

3.29 Non-Hodgkin lymphoma

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

Incidence	2017		2018		Prediction for 2022	
	Women	Men	Women	Men	Women	Men
Incident cases	8,630	10,710	8,280	10,190	9,300	11,800
Crude incidence rate ¹	20.6	26.3	19.7	24.9	22.1	28.6
Age-standardised incidence rate ^{1, 2}	11.7	17.6	11.4	16.6	12.3	18.2
Median age at diagnosis	73	70	72	70		
Mortality	2017		2018		2019	
	Women	Men	Women	Men	Women	Men
Deaths	3,116	3,745	3,220	3,835	3,145	3,885
Crude mortality rate ¹	7.4	9.2	7.7	9.4	7.5	9.5
Age-standardised mortality rate ^{1, 2}	3.1	5.3	3.2	5.2	3.1	5.2
Median age at death	80	77	80	78	80	78
Prevalence and survival rates	5 years		10 years		25 years	
	Women	Men	Women	Men	Women	Men
Prevalence	29,400	35,600	49,500	58,300	78,000	89,000
Absolute survival rate (2017–2018) ³	62 (55–66)	59 (56–64)	48 (41–53)	45 (41–50)		
Relative survival rate (2017–2018) ³	71 (63–75)	70 (66–75)	64 (55–69)	64 (57–70)		

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

Non-Hodgkin lymphomas are a heterogeneous group of cancers that originate from cells of the lymphatic system, so-called lymphocytes. The various lymphomas differ in terms of prognosis and treatment options according to cell type as well as clinical and molecular characteristics. In 2018, approximately 18,470 men were diagnosed with non-Hodgkin lymphoma in Germany. The disease is primarily a disease of older age. On average, affected women were 72 years old and men 70 years old at the time of diagnosis.

The increased age-standardised incidence rates are to be seen against the background of changed diagnostic criteria, since chronic lymphocytic leukaemias are now often counted among the low-malignant non-Hodgkin lymphomas. The age-standardised mortality rates for both women and men declined in the first decade after the turn of the millennium and have remained at a roughly constant level since then. The average prognosis of non-Hodgkin lymphoma is rather good overall, with relative 5-year survival rates of 71% in women and 70% in men, although these figures continue to decline as the disease progresses.

Risk factors

No generally valid risk factors can be named for the group of all non-Hodgkin lymphomas. Congenital or acquired immunodeficiency, radioactive radiation, chemotherapy and some rare autoimmune diseases can increase the risk of lymphoma. Certain viruses and other pathogens are also considered risk factors for individual lymphomas: For example, Epstein-Barr virus (EBV) can contribute to the development of Burkitt's lymphoma, which is predominantly endemic in Africa. *Helicobacter pylori* bacteria favour the development of MALT lymphoma of the stomach.

Benzene and related substances can promote the development of individual non-Hodgkin lymphomas. Other environmental toxins and lifestyle factors are also discussed as triggers for lymphomas. If lymphomas have already occurred in a family, the risk of lymphoma for relatives can be slightly increased. The reasons for these associations are still widely unknown.

Overall, no clear cause for the development of lymphoma can be found for many patients. Presumably, several factors must interact before a non-Hodgkin lymphoma develops.

Figure 3.29.1a

Age-standardised incidence and mortality rates by sex, ICD-10 C82–C88, Germany 1999–2018/2019, projection (incidence) through 2022
per 100,000 (old European Standard)

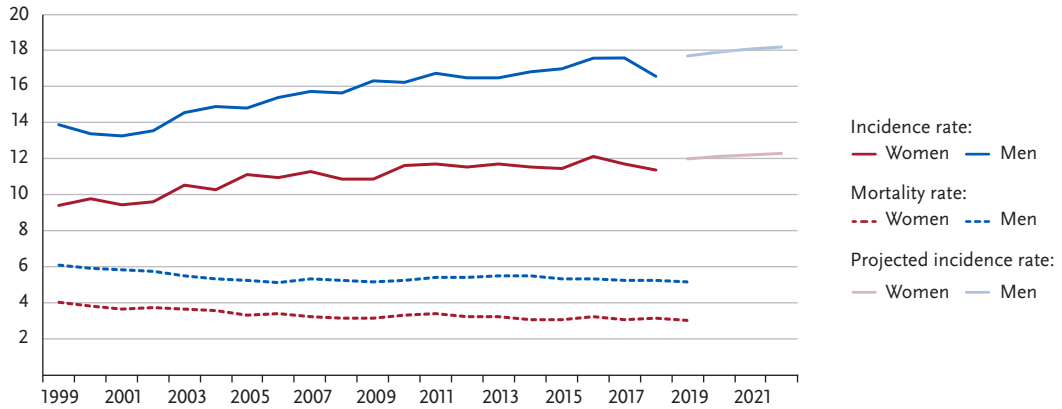


Figure 3.29.1b

Absolute numbers of incident cases and deaths by sex, ICD-10 C82–C88, Germany 1999–2018/2019, projection (incidence) through 2022

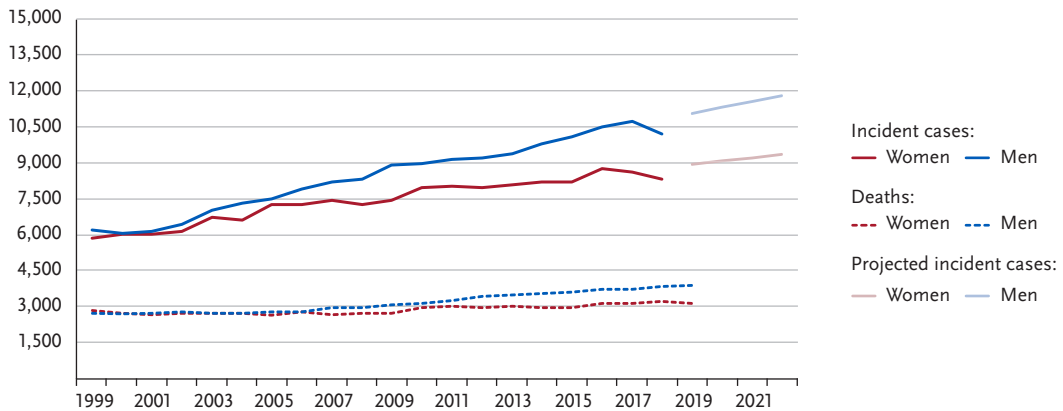


Figure 3.29.2

Age-specific incidence rates by sex, ICD-10 C82–C88, Germany 2017–2018
per 100,000

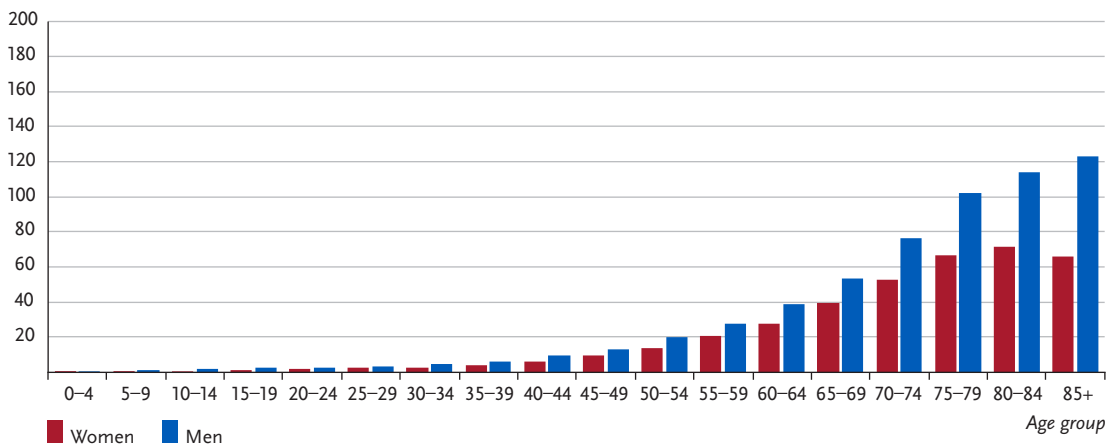


Table 3.29.2

Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C82–C88, database 2018

Risk of developing cancer					Mortality risk			
Women aged	in the next 10 years		ever		in the next 10 years		ever	
35 years	< 0.1 %	(1 in 2,000)	1.5 %	(1 in 68)	< 0.1 %	(1 in 18,900)	0.6 %	(1 in 160)
45 years	0.1 %	(1 in 830)	1.4 %	(1 in 69)	< 0.1 %	(1 in 6,800)	0.6 %	(1 in 160)
55 years	0.2 %	(1 in 430)	1.3 %	(1 in 74)	< 0.1 %	(1 in 2,600)	0.6 %	(1 in 160)
65 years	0.4 %	(1 in 240)	1.2 %	(1 in 85)	0.1 %	(1 in 810)	0.6 %	(1 in 160)
75 years	0.6 %	(1 in 180)	0.9 %	(1 in 120)	0.3 %	(1 in 330)	0.6 %	(1 in 180)
Lifetime risk			1.5 %	(1 in 66)			0.6 %	(1 in 160)
Men aged	in the next 10 years		ever		in the next 10 years		ever	
35 years	0.1 %	(1 in 1,300)	1.8 %	(1 in 54)	< 0.1 %	(1 in 12,400)	0.8 %	(1 in 130)
45 years	0.2 %	(1 in 630)	1.8 %	(1 in 56)	< 0.1 %	(1 in 4,700)	0.8 %	(1 in 130)
55 years	0.3 %	(1 in 310)	1.7 %	(1 in 59)	0.1 %	(1 in 1,600)	0.8 %	(1 in 130)
65 years	0.6 %	(1 in 170)	1.5 %	(1 in 66)	0.2 %	(1 in 510)	0.8 %	(1 in 130)
75 years	0.8 %	(1 in 120)	1.2 %	(1 in 84)	0.4 %	(1 in 220)	0.8 %	(1 in 130)
Lifetime risk			1.9 %	(1 in 53)			0.8 %	(1 in 130)

Figure 3.29.3

Distribution of UICC stages at diagnosis by sex

Not included because UICC stages are not defined for non-Hodgkin lymphomas.

Table 3.29.3

Proportion of non-Hodgkin lymphoma incidence by type of lymphoma and sex, ICD-10 C82–C88, Germany 2017–2018

	C82 ¹	C83 ²	C84 ³	C85 ⁴	C86 ⁵	C88 ⁶
Women	19 %	49 %	6 %	17 %	2 %	8 %
Men	15 %	53 %	9 %	15 %	2 %	7 %

¹ Follicular lymphoma² Non-follicular lymphoma³ Mature T/NK-cell lymphoma⁴ Other and unspecified types⁵ Other specified types of T/NK-cell lymphoma⁶ Malignant immunoproliferative diseases

Figure 3.29.4

Absolute and relative survival rates up to 10 years after diagnosis by sex, ICD-10 C82–C88, Germany 2017–2018

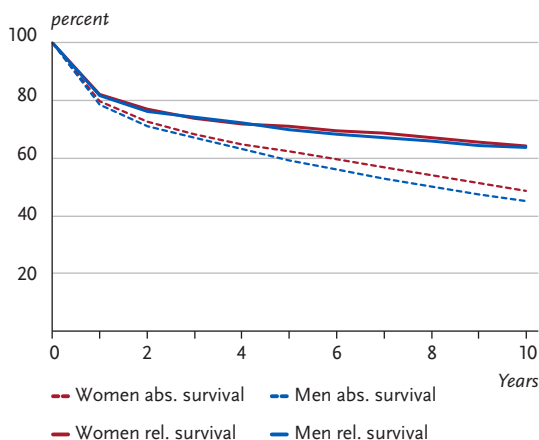


Figure 3.29.5

Relative 5-year-survival by type of non-Hodgkin lymphoma (ICD-10) and sex, ICD-10 C82–C88, Germany 2017–2018

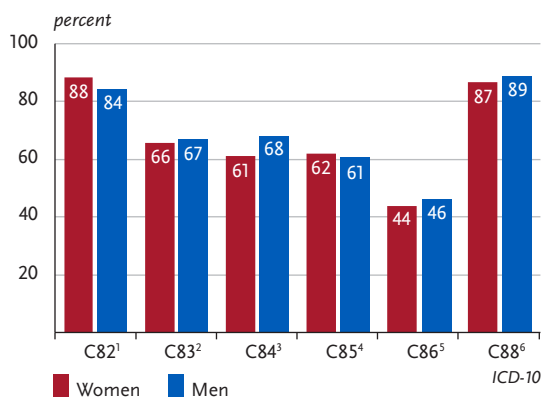


Figure 3.29.6

Age-standardised incidence and mortality rates in German federal states by sex, ICD-10 C82–C88, 2017–2018
per 100,000 (old European Standard)

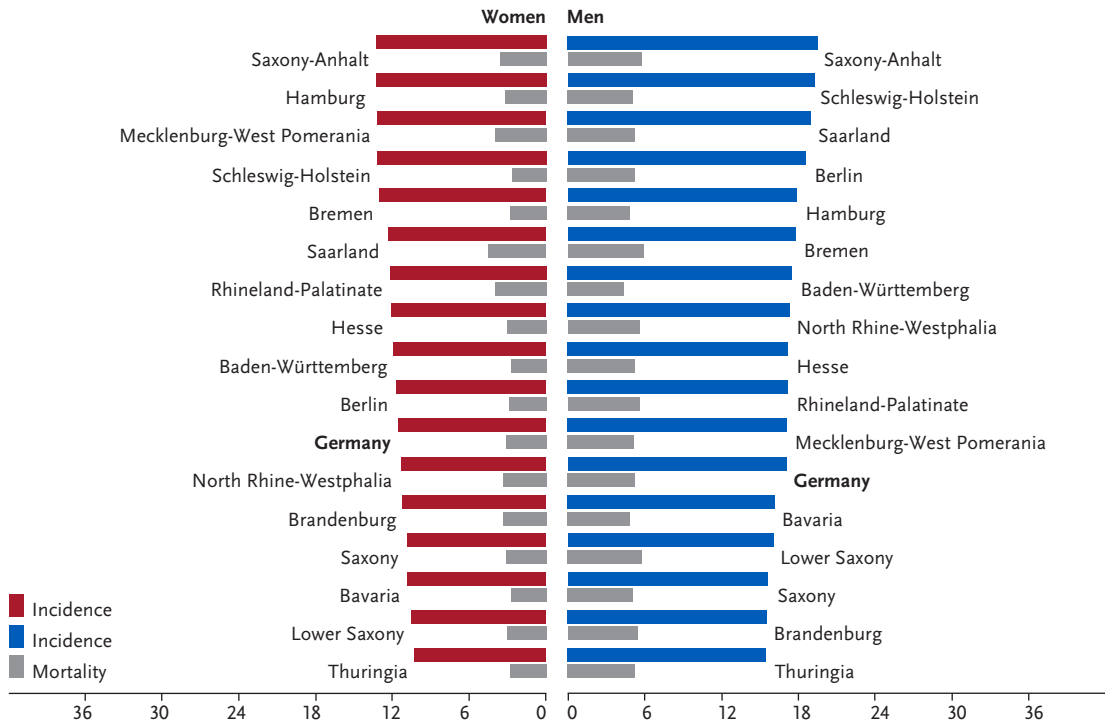
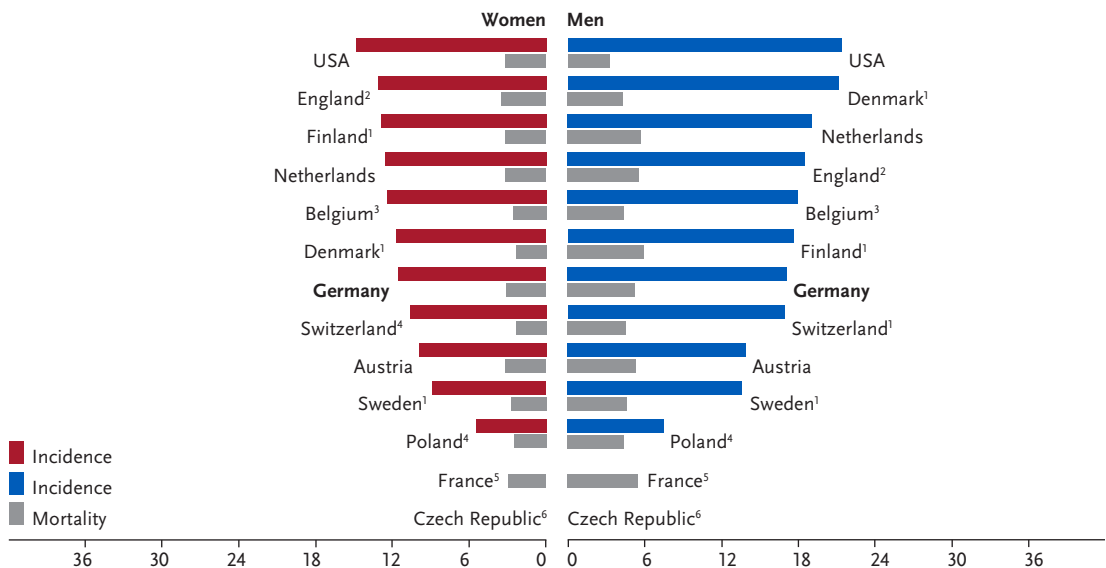


Figure 3.29.7

International comparison of age-standardised incidence and mortality rates by sex,
ICD-10 C82–C88, 2017–2018 or latest available year (details and sources, see appendix)
per 100,000 (old European Standard)

¹ Data for C82 to C86 and C96² Data only for C82 to C85³ Mortality for 2016⁴ Data for C82 to C85 and C88⁵ No incidence data available⁶ No data available