the death rate in recent years has remained 20% to 24% higher for male infants than for females.

## 3.1.2 Causes of death

The increase in life expectancy that has been observed in Canada and other countries throughout this century is the result of the shift in the cause pattern of mortality toward degenerative diseases that occur primarily in the older age groups. For example, in 1921, while heart disease and cancer were among the leading causes of death, as they are today, they accounted for just 16% of total deaths. By 1986, this figure had increased to 58% of total deaths. Over the same time period, infectious diseases such as tuberculosis, which accounted for 15% of total deaths in 1921, diminished to less than 1% of total deaths in 1986.

In the 10-year period, from 1976 to 1986, the age-adjusted death rate (which eliminates the effects of changes in the age structure of the population) declined slightly more for males than for females. This is also reflected in the slight convergence of male and female life expectancy. Of the leading causes of death, the greatest declines in age-adjusted death rates in the last decade, occurred for cerebrovascular disease, which fell by more than one-third for both males and females, followed by declines for accidents and heart disease.

Among the leading causes of death, cancer was the only cause for which death rates increased during the 1976-86 period, by about 7% for both males and females. Within this category, there has been a dramatic increase in the female death rate from lung cancer, which nearly doubled between 1976 and 1986.

An examination of leading causes of death by age group for 1986 shows that below age 45, accidents were by far the highest. This was particularly true for males; males aged 5-19 were more than twice as likely to die in accidents as females and in the 20-44 age range the death rate due to accidents, among males, was almost four times as high as that for females. Cancer was the leading cause of death among females aged 20-44 in 1986, at a rate slightly greater than that for males. Suicide was among the leading causes of death for both males and females below age 45 in 1986, although it occurs much more frequently among males. In the 20-44 age range, for example, suicide was the second-ranking cause of death for males and the third-ranking cause for females; however, the male suicide rate, at 30.9 per 100,000 population, was more than four times that for females (7.7).

In the 45-64 age range, cancer and diseases of the heart were the most frequent causes of death among both males and females in 1986, however, the male death rate in this age range was more than three times the female death rate for diseases of the heart.

Among the Canadian population aged 65 and over, diseases of the heart were the leading causes of death for both males and females in 1986 by a wide margin, followed by cancer. Respiratory diseases and cerebrovascular diseases (strokes) were also prominent as causes of death in this age range.

**Potential years of life lost (PYLL)** is a useful indicator of premature deaths. It allows heavier weight to be given to deaths occurring at younger ages. This calculation is applied to deaths occurring between birth and age 75, multiplying the number of deaths in a specific age group by the remaining years of life to age 75.

An examination of the potential years of life lost for 10 leading causes in 1985 is shown in Table 3.6. Several contrasts emerge when leading causes of PYLL are compared to leading causes of death. First, while malignant neoplasms were the secondranking cause of death at all ages, they were the leading cause of PYLL and death among deaths under age 75. Second, accidents and suicide have a much greater impact on PYLL than on the number of deaths. While these causes accounted for 11% of deaths below age 75 in 1985, they accounted for 24% of potential years of life lost. There is also a marked sex difference in PYLL due to accidents and suicide. These causes accounted for more than three times as many potential years of life lost among males as females, and they represented 28% of PYLL for males, compared with just 16% for females. The emphasis of the PYLL indicator on early mortality gives greater significance to causes of death such as perinatal mortality and congenital anomalies, which accounted for less than 3% of deaths under 75 but represented over 10% of PYLL.

## 3.1.3 Morbidity and disability

The measure used to express morbidity is patientdays in general and allied special hospitals. The leading causes of hospitalization in 1984-85 were cardiovascular disease, mental disorders, accidents, cancer and respiratory diseases.

For babies less than a year old, respiratory diseases accounted for 26% of hospital days, and were the leading cause of hospitalization. For children of 1-14 years, the leading causes were respiratory diseases and accidents.