

The
Child
Health
Standards
Committee
2007 Annual Report



Acknowledgements

The Child Health Standards Committee (CHSC) wishes to acknowledge the continuing support of the following organizations. The information they provide has assisted the CHSC in its deliberations.

- Office of The Chief Medical Examiner
- Medical Records Departments, Manitoba Hospitals
- Manitoba Vital Statistics
- First Nations and Inuit Health Branch, Health Canada
- Insurance Division, Manitoba Health
- IMPACT, the injury prevention centre of Children's Hospital (2007-2009) and the IMPACT/WRHA injury prevention program (2009-2011)

The CHSC acknowledges the interest and cooperation of physicians and health care facilities across the province in providing information for the review process.

Due to the extensive and complex nature of these reviews, which rely on completed reviews from other standards committees, and the need to obtain documentation from numerous points of contact in the healthcare system, the CHSC annual reports are typically published several years after the date of death. This report summarizes deaths which occurred in 2007.

The committee is grateful to Manitoba Health for providing financial support.

Executive Summary 2007

- ❖ The Child Health Standards Committee (CHSC) reviewed 117 deaths which occurred in 2007. 89 were children 29 days to 14 years of age, 24 were teens 15 to 17 years of age, none were infants less than 29 days of age, and four were children whose place of residence was out of province.
- ❖ The mortality rate for Manitoba children aged 29 days to 14 years was 38.6 per 100,000 in 2007 compared to 29.4 per 100,000 in 2006 and 34.7 per 100,000 in 2005. The mortality rate for Manitoba teens 15-17 years of age was per 45.5 per 100,000 in 2007 compared to 61.3 per 100,000 in 2006 and 74.3 per 100,000 in 2005.
- ❖ The infant mortality rate was 5.7 per 1,000 live births, which is slightly higher compared to 2006, when it was 5.1.
- ❖ The cause of death was classified as preventable for 34 of the 89 child deaths (38%) and 20 of the 24 teen deaths (83%). Injury (unintentional injury, suicide, homicide) accounted for all but two of the preventable deaths.
- ❖ Injury was the leading cause of death overall, accounting for 46% of deaths among children and teens. In children 29 days to 14 years of age, the most common causes of injury-related mortality were motor vehicle collisions (occupants and pedestrians), suicide and homicide. The most common causes of injury-related mortality in teens were suicide and motor vehicle collisions (occupants).
- ❖ There were 13 suicides in 2007, compared to 14 in 2006 and 25 in 2005. In 2007, 8 suicides were teens 15-17 years of age and 5 were 14 years of age or younger; this compares to 6 teens and 8 children 14 years of age and younger in 2006.
- ❖ There were 43 First Nations children 29 days to 14 years of age who died in 2007. First Nations children in this age group were 6.3 times more likely to die than other Manitoba children. First Nations children accounted for 48% of childhood deaths in Manitoba. Mortality rates off-reserve were 5.0 times higher than on-reserve for this age group. There were 11 First Nations teens 15-17 years of age who died in 2007. First Nations teens were 7.2 times more likely to die than other Manitoba teens. First Nations teens accounted for 11 of the 24 teen deaths (46%). Mortality rates on- and off-reserve were similar for this age group.
- ❖ In 2007, the CHSC initiated educational actions with six physicians with respect to medical care provided. One action was directed to healthcare administrators and 5 additional referrals were made to other professional bodies, organizations, and government departments. In 7 cases, educational action was taken by another standards committee.

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Definitions

Age-Standardized Rates: Death rates are adjusted to account for the differing proportions of children by age group in different regions. Because infants are more likely to die than older children, a region with a higher proportion of infants would have an inflated death rate unless adjustments are made.

Delayed Neonatal Death: The death of an infant occurring after 28 days of age, who under natural selection circumstances, without the benefit of neonatal intensive care, would have died before 28 days of age.

Mortality Rate: The number of deaths occurring in a specified population per 100,000 population per year. Mortality rates for children under five years of age are usually reported as deaths per 1,000 population or 1,000 live births.

Infant Mortality Rate: The number of deaths occurring prior to one year of age per 1,000 live births.

Neonatal Mortality Rate: The number of neonatal deaths per 1,000 live births.

- **Early:** before the 7th full day of life (<168 hours), or
- **Late:** between the 8th and 28th full day of life (≥168 hours to <672 hours)

Post-Neonatal Mortality Rate: The number of deaths from 29 days to one year of age per 1,000 live births.

Under Five Mortality Rate: The number of deaths occurring prior to five years of age per 1,000 population.

First Nations: An individual who is registered under *The Indian Act of Canada*.

Non-First Nations or Other: All non-First Nations people, and those Métis and people of aboriginal descent who are not registered under *The Indian Act of Canada*.

Three-Year Moving Average: Three-year moving averages are used in some of the calculations because large fluctuations in rates may occur from year to year in small populations such as Manitoba. This rate is calculated by averaging the rate for 3 one-year periods and presenting that rate using the median year. For example, data for 1999, 2000, and 2001 rates are averaged and presented as a “2000” rate.

1. Introduction

Background

In 1976, the College of Physicians and Surgeons of Manitoba established the Pediatric Death Review Committee. In 2001, this committee was renamed the Child Health Standards Committee. This committee reports to the Central Standards Committee of The College of Physicians & Surgeons. The major function of all Standards Committees is to maintain and improve quality of care through education. ***These educational functions of the College are separate and distinct from its disciplinary functions.***

Educational strategies used by the Child Health Standards Committee include:

- Sending letters to physicians, hospitals, Area Standards Committees, and regulatory agencies for other health professionals.
- Publishing articles in the College Newsletters and Annual Reports to draw members' attention to important aspects of medical care involving children.
- Developing and disseminating recommendations to improve pediatric care.
- Advocating for the health of Manitoba children by informing government and other public agencies of recommendations to improve legislation or public policy.

Goals and Objectives

To monitor and improve the quality of medical care provided to Manitoba children by:

- Reviewing all deaths in the province of children between the ages of 29 days and the day before their 18th birthday.
- Determining whether each death was preventable at the family, community or medical care level.
- Communicating with involved practitioners or agencies where medical care or other actions could have affected the outcome.
- Making recommendations to government, medical organizations, and the community at large regarding preventable mortality and morbidity.

2. *Committee Activities*

In addition to reviewing deaths, the Child Health Standards Committee functions as a sounding board for child health issues for the College of Physicians and Surgeons.

The Medical Consultant conducts the initial case reviews and, with the administrative assistant, sends out and receives correspondence, maintains the database, contributes to the development of draft Newsletter items, attends relevant meetings, and collaborates with other interested parties.

Regional mortality rates are reported using the boundaries of the Manitoba Regional Health Authorities. In addition, the Committee divided Manitoba into three broad geographic regions: Urban (Winnipeg and Brandon); South (Assiniboine, Central and South Eastman); and North (Churchill, Burntwood, NorMan, North Eastman, Parkland and Interlake).

(Please refer to Definitions in Appendices.)

Newsletter Items

There were no newsletter items published in 2007.

Other Committee Activities

The CHSC conducted three Morbidity/Mortality audits in 2007:

- Suicide: Children and Teens
- Sudden infant deaths
- Poisoning hospitalization in children < 6 years of age

The CHSC advocated for the following issues in 2007:

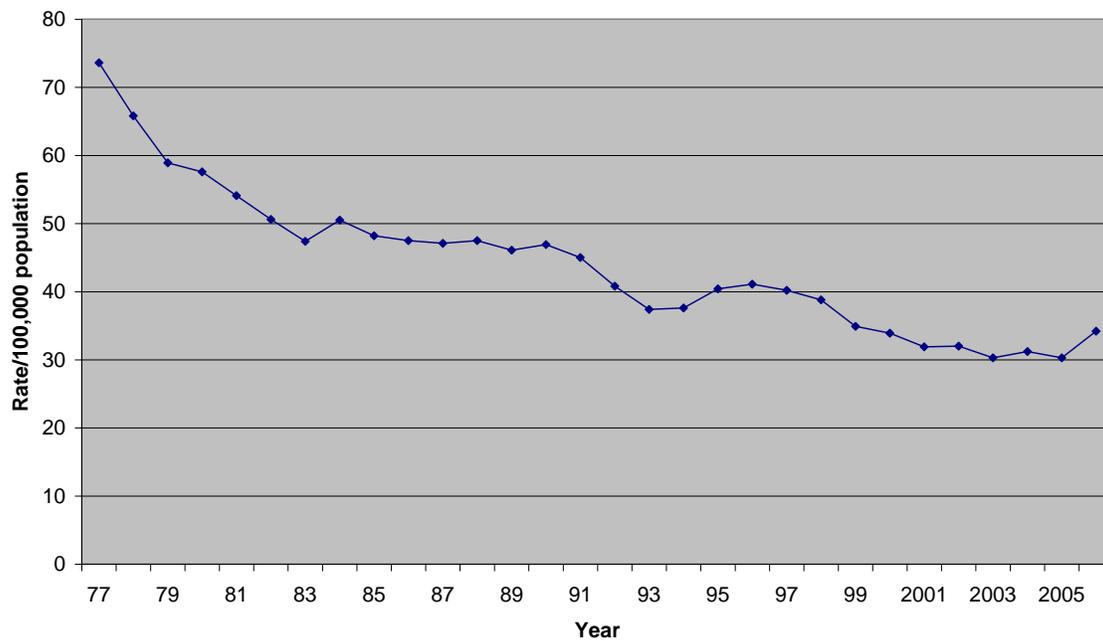
- Safe sleep guidelines, policies, and public education
- Compliance with current resuscitation guidelines
- Poisoning prevention in children < 6 years of age
- Suicide awareness

3. Statistical Summary

Mortality Rates

Figure 1 shows the three-year moving average trends in pediatric mortality from 1977 to 2007 for Manitoba residents. *The 2007 data are included in the three-year moving average reported as 2006.*

**Figure 1 - MORTALITY RATES
In Children 29 Days to 14 Years
(Three-Year Moving Average)**



Deaths Grouped by Age and Gender For Manitoba Residents

Table 1 - MORTALITY RATES BY AGE GROUP 2007				
Age Group	Number of Deaths	Population	Rate/100,000	Three-Year Average (2005 - 2007)
29 days to <1 year	33	14,916	221.2	191.6
1 to 4 years	18	57,420	31.3	32.1
5 to 9 years	16	74,910	21.4	15.4
10 to 14 years	22	83,132	26.5	25.7
Total 29 days to 14 years	89	230,378	38.6	34.2
15 to 17 years	24	52,794	45.5	60.3

Table 2 - MORTALITY RATES BY GENDER 2007				
Gender	Number of Deaths	Population	Rate/100,000	Three-Year Average (2005 - 2007)
Male 29 days to 14 years	43	118,060	36.4	37.9
Female 29 days to 14 years	46	112,318	41.0	30.4
Male 15 to 17 years	13	26,910	48.3	74.2
Female 15 to 17 years	11	25,884	42.5	45.9

Infant Mortality Rates

In 2007 there were 33 deaths in the Manitoba population between 29 days and one year of age. The number of live births based on Manitoba Health registrations was 15,504. This gives a post-neonatal infant mortality rate of 2.1 per 1,000 live births. There were also 55 neonatal deaths in the first 28 days of life. The neonatal mortality rate was 3.5 per 1,000 live births.

Combining the neonatal mortality rate with the post-neonatal mortality rate gives an overall infant mortality rate of 5.7 per 1,000 live births. This is similar to rates in recent years. These figures do not include neonates born weighing <500 grams.

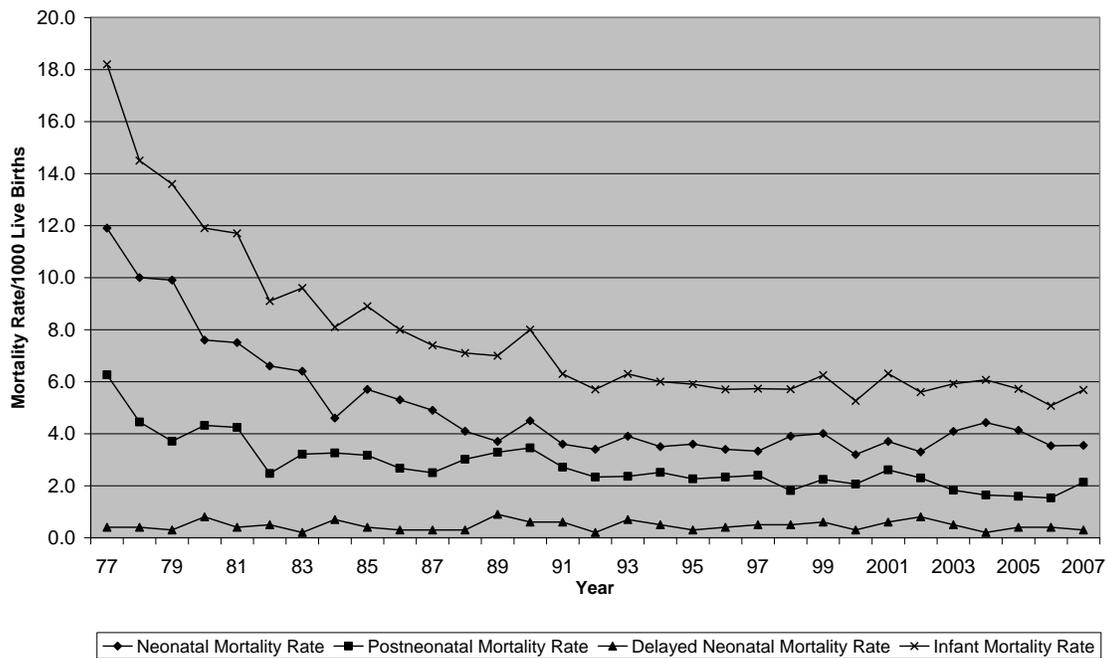
For First Nations infants, there were 16 neonatal deaths and 16 post-neonatal deaths among 2,528 live deliveries for an infant mortality rate of 12.7 per 1,000 live births. For non-First Nations infants, there were 39 neonatal and 17 post-neonatal deaths among 12,976 live deliveries for a rate of 4.3 per 1,000 live births. The First Nations infant mortality rate was 3.0 times that for non-First Nations infants.

Note: the above numbers include only “in hospital” live births and neonatal deaths.

Infant Mortality Rates *Continued*

Figure 2 shows Manitoba infant mortality rates over time. Also plotted are neonatal, post-neonatal and delayed neonatal infant mortality rates. When children's lives are prolonged by technology and they die from neonatal illnesses after 28 days, they are classified as delayed neonatal deaths and become part of the post-neonatal infant mortality statistic. In 2007, four infants less than one year of age were classified as dying from delayed neonatal causes. Infant mortality rates have remained stable for the past decade.

Figure 2 - INFANT MORTALITY RATES



Infant Mortality Rates Continued

Table 3 shows Statistics Canada infant mortality rates for Canada as a whole, and by province. The Statistics Canada figures for Manitoba are slightly different than those presented in this report. Statistics Canada counts infants born in Manitoba to mothers from out of province as being the responsibility of Manitoba. They also count registered births and neonatal deaths weighing less than 500 grams, which are not included in our statistics.

Province/Country	2000	2001	2002	2003	2004	2005	2006	2007
Canada	5.3	5.2	5.4	5.3	5.3	5.4	5.0	5.1
British Columbia	3.7	4.1	4.6	4.2	4.3	4.5	4.1	4.0
Nova Scotia	4.9	5.6	4.2	5.7	4.6	4.0	4.0	3.3
Alberta	6.6	5.6	7.3	6.6	5.8	6.8	5.3	6.0
Ontario	5.6	5.4	5.3	5.3	5.5	5.6	5.0	5.2
Yukon	2.7	8.7	8.8	6.0	11.0	0	8.2	8.5
Quebec	4.7	4.7	4.8	4.4	4.6	4.6	5.1	4.5
Newfoundland	4.9	4.9	4.5	5.0	5.1	6.2	5.3	7.5
New Brunswick	3.5	4.3	3.8	4.1	4.3	4.1	4.0	4.3
Manitoba	6.5	7.0	7.1	8.0	7.0	6.6	6.0	7.3
Saskatchewan	6.8	5.5	5.7	6.3	6.2	8.3	6.1	5.8
Prince Edward Island	3.5	7.2	1.5	4.9	4.3	2.2	2.1	5.0
Northwest Territories	8.9	4.9	11.0	5.7	0	4.2	10.2	4.1
Nunavut	12.3	16.9	11.0	19.8	16.1	10.0	13.4	15.1

Source: Statistics Canada, CANSIM, table 102-0504 and Catalogue no. 84F0211X, 1999-2007. last modified: 2009-04-28

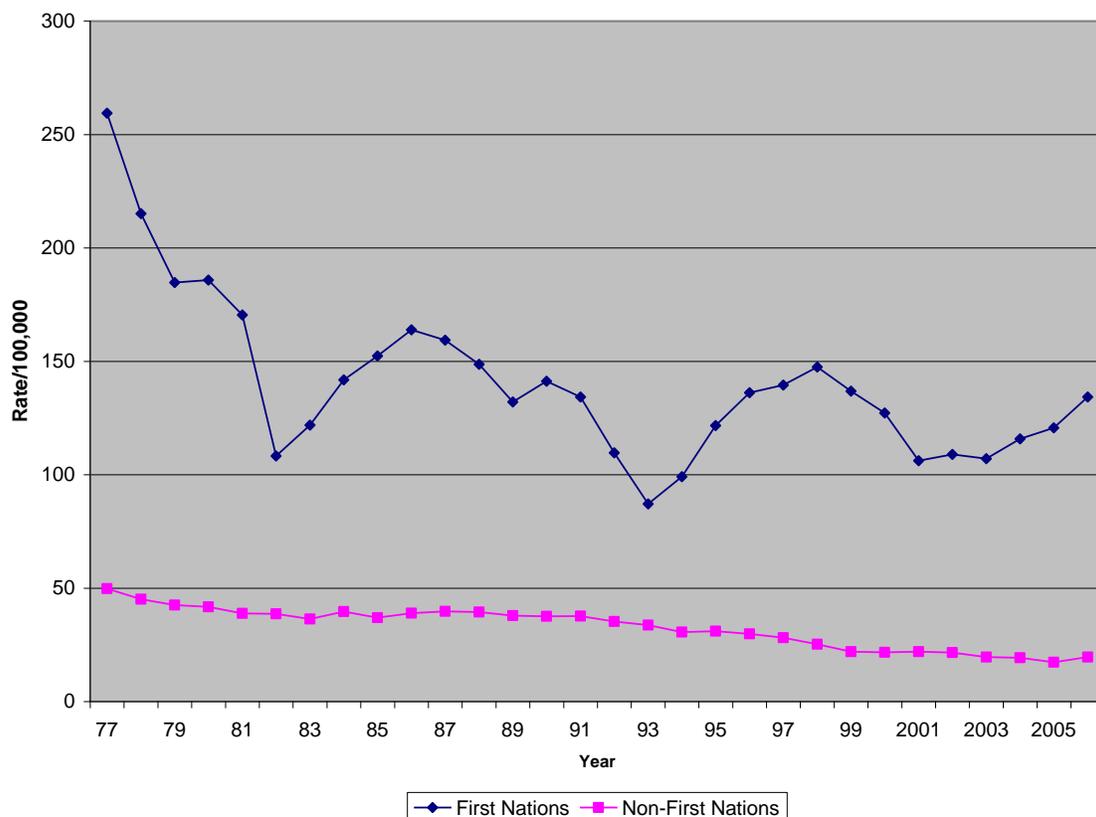
First Nations Mortality Rates

In 2007 First Nations children accounted for 13% of the population aged 29 days to 14 years in Manitoba and 48% of childhood deaths. There were 43 deaths among registered First Nations children and 46 among all others. The mortality rate for First Nations children was 143.9 per 100,000, and for all others 22.9. Therefore, First Nations children were 6.3 times more likely to die than other Manitoba children. This is similar to 2003-2005, which also showed six-fold increases (in 2006 it was 9.8-fold higher).

In Manitoba in 2007, 57% of First Nations children resided in First Nations communities. Of the 43 First Nations children who died, 9 resided in First Nations communities and 34 resided in other communities. Mortality rates for First Nations children were 52.7 per 100,000 residing in First Nations communities, and 265.4 per 100,000 First Nations children residing in all other communities.

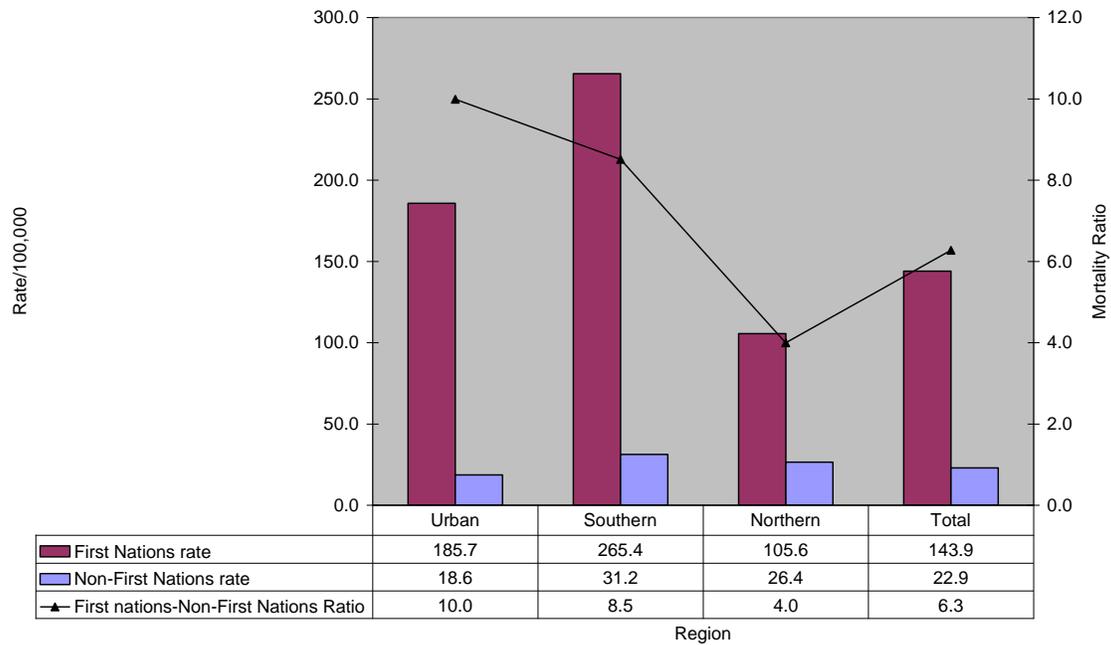
(The Manitoba Health Client Registry is used for these calculations for both deaths and population figures. This data is felt to represent approximately two-thirds of First Nations individuals in Manitoba.)

**Figure 3 – MORTALITY RATES FOR FIRST NATIONS vs. NON-FIRST NATIONS CHILDREN
In Children 29 Days to 14 Years (Three-Year Moving Average)**



First Nations Mortality Rates Continued

**Figure 4 – MORTALITY RATES BY GEOGRAPHIC REGION
FIRST NATIONS vs. NON-FIRST NATIONS
In Children 29 days to 14 years**



Definition of geographic regions for the purpose of this report:

- North Rural – Churchill, Burntwood, NorMan, North Eastman, Parkland and Interlake RHAs
- South Rural – Assiniboine, Central and South Eastman RHAs
- Urban – Winnipeg and Brandon RHAs

Regional Mortality Rates

Table 4 – REGIONAL MORTALITY RATES 2007 In Children 29 Days to 14 Years				
RHA	Number of Deaths	Population	Rate per 100,000	Three-Year Average Rates (2005 – 2007)
Burntwood	11	15601	70.5	83.6
North Eastman	3	8319	36.1	55.8
NorMan	3	6263	47.9	53.0
Assiniboine	8	12314	65.0	50.8
Parkland	5	8137	61.4	48.8
Central	13	23901	54.4	42.0
All Manitoba	89	230378	38.6	34.2
Interlake	7	14482	48.3	34.0
South Eastman	3	15272	19.6	24.9
Winnipeg	34	116644	29.1	23.8
Brandon	2	9237	21.7	14.3
Churchill	0	208	0.0	0.0

Note: Data are presented in descending order of three-year average rates

Causes of Childhood Death

Table 5 shows the causes of death in children 29 days to 14 years of age.

For 2007, 89 deaths of Manitoba children were reviewed. Injury accounted for 36% of these deaths. The CHSC reviewed four deaths of children from out of province.

Table 5 - CAUSES OF DEATH In Children 29 Days to 14 Years		
CAUSE OF DEATH	Deaths	Rate per 100,000
<i>Unintentional Injury</i>	20	8.7
<i>Intentional Injury*</i>	10	4.3
<i>Injury – Undetermined Intent</i>	2	0.9
Injury Total	32	13.9
SUID/SIDS	9	3.9
Congenital Anomaly	8	3.5
Respiratory System	7	3.0
Neoplasm	7	3.0
Infectious Disease	6	2.6
Nervous System	4	1.7
Perinatal Conditions	4	1.7
Endocrine, Nutritional, Metabolic	4	1.7
Sudden death	4	1.7
Circulatory System	2	0.9
Blood Disorders	2	0.9
Total	89	38.6

*Intentional Injury includes homicide and suicide.

Causes of Childhood Death *Continued*

Table 6 lists the frequency of various causes of post-neonatal infant mortality among Manitoba residents 29 days to one year of age.

Table 6 - CAUSES OF POST-NEONATAL INFANT DEATH In Children 29 Days to 1 Year		
CAUSE OF DEATH	Deaths	Rate per 100,000
SUID/SIDS	9	60.3
Congenital Anomaly	5	33.5
Conditions Originating in Perinatal Period	4	26.8
Diseases of the Nervous System	3	20.1
Diseases of the Respiratory System	3	20.1
Infectious Diseases	3	20.1
Endocrine, Nutritional, Metabolic	2	13.4
Injury Total	4	26.8
Unintentional Injury	3	20.1
Intentional Injury*	1	6.7
Total	33	221.2

*Intentional Injury (homicide).

Infant deaths are classified as Sudden Infant Death Syndrome (SIDS) if they remain unexplained by clinical history, death scene investigation (by police) and detailed post mortem examination including skeletal x-rays and toxicology. Sudden Unexpected Infant Deaths (SUID) are those with historical, investigative or post mortem findings which suggest, but do not confirm a cause of death.

Sudden Infant Death Syndrome (SIDS)

Figure 5A shows the three-year moving average rates for Sudden Infant Death Syndrome (SIDS) from 1977 to 2004. Data for 2004 are included in the 2003 three-year average (2002-2004). There was a consistent decline in SIDS rates until 1999. In 2004, there was one case of SIDS in the 29 days to one-year age group. There were no cases of SIDS in 2005 or 2006; all cases were classified as SUID. There were two cases classified as SIDS in 2007.

**Figure 5A – SUDDEN INFANT DEATH SYNDROME (SIDS)
In Children 29 Days to 1 Year
(Three-Year Moving Average)**

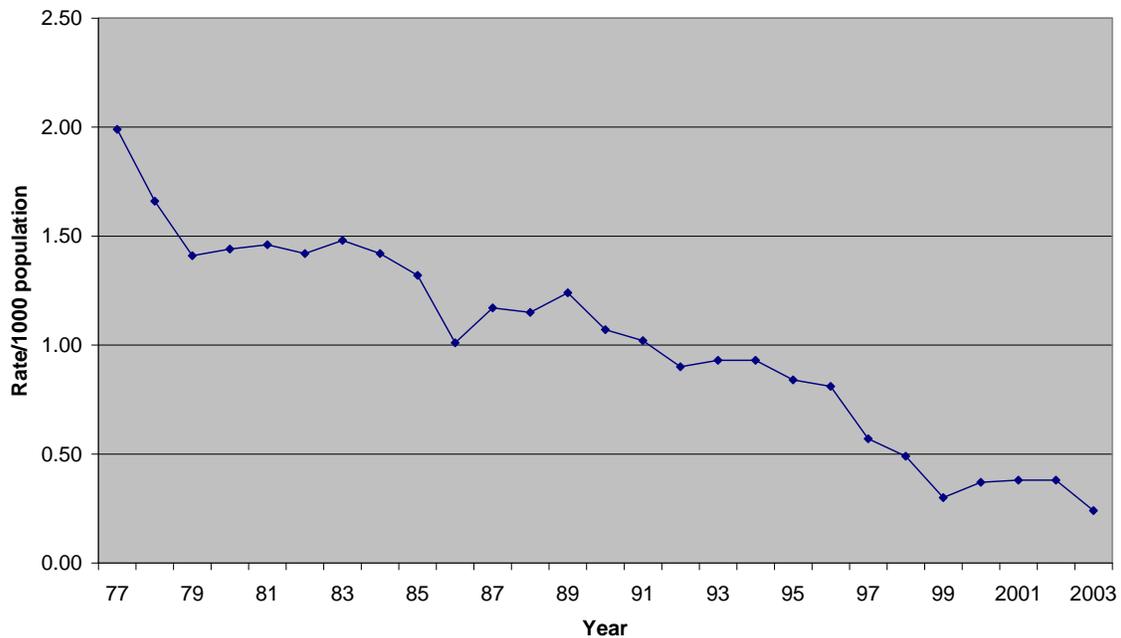
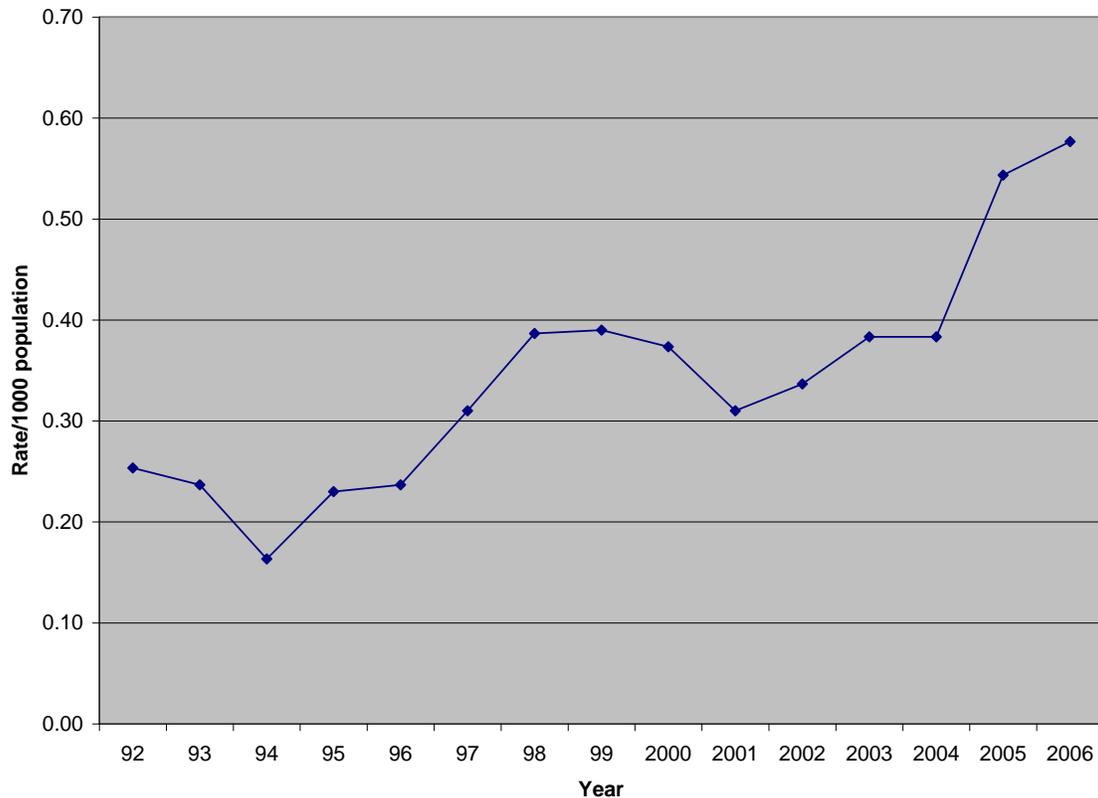


Figure 5B shows the three-year moving average rates for Sudden Unexpected Infant Death (SUID) from 1992 to 2007. Data for 2007 are included in the 2006 three-year average (2005-2007). In 2007, there were 9 cases of SUID in the 29 days to one-year age group. One infant less than 29 days of age was diagnosed with SUID and was reviewed by the Maternal Perinatal Health Standards Committee.

**Figure 5B – SUDDEN UNEXPECTED INFANT DEATH (SUID)
In Children 29 Days to 1 Year
(Three-Year Moving Average)**



Overall 27% of the deaths of infants 29 days to one year of age were sudden and unexpected infant deaths during sleep. Among these nine cases, six were bed sharing in an adult bed and one was placed to sleep alone in an adult bed. One was placed to sleep in a crib. Six infants were documented as having been put to sleep on their back. Eight of these infants had modifiable risk factors for sudden unexpected infant death.

Deaths from Injury - Trends

Figures 6A and 6B show the three-year moving average rates for injury deaths (unintentional and intentional combined) for children 29 days to 14 years of age. Data for 2007 are included in the 2006 three-year average (2005-2007).

Figure 6A - MORTALITY RATES FROM INJURY In Children 29 Days to 14 Years (Three-Year Moving Average)

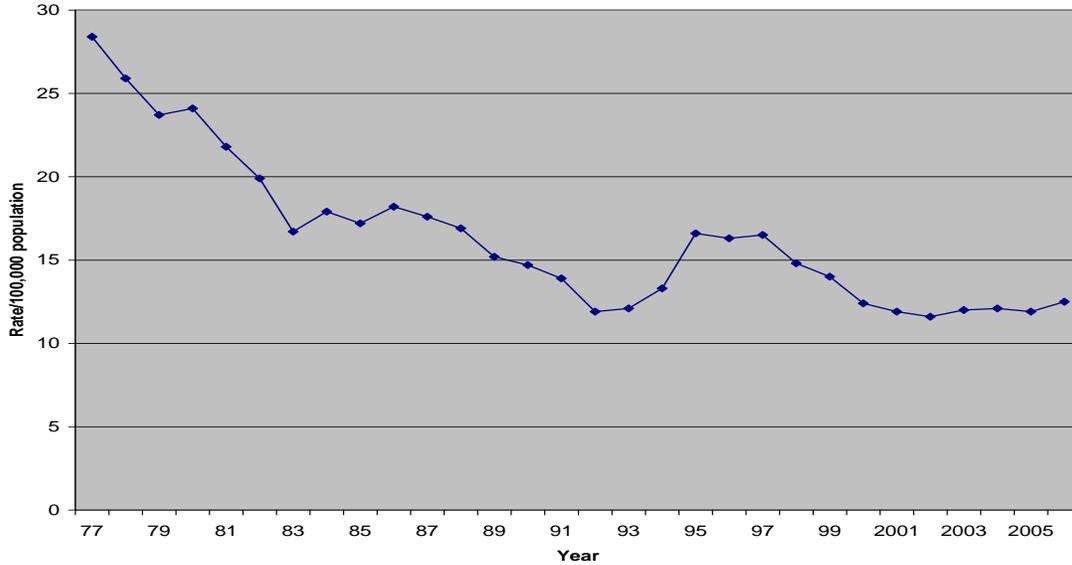


Figure 6B - MORTALITY RATES FROM INJURY by Age Group (29 Days to 14 Years) (Three-Year Moving Average)

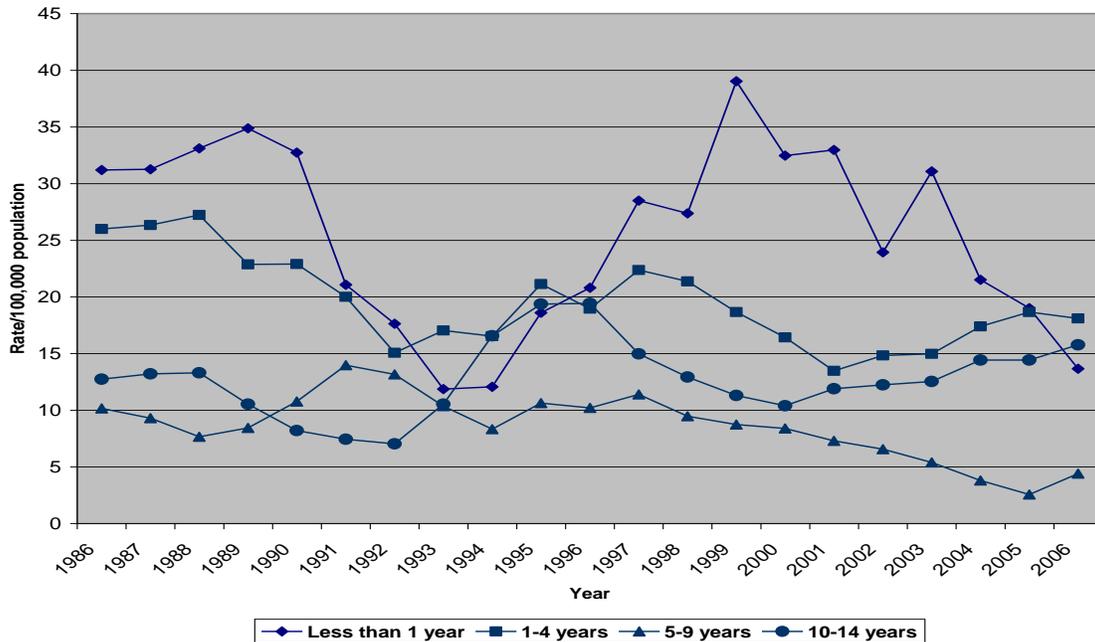
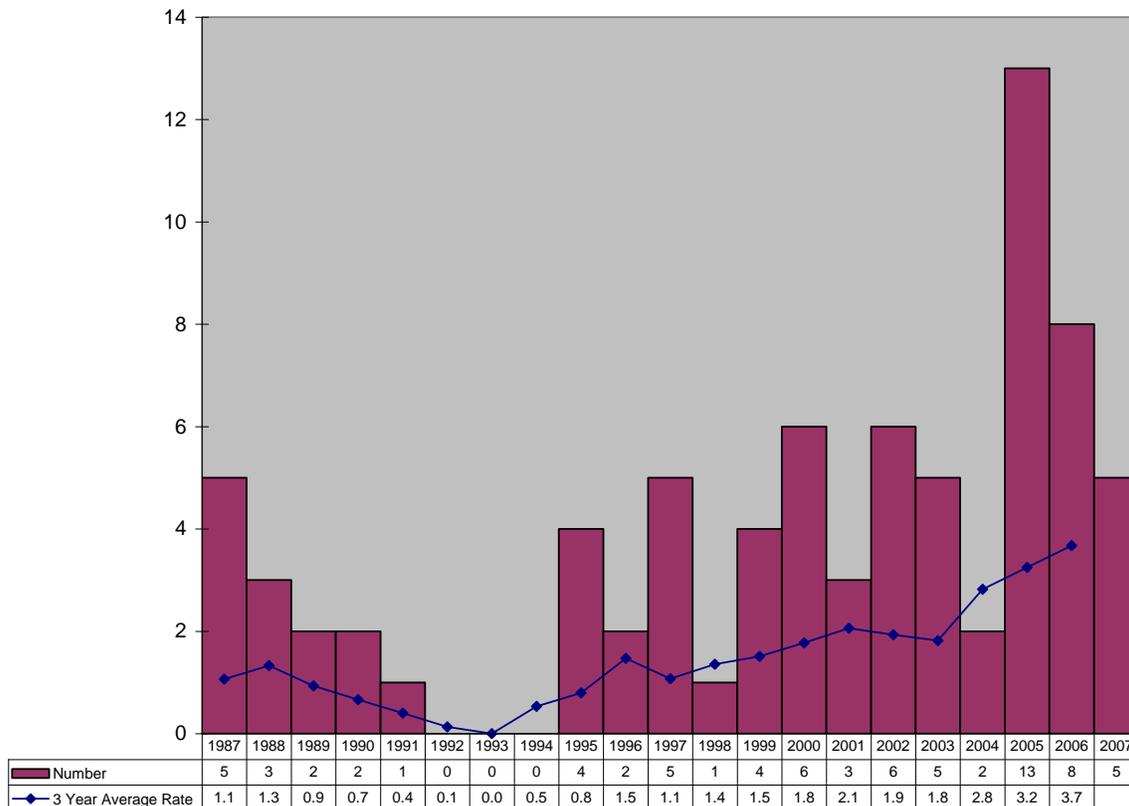


Figure 6C shows the annual number of suicides and the three-year moving average rates for suicide for children 14 years of age and younger. Data for 2007 are included in the 2006 three-year average (2005-2007). The annual number and rates of suicide had been increasing steadily in this age group in recent years, with a reduction in numbers in 2006 and 2007 as compared to the peak in 2005.

**Figure 6C – SUICIDES AMONG CHILDREN 14 YEARS OF AGE AND YOUNGER
Number per year and Three-Year Moving Averages**



In 2007, there were 32 deaths due to injury among Manitoba children 14 years of age and under. Injuries caused 36% of all deaths of children between 29 days and 14 years of age (32 of 89).

Table 7 – INJURY-RELATED MORTALITY RATES BY AGE GROUP 2007

Age Group	Number of Deaths	Population	Rate/100,000	Three-Year Average 2005-2007
29 days - 1 year	4	14,916	26.8	13.7
1 - 4 years	8	57,420	13.9	18.1
5 - 9 years	7	74,910	9.3	4.4
10 - 14 years	13	83,132	15.6	15.8
Total	32	230,378	13.9	12.5

Table 8 - TYPES OF INJURY CAUSING DEATH 2007 In Children 29 Days to 14 Years					
Unintentional			Intentional		
Cause	Number	Rate	Cause	Number	Rate
Pedestrian	6	1.7	Suicide	5	2.2
Choking/Suffocation	4	0.9	Homicide	5	2.2
Drowning	2	0.9			
Off road vehicle	2	0.9			
Farm	2	0.9			
Fall	2	0.4			
House Fire	1	0.4			
Motor vehicle occupant	1	0.4			
Total	20	8.7		10	4.3

There were 20 deaths related to unintentional injuries and 10 deaths related to intentional injuries (five suicides and five inflicted injuries). There were two deaths for which the intent was undetermined, including one hanging and one fall from a balcony.

The most common cause of unintentional injury death was motor vehicle-related injury. Six children died as a result of pedestrian injuries. Four preschool children were run over by vehicles. These incidents were characterized by poor driver visibility and involved vehicles backing up or moving forward from a parked position. In one incident a youth was struck by a drunk driver on the highway, and in another, a child fell under the wheels of a school bus. One child passenger died in a motor vehicle collision. It is not known whether a child restraint was in use.

There were four cases of asphyxia; two infants became entrapped while sleeping on adult mattresses, one infant suffocated in a sleeping hammock, and one child became trapped beneath weight-lifting equipment.

One child died as a result of drowning in a remote community while playing near his residence and one child and his father drowned while fishing.

Two fatal injury incidents occurred on farms. A young child was run over by a tractor and another was entrapped by a heavy object while playing outside. Two children suffered fatal off-road vehicle injuries. One youth was driving an ATV and the other was towed behind a snowmobile.

One youth fell from a horse and suffered a fatal head injury, and another fell while sledding and suffered a fatal spinal cord injury.

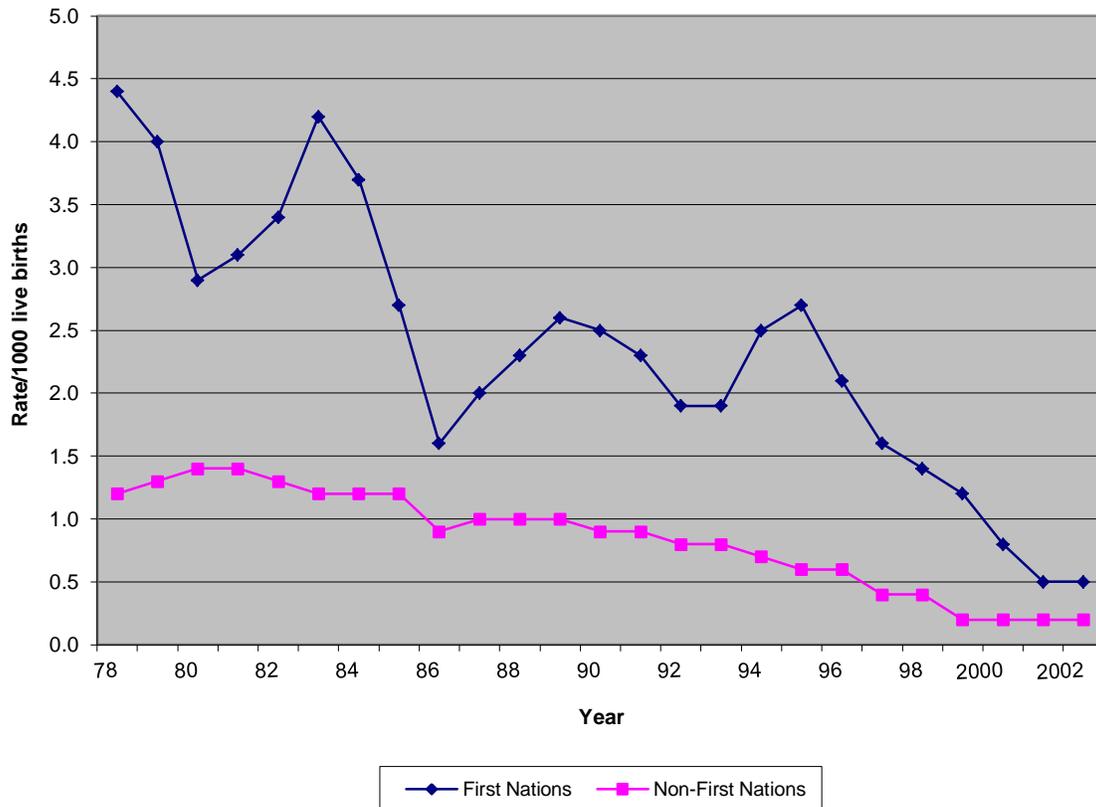
One child died in a residential fire which was later determined to be arson-related.

Five children less than 15 years of age committed suicide in 2007. All were First Nations children, with two living on reserve.

Five children died related to inflicted injuries including three homicides and two cases of child abuse.

Selected Cause-Specific Mortality – First Nations Children

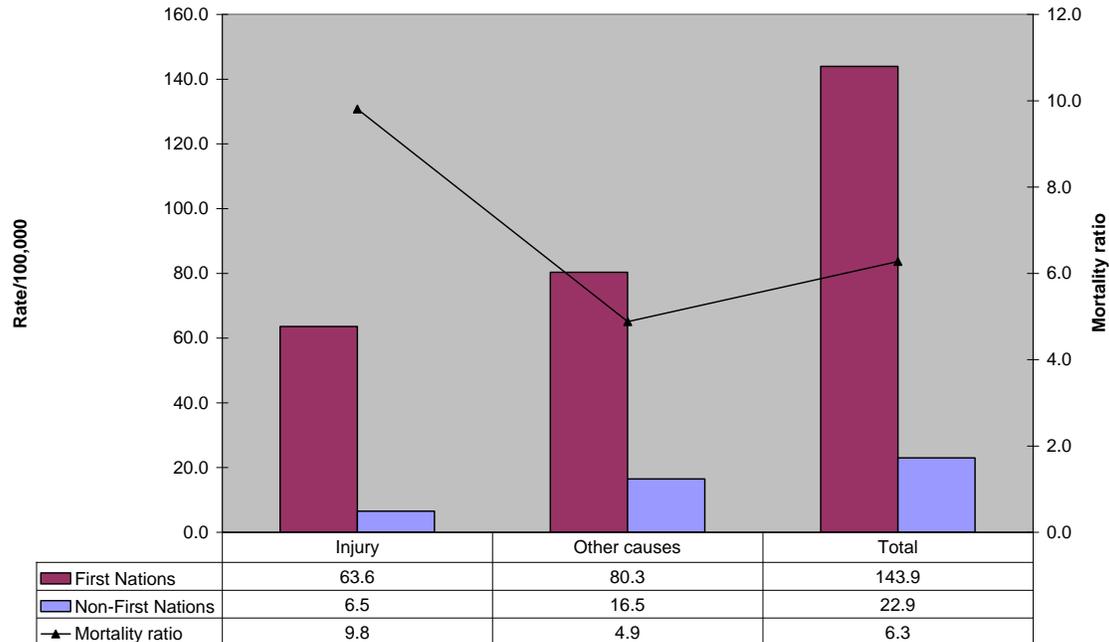
**Figure 7 – SUDDEN INFANT DEATH SYNDROME 1978-2003
FIRST NATIONS vs. NON-FIRST NATIONS
(Three-Year Moving Average)**



SIDS rates have been declining for all Manitoba children since the late 1970s. The gap between First Nations and non-First Nations rates has been steadily declining over this time period. In 2003 First Nations children had a 2.5-fold increased risk of SIDS when compared to non-First Nations children. In 2004 the only SIDS death was a First Nations child. In 2005 and 2006 there were no cases of SIDS. In 2007 there were two cases of SIDS, both First Nations. Figure 7 reflects the most recent three-year average that can be calculated (2002, reflecting 2001-2003). Of the seven SUID deaths in 2007 at least four were First Nations children.

Selected Cause-Specific Mortality – First Nations Children Continued

**Figure 8 – MORTALITY RATES FROM INJURY
FIRST NATIONS vs. NON-FIRST NATIONS
In Children 29 Days to 14 Years**



First Nations children had an elevated risk of death for all causes combined, with 6.3 times the rates experienced by non-First Nations children. For injury, there was a 10-fold increased risk of death.

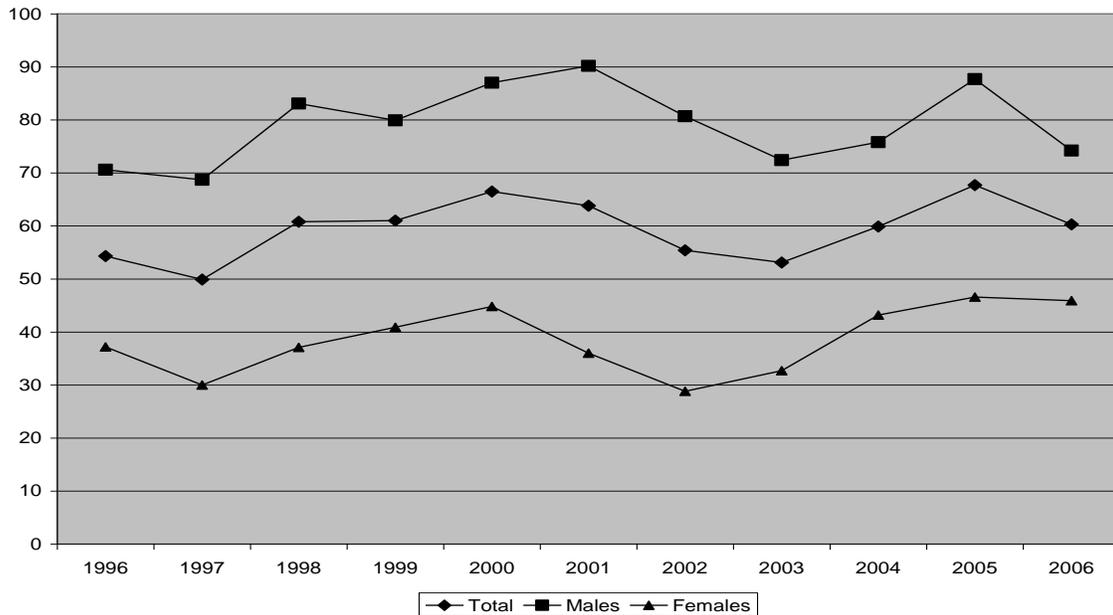
Autopsies

In 2007, 61 of the 89 Manitoba children who died between the ages of 29 days and 14 years had an autopsy (69%). Among teens 15 to 17 years of age, 20 of 24 had autopsies (83%).

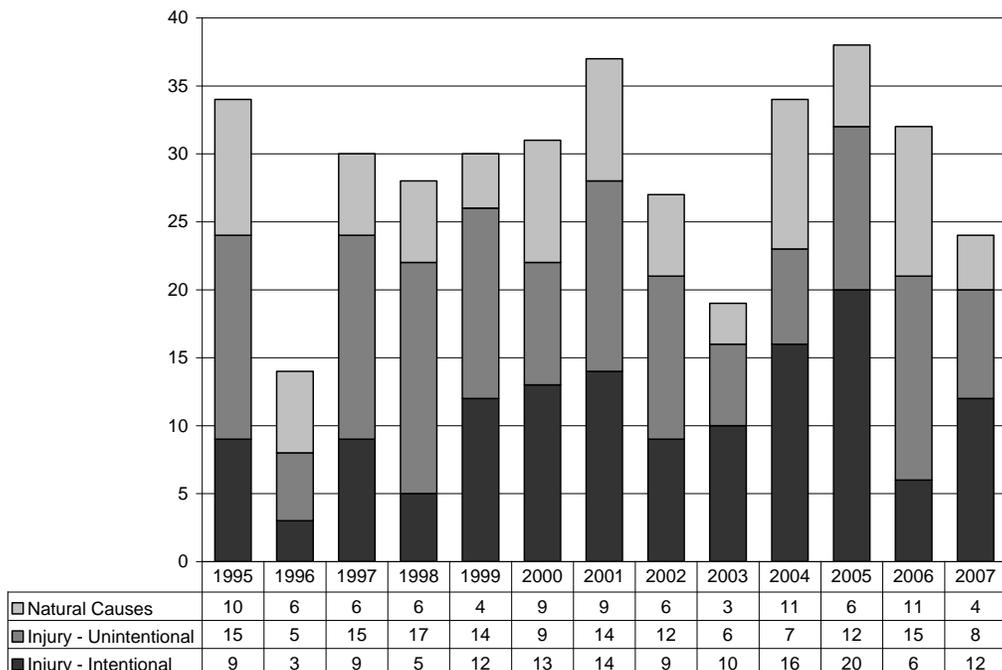
4. Teen Deaths, 15 to 17 Years

Since 1994, the Child Health Standards Committee has reviewed deaths of Manitoba youth 15 to 17 years of age. The death rate in 2007 was 45.5 per 100,000, lower than the three-year average of 60.3 per 100,000. The male and female mortality rates were similar (see Table 2). Figure 9 shows mortality rates by gender for the past ten years. Figure 10 shows the proportion of deaths due to injury and other causes.

**Figure 9 - MORTALITY RATES
In Teens 15-17 Years of Age (Three-Year Moving Average)**



**Figure 10 - NUMBER OF DEATHS BY CAUSE (INJURY VS. NATURAL CAUSES)
In Teens 15-17 Years of Age, 1995-2007**



Teen Deaths Continued

Table 9 shows the causes of death for this age group and **Table 10** shows the types of injuries causing death. The injury-related mortality rate was 37.9 per 100,000.

Table 9 - CAUSES OF DEATH in Teens 15 to 17 years		
	Deaths	Rate per 100,000
Injury	20	37.9
<i>Unintentional Injury</i>	8	15.2
<i>Intentional Injury*</i>	12	22.7
Diseases of the Respiratory System	2	3.8
Diseases of the Circulatory System	1	1.9
Neoplasms	1	1.9
Total	24	45.5

Table 10 - TYPES OF INJURY CAUSING DEATH in Teens 15 to 17 Years					
Unintentional			Intentional		
	Cases	Rate / 100,000		Cases	Rate / 100,000
Motor Vehicle	8	15.2	Homicide	4	7.6
- Driver	5	9.5	Suicide	8	15.2
- Passenger	3	5.7			
Total	8	15.2		12	22.7

In 2007, 20 of the 24 teen deaths were due to injuries. Motor vehicle related deaths were the leading cause of unintentional injury death. Eight teens died in motor vehicle collisions: five drivers and three passengers. Two of these victims were known to be wearing a seat belt. At least five of these incidents involved inexperienced drivers. In three of the motor vehicle related deaths substance use was implicated as a factor and in many cases speed was implicated.

There were 12 intentional injury deaths, including eight suicides and four homicides. Five of the eight suicides were by hanging. Five of the suicides were First Nations teens. Substance use or alcohol was documented at the time of suicide in four cases.

5. Preventability of Death

The CHSC divides preventability into two categories: (i) preventability of the disease or the injury that caused the death, and (ii) preventability of the outcome once the disease or injury has occurred. Medical care is sometimes involved in the preventability of outcome, and rarely is implicated in the cause of death. Educational action was taken by the committee or another standards committee for cases where medical care could have been improved.

Childhood Deaths

(i) Preventable Cause

In 2007, 34 of the 89 childhood deaths were deemed to have a preventable cause. This included 32 injuries (including unintentional injuries, suicide, and homicide), one surgical complication and one case of severe dehydration with delay in seeking medical care. The remaining 12 cases were theoretically preventable and included 8 cases of SUID/SIDS, one medical device complication, one vaccine preventable illness, one case of E. Coli related haemolytic uremic syndrome, and one case of delayed presentation for medical care.

(ii) Preventable Outcome

There was one childhood death classified as having a preventable outcome related to delays in seeking medical care, where earlier treatment could have prevented death. Twelve cases had a theoretically preventable outcome, including two cases of child abuse, three cases where there was a delay in seeking care, six cases where earlier and more aggressive medical care was recommended, two cases where parent or guardian action may have prevented the outcome, and one case of a complication of medical management.

There were additional cases where the care provided did not alter the outcome but could have been improved:

- Failure to identify and/or aggressively treat documented hypotension.*
- Failure to document a core (rectal) temperature at the time of death.*
- Medication errors during resuscitation that did not affect the outcome (several cases); these may reflect or include documentation errors.*
- Lack of documentation of significant physical findings relevant to diagnosis, clinical management, and/or discharge counselling/instructions.*
- There were several cases of missing documentation in the medical records reviewed.*

(* indicates observations also made in previous years)

Teen Deaths

(i) Preventable Cause

In 2007, 20 of the 24 teen deaths were judged to have a preventable cause. All of the preventable deaths were due to trauma (injury), homicide or suicide. One death was classified as theoretically preventable with earlier diagnosis and treatment.

(ii) Preventable Outcome

One death was classified as having a preventable outcome related to delays in seeking care. There was one death that was judged to have a theoretically preventable outcome in which medical care could have been improved with earlier diagnosis and aggressive management and two deaths where earlier emergency response in the community might have prevented the outcome.

Educational and Other Actions

The Child Health Standards Committee took educational action for 12 cases in 2007. An additional seven actions taken by other Standards Committees were reviewed by the committee.

Table 11 - EDUCATIONAL ACTIONS	
Action Taken	
Physician Providers (two cases involved two providers)	6
Health Administrators	1
Referrals to other agencies/organizations	5
Total number of actions	12

6. *Recommendations*

The Child Health Standards Committee had the following recommendations related to child health in 2007.

1. That facilities providing pediatric emergency care comply with current pediatric triage guidelines and ensure that staff are aware of pediatric equipment and procedures.
2. That healthcare providers should be familiar with current guidelines for pediatric resuscitation.
3. That the management of unintentional poisoning in children could be improved by consulting the Poison Control Centre (available 24/7 at 204-787-2591 or 204-787-4244) regarding decontamination, investigation, and treatment of individual cases. Facilities should ensure that current triage guidelines are being followed, and that all children treated or observed are weighed (kg).
4. That the committee supports the work of regional and provincial partners who are developing safe sleep guidelines, policies, and public education.

Child Health Standards Committee

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