

3.18 Prostate

Table 3.18.1
Overview of key epidemiological parameters for Germany, ICD-10 C61

	2009	2010	Prediction for 2014
	Men	Men	Men
Incident cases	64,960	65,830	70,100
Crude incidence rate ¹	161.9	164.2	176.4
Standardised incidence rate ^{1,2}	111.6	111.4	111.4
Median age at diagnosis	70	70	
Deaths	12,217	12,676	
Crude mortality rate ¹	30.4	31.6	
Standardised mortality rate ^{1,2}	20.0	20.0	
5-year prevalence	273,100	279,000	
Absolute 5-year survival rate (2009-2010) ³		78 (73-80)	
Relative 5-year survival rate (2009-2010) ³		93 (88-95)	

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

Epidemiology

Prostate cancer is the most common cancer and the third most common cause of death due to cancer among men in Germany. The number of new cases has risen steadily in recent years and in 2010 was 65,800. After increasing for almost two decades, the age-standardised incidence rate has remained largely constant since 2003. Similar trends can also be observed in most other Western industrialised nations and may be attributable to the introduction of the prostate specific antigen test (PSA test) in the late 1980s as an (unorganised) screening method. In contrast to the incidence rate, the age-standardised mortality rate has been falling since approximately the mid-1990s.

Prostate cancer occurs seldom in people under 50 years of age. For a 35-year old man, the risk of being diagnosed with prostate cancer within the next ten years is less than 0.1%, while for a 75-year old man it is approximately 6%.

Most tumours are discovered in the early stages T1 and T2. The relative 5-year survival rate for prostate cancer is currently 93%. Deaths may, however, still occur after a longer course of the disease, e.g. through recurrence.

Risk factors and early detection

Little is known about the causes of prostate carcinoma development and the factors influencing its course. The presence of clustered cases among close relatives has now been adequately proved as a risk factor, although there is no understanding of the hereditary gene mutations involved. The male sex hormone (testosterone) also clearly plays a part.

Despite extensive research, there are few reliable findings relating to lifestyle, diet, or the environment. However, it is thought that diet may have an influence on the development of the prostate carcinoma. A large-scale cancer prevention study has shown that taking vitamin E as a dietary supplement increases the risk of developing prostate cancer.

For men above 45 years of age, the cancer early detection directive in Germany currently recommends an annual interview focusing on complaints and other health-related changes, an examination of the external sexual organs, as well as a palpation examination of the prostate and the lymph nodes. The test for PSA in the blood is not covered by the statutory health insurance, as to date the benefit of the PSA test has not been irrefutably proven.

Figure 3.18.1a
Age-standardised incidence and mortality rates,
ICD-10 C61, Germany 1999 – 2010
per 100,000 (European standard)

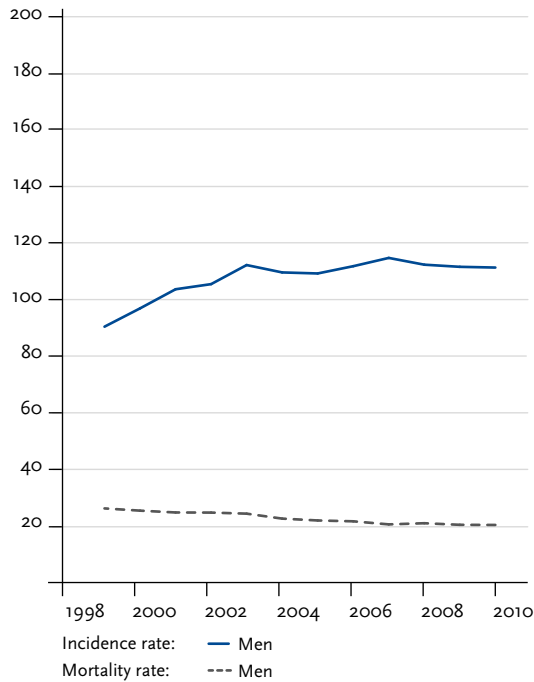


Figure 3.18.1b
Absolute numbers of incident cases and deaths,
ICD-10 C61, Germany 1999 – 2010

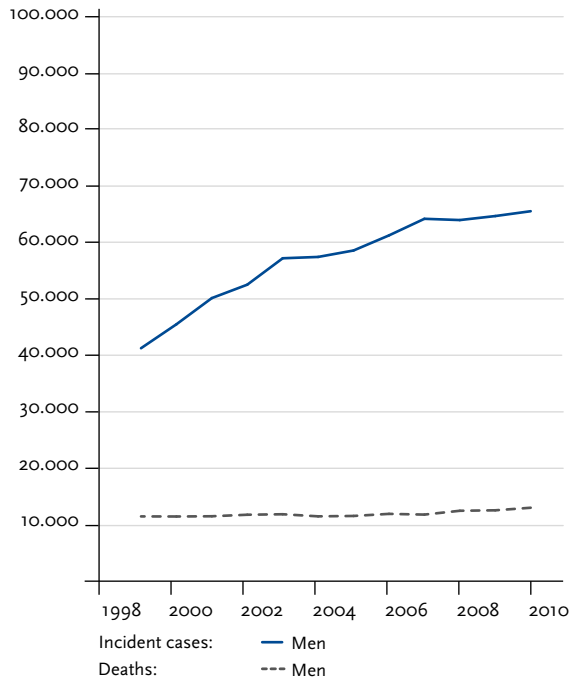


Figure 3.18.2
Age-specific incidence rates, ICD-10 C61, Germany 2009 – 2010
per 100,000

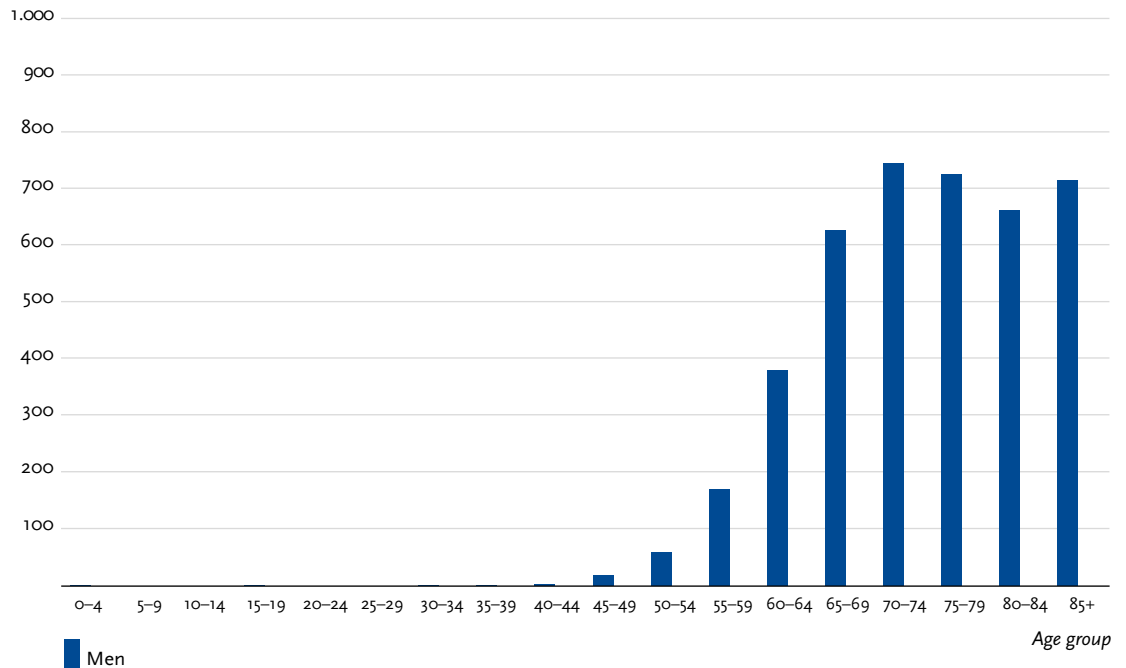


Table 3.18.2
Cancer incidence and mortality risks in Germany by age, ICD-10 C61, database 2010

Men 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 4,200)	13.4%	(1 in 7)	<0.1%	(1 in 108,000)	3.3%	(1 in 30)
45 years	0.5%	(1 in 220)	13.6%	(1 in 7)	<0.1%	(1 in 4,200)	3.4%	(1 in 30)
55 years	2.7%	(1 in 37)	13.8%	(1 in 7)	0.2%	(1 in 560)	3.5%	(1 in 29)
65 years	6.3%	(1 in 16)	12.6%	(1 in 9)	0.7%	(1 in 140)	3.7%	(1 in 27)
75 years	5.9%	(1 in 17)	8.5%	(1 in 12)	1.9%	(1 in 52)	3.8%	(1 in 26)
Lifetime risk			13.2%	(1 in 8)			3.3%	(1 in 30)

Figure 3.18.3
Distribution of T-stages at first diagnosis (top: all cases; bottom: only valid reports)
ICD-10 C61, Germany 2009 – 2010

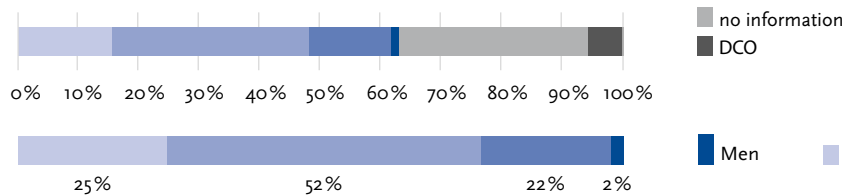


Figure 3.18.4a
Absolute survival rates up to 5 years after first diagnosis,
ICD-10 C61, Germany 2009 – 2010

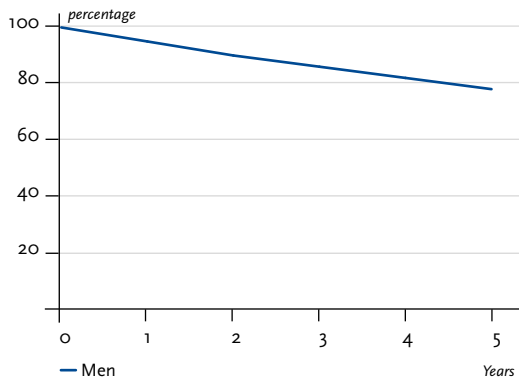


Figure 3.18.4b
Relative survival rates up to 5 years after first diagnosis,
ICD-10 C61, Germany 2009 – 2010

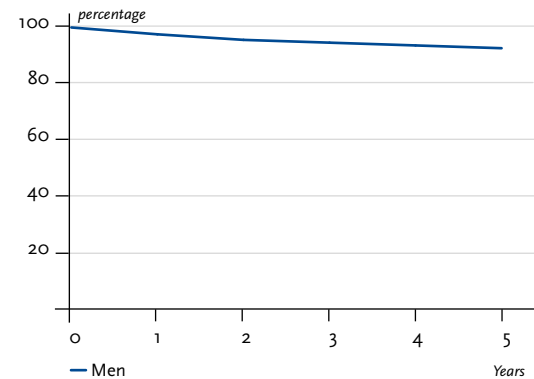


Figure 3.18.5
Registered age-standardised incidence and mortality rates in German federal states,
ICD-10 C61, 2009 – 2010
per 100,000 (European standard)

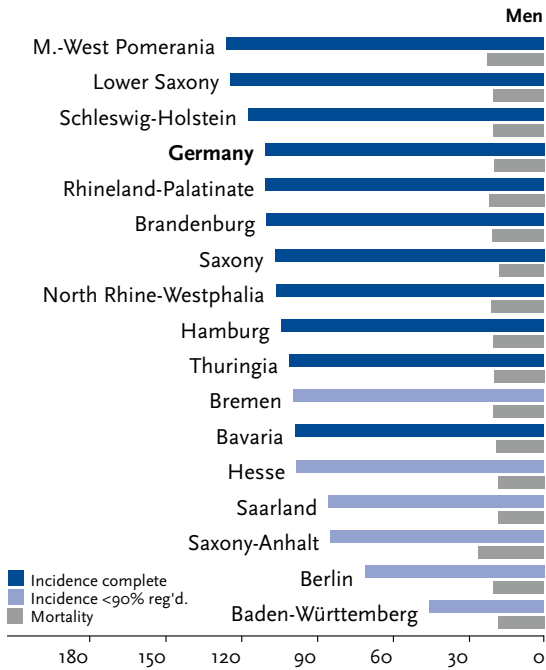


Figure 3.18.6
International comparison of age-standardised incidence and mortality rates,
ICD-10 C61, 2009 – 2010 or latest available year (details and sources, see appendix)
per 100,000 (European standard)

