

## 3.4 Stomach

Table 3-4.1  
Overview of key epidemiological parameters for Germany, ICD-10 C16

Incidence	2019		2020			
	Women	Men	Women	Men		
Incident cases	5,990	9,480	5,370	9,120		
Crude incidence rate <sup>1</sup>	14.2	23.1	12.7	22.2		
Age-standardised incidence rate <sup>1,2</sup>	7.5	14.5	6.7	13.8		
Median age at diagnosis	75	71	75	71		
Mortality	2019		2020		2021	
	Women	Men	Women	Men	Women	Men
Deaths	3,428	5,099	3,321	5,032	3,320	4,976
Crude mortality rate <sup>1</sup>	8.1	12.4	7.9	12.3	7.9	12.1
Age-standardised mortality rate <sup>1,2</sup>	3.8	7.4	3.6	7.2	3.6	7.1
Median age at death	79	75	79	74	80	74
Prevalence and survival rates	5 years		10 years		25 years	
	Women	Men	Women	Men	Women	Men
Prevalence	12,700	20,200	21,600	31,700	34,000	48,000
Absolute survival rate (2019–2020) <sup>3</sup>	31 (29–35)	28 (25–35)	24 (21–28)	20 (18–27)		
Relative survival rate (2019–2020) <sup>3</sup>	37 (34–41)	33 (31–42)	35 (30–43)	31 (28–42)		

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

### Epidemiology

About 5,370 women and 9,120 men were diagnosed with a malignant tumour of the stomach in 2020. Compared to women, tumours in men occur around twice as often at the entrance to the stomach (cardia).

In Germany – as in other industrialised nations – a steady decline in the incidence and mortality rates of stomach cancer has been observed for decades. This trend is continuing in all age groups for both women and men. Tumours of the stomach outlet (antrum and pylorus) have declined the most.

The risk of developing the disease increases with age in both sexes. On average, men are diagnosed with stomach cancer at the age of 71 and women at the age of 75. Relative 5-year survival rates of 37% are currently calculated for women and 33% for men. Although the survival prospects have improved recently, they remain rather unfavourable compared to other cancers. In almost 40% of cases, the disease is already metastasised at the time of diagnosis (UICC IV).

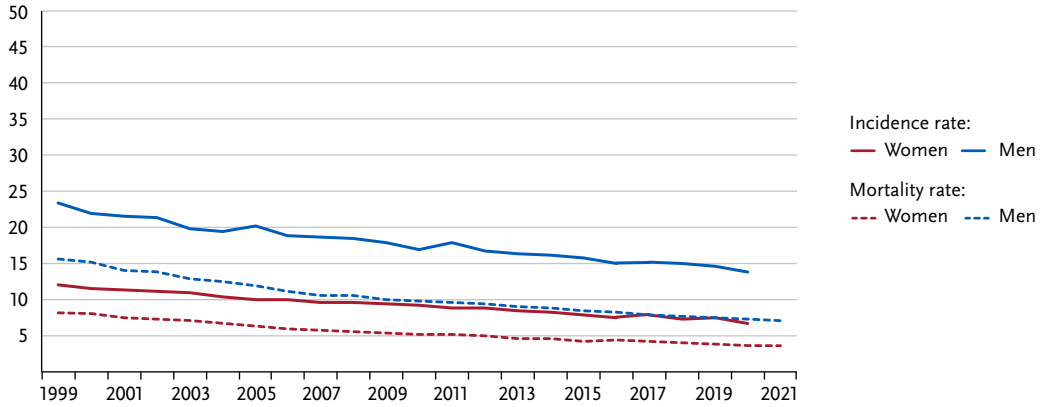
### Risk factors

The most important risk factor for stomach cancer is a bacterial infection of the stomach with *Helicobacter pylori*. This infection triggers chronic inflammation of the stomach lining, which can lead to the development of cancer. An infection with the Epstein-Barr virus is suspected to be associated with around 5 to 10% of stomach cancers.

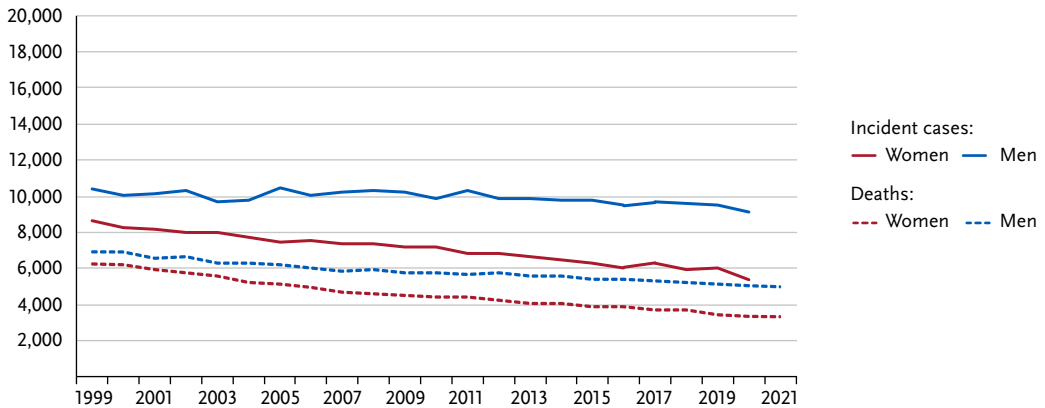
Smoking and high alcohol consumption also increase the risk of cancer. Dietary risk factors include foods preserved by salting, high salt consumption and processed meat products. Low socio-economic status, previous stomach surgery and pernicious anaemia are also associated with an increased incidence of stomach cancer. At the transition from the stomach to the oesophagus, gastroesophageal reflux disease probably increases the risk.

First-degree relatives of a patient have a two to three times higher risk than the general population. If more than one first-degree relative has the disease, the risk is about 10 times higher. It is unclear whether the familial risk is due to a shared lifestyle, a shared genetic predisposition or a combination of both factors. However, there are also confirmed hereditary syndromes with a very high risk of stomach cancer.

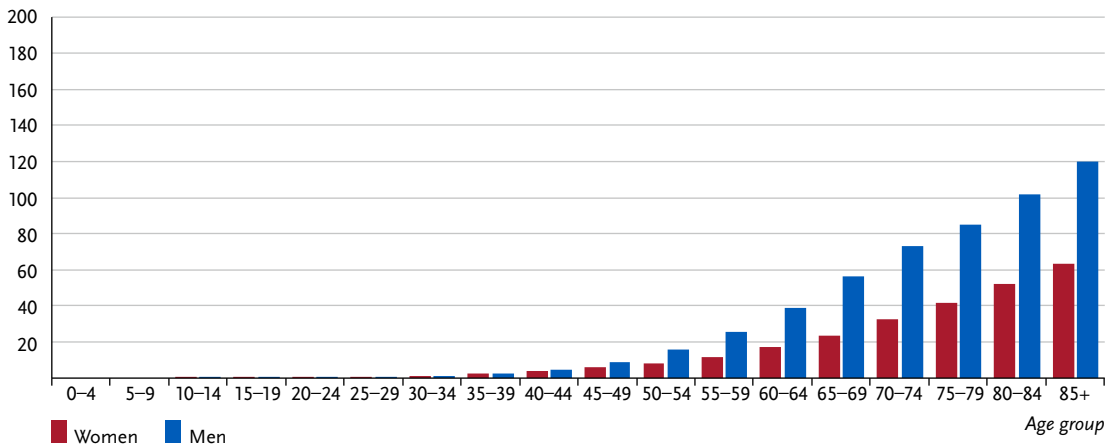
**Figure 3.4.1a**  
 Age-standardised incidence and mortality rates by sex, ICD-10 C16, Germany 1999 – 2020/2021  
 per 100,000 (old European Standard)



**Figure 3.4.1b**  
 Absolute numbers of incident cases and deaths by sex, ICD-10 C16, Germany 1999 – 2020/2021



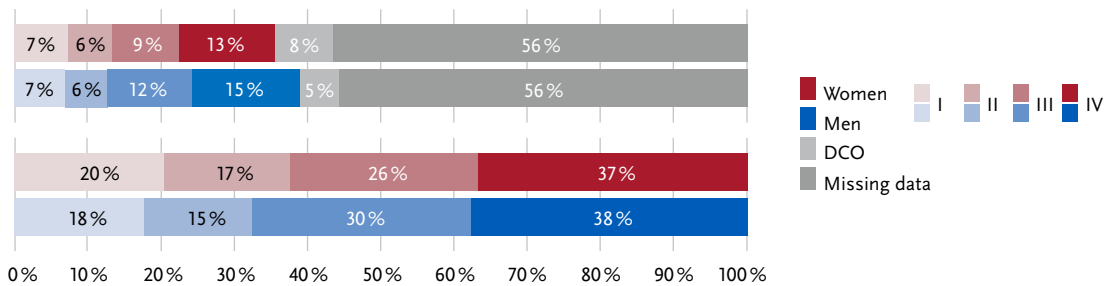
**Figure 3.4.2**  
 Age-specific incidence rates by sex, ICD-10 C16, Germany 2019 – 2020  
 per 100,000



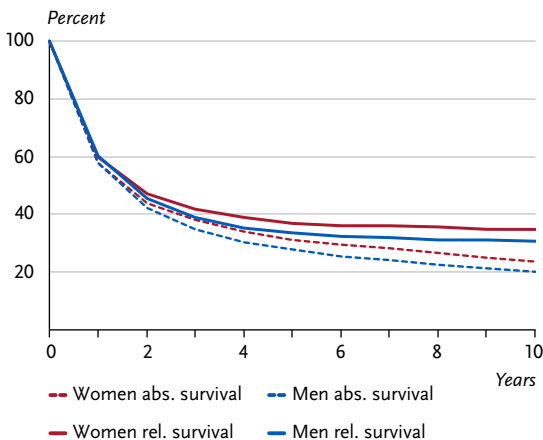
**Table 3.4.2**  
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C16, database 2019

Risk of developing cancer				Mortality risk					
Women aged		in the next 10 years		ever		in the next 10 years		ever	
35 years	< 0.1 %	(1 in 2,800)	1.1 %	(1 in 89)	< 0.1 %	(1 in 7,000)	0.7 %	(1 in 150)	
45 years	0.1 %	(1 in 1,300)	1.1 %	(1 in 91)	0.0 %	(1 in 3,300)	0.7 %	(1 in 150)	
55 years	0.1 %	(1 in 690)	1.0 %	(1 in 96)	0.1 %	(1 in 1,500)	0.6 %	(1 in 160)	
65 years	0.3 %	(1 in 360)	0.9 %	(1 in 110)	0.1 %	(1 in 760)	0.6 %	(1 in 170)	
75 years	0.4 %	(1 in 230)	0.7 %	(1 in 130)	0.3 %	(1 in 380)	0.5 %	(1 in 190)	
Lifetime risk			1.1 %	(1 in 89)			0.7 %	(1 in 150)	
Men aged		in the next 10 years		ever		in the next 10 years		ever	
35 years	< 0.1 %	(1 in 2,800)	1.8 %	(1 in 55)	< 0.1 %	(1 in 6,500)	1.0 %	(1 in 98)	
45 years	0.1 %	(1 in 800)	1.8 %	(1 in 56)	0.1 %	(1 in 1,900)	1.0 %	(1 in 99)	
55 years	0.3 %	(1 in 310)	1.7 %	(1 in 58)	0.1 %	(1 in 710)	1.0 %	(1 in 100)	
65 years	0.6 %	(1 in 170)	1.5 %	(1 in 65)	0.3 %	(1 in 350)	0.9 %	(1 in 110)	
75 years	0.8 %	(1 in 130)	1.2 %	(1 in 84)	0.5 %	(1 in 220)	0.8 %	(1 in 120)	
Lifetime risk			1.8 %	(1 in 56)			1.0 %	(1 in 99)	

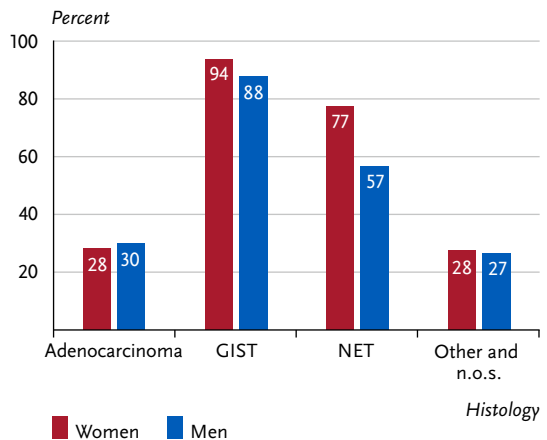
**Figure 3.4.3**  
Distribution of UICC stages at diagnosis by sex, ICD-10 C16, Germany 2019 – 2020  
(top: incl. missing data and DCO cases; bottom: valid values only)



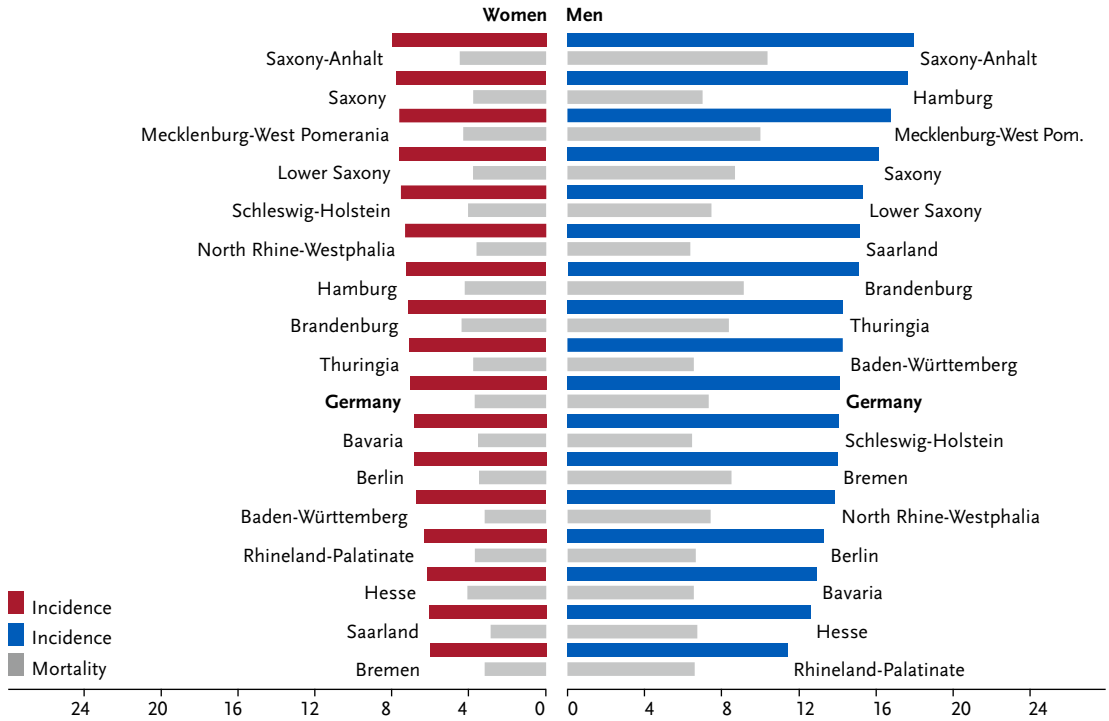
**Figure 3.4.4**  
Absolute and relative survival rates up to 10 years after diagnosis, by sex, ICD-10 C16, Germany 2019 – 2020



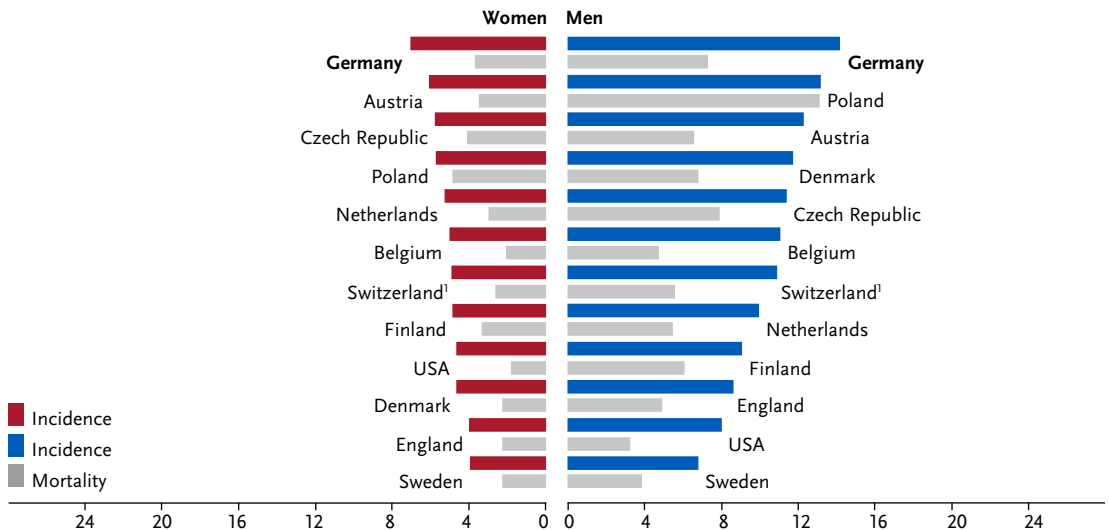
**Figure 3.4.5**  
Relative 5-year survival by histology and sex, ICD-10 C16, Germany 2019 – 2020



**Figure 3.4.6**  
 Age-standardised incidence and mortality rates in German federal states by sex, ICD-10 C16, 2019 – 2020  
 per 100,000 (old European Standard)



**Figure 3.4.7**  
 International comparison of age-standardised incidence and mortality rates by sex,  
 ICD-10 C16, 2019 – 2020 or latest available year (details and sources, see appendix)  
 per 100,000 (old European Standard)



<sup>1</sup> Switzerland: incidence data for 2015 – 2019