### 3.14 Breast

Table 3.14.1
Overview of key epidemiological parameters for Germany, ICD-10 C50


3 in percentages (lowest and highest value of the included German federal states)

## Epidemiology

With around $6_{9,000}$ new cases every year, breast cancer is by far the most common form of cancer among women. Roughly an additional 6,000 women are being diagnosed with a cancer in situ each year. Around $1 \%$ of new cases affect men.

Based on current incidence figures, about one in eight women will develop breast cancer over the course of her life. Almost three in every ten women are younger than 55 years at diagnosis. Incidence and mortality rates in former East Germany remain lower than in former West Germany. For women under 55 years old, however, these differences have largely diminished by now.

Incidence rates of more recent years show the typical curve of a sharp increase after mammography screening was introduced between 2005 and 2009 and a subsequent slow decline.

Progress in therapy has significantly increased patients' chances of survival and led to a drop in mortality rates. In a few years, it should be possible to evaluate whether and to what degree screening can help further reduce the number of cases. A clear tendency, however, is that in the corresponding age group fewer women suffer advanced forms of cancer than before the introduction of screenings.

## Risk factors and early detection

An early menarche and a late menopause, childlessness and higher age at first birth are all associated with an increased risk of developing breast cancer. Conversely, several and/or early births and longer periods of breast-feeding reduce the risk of breast cancer. Hormone replacement therapy during and after menopause increases the risk of breast cancer. Ovulation inhibitors containing hormones (»the pill«), on the other hand, have only a minor influence on incidence rates.

Further risk factors include overweight and a lack of exercise after menopause, as well as alcohol consumption. Moreover, smoking could also slightly increase the risk.

In addition, the risk for women with very dense breast tissue or with certain benign breast neoplasms (lobular neoplasias and atypical ductal hyperplasias) is increased. Family clusters of breast or ovarian cancer, or undergoing radio therapy of the breast during childhood or at adolescent age constitute further risk factors. The statutory early detection programme offers women above 30 years of age an annual palpation examination of the breasts by a physician. Between 2005 and 2009, Germany introduced a quality assured Mammography Screening Programme where women between 50 and 69 years of age are now invited to have their breasts X-rayed every two years.

Figure 3.14.1a
Age-standardised incidence and mortality rates, by sex, ICD-10 C50, Germany 1999-2014/2015 per 100,000 (old European Standard)


Figure 3.14.1b
Absolute numbers of incident cases and deaths, by sex, ICD-10 C50, Germany 1999-2014/2015


Figure 3.14.2
Age-specific incidence rates by sex, ICD-10 C50, Germany 2013-2014 per 100,000


Table 3.14.2
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C50, database 2014

|  | Risk of developing cancer |  |  |  |  |  | Mortality risk |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men aged | in the next ten years |  |  | ever | in the next ten years |  |  | ever |
| 35 years | <0.1\% | ( 1 in 30,000 ) | $0.1 \%$ | (1 in 740) | <0.1\% | ( 1 in 267,000) | <0.1\% | ( 1 in 2,900 ) |
| 45 years | <0.1\% | ( 1 in 12,100) | $0.1 \%$ | (1 in 740) | <0.1\% | ( 1 in 96,000) | <0.1\% | ( 1 in 2,900 ) |
| 55 years | <0.1\% | ( 1 in 5,100 ) | $0.1 \%$ | (1 in 760) | <0.1\% | ( 1 in 32,000) | <0.1\% | ( 1 in 2,900) |
| 65 years | <0.1\% | ( 1 in 2,100 ) | $0.1 \%$ | (1 in 810) | <0.1\% | ( 1 in 8,600) | <0.1\% | ( 1 in 2,800 ) |
| 75 years | 0.1\% | ( 1 in 1,500) | $0.1 \%$ | ( 1 in 1,100) | <0.1\% | ( 1 in 6,400) | <0.1\% | ( 1 in 3,400 ) |
| Lifetime risk |  |  | 0.1\% | (1 in 740) |  |  | <0.1\% | ( 1 in 2,900) |
| Women aged |  | xt ten years |  | ever |  | next ten years |  | ever |
| 35 years | 0.9\% | (1 in 110) | 12.8\% | ( 1 in 8) | 0.1\% | ( 1 in 1,000) | 3.5 \% | (1 in 29) |
| 45 years | 2.1\% | (1 in 47) | 12.1\% | (1 in 8) | 0.3\% | (1 in 380) | 3.4\% | (1 in 29) |
| 55 years | 3.0\% | (1 in 34) | 10.3\% | ( 1 in 10) | 0.5\% | (1 in 200) | 3.2\% | (1 in 31 ) |
| 65 years | 3.6\% | (1 in 28) | 8.0\% | ( 1 in 13) | 0.8\% | (1 in 120) | 2.9\% | (1 in 35) |
| 75 years | 3.3 \% | ( 1 in 30 ) | 5.1\% | ( 1 in 20) | 1.2\% | (1 in 81 ) | 2.3\% | ( 1 in 43) |
| Lifetime risk |  |  | 12.9\% | ( 1 in 8) |  |  | $3.5 \%$ | ( 1 in 29) |

Figure 3.14.3
Distribution of T-stages at first diagnosis for all women and women between 50 and 69 years
(top: all cases; bottom: only valid reports) ICD-10 C50, Germany 2013-2014


| $52 \%$ | $36 \%$ | $6 \%$ |  |
| ---: | :--- | ---: | :--- |

Figure 3.14.4a
Absolute survival rates up to 10 years after first diagnosis, women, ICD-10 C50, Germany 2013-2014


Figure 3.14.4b
Relative survival rates up to 10 years after first diagnosis, women, ICD-10 C50, Germany 2013-2014


Figure 3.14.5
Registered age-standardised incidence and mortality rates in German federal states, women, ICD-10 C50, 2013-2014
per 100,000 (old European Standard)


Figure 3.14.6
International comparison of age-standardised incidence and mortality rates, women, ICD-10 C50, 2013-2014 or latest available year (details and sources, see appendix) per 100,000 (old European Standard)

## Women



