Breast cancer screening and outcomes

Breast cancer is the most frequent cancer among women in Europe. Risk factors for breast cancer include age, genetic predisposition, oestrogen replacement therapy, and lifestyle factors including obesity, physical inactivity, nutrition habits and alcohol consumption. While Europe's Beating Cancer Plan aims to address challenges in prevention, treatment and care for all cancers (see indicator on "Cervical and colorectal cancer screening"), the European Commission Initiative on Breast Cancer supports EU countries in their efforts to reduce the burden of breast cancer from screening and diagnosis to treatment and palliative care.

Since the 1980s, most European countries have adopted breast cancer screening programmes to improve early detection rates (OECD, 2013_[1]). The proportion of women of screening age (usually 50-69 years of age) receiving mammography over the past two years was over 60% before the onset of the COVID-19 pandemic (Figure 6.21). The quality and outcomes of breast cancer care have generally improved in the years before the pandemic, but the quality of cancer care was adversely affected during the pandemic by delays in access to treatment and postponement of follow-up.

Many health systems prioritised urgent care needs during the pandemic, temporarily pausing cancer screening programmes. Many women also delayed seeking health care to reduce the risk of COVID-19 transmission, which led to a decline in breast cancer screening uptake in many EU countries (Figure 6.21; see also Chapter 2 on the disruptions of health services during the pandemic).

The stage of the disease at diagnosis can signal timeliness in accessing high-quality breast cancer screening services and routine care and can impact survival outcomes. During 2010-14, about half of women diagnosed with breast cancer in EU countries were at an early stage, while 10% of women were diagnosed at an advanced stage (Figure 6.22).

Patient-reported outcome measures (PROMs) are used to improve quality of breast cancer care based on each patient's own assessment of quality of life. PROMs were also used during the COVID-19 crisis to monitor the changes in patients' preferences and conditions. For example, according to a Dutch study (Bargon, 2021_[2]), almost one in three breast cancer patients and survivors reported that their emotional functioning and mental health declined from pre-pandemic levels.

Figure 6.23 presents crude (unadjusted) breast satisfaction outcome scores at 6-12 months following breast cancer procedures (breast-conserving therapy and reconstruction following mastectomy) for nine clinical sites in eight countries. Results suggest higher breast satisfaction outcomes after breast-conserving therapy in nearly all sites, although the difference is often not statistically significant because of small sample sizes.

Definition and comparability

Screening rates are based on programme data or survey data when programme data are not available or incomplete. Survey-based results may be affected by recall bias.

Analysis of stage distribution was performed centrally as part of the CONCORD programme led by the London School of Hygiene and Tropical Medicine. The stage at diagnosis for breast cancer is categorised according to the Tumour, Nodes, Metastasis staging system.

PROMs data are presented for selected programmes and are not representative for each country (OECD/Kronikgune, $2022_{[3]}$). Outcomes were measured using the relevant postoperative breast satisfaction scales from the BREAST-Q tool, an internationally validated instrument used to measure breast surgery outcomes reported by patients. A higher score denotes better outcomes. Caution is advised when comparing the results of participating sites because of small sample sizes and differences in the period when PROMs were measured.

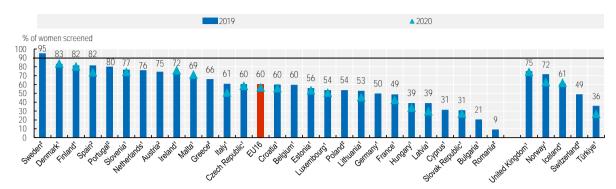
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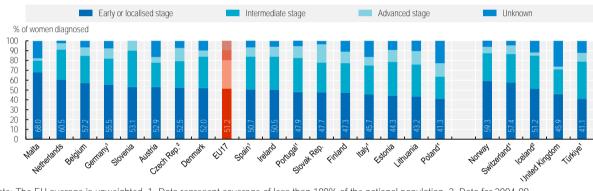
Figure 6.21. Mammography screening in women aged 50-69 within the past two years, 2019 (or nearest year) and 2020



Note: The EU average is unweighted. The 90% line reflects the EU target by 2025. 1. Programme data. 2. Survey data. Source: OECD Health Statistics 2022 (in many countries, the survey data come from the 2019 European Health Interview Survey).

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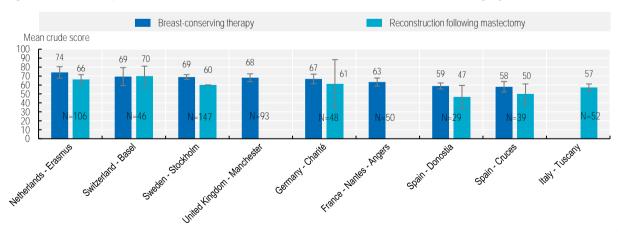
Figure 6.22. Breast cancer stage distribution, women diagnosed during 2010-14



Note: The EU average is unweighted. 1. Data represent coverage of less than 100% of the national population. 2. Data for 2004-09. Source: CONCORD Programme, London School of Hygiene and Tropical Medicine.

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Figure 6.23. Self-reported breast satisfaction outcome scores 6-12 months after surgery, 2019-20



Note: H lines show 95% confidence intervals. Weighted average based on site sample size. Data labels at the base of the histogram refer to the sample size at each site.

Source: PaRIS Breast Cancer PROMs pilot data collection 2021.

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