
Non-melanoma skin cancer

1993-2021

(ICD10 codes: C44)



Northern Ireland Cancer Registry, 2024

An official statistics publication

ABOUT THIS REPORT

Contents

This report includes information on incidence of non-melanoma skin 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 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 and prevalence 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. Non-melanoma skin 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

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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.

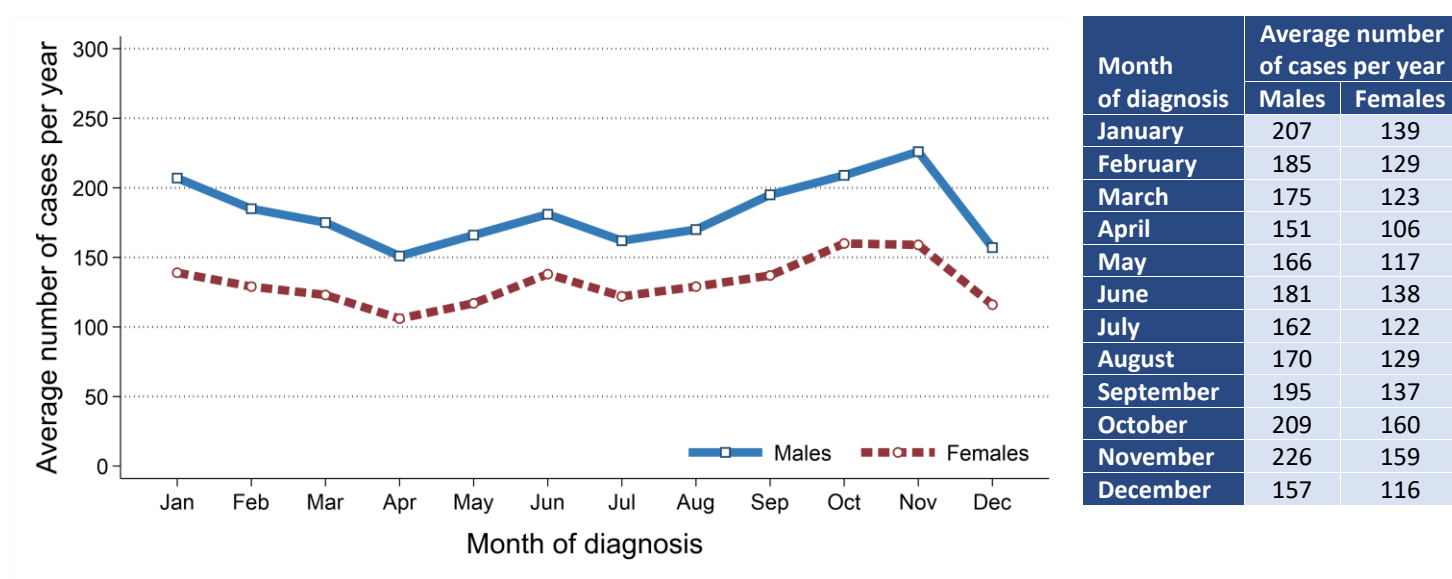
NICR is funded by the Public Health Agency and is based in Queen's University, Belfast.



INCIDENCE

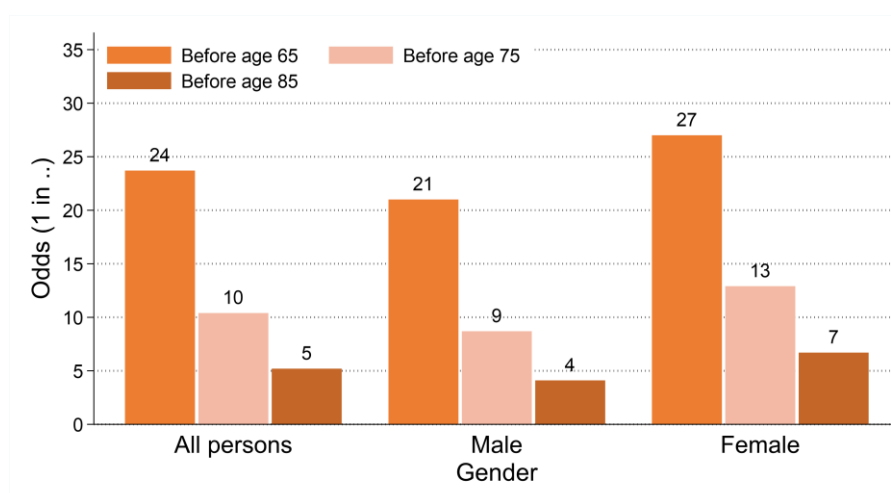
- There were 18,796 cases of non-melanoma skin cancer diagnosed during 2017-2021 in Northern Ireland. On average this was 3,759 cases per year.
- During this period 41.9% of non-melanoma skin cancer cases were among women (Male cases: 10,923, Female cases: 7,873). On average there were 2,185 male and 1,575 female cases of non-melanoma skin cancer per year.
- The most common diagnosis month during 2017-2021 was November among males with 226 cases per year and October among females with 160 cases per year.

Figure 1: Average number of cases of non-melanoma skin cancer per year in 2017-2021 by month of diagnosis



- The non-melanoma skin cancer incidence rates for each gender were 234.9 cases per 100,000 males and 164.2 cases per 100,000 females.
- The odds of developing non-melanoma skin cancer before age 85 was 1 in 4 for men and 1 in 7 for women.

Figure 2: Odds of developing non-melanoma skin cancer in 2017-2021



INCIDENCE BY AGE

- The median age of patients diagnosed with non-melanoma skin cancer during 2017-2021 was 73 years (Males: 73, Females: 73).
- The risk of developing non-melanoma skin cancer varied by age, with 46.4% of men and 46.8% of women diagnosed with non-melanoma skin cancer aged 75 and over at diagnosis.
- In contrast, 12.5% of patients diagnosed with non-melanoma skin cancer were aged 0 to 54 at diagnosis.

Figure 3: Average number of cases of non-melanoma skin cancer diagnosed per year in 2017-2021 by age at diagnosis

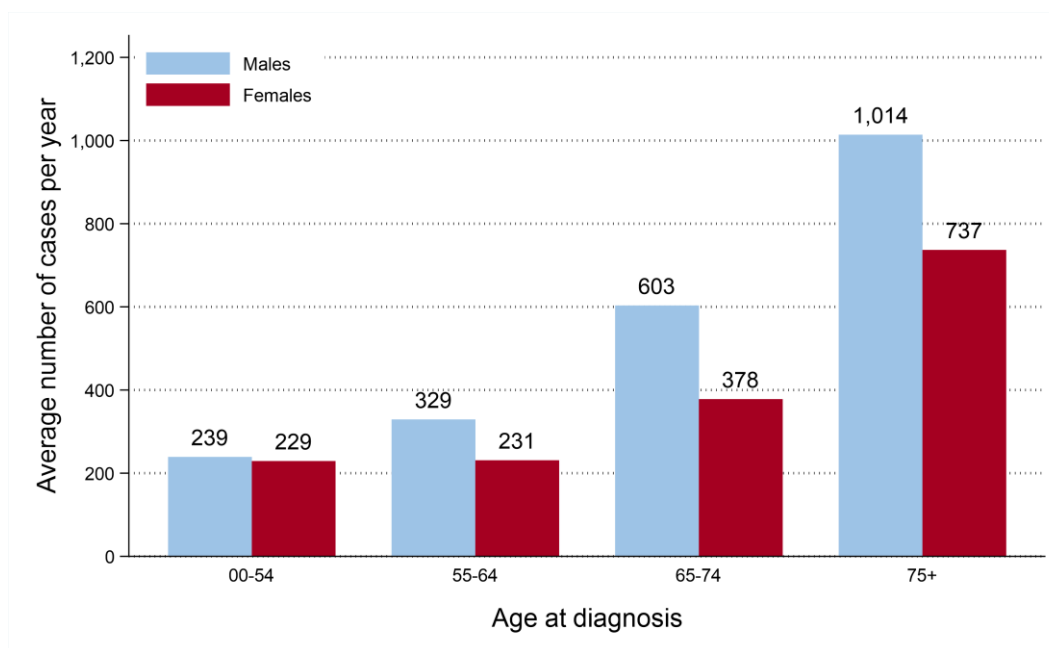
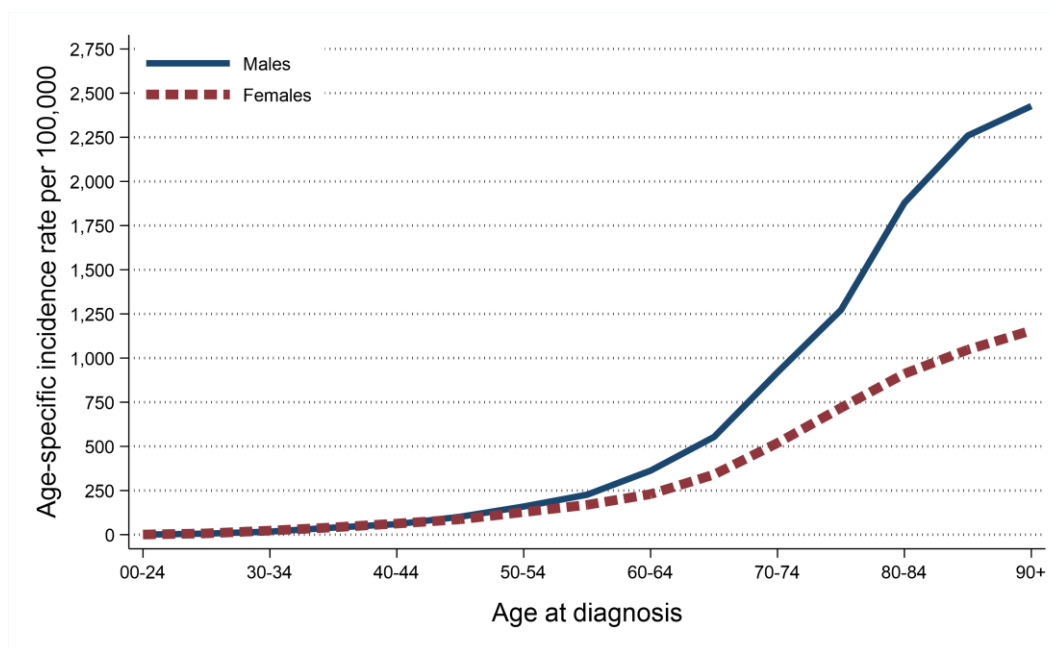


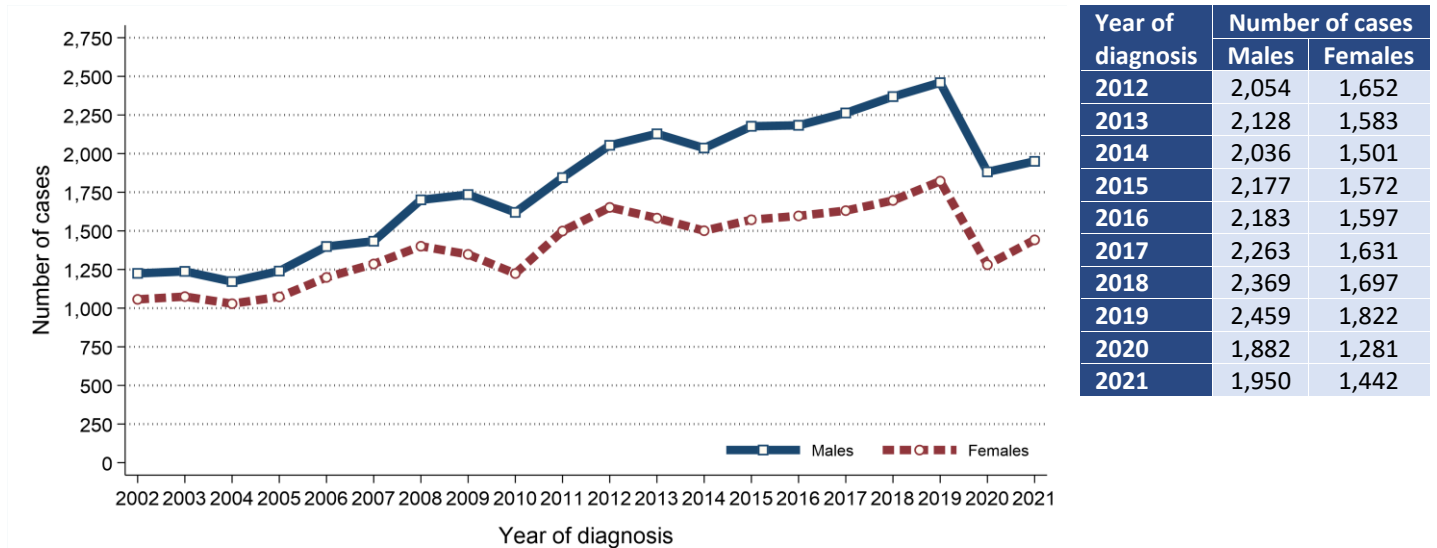
Figure 4: Age-specific incidence rates of non-melanoma skin cancer in 2017-2021



INCIDENCE TRENDS

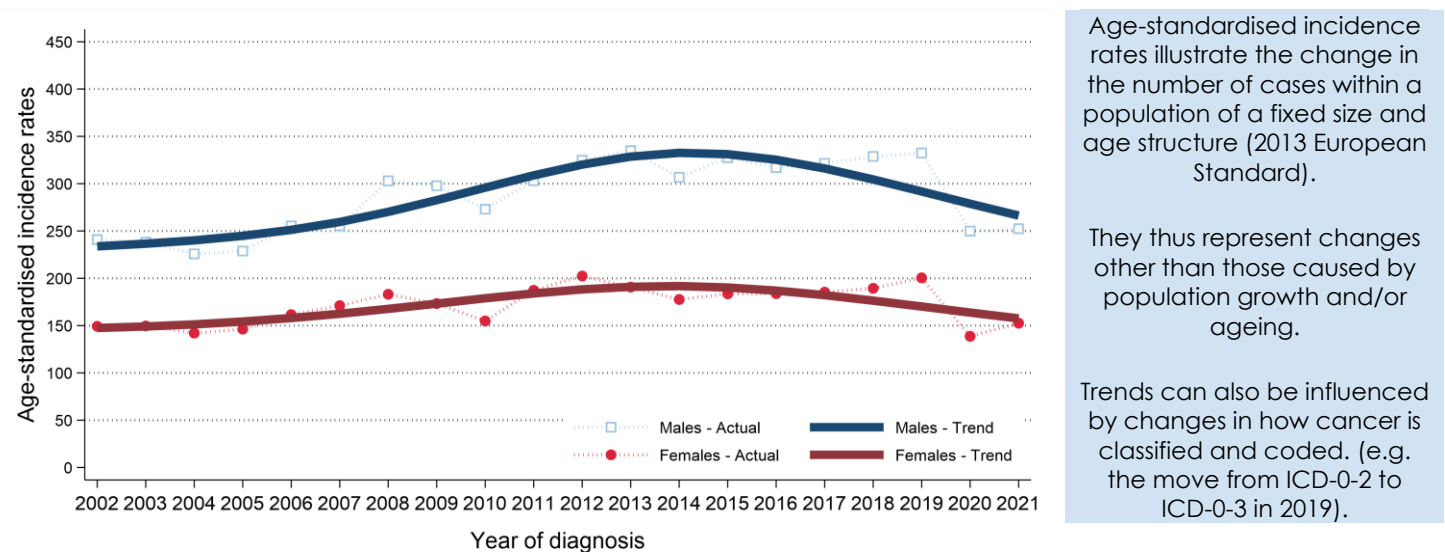
- The number of cases of non-melanoma skin cancer among males increased between 2012-2016 and 2017-2021 by 3.3% from 10,578 cases (2,116 cases per year) to 10,923 cases (2,185 cases per year).
- The number of cases of non-melanoma skin cancer among females decreased between 2012-2016 and 2017-2021 by 0.4% from 7,905 cases (1,581 cases per year) to 7,873 cases (1,575 cases per year).

Figure 5: Trends in number of cases of non-melanoma skin cancer diagnosed from 2002 to 2021



- Male age-standardised non-melanoma skin cancer incidence rates decreased between 2012-2016 and 2017-2021 by 8.2% from 322.2 to 295.9 cases per 100,000 males. This change was statistically significant.
- Female age-standardised non-melanoma skin cancer incidence rates decreased between 2012-2016 and 2017-2021 by 7.7% from 187.4 to 172.9 cases per 100,000 females. This change was statistically significant.

Figure 6: Trends in incidence rates of non-melanoma skin cancer from 2002 to 2021



INCIDENCE TRENDS BY AGE

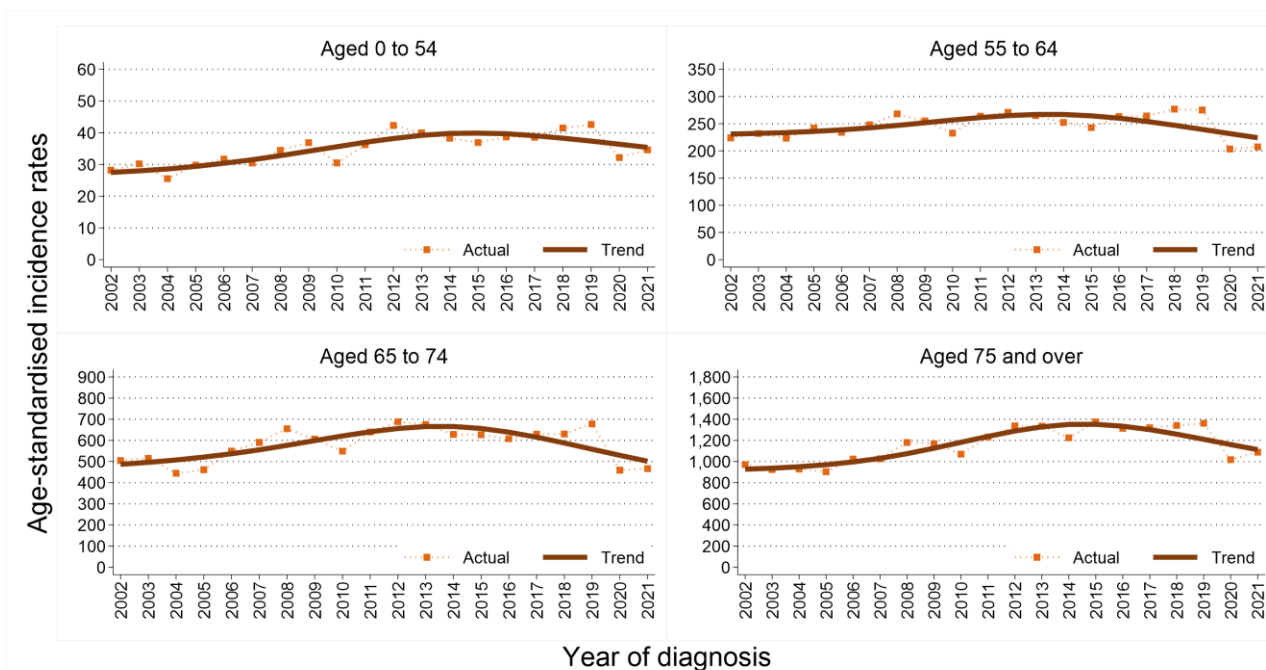
- Between 2012-2016 and 2017-2021 the number of cases of non-melanoma skin cancer among
 - Persons aged 0 to 54 decreased by 4.5% among males and decreased by 2.6% among females.
 - Persons aged 55 to 64 increased by 2.9% among males and increased by 12.6% among females.
 - Persons aged 65 to 74 decreased by 3.2% among males and decreased by 2.2% among females.
 - Persons aged 75 and over increased by 9.9% among males and decreased by 2.3% among females.

Table 1: Average number of cases per year of non-melanoma skin cancer by period of diagnosis in 2012-2021

| Age at diagnosis | All persons | | Male | | Female | |
|------------------|-------------|-----------|-----------|-----------|-----------|-----------|
| | 2012-2016 | 2017-2021 | 2012-2016 | 2017-2021 | 2012-2016 | 2017-2021 |
| All ages | 3,697 | 3,759 | 2,116 | 2,185 | 1,581 | 1,575 |
| 0 to 54 | 486 | 469 | 251 | 239 | 235 | 229 |
| 55 to 64 | 524 | 559 | 319 | 329 | 205 | 231 |
| 65 to 74 | 1,010 | 981 | 623 | 603 | 387 | 378 |
| 75 and over | 1,677 | 1,750 | 922 | 1,014 | 754 | 737 |

- Between 2012-2016 and 2017-2021 age-standardised incidence rates of non-melanoma skin 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 decreased by 13.0% among males and decreased by 9.5% among females.
 - Persons aged 75 and over decreased by 6.3% among males and decreased by 10.1% among females.

Figure 7: Trends in incidence rates of non-melanoma skin cancer from 2002 to 2021 by age group



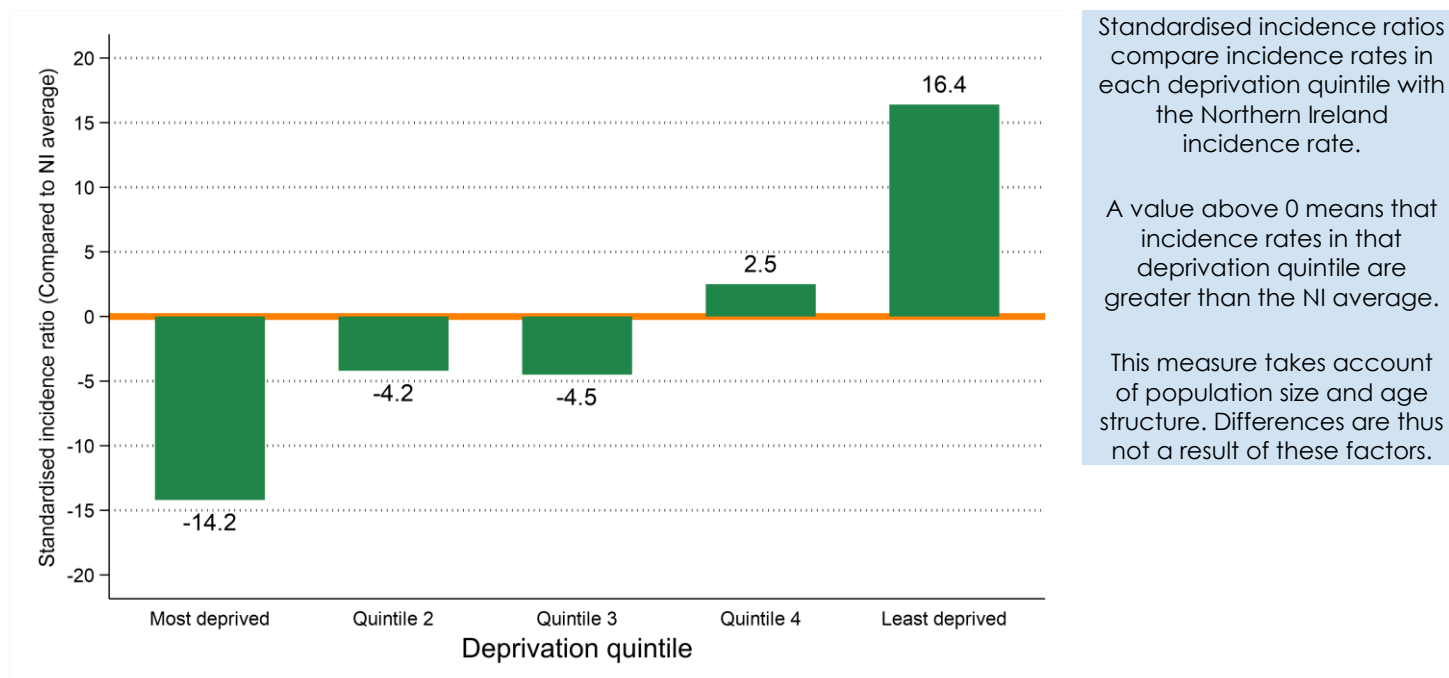
INCIDENCE BY DEPRIVATION

- The number of cases of non-melanoma skin cancer diagnosed during 2017-2021 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 were 14.2% lower than the NI average.
 - in the least socio-economically deprived areas were 16.4% higher than the NI average.

Table 2: Number of cases of non-melanoma skin cancer diagnosed in 2017-2021 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 | 18,796 | 3,759 | 10,923 | 2,185 | 7,873 | 1,575 |
| Most deprived | 2,618 | 524 | 1,451 | 290 | 1,167 | 233 |
| Quintile 2 | 3,601 | 720 | 2,158 | 432 | 1,443 | 289 |
| Quintile 3 | 3,779 | 756 | 2,243 | 449 | 1,536 | 307 |
| Quintile 4 | 4,088 | 818 | 2,358 | 472 | 1,730 | 346 |
| Least deprived | 4,702 | 940 | 2,710 | 542 | 1,992 | 398 |
| Unknown | 8 | 2 | 3 | 1 | 5 | 1 |

Figure 8: Standardised incidence ratio comparing deprivation quintile to Northern Ireland for non-melanoma skin cancer diagnosed in 2017-2021



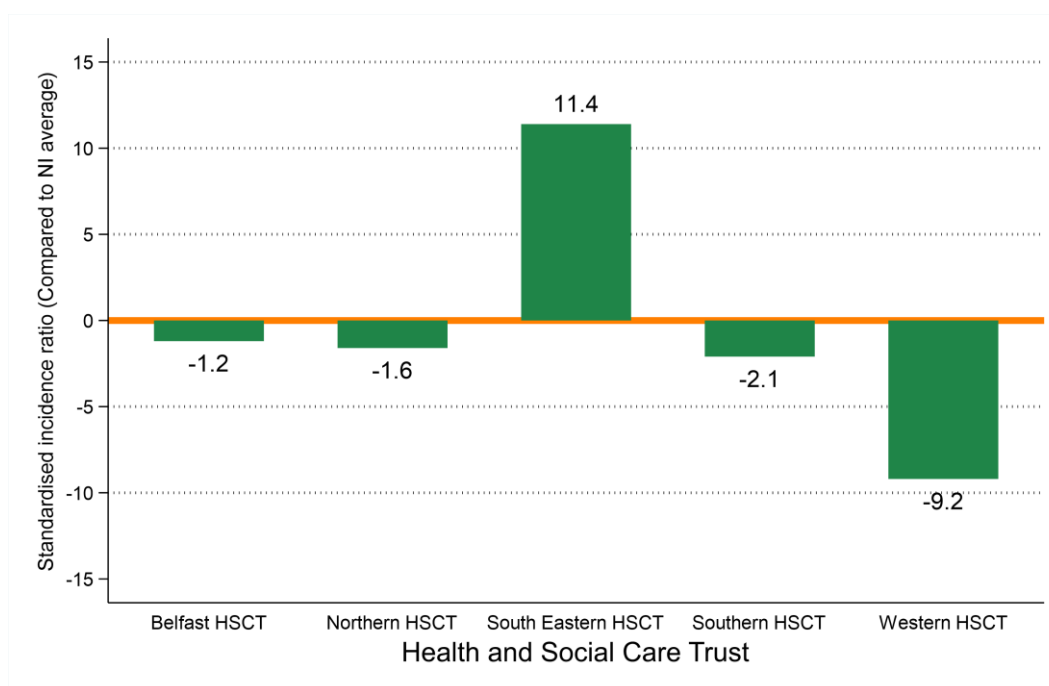
INCIDENCE BY HEALTH AND SOCIAL CARE TRUST

- The number of cases of non-melanoma skin cancer diagnosed during 2017-2021 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 were 11.4% higher than the NI average.
 - in Southern HSCT did not vary significantly from the NI average.
 - in Western HSCT were 9.2% lower than the NI average.

Table 3: Number of cases of non-melanoma skin cancer diagnosed in 2017-2021 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 | 18,796 | 3,759 | 10,923 | 2,185 | 7,873 | 1,575 |
| Belfast HSCT | 3,392 | 678 | 1,877 | 375 | 1,515 | 303 |
| Northern HSCT | 4,925 | 985 | 2,836 | 567 | 2,089 | 418 |
| South Eastern HSCT | 4,421 | 884 | 2,564 | 513 | 1,857 | 371 |
| Southern HSCT | 3,426 | 685 | 2,061 | 412 | 1,365 | 273 |
| Western HSCT | 2,624 | 525 | 1,582 | 316 | 1,042 | 208 |
| Unknown | 8 | 2 | 3 | 1 | 5 | 1 |

Figure 9: Standardised incidence ratio comparing Health and Social Care Trust to Northern Ireland for non-melanoma skin cancer diagnosed in 2017-2021



PREVALENCE

- At the end of 2021, there were 39,460 people (Males: 21,445; Females: 18,015) living with non-melanoma skin cancer who had been diagnosed with the disease during 1997-2021.
- Of these 8.3% had been diagnosed in the previous year (one-year prevalence) and 68.4% in the previous 10 years (ten-year prevalence).
- 52.4% of non-melanoma skin cancer survivors were aged 75 and over at the end of 2021.

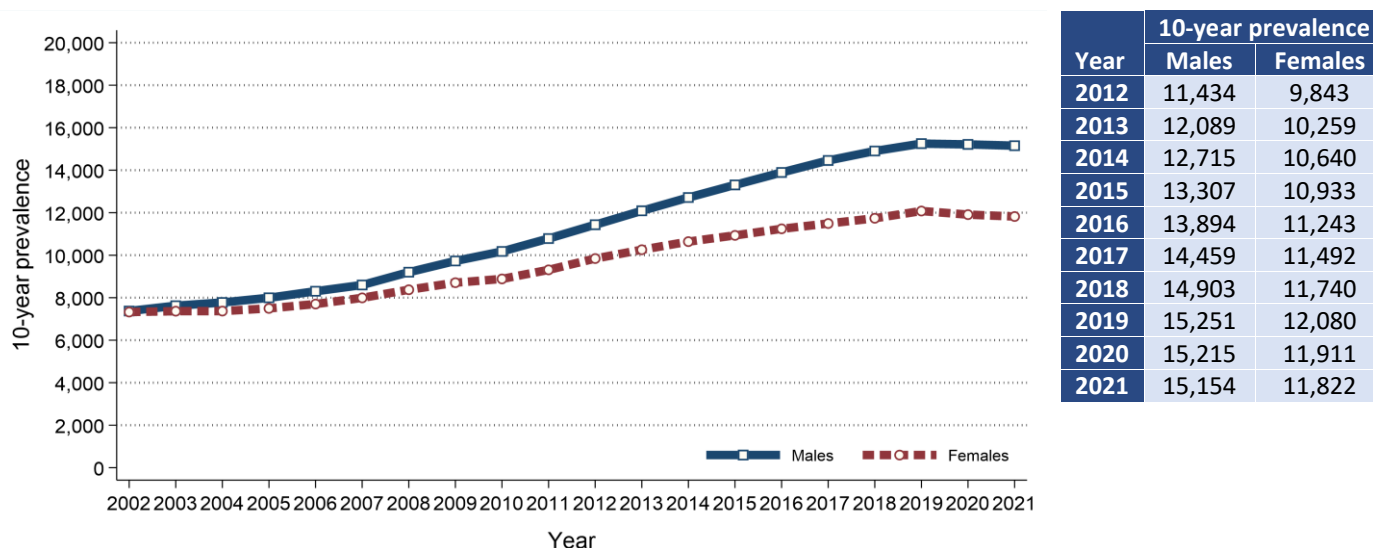
Table 4: 25-year prevalence of non-melanoma skin cancer by age at end of 2021

| Gender | 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 persons | All ages | 39,460 | 3,266 | 12,513 | 11,197 | 12,484 |
| | 0 to 74 | 18,783 | 1,668 | 6,332 | 5,305 | 5,478 |
| | 75 and over | 20,677 | 1,598 | 6,181 | 5,892 | 7,006 |
| Male | All ages | 21,445 | 1,869 | 7,120 | 6,165 | 6,291 |
| | 0 to 74 | 10,404 | 954 | 3,633 | 2,984 | 2,833 |
| | 75 and over | 11,041 | 915 | 3,487 | 3,181 | 3,458 |
| Female | All ages | 18,015 | 1,397 | 5,393 | 5,032 | 6,193 |
| | 0 to 74 | 8,379 | 714 | 2,699 | 2,321 | 2,645 |
| | 75 and over | 9,636 | 683 | 2,694 | 2,711 | 3,548 |

PREVALENCE TRENDS

- 10-year prevalence of non-melanoma skin cancer among males increased between 2016 and 2021 by 9.1% from 13,894 survivors to 15,154 survivors.
- 10-year prevalence of non-melanoma skin cancer among females increased between 2016 and 2021 by 5.1% from 11,243 survivors to 11,822 survivors.

Figure 10: Trends in 10-year prevalence of non-melanoma skin cancer in 2002-2021



MORTALITY

- There were 186 deaths from non-melanoma skin cancer during 2017-2021 in Northern Ireland. On average this was 37 deaths per year.
- During this period 34.9% of non-melanoma skin cancer deaths were among women (Male deaths: 121, Female deaths: 65). On average there were 24 male and 13 female deaths from non-melanoma skin cancer per year.
- The median age of patients who died from non-melanoma skin cancer during 2017-2021 was 85 years (Males: 84, Females: 87).
- The risk of dying from non-melanoma skin cancer varied by age, with 50.5% of those who died from non-melanoma skin cancer aged 85 and over at death.
- In contrast, 8.6% of patients who died from non-melanoma skin cancer were aged 0 to 64 at death.

Figure 11: Average number of deaths from non-melanoma skin cancer per year in 2017-2021 by age at death

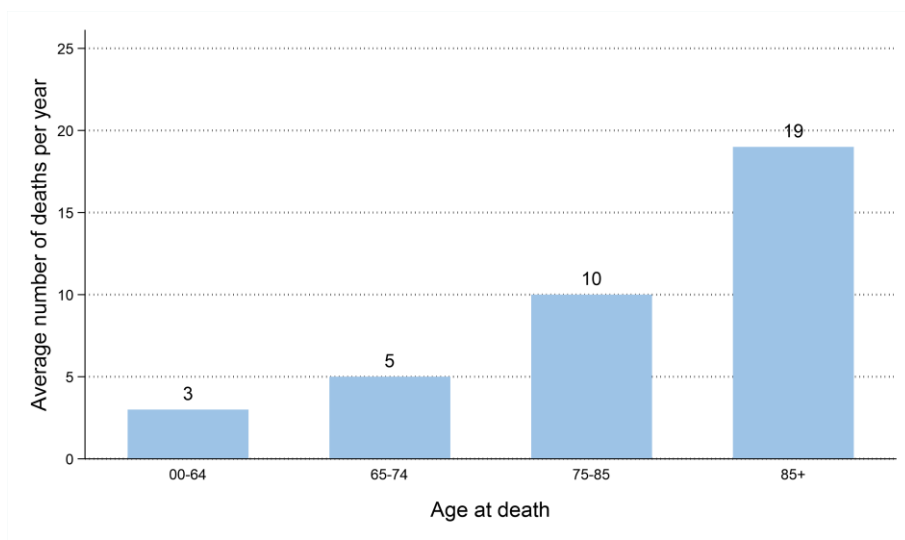
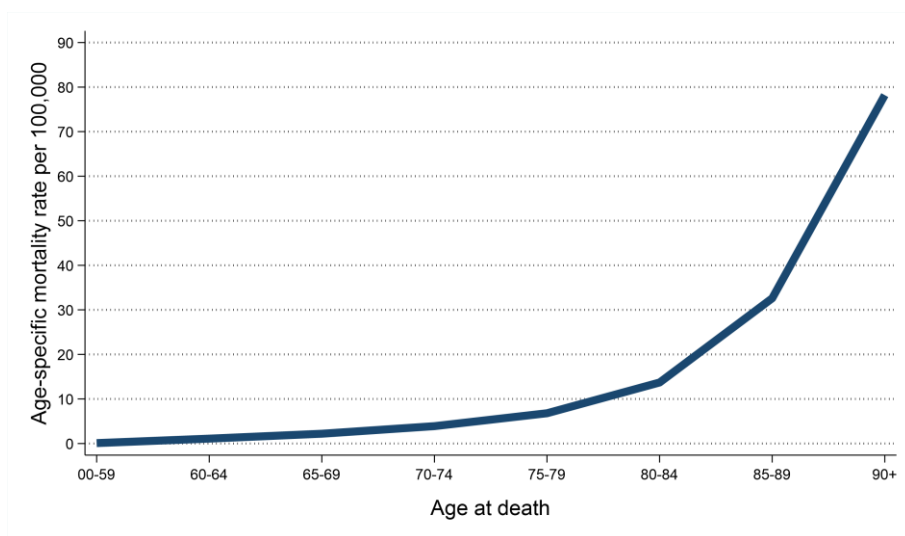


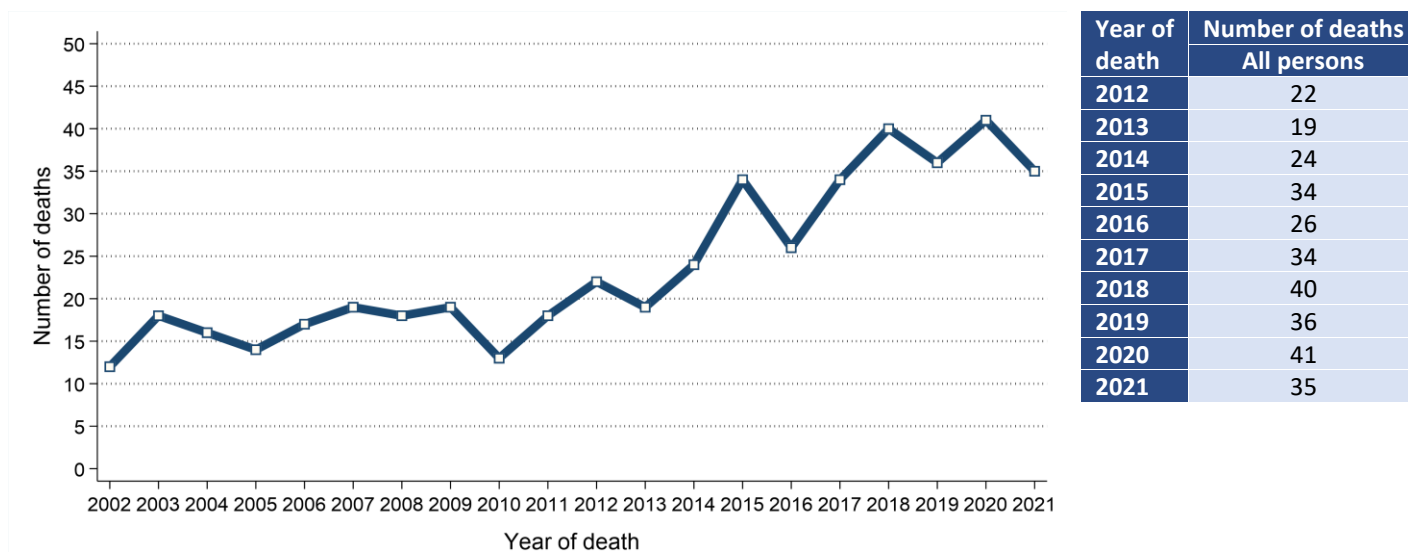
Figure 12: Age-specific mortality rates of non-melanoma skin cancer in 2017-2021



MORTALITY TRENDS

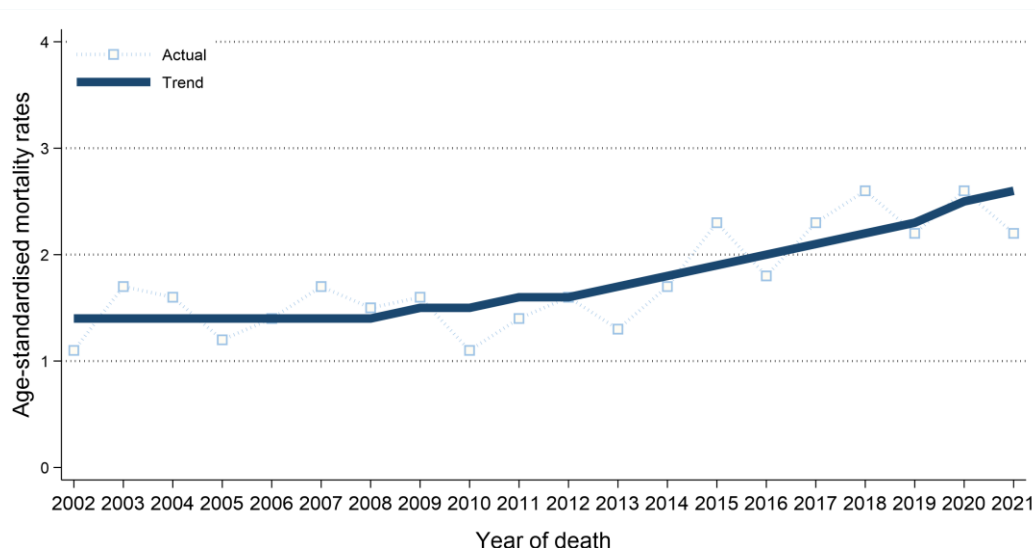
- The number of deaths from non-melanoma skin cancer increased between 2012-2016 and 2017-2021 by 48.8% from 125 deaths (25 deaths per year) to 186 deaths (37 deaths per year).

Figure 13: Trends in the number of deaths from non-melanoma skin cancer from 2002 to 2021



- Age-standardised non-melanoma skin cancer mortality rates increased between 2012-2016 and 2017-2021 by 33.3% from 1.8 to 2.4 deaths per 100,000 persons. This change was not statistically significant.

Figure 14: Trends in mortality rates of non-melanoma skin cancer from 2002 to 2021



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 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. non-melanoma skin 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. non-melanoma skin 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.