3.22 Prostate

Table 3.22.1
Overview of key epidemiological parameters for Germany, ICD-10 C61

Incidence	2017	2018	Prediction for 2022
	Men	Men	Men
Incident cases	64,250	65,200	70,100
Crude incidence rate [1]	157.6	159.4	169.8
Age-standardised incidence rate [1, 2]	99.0	99.1	100.3
Median age at diagnosis	72	71	
Mortality	**2017**	**2018**	**2019**
	Men	Men	Men
Deaths	14,318	14,963	15,040
Crude mortality rate [1]	35.1	36.6	36.7
Age-standardised mortality rate [1, 2]	18.8	19.2	18.7
Median age at death	80	80	81
Prevalence and survival rates	**5 years**	**10 years**	**25 years**
	Men	Men	Men
Prevalence	260,400	474,000	753,800
Absolute survival rate (2017−2018) [3]	74 (73−76)	58 (56−60)	
Relative survival rate (2017−2018) [3]	89 (89−91)	88 (87−91)	

[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

Around 65,200 new cases of prostate cancer were diagnosed in 2018. After an increase at the beginning of the 2000s, the age-standardised incidence rate has been declining slightly since 2011 and has been rather constant in recent years. A similar development can be observed in many other western industrialised nations and is likely due to the use of the PSA test (prostate specific antigen) as an early detection test, which usage has been increasing for a long time but is now probably declining. In contrast to the incidence rate, the age-standardised mortality rate decreased continuously until 2007 and has been almost stable since then. Germany is in the lower midfield in terms of prostate cancer incidence, compared to other countries in Central Europe.

Prostate cancer rarely occurs before the age of 50: The risk of developing the disease in the next 10 years is less than 0.1% for a 35-year-old man, while it is about 6% for a 75-year-old man.

The relative 5-year survival rate for men with prostate cancer is 89%. About two-thirds of tumours are diagnosed at an early stage (I/II).

Risk factors and early detection

Causes of prostate cancer and the factors that influence its course are essentially unknown. Age is an important risk factor. Men of black African origin are more likely to develop prostate cancer than Europeans and white North Americans; Asians are rarely affected. An accumulation of the disease among close relatives has now been proven as a risk factor; in some cases, inherited changes in certain risk genes can be detected. In addition, chronic inflammation of the prostate and sexually transmitted diseases seem to increase the risk of prostate cancer.

There is little evidence on lifestyle or environmental risk factors. However, a normal weight and sufficient exercise could reduce the risk of prostate cancer.

The statutory cancer screening programme in Germany currently includes an examination of the external genital organs and palpation of the prostate and lymph nodes once a year for men over the age of 45, in addition to asking about symptoms. The PSA test in the blood is not part of the statutory screening programme, as the benefit of population-wide PSA screening has not yet been proven beyond doubt.

Figure 3.22.1a
Age-standardised incidence and mortality rates, ICD-10 C61, Germany 1999 – 2018/2019,
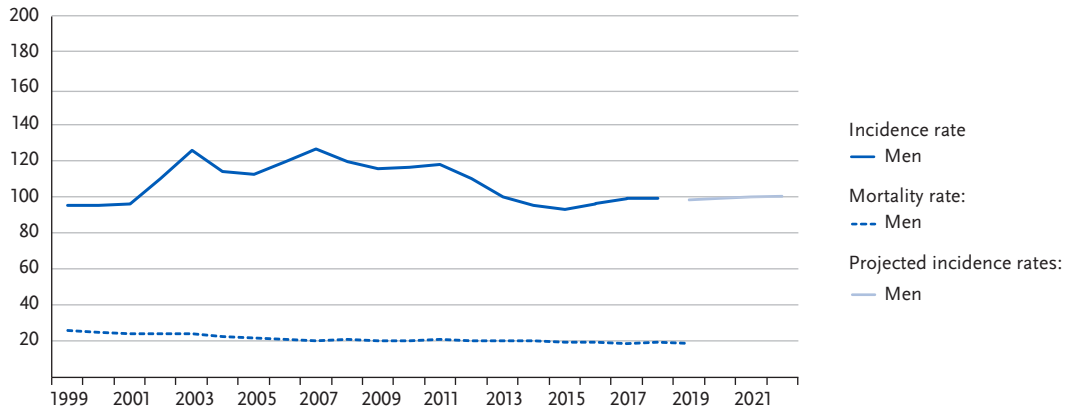**projection (incidence) through 2022**
per 100,000 (old European Standard)

Incidence rate
— Men

Mortality rate:
--- Men

Projected incidence rates:
— Men

Figure 3.22.1b
Absolute numbers of incident cases and deaths, ICD-10 C61, Germany 1999 – 2018/2019,
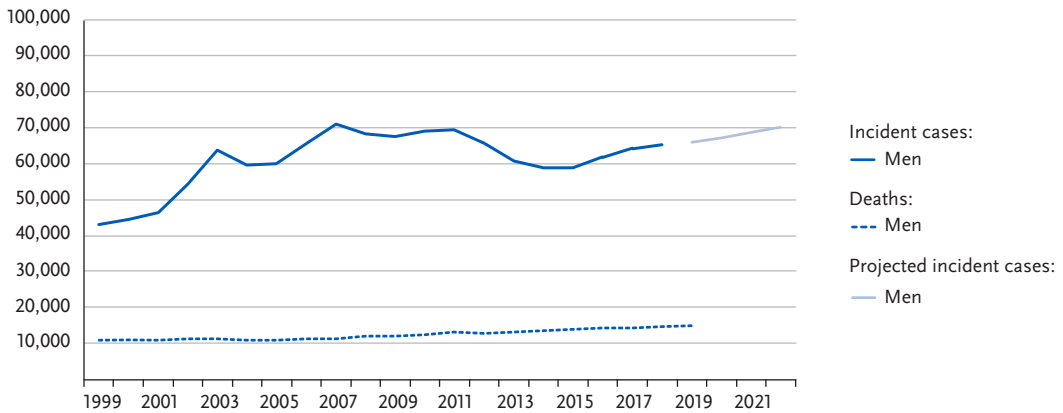**projection (incidence) through 2022**

Incident cases:
— Men

Deaths:
--- Men

Projected incident cases:
— Men

Figure 3.22.2
Age-specific incidence rates, ICD-10 C61, Germany 2017 – 2018
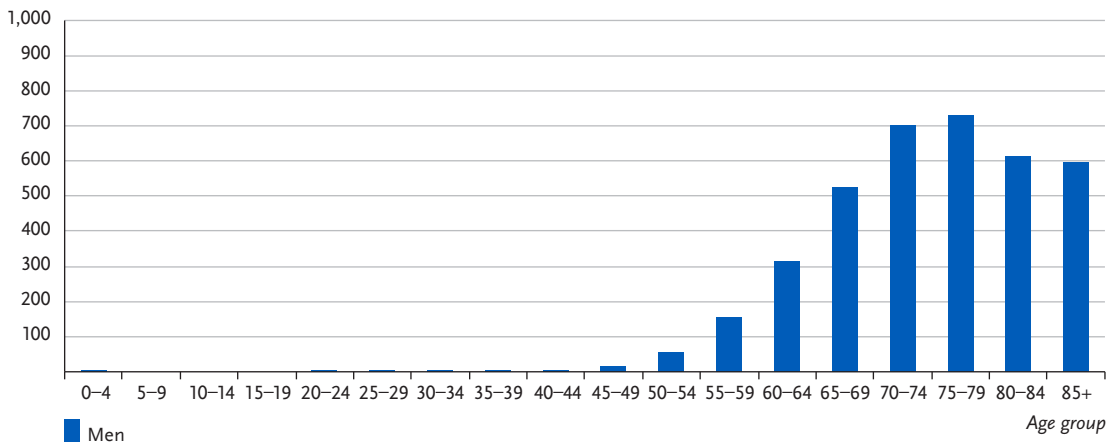*per 100,000*

Age group

■ Men

Table 3.22.2
Cancer incidence and mortality risks in Germany by age, ICD-10 C61, database 2018

Men 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 4,800)	12.3 %	(1 in 8)	< 0.1 %	(1 in 84,200)	3.3 %	(1 in 30)
45 years	0.4 %	(1 in 250)	12.4 %	(1 in 8)	< 0.1 %	(1 in 6,000)	3.4 %	(1 in 30)
55 years	2.3 %	(1 in 43)	12.5 %	(1 in 8)	0.2 %	(1 in 650)	3.5 %	(1 in 29)
65 years	5.6 %	(1 in 18)	11.5 %	(1 in 9)	0.7 %	(1 in 150)	3.7 %	(1 in 27)
75 years	5.9 %	(1 in 17)	7.9 %	(1 in 13)	1.8 %	(1 in 54)	3.8 %	(1 in 27)
Lifetime risk			12.1 %	(1 in 8)			3.3 %	(1 in 30)

Figure 3.22.3
Distribution of UICC stages at diagnosis, ICD-10 C61, Germany 2017 – 2018
top: according to 7th edition TNM; bottom: according to 8th edition TNM.
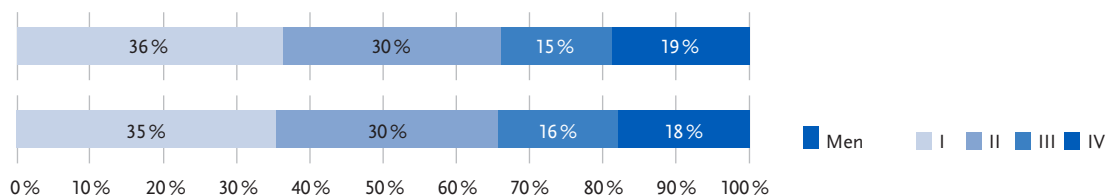*The DCO proportion was 4 %. For 47 % of the remaining cases, no UICC stage could be assigned.*

Figure 3.22.4
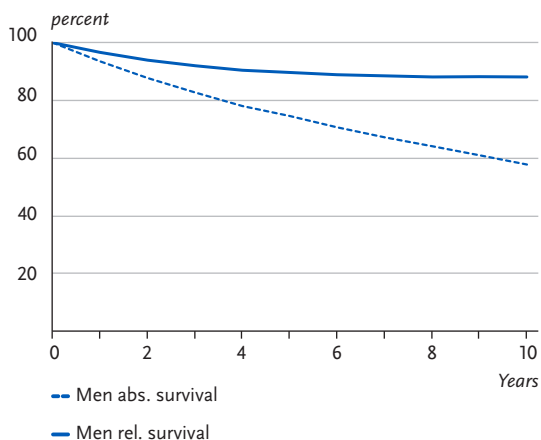**Absolute and relative survival rates up to 10 years after diagnosis, ICD-10 C61, Germany 2017 – 2018**

Figure 3.22.5
Relative 5-year survival by UICC stage (7th edition TNM), ICD-10 C61, Germany 2016 – 2018
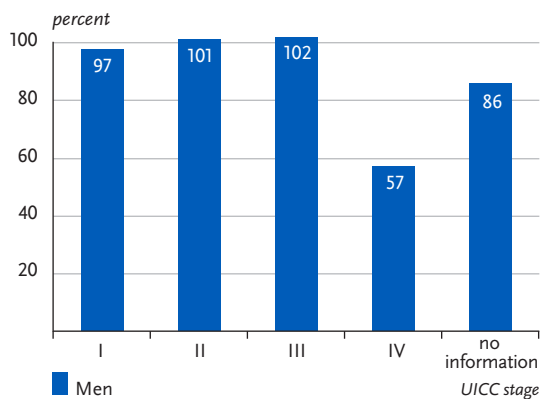
Figure 3.22.6
Age-standardised incidence and mortality rates in German federal states, ICD-10 C61, 2017 – 2018
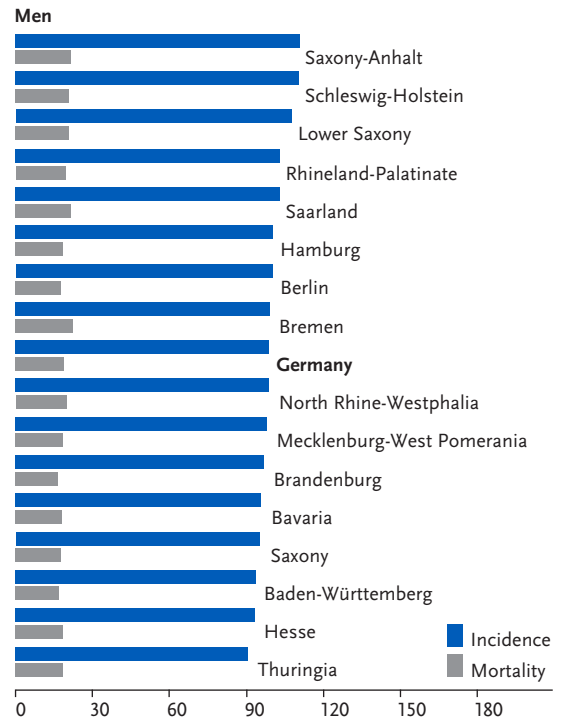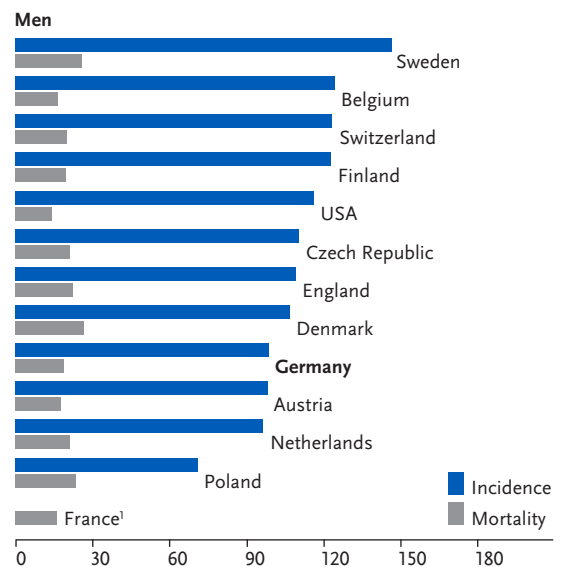*per 100,000 (old European Standard)*

Men

Saxony-Anhalt
Schleswig-Holstein
Lower Saxony
Rhineland-Palatinate
Saarland
Hamburg
Berlin
Bremen
Germany
North Rhine-Westphalia
Mecklenburg-West Pomerania
Brandenburg
Bavaria
Saxony
Baden-Württemberg
Hesse
Thuringia

■ Incidence
■ Mortality

0　30　60　90　120　150　180

Figure 3.22.7
International comparison of age-standardised incidence and mortality rates,
ICD-10 C61, 2017 – 2018 or latest available year (details and sources, see appendix)
per 100,000 (old European Standard)

Men

Sweden
Belgium
Switzerland
Finland
USA
Czech Republic
England
Denmark
Germany
Austria
Netherlands
Poland
France[1]

■ Incidence
■ Mortality

0　30　60　90　120　150　180

[1] No incidence data available