Breast cancer is the most prevalent form of cancer among women, with 425 000 new cases diagnosed each year in Europe (IARC, 2011). Risk factors that increase a person's chance of getting this disease include, but are not limited to, age, family history of breast cancer, oestrogen replacement therapy and alcohol. Annual incidence in Europe is expected to rise to 466 000 cases by 2020. Variation in breast cancer care across European countries is indicated by mammography screening rates in women aged 50-69 years, relative survival rates, and mortality rates.

EU guidelines (EC, 2006) promote a desirable target screening rate of at least 75% of eligible women in European member states but in 2010 only three countries had reached this target. There is considerable uniformity amongst national breast screening programmes, in terms of the target age group and recommended time interval between screens. Participation, however, continues to vary considerably across European countries, ranging from 8% in Romania, 15% in Turkey and 16% in the Slovak Republic, to over 80% in Finland, Slovenia and the Netherlands (Figure 4.8.1). This variation may, in part, be explained by programme longevity, with some countries having well established programmes and others commencing programmes more recently (von Karsa *et al.*, 2008). However, screening rates fell in a number of countries in the past decade including Norway and the United Kingdom. Rates in Hungary and the Slovak Republic have increased substantially, although they remain well below the EU average.

Breast cancer survival rates reflect advances in public health interventions, such as greater awareness of the disease, screening programmes, and improved treatment. In particular, the introduction of combined breast conserving surgery with local radiation and advances in adjuvant and neoadjuvant therapy has increased survival as well as the quality of life of survivors (Mauri *et al.*, 2008). Figure 4.8.2 shows that the average EU relative five-year breast cancer survival rate around the period 2004-09 was 82%. Between 1997-2002 and 2004-09, survival rates have improved in all countries. Survival rates around 2004-09 were highest in France, Finland, Belgium, Sweden, Norway and Iceland (with rates reaching 86% to 87%). Whilst survival rates remain below 80% in Latvia, the Czech Republic and Slovenia, the data shows that for the latter two countries survival rates improved considerably over that period.

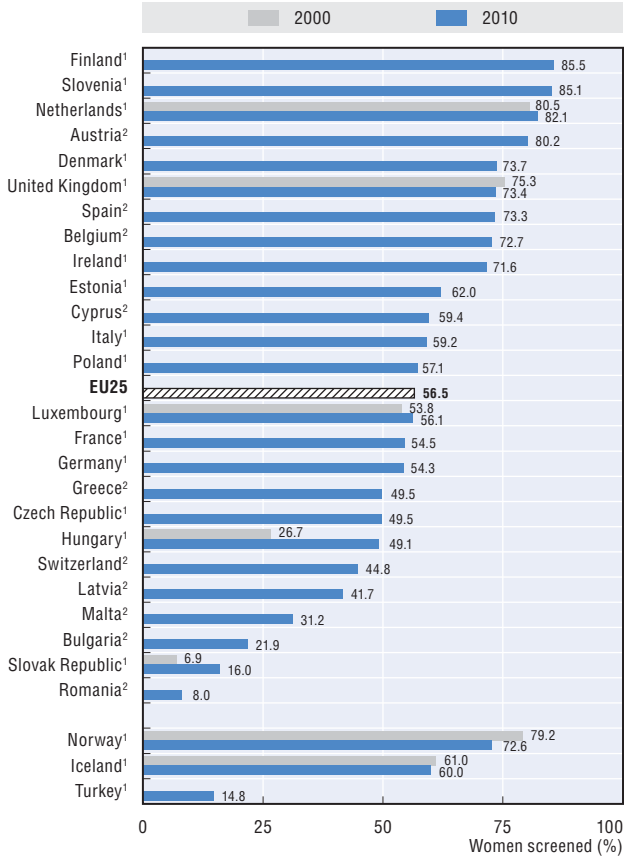
Breast cancer mortality rates have declined in all EU member states over the past decade (Figure 4.8.3). The reduction in mortality rates is a reflection of improvements in early detection and treatment of breast cancer. Countries that reported relatively high mortality rates in 2000 recorded the biggest declines in breast cancer mortality. These countries include the Czech Republic, Estonia, Luxembourg, the Netherlands, Norway and the United Kingdom. Denmark also recorded substantial falls over the last decade but its mortality rate was the highest in 2010. The level of variation across the European Union has declined substantially over the period. In 2000, eight EU member states reported mortality rates higher than 30 deaths per 100 000 females, but in 2010 mortality rates were below this rate in all countries. Despite these gains over the past decade, around 129 000 deaths are caused by breast cancer each year in European countries.

Definitions and comparability

Mammography screening rates reflect the proportion of eligible women who are actually screened. As policies regarding target age groups and screening periodicity differ across countries, the rates are based on each country's specific policy. Some countries ascertain screening based on surveys and others based on encounter data, and this may influence results. Survey-based results may be affected by recall bias. If a country has an organised programme, but women receive a screen outside of the programme, rates may also be underreported.

Survival rates are defined in Indicator 4.7 "Screening, survival and mortality for cervical cancer". See Indicator 1.5 "Mortality from cancer" for definition, source and methodology underlying the cancer mortality rates.

4.8.1. Mammography screening, percentage of women aged 50-69 screened, 2000 to 2010 (or nearest year)

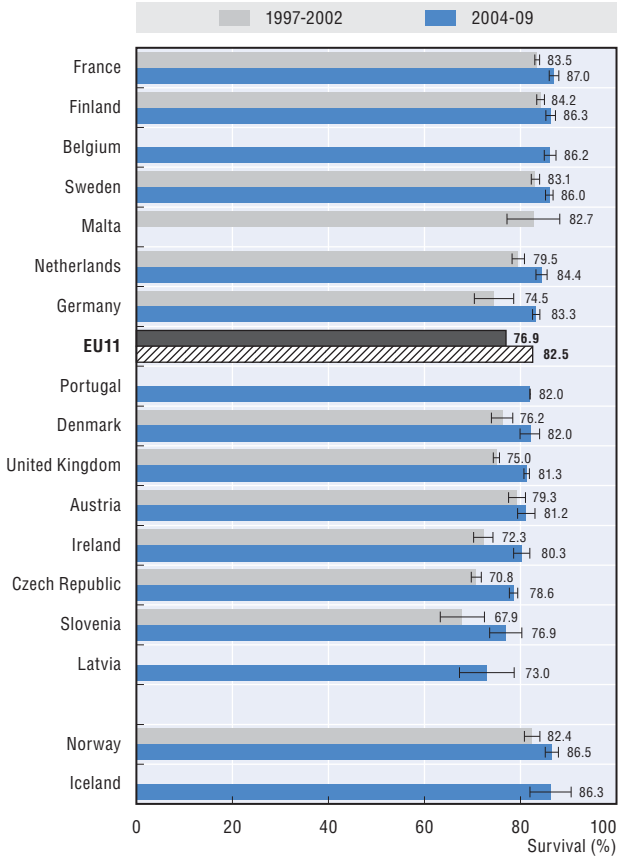


1. Programme. 2. Survey.

Source: OECD Health Data 2012; Eurostat Statistics Database.

StatLink http://dx.doi.org/10.1787/888932705159

4.8.2. Breast cancer five-year relative survival rate, 1997-2002 and 2004-09 (or nearest period)

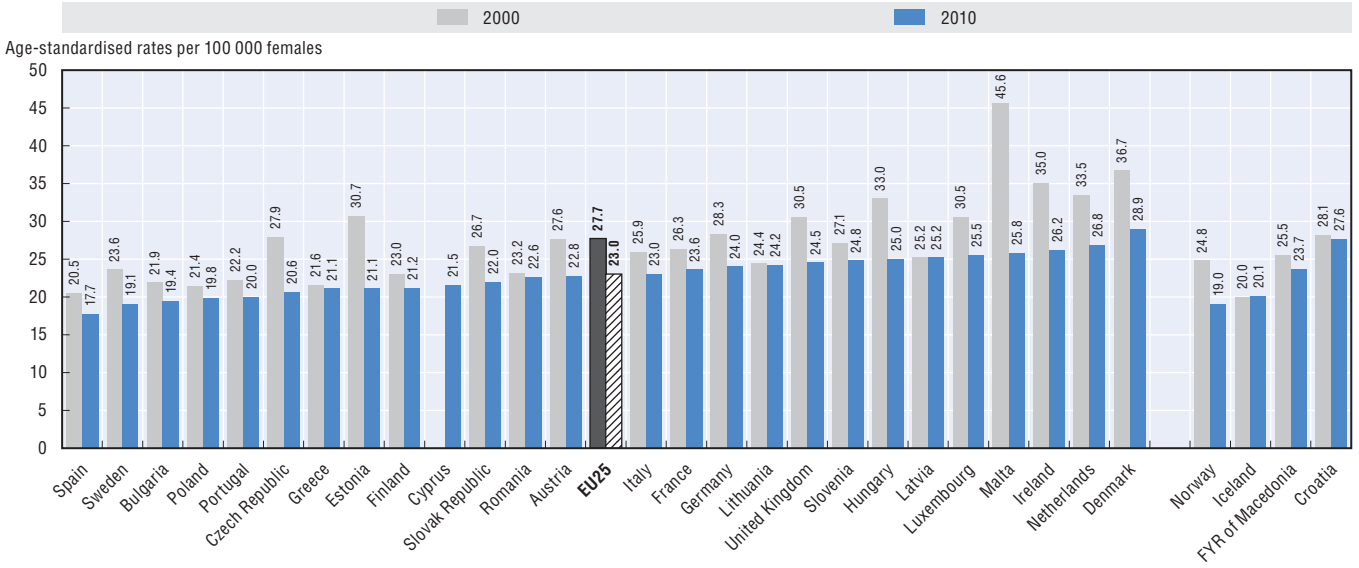


Note: 95% confidence intervals represented by ⊢⊣.

Source: OECD Health Data 2012.

StatLink http://dx.doi.org/10.1787/888932705178

4.8.3. Breast cancer mortality, females, 2000 to 2010 (or nearest year)



Source: Eurostat Statistics Database.

StatLink http://dx.doi.org/10.1787/888932705197