Non-Hodgkin's lymphoma

1993-2022

(ICD10 codes: C82-C86)



Northern Ireland Cancer Registry, 2025

An official statistics publication

ABOUT THIS REPORT

Contents

This report includes information on incidence of non-Hodgkin's lymphoma as recorded by the Northern Ireland Cancer Registry (NICR). Incidence data is available annually from 1993 to 2022, however in order to provide stable and robust figures the majority of information presented in this report is based upon the average number of cases diagnosed in the last five years.

Methodology

The methodology used in producing the statistics presented in this report, including details of data sources, classifications and coding are available in the accompanying methodology report available at: www.gub.ac.uk/research-centres/nicr/CancerInformation/official-statistics.

Official statistics

The incidence, prevalence and survival statistics in this publication are designated as official statistics signifying that they comply with the Code of Practice for Official Statistics. Further information on this code is available at code.statisticsauthority.gov.uk.

Cancer mortality data

The NI Statistics and Research Agency (NISRA) is the official statistics provider of cancer mortality data in Northern Ireland. However, for completeness, data on cancer mortality is also provided in this report. While analysis is conducted by NICR staff, the original data is provided courtesy of the General Register Office (NI) via the Department of Health.

Reuse of information

The information in this report (and any supplementary material) is available for reuse free of charge and without the need to contact NICR. However, we request that NICR is acknowledged as the source of any reused information. The following reference is recommended:

Northern Ireland Cancer Registry 2025. Non-Hodgkin's lymphoma: 1993-2022. Available at: www.qub.ac.uk/research-centres/nicr

Further information

Further information is available at: www.qub.ac.uk/research-centres/nicr

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Acknowledgements

The Northern Ireland Cancer Registry (NICR) uses data provided by patients and collected by the health service as part of their care and support.

NICR is funded by the Public Health Agency and is based in Queen's University, Belfast.

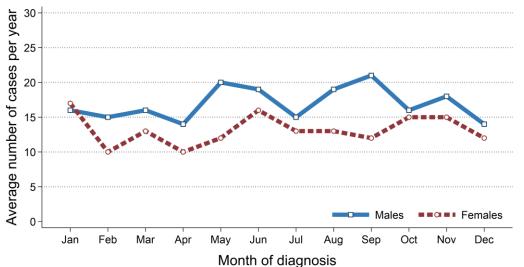




Incidence

- There were 1,801 cases of non-Hodgkin's lymphoma diagnosed during 2018-2022 in Northern Ireland. On average this was 360 cases per year.
- During this period 43.8% of non-Hodgkin's lymphoma cases were among women (Male cases: 1,013, Female cases: 788). On average there were 203 male and 158 female cases of non-Hodgkin's lymphoma per year.
- The most common diagnosis month during 2018-2022 was September among males with 21 cases per year and January among females with 17 cases per year.

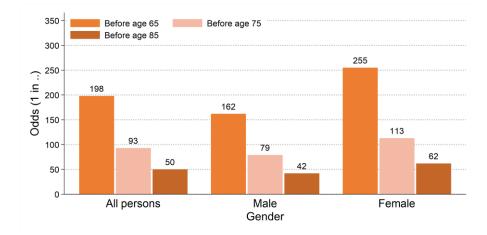
Figure 1: Average number of cases of non-Hodgkin's lymphoma per year in 2018-2022 by month of diagnosis



	Average number		
Month	of cases per year		
of diagnosis	Males	Females	
January	16	17	
February	15	10	
March	16	13	
April	14	10	
May	20	12	
June	19	16	
July	15	13	
August	19	13	
September	21	12	
October	16	15	
November	18	15	
December	14	12	

- Non-Hodgkin's lymphoma made up 3.8% of all male and 3.1% of all female cancer cases (excluding non-melanoma skin cancer).
- The non-Hodgkin's lymphoma incidence rates for each gender were 21.7 cases per 100,000 males and 16.3 cases per 100,000 females.
- The odds of developing non-Hodgkin's lymphoma before age 85 was 1 in 42 for men and 1 in 62 for women.

Figure 2: Odds of developing non-Hodgkin's lymphoma in 2018-2022



INCIDENCE BY AGE

- The median age of patients diagnosed with non-Hodgkin's lymphoma during 2018-2022 was 71 years (Males: 70, Females: 72).
- The risk of developing non-Hodgkin's lymphoma varied by age, with 36.0% of men and 41.1% of women diagnosed with non-Hodgkin's lymphoma aged 75 and over at diagnosis.
- In contrast, 15.6% of patients diagnosed with non-Hodgkin's lymphoma were aged 0 to 54 at diagnosis.

Figure 3: Average number of cases of non-Hodgkin's lymphoma diagnosed per year in 2018-2022 by age at diagnosis

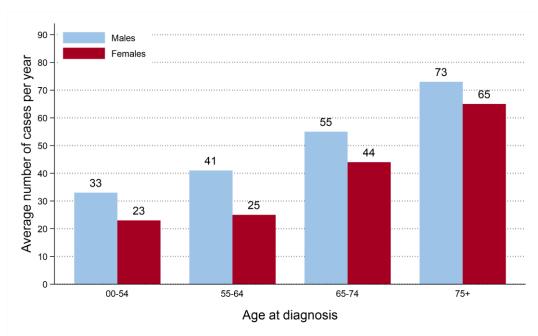
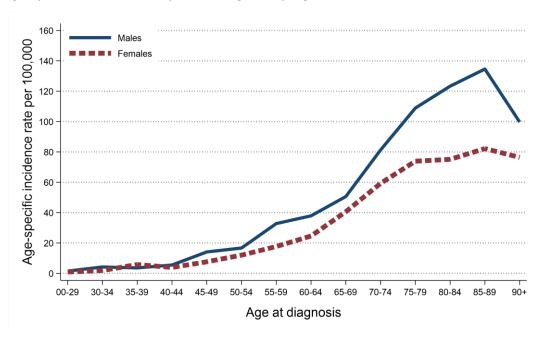


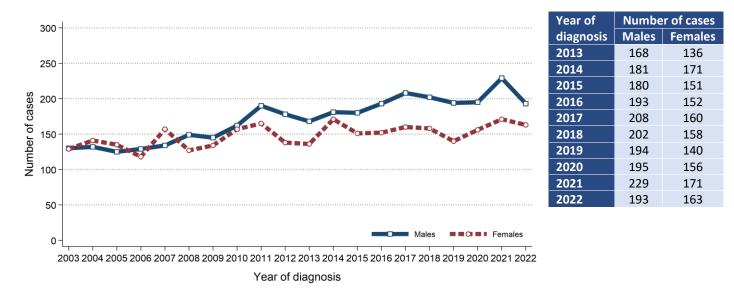
Figure 4: Age-specific incidence rates of non-Hodgkin's lymphoma in 2018-2022



INCIDENCE TRENDS

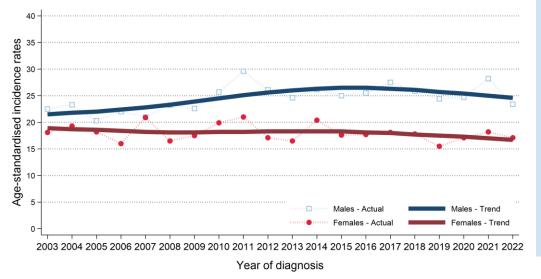
- The number of cases of non-Hodgkin's lymphoma among males increased between 2013-2017 and 2018-2022 by 8.9% from 930 cases (186 cases per year) to 1,013 cases (203 cases per year).
- The number of cases of non-Hodgkin's lymphoma among females increased between 2013-2017 and 2018-2022 by 2.3% from 770 cases (154 cases per year) to 788 cases (158 cases per year).

Figure 5: Trends in number of cases of non-Hodgkin's lymphoma diagnosed from 2003 to 2022



- Male age-standardised non-Hodgkin's lymphoma incidence rates decreased between 2013-2017 and 2018-2022 by 1.9% from 25.8 to 25.3 cases per 100,000 males. This change was not statistically significant.
- Female age-standardised non-Hodgkin's lymphoma incidence rates decreased between 2013-2017 and 2018-2022 by 5.5% from 18.1 to 17.1 cases per 100,000 females. This change was not statistically significant.

Figure 6: Trends in incidence rates of non-Hodgkin's lymphoma from 2003 to 2022



Age-standardised incidence rates illustrate the change in the number of cases within a population of a fixed size and age structure (2013 European Standard).

They thus represent changes other than those caused by population growth and/or ageing.

Trends can also be influenced by changes in how cancer is classified and coded. (e.g. the move from ICD-0-2 to ICD-0-3 in 2019).

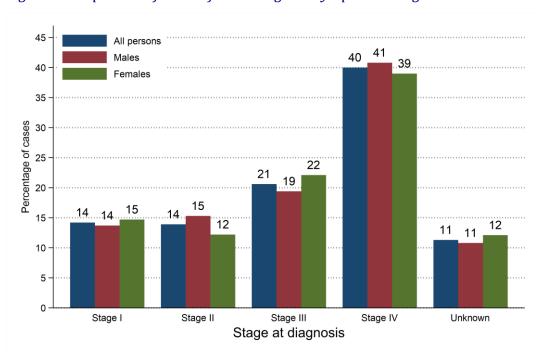
Incidence by stage at diagnosis

- During 2018-2022 88.7% of non-Hodgkin's lymphoma cases had a stage assigned.
- 14.2% of non-Hodgkin's lymphoma cases were diagnosed at Stage I. (16.0% of staged cases)
- 40.0% of non-Hodgkin's lymphoma cases were diagnosed at Stage IV. (45.1% of staged cases)

Table 1: Number of cases of non-Hodgkin's lymphoma diagnosed in 2018-2022 by stage at diagnosis

	All persons		Male		Female	
Stage at diagnosis	Total cases in period	Average cases per year	Total cases in period	Average cases per year	Total cases in period	Average cases per year
All stages	1,801	360	1,013	203	788	158
		•				
Stage I	255	51	139	28	116	23
Stage II	251	50	155	31	96	19
Stage III	371	74	197	39	174	35
Stage IV	720	144	413	83	307	61
Unknown	204	41	109	22	95	19

Figure 7: Proportion of cases of non-Hodgkin's lymphoma diagnosed in 2018-2022 by stage at diagnosis



Cancer stage describes the size of a cancer and how far it has grown and spread.

This information is used to help decide what treatments are needed.

The classification used here to stage cancer is the TNM classification (Version 7 prior to 2018, Version 8 from 2018 onwards).

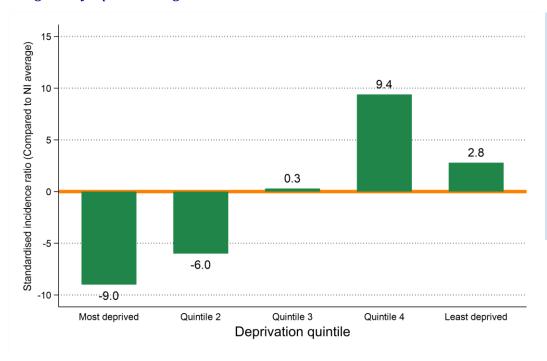
INCIDENCE BY DEPRIVATION

- The number of cases of non-Hodgkin's lymphoma diagnosed during 2018-2022 varied in each deprivation quintile due to variations in population size and age.
- After accounting for these factors, incidence rates:
- in the most socio-economically deprived areas did not vary significantly from the NI average.
- in the least socio-economically deprived areas did not vary significantly from the NI average.

Table 2: Number of cases of non-Hodgkin's lymphoma diagnosed in 2018-2022 by deprivation quintile

All persons		Male		Female		
Deprivation quintile	Total cases in period	Average cases per year	Total cases in period	Average cases per year	Total cases in period	Average cases per year
Northern Ireland	1,801	360	1,013	203	788	158
Most deprived	268	54	154	31	114	23
Quintile 2	338	68	187	37	151	30
Quintile 3	381	76	213	43	168	34
Quintile 4	420	84	230	46	190	38
Least deprived	394	79	229	46	165	33
Unknown	0	0	0	0	0	0

Figure 8: Standardised incidence ratio comparing deprivation quintile to Northern Ireland for non-Hodgkin's lymphoma diagnosed in 2018-2022



Standardised incidence ratios compare incidence rates in each deprivation quintile with the Northern Ireland incidence rate.

A value above 0 means that incidence rates in that deprivation quintile are greater than the NI average.

This measure takes account of population size and age structure. Differences are thus not a result of these factors.

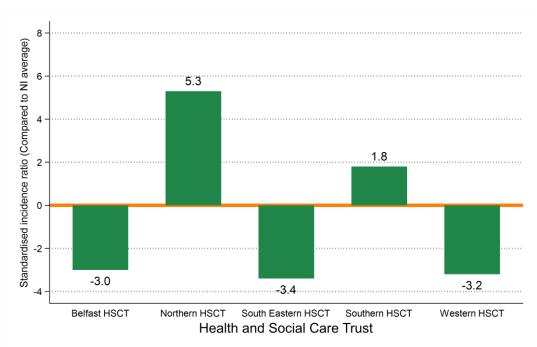
INCIDENCE BY HEALTH AND SOCIAL CARE TRUST

- The number of cases of non-Hodgkin's lymphoma diagnosed during 2018-2022 varied in each Health and Social Care Trust due to variations in population size and age.
- After accounting for these factors, incidence rates:
- in Belfast HSCT did not vary significantly from the NI average.
- in Northern HSCT did not vary significantly from the NI average.
- in South Eastern HSCT did not vary significantly from the NI average.
- in Southern HSCT did not vary significantly from the NI average.
- in Western HSCT did not vary significantly from the NI average.

Table 3: Number of cases of non-Hodgkin's lymphoma diagnosed in 2018-2022 by Health and Social Care Trust

	All persons		Male		Female	
Health and Social Care Trust	Total cases in period	Average cases per year	Total cases in period	Average cases per year	Total cases in period	Average cases per year
Northern Ireland	1,801	360	1,013	203	788	158
Belfast HSCT	312	62	175	35	137	27
Northern HSCT	503	101	294	59	209	42
South Eastern HSCT	367	73	208	42	159	32
Southern HSCT	347	69	179	36	168	34
Western HSCT	272	54	157	31	115	23
Unknown	0	0	0	0	0	0

Figure 9: Standardised incidence ratio comparing Health and Social Care Trust to Northern Ireland for non-Hodgkin's lymphoma diagnosed in 2018-2022



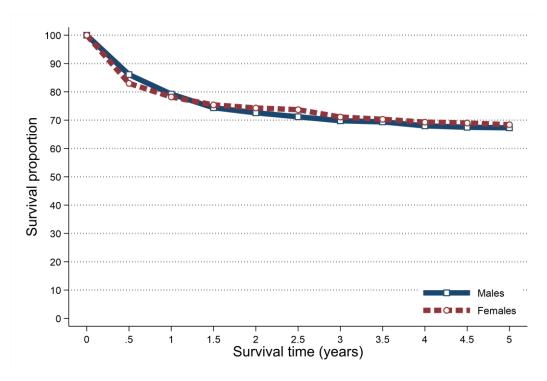
SURVIVAL

- 74.8% of patients were alive one year and 57.8% were alive five years from a non-Hodgkin's lymphoma diagnosis in 2013-2017. (observed survival)
- Age-standardised net survival (ASNS), which removes the effect of deaths from causes unrelated to cancer, was 78.8% one year and 67.8% five years from a non-Hodgkin's lymphoma diagnosis in 2013-2017.
- Five-year survival (ASNS) for non-Hodgkin's lymphoma patients diagnosed in 2013-2017 was 67.3% among men and 68.4% among women.

Table 4: Survival from non-Hodgkin's lymphoma for patients diagnosed in 2013-2017

All persons		Male		Female		
Time since diagnosis	Observed survival	Age- standardised net survival	Observed survival	Age- standardised net survival	Observed survival	Age- standardised net survival
6 months	82.1%	84.7%	84.5%	86.1%	79.2%	83.0%
One year	74.8%	78.8%	76.7%	79.2%	72.5%	78.2%
Two years	68.0%	73.4%	68.5%	72.6%	67.3%	74.3%
Five years	57.8%	67.8%	58.4%	67.3%	57.1%	68.4%

Figure 10: Age-standardised net survival from non-Hodgkin's lymphoma for patients diagnosed in 2013-2017



Observed survival examines the time between diagnosis and death from any cause, however, due to the inclusion of non-cancer deaths it may not fully reflect how changes in cancer care impact survival from cancer.

Age-standardised net survival provides an estimate of patient survival which has been adjusted to take account of deaths unrelated to cancer. It is more widely used to assess the impact of changes in cancer care on patient survival.

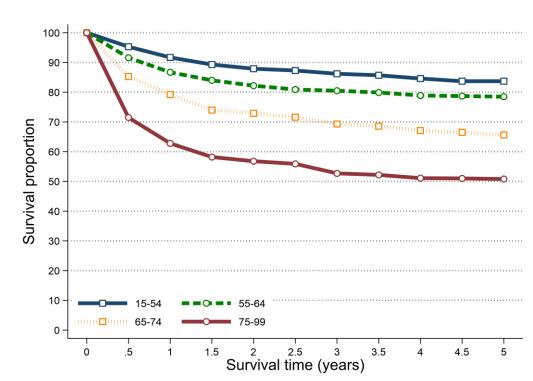
SURVIVAL BY AGE

- Survival from non-Hodgkin's lymphoma among patients diagnosed during 2013-2017 was related to age with better five-year survival among younger age groups.
- Five-year net survival ranged from 83.7% among patients aged 15 to 54 at diagnosis to 50.8% among those aged 75 to 99.

Table 5: Net survival from non-Hodgkin's lymphoma for patients diagnosed in 2013-2017 by age at diagnosis

Ago group	All persons			
Age group	One-year	Five-years		
15 to 54	91.7%	83.7%		
55 to 64	86.7%	78.5%		
65 to 74	79.2%	65.6%		
75 to 99	62.8%	50.8%		

Figure 11: Net survival from non-Hodgkin's lymphoma for patients diagnosed in 2013-2017 by age at diagnosis

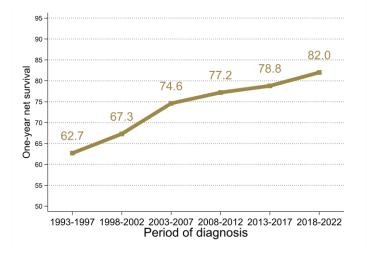


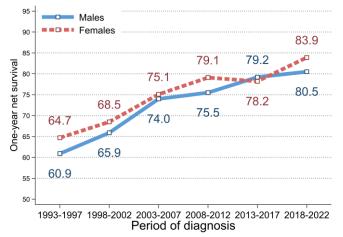
SURVIVAL TRENDS

ONE-YEAR NET SURVIVAL

- Between 2013-2017 and 2018-2022 there was no significant change in one-year survival (ASNS) from non-Hodgkin's lymphoma.
- Compared to 1993-1997 one-year survival (ASNS) from non-Hodgkin's lymphoma in 2018-2022 increased significantly from 62.7% to 82.0%. This increase was significant for males (60.9% to 80.5%) and females (64.7% to 83.9%).

Figure 12: Trends in one-year age-standardised net survival from non-Hodgkin's lymphoma in 1993-2022

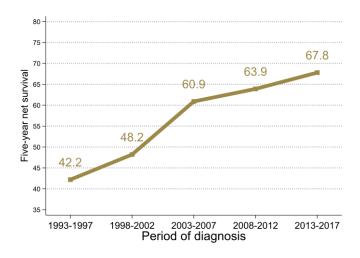


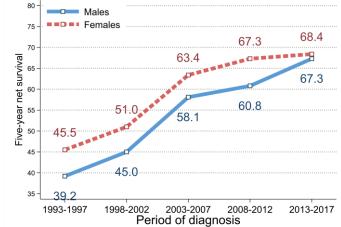


FIVE-YEAR NET SURVIVAL

- Between 2008-2012 and 2013-2017 there was no significant change in five-year survival (ASNS) from non-Hodgkin's lymphoma.
- Compared to 1993-1997 five-year survival (ASNS) from non-Hodgkin's lymphoma in 2013-2017 increased significantly from 42.2% to 67.8%. This increase was significant for males (39.2% to 67.3%) and females (45.5% to 68.4%).

Figure 13: Trends in five-year age-standardised net survival from non-Hodgkin's lymphoma in 1993-2017





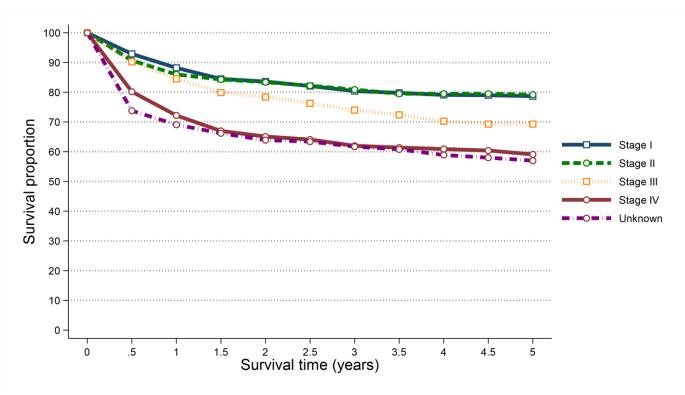
SURVIVAL BY STAGE

- Survival from non-Hodgkin's lymphoma among patients diagnosed during 2013-2017 was strongly related to stage with better five-year survival among those diagnosed at earlier stages.
- Five-year survival (ASNS) ranged from 79.2% among patients diagnosed at Stage II to 59.1% among those diagnosed at Stage IV.

Table 6: Age-standardised net survival from non-Hodgkin's lymphoma for patients diagnosed in 2013-2017 by stage at diagnosis

Stage at diagnosis	All persons			
Stage at diagnosis	One-year	Five-years		
Stage I	88.2%	78.7%		
Stage II	86.0%	79.2%		
Stage III	84.5%	69.3%		
Stage IV	72.2%	59.1%		
Unknown	69.1%	57.0%		

Figure 14: Age-standardised net survival from non-Hodgkin's lymphoma for patients diagnosed in 2013-2017 by stage at diagnosis



PREVALENCE

- At the end of 2022, there were 3,214 people (Males: 1,693; Females: 1,521) living with non-Hodgkin's lymphoma who had been diagnosed with the disease during 1998-2022.
- Of these 9.3% had been diagnosed in the previous year (one-year prevalence) and 64.2% in the previous 10 years (ten-year prevalence).
- 39.3% of non-Hodgkin's lymphoma survivors were aged 75 and over at the end of 2022.

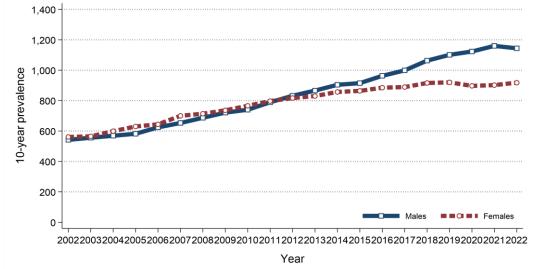
Table 7: 25-year prevalence of non-Hodgkin's lymphoma by age at end of 2022

Ago at and		2E year	Time since diagnosis				
Gender	Age at end of 2022	25-year prevalence	0 to 1 year	1 to 5 years	5 to 10 years	10 to 25 years	
All persons	All ages	3,214	299	927	836	1,152	
	0 to 74	1,950	186	591	503	670	
	75 and over	1,264	113	336	333	482	
Male	All ages	1,693	155	532	457	549	
	0 to 74	1,117	98	359	297	363	
	75 and over	576	57	173	160	186	
Female	All ages	1,521	144	395	379	603	
	0 to 74	833	88	232	206	307	
	75 and over	688	56	163	173	296	

PREVALENCE TRENDS

- 10-year prevalence of non-Hodgkin's lymphoma among males increased between 2017 and 2022 by 14.5% from 999 survivors to 1,144 survivors.
- 10-year prevalence of non-Hodgkin's lymphoma among females increased between 2017 and 2022 by 3.3% from 889 survivors to 918 survivors.

Figure 15: Trends in 10-year prevalence of non-Hodgkin's lymphoma in 2002-2022



	10-year prevalence				
Year	Males	Females			
2013	866	830			
2014	904	857			
2015	915	864			
2016	963	885			
2017	999	889			
2018	1,063	916			
2019	1,101	920			
2020	1,123	897			
2021	1,160	902			
2022	1,144	918			

MORTALITY

- There were 636 deaths from non-Hodgkin's lymphoma during 2018-2022 in Northern Ireland. On average this was 127 deaths per year.
- During this period 46.2% of non-Hodgkin's lymphoma deaths were among women (Male deaths: 342, Female deaths: 294). On average there were 68 male and 59 female deaths from non-Hodgkin's lymphoma per year.
- Non-Hodgkin's lymphoma deaths made up 2.9% of all male and 2.7% of all female cancer deaths.
- The median age of patients who died from non-Hodgkin's lymphoma during 2018-2022 was 78 years (Males: 77, Females: 78).
- The risk of dying from non-Hodgkin's lymphoma varied by age, with 57.6% of men and 62.2% of women who died from non-Hodgkin's lymphoma aged 75 and over at death.
- In contrast, 5.5% of patients who died from non-Hodgkin's lymphoma were aged 0 to 54 at death.

Figure 16: Average number of deaths from non-Hodgkin's lymphoma per year in 2018-2022 by age at death

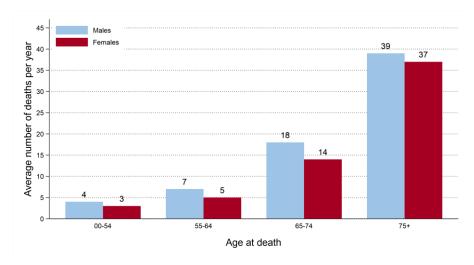
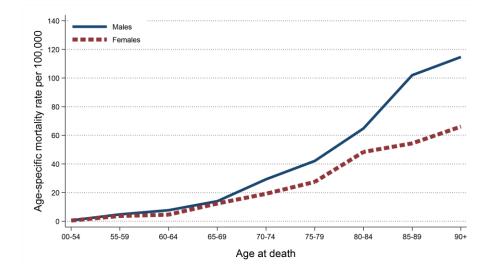


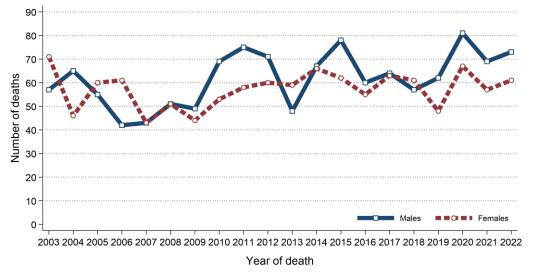
Figure 17: Age-specific mortality rates of non-Hodgkin's lymphoma in 2018-2022



MORTALITY TRENDS

- The number of deaths from non-Hodgkin's lymphoma among males increased between 2013-2017 and 2018-2022 by 7.9% from 317 deaths (63 deaths per year) to 342 deaths (68 deaths per year).
- The number of deaths from non-Hodgkin's lymphoma among females decreased between 2013-2017 and 2018-2022 by 3.6% from 305 deaths (61 deaths per year) to 294 deaths (59 deaths per year).

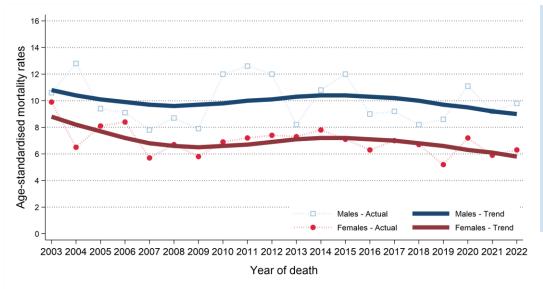
Figure 18: Trends in the number of deaths from non-Hodgkin's lymphoma from 2003 to 2022



Year of	Number of deaths			
death	Males	Females		
2013	48	59		
2014	67	66		
2015	78	62		
2016	60	55		
2017	64	63		
2018	57	61		
2019	62	48		
2020	81	67		
2021	69	57		
2022	73	61		

- Male age-standardised non-Hodgkin's lymphoma mortality rates decreased between 2013-2017 and 2018-2022 by 4.1% from 9.8 to 9.4 deaths per 100,000 males. This change was not statistically significant.
- Female age-standardised non-Hodgkin's lymphoma mortality rates decreased between 2013-2017 and 2018-2022 by 11.3% from 7.1 to 6.3 deaths per 100,000 females. This change was not statistically significant.

Figure 19: Trends in mortality rates of non-Hodgkin's lymphoma from 2003 to 2022



Age-standardised mortality rates illustrate the change in the number of deaths within a population of a fixed size and age structure (2013 European Standard).

They thus represent changes other than those caused by population growth and/or ageing.

Trends can also be influenced by changes in how cancer is classified and coded.

BACKGROUND NOTES

Cancer classification: Classification of tumour sites is carried out using ICD10 codes. For a listing and explanation of ICD10 codes see: World Health Organisation at http://apps.who.int/classifications/icd10/browse/2010/en#/II

Population data: Population data for Northern Ireland, and smaller geographic areas, are extracted from the NI mid-year population estimates available from the NI Statistics and Research Agency (available at www.nisra.gov.uk).

Geographic areas: Geographic areas are assigned based on a patient's postcode of usual residence at diagnosis using the Jul 2024 Central Postcode Directory (CPD) produced by the NI Statistics and Research Agency (available at www.nisra.gov.uk).

Deprivation quintiles: Super output areas (SOA) are assigned to each patient based on their postcode of usual residence at diagnosis. Using the SOA each patient is assigned a socio-economic deprivation quintile based on the 2017 Multiple Deprivation Measure. The 2017 Multiple Deprivation Measure is available from the NI Statistics and Research Agency (available at www.nisra.gov.uk).

Crude incidence/mortality rate: The number of cases/deaths per 100,000 person years in the population. Person years are the sum of the population over the number of years included.

Age-standardised incidence/mortality rates per 100,000 person years are estimates of the incidence/mortality rate if that population had a standard age structure. Throughout this report the 2013 European Standard Population has been used. Standardising to a common Standard Population allows comparisons of incidence/mortality rates to be made between different time periods and geographic areas while removing the effects of population change and ageing.

Standardised Incidence/Mortality Ratio (SIR/SMR) is the ratio of the number of cases/deaths observed in a population to the expected number of cases/deaths, based upon the age-specific rates in a reference population. This statistic is often used to compare incidence/mortality rates for geographic areas (e.g. Trusts) to the national incidence/mortality rates (i.e. Northern Ireland). An SIR/SMR of 100 indicates there is no difference between the geographic area and the national average.

Confidence intervals measure the precision of a statistic (e.g. non-Hodgkin's lymphoma incidence rate). Typically, when numbers are low, precision is poorer and confidence intervals will be wider. As a general rule, when comparing statistics (e.g. non-Hodgkin's lymphoma incidence rate in year 2012 vs year 2013), if the confidence interval around one statistic overlaps with the interval around another, it is unlikely that there is any real difference between the two. If there is no overlap, the difference is considered to be statistically significant.

Lifetime risk is estimated as the cumulative risk of getting cancer up to age 75/85, calculated directly from the age-specific incidence rates. The odds of developing the disease before age 75/85 is the inverse of the cumulative risk.

Prevalence is the number of cancer patients who are alive in the population on a specific date (31st December 2022 in this report). Since data from the NI Cancer Registry are only available since 1993, prevalence only refers to a fixed term (10 and 25 years in this report). There may be members of the population living with a diagnosis of cancer for more than 25 years.

Patient survival is evaluated using two measures. Observed survival examines the time between diagnosis and death from any cause. It thus represents what cancer patients experience, however, due to the inclusion of non-cancer deaths (e.g. heart disease), it may not reflect how changes in cancer care impact survival from cancer. Thus age-standardised net survival is also examined. This measure provides an estimate of patient survival which has been adjusted to take account of deaths unrelated to cancer. It also assumes a standard age distribution thereby removing the impact of changes in the age distribution of cancer patients on changes in survival over time. While this measure is hypothetical, as it assumes patients can only die from cancer related factors, it is a better indicator of the impact of changes in cancer care on patient survival.