3.29 Non-Hodgkin lymphoma

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

Incidence		2019		2020		
	Women	Men	Women	Men		
Incident cases	8,490	10,500	8,230	10,090		
Crude incidence rate [1]	20.2	25.6	19.5	24.6		
Age-standardised incidence rate [1, 2]	11.4	16.8	11.0	15.9		
Median age at diagnosis	73	70	73	71		
Mortality		**2019**		**2020**		**2021**
	Women	Men	Women	Men	Women	Men
Deaths	3,145	3,885	3,180	4,012	3,189	4,046
Crude mortality rate [1]	7.4	9.6	7.6	9.8	7.6	9.8
Age-standardised mortality rate [1, 2]	3.0	5.3	2.9	5.4	3.0	5.2
Median age at death	80	78	80	78	81	78
Prevalence and survival rates		**5 years**		**10 years**		**25 years**
	Women	Men	Women	Men	Women	Men
Prevalence	30,000	35,400	50,700	58,100	80,200	89,800
Absolute survival rate (2019 – 2020) [3]	63 (60 – 70)	60 (57 – 64)	51 (47 – 55)	45 (42 – 50)		
Relative survival rate (2019 – 2020) [3]	72 (69 – 82)	71 (68 – 76)	68 (62 – 76)	64 (61 – 71)		

[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 depending on the cell type and their clinical and molecular characteristics. In 2020, about 18,320 people in Germany were diagnosed with non-Hodgkin lymphoma. The disease is primarily a disease of older age. On average, affected women were 73 years old and men 71 years old at the time of diagnosis.

The increased age-standardised incidence rates are to be seen against the background of changed diagnostic criteria, as chronic lymphocytic leukaemias are now often classified as low-grade 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 more or less constant since then. The average prognosis of non-Hodgkin lymphoma is rather good overall, with relative 5-year survival rates of 72 % for women and 71 % for men, although these figures 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, the 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.

Occupational exposure to benzene and 1,3-butadiene can promote the development of individual non-Hodgkin lymphomas. Other environmental toxins and lifestyle factors are also being discussed as triggers for lymphomas. If lymphomas have already occurred frequently in a family, the risk of lymphoma may be slightly increased for relatives. The exact correlations are still unclear.

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

▶ *Additional information: www.krebsdaten.de/non-hodgkin_lymphoma*

Figure 3.29.1a
Age-standardised incidence and mortality rates by sex, ICD-10 C82 – C88, Germany 1999 – 2020/2021
per 100,000 (old European Standard)

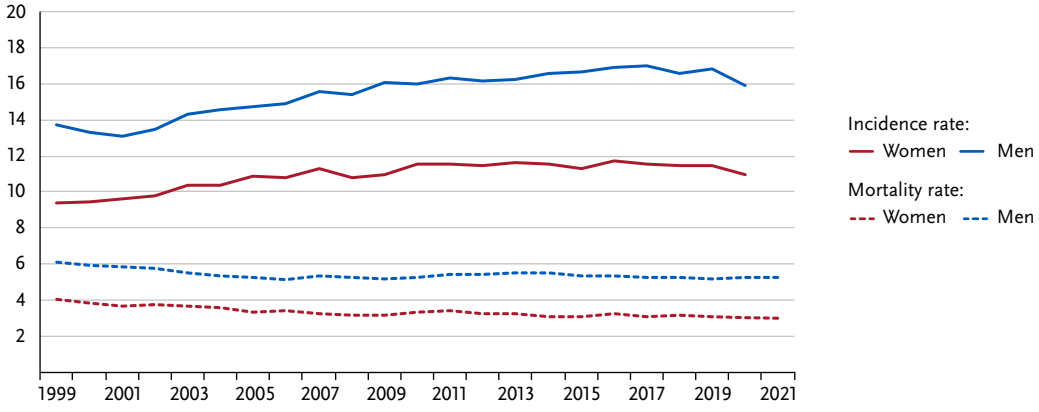


Figure 3.29.1b
Absolute numbers of incident cases and deaths by sex, ICD-10 C82 – C88, Germany 1999 – 2020/2021

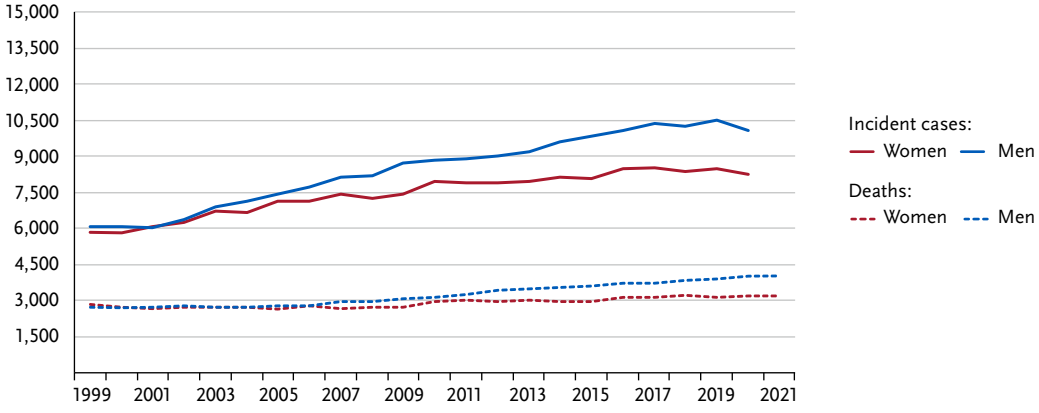


Figure 3.29.2
Age-specific incidence rates by sex, ICD-10 C82 – C88, Germany 2019 – 2020
per 100,000

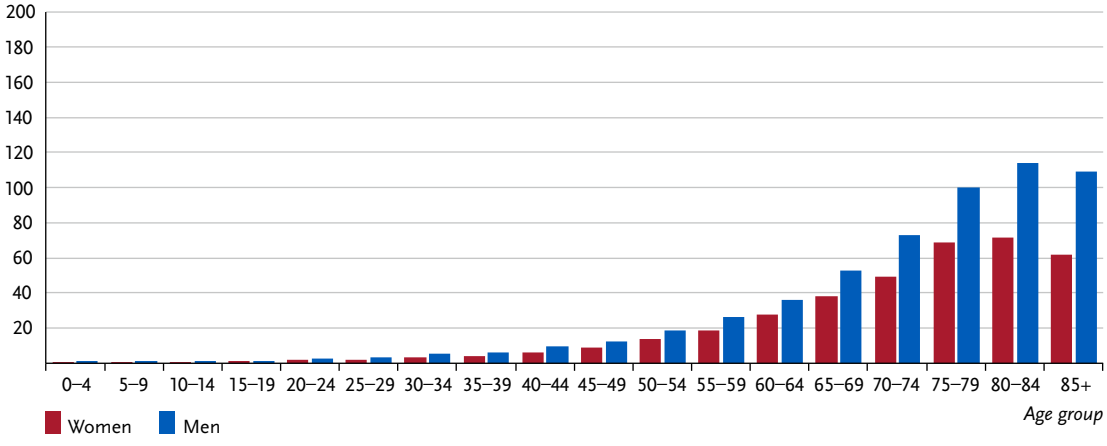


Table 3.29.2
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C82 – C88, database 2019

	Risk of developing cancer				Mortality risk			
Women aged	**in the next 10 years**		**ever**		**in the next 10 years**		**ever**	
35 years	0.1 %	(1 in 1,900)	1.5 %	(1 in 66)	< 0.1 %	(1 in 22,900)	0.6 %	(1 in 160)
45 years	0.1 %	(1 in 870)	1.5 %	(1 in 68)	< 0.1 %	(1 in 7,300)	0.6 %	(1 in 160)
55 years	0.2 %	(1 in 420)	1.4 %	(1 in 72)	< 0.1 %	(1 in 2,700)	0.6 %	(1 in 160)
65 years	0.4 %	(1 in 240)	1.2 %	(1 in 82)	0.1 %	(1 in 820)	0.6 %	(1 in 160)
75 years	0.6 %	(1 in 170)	0.9 %	(1 in 110)	0.3 %	(1 in 340)	0.6 %	(1 in 180)
Lifetime risk			1.6 %	(1 in 64)			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 1,200)	1.9 %	(1 in 52)	< 0.1 %	(1 in 19,200)	0.8 %	(1 in 130)
45 years	0.2 %	(1 in 640)	1.9 %	(1 in 54)	< 0.1 %	(1 in 4,700)	0.8 %	(1 in 130)
55 years	0.3 %	(1 in 320)	1.8 %	(1 in 57)	0.1 %	(1 in 1,400)	0.8 %	(1 in 120)
65 years	0.6 %	(1 in 170)	1.6 %	(1 in 63)	0.2 %	(1 in 510)	0.8 %	(1 in 120)
75 years	0.8 %	(1 in 120)	1.2 %	(1 in 80)	0.4 %	(1 in 230)	0.8 %	(1 in 130)
Lifetime risk			2.0 %	(1 in 51)			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 2019 – 2020

	C82 [1]	C83.1 [2]	C83.3 [3]	C88.4 [4]	Other
Women	20 %	4 %	33 %	6 %	37 %
Men	16 %	7 %	33 %	5 %	39 %

[1] Follicular lymphoma
[2] Mantle cell lymphoma
[3] Diffuse large B-cell lymphoma
[4] Extranodal marginal zone B-cell lymphoma

Figure 3.29.4
Absolute and relative survival rates up to 10 years after diagnosis, by sex, ICD-10 C82 – C88, Germany 2019 – 2020

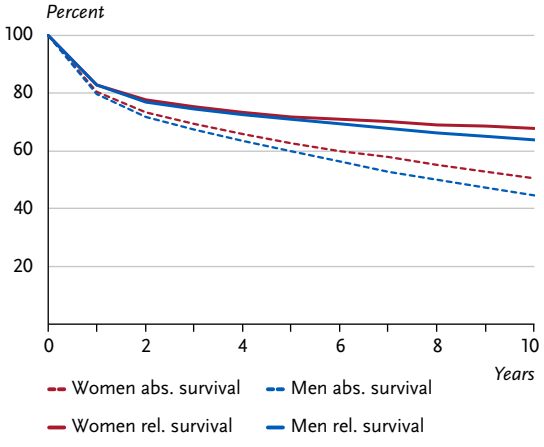


Figure 3.29.5
Relative 5-year survival by type of non-Hodgkin lymphoma (ICD-10) and sex, ICD-10 C82 – C88, Germany 2019 – 2020

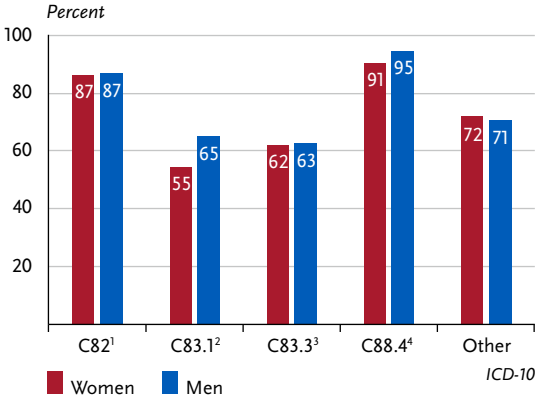
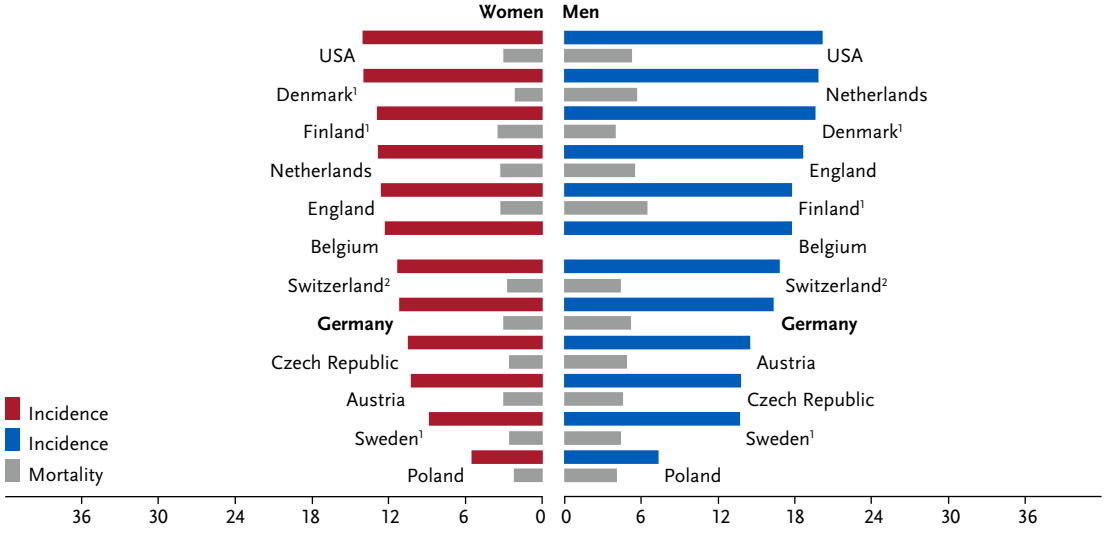


Figure 3.29.6
Age-standardised incidence and mortality rates in German federal states by sex, ICD-10 C82 – C88, 2019 – 2020
per 100,000 (old European Standard)

Figure 3.29.7
International comparison of age-standardised incidence and mortality rates by sex, ICD-10 C82 – C88, 2019 – 2020 or latest available year (details and sources, see appendix)
per 100,000 (old European Standard)



[1] Denmark, Sweden, Finland: data incl. C96, w/o. C88
[2] Switzerland: incidence data for 2015 – 2019