

1. HEALTH STATUS

1.2. Premature mortality

Premature mortality, measured in terms of potential years of life lost (PYLL) before the age of 70 years, focuses on deaths among younger age groups of the population. PYLL values are heavily influenced by infant mortality and deaths from diseases and injuries affecting children and younger adults: a death at five years of age represents 65 PYLL; one at 60 years of age only ten. Premature mortality can be influenced by advances in medical technology, especially in relation to infant mortality and deaths due to heart disease, and in prevention and control measures, reducing untimely or avoidable deaths from injuries and communicable diseases. A number of other variables, such as GDP per capita, occupational status, numbers of doctors and alcohol and tobacco consumption have also been associated with reduced premature mortality (Or, 2000; Joumard et al., 2008).

Rates of premature mortality are higher among males in all countries, with the OECD average in 2009 (4 689 years lost per 100 000 males) almost twice that of females (2 419). The main causes of potential years of life lost before age 70 among men are external causes including accidents and violence (29%), followed by cancer (20%) and circulatory diseases (17%). For women, the principal causes are cancer (31%), external causes (17%), and circulatory diseases (12%).

Among males, Iceland and Sweden had the lowest levels of premature mortality in 2009, and for females levels were lowest in Iceland and Luxembourg (Figure 1.2.1). In the OECD, Estonia and Mexico reported the highest premature mortality rates for males, and Mexico and Hungary for females, with levels more than double those of the country with the lowest PYLL. The rates for the United States were also high – almost 50% above the OECD average in the case of females, and 30% for males. Among US males, more than one-third (and in females, one-fifth) of these premature mortality rates can be attributed to deaths resulting from external causes, including accidents, suicide and homicide. Premature death from homicide for men in the United States is more than five times the OECD average. Rates of premature mortality are also extremely high in the Russian Federation, at over four times the OECD average for males, and three times for females.

Across OECD countries, premature mortality has been cut by more than half since 1970 (Figure 1.2.2). The decline in premature mortality was more rapid for females than for

males between 1970 and the early 1990s, but since then the average rate of PYLL has been declining at the same rate for both men and women. The downward trend in infant mortality was a major factor contributing to the decline in earlier years (see Indicator 1.7 “Infant mortality”). More recently, the decline in deaths from heart disease among adults has contributed significantly to the overall reduction in premature mortality in many countries (see Indicator 1.3 “Mortality from heart disease and stroke”).

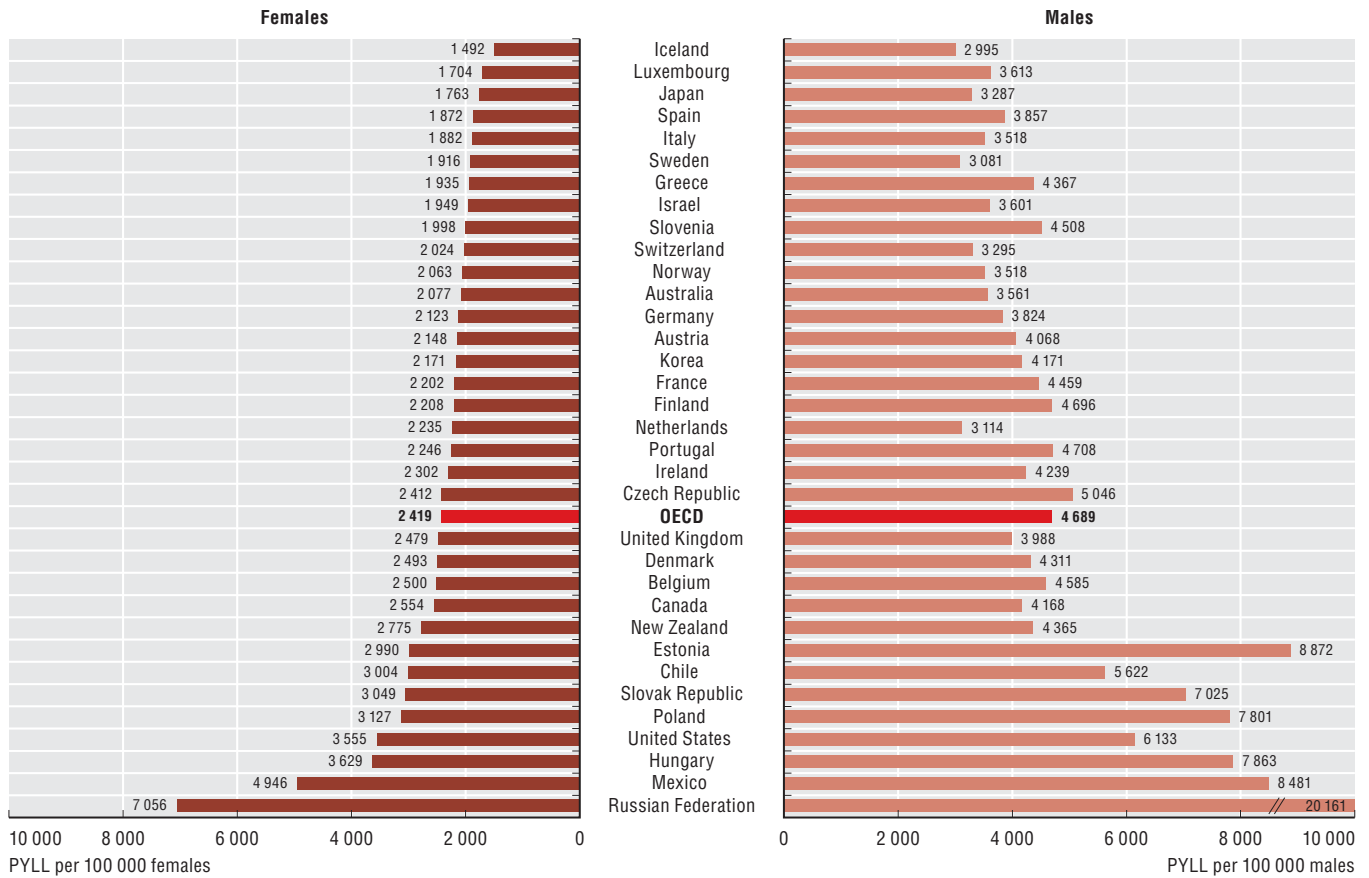
Portugal, Luxembourg and Italy have seen premature mortality rates decline rapidly among both males and females, so that they are currently less than one-third of 1970 levels. Although the rate is still high, Mexico has also seen a dramatic decline. In each case, the sharp reduction in infant mortality rates has been an important contributing factor. In contrast, premature mortality has declined more slowly in Hungary, particularly among males. This is largely attributed to persistently high levels of mortality from circulatory disease (currently twice the OECD average) and from liver disease (over three times the OECD average). The slow decline in PYLL in part reflects unhealthy lifestyles, in particular high alcohol and tobacco consumption among males in Hungary, together with Hungary’s high suicide rates. Declines in premature mortality have also been slow in Poland and the United States.

Definition and comparability

Potential years of life lost (PYLL) is a summary measure of premature mortality, providing an explicit method of weighting deaths which occur at younger ages. The calculation of PYLL involves adding age-specific deaths occurring at each age and weighting them by the number of remaining unlive years up to a selected age limit, defined here as age 70. For example, a death occurring at five years of age is counted as 65 years of PYLL. The indicator is expressed per 100 000 females and males.

Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

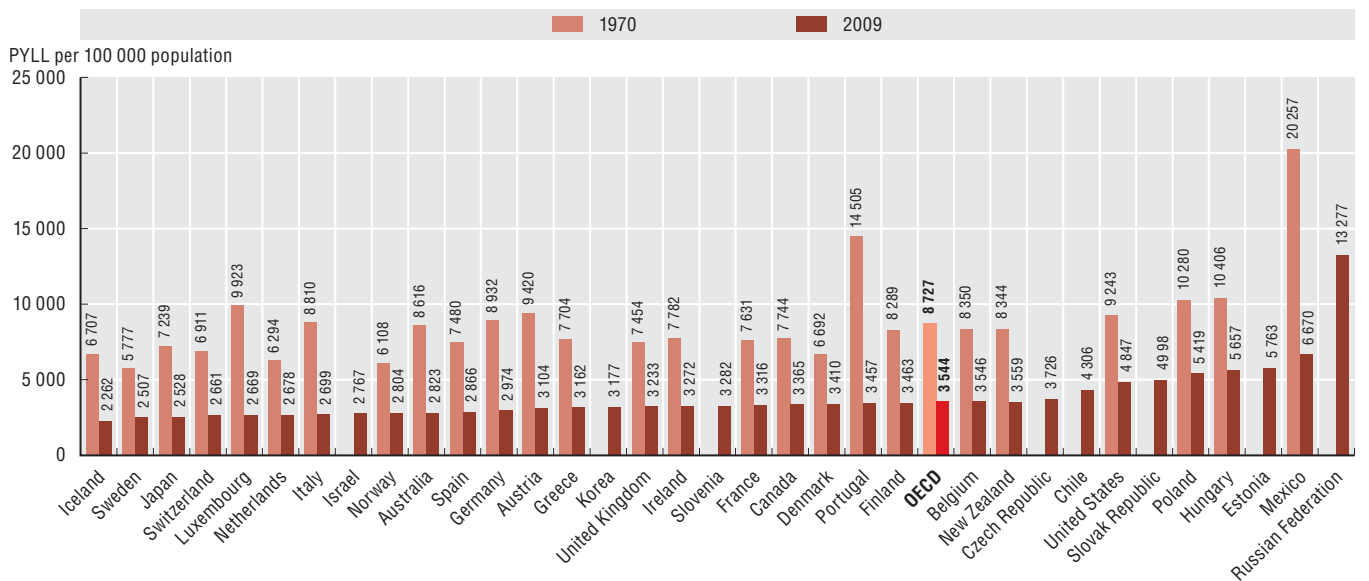
1.2.1 Potential years of life lost (PYLL), females and males, 2009 (or nearest year)



Source: OECD Health Data 2011; IS-GBE (2011).

StatLink <http://dx.doi.org/10.1787/888932523310>

1.2.2 Reduction in potential years of life lost (PYLL), 1970-2009 (or nearest year)



Source: OECD Health Data 2011; IS-GBE (2011).

StatLink <http://dx.doi.org/10.1787/888932523329>



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