

### 3.4 Stomach

**Table 3.4.1**  
Overview of key epidemiological parameters for Germany, ICD-10 C16

	2009		2010		Prediction for 2014	
	Men	Women	Men	Women	Men	Women
Incident cases	9,500	6,650	9,150	6,690	9,100	6,200
Crude incidence rate <sup>1</sup>	23.7	15.9	22.8	16.1	22.8	15.2
Standardised incidence rate <sup>1,2</sup>	16.6	8.6	15.7	8.5	14.3	7.7
Median age at diagnosis	71	75	71	75		
Deaths	5,783	4,461	5,777	4,400		
Crude mortality rate <sup>1</sup>	14.5	11.1	14.7	10.9		
Standardised mortality rate <sup>1,2</sup>	10.0	5.4	9.7	5.2		
5-year prevalence	19,700	14,000	19,500	13,800		
Absolute 5-year survival rate (2009-2010) <sup>3</sup>			27 (21-30)	27 (22-31)		
Relative 5-year survival rate (2009-2010) <sup>3</sup>			33 (25-36)	33 (26-36)		

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

#### Epidemiology

For more than 30 years in Germany – as in other industrialised nations – there has been a steady decline in the incidence and mortality rates for stomach cancer. This decline is ongoing. International and regional comparisons show that in Europe and within Germany the rates are higher in the east than in the west. The highest of the incidence rates included here were found in Poland and the Czech Republic. The incidence rates for all eastern federal states in Germany except Berlin are higher than for western federal states.

The median age for developing stomach cancer is comparatively high at 71 years of age for men and 75 for women. One in every 74 women and one in every 52 men can still expect to develop stomach cancer during their lifetime.

Although the 5-year survival rate for stomach cancer has recently improved to 33 %, it is still unfavourable in comparison to other forms of cancer.

Due to changes in the 7th edition of the TNM classification system and thus to the associated heterogeneity of data for the current period of observation, no interpretation of tumour stages is included in this edition of the report.

Histologically, various forms of adenocarcinomas predominate in the stomach. Particularly noteworthy are the (mucosa-associated) MALT lymphomas originating in the stomach mucosa.

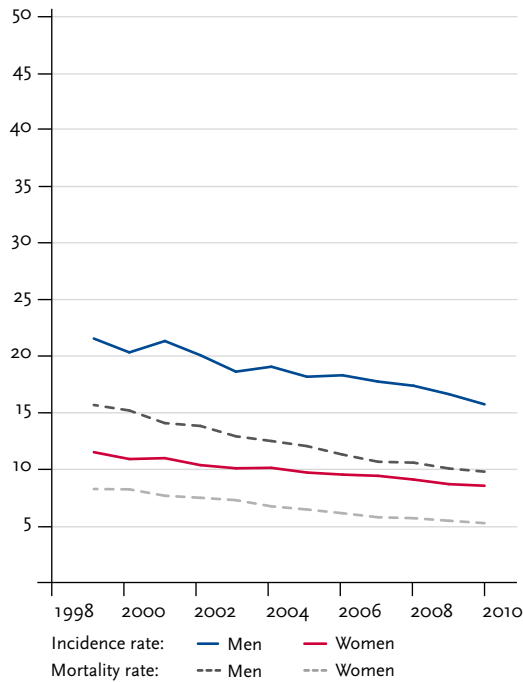
#### Risk factors

A bacterial infection of the stomach with *Helicobacter pylori* is the most important risk factor for stomach cancer, as this can probably reinforce the effects of other risks. Smoking and excessive alcohol consumption also increase the risk of stomach cancer. The relationships between dietary factors and the risk of stomach cancer are complex. In general, a diet with a low fruit and vegetable content and high animal product content is associated with a higher risk. There are indications that chronic heartburn or gastro-oesophageal reflux increases the risk for certain forms of tumour at the transition from the stomach to the oesophagus. Being overweight can also promote these carcinomas. Low socio-economic status and past stomach surgery continue to be associated with an increased frequency of stomach cancer.

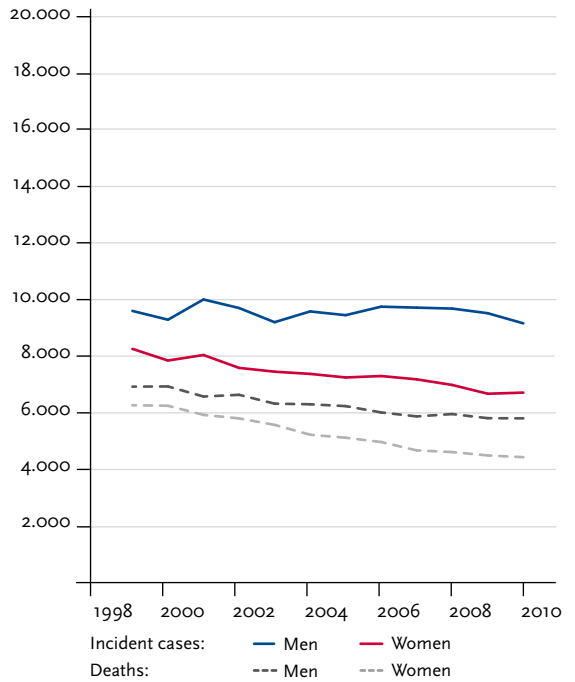
First-degree relatives of patients have a risk two to three times higher than the general population. It is not always clear whether this is due to a shared lifestyle, to the transmission of *Helicobacter pylori* within the family, or to hereditary gene mutations. In the case of young patients, it can be useful for relatives to receive genetic advice. The same applies for members of families with rare hereditary colorectal cancer (HNPCC, Lynch syndrome).

Pernicious anaemia and several other pre-existing diseases constitute risk factors that affect only comparatively few people. Among the mostly benign stomach polyps, only the rare adenoma is regarded as a precursor to cancer.

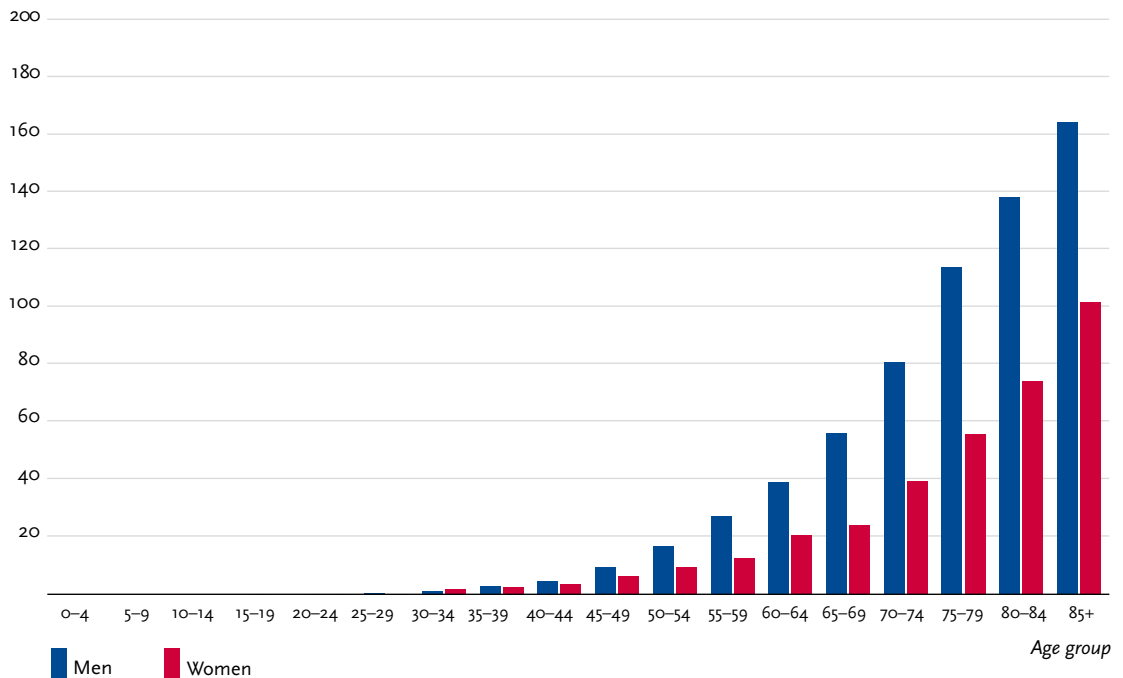
**Figure 3.4.1a**  
Age-standardised incidence and mortality rates, by sex,  
ICD-10 C16, Germany 1999 – 2010  
per 100,000 (European standard)



**Figure 3.4.1b**  
Absolute numbers of incident cases and deaths, by sex,  
ICD-10 C16, Germany 1999 – 2010



**Figure 3.4.2**  
Age-specific incidence rates by sex, ICD-10 C16, Germany 2009 – 2010  
per 100,000

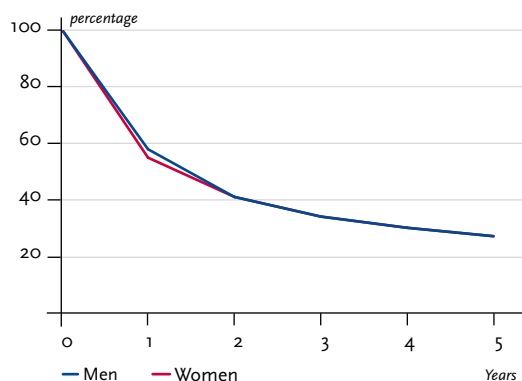


**Table 3.4.2**  
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C16, database 2010

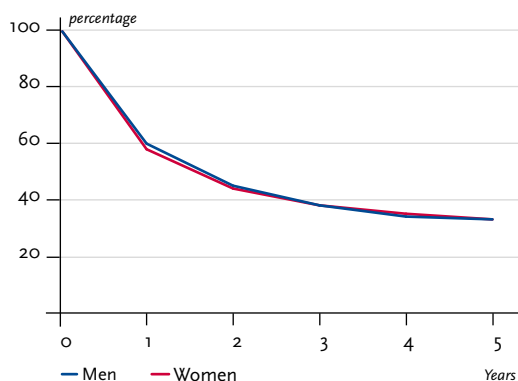
Men aged	Risk of developing cancer				Mortality risk			
	in the next ten years		ever		in the next ten years		ever	
35 years	<0.1%	(1 in 2,500)	2.0%	(1 in 51)	<0.1%	(1 in 5,400)	1.3%	(1 in 77)
45 years	0.1%	(1 in 760)	1.9%	(1 in 51)	0.1%	(1 in 1,500)	1.3%	(1 in 77)
55 years	0.3%	(1 in 310)	1.8%	(1 in 53)	0.2%	(1 in 560)	1.3%	(1 in 78)
65 years	0.6%	(1 in 170)	1.7%	(1 in 57)	0.4%	(1 in 280)	1.2%	(1 in 82)
75 years	0.9%	(1 in 110)	1.4%	(1 in 69)	0.7%	(1 in 150)	1.1%	(1 in 91)
Lifetime risk			1.9%	(1 in 52)			1.3%	(1 in 78)
Women aged	in the next ten years		ever		in the next ten years		ever	
35 years	<0.1%	(1 in 3,300)	1.3%	(1 in 74)	<0.1%	(1 in 6,700)	0.9%	(1 in 110)
45 years	0.1%	(1 in 1,200)	1.3%	(1 in 75)	<0.1%	(1 in 2,400)	0.9%	(1 in 110)
55 years	0.2%	(1 in 640)	1.3%	(1 in 78)	0.1%	(1 in 1,200)	0.9%	(1 in 110)
65 years	0.3%	(1 in 330)	1.2%	(1 in 85)	0.2%	(1 in 570)	0.8%	(1 in 120)
75 years	0.5%	(1 in 180)	1.0%	(1 in 100)	0.4%	(1 in 270)	0.8%	(1 in 130)
Lifetime risk			1.3%	(1 in 74)			0.9%	(1 in 110)

**Figure 3.4.3**  
Distribution of T-stages at first diagnosis by sex  
*Not presented due to the large proportion of missing data.*

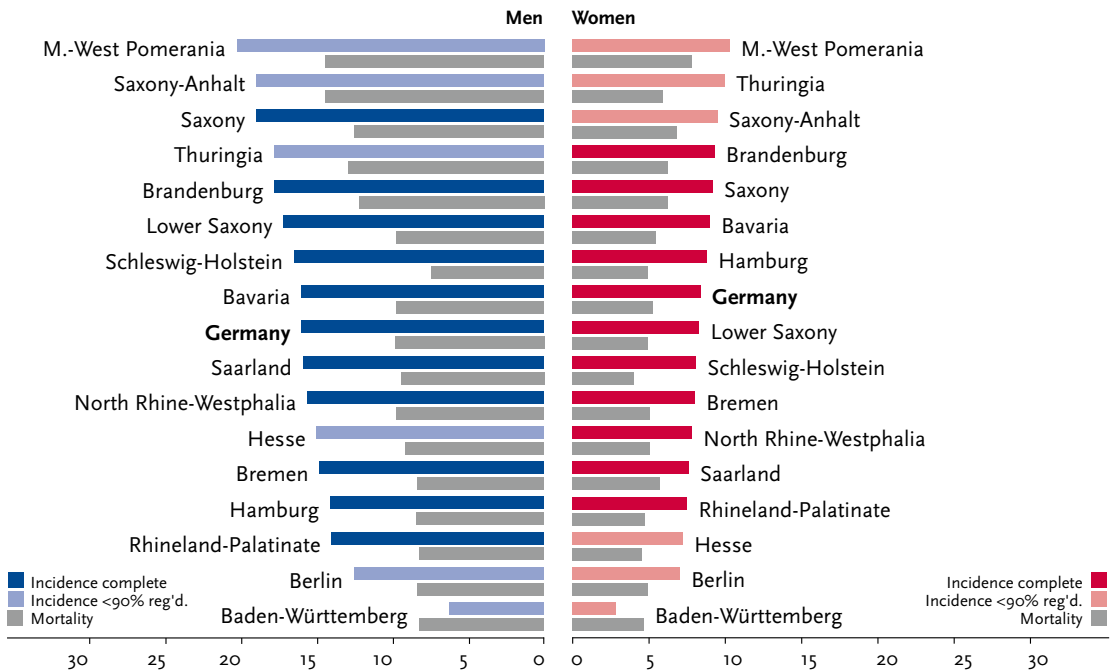
**Figure 3.4.4a**  
Absolute survival rates up to 5 years after first diagnosis,  
by sex, ICD-10 C16, Germany 2009 – 2010



**Figure 3.4.4b**  
Relative survival rates up to 5 years after first diagnosis,  
by sex, ICD-10 C16, Germany 2009 – 2010



**Figure 3.4.5**  
Registered age-standardised incidence and mortality rates in German federal states, by sex,  
ICD-10 C16, 2009 – 2010  
per 100,000 (European standard)



**Figure 3.4.6**  
International comparison of age-standardised incidence and mortality rates, by sex,  
ICD-10 C16, 2009 – 2010 or latest available year (details and sources, see appendix)  
per 100,000 (European standard)

