### 1.4. Mortality from cancer

Cancer is the second leading cause of mortality in OECD countries after diseases of the circulatory system, accounting for 28% of all deaths on average in 2009. In 2009, cancer mortality rates were the lowest in Mexico, Finland, Japan and Switzerland. They were the highest in central and eastern European countries (Hungary, Poland, Slovenia, the Czech and Slovak Republics) and Denmark (Figure 1.4.1).

Cancer mortality rates are higher for men than for women in all countries (Figure 1.4.1). In 2009, the gender gap was particularly wide in Korea, Spain and Estonia, along with the Russian Federation, Japan and France, with mortality rates among men more than twice those for women. This gap can be explained partly by the greater prevalence of risk factors among men, as well as the lesser availability or use of screening programmes for cancers affecting men, leading to lower survival rates after diagnosis.

Three common cancers – lung, breast and prostate – are discussed in detail below. Mortality from cervical and colorectal cancer is considered further in Chapter 5.

Lung cancer is responsible for the largest number of cancer deaths among men in OECD countries, except in Sweden, Mexico and Chile. Lung cancer is also one of the main causes of cancer mortality among women. Tobacco smoking is the most important risk factor for lung cancer. In 2009, death rates from lung cancer among men were the highest in central and eastern European countries (Hungary, Poland and the Czech and Slovak Republics), Belgium, the Russian Federation, Estonia, Greece and the Netherlands (Figure 1.4.2). These are all countries where smoking rates among men are relatively high. Death rates from lung cancer among men are low in Chile, Mexico and Sweden, which, in the latter two countries, reflect smoking rates (see Indicator 2.1 "Tobacco consumption among adults").

Breast cancer is the most common form of cancer among women in all OECD countries (Ferlay *et al.*, 2010). It accounted for around 30% of cancer incidence among women, and 15% of cancer deaths in 2009. While there has been an increase in measured incidence rates of breast cancer over the past decade, death rates have declined or remained stable, indicating increases in survival rates due to earlier diagnosis and better treatment (see Indicator 5.9 "Screening, survival and mortality for breast cancer"). The lowest mortality rates from breast cancer are in Korea and Japan, while the highest rates are in Denmark, Belgium, Ireland and Hungary (Figure 1.4.3). Prostate cancer has become the most commonly occurring cancer among men in many OECD countries, particularly for those aged over 65 years of age, although death rates from prostate cancer generally remain lower than for lung cancer. The rise in the reported incidence of prostate cancer in many countries during the 1990s and 2000s was largely due to the greater use of prostate-specific antigen (PSA) diagnostic tests. Death rates from prostate cancer in 2009 varied from lows of less than 10 per 100 000 males in Korea and Japan, to highs of more than 30 per 100 000 males in Estonia, Slovenia and Nordic countries (Denmark, Sweden and Norway) (Figure 1.4.4). The causes of prostate cancer are not well-understood. Some evidence suggests that environmental and dietary factors might influence the risk of prostate cancer (Institute of Cancer Research, 2009).

Death rates from all types of cancer for males and females have declined at least slightly in most OECD countries since 1995, although the decline has been more modest than for cardiovascular diseases. The exceptions to this declining pattern are Greece, Poland, Portugal and Estonia, where cancer mortality has remained static.

### Definition and comparability

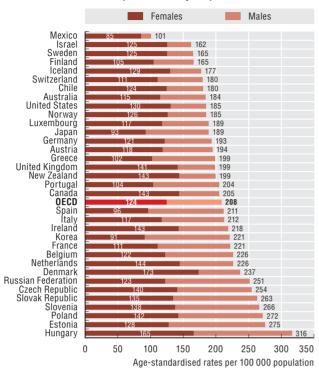
Mortality rates are based on numbers of deaths registered in a country in a year divided by the size of the corresponding population. The rates have been directly age-standardised to the 1980 OECD population to remove variations arising from differences in age structures across countries and over time. The source is the WHO Mortality Database.

Deaths from all cancers are classified to ICD-10 codes C00-C97, lung cancer to C32-C34, breast cancer to C50 and prostate cancer to C61. Mathers *et al.* (2005) have provided a general assessment of the coverage, completeness and reliability of data on causes of death.

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

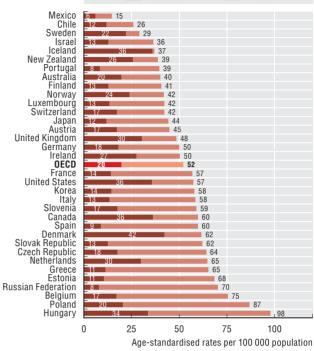
#### 1.4. Mortality from cancer

## 1.4.1 All cancers mortality rates, males and females, 2009 (or nearest year)

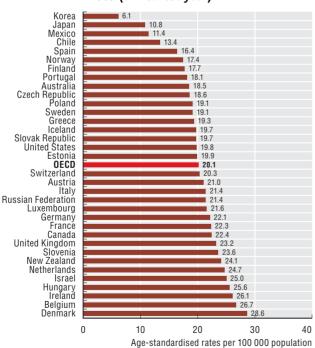


Source: OECD Health Data 2011; IS-GBE (2011). *StatLink age* http://dx.doi.org/10.1787/888932523424

# 1.4.2 Lung cancer mortality rates, males and females, 2009 (or nearest year) Females Males



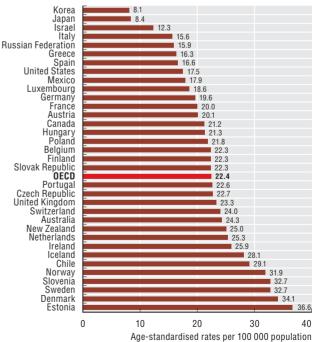
Source: OECD Health Data 2011; IS-GBE (2011). *StatLink Top 1* http://dx.doi.org/10.1787/888932523443



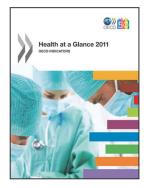
## 1.4.3 Breast cancer mortality rates, females, 2009 (or nearest year)

Source: OECD Health Data 2011; IS-GBE (2011). *StatLink age* http://dx.doi.org/10.1787/888932523462

# 1.4.4 Prostate cancer mortality rates, males, 2009 (or nearest year)



Source: OECD Health Data 2011; IS-GBE (2011). *StatLink age* http://dx.doi.org/10.1787/888932523481



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