

### 3.17 Breast

Table 3.17.1  
Overview of key epidemiological parameters for Germany, ICD-10 C50

Incidence	2017		2018		Prediction for 2022	
	Women	Men	Women	Men	Women	Men
Incident cases	69,390	690	69,900	720	66,800	770
Crude incidence rate <sup>1</sup>	165.7	1.7	166.4	1.8	158.0	1.9
Age-standardised incidence rate <sup>1, 2</sup>	111.7	1.1	112.6	1.1	105.6	1.1
Median age at diagnosis	65	72	64	71		
Mortality	2017		2018		2019	
	Women	Men	Women	Men	Women	Men
Deaths	18,401	192	18,591	195	18,519	193
Crude mortality rate <sup>1</sup>	43.9	0.5	44.3	0.5	44.0	0.5
Age-standardised mortality rate <sup>1, 2</sup>	22.9	0.3	22.8	0.3	22.3	0.3
Median age at death	76	77	76	76	76	75
Prevalence and survival rates	5 years		10 years		25 years	
	Women	Men	Women	Men	Women	Men
Prevalence	304,100	2,800	559,300	4,700	968,900	7,000
Absolute survival rate (2017–2018) <sup>3</sup>	79 (77–81)	68	67 (63–69)	53		
Relative survival rate (2017–2018) <sup>3</sup>	88 (86–89)	84	83 (79–85)	83		

<sup>1</sup> per 100,000 persons <sup>2</sup> age-standardised (old European Standard) <sup>3</sup> in percent (lowest and highest value of the included German federal states)

#### Epidemiology

Breast cancer is by far the most common cancer in women, with approximately 69,900 new cases annually. In addition, more than 6,000 women are diagnosed with an in situ tumour each year. About 1% of all new cases affect men.

Based on current incidence rates, about one in eight women will develop breast cancer in their lifetime. One in six affected women will develop the disease before the age of 50 and just under two in five after the age of 70.

After the introduction of mammography screening between 2005 and 2009, the rates of new cases show a typical trend with a clear increase at the beginning of the programme and a subsequent slow decline. It could be shown that in the screening age group, fewer women recently developed advanced tumours than before the introduction of screening.

Since the end of the 1990s, breast cancer mortality rates have been declining steadily, recently most strongly among women between 55 and 69 years of age.

#### Risk factors and early detection

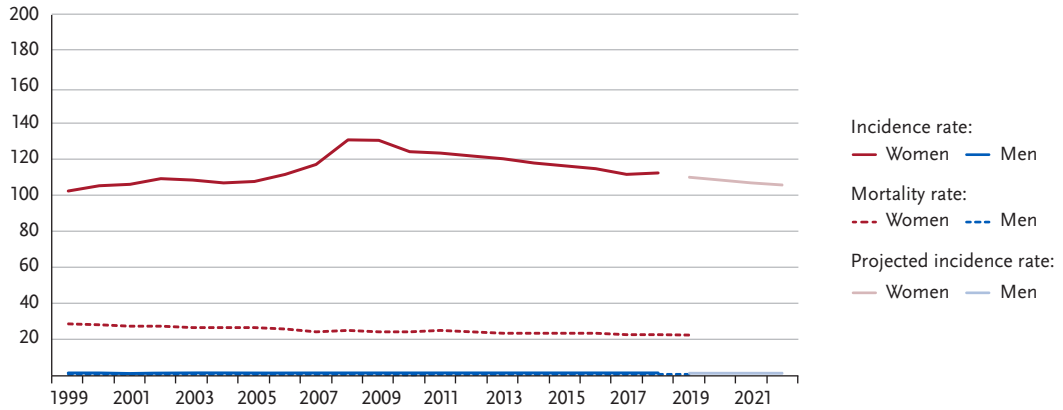
Hormones can influence the risk of developing the disease: An early first menstrual period (menarche) and a late menopause statistically increase the risk of developing (hormone-dependent) breast cancer. The same applies to hormone replacement therapy, especially if it is of longer duration and combined oestrogen-gestagen use. Hormone-containing ovulation inhibitors (birth control) only slightly increase the risk. Very dense breast tissue and certain benign breast tissue alterations are also risk factors.

If close relatives have breast or ovarian cancer, the risk of developing breast cancer increases. In addition to alterations in the BRCA1 and BRCA2 genes, there are other mutations that significantly increase the risk of developing the disease. Such mutations are found in up to a quarter of patients today.

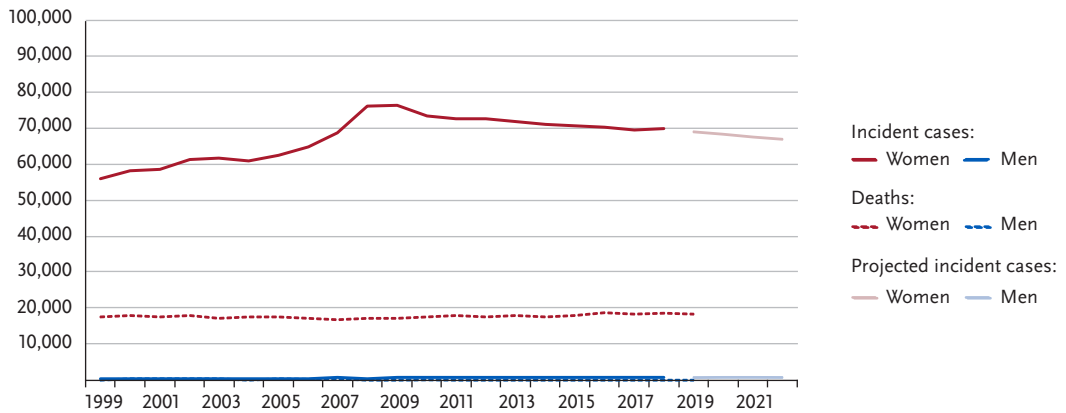
Obesity after menopause, alcohol and smoking are likely to increase the risk of breast cancer, while exercise and long periods of breastfeeding reduce the risk.

The statutory cancer screening programme offers women aged 30 and older the opportunity to have an annual tactile examination at the doctor's office. Women between the ages of 50 and 69 are invited to have a breast X-ray every two years as part of the mammography screening programme. Women with a proven alteration in a breast cancer risk gene can be enrolled in an intensified cancer screening programme.

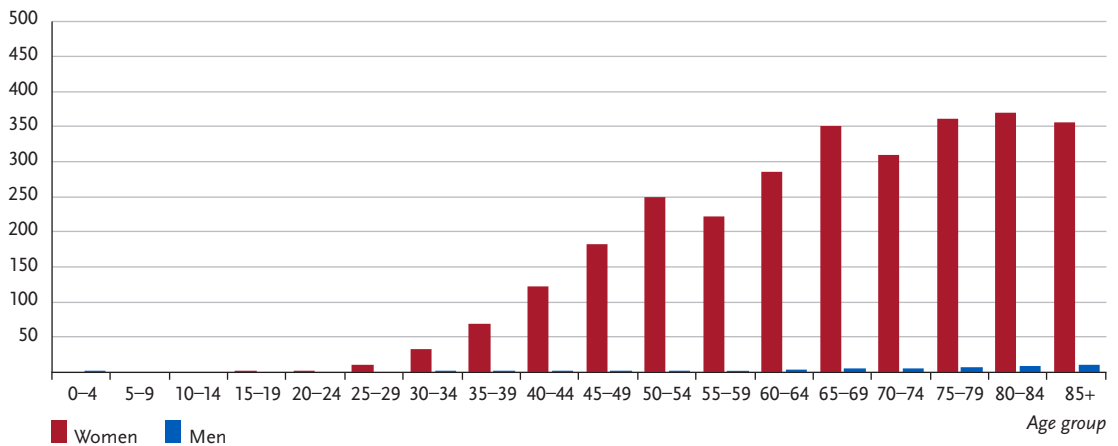
**Figure 3.17.1a**  
Age-standardised incidence and mortality rates by sex, ICD-10 C50, Germany 1999–2018/2019, projection (incidence) through 2022  
per 100,000 (old European Standard)



**Figure 3.17.1b**  
Absolute numbers of incident cases and deaths by sex, ICD-10 C50, Germany 1999–2018/2019, projection (incidence) through 2022



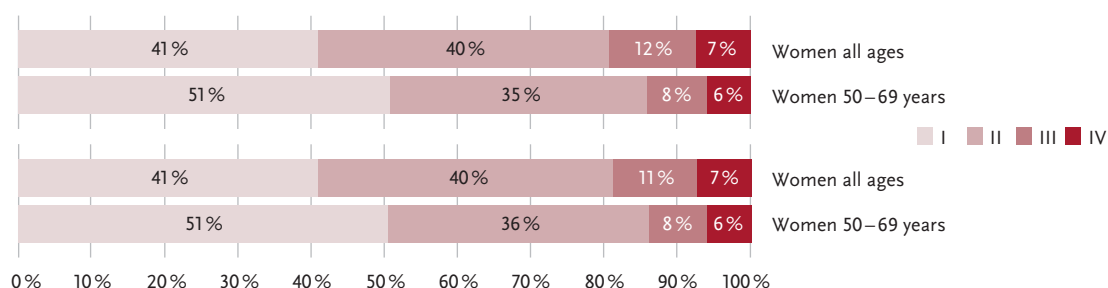
**Figure 3.17.2**  
Age-specific incidence rates by sex, ICD-10 C50, Germany 2017–2018  
per 100,000



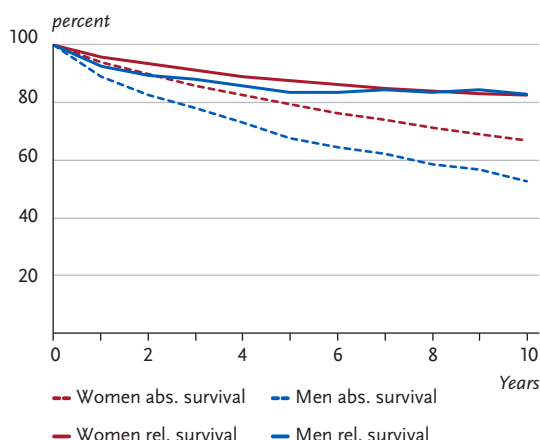
**Table 3.17.2**  
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C50, database 2018

Risk of developing cancer					Mortality risk			
Women aged	in the next 10 years		ever		in the next 10 years		ever	
35 years	1.0 %	(1 in 100)	12.2 %	(1 in 8)	0.1 %	(1 in 980)	3.5 %	(1 in 28)
45 years	2.2 %	(1 in 46)	11.4 %	(1 in 9)	0.3 %	(1 in 400)	3.4 %	(1 in 29)
55 years	2.6 %	(1 in 38)	9.7 %	(1 in 10)	0.5 %	(1 in 220)	3.2 %	(1 in 31)
65 years	3.3 %	(1 in 31)	7.6 %	(1 in 13)	0.8 %	(1 in 130)	2.9 %	(1 in 34)
75 years	3.4 %	(1 in 30)	5.1 %	(1 in 20)	1.3 %	(1 in 78)	2.5 %	(1 in 41)
Lifetime risk			12.4 %	(1 in 8)			3.5 %	(1 in 29)
Men aged	in the next 10 years		ever		in the next 10 years		ever	
35 years	< 0.1 %	(1 in 24,400)	0.1 %	(1 in 730)	< 0.1 %	(1 in 93,600)	< 0.1 %	(1 in 2,500)
45 years	< 0.1 %	(1 in 10,100)	0.1 %	(1 in 740)	< 0.1 %	(1 in 93,400)	< 0.1 %	(1 in 2,600)
55 years	< 0.1 %	(1 in 4,200)	0.1 %	(1 in 770)	< 0.1 %	(1 in 23,200)	< 0.1 %	(1 in 2,600)
65 years	< 0.1 %	(1 in 2,300)	0.1 %	(1 in 860)	< 0.1 %	(1 in 9,100)	< 0.1 %	(1 in 2,600)
75 years	< 0.1 %	(1 in 1,700)	0.1 %	(1 in 1,100)	< 0.1 %	(1 in 4,800)	< 0.1 %	(1 in 2,900)
Lifetime risk			0.1 %	(1 in 740)			< 0.1 %	(1 in 2,600)

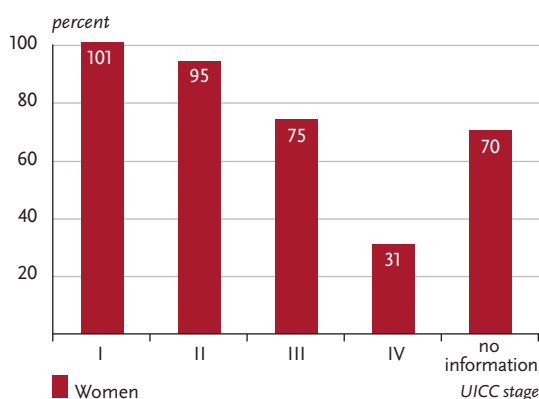
**Figure 3.17.3**  
Distribution of UICC stages at diagnosis for all women and women between 50 and 69 years of age, ICD-10 C50, Germany 2017–2018  
top: according to 7<sup>th</sup> edition TNM; bottom: according to 8<sup>th</sup> edition TNM.  
The DCO proportion was 3%. For 25% of the remaining cases, no UICC stage could be assigned.



**Figure 3.17.4**  
Absolute and relative survival rates up to 10 years after diagnosis by sex, ICD-10 C50, Germany 2017–2018

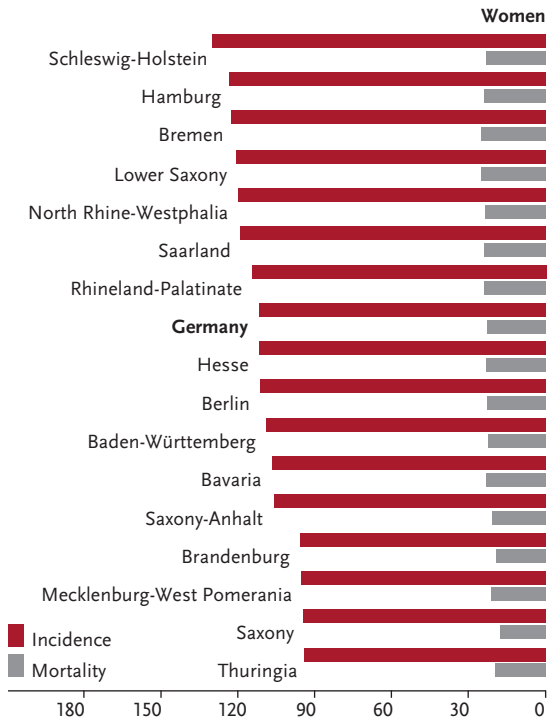


**Figure 3.17.5**  
Relative 5-year survival by UICC stage (7<sup>th</sup> edition TNM), Women, ICD-10 C50, Germany 2016–2018



**Figure 3.17.6**

Age-standardised incidence and mortality rates in German federal states, Women, ICD-10 C50, 2017–2018  
per 100,000 (old European Standard)

**Figure 3.17.7**

International comparison of age-standardised incidence and mortality rates, Women, ICD-10 C50, 2017–2018 or latest available year (details and sources, see appendix)  
per 100,000 (old European Standard)

