

# Statistics fact sheet

Fact sheet last updated February 2019

EXTERNAL VERSION

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# Glossary of terms

**Cancer prevalence** – the number of people living with and after cancer, i.e. people who have been diagnosed with cancer and who are currently living with cancer at a given point in time. Cancer prevalence can be expressed as a number or rate (per head of population).

Cancer prevalence may be presented as:

- a 'total' or 'complete', i.e. the 2.5 million, all people living with (and after) cancer, at a point in time e.g. for the 2.5 million this is 31<sup>st</sup> December 2015;
- or time limited duration, e.g. '21-year' prevalence, all people diagnosed in the last 20 years and still alive at a point in time).

**Cancer incidence** – the number, or rate (per head of population), of new cases of cancer in a specific population within a specific period of time, usually a year. It usually refers to primary cancers (secondary cancers or recurrences are not included).

**Cancer mortality** – the number, or rate (per head of population), of deaths from cancer in a specific population within a specific period of time, usually a year. It is usually deaths where cancer is mentioned as an underlying cause of deaths on death certificates.

**Cancer survival** – The percentage of people still alive after a specified amount of time, often 1, 5 or 10 years after a diagnosis of cancer at a specific time. It usually refers to primary cancers (secondary cancers or recurrences are not included).

**Median survival** – is the length of time from the date of diagnosis that half of people diagnosed with cancer are still alive (or half have died). It is the time since diagnosis when relative survival is at 50%.

**Net survival** – is the estimate of the number of people who survive their cancer, after removing the effects of a person dying from other causes (which is often referred to as background mortality).

**Registration of non-melanoma skin cancer** – The policies and practices for the registration of non-melanoma skin cancer have varied widely across the cancer registries and over time. The incidence figure for 'all malignant neoplasms' therefore exclude non-melanoma skin cancer.

## Macmillan and statistics

Statistics are important to Macmillan because they help us represent a lot of complicated information in a way that is easily understood. They add credibility to an argument or advice. For example, we believe cancer care must improve in the UK because we know it's something which will affect most of us.

To explain the extent of the cancer population a number of key statistics are included in this fact sheet:

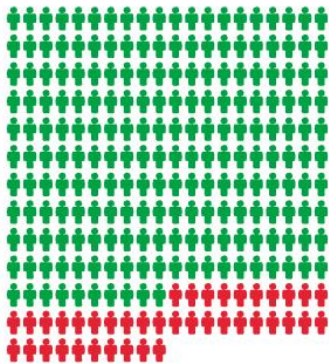
- [People living with cancer](#) – cancer prevalence
- [New cases of cancer](#) – cancer incidence
- [People dying with and from cancer](#) – mortality
- [Surviving cancer](#) – cancer survival, and the consequences of cancer and its treatment
- [Variations](#) – difference in cancer incidence by ethnicity and deprivation
- The [reach](#) of Macmillan services



# People living with cancer – cancer prevalence

## Headlines

- There are an estimated 2.5 million people living with cancer in the UK in 2015, rising to 4 million by 2030<sup>1</sup>.
- The number of people living with cancer in the UK in 2015 has increased by over a million people since 2010<sup>1,2</sup>.



There are now **2.5 million** people living with cancer in the UK<sup>1</sup>.

The number has grown by this extra **400,000 people** in just five years<sup>2</sup>.

See our full infographic '[Cancer: A colossal challenge – the 2.5 million](#)'.

You can also view a [text-only version of this infographic](#).

These [FAQs](#) will help explain the figures and how you can use them in more detail.

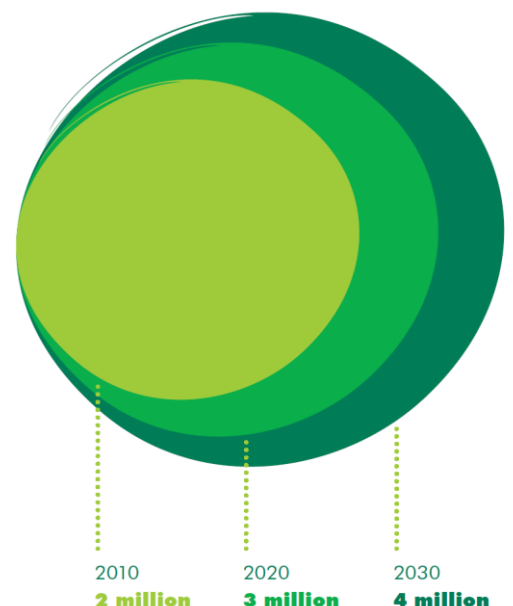
<sup>1</sup> Maddams J, Utlely M, Møller H. Projections of cancer prevalence in the United Kingdom, 2010-2040. Br J Cancer 2012; 107: 1195-1202. (Projections scenario 1). Macmillan analysis based on extrapolation of 2010 and 2020 projections that the number of people living with cancer will hit an estimated 2.5 million in 2015.

<sup>2</sup> 'Five years' refers to 2010-2015.

## Changes over time

- The number of older people (aged 65 and over) living with cancer has grown by 300,000 (or 23%) in the five years to 2015<sup>3</sup>.
- The number of people who have survived five or more years since diagnosis has increased by over 260,000 (or 21%) in the five years to 2015<sup>3</sup>.
- The number of people living with cancer in the UK is increasing by 3% every year<sup>4</sup>.
- The number of cancer survivors in the UK is projected to increase by approximately one million per decade from 2010 to 2040; resulting in four million people living with cancer in 2030<sup>4</sup>.
- See also the '[The Changing story of cancer](#)' infographic.

Number of people living with a cancer diagnosis in the UK



## Estimated number of people living with cancer: by nation, at the end of 2010, 2015, 2020 and 2030<sup>3</sup>

|                  | 2010             | 2015             | 2020             | 2030             |
|------------------|------------------|------------------|------------------|------------------|
| England          | 1,700,000        | 2,000,000        | 2,400,000        | 3,400,000        |
| Wales            | 110,000          | 130,000          | 160,000          | 220,000          |
| Scotland         | 190,000          | 220,000          | 260,000          | 360,000          |
| Northern Ireland | 53,000           | 63,000           | 74,000           | 100,000          |
| <b>UK</b>        | <b>2,100,000</b> | <b>2,500,000</b> | <b>2,900,000</b> | <b>4,000,000</b> |

Note: UK totals may not sum up due to rounding.

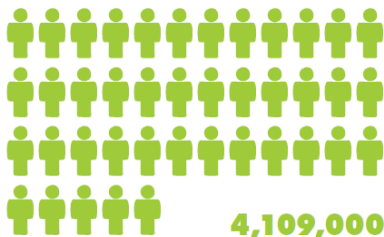
### Older people

Number of older people (65 and over) living with a cancer diagnosis in the UK

2010



2040



 = 100,000 people

The number of older people (aged 65 and over) living with cancer has grown by 23% in the five years to 2015<sup>3</sup>.

The number of older people (aged 65 and over) living with cancer is set to treble between 2010 and 2040<sup>4</sup>.

More than three times as many older people (aged 65 and over) will be living with cancer by 2040 – 1.3 million in 2010 to 4.1 million in 2040<sup>4</sup>.

The number of older people currently (2015) living with cancer has already increased by 300,000 since 2010<sup>3</sup>.

By 2040 older people will account for 77% of all people living with a cancer diagnosis, an increase from the 2015 figure of 66%<sup>4</sup>.

For additional statistics on older people living with cancer please refer to the 'Prevalence of older people living with cancer' [here](#).

<sup>3</sup> Maddams J, Utley M, Møller H. Projections of cancer prevalence in the United Kingdom, 2010-2040. Br J Cancer 2012; 107: 1195-1202. (Projections scenario 1). Macmillan analysis based on extrapolation of 2010 and 2020 projections that the number of people

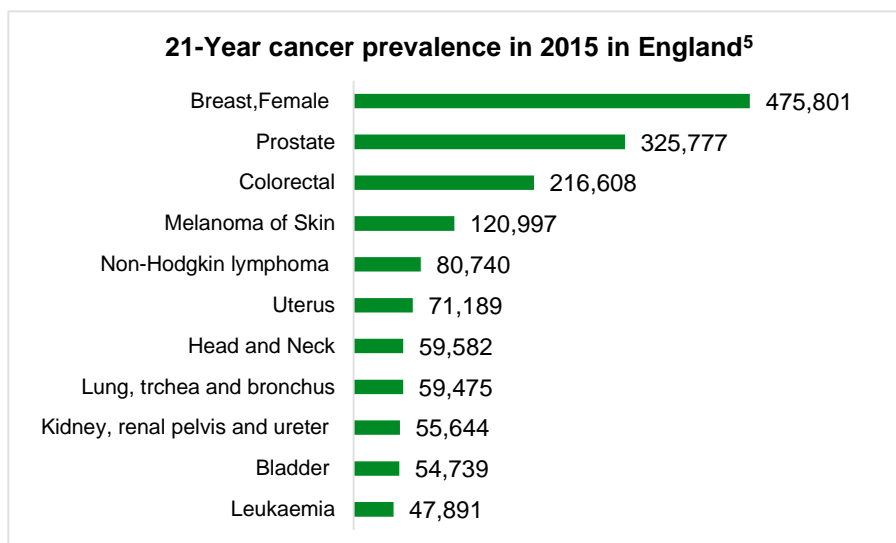
living with cancer will hit an estimated overall 2.5 million in 2015

<sup>4</sup> Maddams J, Utley M, Møller H. Projections of cancer prevalence in the United Kingdom, 2010-2040. Br J Cancer 2012; 107: 1195-1202. (Projections scenario 1).



## Additional detailed cancer prevalence data

### England



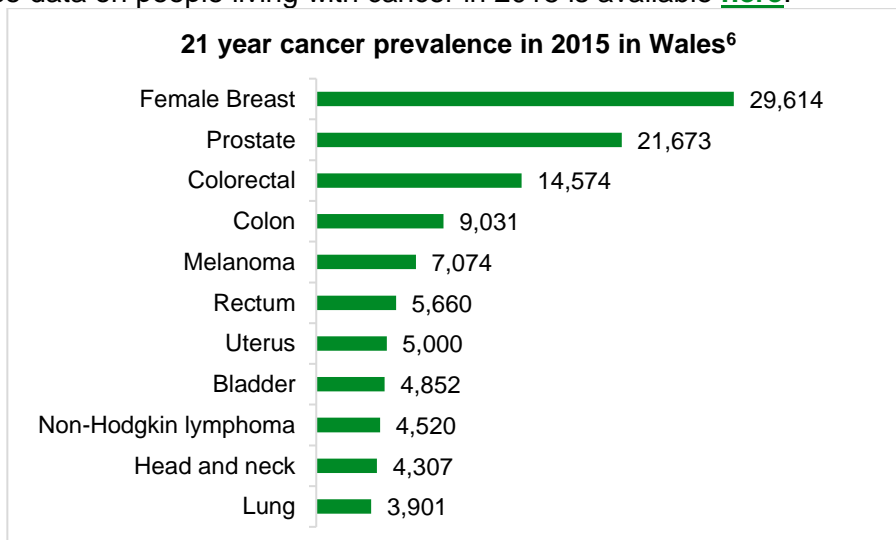
A partnership project between TCST, Macmillan and NCRAS, PHE has given us the number of people living up to 21- years post a cancer diagnosis in England in 2015. The data is split by demographics and local areas. This is available [here](#).

The CCG data for 2015 and estimated projections to 2030 are on the [Local Cancer Intelligence](#) website. This website may be shared freely with external contacts.

5. Transforming Cancer Services Team for London, NHS, National Cancer Registration and Analysis Service, PHE and Macmillan Cancer Support. 2017. Cancer Prevalence in England: 21-year prevalence by demographic and geographic measures [http://www.ncin.org.uk/about\\_ncin/segmentation](http://www.ncin.org.uk/about_ncin/segmentation)

### Wales

Detailed prevalence data on people living with cancer in 2015 is available [here](#).

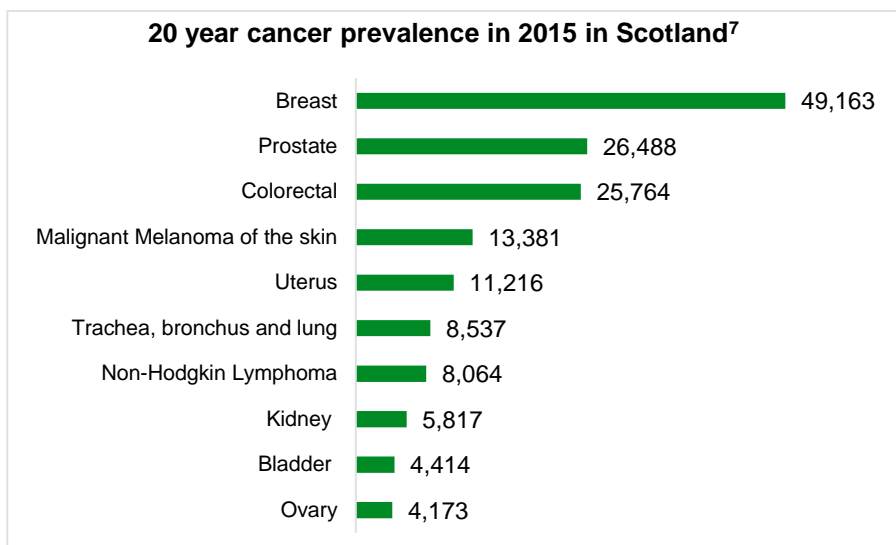


6. Macmillan cancer support and WCISU partnership, 21-year cancer prevalence in GP patients across Wales by age [data extracted: December 2018]. Available on [Local Cancer Intelligence Wales](#)



## Scotland

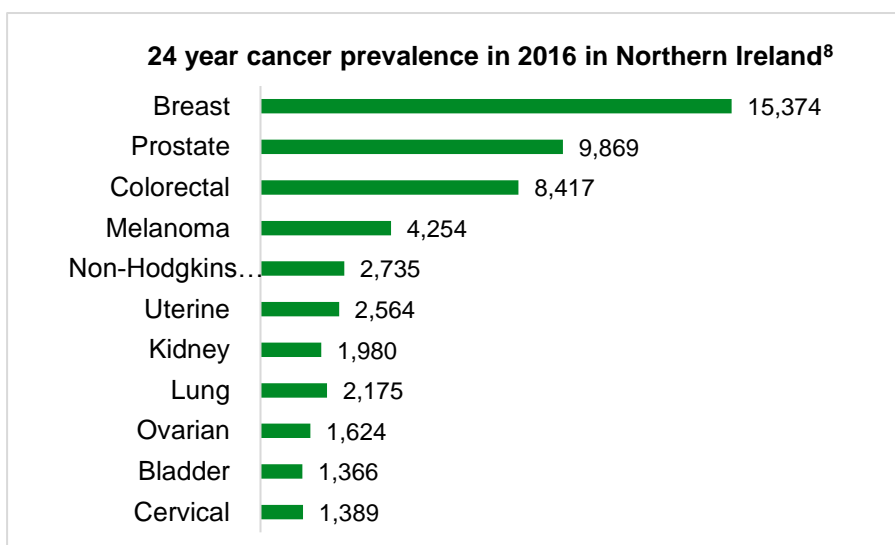
Up to date data is published on the [Information Services Division \(ISD\) Scotland website](#) and detailed prevalence data on people living with cancer in 2015 is available [here](#).



7. ISD Scotland released March 2017, 20 year cancer prevalence across multiple cancers, age and gender <http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Statistics/Skin/>

## Northern Ireland

Up to data can be found on the Northern Ireland registry website [here](#) and will soon be published on the [Local Cancer Intelligence tool Northern Ireland](#)



8. NICR 24-year cancer prevalence across multiple cancers, age and gender <http://www.qub.ac.uk/research-centres/nicr/CancerInformation/official-statistics/BySite/>

## UK

For detailed prevalence data on the number of people living with a cancer up to 20 years after diagnosis across the UK by up to 47 cancer sites, then you can use outputs from the Macmillan-NCIN UK Cancer Prevalence Project which are available from [here](#).



Our [project page](#) also contains additional data, on complete cancer prevalence in 2013 for the UK and each nation. This includes breast cancer, prostate cancer, colorectal cancer, lung cancer, all other cancers and all cancers combined, and is broken down by time since diagnosis and by broad age group.

## New cases of cancer – cancer incidence

### Latest official cancer incidence statistics

The latest officially published incidence figures for the UK are for 2016 and tell us:

Over 360,000 people in the UK are diagnosed with cancer every year<sup>9</sup>.

### Number of new cases of cancer: by nation, 2016<sup>9</sup>

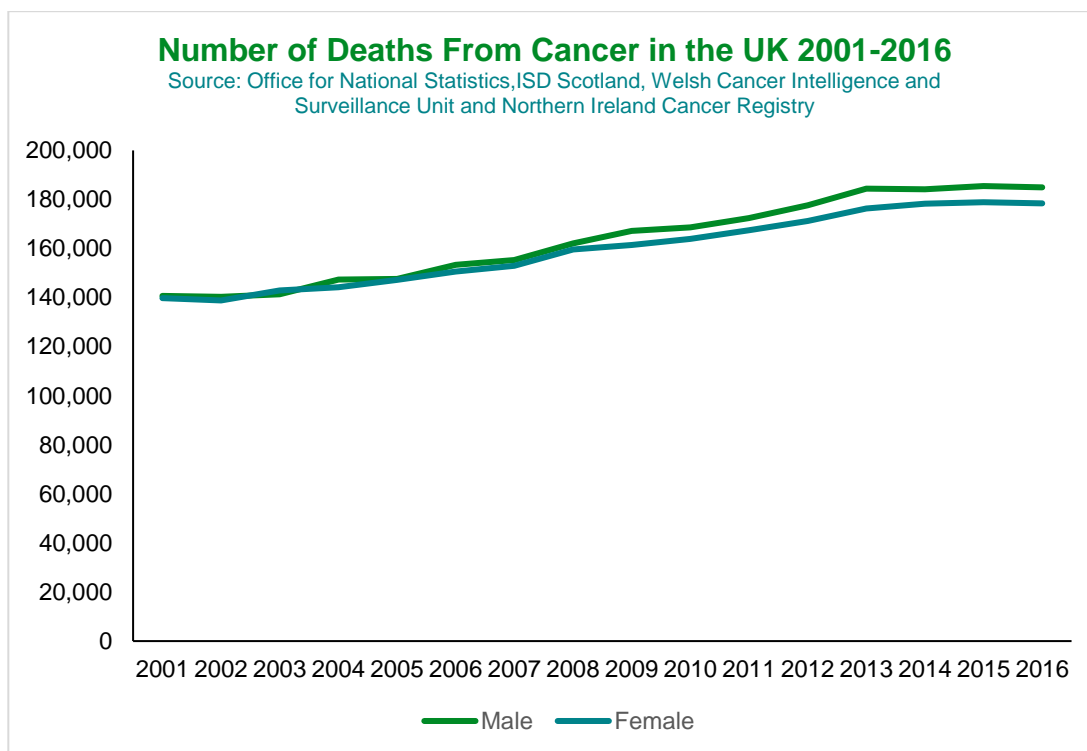
|                  | Every day  | Every week   | Every month   | Every year     |
|------------------|------------|--------------|---------------|----------------|
| England          | 831        | 5,830        | 25,261        | 303,135        |
| Scotland         | 86         | 603          | 2,611         | 31,331         |
| Wales            | 53         | 373          | 1,617         | 19,405         |
| Northern Ireland | 26         | 182          | 787           | 9,446          |
| <b>UK</b>        | <b>996</b> | <b>6,988</b> | <b>30,276</b> | <b>363,317</b> |

Note: Numbers have been rounded.

This figure is for 2016, the latest year for which cancer incidence data are available. Figures include all malignant neoplasms excluding non-melanoma skin cancer (NMSC) (ICD-10 codes C00-97 excl. C44. Scotland does not use C97). Figures are calculated by dividing annual incidence figures by 12 for a monthly figure, by 365 to get a daily figure, then multiplying by seven to get a weekly figure. Totals have been rounded as this makes figures more accessible. UK totals may not sum up due to rounding.

- The number of new cancer diagnoses in the UK per year is increasing, and has risen by more than 29% since 2001<sup>9</sup>:





<sup>9</sup> 2001 - 2016 incidence figures compiled for each nation from Office for National Statistics, ISD Scotland, Welsh Cancer Intelligence and Surveillance Unit and Northern Ireland Cancer Registry

### How many people get cancer?

- One in two people born after 1960 in the UK will be diagnosed with some sort of cancer during their lifetime<sup>10</sup>.
- The odds of developing cancer (excluding non-melanoma skin) in Northern Ireland, in 2012-2016, before the age of 75 was 1 in 3.6<sup>11</sup>.
- By 2020, almost one in two people will get cancer at some point in their lives<sup>12</sup>.
- By 2020, almost four in ten people (38%) who have had cancer will die from another cause<sup>12</sup>.

<sup>10</sup> Ahmad AS, Ormiston-Smith N, Sasieni PD. Trends in the lifetime risk of developing cancer in Great Britain: comparison of risk for those born from 1930 to 1960. *British Journal of Cancer*. 2015;112(5):943-947. doi:10.1038/bjc.2014.606. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4453943/> [accessed February 2017].

<sup>11</sup> Northern Ireland Cancer Registry. Average number of cases per year and incidence rates by sex: 2012-2016 - odds of developing the disease before age 75. Available at: <http://www.qub.ac.uk/research-centres/nicr/CancerInformation/official-statistics/BySite/All-Cancers-excl-NMSC/> [accessed April 2018]

<sup>12</sup> Macmillan Cancer Support (2013). Cancer mortality trends: 1992–2020. Estimated based on prevalence, incidence and mortality trends for full details see [here](#) [accessed December 2014]





## People dying with and from cancer – cancer mortality

### Latest official cancer mortality statistics

The latest officially published mortality figures for the UK are for 2016 and tell us:

- Over 164,000 people in the UK die from cancer every year<sup>15</sup>:
- In all 4 nations, cancer was the leading cause of avoidable deaths<sup>13</sup>

| Nation           | Age standardised rate per 100,000 population | % of deaths from avoidable causes that were a result of cancer |
|------------------|--|--|
| England          | 75.2   | 34%  |
| Scotland         | 94.3   | 32%  |
| Wales            | 81.5   | 32%  |
| Northern Ireland | 84.9   | 35%  |

- In the UK, cancer was the most common cause of death, by broad disease group, in 2017 for both men and women. This was a change from the decade earlier, where circulatory diseases (including heart disease and stroke) were the most common cause of death<sup>14</sup>

<sup>13</sup> Office for National Statistics. Avoidable mortality in the UK 2016. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/datasets/avoidablemortalityintheuk> [accessed October 2018]

<sup>14</sup> Office for National Statistics. Mortality in England and Wales, 2017 Available at: <https://www.ons.gov.uk/file?uri=/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathregistrationssummarytablesenglandandwalesreferencetables/2017/deathsummarytables2017final.xls>  
 National Records of Scotland. Mortality in Scotland, 2017 Available at <https://www.nrscotland.gov.uk/files//statistics/vital-events-ref-tables/2017/vital-events-17-ref-tabs-6-corrected.xlsx>  
 Northern Ireland Statistics and Research Agency. Registrar General Annual Report 2017 Cause of Death Available at: [https://www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/CauseOfDeath\\_2017\\_0.xls](https://www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/CauseOfDeath_2017_0.xls)  
 Office of National Statistics. Mortality in the United Kingdom, 1983-2013. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/mortalityintheunitedkingdom/19832013> [accessed February 2017]

### Number of people who die from cancer: by nation, 2016<sup>15</sup>

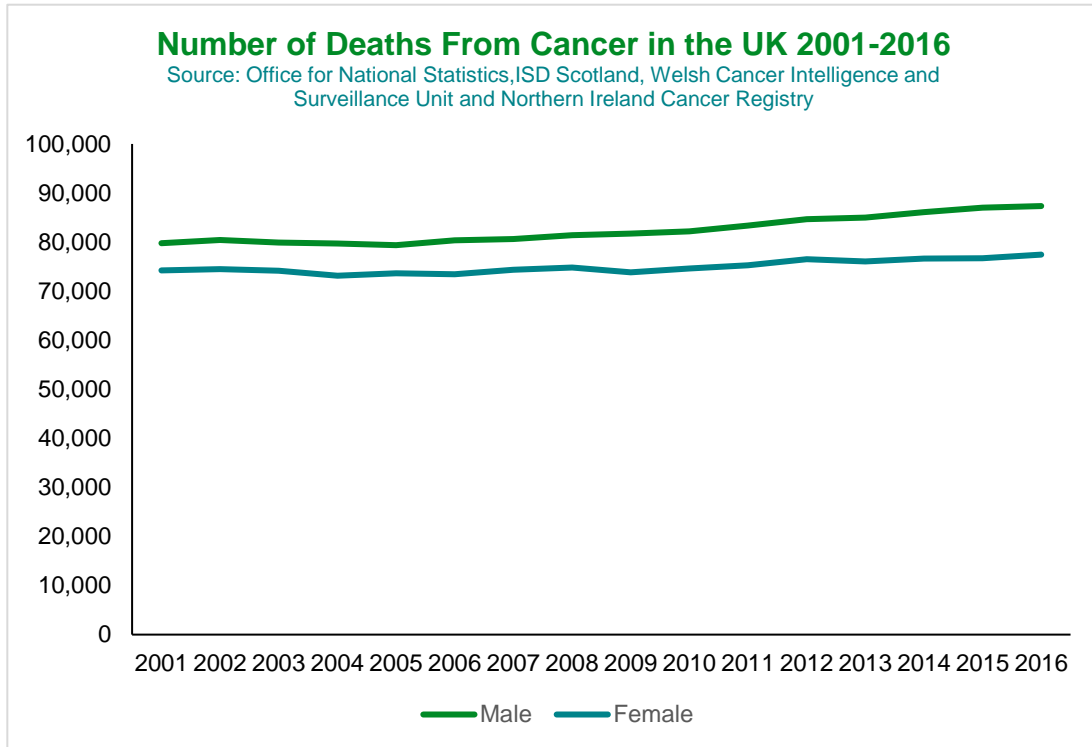
|                  | Every day  | Every week  | Every month   | Every year     |
|------------------|------------|-------------|---------------|----------------|
| England          | 372        | 2610        | 11,312        | 135,741        |
| Scotland         | 43         | 304         | 1,318         | 15,814         |
| Wales            | 24         | 169         | 734           | 8,807          |
| Northern Ireland | 12         | 85          | 368           | 4,420          |
| <b>UK</b>        | <b>451</b> | <b>3168</b> | <b>13,732</b> | <b>164,782</b> |

Note: Numbers have been rounded.

This figure is for 2015, the latest year for which cancer mortality data are available. Figures include malignant cancers excluding non-melanoma skin cancer (ICD10 codes C00-C97, excl. C44). Figures are calculated by dividing annual mortality figures by 12 for a monthly figure, by 365 to get a daily figure, then multiplying by seven to get a weekly figure. Totals have been rounded as this makes figures more accessible. UK totals may not sum up due to rounding.



- The number of deaths from cancer in the UK per year are increasing slightly, and has risen by 6% since 2001<sup>15</sup>:



<sup>15</sup> 2001 - 2016 cancer mortality figures compiled for each nation from Office for National Statistics, ISD Scotland, Welsh Cancer Intelligence and Surveillance Unit and Northern Ireland Cancer Registry.

## Surviving cancer – cancer survival, the consequences of cancer and its treatment

### Median Survival

- In the early 1970's the median survival time after diagnosis was one year<sup>16</sup>, by 2007 it was six years<sup>16</sup> and by 2011 it was ten years<sup>17</sup>.

<sup>16</sup> Macmillan Cancer Support (2011). Living after diagnosis median cancer survival times. <http://www.macmillan.org.uk/Documents/AboutUs/Newsroom/LivingAfterCancerMedianCancerSurvivalTimes.pdf> (accessed March 2016)

### Net Survival

- For patients diagnosed with cancer in England in 2006 there was a 43.8% chance of surviving cancer for at least ten years<sup>17</sup>.

In England:

- Cancer survival is usually higher in younger people than older people<sup>18</sup>.



- Pancreatic cancer has the poorest survival (for 1 and 5-year survival) for both men and women across 29 common cancers<sup>18</sup>.
- 1-year survival is above 80%, for the following cancers: testicular, female breast, melanoma of skin, prostate, uterus, cervical, vulva, myeloma, female non-Hodgkin lymphoma, Hodgkin lymphoma, thyroid, larynx, Uterus, Anus and rectum cancer<sup>18</sup>.
- 5-year survival remains poor, and is below 25%, for cancers of the brain, liver, lung, Mesothelioma, oesophagus, pancreas and stomach<sup>18</sup>.
- 5-year survival is above 80%, for: women diagnosed with breast cancer, prostate cancer, testicular cancer and thyroid cancer, Hodgkin lymphoma and melanoma of the skin<sup>18</sup>.
- On average one year survival rates for those diagnosed in stage 4 was 48% lower than those diagnosed in stage 1, with the greatest difference being seen in lung cancer patients where those diagnosed in stage 1 had a one year net survival rate of 87.3% compared to those diagnosed in stage 4 who had a one year net survival rate of 18.7%<sup>18</sup>.

<sup>17</sup> ONS Cancer survival in Clinical Commissioning Groups, England: Adults diagnosed between 2000 and 2015 and followed up to 2016 [accessed on November 2017]  
<https://www.ons.gov.uk/file?uri=/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/datasets/table10to161yearcancersurvivalbyclinicalcommissioninggroupinenglandwith95confidenceintervals/current/referencetables2000to2015cancerindextables10to16.xls>

<sup>18</sup> ONS Cancer survival in Clinical Commissioning Groups, England: Adults diagnosed between 2012 and 2016 [accessed on February 2019]  
<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/datasets/cancersurvivalratescancersurvivalinenglandadultsdiagnosed>

## Consequences of cancer and its treatment

While it is clearly good news that more people are surviving cancer, progress can be a double-edged sword. [‘Throwing Light on the Consequences of Cancer and its Treatment’](#) (and the accompanying lay summary report [‘Cured – But at What Cost?’](#)) reveals another vital aspect of the changing cancer story.

- We estimate around one in four (25%) people living with and beyond cancer have one or more physical or psychosocial consequences of their cancer or its treatment that affects their lives on a long-term basis.<sup>19</sup>

<sup>19</sup> Macmillan Cancer Support (2013). Throwing light on the consequences of cancer and its treatment. See [here](#)

## Variations – differences in cancer incidence by ethnicity and deprivation

### Ethnicity

Overall the incidence of cancer in the black and minority ethnic (BME) population is lower than that in the white population<sup>20</sup>.

However, this varies for different BME groups and cancer types:

- Asian, Black, Chinese and Mixed ethnic groups have significantly lower risk of getting any of the four major cancers (breast, prostate, lung and colorectal) compared to White people<sup>20</sup>.
- Males and females in the Asian, Chinese and Mixed ethnic groups are between 20% and 60% less likely to get cancer than those from the White group<sup>20</sup>.



- Black females are between 10% and 40% less likely to get cancer than white females; in contrast, there is no evidence that black males have differing risks compared with white males<sup>20</sup>.
- Black males are up to three times more likely to get prostate cancer than white males<sup>20</sup>.
- Black people are nearly twice as likely as white people to get stomach cancer<sup>20</sup>.
- Asian people are up to three times more likely to get liver cancer than the white population<sup>20</sup>.
- Black and Asian females aged 65 years and over, are at higher risk of cervical cancer compared with White females<sup>20</sup>.

Note: Data are for England only. There are several limitations to the analysis presented here. Ethnicity information for almost a quarter of the cancer patients included in the analysis is missing. The methodology in the source report makes use of a number of relatively crude procedures to assign these patients to specific ethnic groups for incidence data. However, despite these limitations, this report has been able to provide a first look at the overall pattern of cancer incidence by ethnicity in England.

<sup>20</sup> NCIN (2009). Cancer Incidence and Survival by Major ethnic group. England, 2002-2006.  
<http://www.ncin.org.uk/view.aspx?rid=75> (accessed March 2016)

Further statistics by ethnicity are included in the National Cancer Intelligence Network Cancer and Equality Groups: Key Metrics 2015 Report, and is available [here](#).

## Deprivation

Overall, for England, the cancer incidence rate in the most deprived groups is higher than the cancer incidence rate in the least deprived group<sup>21</sup>.

In England:

- If overall cancer incidence rates for the most deprived group were the same as the least deprived group there would be 15,000 fewer cancers diagnosed each year<sup>21</sup>.
- In general, differences in cancer incidence by deprivation have not improved over time<sup>21</sup>.
- People from the most deprived group are more likely to get lung cancer, laryngeal cancer, oesophagus cancer, stomach cancer, bladder cancer, kidney cancer, oral cavity cancer or pancreatic cancer, and women from the most deprived group are more likely to get cervical cancer<sup>21</sup>.
- Men from the least deprived group are more likely to get prostate cancer or testicular cancer; women from the least deprived group are more likely to get breast cancer (in females), and people from the least deprived group are more likely to get skin cancer<sup>21</sup>.

<sup>21</sup> NCIN (2014). Cancer by Deprivation in England Incidence, 1996-2010.  
[http://www.ncin.org.uk/about\\_ncin/cancer\\_by\\_deprivation\\_in\\_england](http://www.ncin.org.uk/about_ncin/cancer_by_deprivation_in_england) (accessed March 2016)

More recent analysis has shown that across the UK<sup>22</sup>, and for each nation in the UK, there are trends for:

- Lung cancer, with incidence rates increasing with deprivation levels in both men and women<sup>22</sup>.
- Stomach cancer, with incidence rates increasing with deprivation levels in both men and in women (except for Wales where there was no significant trend for women)<sup>22</sup>.
- Prostate cancer, with incidence rates higher amongst the least deprived groups<sup>22</sup>.
- Significant trends for malignant melanoma (skin cancer) with incidence rates higher amongst the least deprived groups<sup>22</sup>.



<sup>22</sup> NCRAS (2016). Deprivation and cancer: in search of a common measure across England, Wales, Scotland, Northern Ireland and Ireland, Based on cancer incidence and mortality data, 2008-2012. <http://www.ncin.org.uk/view?rid=3278> [accessed February 2017]

## Rotes to Diagnosis

In England:

- In 2016 around one in five patients was diagnosed with cancer via emergency presentation<sup>23</sup>.
- In 2016 those in the most deprived quintile were 50% more likely to be diagnosed via an Emergency presentation<sup>23</sup>.
- In 2016 although males were more likely to be diagnosed via a GP (both urgent and non-urgent referrals) with 64% of males being diagnosed this way. The proportion of females diagnosed via an GP urgent referral (38%) was 1% higher than males, with only 37% of all males diagnosed this way<sup>23</sup>.
- Between 2011 and 2015 those female breast patients diagnosed via the two weeks wait pathway had a one-year net survival rate of 97.5%. However, for those female breast patients diagnosed via an emergency presentation one-year net survival rates fell by over a third to 57.2%<sup>23</sup>.

<sup>23</sup> NCRAS Routes to Diagnosis 2006-2016, Workbook a, <http://www.ncin.org.uk/view?rid=3814>

## The reach of Macmillan services

In 2017, we estimate that 1.6 million people received personal (face-to-face and phone services), high impact support from one or more of our Macmillan Professionals or services. This 1.6 million includes:

- 1.3 million people with a cancer diagnosis
- 75,000 carers of people with cancer
- 298,000 other people affected by cancer (including family, friends, colleagues, and worried well)<sup>23</sup>



We also helped many more through our information and support resources – both printed and online:

- We reached an estimated 3.6 million people affected by cancer through our printed Macmillan information resources.
- We reached an estimated 6.2 million people affected by cancer in the UK through onlineSupport<sup>23</sup>

<sup>24</sup> Macmillan Cancer Support estimates.

Analysis of new survey data indicates that 69% of people helped by at least one Macmillan service used more than one Macmillan service in 2017.

Our reach figure was calculated by adding up the number of unique people helped by each of our services. This figure was then adjusted to take into account people using more than one of our services. In 2017, the adjustment was a discount factor of 13% for personal services based on the analysis of survey data asking people what Macmillan services they

had used.



Our analysis shows that currently we are reaching 49% of people living with cancer through personal support.

For more information see our 'Reach of Macmillan's Services fact sheet' [here](#) and Macmillan's Annual Report and Accounts [here](#).

<sup>[1]</sup> 'Interaction' meaning when someone has been helped by or got in touch with one of our services

