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;
- or time limited duration, e.g. ‘20-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 consequences of cancer and its treatment. 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

For further support or if you have any queries, please contact: evidence@macmillan.org.uk
People living with cancer – cancer prevalence

Headlines

- There are now an estimated 2.5 million people living with cancer in the UK, rising to 4 million by 2030\(^1\).
- The number of people living with cancer in the UK in 2015 has increased by almost half a million people in the last five years\(^1,2\).

See our full infographic ‘Cancer: A colossal challenge – the 2.5 million’.

You can also view a text-only version of this infographic.

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\(^3\).

- 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\(^3\).

- The number of people living with cancer in the UK is increasing by 3% every year\(^4\).

- 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\(^4\).

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2 ‘Five years’ refers to 2010-2015.
Estimated number of people living with cancer: by nation, at the end of 2010, 2015, 2020 and 2030

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>1,700,000</td>
<td>2,000,000</td>
<td>2,400,000</td>
<td>3,400,000</td>
</tr>
<tr>
<td>Wales</td>
<td>110,000</td>
<td>130,000</td>
<td>160,000</td>
<td>220,000</td>
</tr>
<tr>
<td>Scotland</td>
<td>190,000</td>
<td>220,000</td>
<td>260,000</td>
<td>360,000</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>53,000</td>
<td>63,000</td>
<td>74,000</td>
<td>100,000</td>
</tr>
<tr>
<td><strong>UK</strong></td>
<td><strong>2,100,000</strong></td>
<td><strong>2,500,000</strong></td>
<td><strong>2,900,000</strong></td>
<td><strong>4,000,000</strong></td>
</tr>
</tbody>
</table>

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

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

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

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.

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

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

For additional statistics on older people living with cancer please refer to the ‘Prevalence of older people living with cancer’ here.

More cancer prevalence data

For additional information on people living with cancer from 2010 to 2030 please refer to the ‘People living with cancer’ here.

For the number of people living up to 20-years after diagnosis in your clinical commissioning group (CCG) in England in 2010 and estimated projections to 2030 go to the Local Cancer Intelligence website. This website may be shared freely with external contacts.

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. These datasets present prevalence data by: sex, time since diagnosis, age at end of 2010, and age at diagnosis for UK nations and the UK combined. Local cancer prevalence statistics and prevalence data by deprivation group are also available for each UK nation. Summary findings have also been published by Macmillan and are available by each nation in the following PDF documents: the **UK** as whole, **England**, **Wales**, **Scotland**, and **Northern Ireland**.
Our project page also now contains additional data, published in September 2016, on complete cancer prevalence in 2013 for the UK and each nation. This has outputs for 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.

Further information on our partnership with Public Health England’s National Cancer Registration and Analysis Service (NCRAS, formerly NCIN) can be found here.

New cases of cancer – cancer incidence

Latest official cancer incidence statistics

The latest officially published incidence figures for the UK are for 2014 and tell us:

- Almost 357,000 people in the UK are diagnosed with cancer every year.

Number of new cases of cancer: by nation, 2014

<table>
<thead>
<tr>
<th></th>
<th>Every day</th>
<th>Every week</th>
<th>Every month</th>
<th>Every year</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>813</td>
<td>5,690</td>
<td>24,740</td>
<td>296,860</td>
</tr>
<tr>
<td>Scotland</td>
<td>87</td>
<td>610</td>
<td>2,640</td>
<td>31,710</td>
</tr>
<tr>
<td>Wales</td>
<td>52</td>
<td>370</td>
<td>1,590</td>
<td>19,120</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>24</td>
<td>170</td>
<td>750</td>
<td>8,940</td>
</tr>
<tr>
<td>UK</td>
<td>977</td>
<td>6,840</td>
<td>29,720</td>
<td>356,630</td>
</tr>
</tbody>
</table>

Note: Numbers have been rounded.

This figure is for 2014, 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 25% since 2001:

![Number of new cancer diagnoses in the UK, 2001 - 2014](image)
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.
- The odds of developing cancer (excluding non-melanoma skin) in Northern Ireland, in 2010-2014, before the age of 75 was 1 in 3.6.
- By 2020, almost one in two people (47%) will get cancer at some point in their lives.
- By 2020, almost four in ten people (38%) who have had cancer will die from another cause.

8 Northern Ireland Cancer Registry. Average number of cases per year and incidence rates by sex: 2010-2014 - odds of developing the disease before age 75. Available at: http://qub.ac.uk/research-centres/nicr/FileStore/ExcelDocuments/OfficialStats2016/Incidence2016/Filetoupload_620812_en.xls [accessed February 2017]

People dying with and from cancer – cancer mortality

- In England and Wales, cancer was the leading cause of avoidable deaths, across broad cause groups, with an age-standardised rate of 78.2 per 100,000 population.
- Cancers accounted for 40% of all deaths from preventable causes in England and Wales.
- In the UK, cancer was the most common cause of death, by broad disease group, in 2013 for both men and women. This was a change from a decade earlier, where circulatory diseases (including heart disease and stroke) were the most common cause of death.


Latest official cancer mortality statistics

The latest officially published mortality figures for the UK are for 2014 and tell us:

- Almost 163,000 people in the UK die from cancer every year.
**Number of people who die from cancer: by nation, 2014**

<table>
<thead>
<tr>
<th>Nation</th>
<th>Every day</th>
<th>Every week</th>
<th>Every month</th>
<th>Every year</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>366</td>
<td>2,560</td>
<td>11,140</td>
<td>133,720</td>
</tr>
<tr>
<td>Scotland</td>
<td>43</td>
<td>300</td>
<td>1,310</td>
<td>15,750</td>
</tr>
<tr>
<td>Wales</td>
<td>24</td>
<td>170</td>
<td>740</td>
<td>8,930</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>12</td>
<td>80</td>
<td>350</td>
<td>4,250</td>
</tr>
<tr>
<td>UK</td>
<td>446</td>
<td>3,120</td>
<td>13,550</td>
<td>162,640</td>
</tr>
</tbody>
</table>

Note: Numbers have been rounded.

This figure is for 2014, 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:

![Number of deaths from cancer in the UK, 2001 - 2014](image)

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

**Median Survival**

- People now live nearly ten times longer after their cancer diagnosis compared to 40 years ago.
- In the early 1970’s the median survival time after diagnosis was one year, by 2007 it was six years and by 2011 it was ten years.

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12 2001 - 2014 cancer mortality figures compiled for each nation from PHE-NCRAS, ISD Scotland, Welsh Cancer Intelligence and Surveillance Unit and Northern Ireland Cancer Registry.
Net Survival

- Half of people diagnosed with cancer in England and Wales in 2010-2011 are predicted to survive their disease for at least ten years\(^\text{14}\).

In England:
- Cancer survival is usually higher in younger people than older people\(^\text{15}\).
- Pancreatic cancer has the poorest survival (for 1 and 5-year survival) for both men and women across 24 common cancers\(^\text{15}\).
- 1-year survival is above 80%, for the following cancers: testicular, female breast, melanoma of skin, prostate, uterus, cervical, Hodgkin lymphoma, thyroid, larynx and rectum cancer\(^\text{15}\).
- 5-year survival remains poor, and is below 25%, for cancers of the brain, liver, lung, mesothelioma, oesophagus, pancreas and stomach\(^\text{15}\).
- 5-year survival is above 80%, for: women diagnosed with breast cancer, men diagnosed with testicular cancer, and people diagnosed thyroid cancer, Hodgkin lymphoma and melanoma of the skin\(^\text{15}\).
- Predicted 10-year survival (measured for ten common cancers) is 80% or higher for cancers including: melanoma of skin, breast and prostate cancers\(^\text{15}\).

\(^{14}\) Cancer Research UK (2014). Cancer Survival. [http://www.cancerresearchuk.org/sites/default/files/cstream-node/surv_1_5_10yr_all.pdf](http://www.cancerresearchuk.org/sites/default/files/cstream-node/surv_1_5_10yr_all.pdf) [accessed February 2017]


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 in the UK face poor health or disability after treatment for cancer\(^\text{16}\).


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\(^\text{17}\).

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\(^\text{17}\).
- 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\(^\text{17}\).
• 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\textsuperscript{17}.

• Black males are up to three times more likely to get prostate cancer than white males\textsuperscript{17}.

• Black people are nearly twice as likely as white people to get stomach cancer\textsuperscript{17}.

• Asian people are up to three times more likely to get liver cancer than the white population\textsuperscript{17}.

• Black and Asian females aged 65 years and over, are at higher risk of cervical cancer compared with White females\textsuperscript{17}.

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.


Further statistics by ethnicity are included in the National Cancer Intelligence Network Cancer and Equality Groups: Key Metrics 2015 Report, and is available \url{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\textsuperscript{18}.

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\textsuperscript{18}.

• In general, differences in cancer incidence by deprivation have not improved over time\textsuperscript{18}.

• 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\textsuperscript{18}.

• 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\textsuperscript{18}.


More recent analysis has shown that across the UK\textsuperscript{19}, and for each nation in the UK, there are significant trends for:

• Lung cancer, with incidence rates increasing with deprivation levels in both men and women\textsuperscript{19}.

• 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)\textsuperscript{19}.

• Prostate cancer, with incidence rates higher amongst the least deprived groups\textsuperscript{19}.

• Significant trends for malignant melanoma (skin cancer) with incidence rates higher amongst the least deprived groups\textsuperscript{19}.

The reach of Macmillan services

In 2016, we helped over 1.4 million people with personal support through our face-to-face and phone services, of which 1.1 million were people living with cancer. We also helped many more people through our information and support resources – both printed and online.  

Analysis of new survey data indicates that 69% of people helped by at least one Macmillan service used more than one Macmillan service in 2016.

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 2016.

In 2006/7, we reported that we were reaching only one in three people living with cancer, and in 2008 this had increased to one in two; thanks largely to our merger with Cancerbackup. Gains in reach between 2009 and 2016 have come from both new and existing Macmillan services, but especially from growth in our website and information resources.

It is important to remember, though, that we are reaching most people through our information and support resources such as website and information resources. Our next challenge will be to reach people in ever more relevant and personalised ways, at the times that they really need us.

For more information see our ‘Reach of Macmillan’s Services fact sheet’ here and Macmillan’s Annual Report and Accounts here.

’Interaction’ meaning when someone has been helped by or got in touch with one of our services.