

Definition/Description:

Acute Myocardial Infarction Treatment Prevalence

This is the combined number of hospitalizations for Acute Myocardial Infarction (heart attacks) experienced per thousand residents of the area aged 20 or older averaged over the five-year period to give an annual rate. It is not a percentage as an individual may suffer more than one heart attack in the five-year period. Therefore, each heart attack is counted as a separate event.

Acute Myocardial Infarction

Also known as a heart attack, a myocardial infarction occurs when the heart muscle (the myocardium) experiences sudden (acute) deprivation of circulating blood. The interruption of blood is usually caused by narrowing of the coronary arteries leading to a blood clot. The clogging frequently is initiated by cholesterol piling up on the inner wall of the blood vessels that distribute blood to the heart muscle. For the purposes of the current report, AMI was defined as the presence of ICD-9-CM 41.0 in the diagnosis.

Method

Five years of data were used (1991/92-1995/96 and 1996/97-2000/01), with the denominator being the population age 20 and up from the same years. Eligibility was restricted to those aged 20 or older. Age was calculated as of December 31 of each year. Region of residence was assigned as of the most frequently occurring record. The age groups for standardization were 20-44, 45-64, 65-74, 75+. All data were adjusted for age and sex.

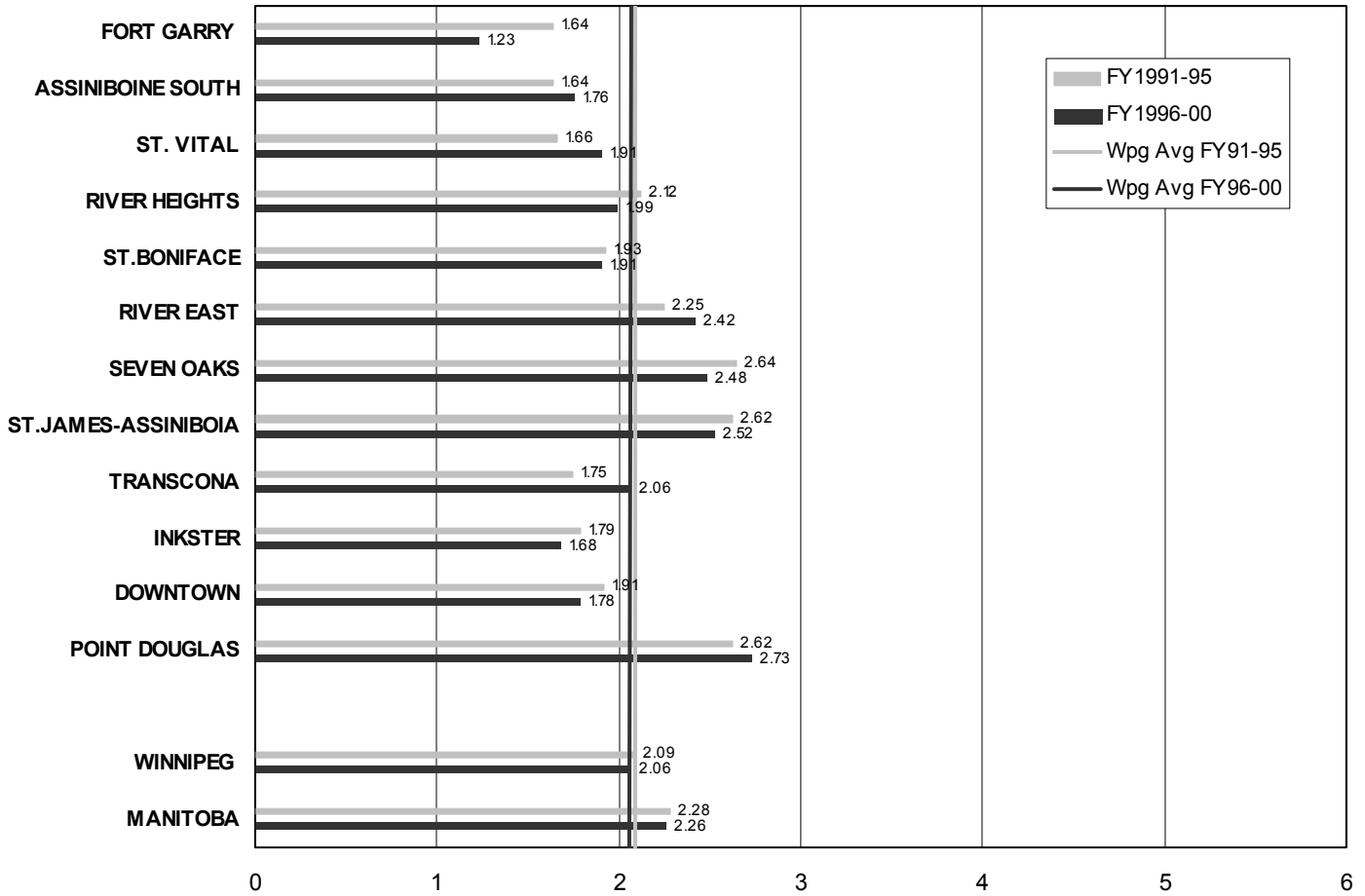
Source:

The Need to Know Project, Manitoba Centre for Health Policy, 2003. All numerical values, tables, and figures (including spatial analyses) were generated by the Population Health and Health System Analysis Unit, Winnipeg Regional Health Authority.

Findings:

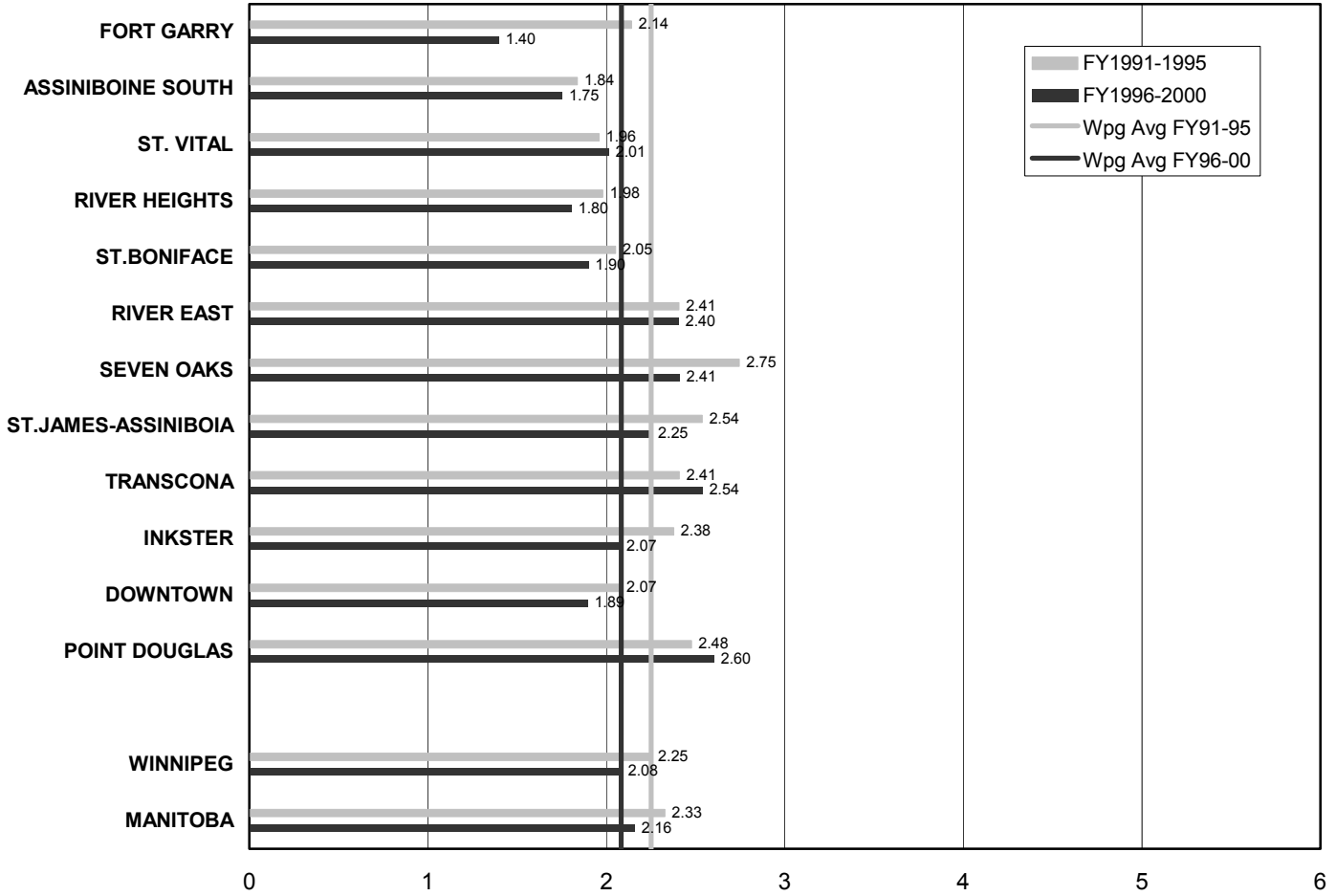
Acute Myocardial Infarction (AMI): Crude Rates by CA

Crude rate of hospitalization for AMI per 1000 residents, age 20+ years



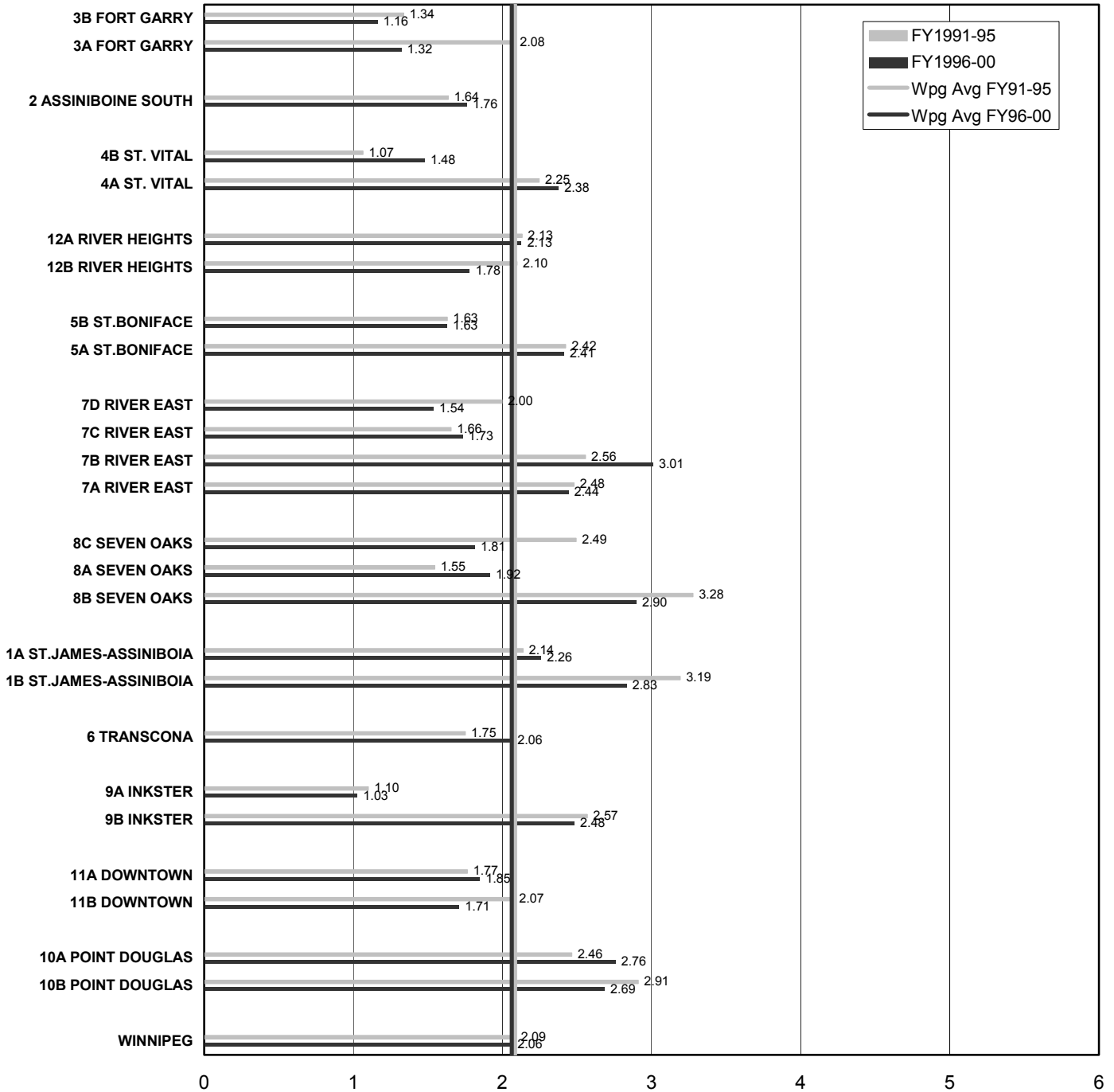
Acute Myocardial Infarction (AMI): Age-Adjusted Rates by CA

Age- & sex-adjusted rate of hospitalization for AMI per 1000 residents, age 20+ years



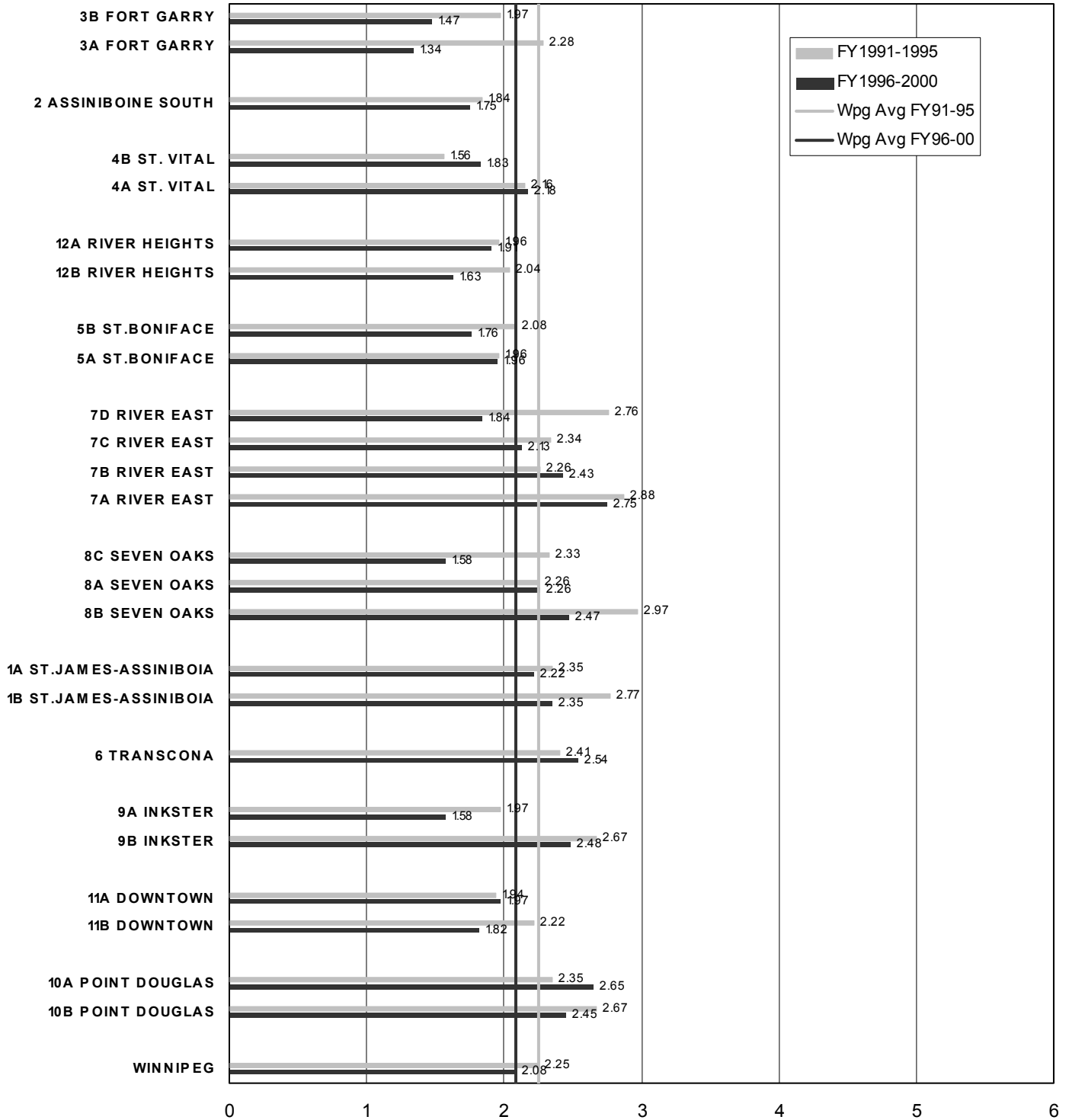
Acute Myocardial Infarction (AMI): Crude Rates by NC

Crude rate of hospitalization for AMI per 1000 residents, age 20+ years



Acute Myocardial Infarction (AMI): Age-Adjusted Crude Rates by NC

Age- & sex-adjusted rate of hospitalization for AMI per 1000 residents, age 20+ years



Highlights:

Note: The crude rates are referred to in this narrative (unless otherwise stated).

Regional Rates:

- The (crude) AMI hospitalization rate in the WHR remained stable between the time periods of 1991-1995 (t_1) and 1996-2000 (t_2); in both time periods the rate for the WHR was lower than the provincial rate.
- It should be noted that the comparison of age- & sex-adjusted rates over the two time periods indicates a slight decrease in the AMI rate, which is contrary to what the crude rates show.
- When the rates are adjusted to the same underlying population age and sex distribution, the adjusted AMI rate in t_1 is much higher than the crude rate and in t_2 , the adjusted rate was nearly the same as the crude rate.

Community Area Rates:

- The lowest rates of AMI were seen in Fort Garry community area for both time periods (and in Assiniboine South in t_1 only).
- The highest rates were found in community areas Point Douglas, St. James-Assiniboia, and Seven Oaks for t_1 (all at approx. 2.6 cases per 1,000). For t_2 , the highest rate was found in Point Douglas (approx. 2.7 cases per 1000).
- Assiniboine South, St. Vital, River East, Transcona, and Point Douglas community areas experienced an increase in the rate of AMI between the two time periods. The remaining community areas experienced decreases in the rate of AMI between the two time periods.
- The following community areas had rates that were lower than that of the WHR (both time periods): Fort Garry, Assiniboine South, St. Vital, St. Boniface, Inkster, Downtown and Transcona, in t_1 only.
- The following community areas had rates that were higher than that of the WHR (both time periods): River East, Seven Oaks, St. James-Assiniboia and Point Douglas.
- The River Heights community area had a rate that was approximately the same as that of the WHR in both time periods. The Transcona community area had a rate that was approximately the same as that for the WHR in t_2 only.
- Adjusting the rates for the age and sex of the population had the overall effect of minimizing the differences seen among the community areas in the crude rates. This indicates that the age-sex structure of the underlying populations of these community areas may account for the differences seen in the crude rates.

Neighbourhood Cluster Rates:

- The highest rates of AMI in were found in neighbourhood clusters Seven Oaks 8B for t_1 and in River East 7B for t_2 .
- The highest rates of AMI in t_2 were found in neighbourhood clusters St. Vital 4A, River Heights 12A, St. Boniface 5A, River East 7A & 7B (highest), Seven Oaks 8B, St. James-Assiniboia 1A & 1B, Inkster 9B, and Point Douglas 10A & 10B.
- The lowest rate of AMI was found in Inkster 9A for both time periods.
- The following neighbourhood clusters experienced a substantial increase in the rate of AMI between the two time periods: St. Vital 4B, River East 7B, Transcona, Point Douglas 10A. The remainder experienced decreases or remained approximately the same.
- The following neighbourhood clusters experienced a substantial decrease in the rate of AMI between the two time periods: Fort Garry 3A, River Heights 12B, River East 7 D, Seven Oaks 8C & 8B, St. James-Assiniboia 1B, Downtown 11B, and Point Douglas 10B. The remainder experienced increases or remained approximately the same.
- Adjusting the rates for age and sex had the overall effect of minimizing the differences seen among the neighbourhood clusters in the crude rates. This indicates that the age-sex structure of the underlying populations of these neighbourhood clusters may account for the differences seen in the crude rates.