

### 3.19 Cervix

Table 3.19.1  
Overview of key epidemiological parameters for Germany, ICD-10 C53

Incidence	2019	2020	
	Women	Women	
Incident cases	4,700	4,640	
Crude incidence rate <sup>1</sup>	11.2	11.0	
Age-standardised incidence rate <sup>1,2</sup>	9.4	9.5	
Median age at diagnosis	54	53	
Mortality	2019	2020	2021
	Women	Women	Women
Deaths	1,597	1,546	1,535
Crude mortality rate <sup>1</sup>	3.8	3.7	3.6
Age-standardised mortality rate <sup>1,2</sup>	2.5	2.4	2.3
Median age at death	65	65	66
Prevalence and survival rates	5 years	10 years	25 years
	Women	Women	Women
Prevalence	17,400	31,400	69,500
Absolute survival rate (2019–2020) <sup>3</sup>	62 (54–71)	54 (50–64)	
Relative survival rate (2019–2020) <sup>3</sup>	64 (56–74)	60 (55–72)	

<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

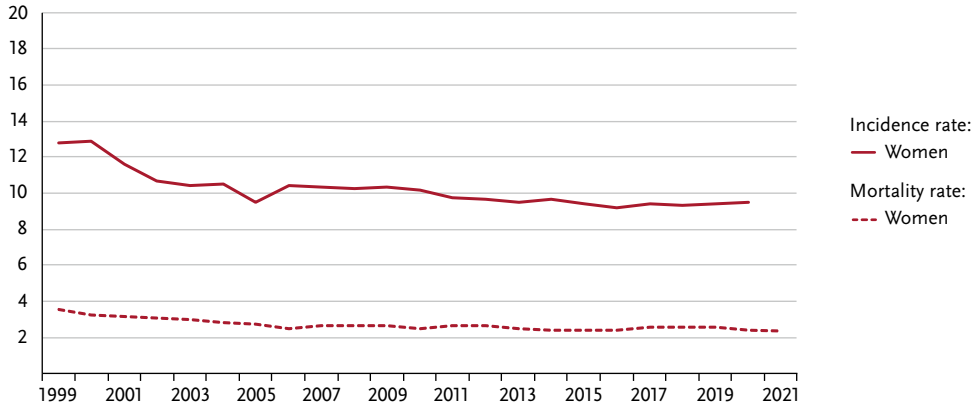
In Germany, about 4,640 women were diagnosed with cervical cancer in 2020. In about seven out of ten women, cervical carcinoma originated from the squamous epithelial tissue of the cervical mucosa. Adenocarcinomas (about 20% of cervical carcinomas) tend to have a higher origin at the transition zone between the uterine body and the cervix. The rates of new invasive carcinoma of the cervix in women has been declining slightly for the last 10 years. First effects of the HPV vaccination should become apparent in the younger age groups in the coming years. The median age at diagnosis of invasive carcinoma is 53 years. About four in ten women with the disease are diagnosed at an early stage of the tumour (stage I). The much more common in situ carcinoma is usually discovered during screening in women between the ages of 35 and 40. A total of 1,535 women died from cervical cancer in Germany in 2021. The relative 5-year survival rate after the diagnosis of an invasive cervical tumour is 64%. In an international comparison, the mortality rates in countries with long-standing, well-organised screening programmes are significantly lower than in countries without such programmes.

#### Risk factors, early detection and prevention

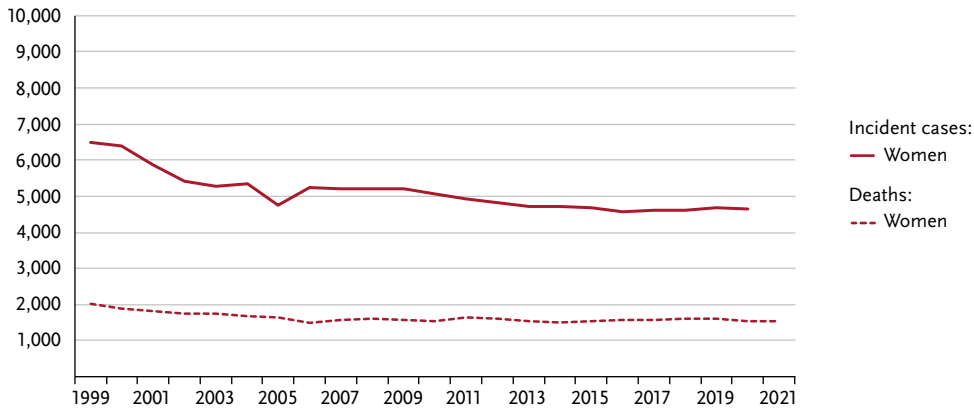
The main cause of cervical cancer is sexually transmitted human papillomavirus (HPV). An asymptomatic HPV infection is common, but usually heals without consequences. Persistent infections with one or more of 12 high-risk viruses (primarily HPV 16 and 18) can lead to the development of cervical carcinoma via precursors. Other risk factors are smoking, other sexually transmitted pathogens, early onset of sexual activity, multiple births and immunosuppression, for example after organ transplantation or due to HIV infection. In the long term, oral contraceptives (“the pill”) slightly increase the risk of development of cervical cancer.

The statutory cancer screening program offers an annual cervical smear test (Pap smear) and cytological examination for women aged 20 and over. From the age of 35, an HPV test combined with the PAP smear is offered every three years since the beginning of 2020. The Standing Commission on Vaccination (STIKO) recommends vaccination against HPV regardless of gender, primarily between the ages of 9 and 14. Statutory health insurance companies cover the costs of vaccination for young people up to the 18<sup>th</sup> birthday. The vaccination does not replace screening, as it does not protect against all high-risk HP viruses.

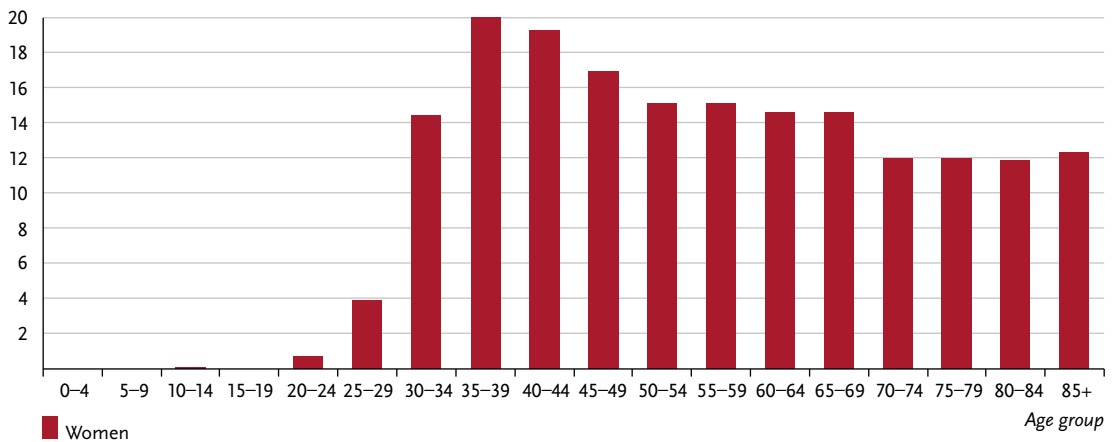
**Figure 3.19.1a**  
 Age-standardised incidence and mortality rates, ICD-10 C53, Germany 1999 – 2020/2021  
 per 100,000 (old European Standard)



**Figure 3.19.1b**  
 Absolute numbers of incident cases and deaths, ICD-10 C53, Germany 1999 – 2020/2021



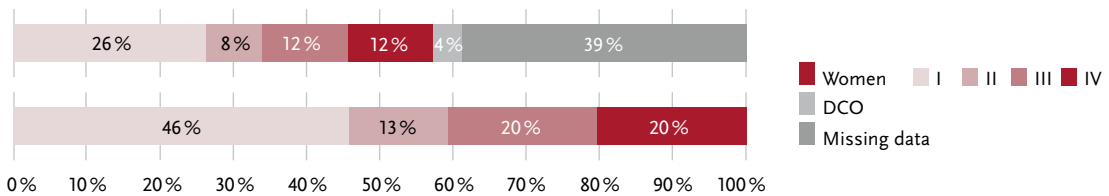
**Figure 3.19.2**  
 Age-specific incidence rates, ICD-10 C53, Germany 2019 – 2020  
 per 100,000



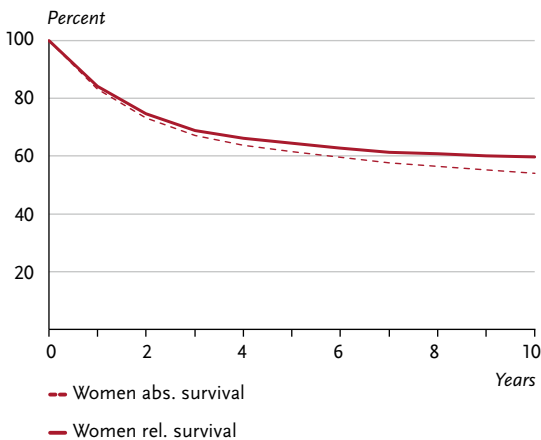
**Table 3.19.2**  
Cancer incidence and mortality risks in Germany by age, ICD-10 C53, database 2019

Women aged	Risk of developing cancer				Mortality risk			
	in the next 10 years		ever		in the next 10 years		ever	
15 years	< 0.1 %	(1 in 18,100)	0.8 %	(1 in 120)	< 0.1 %	(1 in 118,200)	0.3 %	(1 in 350)
25 years	0.1 %	(1 in 1,000)	0.8 %	(1 in 120)	< 0.1 %	(1 in 12,100)	0.3 %	(1 in 350)
35 years	0.2 %	(1 in 540)	0.7 %	(1 in 130)	< 0.1 %	(1 in 4,200)	0.3 %	(1 in 360)
45 years	0.2 %	(1 in 630)	0.6 %	(1 in 180)	< 0.1 %	(1 in 2,400)	0.3 %	(1 in 390)
55 years	0.2 %	(1 in 660)	0.4 %	(1 in 240)	0.1 %	(1 in 1,700)	0.2 %	(1 in 450)
65 years	0.1 %	(1 in 780)	0.3 %	(1 in 360)	0.1 %	(1 in 1,500)	0.2 %	(1 in 580)
75 years	0.1 %	(1 in 960)	0.2 %	(1 in 590)	0.1 %	(1 in 1,400)	0.1 %	(1 in 850)
Lifetime risk			0.8 %	(1 in 120)			0.3 %	(1 in 350)

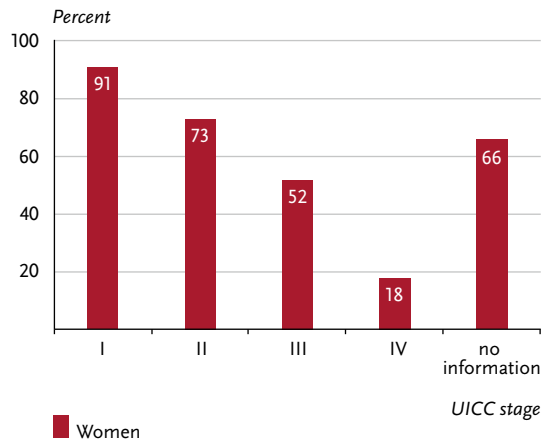
**Figure 3.19.3**  
Distribution of UICC stages at diagnosis, ICD-10 C53, Germany 2019 – 2020  
(top: incl. missing data and DCO cases; bottom: valid values only)



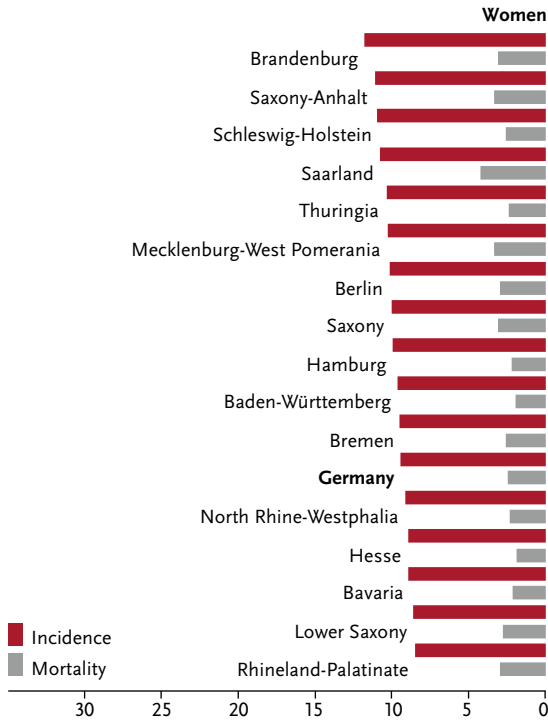
**Figure 3.19.4**  
Absolute and relative survival rates up to 10 years after diagnosis, ICD-10 C53, Germany 2019 – 2020



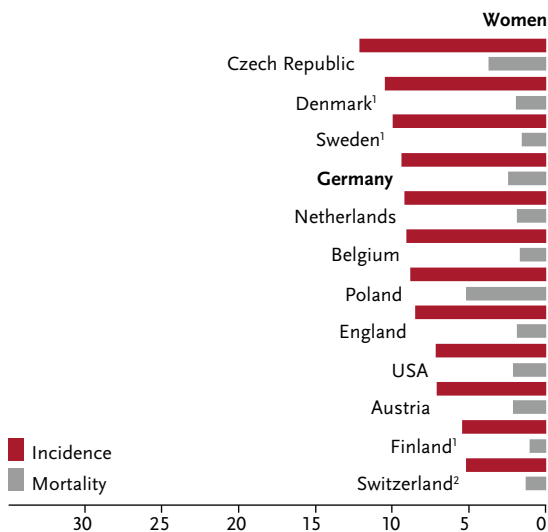
**Figure 3.19.5**  
Relative 5-year survival by UICC stage (7<sup>th</sup> and 8<sup>th</sup> edition TNM), ICD-10 C53, Germany 2019 – 2020



**Figure 3.19.6**  
 Age-standardised incidence and mortality rates in German federal states, ICD-10 C53, 2019 – 2020  
 per 100,000 (old European Standard)



**Figure 3.19.7**  
 International comparison of age-standardised incidence and mortality rates,  
 ICD-10 C53, 2019 – 2020 or latest available year (details and sources, see appendix)  
 per 100,000 (old European Standard)



<sup>1</sup> Denmark, Sweden, Finland: data incl. C58  
<sup>2</sup> Switzerland: incidence data for 2015 – 2019