

Two measures are provided for the Caesarean Section indicator.

Measure #1 provides information for our smaller geographies in the region.

Measure #2 is used by CIHI to generate the annual Health Indicators report for which other regional and national comparators are found. This second measure also provides a 5-year WHR trend using the latest CIHI methodology, which can be used to identify changing patterns.

The major difference between these two measures are in the definition of the procedures as specified in the Definition/Description section for each.

Because of the fundamental differences between the two measures, they should be considered different perspectives and are not to be compared.

Measure #1 – Community Area Rates

Definition/Description:

A procedure in which a baby, rather than being born vaginally, is surgically extracted (removed) from the uterus. In this measure, maternal birth records were first selected using ICD-9-CM 'V27'. C-section was defined using ICD-9-CM codes of 74.0, 74.1, 74.2, 74.4, or 74.9, which could be present in any procedure field.

Method

Maternal birth records were selected using ICD-9-CM 'V27' from five years of hospital discharge abstracts (1991/92-1995/96 and 1996/97-2000/01). The denominator consisted of the number of women giving birth during the five-year period. Age was calculated as of December 31 for each given year, and region was assigned as of the first occurring record for each given year.

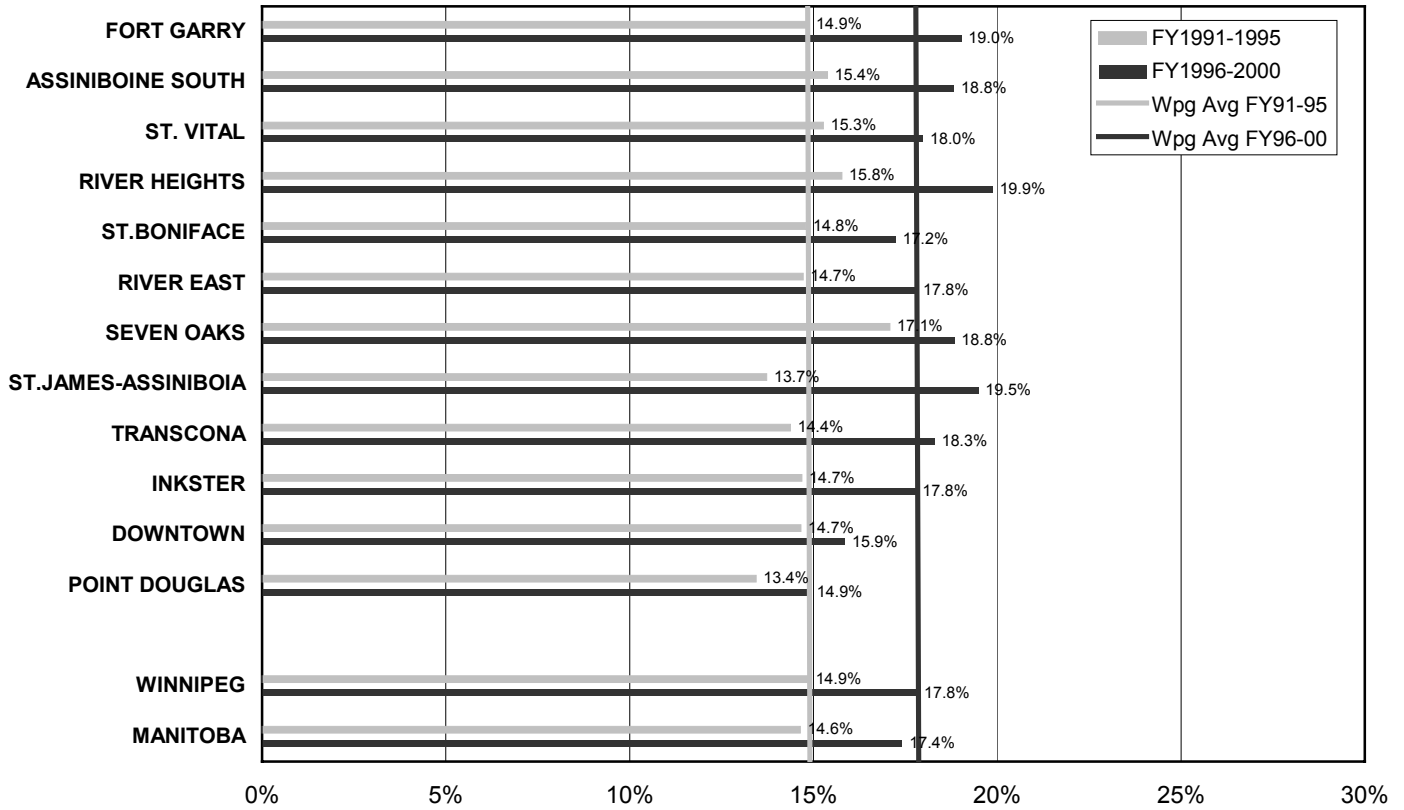
Source:

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

Findings:

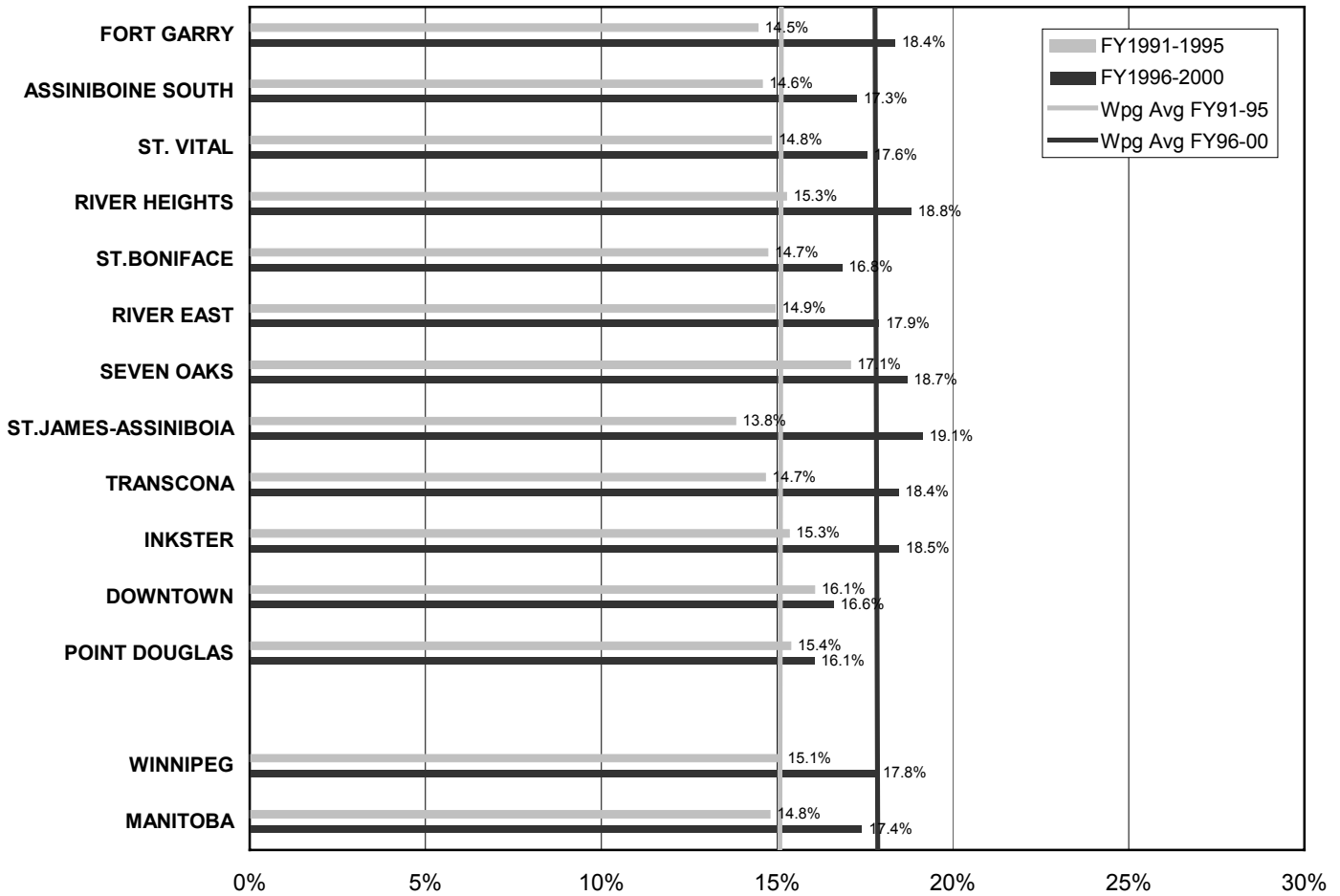
Caesarean Section: Crude Rates by CA

Crude percentage of births delivered by Caesarean section



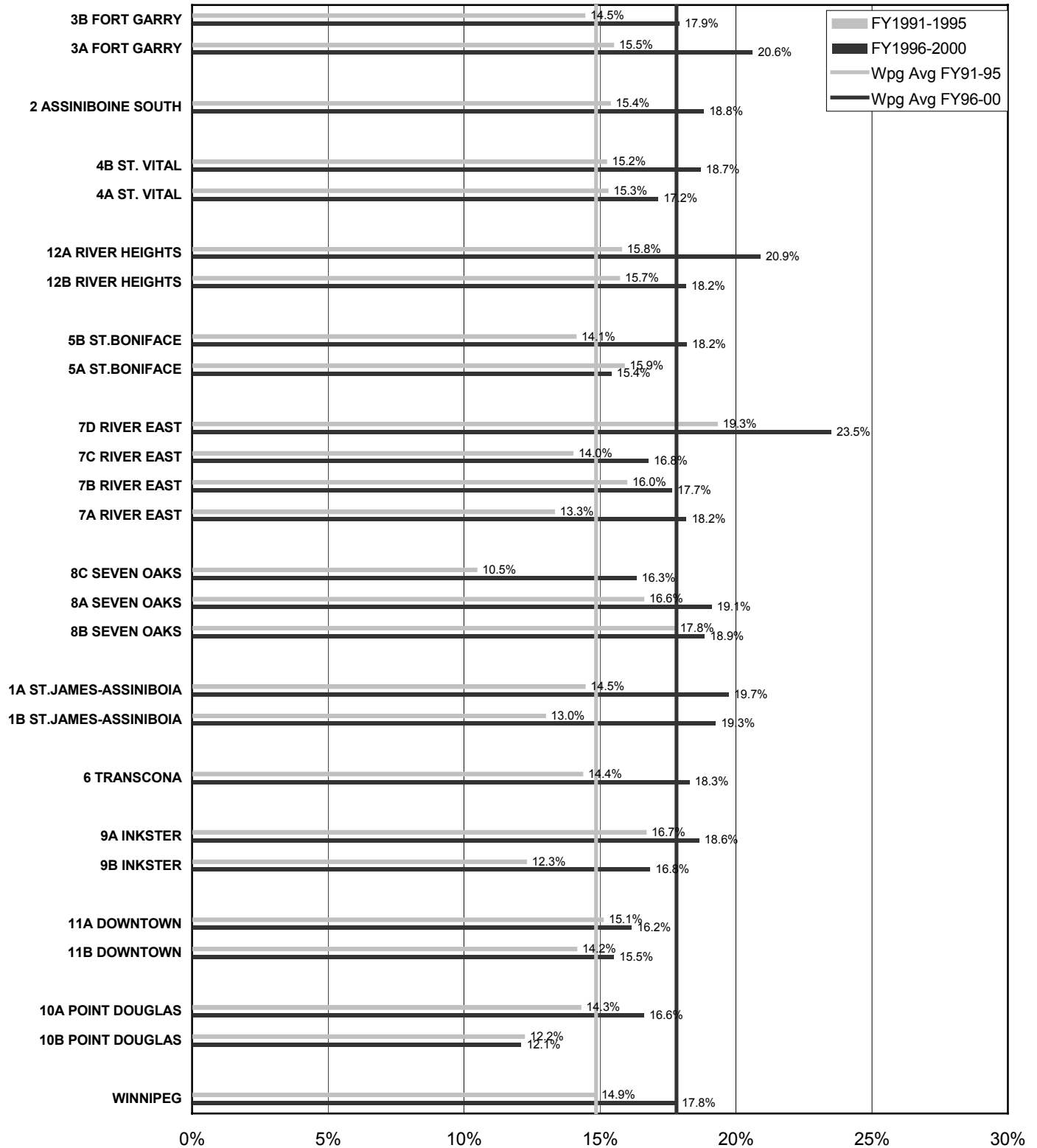
Caesarean Section: Age-Adjusted Rates by CA

Age-adjusted percentage of births delivered by Caesarean section



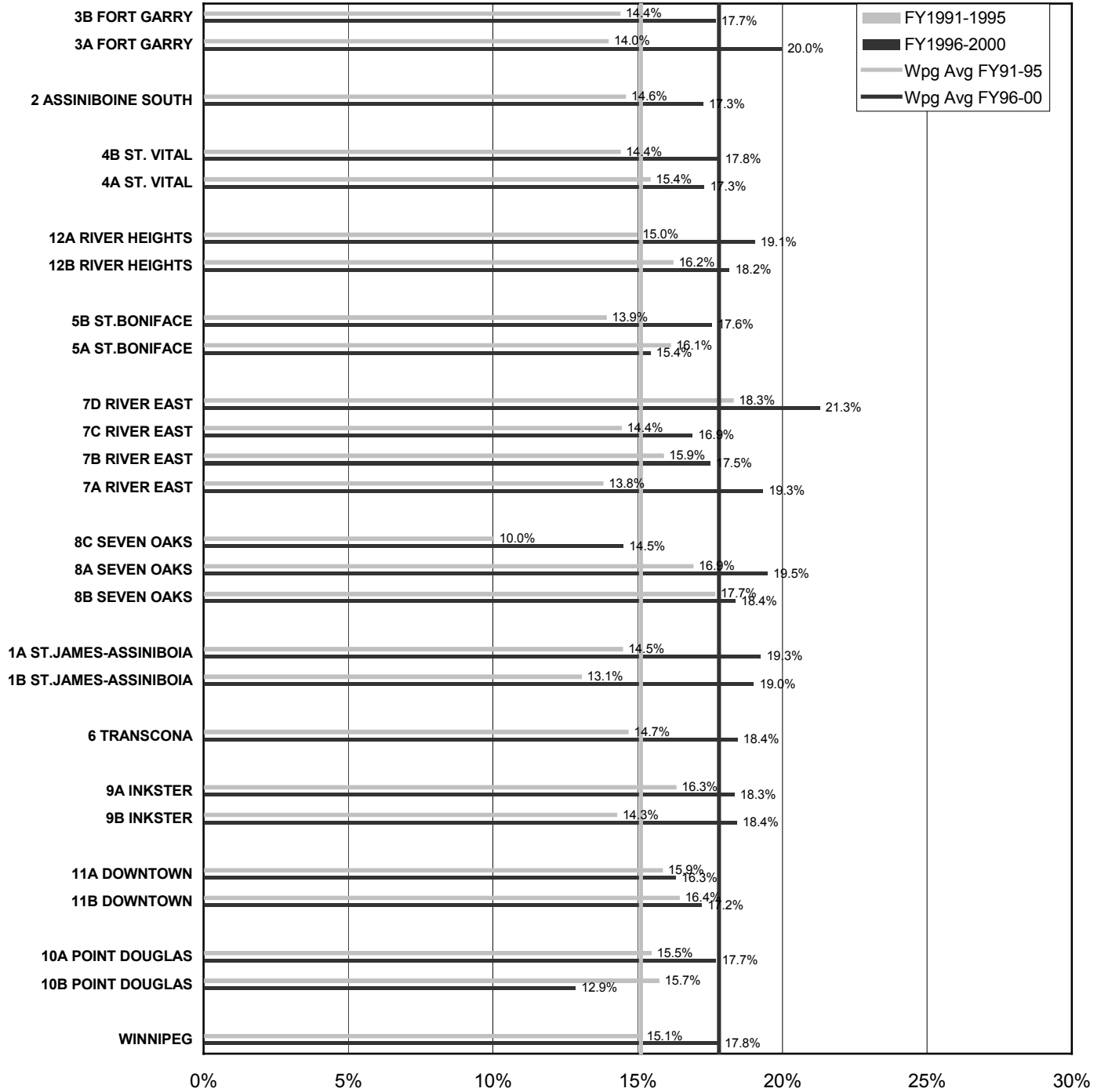
Caesarean Section: Crude Rates by NC

Crude percentage of births delivered by Caesarean section



Caesarean Section: Age-Adjusted Rates by NC

Age-adjusted percentage of births delivered by Caesarean section



Highlights:

Regional Rates:

- Overall, in Winnipeg the proportion of deliveries by caesarean section increased. The percentage in the 1991-1995 period was 14.9% and in the 1996-2000 period was 17.8%.
- The Winnipeg percentage is slightly higher (0.4%) than the Manitoba crude rate.
- After adjusting for age and sex, Winnipeg's proportion of deliveries by caesarean section showed an increase. The adjusted percentage in the 1991-1995 period was 15.1% and in the 1996-2000 period was 17.8% for Winnipeg residents.

Community Area Rates:

- All community areas showed an increase in the proportion of deliveries by caesarean section. The largest crude rate increase was in St. James-Assiniboia, which was 13.7% in the 1991-1995 period and increased to 19.5% in the 1996-2000. In the last period, the lowest percentage was in Point Douglas at 14.9% and the highest percentage was in River Heights at 19.9%.
- After adjusting for age and sex, all community areas showed an increase in the proportion of deliveries by caesarean section. The largest increase was in St. James-Assiniboia, which was 13.8% in the 1991-1995 period and increased to 19.1% in the 1996-2000. In the last period, the lowest adjusted percentage was in Point Douglas at 16.1%.

Neighbourhood Cluster Rates:

- Two neighbourhood clusters, St. Boniface 5A and Point Douglas 10B showed small decreases in the proportion of deliveries by caesarean section. Point Douglas 10B had the lowest rate of 12.1% in the last period. River East 7D showed the greatest rate at 23.5% and St. James-Assiniboia 1B showed the greatest percent difference between the two periods rising to 19.3% from 13.0% in the previous period.
- After adjusting for age and sex, two neighbourhood clusters, St. Boniface 5A and Point Douglas 10B showed decreases in the proportion of deliveries by caesarean section. Point Douglas 10B had the lowest rate of 12.9%, a percent difference of nearly 3% from the previous period. River East 7D showed the greatest adjusted rate at 21.3% and St. James-Assiniboia 1B showed the greatest percent difference between the two periods rising to 19.0% from 13.1% in the previous period.

Measure #2 - Regional Rates

Definition/Description:

Proportion of Winnipeg women delivering babies in acute care hospitals by Caesarian section.

Method

In this measure, deliveries are defined by ICD-9-CM diagnosis codes V27.0, V27.2, V27.3, V27.5 and V27.6, which exclude stillbirths. C-section was defined using ICD-9-CM procedure codes of 74.0, 74.1, 74.2, 74.4, or 74.99, which could be present in any procedure field. Caesareans for the purpose of pregnancy termination are excluded.

Numerator: Number of deliveries by Caesarean section among Winnipeg women.

Denominator: Number of deliveries.

Source:

Manitoba Health Hospital Abstract file

Findings:

Caesarean Sections	
1998/1999	18.1%
1999/2000	18.1%
2000/2001	18.8%
2001/2002	18.3%
2002/2003	19.4%

Caesarean Section as a per cent of Deliveries

Fiscal Year	Canadian	Manitoba	Winnipeg
1999/2000	19.9	18.3	18.1
2000/2001	21.4	18.7	18.8
2001/2002	22.5	18.2	18.3

Source: CIHI Health Indicators Report, 2002, 2003, 2004

Highlights:

- Across the five years shown, there has been a 1.3 per cent increase in delivery by caesarean section for Winnipeg women.
- From 1998/1999 to 2002/2003 the rate increased from 18.1% to 19.4% of deliveries using caesarean section. Although these rates are below the overall Canadian rate they do show an upward trend which could signal the need to review practice standards for this intervention.
- From a national perspective, Winnipeg rates are lower than that of Canadian overall rates and slightly greater than the Manitoba rate.

Standards/Benchmarks:

Regional rates across Canada vary from under 15% to as high as 26% in 2000/2001. The overall Canadian rate for that year was 21.4%(1). Some of the variability though may be attributed to differences in coding across facilities and regions.

There has been no pan-Canadian agreement on an "optimal" rate. The Agency for Healthcare and Research Quality of the U.S. Department of Health and Human Services recommends a performance level rate of not more than 15 c-sections per 100 deliveries⁽¹⁾.

(1) 2003 Benchmark Technical Report, Hay Group