

3.13 Breast

Table 3.13.1

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

	2009		2010		Prediction for 2014	
	Men	Women	Men	Women	Men	Women
Incident cases	560	73,340	610	70,340	600	75,200
Crude incidence rate ¹	1.4	175.7	1.5	168.9	1.5	182.5
Standardised incidence rate ^{1,2}	1.0	125.6	1.1	119.6	1.0	123.3
Median age at diagnosis	69	64	69	64		
Deaths	131	17,066	107	17,466		
Crude mortality rate ¹	0.3	40.9	0.3	41.9		
Standardised mortality rate ^{1,2}	0.2	24.0	0.2	24.0		
5-year prevalence	2,300	301,500	2,300	307,800		
Absolute 5-year survival rate (2009-2010) ³			61 (42-74)	79 (78-80)		
Relative 5-year survival rate (2009-2010) ³			74 (51-88)	87 (86-88)		

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

Epidemiology

With some 70,000 new cases currently being diagnosed annually, breast cancer is by far the most common form of cancer among women. There are also an additional 6,500 in situ tumours annually. According to current incidence figures, about one woman in eight will develop breast cancer in the course of her life. One in every four women is younger than 55 years at diagnosis, and one in ten is younger than 45 years of age.

The incidence and mortality rates in Europe follow an East to West gradient, and both are still significantly lower in eastern than in western Germany. Following the introduction of mammography screening in 2005, the incidence rates in Germany initially spiked, although since 2009 they have started to fall again slightly. This indicates that in the first phase of the programme many tumours were diagnosed at an earlier stage than they would have been without screening. Among those, some tumours might have been diagnosed that would otherwise have gone unrecognised for the entire life of the patient (over-diagnosis). The proportion of smaller tumours (T1) in the screening age group is considerably higher than before screening was introduced.

Despite the increased incidence, fewer women die of breast cancer now than ten years ago. The prospects of survival have improved considerably due to advances in therapy. It will not be possible to tell if screening leads to a further reduction in breast cancer mortality before 2015 at the earliest.

Risk factors and early detection

Early first menses and late last menses, childlessness, and having a first child late are all associated with an increased risk of breast cancer. Conversely, numerous 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, especially if it involves a combination of oestrogen and progestogen. Ovulation inhibitors containing hormones ("the pill"), on the other hand, have only a minor influence on the incidence rate. Studies have shown an increased risk associated with being overweight and with lack of exercise after menopause, and alcohol is also a proven risk factor. There are indications that active and passive smoking increase the risk.

In addition, women with very dense breast tissue or with certain benign breast neoplasms (lobular neoplasias and atypical ductal hyperplasias) have an increased risk. Having family clusters of breast or ovarian cancer is also a risk factor. In approximately half of these cases (5 - 10 % of all cases of breast cancer) the high family incidence results from a mutation in the "classic" breast cancer genes BRCA1 and BRCA2.

The statutory early detection programme offers women above 30 years of age an annual palpation examination by a physician. Between 2005 and 2009 the quality assured Mammography Screening Programme was introduced in Germany, and women between 50 and 69 years of age are invited to an X-ray examination of the breasts every two years.

Figure 3.13.1a
Age-standardised incidence and mortality rates, by sex,
ICD-10 C50, Germany 1999 – 2010
per 100,000 (European standard)

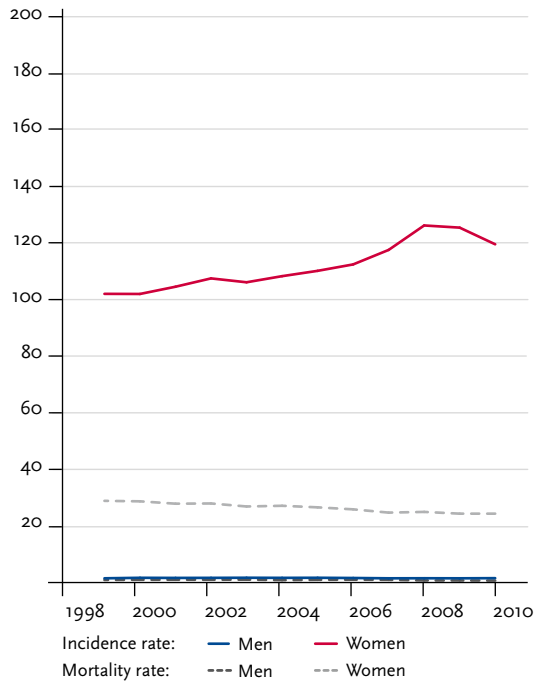


Figure 3.13.1b
Absolute numbers of incident cases and deaths, by sex,
ICD-10 C50, Germany 1999 – 2010

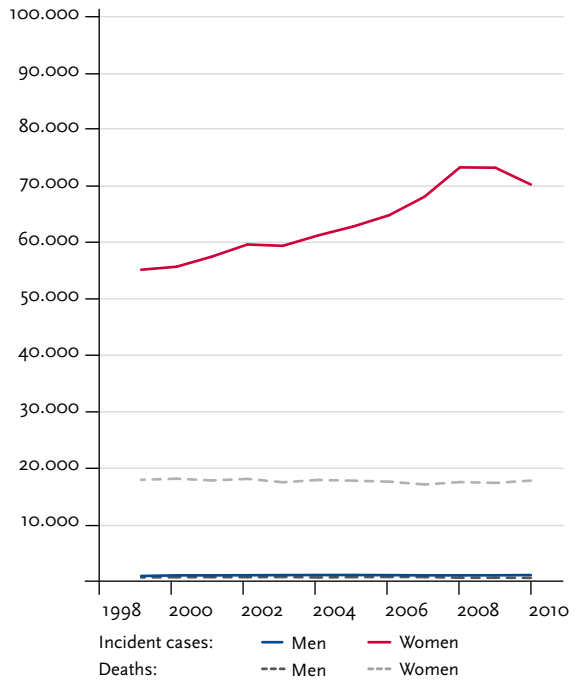


Figure 3.13.2
Age-specific incidence rates by sex, ICD-10 C50, Germany 2009 – 2010
per 100,000

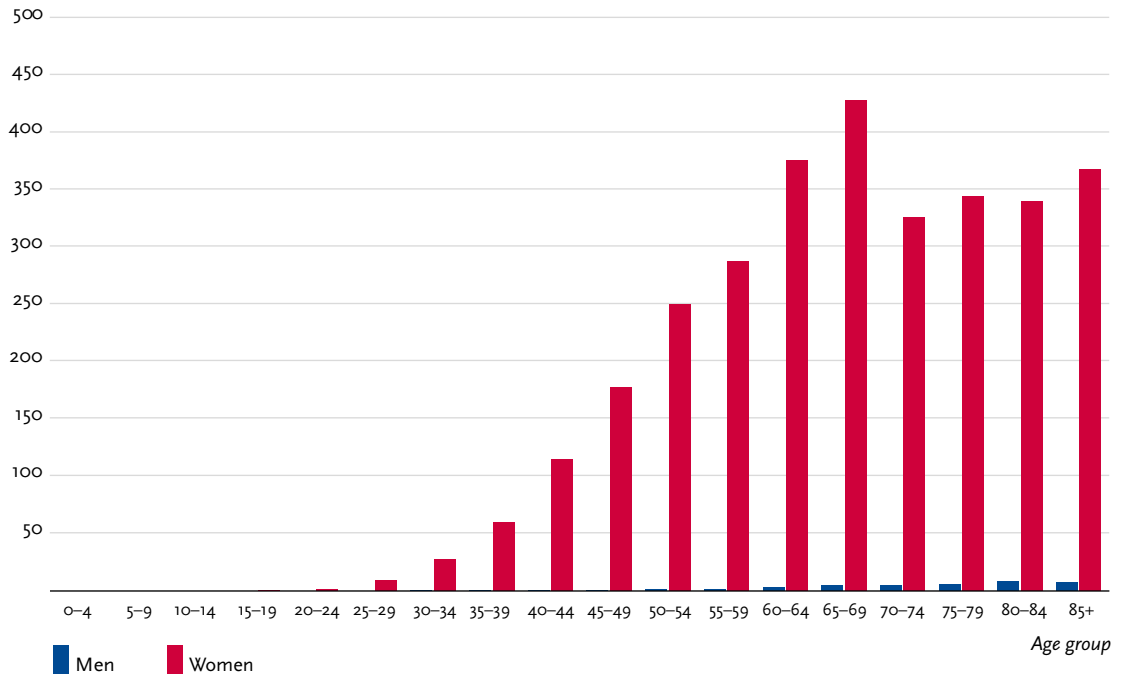


Table 3.13.2
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C50, database 2010

Men aged	Risk of developing cancer				Mortality risk			
	in the next ten years		ever		in the next ten years		ever	
35 years	<0.1%	(1 in 25,000)	0.1%	(1 in 800)	<0.1%	(1 in 192,000)	<0.1%	(1 in 4,200)
45 years	<0.1%	(1 in 15,000)	0.1%	(1 in 820)	<0.1%	(1 in 108,000)	<0.1%	(1 in 4,300)
55 years	<0.1%	(1 in 4,100)	0.1%	(1 in 830)	<0.1%	(1 in 21,000)	<0.1%	(1 in 4,300)
65 years	<0.1%	(1 in 2,300)	0.1%	(1 in 930)	<0.1%	(1 in 14,000)	<0.1%	(1 in 4,800)
75 years	0.1%	(1 in 1,700)	0.1%	(1 in 1,200)	<0.1%	(1 in 9,900)	<0.1%	(1 in 5,800)
Lifetime risk			0.1%	(1 in 810)			<0.1%	(1 in 4,300)
Women aged	in the next ten years		ever		in the next ten years		ever	
35 years	0.9%	(1 in 110)	12.9%	(1 in 8)	0.1%	(1 in 1,000)	3.5%	(1 in 29)
45 years	2.1%	(1 in 47)	12.2%	(1 in 8)	0.3%	(1 in 370)	3.4%	(1 in 30)
55 years	3.2%	(1 in 31)	10.5%	(1 in 10)	0.5%	(1 in 190)	3.2%	(1 in 31)
65 years	3.7%	(1 in 27)	7.8%	(1 in 13)	0.9%	(1 in 120)	2.8%	(1 in 36)
75 years	3.1%	(1 in 32)	4.9%	(1 in 21)	1.2%	(1 in 84)	2.2%	(1 in 46)
Lifetime risk			12.9%	(1 in 8)			3.4%	(1 in 29)

Figure 3.13.3
Distribution of T-stages at first diagnosis for women at all ages and women between 50 and 69 years (top: all cases; bottom: only valid reports) ICD-10 C50, Germany 2009 – 2010

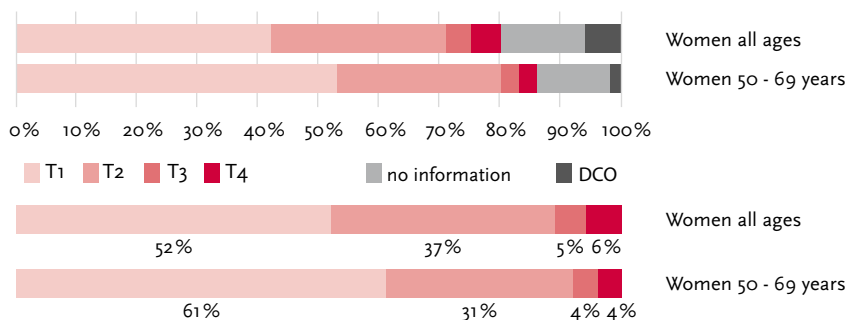


Figure 3.13.4a
Absolute survival rates up to 5 years after first diagnosis, women, ICD-10 C50, Germany 2009 – 2010

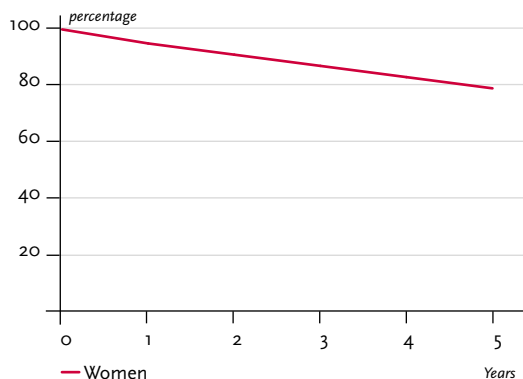


Figure 3.13.4b
Relative survival rates up to 5 years after first diagnosis, women, ICD-10 C50, Germany 2009 – 2010

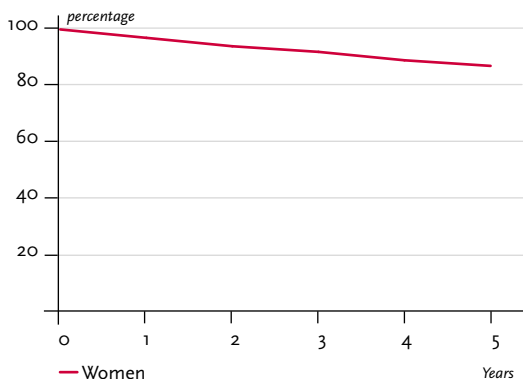


Figure 3.13.5
Registered age-standardised incidence and mortality rates in German federal states, women,
ICD-10 C50, 2009 – 2010
per 100,000 (European standard)

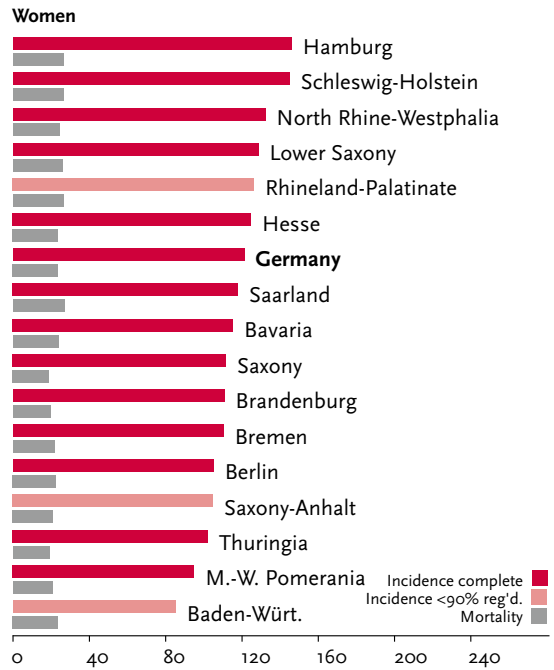


Figure 3.13.6
International comparison of age-standardised incidence and mortality rates, women,
ICD-10 C50, 2009 – 2010 or latest available year (details and sources, see appendix)
per 100,000 (European standard)

