# Hodgkin's lymphoma

1993-2021

(ICD10 codes: C81)



Northern Ireland Cancer Registry, 2024

An official statistics publication

# ABOUT THIS REPORT

#### **Contents**

This report includes information on incidence of Hodgkin's lymphoma as recorded by the Northern Ireland Cancer Registry (NICR). Incidence data is available annually from 1993 to 2021, 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 2024. Hodgkin's lymphoma: 1993-2021. 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.

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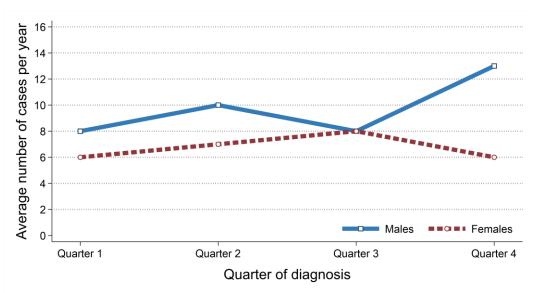




# Incidence

- There were 323 cases of Hodgkin's lymphoma diagnosed during 2017-2021 in Northern Ireland. On average this was 65 cases per year.
- During this period 41.2% of Hodgkin's lymphoma cases were among women (Male cases: 190, Female cases: 133). On average there were 38 male and 27 female cases of Hodgkin's lymphoma per year.

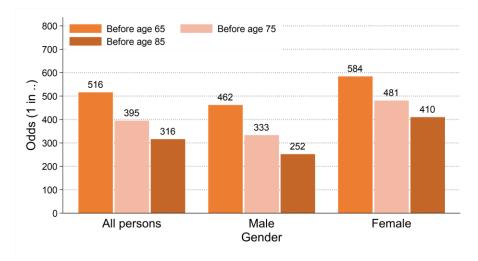
Figure 1: Average number of cases of Hodgkin's lymphoma per year in 2017-2021 by quarter of diagnosis



	Average number				
Quarter	of cases	s per year			
of diagnosis	Males Females				
Quarter 1	8	6			
Quarter 2	10	7			
Quarter 3	8	8			
Quarter 4	13	6			

- Hodgkin's lymphoma made up 0.7% of all male and 0.5% of all female cancer cases (excluding non-melanoma skin cancer).
- The Hodgkin's lymphoma incidence rates for each gender were 4.1 cases per 100,000 males and 2.8 cases per 100,000 females.
- The odds of developing Hodgkin's lymphoma before age 85 was 1 in 252 for men and 1 in 410 for women.

Figure 2: Odds of developing Hodgkin's lymphoma in 2017-2021



# INCIDENCE BY AGE

- The median age of patients diagnosed with Hodgkin's lymphoma during 2017-2021 was 47 years (Males: 51, Females: 42).
- The risk of developing Hodgkin's lymphoma varied by age, with 13.7% of men and 11.3% of women diagnosed with Hodgkin's lymphoma aged 75 and over at diagnosis.
- In contrast, 57.0% of patients diagnosed with Hodgkin's lymphoma were aged 0 to 54 at diagnosis.

Figure 3: Average number of cases of Hodgkin's lymphoma diagnosed per year in 2017-2021 by age at diagnosis

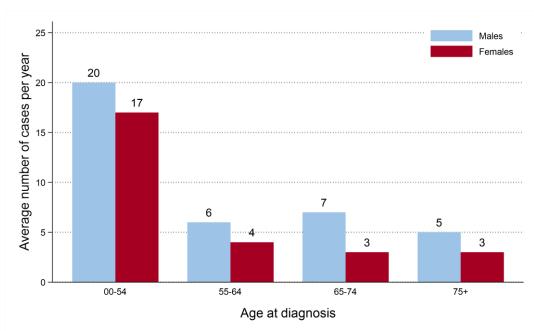
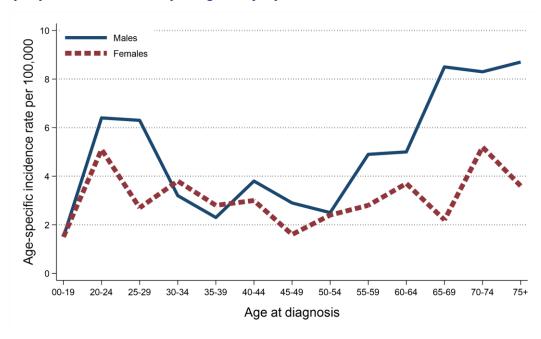


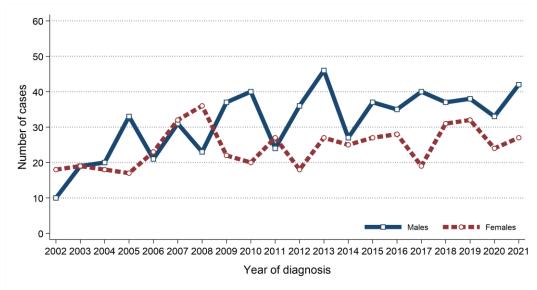
Figure 4: Age-specific incidence rates of Hodgkin's lymphoma in 2017-2021



# INCIDENCE TRENDS

- The number of cases of Hodgkin's lymphoma among males increased between 2012-2016 and 2017-2021 by 5.0% from 181 cases (36 cases per year) to 190 cases (38 cases per year).
- The number of cases of Hodgkin's lymphoma among females increased between 2012-2016 and 2017-2021 by 6.4% from 125 cases (25 cases per year) to 133 cases (27 cases per year).

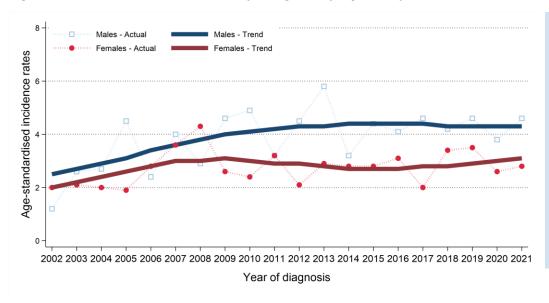
Figure 5: Trends in number of cases of Hodgkin's lymphoma diagnosed from 2002 to 2021



Year of	Number of cases		
diagnosis	Males	Females	
2012	36	18	
2013	46	27	
2014	27	25	
2015	37	27	
2016	35	28	
2017	40	19	
2018	37	31	
2019	38	32	
2020	33	24	
2021	42	27	

- Male age-standardised Hodgkin's lymphoma incidence rates did not change between 2012-2016 and 2017-2021 with 4.4 cases per 100,000 males in each period of time.
- Female age-standardised Hodgkin's lymphoma incidence rates increased between 2012-2016 and 2017-2021 by 7.4% from 2.7 to 2.9 cases per 100,000 females. This change was not statistically significant.

Figure 6: Trends in incidence rates of Hodgkin's lymphoma from 2002 to 2021



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).

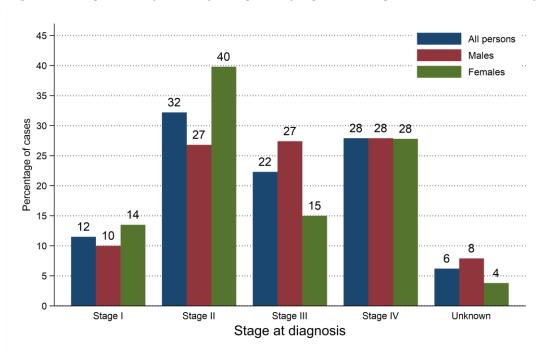
# INCIDENCE BY STAGE AT DIAGNOSIS

- During 2017-2021 93.8% of Hodgkin's lymphoma cases had a stage assigned.
- 11.5% of Hodgkin's lymphoma cases were diagnosed at Stage I. (12.2% of staged cases)
- 27.9% of Hodgkin's lymphoma cases were diagnosed at Stage IV. (29.7% of staged cases)

Table 1: Number of cases of Hodgkin's lymphoma diagnosed in 2017-2021 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	323	65	190	38	133	27
Stage I	37	7	19	4	18	4
Stage II	104	21	51	10	53	11
Stage III	72	14	52	10	20	4
Stage IV	90	18	53	11	37	7
Unknown	20	4	15	3	5	1

Figure 7: Proportion of cases of Hodgkin's lymphoma diagnosed in 2017-2021 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).

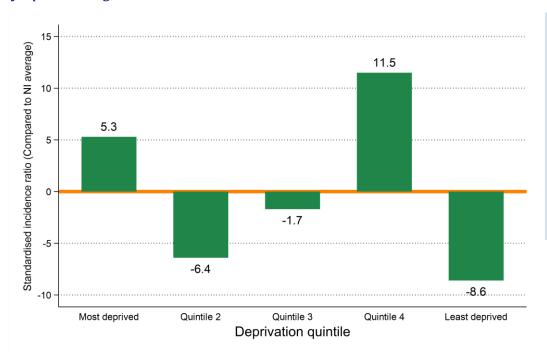
# INCIDENCE BY DEPRIVATION

- The number of cases of Hodgkin's lymphoma diagnosed during 2017-2021 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 Hodgkin's lymphoma diagnosed in 2017-2021 by deprivation quintile

All persons		rsons	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	323	65	190	38	133	27
Most deprived	62	12	37	7	25	5
Quintile 2	61	12	35	7	26	5
Quintile 3	67	13	38	8	29	6
Quintile 4	75	15	40	8	35	7
Least deprived	58	12	40	8	18	4
Unknown	0	0	0	0	0	0

Figure 8: Standardised incidence ratio comparing deprivation quintile to Northern Ireland for Hodgkin's lymphoma diagnosed in 2017-2021



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.

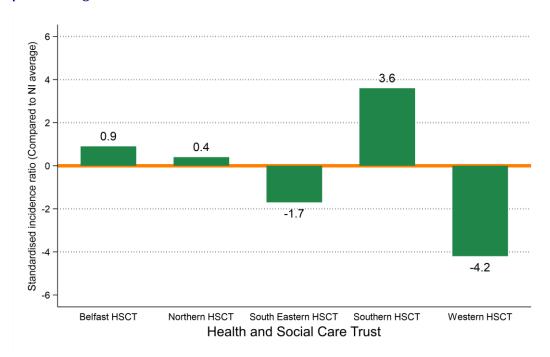
# INCIDENCE BY HEALTH AND SOCIAL CARE TRUST

- The number of cases of Hodgkin's lymphoma diagnosed during 2017-2021 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 Hodgkin's lymphoma diagnosed in 2017-2021 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	323	65	190	38	133	27
Belfast HSCT	63	13	40	8	23	5
Northern HSCT	83	17	48	10	35	7
South Eastern HSCT	62	12	38	8	24	5
Southern HSCT	66	13	37	7	29	6
Western HSCT	49	10	27	5	22	4
Unknown	0	0	0	0	0	0

Figure 9: Standardised incidence ratio comparing Health and Social Care Trust to Northern Ireland for Hodgkin's lymphoma diagnosed in 2017-2021



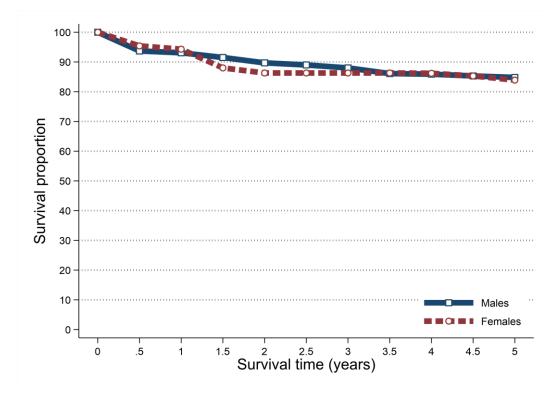
# **SURVIVAL**

- 90.8% of patients were alive one year and 78.1% were alive five years from a Hodgkin's lymphoma diagnosis in 2012-2016. (observed survival)
- Age-standardised net survival (ASNS), which removes the effect of deaths from causes unrelated to cancer, was 93.6% one year and 84.5% five years from a Hodgkin's lymphoma diagnosis in 2012-2016.
- Five-year survival (ASNS) for Hodgkin's lymphoma patients diagnosed in 2012-2016 was 84.8% among men and 83.9% among women.

Table 4: Survival from Hodgkin's lymphoma for patients diagnosed in 2012-2016

	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	92.2%	94.4%	90.6%	93.7%	94.3%	95.4%
One year	90.8%	93.6%	89.4%	93.1%	92.7%	94.3%
Two years	85.3%	88.6%	86.5%	89.7%	83.7%	86.3%
Five years	78.1%	84.5%	76.4%	84.8%	80.5%	83.9%

Figure 10: Age-standardised net survival from Hodgkin's lymphoma for patients diagnosed in 2012-2016



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.

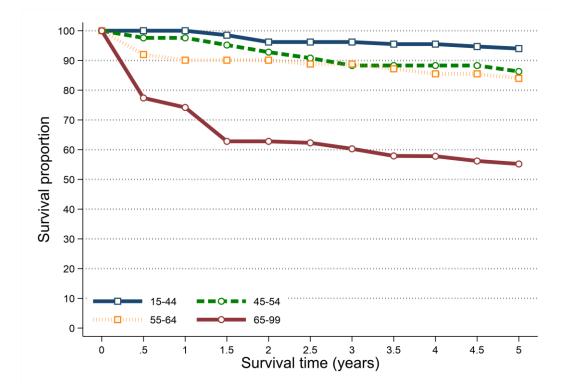
# **SURVIVAL BY AGE**

- Survival from Hodgkin's lymphoma among patients diagnosed during 2012-2016 was related to age with better five-year survival among younger age groups.
- Five-year net survival ranged from 94.0% among patients aged 15 to 44 at diagnosis to 55.2% among those aged 65 to 99.

Table 5: Net survival from Hodgkin's lymphoma for patients diagnosed in 2012-2016 by age at diagnosis

A co creation	All persons		
Age group	One-year	Five-years	
15 to 44	100.0%	94.0%	
45 to 54	97.6%	86.3%	
55 to 64	90.1%	84.0%	
65 to 99	74.2%	55.2%	

Figure 11: Net survival from Hodgkin's lymphoma for patients diagnosed in 2012-2016 by age at diagnosis

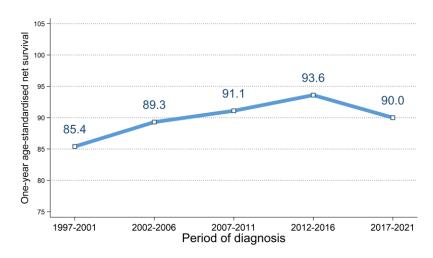


# SURVIVAL TRENDS

#### **ONE-YEAR NET SURVIVAL**

- Between 2012-2016 and 2017-2021 there was no significant change in one-year survival (ASNS) from Hodgkin's lymphoma.
- Compared to 1997-2001 one-year survival (ASNS) from Hodgkin's lymphoma in 2017-2021 did not change significantly.

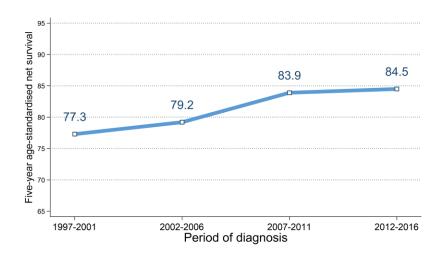
Figure 12: Trends in one-year age-standardised net survival from Hodgkin's lymphoma in 1997-2021



#### **FIVE-YEAR NET SURVIVAL**

- Between 2007-2011 and 2012-2016 there was no significant change in five-year survival (ASNS) from Hodgkin's lymphoma.
- Compared to 1997-2001 five-year survival (ASNS) from Hodgkin's lymphoma in 2012-2016 did not change significantly.

Figure 13: Trends in five-year age-standardised net survival from Hodgkin's lymphoma in 1997-2016



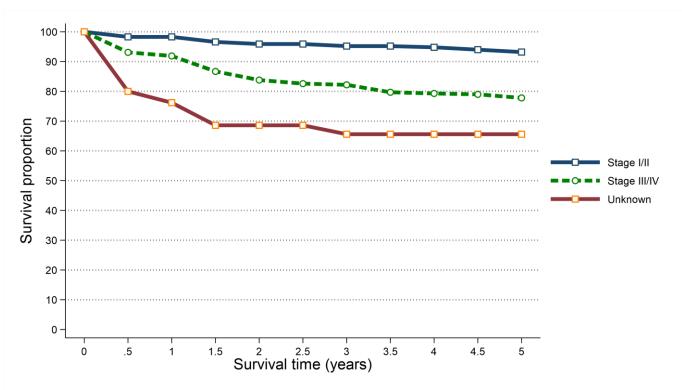
# **SURVIVAL BY STAGE**

- Survival from Hodgkin's lymphoma among patients diagnosed during 2012-2016 was strongly related to stage with better five-year survival among those diagnosed at earlier stages.
- Five-year survival (ASNS) ranged from 93.2% among patients diagnosed at Stage I/II to 65.6% among those with a stage unassigned.

Table 6: Age-standardised net survival from Hodgkin's lymphoma for patients diagnosed in 2012-2016 by stage at diagnosis

Stage at diagnosis	All persons		
Stage at diagnosis	One-year Five-ye		
Stage I/II	98.3%	93.2%	
Stage III/IV	91.9%	77.8%	
Unknown	76.2%	65.6%	

Figure 14: Age-standardised net survival from Hodgkin's lymphoma for patients diagnosed in 2012-2016 by stage at diagnosis



# **PREVALENCE**

- At the end of 2021, there were 885 people (Males: 485; Females: 400) living with Hodgkin's lymphoma who had been diagnosed with the disease during 1997-2021.
- Of these 7.2% had been diagnosed in the previous year (one-year prevalence) and 56.5% in the previous 10 years (ten-year prevalence).
- 38.6% of Hodgkin's lymphoma survivors were aged 55 and over at the end of 2021.

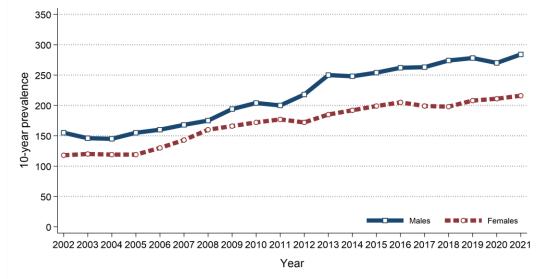
Table 7: 25-year prevalence of Hodgkin's lymphoma by age at end of 2021

Ago at and of		25	Time since diagnosis				
Gender	Age at end of 2021	et end of 25-year prevalence	0 to 1 year	1 to 5 years	5 to 10 years	10 to 25 years	
All persons	All ages	885	64	206	230	385	
	0 to 54	543	40	133	139	231	
	55 and over	342	24	73	91	154	
Male	All ages	485	38	113	133	201	
	0 to 54	290	24	72	75	119	
	55 and over	195	14	41	58	82	
Female	All ages	400	26	93	97	184	
	0 to 54	253	16	61	64	112	
	55 and over	147	10	32	33	72	

# PREVALENCE TRENDS

- 10-year prevalence of Hodgkin's lymphoma among males increased between 2016 and 2021 by 8.4% from 262 survivors to 284 survivors.
- 10-year prevalence of Hodgkin's lymphoma among females increased between 2016 and 2021 by 5.4% from 205 survivors to 216 survivors.

Figure 15: Trends in 10-year prevalence of Hodgkin's lymphoma in 2002-2021



	10-year prevalence				
Year	Males	Females			
2012	218	172			
2013	250	185			
2014	248	192			
2015	254	199			
2016	262	205			
2017	263	199			
2018	274	198			
2019	278	208			
2020	270	211			
2021	284	216			

# **MORTALITY**

- There were 55 deaths from Hodgkin's lymphoma during 2017-2021 in Northern Ireland. On average this was 11 deaths per year.
- During this period 29.1% of Hodgkin's lymphoma deaths were among women (Male deaths: 39, Female deaths: 16). On average there were 8 male and 3 female deaths from Hodgkin's lymphoma per year.
- Hodgkin's lymphoma deaths made up 0.3% of all male cancer deaths and 0.1% of all female cancer deaths.
- The median age of patients who died from Hodgkin's lymphoma during 2017-2021 was 74 years (Males: 73, Females: 82).
- The risk of dying from Hodgkin's lymphoma varied by age, with 12.7% of those who died from Hodgkin's lymphoma aged 85 and over at death.
- In contrast, 21.8% of patients who died from Hodgkin's lymphoma were aged 0 to 64 at death.

Figure 16: Average number of deaths from Hodgkin's lymphoma per year in 2017-2021 by age at death

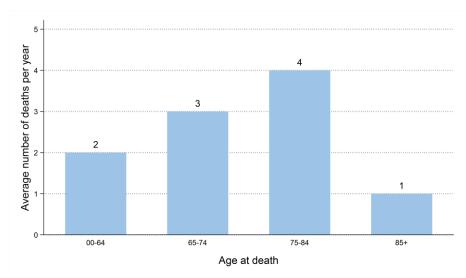
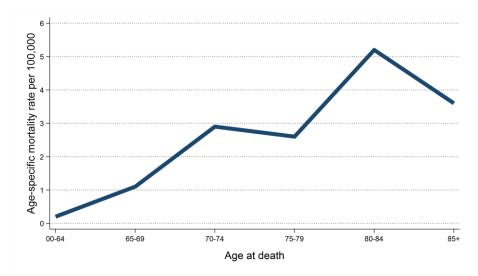


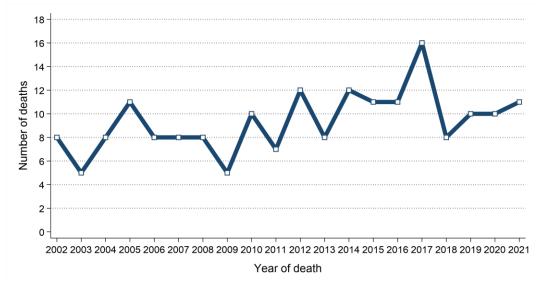
Figure 17: Age-specific mortality rates of Hodgkin's lymphoma in 2017-2021



# MORTALITY TRENDS

- The number of deaths from Hodgkin's lymphoma increased between 2012-2016 and 2017-2021 by 1.9% from 54 deaths (11 deaths per year) to 55 deaths (11 deaths per year).

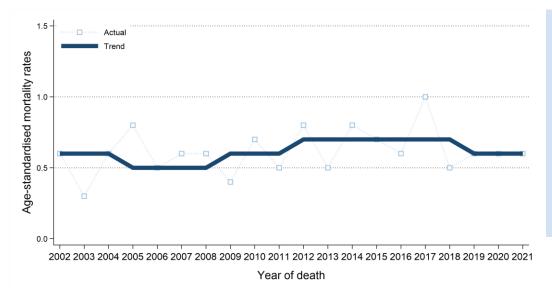
Figure 18: Trends in the number of deaths from Hodgkin's lymphoma from 2002 to 2021



Year of	Number of deaths
death	All persons
2012	12
2013	8
2014	12
2015	11
2016	11
2017	16
2018	8
2019	10
2020	10
2021	11

- Age-standardised Hodgkin's lymphoma mortality rates did not change between 2012-2016 and 2017-2021 with 0.7 deaths per 100,000 persons in each period of time.

Figure 19: Trends in mortality rates of Hodgkin's lymphoma from 2002 to 2021



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 Jan 2023 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. 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. 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 2021 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.