Pancreatic cancer

1993-2022

(ICD10 codes: C25)

Northern Ireland Cancer Registry

Northern Ireland Cancer Registry, 2025

An official statistics publication

ABOUT THIS REPORT

Contents

This report includes information on incidence of pancreatic 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. Pancreatic 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

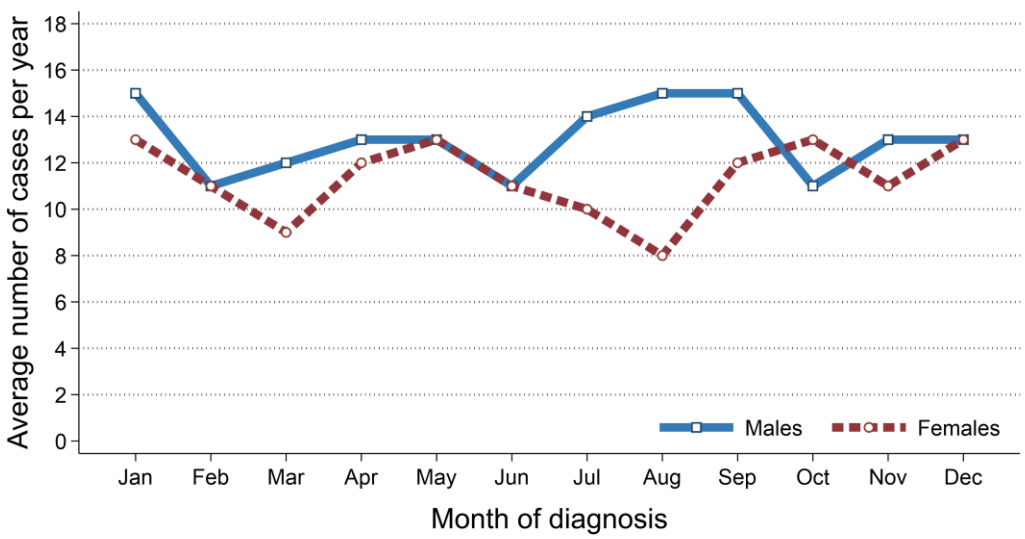
The Northern Ireland Cancer Registry (NICR) uses data provided by patients and collected by the health service as part of their care and support.

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

INCIDENCE

- There were 1,455 cases of pancreatic cancer diagnosed during 2018-2022 in Northern Ireland. On average this was 291 cases per year.
- During this period 46.6% of pancreatic cancer cases were among women (Male cases: 777, Female cases: 678). On average there were 155 male and 136 female cases of pancreatic cancer per year.
- The most common diagnosis month during 2018-2022 was January, September and August among males with 15 cases per year and May, December, October and January among females with 13 cases per year.

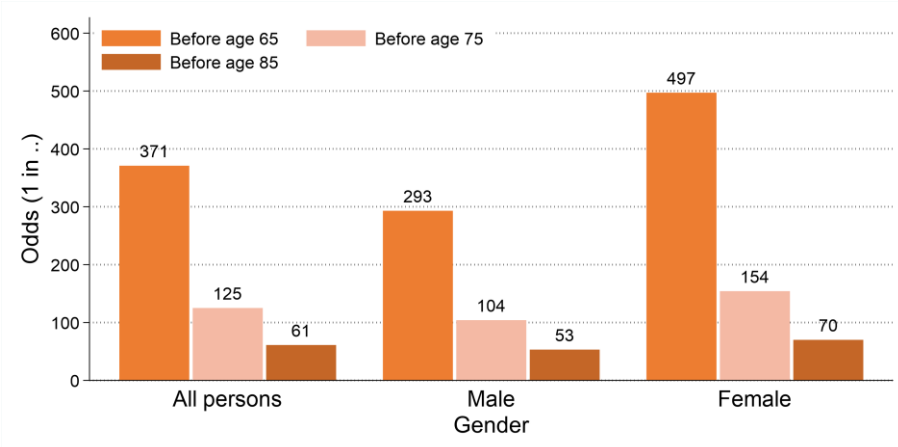
Figure 1: Average number of cases of pancreatic cancer per year in 2018-2022 by month of diagnosis



Month of diagnosis	Average number of cases per year	
	Males	Females
January	15	13
February	11	11
March	12	9
April	13	12
May	13	13
June	11	11
July	14	10
August	15	8
September	15	12
October	11	13
November	13	11
December	13	13

- Pancreatic cancer made up 2.9% of all male and 2.7% of all female cancer cases (excluding non-melanoma skin cancer).
- The pancreatic cancer incidence rates for each gender were 16.6 cases per 100,000 males and 14.0 cases per 100,000 females.
- The odds of developing pancreatic cancer before age 85 was 1 in 53 for men and 1 in 70 for women.

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



INCIDENCE BY AGE

- The median age of patients diagnosed with pancreatic cancer during 2018-2022 was 73 years (Males: 72, Females: 75).
- The risk of developing pancreatic cancer varied by age, with 40.4% of men and 52.7% of women diagnosed with pancreatic cancer aged 75 and over at diagnosis.
- In contrast, 6.9% of patients diagnosed with pancreatic cancer were aged 0 to 54 at diagnosis.

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

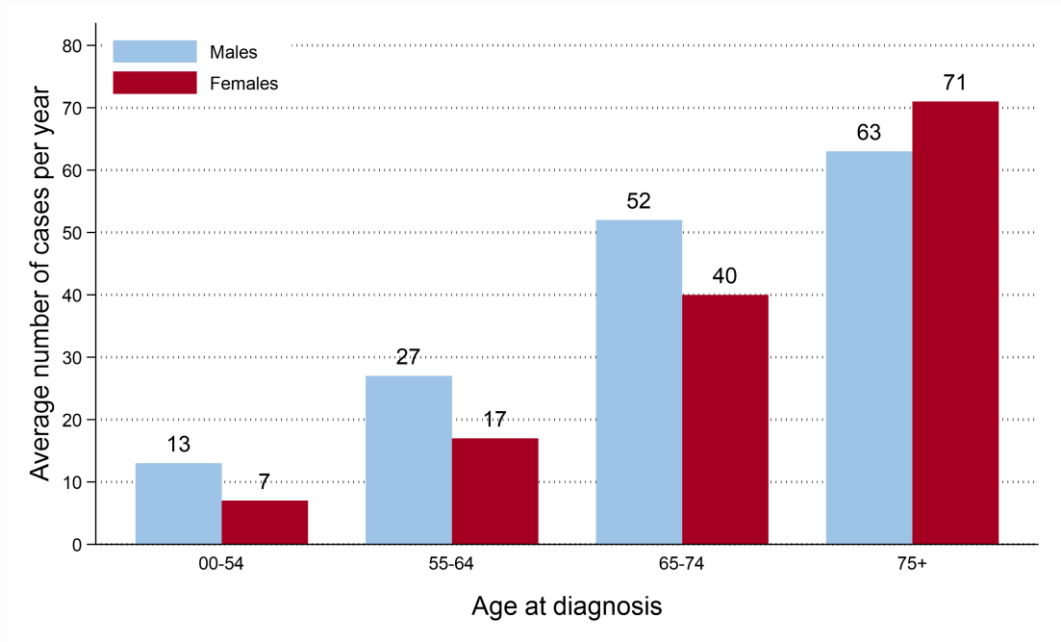
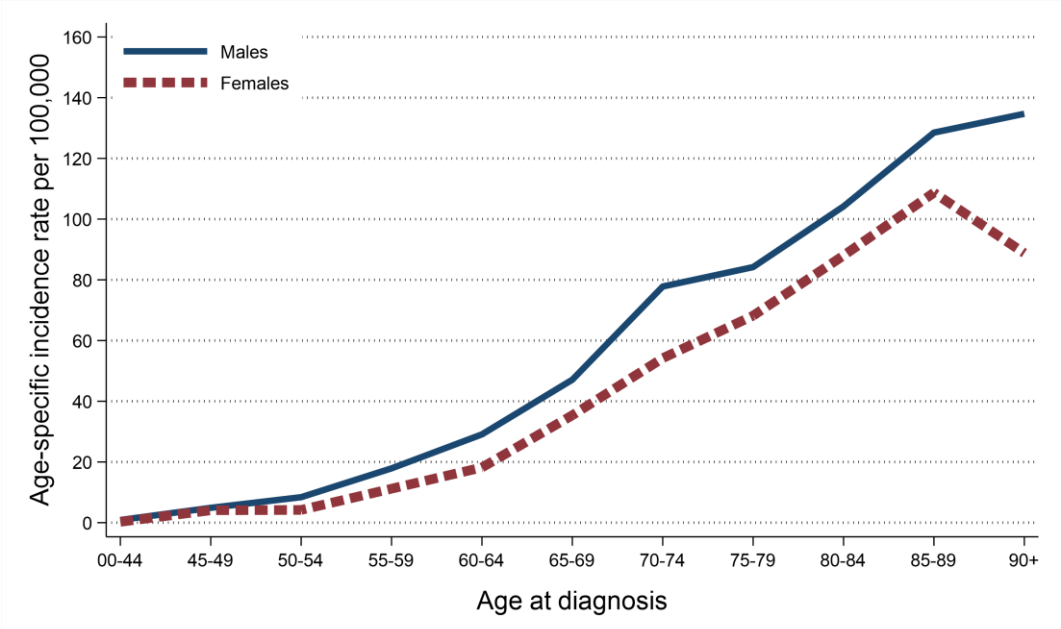


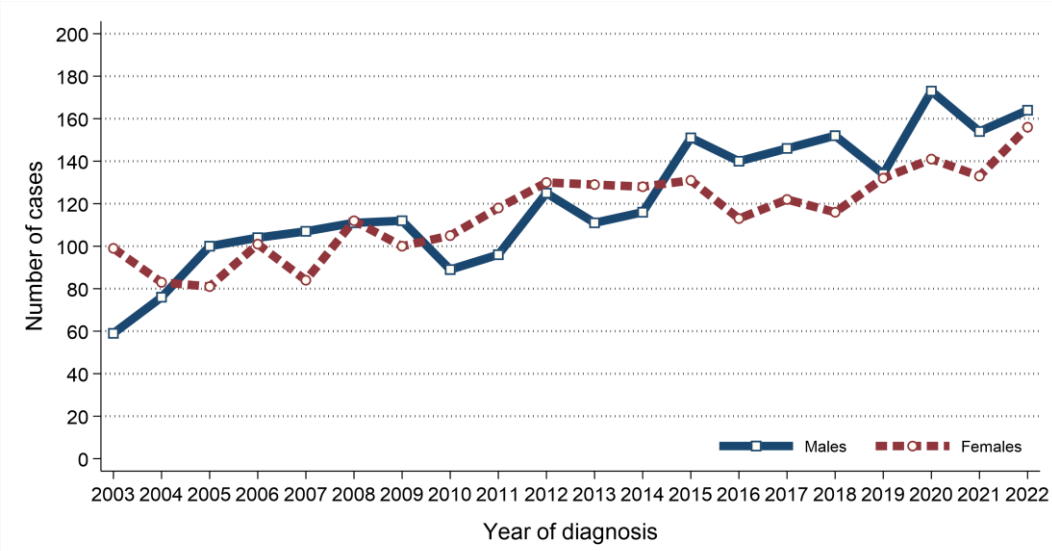
Figure 4: Age-specific incidence rates of pancreatic cancer in 2018-2022



INCIDENCE TRENDS

- The number of cases of pancreatic cancer among males increased between 2013-2017 and 2018-2022 by 17.0% from 664 cases (133 cases per year) to 777 cases (155 cases per year).
- The number of cases of pancreatic cancer among females increased between 2013-2017 and 2018-2022 by 8.8% from 623 cases (125 cases per year) to 678 cases (136 cases per year).

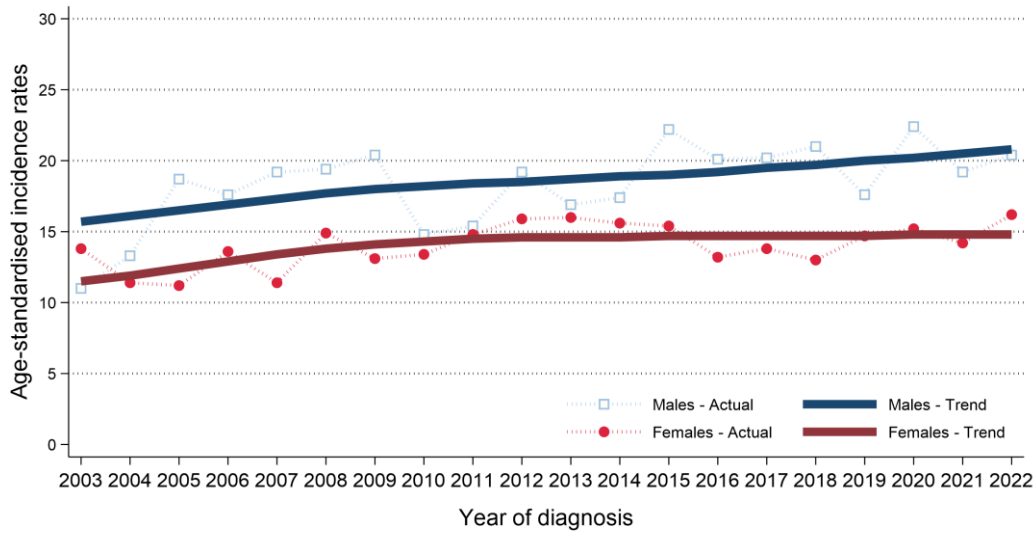
Figure 5: Trends in number of cases of pancreatic cancer diagnosed from 2003 to 2022



Year of diagnosis	Number of cases	
	Males	Females
2013	111	129
2014	116	128
2015	151	131
2016	140	113
2017	146	122
2018	152	116
2019	134	132
2020	173	141
2021	154	133
2022	164	156

- Male age-standardised pancreatic cancer incidence rates increased between 2013-2017 and 2018-2022 by 3.6% from 19.4 to 20.1 cases per 100,000 males. This change was not statistically significant.
- Female age-standardised pancreatic cancer incidence rates decreased between 2013-2017 and 2018-2022 by 0.7% from 14.8 to 14.7 cases per 100,000 females. This change was not statistically significant.

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



Age-standardised incidence rates illustrate the change in the number of cases within a population of a fixed size and age structure (2013 European Standard).

They thus represent changes other than those caused by population growth and/or ageing.

Trends can also be influenced by changes in how cancer is classified and coded. (e.g. the move from ICD-0-2 to ICD-0-3 in 2019).

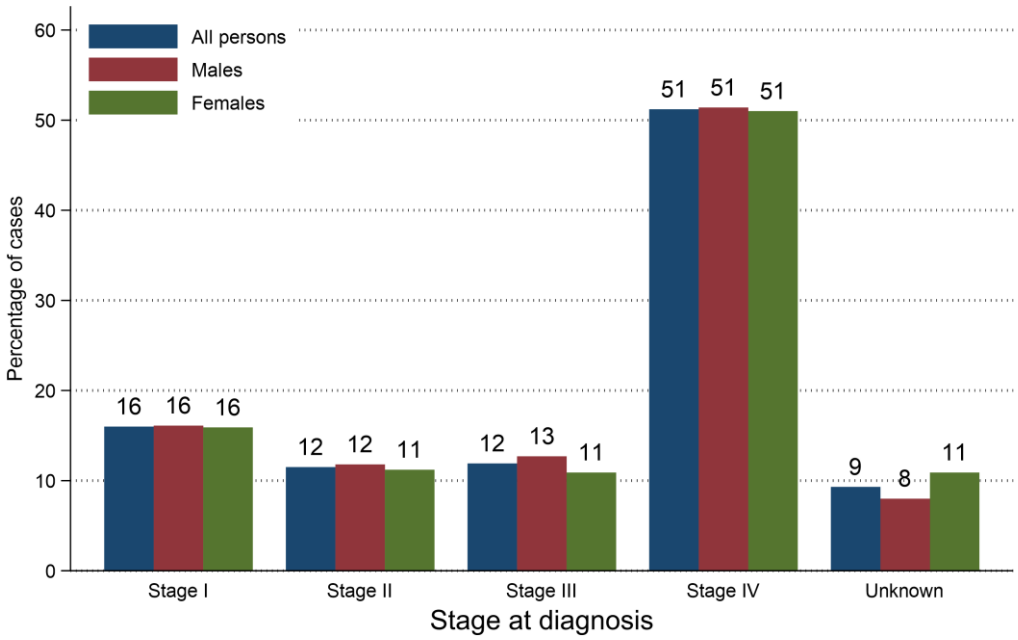
INCIDENCE BY STAGE AT DIAGNOSIS

- During 2018-2022 90.7% of pancreatic cancer cases had a stage assigned.
- 16.0% of pancreatic cancer cases were diagnosed at Stage I. (17.7% of staged cases)
- 51.2% of pancreatic cancer cases were diagnosed at Stage IV. (56.5% of staged cases)

Table 1: Number of cases of pancreatic 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	**1,455**	**291**	**777**	**155**	**678**	**136**
	.	.	.	.	.	.
Stage I	233	47	125	25	108	22
Stage II	168	34	92	18	76	15
Stage III	173	35	99	20	74	15
Stage IV	745	149	399	80	346	69
Unknown	136	27	62	12	74	15

Figure 7: Proportion of cases of pancreatic 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).

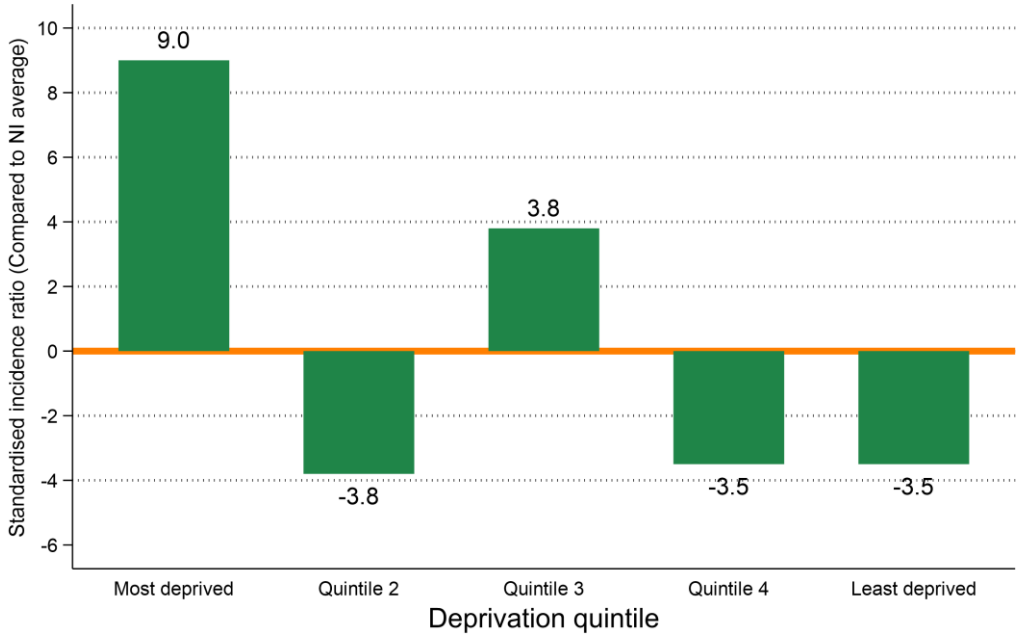
INCIDENCE BY DEPRIVATION

- The number of cases of pancreatic 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 pancreatic 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	**1,455**	**291**	**777**	**155**	**678**	**136**
	.	.	.	.	.	.
Most deprived	254	51	129	26	125	25
Quintile 2	279	56	160	32	119	24
Quintile 3	319	64	166	33	153	31
Quintile 4	299	60	157	31	142	28
Least deprived	304	61	165	33	139	28
Unknown	0	0	0	0	0	0

Figure 8: Standardised incidence ratio comparing deprivation quintile to Northern Ireland for pancreatic 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.

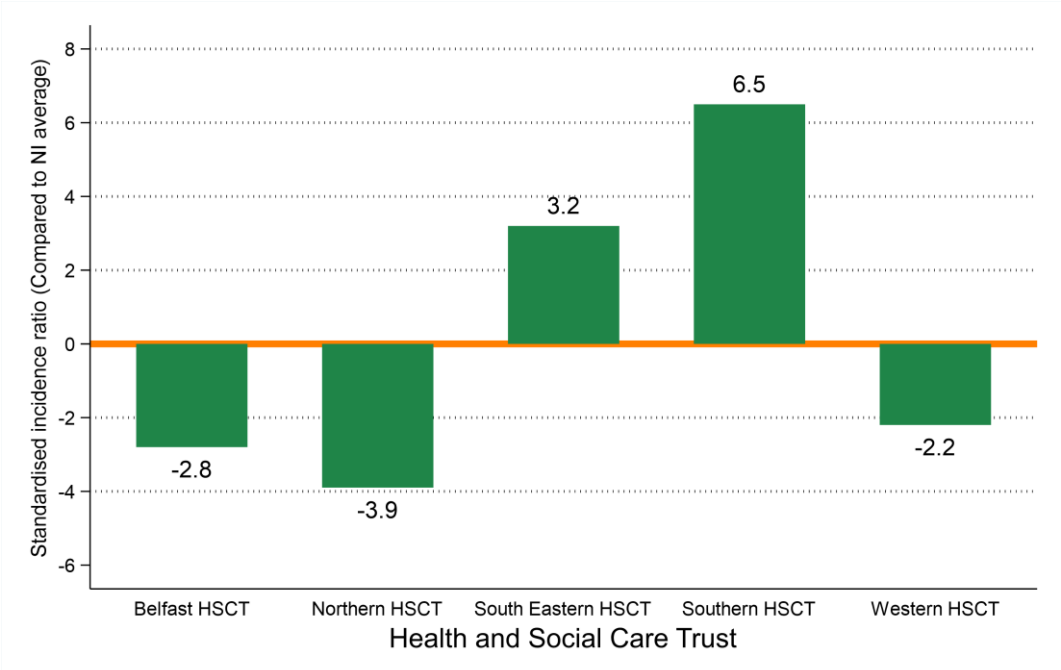
INCIDENCE BY HEALTH AND SOCIAL CARE TRUST

- The number of cases of pancreatic 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 pancreatic 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	**1,455**	**291**	**777**	**155**	**678**	**136**
	.	.	.	.	.	.
Belfast HSCT	252	50	125	25	127	25
Northern HSCT	373	75	207	41	166	33
South Eastern HSCT	321	64	158	32	163	33
Southern HSCT	289	58	172	34	117	23
Western HSCT	220	44	115	23	105	21
Unknown	0	0	0	0	0	0

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



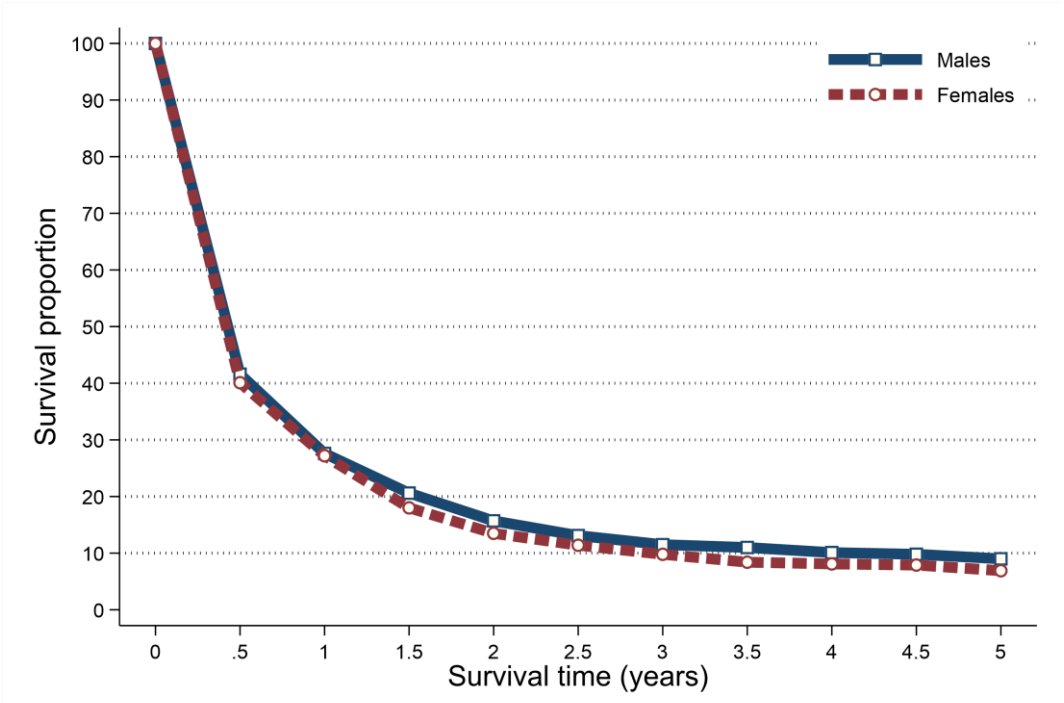
SURVIVAL

- 23.0% of patients were alive one year and 5.5% were alive five years from a pancreatic cancer diagnosis in 2013-2017. (observed survival)
- Age-standardised net survival (ASNS), which removes the effect of deaths from causes unrelated to cancer, was 27.4% one year and 8.0% five years from a pancreatic cancer diagnosis in 2013-2017.
- Five-year survival (ASNS) for pancreatic cancer patients diagnosed in 2013-2017 was 9.0% among men and 6.9% among women.

Table 4: Survival from pancreatic 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	36.1%	40.8%	38.2%	41.6%	33.9%	40.1%
One year	23.0%	27.4%	24.4%	27.6%	21.6%	27.2%
Two years	11.6%	14.6%	13.1%	15.7%	9.9%	13.5%
Five years	5.5%	8.0%	6.4%	9.0%	4.5%	6.9%

Figure 10: Age-standardised net survival from pancreatic 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.

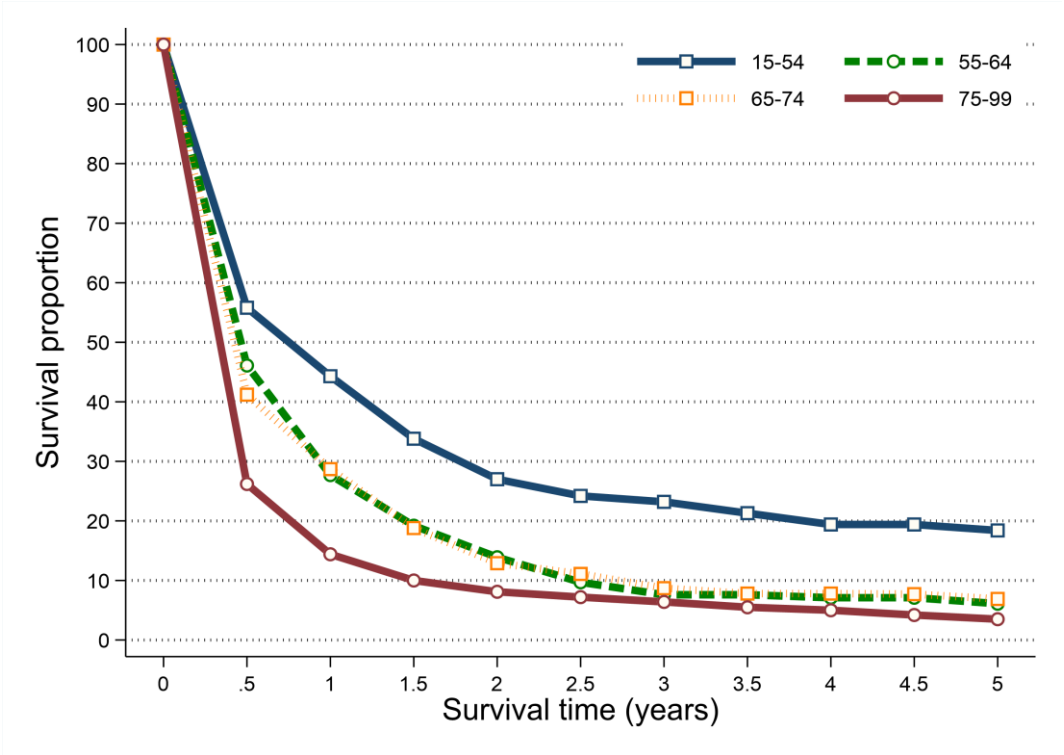
SURVIVAL BY AGE

- Survival from pancreatic 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 18.4% among patients aged 15 to 54 at diagnosis to 3.5% among those aged 75 to 99.

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

Age group	All persons	
	One-year	Five-years
15 to 54	44.3%	18.4%
55 to 64	27.7%	6.1%
65 to 74	28.7%	6.9%
75 to 99	14.4%	3.5%

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

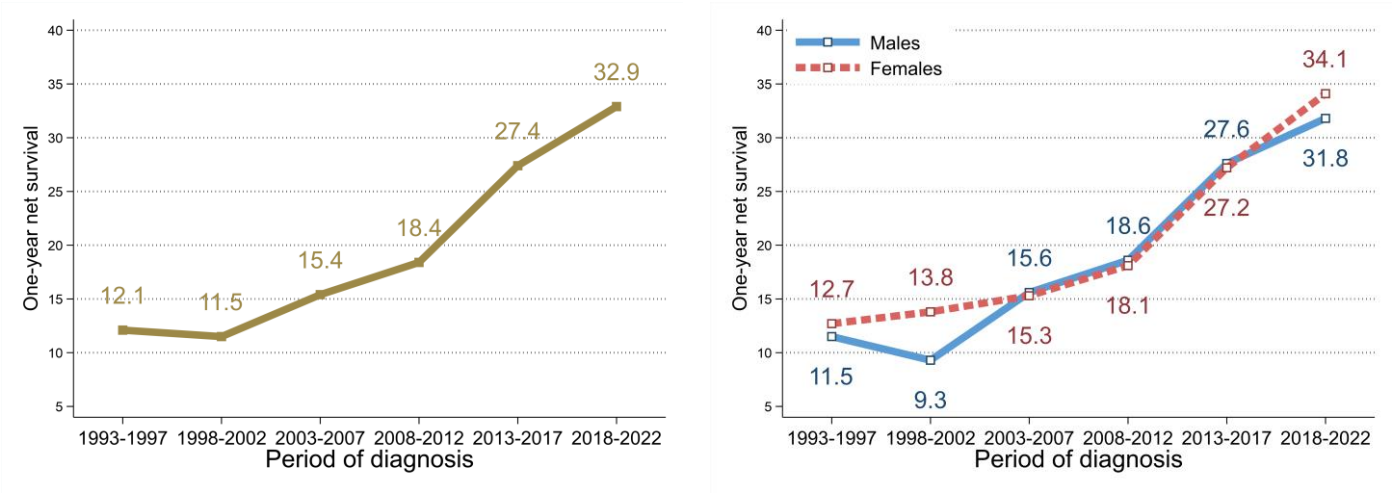


SURVIVAL TRENDS

ONE-YEAR NET SURVIVAL

- Between 2013-2017 and 2018-2022 there was no significant change in one-year survival (ASNS) from pancreatic cancer.
- Compared to 1993-1997 one-year survival (ASNS) from pancreatic cancer in 2018-2022 increased significantly from 12.1% to 32.9%. This increase was significant for males (11.5% to 31.8%) and females (12.7% to 34.1%).

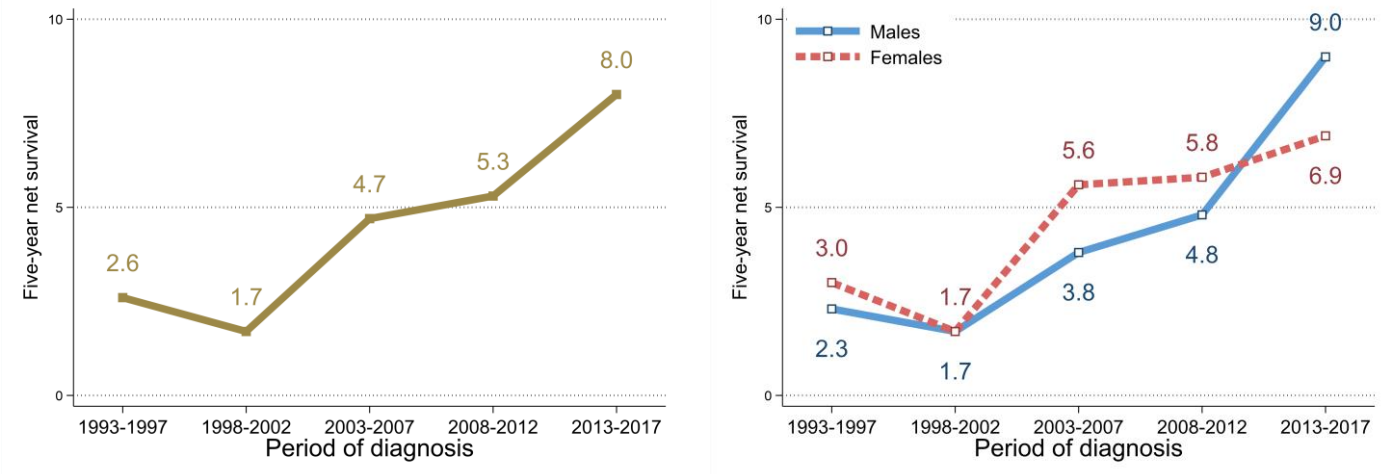
Figure 12: Trends in one-year age-standardised net survival from pancreatic cancer in 1993-2022



FIVE-YEAR NET SURVIVAL

- Between 2008-2012 and 2013-2017 there was no significant change in five-year survival (ASNS) from pancreatic cancer.
- Compared to 1993-1997 five-year survival (ASNS) from pancreatic cancer in 2013-2017 increased significantly from 2.6% to 8.0%. This increase was significant for males (2.3% to 9.0%) but not females.

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



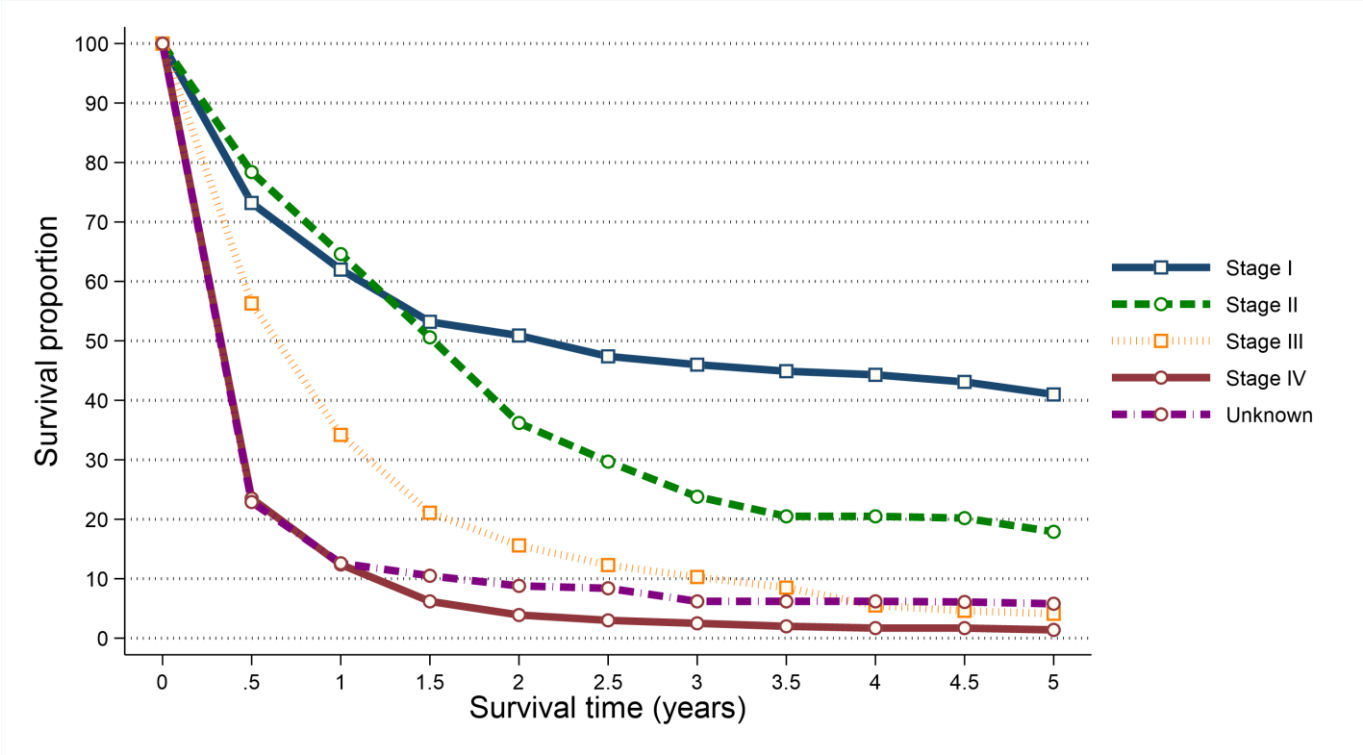
SURVIVAL BY STAGE

- Survival from pancreatic 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 41.0% among patients diagnosed at Stage I to 1.4% among those diagnosed at Stage IV.

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

Stage at diagnosis	All persons	
	One-year	Five-years
Stage I	62.0%	41.0%
Stage II	64.6%	17.9%
Stage III	34.2%	4.1%
Stage IV	12.4%	1.4%
Unknown	12.6%	5.8%

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



PREVALENCE

- At the end of 2022, there were 382 people (Males: 206; Females: 176) living with pancreatic cancer who had been diagnosed with the disease during 1998-2022.
- Of these 37.2% had been diagnosed in the previous year (one-year prevalence) and 89.0% in the previous 10 years (ten-year prevalence).
- 31.9% of pancreatic cancer survivors were aged 75 and over at the end of 2022.

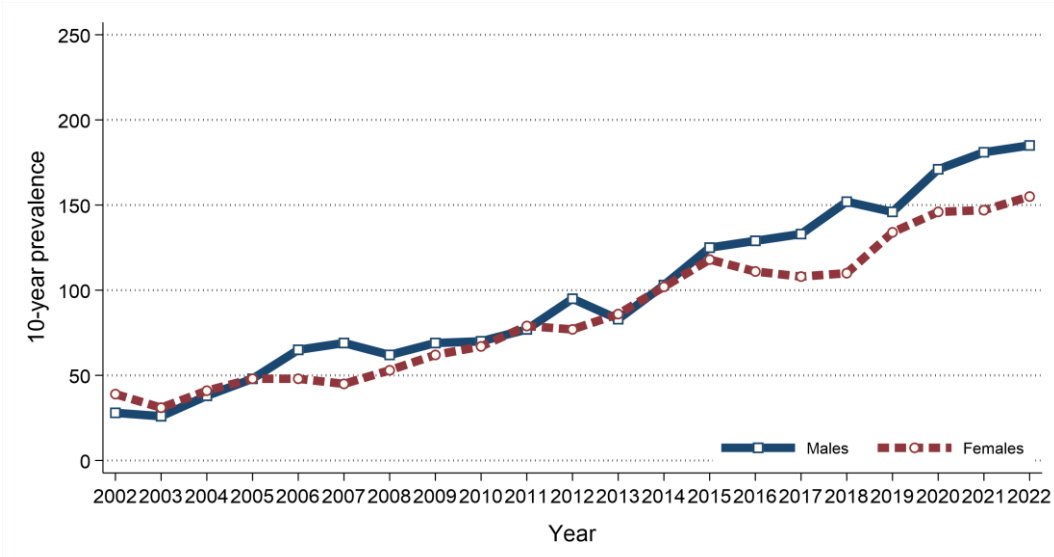
Table 7: 25-year prevalence of pancreatic cancer by age at end of 2022

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	382	142	145	53	42
	0 to 74	260	92	111	33	24
	75 and over	122	50	34	20	18
Male	All ages	206	73	84	28	21
	0 to 74	155	54	67	20	14
	75 and over	51	19	17	8	7
Female	All ages	176	69	61	25	21
	0 to 74	105	38	44	13	10
	75 and over	71	31	17	12	11

PREVALENCE TRENDS

- 10-year prevalence of pancreatic cancer among males increased between 2017 and 2022 by 39.1% from 133 survivors to 185 survivors.
- 10-year prevalence of pancreatic cancer among females increased between 2017 and 2022 by 43.5% from 108 survivors to 155 survivors.

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



Year	10-year prevalence	
	Males	Females
2013	83	86
2014	103	102
2015	125	118
2016	129	111
2017	133	108
2018	152	110
2019	146	134
2020	171	146
2021	181	147
2022	185	155

MORTALITY

- There were 1,292 deaths from pancreatic cancer during 2018-2022 in Northern Ireland. On average this was 258 deaths per year.
- During this period 48.8% of pancreatic cancer deaths were among women (Male deaths: 662, Female deaths: 630). On average there were 132 male and 126 female deaths from pancreatic cancer per year.
- Pancreatic cancer deaths made up 5.5% of all male and 5.8% of all female cancer deaths.
- The median age of patients who died from pancreatic cancer during 2018-2022 was 75 years (Males: 74, Females: 77).
- The risk of dying from pancreatic cancer varied by age, with 47.6% of men and 60.5% of women who died from pancreatic cancer aged 75 and over at death.
- In contrast, 5.4% of patients who died from pancreatic cancer were aged 0 to 54 at death.

Figure 16: Average number of deaths from pancreatic cancer per year in 2018-2022 by age at death

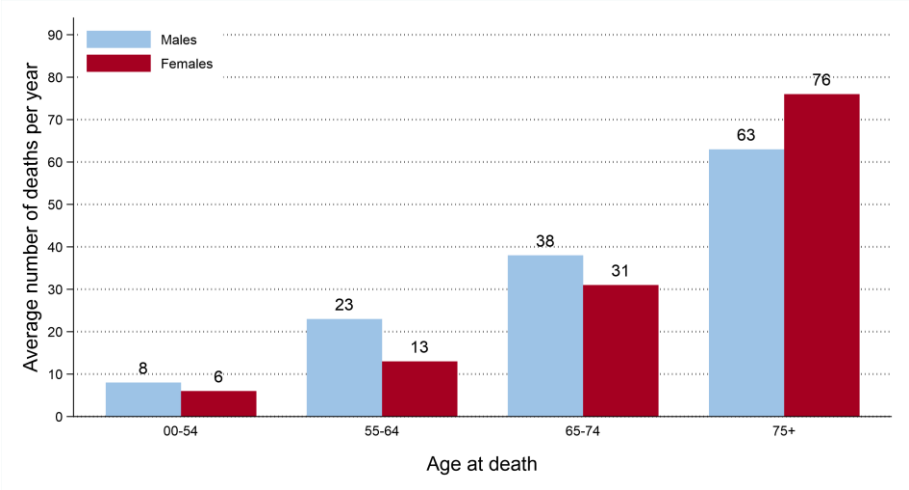
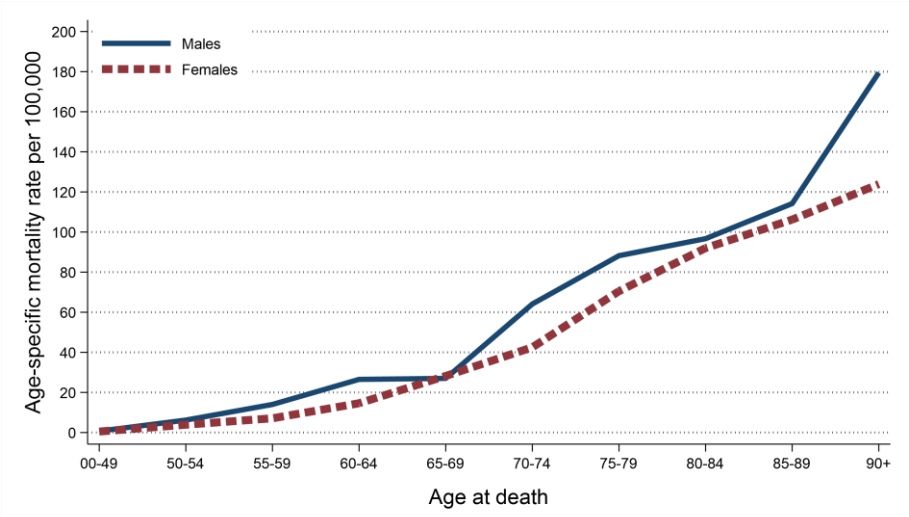


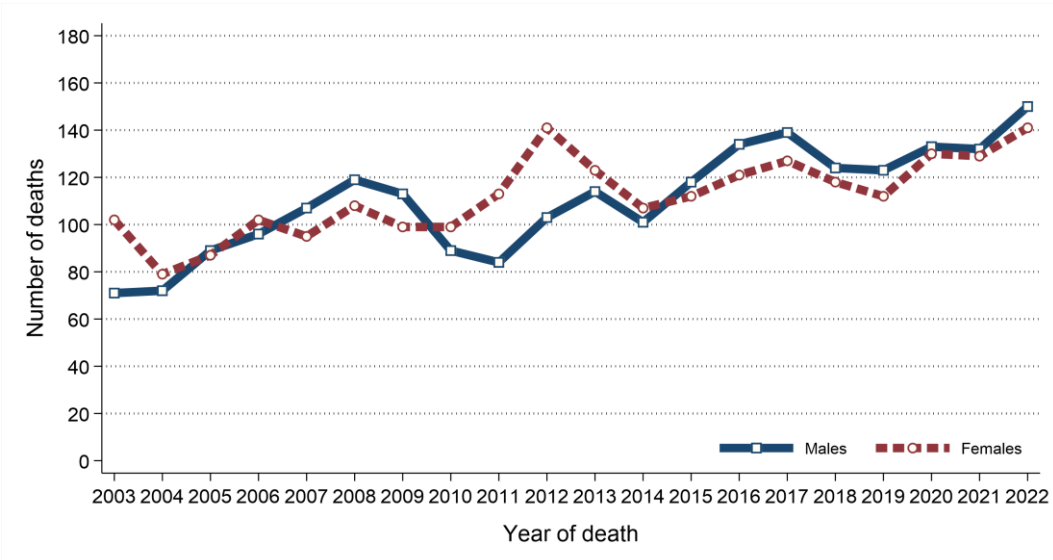
Figure 17: Age-specific mortality rates of pancreatic cancer in 2018-2022



MORTALITY TRENDS

- The number of deaths from pancreatic cancer among males increased between 2013-2017 and 2018-2022 by 9.2% from 606 deaths (121 deaths per year) to 662 deaths (132 deaths per year).
- The number of deaths from pancreatic cancer among females increased between 2013-2017 and 2018-2022 by 6.8% from 590 deaths (118 deaths per year) to 630 deaths (126 deaths per year).

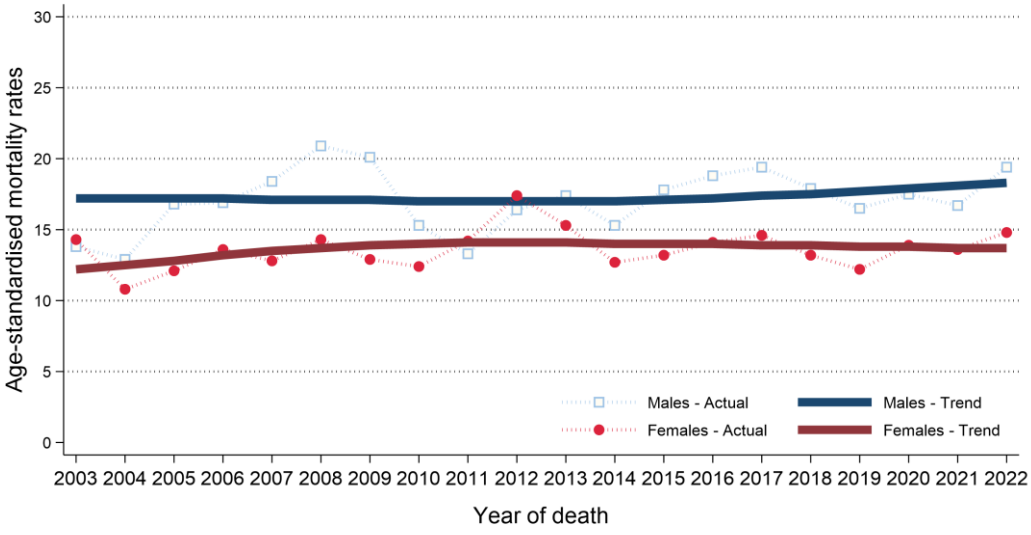
Figure 18: Trends in the number of deaths from pancreatic cancer from 2003 to 2022



Year of death	Number of deaths	
	Males	Females
2013	114	123
2014	101	107
2015	118	112
2016	134	121
2017	139	127
2018	124	118
2019	123	112
2020	133	130
2021	132	129
2022	150	141

- Male age-standardised pancreatic cancer mortality rates decreased between 2013-2017 and 2018-2022 by 1.1% from 17.8 to 17.6 deaths per 100,000 males. This change was not statistically significant.
- Female age-standardised pancreatic cancer mortality rates decreased between 2013-2017 and 2018-2022 by 2.9% from 14.0 to 13.6 deaths per 100,000 females. This change was not statistically significant.

Figure 19: Trends in mortality rates of pancreatic 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. pancreatic 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. pancreatic 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.