

3.9 Larynx

Table 3.9.1
Overview of key epidemiological parameters for Germany, ICD-10 C32

	2011		2012		Prediction for 2016	
	Men	Women	Men	Women	Men	Women
Incident cases	3,160	510	3,110	490	3,200	600
Crude incidence rate ¹	8.1	1.2	7.9	1.2	8.0	1.4
Standardised incidence rate ^{1,2}	5.9	0.9	5.7	0.9	5.4	1.0
Median age at diagnosis	66	65	66	64		
Deaths	1,333	212	1,265	178		
Crude mortality rate ¹	3.4	0.5	3.2	0.4		
Standardised mortality rate ^{1,2}	2.4	0.3	2.2	0.3		
5-year prevalence	11,600	1,800	11,400	1,800		
	<i>after 5 years</i>		<i>after 10 years</i>			
Absolute survival rate (2011–2012) ³	55 (51–63)	60	37 (29–43)	46		
Relative survival rate (2011–2012) ³	62 (58–73)	65	49 (38–58)	55		

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

Epidemiology

Laryngeal cancer is almost exclusively due to squamous cell carcinoma. Men are affected by laryngeal cancer considerably more frequently than women due to higher consumption of tobacco and alcohol at all ages. Currently in Germany, one in every 170 men develops cancer of the larynx compared to only one in every 1,100 women (lifetime risk). The median age of diagnosis in women is 64 years and in men 66 years and thus in each case four to five years earlier than for cancer in general.

Incidence and mortality rates among men have been declining since as early as the 1980s. After significant increases in the 1980s and 1990s the rates among women have remained unchanged since the turn of the millennium. After the year 2000, this led to an increase in the number of mortalities and new cases among women, especially in older age groups – whilst numbers of new cases among men remained unchanged.

The relative 5-year-survival rates for men and women do not differ significantly with rates of 62 % and 65 % respectively. The percentage of earlier tumour stages on diagnosis among men is somewhat more favourable at a figure of 42 % T1 compared to a figure for women of 38 %.

Risk factors

Smoking is the most important risk factor for the development of laryngeal cancer. Alcohol consumption also increases the probability of developing this cancer, whereby the combination of both factors is particularly harmful. The influences of lifestyle, diet, or environmental factors are not yet completely clear, because in the majority of cases the influence of tobacco and alcohol consumption overshadows other effects. However, there are indications that increased consumption of red meat, as well as a vitamin-deficient diet may increase risk. There is a known link between tumours of the larynx and occupational exposure to asbestos, nickel or polycyclic aromatic hydrocarbons. The role of infections with human papillomaviruses (HPV) has not been completely clarified to date. There are indications that infections with *Helicobacter pylori* may also be of significance. First-degree relatives of patients have a higher risk of developing laryngeal cancer, but it is not clear in detail, whether this is attributable to risk-genes which are directly involved in the development of the tumour or to genes which determine the individual susceptibility to carcinogens.

Figure 3.9.1a
Age-standardised incidence and mortality rates,
by sex, ICD-10 C32, Germany 1999–2012
per 100,000 (European standard)

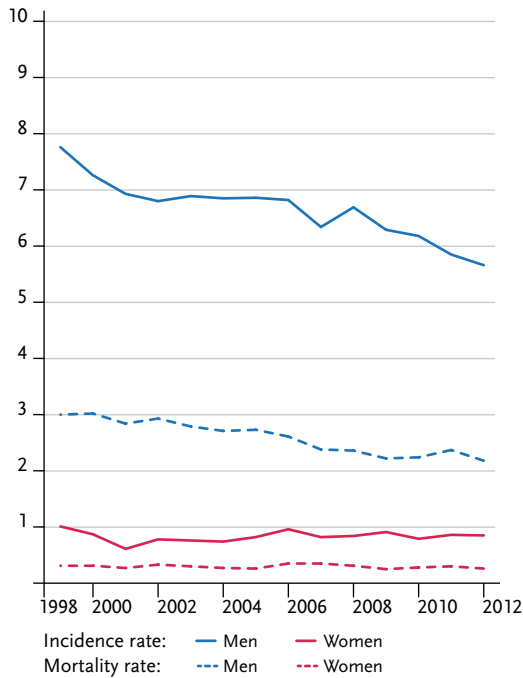


Figure 3.9.1b
Absolute numbers of incident cases and deaths,
by sex, ICD-10 C32, Germany 1999–2012

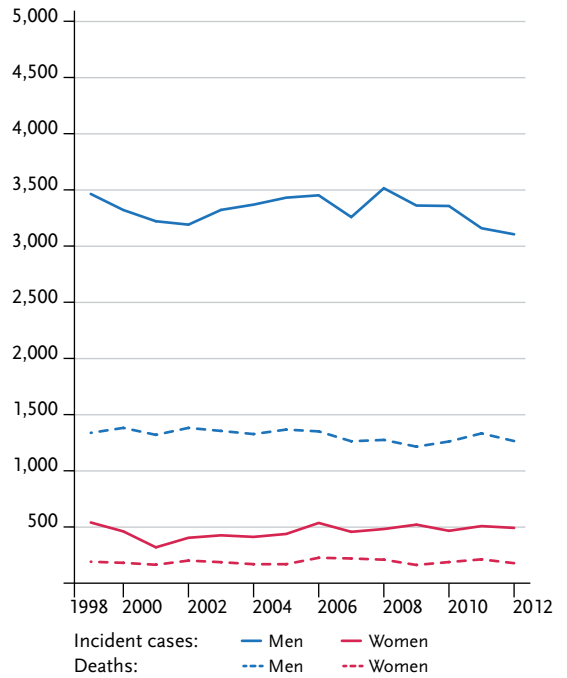


Figure 3.9.2
Age-specific incidence rates by sex, ICD-10 C32, Germany 2011–2012
per 100,000

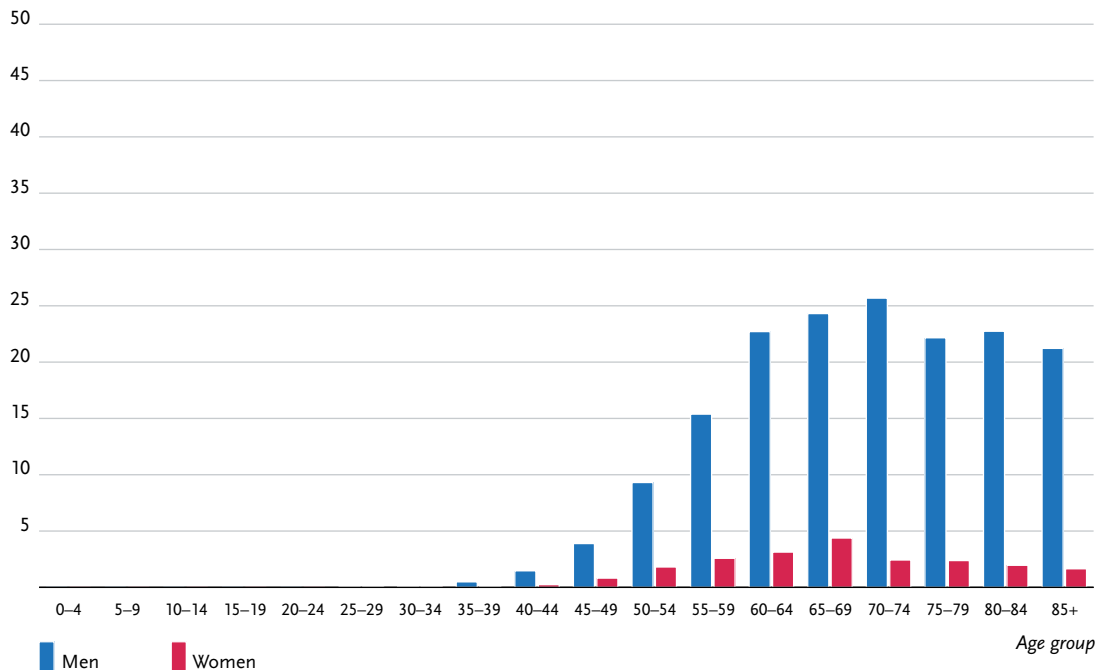


Table 3.9.2
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C32, database 2012

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 9,200)	0.6%	(1 in 170)	<0.1%	(1 in 52,800)	0.3%	(1 in 390)
45 years	0.1%	(1 in 1,500)	0.6%	(1 in 170)	<0.1%	(1 in 5,400)	0.3%	(1 in 390)
55 years	0.2%	(1 in 570)	0.5%	(1 in 180)	0.1%	(1 in 1,700)	0.2%	(1 in 400)
65 years	0.2%	(1 in 440)	0.4%	(1 in 250)	0.1%	(1 in 1,100)	0.2%	(1 in 480)
75 years	0.2%	(1 in 590)	0.2%	(1 in 430)	0.1%	(1 in 950)	0.2%	(1 in 650)
Lifetime risk			0.6%	(1 in 170)			0.3%	(1 in 400)
Women aged	in the next ten years		ever		in the next ten years		ever	
35 years	<0.1%	(1 in 60,700)	0.1%	(1 in 1,100)	<0.1%	(1 in 216,800)	<0.1%	(1 in 2,800)
45 years	<0.1%	(1 in 7,600)	0.1%	(1 in 1,100)	<0.1%	(1 in 47,900)	<0.1%	(1 in 2,800)
55 years	<0.1%	(1 in 3,400)	0.1%	(1 in 1,300)	<0.1%	(1 in 14,700)	<0.1%	(1 in 3,000)
65 years	<0.1%	(1 in 3,300)	0.1%	(1 in 1,900)	<0.1%	(1 in 8,700)	<0.1%	(1 in 3,500)
75 years	<0.1%	(1 in 5,700)	<0.1%	(1 in 4,100)	<0.1%	(1 in 8,300)	<0.1%	(1 in 5,200)
Lifetime risk			0.1%	(1 in 1,100)			<0.1%	(1 in 2,900)

Figure 3.9.3
Distribution of T-stages at first diagnosis by sex (top: all cases; bottom: only valid reports)
ICD-10 C32, Germany 2011–2012

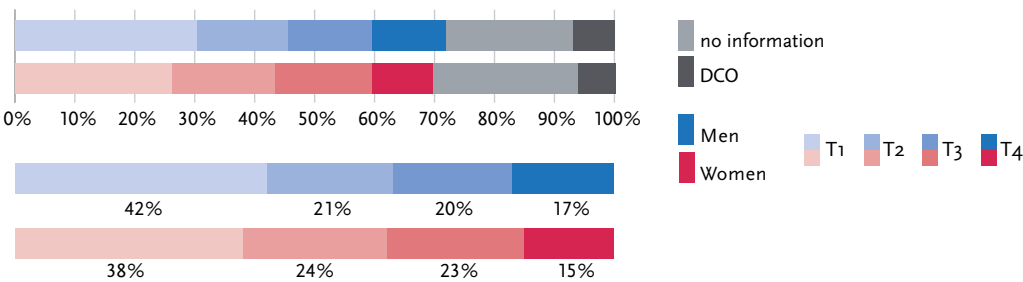


Figure 3.9.4a
Absolute survival rates up to 10 years after first diagnosis, by sex, ICD-10 C32, Germany 2011–2012

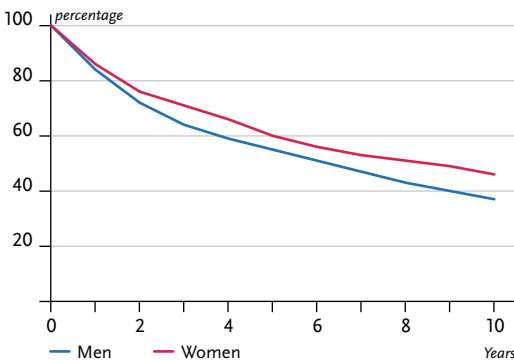


Figure 3.9.4b
Relative survival rates up to 10 years after first diagnosis, by sex, ICD-10 C32, Germany 2011–2012

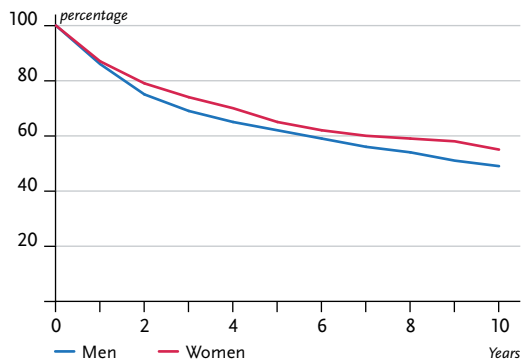


Figure 3.9.5
Registered age-standardised incidence and mortality rates in German federal states, by sex,
ICD-10 C32, 2011–2012
per 100,000 (European standard)

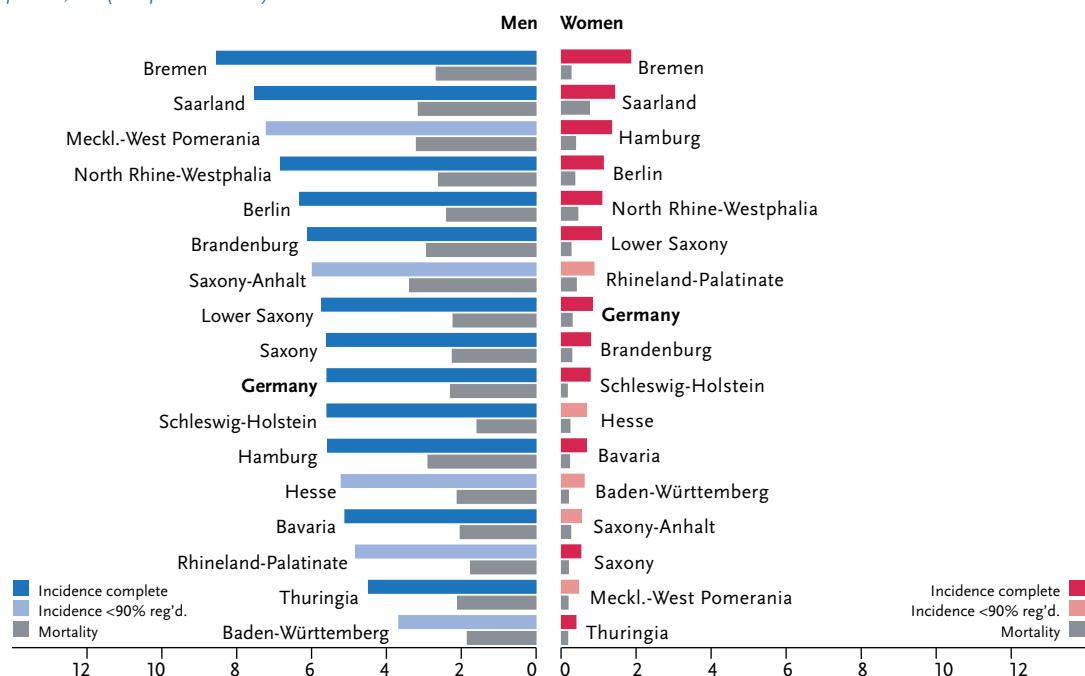
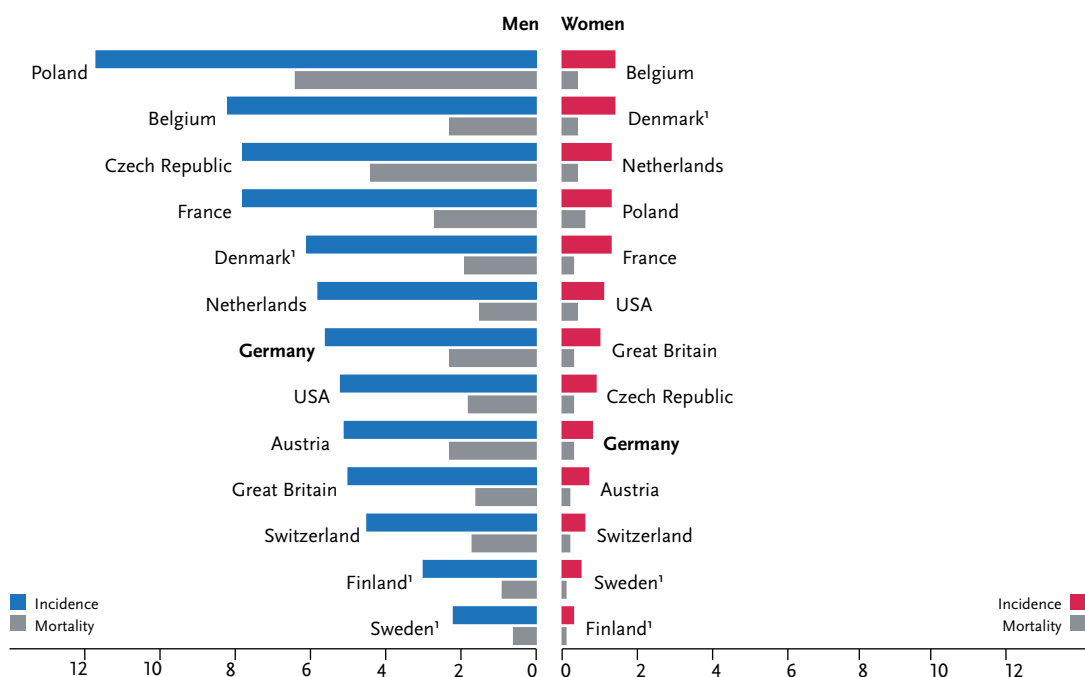


Figure 3.9.6
International comparison of age-standardised incidence and mortality rates, by sex,
ICD-10 C32, 2011–2012 or latest available year (details and sources, see appendix)
per 100,000 (European standard)



¹ data with C10.1 (Anterior surface of epiglottis)