

### 3.11 Larynx

Table 3.11.1  
Overview of key epidemiological parameters for Germany, ICD-10 C32

Incidence	2015		2016		Prediction for 2020	
	Women	Men	Women	Men	Women	Men
Incident cases	560	2,920	510	3,130	630	2,900
Crude incidence rate <sup>1</sup>	1.3	7.3	1.2	7.7	1.5	7.1
Age-standardised incidence rate <sup>1,2</sup>	0.9	5.1	0.8	5.4	1.0	4.6
Median age at diagnosis	64	66	64	66		
Mortality	2015		2016		2017	
	Women	Men	Women	Men	Women	Men
Deaths	205	1,291	227	1,247	201	1,182
Crude mortality rate <sup>1</sup>	0.5	3.2	0.5	3.1	0.5	2.9
Age-standardised mortality rate <sup>1,2</sup>	0.3	2.1	0.3	2.0	0.3	1.9
Median age at death	69	70	70	70	71	70
Prevalence and survival rates	5 years		10 years			
	Women	Men	Women	Men		
Prevalence	2,000	11,300	3,300	19,500		
Absolute survival rate (2015–2016) <sup>3</sup>	58	54 (44–60)	42	36 (32–41)		
Relative survival rate (2015–2016) <sup>3</sup>	63	61 (50–69)	51	49 (42–53)		

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

► Additional information under [www.krebsdaten.de/cancer-sites](http://www.krebsdaten.de/cancer-sites)

#### Epidemiology

The larynx is almost only ever affected by squamous cell carcinomas. Men develop this cancer much more often than women. In 2016, approximately 3,640 new cases of cancer of the larynx were diagnosed in Germany; women were affected in about one in seven cases. One in 180 men and one in 1,100 women will develop cancer of the larynx over the course of their life. The median age at diagnosis is 64 years for women and 66 years for men, which is earlier than for most other types of cancer. Age-specific disease rates are highest among women between 55 and 75 years old, and among men between 65 and 75 years old.

Incidence and mortality rates among men have been declining since the end of the 1990s. However, rates among women remained almost unchanged during this period.

Relative 5-year survival rates do not differ substantially between the sexes: 61% among men and 63% among women. However, a higher proportion of men (35%) are diagnosed at an early stage (stage I) than women (30%).

#### Risk factors

Regular tobacco use and excessive alcohol consumption are major risk factors associated with cancer of the larynx. These risk factors are particularly harmful in combination.

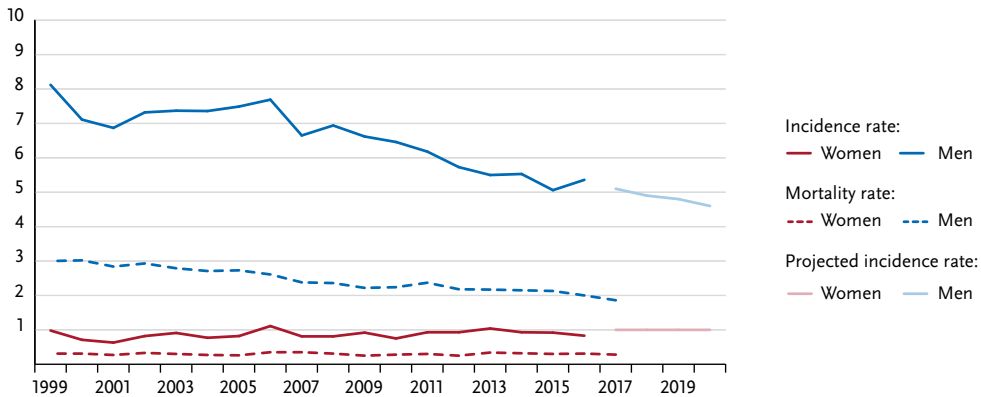
There are also known links between laryngeal cancer and an occupational exposure to asbestos; ionising radiation such as from uranium; sulphuric acid aerosols, polycyclic aromatic hydrocarbons, lignite and tar products. Cement and wood dust seem to play a less significant role.

Infections with human papillomaviruses (HPV), particularly with HPV 16, are responsible for a small proportion of cancers of the larynx.

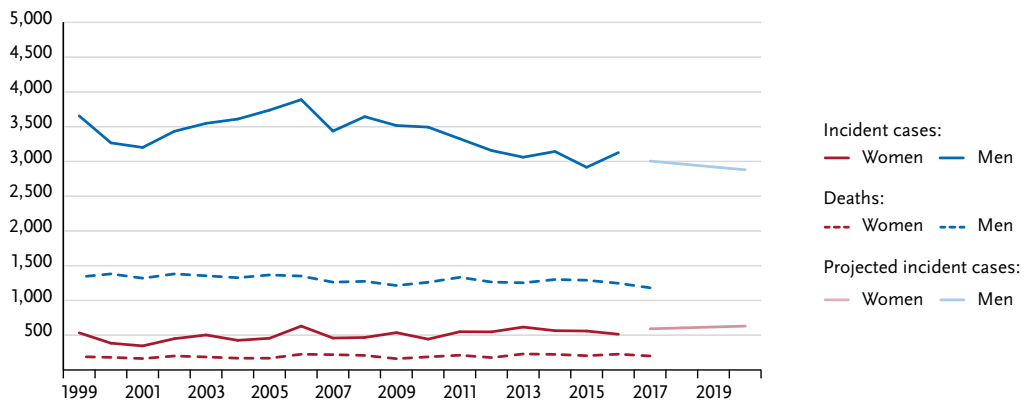
The effects of lifestyle and diet are still unclear because the impacts of tobacco use and alcohol consumption usually overlap with those stemming from other risk factors. However, there are indications that a diet that lacks both variation and vitamins combined with a high dietary intake of red meat and fried food may increase a person's risk of developing cancer of the larynx.

Genetics is also assumed to play a role, since a higher frequency of laryngeal carcinomas has been observed within some families.

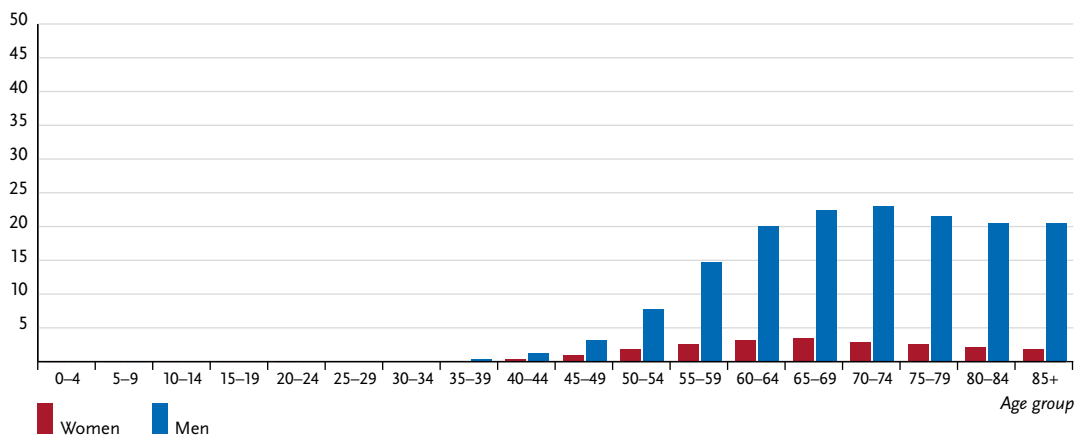
**Figure 3.11.1a**  
 Age-standardised incidence and mortality rates by sex, ICD-10 C32, Germany 1999–2016/17, projection (incidence) through 2020 per 100,000 (old European Standard)



**Figure 3.11.1b**  
 Absolute numbers of incident cases and deaths by sex, ICD-10 C32, Germany 1999–2016/17, projection (incidence) through 2020



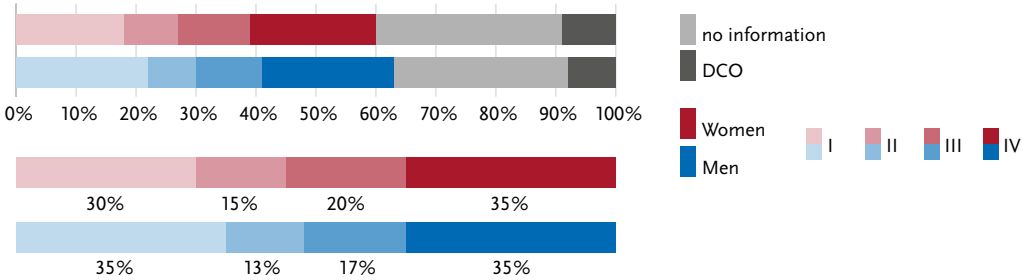
**Figure 3.11.2**  
 Age-specific incidence rates by sex, ICD-10 C32, Germany 2015–2016 per 100,000



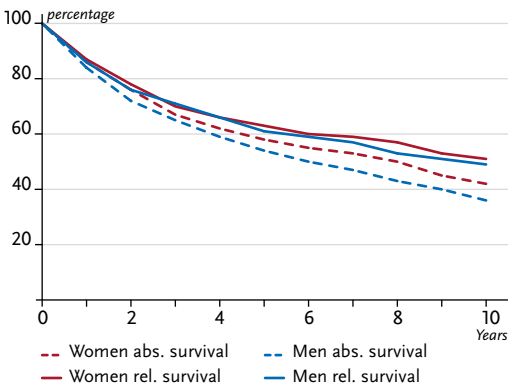
**Table 3.11.2**  
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C32, database 2016

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 36,000)	0.1%	(1 in 1,100)	< 0.1%	(1 in 363,000)	< 0.1%	(1 in 2,300)
45 years	< 0.1%	(1 in 7,500)	0.1%	(1 in 1,100)	< 0.1%	(1 in 30,100)	< 0.1%	(1 in 2,300)
55 years	< 0.1%	(1 in 3,700)	0.1%	(1 in 1,300)	< 0.1%	(1 in 10,500)	< 0.1%	(1 in 2,400)
65 years	< 0.1%	(1 in 3,600)	0.1%	(1 in 1,900)	< 0.1%	(1 in 7,400)	< 0.1%	(1 in 3,000)
75 years	< 0.1%	(1 in 5,100)	< 0.1%	(1 in 3,500)	< 0.1%	(1 in 8,000)	< 0.1%	(1 in 4,500)
Lifetime risk			0.1%	(1 in 1,100)			< 0.1%	(1 in 2,300)
Men aged	in the next ten years		ever		in the next ten years		ever	
35 years	< 0.1%	(1 in 10,500)	0.6%	(1 in 180)	< 0.1%	(1 in 68,600)	0.2%	(1 in 400)
45 years	0.1%	(1 in 1,600)	0.6%	(1 in 180)	< 0.1%	(1 in 6,800)	0.3%	(1 in 400)
55 years	0.2%	(1 in 600)	0.5%	(1 in 190)	0.1%	(1 in 1,800)	0.2%	(1 in 410)
65 years	0.2%	(1 in 480)	0.4%	(1 in 260)	0.1%	(1 in 1,200)	0.2%	(1 in 480)
75 years	0.2%	(1 in 590)	0.2%	(1 in 440)	0.1%	(1 in 970)	0.2%	(1 in 650)
Lifetime risk			0.5%	(1 in 180)			0.2%	(1 in 410)

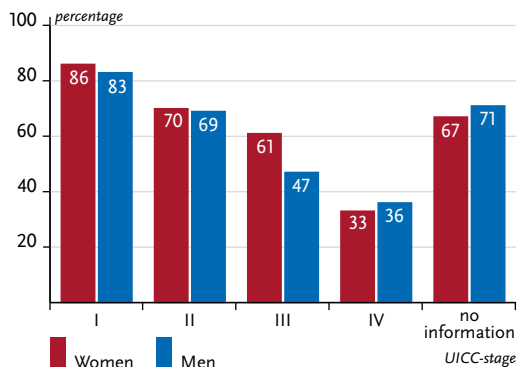
**Figure 3.11.3**  
Distribution of UICC-stages at first diagnosis by sex, ICD-10 C32, Germany 2015–2016  
(top: all cases; bottom: only valid reports)



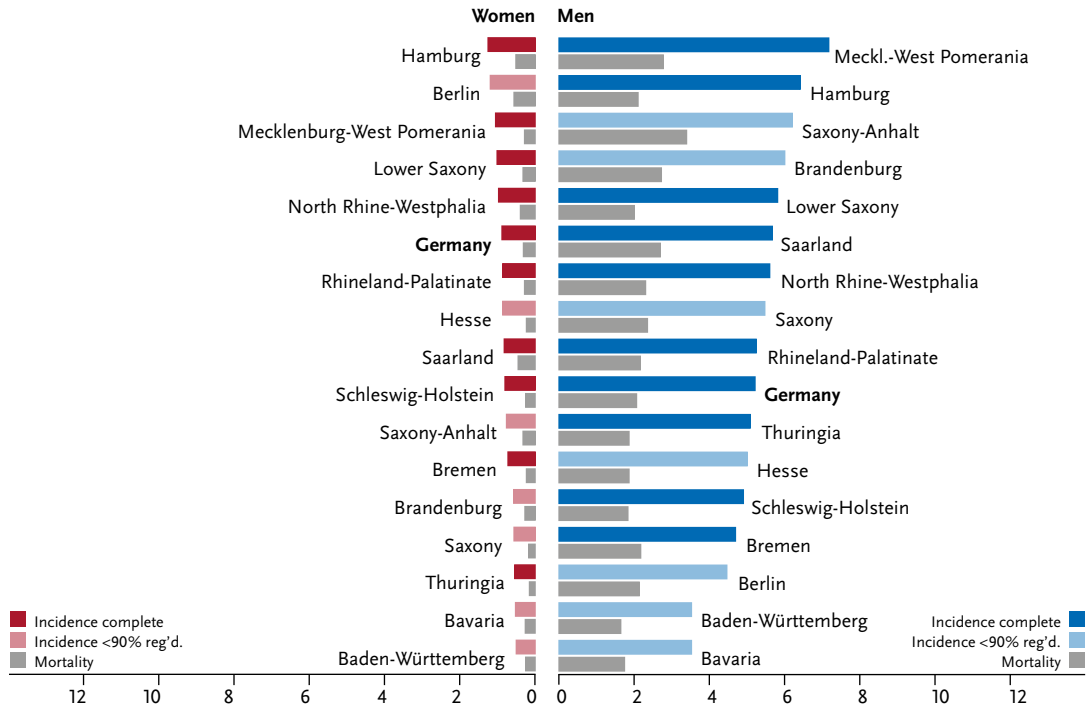
**Figure 3.11.4**  
Absolute and relative survival rates up to 10 years after first diagnosis, by sex, ICD-10 C32, Germany 2015–2016



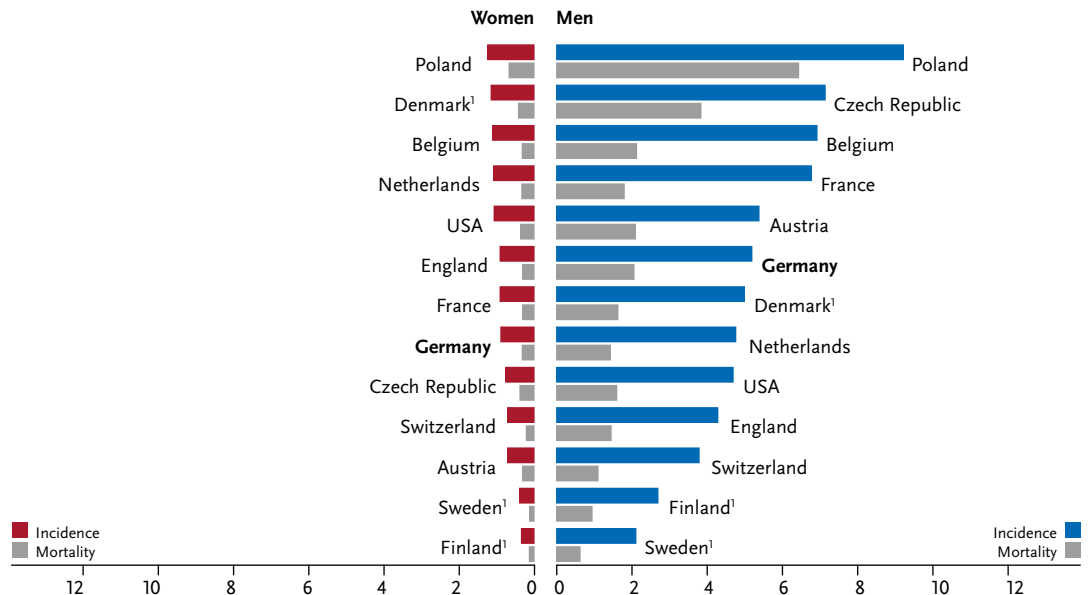
**Figure 3.11.5**  
Relative 5-year survival by UICC-stage and sex, ICD-10 C32, Germany 2015–2016



**Figure 3.11.6**  
**Age-standardised incidence and mortality rates in German federal states by sex, ICD-10 C32, 2015–2016**  
 (Incidence in Bremen for 2014 and 2016, incidence in eastern Germany for 2014 to 2015)  
 per 100,000 (old European Standard)



**Figure 3.11.7**  
**International comparison of age-standardised incidence and mortality rates by sex, ICD-10 C32, 2015–2016 or latest available year (details and sources, see appendix)**  
 per 100,000 (old European Standard)



<sup>1</sup> Data including C10.1