

3.21 Ovaries

Table 3.21.1
Overview of key epidemiological parameters for Germany, ICD-10 C56

Incidence	2017	2018	Prediction for 2022
	Women	Women	Women
Incident cases	7,460	7,300	6,800
Crude incidence rate ¹	17.8	17.4	16.2
Age-standardised incidence rate ^{1,2}	11.1	10.7	9.8
Median age at diagnosis	69	69	
Mortality	2017	2018	2019
	Women	Women	Women
Deaths	5,373	5,326	5,291
Crude mortality rate ¹	12.8	12.7	12.6
Age-standardised mortality rate ^{1,2}	6.6	6.6	6.5
Median age at death	75	75	75
Prevalence and survival rates	5 years	10 years	25 years
	Women	Women	Women
Prevalence	21,400	34,000	63,600
Absolute survival rate (2017–2018) ³	39 (36–43)	27 (25–32)	
Relative survival rate (2017–2018) ³	42 (39–47)	33 (30–38)	

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

Epidemiology

Ovarian cancer accounts for about one third of all malignant neoplasms of the female genitalia and half of all deaths from cancers of these organs. The incidence rate increases continuously up to the age of 85, and the median age at diagnosis is 69 years. Histologically, malignant tumours of the ovaries tend to be moderately to poorly differentiated serous adenocarcinomas. Some rare forms of ovarian cancer, such as germ cell tumours, can already occur in girls and young women. About one in 76 women will develop ovarian cancer in her lifetime. Since the turn of the millennium, the incidence and mortality rates in Germany have continued to decrease significantly, and absolute numbers of new cases are also decreasing.

Partly due to the fact that ovarian cancer is diagnosed at a late stage (72% to 76% in stage III/IV), the survival prospects of patients with ovarian cancer are relatively poor. Relative 5-year survival is currently 42%. If the disease is diagnosed early, relative survival rates are 88% in stage I and 79% in stage II.

Risk factors

The risk of developing ovarian cancer increases with age. Obesity also plays a role. Hormonal factors also have an impact on the risk of developing ovarian cancer: Whereas childlessness and infertility are linked to an increased risk, multiple childbirths and longer periods of breastfeeding reduce the risk. In women with multiple cysts in the ovaries, hormonal factors probably increase the risk. Hormone replacement therapy, especially with oestrogen mono preparations in post-menopausal women is also a risk factor for the development of ovarian cancer. In contrast, ovulation inhibitors have a protective effect. Finally, sterilisation through occlusion of the fallopian tubes reduces the risk of ovarian cancer.

Women with first-degree relatives who have developed breast or ovarian cancer, as well as women with breast, uterine or colorectal cancer, are more likely to develop ovarian cancer. Often, underlying genetic mutations, especially in the BRCA1 and BRCA2 genes can be detected in these cases. There are other hereditary gene mutations that significantly increase the risk of developing the disease. According to new research results, such inherited mutations are found in up to 25% of patients.

Figure 3.21.1a
 Age-standardised incidence and mortality rates, ICD-10 C56, Germany 1999–2018/2019, projection (incidence) through 2022
 per 100,000 (old European Standard)

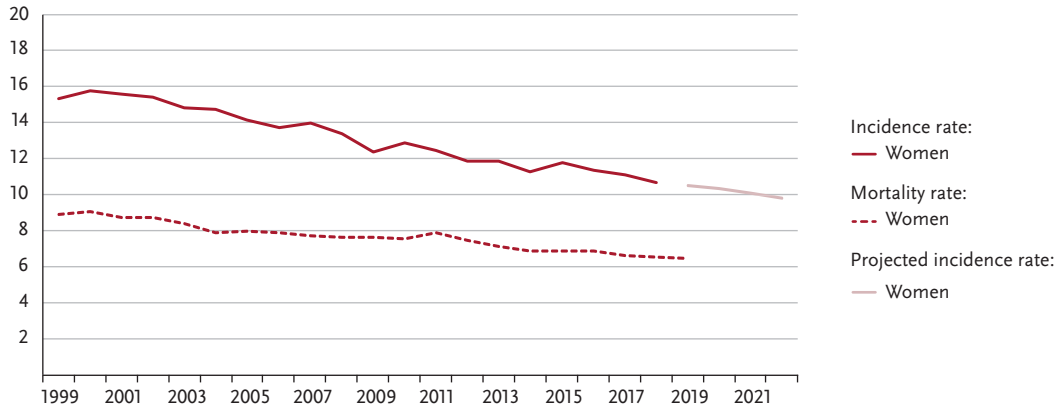


Figure 3.21.1b
 Absolute numbers of incident cases and deaths, ICD-10 C56, Germany 1999–2018/2019, projection (incidence) through 2022

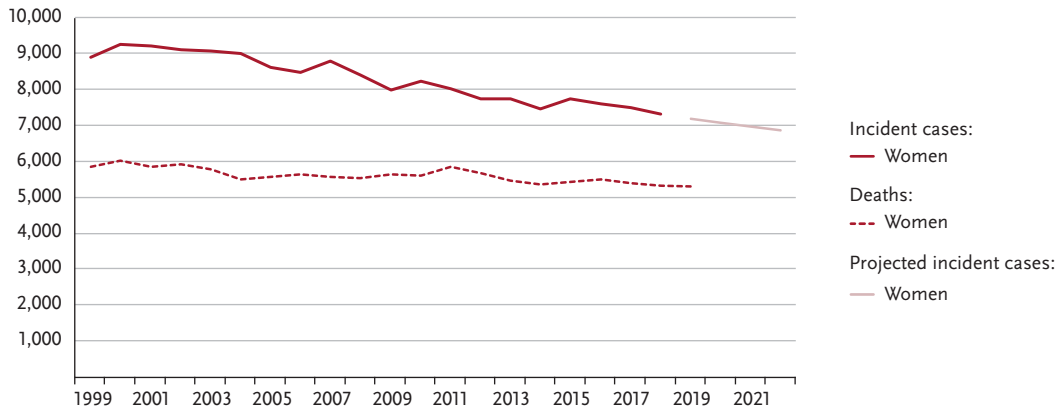


Figure 3.21.2
 Age-specific incidence rates, ICD-10 C56, Germany 2017–2018
 per 100,000

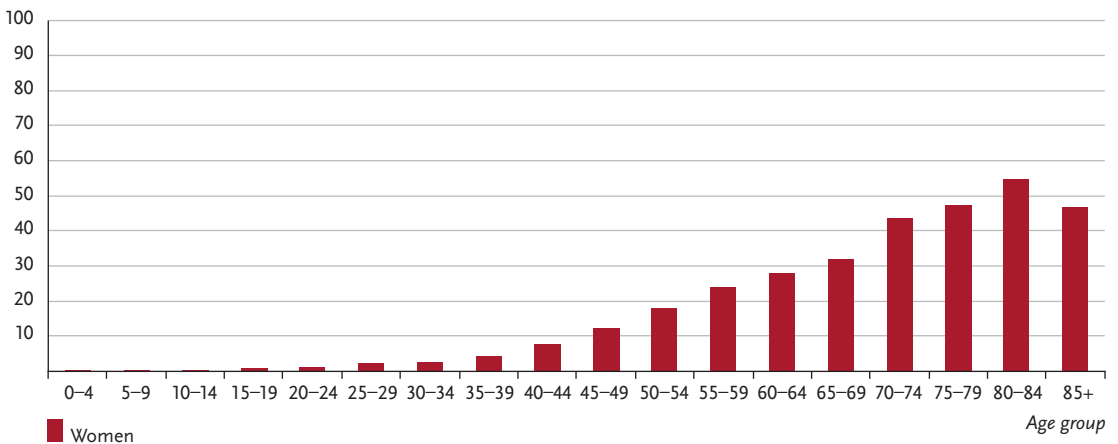


Table 3.21.2
Cancer incidence and mortality risks in Germany by age, ICD-10 C56, database 2018

Women aged	Risk of developing cancer				Mortality risk			
	in the next 10 years		ever		in the next 10 years		ever	
35 years	0.1 %	(1 in 1,700)	1.3 %	(1 in 78)	< 0.1 %	(1 in 6,500)	1.0 %	(1 in 100)
45 years	0.1 %	(1 in 710)	1.2 %	(1 in 81)	0.1 %	(1 in 1,700)	1.0 %	(1 in 100)
55 years	0.3 %	(1 in 400)	1.1 %	(1 in 89)	0.1 %	(1 in 670)	0.9 %	(1 in 110)
65 years	0.4 %	(1 in 280)	0.9 %	(1 in 110)	0.3 %	(1 in 380)	0.8 %	(1 in 120)
75 years	0.4 %	(1 in 240)	0.6 %	(1 in 160)	0.4 %	(1 in 240)	0.6 %	(1 in 160)
Lifetime risk			1.3 %	(1 in 76)			1.0 %	(1 in 100)

Figure 3.21.3
Distribution of UICC stages at diagnosis, ICD-10 C56, Germany 2017–2018
top: according to 7th edition TNM; bottom: according to 8th edition TNM.
The DCO proportion was 10%. For 39% of the remaining cases, no UICC stage could be assigned.

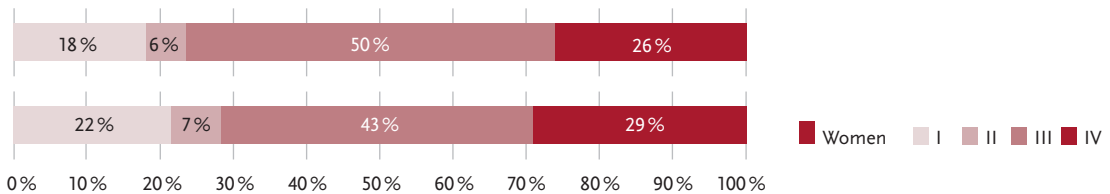


Figure 3.21.4
Absolute and relative survival rates up to 10 years after diagnosis, ICD-10 C56, Germany 2017–2018

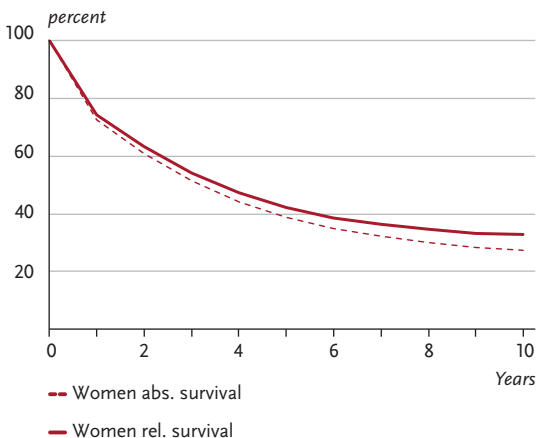


Figure 3.21.5
Relative 5-year survival by UICC stage (7th edition TNM), ICD-10 C56, Germany 2016–2018

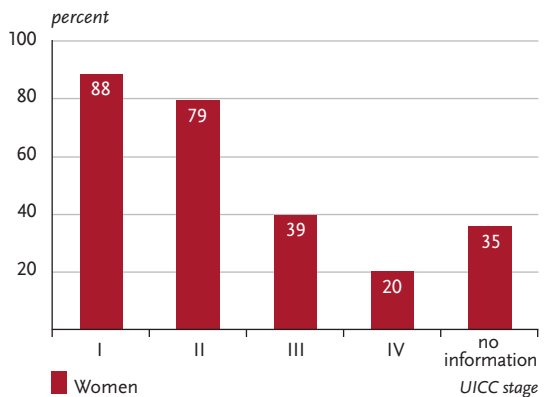


Figure 3.21.6

Age-standardised incidence and mortality rates in German federal states, ICD-10 C56, 2017–2018 per 100,000 (old European Standard)

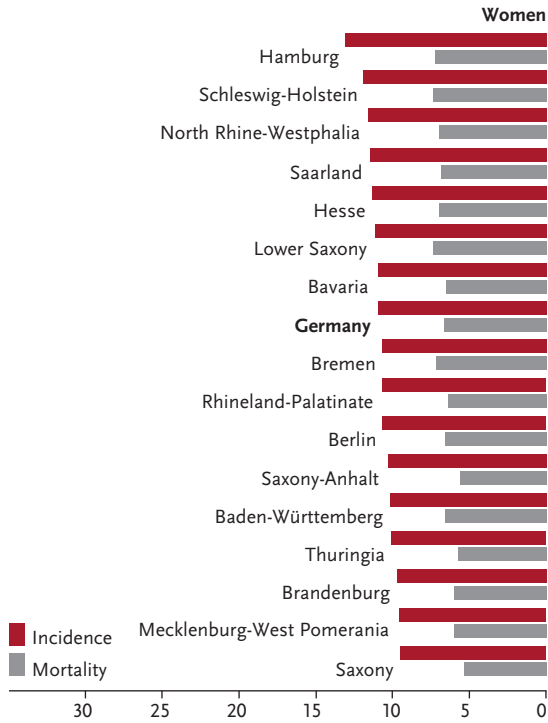


Figure 3.21.7

International comparison of age-standardised incidence and mortality rates, ICD-10 C56, 2017–2018 or latest available year (details and sources, see appendix) per 100,000 (old European Standard)



¹ Data include C57.0 to C57.4