

## Cancer incidence

In 2012, an estimated 5.8 million new cases of cancer were diagnosed in OECD countries, 54% (around 3.1 million) occurring in men and 46% (around 2.7 million) in women. The most common were breast cancer (12.9% of all new cancer cases) and prostate cancer (12.8%), followed by lung cancer (12.3%) and colorectal cancer (11.9%). These four cancers represented half of the estimated overall burden of cancer in OECD countries (Ferlay et al., 2014).

Large variations exist in cancer incidence across OECD countries. Cancer incidence rates are highest in Denmark, Australia, Belgium, Norway, United States, Ireland, Korea, Netherlands and France registering more than 300 new cancer cases per 100 000 population in 2012 (Figure 3.20). The lowest rates were reported in some Latin American and Mediterranean countries such as Mexico, Greece, Chile and Turkey, with around 200 new cases or less per 100 000 population. These variations reflect not only variations in the prevalence of risk factors for cancer, but also national policies regarding cancer screening and differences in quality of reporting.

Cancer incidence was higher for men in all OECD countries in 2012 except in Mexico. However, the gender gap varies widely across countries. In Turkey, Estonia and Spain, incidence among men were around 60% higher than among women, whereas in the United Kingdom, Denmark and Iceland, the gap was less than 10%.

Breast was by far the most common primary sites in women (28% on average), followed by colorectal (12%), lung (10%), and cervical (3%). The causes of breast cancer are not fully understood, but the risk factors include age, family history, breast density, exposure to oestrogen, being overweight or obese, alcohol intake, radiation and hormone replacement therapy. Incidence rates in 2012 were highest in Belgium, Denmark and Netherlands, with rates 25% or more than the OECD average (Figure 3.21). Chile and Mexico had the lowest rate, followed by Turkey and Greece. The variation in breast cancer incidence across OECD countries may be at least partly attributed to variation in the extent and type of screening activities. Although mortality rates for breast cancer have declined in most OECD countries since the 1990s due to earlier detection and improvements in treatments, breast cancer continues to be one of the leading causes of death from cancer among women (see indicator “Mortality from cancer” in Chapter 3 and “Screening, survival and mortality from breast cancer” in Chapter 6).

Prostate cancer has become the most commonly diagnosed cancer among men in almost all OECD countries, except in Hungary, Poland, Turkey and Greece where lung cancer is still predominant, and in Japan and Korea where colorectal cancer is the main cancer among men. On average across

OECD countries, prostate cancer accounted for 24% of all new cancer diagnoses in men in 2012, followed by lung (14%) and colorectal (12%). Similar to breast cancer, the causes of prostate cancer are not well-understood but age, ethnic origin, family history, obesity, lack of exercise and poor nutrition are the main risk factors. Incidence in 2012 was highest in Norway, Sweden, Australia and Ireland, with rates more than 50% higher than the OECD average (Figure 3.22). Greece had the lowest rates, followed by Mexico, Korea and Japan. Prostate cancer incidence rates have increased in most OECD countries since the late 1990s with increased use of prostate specific antigen (PSA) tests having led to greater detection (Ferlay et al., 2014). Differences between countries' rates can be partly attributed to differences in the use of PSA testing. Mortality rates from prostate cancer have decreased in some OECD countries as a consequence of early detection and improvements in treatments (see indicator “Mortality from cancer” in Chapter 3).

### Definition and comparability

Cancer incidence rates are based on numbers of new cases of cancer registered in a country in a year per 100 000 population. The rates have been directly age-standardised based on Segi's world population to remove variations arising from differences in age structures across countries and over time. The data come from the International Agency for Research on Cancer (IARC), GLOBOCAN 2012, available at [globocan.iarc.fr](http://globocan.iarc.fr). GLOBOCAN estimates for 2012 may differ from national estimates due to differences in methods.

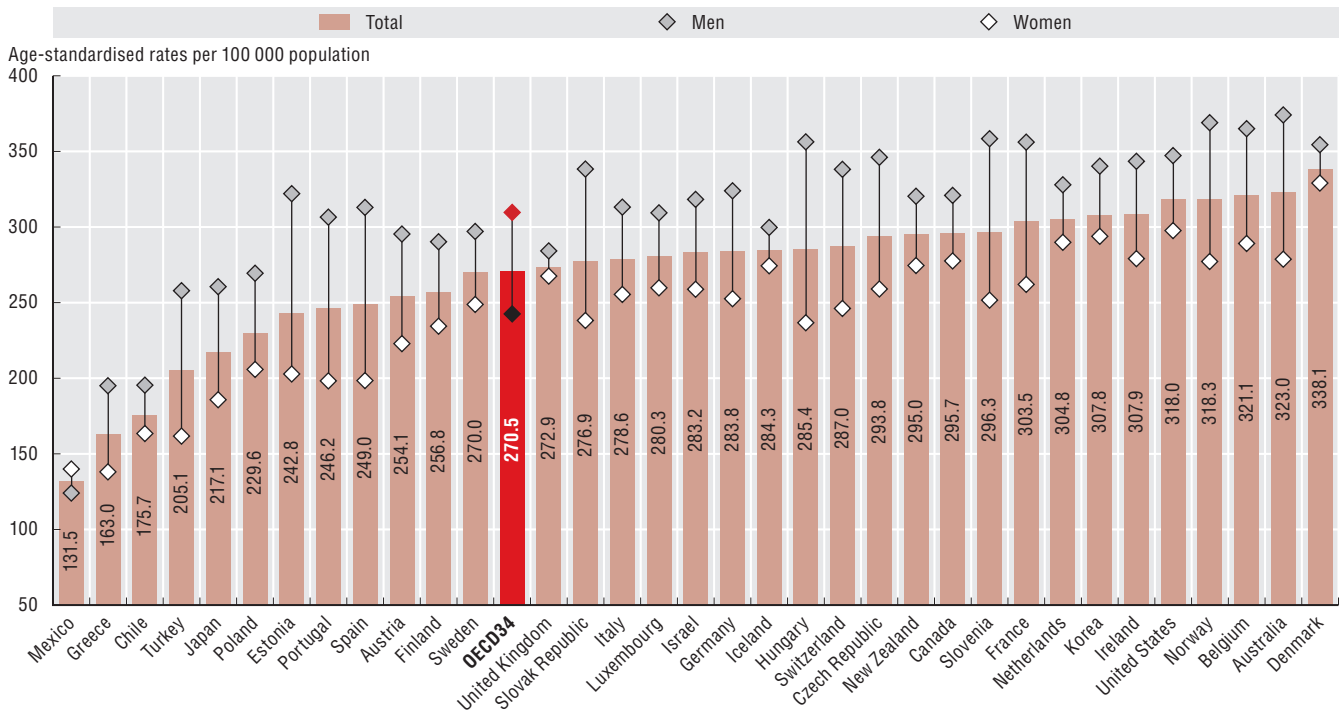
Cancer registration is well established in most OECD countries, although the quality and completeness of cancer registry data may vary. In some countries, cancer registries only cover subnational areas. The international comparability of cancer incidence data can also be affected by differences in medical training and practice.

The incidence of all cancers is classified to ICD-10 codes C00-C97 (excluding non-melanoma skin cancer C44). Breast cancer corresponds to C50, and prostate cancer to C61.

### References

- Ferlay, J. et al. (2014), “Cancer Incidence and Mortality Worldwide: Sources, Methods and Major Patterns in GLOBOCAN 2012”, *International Journal of Cancer*, Vol. 136, No. 5, pp. E359-E386.

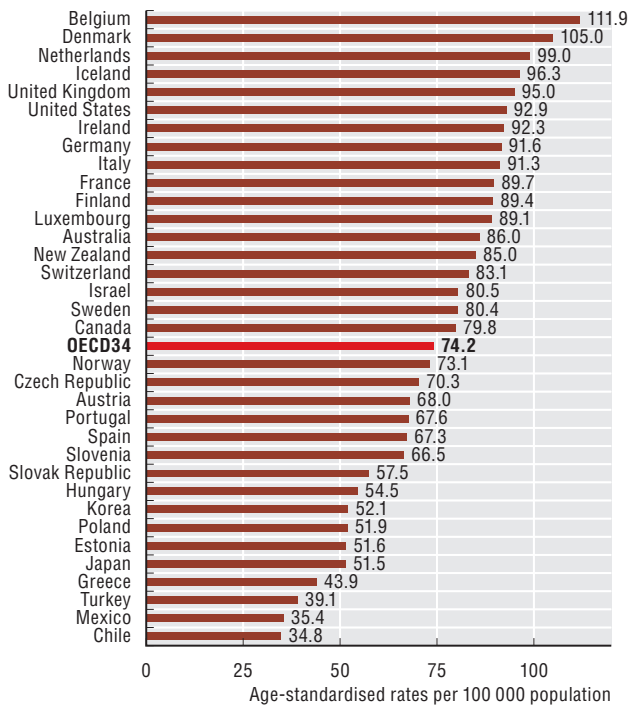
3.20. All cancers incidence by gender, 2012



Source: International Agency for Research on Cancer (IARC), GLOBOCAN 2012.

StatLink <http://dx.doi.org/10.1787/888933602595>

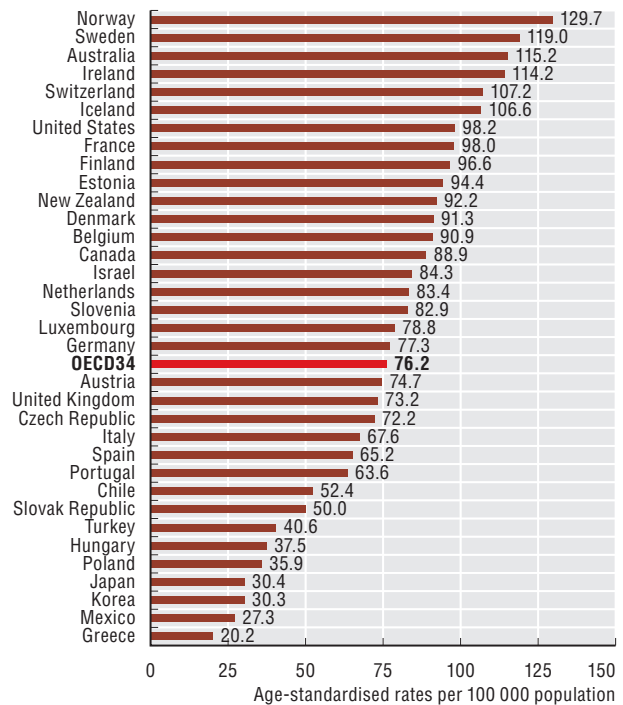
3.21. Breast cancer incidence in women, 2012



Source: International Agency for Research on Cancer (IARC), GLOBOCAN 2012.

StatLink <http://dx.doi.org/10.1787/888933602614>

3.22. Prostate cancer incidence in men, 2012



Source: International Agency for Research on Cancer (IARC), GLOBOCAN 2012.

StatLink <http://dx.doi.org/10.1787/888933602633>



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