3.13 Malignant melanoma of the skin

Table 3.13.1
Overview of key epidemiological parameters for Germany, ICD-10 C43

Incidence	2019		2020			
	Women	Men	Women	Men		
Incident cases	11,720	13,130	11,320	12,240		
Crude incidence rate [1]	27.8	32.0	26.9	29.8		
Age-standardised incidence rate [1,2]	19.8	21.5	19.1	19.9		
Median age at diagnosis	63	69	63	69		
Mortality	**2019**		**2020**		**2021**	
	Women	Men	Women	Men	Women	Men
Deaths	1,232	1,789	1,162	1,778	1,236	1,692
Crude mortality rate [1]	2.9	4.4	2.8	4.3	2.9	4.1
Age-standardised mortality rate [1,2]	1.4	2.6	1.4	2.5	1.4	2.4
Median age at death	78	75	78	76	79	76
Prevalence and survival rates	**5 years**		**10 years**		**25 years**	
	Women	Men	Women	Men	Women	Men
Prevalence	52,300	54,000	95,200	93,600	166,800	145,300
Absolute survival rate (2019 – 2020) [3]	85 (81 – 89)	78 (73 – 80)	76 (69 – 81)	65 (56 – 68)		
Relative survival rate (2019 – 2020) [3]	95 (92 – 97)	94 (89 – 96)	95 (87 – 97)	93 (83 – 97)		

[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

In 2020, about 23,560 people in Germany were diagnosed with malignant melanoma of the skin, including 11,320 women. The average age at diagnosis for women is comparatively low at 63, while the average age at diagnosis for men is 69. The age-standardised incidence rates for women and men rose sharply around 2008. This is probably due to the skin cancer screening programme introduced in Germany in July 2008. Since 2012, the incidence rate for women has fallen slightly and remained roughly constant for men, with a decline in 2020. Mortality rates have hardly changed for either sex since 1999. The predominant type of malignant melanoma is superficial spreading melanoma, which is associated with a favourable prognosis. Other forms, in particular nodular and amelanotic melanoma, have a substantially less favourable prognosis. Currently, the relative 5-year survival rate for women with malignant melanoma of the skin in Germany is 95% and 94% for men. Around 67% of all melanomas are discovered at an early tumour stage (UICC I). Among women, melanomas often occur on the lower extremities (legs and hips), among men predominantly on the trunk.

Risk factors and early detection

The most important exogenous risk factor for malignant melanoma is ultraviolet (UV) radiation, especially recurring intensive sun exposure. This applies both to natural radiation from the sun and to artificial UV radiation, for example in solariums. Sunburns, especially at a young age, increase risk.

The most important congenital risk factors include particularly large pigmented moles ("liver spots") already present at birth and a light-coloured skin type. For persons already diagnosed with a melanoma, the risk of developing another melanoma increases. If at least one first-degree relative has a malignant melanoma, this may indicate an increased familial risk due to inherited mutations. Depending on the type of mutation and the gene affected, the risk of melanoma can be increased to varying degrees. A significant risk factor is also the number of benign pigmented moles that have appeared in the course of a lifetime, as well as the occurrence of atypical (dysplastic) pigmented moles.

The statutory cancer screening programme provides for a skin examination every two years by a doctor (including a dermatologist or GP with appropriate training) for men and women from the age of 35.

Figure 3.13.1a
Age-standardised incidence and mortality rates by sex, ICD-10 C43, Germany 1999 – 2020/2021
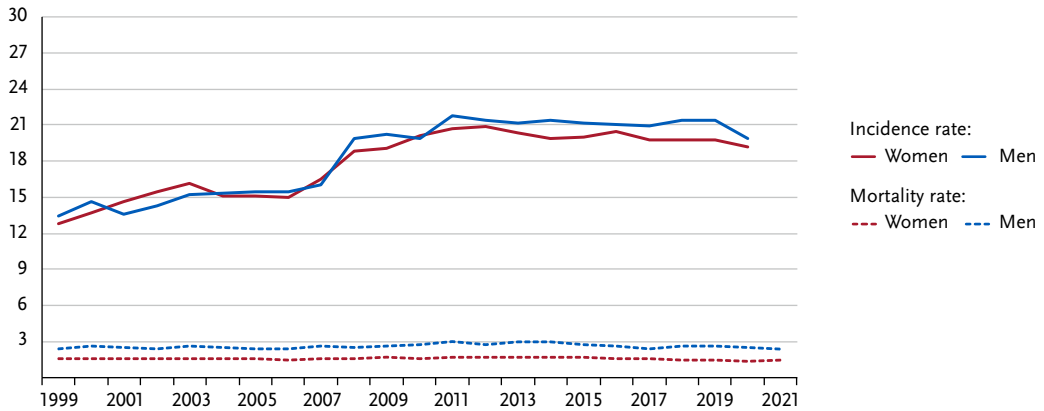*per 100,000 (old European Standard)*

Incidence rate:
— Women — Men

Mortality rate:
--- Women --- Men

Figure 3.13.1b
Absolute numbers of incident cases and deaths by sex, ICD-10 C43, Germany 1999 – 2020/2021

Incident cases:
— Women — Men

Deaths:
--- Women --- Men
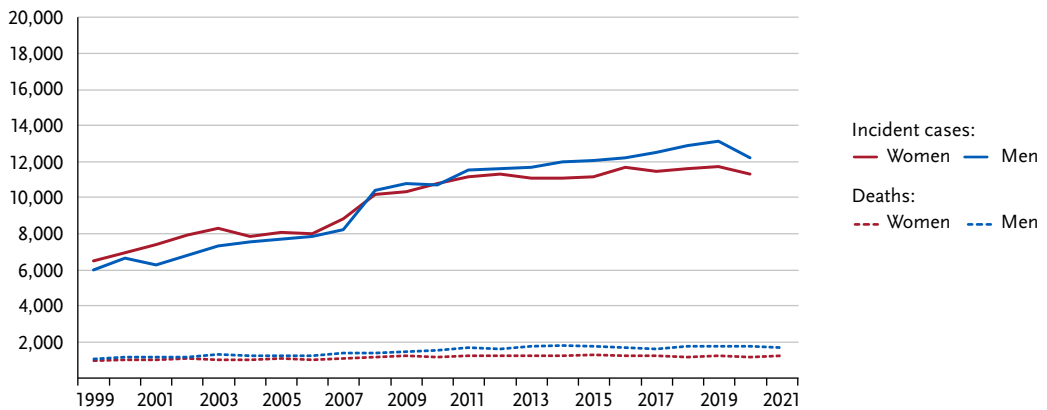
Figure 3.13.2
Age-specific incidence rates by sex, ICD-10 C43, Germany 2019 – 2020
per 100,000

■ Women ■ Men

Age group

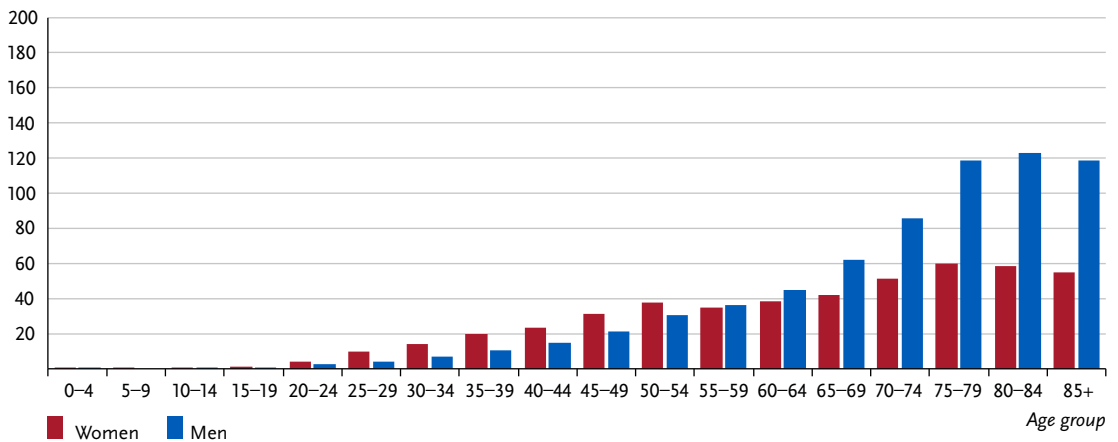**Table 3.13.2**
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C43, database 2019

	Risk of developing cancer				Mortality risk			
Women aged	in the next 10 years		ever		in the next 10 years		ever	
35 years	0.2 %	(1 in 450)	2.0 %	(1 in 50)	< 0.1 %	(1 in 18,800)	0.2 %	(1 in 420)
45 years	0.3 %	(1 in 290)	1.8 %	(1 in 56)	< 0.1 %	(1 in 6,400)	0.2 %	(1 in 430)
55 years	0.4 %	(1 in 270)	1.5 %	(1 in 68)	< 0.1 %	(1 in 4,400)	0.2 %	(1 in 450)
65 years	0.5 %	(1 in 220)	1.2 %	(1 in 86)	< 0.1 %	(1 in 2,100)	0.2 %	(1 in 480)
75 years	0.5 %	(1 in 190)	0.8 %	(1 in 130)	0.1 %	(1 in 1,100)	0.2 %	(1 in 540)
Lifetime risk			2.1 %	(1 in 47)			0.2 %	(1 in 420)
Men aged	in the next 10 years		ever		in the next 10 years		ever	
35 years	0.1 %	(1 in 750)	2.4 %	(1 in 42)	< 0.1 %	(1 in 10,000)	0.4 %	(1 in 280)
45 years	0.3 %	(1 in 380)	2.3 %	(1 in 44)	< 0.1 %	(1 in 4,500)	0.3 %	(1 in 290)
55 years	0.4 %	(1 in 240)	2.1 %	(1 in 48)	< 0.1 %	(1 in 2,400)	0.3 %	(1 in 290)
65 years	0.7 %	(1 in 140)	1.8 %	(1 in 54)	0.1 %	(1 in 1,100)	0.3 %	(1 in 310)
75 years	1.0 %	(1 in 100)	1.4 %	(1 in 70)	0.2 %	(1 in 580)	0.3 %	(1 in 340)
Lifetime risk			2.4 %	(1 in 42)			0.4 %	(1 in 280)

Figure 3.13.3
Distribution of UICC stages at diagnosis by sex, ICD-10 C43, Germany 2019 – 2020
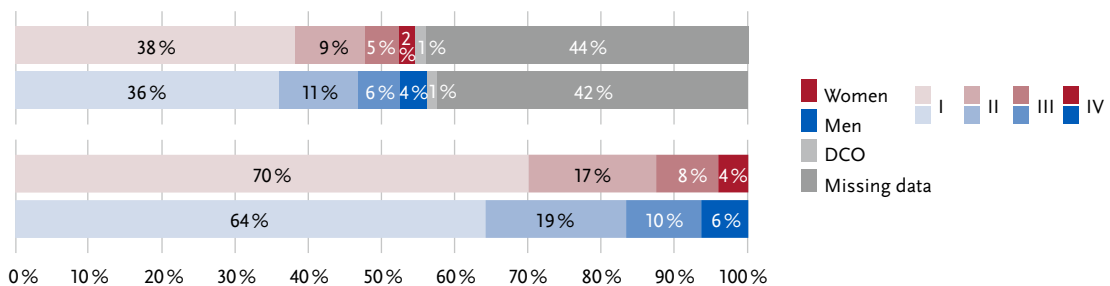*(top: incl. missing data and DCO cases; bottom: valid values only)*

Figure 3.13.4
Absolute and relative survival rates up to 10 years after diagnosis, by sex, ICD-10 C43, Germany 2019 – 2020
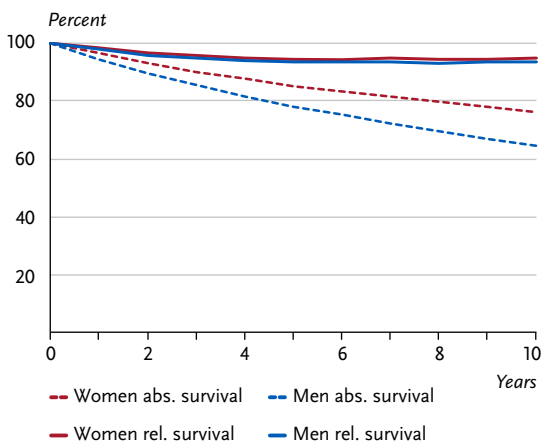

Figure 3.13.5
Relative 5-year survival by UICC stage (7th and 8th edition TNM) and sex, ICD-10 C43, Germany 2019 – 2020
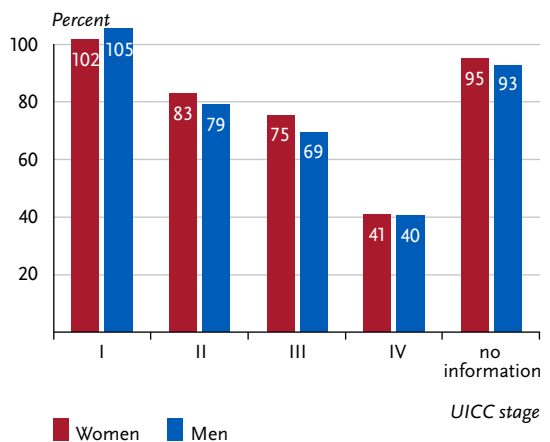
Figure 3.13.6
Age-standardised incidence and mortality rates in German federal states by sex, ICD-10 C43, 2019 – 2020
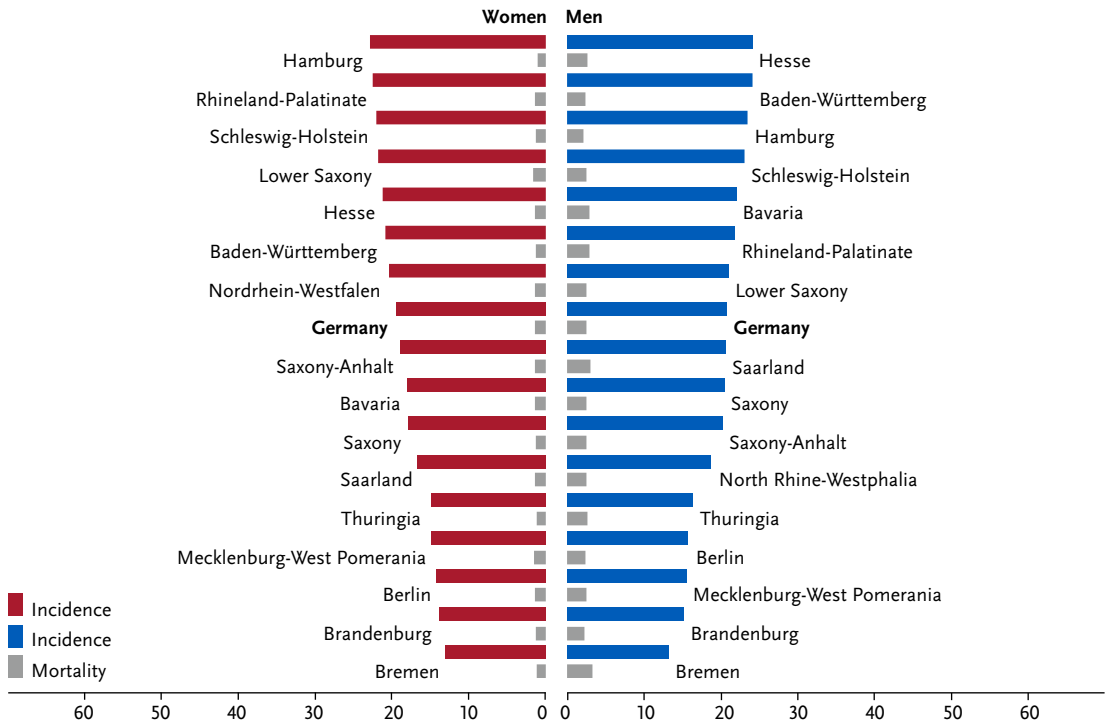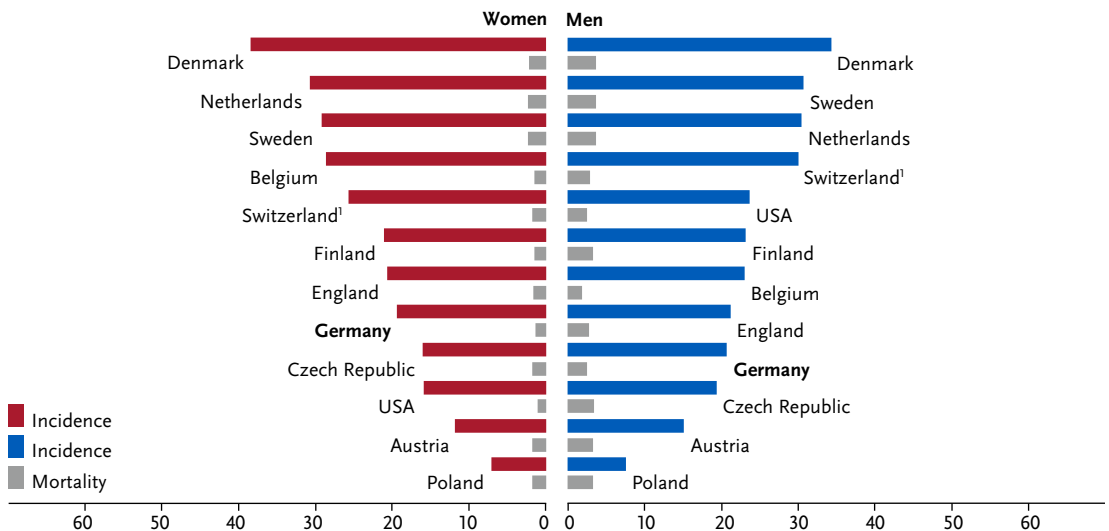*per 100,000 (old European Standard)*

Figure 3.13.7
International comparison of age-standardised incidence and mortality rates by sex,
ICD-10 C43, 2019 – 2020 or latest available year (details and sources, see appendix)
per 100,000 (old European Standard)

[1] Switzerland: incidence data for 2015 – 2019