Injuries are significant health events that, for the most part, are preventable. They occur when people have placed themselves or been placed in risky situations. ${ }^{161}$ Injuries are broadly classified as intentional or unintentional. Intentional injuries are the willed result of human action and include homicide or assault, and suicide, attempted suicide, or self harm. Injury that results from falls, motor vehicle collisions, and fire, are considered unintentional.

Figure 101 shows the age-standardized treated prevalence per 100 persons for all forms of injury. During the 1980s there was little change in the prevalence with approximately 28 per cent of men and 24 per cent of women seeking care related to an injury. Since 1994, however, there has been a consistent decrease in the number of people receiving care for injuries for both males and females. There has also been a narrowing of the gap in the treated prevalence between the sexes.


Figure 101 Age-standardized treated prevalence per 100 population for injuries, Alberta 1983 to 2003


Figure 102 Age-specific treated prevalence per 100 population for injuries, Alberta 1986 and 2003


## HISTORICAL/EVENTS

2001 Alberta's population is 2,974,810. Life expectancy is 82.3 years for females and 77 years for males.

2003 Alberta reports 275 human cases of West Nile virus. In May 2003, the Canadian Food Inspection Agency quarantines an Alberta farm after a single cow tests positive for Bovine Spongiform Encephalopathy.

2005 50th Anniversary of the introduction of the Salk (polio) vaccine which was declared "safe, effective and potent" ushering in a new era of hope that polio could be conquered.

Regional variations in the treated prevalence of injuries are shown in Figure 103. Five regions (Chinook, Palliser, David Thompson, Capital Health, Aspen) all had treated prevalence estimates significantly above the provincial average. The lowest rate was in the Northern Lights health region with a treated prevalence of approximately 20 per cent, or one in every five residents.

Figure 103 Regional differences in the treated prevalence of injury, Alberta 2003


## Unintentional Injury

Unintentional injury occurs when neither the injured person, nor the person/thing that caused the injury had meant for the injury to occur. These injuries most often include motor vehicle collisions and falls, and less often injuries due to fire or environmental events such as extreme weather patterns. It is possible to understand the risk factors for unintentional injury and promoting means of reducing risk is a major focus of Public Health practice. Since 1979, there has been a steady decline in hospitalizations related to unintentional injury (Figure 104). There has also been a decrease in the gap between males and females. Figure $\mathbf{1 0 5}$ displays the age-standardized unintentional injury mortality from 1960 to 2003. Females and especially males showed a significant decline over this time period.

Figure 104 Age standardized hospital separation rates for unintentional injury, Alberta 1979/1980 to 2002/2003


Figure 105 Age-standardized mortality per 100,000 population attributed to unintentional injury in Alberta, 1960 to 2003


## Intentional Injury

Intentional injury occurs when either the party that is injured or the party that injures intended to cause injury. These injuries include suicides, homicides, and assaults. Intentional injury is also a focus of Public Health intervention as there are actions that can be taken to reduce the risk of occurrence.

Figure 106 Age standardized hospital separation rates for intentional injury, Alberta 1979/1980 to 2002/2003


## Suicide and Parasuicidal Behaviour

Parasuicide is a self-inflicted form of injury, where the injured individual was attempting to harm or kill him or herself. Suicide is the term used to denote a fatality. Almost all persons who commit suicide have a diagnosable mental or substance abuse disorder or both, and the majority of these have depressive illnesses. ${ }^{162}$ Although women are far less likely to die as a result of parasuicidal behaviour than men, up to three times more women will attempt suicide. ${ }^{163}$
In addition to making threats of suicide or self harm, expressing a strong wish to die or making plans about when and how to commit suicide, warning signs of parasuicidal behaviour can include: exhibiting a sudden change in behaviour, appearance, or mood, being overwhelmed by depression, hopelessness, sadness, withdrawal, alcohol or drug abuse, giving away prized possessions, or having experienced a recent suicide attempt by a friend or family member. ${ }^{164}$

Age standardized hospital separation rates attributed to suicide and parasuicide are displayed in Figure 107. Females are more likely to be hospitalized than males. Overall, female hospital separation rates have been stable while male rates appear to have shown a moderate increase between 1979/1980 and 2002/2003 fiscal years.

Figure 107 Age-standardized hospital separation rate per 100,000 for suicide, Alberta 1979/1980 to 2002/2003


Fiscal Year
Differences exist between hospitalizations and completed suicide. While females are more likely to be hospitalized, males are more likely to complete a suicide. Males tend to use more lethal means of parasuicidal behaviour, such as shooting or hanging, than do females. As with the hospital data, female suicide mortality rates have been relatively stable. Male suicide mortality appears to be decreasing in recent years (Figure 108).

Figure 108 Age-standardized mortality rate per 100,000 due to suicide, Alberta 1960 to 2003


Suicide can occur in any age group beyond the very youngest; however, the age groups at greatest risk of suicide have typically been reported to be young adult males between the ages of 15 and $24 .{ }^{165}$ Alberta's pattern differs. While suicides among the youth were at the same level as those among older persons in 1986, the suicides rates among the young and the elderly, especially males, have decreased (Figure 109). By 2003, male suicides showed the highest rates between the ages of 30 and 54 years. The female pattern is generally similar but peaks at a slightly higher age.

Figure 109 Age-specific mortality rate per 100,000 due to suicide, Alberta 1986 and 2003


Regional variations in suicide are shown in Figure 110. Two regions (David Thompson and Aspen) had rates significantly above the provincial average. These regions also have large populations of Treaty Status Aboriginal Canadians, a group long known to have had very high rates of suicide.

Figure 110 Regional differences in the age-standardized suicide mortality rate per 100,000 population, Alberta 2001-2003 combined


## Homicide

Homicide deaths occur most frequently in young and middle age adults, and victims are almost twice as likely to be male than female. In many cases, victims know their perpetrators; they are often family members. ${ }^{166}$

Homicide mortality rates (Figure 111) vary from year to year. Males have consistently had higher homicide rates over the past 40 years. During this time period, males first showed an upward and then a leveling in homicide deaths while females showed a decrease. A change in the age distribution of the homicide rate can be seen between 1986 and 2003 (Figure 112). For females, there was a decrease in the rate of homicide among women aged 20 to 50 years. For males, there was a shift in the age distribution towards younger ages.

Figure 111 Age standardized homicide mortality rate per 100,000 population, Alberta 1960 to 2003


Figure 112 Age-specific mortality rate per 100,000 due to homicide, Alberta 1986 and 2003


Regional variations in homicide are shown in Figure 113. While there are no definitive differences in the rates, there appears to be a tendency for the more northern low population density regions to have higher homicide rates in the recent past.

Figure 113 Regional differences in the age-standardized homicide mortality rate per 100,000 population, Alberta 2001 to 2003 combined



