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). By linking cancer registrations to mortality records we quantified how many people were diagnosed with cancer between 1991 and 2010 and were still alive on 31st December 2010 – that is 20-year prevalence.

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

Almost 60,000 people were living with one of the four most prevalent cancers in Wales (Figure 1) - breast, prostate, colorectal or bladder cancer - as their first cancer diagnosis.

There were around 25,000 women and 15,000 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 Wales – are less prevalent (around 2,500 people).

A new way of counting cancer prevalence
Our figures for different cancers are based on counting a person's first diagnosis of a specific cancer type (in the period 1991-2010) 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 1991-2010 - for around 1 in 8 people living with lung cancer (350 people) this was not their first cancer (Figure 2).

For around 1 in 10 people living with pancreatic cancer, and around 1 in 13 people living with kidney or oesophagus cancer, this was not their first cancer in the period.

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1 Bladder figures will include some uncertain behaviour (D41.4) and in-situ bladders (D09.0) pre-2007. Other registries implemented this coding change earlier than Wales, hence the higher number of cases compared to other UK countries.
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**

- Under 45: 11.7%
- 45 - 64: 56.1%
- 65+: 32.3%

**Colorectal cancer**

- Under 45: 3.9%
- 45 - 64: 36.1%
- 65+: 60.0%

**Cervical cancer**

- Under 45: 57.7%
- 45 - 64: 31.8%
- 65+: 10.5%

There were nearly 3,000 women living with breast cancer who were diagnosed under the age of 45, and around 14,200 women (over half) who were diagnosed between the ages of 45 and 64.

Around 8,200 (about a third) of women living with breast cancer were diagnosed when they were 65 or over.

There were around 500 people living with colorectal cancer who were diagnosed under the age of 45.

4,500 were diagnosed between the age of 45 and 64, just over a third of the total.

Around 7,500 people living with colorectal cancer were diagnosed when they were 65 or over, well over half of the total.

Almost 1,000 women living with cervical cancer were diagnosed under the age of 45, well over half of the total.

90% of all women living with cervical cancer were diagnosed when they were of working age.

However, there were still nearly 200 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**

- Under 45: 3.5%
- 45 - 64: 39.6%
- 65+: 56.8%

**Lung cancer**

- Under 45: 1.8%
- 45 - 64: 26.1%
- 65+: 72.1%

**Skin cancer**

- Under 45: 14.8%
- 45 - 64: 37.3%
- 65+: 47.9%

Less than half (43%) of women living with breast cancer were of working age.

There were around 900 women under 45 living with breast cancer in 2010.

Over 14,000 women living with breast cancer were 65 or over, of these around 7,000 were 75 or over.

Over a quarter (28%) of people living with lung cancer were of working age – around 800 people.

Although a low proportion, there were still around 50 people living with lung cancer under 45.

There were over 2,000 people living with lung cancer who were 65 or over, of which around 1,000 were 75 or over.

Over half (52%) of people living with skin cancer were of working age - around 2,700 people, of which around 760 were under 45.

Despite the high numbers in younger age groups, there were still 2,450 older people (65 or over) who were living with skin cancer, of which 1,300 were 75 or over.

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

Over 1,000 people living with lung cancer in 2010 had been diagnosed within the previous year, representing 40% of all people living with lung cancer. Just 12% (around 350 people) had been living with lung cancer for more than 10 years, and just 5% (138 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 1,250 people living with skin cancer in 2010 had been for more than 10 years – about a quarter of the 20-year prevalence total. There were almost 4,000 people who had been living with skin cancer for up to ten years, and just 13% of all people living with skin cancer in 2010 (around 670 people) had been diagnosed within the past year.

Prevalence by deprivation

In Wales, it is the least deprived group who constitute the highest proportion of cancer survivors for the 20-year period across most 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 more than twice as likely to be from the least deprived group than the most deprived group (Figure 6). This was the largest difference in the proportion of people in the least versus the most deprived group for people living with different cancers.

People living with lung and cervical cancer were more likely to be from the most deprived group. A quarter of people living with lung cancer and 27% of women living with cervical cancer were from the most deprived group compared to 13% (for lung) and 15% (for cervical cancer) from the least deprived group.
Prevalence by local area
The 20-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
The overall rates of colorectal cancer 20-year prevalence in Wales are highest in North Wales, although there are more people (9,300) living with colorectal cancer in South Wales (compared to 3,140 in North Wales).

Powys Teaching Health Board has the highest rate of colorectal cancer prevalence, but the lowest number (685 people), out of all the health boards in Wales.

Cardiff (local authority area) has the highest number of people living with colorectal cancer (around 1,000 people) out of all local authorities due to being the most populous city. Due to its younger population, it has the lowest rate of all local authorities (Figure 7). Conwy and Isle of Anglesey have some of the highest rates, but this may be due to these areas having older populations (where around a quarter of the population are aged 65 or over).  

Women living with breast cancer
The overall rates of breast cancer 20-year prevalence in Wales are highest in North Wales, although there are three times as many women living with breast cancer in South Wales (19,200 in South Wales compared to 6,160 in North Wales).

Powys Teaching Health Board has the highest rate of breast cancer prevalence but the lowest number of women (1,290) living with breast cancer out of all the health boards in Wales.

Cardiff (local authority area) has the highest number of women living with breast cancer - over 2,200 - out of all local authorities due to being the most populous city. Its younger age profile means it has the lowest rate in Wales.

Monmouthshire has the highest rate of women living with breast cancer out of all local authorities in Wales.

3 Mid-year 2013 population estimates by local authority, available at https://statswales.wales.gov.uk

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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 four different geographical breakdowns (cancer network, health board, local authority and upper super output area) for Wales.

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, Northern Ireland and Scotland:
  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

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