

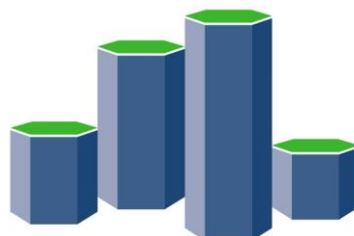
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# Oesophageal cancer

## 1993-2022

(ICD10 codes: C15)

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**Northern Ireland**  
**Cancer Registry**

Northern Ireland Cancer Registry, 2024

An official statistics publication

## ABOUT THIS REPORT

### Contents

This report includes information on incidence of oesophageal 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](http://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](http://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. Oesophageal cancer: 1993-2022. Available at:*  
[www.qub.ac.uk/research-centres/nicr](http://www.qub.ac.uk/research-centres/nicr)

### Further information

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

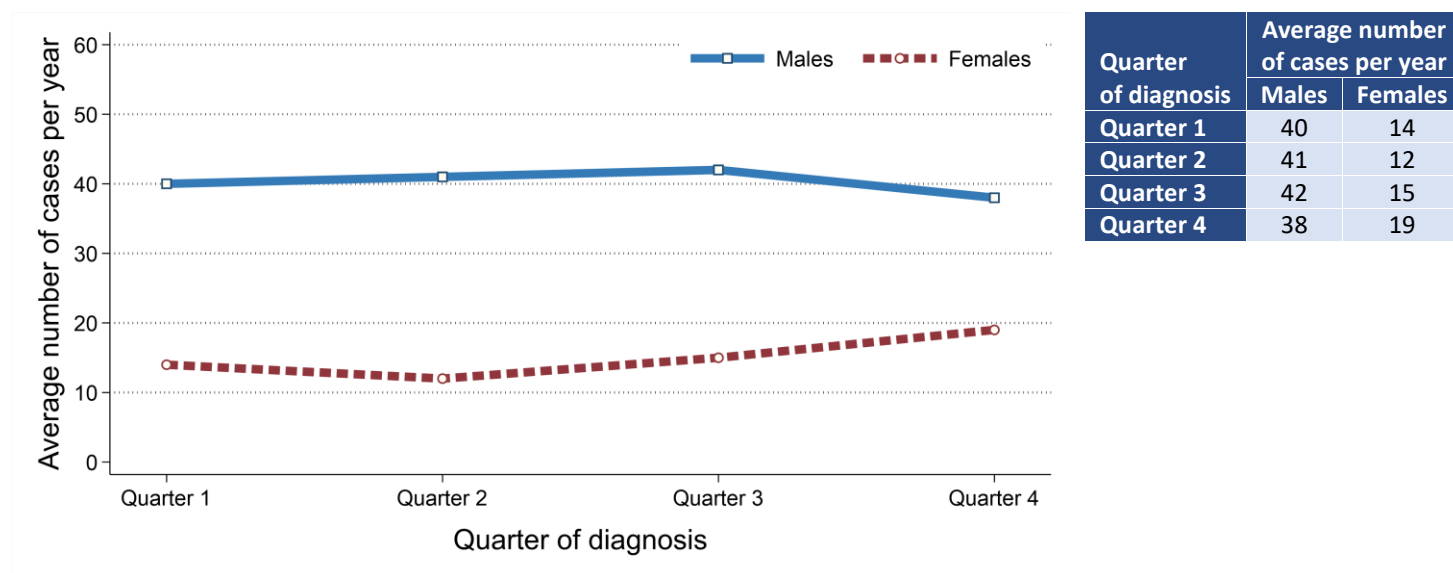
NICR is funded by the Public Health Agency and is based in Queen's University, Belfast.



## INCIDENCE

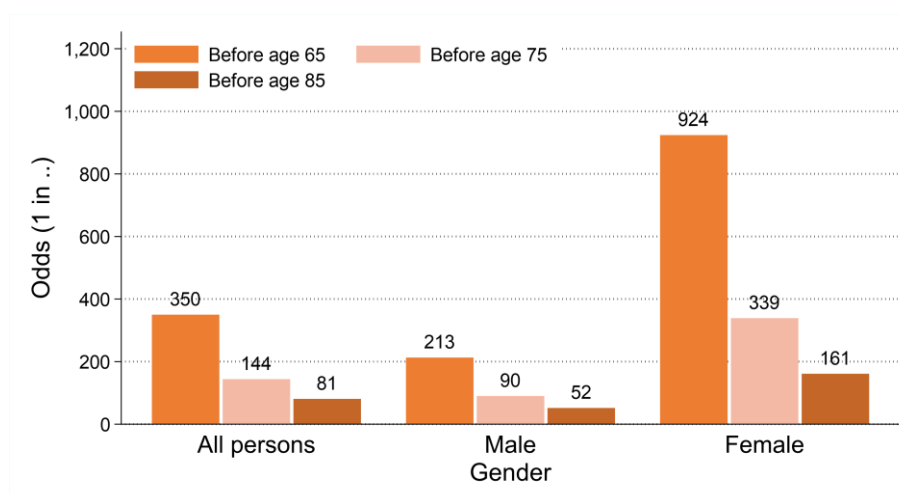
- There were 1,109 cases of oesophageal cancer diagnosed during 2018-2022 in Northern Ireland. On average this was 222 cases per year.
- During this period 27.1% of oesophageal cancer cases were among women (Male cases: 808, Female cases: 301). On average there were 162 male and 60 female cases of oesophageal cancer per year.
- The most common diagnosis month during 2018-2022 was June among males with 17 cases per year and November among females with 8 cases per year.

*Figure 1: Average number of cases of oesophageal cancer per year in 2018-2022 by quarter of diagnosis*



- The oesophageal cancer incidence rates for each gender were 17.3 cases per 100,000 males and 6.2 cases per 100,000 females.
- The odds of developing oesophageal cancer before age 85 was 1 in 52 for men and 1 in 161 for women.

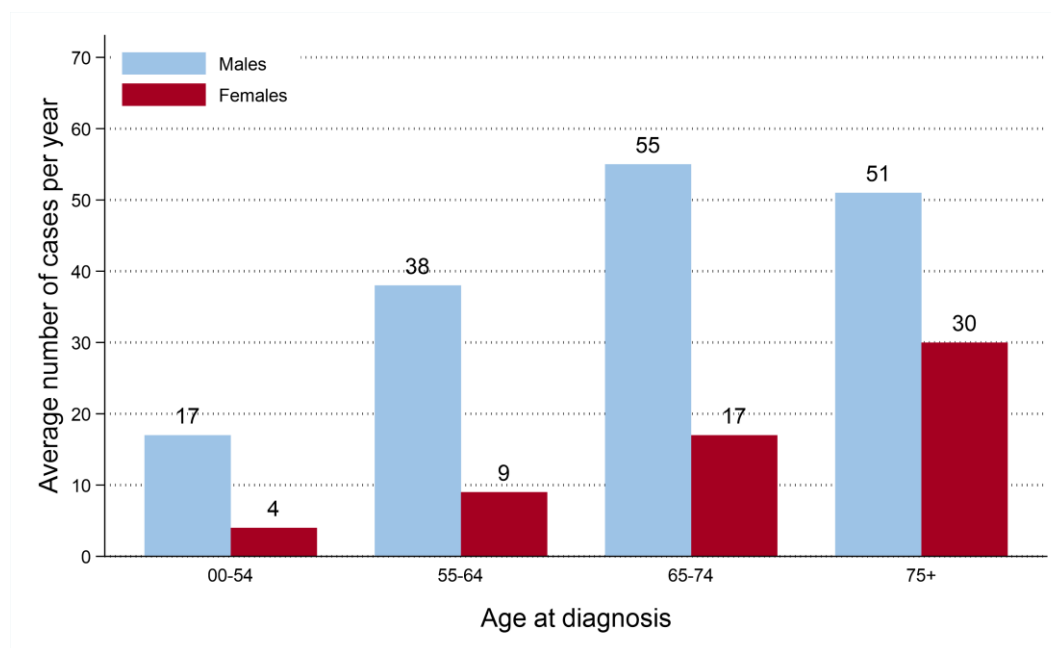
*Figure 2: Odds of developing oesophageal cancer in 2018-2022*



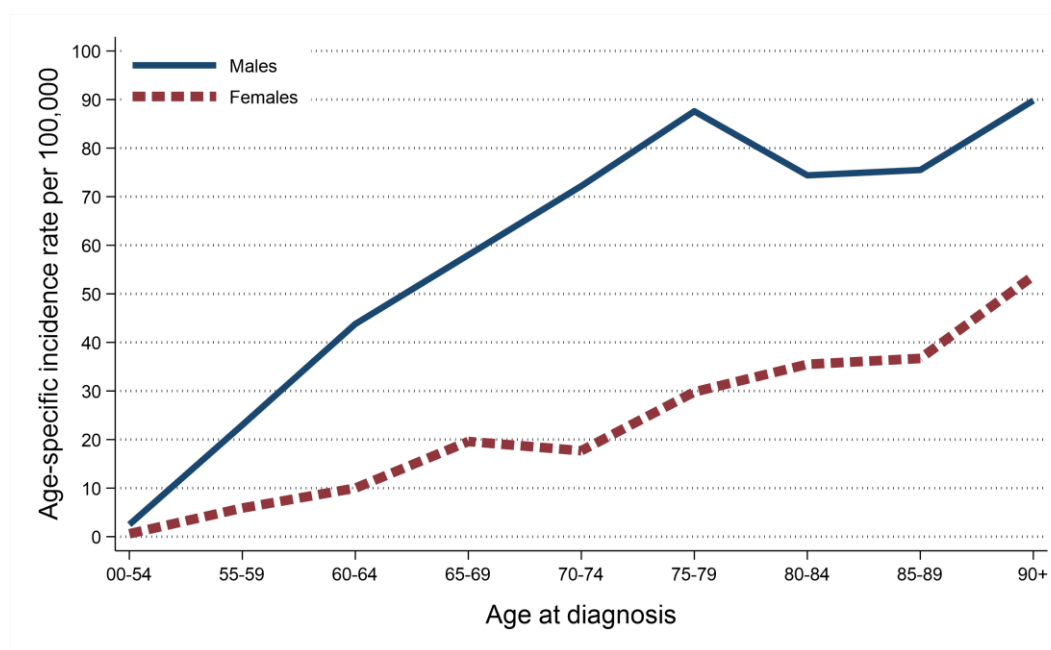
## INCIDENCE BY AGE

- The median age of patients diagnosed with oesophageal cancer during 2018-2022 was 70 years (Males: 69, Females: 75).
- The risk of developing oesophageal cancer varied by age, with 31.7% of men and 50.2% of women diagnosed with oesophageal cancer aged 75 and over at diagnosis.
- In contrast, 9.4% of patients diagnosed with oesophageal cancer were aged 0 to 54 at diagnosis.

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



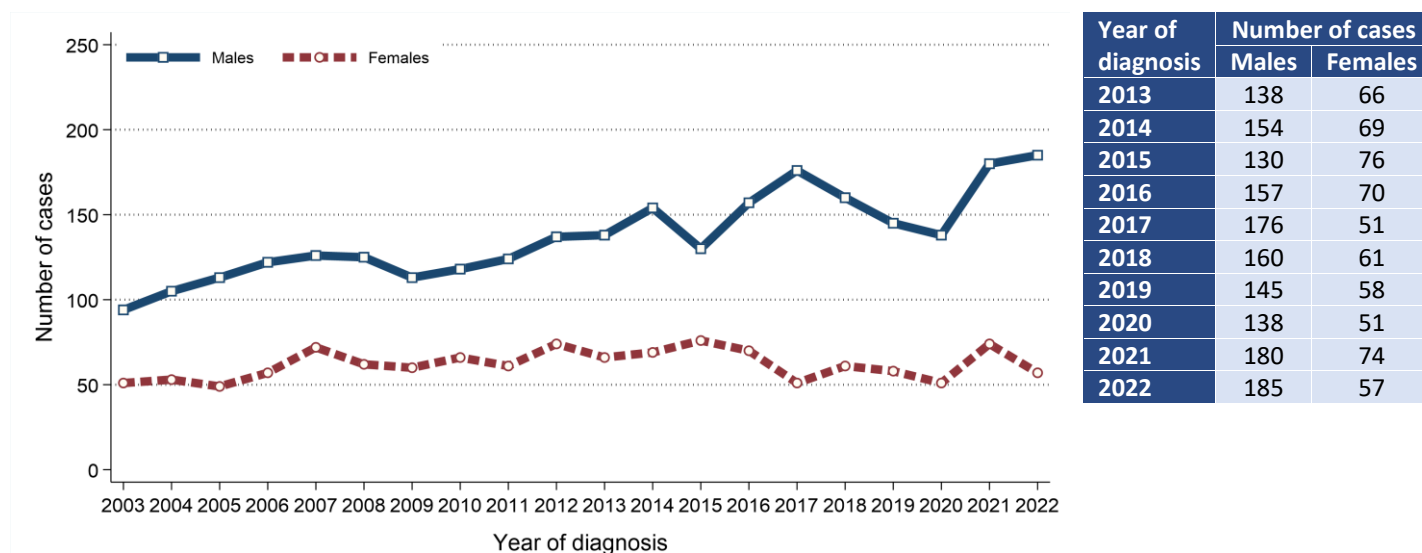
*Figure 4: Age-specific incidence rates of oesophageal cancer in 2018-2022*



## INCIDENCE TRENDS

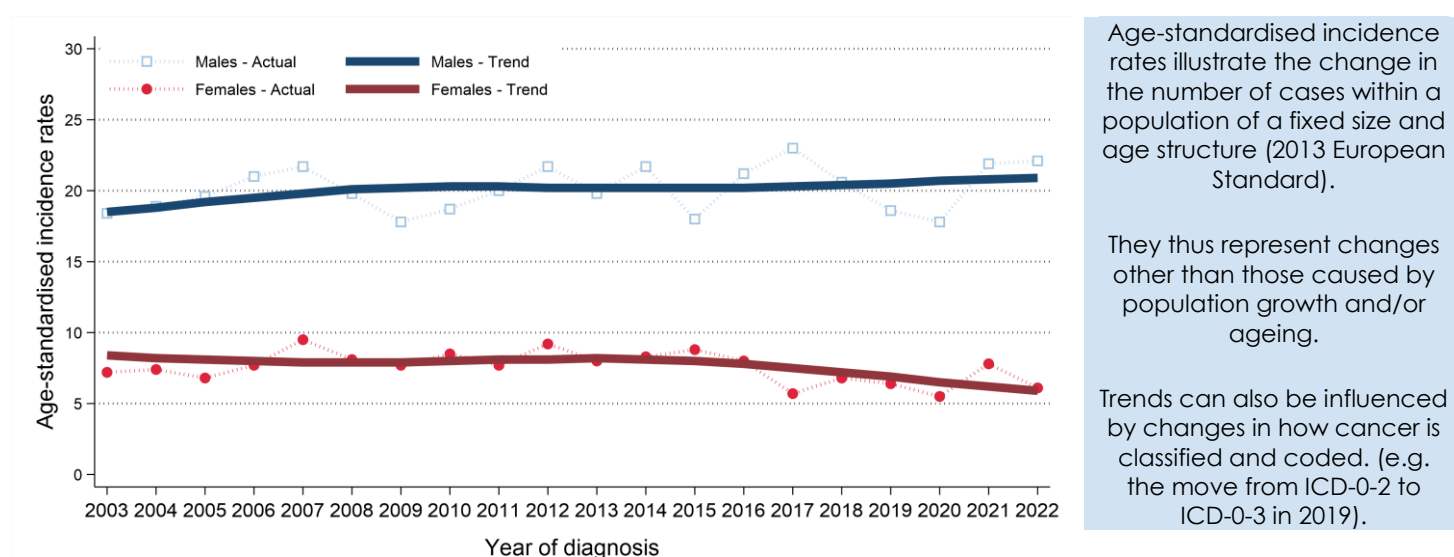
- The number of cases of oesophageal cancer among males increased between 2013-2017 and 2018-2022 by 7.0% from 755 cases (151 cases per year) to 808 cases (162 cases per year).
- The number of cases of oesophageal cancer among females decreased between 2013-2017 and 2018-2022 by 9.3% from 332 cases (66 cases per year) to 301 cases (60 cases per year).

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



- Male age-standardised oesophageal cancer incidence rates decreased between 2013-2017 and 2018-2022 by 2.9% from 20.8 to 20.2 cases per 100,000 males. This change was not statistically significant.
- Female age-standardised oesophageal cancer incidence rates decreased between 2013-2017 and 2018-2022 by 16.7% from 7.8 to 6.5 cases per 100,000 females. This change was not statistically significant.

*Figure 6: Trends in incidence rates of oesophageal cancer from 2003 to 2022*



## INCIDENCE BY HISTOLOGICAL TYPE

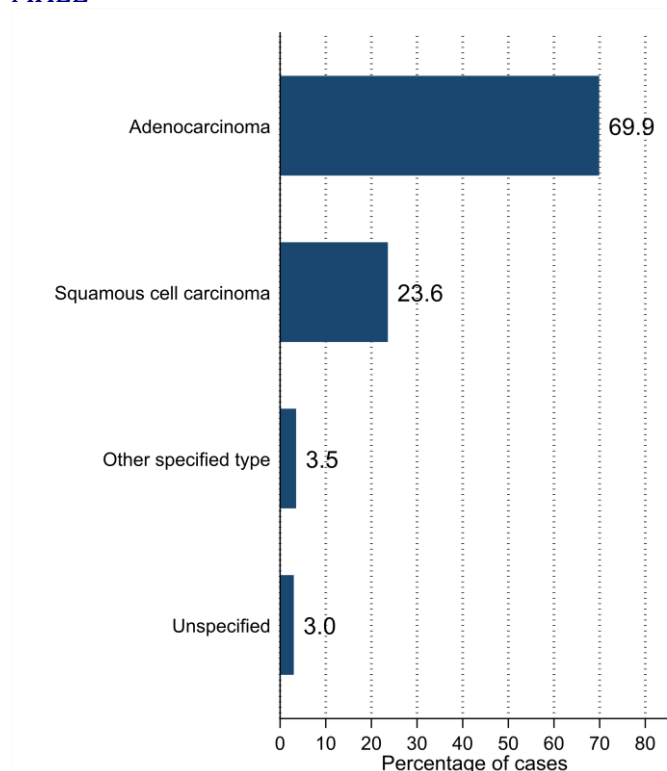
- During 2018-2022 96.7% of oesophageal cancer cases had a histological type specified.
- Of the 37 cases with an unspecified type 94.6% were not microscopically verified.
- The most common oesophageal cancer types among males were adenocarcinoma (69.9%) and squamous cell carcinoma (23.6%). Among females they were squamous cell carcinoma (52.2%) and adenocarcinoma (39.2%).

*Table 1: Number of cases of oesophageal cancer diagnosed in 2018-2022 by histological type*

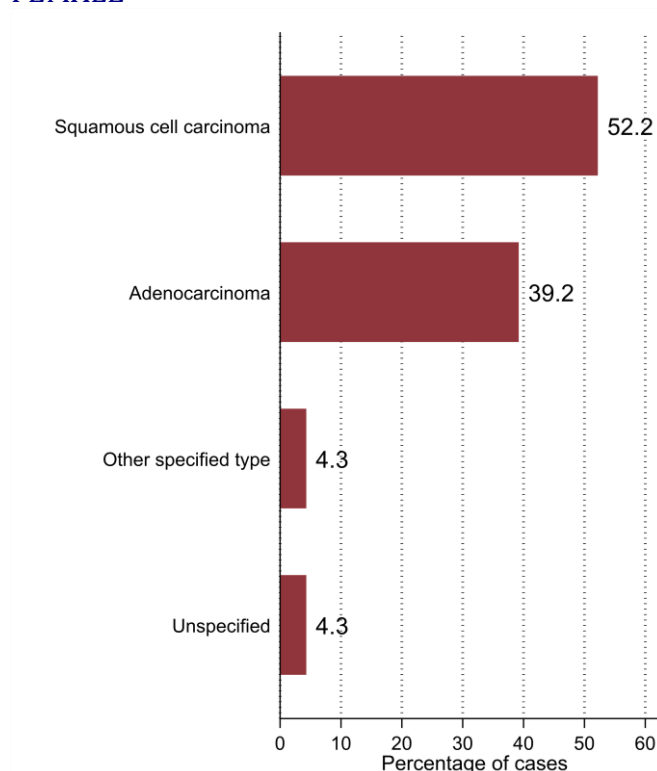
Histological type	All persons		Male		Female	
	Total cases in period	Average cases per year	Total cases in period	Average cases per year	Total cases in period	Average cases per year
All types	1,109	222	808	162	301	60
	.	.	.	.	.	.
Adenocarcinoma	683	137	565	113	118	24
Squamous cell carcinoma	348	70	191	38	157	31
Other specified type	41	8	28	6	13	3
Unspecified	37	7	24	5	13	3

*Figure 7: Proportion of cases of oesophageal cancer in 2018-2022 by histological type*

### MALE



### FEMALE



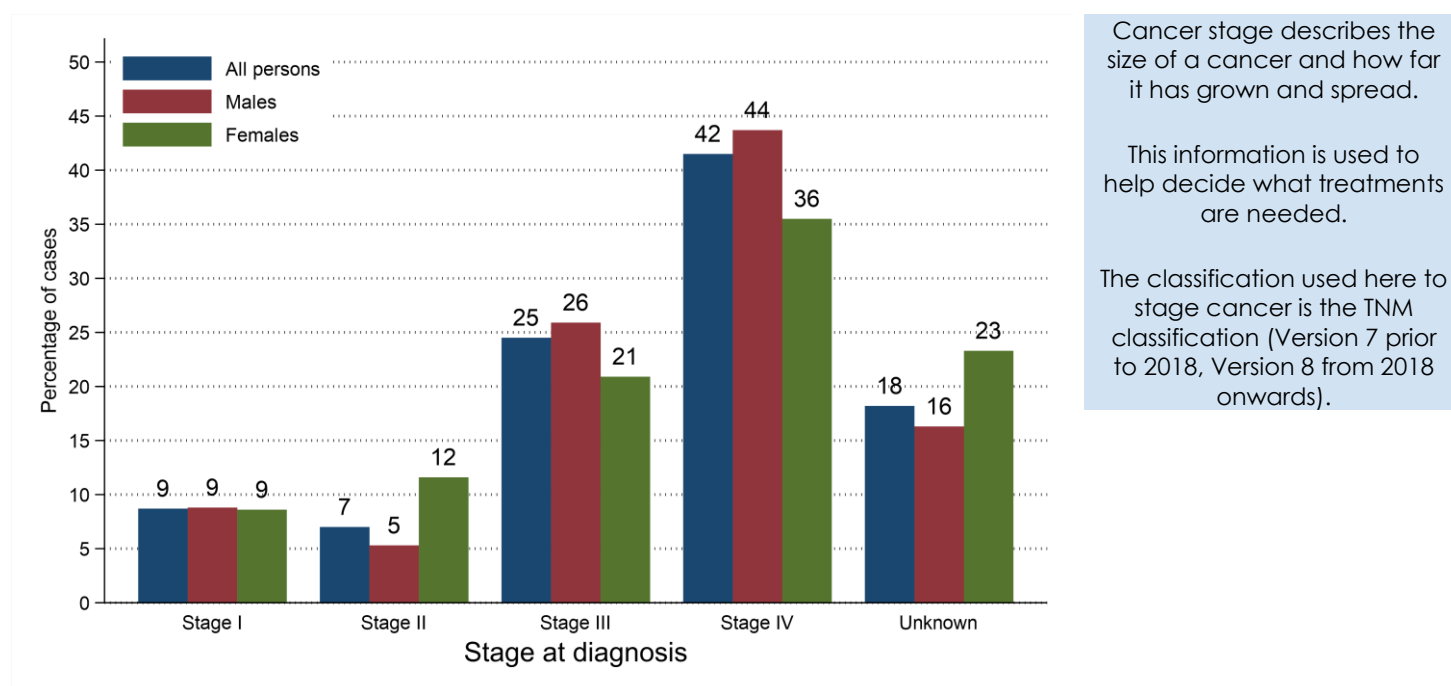
## INCIDENCE BY STAGE AT DIAGNOSIS

- During 2018-2022 81.8% of oesophageal cancer cases had a stage assigned.
- 8.7% of oesophageal cancer cases were diagnosed at Stage I. (10.7% of staged cases)
- 41.5% of oesophageal cancer cases were diagnosed at Stage IV. (50.7% of staged cases)

*Table 2: Number of cases of oesophageal cancer diagnosed in 2018-2022 by stage at diagnosis*

Stage at diagnosis	All persons		Male		Female	
	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	1,109	222	808	162	301	60
Stage I	97	19	71	14	26	5
Stage II	78	16	43	9	35	7
Stage III	272	54	209	42	63	13
Stage IV	460	92	353	71	107	21
Unknown	202	40	132	26	70	14

*Figure 8: Proportion of cases of oesophageal cancer diagnosed in 2018-2022 by stage at diagnosis*



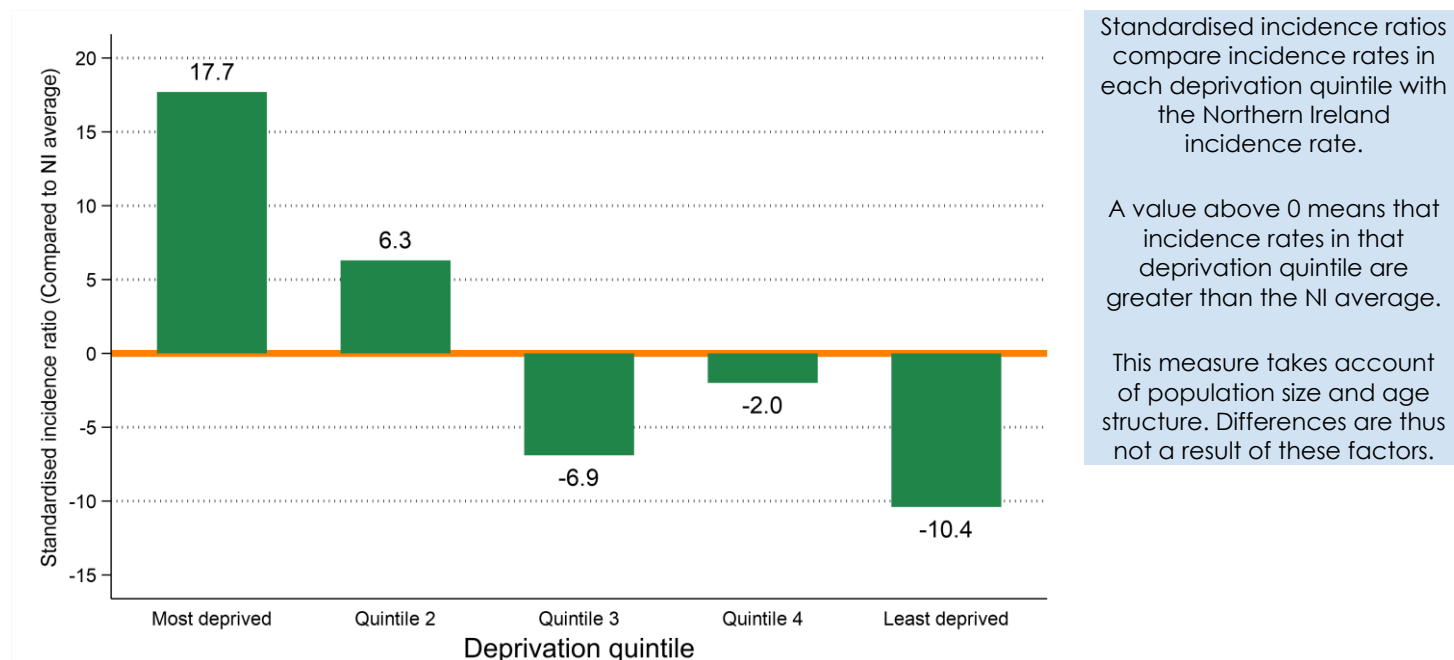
## INCIDENCE BY DEPRIVATION

- The number of cases of oesophageal 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 were 17.7% higher than the NI average.
  - in the least socio-economically deprived areas did not vary significantly from the NI average.

*Table 3: Number of cases of oesophageal cancer diagnosed in 2018-2022 by deprivation quintile*

Deprivation quintile	All persons		Male		Female	
	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	1,109	222	808	162	301	60
Most deprived	.	.	.	.	.	.
Quintile 2	211	42	163	33	48	10
Quintile 3	235	47	178	36	57	11
Quintile 4	218	44	159	32	59	12
Least deprived	232	46	168	34	64	13
Unknown	213	43	140	28	73	15
Unknown	0	0	0	0	0	0

*Figure 9: Standardised incidence ratio comparing deprivation quintile to Northern Ireland for oesophageal cancer diagnosed in 2018-2022*





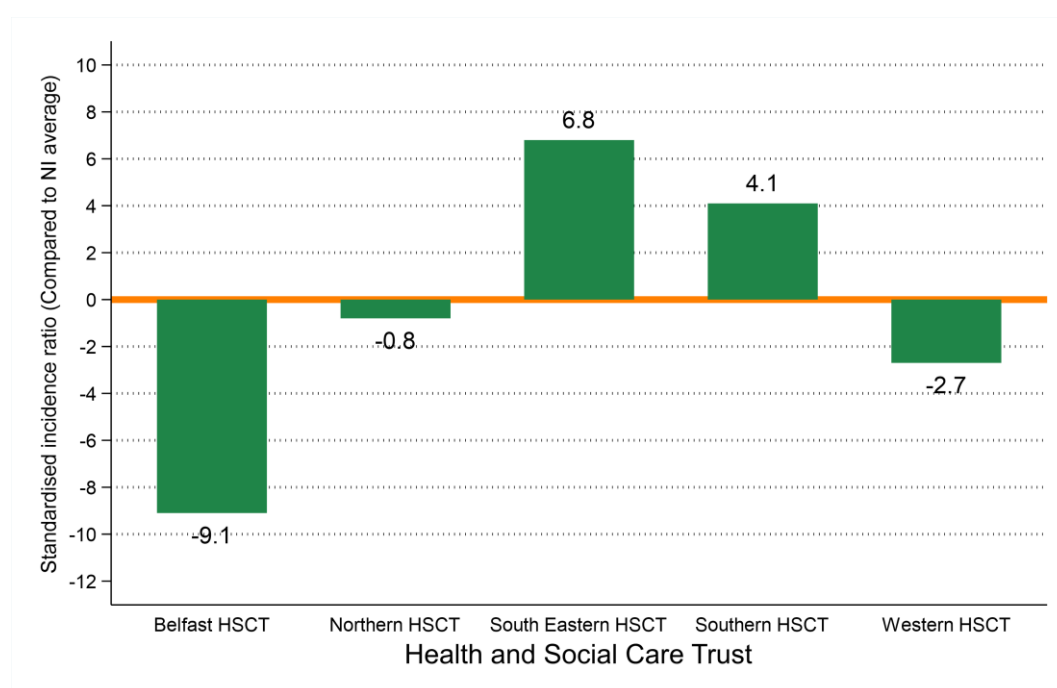
## INCIDENCE BY HEALTH AND SOCIAL CARE TRUST

- The number of cases of oesophageal 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 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 4: Number of cases of oesophageal cancer diagnosed in 2018-2022 by Health and Social Care Trust*

Health and Social Care Trust	All persons		Male		Female	
	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	1,109	222	808	162	301	60
Belfast HSCT	178	36	123	25	55	11
Northern HSCT	293	59	212	42	81	16
South Eastern HSCT	252	50	186	37	66	13
Southern HSCT	217	43	157	31	60	12
Western HSCT	169	34	130	26	39	8
Unknown	0	0	0	0	0	0

*Figure 10: Standardised incidence ratio comparing Health and Social Care Trust to Northern Ireland for oesophageal cancer diagnosed in 2018-2022*



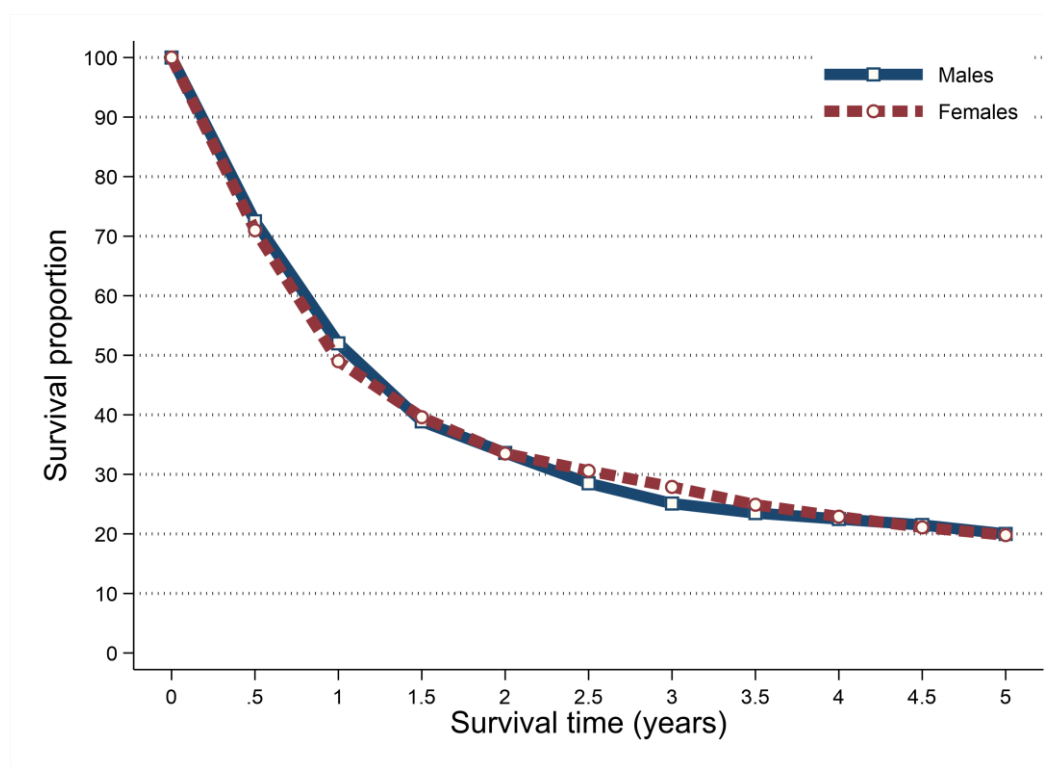
## SURVIVAL

- 48.1% of patients were alive one year and 17.3% were alive five years from an oesophageal cancer diagnosis in 2013-2017. (observed survival)
- Age-standardised net survival (ASNS), which removes the effect of deaths from causes unrelated to cancer, was 51.0% one year and 20.0% five years from an oesophageal cancer diagnosis in 2013-2017.
- Five-year survival (ASNS) for oesophageal cancer patients diagnosed in 2013-2017 was 20.0% among men and 19.8% among women.

*Table 5: Survival from oesophageal cancer for patients diagnosed in 2013-2017*

Time since diagnosis	All persons		Male		Female	
	Observed survival	Age-standardised net survival	Observed survival	Age-standardised net survival	Observed survival	Age-standardised net survival
6 months	69.0%	72.0%	70.8%	72.5%	65.0%	71.0%
One year	48.1%	51.0%	49.9%	52.0%	43.8%	49.0%
Two years	30.4%	33.5%	31.9%	33.6%	27.1%	33.5%
Five years	17.3%	20.0%	18.2%	20.0%	15.2%	19.8%

*Figure 11: Age-standardised net survival from oesophageal 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.

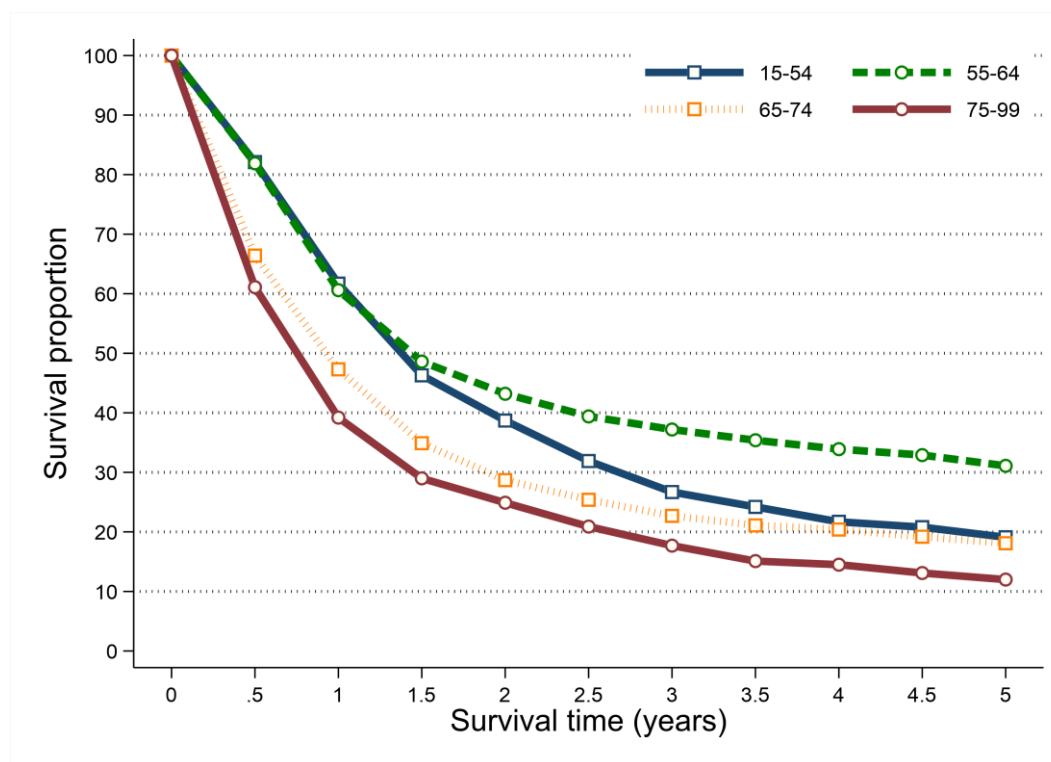
## SURVIVAL BY AGE

- Survival from oesophageal 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 31.1% among patients aged 55 to 64 at diagnosis to 12.0% among those aged 75 to 99.

*Table 6: Net survival from oesophageal cancer for patients diagnosed in 2013-2017 by age at diagnosis*

Age group	All persons	
	One-year	Five-years
15 to 54	61.7%	19.1%
55 to 64	60.6%	31.1%
65 to 74	47.3%	18.1%
75 to 99	39.2%	12.0%

*Figure 12: Net survival from oesophageal cancer for patients diagnosed in 2013-2017 by age at diagnosis*

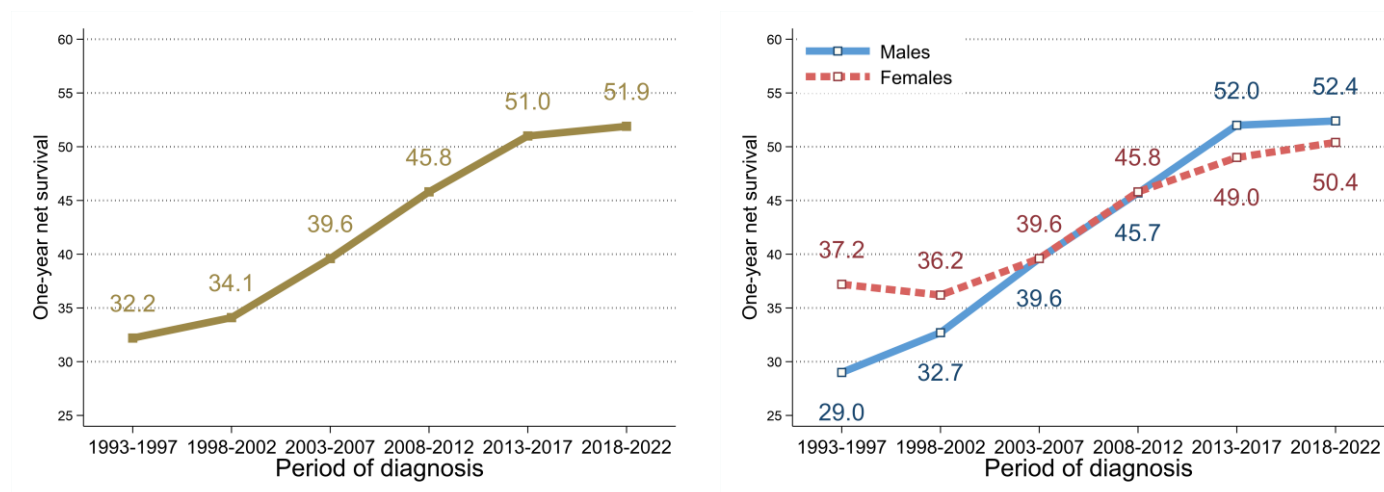


# SURVIVAL TRENDS

## ONE-YEAR NET SURVIVAL

- Between 2013-2017 and 2018-2022 there was no significant change in one-year survival (ASNS) from oesophageal cancer.
- Compared to 1993-1997 one-year survival (ASNS) from oesophageal cancer in 2018-2022 increased significantly from 32.2% to 51.9%. This increase was significant for males (29.0% to 52.4%) and females (37.2% to 50.4%).

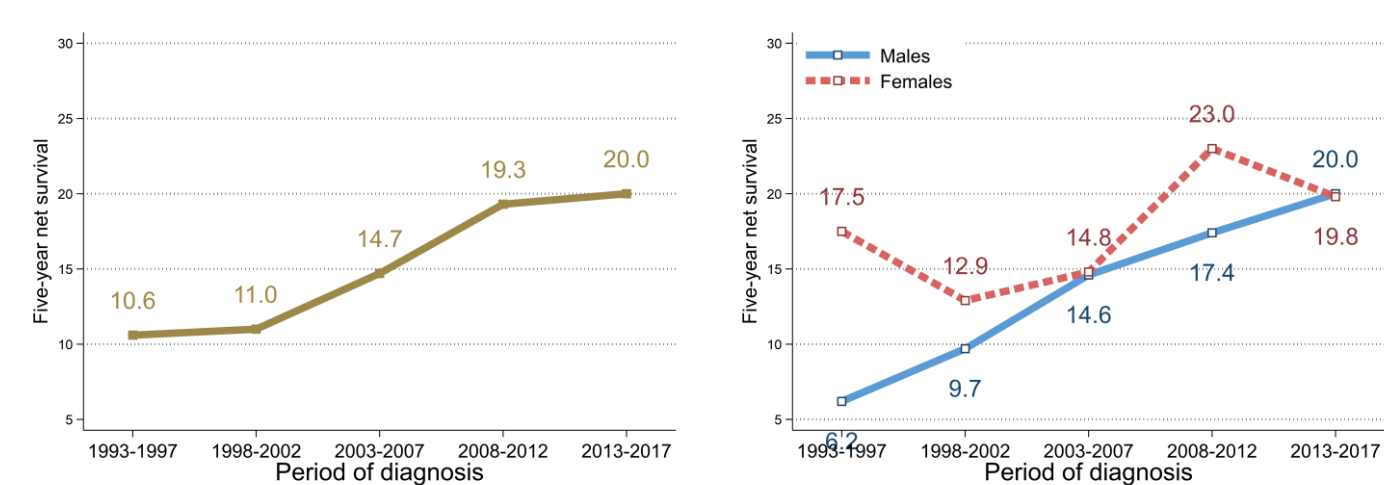
Figure 13: Trends in one-year age-standardised net survival from oesophageal cancer in 1993-2022



## FIVE-YEAR NET SURVIVAL

- Between 2008-2012 and 2013-2017 there was no significant change in five-year survival (ASNS) from oesophageal cancer.
- Compared to 1993-1997 five-year survival (ASNS) from oesophageal cancer in 2013-2017 increased significantly from 10.6% to 20.0%. This increase was significant for males (6.2% to 20.0%) but not females.

Figure 14: Trends in five-year age-standardised net survival from oesophageal cancer in 1993-2017



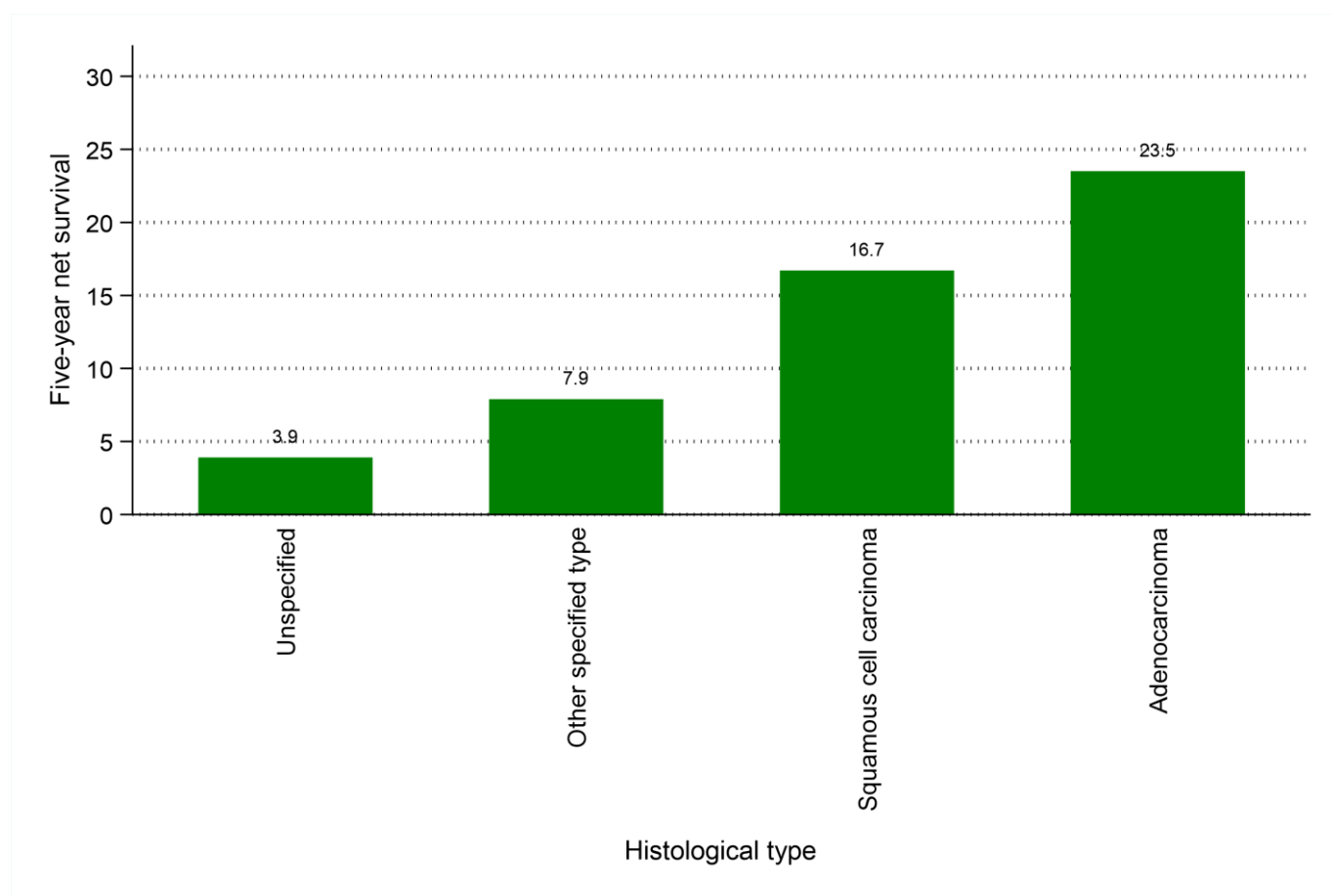
## SURVIVAL BY HISTOLOGICAL TYPE

- Five-year survival (ASNS) for patients diagnosed in 2013-2017 ranged from 23.5% for adenocarcinoma to 3.9% for those with an unspecified histological type.

*Table 7: Age-standardised net survival from oesophageal cancer for patients diagnosed in 2013-2017 by histological type*

Histological type	All persons	
	One-year	Five-years
Adenocarcinoma	57.4%	23.5%
Squamous cell carcinoma	45.8%	16.7%
Other specified type	27.3%	7.9%
Unspecified	29.2%	3.9%

*Figure 15: Five-year age-standardised net survival from oesophageal cancer for patients diagnosed in 2013-2017 by histological type*



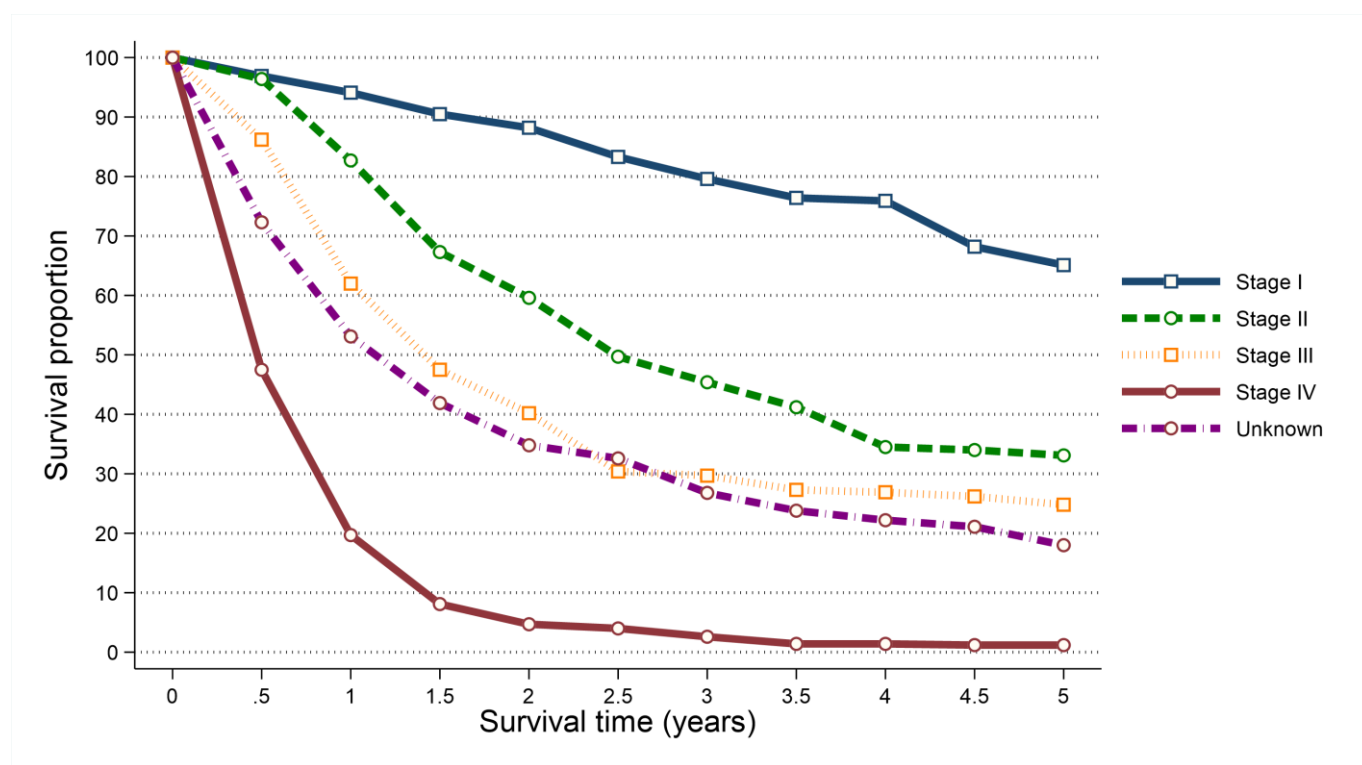
## SURVIVAL BY STAGE

- Survival from oesophageal 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 65.1% among patients diagnosed at Stage I to 1.2% among those diagnosed at Stage IV.

*Table 8: Age-standardised net survival from oesophageal cancer for patients diagnosed in 2013-2017 by stage at diagnosis*

Stage at diagnosis	All persons	
	One-year	Five-years
Stage I	94.1%	65.1%
Stage II	82.7%	33.1%
Stage III	62.0%	24.8%
Stage IV	19.7%	1.2%
Unknown	53.1%	18.0%

*Figure 16: Age-standardised net survival from oesophageal cancer for patients diagnosed in 2013-2017 by stage at diagnosis*



## PREVALENCE

- At the end of 2022, there were 723 people (Males: 511; Females: 212) living with oesophageal cancer who had been diagnosed with the disease during 1998-2022.
- Of these 22.4% had been diagnosed in the previous year (one-year prevalence) and 78.8% in the previous 10 years (ten-year prevalence).
- 38.5% of oesophageal cancer survivors were aged 75 and over at the end of 2022.

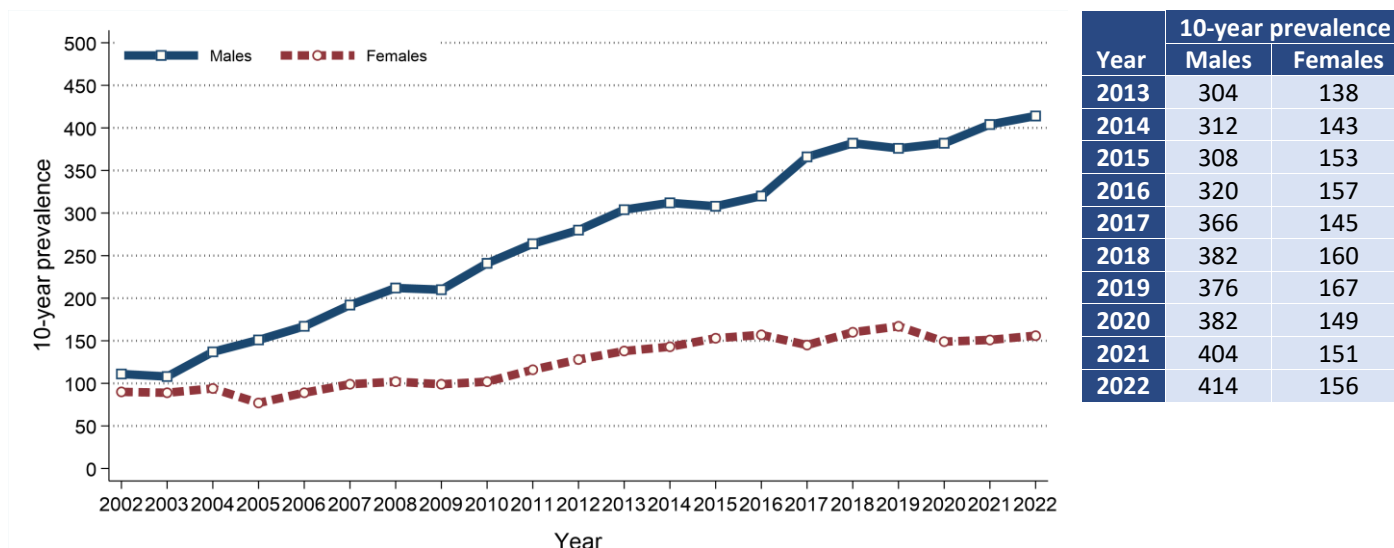
*Table 9: 25-year prevalence of oesophageal cancer by age at end of 2022*

Gender	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 persons	All ages	723	162	250	158	153
	0 to 74	445	111	163	106	65
	75 and over	278	51	87	52	88
Male	All ages	511	122	177	115	97
	0 to 74	339	89	126	80	44
	75 and over	172	33	51	35	53
Female	All ages	212	40	73	43	56
	0 to 74	106	22	37	26	21
	75 and over	106	18	36	17	35

## PREVALENCE TRENDS

- 10-year prevalence of oesophageal cancer among males increased between 2017 and 2022 by 13.1% from 366 survivors to 414 survivors.
- 10-year prevalence of oesophageal cancer among females increased between 2017 and 2022 by 7.6% from 145 survivors to 156 survivors.

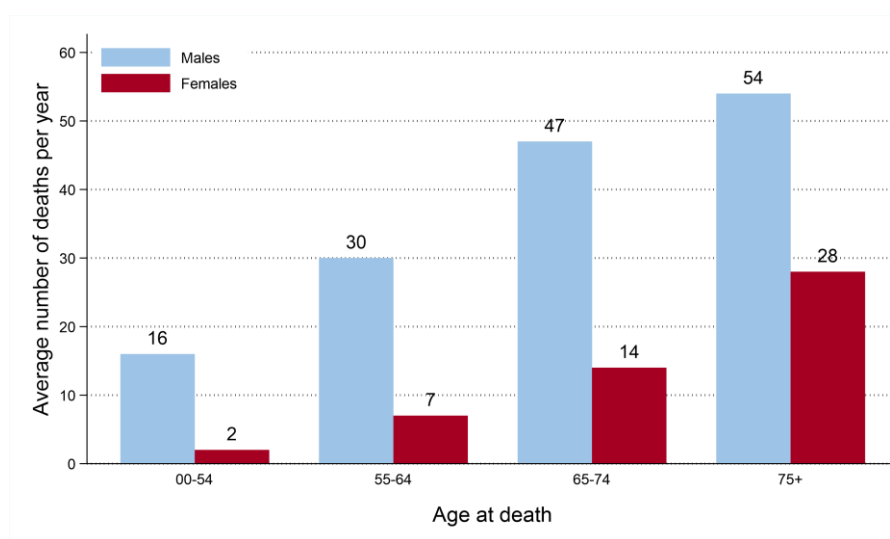
*Figure 17: Trends in 10-year prevalence of oesophageal cancer in 2002-2022*



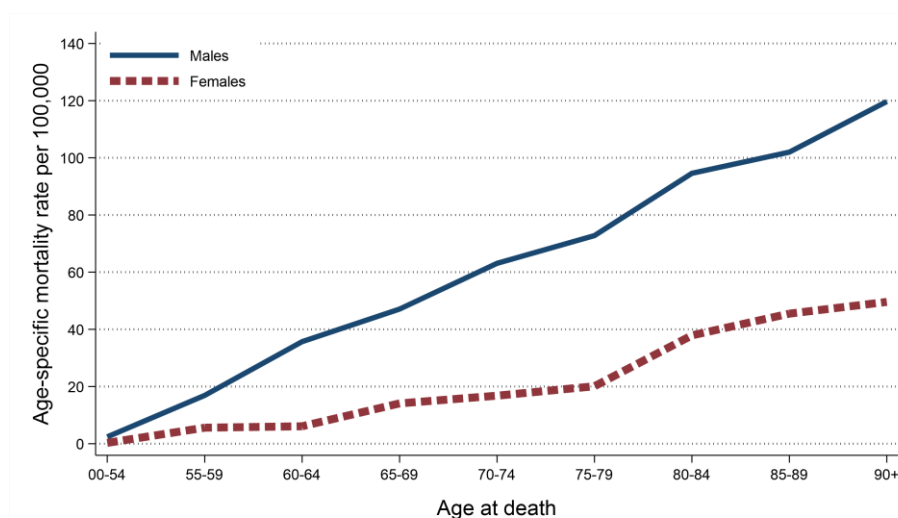
## MORTALITY

- There were 993 deaths from oesophageal cancer during 2018-2022 in Northern Ireland. On average this was 199 deaths per year.
- During this period 25.9% of oesophageal cancer deaths were among women (Male deaths: 736, Female deaths: 257). On average there were 147 male and 51 female deaths from oesophageal cancer per year.
- Oesophageal cancer deaths made up 6.1% of all male cancer deaths and 2.4% of all female cancer deaths.
- The median age of patients who died from oesophageal cancer during 2018-2022 was 72 years (Males: 71, Females: 76).
- The risk of dying from oesophageal cancer varied by age, with 37.0% of men and 55.3% of women who died from oesophageal cancer aged 75 and over at death.
- In contrast, 9.3% of patients who died from oesophageal cancer were aged 0 to 54 at death.

*Figure 18: Average number of deaths from oesophageal cancer per year in 2018-2022 by age at death*



*Figure 19: Age-specific mortality rates of oesophageal cancer in 2018-2022*

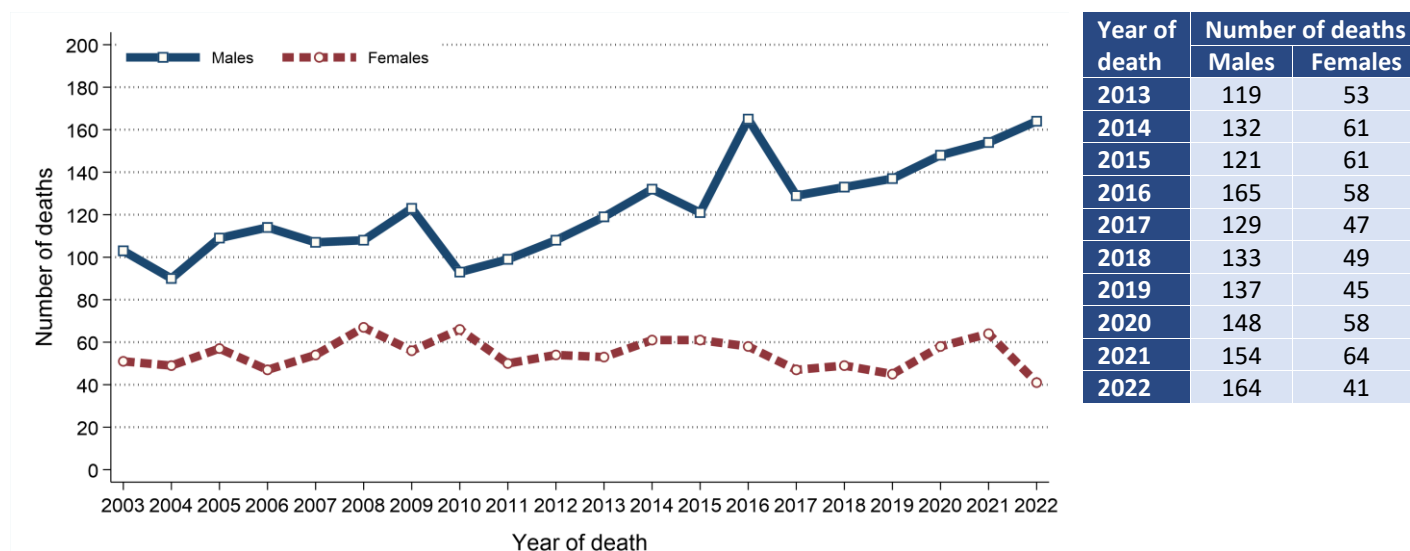




## MORTALITY TRENDS

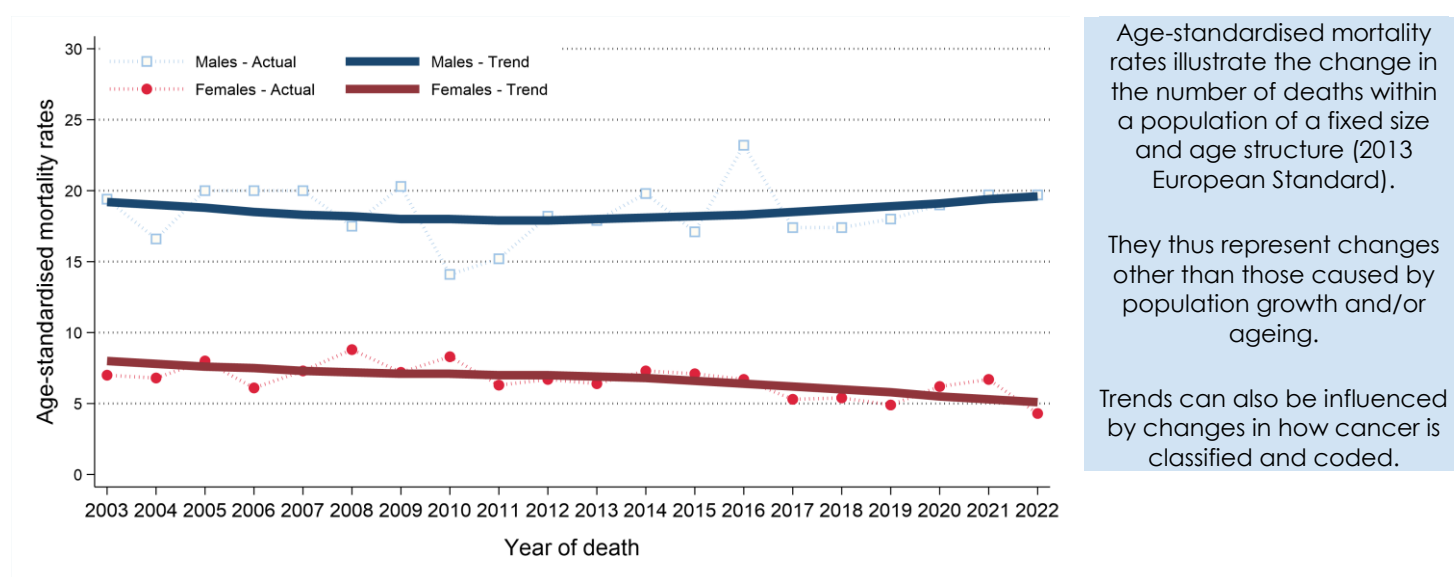
- The number of deaths from oesophageal cancer among males increased between 2013-2017 and 2018-2022 by 10.5% from 666 deaths (133 deaths per year) to 736 deaths (147 deaths per year).
- The number of deaths from oesophageal cancer among females decreased between 2013-2017 and 2018-2022 by 8.2% from 280 deaths (56 deaths per year) to 257 deaths (51 deaths per year).

*Figure 20: Trends in the number of deaths from oesophageal cancer from 2003 to 2022*



- Male age-standardised oesophageal cancer mortality rates decreased between 2013-2017 and 2018-2022 by 1.6% from 19.1 to 18.8 deaths per 100,000 males. This change was not statistically significant.
- Female age-standardised oesophageal cancer mortality rates decreased between 2013-2017 and 2018-2022 by 16.7% from 6.6 to 5.5 deaths per 100,000 females. This change was not statistically significant.

*Figure 21: Trends in mortality rates of oesophageal 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](http://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](http://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](http://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. oesophageal 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. oesophageal 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.