

unchanged during the whole of her child-bearing period. A rate of 1.000 indicates that, on the basis of current fertility and without making any allowance for mortality among mothers during their child-bearing years, the present generation of child-bearing women would exactly maintain itself.

Canada has always had one of the highest gross reproduction rates among the industrialized countries of the world. Even during the period of low birth rates in the 1930s the rate varied between 1.300 and 1.500 and since World War II has ranged from 1.640 in 1946 to a high of 1.915 in 1959. However, since 1959, and particularly since 1964, the national gross reproduction rate has dropped sharply from 1.788 to 0.982 in 1972 — slightly below the replacement level of 1.000 for the first time in Canada's history. Among the provinces, Quebec, British Columbia and Ontario in that order, had the lowest gross reproduction rates in 1972, all below the replacement level.

4.6.3 Natural increase

The excess of births over deaths, commonly referred to as "natural increase" has been the main factor in the growth of Canada's population. Although the collection of Canadian birth and death statistics began only in 1921, some idea of the rate of natural increase in the early years back to the mid-1800s may be obtained from the estimates of births and deaths shown at the beginning of Sections 4.6.1 and 4.7.1, which produce the following natural increase rates (per 1,000 population): 1851-61, 23; 1861-71, 19; 1871-81, 18; 1881-91, 16; 1891-1901, 14; 1901-11, 18; 1911-21, 16.

During the 1920s and early 1930s the birth rate declined much more rapidly than the death rate and the natural increase rate dropped to a record low of 9.7 in 1937. Higher birth rates during and after World War II and a continued declining death rate caused the natural increase rate to rise steadily from 10.9 in 1939 to a record 20.3 in 1954. After that year there was a steady drop due to declining birth rates and the natural increase rate fell below 10 for the first time in 1971 at 9.5. It dropped still further to 8.5 in 1972. Table 4.31 gives average rates of natural increase in the provinces for five-year periods 1951-70 and for individual years 1971 and 1972.

4.7 Mortality

The Canadian crude death rate is one of the lowest in the world (7.4 per 1,000 population in 1972). After a continuous gradual decline over the past century, the rate appears to have levelled off since about 1967. In the opinion of demographers, further reductions in the crude death rate are likely to be small, and to affect primarily persons in the older age groups. Canadian mortality with special reference to infant deaths is discussed in this Section which also includes life expectancy figures compiled from recent death rates.

4.7.1 General mortality

No official crude death rates (i.e. rates per 1,000 total population) are available prior to 1921. However, studies of the early Canadian censuses have resulted in the following estimated annual crude rates for intercensal periods: 1851-61, 22; 1861-71, 21; 1871-81, 19; 1881-91, 18; 1891-1901, 16; 1901-11, 13; 1911-21, 13.

Typical of pioneer populations, Canada had high death rates in the mid-1800s when the country was still in its early stages of settlement. The crude death rate during that period is estimated as between 22 and 25. Although no data are available, it is assumed that while mortality was high at all ages, the rate among infants, children and young adults must have been particularly high. Even in 1921, for example, the Canadian infant mortality rate was still 102.1 per 1,000 live births. With increasing urbanization and improved sanitation and medical services, the crude rate dropped by 50% from 22 to 11 between 1851 and 1930. It continued to decline steadily to a low of 7.3 in 1970 and 1971, rising slightly to 7.4 in 1972.

Table 4.31 shows the trends in crude death rates since 1951 in the provinces and territories. The low rates shown for Newfoundland and Quebec are mainly due to the high proportion of young people in their populations, and the relatively high rates for British Columbia to the high proportion of elderly people in that province.

Table 4.32 shows the numbers of deaths in urban centres of 50,000 population and over in 1972, and the average deaths a year for the periods 1966-70 and 1961-65.