Macmillan-NCIN UK Cancer Prevalence Project
Cancer prevalence describes people living with cancer (the number or proportion of people alive on a specified date who have been diagnosed with cancer at some time in the past). Cancer registrations have been linked to mortality records to quantify how many people were diagnosed with cancer between 1993 and 2010 and were still alive on 31st December 2010 – that is 18-year prevalence.

What’s new? We have detailed prevalence data available by: cancer type, deprivation group and local area, as well as age, sex, and time since diagnosis.  

Most prevalent cancers

Around 27,000 people were living with one of the four most prevalent cancers in Northern Ireland (Figure 1) - breast, prostate, colorectal or skin cancer (malignant melanoma) as their first cancer diagnosis. There were around 11,200 women and around 6,400 men who were living with breast and prostate cancer respectively.

The number of people living with cancer (cancer prevalence) is influenced by new cases diagnosed and the number of people dying from cancer. This means that poor prognosis cancers such as lung cancer – despite being one of the most commonly diagnosed cancers in Northern Ireland – are less prevalent (around 1,400 people).

A new way of counting prevalence
Our figures for different cancers are based on counting a person’s first diagnosis of a specific cancer type (in the period 1993-2010) even if they have had cancer in another part of their body in the past.

Lung cancer had the highest proportion of diagnoses in people who had a previous cancer diagnosis of a different site in the period 1993-2010 - for around 1 in 12 people living with lung cancer (130 people) this was not their first cancer (Figure 2).

For around 1 in 15 people living with oesophagus cancer, and around 1 in 18 women living with uterus cancer, this was not their first cancer in the period.

Figure 1 - Most prevalent cancers diagnosed between 1993 and 2010, Northern Ireland

Figure 2 - Cancers most likely to be a second or subsequent diagnosis for people living with cancer, diagnosed between 1993 and 2010, Northern Ireland

1 More up to date data and 20-year prevalence are now available directly from the Northern Ireland Cancer Registry here. Data published elsewhere may not be directly comparable with the other UK nations’ data.

2 Due to the small numbers of people living with liver cancer, pancreatic cancer and Leukaemia (Acute Myeloid) these have not been included in this analysis meaning that this may differ to other reported findings.
Prevalence by age at diagnosis
Although cancer diagnoses most often occur in later life, this does vary according to cancer type and even for common cancers there are significant numbers of people who were diagnosed at a younger age (Figure 3).

Breast cancer

<table>
<thead>
<tr>
<th>Age</th>
<th>Under 45</th>
<th>45 - 64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>14.4%</td>
<td>56.5%</td>
<td>29.0%</td>
</tr>
</tbody>
</table>

There were around 1,640 women living with breast cancer who were diagnosed under the age of 45, and around 6,400 women (over half) who were diagnosed between the age of 45 and 64.

Around 3,300 (less than a third) of women living with breast cancer were diagnosed when they were 65 or over.

Colorectal cancer

<table>
<thead>
<tr>
<th>Age</th>
<th>Under 45</th>
<th>45 - 64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>4.7%</td>
<td>37.0%</td>
<td>58.4%</td>
</tr>
</tbody>
</table>

There around 300 people living with colorectal cancer who were diagnosed under the age of 45.

Around 2,400 were diagnosed between the age of 45 and 64, just over a third of the total.

Around 3,800 people living with colorectal cancer were diagnosed when they were 65 or over, well over half of the total.

Cervical cancer

<table>
<thead>
<tr>
<th>Age</th>
<th>Under 45</th>
<th>45 - 64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>26.8%</td>
<td>5.4%</td>
<td>67.7%</td>
</tr>
</tbody>
</table>

700 women living with cervical cancer were diagnosed under the age of 45, just over two thirds of the total.

95% of all women living with cervical cancer were diagnosed during their working age.

However, there were still around 60 women who were diagnosed when they were 65 or over.

Prevalence by age at end of 2010
Although cancer is mostly associated with older people, there were significant numbers of people from all age groups who were living with cancer; this varies by cancer type (Figure 4).

Breast cancer

<table>
<thead>
<tr>
<th>Age</th>
<th>Under 45</th>
<th>45 - 64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>5.3%</td>
<td>44.0%</td>
<td>50.7%</td>
</tr>
</tbody>
</table>

Just under half (49%) of women living with breast cancer were of working age.

There were around 600 women under 45 living with breast cancer in 2010.

Over 5,700 women living with breast cancer were 65 or over, of these around 2,700 were 75 or over.

Lung cancer

<table>
<thead>
<tr>
<th>Age</th>
<th>Under 45</th>
<th>45 - 64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>2.0%</td>
<td>26.8%</td>
<td>71.2%</td>
</tr>
</tbody>
</table>

Less than a third of people living with lung cancer were of working age – around 400 people.

Although a low proportion, there were still around 30 people living with lung cancer under the age of 45.

There were around 1,100 people living with lung cancer who were 65 or over.

Skin cancer

<table>
<thead>
<tr>
<th>Age</th>
<th>Under 45</th>
<th>45 - 64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>21.5%</td>
<td>36.4%</td>
<td>42.1%</td>
</tr>
</tbody>
</table>

Over half (58%) of people living with skin cancer were of working age – around 1,650 people, of which around 600 were under 45.

Despite the high numbers in younger age groups, there were still 1,200 older people (65 or over) who were living with skin cancer.

Figure 3 – Age at time of diagnosis for people living with cancer in 2010, diagnosed 1993 - 2010, for selected cancers, Northern Ireland

Figure 4 – Age at end of 2010 for people living with cancer, diagnosed 1993 - 2010, for selected cancers, Northern Ireland

3 Working age is based on those aged 15 - 64
Prevalence by time since diagnosis

Around 500 people living with lung cancer in 2010 had been diagnosed within the previous year, representing 35% of all people living with lung cancer. Just 13% (around 200 people) had been living with lung cancer for more than 10 years, and just 4% (almost 70 people) had been living with lung cancer for more than 15 years, reflecting the poor survival associated with lung cancer.

Skin cancer (malignant melanoma) has better survival rates than lung cancer, and around 850 people living with skin cancer in 2010 had been for more than 10 years – almost a third of the 18-year prevalence total. There were around 2,000 people who have been living with skin cancer for up to ten years, and just 10% of all people living with skin cancer in 2010 (around 270 people) had been diagnosed within the past year.

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Prevalence by deprivation

In Northern Ireland, it is the least deprived group who constitute the highest proportion of cancer survivors for the 18-year period across many cancer types. This is likely due to the least deprived groups having a higher incidence in the better prognosis cancers, such as breast and skin cancers, and the most deprived groups having higher incidence in the poor prognosis cancers.

People living with skin cancer were twice as likely to be from the least deprived group than the most deprived group (Figure 6). This was one of the largest differences in the proportion of people in the least versus the most deprived group for people living with different cancers.

Lung, head and neck, stomach and cervical cancer survivors were more likely to be from the most deprived group; at least quarter of people living with these cancers were from the most deprived group.

Figure 5 – 18-year prevalence by time since diagnosis for people living with lung and skin cancer, by age at end of 2010, Northern Ireland

Figure 6 – 18-year prevalence by deprivation group for selected cancers in 2010, Northern Ireland

*Note that some figures in this chart have been suppressed for confidentiality reasons.*
Prevalence by local area
The 18-year cancer prevalence data is broken down to a sub-national level, allowing us to identify the number of people living with a specific cancer type in a region or local area (based on their location of residence at time of diagnosis). Cancer prevalence can also be based on crude rates (per 100,000 population) which allows for some comparison between areas, although it does not account for different age profiles of local areas.

People living with colorectal cancer
South Eastern Health and Social Care Trust had the highest rates of colorectal cancer prevalence out of all Health and Social Care Trusts in Northern Ireland.

Belfast (local government district) has the highest number of people living with colorectal cancer in 2010 – 988 people - and had a colorectal prevalence rate comparable to the average of all local government districts (Figure 7).

Women living with breast cancer
The South Eastern Health and Social Care Trust had the highest rates of breast cancer prevalence out of all Health and Social Care Trusts in Northern Ireland.

Belfast (local government district) had the highest number of women living with breast cancer (1,744 women), and its prevalence rate was similar to the average of all local government districts (Figure 8).

North Down and Castlereagh had some of the highest rates of breast cancer prevalence of all local government districts, and also had relatively high numbers of women living with breast cancer (630 and 500 respectively).

Figure 7 – 18-year prevalence for people living with colorectal cancer by local government district, 2010, Northern Ireland

Figure 8 – 18-year prevalence for women living with breast cancer by local government district, 2010, Northern Ireland
Find out more

All the data and analysis presented in this high level summary are available alongside much more detail in a series of data tables. This includes between 16 and 47 cancer sites for different analyses, 7 age groups, and two different geographical breakdowns (health and social care trust, and local government district) for Northern Ireland.

The following additional resources are now available:

- National-level and UK combined data tables for common and detailed cancer types, age, sex, time since diagnosis, nation and UK summary: http://www.ncin.org.uk/about_ncin/segmentation
- Sub-geographical data tables for England, Northern Ireland, Scotland and Wales which contain variables for: sex, common cancer types, time since diagnosis and sub-geographical area:
  http://www.ncin.org.uk/about_ncin/segmentation
- A UK summary data briefing and equivalent nation specific briefings for England, Scotland and Wales:
  http://www.macmillan.org.uk/Aboutus/Ouresearchandevaluation/Ourresearchpartners/NCIN.aspx
- A full guidance document and FAQ on using the prevalence data referred to here and included in the data files:
  http://www.ncin.org.uk/about_ncin/segmentation
- Location maps (in PDF format) describing the areas referred to here and in the data files:
  http://www.ncin.org.uk/about_ncin/segmentation

Other useful resources within the Macmillan-NCIN partnership:

Public Health England’s National Cancer Intelligence Network (NCIN) is a UK-wide initiative, working to drive improvements in cancer awareness, prevention, diagnosis and clinical outcomes by improving and using the information collected about cancer patients for analysis, publication and research.
http://www.ncin.org.uk/about_ncin/understanding_the_cancer_population

Macmillan does more research into the needs and experiences of people living with cancer and their carers than any other charity in the UK. We fund a range of research projects and work in partnership with leading national research organisations and academics. Our research covers health and social care services, patient experience, cancer survivorship, the economics of cancer, the demographics of the cancer population and many more areas.
http://www.macmillan.org.uk/research

Working together

The Macmillan-NCIN UK Cancer Prevalence Project is part of the Macmillan Cancer Support and Public Health England’s National Cancer Intelligence Network Partnership Work Plan. The Project is supported by the Knowledge & Intelligence Team (East) at Public Health England. Data are sourced and presented in collaboration with the Welsh Cancer Intelligence and Surveillance Unit, Health Intelligence Division, Public Health Wales, the Scottish Cancer Registry and the Northern Ireland Cancer Registry, funded by the Public Health Agency for Northern Ireland.