Male breast cancer

1993-2022

(ICD10 codes: C50)
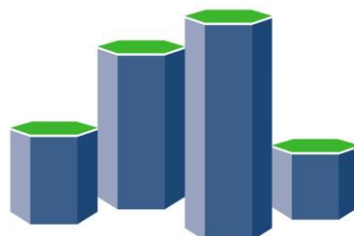
Northern Ireland Cancer Registry, 2024

An official statistics publication

ABOUT THIS REPORT

Contents

This report includes information on incidence of male breast 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 ten 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. Male breast 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

Phone: +44 (0)28 9097 6028   **e-mail:** nicr@qub.ac.uk

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.
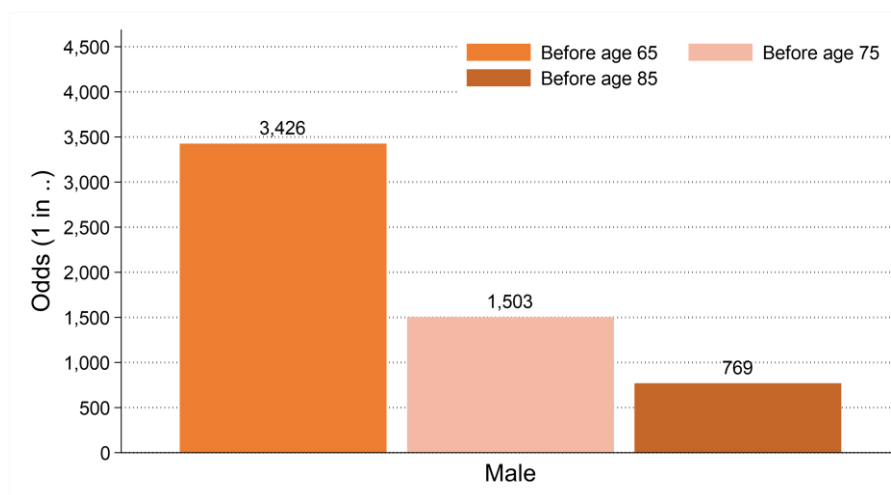
INCIDENCE

- There were 102 cases of male breast cancer diagnosed during 2013-2022 in Northern Ireland. On average this was 10 cases per year.

- The most common diagnosis quarter during 2013-2022 was quarter 4 and quarter 2 with 3 cases per year.

Figure 1: Average number of cases of male breast cancer per year in 2013-2022 by quarter of diagnosis

Quarter of diagnosis	Average number of cases per year Males
Quarter 1	2
Quarter 2	3
Quarter 3	2
Quarter 4	3
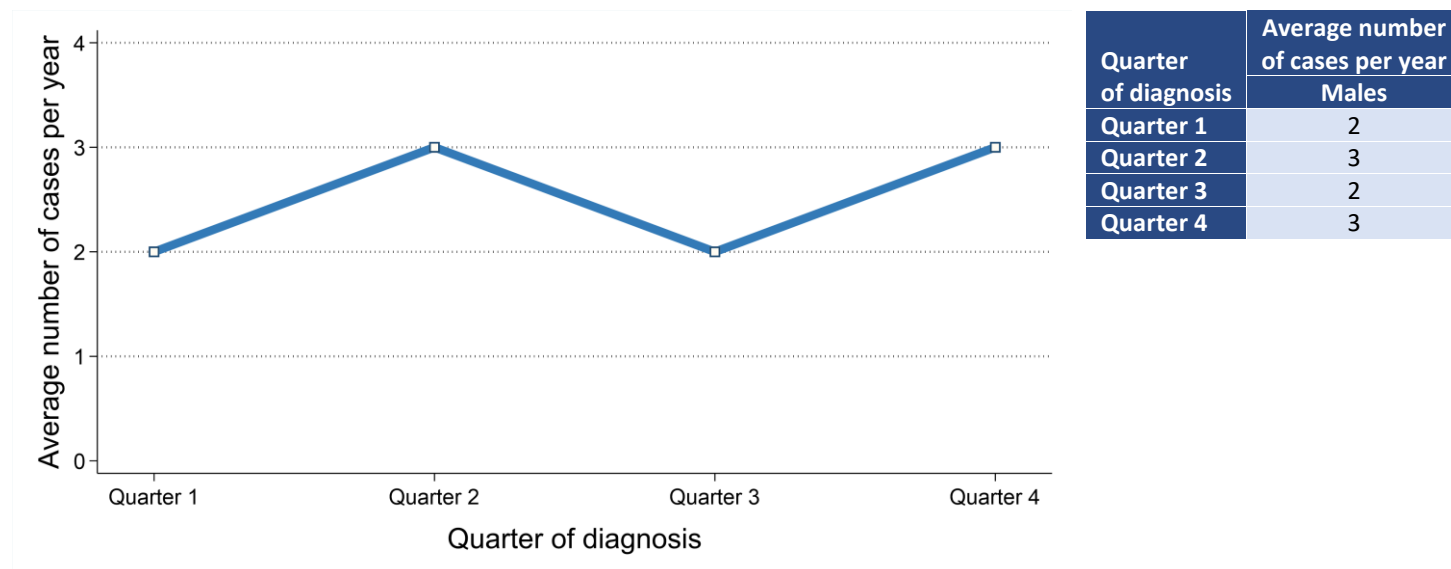
- The breast cancer incidence rate was 1.1 cases per 100,000 males.

- The odds of developing male breast cancer before age 85 was 1 in 769.

Figure 2: Odds of developing male breast cancer in 2013-2022

INCIDENCE BY AGE

- The median age of males diagnosed with breast cancer during 2013-2022 was 72 years.
- The risk of being diagnosed with breast cancer varied by age, with 38.2% of men diagnosed with breast cancer aged 75 and over at diagnosis.
- In contrast, 13.7% of men diagnosed with breast cancer were aged 0 to 54 at diagnosis.

Figure 3: Average number of cases of male breast cancer diagnosed per year in 2013-2022 by age at diagnosis
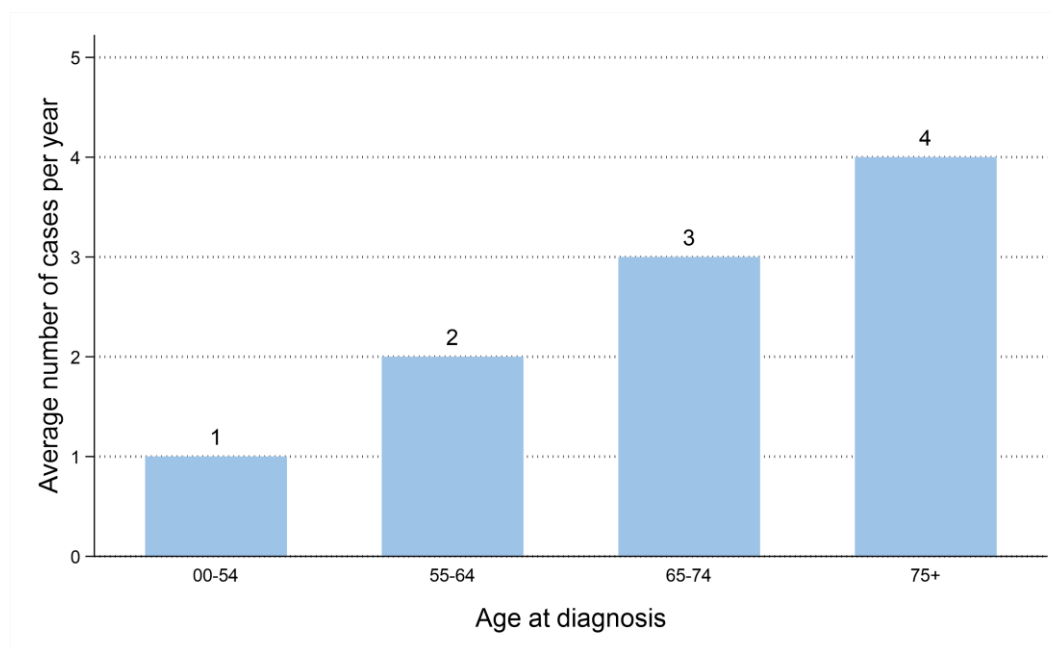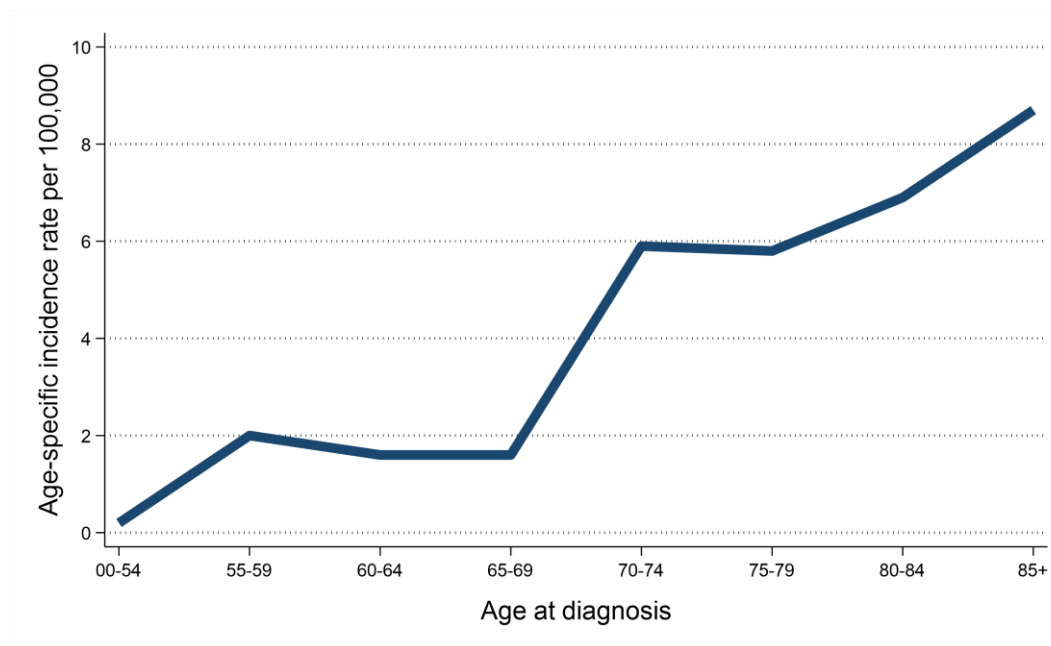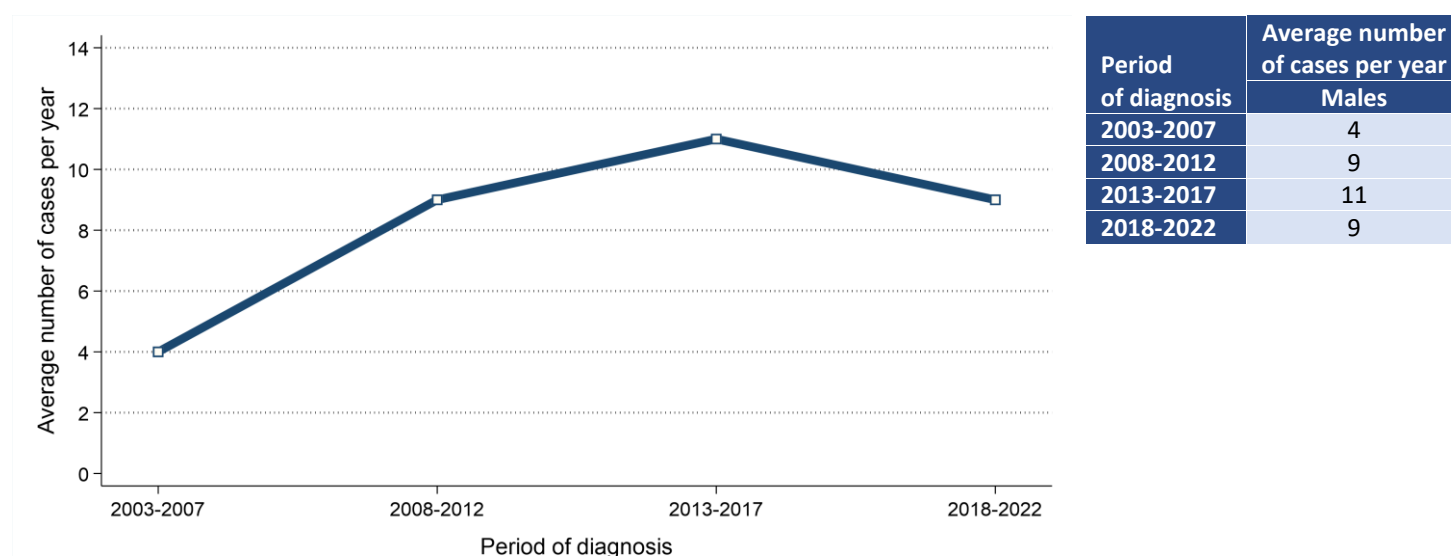

Figure 4: Age-specific incidence rates of male breast cancer in 2013-2022
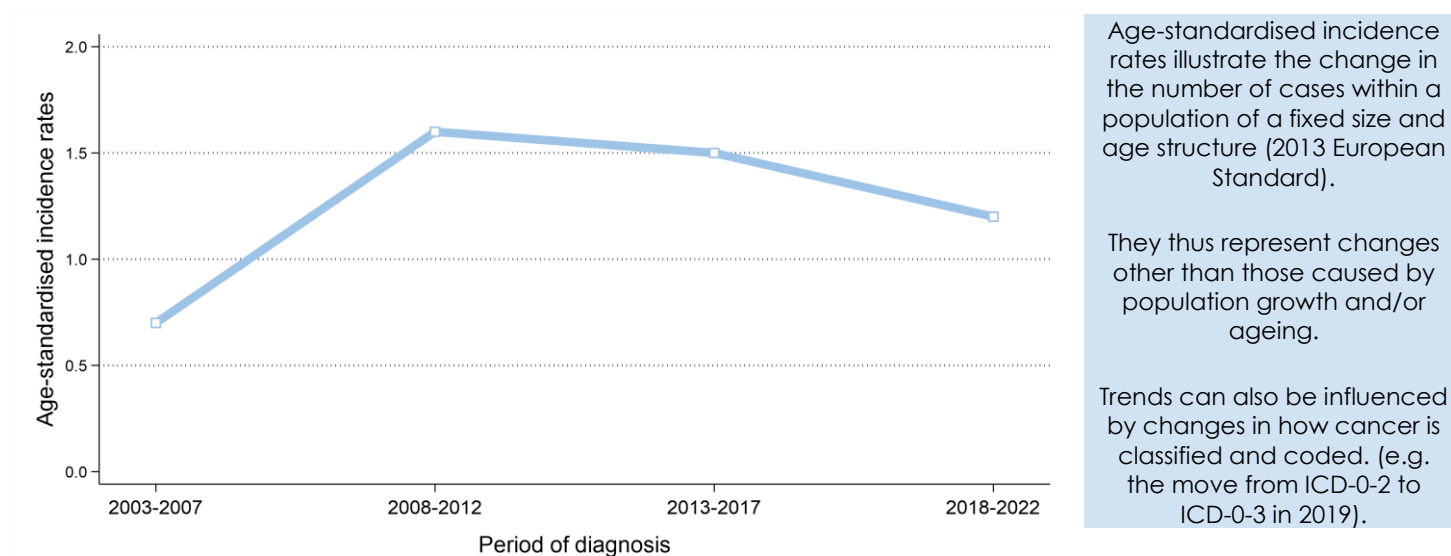
INCIDENCE TRENDS

- The number of cases of breast cancer among males decreased between 2013-2017 and 2018-2022 by 14.5% from 55 cases (11 cases per year) to 47 cases (9 cases per year).

Figure 5: Trends in average number of cases per year of male breast cancer diagnosed from 2003 to 2022

Period of diagnosis	Average number of cases per year Males
2003-2007	4
2008-2012	9
2013-2017	11
2018-2022	9

- Male age-standardised breast cancer incidence rates decreased between 2013-2017 and 2018-2022 by 20.0% from 1.5 to 1.2 cases per 100,000 males. This change was not statistically significant.

Figure 6: Trends in incidence rates of male breast 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).
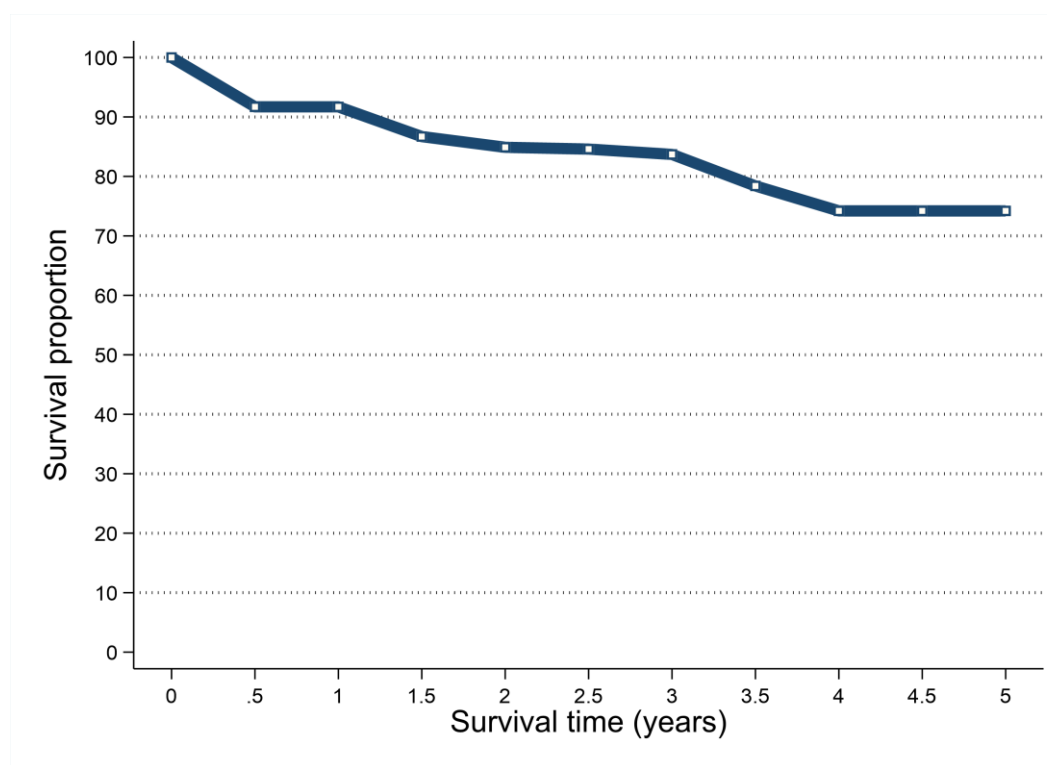
SURVIVAL

- 88.7% of patients were alive one year and 59.8% were alive five years from a breast cancer diagnosis in 2008-2017. (observed survival)
- Age-standardised net survival (ASNS), which removes the effect of deaths from causes unrelated to cancer, was 91.7% one year and 74.2% five years from a breast cancer diagnosis in 2008-2017.

Table 1: Survival from male breast cancer for patients diagnosed in 2008-2017

Time since diagnosis	Male	
	Observed survival	Age-standardised net survival
6 months	89.7%	91.7%
One year	88.7%	91.7%
Two years	77.3%	84.9%
Five years	59.8%	74.2%

Figure 7: Age-standardised net survival from male breast cancer for patients diagnosed in 2008-2017

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.

PREVALENCE

- At the end of 2022, there were 87 males living with breast cancer who had been diagnosed with the disease during 1998-2022.
- Of these 11.5% had been diagnosed in the previous year (one-year prevalence) and 74.7% in the previous 10 years (ten-year prevalence).
- 50.6% of male breast cancer survivors were aged 75 and over at the end of 2022.
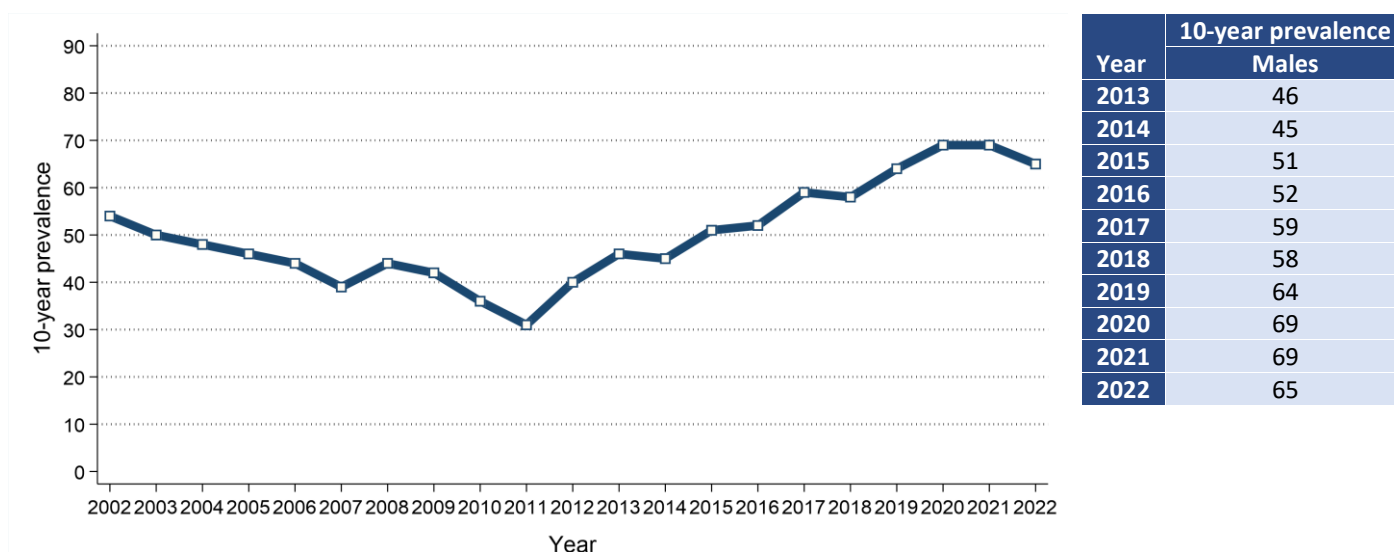
Table 2: 25-year prevalence of male breast cancer by age at end of 2022

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 ages	87	10	24	31	22
0 to 74	43	6	13	15	9
75 and over	44	4	11	16	13

PREVALENCE TRENDS

- 10-year prevalence of breast cancer among males increased between 2017 and 2022 by 10.2% from 59 survivors to 65 survivors.

*Figure 8: Trends in 10-year prevalence of male breast cancer in 2002-2022*

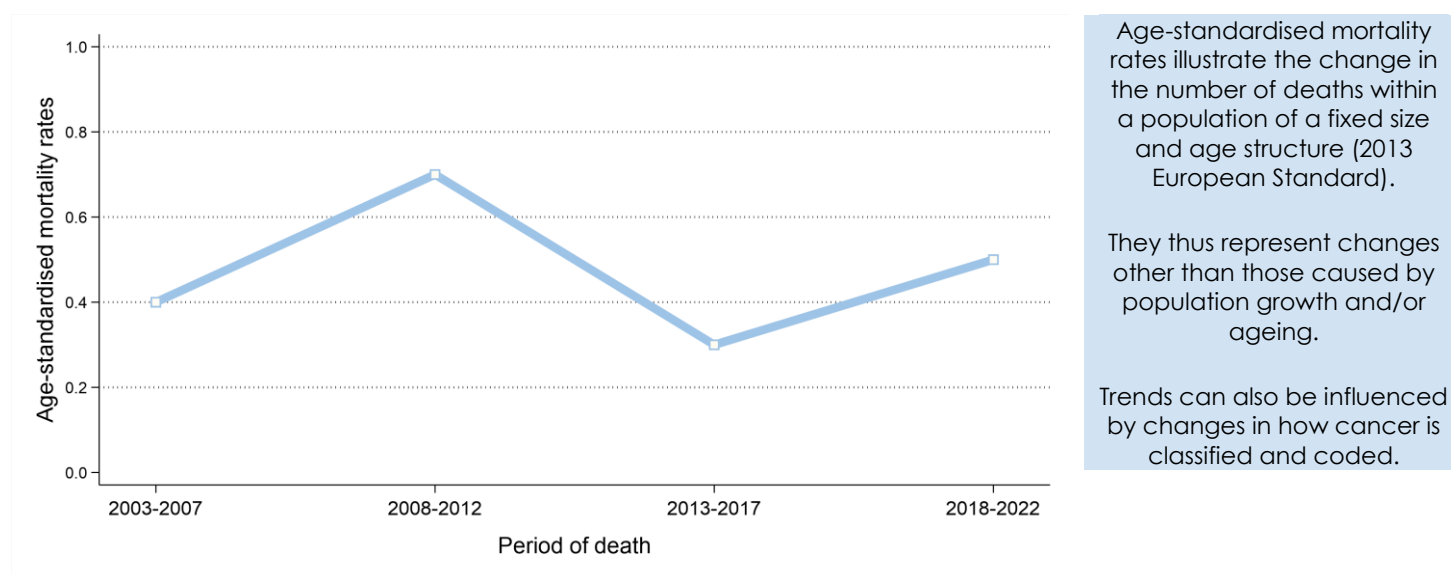| Year	10-year prevalence Males
2013	46
2014	45
2015	51
2016	52
2017	59
2018	58
2019	64
2020	69
2021	69
2022	65

MORTALITY

- There were 23 deaths from male breast cancer during 2013-2022 in Northern Ireland. On average this was 2 deaths per year.
- Breast cancer deaths made up 0.1% of all male cancer deaths.
- The number of deaths from breast cancer among males increased between 2013-2017 and 2018-2022 by 128.6% from 7 deaths (1 deaths per year) to 16 deaths (3 deaths per year).

Figure 9: Trends in average number of deaths per year from male breast cancer from 2003 to 2022

Period of death	Average number of deaths per year Males
2003-2007	2
2008-2012	3
2013-2017	1
2018-2022	3
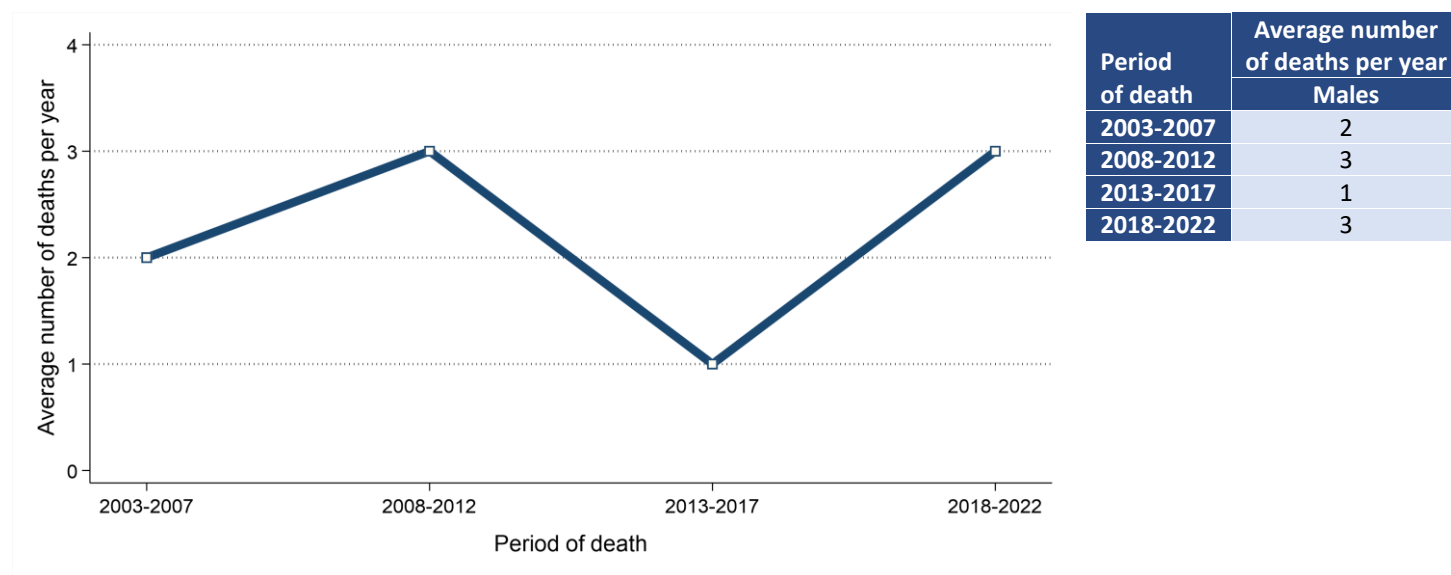
- Male age-standardised breast cancer mortality rates increased between 2013-2017 and 2018-2022 by 66.7% from 0.3 to 0.5 deaths per 100,000 males. This change was not statistically significant.

Figure 10: Trends in mortality rates of male breast 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.

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. male breast 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. male breast 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.