Screening, survival and mortality for breast cancer

Breast cancer is the most prevalent form of cancer in women across OECD countries. One in nine women will have breast cancer at some point in their life and one in thirty will die from the disease. Risk factors that increase a person's chance of getting this disease include age, family history of breast cancer, genetic predisposition, reproductive factors, oestrogen replacement therapy, and lifestyles including obesity, physical inactivity, diet and alcohol consumption.

Most OECD countries have adopted breast cancer screening programmes as an effective way for detecting the disease early, though the periodicity and population target groups vary across countries (OECD, 2013). Due to recent progress in treatment outcomes and concerns about false-positive results, over-diagnosis and overtreatment, breast cancer screening recommendations have been re-evaluated in recent years. Taking account of recent research findings, WHO recommends organised population-based mammography screening if women are able to make an informed decision based on the benefits and risks of mammography screening (WHO, 2014).

Screening rates ranged from less than 20% in Mexico to over 80% in Finland, Slovenia, Denmark and the United States in 2013 (Figure 8.28). Screening coverage increased substantially among countries with low rates a decade ago. Mexico and Chile had an increase of more than ten-fold, Korea an over four-fold increase, and the Slovak Republic and Lithuania a three-fold rise. On the other hand, countries that had the highest screening rates in the early 2000s experienced some reductions, including Finland, the United States, the Netherlands, Ireland and Norway. In Ireland, the screening programme, which was commenced on a phased basis in 2000, completed its nationwide rollout in 2009, but it is still at a stage too early to evaluate the coverage trend over time.

Breast cancer survival reflects early diagnosis as well as improved treatments. All OECD countries have attained five-year relative breast cancer survival of 80% except Estonia, Poland and Chile (Figure 8.29). Relative survival of people with cervical and colorectal cancers is also the lowest for Poland and Chile (see indicators "Screening, survival and mortality for cervical cancer" and "Survival and mortality for colorectal cancer"). In both countries, access to care is limited due to fewer numbers of cancer care centres and radiotherapy facilities. In Chile, some cancer drugs and other medical technologies are not widely available, and there are not enough specialised professionals, resulting in a long waiting time for cancer treatment (OECD, 2013).

Over the last decade, the five-year relative breast cancer survival has improved in all OECD countries. Relative survival has increased considerably in some Eastern European countries such as Estonia, the Czech Republic and Latvia, although survival after breast cancer diagnosis is still below the OECD average. The improvement may be related to strengthening of cancer care governance in these countries. For instance, the Czech Republic intensified its effort to detect breast cancer patients early through the introduction of a screening programme in 2002 and implemented a National Cancer Control Programme in 2005 to improve the quality of cancer care and cancer survival. Cancer care delivery was reorganised by reducing the number of comprehensive cancer centres while aiming to optimise the population coverage of each centre, and skilled professionals and necessary investment were allocated at each centre. The current cancer care delivery model is considered to be well organised and distributed adequately around the country, and, partly due to the more equal access, variations in cancer survival across regions have been reduced (OECD, 2013; OECD, 2014).

Mortality rates have declined in most OECD countries over the past decade (Figure 8.30). The reduction is a reflection of improvements in early detection and treatment of breast cancer. Improvements were substantial in the Czech Republic, Norway and the Netherlands with a decline of over 20% in a decade. Denmark also reported a considerable decline, but its mortality rate was still the highest in 2013. On the other hand, in Korea, Turkey and Japan, the mortality rate from breast cancer increased over the past decade, although it remains the lowest among OECD countries, and the incidence of breast cancer has doubled or more in the past decade.

Definition and comparability

Screening rates and survival are defined in indicator "Screening, survival and mortality for cervical cancer" in Chapter 8. See indicator "Mortality from cancer" in Chapter 3 for definition, source and methodology underlying cancer mortality rates.

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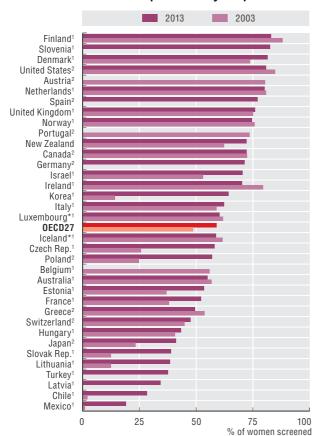
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8.28. Mammography screening in women aged 50-69, 2003 to 2013 (or nearest years)

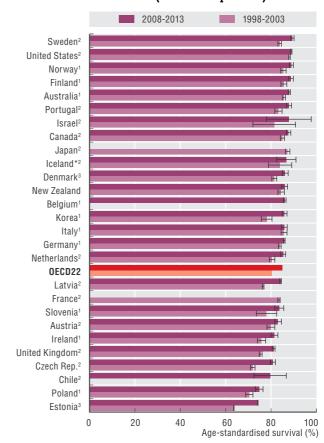


1. Programme. 2. Survey. * Three-year average.

Source: OECD Health Statistics 2015, http://dx.doi.org/10.1787/health-data-en.

StatLink **asp** http://dx.doi.org/10.1787/888933281202

8.29. Breast cancer five-year relative survival, 1998-2003 and 2008-2013 (or nearest periods)

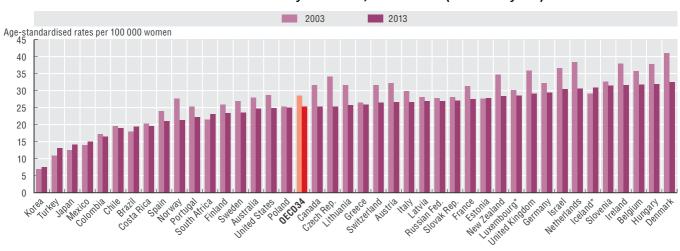


 Period analysis. 2. Cohort analysis. 3 Different analysis methods used for different years. * Three-period average. 95% confidence intervals represented by H.

Source: OECD Health Statistics 2015, http://dx.doi.org/10.1787/health-data-en.

StatLink *** http://dx.doi.org/10.1787/888933281202

8.30. Breast cancer mortality in women, 2003 to 2013 (or nearest years)



*Three-year average.

Source: OECD Health Statistics 2015, http://dx.doi.org/10.1787/health-data-en.

Information on data for Israel: http://oe.cd/israel-disclaimer

StatLink http://dx.doi.org/10.1787/888933281202



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