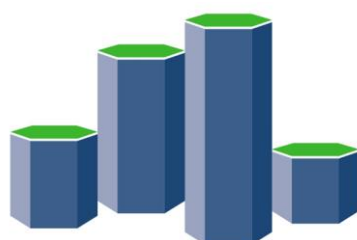

Head and neck cancer

1993-2022

(ICD10 codes: C00-C14, C30-C32)



Northern Ireland
Cancer Registry

Northern Ireland Cancer Registry, 2025

An official statistics publication

ABOUT THIS REPORT

Contents

This report includes information on incidence of head and neck 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. Head and neck 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.

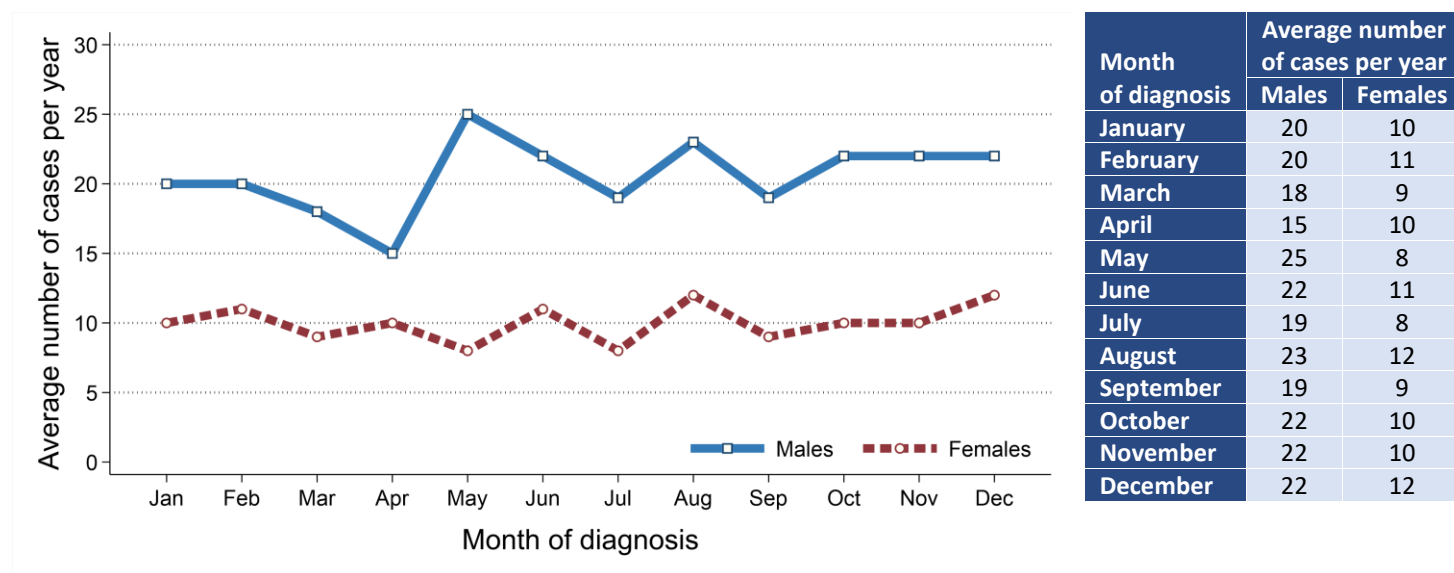
NICR is funded by the Public Health Agency and is based in Queen's University, Belfast.



INCIDENCE

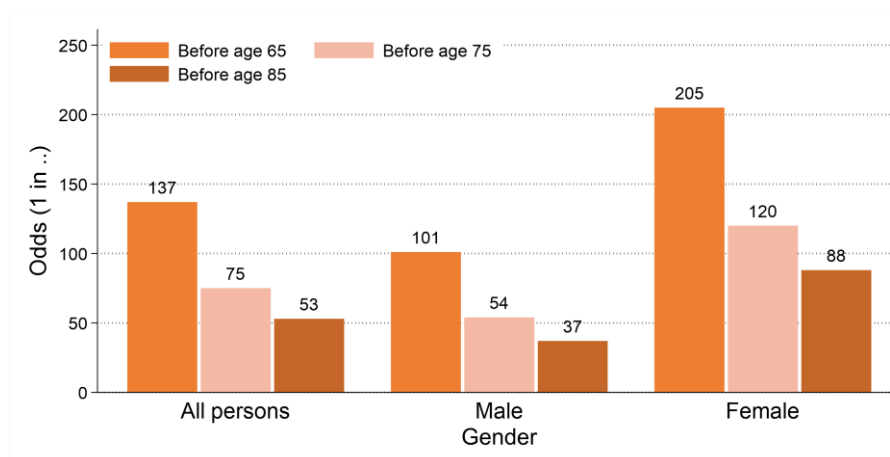
- There were 1,825 cases of head and neck cancer diagnosed during 2018-2022 in Northern Ireland. On average this was 365 cases per year.
- During this period 32.5% of head and neck cancer cases were among women (Male cases: 1,232, Female cases: 593). On average there were 246 male and 119 female cases of head and neck cancer per year.
- The most common diagnosis month during 2018-2022 was May among males with 25 cases per year and August and December among females with 12 cases per year.

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



- Head and neck cancer made up 4.7% of all male and 2.4% of all female cancer cases (excluding non-melanoma skin cancer).
- The head and neck cancer incidence rates for each gender were 26.4 cases per 100,000 males and 12.3 cases per 100,000 females.
- The odds of developing head and neck cancer before age 85 was 1 in 37 for men and 1 in 88 for women.

Figure 2: Odds of developing head and neck cancer in 2018-2022



INCIDENCE BY AGE

- The median age of patients diagnosed with head and neck cancer during 2018-2022 was 65 years (Males: 65, Females: 64).
- The risk of developing head and neck cancer varied by age, with 21.1% of men and 23.1% of women diagnosed with head and neck cancer aged 75 and over at diagnosis.
- In contrast, 18.6% of patients diagnosed with head and neck cancer were aged 0 to 54 at diagnosis.

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

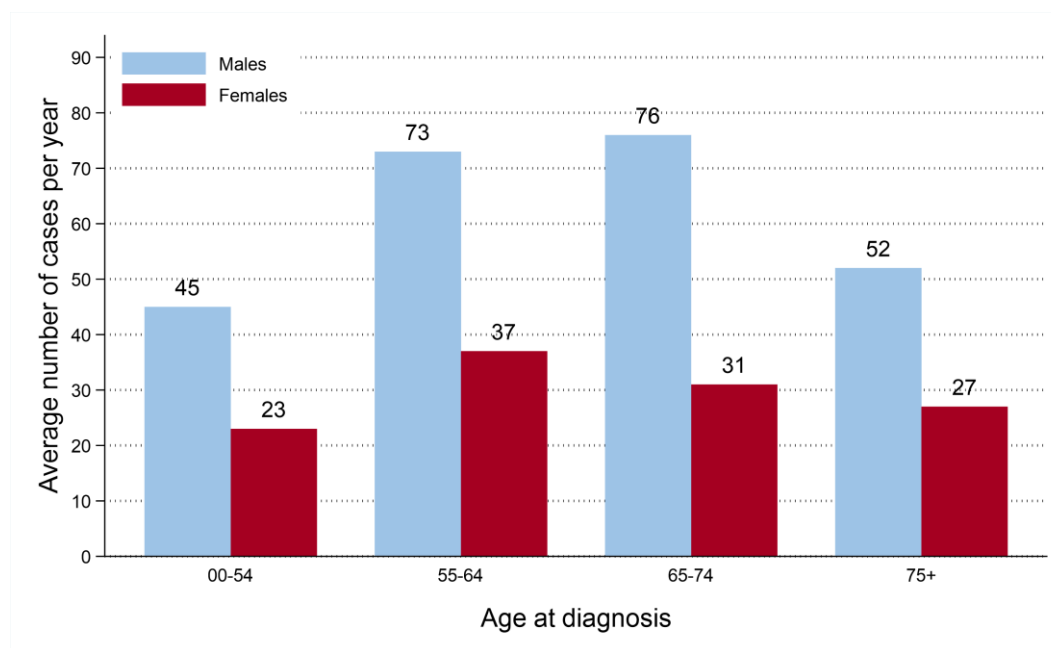
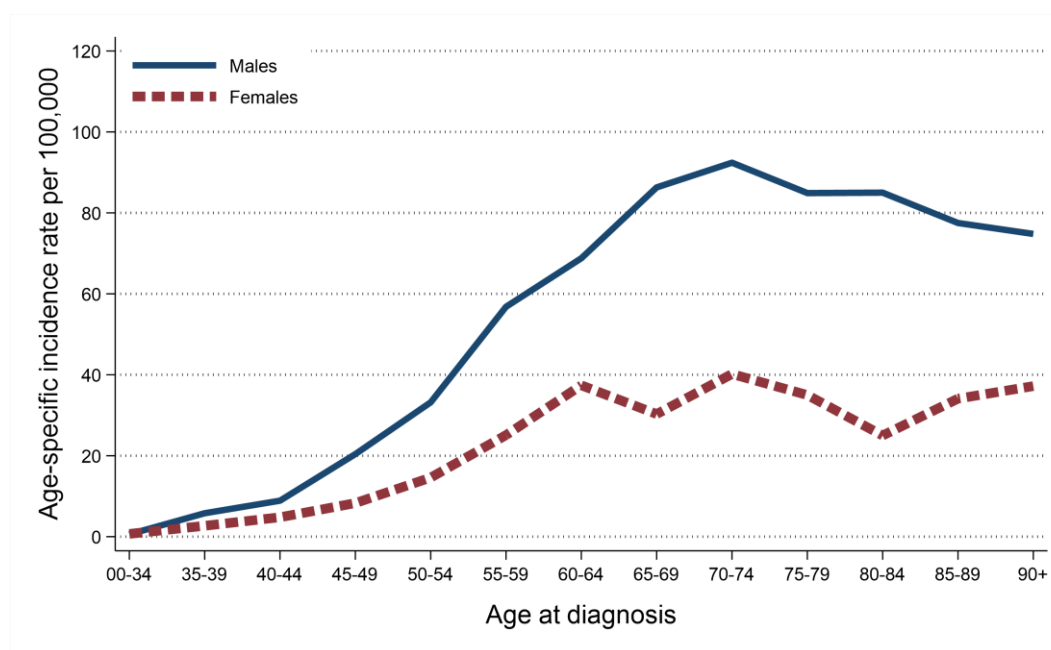


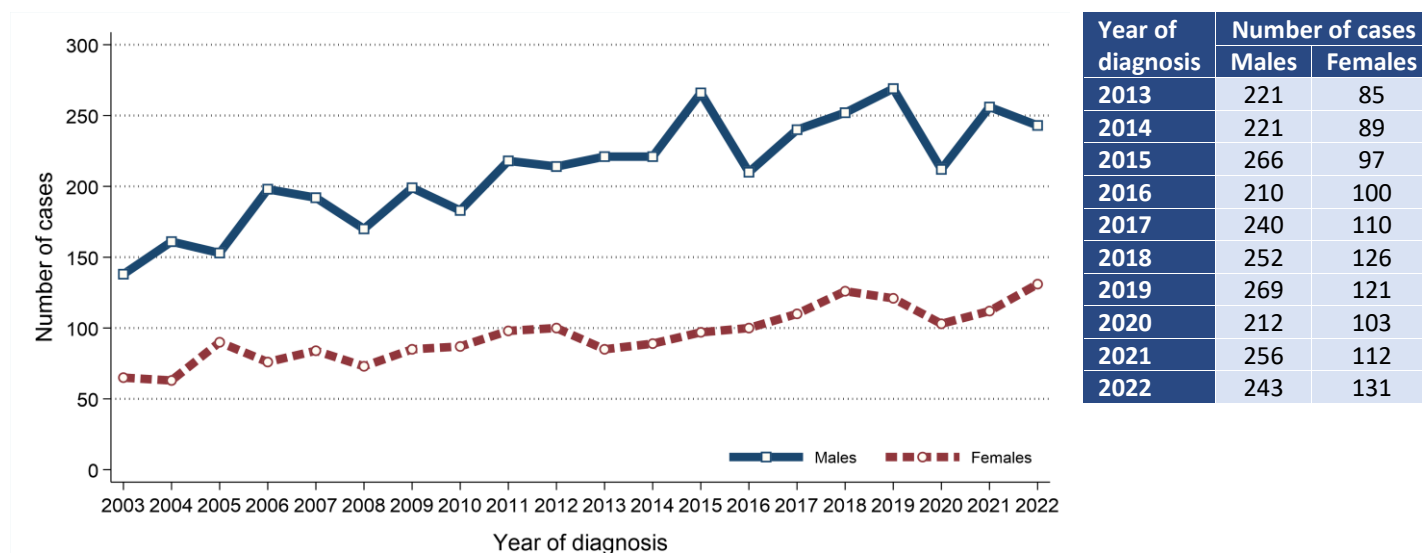
Figure 4: Age-specific incidence rates of head and neck cancer in 2018-2022



INCIDENCE TRENDS

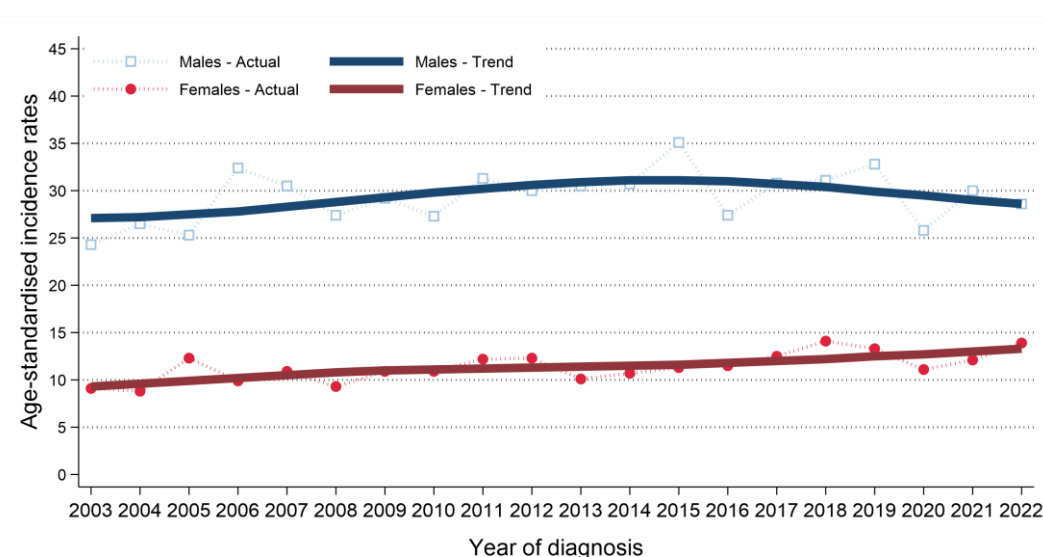
- The number of cases of head and neck cancer among males increased between 2013-2017 and 2018-2022 by 6.4% from 1,158 cases (232 cases per year) to 1,232 cases (246 cases per year).
- The number of cases of head and neck cancer among females increased between 2013-2017 and 2018-2022 by 23.3% from 481 cases (96 cases per year) to 593 cases (119 cases per year).

Figure 5: Trends in number of cases of head and neck cancer diagnosed from 2003 to 2022



- Male age-standardised head and neck cancer incidence rates decreased between 2013-2017 and 2018-2022 by 3.9% from 30.9 to 29.7 cases per 100,000 males. This change was not statistically significant.
- Female age-standardised head and neck cancer incidence rates increased between 2013-2017 and 2018-2022 by 14.2% from 11.3 to 12.9 cases per 100,000 females. This change was not statistically significant.

Figure 6: Trends in incidence rates of head and neck 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).

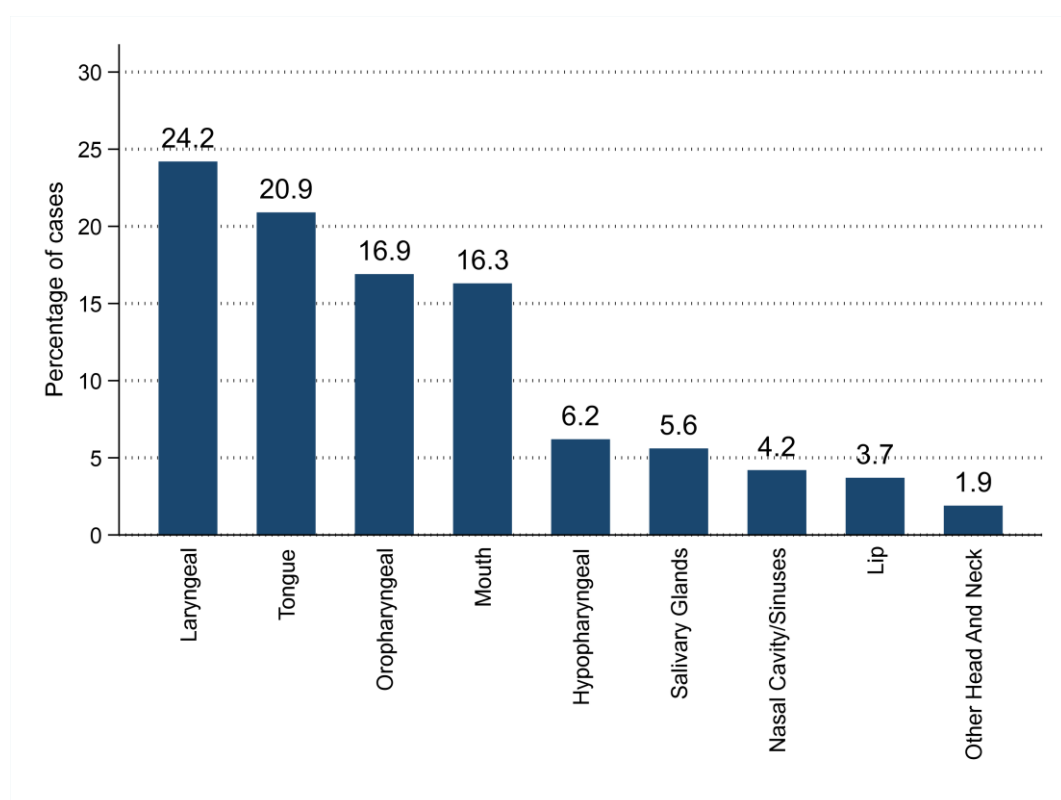
INCIDENCE BY CANCER TYPE

- During 2018-2022 the most common head and neck cancer types were laryngeal cancer (24.2%), tongue cancer (20.9%) and oropharyngeal cancer (16.9%).

Table 1: Number of cases of head and neck cancer diagnosed in 2018-2022 by cancer type

Cancer type	All persons	
	Total cases in period	Average cases per year
Head and neck cancer	1,825	365
	.	.
Cancer of the nasal cavity or sinuses	77	15
Cancer of the salivary glands	103	21
Hypopharyngeal cancer	114	23
Laryngeal cancer	441	88
Lip cancer	68	14
Mouth cancer	297	59
Oropharyngeal cancer	309	62
Tongue cancer	382	76
Other head and neck cancer	34	7

Figure 7: Proportion of cases of head and neck cancer in 2018-2022 by cancer type



Note: ICD10 codes for head and neck cancer types are as follows: C00: Lip, C01-C02: Tongue, C03-C06: Mouth, C07-C08: Salivary Glands, C09-C10: Oropharynx, C11: Nasopharynx, C12-C13: Hypopharynx, C14: Other mouth/pharynx, C32: Laryngeal cancer, C30-C31: Nasal cavity and sinus cancer

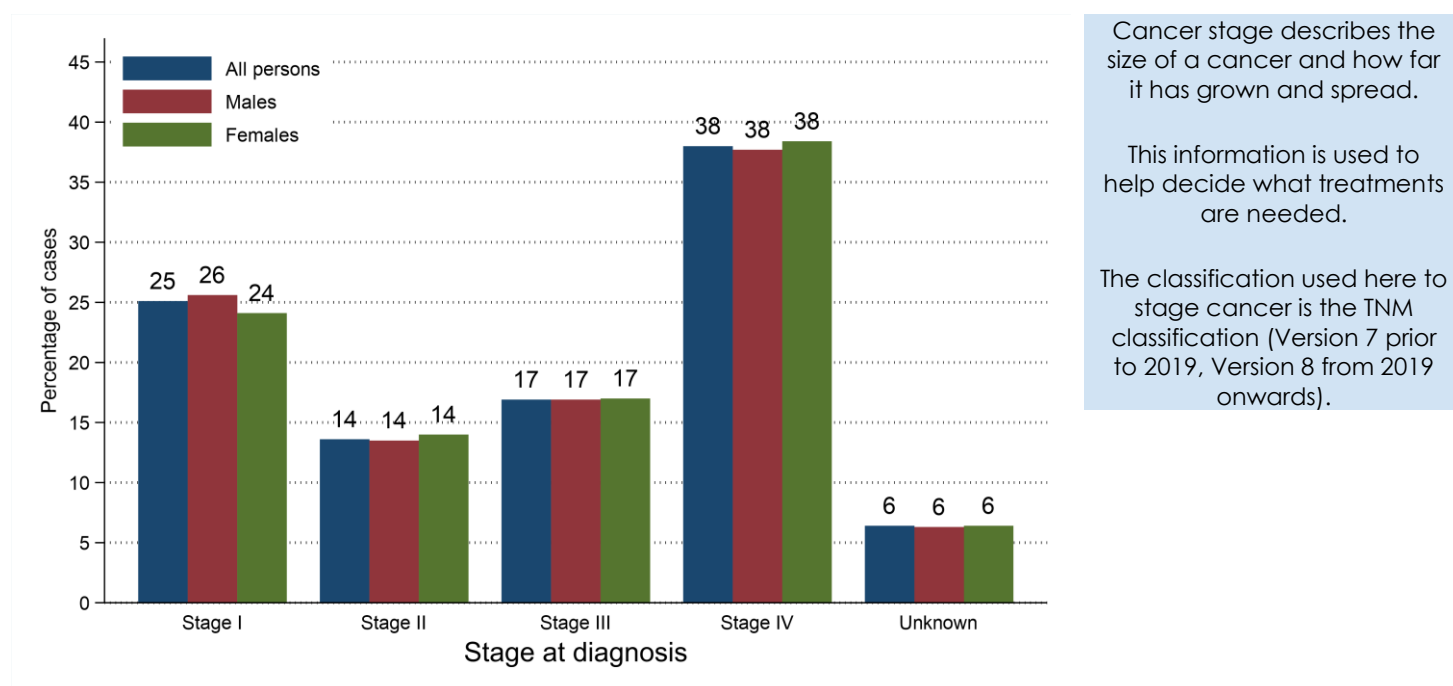
INCIDENCE BY STAGE AT DIAGNOSIS

- During 2018-2022 93.6% of head and neck cancer cases had a stage assigned.
- 25.1% of head and neck cancer cases were diagnosed at Stage I. (26.8% of staged cases)
- 38.0% of head and neck cancer cases were diagnosed at Stage IV. (40.6% of staged cases)

Table 2: Number of cases of head and neck 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	1,825	365	1,232	246	593	119
Stage I	458	92	315	63	143	29
Stage II	249	50	166	33	83	17
Stage III	309	62	208	42	101	20
Stage IV	693	139	465	93	228	46
Unknown	116	23	78	16	38	8

Figure 8: Proportion of cases of head and neck cancer diagnosed in 2018-2022 by stage at diagnosis



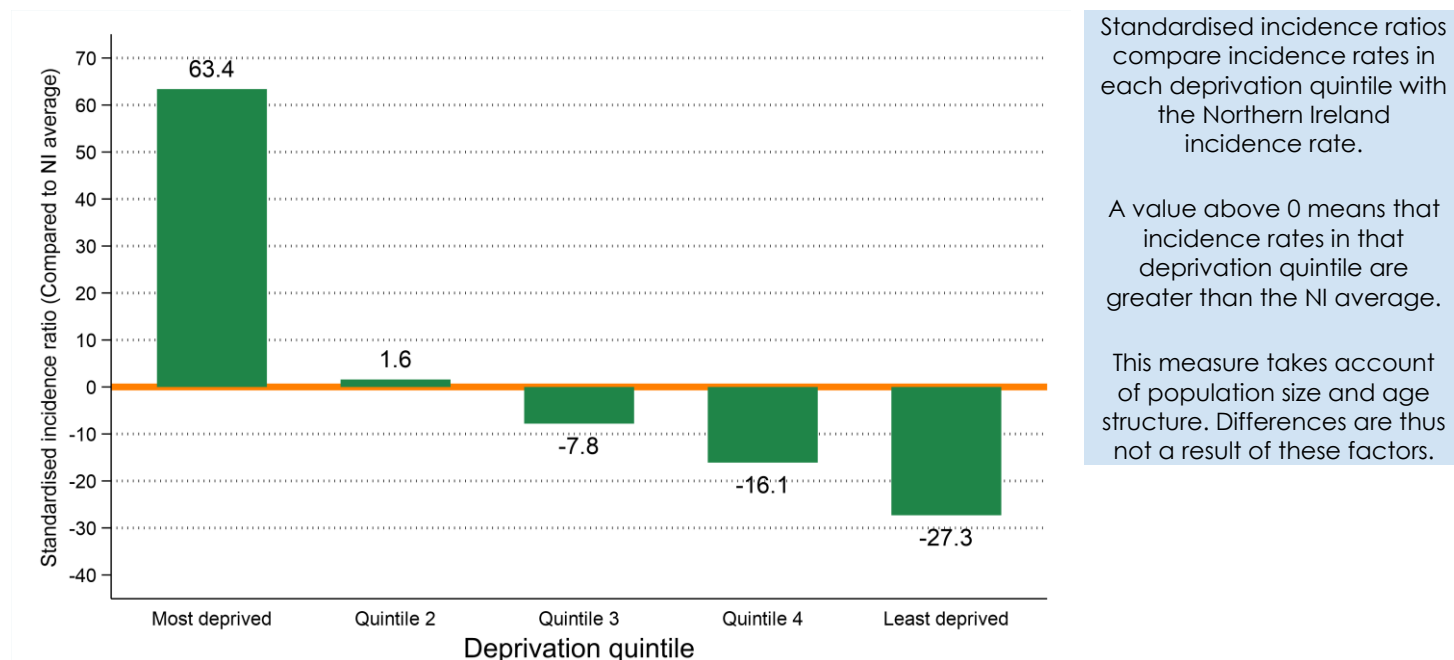
INCIDENCE BY DEPRIVATION

- The number of cases of head and neck 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 63.4% higher than the NI average.
 - in the least socio-economically deprived areas were 27.3% lower than the NI average.

Table 3: Number of cases of head and neck 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	1,825	365	1,232	246	593	119
Most deprived	494	99	337	67	157	31
Quintile 2	370	74	244	49	126	25
Quintile 3	354	71	234	47	120	24
Quintile 4	328	66	227	45	101	20
Least deprived	279	56	190	38	89	18
Unknown	0	0	0	0	0	0

Figure 9: Standardised incidence ratio comparing deprivation quintile to Northern Ireland for head and neck cancer diagnosed in 2018-2022



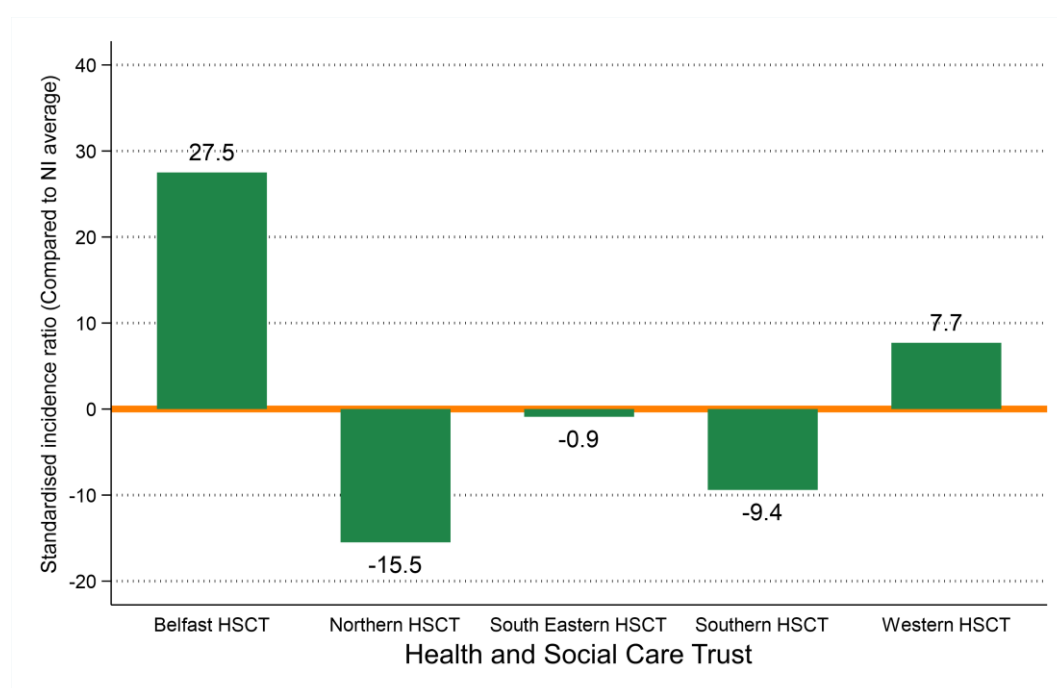
INCIDENCE BY HEALTH AND SOCIAL CARE TRUST

- The number of cases of head and neck 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% higher than the NI average.
 - in Northern HSCT were 15.5% lower than 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 head and neck 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	1,825	365	1,232	246	593	119
Belfast HSCT	412	82	286	57	126	25
Northern HSCT	407	81	277	55	130	26
South Eastern HSCT	378	76	241	48	137	27
Southern HSCT	316	63	223	45	93	19
Western HSCT	312	62	205	41	107	21
Unknown	0	0	0	0	0	0

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



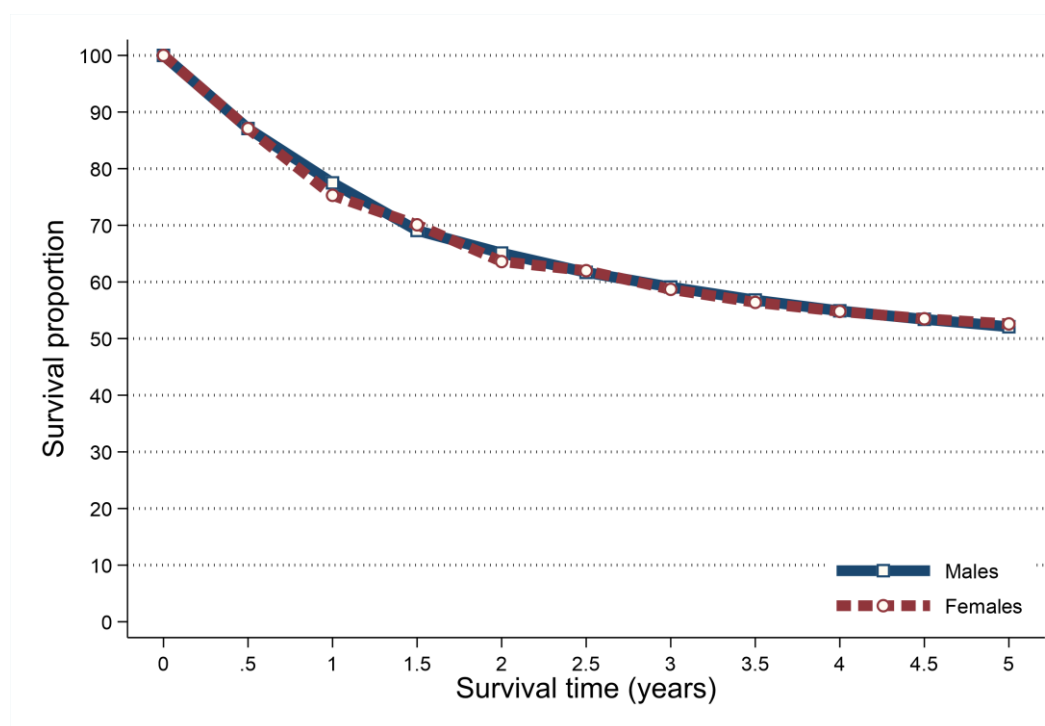
SURVIVAL

- 76.7% of patients were alive one year and 49.0% were alive five years from a head and neck cancer diagnosis in 2013-2017. (observed survival)
- Age-standardised net survival (ASNS), which removes the effect of deaths from causes unrelated to cancer, was 76.9% one year and 52.3% five years from a head and neck cancer diagnosis in 2013-2017.
- Five-year survival (ASNS) for head and neck cancer patients diagnosed in 2013-2017 was 52.1% among men and 52.6% among women.

Table 5: Survival from head and neck 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	87.3%	87.1%	87.1%	87.1%	87.8%	87.1%
One year	76.7%	76.9%	77.2%	77.5%	75.6%	75.3%
Two years	63.7%	64.6%	63.8%	65.1%	63.7%	63.6%
Five years	49.0%	52.3%	48.2%	52.1%	51.0%	52.6%

Figure 11: Age-standardised net survival from head and neck 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.

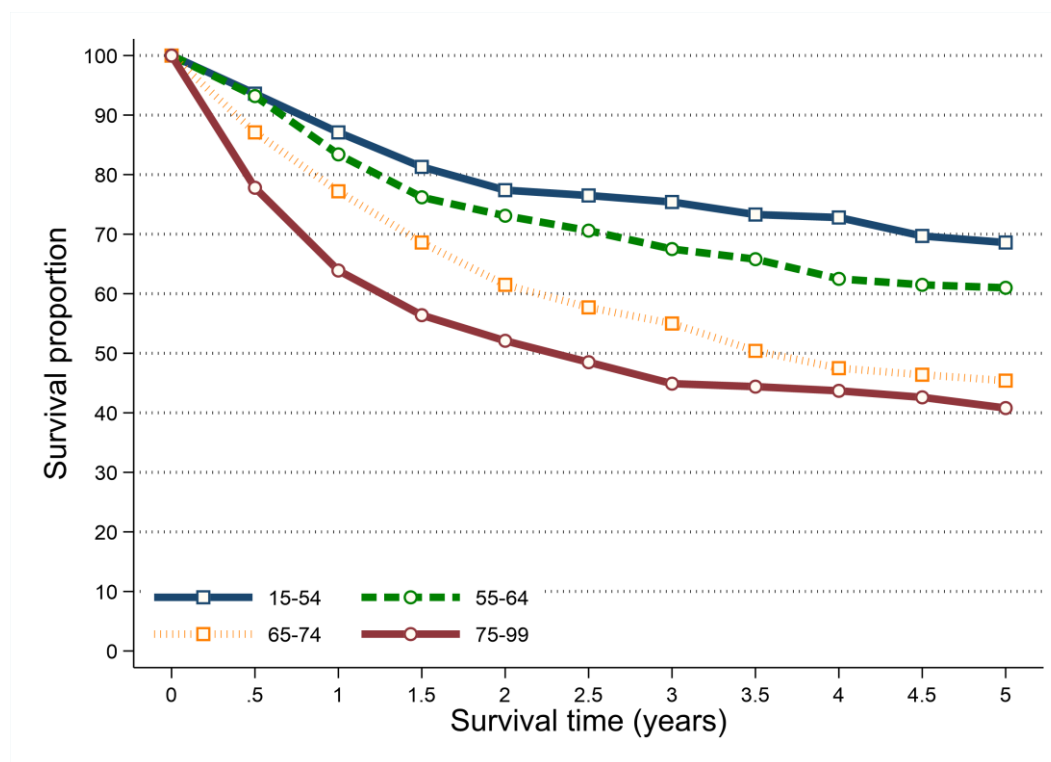
SURVIVAL BY AGE

- Survival from head and neck 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 68.6% among patients aged 15 to 54 at diagnosis to 40.8% among those aged 75 to 99.

Table 6: Net survival from head and neck cancer for patients diagnosed in 2013-2017 by age at diagnosis

Age group	All persons	
	One-year	Five-years
15 to 54	87.1%	68.6%
55 to 64	83.4%	61.0%
65 to 74	77.2%	45.4%
75 to 99	63.9%	40.8%

Figure 12: Net survival from head and neck cancer for patients diagnosed in 2013-2017 by age at diagnosis

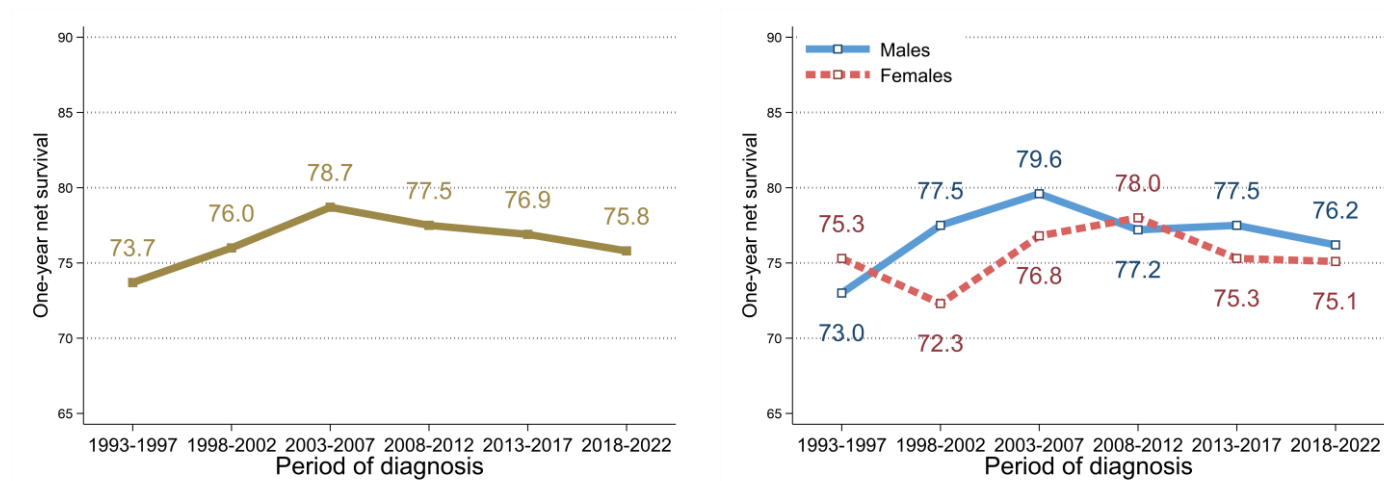


SURVIVAL TRENDS

ONE-YEAR NET SURVIVAL

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

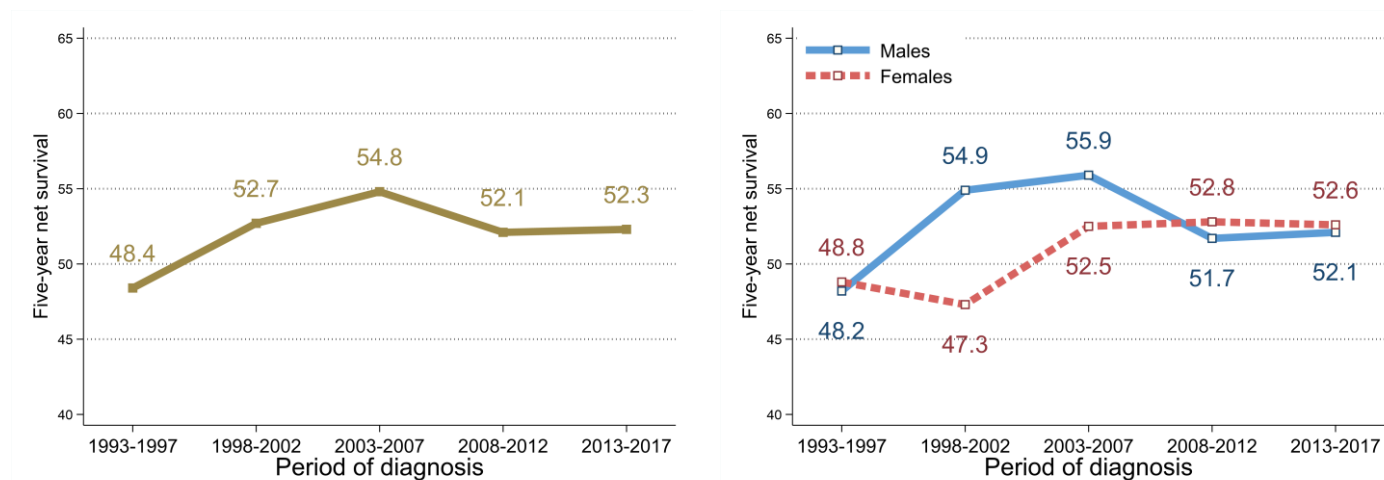
Figure 13: Trends in one-year age-standardised net survival from head and neck cancer in 1993-2022



FIVE-YEAR NET SURVIVAL

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

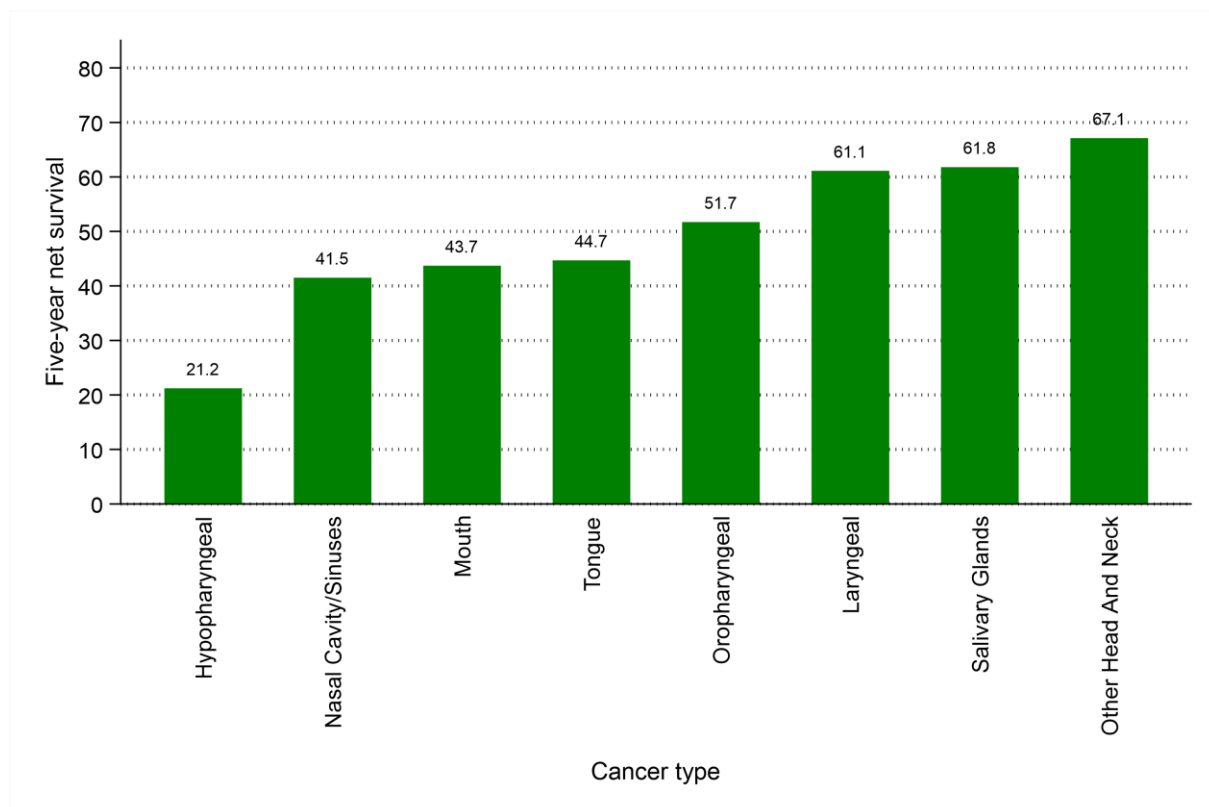
Figure 14: Trends in five-year age-standardised net survival from head and neck cancer in 1993-2017



SURVIVAL BY CANCER TYPE

- Five-year survival (ASNS) for head and neck cancer patients diagnosed in 2013-2017 ranged from 67.1% for other head and neck cancer to 21.2% for hypopharyngeal cancer.
- In particular five-year survival (ASNS) for the most common head and neck cancer types was 61.1% for laryngeal cancer, 44.7% for tongue cancer, 51.7% for oropharyngeal cancer and 43.7% for mouth cancer.

Figure 15: Five-year age-standardised net survival from head and neck cancer for patients diagnosed in 2013-2017 by cancer type



- Five-year survival (ASNS) did not change significantly for any head and neck cancer type between 2008-2012 and 2013-2017.

Table 7: Trends in five-year age-standardised net survival from head and neck cancer for patients diagnosed in 2008-2017

Cancer type	All persons	
	2008-2012	2013-2017
Cancer of the nasal cavity or sinuses	52.4%	41.5%
Cancer of the salivary glands	51.9%	61.8%
Hypopharyngeal cancer	26.6%	21.2%
Laryngeal cancer	58.7%	61.1%
Mouth cancer	40.6%	43.7%
Oropharyngeal cancer	40.9%	51.7%
Tongue cancer	46.1%	44.7%
Other head and neck cancer	64.1%	67.1%

Note: ICD10 codes for head and neck cancer types are as follows: C00: Lip, C01-C02: Tongue, C03-C06: Mouth, C07-C08: Salivary Glands, C09-C10: Oropharynx, C11: Nasopharynx, C12-C13: Hypopharynx, C14: Other mouth/pharynx, C32: Laryngeal cancer, C30-C31: Nasal cavity and sinus cancer

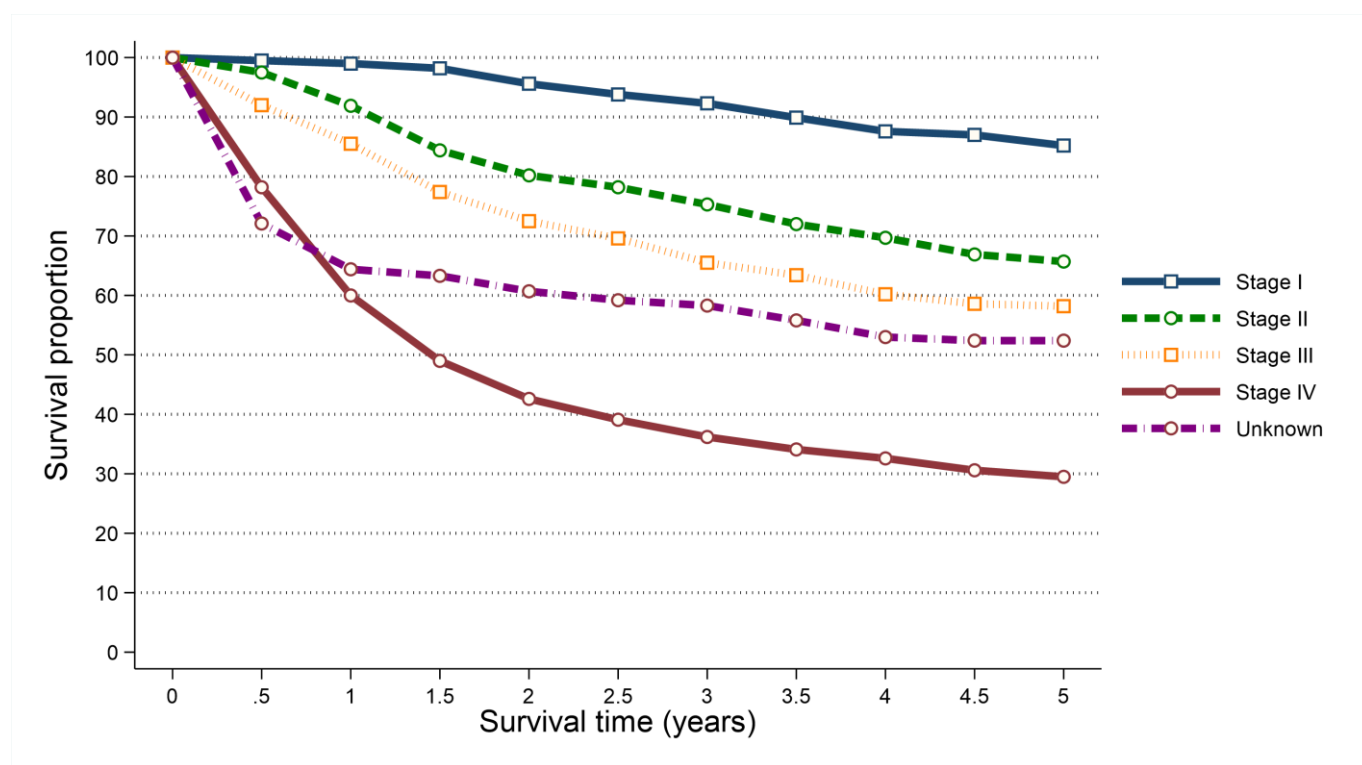
SURVIVAL BY STAGE

- Survival from head and neck 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 85.2% among patients diagnosed at Stage I to 29.5% among those diagnosed at Stage IV.

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

Stage at diagnosis	All persons	
	One-year	Five-years
Stage I	99.0%	85.2%
Stage II	91.9%	65.7%
Stage III	85.5%	58.2%
Stage IV	60.0%	29.5%
Unknown	64.4%	52.4%

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



PREVALENCE

- At the end of 2022, there were 2,527 people (Males: 1,702; Females: 825) living with head and neck cancer who had been diagnosed with the disease during 1998-2022.
- Of these 12.8% had been diagnosed in the previous year (one-year prevalence) and 70.7% in the previous 10 years (ten-year prevalence).
- 27.1% of head and neck cancer survivors were aged 75 and over at the end of 2022.

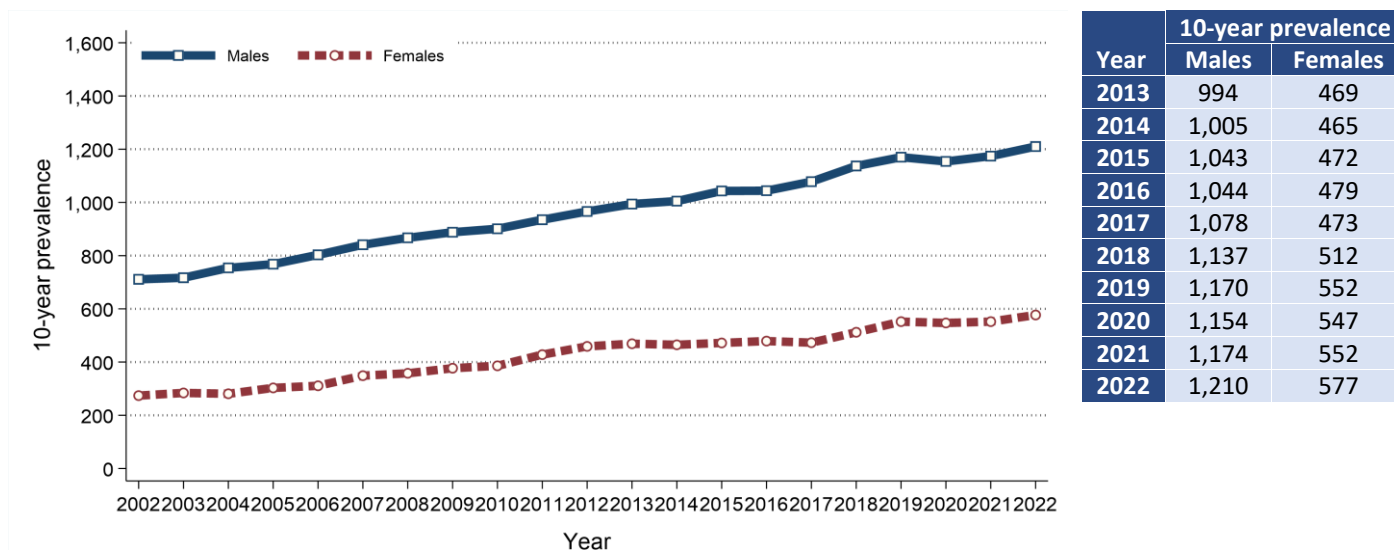
Table 9: 25-year prevalence of head and neck cancer by age at end of 2022

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	2,527	324	839	624	740
	0 to 74	1,841	250	656	466	469
	75 and over	686	74	183	158	271
Male	All ages	1,702	210	563	437	492
	0 to 74	1,227	160	444	319	304
	75 and over	475	50	119	118	188
Female	All ages	825	114	276	187	248
	0 to 74	614	90	212	147	165
	75 and over	211	24	64	40	83

PREVALENCE TRENDS

- 10-year prevalence of head and neck cancer among males increased between 2017 and 2022 by 12.2% from 1,078 survivors to 1,210 survivors.
- 10-year prevalence of head and neck cancer among females increased between 2017 and 2022 by 22.0% from 473 survivors to 577 survivors.

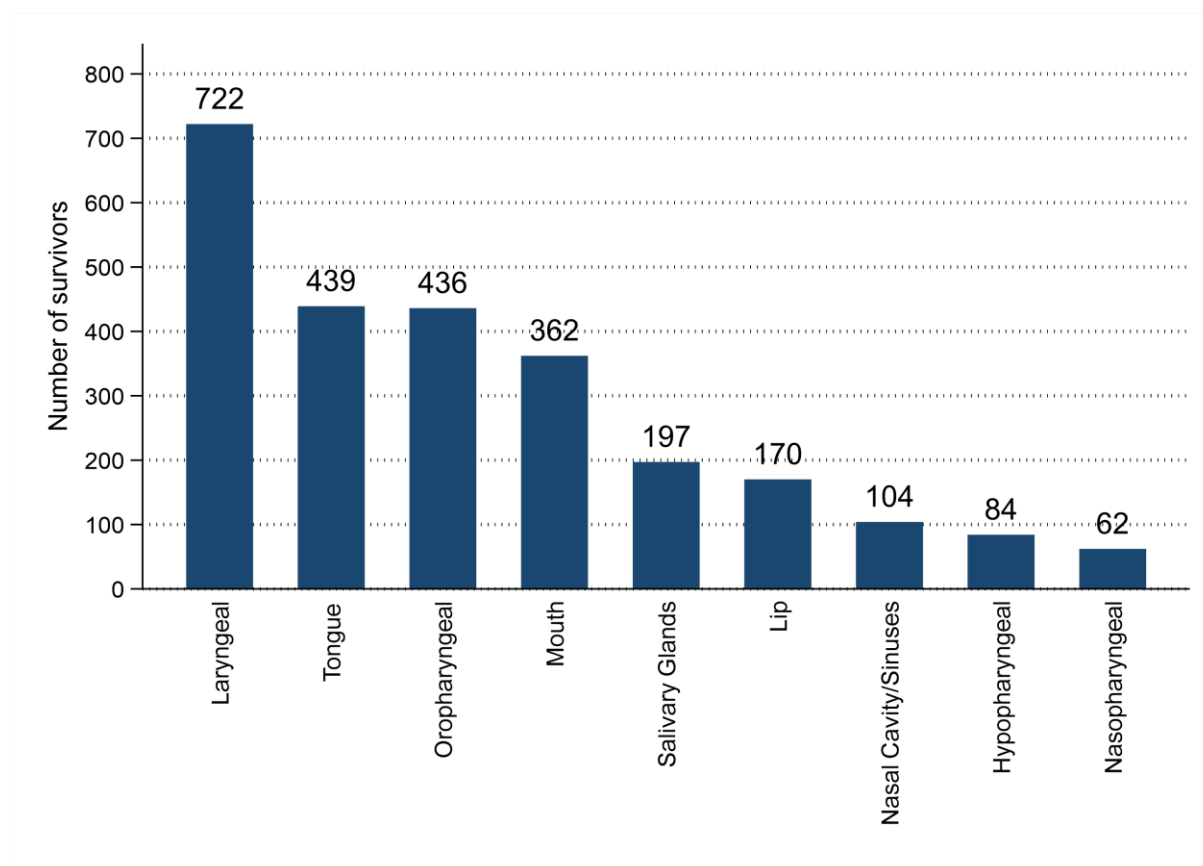
Figure 17: Trends in 10-year prevalence of head and neck cancer in 2002-2022



PREVALENCE BY CANCER TYPE

- At the end of 2022 the most prevalent head and neck cancer types were laryngeal cancer (722), tongue cancer (439) and oropharyngeal cancer (436).

Figure 18: 25-year prevalence of head and neck cancer at the end of 2022 by cancer type



Note: ICD10 codes for head and neck cancer types are as follows: C00: Lip, C01-C02: Tongue, C03-C06: Mouth, C07-C08: Salivary Glands, C09-C10: Oropharynx, C11: Nasopharynx, C12-C13: Hypopharynx, C14: Other mouth/pharynx, C32: Laryngeal cancer, C30-C31: Nasal cavity and sinus cancer

MORTALITY

- There were 697 deaths from head and neck cancer during 2018-2022 in Northern Ireland. On average this was 139 deaths per year.
- During this period 28.3% of head and neck cancer deaths were among women (Male deaths: 500, Female deaths: 197). On average there were 100 male and 39 female deaths from head and neck cancer per year.
- Head and neck cancer deaths made up 4.2% of all male and 1.8% of all female cancer deaths.
- The median age of patients who died from head and neck cancer during 2018-2022 was 70 years (Males: 70, Females: 70).
- The risk of dying from head and neck cancer varied by age, with 36.8% of men and 38.1% of women who died from head and neck cancer aged 75 and over at death.
- In contrast, 9.0% of patients who died from head and neck cancer were aged 0 to 54 at death.

Figure 19: Average number of deaths from head and neck cancer per year in 2018-2022 by age at death

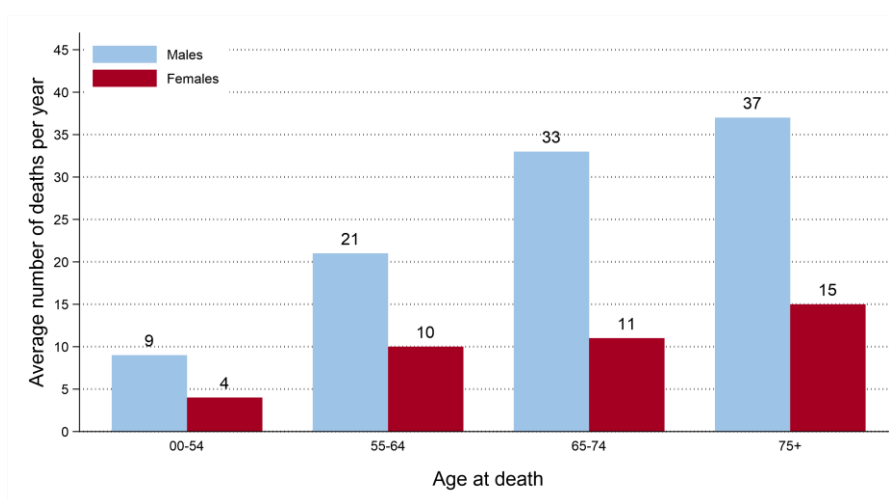
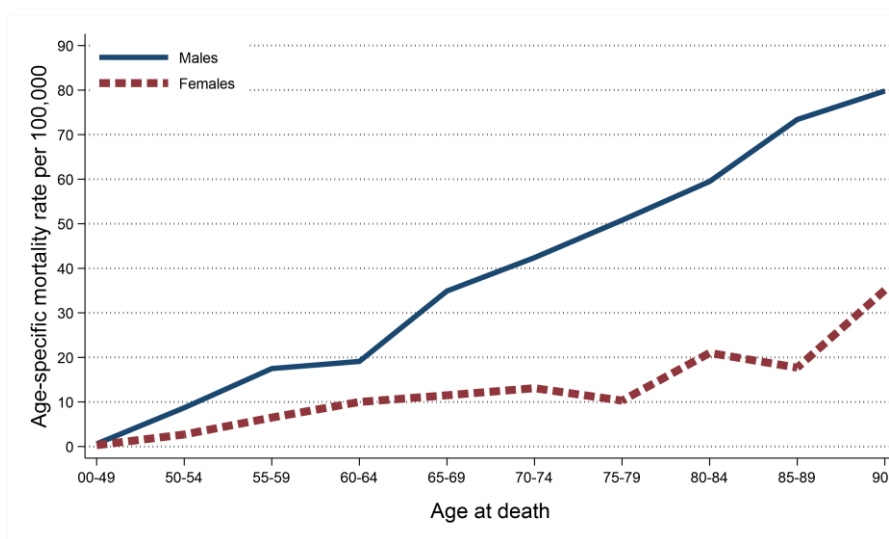


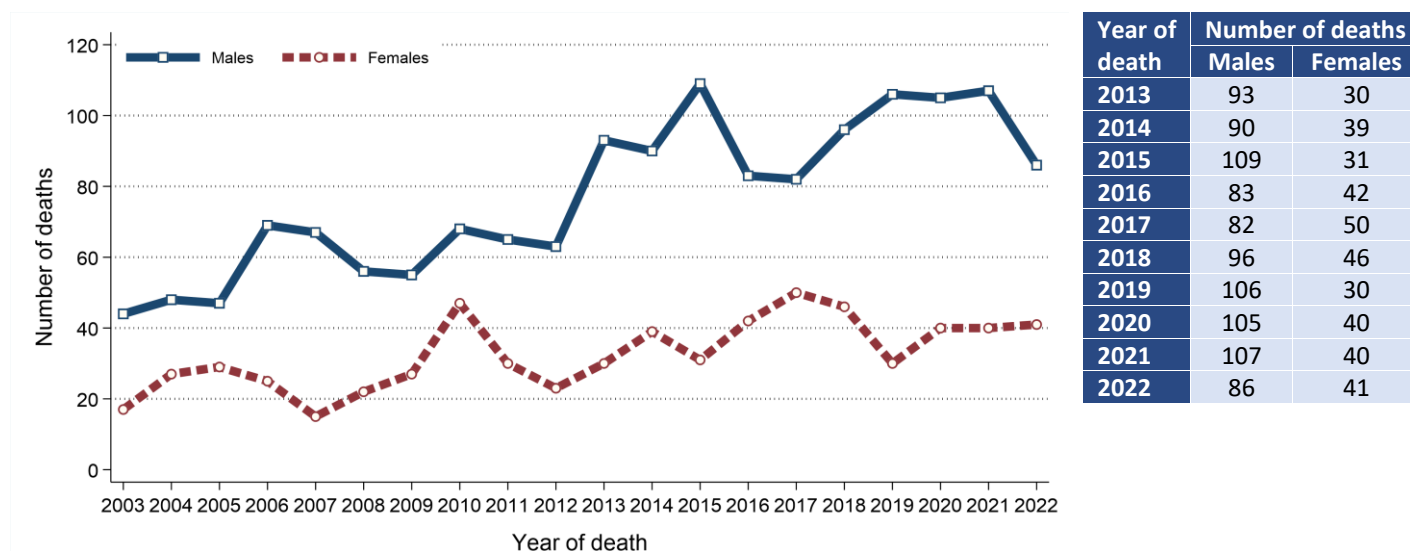
Figure 20: Age-specific mortality rates of head and neck cancer in 2018-2022



MORTALITY TRENDS

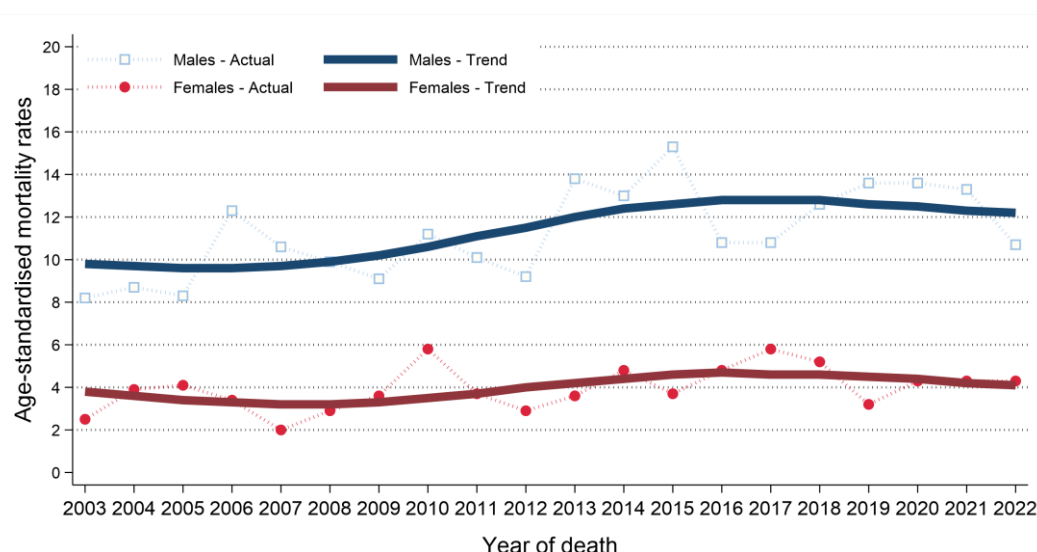
- The number of deaths from head and neck cancer among males increased between 2013-2017 and 2018-2022 by 9.4% from 457 deaths (91 deaths per year) to 500 deaths (100 deaths per year).
- The number of deaths from head and neck cancer among females increased between 2013-2017 and 2018-2022 by 2.6% from 192 deaths (38 deaths per year) to 197 deaths (39 deaths per year).

Figure 21: Trends in the number of deaths from head and neck cancer from 2003 to 2022



- Male age-standardised head and neck cancer mortality rates did not change between 2013-2017 and 2018-2022 with 12.7 deaths per 100,000 males in each period of time.
- Female age-standardised head and neck cancer mortality rates decreased between 2013-2017 and 2018-2022 by 4.4% from 4.5 to 4.3 deaths per 100,000 females. This change was not statistically significant.

Figure 22: Trends in mortality rates of head and neck cancer 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.

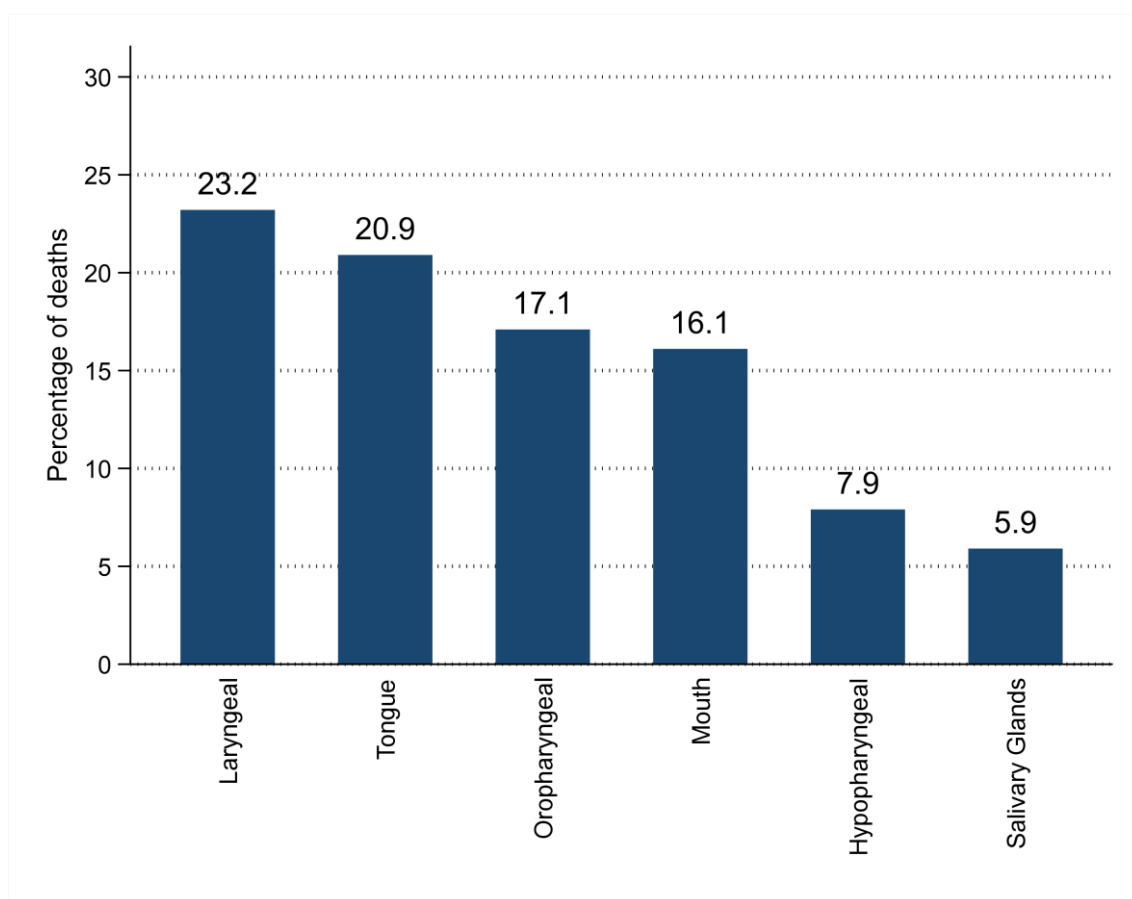
MORTALITY BY CANCER TYPE

- During 2018-2022 the most common causes of head and neck cancer death were laryngeal cancer (23.2%), tongue cancer (20.9%) and oropharyngeal cancer (17.1%).

Table 10: Number of deaths from head and neck cancer in 2018-2022 by cancer type

Cancer type	All persons	
	Total deaths in period	Average deaths per year
Head and neck cancer	697	139
	.	.
Cancer of the salivary glands	41	8
Hypopharyngeal cancer	55	11
Laryngeal cancer	162	32
Mouth cancer	112	22
Oropharyngeal cancer	119	24
Tongue cancer	146	29
Other head and neck cancer	62	12

Figure 23: Proportion of deaths from head and neck cancer in 2018-2022 by cancer type



Note: ICD10 codes for head and neck cancer types are as follows: C00: Lip, C01-C02: Tongue, C03-C06: Mouth, C07-C08: Salivary Glands, C09-C10: Oropharynx, C11: Nasopharynx, C12-C13: Hypopharynx, C14: Other mouth/pharynx, C32: Laryngeal cancer, C30-C31: Nasal cavity and sinus cancer

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. head and neck 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. head and neck 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.