In 2012 (latest year available), an estimated 2.7 million new cases of cancer were diagnosed in EU member states, 54% (around 1.5 million) occurring in men and 46% (around 1.2 million) in women. The most common cancer site was breast cancer (13.8% of all new cancer cases), followed by prostate cancer (13.6%), colorectal cancer (13%) and lung cancer (11.8%). These four cancers represented more than half of the estimated overall burden of cancer in the European Union (Ferlay et al., 2013). The risk of getting cancer before the age of 75 years was 27% (31% for men and 24% for women) and the risk of dying from cancer also before the age of 75 was 12% (14% for men and 9% for women).

Large variations exist in cancer incidence across EU countries. Cancer incidence is highest in Northern and Western European countries, with Denmark, France, Belgium and Norway registering more than 300 new cancer cases per 100 000 population in 2012 (Figure 3.31). The lowest rates were reported in Greece and Cyprus, at around 200 new cases 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 rates were higher for men in all EU member states in 2012, although the gender gap varies widely across countries. In Estonia, Spain and Latvia, incidence rates among men were around 60% higher than among women, whereas in the United Kingdom, Denmark and Cyprus, the gap was less than 10%.

Breast was by far the most common primary site in women (30% on average), followed by colorectal (13%), lung (8%), and cervical (5%). 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, radiation and hormone replacement therapy. Incidence rates were highest in Western Europe (Belgium, France, the Netherlands and Germany), Denmark, the United Kingdom and Ireland, with rates 25% or more than the EU average (Figure 3.32). Greece had the lowest rate, followed by Baltic countries (Lithuania, Estonia and Latvia), Romania and Poland. The variation in breast cancer incidence across EU member states may be at least partly attributed to variation in the extent and type of screening activities (Ferlay et al., 2013). Although mortality rates for breast cancer have declined in most EU countries since the 1990s due to earlier detection and improvements in treatments, breast cancer continues to be the leading cause of death from cancer among women (see indicator on "Mortality from cancer" in this chapter and the indicator on "Screening, survival and mortality from breast cancer" in Chapter 6).

Prostate cancer has become the most commonly diagnosed cancer among men in almost all EU countries, except in some Central and Eastern European countries where lung cancer is still predominant. It accounted for one quarter (25%) of all new cancer diagnoses in men in 2012, followed by lung (15%), colorectal (13%) and bladder cancer (7%). As for breast cancer, the causes of prostate cancer are not well-understood but age, ethnic origin, family history, obesity, lack of exercise and nutrition habits are the main risk factors. Incidence rates were highest in Western European countries such as France, Ireland and Switzerland as well as in the Nordic countries (Sweden, Norway, Iceland and Finland) (Figure 3.33). Greece had the lowest rates, followed by Central and Eastern European countries (Bulgaria, Romania, Poland and Hungary). Prostate incidence rates have increased in most European countries since the late 1990s, particularly in Northern and Western Europe where the greater use of prostate specific antigen (PSA) tests led to greater detection. Part of the difference between countries can be attributed to difference in the use of PSA testing. Mortality rates from prostate cancer have decreased in some European countries as a consequence of early detection and improvements in treatments.

Definition and comparability

Cancer incidence rates are based on numbers of new cases of cancer registered in a country in a year divided by the 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 *http://globocan.iarc.fr/*. GLOBOCAN estimates for 2012 may differ from national estimates due to differences in methods.

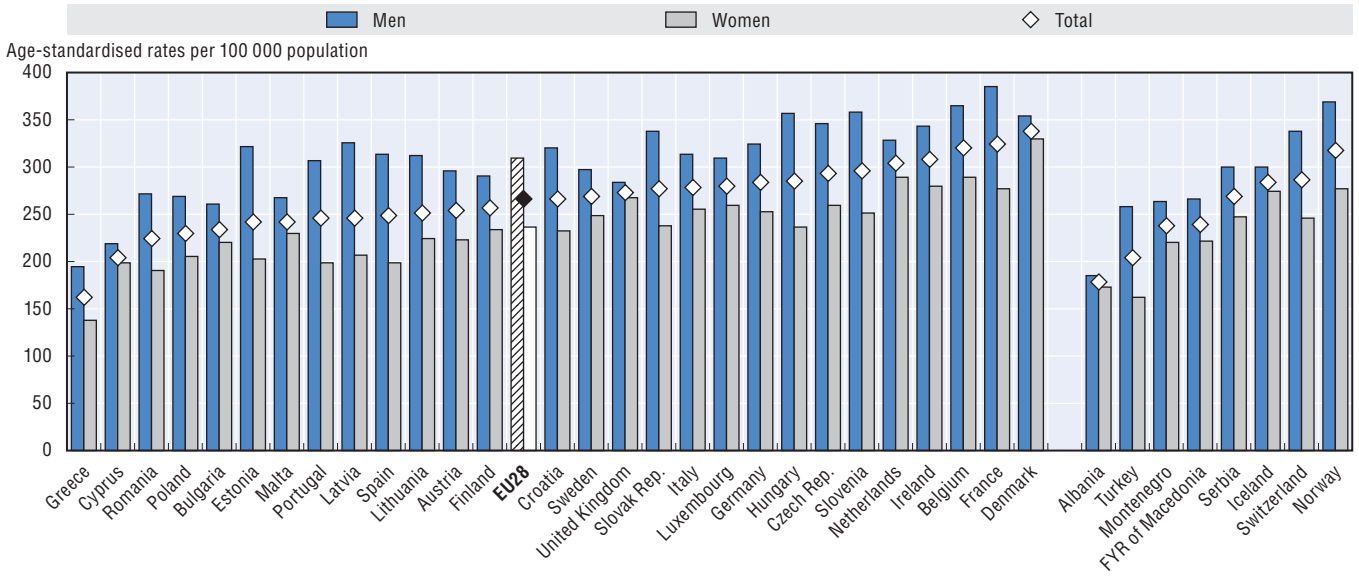
Cancer registration is well established in most EU member states, although the quality and completeness of cancer registry data may vary. In some countries, cancer registries only cover subnational areas. The international comparability of cancer incidence data can also be affected by differences in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

Reference

Ferlay, J. et al. (2013), "Cancer Incidence and Mortality Patterns in Europe: Estimates for 40 Countries in 2012", *European Journal of Cancer*, Vol. 49, pp. 1374-1403.

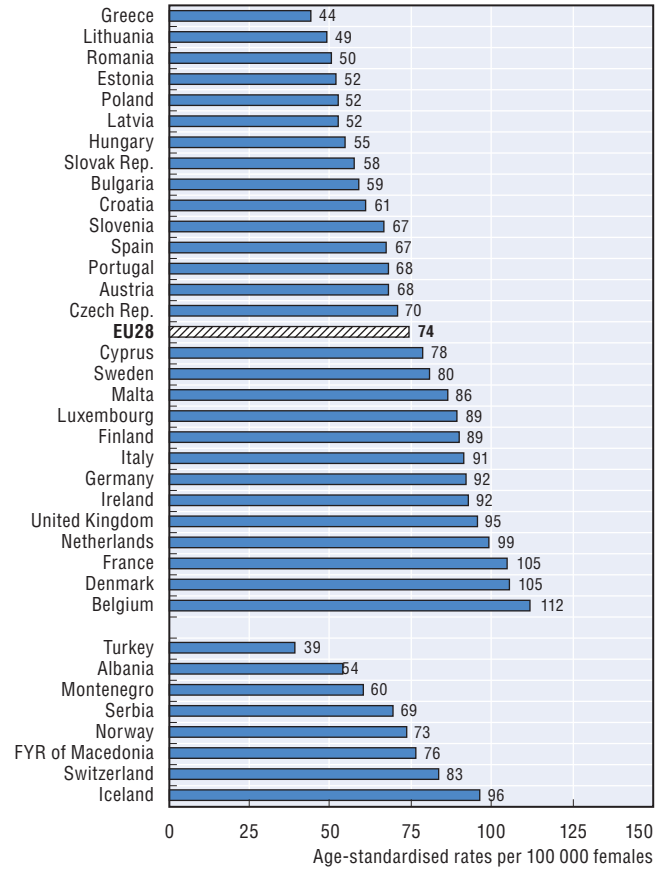
3.31. All cancers incidence rates, men and women, 2012



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

StatLink http://dx.doi.org/10.1787/888933428814

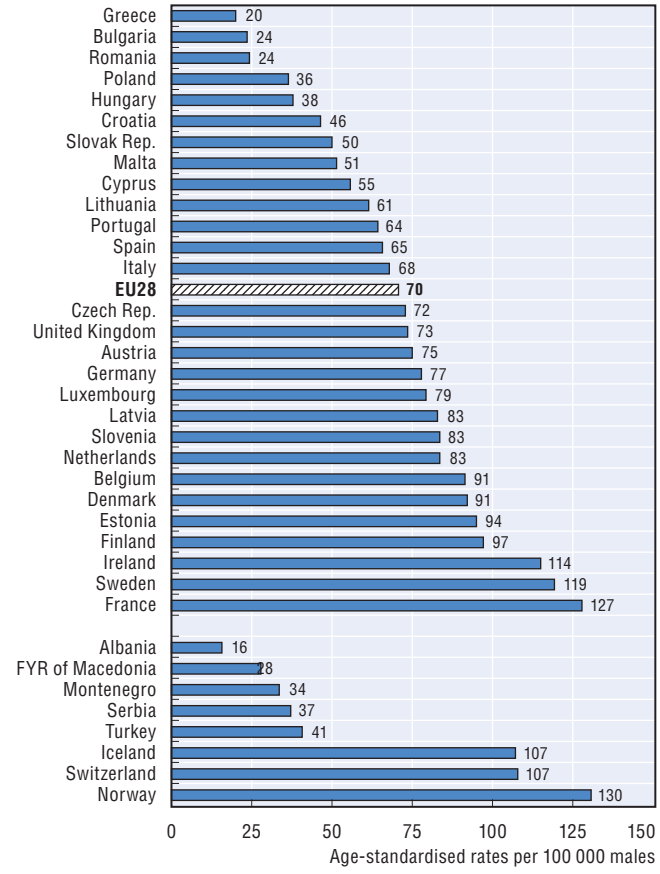
3.32. Breast cancer incidence rates, women, 2012



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

StatLink http://dx.doi.org/10.1787/888933428828

3.33. Prostate cancer incidence rates, men, 2012



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

StatLink http://dx.doi.org/10.1787/888933428834