

3.12 Mesothelioma

Table 3.12.1
Overview of key epidemiological parameters for Germany, ICD-10 C45

	2011		2012		Prediction for 2016	
	Men	Women	Men	Women	Men	Women
Incident cases	1,310	360	1,260	300	1,400	400
Crude incidence rate ¹	3.3	0.9	3.2	0.7	3.4	0.9
Standardised incidence rate ^{1,2}	2.1	0.5	2.0	0.4	2.0	0.5
Median age at diagnosis	73	74	73	73		
Deaths	1,147	287	1,085	275		
Crude mortality rate ¹	2.9	0.7	2.8	0.7		
Standardised mortality rate ^{1,2}	1.9	0.4	1.7	0.3		
5-year prevalence	1,800	600	1,700	500		
	<i>after 5 years</i>		<i>after 10 years</i>			
Absolute survival rate (2011–2012) ³	7	15	2	9		
Relative survival rate (2011–2012) ³	9	17	4	12		

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

Epidemiology

Malignant mesothelioma refer to a rare soft tissue tumour (in the cells of the mesothelium), mainly occurring in men of advanced age. The most frequently affected site is the pleura (pleural mesothelioma) – around 90 %.

Because of the long-term latency, no evidence of a reduction in age-standardised incidence and mortality rates is to be noted even 20 years after the ban on asbestos processing (see right). Meanwhile, the incidence and mortality rates in men under the age of 65 years are falling, whereas they are still increasing in men over the age of 75. In Germany, in 2012 approximately 1,260 men and 300 women were diagnosed.

Clear regional differences with high incidence and mortality rates, especially in Hamburg and Bremen can be explained by high exposure to asbestos among former shipyard workers. Comparatively high rates in England and the Netherlands can be interpreted in a similar way.

With relative 5-year survival rates of 9 % in men and 17 % in women, mesothelioma belong to the types of cancer with very unfavourable prognosis, which to date has not been significantly affected by screening (early detection programmes) of occupationally at-risk persons.

Risk factors

Even today, asbestos and above all the inhalation of asbestos fibres are still responsible for the majority of newly diagnosed cases. Admittedly, the processing of asbestos in Germany was restricted in the early 1980s and completely banned since 1993. However, there is a latency period of on average 30 years between exposure beginning and the manifestation of the illness. Approximately 900 newly diagnosed cases per year are being recognised by employers' liability insurance associations. The occupational groups affected include metalworkers, welders, electricians, installers, roofers, bricklayers, construction workers, automotive engineers and tilers. Even if there is no known vocational exposure to asbestos, mesotheliomas are often asbestos-related. In autopsy studies high concentrations of asbestos fibres are often found in the lung tissue even without any corresponding vocational history.

Loosely bound asbestos with high fibre content is particularly dangerous. In contrast, asbestos cement (commonly referred to as ›Eternit‹, after a manufacturer), which is to be found even today both in and on buildings, is deemed to be largely safe, provided it remains intact and does not weather.

Further risk factors only play a minor role. These can be the exposition to other fibres as for example Erionit or a radiation therapy of breast or abdomen.

Figure 3.12.1a
Age-standardised incidence and mortality rates,
by sex, ICD-10 C45, Germany 1999–2012
per 100,000 (European standard)

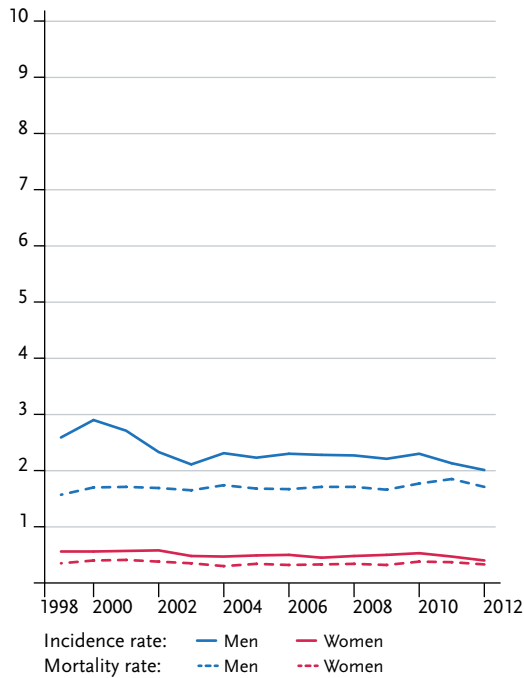


Figure 3.12.1b
Absolute numbers of incident cases and deaths,
by sex, ICD-10 C45, Germany 1999–2012

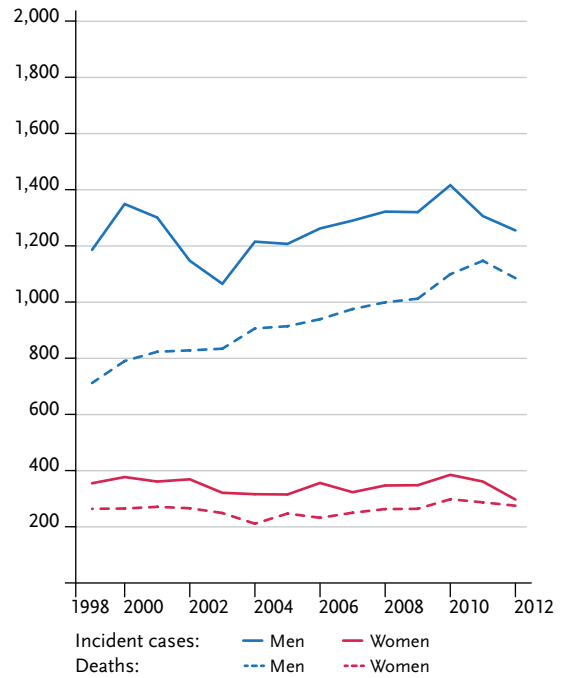


Figure 3.12.2
Age-specific incidence rates by sex, ICD-10 C45, Germany 2011–2012
per 100,000

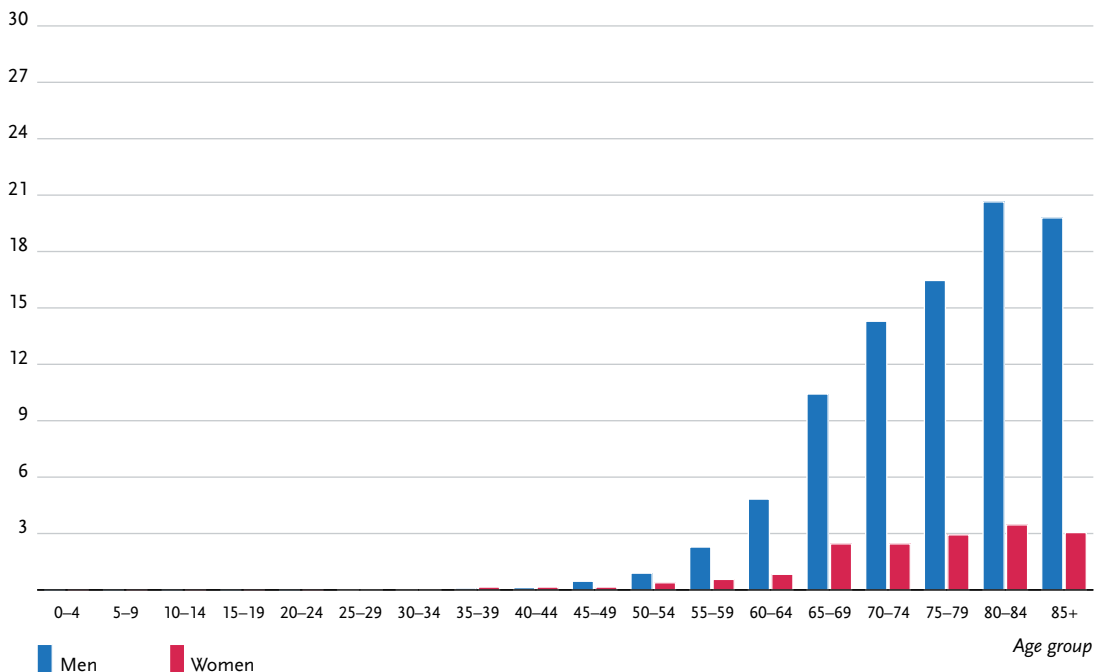


Table 3.12.2
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C45, database 2012

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 100,300)	0.3%	(1 in 380)	<0.1%	(1 in 78,600)	0.2%	(1 in 430)
45 years	<0.1%	(1 in 13,400)	0.3%	(1 in 380)	<0.1%	(1 in 17,300)	0.2%	(1 in 420)
55 years	<0.1%	(1 in 2,800)	0.3%	(1 in 380)	<0.1%	(1 in 3,800)	0.2%	(1 in 420)
65 years	0.1%	(1 in 930)	0.3%	(1 in 390)	0.1%	(1 in 1,200)	0.2%	(1 in 420)
75 years	0.1%	(1 in 740)	0.2%	(1 in 540)	0.1%	(1 in 750)	0.2%	(1 in 520)
Lifetime risk			0.3%	(1 in 390)			0.2%	(1 in 430)
Women aged	in the next ten years		ever		in the next ten years		ever	
35 years	<0.1%	(1 in 72,600)	0.1%	(1 in 1,700)	<0.1%	(1 in 358,200)	0.1%	(1 in 1,800)
45 years	<0.1%	(1 in 35,500)	0.1%	(1 in 1,700)	<0.1%	(1 in 45,400)	0.1%	(1 in 1,800)
55 years	<0.1%	(1 in 13,000)	0.1%	(1 in 1,800)	<0.1%	(1 in 18,000)	0.1%	(1 in 1,900)
65 years	<0.1%	(1 in 5,000)	0.1%	(1 in 2,000)	<0.1%	(1 in 6,100)	0.1%	(1 in 2,000)
75 years	<0.1%	(1 in 4,400)	<0.1%	(1 in 2,900)	<0.1%	(1 in 3,700)	<0.1%	(1 in 2,600)
Lifetime risk			0.1%	(1 in 1,700)			0.1%	(1 in 1,800)

Figure 3.12.3
Distribution of T-stages at first diagnosis by sex
Not presented due to the large proportion of missing data.

Figure 3.12.4a
Absolute survival rates up to 10 years after first diagnosis, by sex, ICD-10 C45, Germany 2011–2012

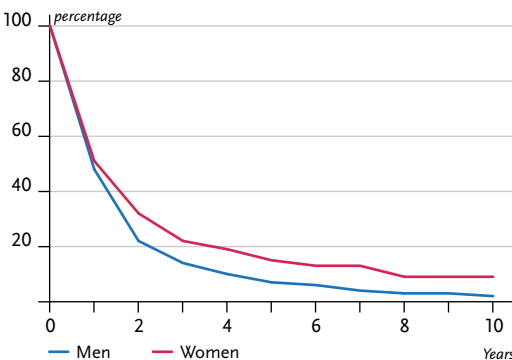


Figure 3.12.4b
Relative survival rates up to 10 years after first diagnosis, by sex, ICD-10 C45, Germany 2011–2012

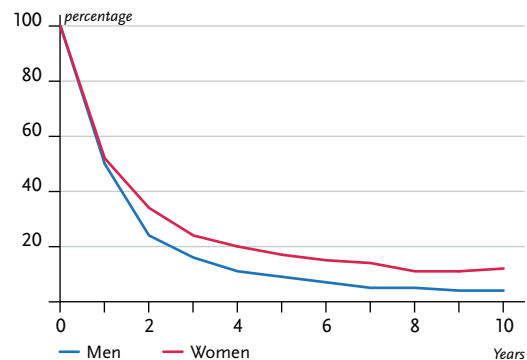


Figure 3.12.5
Registered age-standardised incidence and mortality rates in German federal states, by sex,
ICD-10 C45, 2011–2012
per 100,000 (European standard)

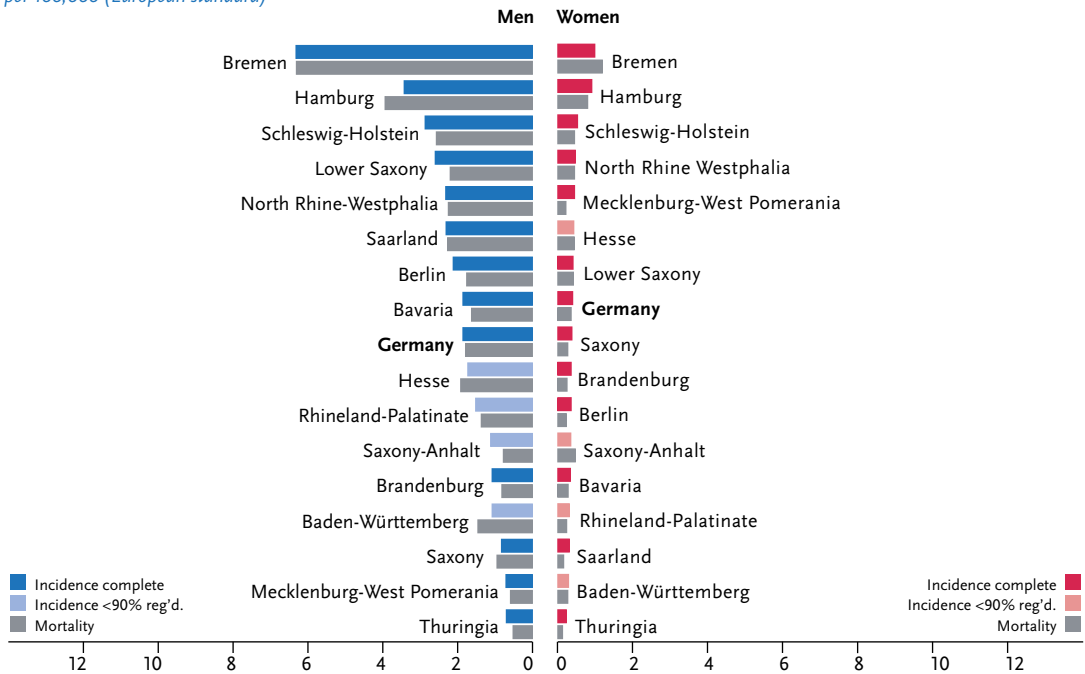
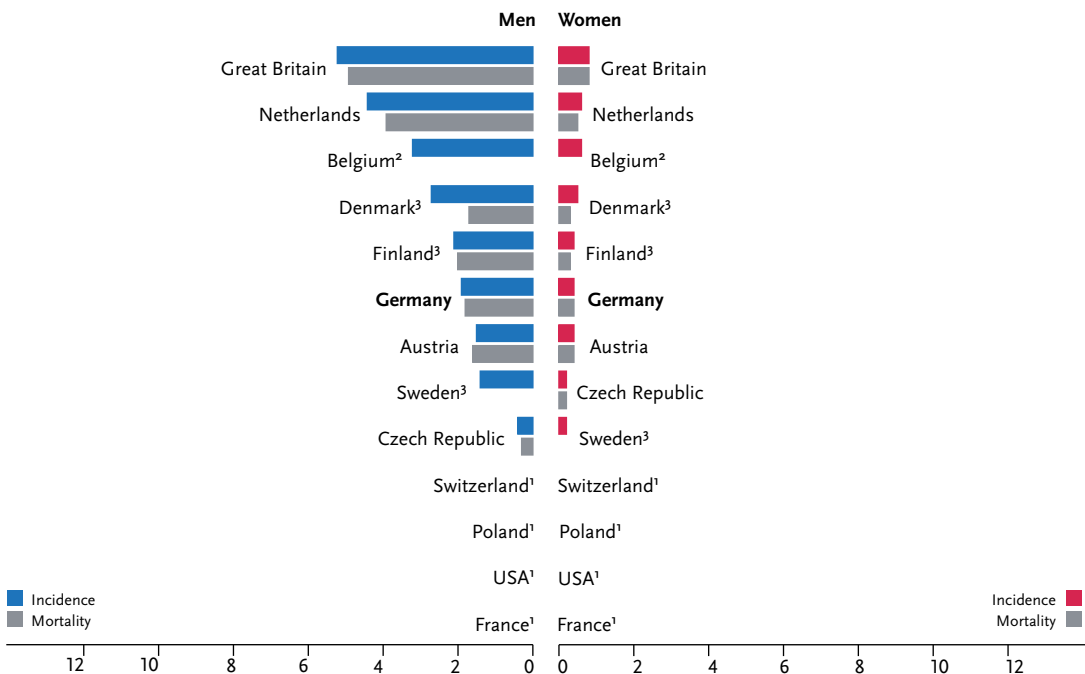


Figure 3.12.6
International comparison of age-standardised incidence and mortality rates, by sex,
ICD-10 C45, 2011–2012 or latest available year (details and sources, see appendix)
per 100,000 (European standard)



¹ no comparable data

² no comparable data for mortality

³ data incl. C38.4 (Malignant neoplasm of Pleura)