

### Definition/Description:

Inflow outflow reflects the balance between the quantity of hospital stays provided to both residents and non-residents by acute care hospitals in a given region and the extent of acute hospital utilization by residents of that region, whether they receive care within or out of the region.

### Definition:

A ratio of the number of separations from acute care hospitals within a given region divided by the number of acute care hospital discharges generated by residents of that region.

### Method

**Numerator:** Number of separations (including deaths) from acute care hospitals in Winnipeg.

**Denominator:** Number of hospital separations (including deaths) generated by residents Winnipeg.

An overall ratio is calculated for all Winnipeg acute care hospitals as well as for discharges where Coronary Artery Bypass (CABG), Total Hip Replacement, Total Knee Replacement and Hysterectomy procedures were present in any procedure position.

### Interpretation:

This indicator reflects the balance between the quantity of hospital stays provided to both residents and non-residents by acute care hospitals in a given region and the extent of acute hospital utilization by residents of that region, whether they receive care within or out of the region.

A ratio of less than one indicates that hospital stays utilized by residents of a region exceeded hospital care provided within that region, suggesting a outflow effect.

A ratio greater than one indicates hospital stays provided by a region exceeded the quantity of stays utilized by its residents, suggesting an inflow effect.

A ratio of one indicates that the volume of hospital discharges in the region is equivalent to that generated by its residents, suggesting that inflow and outflow activity, if it exists at all, is balanced.

### Source:

Manitoba Health Hospital Abstract file

### Findings:

**Hospital Inflow Outflow ratios for the Winnipeg region Overall and Selected Procedures**

Inflow/Outflow:	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003
Overall	1.38	1.38	1.38	1.38	1.39
Hip Replacement	1.55	1.63	1.70	1.63	1.69
Knee Replacement	1.69	1.64	1.67	1.70	1.73
Hysterectomy	1.44	1.47	1.45	1.44	1.52
Coronary Artery Bypass Graphpt (CABG)	1.73	1.82	1.83	1.92	1.83

Source: Manitoba Health Hospital Abstract file

**Highlights:**

- Overall, Winnipeg acute care facilities experience an inflow of hospital utilization. The volume of hospital discharges is greater than that generated by its residents resulting in an inflow effect.
- There has been almost no change across the 5 years shown in Winnipeg acute care facilities. From 1998/1999 to 2002/2003 the ratios were 1.38 and 1.39 respectively.

**Standards/Benchmarks:**

Benchmarks are not yet available for this measure.