

THE
CHILD
HEALTH
STANDARDS
COMMITTEE
2009 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
- Health Information Services, Manitoba Hospitals
- Manitoba Vital Statistics
- First Nations and Inuit Health Branch, Health Canada
- Insurance Division, Manitoba Health
- IMPACT/WRHA injury prevention program (2009-2012)

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 2009.

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

Executive Summary 2009

- The Child Health Standards Committee (CHSC) reviewed 108 deaths which occurred in 2009. Sixty-one were children 29 days to 14 years of age, 42 were teens 15 to 17 years of age and five were children whose place of residence was out of province.
- The mortality rate for Manitoba children aged 29 days to 14 years was 26.2 per 100,000 in 2009 compared to 32.8 per 100,000 in 2008 and 38.6 per 100,000 in 2007. The mortality rate for Manitoba teens 15 to 17 years of age was 79.9 per 100,000 in 2009 compared to 47.7 per 100,000 in 2008 and 45.5 per 100,000 in 2007.
- The infant mortality rate was 5.2 per 1,000 live births, which is similar to the rate in 2008 (5.1 per 1,000 live births).
- The cause of death was classified as preventable for 22 of the 61 child deaths (36%) and 36 of the 42 teen deaths (86%). Injury (unintentional injury, suicide, homicide) accounted for all of the preventable deaths.
- Injury was the leading cause of death overall, accounting for 44% of deaths among children and teens. In children 29 days to 14 years of age, the most common causes of injury-related mortality were suffocation, drowning and house fires. The most common cause of injury-related mortality in teens was suicide.
- There were 20 suicides in 2009, compared to 12 in 2008 and 13 in 2007. In 2009, 16 suicides were teens 15 to 17 years of age and four were 14 years of age or younger; this compares to 10 teens and two children 14 years of age and younger in 2008.
- There were 24 First Nations children 29 days to 14 years of age who died in 2009. First Nations children in this age group were 4.1 times more likely to die than other Manitoba children. First Nations children accounted for 39% of childhood deaths in Manitoba. Mortality rates off-reserve were 1.3 times higher than on-reserve for this age group. There were 22 First Nations teens who died in 2009. First Nations teens were 8.6 times more likely to die than other Manitoba teens and accounted for 52% of teen deaths in Manitoba. Mortality rates off-reserve were similar to rates on-reserve.
- In 2009, the CHSC initiated educational action with six physicians with respect to medical care provided. Five referrals were made to health administrators, professional bodies, other organizations and government departments. In five 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 Paediatric 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 paediatric 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 or not 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 & Surgeons of Manitoba.

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 has divided Manitoba into three broad geographic regions: Urban (Winnipeg and Brandon); South (Assiniboine, Central and South Eastman); and North (Churchill, Burntwood, NOR-MAN, North Eastman, Parkland and Interlake).

(Please refer to Definitions in Appendices.)

Newsletter Items

There was one newsletter item published in 2009:

- Flu Season Tips: Cough and Cold Preparations for Young Children

Other Committee Activities

The CHSC conducted two Morbidity/Mortality audits in 2009:

- Suicide: Children and Teens
- Sudden infant deaths

The CHSC advocated for the following issues in 2009:

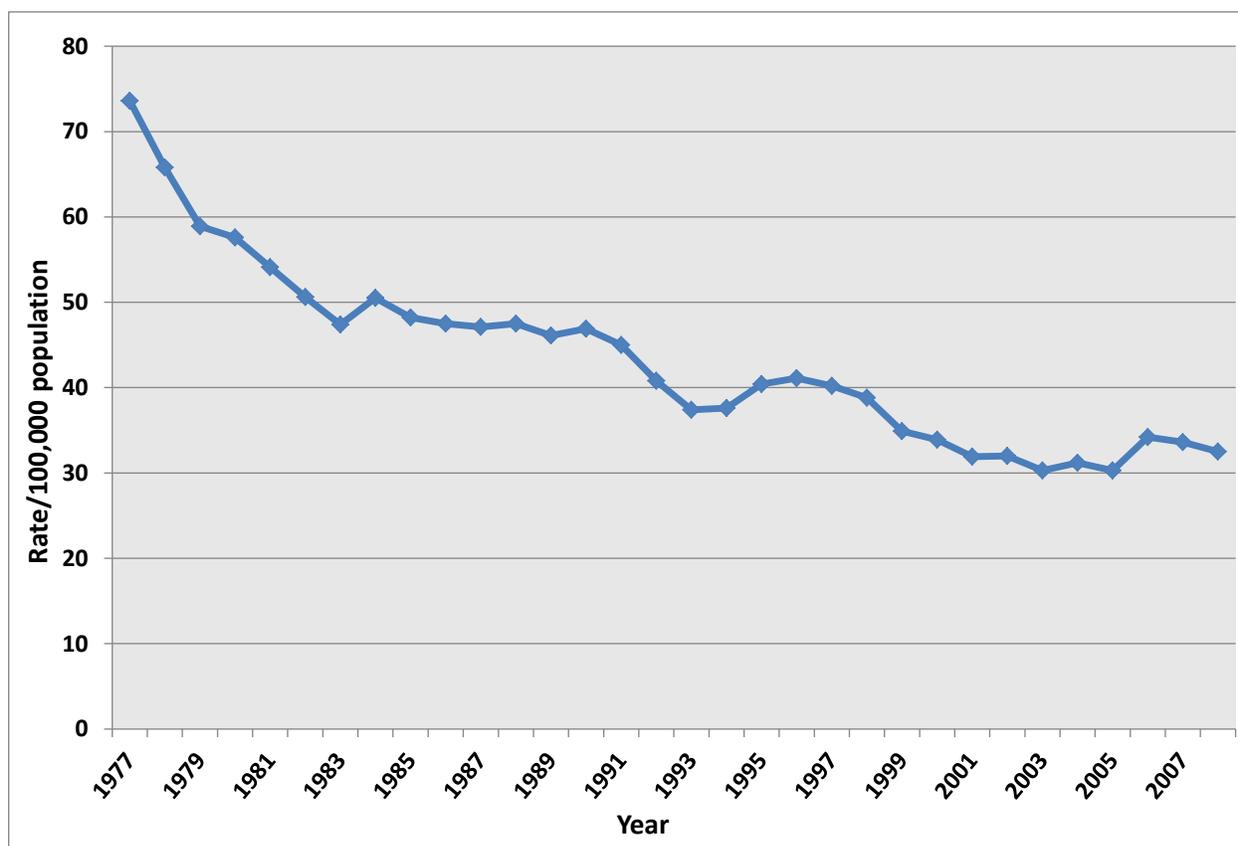
- Safe sleep guidelines, policies and public education
- Compliance with current resuscitation guidelines
- Improved pediatric transport and referral processes
- Injury prevention in foster care
- Suicide awareness

3. Statistical Summary

Mortality Rates

Figure 1 shows the three-year moving average trends in paediatric mortality from 1977 to 2009 for Manitoba residents. *The 2009 data are included in the three-year moving average reported as 2008.*

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



Deaths Grouped by Age and Sex for Manitoba Residents

Table 1 - MORTALITY RATES BY AGE GROUP 2009

Age Group	Number of Deaths	Population	Rate/100,000	Three-Year Average (2007-2009)
29 days to <1 year	20	15,822	126.4	184.7
1 to 4 years	14	60,745	23.1	26.0
5 to 9 years	12	75,037	16.0	19.1
10 to 14 years	15	81,363	18.4	21.0
Total 29 days to 14 years	61	232,967	26.2	32.4
15 to 17 years	42	52,577	79.9	57.7

Table 2 - MORTALITY RATES BY GENDER 2009

Gender/Age Group	Number of Deaths	Population	Rate/100,000	Three-Year Average (2007-2009)
Male (29d to 14y)	32	119,359	26.8	33.4
Female (29d to 14y)	29	113,608	25.5	31.6
Male (15y to 17y)	24	26,923	89.1	65.8
Female (15y to 17y)	18	25,654	70.2	49.2

Infant Mortality Rates

In 2009 there were 20 deaths in the Manitoba population between 29 days and one year of age. The number of live births based on Manitoba Health registrations was 16,169. This gives a post-neonatal infant mortality rate of 1.2 per 1,000 live births. There were also 64 neonatal deaths in the first 28 days of life. The neonatal mortality rate was 4.0 per 1,000 live births.

Combining the neonatal mortality rate with the post-neonatal mortality rate gives an overall infant mortality rate of 5.2 per 1,000 live births. This is similar to rates in recent years. These figures do not include neonates born weighing <500 grams.

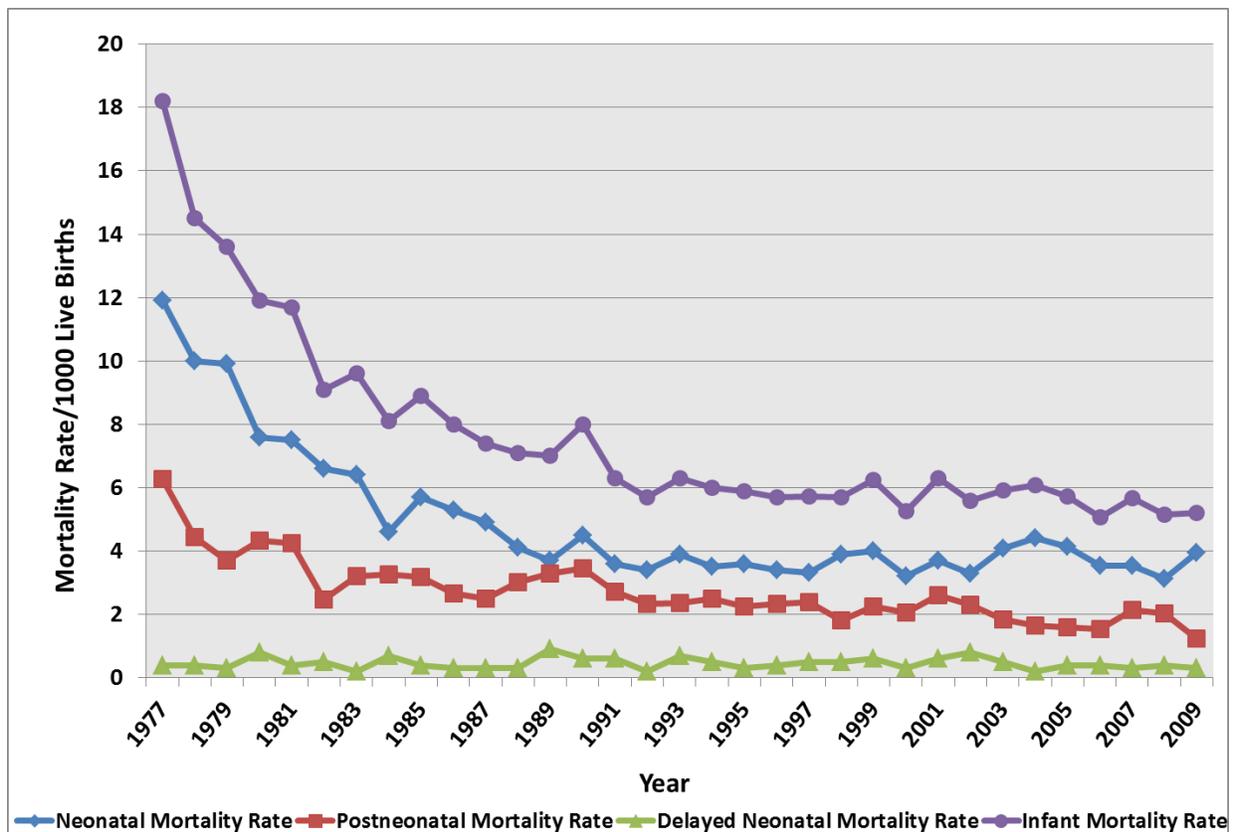
Infant Mortality Rates Continued

For First Nations infants, there were 10 neonatal deaths and 7 post-neonatal deaths among 2,663 live deliveries for an infant mortality rate of 6.4 per 1,000 live births. For non-First Nations infants, there were 54 neonatal and 13 post-neonatal deaths among 13,506 live deliveries for a rate of 5.0 per 1,000 live births. The First Nations infant mortality rate was 1.3 times that for non-First Nations infants.

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

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 2009, five 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	2001	2002	2003	2004	2005	2006	2007	2008	2009
Prince Edward Island	7.2	1.5	4.9	4.3	2.2	2.1	5.0	2.0	3.4
Nova Scotia	5.6	4.2	5.7	4.6	4.0	4.0	3.3	3.5	3.4
British Columbia	4.1	4.6	4.2	4.3	4.5	4.1	4.0	3.7	3.6
Quebec	4.7	4.8	4.4	4.6	4.6	5.1	4.5	4.3	4.4
Canada	5.2	5.4	5.3	5.3	5.4	5.0	5.1	5.1	4.9
Ontario	5.4	5.3	5.3	5.5	5.6	5.0	5.2	5.3	5.0
Alberta	5.6	7.3	6.6	5.8	6.8	5.3	6.0	6.2	5.5
New Brunswick	4.3	3.8	4.1	4.3	4.1	4.0	4.3	3.2	5.8
Newfoundland	4.9	4.5	5.0	5.1	6.2	5.3	7.5	5.1	6.3
Manitoba	7.0	7.1	8.0	7.0	6.6	6.0	7.3	6.5	6.3
Saskatchewan	5.5	5.7	6.3	6.2	8.3	6.1	5.8	6.2	6.7
Yukon	8.7	8.8	6.0	11.0	0.0	8.2	8.5	5.4	7.8
Nunavut	16.9	11.0	19.8	16.1	10.0	13.4	15.1	16.1	14.8
Northwest Territories	4.9	11.0	5.7	0.0	4.2	10.2	4.1	9.7	15.5

Source: Statistics Canada, CANSIM, table 102-0504. Last modified: 2012-05-31.

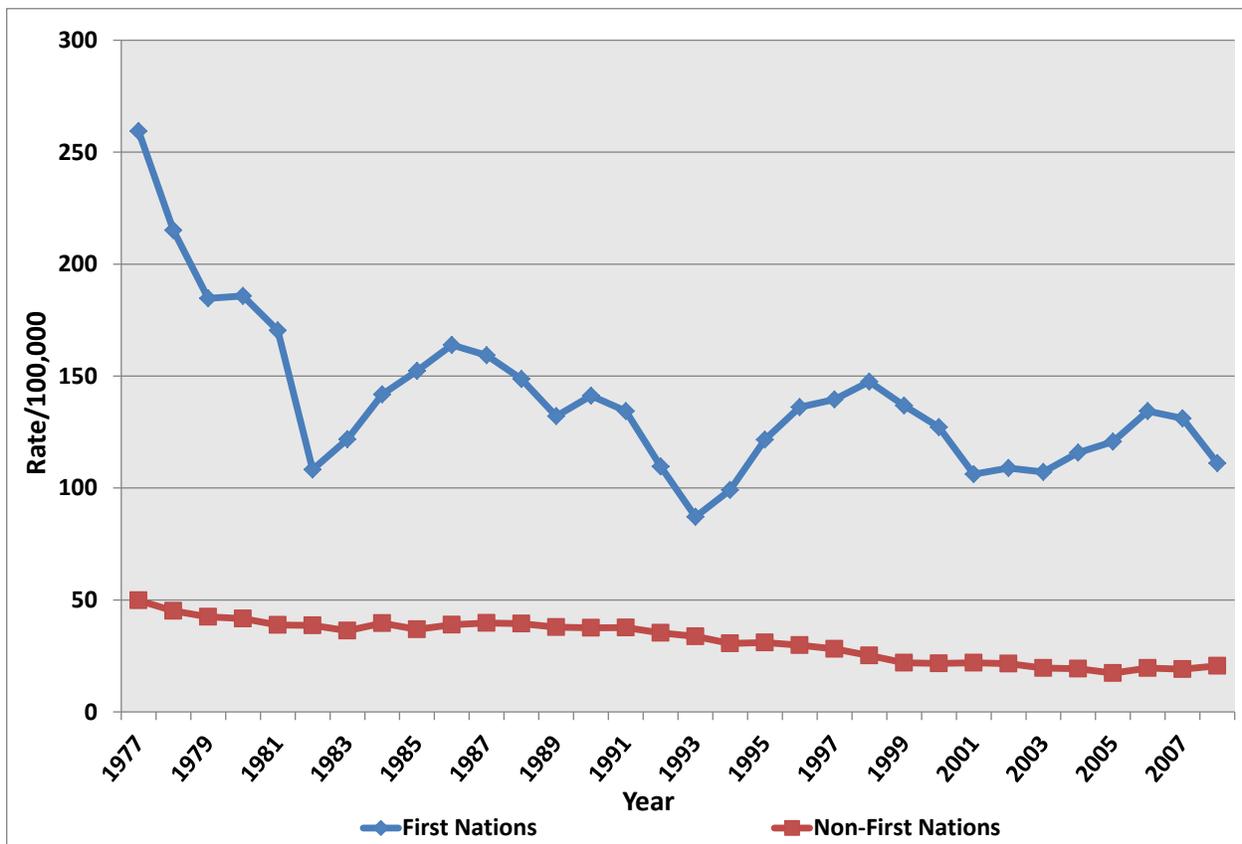
First Nations Mortality Rates

In 2009 First Nations children accounted for 15.7% of the population aged 29 days to 14 years in Manitoba and 39% of childhood deaths. There were 24 deaths among registered First Nations children and 37 among all others. The mortality rate for First Nations children was 76.0 per 100,000 and for all others 18.4 per 100,000. Therefore, First Nations children were 4.1 times more likely to die than other Manitoba children. This is slightly lower than 2008, which showed a 6-fold increased risk of death.

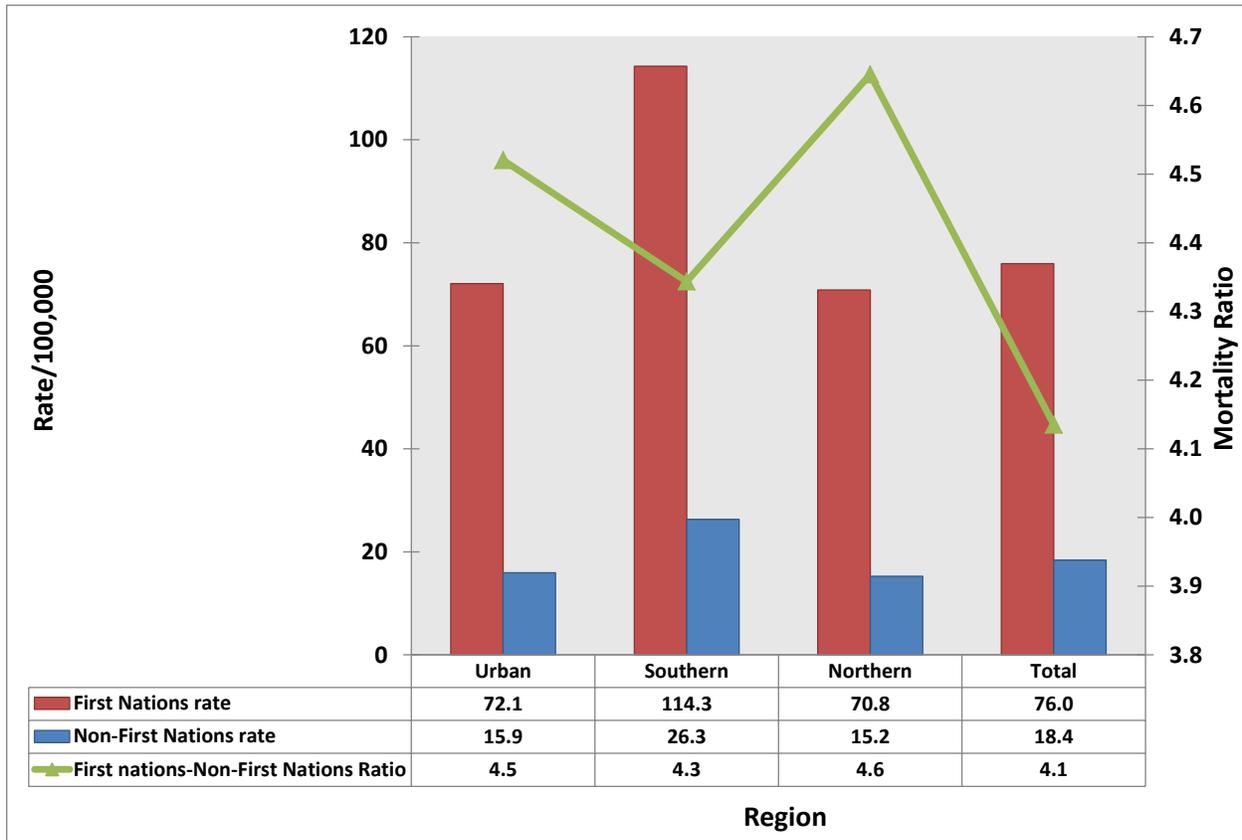
In Manitoba in 2009, 56% of First Nations children resided in First Nations communities. Of the 24 First Nations children who died, 12 resided in First Nations communities and 12 resided in other communities. Mortality rates for First Nations children were 68.2 per 100,000 residing in First Nations communities and 85.7 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: FIRST NATIONS vs. NON-FIRST NATIONS CHILDREN
In Children 29 Days to 14 Years (Three-Year Moving Average)



**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, NOR-MAN, 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 2009 In Children 29 Days to 14 Years				
RHA	Number of Deaths	Population	Rate per 100,000	Three-Year Average Rates (2007 – 2009)
Burntwood	8	15,579	51.4	75.2
NOR-MAN	2	6,228	32.1	64.2
North Eastman	5	8,186	61.1	52.7
Central	9	24,788	36.3	43.9
Assiniboine	5	12,034	41.6	43.8
Parkland	1	8,067	12.4	37.0
Interlake	3	14,297	21.0	32.4
All Manitoba	61	232,967	26.2	32.4
Winnipeg	24	118,173	20.3	23.3
South Eastman	3	16,085	18.7	19.1
Brandon	1	9,335	10.7	14.4
Churchill	0	195	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 2009, 61 deaths of Manitoba children were reviewed. Injury accounted for 33% of these deaths. The CHSC reviewed five deaths of children from out of province.

Table 5 - CAUSES OF DEATH In Children 29 Days to 14 Years		
<i>Cause of Death</i>	Deaths	Rate per 100,000
<i>Unintentional Injury</i>	13	5.6
<i>Intentional Injury*</i>	7	3.0
Injury Total	20	8.6
Congenital Anomaly	8	3.4
Neoplasm	5	2.1
SIDS/SUID	5	2.1
Infectious Disease	5	2.1
Nervous System	4	1.7
Respiratory System	4	1.7
Conditions Originating in Perinatal Period	3	1.3
Circulatory System	3	1.3
Endocrine, Nutritional, Metabolic	2	0.9
Sudden Death, Cause Unknown	2	0.9
Total	61	26.2

*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		
<i>Cause of Death</i>	Deaths	Rate per 100,000
Congenital Anomaly	5	31.6
SUID/SIDS	5	31.6
<i>Unintentional Injury</i>	3	19.0
<i>Intentional Injury*</i>	0	0.0
Injury Total	3	19.0
Diseases of the Nervous System	2	12.6
Conditions Originating in Perinatal Period	2	12.6
Diseases of the Circulatory System	1	6.3
Endocrine, Nutritional, Metabolic	1	6.3
Infectious Diseases	1	6.3
Total	20	126.4

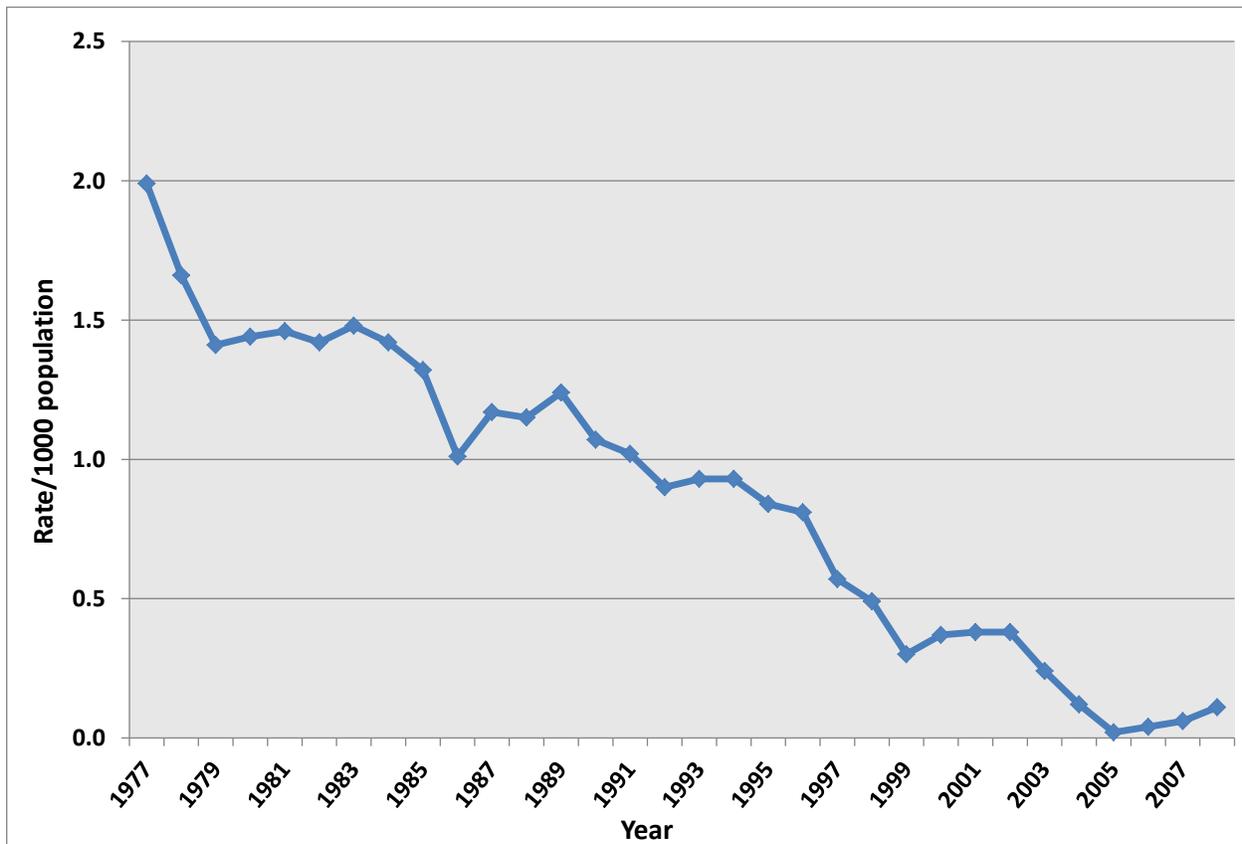
*Intentional Injury (homicide).

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 2009. 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, one in 2008 and two in 2009.

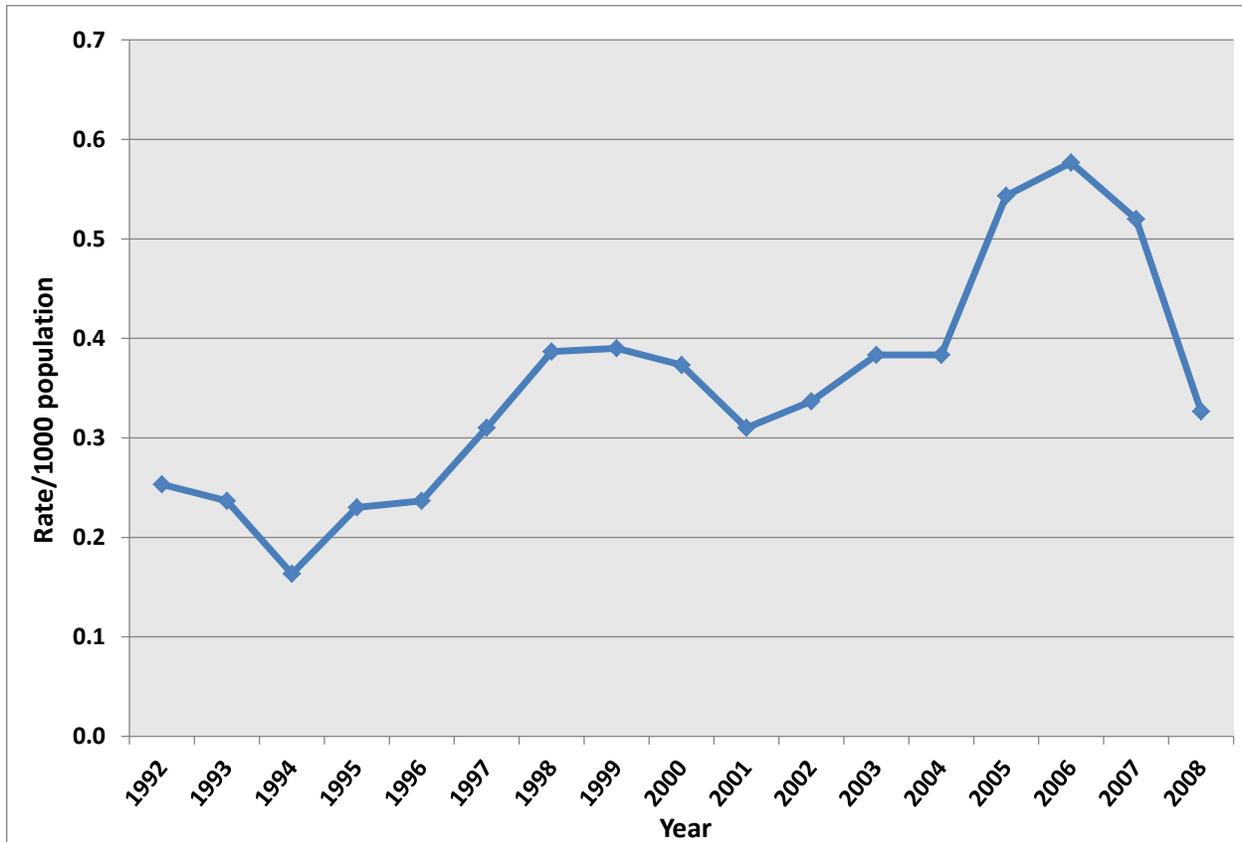
Figure 5A – SUDDEN INFANT DEATH SYNDROME (SIDS)
In Children 29 Days to One Year (Three-Year Moving Average)



Sudden Infant Death Syndrome (SIDS) Continued

Figure 5B shows the three-year moving average rates for Sudden Unexpected Infant Death (SUID) from 1992 to 2009. Data for 2009 are included in the 2008 three-year average (2007 to 2009). In 2009, there were three cases of SUID in the 29 days to one-year age group.

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

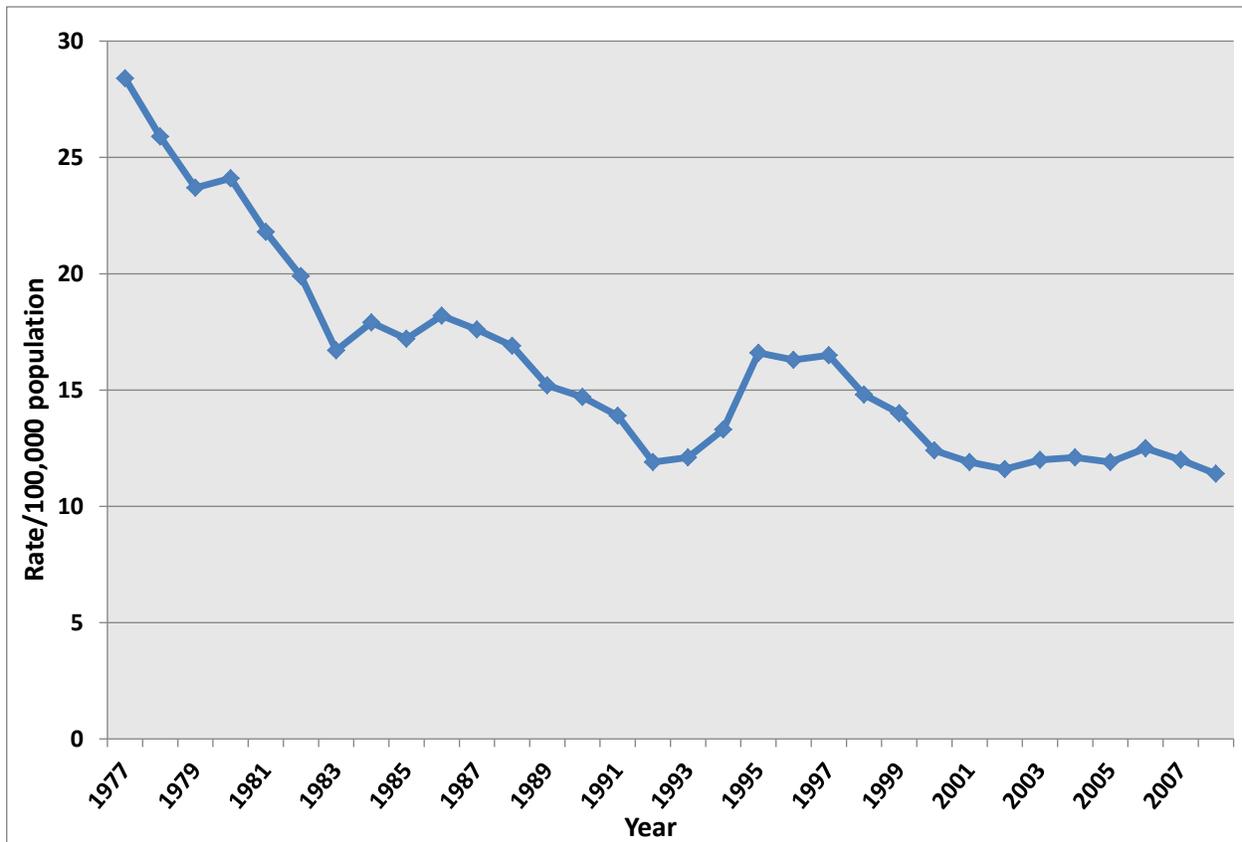


Among the five SIDS and SUID cases, two were bed sharing an adult mattress, one was placed in a playpen and two were in cribs. One infant was documented as having been put to sleep on their back and several had soft bedding. All of these infants had modifiable risk factors for sudden unexpected infant death. One additional infant suffocated in soft bedding after being put to sleep on an adult mattress.

Deaths from Injury - Trends

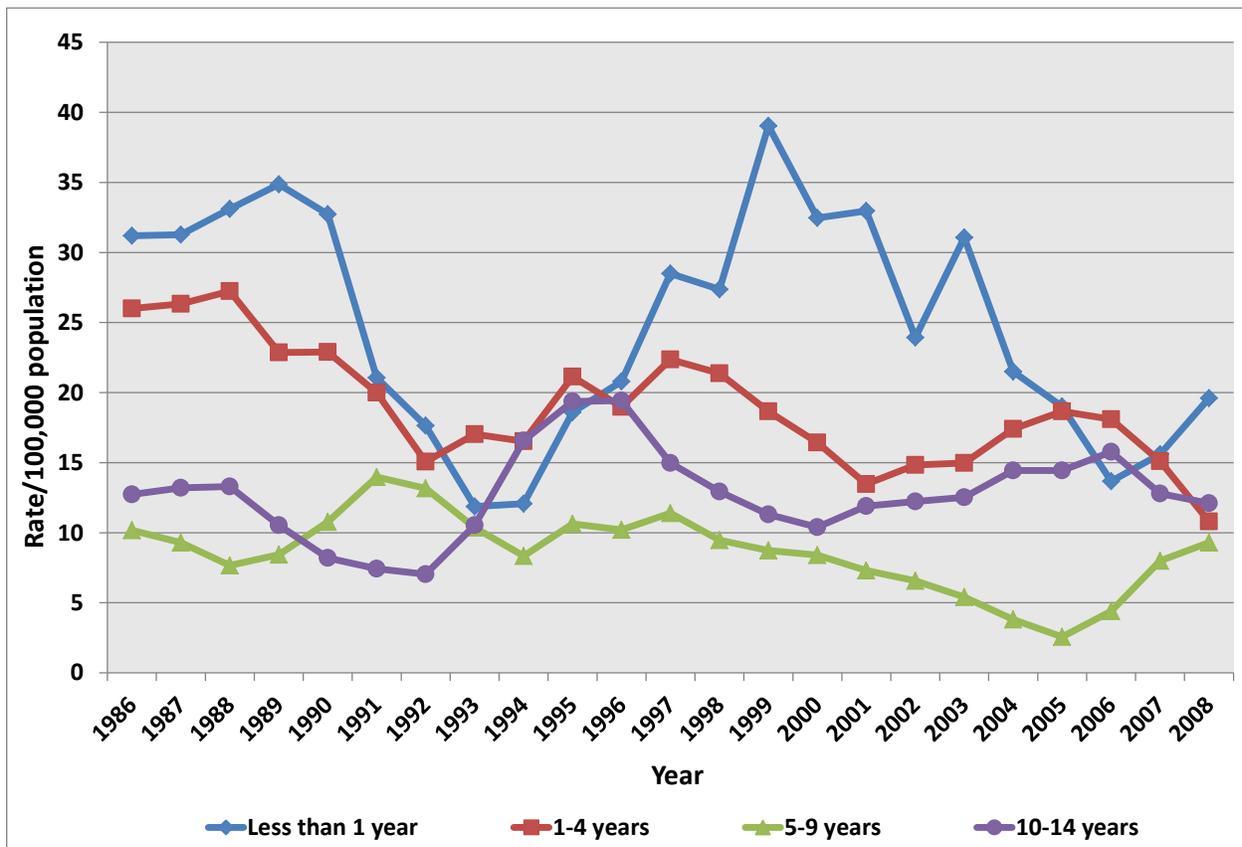
Figures 6A and 6B show the three-year moving average rates for injury deaths (unintentional and intentional combined) for children 29 days to 14 years of age. Data for 2009 are included in the 2008 three-year average (2007 to 2009).

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



Deaths from Injury - Trends Continued

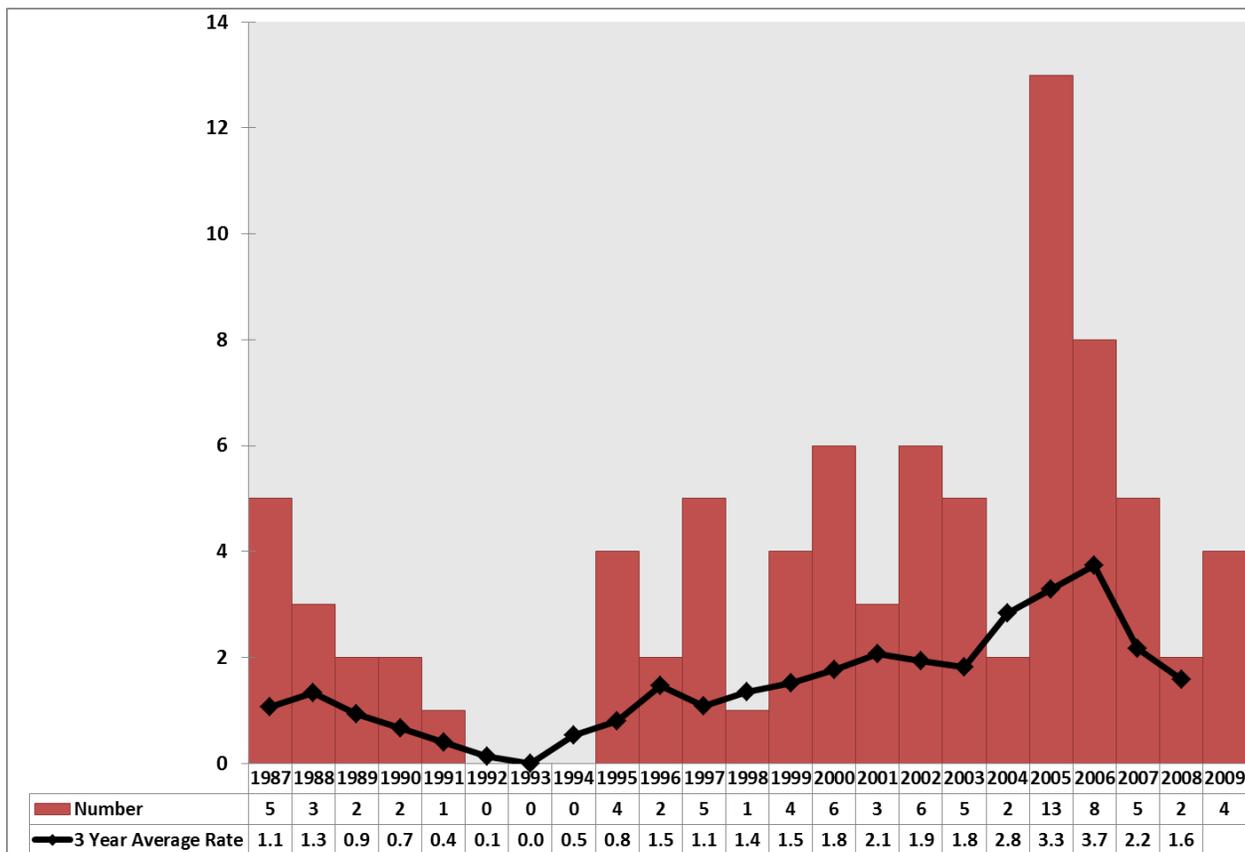
Figure 6B - MORTALITY RATES FROM INJURY BY AGE GROUP
 In Children 29 Days to 14 Years (Three-Year Moving Average)



Deaths from Injury – Trends Continued

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 2009 is included in the 2008 three-year average (2007 to 2009). 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 to 2009 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 2009, there were 20 deaths due to injury among Manitoba children 14 years of age and under. Injuries caused 33% of all deaths of children between 29 days and 14 years of age (20 of 61).

Table 7 – INJURY-RELATED MORTALITY RATES BY AGE GROUP 2009

Age Group	Number of Deaths	Population	Rate/100,000	Three-Year Average 2007 - 2009
29 days - <1 year	3	15,822	19.0	19.6
1 - 4 years	5	60,745	8.2	10.8
5 - 9 years	4	75,037	5.3	9.3
10 - 14 years	8	81,363	9.8	12.1
Total	20	232,967	8.6	11.4

Deaths from Injury – Trends Continued

Table 8 – TYPES OF INJURY CAUSING DEATH 2009 In Children 29 Days to 14 Years					
Unintentional			Intentional		
Cause	Number	Rate	Cause	Number	Rate
Suffocation	4	1.7	Suicide	4	1.7
Drowning	2	0.9	Homicide	3	1.3
House Fire	2	0.9			
Cyclist	1	0.4			
Pedestrian	1	0.4			
Off road vehicle passenger	1	0.4			
Motor Vehicle passenger	1	0.4			
Hanging	1	0.4			
Total	13	5.6	Total	7	3.0

There were 13 deaths related to unintentional injuries and seven deaths related to intentional injuries (four suicides and three inflicted injuries).

The most common cause of unintentional injury death was choking/suffocation. Two infants choked on a small object (toy, balloon), another infant suffocated on bedding and another child choked on food. One toddler died as a result of hanging on a household cord.

Two children under five years of age drowned in natural bodies of water when they were playing near the shore. Both of whom had wandered away from their designated guardian.

Two children died as a result of house fires. In one incident the fire was thought to have been related to smoking materials. A smoke alarm was present, but not functional. In the other incident, caused by a woodstove, the fire alarm sounded and the remaining occupants escaped.

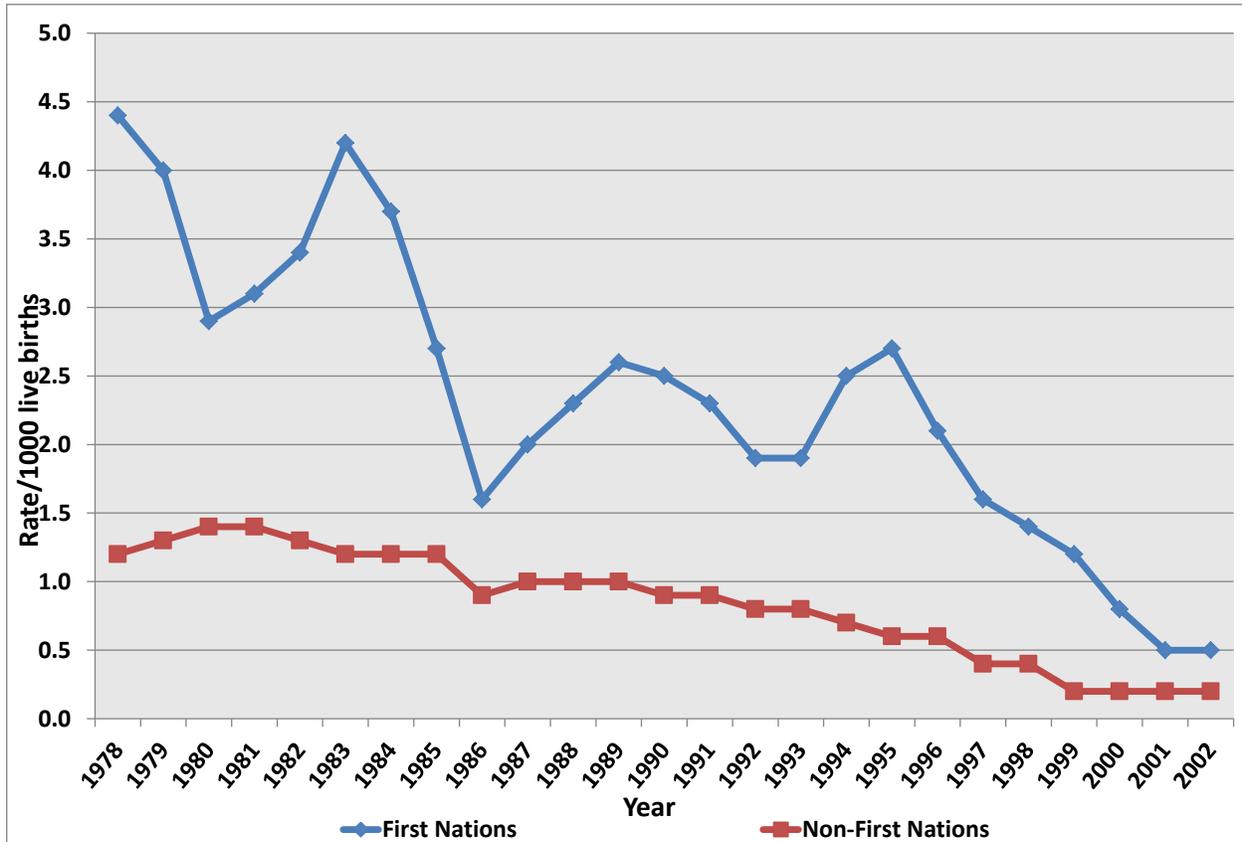
Four children died as a result of transport injuries. An unrestrained child passenger died in a single vehicle motor collision, along with the driver. Alcohol was cited as a significant factor. A preschool child was run over by a slow moving vehicle. The latter incident was characterized by poor driver visibility and involved a vehicle backing up from a parked position, similar to incidents described in previous years. A cyclist died at home after falling from a bike with no helmet. A child passenger on a snowmobile fell off and was run over. No helmet was in use.

Four children less than 15 years of age committed suicide in 2009. Three were First Nations children and two were living on reserve.

Three children died related to inflicted injuries including two homicides and one was a case of child abuse.

Selected Cause-Specific Mortality – First Nations Children

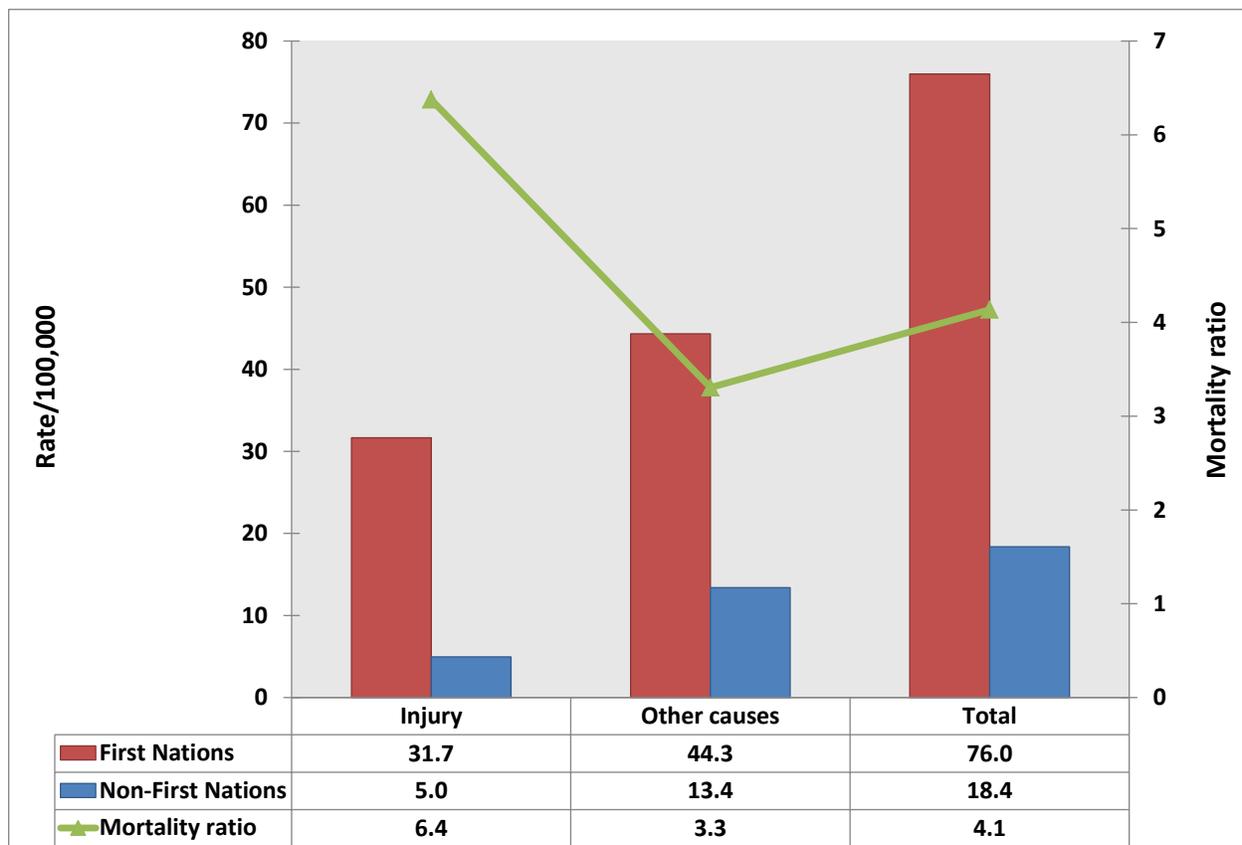
Figure 7 – SUDDEN INFANT DEATH SYNDROME 1978-2003
FIRST NATIONS vs. NON-FIRST NATIONS (Three-Year Moving Average)



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. In 2008 there was one case of SIDS in a First Nations child. In 2009 there were two SIDS cases, neither in First Nations children. **Figure 7** reflects the most recent three-year average that can be calculated (2002, reflecting 2001 to 2003). Of the three SUID deaths in 2009, all 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 4.1 times the rates experienced by non-First Nations children. For injury, there was a 6-fold increased risk of death.

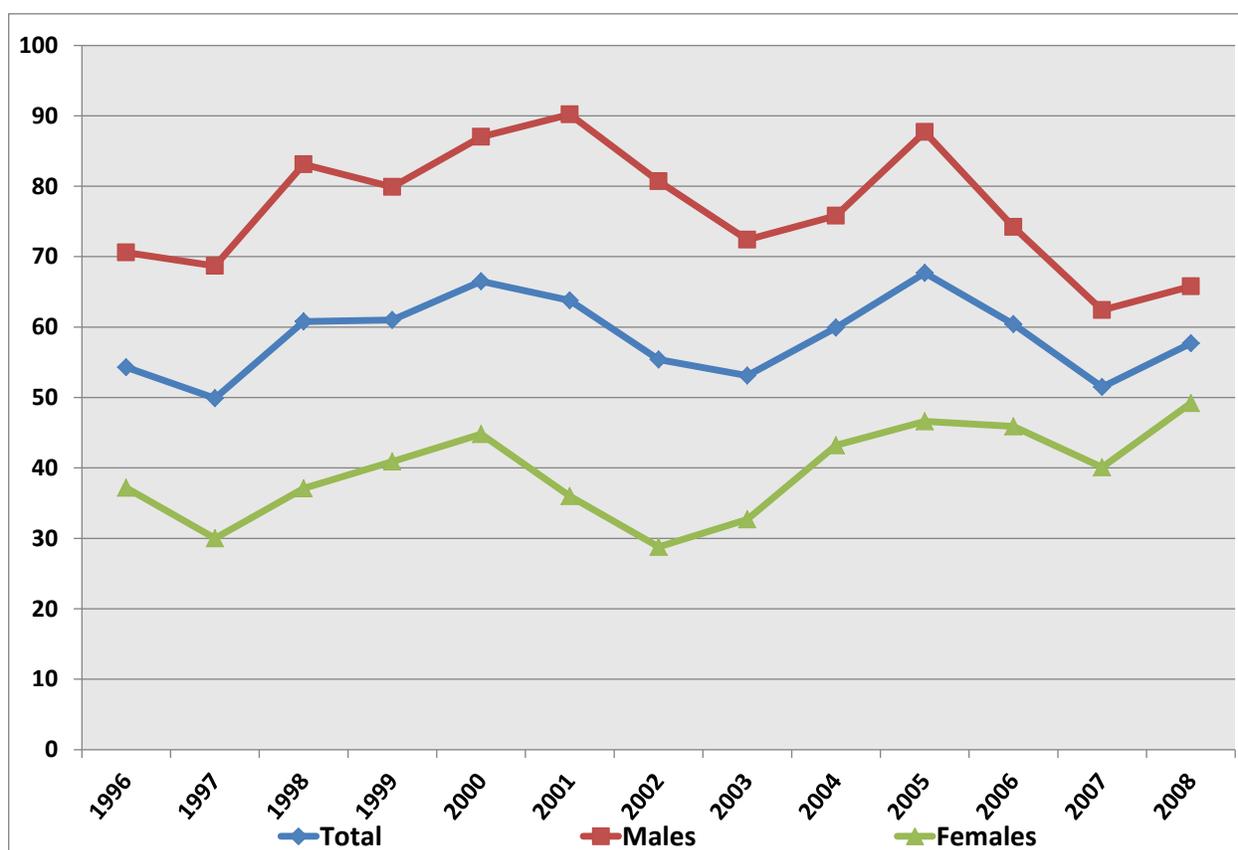
Autopsies

In 2009, 40 of the 61 Manitoba children who died between the ages of 29 days and 14 years had an autopsy (66%). Among teens 15 to 17 years of age, 37 of 42 had autopsies (88%).

4. Teen Deaths, 15 to 17 Years

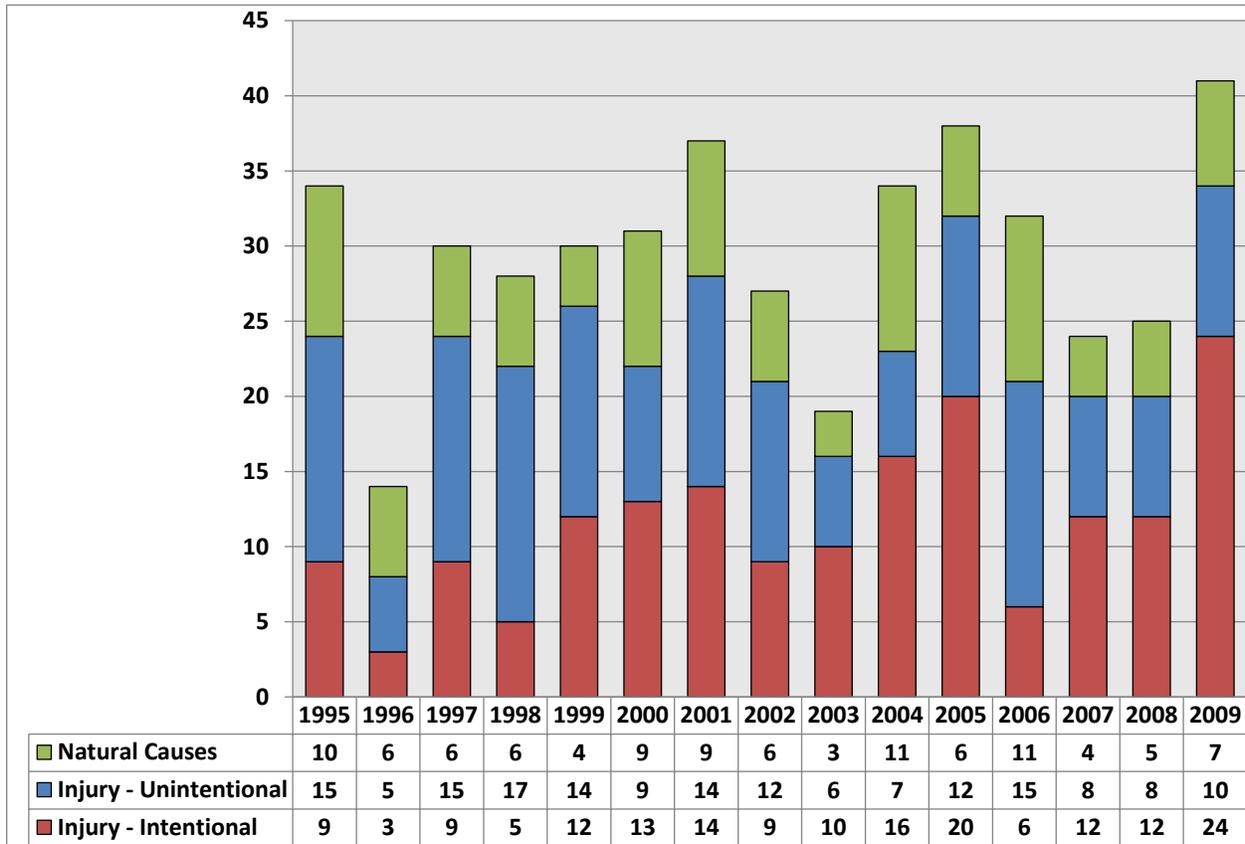
Since 1994, the Child Health Standards Committee has reviewed deaths of Manitoba youth 15 to 17 years of age. The death rate in 2009 was 79.9 per 100,000, higher than the three-year average of 57.7 per 100,000. Male mortality rates are consistently higher than females, though the gap has narrowed for the past three years. **Figure 9** shows mortality rates by gender. **Figure 10** shows the proportion of deaths due to injury and other causes (one case of an injury with intent undetermined is not included for 2009).

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



Teen Deaths Continued

Figure 10 – NUMBER OF DEATHS BY CAUSE (INJURY VS. NATURAL CAUSES)
In Teens 15 to 17 Years of Age, 1995 - 2009



There were 22 First Nations teens that died in 2009. First Nations teens were 8.6 times more likely to die than other Manitoba teens and accounted for 52% of teen deaths in Manitoba. Mortality rates off-reserve were similar to rates on-reserve.

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 66.6 per 100,000, almost double that of 2008 (38.2 per 100,000).

Table 9 - CAUSES OF DEATH in Teens 15 to 17 years		
	Deaths	Rate per 100,000
Injury	35	66.6
<i>Unintentional Injury</i>	10	19.0
<i>Intentional Injury</i>	24	45.6
<i>Intent Undetermined</i>	1	1.9
Nervous System Diseases	2	3.8
Neoplasms	2	3.8
Respiratory Diseases	1	1.9
Digestive System Diseases	1	1.9
Sudden Death Cause Unknown	1	1.9
Total	42	79.9

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	4	7.6	Homicide	8	15.2
Hypothermia	3	5.7	Suicide	16	30.4
Poisoning	1	1.9			
Drowning	1	1.9			
Snowmobile	1	1.9			
Total	10	19.0	Total	24	45.6

Teen Deaths Continued

In 2009, 35 of the 42 teen deaths were due to injuries. Alcohol was a factor in all of the unintentional deaths. Motor vehicle collisions were the leading cause of unintentional injury death; alcohol, distracted driving, speeding, and dangerous driving were implicated in these deaths. One teen was the driver in a fatal motor vehicle collision. No seat belts were in use and alcohol was implicated as a factor in all cases. One teen died in a snowmobile collision. Five additional alcohol-related deaths included three deaths due to hypothermia, one due to alcohol poisoning and one due to drowning. There was one death due to drowning where the intent was unknown.

There were 24 intentional injury deaths, including 16 suicides and eight homicides. All of the suicides were by hanging. Fourteen of the suicides and three of the homicides were First Nations teens.

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 2009, 22 of the 61 childhood deaths were deemed to have a preventable cause. All were injuries (including unintentional injuries, suicide, and homicide). Seven cases were theoretically preventable and included five cases of SIDS/SUID, one case of choking, and one vaccine preventable death.

(ii) Preventable Outcome

Eight cases had a theoretically preventable outcome, including one case where there was a delay in seeking care, six cases where earlier and more aggressive medical care was recommended, and one case where the parent or guardian could have modified the outcome.

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

- 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 counseling/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 2009, 36 of the 42 teen deaths were judged to have a preventable cause. All of the preventable deaths were due to trauma (injury), homicide or suicide.

(ii) Preventable Outcome

One death was classified as having a preventable outcome related to lack of supervision. Ten deaths were classified as having a theoretically preventable outcome, including one case where medical management could have prevented the outcome, four cases where earlier and more aggressive treatment could have prevented the outcome and five cases where action by the parent or guardian could have prevented the outcome.

Educational and Other Actions

The Child Health Standards Committee took educational action for 11 cases in 2009. An additional five actions taken by other Standards Committees were reviewed by the committee.

Table 11 - EDUCATIONAL ACTIONS	
Action Taken	
Physician Providers	6
Health Administrators	2
Referrals to other agencies/organizations	3
Total number of actions	11

6. *Recommendations*

The Child Health Standards Committee had the following recommendations related to child health in 2009.

1. That facilities providing paediatric emergency care comply with current paediatric triage guidelines and ensure that staff are aware of paediatric equipment and procedures.
2. That healthcare providers should be familiar with current guidelines for paediatric resuscitation.
3. That the committee supports the work of regional and provincial partners who are developing safe sleep guidelines, policies, and public education.
4. That parents should not use cough and cold products, including drugs and natural health products, in children less than 6 years of age.
5. That all infants with Down syndrome should have an echocardiogram and consultation with Paediatric Cardiology at birth or at the time of diagnosis. This is important even in the absence of a heart murmur. Subsequent follow-up assessments should closely monitor infants for signs of congestive heart failure (tachypnea, pallor, or sweating with feeds, poor weight gain, and/or hepatomegaly).

CHILD HEALTH STANDARDS COMMITTEE

COMMITTEE MEMBERS (2009)

Dr. J. Embree, Paediatric Infectious Disease
Dr. C. Littman, Pathologist
Dr. R. Smith, Paediatrician
Dr. G. Lemoine, General Practice
Dr. M. Feierstein, Paediatrician
Dr. T. Drews, Paediatrician
Dr. J. Strong, Paediatrician
Dr. I. Bratu, Paediatric Surgeon

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Ms M. Myers, Administrative Assistant, Child Program, CPSM

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Mr. Jason Martin, Administrative Assistant, Maternal and Child Programs, CPSM