Colon cancer

1993-2022

(ICD10 codes: C18)

Northern Ireland Cancer Registry

Northern Ireland Cancer Registry, 2024

An official statistics publication

ABOUT THIS REPORT

Contents

This report includes information on incidence of colon 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 2024. Colon 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

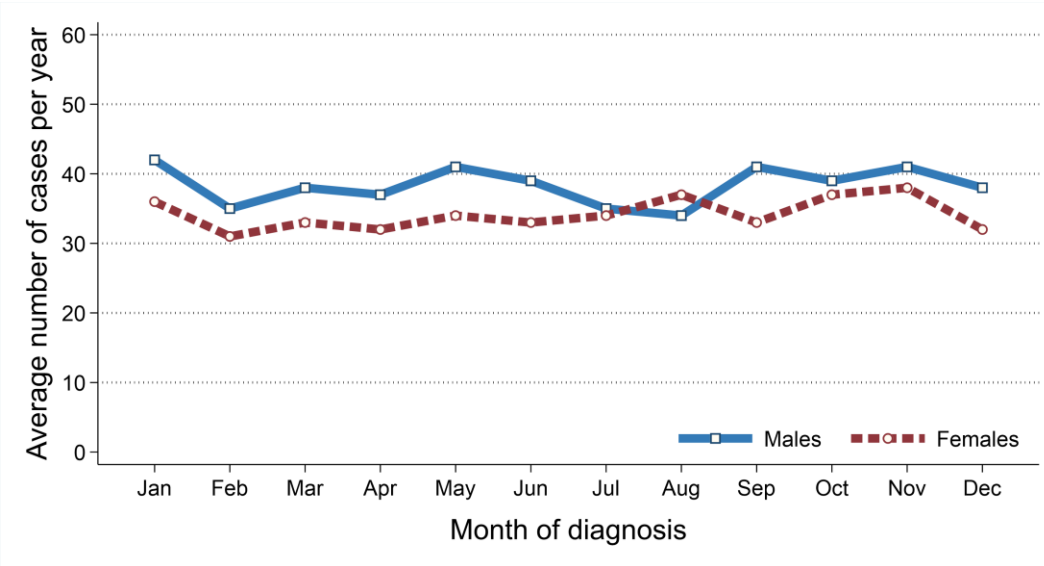
The Northern Ireland Cancer Registry (NICR) uses data provided by patients and collected by the health service as part of their care and support.

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

INCIDENCE

- There were 4,336 cases of colon cancer diagnosed during 2018-2022 in Northern Ireland. On average this was 867 cases per year.
- During this period 47.0% of colon cancer cases were among women (Male cases: 2,296, Female cases: 2,040). On average there were 459 male and 408 female cases of colon cancer per year.
- The most common diagnosis month during 2018-2022 was January among males with 42 cases per year and November among females with 38 cases per year.

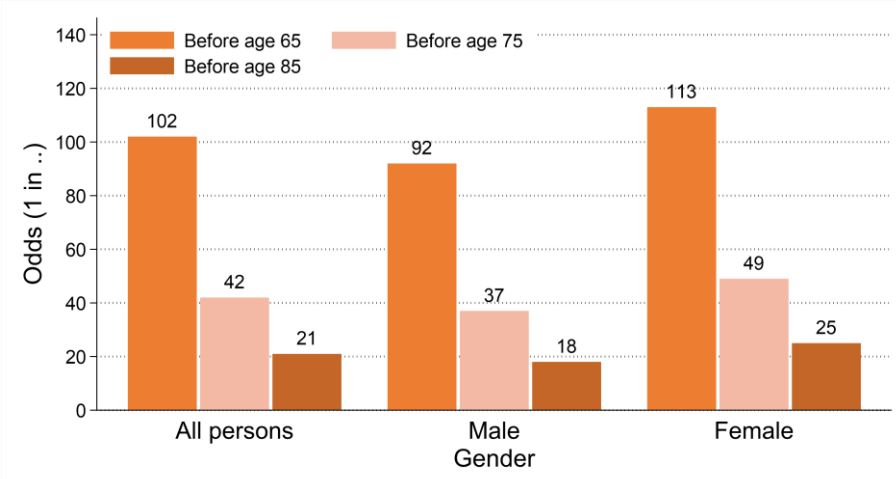
Figure 1: Average number of cases of colon cancer per year in 2018-2022 by month of diagnosis



Month of diagnosis	Average number of cases per year	
	Males	Females
January	42	36
February	35	31
March	38	33
April	37	32
May	41	34
June	39	33
July	35	34
August	34	37
September	41	33
October	39	37
November	41	38
December	38	32

- The colon cancer incidence rates for each gender were 49.1 cases per 100,000 males and 42.3 cases per 100,000 females.
- The odds of developing colon cancer before age 85 was 1 in 18 for men and 1 in 25 for women.

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



INCIDENCE BY AGE

- The median age of patients diagnosed with colon cancer during 2018-2022 was 73 years (Males: 72, Females: 74).
- The risk of developing colon cancer varied by age, with 42.2% of men and 47.3% of women diagnosed with colon cancer aged 75 and over at diagnosis.
- In contrast, 9.3% of patients diagnosed with colon cancer were aged 0 to 54 at diagnosis.

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

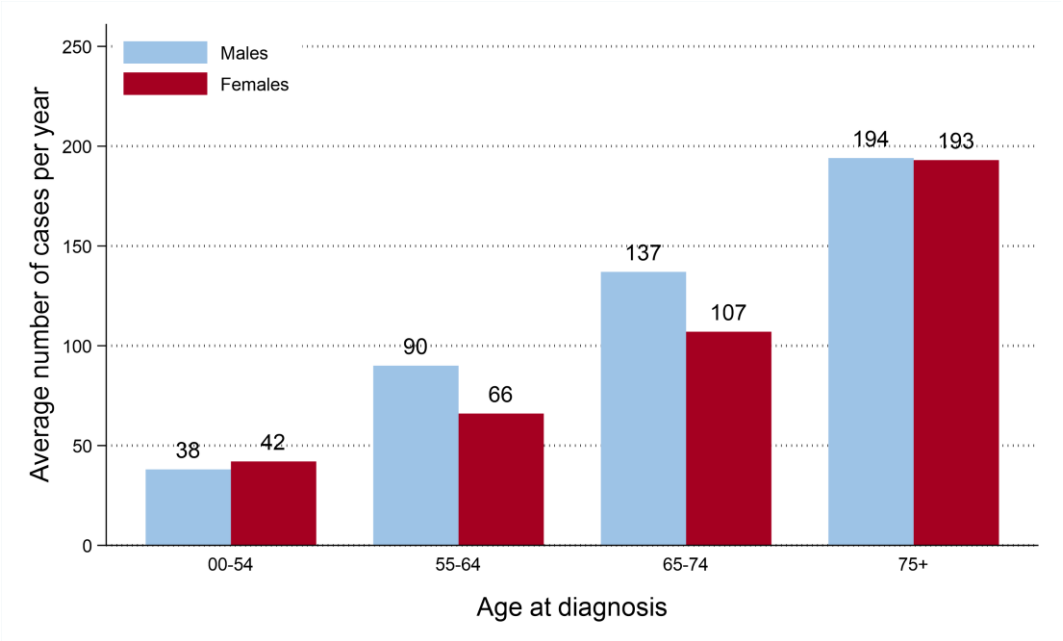
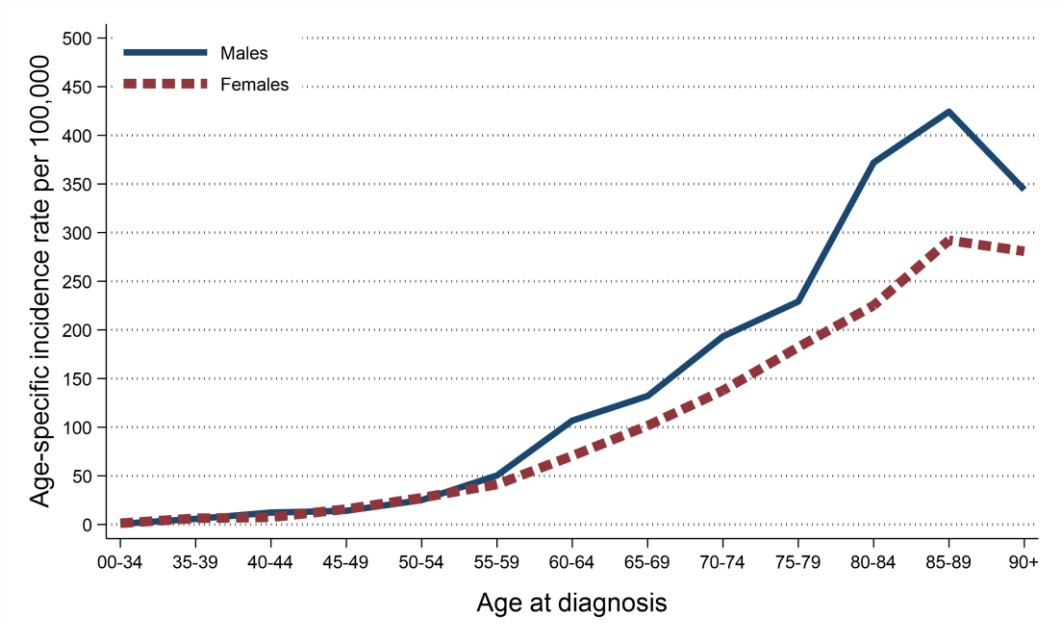


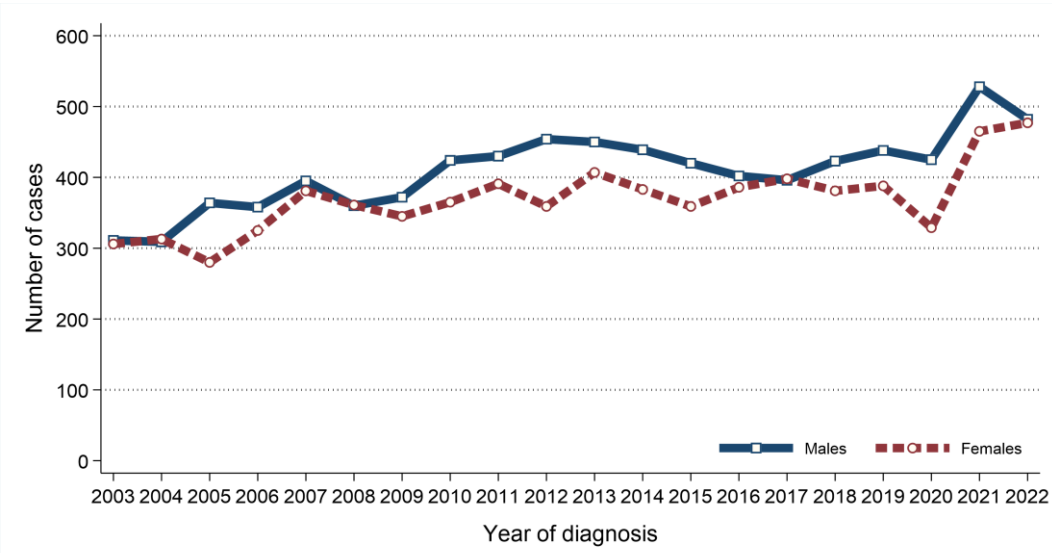
Figure 4: Age-specific incidence rates of colon cancer in 2018-2022



INCIDENCE TRENDS

- The number of cases of colon cancer among males increased between 2013-2017 and 2018-2022 by 9.0% from 2,107 cases (421 cases per year) to 2,296 cases (459 cases per year).
- The number of cases of colon cancer among females increased between 2013-2017 and 2018-2022 by 5.5% from 1,933 cases (387 cases per year) to 2,040 cases (408 cases per year).

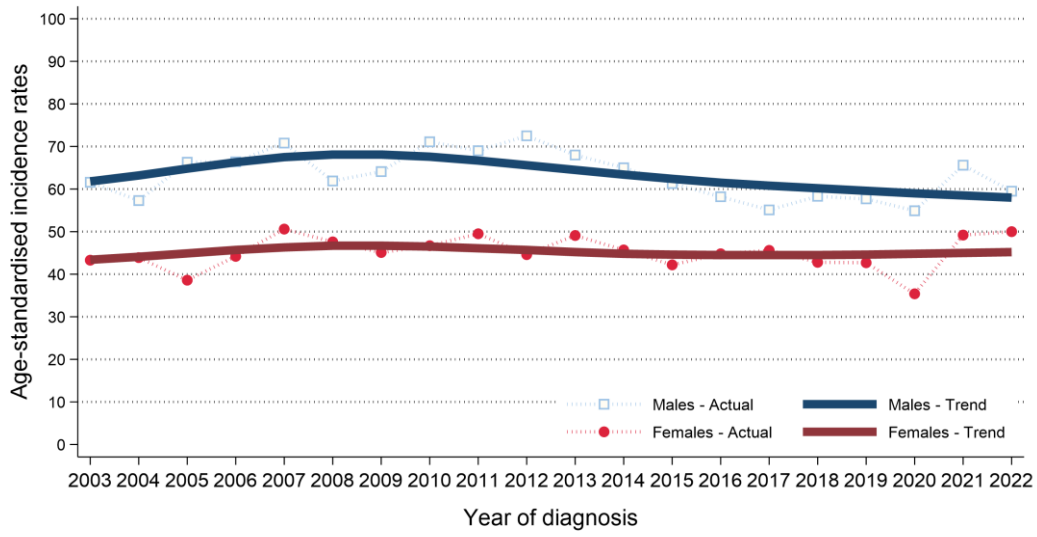
Figure 5: Trends in number of cases of colon cancer diagnosed from 2003 to 2022



Year of diagnosis	Number of cases	
	Males	Females
2013	450	407
2014	439	383
2015	420	359
2016	402	386
2017	396	398
2018	423	381
2019	438	388
2020	425	329
2021	528	465
2022	482	477

- Male age-standardised colon cancer incidence rates decreased between 2013-2017 and 2018-2022 by 3.6% from 61.4 to 59.2 cases per 100,000 males. This change was not statistically significant.
- Female age-standardised colon cancer incidence rates decreased between 2013-2017 and 2018-2022 by 3.3% from 45.5 to 44.0 cases per 100,000 females. This change was not statistically significant.

Figure 6: Trends in incidence rates of colon 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 TRENDS BY AGE

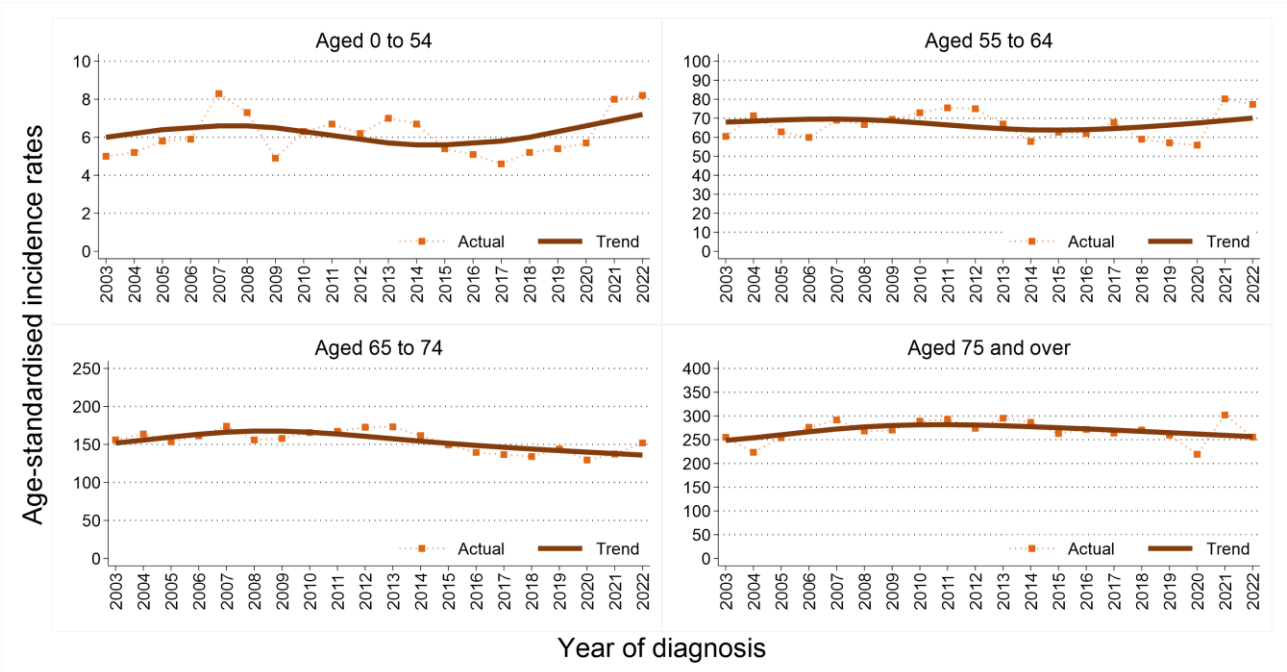
- Between 2013-2017 and 2018-2022 the number of cases of colon cancer among
  - Persons aged 0 to 54 increased by 0.5% among males and increased by 25.4% among females.
  - Persons aged 55 to 64 increased by 24.8% among males and increased by 11.1% among females.
  - Persons aged 65 to 74 did not change among males and decreased by 1.3% among females.
  - Persons aged 75 and over increased by 11.4% among males and increased by 4.1% among females.

Table 1: Average number of cases per year of colon cancer by period of diagnosis in 2013-2022

Age at diagnosis	All persons		Male		Female	
	2013-2017	2018-2022	2013-2017	2018-2022	2013-2017	2018-2022
All ages	**808**	**867**	**421**	**459**	**387**	**408**
	.	.	.	.	.	.
0 to 54	72	81	38	38	34	42
55 to 64	131	156	72	90	60	66
65 to 74	245	244	137	137	108	107
75 and over	359	387	174	194	185	193

- Between 2013-2017 and 2018-2022 age-standardised incidence rates of colon cancer among
  - Persons aged 0 to 54 did not change significantly among males or females.
  - Persons aged 55 to 64 did not change significantly among males or females.
  - Persons aged 65 to 74 did not change significantly among males or females.
  - Persons aged 75 and over did not change significantly among males or females.

Figure 7: Trends in incidence rates of colon cancer from 2003 to 2022 by age group



INCIDENCE BY HISTOLOGICAL TYPE

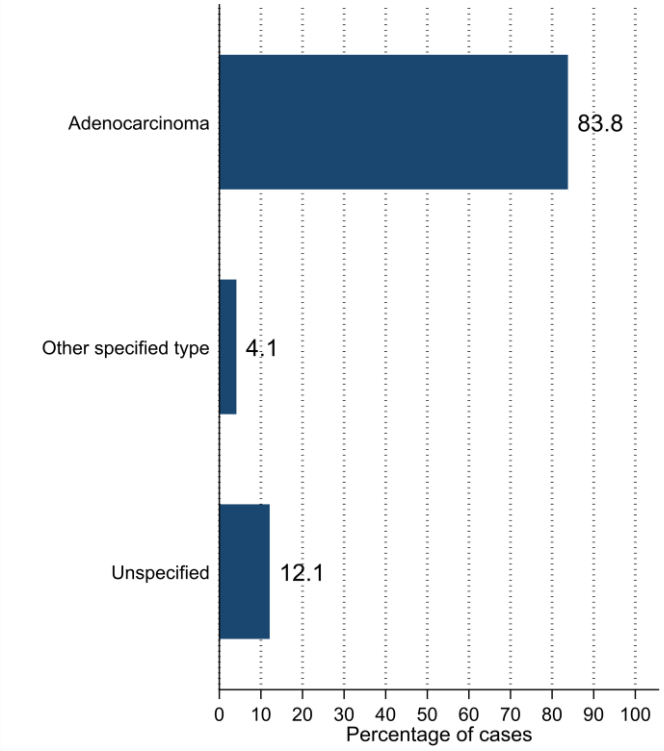
- During 2018-2022 86.1% of colon cancer cases had a histological type specified.
- Of the 601 cases with an unspecified type 98.5% were not microscopically verified.
- The most common colon cancer types among males were adenocarcinoma (83.8%) and another specified type (4.1%). Among females they were adenocarcinoma (79.7%) and another specified type (4.5%).

Table 2: Number of cases of colon cancer diagnosed in 2018-2022 by histological type

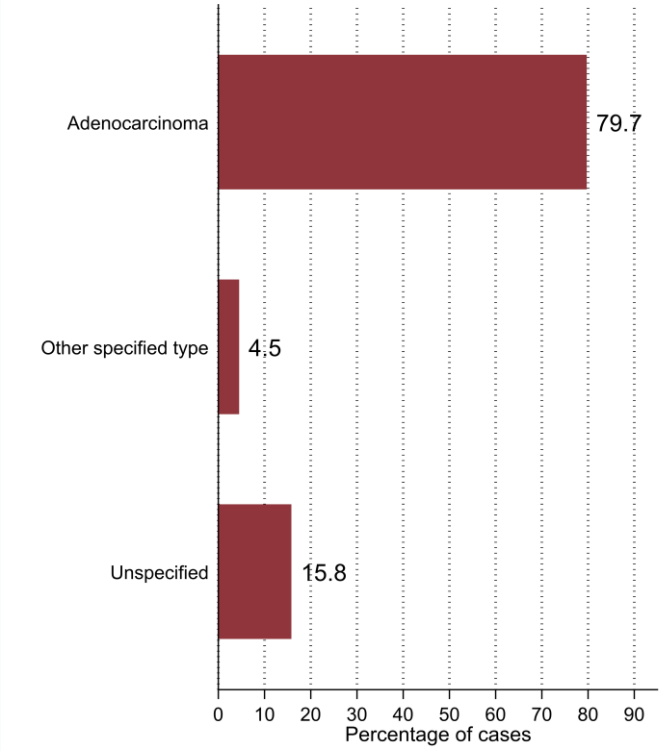
Histological type	All persons		Male		Female	
	Total cases in period	Average cases per year	Total cases in period	Average cases per year	Total cases in period	Average cases per year
All types	**4,336**	**867**	**2,296**	**459**	**2,040**	**408**
	.	.	.	.	.	.
Adenocarcinoma	3,550	710	1,924	385	1,626	325
Other specified type	185	37	94	19	91	18
Unspecified	601	120	278	56	323	65

Figure 8: Proportion of cases of colon cancer in 2018-2022 by histological type

MALE



FEMALE



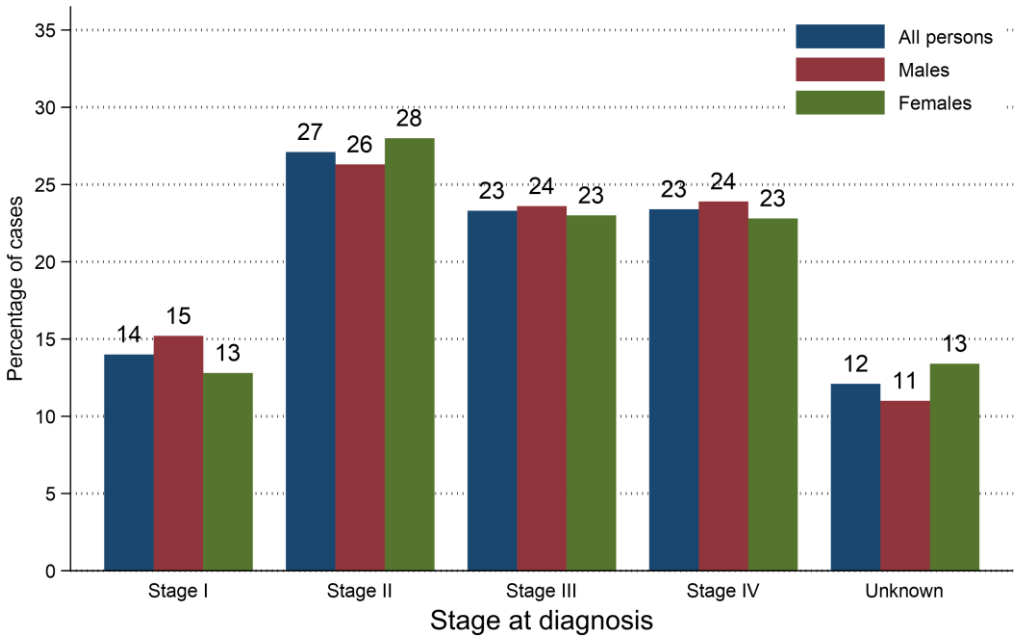
INCIDENCE BY STAGE AT DIAGNOSIS

- During 2018-2022 87.9% of colon cancer cases had a stage assigned.
- 14.0% of colon cancer cases were diagnosed at Stage I. (16.0% of staged cases)
- 23.4% of colon cancer cases were diagnosed at Stage IV. (26.6% of staged cases)

Table 3: Number of cases of colon 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	**4,336**	**867**	**2,296**	**459**	**2,040**	**408**
	.	.	.	.	.	.
Stage I	609	122	348	70	261	52
Stage II	1,176	235	604	121	572	114
Stage III	1,011	202	542	108	469	94
Stage IV	1,014	203	549	110	465	93
Unknown	526	105	253	51	273	55

Figure 9: Proportion of cases of colon cancer diagnosed in 2018-2022 by stage at diagnosis



Cancer stage describes the size of a cancer and how far it has grown and spread.

This information is used to help decide what treatments are needed.

The classification used here to stage cancer is the TNM classification (Version 7 prior to 2018, Version 8 from 2018 onwards).

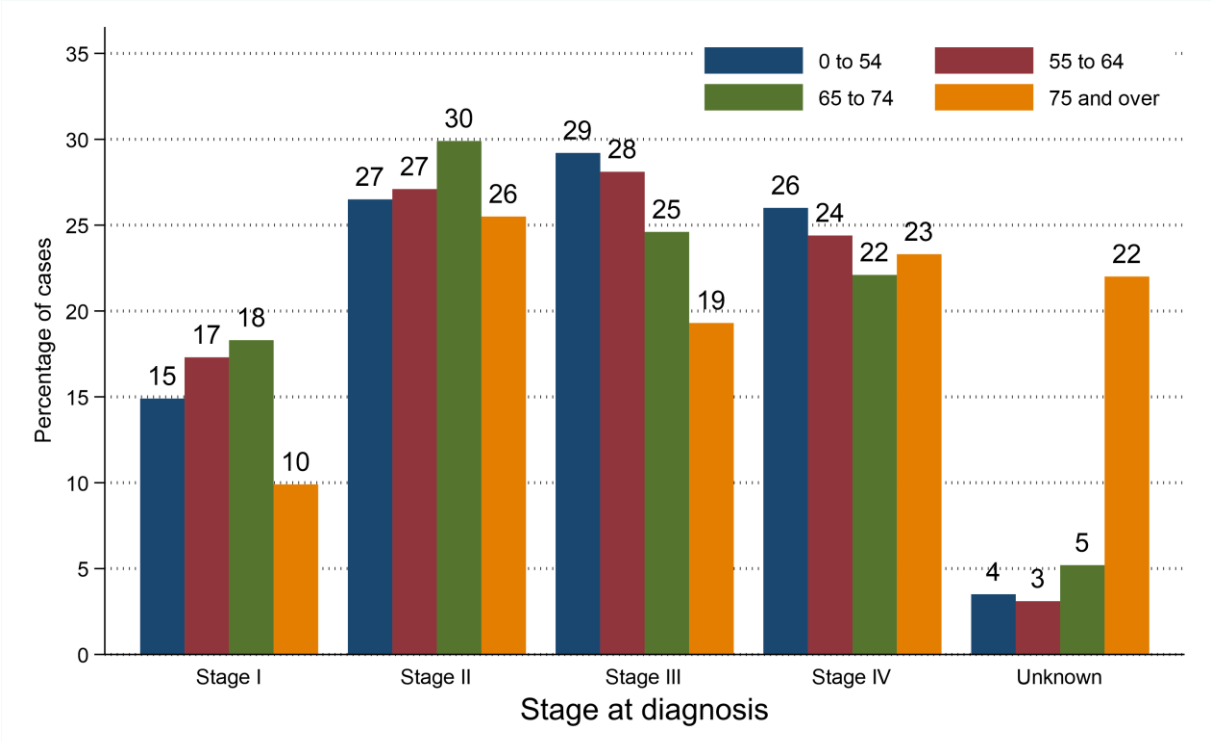
INCIDENCE BY STAGE AND AGE AT DIAGNOSIS

- During 2018-2022 78.0% of colon cancer cases among those aged 75 and over had a stage assigned compared to 96.5% of those aged 0 to 54.
- 9.9% of colon cancer cases among those aged 75 and over were diagnosed at Stage I (12.7% of staged cases) compared to 14.9% of those aged 0 to 54 (15.4% of staged cases).
- 23.3% of colon cancer cases among those aged 75 and over were diagnosed at Stage IV (29.8% of staged cases) compared to 26.0% of those aged 0 to 54 (26.9% of staged cases).

Table 4: Average number of cases of colon cancer diagnosed per year in 2018-2022 by stage and age at diagnosis

Stage at diagnosis	Age at diagnosis				
	All ages	0 to 54	55 to 64	65 to 74	75 and over
All stages	**867**	**81**	**156**	**244**	**387**
	.	.	.	.	.
Stage I	122	12	27	45	38
Stage II	235	21	42	73	99
Stage III	202	24	44	60	75
Stage IV	203	21	38	54	90
Unknown	105	3	5	13	85

Figure 10: Proportion of cases of colon cancer diagnosed in 2018-2022 by stage and age at diagnosis



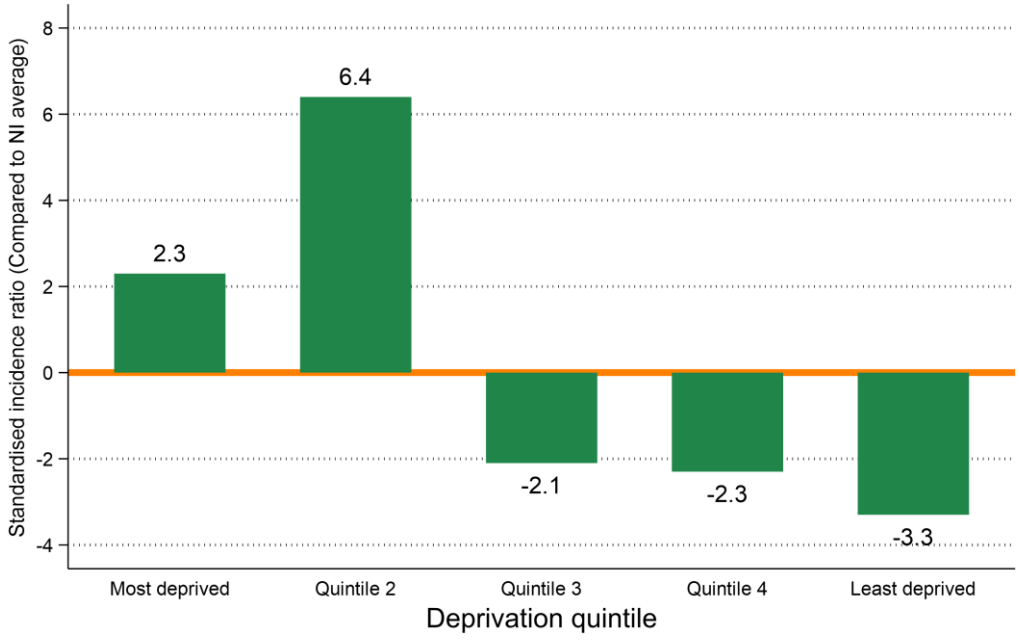
INCIDENCE BY DEPRIVATION

- The number of cases of colon 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 5: Number of cases of colon 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	**4,336**	**867**	**2,296**	**459**	**2,040**	**408**
	.	.	.	.	.	.
Most deprived	715	143	372	74	343	69
Quintile 2	920	184	478	96	442	88
Quintile 3	895	179	503	101	392	78
Quintile 4	902	180	471	94	431	86
Least deprived	904	181	472	94	432	86
Unknown	0	0	0	0	0	0

Figure 11: Standardised incidence ratio comparing deprivation quintile to Northern Ireland for colon cancer diagnosed in 2018-2022



Standardised incidence ratios compare incidence rates in each deprivation quintile with the Northern Ireland incidence rate.

A value above 0 means that incidence rates in that deprivation quintile are greater than the NI average.

This measure takes account of population size and age structure. Differences are thus not a result of these factors.

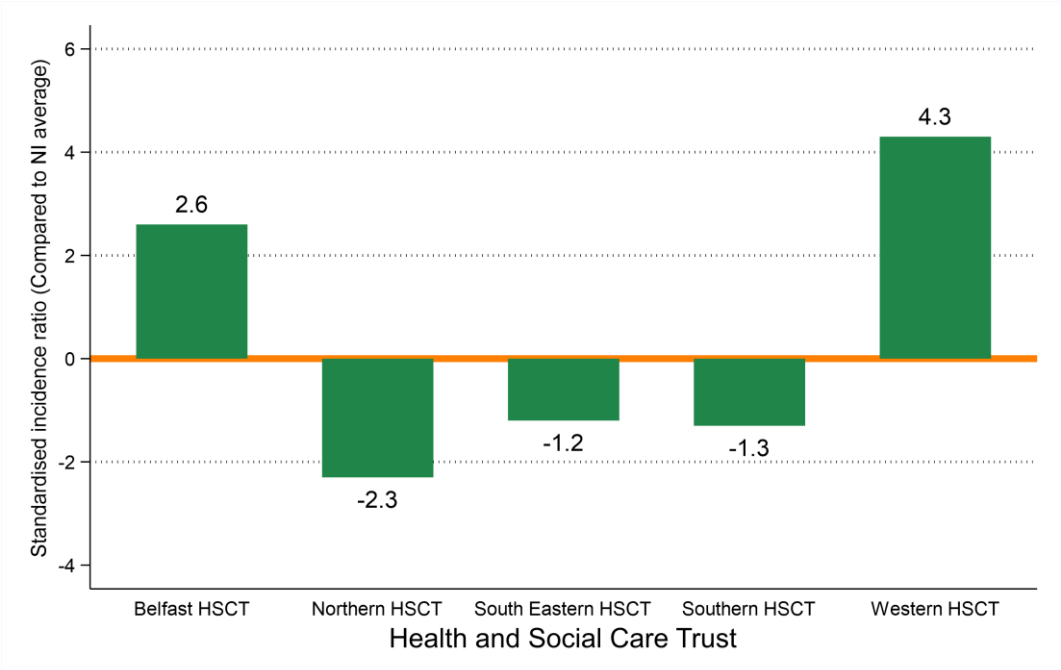
INCIDENCE BY HEALTH AND SOCIAL CARE TRUST

- The number of cases of colon 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 6: Number of cases of colon 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	**4,336**	**867**	**2,296**	**459**	**2,040**	**408**
	.	.	.	.	.	.
Belfast HSCT	797	159	404	81	393	79
Northern HSCT	1,128	226	591	118	537	107
South Eastern HSCT	910	182	485	97	425	85
Southern HSCT	801	160	425	85	376	75
Western HSCT	700	140	391	78	309	62
Unknown	0	0	0	0	0	0

Figure 12: Standardised incidence ratio comparing Health and Social Care Trust to Northern Ireland for colon cancer diagnosed in 2018-2022



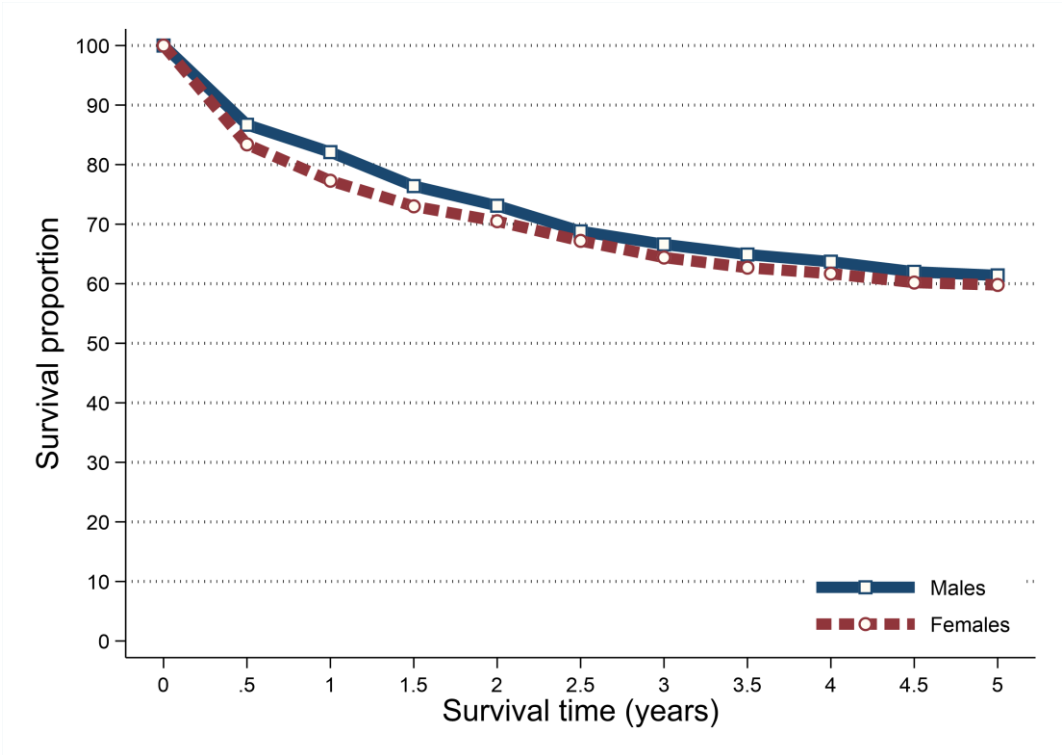
SURVIVAL

- 74.7% of patients were alive one year and 49.1% were alive five years from a colon cancer diagnosis in 2013-2017. (observed survival)
- Age-standardised net survival (ASNS), which removes the effect of deaths from causes unrelated to cancer, was 79.8% one year and 60.6% five years from a colon cancer diagnosis in 2013-2017.
- Five-year survival (ASNS) for colon cancer patients diagnosed in 2013-2017 was 61.4% among men and 59.8% among women.

Table 7: Survival from colon 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	81.6%	85.1%	83.9%	86.7%	79.1%	83.4%
One year	74.7%	79.8%	77.4%	82.1%	71.6%	77.3%
Two years	64.8%	71.8%	66.5%	73.1%	62.9%	70.5%
Five years	49.1%	60.6%	49.8%	61.4%	48.3%	59.8%

Figure 13: Age-standardised net survival from colon 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.

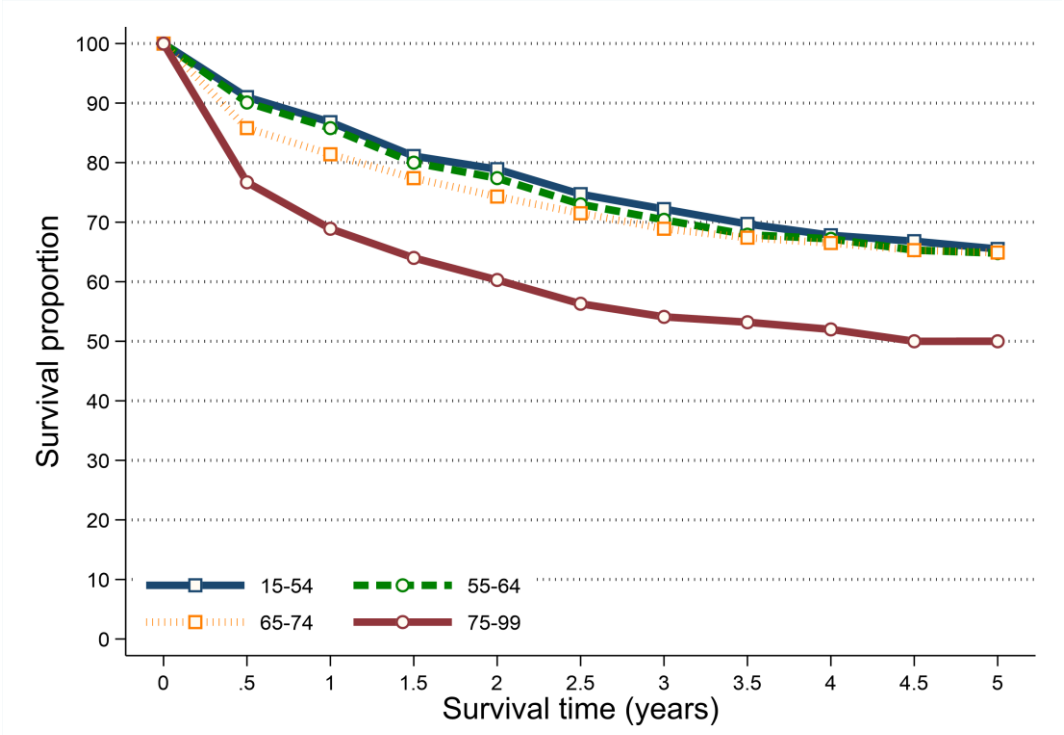
SURVIVAL BY AGE

- Survival from colon 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 65.5% among patients aged 15 to 54 at diagnosis to 50.0% among those aged 75 to 99.
- Five-year net survival for colon cancer patients aged 75 to 99 at diagnosis in 2013-2017 was 51.3% among men compared to 48.7% among women.

Table 8: Net survival from colon cancer for patients diagnosed in 2013-2017 by age at diagnosis

Age group	All persons		Male		Female	
	One-year	Five-years	One-year	Five-years	One-year	Five-years
15 to 54	86.8%	65.5%	87.1%	64.5%	86.4%	66.5%
55 to 64	85.8%	64.8%	87.4%	65.8%	83.9%	63.5%
65 to 74	81.4%	64.9%	84.7%	65.9%	77.3%	63.6%
75 to 99	68.9%	50.0%	71.9%	51.3%	66.0%	48.7%

Figure 14: Net survival from colon cancer for patients diagnosed in 2013-2017 by age at diagnosis

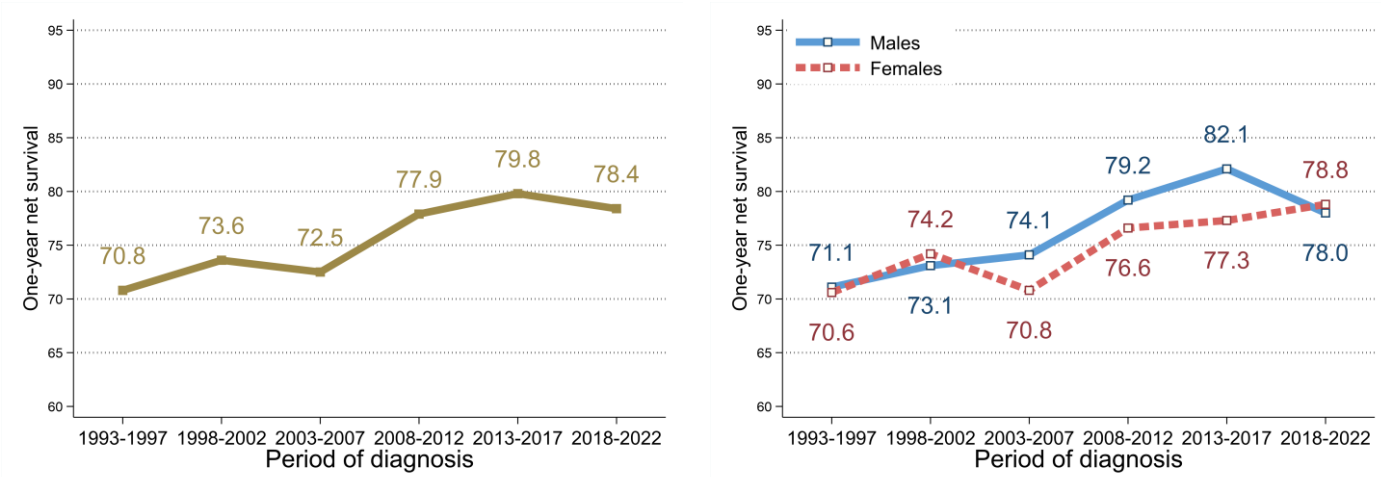


SURVIVAL TRENDS

ONE-YEAR NET SURVIVAL

- Between 2013-2017 and 2018-2022 there was no significant change in one-year survival (ASNS) from colon cancer. However, there was a significant decrease between the two time periods for males (82.1% to 78.0%) but not females.
- Compared to 1993-1997 one-year survival (ASNS) from colon cancer in 2018-2022 increased significantly from 70.8% to 78.4%. This increase was significant for males (71.1% to 78.0%) and females (70.6% to 78.8%).

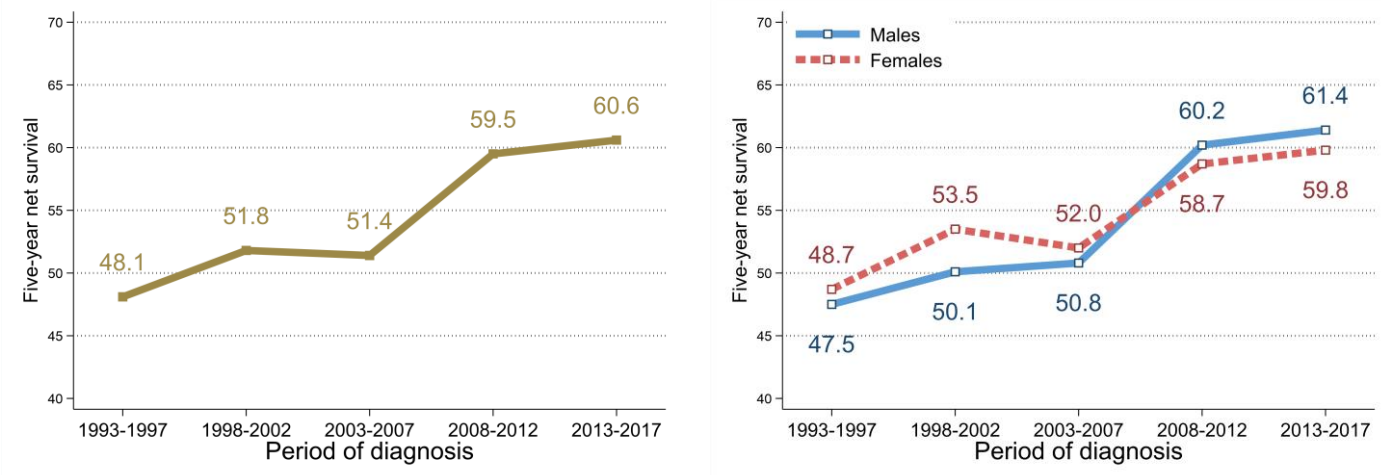
Figure 15: Trends in one-year age-standardised net survival from colon cancer in 1993-2022



FIVE-YEAR NET SURVIVAL

- Between 2008-2012 and 2013-2017 there was no significant change in five-year survival (ASNS) from colon cancer.
- Compared to 1993-1997 five-year survival (ASNS) from colon cancer in 2013-2017 increased significantly from 48.1% to 60.6%. This increase was significant for males (47.5% to 61.4%) and females (48.7% to 59.8%).

Figure 16: Trends in five-year age-standardised net survival from colon cancer in 1993-2017



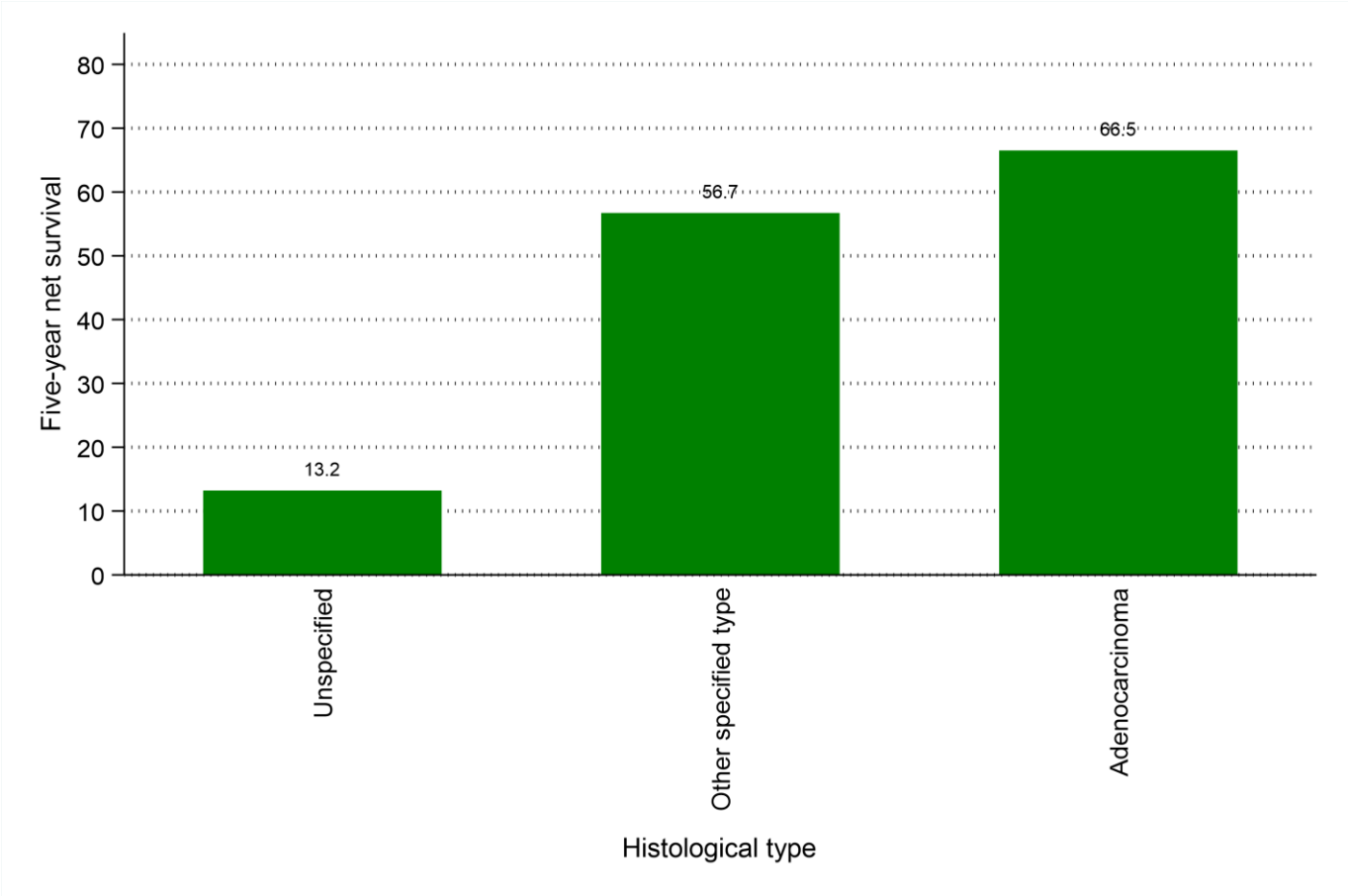
SURVIVAL BY HISTOLOGICAL TYPE

- Five-year survival (ASNS) for patients diagnosed in 2013-2017 ranged from 66.5% for adenocarcinoma to 13.2% for those with an unspecified histological type.

Table 9: Age-standardised net survival from colon cancer for patients diagnosed in 2013-2017 by histological type

Histological type	All persons		Male		Female	
	One-year	Five-years	One-year	Five-years	One-year	Five-years
Adenocarcinoma	86.0%	66.5%	87.3%	66.4%	84.5%	66.6%
Other specified type	70.3%	56.7%	62.1%	53.0%	72.2%	59.0%
Unspecified	28.7%	13.2%	33.4%	9.0%	25.3%	16.3%

Figure 17: Five-year age-standardised net survival from colon cancer for patients diagnosed in 2013-2017 by histological type



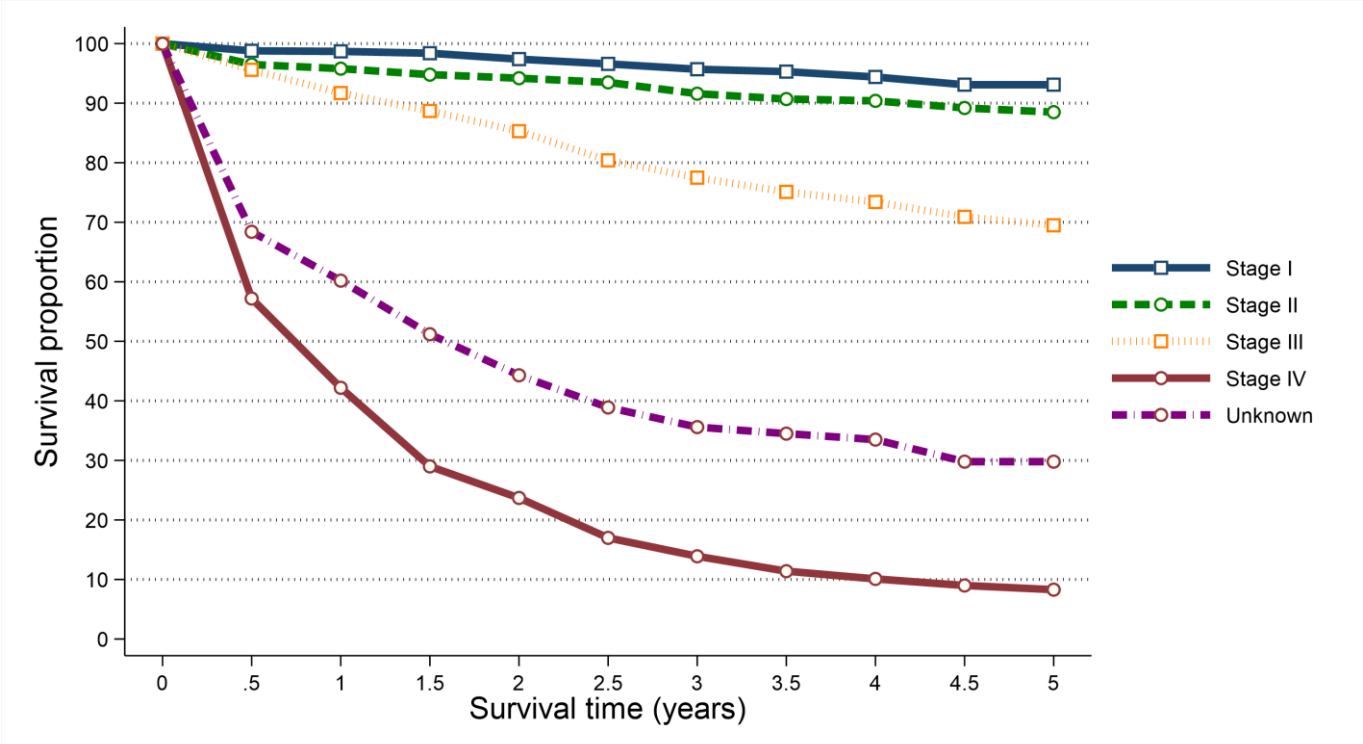
SURVIVAL BY STAGE

- Survival from colon 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 93.1% among patients diagnosed at Stage I to 8.3% among those diagnosed at Stage IV.
- Five-year survival (ASNS) for colon cancer patients diagnosed at Stage IV in 2013-2017 was 7.9% among men compared to 8.7% among women.

Table 10: Age-standardised net survival from colon cancer for patients diagnosed in 2013-2017 by stage at diagnosis

Stage at diagnosis	All persons		Male		Female	
	One-year	Five-years	One-year	Five-years	One-year	Five-years
Stage I	98.7%	93.1%	98.3%	92.0%	99.3%	94.7%
Stage II	95.8%	88.5%	96.2%	88.1%	95.3%	88.9%
Stage III	91.7%	69.5%	92.2%	68.3%	91.2%	70.8%
Stage IV	42.2%	8.3%	45.5%	7.9%	38.7%	8.7%
Unknown	60.2%	29.8%	67.9%	33.9%	53.8%	26.3%

Figure 18: Age-standardised net survival from colon cancer for patients diagnosed in 2013-2017 by stage at diagnosis



PREVALENCE

- At the end of 2022, there were 6,260 people (Males: 3,231; Females: 3,029) living with colon cancer who had been diagnosed with the disease during 1998-2022.
- Of these 12.3% had been diagnosed in the previous year (one-year prevalence) and 68.4% in the previous 10 years (ten-year prevalence).
- 53.1% of colon cancer survivors were aged 75 and over at the end of 2022.

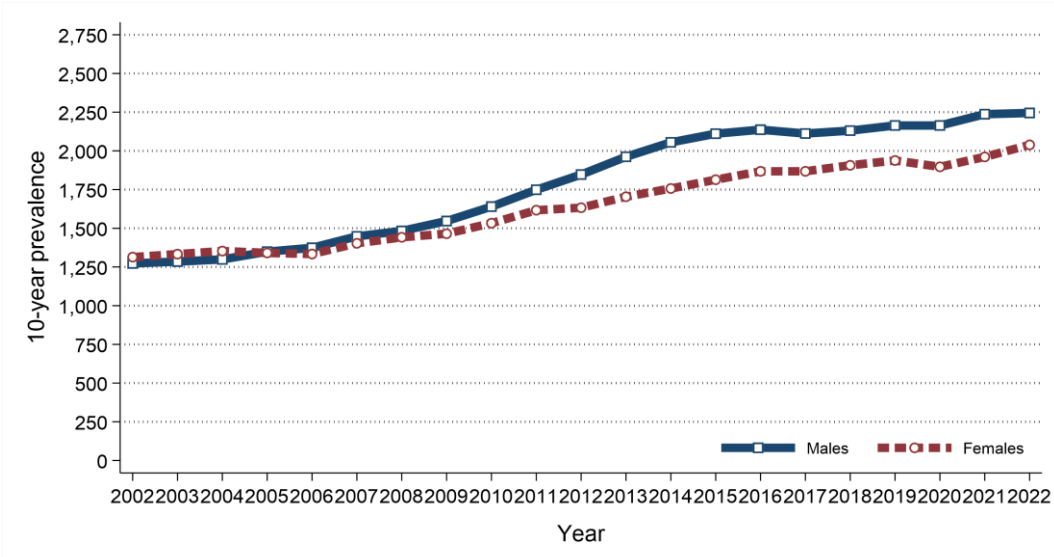
Table 11: 25-year prevalence of colon cancer by age at end of 2022

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	6,260	772	1,875	1,637	1,976
	0 to 74	2,937	487	1,035	717	698
	75 and over	3,323	285	840	920	1,278
Male	All ages	3,231	386	1,002	857	986
	0 to 74	1,553	242	583	383	345
	75 and over	1,678	144	419	474	641
Female	All ages	3,029	386	873	780	990
	0 to 74	1,384	245	452	334	353
	75 and over	1,645	141	421	446	637

PREVALENCE TRENDS

- 10-year prevalence of colon cancer among males increased between 2017 and 2022 by 6.3% from 2,112 survivors to 2,245 survivors.
- 10-year prevalence of colon cancer among females increased between 2017 and 2022 by 9.2% from 1,868 survivors to 2,039 survivors.

Figure 19: Trends in 10-year prevalence of colon cancer in 2002-2022



Year	10-year prevalence	
	Males	Females
2013	1,962	1,704
2014	2,055	1,757
2015	2,111	1,814
2016	2,137	1,868
2017	2,112	1,868
2018	2,131	1,907
2019	2,164	1,938
2020	2,164	1,897
2021	2,237	1,961
2022	2,245	2,039

MORTALITY

- There were 1,191 deaths from colon cancer during 2018-2022 in Northern Ireland. On average this was 238 deaths per year.
- During this period 47.9% of colon cancer deaths were among women (Male deaths: 621, Female deaths: 570). On average there were 124 male and 114 female deaths from colon cancer per year.
- Colon cancer deaths made up 5.2% of all male cancer deaths and 5.3% of all female cancer deaths.
- The median age of patients who died from colon cancer during 2018-2022 was 79 years (Males: 78, Females: 82).
- The risk of dying from colon cancer varied by age, with 58.9% of men and 69.8% of women who died from colon cancer aged 75 and over at death.
- In contrast, 4.1% of patients who died from colon cancer were aged 0 to 54 at death.

Figure 20: Average number of deaths from colon cancer per year in 2018-2022 by age at death

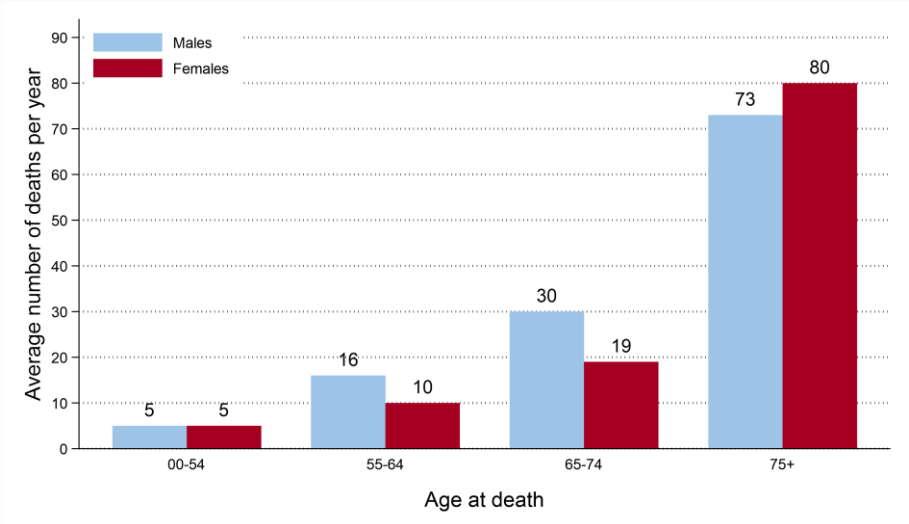
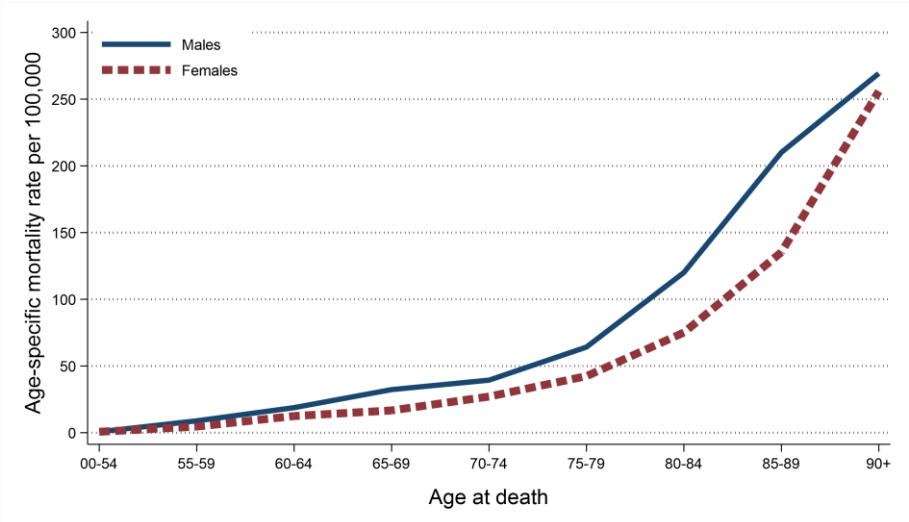


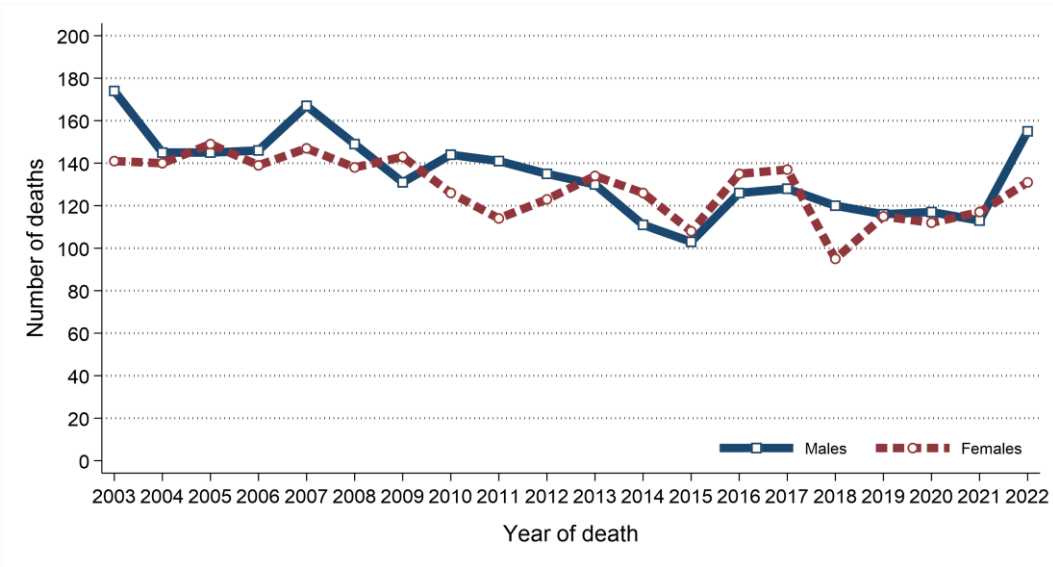
Figure 21: Age-specific mortality rates of colon cancer in 2018-2022



MORTALITY TRENDS

- The number of deaths from colon cancer among males increased between 2013-2017 and 2018-2022 by 3.8% from 598 deaths (120 deaths per year) to 621 deaths (124 deaths per year).
- The number of deaths from colon cancer among females decreased between 2013-2017 and 2018-2022 by 10.9% from 640 deaths (128 deaths per year) to 570 deaths (114 deaths per year).

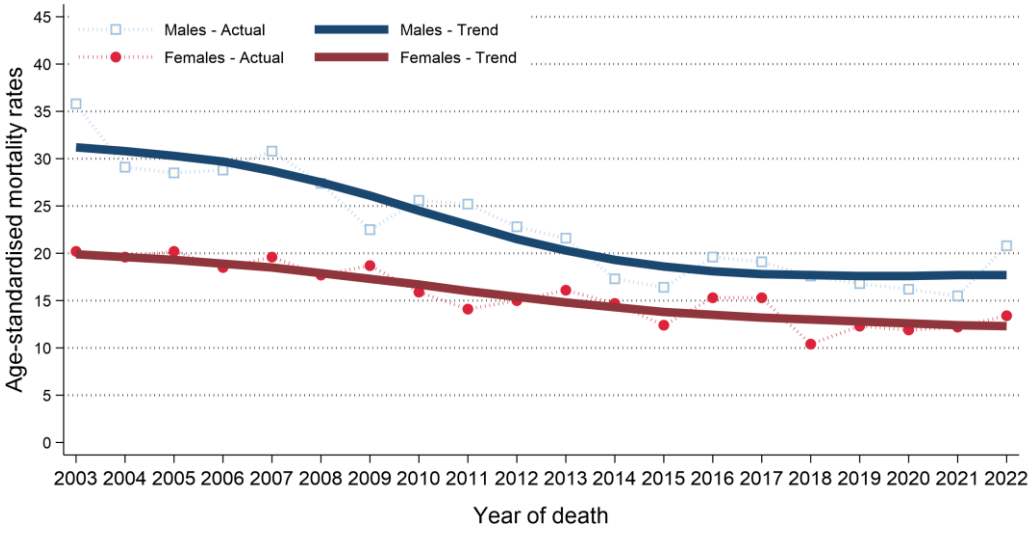
Figure 22: Trends in the number of deaths from colon cancer from 2003 to 2022



Year of death	Number of deaths	
	Males	Females
2013	130	134
2014	111	126
2015	103	108
2016	126	135
2017	128	137
2018	120	95
2019	116	115
2020	117	112
2021	113	117
2022	155	131

- Male age-standardised colon cancer mortality rates decreased between 2013-2017 and 2018-2022 by 7.4% from 18.8 to 17.4 deaths per 100,000 males. This change was not statistically significant.
- Female age-standardised colon cancer mortality rates decreased between 2013-2017 and 2018-2022 by 18.9% from 14.8 to 12.0 deaths per 100,000 females. This change was statistically significant.

Figure 23: Trends in mortality rates of colon 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.

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. colon 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. colon 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.