
Male breast cancer

1993-2021

(ICD10 codes: C50)



Northern Ireland Cancer Registry, 2023

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 2021, 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 2023. Male breast cancer: 1993-2021. 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.

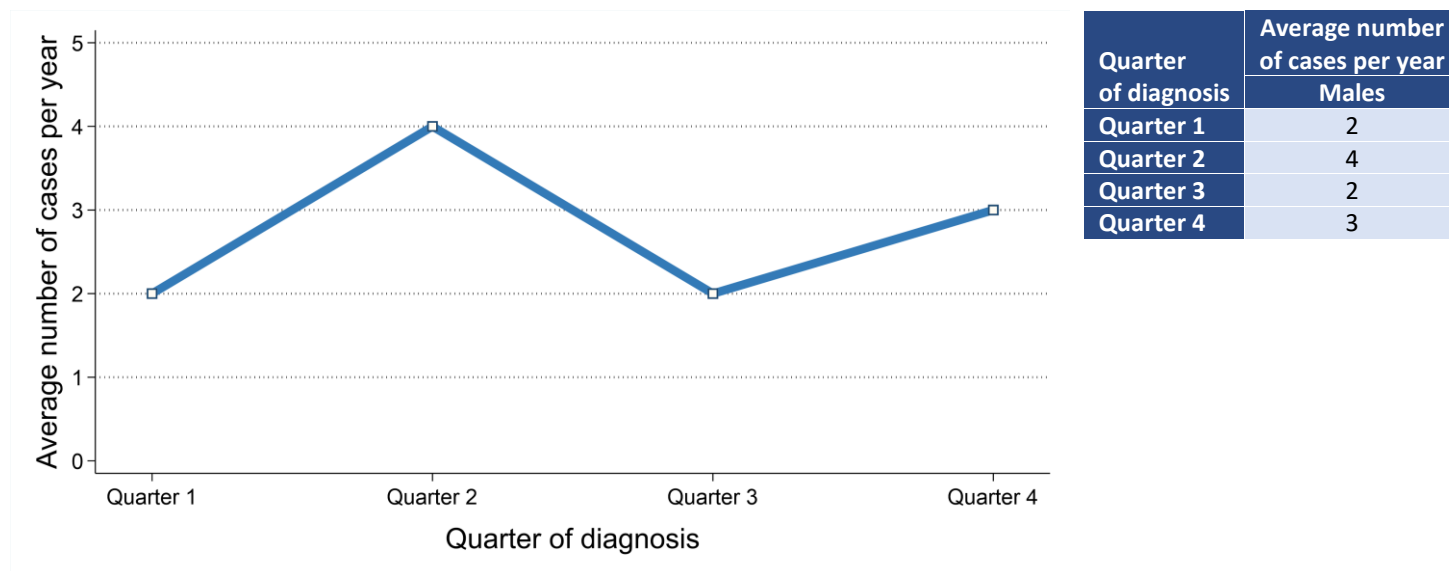
NICR is funded by the Public Health Agency and is based in Queen's University, Belfast.



INCIDENCE

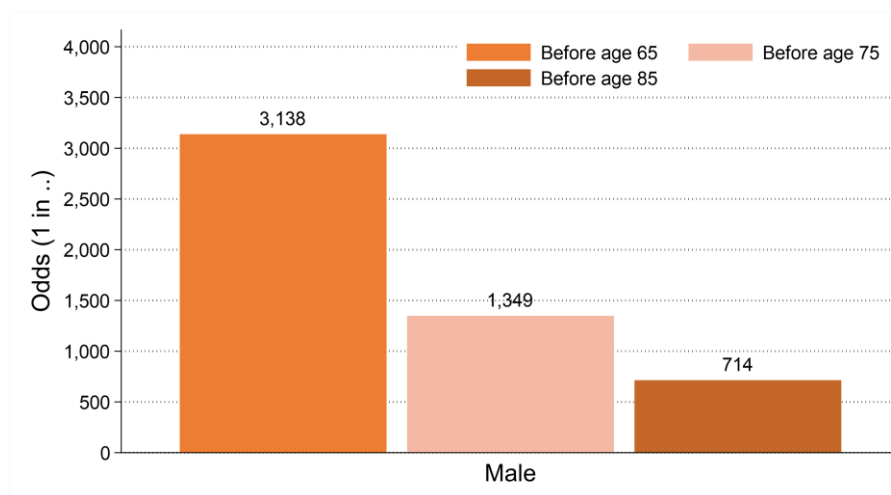
- There were 109 cases of male breast cancer diagnosed during 2012-2021 in Northern Ireland. On average this was 11 cases per year.
- The most common diagnosis quarter during 2012-2021 was quarter 2 with 4 cases per year.

Figure 1: Average number of cases of male breast cancer per year in 2012-2021 by quarter of diagnosis



- The breast cancer incidence rate was 1.2 cases per 100,000 males.
- The odds of developing male breast cancer before age 85 was 1 in 714.

Figure 2: Odds of developing male breast cancer in 2012-2021



INCIDENCE BY AGE

- The median age of males diagnosed with breast cancer during 2012-2021 was 72 years.
- The risk of being diagnosed with breast cancer varied by age, with 37.6% of men diagnosed with breast cancer aged 75 and over at diagnosis.
- In contrast, 13.8% 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 2012-2021 by age at diagnosis

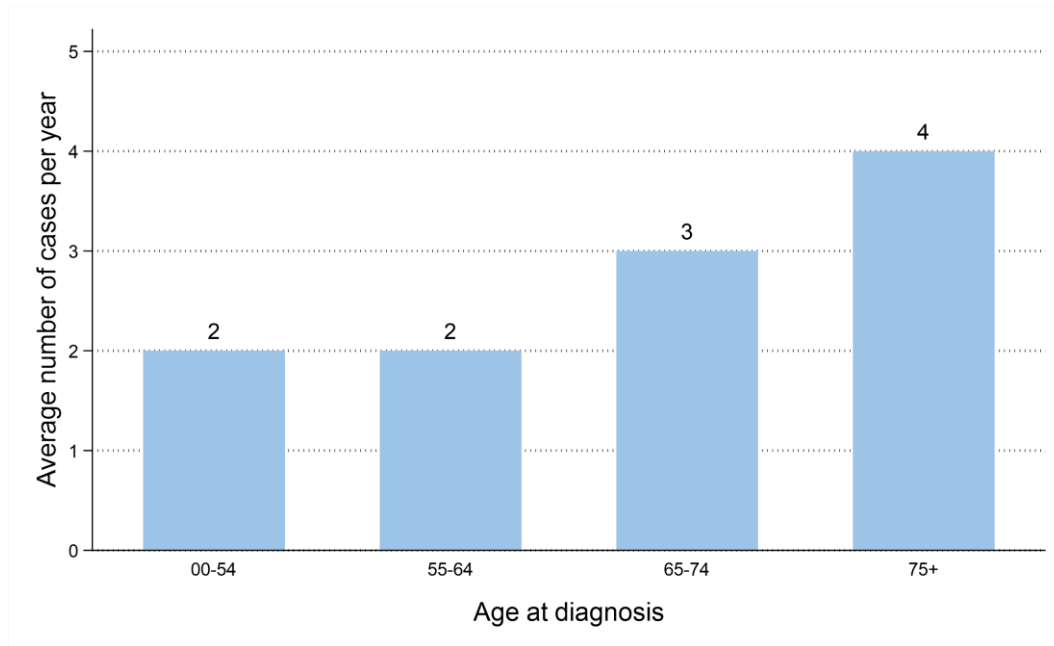
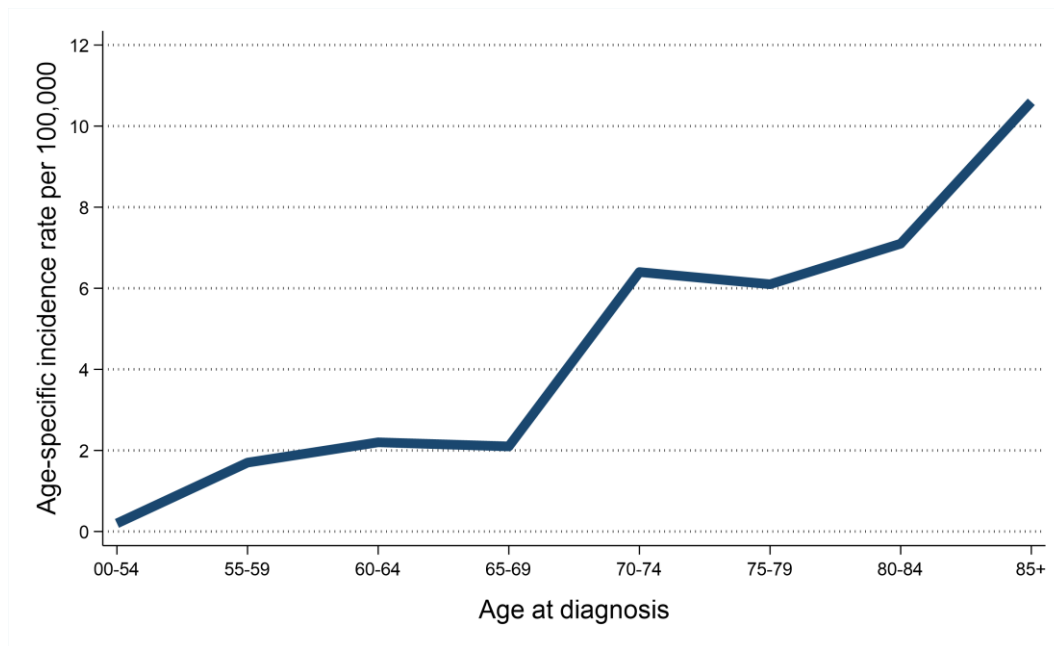


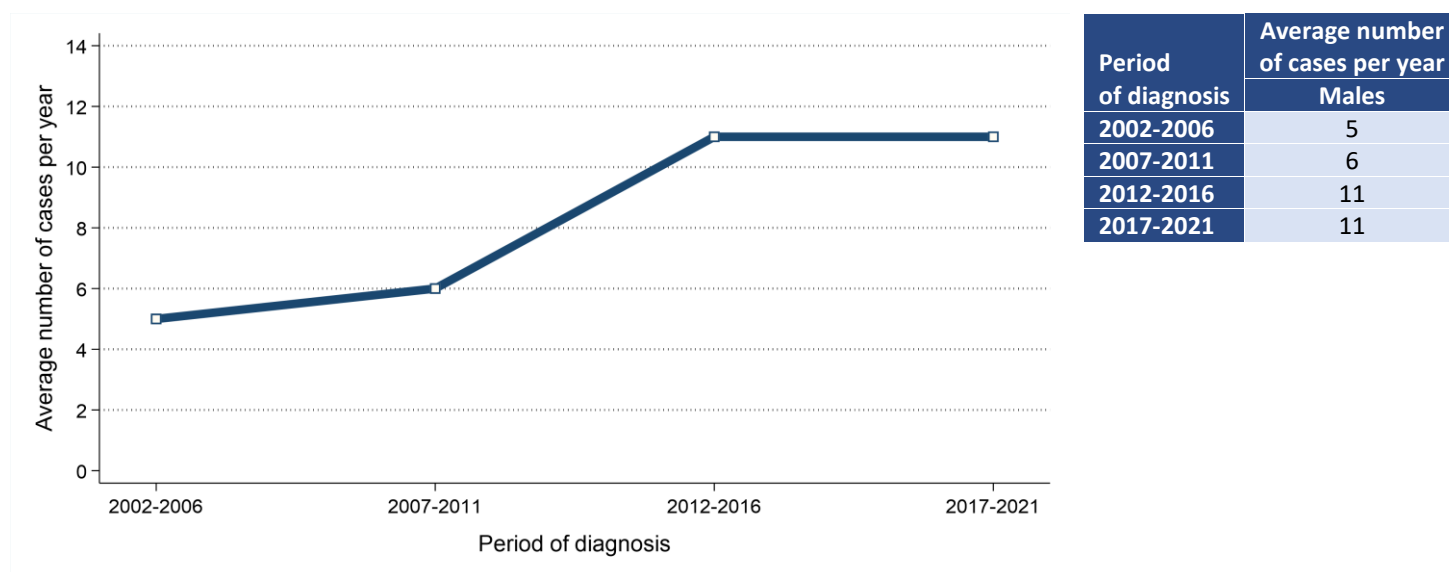
Figure 4: Age-specific incidence rates of male breast cancer in 2012-2021



INCIDENCE TRENDS

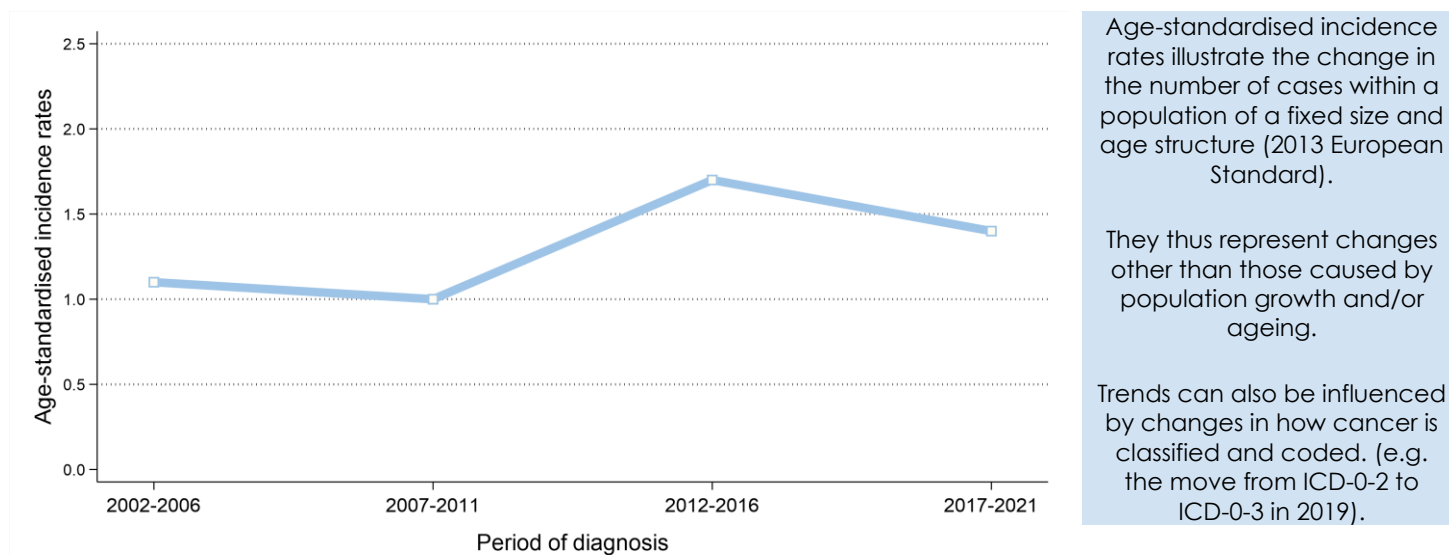
- The number of cases of breast cancer among males decreased between 2012-2016 and 2017-2021 by 5.4% from 56 cases (11 cases per year) to 53 cases (11 cases per year).

Figure 5: Trends in average number of cases per year of male breast cancer diagnosed from 2002 to 2021



- Male age-standardised breast cancer incidence rates decreased between 2012-2016 and 2017-2021 by 17.6% from 1.7 to 1.4 cases per 100,000 males. This change was not statistically significant.

Figure 6: Trends in incidence rates of male breast cancer from 2002 to 2021



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).

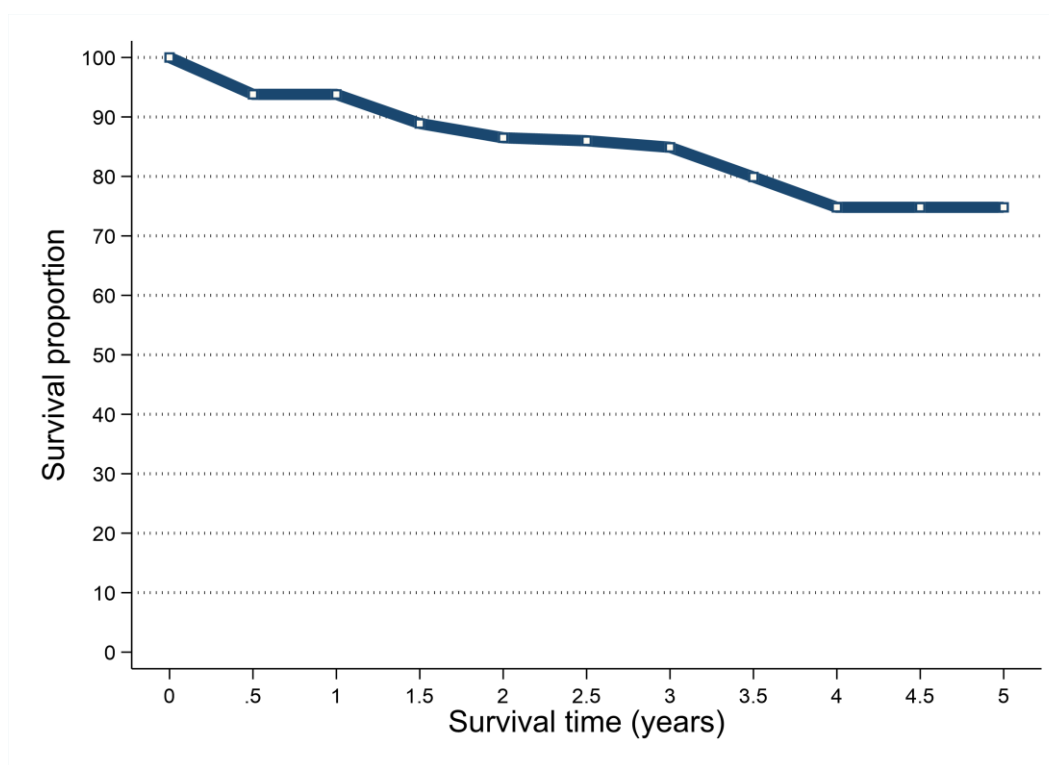
SURVIVAL

- 90.2% of patients were alive one year and 59.8% were alive five years from a breast cancer diagnosis in 2007-2016. (observed survival)
- Age-standardised net survival (ASNS), which removes the effect of deaths from causes unrelated to cancer, was 93.8% one year and 74.8% five years from a breast cancer diagnosis in 2007-2016.

Table 1: Survival from male breast cancer for patients diagnosed in 2007-2016

Time since diagnosis	Male	
	Observed survival	Age-standardised net survival
6 months	91.5%	93.8%
One year	90.2%	93.8%
Two years	78.0%	86.5%
Five years	59.8%	74.8%

Figure 7: Age-standardised net survival from male breast cancer for patients diagnosed in 2007-2016



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 2021, there were 85 males living with breast cancer who had been diagnosed with the disease during 1997-2021.
- Of these 9.4% had been diagnosed in the previous year (one-year prevalence) and 81.2% in the previous 10 years (ten-year prevalence).
- 51.8% of male breast cancer survivors were aged 75 and over at the end of 2021.

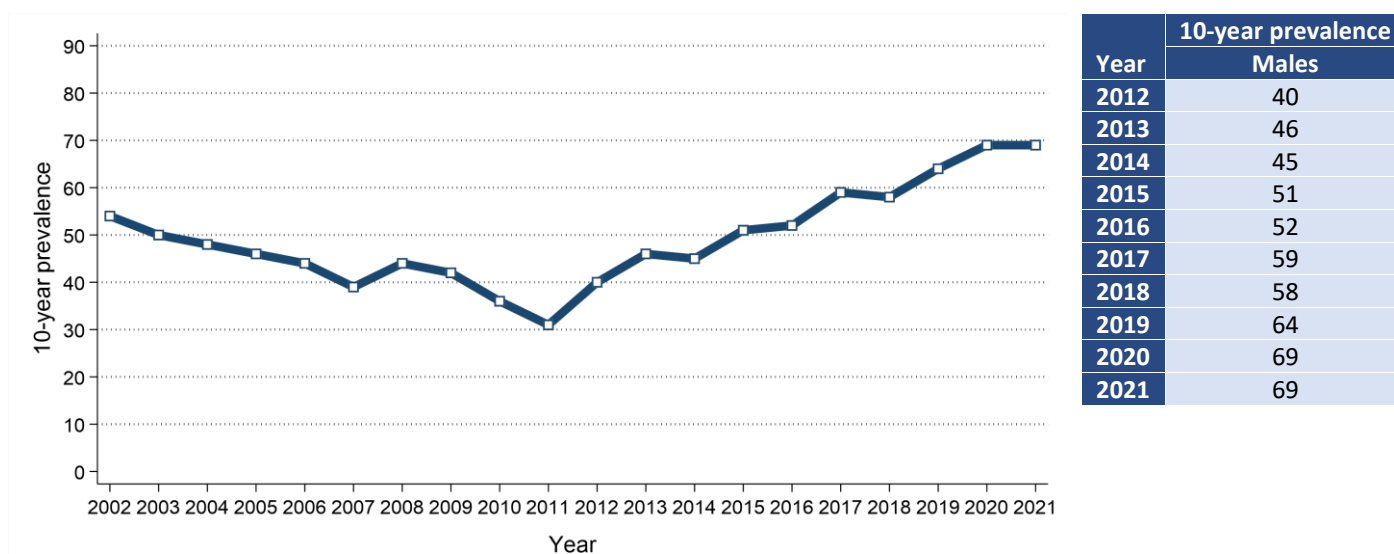
Table 2: 25-year prevalence of male breast cancer by age at end of 2021

Age at end of 2021	25-year prevalence	Time since diagnosis			
		0 to 1 year	1 to 5 years	5 to 10 years	10 to 25 years
All ages	85	8	30	31	16
0 to 74	41	5	17	12	7
75 and over	44	3	13	19	9

PREVALENCE TRENDS

- 10-year prevalence of breast cancer among males increased between 2016 and 2021 by 32.7% from 52 survivors to 69 survivors.

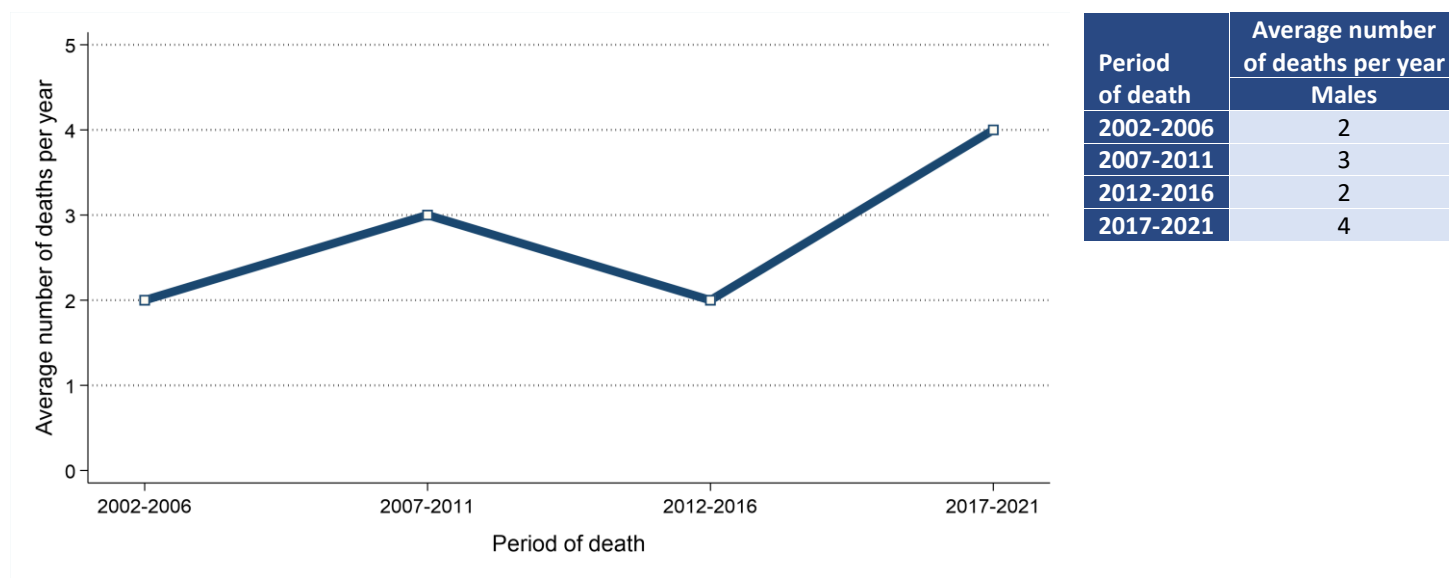
Figure 8: Trends in 10-year prevalence of male breast cancer in 2002-2021



MORTALITY

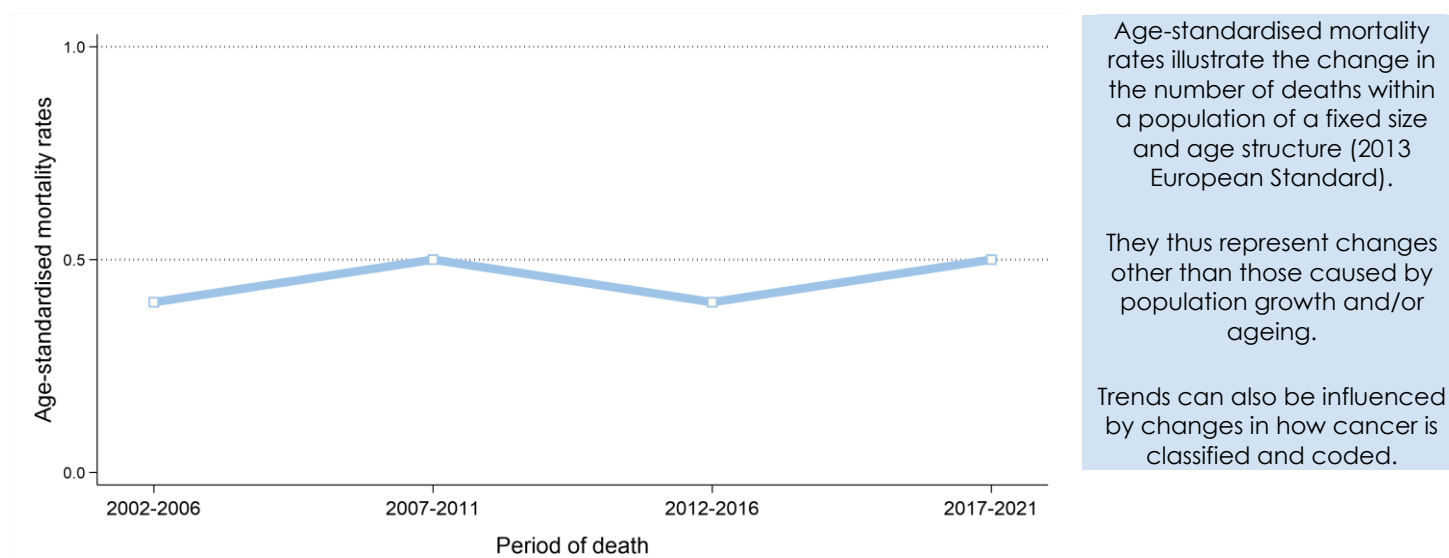
- There were 27 deaths from male breast cancer during 2012-2021 in Northern Ireland. On average this was 3 deaths per year.
- Breast cancer deaths made up 0.1% of all male cancer deaths.
- The number of deaths from breast cancer among males increased between 2012-2016 and 2017-2021 by 100.0% from 9 deaths (2 deaths per year) to 18 deaths (4 deaths per year).

Figure 9: Trends in average number of deaths per year from male breast cancer from 2002 to 2021



- Male age-standardised breast cancer mortality rates increased between 2012-2016 and 2017-2021 by 25.0% from 0.4 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 2002 to 2021



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 Jan 2023 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 2021 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.