

3.21 Ovaries

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

Incidence	2015	2016	Prediction for 2020
	Women	Women	Women
Incident cases	7,760	7,350	7,000
Crude incidence rate ¹	18.7	17.6	16.7
Age-standardised incidence rate ^{1,2}	11.8	11.1	10.1
Median age at diagnosis	68	68	
Mortality	2015	2016	2017
	Women	Women	Women
Deaths	5,431	5,486	5,373
Crude mortality rate ¹	13.1	13.1	12.8
Age-standardised mortality rate ^{1,2}	6.9	6.9	6.6
Median age at death	75	75	75
Prevalence and survival rates	5 years	10 years	
	Women	Women	
Prevalence	22,400	35,900	
Absolute survival rate (2015–2016) ³	40 (35–46)	29 (26–37)	
Relative survival rate (2015–2016) ³	43 (38–50)	35 (30–43)	

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

► Additional information under www.krebsdaten.de/cancer-sites

Epidemiology

Cancer of the ovaries accounts for a 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 85 years of age, with a median age at diagnosis of 68 years. Ovarian cancers tend to be moderately to poorly differentiated serous adenocarcinomas. Some rare forms of ovarian cancer, such as germ cell tumours, can occur in girls and young women. About one in 75 women will develop ovarian cancer during her lifetime.

Incidence and mortality rates have decreased substantially in Germany since the turn of the millennium, and the absolute number of new cases has also declined. Nonetheless, as diagnosis often occurs at a later stage (76% in stage III/IV), women with ovarian cancer have relatively poor survival prospects. Although the relative 5-year survival rate is currently 43%, it improves if the disease is recognised early: relative survival rates are 89% for stage I and 77% for stage II.

Risk factors

The risk of developing ovarian cancer increases with age. Obesity also plays a role. In addition, hormonal factors have an impact on the risk of developing ovarian cancer: whereas childlessness and infertility are linked to an increased risk, multiple births and longer periods of breastfeeding are associated with a lower risk. Whether early menstruation or a late menopause increases the risk of ovarian cancer remains unclear. Hormonal factors are likely to increase risk among women with numerous ovarian cysts. Hormone replacement therapy, especially with oestrogen monotherapies in postmenopausal women, is also a risk factor. In contrast, ovulation inhibitors (birth control pills) 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, have an increased risk of ovarian cancer. Underlying genetic mutations, especially in the BRCA1 and BRCA2 genes, can often be identified in these cases. However, although these gene mutations significantly increase the risk of developing uterine cancer, they only play a role in one in 10 cases in Germany.

Figure 3.21.1a
Age-standardised incidence and mortality rates, ICD-10 C56, Germany 1999–2016/2017, projection (incidence) through 2020 per 100,000 (old European Standard)

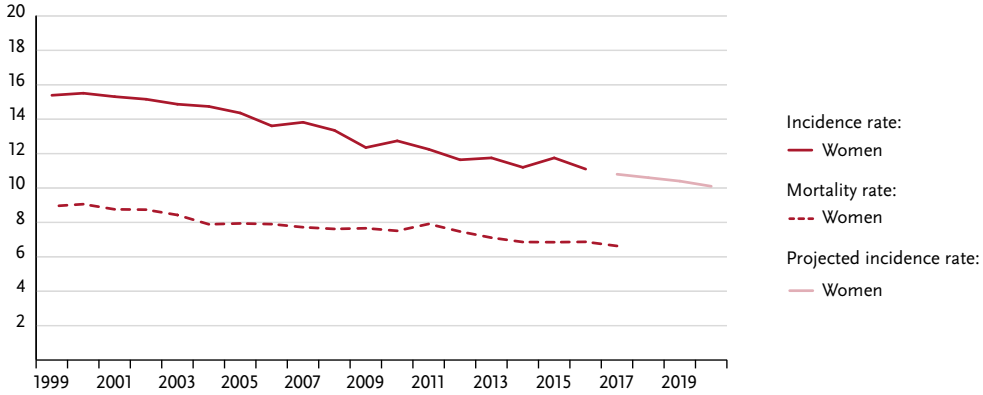


Figure 3.21.1b
Absolute numbers of incident cases and deaths, ICD-10 C56, Germany 1999–2016/2017, projection (incidence) through 2020

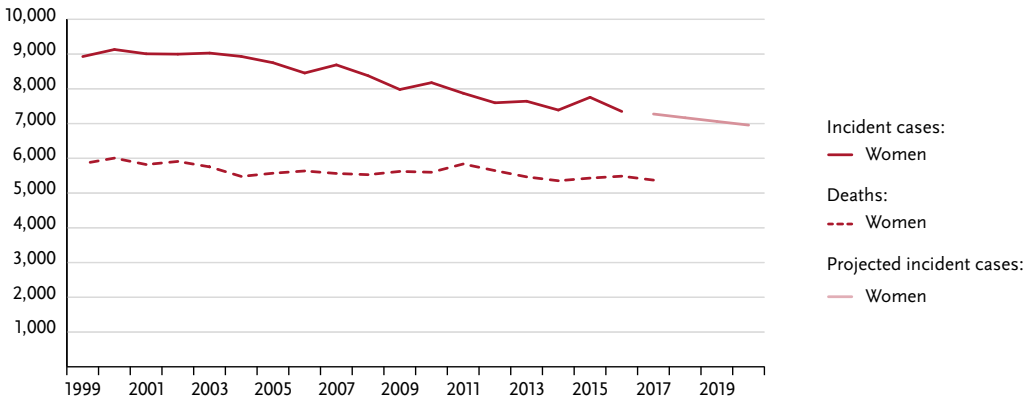


Figure 3.21.2
Age-specific incidence rates, ICD-10 C56, Germany 2015–2016 per 100,000

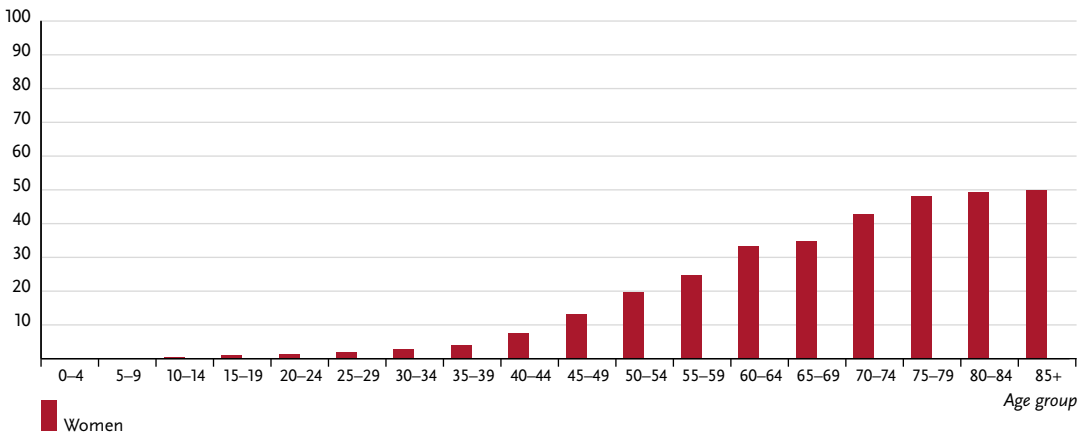


Table 3.21.2
Cancer incidence and mortality risks in Germany by age, ICD-10 C56, database 2016

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 1,700)	1.3%	(1 in 76)	< 0.1%	(1 in 6,400)	1.1%	(1 in 94)
45 years	0.2%	(1 in 650)	1.3%	(1 in 79)	0.1%	(1 in 1,600)	1.1%	(1 in 95)
55 years	0.3%	(1 in 360)	1.1%	(1 in 88)	0.2%	(1 in 610)	1.0%	(1 in 99)
65 years	0.4%	(1 in 280)	0.9%	(1 in 110)	0.3%	(1 in 370)	0.9%	(1 in 110)
75 years	0.4%	(1 in 260)	0.6%	(1 in 160)	0.4%	(1 in 230)	0.7%	(1 in 140)
Lifetime risk			1.3%	(1 in 75)			1.0%	(1 in 95)

Figure 3.21.3
Distribution of UICC-stages at first diagnosis, ICD-10 C56, Germany 2015–2016
(top: all cases; bottom: only valid reports)

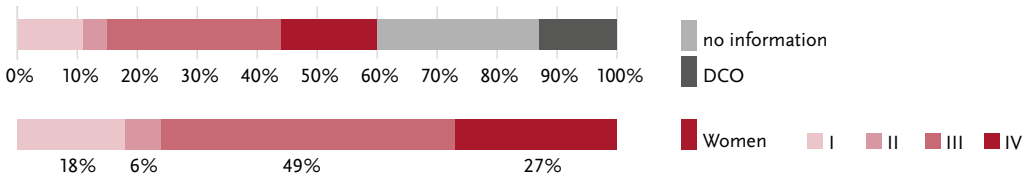


Figure 3.21.4
Absolute and relative survival rates up to 10 years after first diagnosis, ICD-10 C56, Germany 2015–2016

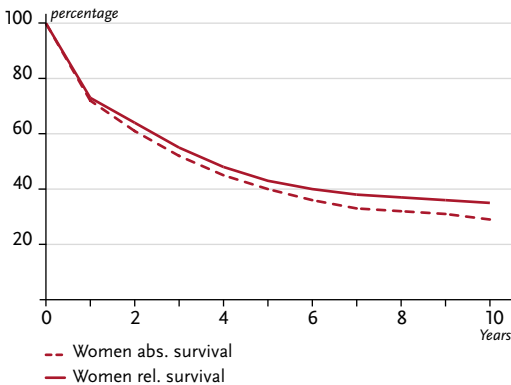


Figure 3.21.5
Relative 5-year survival by UICC-stage, ICD-10 C56, Germany 2015–2016

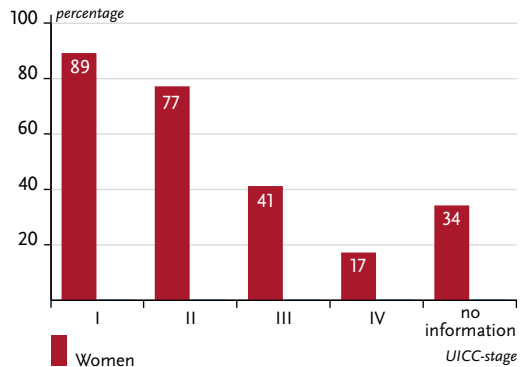


Figure 3.21.6
Age-standardised incidence and mortality rates in German federal states, ICD-10 C56, 2015–2016
 (Incidence in Bremen for 2014 and 2016, incidence in eastern Germany for 2014 to 2015)
 per 100,000 (old European Standard)

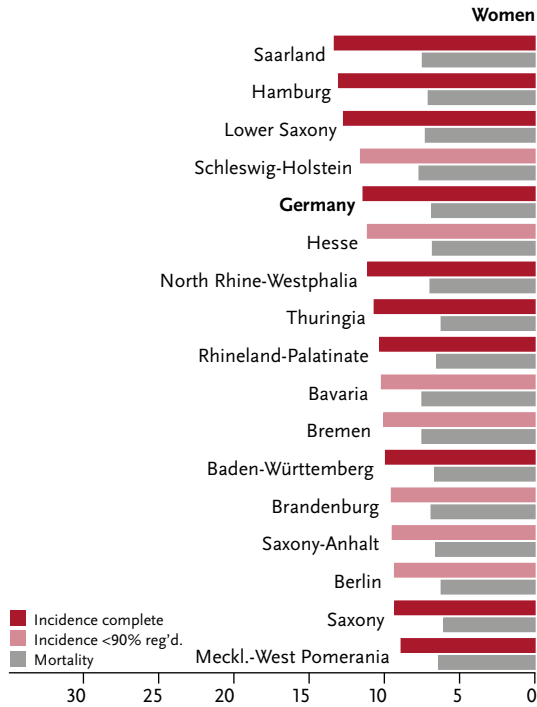
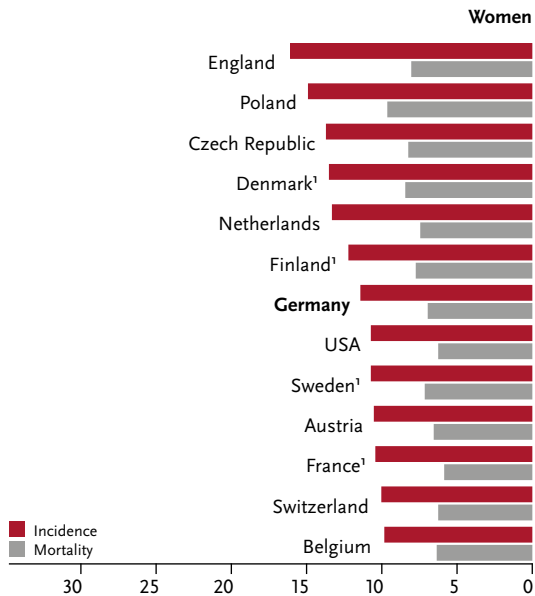


Figure 3.21.7
International comparison of age-standardised incidence and mortality rates, ICD-10 C56,
 2015–2016 or latest available year (details and sources, see appendix)
 per 100,000 (old European Standard)



¹ Data including C57.0 to C57.4