

## 3.2 Oral cavity and pharynx

Table 3.2.1  
Overview of key epidemiological parameters for Germany, ICD-10 Co0–C14

Incidence	2017		2018		Prediction for 2022	
	Women	Men	Women	Men	Women	Men
Incident cases	4,560	9,800	4,490	9,820	4,900	9,700
Crude incidence rate <sup>1</sup>	10.9	24.0	10.7	24.0	11.6	23.5
Age-standardised incidence rate <sup>1,2</sup>	7.0	17.4	6.8	17.2	7.0	16.0
Median age at diagnosis	66	63	66	64		
Mortality	2017		2018		2019	
	Women	Men	Women	Men	Women	Men
Deaths	1,402	3,963	1,442	3,970	1,479	3,888
Crude mortality rate <sup>1</sup>	3.3	9.7	3.4	9.7	3.5	9.5
Age-standardised mortality rate <sup>1,2</sup>	1.8	6.7	1.9	6.6	1.9	6.3
Median age at death	72	66	72	66	73	67
Prevalence and survival rates	5 years		10 years		25 Years	
	Women	Men	Women	Men	Women	Men
Prevalence	15,300	30,300	24,100	48,700	35,100	71,400
Absolute survival rate (2017–2018) <sup>3</sup>	55 (54–61)	46 (44–49)	40 (38–49)	31 (29–34)		
Relative survival rate (2017–2018) <sup>3</sup>	62 (61–67)	52 (50–56)	51 (49–62)	40 (38–44)		

<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

Cancers of the oral cavity and pharynx represent a heterogeneous group of malignant neoplasms. In terms of histology, 84% are squamous cell carcinomas, which originate in particular from the mucous membranes of the oral cavity, naso-, oropharynx and hypopharynx. About 3% of the neoplasms in the oral cavity and pharynx are adenocarcinomas, which occur mainly in the salivary glands. These cancers occur more frequently and two to three years earlier among men than among women. The age-standardised incidence rates increased in both sexes between 1999 and 2011. Since 2011, they have remained almost constant in women, and a slight decrease has even been observed in men. The corresponding mortality rates have declined slightly for men over the entire period, and remained almost unchanged for women.

Overall, women have a higher relative 5-year survival rate with 62% compared to men with 52%. The difference is due to a lower proportion of cancers of the floor of the mouth, tongue and pharynx in women which are promoted by tobacco and alcohol use and which are associated with lower survival rates. According to UICC tumour stage data which are currently available only for oral cavity cancers (Co2 – Co6), approximately one in three tumours of the oral cavity is diagnosed at early stage I in women, but only one in four cases in men.

### Risk factors

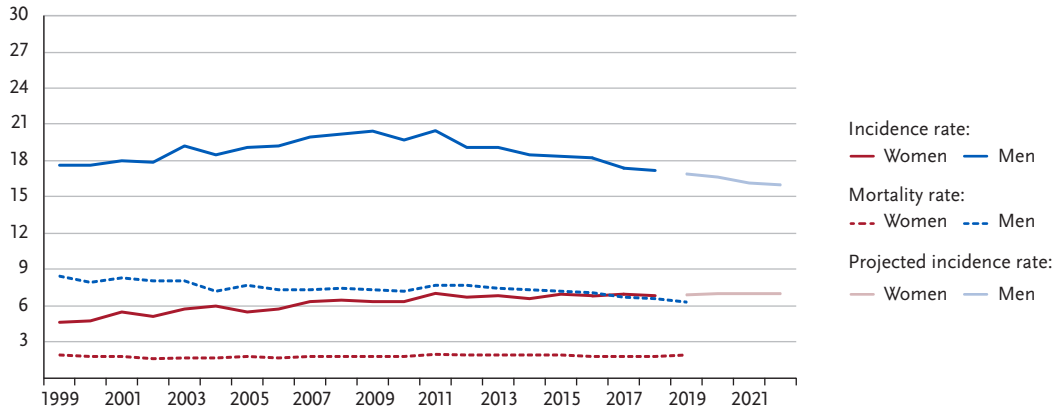
The most important risk factors for developing cancer of the oral cavity and pharynx are all forms of tobacco and alcohol consumption. The effect is considerably increased if both factors are combined. Another main risk factor is chronic infections with human papillomavirus (HPV), especially with so-called high-risk viruses. HPV infections particularly cause cancers in the area of the oral pharynx (oropharynx), much less frequently in the oral cavity or other regions of the throat. Infections with Epstein-Barr viruses and the consumption of large quantities of food containing nitrosamines (e.g. salted fish) are also considered risk factors for nasopharyngeal carcinoma. Regarding carcinomas of the lip, UV radiation contributes to carcinogenesis.

There is evidence that an unbalanced diet low in vitamins with excessive consumption of meat and fried food may increase the risk.

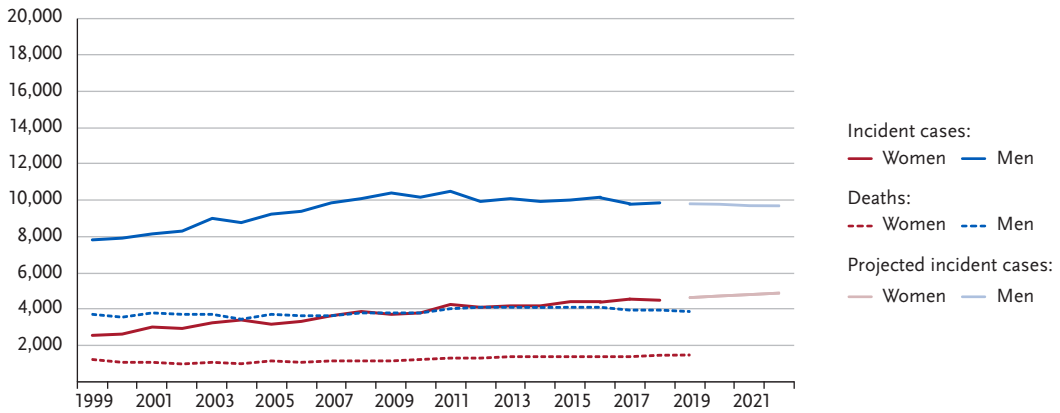
Some rare pre-existing conditions increase the risk of cancer of the oral cavity and lips, among others.

A genetic predisposition for the development of carcinomas in the head and neck region is also assumed, since a clustered familial occurrence can sometimes be observed.

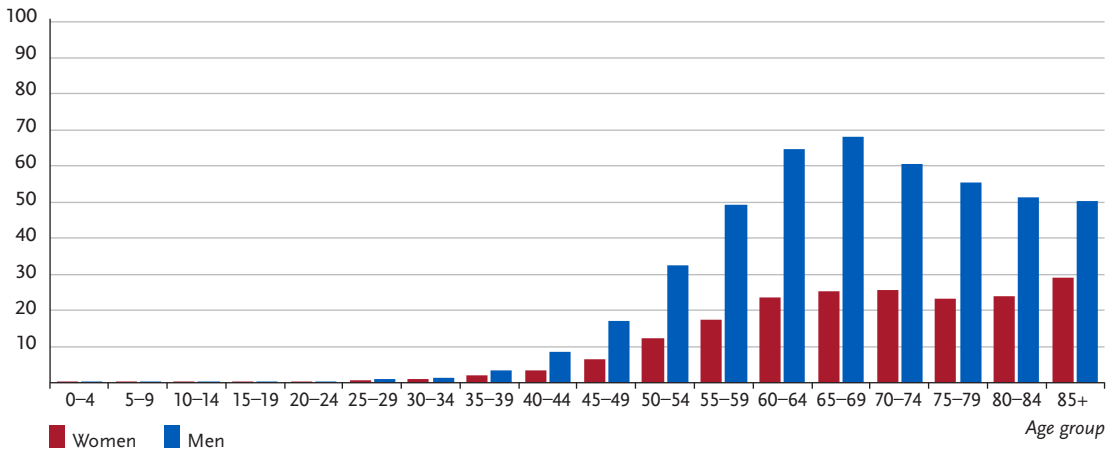
**Figure 3.2.1a**  
 Age-standardised incidence and mortality rates by sex, ICD-10 Co0-C14, Germany 1999-2018/2019, projection (incidence) through 2022  
 per 100,000 (old European Standard)



**Figure 3.2.1b**  
 Absolute numbers of incident cases and deaths by sex, ICD-10 Co0-C14, Germany 1999-2018/2019, projection (incidence) through 2022



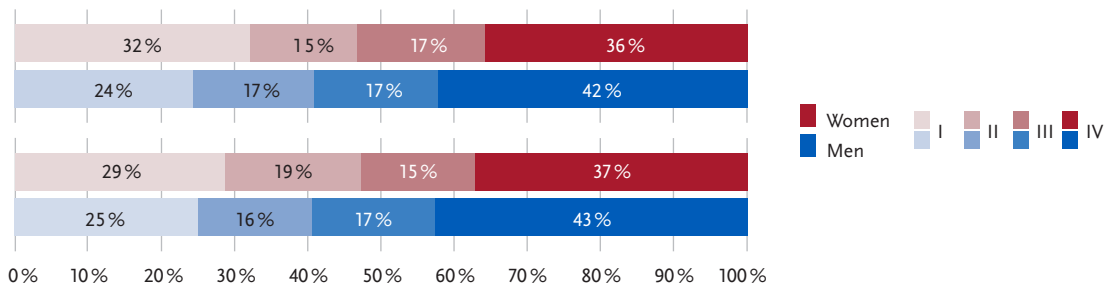
**Figure 3.2.2**  
 Age-specific incidence rates by sex, ICD-10 Co0-C14, Germany 2017-2018  
 per 100,000



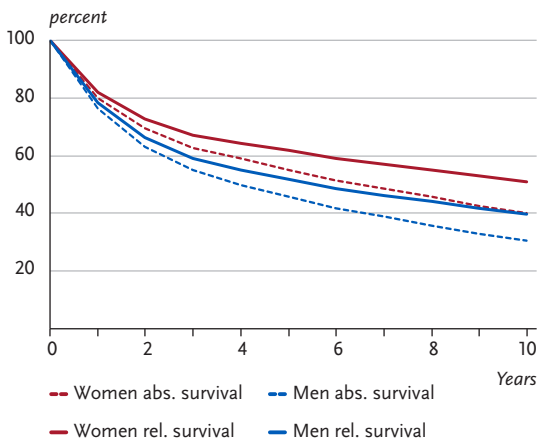
**Table 3.2.2**  
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 Co0–C14, database 2018

Risk of developing cancer				Mortality risk	
Women aged	in the next 10 years	ever	in the next 10 years	ever	ever
35 years	< 0.1 % (1 in 3,500)	0.8 % (1 in 130)	< 0.1 % (1 in 39,300)	0.3 % (1 in 370)	
45 years	0.1 % (1 in 1,100)	0.8 % (1 in 130)	< 0.1 % (1 in 7,300)	0.3 % (1 in 370)	
55 years	0.2 % (1 in 520)	0.7 % (1 in 140)	0.1 % (1 in 1,800)	0.3 % (1 in 390)	
65 years	0.2 % (1 in 420)	0.5 % (1 in 190)	0.1 % (1 in 1,300)	0.2 % (1 in 460)	
75 years	0.2 % (1 in 490)	0.3 % (1 in 310)	0.1 % (1 in 1,200)	0.2 % (1 in 630)	
Lifetime risk		0.8 % (1 in 120)		0.3 % (1 in 370)	
Men aged	in the next 10 years	ever	in the next 10 years	ever	ever
35 years	0.1 % (1 in 1,600)	1.7 % (1 in 58)	< 0.1 % (1 in 10,200)	0.7 % (1 in 140)	
45 years	0.2 % (1 in 420)	1.7 % (1 in 60)	0.1 % (1 in 1,600)	0.7 % (1 in 140)	
55 years	0.5 % (1 in 190)	1.5 % (1 in 67)	0.2 % (1 in 480)	0.7 % (1 in 150)	
65 years	0.6 % (1 in 170)	1.1 % (1 in 95)	0.3 % (1 in 380)	0.5 % (1 in 190)	
75 years	0.4 % (1 in 230)	0.6 % (1 in 170)	0.2 % (1 in 460)	0.3 % (1 in 320)	
Lifetime risk		1.7 % (1 in 59)		0.7 % (1 in 140)	

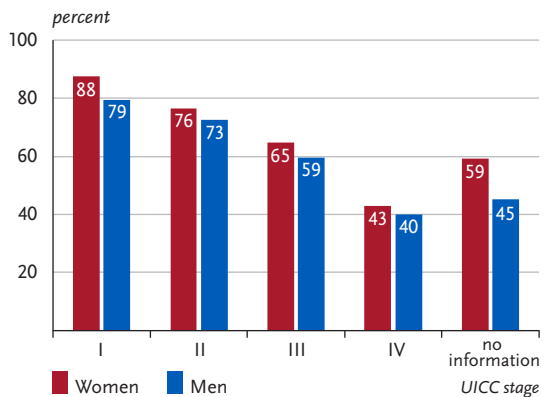
**Figure 3.2.3**  
Distribution of UICC stages at diagnosis by sex, ICD-10 Co2–Co6, Germany 2017–2018  
top: according to 7<sup>th</sup> edition TNM; bottom: according to 8<sup>th</sup> edition TNM.  
The DCO proportion was 3%. For 30% of the remaining cases, no UICC stage could be assigned.



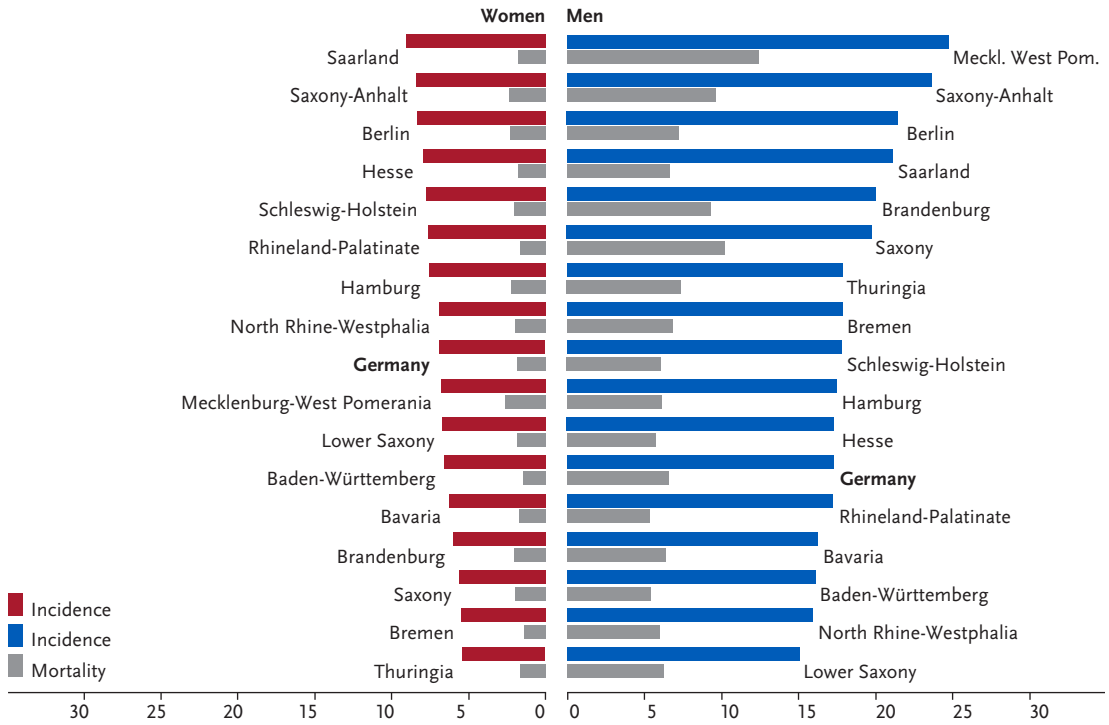
**Figure 3.2.4**  
Absolute and relative survival rates up to 10 years after diagnosis by sex, ICD-10 Co0–C14, Germany 2017–2018



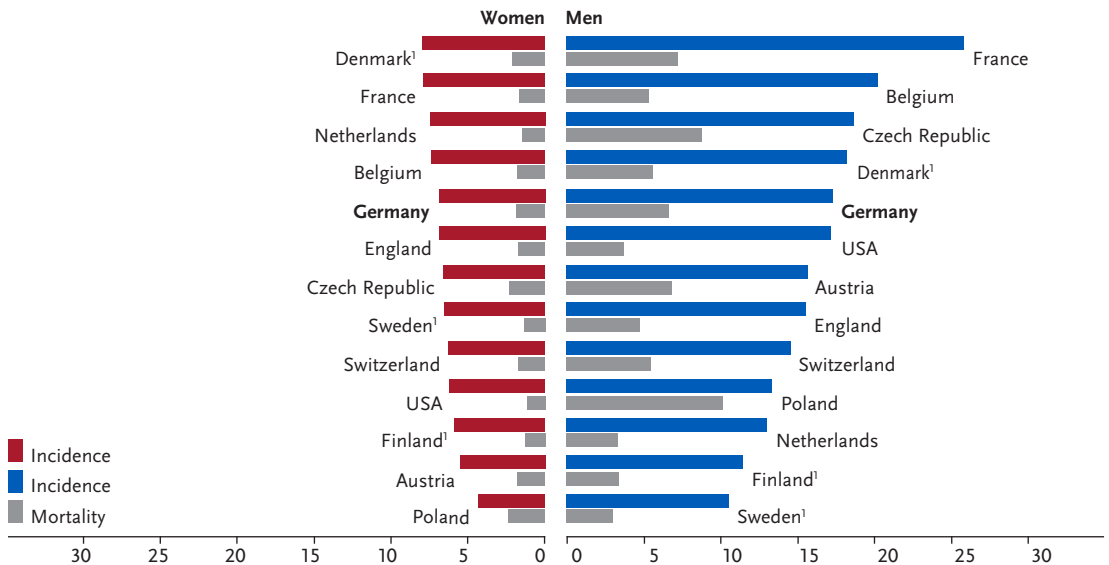
**Figure 3.2.5**  
Relative 5-year survival by UICC stage (7<sup>th</sup> edition TNM) and sex, ICD-10 Co0–C14, Germany 2016–2018



**Figure 3.2.6**  
 Age-standardised incidence and mortality rates in German federal states by sex, ICD-10 C00–C14, 2017–2018  
 per 100,000 (old European Standard)



**Figure 3.2.7**  
 International comparison of age-standardised incidence and mortality rates by sex,  
 ICD-10 C00–C14, 2017–2018 or latest available year (details and sources, see appendix)  
 per 100,000 (old European Standard)



<sup>1</sup> Data without C10.1