

3.8 Liver

Table 3.8.1
Overview of key epidemiological parameters for Germany, ICD-10 C22

Incidence	2019		2020			
	Women	Men	Women	Men		
Incident cases	3,100	6,910	3,030	6,740		
Crude incidence rate ¹	7.4	16.9	7.2	16.4		
Age-standardised incidence rate ^{1,2}	3.8	10.5	3.7	10.0		
Median age at diagnosis	74	71	74	72		
Mortality	2019		2020		2021	
	Women	Men	Women	Men	Women	Men
Deaths	2,649	5,519	2,781	5,676	2,692	5,455
Crude mortality rate ¹	6.3	13.5	6.6	13.8	6.4	13.3
Age-standardised mortality rate ^{1,2}	3.0	7.9	3.1	8.0	3.0	7.7
Median age at death	77	74	77	74	77	74
Prevalence and survival rates	5 years		10 years		25 years	
	Women	Men	Women	Men	Women	Men
Prevalence	4,300	9,600	5,900	12,800	7,400	16,200
Absolute survival rate (2019–2020) ³	15 (11–34)	14 (12–17)	9 (5–28)	8 (4–10)		
Relative survival rate (2019–2020) ³	17 (13–38)	17 (14–21)	12 (6–36)	11 (7–15)		

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

Epidemiology

Although liver cancer is relatively rare, it is one of the most common causes of cancer death due to its poor prognosis. In Germany, there are currently around 9,800 new cases per year, with almost 8,200 deaths (2021). Approximately one in 170 women and one in 80 men in Germany will develop a malignant liver tumour during their lifetime. The relative 5-year survival rates for women and men are around 17%. Around 59% of malignant liver tumours arise from liver cells (hepatocellular carcinoma) and 31% from cells of the intrahepatic bile ducts (cholangiocarcinoma). The latter proportion is higher among women.

Since 1999, the age-standardised incidence and mortality rates have risen slightly for both sexes. For some years now, however, there have been signs of a decline in both rates for men.

The incidence and mortality rates in the north-western federal states are somewhat lower than in the rest of Germany.

Risk factors and early detection

The main risk factor for liver cancer (hepatocellular carcinoma) is liver cirrhosis. In Germany, its most common causes are chronic hepatitis C virus infection or high alcohol consumption. Non-alcohol-related fatty liver disease, which also increases the risk of liver cancer, is becoming increasingly important. They can also be the result of diabetes mellitus or metabolic syndrome. These, in turn, are very often caused by obesity.

Chronic hepatitis B virus infection is a risk factor for liver cancer, even without liver cirrhosis. This is particularly true in Africa and South-East Asia. Smoking also increases the risk of developing the disease. Hereditary metabolic diseases such as haemochromatosis, porphyria or alpha-1-antitrypsin deficiency can also increase the risk of liver cancer.

In addition to the risk factors mentioned, chronic inflammation or stones in the bile ducts can increase the risk of carcinomas of the bile ducts within the liver. There is no statutory screening programme for the early detection of liver cancer for the general population. In the case of existing liver cirrhosis or chronic hepatitis, regular ultrasound checks should be offered.

Figure 3.8.1a
 Age-standardised incidence and mortality rates by sex, ICD-10 C22, Germany 1999 – 2020/2021
 per 100,000 (old European Standard)

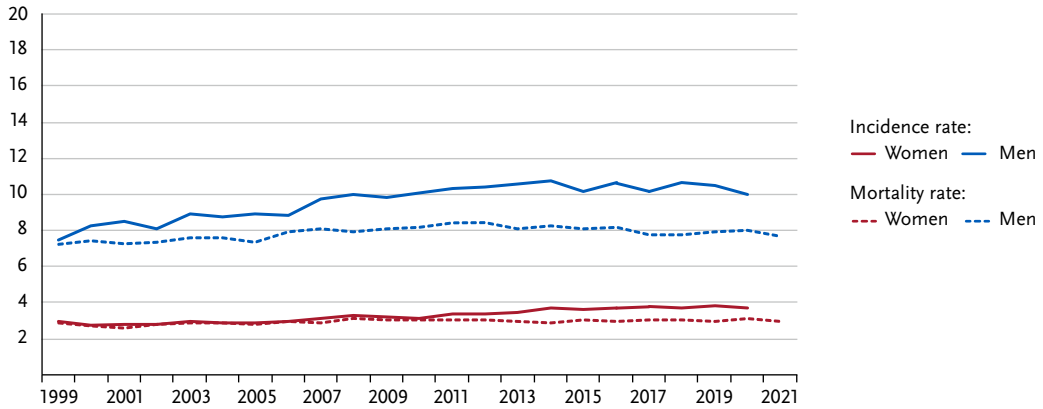


Figure 3.8.1b
 Absolute numbers of incident cases and deaths by sex, ICD-10 C22, Germany 1999 – 2020/2021

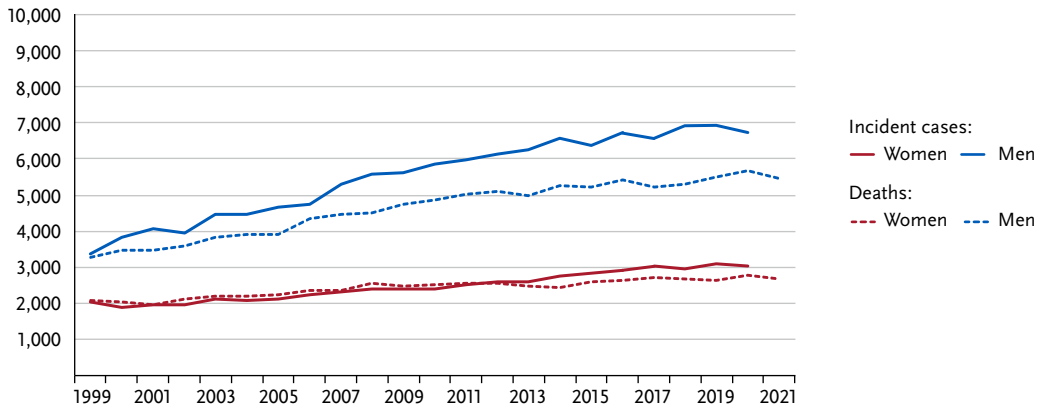


Figure 3.8.2
 Age-specific incidence rates by sex, ICD-10 C22, Germany 2019 – 2020
 per 100,000

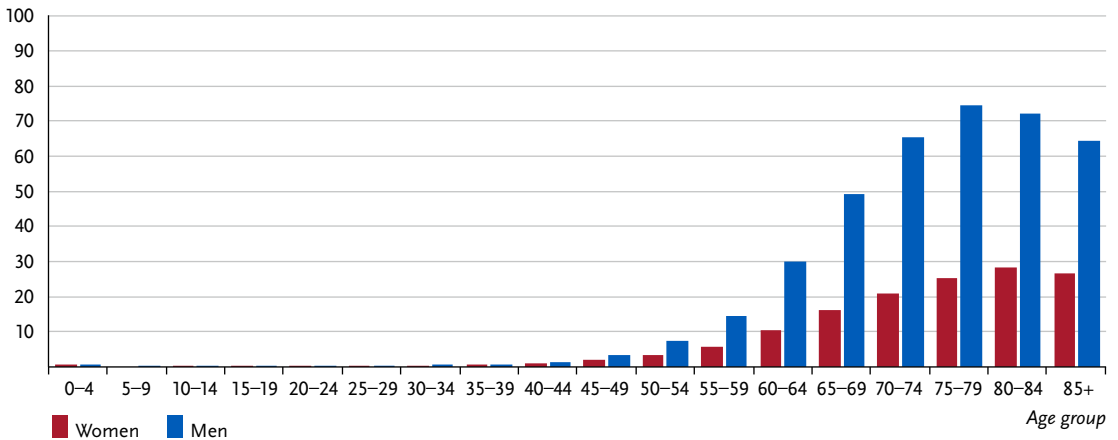


Table 3.8.2
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C22, database 2019

Women aged	Risk of developing cancer				Mortality risk			
	in the next 10 years		ever		in the next 10 years		ever	
35 years	< 0.1 %	(1 in 10,400)	0.6 %	(1 in 170)	< 0.1 %	(1 in 18,000)	0.5 %	(1 in 200)
45 years	< 0.1 %	(1 in 3,900)	0.6 %	(1 in 180)	0.0 %	(1 in 6,300)	0.5 %	(1 in 200)
55 years	0.1 %	(1 in 1,200)	0.6 %	(1 in 180)	0.1 %	(1 in 1,800)	0.5 %	(1 in 200)
65 years	0.2 %	(1 in 560)	0.5 %	(1 in 200)	0.1 %	(1 in 740)	0.5 %	(1 in 220)
75 years	0.2 %	(1 in 430)	0.4 %	(1 in 280)	0.2 %	(1 in 460)	0.4 %	(1 in 270)
Lifetime risk			0.6 %	(1 in 170)			0.5 %	(1 in 200)
Men aged	in the next 10 years		ever		in the next 10 years		ever	
35 years	< 0.1 %	(1 in 8,200)	1.3 %	(1 in 77)	< 0.1 %	(1 in 14,200)	1.1 %	(1 in 93)
45 years	0.1 %	(1 in 1,800)	1.3 %	(1 in 77)	0.0 %	(1 in 3,200)	1.1 %	(1 in 92)
55 years	0.2 %	(1 in 440)	1.3 %	(1 in 77)	0.2 %	(1 in 660)	1.1 %	(1 in 92)
65 years	0.5 %	(1 in 190)	1.2 %	(1 in 86)	0.4 %	(1 in 260)	1.0 %	(1 in 97)
75 years	0.6 %	(1 in 170)	0.8 %	(1 in 120)	0.5 %	(1 in 190)	0.8 %	(1 in 130)
Lifetime risk			1.3 %	(1 in 77)			1.1 %	(1 in 94)

Figure 3.8.3
Distribution of UICC stages at diagnosis by sex, ICD-10 C22, Germany 2019 – 2020
(top: incl. missing data and DCO cases; bottom: valid values only)

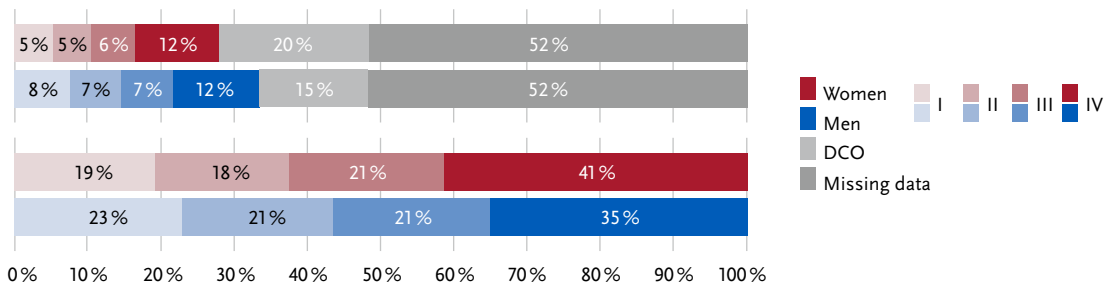


Figure 3.8.4
Absolute and relative survival rates up to 10 years after diagnosis, by sex, ICD-10 C22, Germany 2019 – 2020

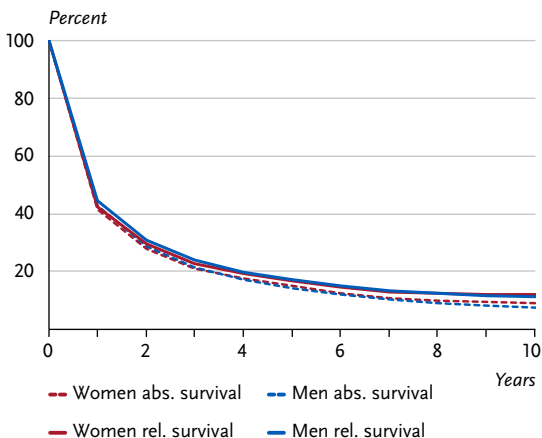


Figure 3.8.5
Relative 5-year survival by site and sex, ICD-10 C22, Germany 2019 – 2020

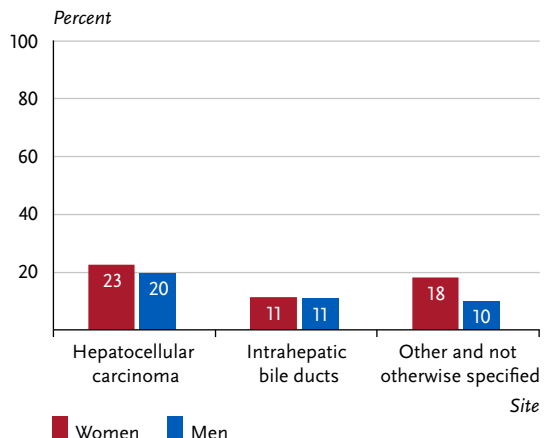


Figure 3.8.6
 Age-standardised incidence and mortality rates in German federal states by sex, ICD-10 C22, 2019 – 2020
 per 100,000 (old European Standard)

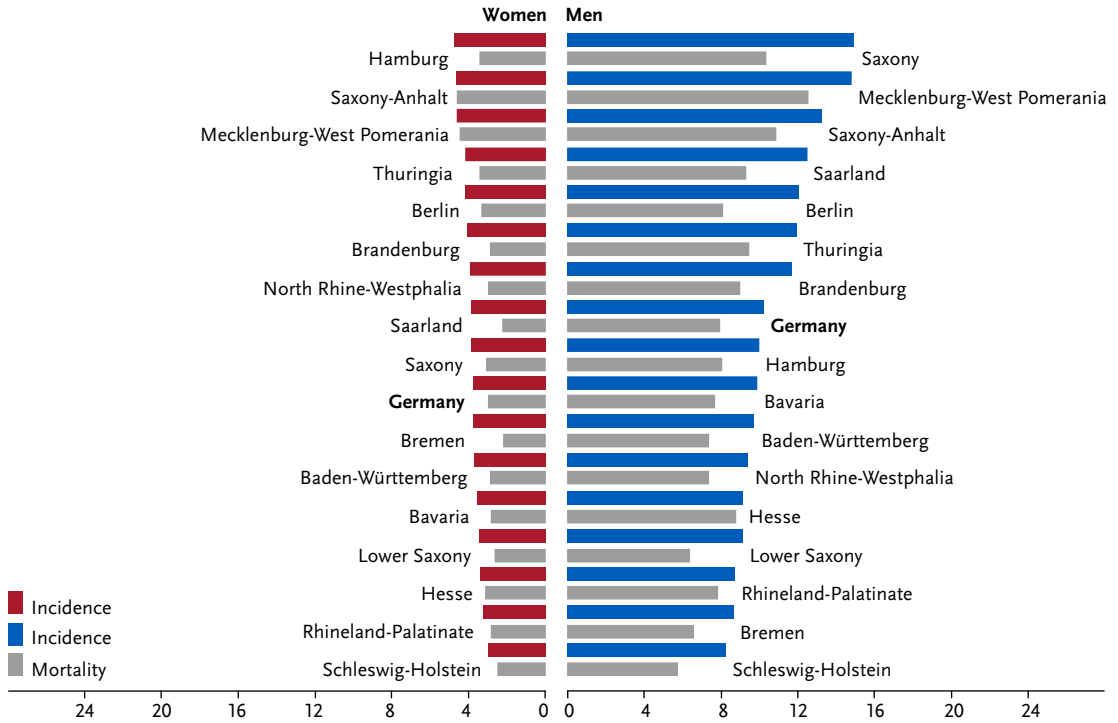
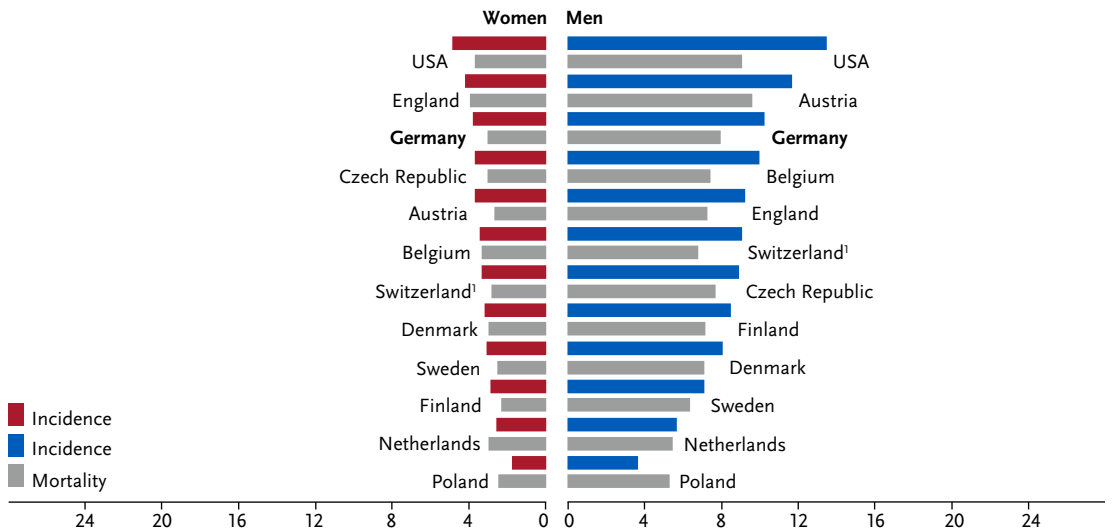


Figure 3.8.7
 International comparison of age-standardised incidence and mortality rates by sex,
 ICD-10 C22, 2019 – 2020 or latest available year (details and sources, see appendix)
 per 100,000 (old European Standard)



¹ Switzerland: incidence data for 2015 – 2019