to note the statistically significant difference between males and females for the Brandon region.
The difference in angioplasty rates for males and females in the region is statistically significant.

**Figure 4.50: Angioplasty rates by RHA, 1999/2000 – 2003/04**

<table>
<thead>
<tr>
<th>Area</th>
<th>Males</th>
<th>Females</th>
<th>MB avg males</th>
<th>MB avg females</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Eastman (d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central (d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assiniboine (m,f,d)</td>
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<tr>
<td>Brandon (m,f,d)</td>
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<tr>
<td>Parkland (d)</td>
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<tr>
<td>Interlake (d)</td>
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<tr>
<td>North Eastman (d)</td>
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<tr>
<td>Churchill (s)</td>
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<tr>
<td>Nor-Man (d)</td>
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<tr>
<td>Burntwood (d)</td>
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<tr>
<td>Manitoba (d)</td>
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</tbody>
</table>

0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

'm' indicates area's rate for males was statistically different from Manitoba average for males

't' indicates area's rate for females was statistically different from Manitoba average for females

'd' indicates difference between male and female rates was statistically significant for that area

's' indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2005

A stent is a small, lattice-shaped metal tube that is inserted permanently into an artery. The stent helps to hold an artery open so blood can flow through it. Figure 4.51 illustrates the rate of coronary stent insertions per 1,000 residents age 40 or older, over a five-year period – 1999/00-2003/04 by RHA. The rate of stent insertion for residents in the Brandon region is statistically lower for both males and females when compared to Manitoba as a whole. The rate for females is lower than males within the region and this difference is also statistically significant.

**Figure 4.51: Stent insertion rates by RHA, 1999/2000 – 2003/04**

<table>
<thead>
<tr>
<th>Area</th>
<th>Males</th>
<th>Females</th>
<th>MB avg males</th>
<th>MB avg females</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Eastman (d)</td>
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<tr>
<td>Central (d)</td>
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<tr>
<td>Assiniboine (m,f,d)</td>
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<tr>
<td>Brandon (m,f,d)</td>
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<td>Parkland (d)</td>
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<td>Interlake (d)</td>
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<tr>
<td>North Eastman (d)</td>
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</tr>
<tr>
<td>Churchill (s)</td>
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</tr>
<tr>
<td>Nor-Man (d)</td>
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<tr>
<td>Burntwood (d)</td>
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<td></td>
</tr>
<tr>
<td>Manitoba (d)</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

'm' indicates area's rate for males was statistically different from Manitoba average for males

't' indicates area's rate for females was statistically different from Manitoba average for females

'd' indicates difference between male and female rates was statistically significant for that area

's' indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2005
Percutaneous coronary intervention (PCI) is commonly known as coronary angioplasty. It is a procedure used to treat narrowed coronary arteries of the heart that result from a build up of plaque due to atherosclerosis. Figure 4.52 shows the number of percutaneous coronary angioplasty procedures (with or without stent insertion) performed on area residents age 40 or older, per 1,000 residents age 40 or older. A statistically significant increase over time is noted for the region. This trend is observed in every district with the exception of Brandon Southeast, Brandon West and Brandon Southwest.

**Figure 4.52: Percutaneous coronary intervention rates by RHA**

A statistically significant increase in PCI rates is seen in every district except Brandon Southeast, Brandon West and Brandon Southwest.

Coronary artery bypass grafting (CABG) is another form of surgical intervention for narrowed coronary arteries. Blocked arteries are bypassed by grafting vessels from other areas in the body creating new routes for blood flow. As shown in Figure 4.53, rates for the Brandon region are similar to Manitoba as a whole for the two time periods. This trend is consistent across the districts with the exception of Brandon West, which is significantly lower than the province in the second time period and is decreasing over time.
**Figure 4.53: Coronary artery bypass surgery rates**

Age- & sex-adjusted annual coronary artery bypass graft surgery rates per 1,000 residents aged 40+

Source: Manitoba Centre for Health Policy, 2009

Statin use among females is significantly lower than males in the region.

**Figure 4.54: Statin use by RHA, 2003/04**

Age-adjusted percent of residents age 20+ receiving at least one prescription for statins

Source: Manitoba Centre for Health Policy, 2005
ACE inhibitors are a group of drugs primarily used to lower blood pressure although they are also used for congestive heart failure, for patients experiencing a heart attack and for diabetes. Figure 4.55 shows the percentage of residents age 20 years or older who received at least one prescription for ACE inhibitors in 2003/04. The percentage of males in the Brandon region is statistically higher than Manitoba males. There is also a statistical difference between males and females in the region.

**Figure 4.55: ACE inhibitors use, 2003/04**

![Chart showing percentage of residents age 20+ receiving at least one prescription for ACE inhibitors]

- 'm' indicates area's rate for males was statistically different from Manitoba average for males
- 'f' indicates area's rate for females was statistically different from Manitoba average for females
- 'd' indicates difference between male and female rates was statistically significant for that area
- 's' indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2005

The use of beta-blockers following a heart attack is considered best practice for patients who do not have a co-existing respiratory condition such as asthma, chronic obstructive lung disease or peripheral vascular disease. This type of medication helps the heart relax, decreases the heart rate and increases blood flow. Beta-blockers reduce the heart’s workload and improve pumping ability overtime.

Figure 4.56 shows the proportion of patients age 20 years or older hospitalized for Acute Myocardial Infarction (AMI) who filled at least one prescription for a beta-blocker within four months of their AMI. Brandon was significantly higher than the province in the first reporting period and the increase over time is significant. At the district level, significant increases over time are seen in Brandon Rural and Brandon Central.
Figure 4.56: Post AMI care: Beta-Blocker prescribing

Crude percent of AMI patients who received a prescription for a beta-blocker within 4 months

Source: Manitoba Centre for Health Policy, 2009

Figure 4.57 shows the in-hospital mortality rate for patients within 30 days of experiencing an acute myocardial infarction. Brandon shows a higher risk adjusted percentage (11.1%) than the province (8.6%) for 2005/06-2007/08 reporting period.

Figure 4.57: 30-day AMI in-hospital mortality rate, risk adjusted %, 2005/2006 to 2007/2008

Source: Canadian Institute for Health Information, 2010

Figure 4.58 shows the risk-adjusted percentage of residents who are admitted to hospital following an acute myocardial infarction. The rate for Brandon (5.2%) is the same as Manitoba (5.2%) for the 2005/06–2007/08 reporting period.
Injury

Findings from the Brandon RHA ER chart review done in 2009 show that during the fiscal year 2008/2009, 62% of injury related ER visits are for adults: 44% for adults 20 to 44 years and 18% for adults 45 to 65 years. The majority of injury visits for both age groupings are for males (70%).

The most common injuries for 20 to 44 year olds presenting to ER are:

- open wounds without complications (lacerations, puncture wounds)
- closed fractures and dislocations of extremities
- other injuries (knee injuries and soft tissue injuries)
- sprains of ankle, wrists and back, and
- poisoning (includes allergic reactions and medication overdose)

The most common injuries for 45 to 64 year olds presenting to ER are:

- open wounds without complications (lacerations)
- closed fractures and dislocations of hips and legs
- poisoning (includes allergic reactions and overdose)
- head injuries
- other injuries (back pain and soft tissue injuries)

Figure 4.59 shows the breakdown of external causes of injury for adults 20 to 44 and 45 to 64 years old through the ER chart review. For younger adults, the top five causes of injury are accidental falls, other accidents, workplace injuries, assault, and transport accidents. For older adults, over half of the visits are due to accidental falls, followed by other accidents, contact with animals and workplace injuries, transport accidents and intentional self-harm.
Accidental falls account for the majority of ER injury visits.

Figure 4.59: External causes of injury visits to ER for adults, 2008/09

The majority of injury cases were discharged home after a visit to the emergency room. Only 9% of ER injury cases for 20-44 years and 13% of ER injury cases for 45 to 64 years were admitted to hospital or transferred to another acute care facility.

The hospital rates for injuries within the Brandon region are similar to the provincial average for both reporting time periods. However distinct differences are noted between districts. Rates for residents in Brandon Rural are significantly lower than the province for 1996/97–2000/01 and rates for residents in Brandon West and Brandon Southwest are significantly lower than the province for both 1996/97–200/01 and 2001/02–2005/06 time periods. Conversely, Brandon Central shows significantly higher rates than the provincial average for both time periods.

Figure 4.60: Injury hospitalization rates

Source: Brandon RHA ER Chart Review 2009

Source: Manitoba Centre for Health Policy, 2008
As seen in Figure 4.61, injury hospitalization or death rates for males in the region are significantly lower than the province for both time periods with a significant decrease over time. Rates for Brandon East and Brandon North End are similar to the province for both time periods while a significant decrease is seen in Brandon West in the second time period. The rate for Brandon Central is significantly higher than the province in the second reporting period.

**Figure 4.61: Injury Hospitalization or death rates for males**

As seen in Figure 4.62, injury hospitalization or death rates for females in the region are significantly lower than the province in 1988/89–1995/96 with a significant decrease over time. The most significant decrease for both time periods is seen in Brandon Southwest.
Table 4.63 shows the percent of injuries causing hospitalization and death for males and females in the Brandon region and the province over a ten-year period. The top five causes for males in the Brandon region include accidental falls (38.63%), suicide and self-inflicted injury 8.51%), motor vehicle traffic collisions 8.21%), struck by/caught between objects (7.67%) and homicide/injuries inflicted by others (6.47%). For females in the region, the top five causes include accidental falls (58.74%), suicide and self-inflicted injury (12.91%), motor vehicle traffic collisions (7.15%), struck by/caught between objects (2.33%) and homicide/injuries inflicted by others (2.28%).

The vast majority of injuries causing hospitalization or death among males and females in the Brandon region and the province overall is accidental falls.
Table 4.63: Causes of hospitalization and death due to injury, males and females, Brandon and Manitoba, 1994/95-2003/04

| Cause of Hospitalization & Death | Brandon Male | | | Brandon Female | | | Manitoba Male | | | Manitoba Female | |
|---------------------------------|-------------|---|---|-------------|---|---|-------------|---|---|-------------|---|---|
|                                 | crude rate per 1000 | % of injuries within region | crude rate per 1000 | % of injuries within region | crude rate per 1000 | % of injuries within region | crude rate per 1000 | % of injuries within region | crude rate per 1000 | % of injuries within region |
| Accidental Falls                | 3.45        | 38.63 | 4.80 | 58.74 | 3.26 | 32.58 | 4.93 | 55.46 |
| Motor Vehicle Traffic Accidents | 0.73        | 8.21  | 0.58 | 7.15  | 0.96 | 9.65  | 0.69 | 7.76  |
| Machinery/Explosions/Electricity| 0.53        | 5.97  | 0.15 | 1.79  | 0.87 | 8.73  | 0.24 | 2.68  |
| Homicide/Injuries, Inflicted by Others | 0.58 | 6.47  | 0.19 | 2.28  | 0.96 | 9.62  | 0.31 | 3.46  |
| Struck by/Caught between Objects | 0.68        | 7.67  | 0.19 | 2.33  | 0.58 | 5.82  | 0.16 | 1.80  |
| Late Effects of Accidental Injury | 0.22        | 2.44  | 0.09 | 1.14  | 0.31 | 3.11  | 0.13 | 1.46  |
| Suicide & Self-Inflicted Injury | 0.76        | 8.51  | 1.05 | 12.91 | 0.67 | 6.74  | 0.93 | 10.49 |
| Other Environmental Accidents  | 0.36        | 4.08  | 0.19 | 2.38  | 0.51 | 5.10  | 0.34 | 3.78  |
| Overexertion, Strenuous Movements | 0.29        | 3.29  | 0.15 | 1.79  | 0.25 | 2.50  | 0.15 | 1.68  |
| Motor Vehicle Non-Traffic Accidents | 0.17        | 1.94  | 0.06 | 0.79  | 0.31 | 3.10  | 0.09 | 1.00  |
| Natural/Environmental Accidents | 0.17        | 1.94  | 0.14 | 1.69  | 0.25 | 2.54  | 0.14 | 1.61  |
| Other Road Vehicle Accidents   | 0.25        | 2.84  | 0.12 | 1.49  | 0.18 | 1.79  | 0.11 | 1.19  |
| Submergence/Suffocation/Foreign Bodies | 0.14        | 1.54  | 0.16 | 1.94  | 0.23 | 2.34  | 0.14 | 1.61  |
| Injury Undetermined             | 0.14        | 1.54  | 0.08 | 0.94  | 0.20 | 1.97  | 0.23 | 2.61  |
| Accidental Drug Poisoning       | 0.19        | 2.09  | 0.15 | 1.79  | 0.15 | 1.45  | 0.18 | 1.97  |
| Fire/Flames Accidents           | 0.08        | 0.90  | 0.01 | 0.10  | 0.05 | 0.48  | 0.02 | 0.23  |
| Accidental Poisoning, Other     | 0.10        | 1.14  | 0.05 | 0.60  | 0.09 | 0.88  | 0.05 | 0.59  |
| Water Transport Accidents       | 0.03        | 0.30  | 0.02 | 0.19  | 0.02 | 0.19  | 0.01 | 0.08  |
| *Other                          | 0.04        | 0.50  | 0.01 | 0.10  | 0.05 | 0.48  | 0.02 | 0.23  |

The vast majority of injuries causing hospitalization or death among adults are accidental falls.

Source: Manitoba Centre for Health Policy, 2009
Table 4.64 shows the top five reasons for injury-related hospitalization among adults in the Brandon region age 20 to 44 years for two time periods; 2005/07 and 2007/09. There were marked differences in the ranking of causes of injury between the reporting periods. For 2005/07, the number reason for injury-related hospitalization among 20 – 44 year olds was intentional self-harm (38%), followed by accidental falls (17%), transport accidents (13%), other accidents (12%) and assault (6%). For the 2007/09 reporting period, accidental falls was the number one cause (25%) followed by intentional self-harm (22%), other accidents (18%), transport accidents (11%) and assault (10%).

**Table 4.64: Reasons for injury hospitalization for adults age 20-44**

<table>
<thead>
<tr>
<th>Cause of Injury</th>
<th>2005/07</th>
<th>2007/09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Intentional Self Harm</td>
<td>1</td>
<td>38%</td>
</tr>
<tr>
<td>Accidental Falls</td>
<td>2</td>
<td>17%</td>
</tr>
<tr>
<td>Transport Accident</td>
<td>3</td>
<td>13%</td>
</tr>
<tr>
<td>Other Accidents</td>
<td>4</td>
<td>12%</td>
</tr>
<tr>
<td>Assault</td>
<td>5</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database

The top five reasons for injury-related hospitalization are also shown for adults in the Brandon region age 45 to 64 years for two time periods in Table 4.65; 2005/07 and 2007/09. Unlike the younger adult population, assault did not make the top five list for this age group but accidental poisoning did. Accidental falls are the primary cause of injury-related hospitalization for this age group in both time periods. There is slight variation in the ranking of intentional self-harm, transport accidents and other accidents with accidental poisoning being the fifth most common reason for both time periods.

**Table 4.65: Reasons for injury hospitalization for adults age 45 to 64**

<table>
<thead>
<tr>
<th>Cause of Injury</th>
<th>2005/07</th>
<th>2007/09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Accidental Falls</td>
<td>1</td>
<td>39%</td>
</tr>
<tr>
<td>Intentional Self Harm</td>
<td>2</td>
<td>18%</td>
</tr>
<tr>
<td>Transport Accident</td>
<td>3</td>
<td>14%</td>
</tr>
<tr>
<td>Other Accidents</td>
<td>4</td>
<td>14%</td>
</tr>
<tr>
<td>Accidental Poisoning</td>
<td>5</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database
Figure 4.66 looks at the number of deaths due to injury, per 1,000 area residents per year, based on Vital Statistics death codes. Brandon was similar to the province for both time periods – 1996 to 2000 and 2001 to 2005. Data for Brandon Southwest was suppressed due to small numbers and the appearance of higher rates for Brandon Central was not statistically significant.

**Figure 4.66: Injury mortality rates**

![Chart showing injury mortality rates](chart)

1’ indicates area’s rate was statistically different from Manitoba average in first time period
2’ indicates area’s rate was statistically different from Manitoba average in second time period
3’ indicates change over time was statistically significant for that area
4’ indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2009

Figures 4.67 and 4.68 illustrate the causes of injury related death for Rural South and Brandon for 1996-2000 and 2001-2005. The top three causes in death are the same for both reporting periods: motor vehicle, violence to self and accidental falls respectively. Overall, the proportion of deaths due to motor vehicle has decreased (28%/22%), the proportion of deaths due to violence to self slightly increased (18%/20%) and the proportion of deaths due to accidental falls has increased (16%/20%).
Between the two reporting periods, the proportion of deaths due to motor vehicle decreased, violence to self increased slightly and accidental falls increased.

Figure 4.67: Causes of injury deaths (ICD-9-CM), Rural South & Brandon, 1996-2000

Source: Manitoba Centre for Health Policy, 2009

Figure 4.68: Causes of injury deaths (ICD-9-CM), Rural South & Brandon, 2001-2005

Source: Manitoba Centre for Health Policy, 2009
Figure 4.69 shows unintentional injuries deaths per 100,000 residents for males in the region and the province over three, five-year time periods. Regional trends differ from provincial trends in that Brandon shows a decrease in unintentional injuries for males over the three reporting periods whereas Manitoba shows a small spike in 1997-2001. Unintentional injury rates Brandon are notably lower than province in the last two time periods.

**Figure 4.69: Male unintentional injuries deaths per 100,000 residents, Brandon and Manitoba**

<table>
<thead>
<tr>
<th></th>
<th>Brandon</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992-1996</td>
<td>44.3</td>
<td>41.9</td>
</tr>
<tr>
<td>1997-2001</td>
<td>34.8</td>
<td>34.8</td>
</tr>
<tr>
<td>2002-2006</td>
<td>32.6</td>
<td>40.8</td>
</tr>
</tbody>
</table>

Source: Vital Statistics

Figure 4.70 shows unintentional injuries per 100,000 residents for females in the region and the province over three, five-year time periods. Rates of unintentional injuries among females in the Brandon region are similar to the province in the first time period, slightly higher in the second time period and notably lower in the third time period.

**Figure 4.70: Female unintentional injuries deaths per 100,000 residents, Brandon and Manitoba**

<table>
<thead>
<tr>
<th></th>
<th>Brandon</th>
<th>Manitoba</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992-1997</td>
<td>24.1</td>
<td>22.8</td>
</tr>
<tr>
<td>1997-2002</td>
<td>32.4</td>
<td>29.5</td>
</tr>
<tr>
<td>2002-2007</td>
<td>22.7</td>
<td>29.1</td>
</tr>
</tbody>
</table>

Source: Vital Statistics
As shown in Figure 4.71, the number of deaths due to suicide among residents age 10+, per 1,000 area residents age 10+ per year in Manitoba has remained stable over two reporting periods. Rates in the Brandon region are similar to the provincial average for 1996–2000 and 2001-2005.

**Figure 4.71: Suicide rates by RHA**

![Bar chart showing suicide rates by RHA for Manitoba](chart)

- **Source:** Manitoba Centre for Health Policy, 2009

Figure 4.72 illustrates the percentage of residents, age 10 or older, who attempt or complete suicide in two reporting periods. The Brandon region is significantly lower than the province in the first time period (1988/89-1995/96) and similar to the province in the second time period. At the district level, Brandon West is significantly lower than Manitoba for the second time period while Brandon Central is significantly higher than the provincial average for both reporting periods.
Figure 4.72: Prevalence of individuals completing or attempting suicide

Age-adjusted percent of suicides or attempts in a 2 year period, for residents aged 10+

![Diagram showing prevalence of suicides or attempts across different regions]

1' indicates area’s rate was statistically different from Manitoba average in first time period
2' indicates area’s rate was statistically different from Manitoba average in second time period
3' indicates change over time was statistically significant for that area
4' indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2008

Mental Health

Mental health issues, including emotional health problems, can manifest at any time across the lifespan and are often related to challenges associated with changing roles and responsibilities. As individuals enter adulthood, their roles and responsibilities are substantially different than after becoming a parent or caring for a dying parent later in life. This section looks at Manitoba Farm and Rural Stress Line use, demographics of Psychosocial Rehabilitation Program, Centre for Adult Psychiatry readmission rates, description of Westman Crisis Services clients with suicide ideation, the prevalence of several mental health disorders and substance abuse.

The classification of Cumulative Mental Illness was created to provide an overall indicator of the prevalence of mental illness and accounts for the co-occurrence among mental illnesses. Cumulative prevalence is defined as the proportion of the population who received treatment for any of the following mental illnesses: depression, anxiety, substance abuse, personality disorders or schizophrenia.

As shown in Figure 4.73, the prevalence of cumulative disorders among Brandon residents is significantly higher than the province in the second time period (2001/02–2005/06) and is increasing significantly over time. A significant increase is also seen in every district over the same time period, most notably in Brandon Central.

The prevalence of cumulative disorders is increasing significantly over time.
Figure 4.73: Prevalence of cumulative disorders by RHA

Age- & sex-adjusted percent of residents with disorder aged 10+

- BDN Rural (1,1)
- BDN Southeast (1)
- BDN West (1)
- BDN Southw est (1,1)
- BDN North End (1)
- BDN East (2,1)
- BDN Central (1,2,1)
- Brandon (2,1)
- South Eastman (1,2,1)
- Central (1,2,1)
- Assiniboine (1,2,1)
- Winnipeg (1)
- Interlake (1,2,1)
- North Eastman (1,2,1)
- Parkland (1,2,1)
- Churchill
- Nor-Man
- Burntw ood (1,1)
- Manitoba (1)

Source: Manitoba Centre for Health Policy, 2009

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

Figure 4.74 shows hospital separations for male and female residents with mental illness for 2003/04 to 2007/08. There are slightly more hospital separations for females than males.

Figure 4.74: Hospital separations for those with mental illness, 2003/2004-2007/2008

Age Standardized rate per 1000

Source: Manitoba Centre for Health Policy, 2008
Figure 4.75 illustrates the five-year mortality rate for residents, age 19 or older with and without cumulative mental illness, which includes depression, anxiety, substance abuse, personality disorders or schizophrenia. According to Figure 4.75, there is a significant difference between the two groups in that residents with a cumulative mental illness have a higher five-year mortality rate for the time period shown.

**Figure 4.75: Five-year mortality for people with and without cumulative mental illness (CMI), 2001/02 to 2005/06**

**Source:** Manitoba Centre for Health Policy, 2009

Depression is defined as the proportion of residents age 10 and older diagnosed with depression over a five-year period by any of the following:

- One or more hospitalizations with a diagnosis for depressive disorder, affective psychosis, neurotic depression or adjustment disorder
- One or more physician visits with a diagnosis for depressive disorder, affective psychosis or adjustment reaction
- One or more hospitalizations with a diagnosis for anxiety disorders and one or more prescriptions for an antidepressant or mood stabilizer
- One or more physician visits with a diagnosis for anxiety disorders, and one or more prescriptions for an antidepressant or mood stabilizer
According to Figure 4.76, there is a significant increase in the prevalence of depression over two time periods in every district within the Brandon region. This same trend is also observed in every regional health authority throughout the province.

**Figure 4.76: Prevalence of depression by RHA**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>BDN Rural (1,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN Southeast (t)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>BDN West (t)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>BDN Southw est (t)</td>
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</tr>
<tr>
<td>BDN North End (t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN East (t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDN Central (1,2,t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brandon (2,t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Eastman (1,2,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central (1,2,1)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Assiniboine (1,2,1)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Winnipeg (1,2,1)</td>
<td></td>
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<td></td>
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<tr>
<td>Interlake (1,2,1)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>North Eastman (1,2,1)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Parkland (1,2,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Churchill (1,2,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nor-Man (1,2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burntwood (1,2,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manitoba (t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1' indicates an 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

Source: Manitoba Centre for Health Policy, 2009

Figure 4.77 shows the percentage of the population with two or more prescriptions for antidepressants for two, one-year periods. Antidepressant use by Brandon residents is significantly higher than Manitoba for the second time period and is significantly increasing over time. This trend was also observed in Brandon Southeast, Brandon East and Brandon Central. Overall, antidepressant use is significantly increasing over time in every district in the region.
Figure 4.77: Antidepressant use by RHA

Age- and sex-adjusted percent of residents with two or more prescriptions for antidepressants

BDN Rural (t)
BDN Southeast
BDN West (t)
BDN Southwest
BDN North End (t)
BDN Central (1,2)
Brandon (2)
South Eastman (t)
Central (t)
Assiniboine (t)
Winnipeg (t)
Interlake (t)
North Eastman (t)
Parkland (t,1)
Churchill (t)
Nor-Man (1,2,1)
Burntwood (1,2,1)
Manitoba (t)

Source: Manitoba Centre for Health Policy, 2009

Adequate physician follow-up is an important aspect in the treatment of depression. Figure 4.78 shows the proportion of patients with a new prescription for antidepressants and a physician diagnosis of depression, who had at least three physician visits within four months of the prescription being filled. The proportion of residents in the Brandon region with a new prescription for antidepressants who received adequate medical follow-up is significantly higher than the provincial average for the second time period (2003/04–2005/06). The same trend is observed for Brandon West and the increase over time in Brandon Rural is statistically significant.

Figure 4.78: Antidepressant prescription follow-up by RHA

Crude percent of new Depression patients who received at least 3 physician visits in 4 months

BDN Rural (t)
BDN Southeast
BDN West (2)
BDN Southwest
BDN North End
BDN Central
Brandon (2)
South Eastman
Central (12)
Assiniboine (12)
Winnipeg (12)
Interlake (1)
North Eastman
Parkland
Churchill (s)
Nor-Man
Burntwood (12)
Manitoba

Source: Manitoba Centre for Health Policy, 2009
Figure 4.79 looks at the proportion of residents, age 10 or older diagnosed with anxiety over a five-year period, by any of the following:

- One or more hospitalizations with a diagnosis of anxiety states, phobic disorders or obsessive-compulsive disorders
- Three or more physician visits with a diagnosis for anxiety disorders

According to Figure 4.79, the prevalence of anxiety disorders in the Brandon region for residents age 10+ is significantly higher than the provincial average for the second time period and the increase over time is also statistically significant. While Brandon Rural and Brandon West are significantly lower than the province in the first time period (1996/97-2000/01), the increase over time is statistically significant. Overall, significant increases over time are seen in every district in the region.

**Figure 4.79: Prevalence of anxiety disorders by RHA**

Age- & sex-adjusted percent of residents with disorder aged 10+

- BDN Rural (1,1)
- BDN Southeast (1)
- BDN West (1,1)
- BDN Southest (1)
- BDN North End (1)
- BDN East (2,1)
- BDN Central (1,2,1)
- Brandon (2,1)
- South Eastman (1,2,1)
- Central (1,2,1)
- Assiniboine (1,2,1)
- Winnipeg (1,2,1)
- Interlake (1,2,1)
- North Eastman (2)
- Parkland (1)
- Churchill (1,2,1)
- Nor-Man (1,2)
- Burntw ood (1,2,1)
- Manitoba (1)

*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
*1 indicates change over time was statistically significant for that area
*2 indicates data is suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2009

Figure 4.80 looks at the proportion of residents age 10 years or older who are diagnosed through one or more physician visits or hospital abstracts over a five-year period with any of the following: alcoholic or drug psychosis, alcohol or drug dependence or nondependent abuse of drugs. Rates are shown for two reporting periods – 1996/97-2000/01 and 2001/02-2005/06. Overall, the percentage of residents with a diagnosis of substance abuse in the Brandon region is significantly higher than Manitoba average and is significantly increasing over time. This trend is also evident for Brandon East. Although Brandon Rural, Brandon West and Brandon Southwest are significantly lower than the province in the first time period, rates for those districts are similar to the province in the second time period. It is interesting to note that the prevalence of substance abuse is significantly decreasing over time at a provincial level.
The proportion of residents with a diagnosis of substance abuse is significantly increasing over time in Brandon, while significantly decreasing over time for the province.

Source: Manitoba Centre for Health Policy, 2009

The prevalence of personality disorders for residents age 10+ is shown for 1996/97-2000/01 and 2001/02-2005/06 in Figure 4.81. Overall, the percentage of residents in the Brandon region with the disorder is similar to the province for both reporting periods. At the district level, however, two extremes are observed. Brandon Rural is significantly lower than Manitoba for the two reporting periods while Brandon Central is significantly higher than the province for the same time periods.

Source: Manitoba Centre for Health Policy, 2009
The percentage of residents age 10 or older diagnosed with schizophrenia through hospital abstracts or physician visits are reported in Figure 4.82. Overall, the Brandon region is similar to Manitoba. At the district level, Brandon Rural is significantly lower than the province for both time periods while Brandon Central is significantly higher than the province for the same reporting periods.

**Figure 4.82: Prevalence of schizophrenia by RHA**

![Prevalence of schizophrenia by RHA](image)

Source: Manitoba Centre for Health Policy, 2009

The age-adjusted average annual percentage of the population with a Mental Health Management Information System (MHMIS) file is shown in Figure 4.83. MHMIS contains comprehensive case management information for all Manitoba residents who receive clinical, social or rehabilitation services from the Mental Health division of Manitoba Health. Because of some uncertainty with the MHMIS database, no statistical analysis has been done with these data. According to the Figure below, approximately 3.7% of the population has an MHMIS file in the first time period compared with 4.6% of the population in the second time period.

**Figure 4.83: Prevalence of individuals in MHMIS by RHA 1997/98-2001/02**

![Prevalence of individuals in MHMIS by RHA 1997/98-2001/02](image)

Source: Manitoba Centre for Health Policy, 2004
**Adult Community Mental Health program**

The Adult Community Mental Health Services (ACMHS) program provides mental health assessment and counseling for voluntary clients. Services are provided within a community-like setting in an attempt to enhance accessibility and comfort for clients. The primary mental and emotional health conditions include depression, anxiety disorders, adjustment disorders, posttraumatic stress disorder, psychotic disorders, grief/loss reactions and addiction in combination with any of the listed conditions.

There are two components to the AMHS program:

1. Intake services – includes assessment, consultation and referral, short-term counseling and crisis intervention.
2. Clinical services – includes additional assessment, problem solving counseling, counseling for a longer duration and crisis intervention.

The Adult Community Mental Health Team has been facing more challenges in recent years due to the complexity of clients’ situations and the resource limitations of community agencies and organizations. Extensive collaboration and creative problem solving is often required to meet the basic needs of clients.

**Psychosocial Rehabilitation program**

The Psychosocial Rehabilitation program (PSR) provides community-based care and service to people with a severe and persistent psychiatric disability. Using a client-centred approach, the focus is to improve skill building and enhancement in the areas of living, learning, working and socializing with clients.

Figures 4.84 and 4.85 reflect the age and sex of PSR program clients from 2005 to 2009. The volume of clients within each age grouping is consistent over the four reporting periods with the majority of clients between the ages of 46 and 55 years. The PSR program provides service to a much higher proportion of males than females with consistent volumes of both male and female clients over the four reporting periods.

**Figure 4.84: Psychosocial Rehabilitation program clients by age, 2005-2009**

![Graph showing the distribution of clients by age group and year from 2005 to 2009.]

Source: Psychosocial Rehabilitation Program, Annual Report, 2008-09

Brandon RHA, 2009 Community Health Assessment – Adults
Figure 4.85: Psychosocial Rehabilitation program clients by sex, 2005-2009

When looking at the diagnosis breakdown for PSR, the vast majority of clients receive services and supports for Schizophrenic disorder as shown in Figure 4.86. It is interesting to note the volume of clients with a Mood Disorder in the first and third reporting periods increased but this trend is not observed in the second reporting period.

Figure 4.86: Psychosocial Rehabilitation diagnosis breakdown, 2006 to 2009

In addition to a mental health disorder, many PSR clients also have challenges with alcohol, drugs, alcohol and drugs, alcohol and gambling, gambling only or alcohol, gambling and drugs combined. Figure 4.87 shows the breakdown of co-occurring disorders by alcohol, drugs, gambling or combination over three reporting periods. Alcohol addiction was the most...
frequent co-occurring disorder for all three reporting periods however there was a marked increase in the combination category in 2008/09.

**Figure 4.87: Psychosocial Rehabilitation clients with Co-Occurring Disorders, 2006 to 2009**

![Graph showing the trend of co-occurring disorders from 2006/2007 to 2008/2009.]

Source: Psychosocial Rehabilitation Program, Annual Report, 2008-09

**Centre for Adult Psychiatry**

The Centre for Adult Psychiatry (CAP) is a 25-bed facility, designated under the Mental Health Act of Manitoba. The Centre delivers acute, comprehensive services to adults between the ages of 18 and 64 who are experiencing a psychiatric illness and/or a severe psychosocial crisis. CAP is located in the Brandon Regional Health Centre. Figure 4.88 shows the number of readmissions to CAP within less than 30 days of discharge by three time periods. No particular trend is seen in these data.

**Figure 4.88: Centre for Adult Psychiatry readmission <30 Days, 2006 to 2009**

![Graph showing the trend of readmissions within 30 days from 2006/2007 to 2008/2009.]

Source: Centre for Adult Psychiatry Annual Reports, 2006-2009
Figure 4.89 shows the breakdown of region of residence for individuals referred to CAP. The majority of patients live in the Brandon region upon referral followed by Assiniboine RHA and Other RHAs respectively. It is interesting to note the difference in trend for 2008/09 when compared to 2007/08 fiscal year. A striking increase in clients from the Brandon region (55%/95%) and an equally striking decrease in clients (37%/4%) from the Assiniboine region is evident.

**Figure 4.89: Centre for Adult Psychiatry region of residence on referral, 2006 to 2009**

Source: Centre for Adult Psychiatry Annual Reports, 2006-2009

**Westman Crisis Services**

Established in 1995, Westman Crisis Services (WCS) is a nurse-managed facility comprised of two integrated services:

- Crisis Stabilization Unit – provides crisis intervention, short-term intensive care and treatment to voluntary adults who are experiencing a mental health or psychosocial crisis.

- Mobile Crisis Unit – assists in the stabilization of situations for adults experiencing apparent mental health or psychosocial crisis. The team is often able to provide on-site assessments and regularly provides telephone support and interventions.

A description of clients with suicide ideation for 2008/09 is shown in Figure 4.90. Equal numbers of clients have a mental health history and prior suicidal behaviour, followed closely by those having thoughts of suicide. It was not possible to determine suicidal ideation for approximately 61 clients while less than 40 had a suicide attempt in progress.
Figure 4.90: Westman Crisis Services description of clients with suicide ideation, 2008 to 2009


Manitoba Farm and Rural Stress Line

The Manitoba Farm and Rural Stress Line was established in December 2000 with funding from Manitoba Health. The program provides information, support, counseling and referrals to farm and rural families throughout the province. The average number of calls per month increased steadily from 2001 to 2004, decreased in 2005, and has continued to increase in 2006 and 2007 as shown in Figure 4.91. Although there are many reasons for producers to access the program, the dramatic increase between 2003 and 2004 is directly aligned with the Bovine Spongiform Encephalopathy (BSE) crisis of 2003.

Figure 4.91: Manitoba Farm and Rural Stress Line average calls per month, 2001-2007

Source: Manitoba Farm Rural Stress Line Annual Report, 2001-2007
Sexual Health

Healthy sexual practices are a critical component of health sexuality. Knowledge about preventing unplanned pregnancy and sexually transmitted infections is essential to ensure effective personal health practices are in place.

Figure 4.92 and Figure 4.93 show crude cases per 1,000 of chlamydia and gonorrhea for males and females for 2002 to 2006. Cases of chlamydia are higher in Brandon for both males and females than the province overall while cases of gonorrhea are lower in the region when compared to Manitoba.

**Figure 4.92: Chlamydia and Gonorrhea male crude cases per 1000, five-year average, 2002-2006**

![Bar chart for male cases]

Source: Manitoba Health, RHA Profiles 2008

**Figure 4.93: Chlamydia and Gonorrhea female crude cases per 1000, five-year average, 2002-2006**

![Bar chart for female cases]

Source: Manitoba Health, RHA Profiles 2008

HIV crude cases for 2002 to 2006 were suppressed due to small numbers.
**Women**

While there are basic health issues that women and men have in common, there are health issues that are specific to women. For the purpose of this report, women’s health indicators are kept to pregnancy, childbirth and the reproductive health system.

According to CancerCare Manitoba, cervical cancer is one of the most preventable cancers in Manitoba and Canada. Most women who develop cervical cancer have never had a Pap test or haven’t had one in five years or more.

Cervical screening rates for women age 18 to 69 with one or more Pap smears in a three-year period are shown in Figure 4.94. The Brandon region is significantly higher than the provincial average for both time periods. This trend is also observed in Brandon West and Brandon Southwest. Brandon Southeast and Brandon North End are higher than Manitoba for the second time period; the rate in Brandon Southeast is increasing significantly over time.

**Figure 4.94: Cervical cancer screening rates by RHA**

Age-adjusted percent of women aged 18-69 with one or more PAP smears in a three-year period

Brandon RHA, 2009 Community Health Assessment – Adults

Cervical cancer screening for women in the Brandon region age 15 to 85+ is shown in Figure 4.95. Data are presented in five-year age groupings for two time periods – 2003-2006 and 2005-2008. Screening rates increase in all age groupings up to 70 years with the exception of 40 to 49 year olds. The highest screening rates are among 25 to 29 year olds.
The highest cervical screening rates are among 25 to 29 year olds.

Figure 4.95: Cervical cancer screening by age group, Brandon RHA

![Cervical cancer screening by age group, Brandon RHA](image)

Source: Manitoba Health Reports

Figure 4.96 illustrates the age at first pregnancy by RHA and by four age groupings for 2001/02 to 2003/04. Differences are noted among younger women in the Brandon region when compared to Manitoba women overall. The proportion of women age 18 to 21 is higher than Manitoba (57.1/47.2) as well as the proportion of women age 22 to 29 (42.2/36.2). Rates for women age 30 to 39 and 40 to 49 are similar between the region and the province.

Figure 4.96: Age at first pregnancy - Manitoba women, 2001/02 – 2003/04

![Age at first pregnancy - Manitoba women, 2001/02 – 2003/04](image)

Source: Women’s Health Profile, 2008
Pre-term birth refers to the birth of a baby of less than 37 weeks gestational age. A pre-term birth is commonly known as a premature birth.

According to Figure 4.97, the pre-term birth rate for the Brandon region is similar to the province for the reporting period at 8.9% compared to 8.0%. There are distinct differences noted at the district level. The pre-term birth rate for Brandon East is 6.8% compared to Brandon Southeast at 11.2%.

**Figure 4.97: Pre-term birth rate by RHA, 2002/03 to 2006/07**

Pre-term birth rates vary between districts with Brandon East at 6.8% compared to Brandon Southeast at 11.2%.

The volume of births for Brandon residents has been stable over many years, between 500 and 600 births per year. An increase was noted however in 2006/07 and the number remains closer to 700 births per year since. This increase is directly aligned with the immigration pattern for the region.

**Figure 4.98: Brandon RHA births**

Brandon residents account for approximately 700 births per year.

Source: Manitoba Health and Healthy Living, Health Information Management

Source: Brandon RHA Performance Measurement Project, 2008/09
Both low and high birth weights have an effect on baby’s ability to thrive. Birth weights are also a strong indicator of potential future health problems. Low birth weight babies are live babies whose weight is less than 2500 grams (5.5 pounds). High birth weight refers to babies born at a greater than 4000 grams or 8.8 pounds.

Figure 4.99 indicates that during the time period 2002/03 to 2006/07, the percentage of low birth weight babies in the Brandon region is similar to the province overall. There are noticeable differences at the district level. Brandon West has the highest rate of low birth weight babies while Brandon Southeast has the lowest rate. 

**Figure 4.99: Low birth weight rate by RHA, 2002/03 - 2006/07**

Brandon West has the highest rate of low birth weight babies, while Brandon East has the highest rate of high birth weight babies.

Note: The percentage of live infants born weighing less than 2500 grams to the number of births (birth weight known and greater than 500 grams).
Source: Manitoba Health and Healthy Living, Health Information Management

Conversely, Figure 4.100 indicates that during the time period 2002/03 to 2006/07, the percentage of high birth weight babies in the Brandon region is lower to the province overall (15.0%/16.5%). There are noticeable differences at the district level. Brandon East has the highest rate of high birth weight babies among the districts and is higher than the province while Brandon Rural has the lowest rate among the districts and is lower than the province overall.
Figure 4.100: High birth weight rate by RHA, 2002/03 - 2006/07

Note: The percentage of live infants born weighing more than 4000 grams to the number of births (birth weight known and greater than 500 grams).
Source: Manitoba Health and Healthy Living, Health Information Management

Size for gestational age can be divided into nine different categories based on gestational age (preterm, term and postterm) and birth weight (small, appropriate and large). Rates for small-for-gestational age are calculated by taking all live born small for pre-term, small for term and small for post-term births and dividing by the total number of live-born deliveries. Figure 1.101 reflects the percentage of infants born with a low birth weight for gestational age by RHA for two time periods – 1996/97-2000/01 and 2001/02-2005/06.

As seen in Figure 4.101, rates of small-for-gestational age in the Brandon region are similar to the province overall for both time periods. At the district level, a considerable decrease over time is noted for Brandon Southeast.
Figure 4.101: Small-for-gestational age rates by RHA

There are several reasons why women need to travel to give birth in Manitoba but the fact that many family practitioners are no longer providing obstetrical care in small rural communities is central to this trend. With a large birthing unit at the Brandon Regional Health Centre and access to obstetricians and midwives, Brandon has become the primary center for birthing in southwestern Manitoba.

Figure 4.102 reflects the proportion of woman who traveled to give birth in 2002/03, by level of risk, for the Brandon and Assiniboine regions and Manitoba overall. Less than 10% of women in the Brandon region with a low risk pregnancy travel while almost 70% of their counterparts in the Assiniboine region travel. Similarly about 5% of women in the Brandon region who have a high-risk pregnancy travel to give birth in comparison to 84% from Assiniboine.
Induction of labour includes both medical (using medications) and surgical (artificial rupture of membranes). While there are situations when the risks of waiting for a spontaneous labour and birth are greater than the risks associated with induction, inducing labour also comes with risk including increased rate of infection and caesarian delivery.

According to Figure 4.103, the rate of inductions in labour has steadily increased in the Brandon region, over three reporting periods while the rate for Manitoba has tapered off.

Managing the pain of labour and childbirth is an important aspect of maternity care. Although there are proven non-pharmacological methods to reduce pain, women and physicians have become increasingly reliant on the use of epidural analgesia.
Figure 4.104 shows the rate of analgesia/anesthesia used during childbirth for women in the Brandon region compared to Manitoba overall, over three time periods. For the 1988/89-1992/93 reporting period, Brandon’s rate was lower than the province. By 1993/94-1997/98, the rate of analgesia/anesthesia during birth for Brandon residents was slightly higher than the province and, by 1998/99-2002/03, Brandon region had surpassed the province overall.

**Figure 4.104: Any analgesia/anesthesia during birth, 1988/89 to 2002/03**

![Bar chart showing the rate of analgesia/anesthesia during birth for Brandon and Manitoba from 1988/89 to 2002/03.](image)

Source: Women’s Health Profile, 2008

Assisted vaginal birth refers to the use of either forceps or vacuum extraction during birth. Reasons for an assisted vaginal birth include when normal labour fails to progress, when the fetus is compromised or when pushing is too risky to the mother’s health. Figure 4.105 shows the rate of assisted vaginal births, per 1,000 deliveries, for Brandon residents compared to Manitoba, for three time periods. In 1988/89-1992/93, there were approximately 10% assisted vaginal births. The number has increased through each reporting period. Conversely, assisted vaginal births for Manitoba have steadily decreased over the same reporting periods.

**Figure 4.105: Assisted vaginal births, Brandon and Manitoba, 1988/89 to 2002/03**

![Bar chart showing the rate of assisted vaginal births for Brandon and Manitoba from 1988/89 to 2002/03.](image)

Source: Women’s Health Profile, 2008

The number of assisted vaginal births has steadily increased in the Brandon region, while Manitoba has decreased over the same reporting periods.
Birth by Caesarian section can be a life-saving intervention for both women and babies but there are associated risks as with any other major surgery. Women who have had Caesarian sections are more likely to experience post-operative bleeding, pain and infection. Babies who have been born by Caesarian section are at risk for respiratory problems following birth and difficulties with breastfeeding. The rate of birth by Caesarian section has increased markedly over the last few decades. Despite the World Health Organization’s recommendation of 5 to 15% as an appropriate range for births by Caesarian section, the rate of Caesarian section births in Canada and Manitoba has increased substantially.

Figure 4.106 shows the Caesarian section rate by RHA for two reporting periods. Brandon is significantly higher than the province for the second time period and the increase over time is significant. At the district level, this same trend is observed in Brandon Central.

**Figure 4.106: Caesarean section rates by RHA**

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
1” indicates change over time was statistically significant for that area
3.6' indicates data is suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2008

A vaginal birth after Caesarean Section (VBAC) is defined as giving birth vaginally after having had at least one delivery by Caesarian section. According to the Canadian Institute for Health Information, VBAC is an important indicator of the effort to reduce unnecessary C-sections.

As shown in Figure 4.107, Brandon is similar to Manitoba overall for both reporting periods.
Established in 2001, Midwifery Services offers women in southwestern Manitoba a community-based, holistic option for maternity care. The program provides comprehensive prenatal and postnatal care and support as well as birthing options.

Figure 4.108 shows the proportion of births by health region. Between 2001 and 2009, the majority of births are for women living in the Brandon region. The number of births through the Midwifery program peaked for both regions in 2006, which is consistent with the immigration trend for the region.

Source: Manitoba Centre for Health Policy, 2008

Source: Brandon RHA Performance Measurement Project, 2009
Home births are an option through Midwifery Services for women who live in the City of Brandon. As shown in Figure 4.109, a small proportion of deliveries occurred in the client’s home between 2006 and 2009. The proportion of home deliveries is increasing over time.

**Figure 4.109: Percentage of home births by Midwives, Brandon RHA**

Newborn feeding type is recorded on the hospital discharge abstract as ‘breast’, ‘artificial’ or ‘both breast and artificial’. The breastfeeding initiation rate was calculated by taking the ratio of live born babies who were exclusively or partially breastfed, to the total number of live born babies in Manitoba.

According to Figure 4.110, Brandon is higher than Manitoba for the second time period and the increase over time is considerable. At the district level, an increase is also noted in the second time period for Brandon Rural and Brandon Southwest.

**Figure 4.110: Breastfeeding initiation rates by RHA**

Source: Brandon RHA Performance Measurement Project, 2009

Source: Manitoba Centre for Health Policy, 2008
Maternal hospital readmission refers to all hospital admissions within three months of the live birth or stillbirth of a baby. Admissions for all causes, whether or not they are related to the birth, are included. As shown in Figure 4.111, maternal hospital readmissions for women in the Brandon region were lower than the province for the first two reporting periods but a substantial increase is observed for the third reporting period.

Figure 4.111: Maternal hospital readmissions, 1988/89 to 2002/03

Source: Women’s Health Profile, 2008

The Families First program offers home visiting supports to families with children, from pregnancy to school entry. The program is delivered across the province by Public Health Services and there is no cost to participate.

A Public Health Nurse completes the initial assessment and develops a client-centered plan that usually involves a Home Visitor. The Home Visitor meets with the family on a regular basis, for up to three years, to help build strong relationships within the family through education and skill development.

A variety of risk factors associated with the Families First program are shown for the Brandon region in comparison to Manitoba in Figure 4.112. Overall, Brandon residents have a higher rate of ‘three or more risk factors’ (30%) than Manitoba (24%). Experiencing anxiety/depression, and smoking during pregnancy are also risk factors for a higher proportion of Brandon residents than Manitobans. The proportion of Brandon residents ‘requiring social assistance’ is similar to the province while a lower proportion of Brandon residents identify ‘no high school education’.
Figure 4.112: Families First Program risk factors, 2003-2006

Hysterectomy is the surgical removal of all of part of the uterus. It is most often performed to treat heavy bleeding, chronic pain or cancer that cannot be controlled by less invasive methods. It the second most common major surgical procedure performed on women (after caesarian section). As shown in Figure 4.113, the Brandon region has a slightly higher hysterectomy rate than Manitoba overall for the five reporting periods displayed.

Figure 4.113: Hysterectomy rate, Brandon and Manitoba (age-adjusted per 1,000 women age 25 or older)

Source: Manitoba Health, RHA Profiles 2008

According to CancerCare Manitoba, a mammogram is an x-ray of breasts using low doses of radiation. It can show most breast cancer two to three years before it can be felt and is considered the best way to detect early breast cancer. Figure 4.114 shows mammography rates by RHA for two time periods; 1999/00-2000/01 and 2004/05-2005/06. The Brandon region is significantly higher than the province for the first time period as is Brandon Rural, Brandon West and Brandon East. Brandon Southeast and Brandon West are both significantly higher than the province for the second time period.
Figure 4.114: Mammography rates by RHA

Age-adjusted percent of women aged 50-69 receiving at least one mammogram in two years

- BDN Rural (1)
- BDN Southeast (2)
- BDN West (1,2)
- BDN Southwest
- BDN North End
- BDN East (1)
- BDN Central
- Brandon (1)
- South Eastman
- Central (t)
- Assiniboine (1)
- Winnipeg
- Interlake
- North Eastman
- Parkland
- Churchill
- Nor-Man
- Burntwood (1,2)
- Manitoba

Source: Manitoba Centre for Health Policy, 2009

**Premature Mortality**

**Premature mortality rate**

A premature mortality rate (PMR) is the number of deaths that occur prior to the age of 75 years. As shown in Figure 4.115, Brandon’s premature mortality rate decreased over the two reporting periods. This trend is noted in Brandon North End as well. The PMR for Brandon West is significantly lower than the province in the first time period (1996-2000), while the PMR for Brandon Rural is lower in the second time period (2001-2005). Brandon Central is significantly higher than the Manitoba average in the second time period.
Figure 4.115: Premature mortality rates

The top three causes of premature mortality are cancer, circulatory disease and injury.

Source: Manitoba Centre for Health Policy, 2009

Causes of premature death

Figure 4.116 and Figure 4.117 show the causes of premature death in Rural South and Brandon for 1996-2000 and 2001-2005 respectively. The top three causes are similar between reporting periods with cancer as number one (37.5%/38.7%), followed by circulatory diseases (27.8%/24.9%) and injury (11%/11.6%).
Figure 4.116: Causes of premature death, Rural South and Brandon, 1996 - 2000

Source: Manitoba Centre for Health Policy, 2009

Figure 4.117: Causes of premature death, Rural South and Brandon, 2001 - 2005

Source: Manitoba Centre for Health Policy, 2009
**Potential Years of Life Lost**

Potential years of life lost (PYLL) reflect the years of life lost when a person dies before the age of 75, thus giving greater weight to a death occurring at a younger age. As shown in Figure 4.118, rates for Brandon are similar to Manitoba for the 1996-2000 and 2001-2005 reporting periods. Although the rate of PYLL for Brandon Rural is lower than the province in the first time period, there are no marked differences at the district level in the second time period.

**Figure 4.118: Potential years of life lost by RHA**

![Diagram showing PYLL rates for different regions in Brandon RHA with annotations for statistical significance.](image)

*1' indicates area's rate was statistically different from Manitoba average in first time period
*2' indicates area's rate was statistically different from Manitoba average in second time period
*3' indicates change over time was statistically significant for that area
*4' indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2009

Figure 4.119 shows the comparison of potential years of life lost per 1,000 residents for select causes of death for males, based on a five-year average (2002-2006), between Brandon and Manitoba. Select causes of death examined include cancer, circulatory disease, injury, suicide and respiratory disease. Overall, the PYLL rate for males is lower in the Brandon region than the province for all causes of death.
Figure 4.119: PYLL rates per 1000 residents for select causes of death, 5 year average 2002-2006 Male

![Bar chart showing PYLL rates for select causes of death for males in Brandon and Manitoba.](chart1)

Source: Manitoba Health, RHA Profiles, 2008

Figure 4.120 shows the comparison of potential years of life lost per 1,000 residents for select causes of death for females, based on a five-year average (2002-2006), between Brandon and Manitoba. Select causes of death examined include cancer, circulatory disease, injury, respiratory disease and suicide. Overall, the PYLL rate for females in the Brandon region is lower than the province for all causes of death with the exception of respiratory disease for which Brandon is the same as Manitoba.

Figure 4.120: PYLL rates per 1000 residents for select causes of death, 5 year average 2002-2006 Female

![Bar chart showing PYLL rates for select causes of death for females in Brandon and Manitoba.](chart2)

Source: Manitoba Health, RHA Profiles 2008
As noted earlier, cancer is the number one cause of premature death in the Brandon region for 1996-2000 and 2001-2005 reporting periods. Table 4.121 shows the percentage of cancer-related deaths for females and males by region and by cancer site for 2000 to 2005. The Brandon region is included in the South Rural region of residence. For females, rates for the Brandon region are similar to Manitoba for colorectal, breast, pancreas and ovary cancers. A lower percentage of females in Brandon is observed for lung and a higher percentage of females in the region is noted for other types of cancer.

For males, the proportion of Brandon residents is similar to Manitoba for the six types of cancer listed with the exception of lung; the rate for Brandon males is slightly higher than the province.

**Table 4.121: Percentage of deaths from cancer by region, sex, and cancer site for 2000 to 2005**

<table>
<thead>
<tr>
<th>Region of Residence</th>
<th>Lung</th>
<th>Colorectal</th>
<th>Breast</th>
<th>Pancreas</th>
<th>Ovary</th>
<th>Other</th>
<th>Lung</th>
<th>Colorectal</th>
<th>Prostate</th>
<th>Pancreas</th>
<th>Bladder</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba</td>
<td>25.6%</td>
<td>10.8%</td>
<td>10.0%</td>
<td>6.6%</td>
<td>5.0%</td>
<td>42.0%</td>
<td>28.9%</td>
<td>11.6%</td>
<td>8.0%</td>
<td>5.3%</td>
<td>3.7%</td>
<td>42.5%</td>
</tr>
<tr>
<td>North</td>
<td>28.7%</td>
<td>10.3%</td>
<td>14.4%</td>
<td>6.9%</td>
<td>2.3%</td>
<td>37.4%</td>
<td>31.7%</td>
<td>10.7%</td>
<td>11.2%</td>
<td>2.2%</td>
<td>1.3%</td>
<td>42.9%</td>
</tr>
<tr>
<td>Mid</td>
<td>25.8%</td>
<td>12.8%</td>
<td>9.1%</td>
<td>7.1%</td>
<td>5.5%</td>
<td>39.7%</td>
<td>27.8%</td>
<td>11.4%</td>
<td>9.3%</td>
<td>5.4%</td>
<td>3.6%</td>
<td>42.4%</td>
</tr>
<tr>
<td>Winnipeg</td>
<td>26.9%</td>
<td>10.7%</td>
<td>9.7%</td>
<td>6.5%</td>
<td>4.9%</td>
<td>41.3%</td>
<td>29.9%</td>
<td>11.6%</td>
<td>7.0%</td>
<td>5.3%</td>
<td>3.8%</td>
<td>42.4%</td>
</tr>
<tr>
<td>South Rural</td>
<td>21.7%</td>
<td>10.0%</td>
<td>10.8%</td>
<td>6.3%</td>
<td>5.4%</td>
<td>45.9%</td>
<td>27.2%</td>
<td>12.0%</td>
<td>8.8%</td>
<td>5.6%</td>
<td>3.9%</td>
<td>42.6%</td>
</tr>
</tbody>
</table>

Source: Manitoba Health, RHA Profiles 2008
New Programs and Services

Healthy Brandon

In the spring of 2005, Manitoba Health and Healthy Living approached the RHAs with an opportunity to address the burden of chronic disease at the community level. Funding from both federal and provincial governments was available to support a five-year demonstration initiative. Senior management in each regional health authority, the Minister of Healthy Living and a northern Aboriginal organization signed a Chronic Disease Prevention Initiative Charter. The key underpinnings of this demonstration initiative are Community Led, RHA Supported and Government Coordinated.

Funding was available to work with up to 20,000 residents in the region. The planning team decided to target 30 to 59 year olds because they are the population sub grouping with which the greatest health gains could be realized. Workplaces were identified as a practical mechanism to connect with this age group and an opportunity to deliver health related programs and services that would influence a positive cultural shift towards healthy living. Based on the findings of the 2004 comprehensive Community Health Assessment and current literature, four key trajectories were identified:

1. Physical Activity
   To increase physical activity options within our community so that all individuals can participate
2. Healthy Eating
   To provide information and supports for healthy eating without focusing on weight loss
3. Tobacco Cessation
   To provide practical tools to support tobacco cessation and community awareness
4. Living Well with Stress
   To create awareness of ways to cope with life stressors in a productive way.

Using the Ottawa Charter for Health promotion as a framework, several successful initiatives have been developed. Examples are presented below:

Create Supportive Environments
- Community Gardens

Strengthen Community Action
- Focused discussion with cyclists

Develop Personal Skills
- Label reading pocket guide

Reorient Health Services
- Wellness Screens in the workplace

Build Healthy Public Policy
- Corporate policy to provide fresh fruit at meetings
Early Intervention Services

The Early Intervention Service (EIS) is a new initiative through Community Mental Health Services that was developed to identify, support and treat individuals, age 15 to 30, who are experiencing psychosis and/or having been diagnosed with bipolar illness for the first time. It is modeled from other programs utilizing evidence-based, best practice guidelines. EIS clinicians and activity instructors provide the service, with psychiatric and psychological consultation as required.

Treatment can involve the use of medication, individual counseling, family support and counseling, practical supports and involvement in a recovery program which focuses on helping clients get their lives back on track.

Tobacco Dependence Program

Hospitalization coincides with an increased motivation to quit smoking. Guidelines for the treatment of tobacco dependency recommend that health care institutions support the consistent and effective identification and treatment of tobacco users, yet few Canadian hospitals have such procedures in place (University of Ottawa Heart Institute, 2009).

The Brandon RHA is the only health authority in Manitoba with a Tobacco Dependence Counselor working exclusively with inpatients and outpatients on tobacco reduction and/or cessation. The Brandon RHA was recently selected by the University of Ottawa Heart Institute (UOHI), the Heart and Stroke Foundation of Ontario and Pfizer Canada to participate in the Ottawa Model for Smoking Cessation.

There are several benefits to aligning with the Ottawa model including operational funding from Pfizer Canada to implement an interactive voice response (IVR) follow-up system on-site, which is proven to have a significant impact on long-term cessation rates, coaching by UOHI experts, and recognition as an OMSC Network. Members of the Network have access to bilingual resources and tools for implementation, smoking cessation training opportunities, linkages to health professionals in other regional programs, coaching from UOHI experts and recognition as an OMSC hospital.

Figure 4.122 shows the volume of referrals and follow-up visits by the Tobacco Dependence Program counselor, for two fiscal years. Volumes are stable over time.
Figure 4.122: Tobacco Dependence Program data

<table>
<thead>
<tr>
<th>Referrals</th>
<th>Follow-up Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>893</td>
<td>729</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>930</td>
<td>576</td>
</tr>
</tbody>
</table>

Source: Brandon RHA, Performance Measurement Project, 2009

**H1N1 Immunization program**

May 5, 2009 saw the first H1N1 case in Brandon when a school-aged child became infected. In preparation for the mass H1N1 immunization campaign, changes were made to the seasonal flu eligibility and the seasonal influenza campaign was shortened. The Brandon Regional Health Authority followed provincial direction and held the first H1N1 immunization clinic on October 26, 2009. Mass immunization clinics continued over the next eight weeks. Although the campaign was delivered through one primary site, the Town Centre, other sites were used in an attempt to reach priority populations in the community. These sites included Helping Hands, Mahkaday Gineu Memorial Hall, Brandon Regional Health Centre, Aboriginal Healing and Wellness Centre, Manitoba Métis Federation, Assiniboine Community College, Brandon University and Maple Leaf Pork. Subsequent immunizations were provided through Personal Care Homes, Public Health Services and the Occupational Health department at the Brandon Regional Health Centre. During the 12th week of the campaign, Public Health Nurses provided H1N1 immunizations in the school setting. H1N1 immunization continues to be available through Public Health Services. To date, 19,510 immunizations have been provided. A total of 39% of residents in the Brandon region have been immunized compared to 36% for the province overall.

**Co-Occurring Disorders Initiative**

In 2003, the Brandon RHA launched the new CODI initiative for the region. The purpose of the provincial Co-occurring Disorders Initiative (CODI) is to improve service to individuals with co-occurring mental health and substance use disorders. The Addictions Foundation of Manitoba, eleven regional health authorities and Manitoba Health and Healthy Living jointly sponsor the program. Residents with a dual diagnosis participate in peer facilitated recovery sessions. They meet weekly and talk openly about their experiences. Processes are underway to improve documentation between service sectors and annual training opportunities are provided for those working with individuals with co-occurring issues.
So, what does this mean?

- The majority of adults live in Brandon West, followed by Brandon Central; Brandon Southeast and Brandon Rural have the fewest number of adults.
- There is a significant increase over time in male life expectancy.
- Approximately half of the residents age 12+ in any district are physically active.
- The highest rate of current smokers live in Brandon Southeast and Brandon East.
- Brandon has a slightly higher proportion of heavy drinkers than the province.
- Brandon East has the highest proportion of overweight/obese residents while Brandon Rural has the lowest.
- Similar to the province, 32% of Brandon residents consume 5 or more servings of fruits and vegetables per day.
- Rates of respiratory disease for residents in Brandon East and Brandon Central show a significant decrease over time.
- There is a slightly higher incidence of diabetes among males than females in the region.
- A significant increase in hypertension rates over time is seen in every district.
- Prevalence of ischemic heart disease for 2001/02 – 2005/06 is similar to Manitoba overall.
- Rates of hospitalization or death due to stroke have significantly decreased over time in Brandon Rural, Brandon West and Brandon East.
- The incidence of prostate, lung and bronchus, colon excluding rectum, melanomas and pancreas are higher for males in Brandon than Manitoba.
- The incidence of lung and bronchus, colon excluding rectum, corpus uteri, Non-H Hodgkin’s lymphoma, cervix uteri and melanomas are higher for females in Brandon than Manitoba.
- Arthritis prevalence for the region overall, and Brandon Rural and Brandon West is significantly increasing over time.
- Brandon is significantly higher than the province for prevalence of osteoporosis.
There is a significant difference between the proportion of males and females in the region with renal failure; males are higher.

Trauma, coma and toxic effects are the primary reason for adults, age 20 to 44 and 45 to 64 years to go to the Emergency Room.

The most common reason for Same Day Care visits among adults is diagnostic endoscopy of the gastrointestinal tract with biopsy/function study.

The volume of hospital visits for adults, age 20 to 64 is stable with a higher number of visits by the younger adult population.

The top reason for hospitalization among 20 to 44 year olds is pregnancy and childbirth; the top reason for 45 to 64 year olds in 2007/09 is diseases and disorders of the circulatory system.

Heart attack rates are significantly higher in the region than the province but are decreasing significantly over time.

Brandon’s rate of cardiac catheterizations is significantly lower than the province; Brandon West in particular.

Angioplasty and Stent insertion rates are significantly lower than the province, coronary artery bypass graft rates are similar to the province and percutaneous coronary intervention rates are increasing significantly over time.

Adults account for 62% of injury-related visits to the Emergency Room and accidental falls account for the most common injury among both age groups.

The most significant decrease in hospitalization or death due to injuries among females is in Brandon Southwest; among males is in Brandon West, Brandon Southwest and Brandon Central.

The top three causes of death for Rural South & Brandon are motor vehicle, violence to self and accidental falls.

Suicide rates are similar between Brandon and Manitoba.

Prevalence of cumulative mental health disorders is increasing significantly over time for Brandon.

Antidepressant use is increasing significantly over time in every district; medical follow-up of those with a prescription is significantly higher than the province.

There is a significant increase over time in the prevalence of anxiety disorders and substance abuse.

Prevalence of personality disorders and schizophrenia is higher in Brandon Central.
Alcohol addiction is the most frequent co-occurring disorder (with a mental health disorder)

Higher number of cases of chlamydia and gonorrhea for males and females in the Brandon region than Manitoba overall

Brandon has higher cervical screening rates than Manitoba

Highest rate of pre-term births in the region are in Brandon Southeast

Approximately 700 births per year for Brandon residents

Brandon West has the highest rate of low birth weight babies while Brandon east has the highest rate of high birth weight babies

Less than 10% of women in the region travel to give birth

There has been a steady increase in inductions of labour and use of analgesia/anaesthesia during birth over a decade

The Caesarean section rate for Brandon women is significantly increasing over time

The number of births through the Midwifery program peaked in 2006 which is consistent with the immigration trend for the region

Brandon residents have a higher rate of ‘three or more risk factors’ for the Families First program than Manitoba

Brandon’s premature mortality rate decreased significantly over two time periods – cancer is the top cause of premature death

The Potential Years of Life Lost for males in Brandon is lower than the province
Chapter 5
Seniors

When we think of seniors, we often think of older adults with health concerns or those living in personal care homes. But the demographic of the seniors’ population has changed significantly over the years as older people are enjoying better health and living longer. Overall, the population in the Brandon region is aging. There are significant implications of an aging population; longer retirements, dementia as a health concern and the types of health services that will be required. This section provides an overview of factors associated with the health of seniors in the Brandon region. Specifically, it includes the following:

- Demographics of seniors living in the region including the number of seniors, the proportion of seniors by district and housing options
- Immunizations including influenza and pneumonia
- Use of health services including reasons for Emergency Room and Same Day Care visits, reasons for hospitalization, and Home Care and Personal Care Home use
- Injuries including hip fractures
- Mental health including medication use, dementia, access to Mental Health Services for the Elderly and the Centre for Geriatric Psychiatry
- Causes of death
- New programs and services in the region

The highest proportions of seniors live in Brandon West, followed by Brandon Central and Brandon Southwest.

Demographics

Seniors live throughout the Brandon region and there is a high degree of variation between districts. As shown in Figure 5.1, the highest proportion of seniors live in Brandon West (26%) followed by Brandon Central (19%) and Brandon Southwest (16%). The lowest proportion of seniors lives in Brandon Rural (7%) and Brandon Southeast (6%) districts.
There are limited housing options in the region for older adults, age 55+, when they are no longer able to remain in their own homes. Independent living facilities offer private accommodation ranging from a studio or bachelor suite to a full-sized apartment with a kitchen. In many places, residents may prepare their own meals or they can eat with other seniors in a common dining room. Some independent living facilities offer a recreation program, transportation, housekeeping and/or laundry services.

**Independent living facilities** in the Brandon region include the following:

- Odd Fellows – 50 rooms
- Lion’s Manor – 188 rooms
- Hobbs Manor – 100 rooms (based on one & two bedroom suites)
- Kiwanis Court – 34 rooms
- Parkview Seniors Housing Co-op – 27 rooms
- Kinsman – 47 rooms

There are also **Assisted living facilities** which combine independent living with services such as meals, housekeeping and laundry without the 24-hour care component available in supportive housing. Assisted living residences are independently owned in Manitoba.

- Victoria Landing – 136 rooms (based on one & two bedroom suites)
- River Heights Terrace – 117 rooms

**Supported housing** combines apartment living with services such as meals and housekeeping while providing 24-hour support care and supervision. This combination of services, healthcare and independence enables people to live safely and comfortably in the community.

- Sokol Manor – 10 rooms (based on one & two bedroom suites)
Communicable Disease Control

Immunization is the most important intervention in the control of communicable diseases. For the seniors’ population, there are two primary vaccinations – influenza and pneumonia.

Influenza

Figure 5.2 illustrates rates of Influenza (Flu) immunization among people 65 years and older in the Brandon region and by district for two time periods, 2000/01 and 2005/06. As a region, Brandon rates are significantly higher than the province for both time periods and have increased significantly over time. At the district level, a significant increase is observed in every district with the exception of Brandon Southwest.

Figure 5.2: Adult influenza immunization rates by RHA

There has been a significant increase in the rate of flu immunizations among seniors in every district except Brandon Southwest.

Pneumococcal

Pneumococcal vaccination is available to all residents over the age of 65 and is typically received once in a lifetime. Therefore rates show a cumulative percent of residents who ever had a pneumococcal vaccination as defined by physician billing codes. According to Figure 5.3, by the end of 2005/06, the rate for Pneumococcal immunization among older residents in the region is similar to the provincial average with significant increases in every district from the end of 2000/01.
Use of Health Services

Emergency Room

The Emergency Room (ER) is an essential service within every health care system. It is an area in an institution that is staffed and equipped to provide rapid and varied emergency care, especially for those who experience sudden and acute illness or who are the victims of severe trauma. The emergency department at the Brandon Regional Health Centre uses a triage system of screening and classifying clients to determine priority needs for the most efficient use of available personnel and equipment.

Seniors age 65 to 84 account for approximately 10% of visits to the Emergency Room at the Brandon Regional Health Centre in 2008/09, while seniors age 85 years and older account for 6% of the visits for the same time period.

Figure 5.4 illustrates the reasons for younger seniors [age 65 – 84] to access the Emergency Room at the Brandon Regional Health Centre. Diseases and disorders of the digestive system are the primary cause of ER visits followed by trauma, coma and toxic effects, and diseases and disorders of the circulatory system. Other reasons include diseases and disorders of the respiratory system, diseases of the skin and subcutaneous tissue and diseases and disorders of the musculoskeletal system and connective tissue.
Figure 5.4: Reasons for emergency room visits for seniors, ages 65 to 84

![Bar chart showing reasons for emergency room visits for seniors, ages 65 to 84.](image)

Source: Brandon RHA ER Chart Review, 2009

Figure 5.5 illustrates the reasons for older seniors [age 85 plus] to access the Emergency Room at the Brandon Regional Health Centre. Trauma, coma and toxic effects are the primary cause of ER visits followed by diseases and disorders of the circulatory system, and diseases and disorders of the digestive system. Other reasons include diseases and disorders of the respiratory system, diseases and disorders of the musculoskeletal system and connective tissue, diseases and disorders of nervous system and oncological diseases and disorders.

Figure 5.5: Reasons for emergency room visits for seniors, age 85+

![Bar chart showing reasons for emergency room visits for seniors, age 85+.](image)

Source: Brandon RHA ER Chart Review, 2009
According to Figure 5.6, 64% of younger seniors [age 65 to 84], are discharged home after receiving care in the ER while 50% of older seniors [age 85+] are sent home. A total of 32% of younger seniors are admitted to the Brandon Regional Health Centre as a result of the ER visit while 38% of older seniors are admitted. A small proportion of both age groups are transferred from the facility. A total of 9% of patients 85 years or older died in the ER.

**Figure 5.6: Final disposition after a visit to ER at Brandon Regional Health Centre for seniors by age group, 2008/09**

![Bar chart showing final disposition](chart)

Source: Brandon RHA ER Chart Review, 2009

**Same Day Care**

Same Day Care visits are those where patients are admitted and discharged home the same day. Same Day Care involves a wide range of procedures such as laparoscopic cholecystectomy, hernia repairs, excisions, and scopes.

As shown in Figure 5.7, the volume of seniors accessing Same Day Care is increasing for both age groupings over time.
Figure 5.7: Same Day Care visits for seniors by fiscal year and age group

Table 5.8 illustrates the top five reasons for Same Day Care visits by seniors, age 65 to 84 over two time periods. Overall, health problems associated with the gastrointestinal tract account for the majority of visits for both time periods. Inspection, biopsy/function study and minor interventions account for 53% of visits for 2005/07 and 2007/09. Other reasons for Same Day Care visits include cataract extractions (20%/20%) and knee procedures (5%/2%).

Table 5.8: Reasons for Same Day Care visits for seniors ages 65 to 84

<table>
<thead>
<tr>
<th>Day Procedure Group</th>
<th>Seniors (65-84)</th>
<th>2005/07</th>
<th>2007/09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
<td>Ranking</td>
</tr>
<tr>
<td>Diagnostic Endoscopy Gastrointestinal Tract-Biopsy/Study</td>
<td>1</td>
<td>38%</td>
<td>1</td>
</tr>
<tr>
<td>Cataract Extractions</td>
<td>2</td>
<td>20%</td>
<td>2</td>
</tr>
<tr>
<td>Minor Digestive Interventions</td>
<td>3</td>
<td>9%</td>
<td>3</td>
</tr>
<tr>
<td>Diagnostic Endoscopy Gastrointestinal Tract-Inspection</td>
<td>4</td>
<td>6%</td>
<td>4</td>
</tr>
<tr>
<td>Knee Procedures</td>
<td>5</td>
<td>5%</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 5.9 shows the top reasons for Same Day Care for seniors age 85+ for 2005/07 and 2007/09. The number one reason for visits by procedure group in both time periods is cataract extractions (31%/28%). Similar to the younger seniors population, the combination of inspection, biopsy/function and minor interventions related to the gastrointestinal tract accounted for the majority of visits in both time periods. Skin procedures also make the top five list of reasons for visit for older seniors.
Table 5.9: Reasons for Same Day Care visits for seniors 85 years and older

<table>
<thead>
<tr>
<th>Day Procedure Group</th>
<th>2005/07</th>
<th></th>
<th>2007/09</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Cataract Extractions</td>
<td>1</td>
<td>31%</td>
<td>1</td>
<td>28%</td>
</tr>
<tr>
<td>Diagnostic Endoscopy Gastrointestinal Tract-Biopsy/Function Study</td>
<td>2</td>
<td>21%</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>Diagnostic Endoscopy Gastrointestinal Tract-Inspection</td>
<td>3</td>
<td>7%</td>
<td>4</td>
<td>7%</td>
</tr>
<tr>
<td>Minor Digestive Interventions</td>
<td>4</td>
<td>6%</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Skin Procedures</td>
<td>5</td>
<td>8%</td>
<td>5</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstrcting Database.

Hospitalizations

Hospitalizations account for the greatest proportion of health care spending. In 2008/09, there were 1167 hospitalizations for Brandon residents between 65 and 84 years and 440 hospitalizations for residents greater than 85 years in the Brandon Regional Health Centre.

Hospitalizations among the seniors population in both age groupings appear to be relatively stable over time.

Figure 5.10: Hospital visits for seniors by fiscal year and age group

Source: Brandon Regional Health Centre, Health Records Department, CIHI Portal
Table 5.11 and 5.12 illustrate the top five reasons for hospitalizations among seniors over two reporting periods. For seniors age 65-84, the number one reason for hospitalization for both time periods was diseases and disorders of the circulatory system.

In 2005-2007, other reasons for hospitalization ranked second followed by diseases and disorders of the digestive system, diseases and disorders of the respiratory system and diseases and disorders of the musculoskeletal system respectively. Changes to this trend are noted for 2007-2009, with diseases and disorders of the respiratory system ranking second followed by diseases and disorders of the digestive system, other reasons for hospitalization and diseases and disorders of the musculoskeletal system completing the top five list.

**Table 5.11: Reasons for hospitalization for seniors, ages 65 to 84**

<table>
<thead>
<tr>
<th>Seniors (65-84)</th>
<th>2005-07</th>
<th>2007-09</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Clinical Category</strong></td>
<td><strong>Ranking</strong></td>
<td><strong>Percent</strong></td>
</tr>
<tr>
<td>Diseases and Disorders of Circulatory System</td>
<td>1</td>
<td>17%</td>
</tr>
<tr>
<td>Other Reasons for Hospitalization (includes rehab, aftercare following surgery/treatment, palliative care, convalescence, respite, signs &amp; symptoms, etc)</td>
<td>2</td>
<td>16%</td>
</tr>
<tr>
<td>Diseases and Disorders of Digestive System</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>Diseases and Disorders of Respiratory System</td>
<td>4</td>
<td>11%</td>
</tr>
<tr>
<td>Diseases and Disorders of Musculoskeletal System</td>
<td>5</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database

For seniors 85+ years, the top five reasons for hospitalization in 2005 – 2007 are other reasons for hospitalization such as convalescence and respite, followed by diseases and disorders of the circulatory system, diseases and disorders of the respiratory system, diseases and disorders of the digestive system and significant trauma, injury, poisoning and toxic effects of drugs. There is a shift in the ranking however for 2007 – 2009. Diseases and disorders of the circulatory system ranked number one, followed by other reasons for hospitalization, diseases and disorders of the respiratory system, diseases and disorders of the digestive system and significant trauma, injury, poisoning and toxic effects of drugs. The lower ranking of other reasons for hospitalization in the second reporting period suggests improved management of the physical impact of treatment and the aging process.
Table 5.12: Reasons for hospitalization for seniors, age 85+

<table>
<thead>
<tr>
<th>Seniors (85+)</th>
<th>2005-07</th>
<th>2007-09</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Clinical Category</strong></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Other Reasons for Hospitalization (includes rehab, aftercare following surgery/treatment, palliative care, convalescence, respite, signs &amp; symptoms, etc)</td>
<td>1</td>
<td>21%</td>
</tr>
<tr>
<td>Diseases and Disorders of Circulatory System</td>
<td>2</td>
<td>17%</td>
</tr>
<tr>
<td>Diseases and Disorders of Respiratory System</td>
<td>3</td>
<td>13%</td>
</tr>
<tr>
<td>Diseases and Disorders of Digestive System</td>
<td>4</td>
<td>11%</td>
</tr>
<tr>
<td>Significant Trauma, Injury, Poisoning and Toxic Effects of Drugs</td>
<td>5</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database

High Profile Procedures

Hip replacements

Total hip replacement surgery involves removing the ends of both bones in a damaged joint and replacing them with an artificial/prosthetic joint. The most common reason for this surgery is advanced osteoarthritis.

Figure 5.13 illustrates the number of total hip replacements performed on area residents age 40 and older, per 1,000 area residents age 40 and older over two time periods. Brandon is similar to the province in both time periods with a significant increase over time in the rate of hip replacement surgeries performed, most notably in Brandon Rural, Brandon East and Brandon Central.

There has been a significant increase in the rate of hip replacement surgeries in Brandon Rural, Brandon East and Brandon Central.
**Knee replacements**

Total knee replacement, or total knee arthroplasty, is one of the most commonly performed orthopedic procedures. It is a surgical procedure in which parts of the knee joint that have been damaged, usually by a form of arthritis, are replaced with artificial parts (prostheses).

Brandon is significantly lower than the provincial average for the first time period (1996/97-2000/01) however a significant increase over time is observed. At the district level, significant increases over time are also seen in Brandon West, Brandon Southwest and Brandon Central.
Figure 5.14: Knee replacement rates

Age- & sex-adjusted rate of knee replacements, per 1,000 residents aged 40+

Source: Manitoba Centre for Health Policy, 2009

Cataract extractions

A cataract occurs when the lens of the eye becomes opaque thereby reducing vision. During surgery, the opaque lens is removed and replaced with a clear one, resulting in improved vision and quality of life for the patient.

Figure 5.15 shows the cataract surgery rates by RHA and for the Brandon districts. Brandon is significantly higher than the provincial average in the first time period (1998/99-2000/01) and similar to the provincial average for the second time period (2003/04-2005/06).

At the district level, Brandon Southwest is significantly higher than Manitoba in the first time period but is decreasing significantly over time. A significant decrease over time is also observed for Brandon Central.
Injury

Injuries in the senior population result in substantial costs to the individual and the health care system. The majority of injuries are predictable and preventable, adding to the tragedy at both a personal and societal level.

Emergency Room visits due to injury

Findings from the Brandon RHA ER Chart review done in 2009 showed that during the fiscal year 2008/2009, 12% of injury-related ER visits were for seniors: 6% for seniors 65 to 84 years old and 6% for seniors older than 85 years old. Opposite to adults, the majority of injury visits for both age groupings were for females (90% for younger seniors and 66% for older seniors).

The most common injuries for seniors 65 to 84 years old presenting to ER are:

- skin and subcutaneous tissue injuries (bruising and hematomas)
- sprains
- open wounds without complications (lacerations)
- closed fractures and dislocations (hip fractures)
The most common injuries for seniors older than 85 years old presenting to ER are:

- open wounds without complications (lacerations)
- closed fractures and dislocations (hip fracture)
- skin and subcutaneous tissue injuries (bruising and hematomas)
- head injuries

Figure 5.16 shows the breakdown of external causes of injury for seniors 65 to 84 and 85 plus years old from the ER chart review. For younger seniors, the majority of injuries are caused by accidental falls, followed by workplace injuries, other accidental threats to breathing, and events of undetermined intent. For older seniors, the majority of visits are due to accidental falls, followed by other accidents, and transport accidents.

**Figure 5.16: External causes of injury visits to ER for seniors, 2008/09**

The majority of injuries, for both younger and older seniors, are accidental falls.

Approximately 70% of younger seniors are discharged home after a visit to ER related to injury and 30% are admitted to hospital. However, less than half of older seniors (45%) are discharged home, an equal proportion are admitted to hospital or transferred to another acute care facility, and 10% died in the ER.

**Hospitalizations due to injury**

Causes for injury-related hospitalizations are shown in Table 5.17. For seniors, age 65 to 84 years, the top five causes for both reporting periods are accidental falls followed by other accidents, accidental poisoning, transport accidents and intentional self-harm. Accidental falls are the primary cause for injury-related hospitalizations among this age group at 85% for 2005/07 and 73% for 2007/09.
Accidental falls are the primary cause for injury-related hospitalizations for both younger and older seniors.

Table 5.17: Causes for injury hospitalizations, seniors ages 65 to 84

<table>
<thead>
<tr>
<th>Cause of Injury</th>
<th>2005-07</th>
<th>2007-09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Percent</td>
</tr>
<tr>
<td>Accidental Falls</td>
<td>1</td>
<td>85%</td>
</tr>
<tr>
<td>Other Accidents</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>Accidental Poisoning</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td>Transport Accidents</td>
<td>4</td>
<td>2%</td>
</tr>
<tr>
<td>Intentional Self-Harm</td>
<td>5</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database

Similar to the younger seniors population, accidental falls are the leading cause of injury related hospitalizations for seniors 85+ years. As shown in Table 5.18, accidental falls account for 87% of cases in 2005/07 and 92% of cases in 2007/09.

Table 5.18: Causes for injury hospitalizations, seniors 85 years and older

<table>
<thead>
<tr>
<th>Cause of Injury</th>
<th>2005-07</th>
<th>2007-09</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ranking</td>
<td>Cases</td>
</tr>
<tr>
<td>Accidental Falls</td>
<td>1</td>
<td>87%</td>
</tr>
<tr>
<td>Other Accidents</td>
<td>2</td>
<td>11%</td>
</tr>
<tr>
<td>Accidental Poisoning</td>
<td>3</td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database

Hip fractures

Figure 5.19 illustrates the hip fracture rate by RHA. For 1999/2000 to 2003/04, the hip fracture rate for males and females in the region is similar to the province, however, the rate for females is significantly higher than the rate for males.
Figure 5.19: Hip fracture rates by RHA, 1999/2000 – 2003/04

According to Figure 5.20, hip fractures cases are significantly higher among women than men. The number of hip fractures cases for males remains stable over time while the number of cases among women increased from 2005/07 to 2007/2009.

Figure 5.20: Hip fracture cases by gender, Brandon Regional Health Centre

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database
As shown in Table 5.21, the majority of hip fracture cases in 2005 – 2007 were among women age 65 to 84. Women age 85+ represent the majority of cases in 2007 – 2009. It is interesting to note the increase in hip fracture cases among the 45 to 64 year old population in 2007/09.

Table 5.21: Percentage of hip fracture cases by age and gender, Brandon Regional Health Centre

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>0-19</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>20-44</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>45-64</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>65-84</td>
<td>17%</td>
<td>42%</td>
</tr>
<tr>
<td>85+</td>
<td>11%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Source: Brandon Regional Health Centre, Health Records Department, Discharge Abstracting Database

**Mental Health**

As the population in the Brandon region continues to age, mental health services and supports for seniors are becoming a greater priority. There are many challenges associated with aging including cognitive and sensory impairments, the loss of friendships through death and new care giving responsibilities that can lead to social and emotional isolation. This section includes information about medication use, dementia and use of Mental Health Services for the Elderly and the Centre for Geriatric Psychiatry.

**Benzodiazepine use**

Figure 5.22 shows the crude percentage of residents age 75+ living in the community [not in personal care homes] who had at least two prescriptions for benzodiazepines or a greater than 30 day supply dispensed. This is an important indicator because benzodiazepines have been associated with an increased risk for falls and fractures as well as increased patient confusion and dependence on the medication.

The proportion of community-dwelling seniors age 75+ using benzodiazepines in the Brandon region is similar to the province in the first time period (2000/01) but is significantly higher than the province in the second time period (2005/06). At the district level, a significant increase is observed in Brandon West and Brandon Southwest. For Brandon Southwest, the increase over time is statistically significant.
Figure 5.22: Community-dwelling seniors receiving benzodiazepine prescriptions by RHA

Crude percent of non-PCH seniors with 2+ prescriptions or greater than 30 day supply, aged 75+

Source: Manitoba Centre for Health Policy, 2009

Dementia

According to Figure 5.23, the prevalence of dementia among residents aged 55+ is significantly lower than the provincial average for both time periods. At the district level, Brandon Rural, Brandon Southwest and Brandon North End are significantly lower for the first time period (1996/97–2000/01) with Brandon Rural, Brandon West and Brandon Southwest being significantly lower for the second time period (2001/02–2005/06).

Figure 5.23: Prevalence of dementia by RHA

Source: Manitoba Centre for Health Policy, 2009
Mental Health Services for the Elderly

Mental Health Services for the Elderly is a bi-regional program of the Brandon RHA, serving Assiniboine and Brandon regions. A Community Resource Team provides a variety of services including referral screening, specialized short-term support, assessment, treatment, consultation, and education and support. Community and Residential Support (CaReS) services are targeted for people who are at risk for relapse of their psychiatric illness and include individual care, support and group activities.

As shown in Figure 5.24, Mental Health Services for the Elderly provides services to a significantly higher proportion of female clients than male. This trend appears consistent over time.

**Figure 5.24: Mental Health Services for the elderly gender breakdown, 2006-2009**

Source: Brandon RHA, Mental Health Services for the Elderly Annual Report 2009

Clients of the Mental Health Services for the Elderly program range in age from under 60 years to over 100. For 2008/09, the largest proportion of clients was 80-84 years, followed by seniors age 85-89.

**Figure 5.25: Mental Health Services for the Elderly age breakdown, 2008-2009**

Source: Brandon RHA, Mental Health Services for the Elderly Annual Report 2009
Centre for Geriatric Psychiatry

The Centre for Geriatric Psychiatry is a designated psychiatric facility under the Mental Health Act of Manitoba. It serves Brandon, Assiniboine, Parkland and the west half of Central regional health authorities. The Centre provides services and supports for people over the age of 65 who are having difficulties due to their mental health. Services include assessment, treatment, consultation, education and support, group activities and connections with community supports.

Figure 5.26 shows the gender breakdown for patients in the Centre for Geriatric Psychiatry. There is a higher proportion of female clients for the three time periods shown and the difference between genders appear to be widening over time.

**Figure 5.26: Centre for Geriatric Psychiatry gender breakdown, 2006-2009**

A higher proportion of females than males access the Centre for Geriatric Psychiatry and the gender difference appears to be widening over time.

![Gender Breakdown Chart]

Source: Brandon RHA, Centre for Geriatric Psychiatry Annual Report 2009

Figure 5.27 shows the diagnosis breakdown for patients admitted to the Centre for Geriatric Psychiatry for 2006/07, 2007/08 and 2008/09. The number one reason for admission is Delirium, Dementia and other Cognitive Disorders followed by Mood Disorder, Schizophrenia/Other Psychotic Disorders, Anxiety Disorders and Substance Abuse. This trend is consistent over time.
**Figure 5.27: Centre for Geriatric Psychiatry diagnosis breakdown, 2006-2009**


Source: Brandon RHA, Centre for Geriatric Psychiatry Annual Report 2009

**Home Care**

The Manitoba Home Care program was established in 1974 and is the oldest comprehensive, province-wide, universal home care program in Canada. Home Care is provided to Manitobans of all ages who are assessed as having inadequate informal resources to return home from hospital or to remain in the community. Home Care services are provided at no charge to the recipient.

This section includes information about new, open and closed cases, number of days used and average length of cases.

**Home Care cases**

Figure 5.28 shows an age and sex adjusted comparison of new Home Care cases for all of the health regions. In the first time period displayed (1999/00 – 2000/01), Brandon has significantly higher new Home Care cases but is similar to the provincial average for the second time period (2003/04 – 2004/05).

At the district level, each district is similar to the province for both time periods with the exception of Brandon Central where the percentage of new Home Care cases is significantly higher than the province for both time periods. This is not surprising, given the number of seniors housing facilities in the district.
Figure 5.28: New Home Care cases by RHA

Age- & sex-adjusted annual percent of residents with a new home care case

Source: Manitoba Centre for Health Policy, 2009

The percentage of the population (all ages) with an open Home Care case in a year for 1999/00 – 2000/01 and 2003/04 – 2004/05 is shown in Figure 5.29. Brandon is similar to the province overall at both the regional and district levels.

Figure 5.29: Open Home Care cases

Source: Manitoba Centre for Health Policy, 2009
Figure 5.30 shows the number of days of Home Care services used per year, per Home Care client. Both males and females in the Brandon region use fewer days of service than the provincial average with females using significantly more days of service in the region than males.

**Figure 5.30: Home Care days used by RHA, 2002/03 – 2003/04**

As shown in Figure 5.31, the length of services for Home Care cases within the Brandon region is significantly lower than the other RHAs and the province as a whole for 2000/01 and 2004/05. There are no significant differences at the district level.

**Figure 5.31: Average length of Home Care cases**

Source: Manitoba Centre for Health Policy, 2005

Source: Manitoba Centre for Health Policy, 2009
As seen in Figure 5.32, the percentage of the population for all ages with a Home Care case which was closed during the year for 1999/00 – 2000/01 and 2003/04 – 2004/05 is similar in Brandon to the province overall. There is a variation at the district level in that Brandon Central has a significantly higher percentage of residents with a closed Home Care case when compared to the province.

**Figure 5.32: Home Care case closing rates**

Source: Manitoba Centre for Health Policy, 2009

**Respite Care services**

Rideau Park Personal Care Home has two respite beds that allow for planned short-term intermittent admissions, which provide a period of relief for caregivers of dependent individuals. The Brandon RHA Home Care program and the Rideau Park PCH Social Worker manage the coordination of this resource. There is a daily fee of $30.60 per day for this service.

Fairview Home Respite Care is a program for the purpose of providing relief to families who care for a dependent individual. Fairview Home offers a caring atmosphere with skilled staff to deliver optimum care to individuals in need. Application and coordination for the Respite Program is managed through the Brandon Home Care office. The rates are established by Manitoba Health and include provision of all care, meals, medication, laundry, housekeeping and recreational activities. The current rate for this resource is $30.60 per day. Fairview Home has one respite room equipped with a bed, chair, and cable TV. A cordless phone is available for individuals during their stay.

Dinsdale Personal Care Home and Valleyview Care Centre do not have respite care beds.
Figure 5.33 shows the occupancy rates for respite beds at Fairview Home and Rideau Park from 2005/06 to 2008/09. There is a sharp increase in the occupancy rate at Fairview Home in 2008/09 while the occupancy rate for Rideau Park remains relatively stable.

**Figure 5.33: Brandon RHA respite beds: Occupancy rates**

![Bar Chart]

Source: Brandon RHA Performance Measurement Project, 2009

**Personal Care Homes**

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

The Brandon RHA owns two personal care homes: Fairview Home Inc. and Rideau Park Personal Care Home. There are three other personal care homes in the city – Valleyview Care Centre, Dinsdale Personal Care Home and Hillcrest Place Personal Care Home – but the RHA does not manage those homes.

This section includes information about the number of beds, admissions, level of care on admission and median length of stay.

**Personal Care Home beds**

Figure 5.34 illustrates the number of PCH beds per thousand residents age 75+ for the years 1999/2001 and 2004/2006. The supply of provincially owned PCH beds remains highest in the Brandon region for the province overall.
Brandon RHA, 2009 Community Health Assessment - Seniors

Figure 5.34: Supply of Personal Care Home beds by RHA

PCH beds per 1,000 residents age 75+

'00' indicates 1999/2000-2000/01; '05' indicates 2004/05-2005/06

Brandon has the highest supply of provincially owned PCH beds in the province.

Source: Manitoba Centre for Health Policy, 2009

Figure 5.35 depicts the percentage of area residents age 75+ living in a PCH in a year for two time periods; 1999/00–2000/01 and 2004/05–2005/06. There is a higher percentage of residents in the Brandon region living in a PCH when compared to the provincial average for both time periods but the rate decreases significantly over time.

Figure 5.35: Residents in Personal Care Homes by RHA

Age- & sex-adjusted annual percent of residents aged 75+ living in a PCH

Source: Manitoba Centre for Health Policy, 2009
Personal Care Home admissions

As seen in Figure 5.36, a significantly higher percentage of area residents age 75+ in the Brandon region are admitted to a PCH, compared to the Manitoba average for the second time period.

**Figure 5.36: Admissions to Personal Care Homes by RHA**

<table>
<thead>
<tr>
<th>Area</th>
<th>1999/00-2000/01</th>
<th>2004/05-2005/06</th>
<th>MB Avg 99/00-00/01</th>
<th>MB Avg 04/05-06</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Eastman</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assiniboine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brandon (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winnipeg</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Interlake</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Eastman (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parkland</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Churchill</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Nor-Man</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burntwood (1,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manitoba (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Age- & sex-adjusted annual percent of residents aged 75+ admitted to a PCH

0.0% 0.5% 1.0% 1.5% 2.0% 2.5% 3.0% 3.5% 4.0% 4.5% 5.0% 5.5% 6.0%

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

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

‘t’ indicates change over time was statistically significant for that area

‘s’ indicates data suppressed due to small numbers

Source: Manitoba Centre for Health Policy, 2009

Figure 5.37 illustrates the amount of time (in weeks) it took for half of all residents to be admitted to a PCH after being assessed as requiring PCH placement. The median wait time for Brandon is significantly higher than the province for both time periods, however it is decreasing significantly over time.

**Figure 5.37: Median waiting times for PCH admission by RHA**

<table>
<thead>
<tr>
<th>Area</th>
<th>1999/00-2000/01</th>
<th>2004/05-2005/06</th>
<th>MB Avg 99/00-00/01</th>
<th>MB Avg 04/05-06</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Eastman (2,1)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central (2)</td>
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<td></td>
</tr>
<tr>
<td>Assiniboine (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brandon (1,2,1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winnipeg (2,1)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Interlake (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Eastman (1,2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parkland</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Churchill</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Nor-Man (1,2,1)</td>
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<tr>
<td>Burntwood (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manitoba (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Median # weeks from assessment to admission, by residence prior to admission, per 1,000 age 75+

There were no admissions in these years; see notes in Introduction regarding data sources.

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

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

‘t’ indicates change over time was statistically significant for that area

Statistical testing for changes over time could not be performed on these ‘medians’ with the method we used.

Source: Manitoba Centre for Health Policy, 2009

Brandon RHA, 2009 Community Health Assessment - Seniors
As shown in Figure 5.38, the trend in the Brandon region regarding level of care on admission to a PCH for those age 75+ is not similar to the province overall. Brandon has a higher proportion of level 1 & 2, a lower proportion of level 3, and a higher proportion of level 4 on admission than the province for both time periods.

**Figure 5.38: Level of Care on Admission to PCH, age 75+ by RHA**

Brandon has a higher proportion of level 1 & 2, a lower proportion of level 3 and a higher proportion of level 4 on admission to a PCH.

The median length of stay is the amount of time which half of all residents stayed. According to Table 5.39, the length of stay in PCHs is decreasing over time for Brandon and Manitoba overall. By level of care, residents requiring Level 1 are experiencing the greatest decrease while Level 4 length of stay are increasing for Brandon, which is opposite the provincial trend. The change in median length of stay for those requiring Level 4 care may reflect a younger, disabled population.

**Table 5.39: Median length of stay (years) by level of care at admission to PCH by RHA, Brandon / Manitoba**

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brandon 00</td>
<td>2.51</td>
<td>5.09</td>
<td>2.97</td>
<td>2.03</td>
<td>1.39</td>
</tr>
<tr>
<td>Brandon 05</td>
<td>1.99</td>
<td>3.98</td>
<td>2.50</td>
<td>1.66</td>
<td>1.84</td>
</tr>
<tr>
<td>Manitoba 00</td>
<td>2.33</td>
<td>7.14</td>
<td>2.82</td>
<td>1.88</td>
<td>1.53</td>
</tr>
<tr>
<td>Manitoba 05</td>
<td>1.89</td>
<td>5.88</td>
<td>2.39</td>
<td>1.59</td>
<td>1.21</td>
</tr>
</tbody>
</table>

"00" reflects data from 1999/00-2000/01; "05" reflects data from 2004/05-2005/06

Source: Manitoba Centre for Health Policy, 2009

Brandon RHA, 2009 Community Health Assessment - Seniors
**Mortality**

**Mortality rates**

As indicated in Figure 5.40, the mortality rate for the Brandon region is similar to the province overall for both reporting periods (1996-2000 and 2001-2005). There are differences at the district level however. The age and sex adjusted rate of deaths per 1,000 residents for Brandon Rural is significantly lower than the provincial average for both time periods, while the rate for Brandon Central is significantly higher than the provincial average for the same reporting periods. The decrease over time for Brandon North End is also statistically significant.

**Figure 5.40: Total mortality rates**

The decrease in mortality over time for those living in Brandon North End is statistically significant.

Source: Manitoba Centre for Health Policy, 2008

**Causes of death**

Figures 5.41 and 5.42 show the causes of death for Rural South and Brandon for two, five-year time periods – 1996-2000 and 2001-2005. The top three causes of death for both time periods are circulatory (38%/34%), cancer (26%/27%) and respiratory (10%/8%) diseases.
Figure 5.41: Causes of death (ICD-9-CM) Rural South & Brandon, 1996-2000

The top three causes of death are circulatory disease, cancer and respiratory diseases.

Source: Manitoba Centre for Health Policy, 2009

Figure 5.42: Causes of death (ICD-9-CM), Rural South & Brandon, 2001-2005

As shown in Figure 5.43, the top five causes of death, as a percentage of all deaths, are circulatory diseases followed by neoplasms, respiratory diseases, external causes and endocrine/nutritional disorders for both Brandon and Manitoba. Rates are similar between the region and the province with a marked decrease noted in the percentage of circulatory related deaths over time.

Source: Manitoba Centre for Health Policy, 2009
**Figure 5.43: Top 5 causes of death (as a percentage of all deaths)**

![Bar chart showing top causes of death](chart.png)

Source: Manitoba Health, RHA Profiles, 2008

**New Programs and Services**

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

A new program has been implemented in the past five years to better support seniors living in the region. A brief description of this program is provided below.

**Specialized Support in Group / Home / Mobile Living**

Under the Long Term Care Strategy in the Brandon RHA, three programs have been implemented to help elderly persons or persons with disability to remain in the community for as long as possible. The programs are free of charge.

**Specialized Supports in Group Living** is offered to tenants of Lions Manor, Princess Park, Princess Towers, Kiwanis Court, Winnipeg House, Odd Fellows Corner, Green Acres Lodge and Parkview apartments. This program offers one-to-one assistance with daily tasks such as housekeeping, laundry and banking. Activities include crafts, games and themed events. Many activities have a wellness focus such as healthy living tips. These supports are available to all tenants.

**Specialized Supports at Home** is available to persons living in the City of Brandon who have difficulty, due to advanced age or disability, maintaining their independent living. Supports will provide one-to-one assistance, tailored to individual needs and they will focus on socialization, assistance with medical appointments and grocery shopping. Staff escorts are available but not transportation.
Mobile Supports offers on-site group activities to tenants of select apartment buildings in Brandon. Activities have a social/recreational and wellness focus. These supports are currently offered at Hobbs Manor, Sokol Manor, Grand Valley Place and Lawson Lodge.

So, what does this mean?

- The highest numbers of seniors live in Brandon West followed by Brandon Central and Brandon Southwest
- Immunization rates for influenza are significantly higher in the Brandon region than Manitoba
- Pneumococcal immunization rates have increased significantly over time
- Injury is the second reason for ER visits among 65-84 year olds and the number one reason for older seniors 85+
- Gastrointestinal procedures account for the majority of Same Day Care visits
- Diseases and disorders of the circulatory system are the number one reason for hospitalization among seniors age 65-84
- A significant proportion of seniors are hospitalized for non-specific reasons such as failure to cope
- The rate of cataract surgeries in Brandon Southwest and Brandon Central is significantly decreasing over time
- There has been a significant increase in the rate of hip replacement surgeries in the region, specifically in Brandon Rural, Brandon East and Brandon Central
- Seniors account for 12% of injury-related ER visits in 2008/09
- Accidental falls account for the vast majority of injury-related hospitalizations for younger and older seniors
- Hip fractures are more common among females than males
- Benzodiazepine prescription use among seniors living in the community has increased, most notably among those living in the Southwest
- The prevalence of dementia among residents aged 55+ is significantly lower than the province overall
- A higher proportion of females access Mental Health Services for the Elderly and the largest proportion are 80-84 years
- A higher proportion of females than males access the Centre for Geriatric Psychiatry and the gender difference appear to be widening over time
There were fewer days of Home Care service used by residents in the Brandon region when compared to Manitoba.

Brandon has the highest supply of provincially owned PCH beds in the province.

A higher percentage of area residents aged 75+ in the Brandon region were admitted to a personal care home in 2004/05 – 2005/06 than the Manitoba average.

The decrease in mortality over time in Brandon North End is statistically significant.

The top three causes of death are circulatory disease, cancer and respiratory disease.
References


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Appendix A
Brandon RHA District Maps
Brandon RHA districts

Brandon Rural - includes the three rural municipalities of Cornwallis, Elton and Whitehead

Brandon Southeast - East side of 18th Street and South of Richmond Avenue to RM of Cornwallis boundary

Brandon West - West side of 18th Street to the east side of 34th street, South of the railway tracks (to the north) to the North side of Richmond and Victoria Avenues

Brandon Southwest - West side of 18th Street to the RM of Cornwallis boundary, South side of Richmond and Victoria Avenues

Brandon North End - North of the railway tracks from the West side of 1st Street to the RM of Elton boundary

Brandon East - East of 1st Street to the RM of Cornwallis boundary, North side of Richmond Avenue to the RM of Elton boundary

Brandon Central - East side of 18th Street to West side of 1st Street, South of the railway tracks to the North side of Richmond Avenue.
Appendix B
Brandon RHA Programs and Services

Brandon Regional Health Authority Programs/Services
The fully accredited Brandon RHA offers a wide range of health services and programs to the citizens of Brandon, the municipalities of Cornwallis, Elton and Whitehead. It serves as a regional referral centre for the “Westman” area and employs approximately 2400 people.

**Brandon Regional Health Centre (BRHC)**
130 McTavish Avenue East
Brandon, Manitoba R7A 2H3
Ph: (204) 578-4000 Fax: (204) 578-4876
- Cancer Program (chemotherapy)
- Cast Clinic
- Day Treatment
- Emergency Observation Unit
- Gastrointestinal (GI) Unit
- Heart Programs
- Infection Control
- Intensive Care Unit
- Medical and Surgical Units
- Mother and Baby Unit
- Lactation Consultant
- Neurological Intensive Care Unit
- Ostomy-Wound Care
- Paediatrics
- Pain Management
- Palliative Care/Waiting Placement
- Perinatal Program
- Renal Unit (Diagnosis)
- Respiratory Program
- Rehabilitation Services
- Short Term Emergency Program (STEP)
- Surgical Suite (Operating Room/Recovery)
- Tobacco Dependence Program
- Stroke Prevention Clinic
- Preoperative Assessment Clinic
- Renal Insufficiency Clinic

**Regional Rehabilitation**
- Communication Disorders
- Children’s Therapy Initiative
- Occupational Therapy
- Physiotherapy
- Neuropsychology Clinics
- Recreation Therapy

**Diagnostic Services**
- Mammography
- Magnetic Resonance Imaging (MRI)
- Nuclear Medicine
- Pacemaker Clinic
- Respiratory Services
- Ultrasound

**Public Health**
A5-800 Rosser Avenue, Town Centre
Brandon, Manitoba R7A 6N5
Ph: (204) 571-8446 Fax: (204) 726-8743
- Child Health Clinics
- Communicable Disease Control
- Community Nutritionist
- Community Postpartum Program
- Familial First Program
- Healthy Beginnings—A Healthy Baby Program
- Immunization Services
- Perinatal Sessions
- School Health Program & Teen Clinic
- Sexual Health Program
- Travel Health Services
- Unified Referral Intake System (URIS)

**Audiology Services**
Ph: (204) 571-8366

**Health Promotion Program**
Unit C5 – 800 Rosser Avenue
Brandon, MB R7A 6N5
Ph: (204) 578-2193

**Medical Officer of Health**
Ph: (204) 571-8353

**Midwifery Services**
531 Princess Avenue
Brandon, Manitoba R7A 0P1
Ph: (204) 571-5330 Fax: (204) 571-5377

**Prairie Health Matters**
Diabetes & Heart Health
Ph: (204) 571-8357

**7th Street Health Access Centre**
20-7th Street
Brandon, Manitoba R7A 5M8
Ph: (204) 578-4800 Fax: (204) 578-4950
- Adult Community Mental Health Worker
- Community Health Nurse, Social Worker & Support Workers
- Community Support Facilitator (Aging in place, seniors, young disabled)
- Cultural Facilitators (Spanish, Russian, Mandarin)
- Housing Resource Worker
- Income Tax Program
- Mental Health Peer Education
- Needle distribution program/sharps drop off site
- Nurse Practitioner (extended practice nurse)
- Service Navigator
- Community-based Addictions Services
- Addictions Foundation of MB
- Family Services & Housing (off peak bus pass exchange site)
- Family Violence Outreach Worker
- YWCA Westman Women’s Shelter
- Free community phone, voicemail, computer & internet access
- Free shower and washer & dryer facilities

**Health Links Info Sante** - A 24-hour, 7-days a week telephone health information service. Health Links Info Sante is staffed by registered nurses that will provide answers to health care questions and guide you to the care you need. Call anytime: 1-888-315-9257
Mental Health Services
Community Mental Health
135 - 849 Fraser Avenue, Town Centre
Brandon, Manitoba R7A 0N5
Ph: (204) 726-9300  Fax: (204) 726-9364
• Psychosocial Rehabilitation
• Adult Community Mental Health
Services Forrider Elderly
Centre for Adult Psychiatry (CAP)
601 Hillcrest Drive, 15th McTavish Avenue East
Brandon, Manitoba R7A 2F3
Ph: (204) 726-3566  Fax: (204) 726-3560
Centre for Geriatric Psychiatry (CGP)
Hillcrest Drive, 15th McTavish Avenue East
Brandon, Manitoba R7A 3A9
Ph: (204) 726-3566  Fax: (204) 726-3560
Child & Adolescent Treatment Centre
(CATC)
1201 - 10th Street
Brandon, Manitoba R7A 7L1
Ph: (204) 727-3415  Fax: (204) 727-3451
CEN: (204) 726-3565
Allied Health Services
1201 - 10th Street
Brandon, Manitoba R7A 7L1
Ph: (204) 727-3450
• Health Resources Centre/Library
• MHA Telehealth
• Medical Services
• Pharmacy, Rural Pharmacy
• Practise Guidelines Facilitator
• Spiritual Care
• Therapeutic Dietetics
• Volunteer Services
• Westman Laboratory

Home Care Services
1201 - 7th Street, Town Centre Brandon, Manitoba R7A 7L2
Ph: (204) 726-3561  Fax: (204) 726-3572
Referral line: (204) 726-3561
Fax: (204) 726-3572
• Adult Day Program
• Assessment & Application for Personal Care Home or Chronic Care placement
• Assessment & Case Management for Home Care
• Care Giver Relief & Respite Care Equipment & Supplies
• Home Support & Personal Care Assistance
• Manitoba Home Oxygen Program
• Nursing & Therapy Services
• Personal Care Home Waiver
• Management
• Self-Employed Managed Care Option
• Services for Seniors
• Supportive Housing

Corporate Services
Financial Services
Ph: (204) 726-4000
• Financial Services
• Health Information & Electronic Health Record
• Information Technology & Telecommunications
• Materials Management
• Privacy Officer
• Your Health Information
Ph: (204) 726-4221

Support Services
Ph: (204) 726-4000
• Psychological Services
• Capital Planning
• Environmental Services
• Facility Engineering Services
• Human Resources
• Nutrition Services
• Occupational Health Services
• Property Management
• Safety & Emergency Services
• Security
Ph: (204) 726-4193
Ph: (204) 726-4200

Regional Planning/Evaluation
Ph: (204) 726-4055
• Clinical Evaluation
• Decision Support
• Population Health
• Program Planning and Evaluation

Frequently Called Numbers
Brandon RHA Directory Assistance/ Patient Information
150 McTavish Avenue East
Brandon, Manitoba R7A 2B3
Ph: (204) 578-4000

Regional Administration Office
150 A - 7th Street
Brandon, Manitoba R7A 7L2
Ph: (204) 571-5400
Fax: (204) 578-4969
Email: brhcf@brandonhwa.mb.ca

Comment Line
Ph: (204) 578-2104
Toll Free: 1-800-735-6596
Email: carton@brandonhwa.mb.ca

Fairview Home Foundation
1351 - 13th Street
Brandon, Manitoba R7A 4S6
Ph: (204) 726-5588
Fax: (204) 726-7616

BRHC Foundation
150 McTavish Avenue East
Brandon, Manitoba R7A 2B3
Ph: (204) 578-4897
Fax: (204) 578-4969
Email: bhcf@brandonhwa.mb.ca

Job Information
Employment Line: (204) 578-4761
Ph: (204) 578-4760
Fax: (204) 578-4937
Email: humanresources@brandonhwa.mb.ca
Web Job Postings:
www.brandonhwa.mb.ca

Last revised March 2010 – Communications Coordinator

Palliative Care
Ph: (204) 727-8429

Long Term Care
Fairview Home
1351 - 13th Street
Brandon, Manitoba R7A 4S6
Ph: (204) 726-6896  Fax: (204) 726-7616

Rideau Park Personal Care Home
525 Victoria Avenue East
Brandon, Manitoba R7A 689
Ph: (204) 727-7344  Fax: (204) 726-6690

Associated with the following Personal Care Homes: Hillcrest Place, Dinsdale & Valleyview Care Centre

Patient Safety/Quality
Ph: (204) 578-2158
• Continuous Quality Improvement
• Risk Management

Patient Representative
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