

Definition/Description:

In knee replacement surgery, parts of the knee joint are replaced with artificial parts. The surgery is done by separating the muscles and ligaments around the knee to expose the inside of the joint. The ends of the thigh bone (femur) and the shin bone (tibia) are removed as is often the underside of the kneecap (patella). The artificial parts are then cemented into place. The new knee typically has a metal shell on the end of the femur, a metal and plastic trough on the tibia, and sometimes a plastic button in the kneecap. For this report, knee replacement was defined as the presence of either ICD-9-CM codes 81.54 or 81.55.

Method

Five years of hospital data (1991/92-1995/96 and 1996/97-2000/01) were used, with the denominator being the WHR population from the same years. Age was calculated as of December 31 for each year, and region of residence was assigned as of the first-occurring record. All data were adjusted for age and sex. Age groups for standardization were 0-39, 40-59, 60-74, 75+. This indicator reflects those services provided only to residents living in the WHR. It does not account for those services provided in the region regardless of where people live.

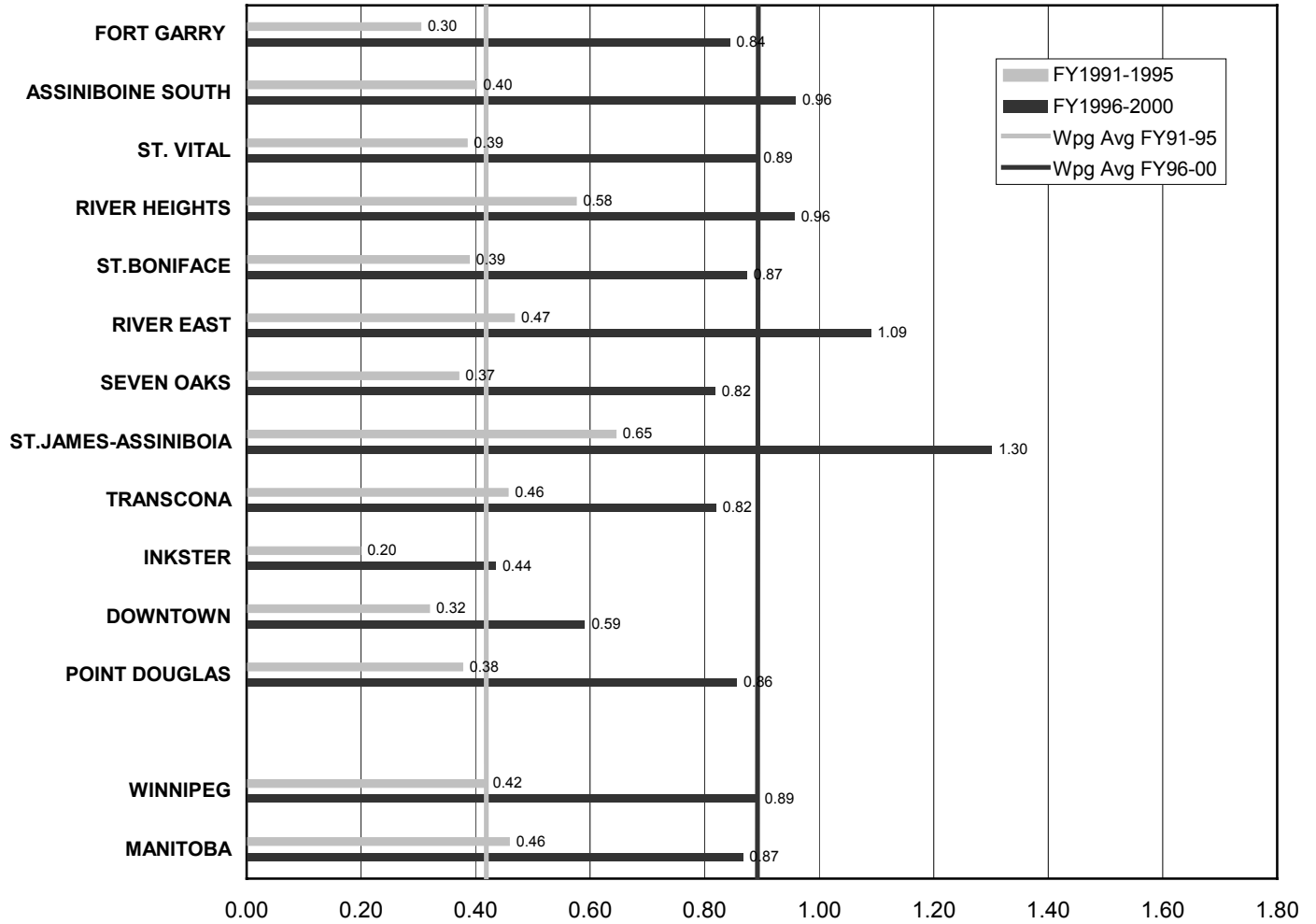
Source:

Need to Know Project, Manitoba Centre for Health Policy, 2003

Findings:

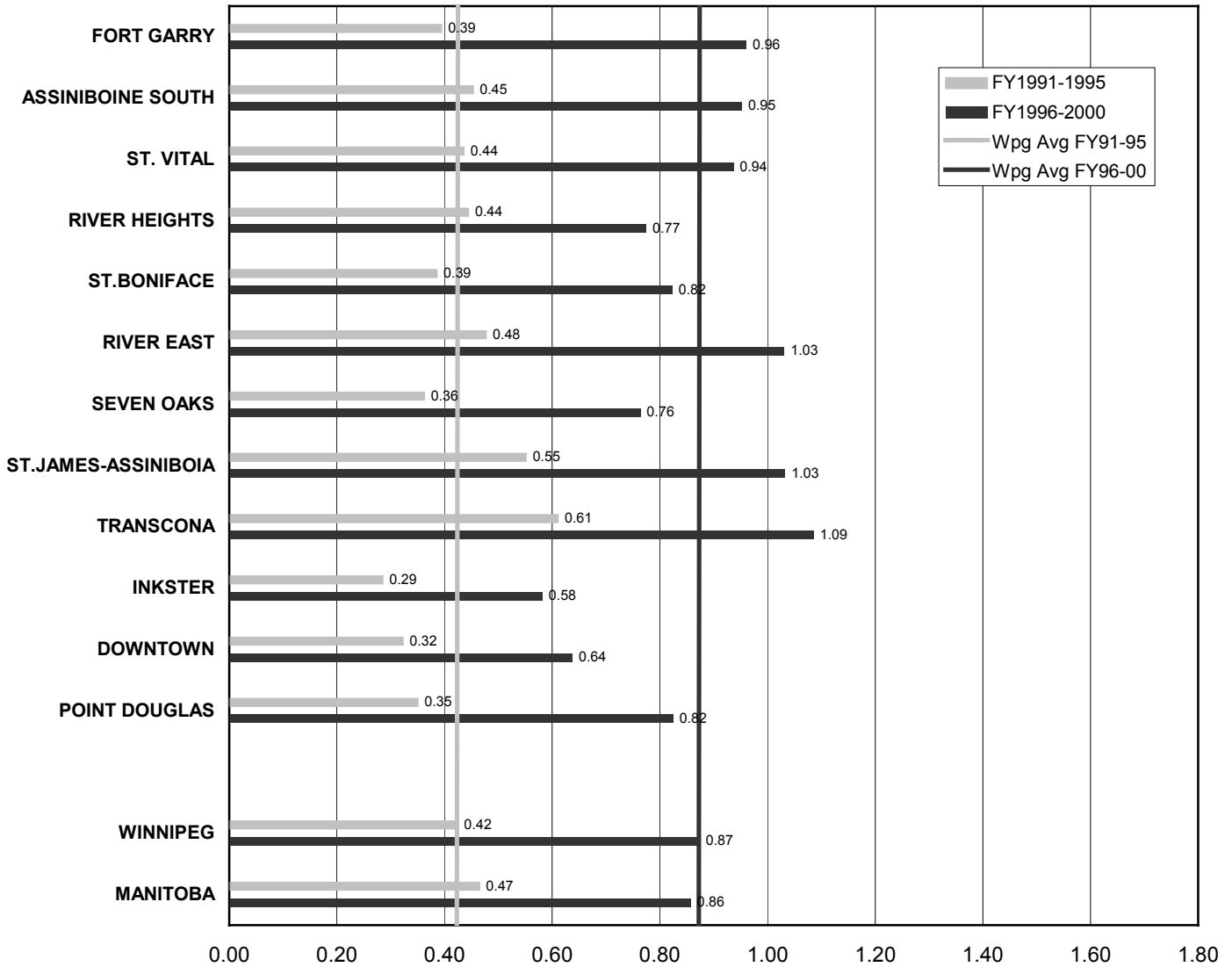
Knee Replacement: Crude Rates by CA

Crude rate of knee replacement per 1000 residents



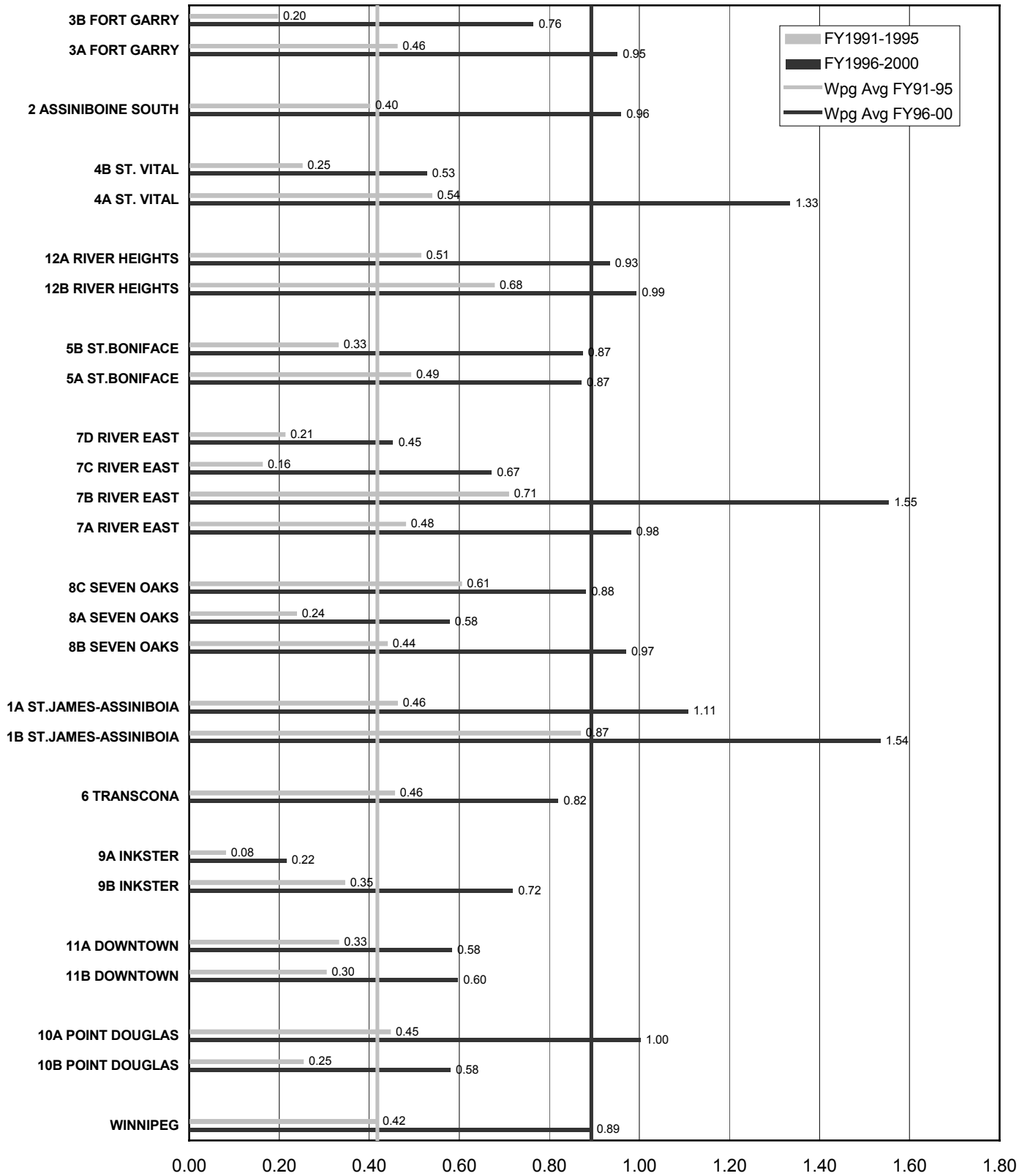
Knee Replacement: Age-Adjusted Rates by CA

Age- & sex-adjusted rate of knee replacement per 1000 residents



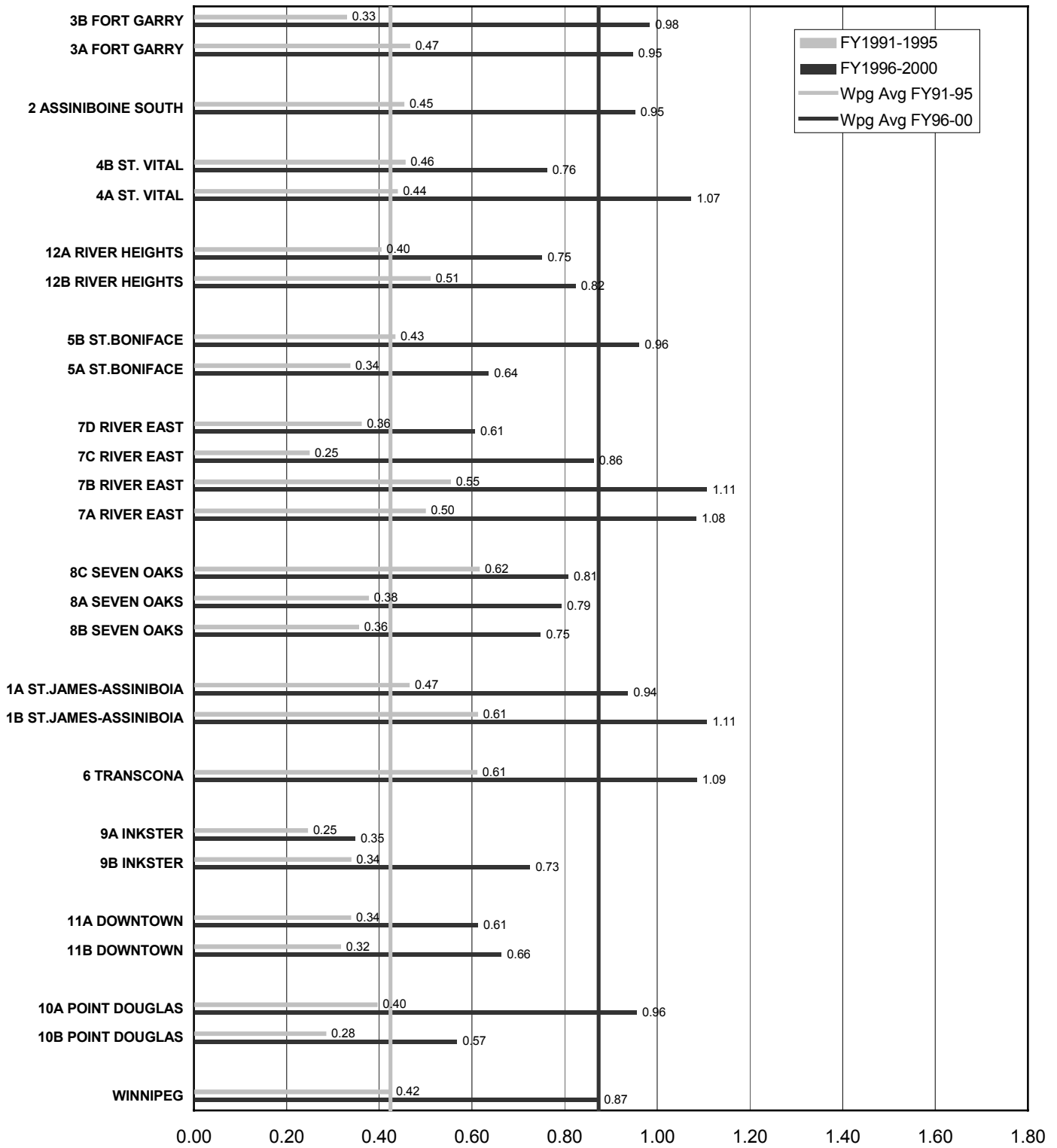
Knee Replacement: Crude Rate by NC

Crude rate of knee replacement per 1000 residents



Knee Replacement: Age-Adjusted Rates by NC

Age- & sex-adjusted rate of knee replacement per 1000 residents



Highlights:

Regional Rates:

- The overall Winnipeg rate has more than doubled from 0.42 to 0.89 across the two periods.
- After adjusting for population age and sex, the overall Winnipeg adjusted rate is nearly doubled from 0.42 to 0.87 across the two periods.

Community Area Rates:

- In the last period, Inkster had the lowest crude rate of all communities at 0.44 per 1000. St. James-Assiniboia has the highest rate at 1.30 per 1000. It also had the greatest increase between the two periods of 0.65 per 1000. Winnipeg is 0.02 per 1000 over that of Manitoba.
- After adjusting for population age and sex differences, Inkster continues to have the lowest adjusted rate of all communities at 0.58 per 1000. Transcona has the highest adjusted rate at 1.09 per 1000. Fort Garry had the greatest increase between the two periods of 0.57 per 1000. Winnipeg's adjusted rate is 0.01 per 1000 more than Manitoba's.

Neighbourhood Cluster Rates:

- There is more variability at the neighbourhood cluster detail but all show an increase in this procedure. River East 7B shows the largest crude rate increase of 0.84 across the two periods and the highest crude rate 1.55 per 1000 followed closely by St. James-Assiniboia 1B at 1.54 per 1000. The lowest rate is in Inkster 9A at 0.22.
- After adjusting for population age and sex differences, Inkster 9A continues to have the lowest adjusted rate of all neighbourhood clusters at 0.35. River East 7B and St. James-Assiniboia 1B share the highest adjusted rate at 1.11 per 1000. Fort Garry 3B had the highest increase between the two periods of 0.65.