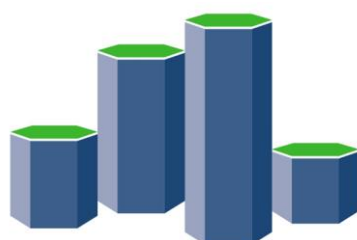

Testicular cancer

1993-2022

(ICD10 codes: C62)



Northern Ireland
Cancer Registry

Northern Ireland Cancer Registry, 2025

An official statistics publication

ABOUT THIS REPORT

Contents

This report includes information on incidence of testicular cancer 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.qub.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. Testicular cancer: 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.

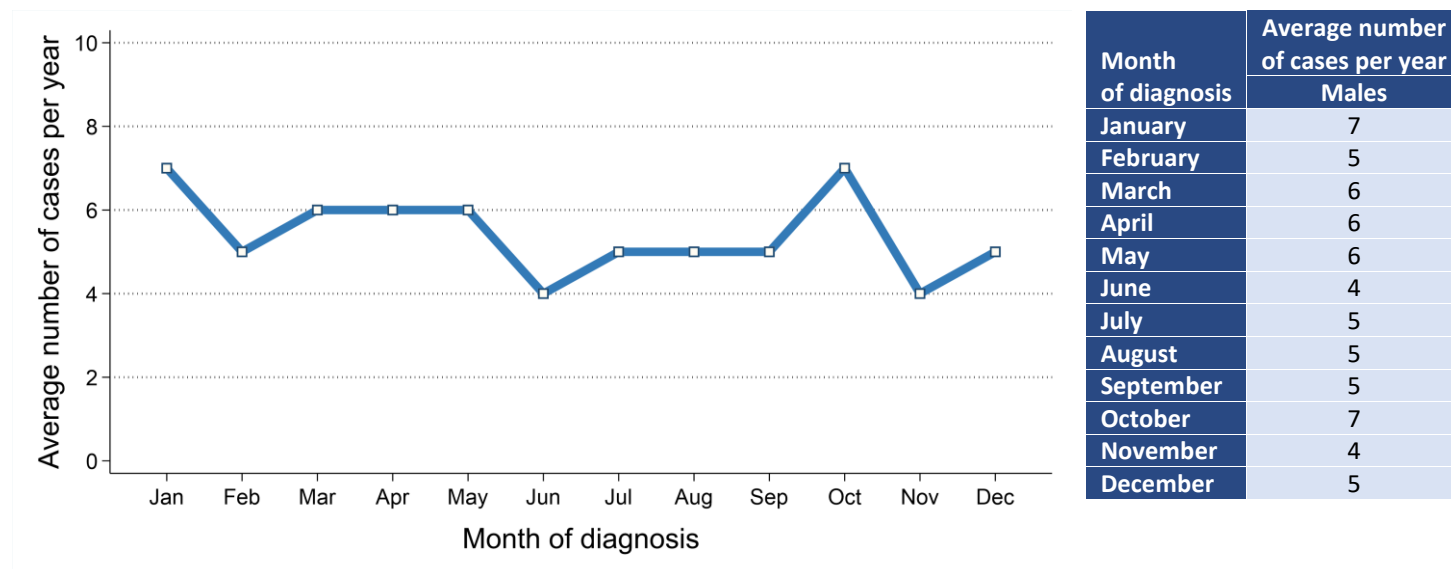
NICR is funded by the Public Health Agency and is based in Queen's University, Belfast.



INCIDENCE

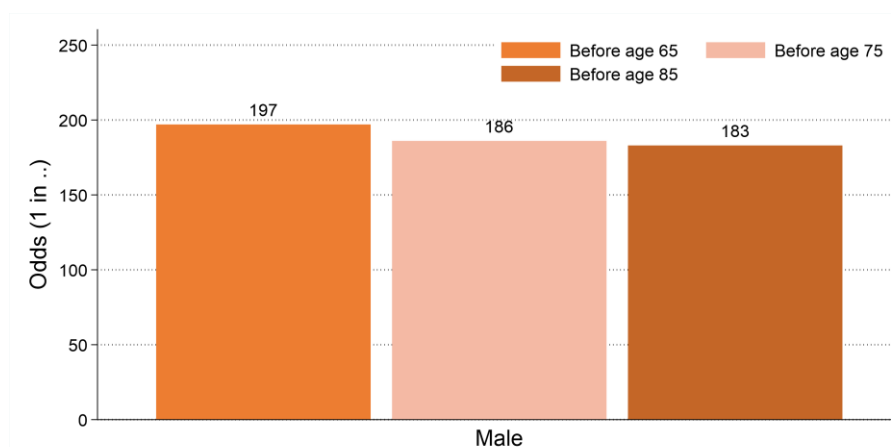
- There were 324 cases of testicular cancer diagnosed during 2018-2022 in Northern Ireland. On average this was 65 cases per year.
- The most common diagnosis month during 2018-2022 was January and October with 7 cases per year.

Figure 1: Average number of cases of testicular cancer per year in 2018-2022 by month of diagnosis



- Testicular cancer made up 1.2% of all male cancer cases (excluding non-melanoma skin cancer).
- The testicular cancer incidence rate was 6.9 cases per 100,000 males.
- The odds of developing testicular cancer before age 85 was 1 in 183.

Figure 2: Odds of developing testicular cancer in 2018-2022



INCIDENCE BY AGE

- The median age of males diagnosed with testicular cancer during 2018-2022 was 36 years.
- The risk of being diagnosed with testicular cancer varied by age, with 11.4% of men diagnosed with testicular cancer aged 55 and over at diagnosis.
- In contrast, 45.4% of men diagnosed with testicular cancer were aged 0 to 34 at diagnosis.

Figure 3: Average number of cases of testicular cancer diagnosed per year in 2018-2022 by age at diagnosis

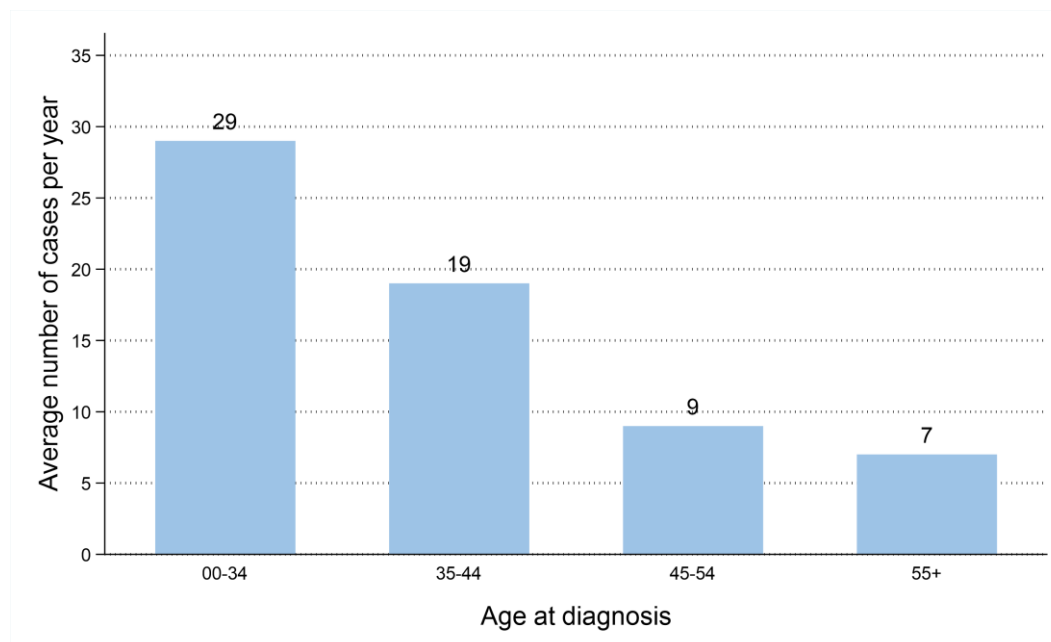
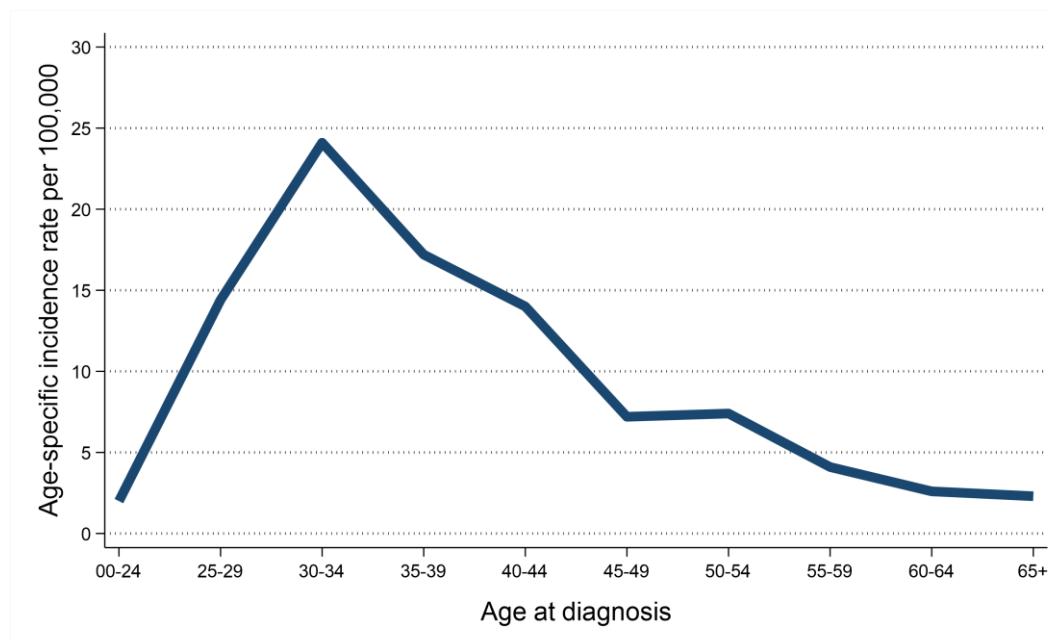


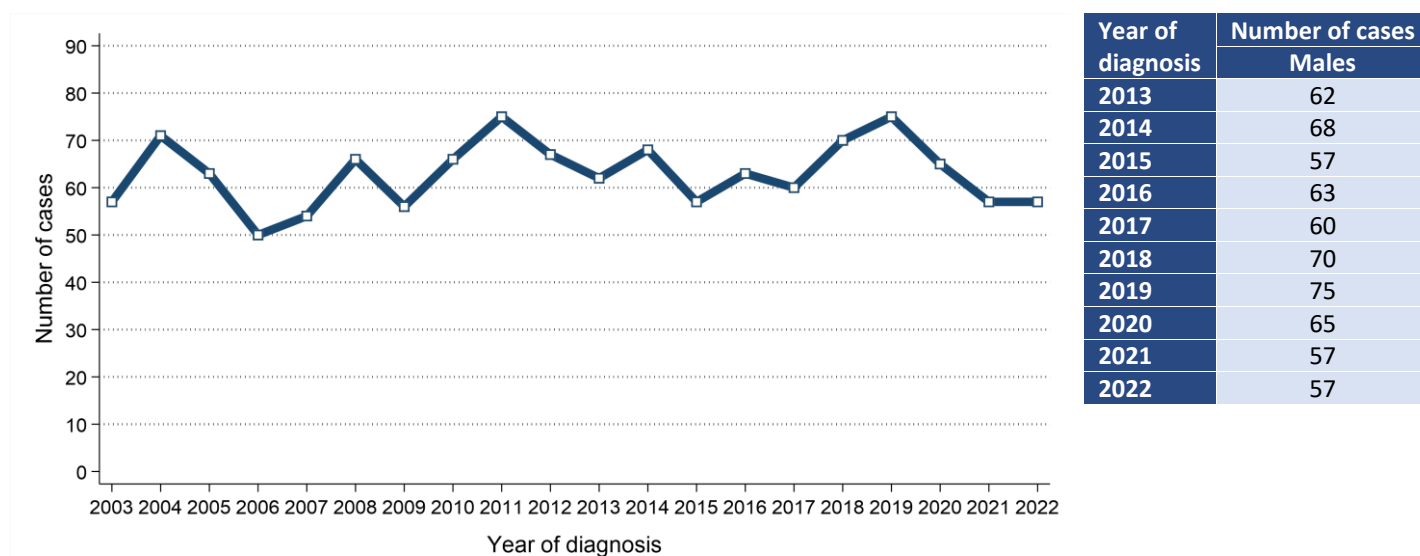
Figure 4: Age-specific incidence rates of testicular cancer in 2018-2022



INCIDENCE TRENDS

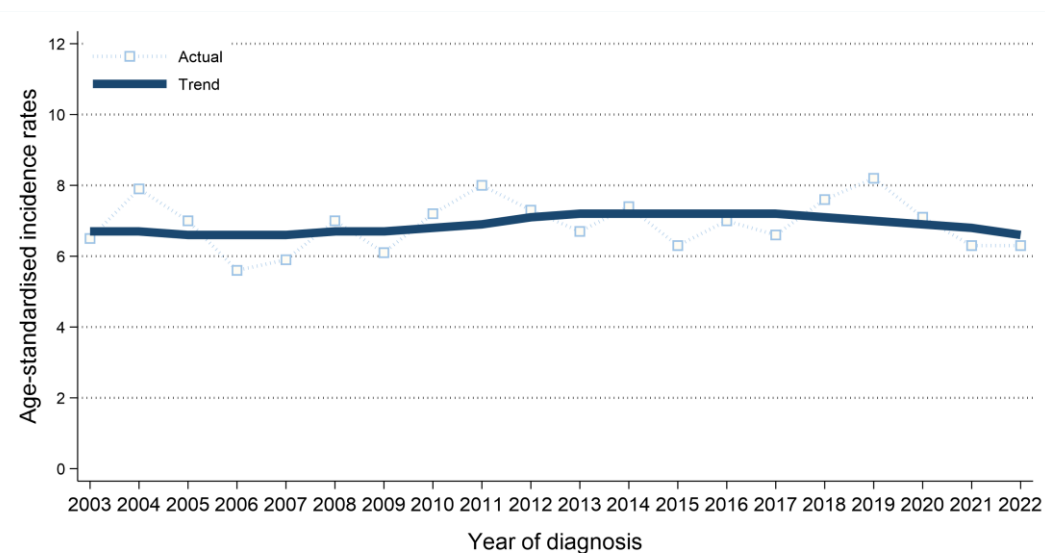
- The number of cases of testicular cancer among males increased between 2013-2017 and 2018-2022 by 4.5% from 310 cases (62 cases per year) to 324 cases (65 cases per year).

Figure 5: Trends in number of cases of testicular cancer diagnosed from 2003 to 2022



- Male age-standardised testicular cancer incidence rates increased between 2013-2017 and 2018-2022 by 4.4% from 6.8 to 7.1 cases per 100,000 males. This change was not statistically significant.

Figure 6: Trends in incidence rates of testicular cancer 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).

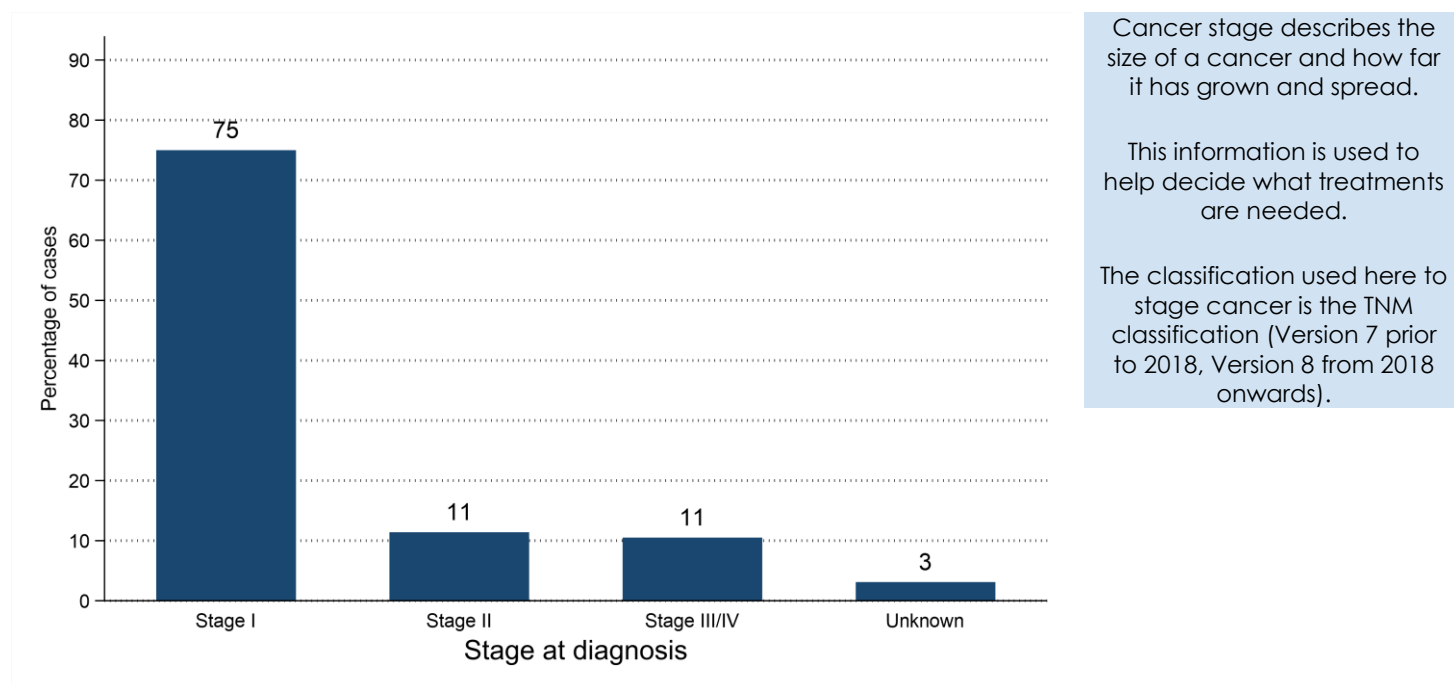
INCIDENCE BY STAGE AT DIAGNOSIS

- During 2018-2022 96.9% of testicular cancer cases had a stage assigned.
- 75.0% of testicular cancer cases were diagnosed at Stage I. (77.4% of staged cases)
- 10.5% of testicular cancer cases were diagnosed at Stage III/IV. (10.8% of staged cases)

Table 1: Number of cases of testicular cancer diagnosed in 2018-2022 by stage at diagnosis

Stage at diagnosis	Male	
	Total cases in period	Average cases per year
All stages	324	65
Stage I	243	49
Stage II	37	7
Stage III/IV	34	7
Unknown	10	2

Figure 7: Proportion of cases of testicular cancer diagnosed in 2018-2022 by stage at diagnosis



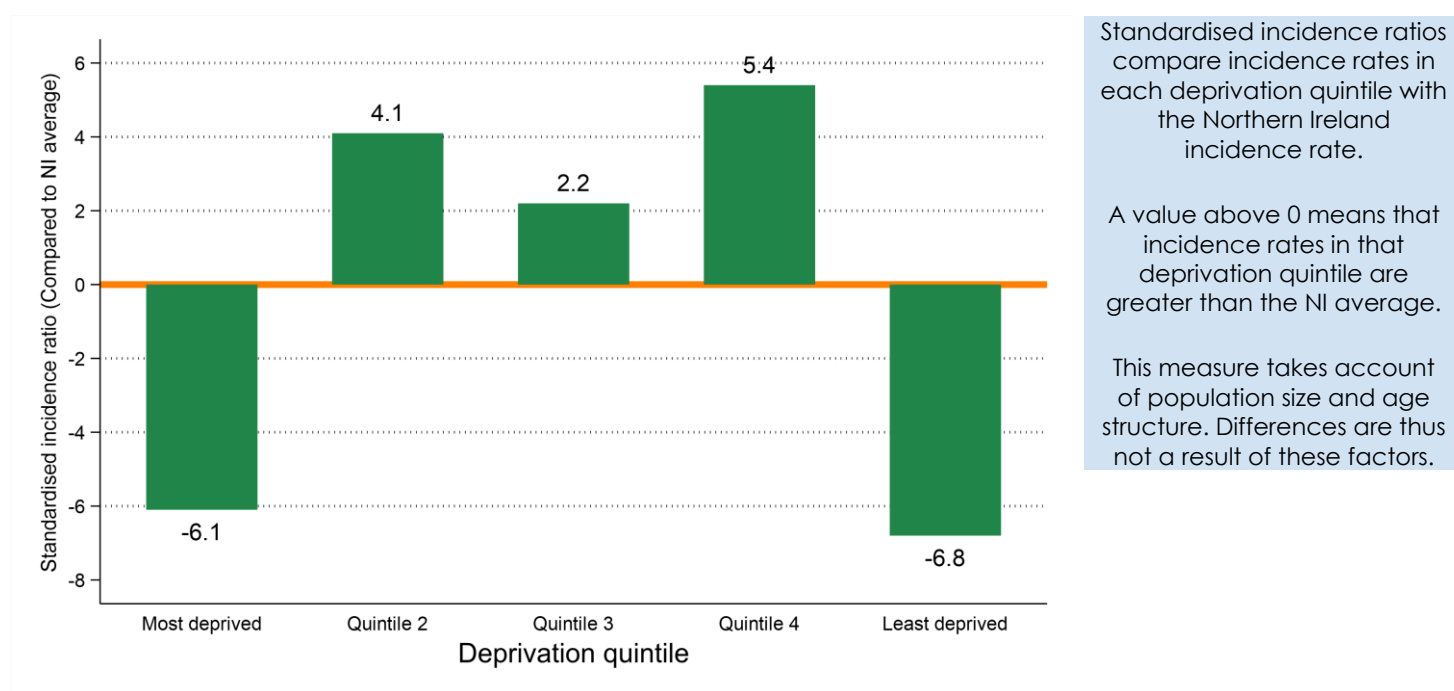
INCIDENCE BY DEPRIVATION

- The number of cases of testicular cancer 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 testicular cancer diagnosed in 2018-2022 by deprivation quintile

Deprivation quintile	Male	
	Total cases in period	Average cases per year
Northern Ireland	324	65
Most deprived	.	.
Quintile 2	58	12
Quintile 3	69	14
Quintile 4	70	14
Least deprived	71	14
Unknown	56	11
	0	0

Figure 8: Standardised incidence ratio comparing deprivation quintile to Northern Ireland for testicular cancer diagnosed in 2018-2022



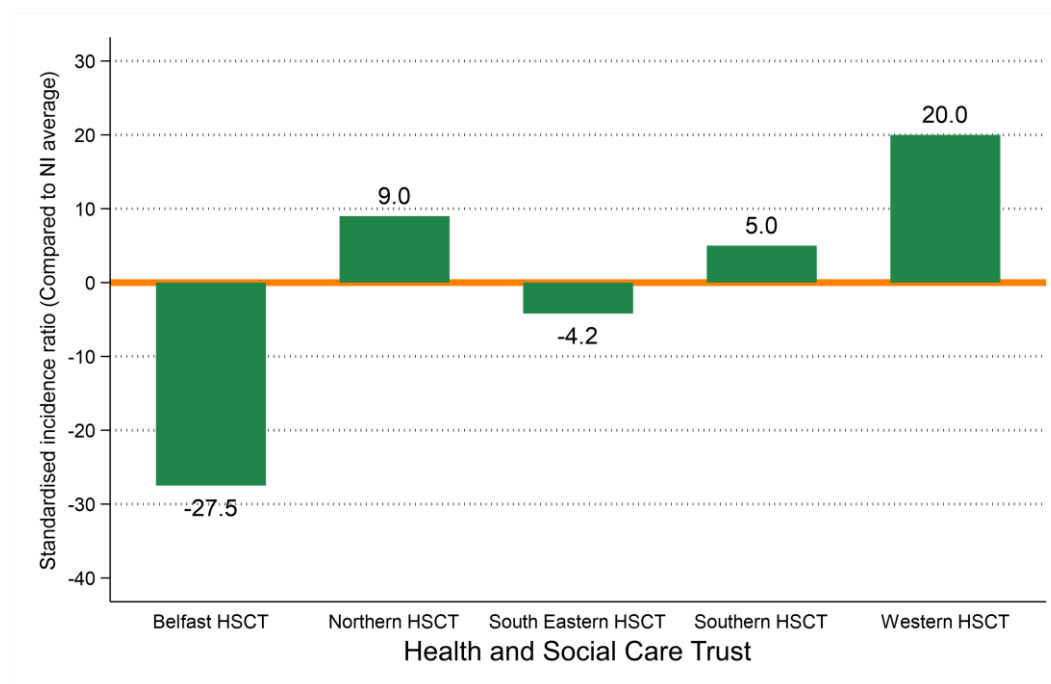
INCIDENCE BY HEALTH AND SOCIAL CARE TRUST

- The number of cases of testicular cancer 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 were 27.5% lower than 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 testicular cancer diagnosed in 2018-2022 by Health and Social Care Trust

Health and Social Care Trust	Male	
	Total cases in period	Average cases per year
Northern Ireland	324	65
Belfast HSCT	48	10
Northern HSCT	87	17
South Eastern HSCT	57	11
Southern HSCT	71	14
Western HSCT	61	12
Unknown	0	0

Figure 9: Standardised incidence ratio comparing Health and Social Care Trust to Northern Ireland for testicular cancer diagnosed in 2018-2022



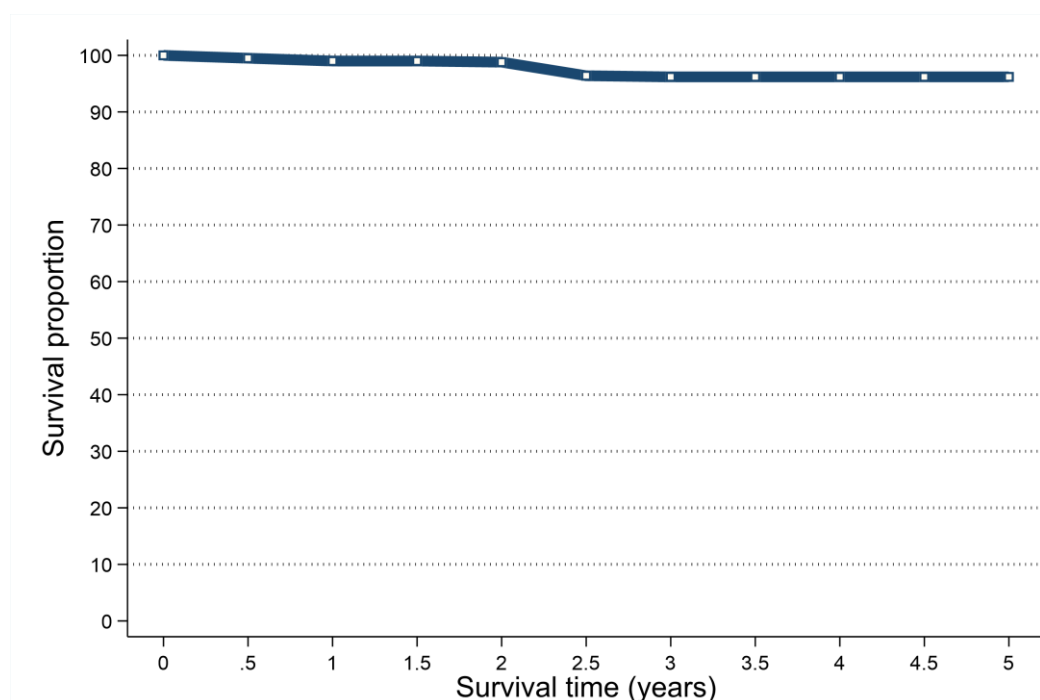
SURVIVAL

- 98.7% of patients were alive one year and 97.7% were alive five years from a testicular cancer diagnosis in 2013-2017. (observed survival)
- Age-standardised net survival (ASNS), which removes the effect of deaths from causes unrelated to cancer, was 99.0% one year and 96.2% five years from a testicular cancer diagnosis in 2013-2017.

Table 4: Survival from testicular cancer for patients diagnosed in 2013-2017

Time since diagnosis	Male	
	Observed survival	Age-standardised net survival
6 months	99.3%	99.5%
One year	98.7%	99.0%
Two years	98.4%	98.8%
Five years	97.7%	96.2%

Figure 10: Age-standardised net survival from testicular cancer 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.

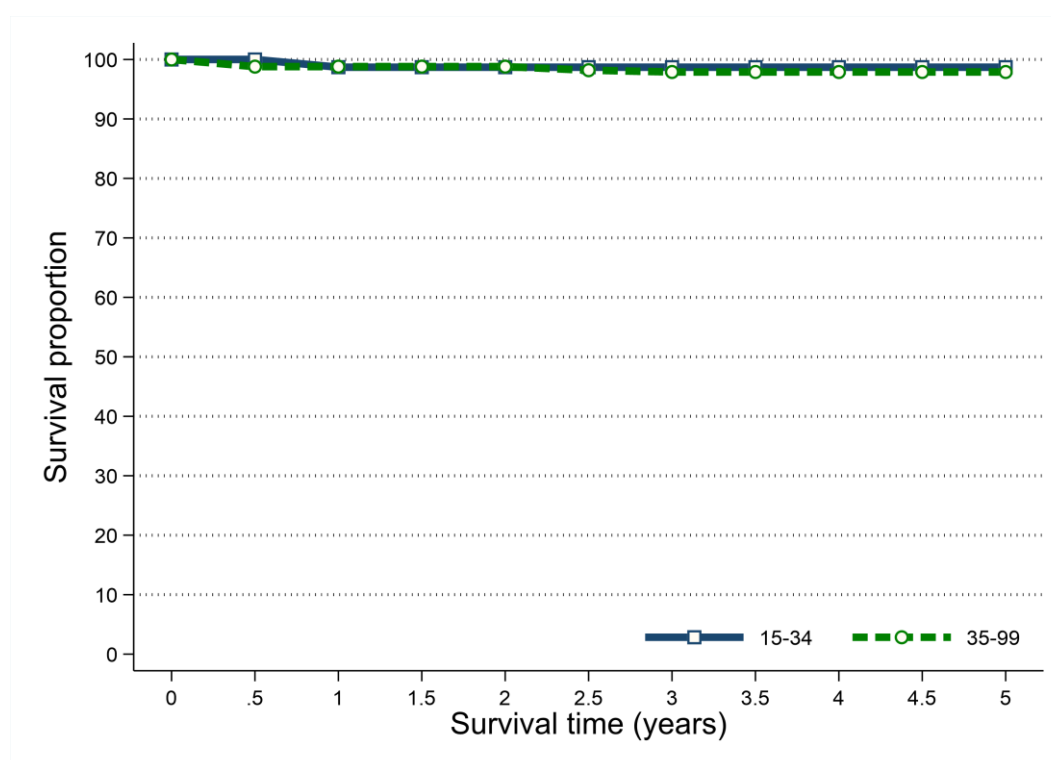
SURVIVAL BY AGE

- Survival from testicular cancer 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 98.7% among patients aged 15 to 34 at diagnosis to 97.9% among those aged 35 to 99.

Table 5: Net survival from testicular cancer for patients diagnosed in 2013-2017 by age at diagnosis

Age group	Male	
	One-year	Five-years
15 to 34	98.7%	98.7%
35 to 99	98.8%	97.9%

Figure 11: Net survival from testicular cancer for patients diagnosed in 2013-2017 by age at diagnosis

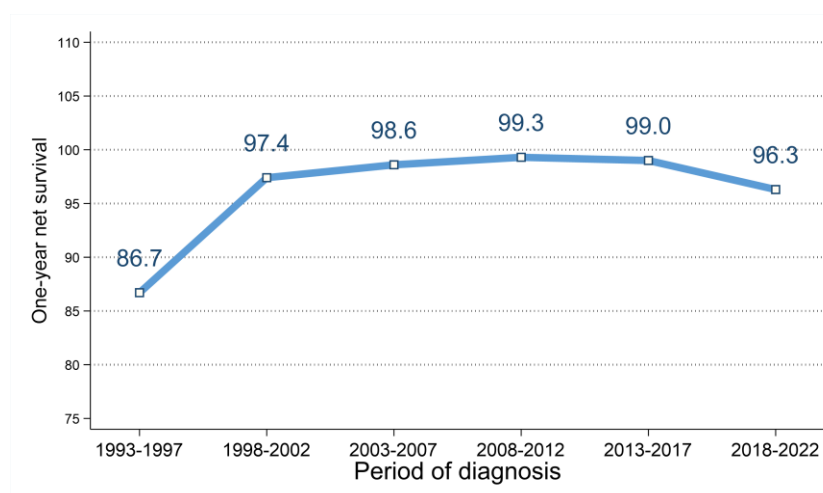


SURVIVAL TRENDS

ONE-YEAR NET SURVIVAL

- Between 2013-2017 and 2018-2022 there was no significant change in one-year survival (ASNS) from testicular cancer among males.
- Compared to 1993-1997 one-year survival (ASNS) from testicular cancer among males in 2018-2022 did not change significantly.

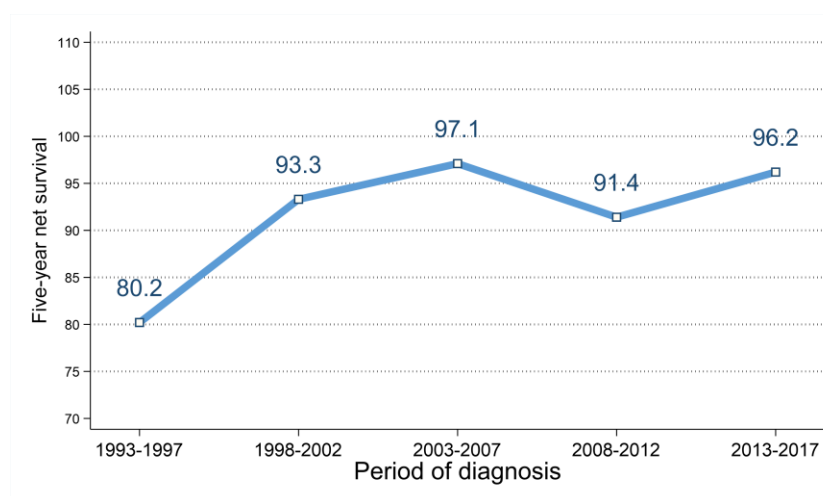
Figure 12: Trends in one-year age-standardised net survival from testicular cancer in 1993-2022



FIVE-YEAR NET SURVIVAL

- Between 2008-2012 and 2013-2017 there was no significant change in five-year survival (ASNS) from testicular cancer among males.
- Compared to 1993-1997 five-year survival (ASNS) from testicular cancer among males in 2013-2017 did not change significantly.

Figure 13: Trends in five-year age-standardised net survival from testicular cancer in 1993-2017



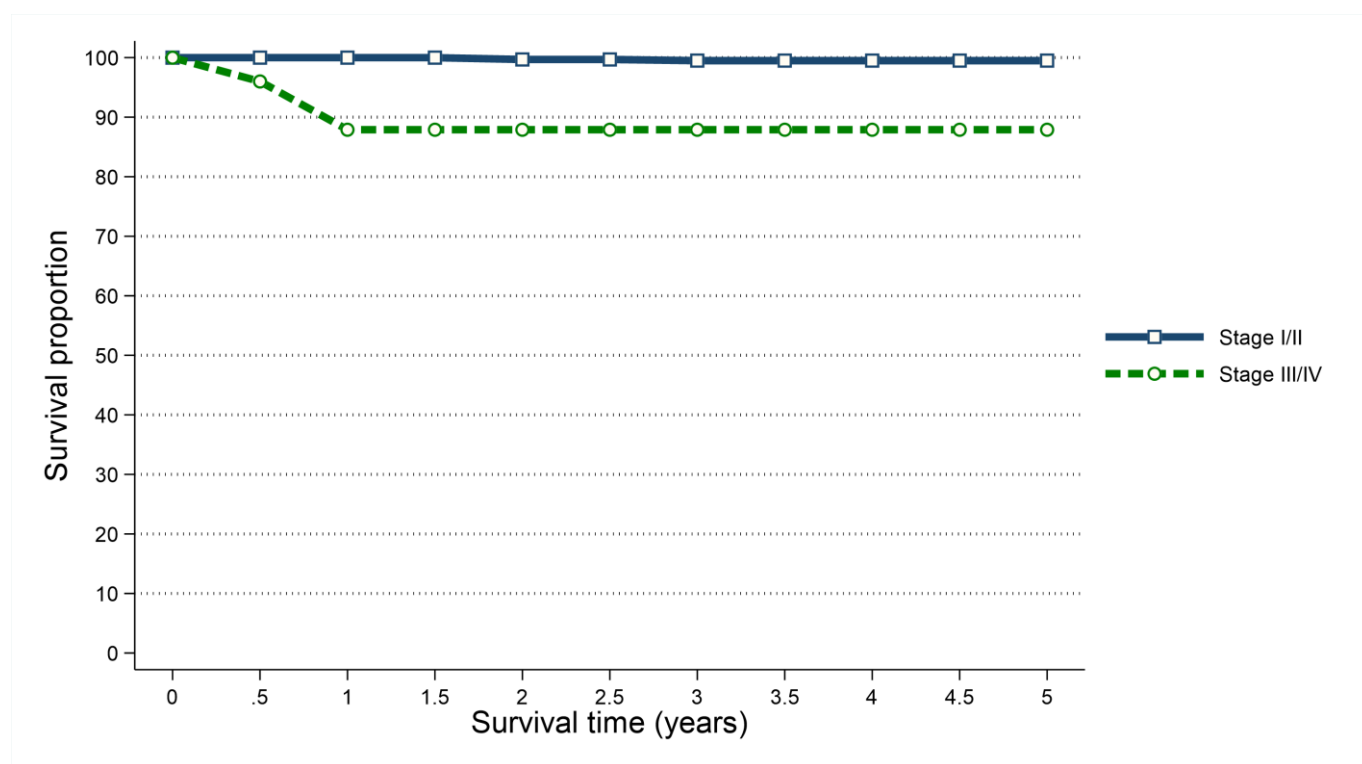
SURVIVAL BY STAGE

- Survival from testicular cancer 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 99.5% among patients diagnosed at Stage I/II to 87.9% among those diagnosed at Stage III/IV.

Table 6: Age-standardised net survival from testicular cancer for patients diagnosed in 2013-2017 by stage at diagnosis

Stage at diagnosis	Male	
	One-year	Five-years
Stage I/II	100.0%	99.5%
Stage III/IV	87.9%	87.9%

Figure 14: Age-standardised net survival from testicular cancer for patients diagnosed in 2013-2017 by stage at diagnosis



PREVALENCE

- At the end of 2022, there were 1,387 males living with testicular cancer who had been diagnosed with the disease during 1998-2022.
- Of these 4.0% had been diagnosed in the previous year (one-year prevalence) and 43.5% in the previous 10 years (ten-year prevalence).
- 29.4% of testicular cancer survivors were aged 55 and over at the end of 2022.

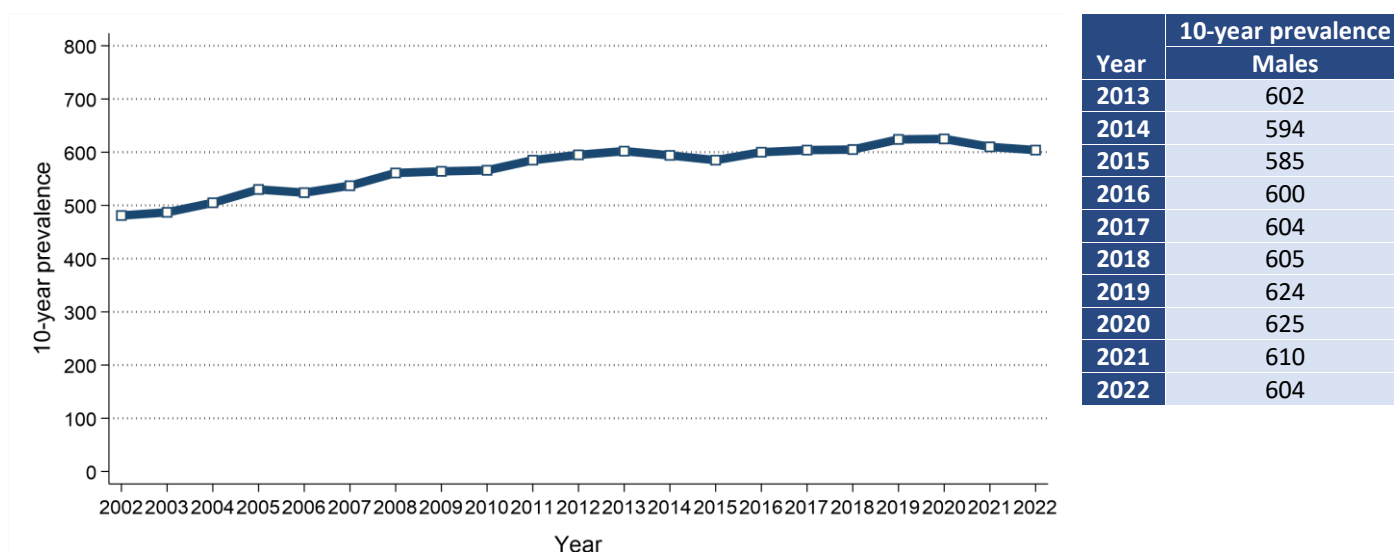
Table 7: 25-year prevalence of testicular cancer by age at end of 2022

Age at end of 2022	25-year prevalence	Time since diagnosis			
		0 to 1 year	1 to 5 years	5 to 10 years	10 to 25 years
All ages	1,387	56	256	292	783
0 to 54	979	50	220	239	470
55 and over	408	6	36	53	313

PREVALENCE TRENDS

- 10-year prevalence of testicular cancer among males did not change between 2017 and 2022 with 604 survivors in each year.

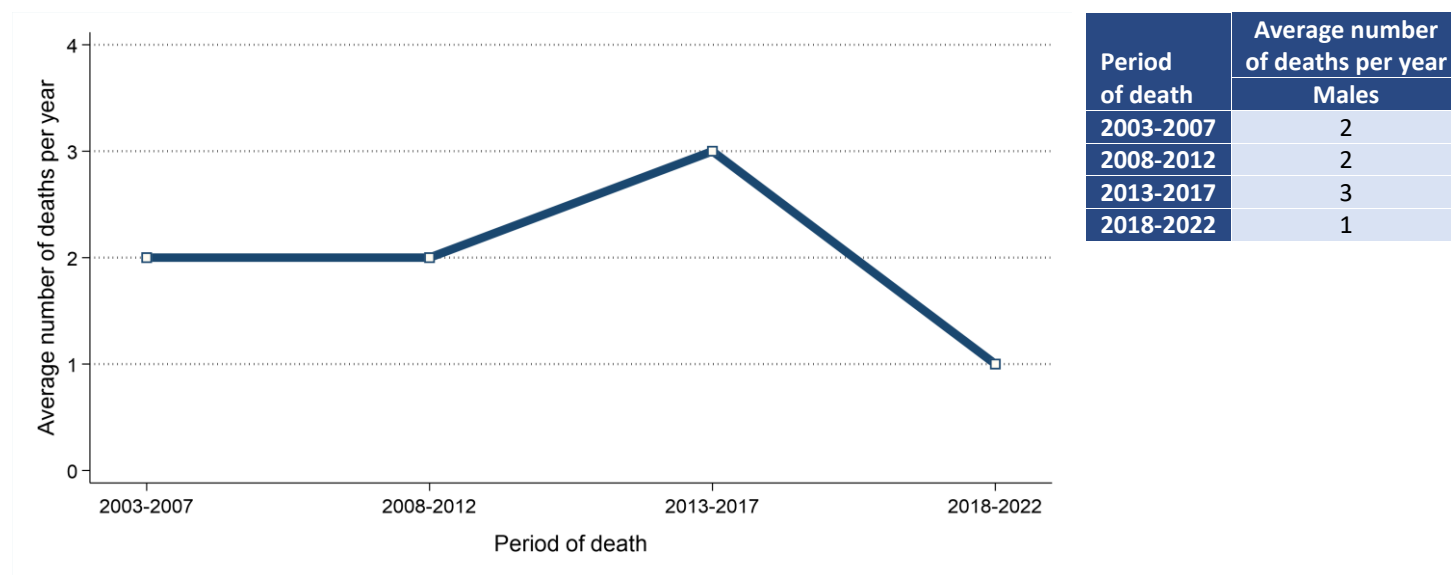
Figure 15: Trends in 10-year prevalence of testicular cancer in 2002-2022



MORTALITY

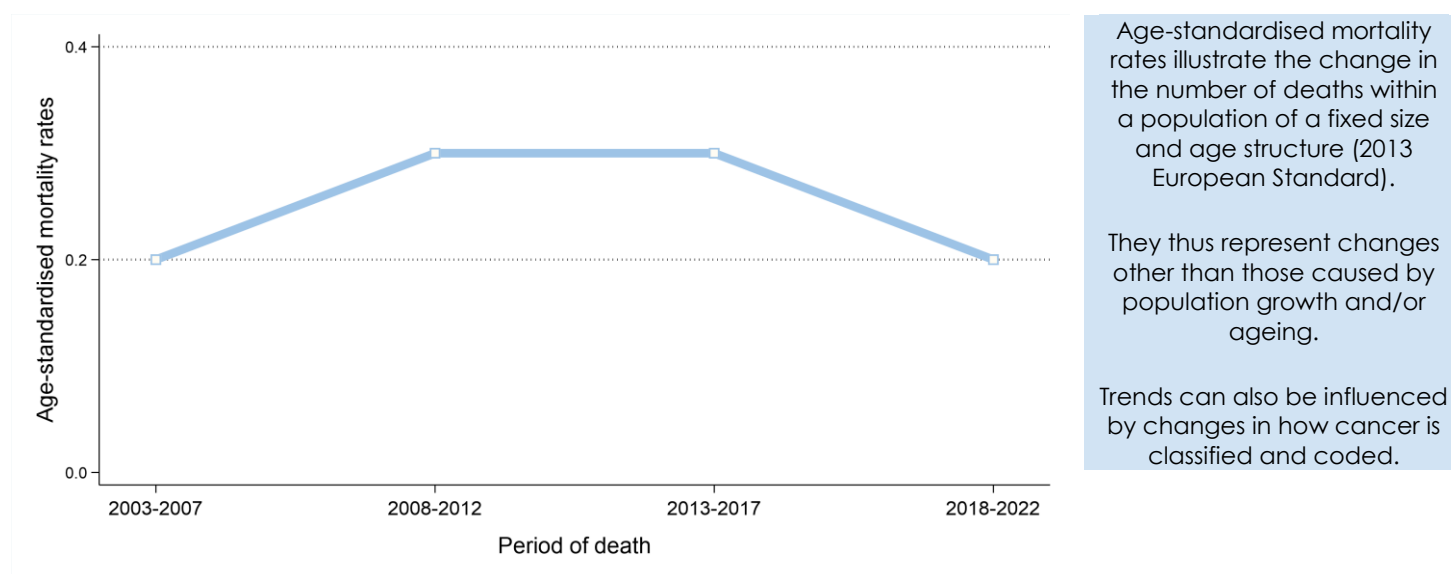
- There were 7 deaths from testicular cancer during 2018-2022 in Northern Ireland. On average this was 1 death per year.
- Testicular cancer deaths made up 0.1% of all male cancer deaths.
- The number of deaths from testicular cancer among males decreased between 2013-2017 and 2018-2022 by 50.0% from 14 deaths (3 deaths per year) to 7 deaths (1 death per year).

Figure 16: Trends in average number of deaths per year from testicular cancer from 2003 to 2022



- Male age-standardised testicular cancer mortality rates decreased between 2013-2017 and 2018-2022 by 33.3% from 0.3 to 0.2 deaths per 100,000 males. This change was not statistically significant.

Figure 17: Trends in mortality rates of testicular cancer from 2003 to 2022



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#/I>

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. testicular cancer 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. testicular cancer 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.