

3.29 Non-Hodgkin lymphoma

Table 3.29.1
Overview of key epidemiological parameters for Germany, ICD-10 C82–C88

Incidence	2015		2016		Prediction for 2020	
	Women	Men	Women	Men	Women	Men
Incident cases	8,170	10,070	8,540	9,830	9,100	11,200
Crude incidence rate ¹	19.7	25.1	20.5	24.2	22.0	27.7
Age-standardised incidence rate ^{1,2}	11.4	17.1	12.0	16.4	12.3	17.8
Median age at diagnosis	72	70	72	70		
Mortality	2015		2016		2017	
	Women	Men	Women	Men	Women	Men
Deaths	2,975	3,619	3,152	3,701	3,116	3,745
Crude mortality rate ¹	7.2	9.0	7.6	9.1	7.4	9.2
Age-standardised mortality rate ^{1,2}	3.1	5.4	3.2	5.4	3.1	5.3
Median age at death	79	76	79	77	80	77
Prevalence and survival rates	5 years		10 years			
	Women	Men	Women	Men		
Prevalence	29,400	34,800	50,000	57,700		
Absolute survival rate (2015–2016) ³	62 (59–65)	58 (51–65)	49 (45–54)	43 (39–52)		
Relative survival rate (2015–2016) ³	70 (67–74)	68 (59–76)	64 (59–72)	60 (53–72)		

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

Non-Hodgkin lymphomas are a heterogeneous group of cancers that originate from lymphocyte cells in the lymphatic system. The different forms of lymphoma have varying prognoses. The options available for treatment also vary by cell type as well as by clinical and molecular manifestation. In 2016, around 18,370 people in Germany developed non-Hodgkin lymphoma. The condition chiefly occurs among older people with an average age at diagnosis of 72 years for women and 70 years for men.

The increasing age-standardised incidence observed for non-Hodgkin lymphoma needs to be interpreted against the backdrop of changed diagnostic criteria. Chronic lymphatic leukaemias are now often classified as low-grade, malignant non-Hodgkin lymphomas.

Age-standardised mortality among women and men declined in the first decade of the millennium but has remained at a constant level ever since.

Non-Hodgkin lymphomas come with a rather good overall prognosis, with relative 5-year survival rates of 70% in women and 68% in men. However, the risk of death increases as the disease progresses.

Risk factors

No known risk factor is associated with every type of non-Hodgkin lymphoma. Nevertheless, congenital or acquired immunodeficiency, radiation, chemotherapy and some rare autoimmune diseases can increase risk. Certain viruses and other pathogens are also considered risk factors in some cases. For example, the Epstein-Barr virus (EBV) can contribute to the development of Burkitt's lymphoma, which is mainly endemic in Africa. At the same time, *Helicobacter pylori* bacteria promote the development of gastric MALT lymphoma.

Benzene and related substances can encourage the development of some non-Hodgkin lymphomas. Other environmental toxins and lifestyle factors are currently being discussed as causes of the disease. Families that have been frequently affected by lymphomas in the past may have a slightly increased risk of developing the condition. However, the exact relationships remain unclear.

In the majority of cases, no clear causal explanation can be found for the condition, and it is likely that it results from several factors working together.

Figure 3.29.1a
Age-standardised incidence and mortality rates by sex, ICD-10 C82–C88, Germany 1999–2016/2017, projection (incidence) through 2020 per 100,000 (old European Standard)

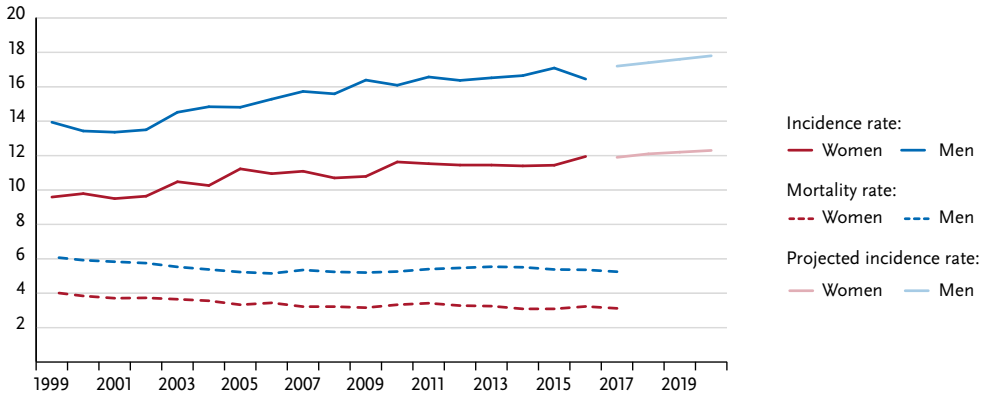


Figure 3.29.1b
Absolute numbers of incident cases and deaths by sex, ICD-10 C82–C88, Germany 1999–2016/2017, projection (incidence) through 2020

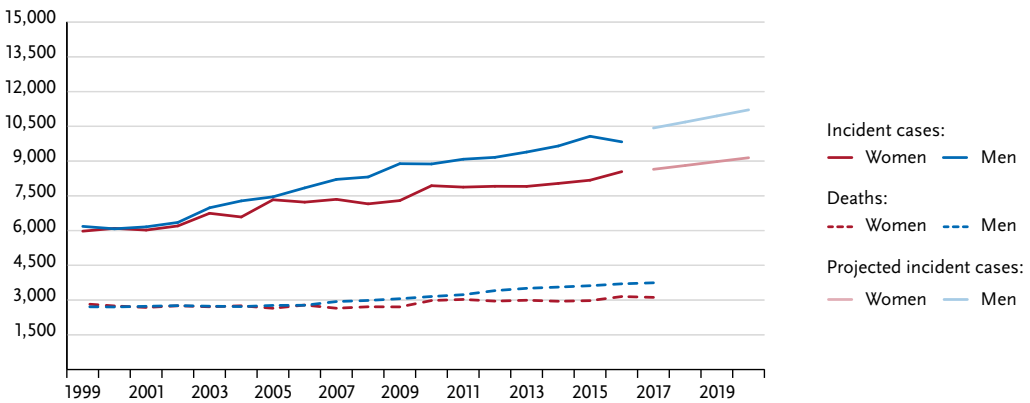


Figure 3.29.2
Age-specific incidence rates by sex, ICD-10 C82-C88, Germany 2015–2016 per 100,000

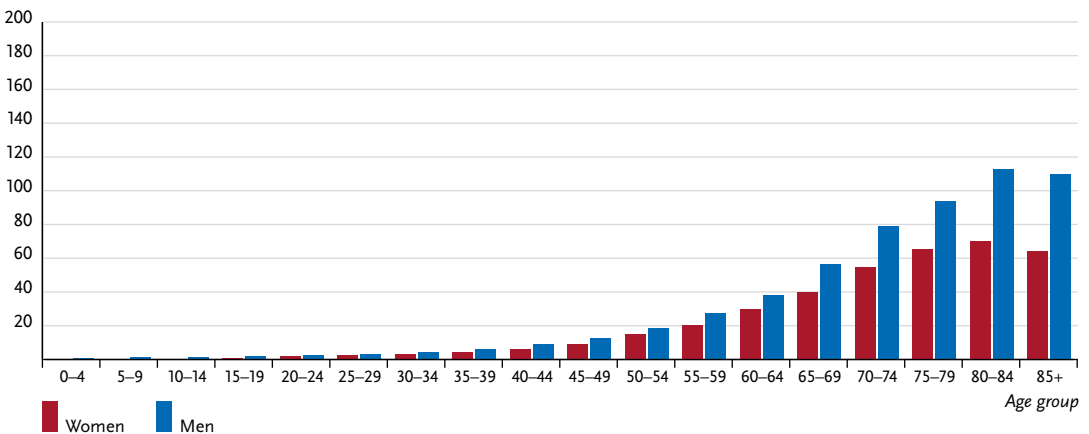


Table 3.29.2
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C82–C88, database 2016

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 1,900)	1.6%	(1 in 65)	< 0.1%	(1 in 24,300)	0.6%	(1 in 160)
45 years	0.1%	(1 in 820)	1.5%	(1 in 66)	< 0.1%	(1 in 6,700)	0.6%	(1 in 160)
55 years	0.3%	(1 in 400)	1.4%	(1 in 71)	< 0.1%	(1 in 2,000)	0.6%	(1 in 160)
65 years	0.5%	(1 in 210)	1.2%	(1 in 81)	0.1%	(1 in 830)	0.6%	(1 in 160)
75 years	0.6%	(1 in 170)	0.9%	(1 in 120)	0.3%	(1 in 320)	0.6%	(1 in 180)
Lifetime risk			1.6%	(1 in 64)			0.6%	(1 in 160)
Men aged	in the next ten years		ever		in the next ten years		ever	
35 years	0.1%	(1 in 1,300)	1.8%	(1 in 57)	< 0.1%	(1 in 12,100)	0.8%	(1 in 130)
45 years	0.2%	(1 in 650)	1.7%	(1 in 58)	< 0.1%	(1 in 4,100)	0.8%	(1 in 130)
55 years	0.3%	(1 in 320)	1.6%	(1 in 62)	0.1%	(1 in 1,200)	0.8%	(1 in 130)
65 years	0.6%	(1 in 170)	1.5%	(1 in 69)	0.2%	(1 in 510)	0.8%	(1 in 130)
75 years	0.8%	(1 in 130)	1.1%	(1 in 93)	0.5%	(1 in 220)	0.7%	(1 in 130)
Lifetime risk			1.8%	(1 in 55)			0.8%	(1 in 130)

Figure 3.29.3
Distribution of UICC-stages at first diagnosis by sex
Not included because UICC-stages are not defined for non-Hodgkin lymphomas.

Table 3.29.3
Proportion of the various non-Hodgkin lymphomas for all new diagnoses C82–C88, by sex, Germany 2015–2016

	C82 ¹	C83 ²	C84 ³	C85 ⁴	C86 ⁵	C88 ⁶
Women	20%	47%	5%	18%	2%	7%
Men	16%	53%	7%	15%	2%	6%

- ¹ Follicular lymphoma
- ² Non-follicular lymphoma
- ³ Mature T/NK-cell lymphomas
- ⁴ Other and unspecified types
- ⁵ Other specified types of T/NK-cell lymphoma
- ⁶ Malignant immunoproliferative diseases

Figure 3.29.4
Absolute and relative survival rates up to 10 years after first diagnosis, by sex, ICD-10 C82–C88, Germany 2015–2016

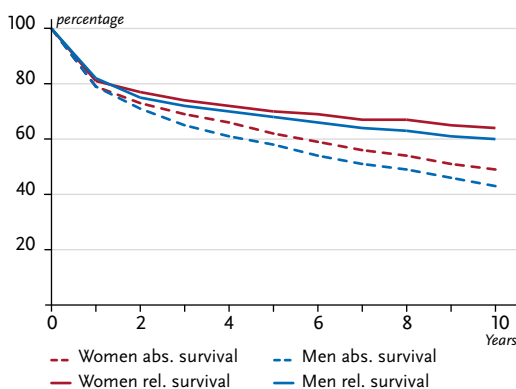


Figure 3.29.5
Relative 5-year-survival by type of non-Hodgkin lymphoma (ICD-10) and sex, ICD-10 C82–C88, Germany 2015–2016

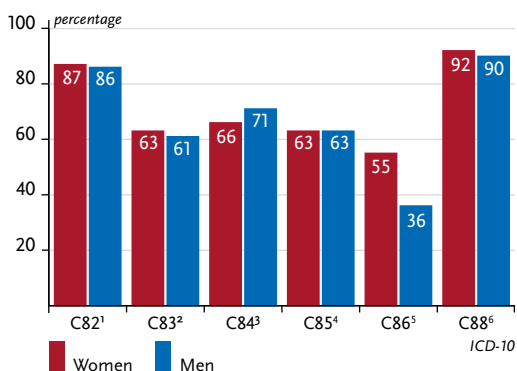


Figure 3.29.6
 Age-standardised incidence and mortality rates in German federal states by sex, ICD-10 C82–C88, 2015–2016
 (Incidence in Bremen for 2014 and 2016, incidence in eastern Germany for 2015)
 per 100,000 (old European Standard)

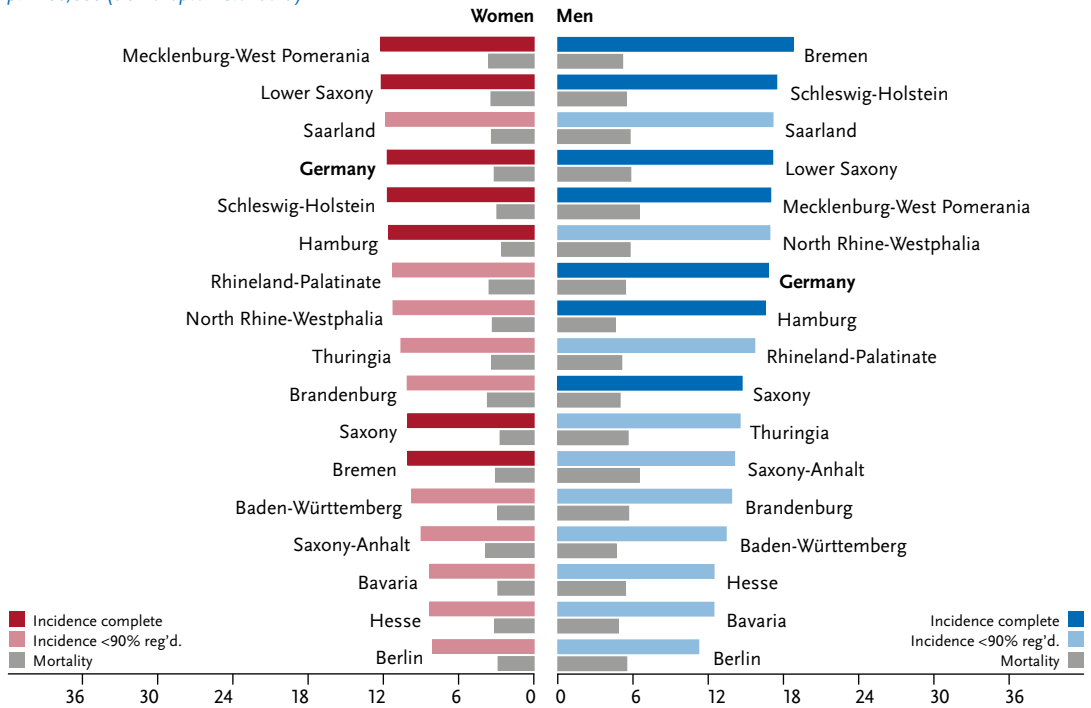
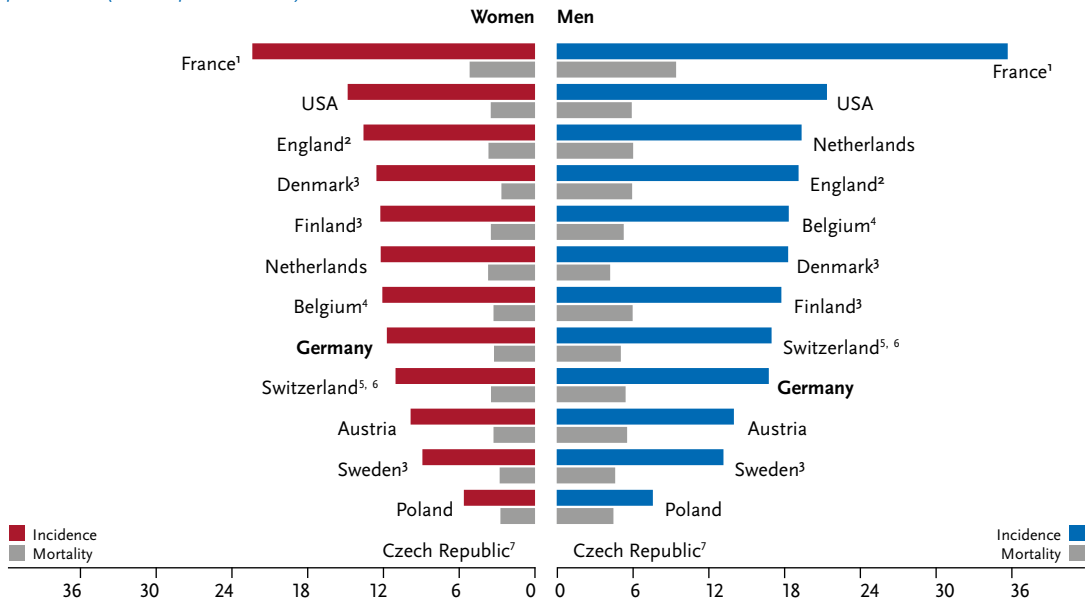


Figure 3.29.7
 International comparison of age-standardised incidence and mortality rates by sex, ICD-10 C82–C88,
 2015–2016 or latest available year (details and sources, see appendix)
 per 100,000 (old European Standard)



¹ Incidence figures based on estimate from ICD-O-3

² Data for C82 to C85 and C88

³ Data for C82 to C86

⁴ Mortality only for 2015 from WHO-mortality database

⁵ Data for incidence for C82 to C86 and C96

⁶ Mortality only for 2015

⁷ No data available