
Gallbladder and other biliary cancer

1993-2022

(ICD10 codes: C23-C24)



Northern Ireland Cancer Registry, 2025

An official statistics publication

ABOUT THIS REPORT

Contents

This report includes information on incidence of gallbladder and other biliary 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. Gallbladder and other biliary 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.

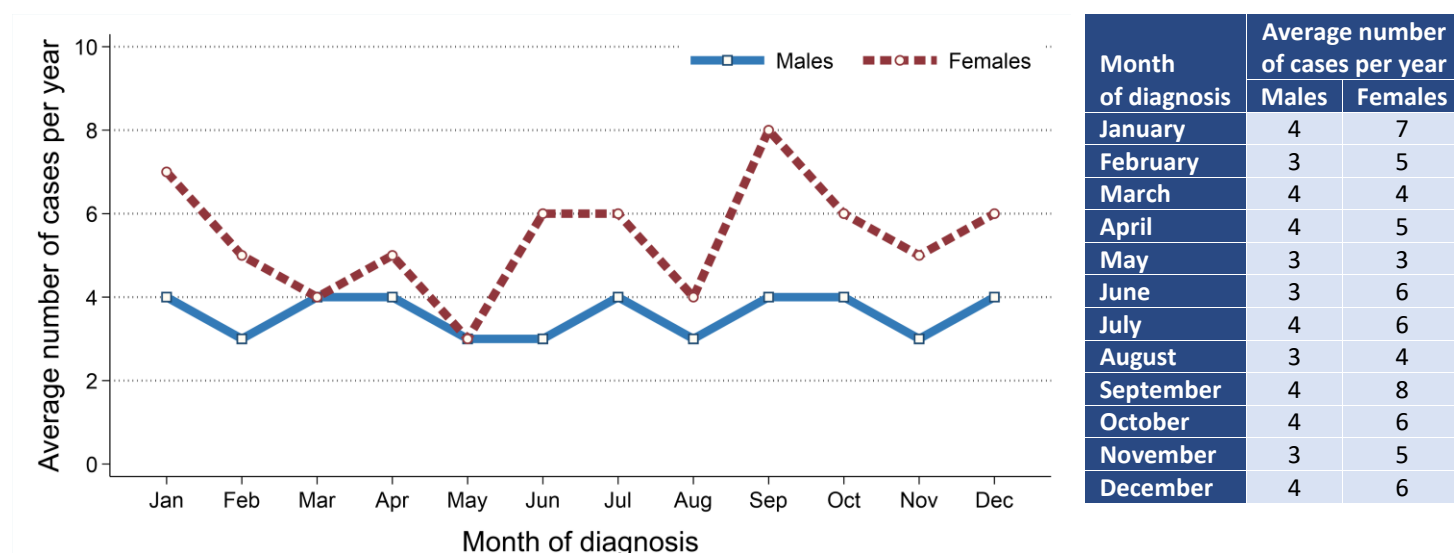
NICR is funded by the Public Health Agency and is based in Queen's University, Belfast.



INCIDENCE

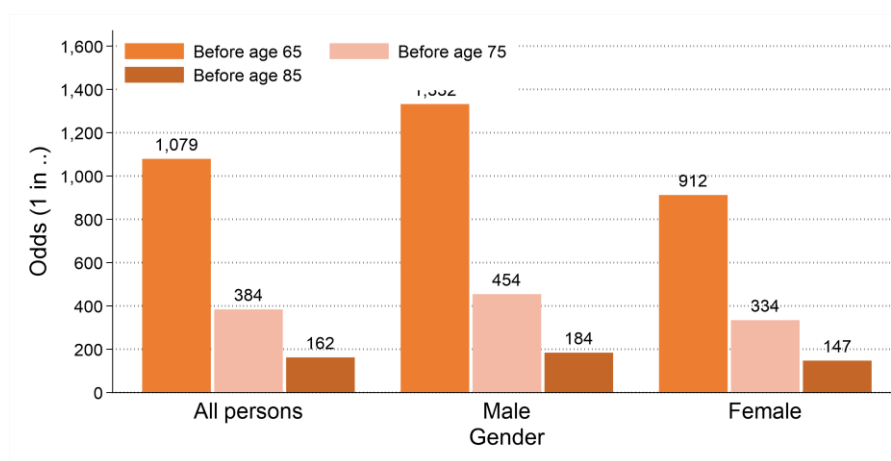
- There were 549 cases of gallbladder and other biliary cancer diagnosed during 2018-2022 in Northern Ireland. On average this was 110 cases per year.
- During this period 60.3% of gallbladder and other biliary cancer cases were among women (Male cases: 218, Female cases: 331). On average there were 44 male and 66 female cases of gallbladder and other biliary cancer per year.

Figure 1: Average number of cases of gallbladder and other biliary cancer per year in 2018-2022 by month of diagnosis



- Gallbladder and other biliary cancer made up 0.8% of all male and 1.3% of all female cancer cases (excluding non-melanoma skin cancer).
- The gallbladder and other biliary cancer incidence rates for each gender were 4.7 cases per 100,000 males and 6.9 cases per 100,000 females.
- The odds of developing gallbladder and other biliary cancer before age 85 was 1 in 184 for men and 1 in 147 for women.

Figure 2: Odds of developing gallbladder and other biliary cancer in 2018-2022



INCIDENCE BY AGE

- The median age of patients diagnosed with gallbladder and other biliary cancer during 2018-2022 was 76 years (Males: 75, Females: 76).
- The risk of developing gallbladder and other biliary cancer varied by age, with 51.8% of men and 54.7% of women diagnosed with gallbladder and other biliary cancer aged 75 and over at diagnosis.
- In contrast, 6.2% of patients diagnosed with gallbladder and other biliary cancer were aged 0 to 54 at diagnosis.

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

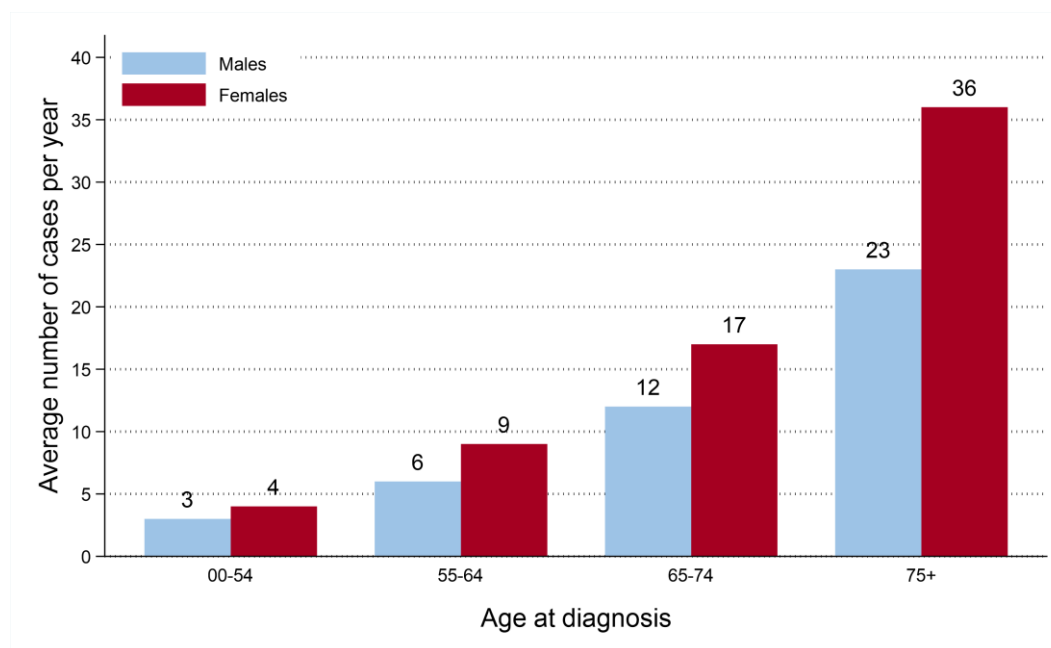
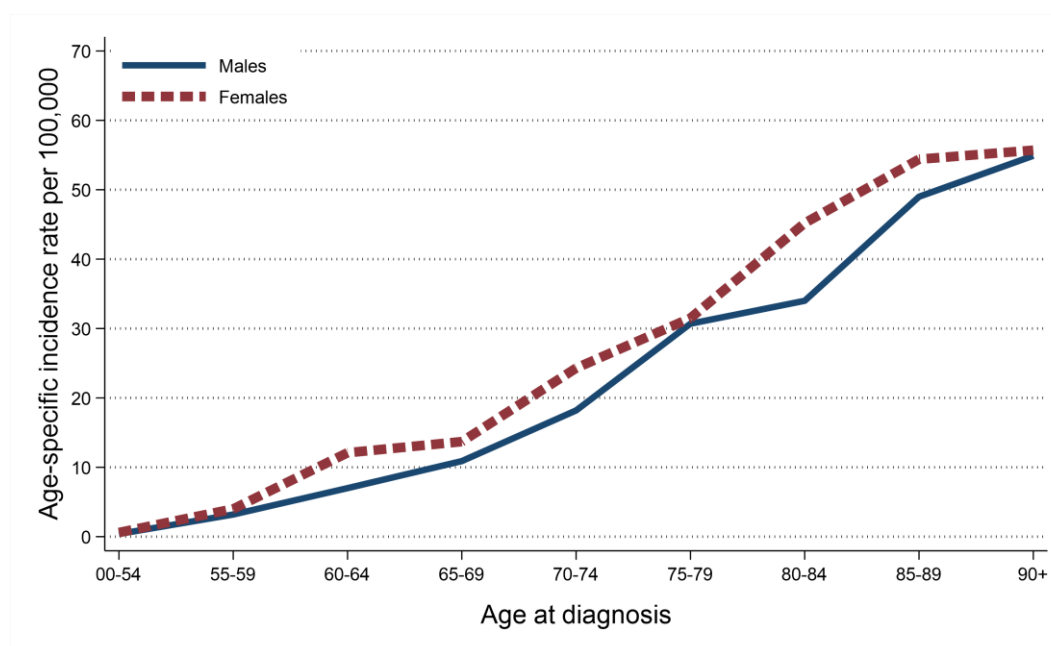


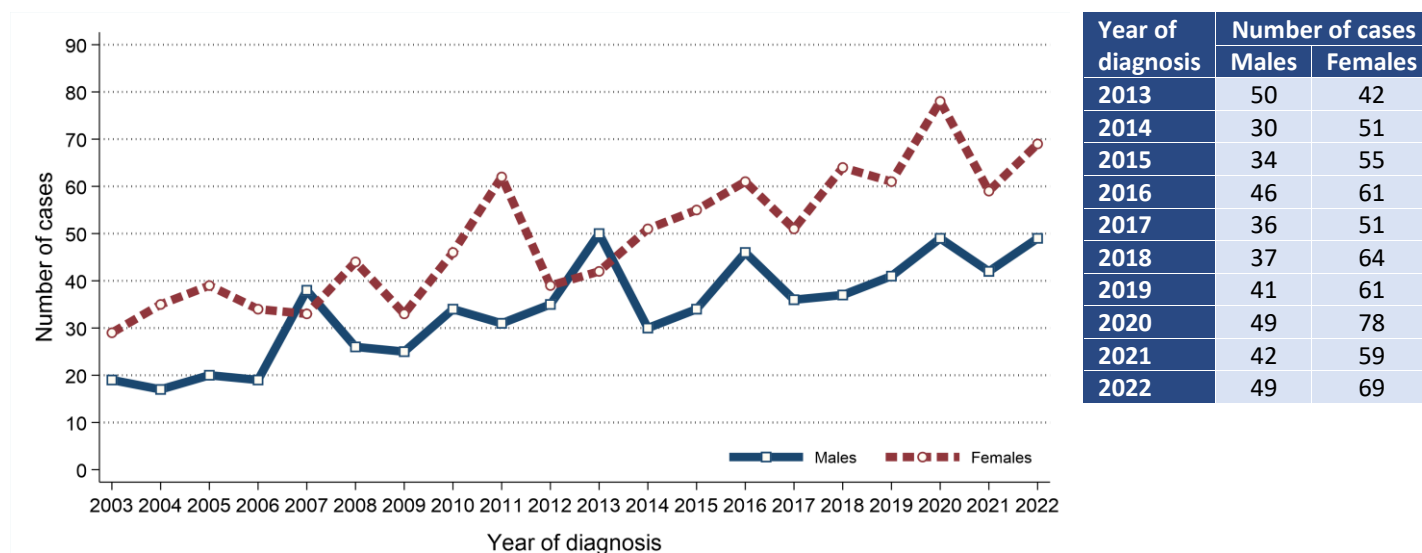
Figure 4: Age-specific incidence rates of gallbladder and other biliary cancer in 2018-2022



INCIDENCE TRENDS

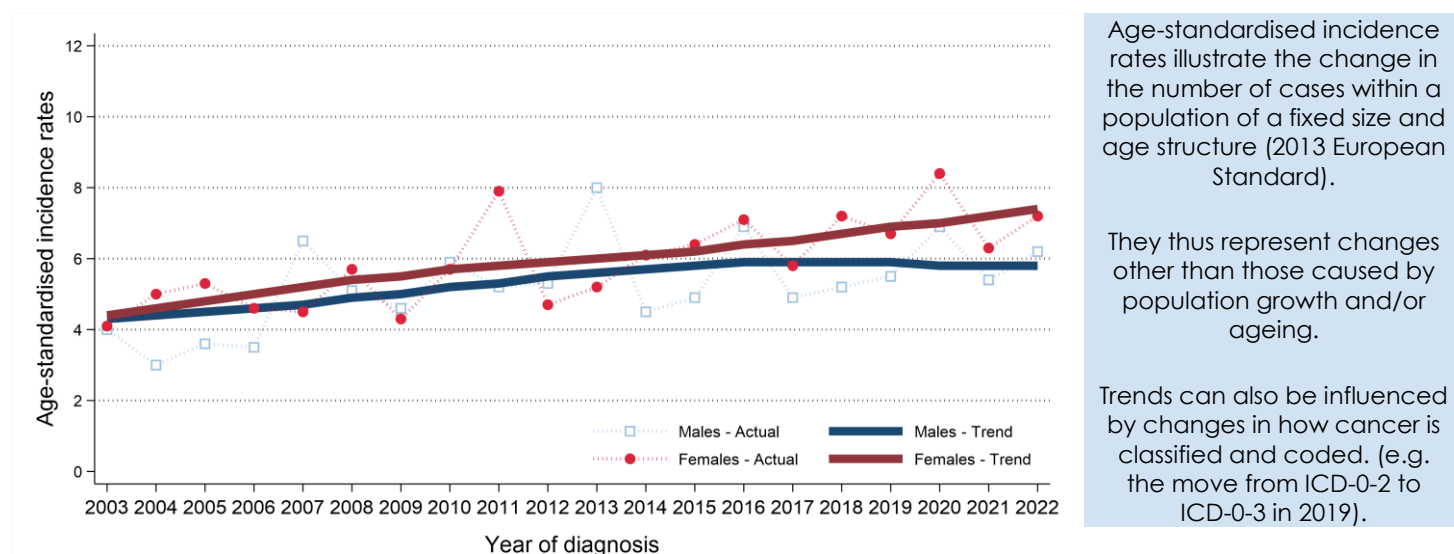
- The number of cases of gallbladder and other biliary cancer among males increased between 2013-2017 and 2018-2022 by 11.2% from 196 cases (39 cases per year) to 218 cases (44 cases per year).
- The number of cases of gallbladder and other biliary cancer among females increased between 2013-2017 and 2018-2022 by 27.3% from 260 cases (52 cases per year) to 331 cases (66 cases per year).

Figure 5: Trends in number of cases of gallbladder and other biliary cancer diagnosed from 2003 to 2022



- Male age-standardised gallbladder and other biliary cancer incidence rates did not change between 2013-2017 and 2018-2022 with 5.8 cases per 100,000 males in each period of time.
- Female age-standardised gallbladder and other biliary cancer incidence rates increased between 2013-2017 and 2018-2022 by 16.4% from 6.1 to 7.1 cases per 100,000 females. This change was not statistically significant.

Figure 6: Trends in incidence rates of gallbladder and other biliary cancer from 2003 to 2022



INCIDENCE BY STAGE AT DIAGNOSIS

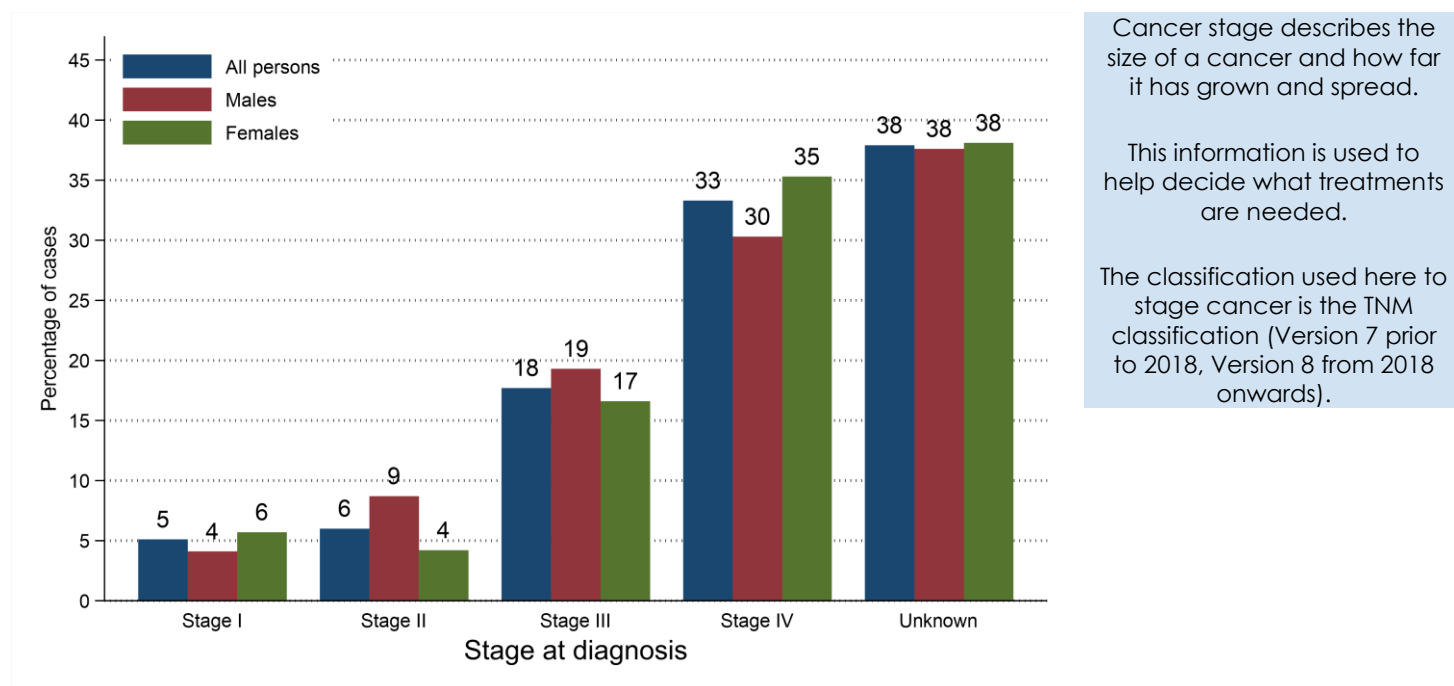
- During 2018-2022 62.1% of gallbladder and other biliary cancer cases had a stage assigned.
- 5.1% of gallbladder and other biliary cancer cases were diagnosed at Stage I. (8.2% of staged cases)
- 33.3% of gallbladder and other biliary cancer cases were diagnosed at Stage IV. (53.7% of staged cases)

Table 1: Number of cases of gallbladder and other biliary 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	549	110	218	44	331	66

Stage I	28	6	9	2	19	4
Stage II	33	7	19	4	14	3
Stage III	97	19	42	8	55	11
Stage IV	183	37	66	13	117	23
Unknown	208	42	82	16	126	25

Figure 7: Proportion of cases of gallbladder and other biliary cancer diagnosed in 2018-2022 by stage at diagnosis



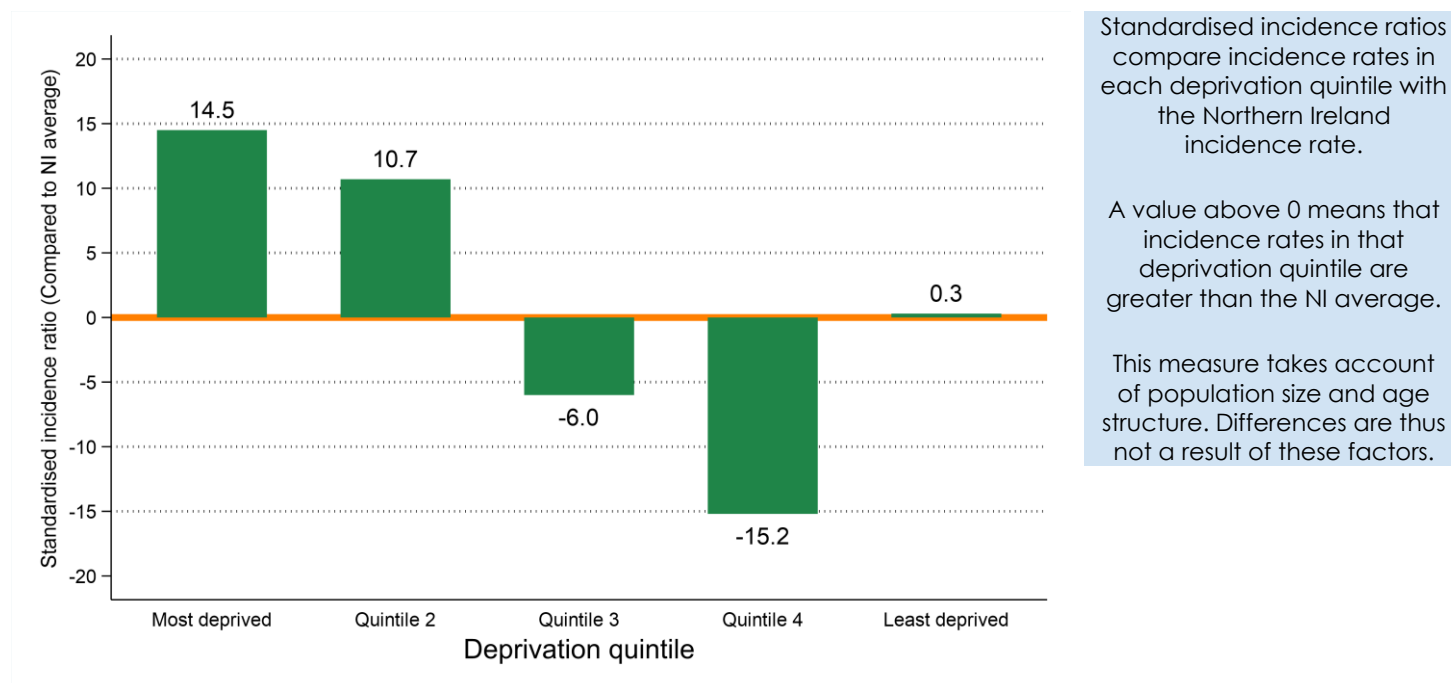
INCIDENCE BY DEPRIVATION

- The number of cases of gallbladder and other biliary 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 gallbladder and other biliary 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	549	110	218	44	331	66
Most deprived
Quintile 2	100	20	31	6	69	14
Quintile 3	121	24	38	8	83	17
Quintile 4	109	22	46	9	63	13
Least deprived	99	20	48	10	51	10
Unknown	120	24	55	11	65	13
Unknown	0	0	0	0	0	0

Figure 8: Standardised incidence ratio comparing deprivation quintile to Northern Ireland for gallbladder and other biliary cancer diagnosed in 2018-2022



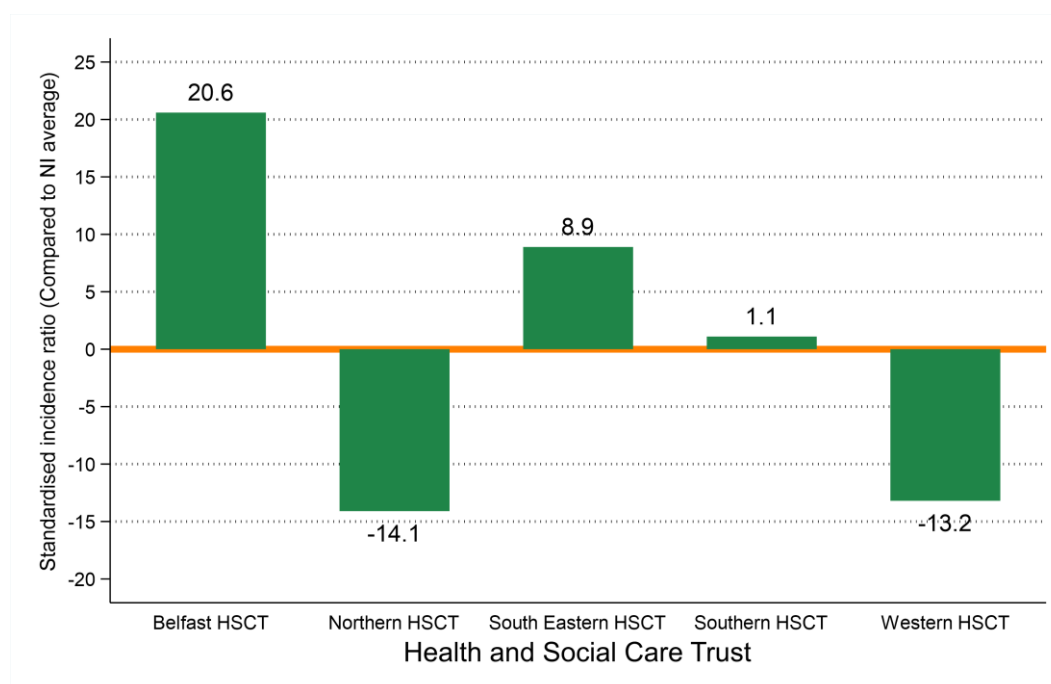
INCIDENCE BY HEALTH AND SOCIAL CARE TRUST

- The number of cases of gallbladder and other biliary 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 3: Number of cases of gallbladder and other biliary 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	549	110	218	44	331	66
Belfast HSCT	119	24	42	8	77	15
Northern HSCT	126	25	53	11	73	15
South Eastern HSCT	128	26	53	11	75	15
Southern HSCT	103	21	40	8	63	13
Western HSCT	73	15	30	6	43	9
Unknown	0	0	0	0	0	0

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



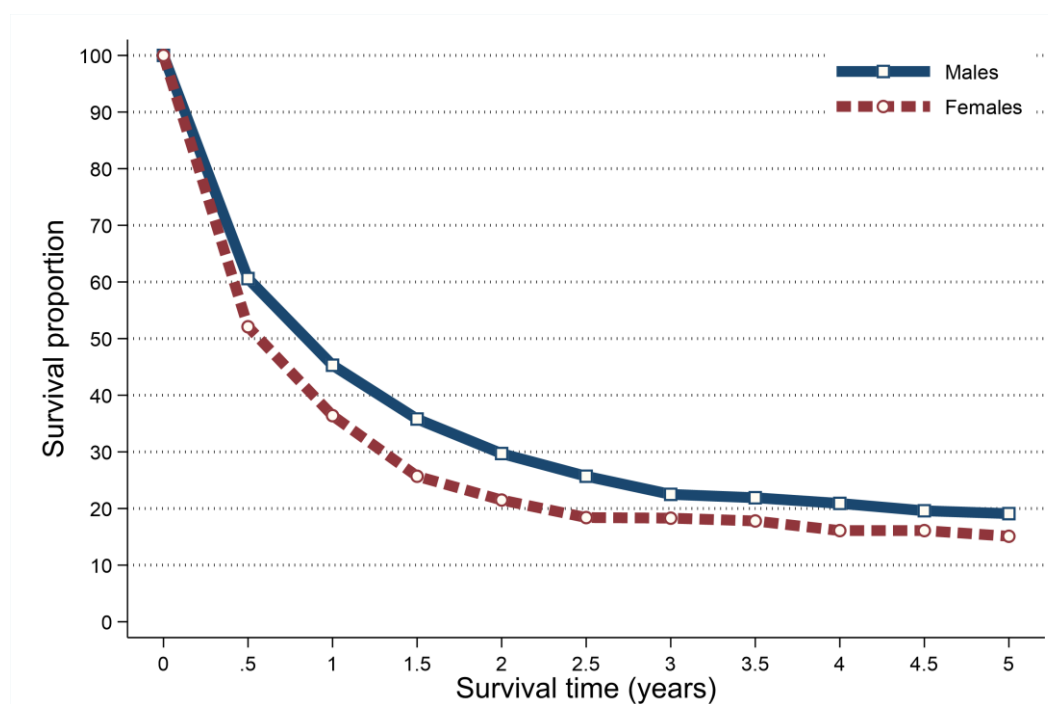
SURVIVAL

- 33.7% of patients were alive one year and 11.4% were alive five years from a gallbladder and other biliary cancer diagnosis in 2013-2017. (observed survival)
- Age-standardised net survival (ASNS), which removes the effect of deaths from causes unrelated to cancer, was 40.2% one year and 16.8% five years from a gallbladder and other biliary cancer diagnosis in 2013-2017.
- Five-year survival (ASNS) for gallbladder and other biliary cancer patients diagnosed in 2013-2017 was 19.1% among men and 15.1% among women.

Table 4: Survival from gallbladder and other biliary 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	49.3%	55.8%	54.6%	60.6%	45.3%	52.1%
One year	33.7%	40.2%	38.1%	45.3%	30.2%	36.4%
Two years	19.7%	25.1%	22.7%	29.7%	17.5%	21.5%
Five years	11.4%	16.8%	12.9%	19.1%	10.3%	15.1%

Figure 10: Age-standardised net survival from gallbladder and other biliary 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.

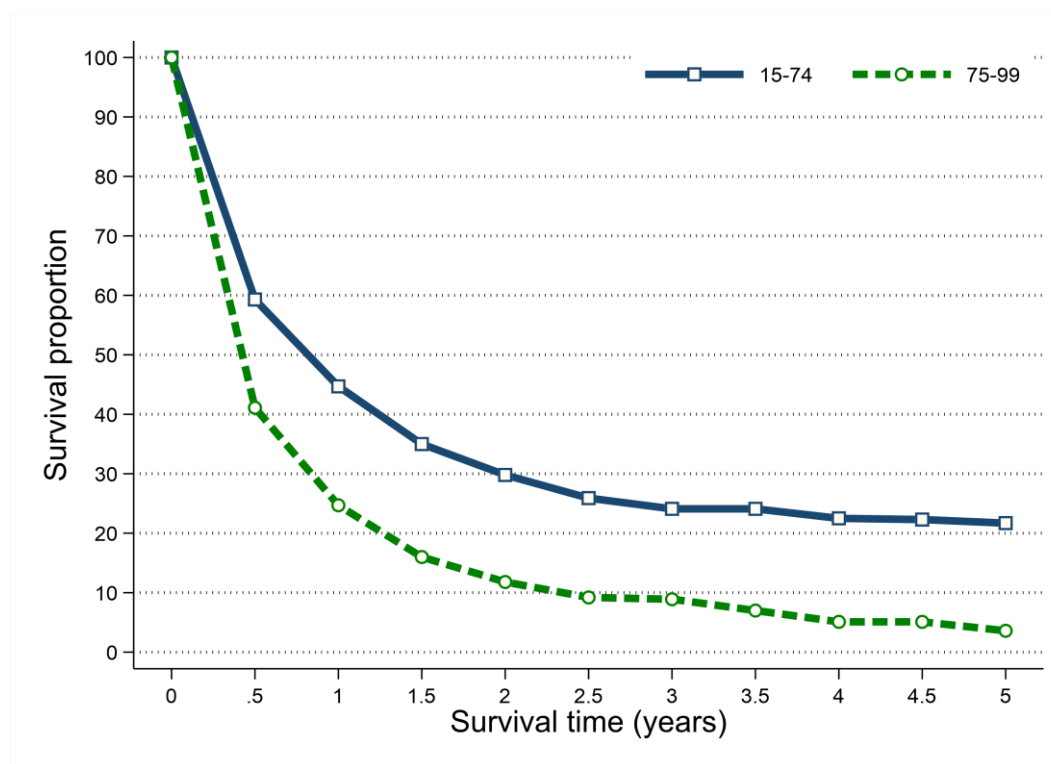
SURVIVAL BY AGE

- Survival from gallbladder and other biliary 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 21.7% among patients aged 15 to 74 at diagnosis to 3.6% among those aged 75 to 99.

Table 5: Net survival from gallbladder and other biliary cancer for patients diagnosed in 2013-2017 by age at diagnosis

Age group	All persons	
	One-year	Five-years
15 to 74	44.7%	21.7%
75 to 99	24.7%	3.6%

Figure 11: Net survival from gallbladder and other biliary cancer for patients diagnosed in 2013-2017 by age at diagnosis

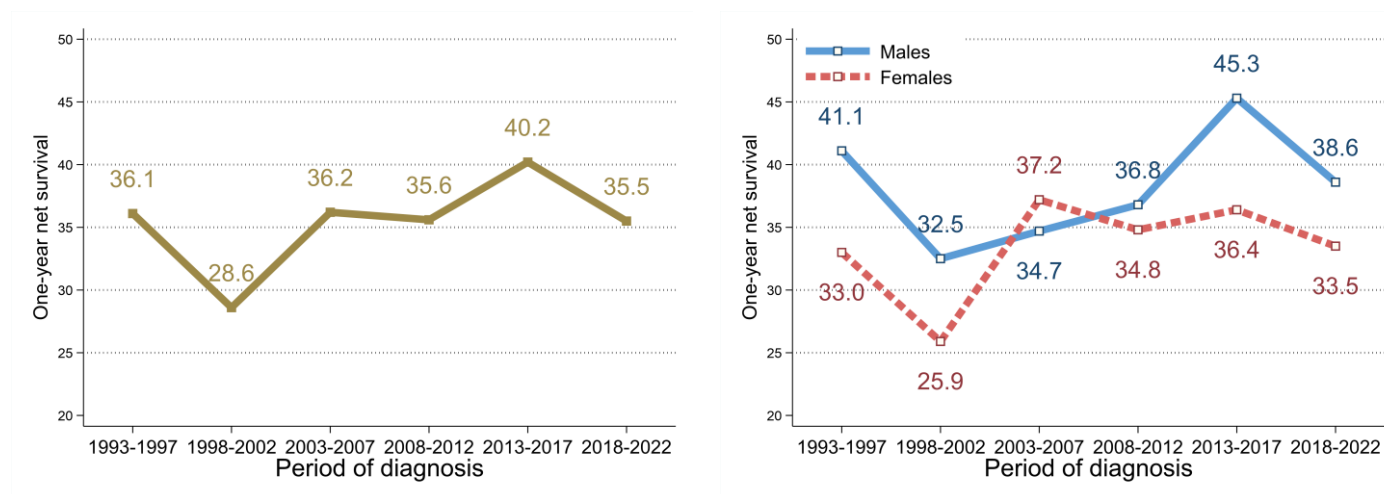


SURVIVAL TRENDS

ONE-YEAR NET SURVIVAL

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

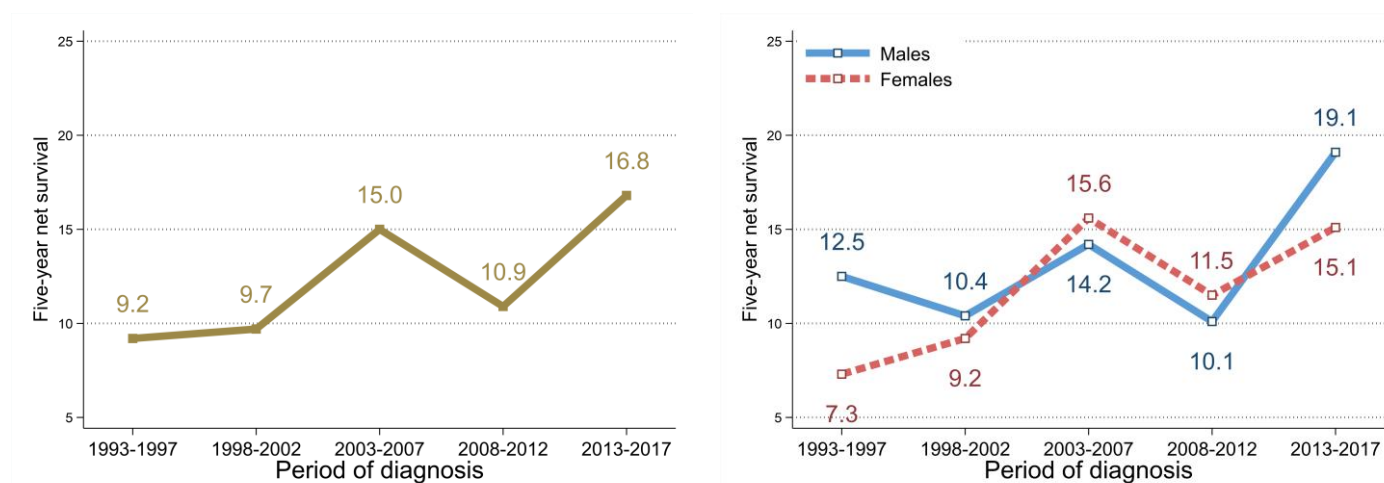
Figure 12: Trends in one-year age-standardised net survival from gallbladder and other biliary cancer in 1993-2022



FIVE-YEAR NET SURVIVAL

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

Figure 13: Trends in five-year age-standardised net survival from gallbladder and other biliary cancer in 1993-2017



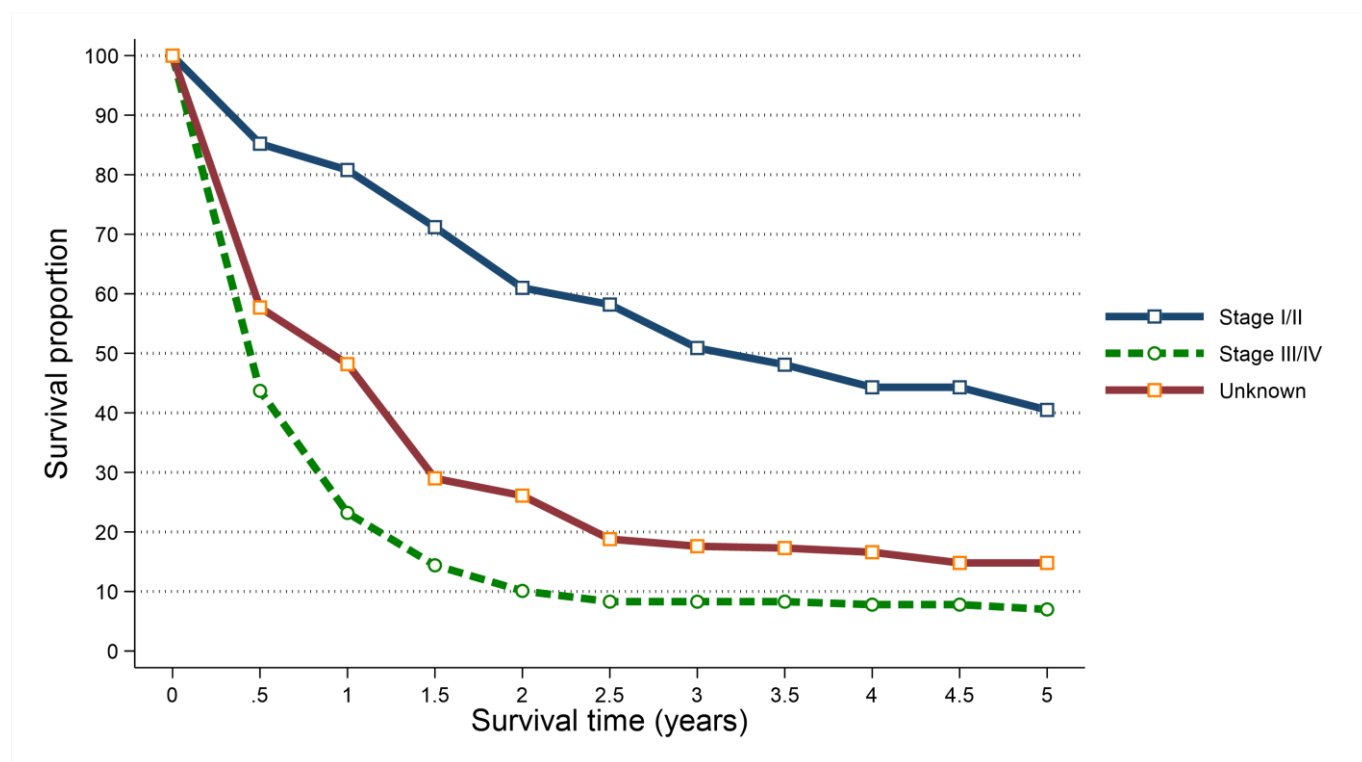
SURVIVAL BY STAGE

- Survival from gallbladder and other biliary 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 40.5% among patients diagnosed at Stage I/II to 7.0% among those diagnosed at Stage III/IV.

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

Stage at diagnosis	All persons	
	One-year	Five-years
Stage I/II	80.8%	40.5%
Stage III/IV	23.2%	7.0%
Unknown	48.2%	14.8%

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



PREVALENCE

- At the end of 2022, there were 183 people (Males: 84; Females: 99) living with gallbladder and other biliary cancer who had been diagnosed with the disease during 1998-2022.
- Of these 25.7% had been diagnosed in the previous year (one-year prevalence) and 84.2% in the previous 10 years (ten-year prevalence).
- 47.5% of gallbladder and other biliary cancer survivors were aged 75 and over at the end of 2022.

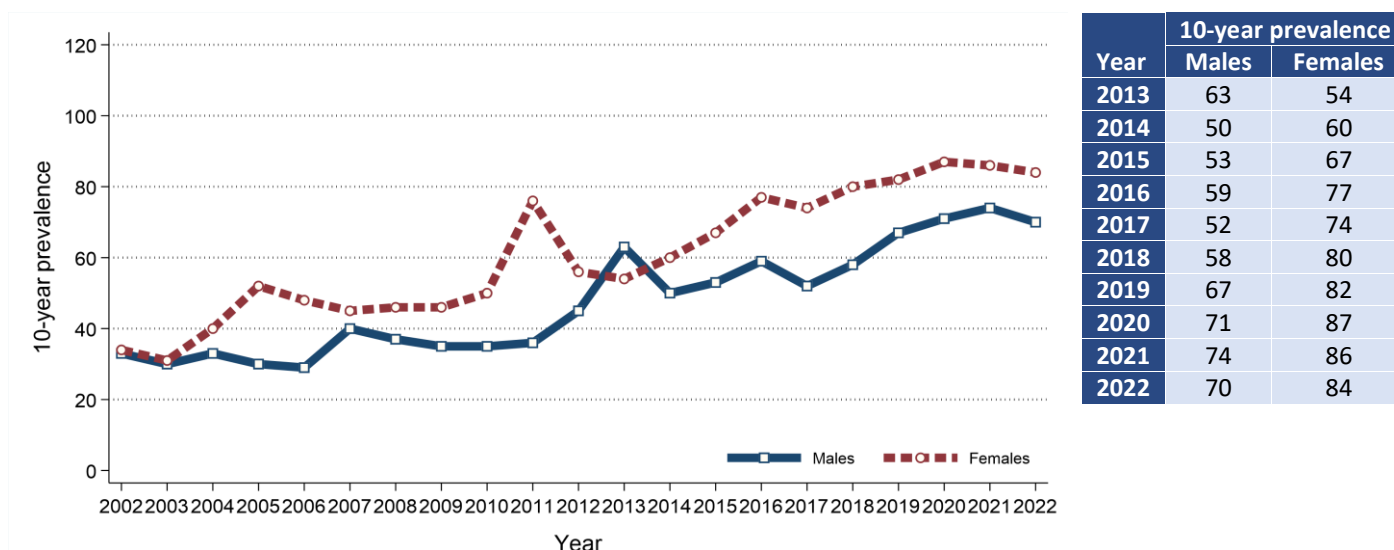
Table 7: 25-year prevalence of gallbladder and other biliary cancer by age at end of 2022

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	183	47	64	43	29
	0 to 74	96	22	35	23	16
	75 and over	87	25	29	20	13
Male	All ages	84	21	27	22	14
	0 to 74	46	11	13	14	8
	75 and over	38	10	14	8	6
Female	All ages	99	26	37	21	15
	0 to 74	50	11	22	9	8
	75 and over	49	15	15	12	7

PREVALENCE TRENDS

- 10-year prevalence of gallbladder and other biliary cancer among males increased between 2017 and 2022 by 34.6% from 52 survivors to 70 survivors.
- 10-year prevalence of gallbladder and other biliary cancer among females increased between 2017 and 2022 by 13.5% from 74 survivors to 84 survivors.

Figure 15: Trends in 10-year prevalence of gallbladder and other biliary cancer in 2002-2022



MORTALITY

- There were 191 deaths from gallbladder and other biliary cancer during 2018-2022 in Northern Ireland. On average this was 38 deaths per year.
- During this period 68.6% of gallbladder and other biliary cancer deaths were among women (Male deaths: 60, Female deaths: 131). On average there were 12 male and 26 female deaths from gallbladder and other biliary cancer per year.
- Gallbladder and other biliary cancer deaths made up 0.5% of all male and 1.2% of all female cancer deaths.
- The median age of patients who died from gallbladder and other biliary cancer during 2018-2022 was 78 years (Males: 77, Females: 79).
- The risk of dying from gallbladder and other biliary cancer varied by age, with 62.8% of those who died from gallbladder and other biliary cancer aged 75 and over at death.
- In contrast, 5.2% of patients who died from gallbladder and other biliary cancer were aged 0 to 54 at death.

Figure 16: Average number of deaths from gallbladder and other biliary cancer per year in 2018-2022 by age at death

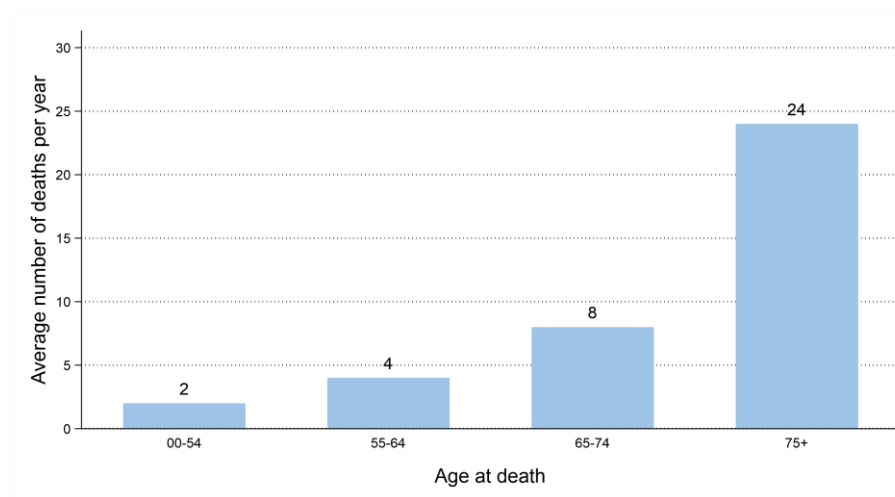
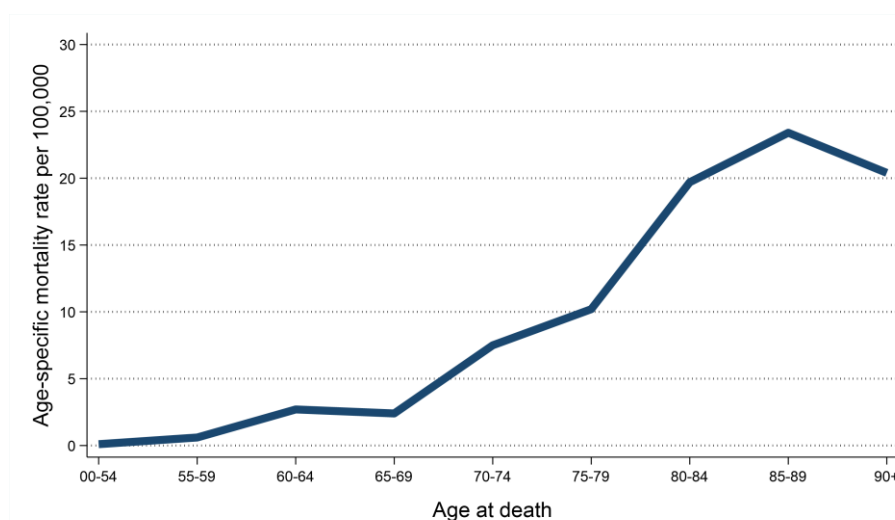


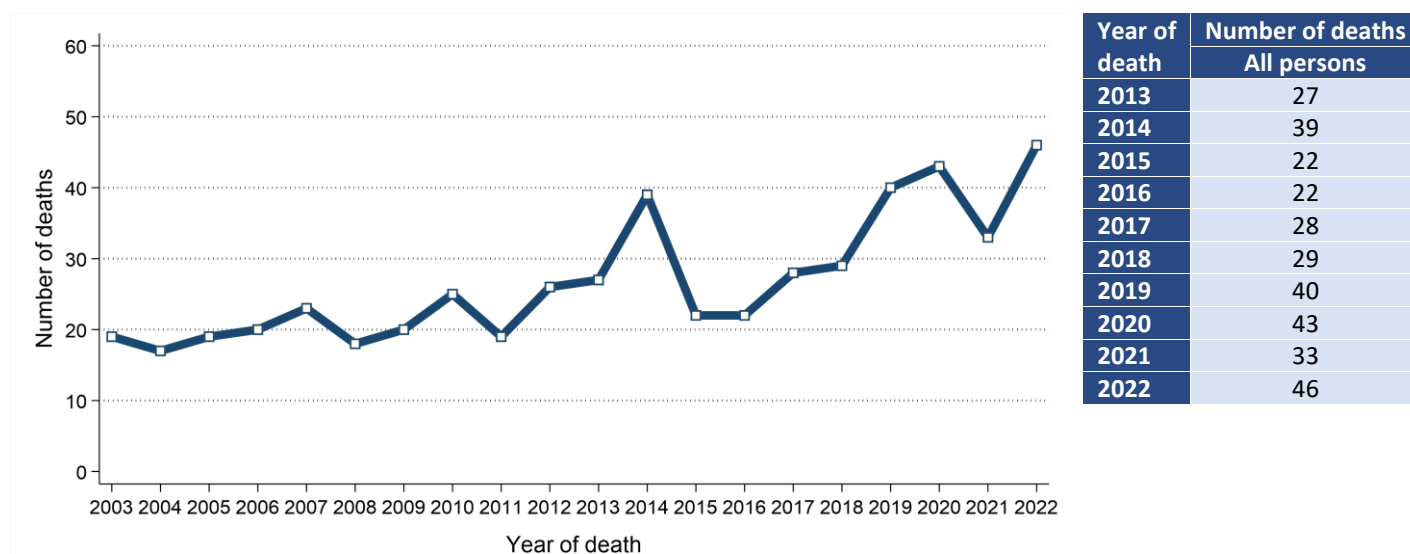
Figure 17: Age-specific mortality rates of gallbladder and other biliary cancer in 2018-2022



MORTALITY TRENDS

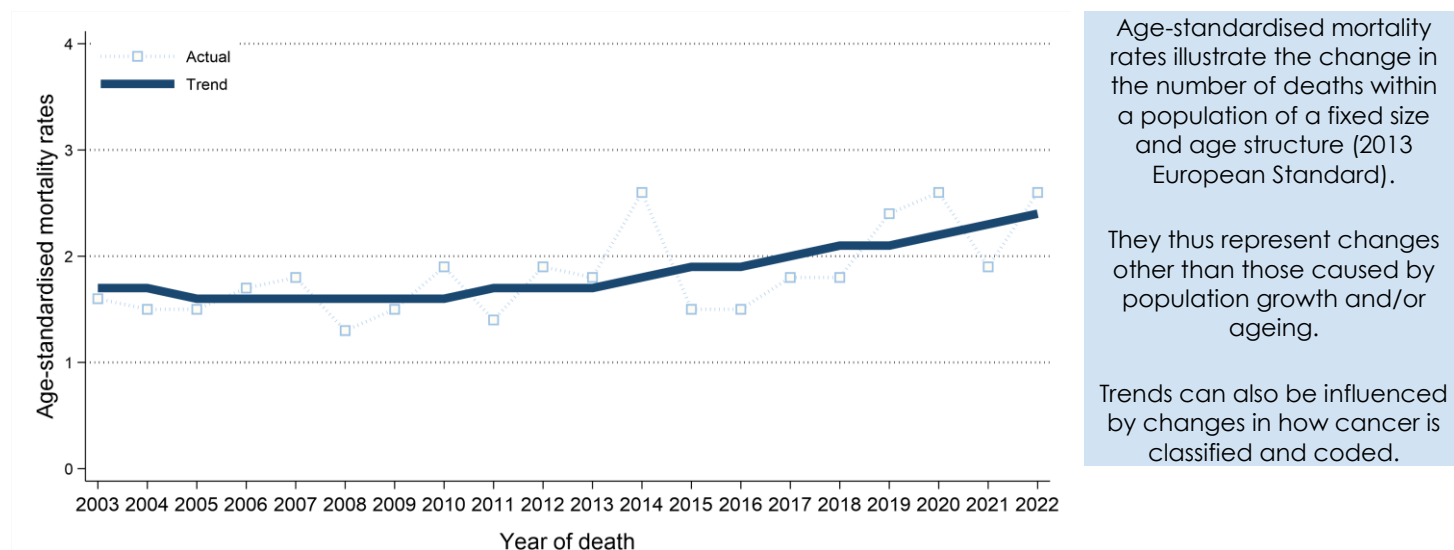
- The number of deaths from gallbladder and other biliary cancer increased between 2013-2017 and 2018-2022 by 38.4% from 138 deaths (28 deaths per year) to 191 deaths (38 deaths per year).

Figure 18: Trends in the number of deaths from gallbladder and other biliary cancer from 2003 to 2022



- Age-standardised gallbladder and other biliary cancer mortality rates increased between 2013-2017 and 2018-2022 by 27.8% from 1.8 to 2.3 deaths per 100,000 persons. This change was not statistically significant.

Figure 19: Trends in mortality rates of gallbladder and other biliary 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. gallbladder and other biliary 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. gallbladder and other biliary 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.