3.17 Breast

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

Incidence	2015		2016		Prediction for 2020	
	Women	Men	Women	Men	Women	Men
Incident cases	69,630	600	68,950	710	69,700	750
Crude incidence rate[1]	167.7	1.5	165.2	1.7	167.6	1.8
Age-standardised incidence rate[1,2]	113.7	1.0	112.2	1.1	110.4	1.1
Median age at diagnosis	64	72	64	72		

Mortality	2015		2016		2017	
	Women	Men	Women	Men	Women	Men
Deaths	18,136	159	18,570	166	18,401	192
Crude mortality rate[1]	43.7	0.4	44.5	0.4	43.9	0.5
Age-standardised mortality rate[1,2]	23.0	0.2	23.4	0.3	22.9	0.3
Median age at death	75	75	75	75	76	77

Prevalence and survival rates	5 years		10 years	
	Women	Men	Women	Men
Prevalence	313,500	2,600	584,900	4,200
Absolute survival rate (2015–2016)[3]	79 (78–82)	62	66 (65–69)	46
Relative survival rate (2015–2016)[3]	87 (86–90)	77	82 (81–86)	72

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

► Additional information under www.krebsdaten.de/cancer-sites

Epidemiology

Breast cancer is by far the most common cancer among women: around 69,000 new cases are diagnosed in Germany every year, together with around 6,000 in situ carcinomas. About 1% of all new cases affect men.

Current incidence rates indicate that approximately one in eight women will develop breast cancer during their lifetime. Almost three out of ten women affected by breast cancer are younger than 55 when diagnosed. Incidence and mortality rates in eastern Germany are still lower than in western Germany; however, rates now largely coincide for women up to the age of 55.

Following the introduction of breast cancer screening between 2005 and 2009, incidence followed typical post-screening patterns with a significant increase of new cases at the beginning of the programme followed by a subsequent slow decrease.

Advances in therapy have significantly improved the chances of surviving breast cancer, and this is also reflected in the corresponding decline in mortality. Over the next few years, it will be possible to assess the extent to which screening has been able to bring about a further reduction. However, it is already clear that fewer women in the relevant age group are being diagnosed with tumours at an advanced stage than before the introduction of screening.

Risk factors and early detection

Hormones can influence the risk of developing breast cancer: an early first and a late last menstrual period, childlessness and giving birth for the first time at an older age are considered risk factors. Hormone replacement therapy can increase the risk of breast cancer, especially prolonged treatment involving a combination of oestrogen and gestagen. Hormone-containing ovulation inhibitors (birth control pills) only slightly increase the risk of breast cancer.

Further risk factors include very dense mammary tissue, certain benign changes to the breast, and previous breast cancer.

Some breast cancer cases are related to genetics: people with close relatives who have been diagnosed with breast or ovarian cancer have a higher risk of contracting breast cancer themselves. Breast cancer risk also increases if the chest is exposed to radiotherapy in childhood or adolescence.

Lifestyle factors such as obesity and a lack of exercise after menopause as well as alcohol consumption are further risk factors. Smoking may also lead to a slightly higher increased risk.

Statutory screening offers women 30 and older an annual physical examination conducted by a physician. Women between 50 and 69 are invited to undergo a breast X-ray every two years as part of the mammography screening programme.

Figure 3.17.1a
Age-standardised incidence and mortality rates by sex, ICD-10 C50, Germany 1999–2016/2017, projection (incidence) through 2020
per 100,000 (old European Standard)

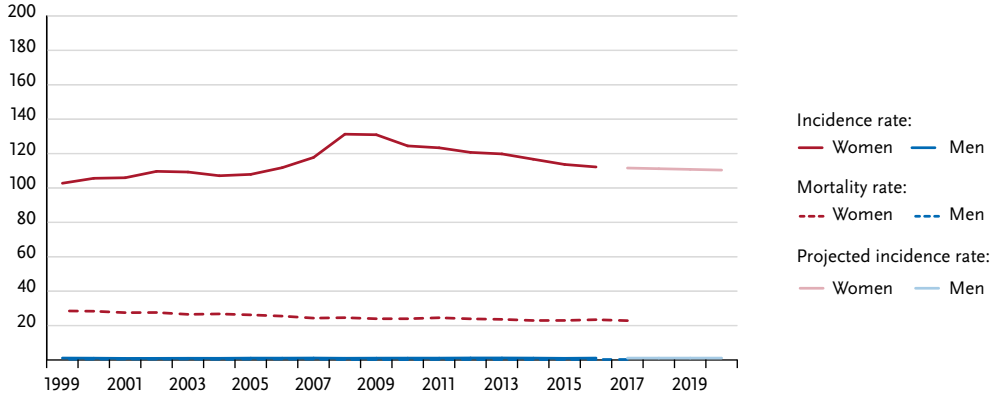

Figure 3.17.1b
Absolute numbers of incident cases and deaths by sex, ICD-10 C50, Germany 1999–2016/2017, projection (incidence) through 2020

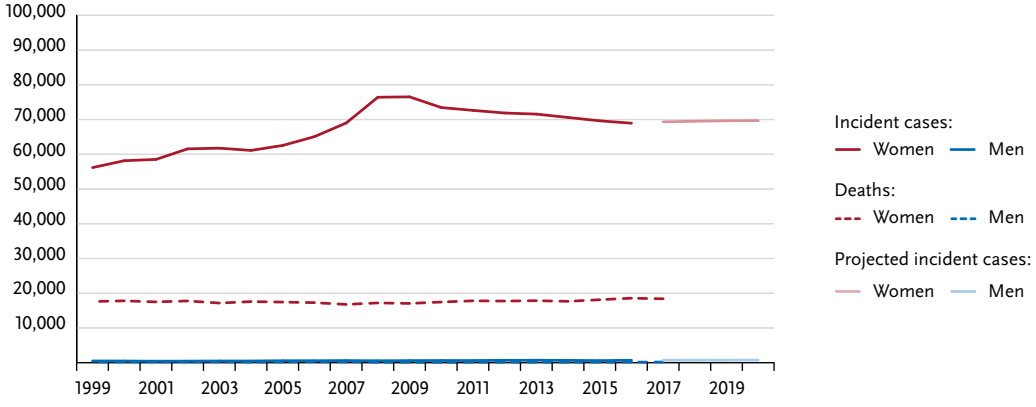

Figure 3.17.2
Age-specific incidence rates by sex, ICD-10 C50, Germany 2015–2016
per 100,000

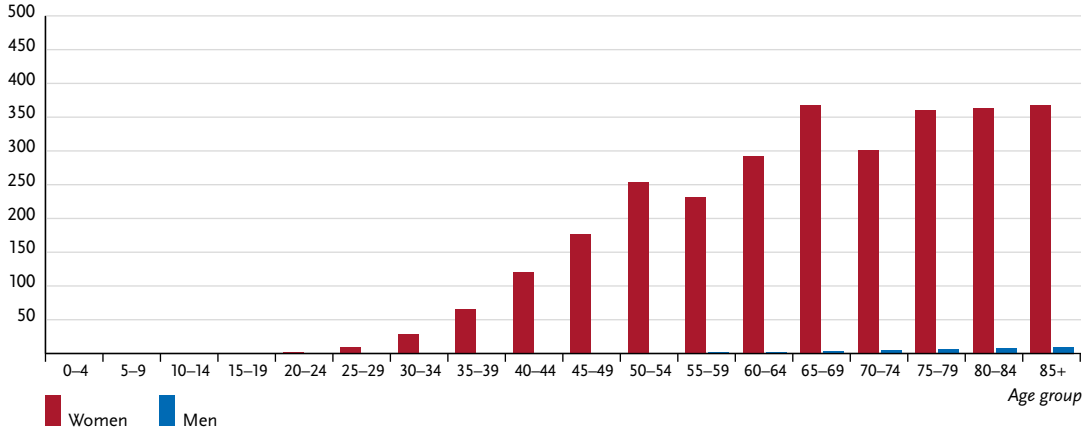

Table 3.17.2
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C50, database 2016

	Risk of developing cancer				Mortality risk			
Women aged	**in the next ten years**		**ever**		**in the next ten years**		**ever**	
35 years	0.9 %	(1 in 110)	12.2 %	(1 in 8)	0.1 %	(1 in 1,100)	3.6 %	(1 in 27)
45 years	2.1 %	(1 in 48)	11.4 %	(1 in 9)	0.3 %	(1 in 390)	3.6 %	(1 in 28)
55 years	2.7 %	(1 in 37)	9.7 %	(1 in 10)	0.5 %	(1 in 200)	3.4 %	(1 in 30)
65 years	3.3 %	(1 in 30)	7.6 %	(1 in 13)	0.8 %	(1 in 120)	3.0 %	(1 in 33)
75 years	3.3 %	(1 in 31)	5.0 %	(1 in 20)	1.4 %	(1 in 74)	2.5 %	(1 in 40)
Lifetime risk			12.2 %	(1 in 8)			3.6 %	(1 in 28)
Men aged	**in the next ten years**		**ever**		**in the next ten years**		**ever**	
35 years	< 0.1 %	(1 in 30,800)	0.1 %	(1 in 750)	< 0.1 %	(1 in 115,600)	< 0.1 %	(1 in 2,700)
45 years	< 0.1 %	(1 in 11,400)	0.1 %	(1 in 760)	< 0.1 %	(1 in 90,900)	< 0.1 %	(1 in 2,800)
55 years	< 0.1 %	(1 in 4,300)	0.1 %	(1 in 780)	< 0.1 %	(1 in 24,000)	< 0.1 %	(1 in 2,700)
65 years	< 0.1 %	(1 in 2,200)	0.1 %	(1 in 860)	< 0.1 %	(1 in 9,900)	< 0.1 %	(1 in 2,800)
75 years	0.1 %	(1 in 1,700)	0.1 %	(1 in 1,100)	< 0.1 %	(1 in 6,300)	< 0.1 %	(1 in 3,100)
Lifetime risk			0.1 %	(1 in 760)			< 0.1 %	(1 in 2,800)

Figure 3.17.3
Distribution of UICC-stages at first diagnosis for all women and women between 50 and 69 years, ICD-10 C50, Germany 2015–2016
(top: all cases; bottom: only valid reports)

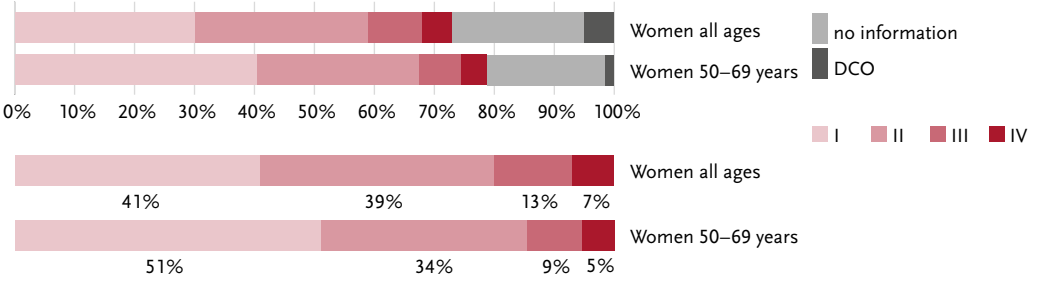

Figure 3.17.4
Absolute and relative survival rates up to 10 years after first diagnosis, by sex, ICD-10 C50, Germany 2015–2016

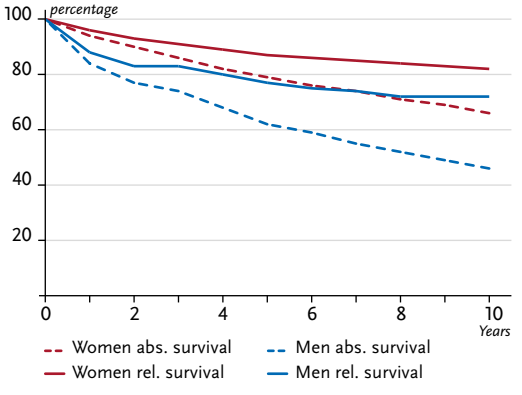

Figure 3.17.5
Relative 5-year survival by UICC-stage and sex, women, ICD-10 C50, Germany 2015–2016

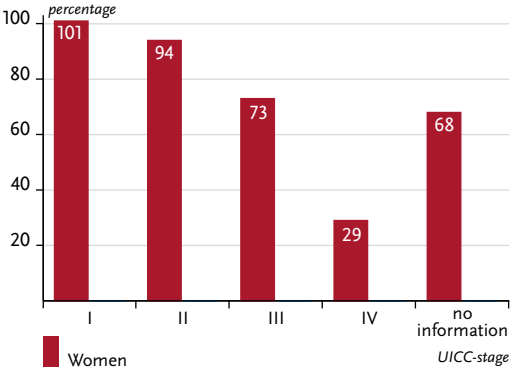

Figure 3.17.6
Age-standardised incidence and mortality rates in German federal states, women, ICD-10 C50, 2015–2016 (Incidence in Bremen for 2014 and 2016, incidence in eastern Germany for 2014 to 2015)
per 100,000 (old European Standard)

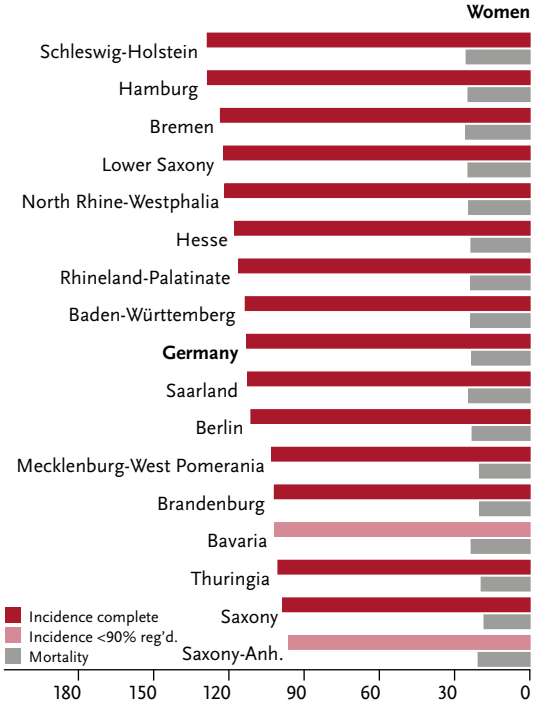

Figure 3.17.7
International comparison of age-standardised incidence and mortality rates, women, ICD-10 C50, 2015–2016 or latest available year (details and sources, see appendix)
per 100,000 (old European Standard)