

3.15 Mesothelioma

Table 3.15.1
Overview of key epidemiological parameters for Germany, ICD-10 C45

Incidence	2015		2016		Prediction for 2020	
	Women	Men	Women	Men	Women	Men
Incident cases	330	1,220	280	1,060	320	1,160
Crude incidence rate ¹	0.8	3.0	0.7	2.6	0.8	2.9
Age-standardised incidence rate ^{1,2}	0.4	1.8	0.3	1.5	0.4	1.5
Median age at diagnosis	74	75	74	75		
Mortality	2015		2016		2017	
	Women	Men	Women	Men	Women	Men
Deaths	305	1,128	287	1,193	270	1,121
Crude mortality rate ¹	0.7	2.8	0.7	2.9	0.6	2.7
Age-standardised mortality rate ^{1,2}	0.3	1.6	0.3	1.7	0.3	1.5
Median age at death	76	76	76	76	77	77
Prevalence and survival rates	5 years		10 years			
	Women	Men	Women	Men		
Prevalence	600	1,700	700	2,000		
Absolute survival rate (2015–2016)	12	7	4	3		
Relative survival rate (2015–2016)	13	8	5	5		

¹ per 100,000 persons ² age-standardised (old European Standard)

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

Epidemiology

Malignant mesotheliomas are rare soft tissue tumours that mainly occur in elderly men. The most common localisation is the pleura; in rare cases, they affect the peritoneum. In 2016, around 1,060 men and 280 women in Germany developed mesothelioma. More than 20 years after the ban on asbestos processing in Germany, age-standardised incidence rates are declining slightly, although a clear reduction in death rates has yet to be identified. However, incidence and mortality rates among men under the age of 75 are falling substantially, and they are no longer rising among older age groups. Comparatively high morbidity rates can be found in northwest Germany in (former) locations of the ship building industry, such as in Bremen and neighbouring regions, and in areas where the steel industry is located, such as in the Ruhr. Occasionally, regions close to former asbestos production sites are also affected. With relative 5-year survival rates of just 8% in men and 13% in women, mesothelioma has a very unfavourable prognosis. As such, the number of annual deaths is very similar to the annual incidence.

Risk factors

Inhalation of asbestos fibres is responsible for the majority of newly diagnosed cases of mesothelioma. Although asbestos processing was banned in Germany in 1993, and later throughout the entire EU, there is an average latency period of 30 to 50 years between initial exposure to development of cancer. The occupational groups that tend to be most affected include metalworkers, welders, electricians, plumbers, roofers, bricklayers, construction workers, automotive technicians and tilers. In 2016, about 1,000 new cases were recognised by trade associations in Germany; in 2018 there were almost 900 cases. Some people may be affected despite having no known occupational exposure; in these cases, asbestos fibres can often still be detected using X-rays or in tissue samples: this group includes women who did not work with asbestos themselves but came into indirect contact with the material (such as when cleaning clothes from an affected workplace).

Weakly-bound asbestos that contains a large percentage of fibres is particularly dangerous. Asbestos cement (Eternit), which can still be found in or on many buildings, is considered harmless as long as it remains intact. Other risk factors, including exposure to fibres such as Erionite and to radiation therapy (of the chest or the abdomen), play a minor role.

Figure 3.15.1a
 Age-standardised incidence and mortality rates by sex, ICD-10 C45, Germany 1999–2016/2017, projection (incidence) through 2020 per 100,000 (old European Standard)

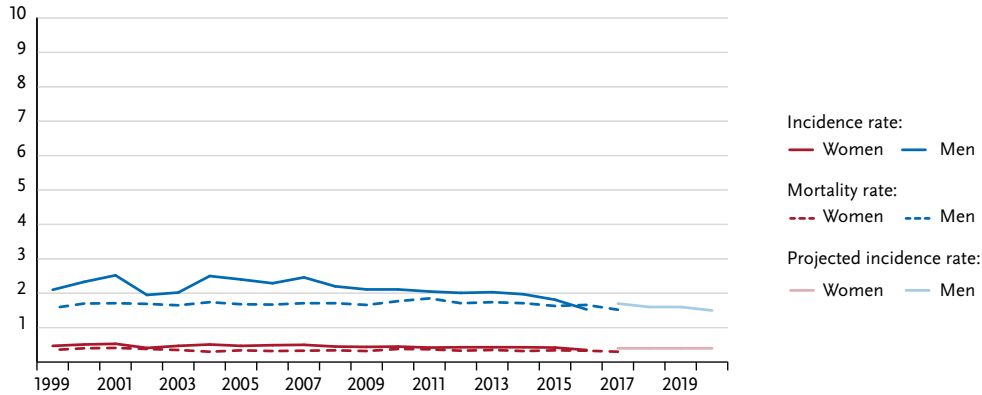


Figure 3.15.1b
 Absolute numbers of incident cases and deaths by sex, ICD-10 C45, Germany 1999–2016/2017, projection (incidence) through 2020

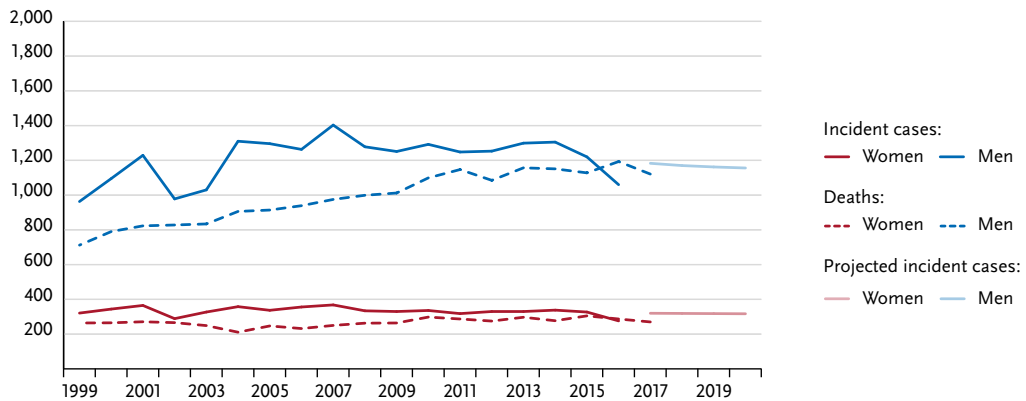


Figure 3.15.2
 Age-specific incidence rates by sex, ICD-10 C45, Germany 2015–2016 per 100,000

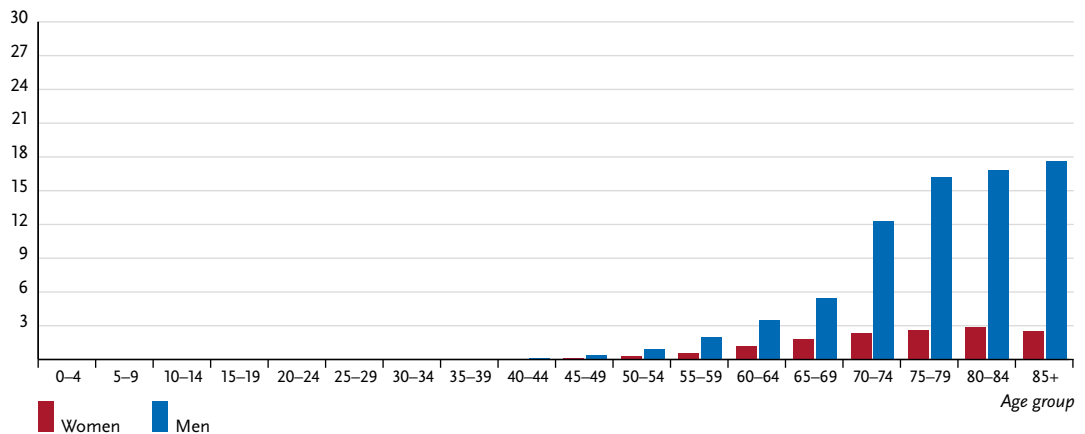


Table 3.15.2
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C45, database 2016

Women 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 218,000)	0.1%	(1 in 1,900)	< 0.1%	(1 in 79,400)	0.1%	(1 in 1,800)
45 years	< 0.1%	(1 in 49,400)	0.1%	(1 in 1,900)	< 0.1%	(1 in 50,000)	0.1%	(1 in 1,800)
55 years	< 0.1%	(1 in 12,600)	0.1%	(1 in 2,000)	< 0.1%	(1 in 17,400)	0.1%	(1 in 1,800)
65 years	< 0.1%	(1 in 5,700)	< 0.1%	(1 in 2,200)	< 0.1%	(1 in 6,900)	0.1%	(1 in 1,900)
75 years	< 0.1%	(1 in 4,800)	< 0.1%	(1 in 3,200)	< 0.1%	(1 in 3,900)	< 0.1%	(1 in 2,400)
Lifetime risk			0.1%	(1 in 1,900)			0.1%	(1 in 1,800)
Men aged	in the next ten years		ever		in the next ten years		ever	
35 years	< 0.1%	(1 in 75,900)	0.2%	(1 in 490)	< 0.1%	(1 in 157,100)	0.3%	(1 in 400)
45 years	< 0.1%	(1 in 14,900)	0.2%	(1 in 480)	< 0.1%	(1 in 25,000)	0.3%	(1 in 400)
55 years	< 0.1%	(1 in 4,400)	0.2%	(1 in 480)	< 0.1%	(1 in 4,700)	0.3%	(1 in 390)
65 years	0.1%	(1 in 1,400)	0.2%	(1 in 490)	0.1%	(1 in 1,300)	0.3%	(1 in 380)
75 years	0.1%	(1 in 840)	0.2%	(1 in 610)	0.2%	(1 in 620)	0.2%	(1 in 430)
Lifetime risk			0.2%	(1 in 500)			0.2%	(1 in 410)

Figure 3.15.3
Distribution of UICC-stages at first diagnosis by sex
Not presented due to the large proportion of missing data.

Figure 3.15.4
Absolute and relative survival rates up to 10 years after first diagnosis, by sex, ICD-10 C45, Germany 2015–2016

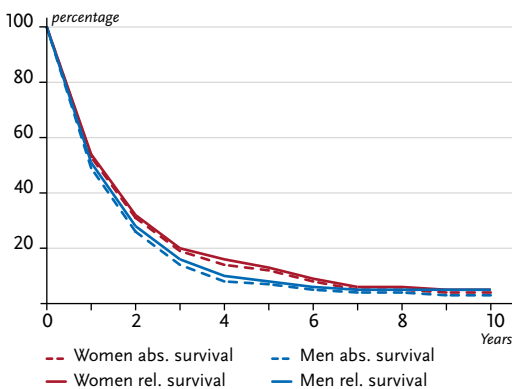


Figure 3.15.5
Relative 5-year survival by site and sex, ICD-10 C45, Germany 2015–2016

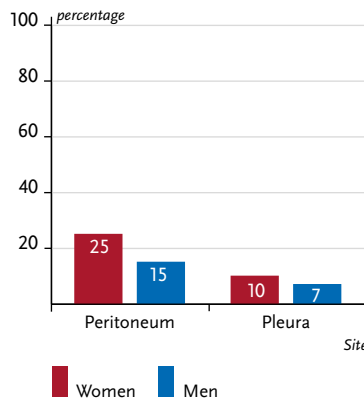


Figure 3.15.6
 Age-standardised incidence and mortality rates in German federal states by sex, ICD-10 C45, 2015–2016
 (Incidence in Bremen for 2014 and 2016, incidence in eastern Germany for 2014 to 2015)
 per 100,000 (old European Standard)

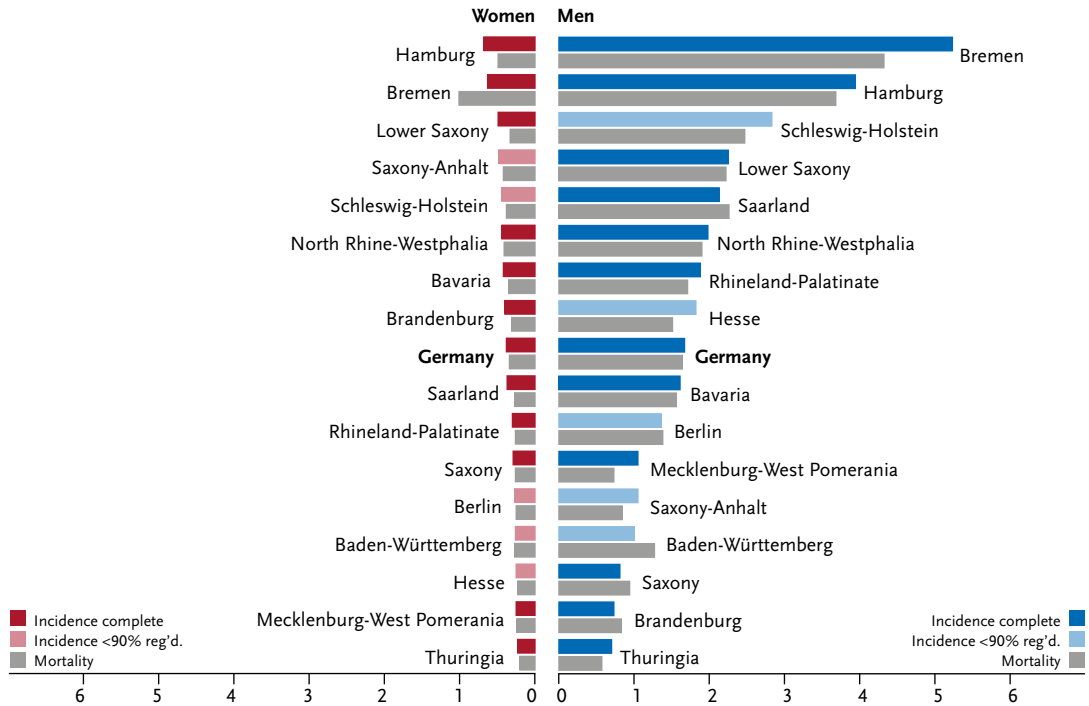
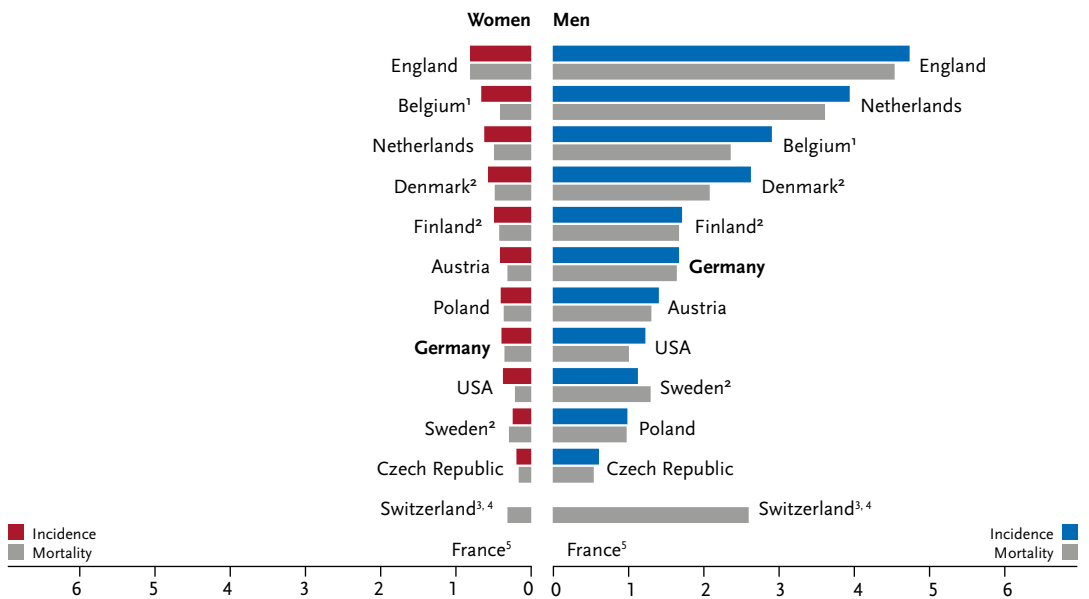


Figure 3.15.7
 International comparison of age-standardised incidence and mortality rates by sex,
 ICD-10 C45, 2015–2016 or latest available year (details and sources, see appendix)
 per 100,000 (old European Standard)



¹ Mortality only for 2015 from WHO mortality database
² Data including C38.4 and C45.9
³ No data for incidence
⁴ Mortality only for 2015
⁵ No data available