

Definition/Description:**Suicide (or Self-inflicted) Deaths**

Defined as deaths that resulted from a self-inflicted injury as indicated by the presence of one of the ICD-9 E-codes E950.0-E959 in records in the Vital Statistics Death Database. Suicide is equivalent to "Self-inflicted" category reported in Injury Death (the same ICD-9 codes were used). Suicide rates on their own, are an important indicator of the overall health and well-being of a population. It has been identified as "a major public health problem" worldwide by the World Health Organization due to the loss to societies of young persons in their productive years of life.¹

PYLL (Potential Years of Life Lost)

PYLL, is a measure of premature mortality that gives greater weight to deaths occurring at a younger age than to those at later ages. Statistics Canada defines PYLL (under age 75) as "the number of years of life 'lost' when a person dies 'prematurely' - before age 75." For this report, PYLL was calculated as (age at time of death-75) for the suicide deaths.

Method

Ten calendar years of death data from the Vital Statistics Death Database were used, from January 1, 1990 to December 31, 1999). These were divided into two time periods for comparison: January 1, 1990 -December 31, 1994 and January 1, 1995-December 31, 1999. The denominator was the WHR population for each five-year period (corresponding to the years of the numerator data).

Injury deaths were sorted into five intent-manner categories using the Injury Matrix recommended by Health Canada and developed by the United States Centers for Disease Control. Further details about the methodology used for this analysis can be found in the Injury Death indicator.

One limitation of the use of death certificate data for monitoring suicide rates in a population, is that suicide rates produced from this data source may be under-reported, as not all suicides are documented on the death certificate. Some deaths may be recorded as "undetermined" in regards to intent, while others are never recorded as suicide. Undetermined intent data is also shown here with the self-inflicted injury death (suicide) data.

Source:

The death data used in this report was obtained from Vital Statistics Agency, Consumer and Corporate Affairs, Manitoba Finance and Manitoba Bureau of Statistics, Government of Manitoba. All numerical values, tables, and figures (including spatial analyses) were generated by the Population Health and Health System Analysis Unit, Winnipeg Regional Health Authority.

For further information, a comprehensive Mortality Report, Winnipeg Regional Health Authority, 2004, can be found at

<http://www.wrha.mb.ca/howcare/decsup/files/population/WRHAMortalityReport2004.pdf>

¹ World Health Report: 2001

Findings:**Suicide Deaths in the Winnipeg Health Region for Both Sexes, 1990-1994 and 1995-1999**

Manner/Intent	1990-1994				1995-1999			
	Number of Deaths	Rate per 100,000	Per cent of All Injury	PYLL	Number of Deaths	Rate per 100,000	Per cent of All Injury	PYLL
Suicide (Self-inflicted)	331	10.34	32.6%	10977	344	10.76	26.7%	10638
Undetermined	44	1.37	4.3%	1308	100	3.13	7.8%	3130

Suicide Deaths in the Winnipeg Health Region for Females, 1990-1994 and 1995-1999

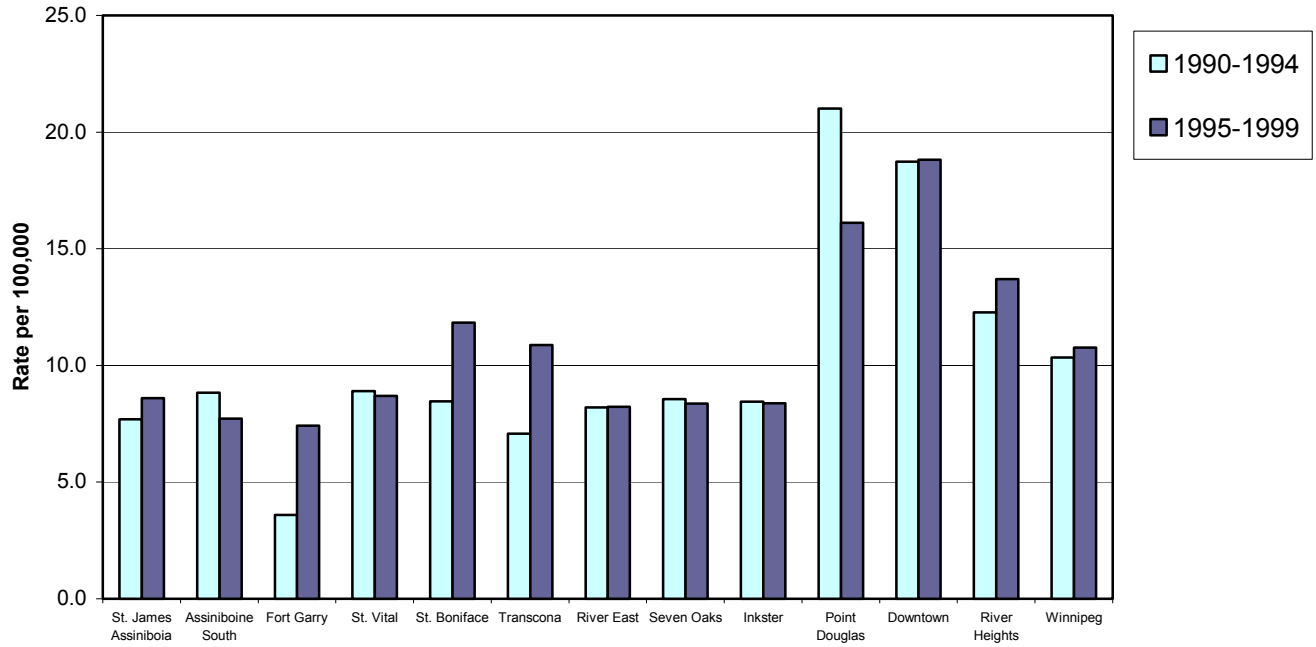
Manner/Intent	1990-1994				1995-1999			
	Number of Deaths	Rate per 100,000	Per cent of All Injury	PYLL	Number of Deaths	Rate per 100,000	Per cent of All Injury	PYLL
Suicide (Self-inflicted)	81	4.92	24.4%	2674	94	5.71	19.1%	2913
Undetermined	15	0.91	4.5%	390	36	2.19	7.3%	1045

Suicide Deaths in the Winnipeg Health Region for Males, 1990-1994 and 1995-1999

Manner/Intent	1990-1994				1995-1999			
	Number of Deaths	Rate per 100,000	Per cent of All Injury	PYLL	Number of Deaths	Rate per 100,000	Per cent of All Injury	PYLL
Suicide (Self-inflicted)	250	16.09	36.6%	8303	250	16.13	31.4%	7725
Undetermined	29	1.87	4.2%	918	64	4.13	8.0%	2085

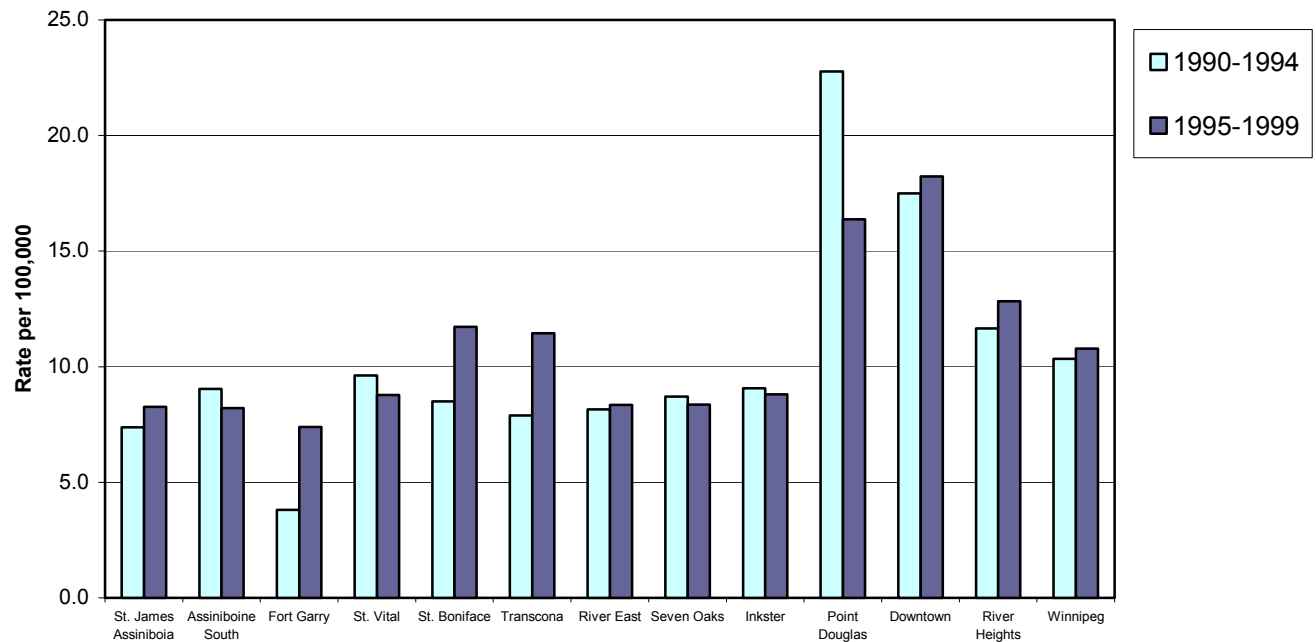
Self-inflicted Injury: Crude Death Rates by Community Area

Crude rates of Self-inflicted Injury death per 100,000 population; 1990-1994 and 1995-1999



Self-inflicted Injury: Age-adjusted Death Rates by Community Area

Age-adjusted rates of Self-inflicted Injury death per 100,000 population; 1990-1994 and 1995-1999



Suicide Deaths in the Winnipeg Health Region, 1990-1994 and 1995-1999

Counts and Rates of Death per 100 000 Population, Both Sexes by Community Area

Community Area	1990-1994			1995-1999		
	Count	Crude rate per 100,000	Age-adjusted rate per 100,000	Count	Crude rate per 100,000	Age-adjusted rate per 100,000
St. James Assiniboia	24	7.7	7.4	26	8.6	8.3
Assiniboine South	16	8.8	9.0	14	7.7	8.2
Fort Garry	10	3.6	3.8	22	7.4	7.4
St. Vital	26	8.9	9.6	26	8.7	8.8
St. Boniface	19	8.5	8.5	27	11.8	11.7
Transcona	11	7.1	7.9	17	10.9	11.4
River East	36	8.2	8.1	37	8.2	8.3
Seven Oaks	24	8.6	8.7	24	8.4	8.4
Inkster	13	8.5	9.1	13	8.4	8.8
Point Douglas	46	21.0	22.8	33	16.1	16.4
Downtown	70	18.7	17.5	66	18.8	18.2
River Heights	36	12.3	11.7	39	13.7	12.8
Winnipeg	331	10.3	10.3	344	10.8	10.8

Suicide Deaths by Age: Residents of the Winnipeg Health Region, 1990-1999

Counts and Age-Specific Rates of Death per 100 000 Population

Age Group	Self-inflicted		Undetermined	
	Count	Crude Rate per 100,000	Count	Crude Rate per 100,000
10-14	*	*	0	0.0
15-19	34	8.2	5	1.2
20-24	60	12.8	9	1.9
25-44	307	14.5	62	2.9
45-64	165	13.0	37	2.9
65-74	63	13.5	17	3.6
75-84	34	11.8	5	1.7
85+	8	8.8	5	5.5

Highlights:

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

Regional Rates: Suicide

- The suicide rate in the Winnipeg Health Region was 10.3 and 10.8 per 100 000 population between 1990-1994 and 1995-1999, respectively.
- Males had higher rates of suicide than females: approximately 2.8 times higher in 1995-1999.
- The suicide rate for males remained the same between the two time periods, while that for females increased.
- The PYLL for suicide is more substantial for males than females: approximately 70% of the PYLL for suicide can be attributed to males.

Undetermined Intent

- Death where it was undetermined if the intent was intentional harm (to self or others) or unintentional should be examined with suicide data, as it may compensate somewhat for the under-reporting of suicides in death certificate data.
- One limitation to this rationale is that it is unknown how many events may have been harm to self versus harm to others in this category, or unintentional injury.
- If all deaths with undetermined intent are combined with suicide (self-inflicted) deaths, the suicide rate for 1995-1999, would increase by approximately 22.5%.
- It should also be noted that there has been a substantial increase in deaths of undetermined intent. It is unclear as to why this has occurred, and warrants further investigation.

Community Area Rates: Suicide

- The lowest rates of Suicide (Self-inflicted Injury) death were found in the Fort Garry community area for both time periods.
- The highest rates were found in Point Douglas Community Area for t_1 and the Downtown Community Area in t_2 .
- The following community areas experienced an increase in the Suicide death rate between the two time periods: St. James-Assiniboia, Fort Garry, St. Boniface, Transcona, and River Heights.
- The following community areas experienced a decrease in the Suicide death rate between the two time periods: Assiniboine South, and Point Douglas,
- The Suicide death rates of the following community areas did not change substantially between the two time periods: St. Vital, River East, Seven Oaks, Inkster, and Downtown.
- The following community areas had Suicide death rates that were higher than that of the WHR (in t_2): St. Boniface, Transcona, Point Douglas, Downtown, and River Heights. After adjusting the rates for the underlying age distribution of the population, the rates of these community areas remain higher than that of the adjusted WHR rate.
- The suicide death rates of Point Douglas and Downtown Community Areas are substantially higher than the WHR rates (crude and age-adjusted).

Age-Specific Rates

- Suicide rates are the highest in the 25-44, 65-74, and 45-64 age groups (in that order from highest to lowest).
- Suicide makes-up a substantial proportion of all injury deaths for the age groups: 15-19, 20-24, and 45-64.
- Older adults appear to have higher suicide rates than younger adults in the WHR: the rate for 65-74 age group at 13.5 per 100 000 population is higher than that for the 15-19 and 20-24 age groups (8.2 and 12.8 per 100 000 population, respectively).