

# EXPLORING VARIATIONS BETWEEN SHORT-TERM AND LONG-TERM CANCER SURVIVORS

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## 20-year cancer prevalence in the UK

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### Background

An estimated 2.5 million people are currently living with and beyond cancer in the UK and this is predicted to increase to 4 million by 2030<sup>1</sup>. The Macmillan-NCIN UK Cancer Prevalence Project aims to provide the most granular understanding of the cancer survivorship population in the UK. Patient needs and experiences vary over time: from those recently diagnosed more likely to be in active anti-cancer treatment, to long-term survivors who may still require health or social care and support for the consequences of their cancer or treatment. A detailed understanding of short-term and long-term cancer survivors can help ensure future services are better tailored to suit their needs.

### Methods

We used the Public Health England's National Cancer Data Repository to link UK cancer registrations to mortality records, in order to identify people diagnosed with cancer between 1991 and 2010<sup>2</sup> and who were still alive on 31st December 2010. We analysed the data to show variations in time since diagnosis distributions for each common cancer site<sup>3</sup>, by sex and deprivation categories. Counts are based on the first diagnosis of a specific cancer within the 20-year period; a person is counted more than once if diagnosed with more than one cancer type within the period, but just once if diagnosed again with the same cancer type.

For the purposes of this analysis, 'short-term survivor' refers to those those living with cancer in 2010 who were diagnosed 0–2 years previously (i.e. in 2009 and 2010), and 'long-term survivor' refers to those living with and beyond cancer in 2010 who were diagnosed 10–20 years previously (i.e. between 1991 and the year 2000).

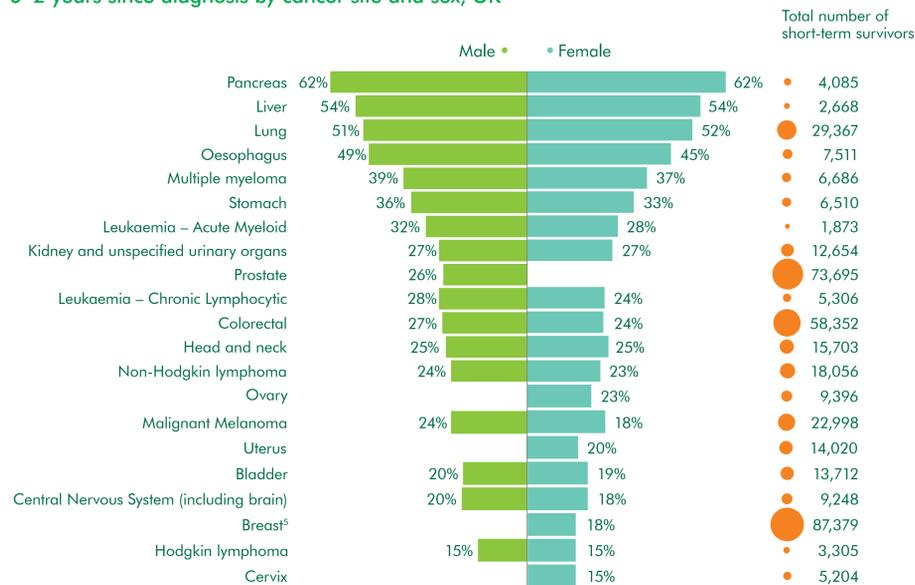
### Results and Discussion

There were more than 1.8 million people living with and beyond cancer in the UK in 2010, who were diagnosed in the period 1991–2010. Breast, colorectal, prostate and skin<sup>5</sup> cancers were the most prevalent of all cancers in the UK. Of all cancer survivors, 23% were short-term survivors and over one-quarter (27%) were long-term survivors.

**Short-term survivors** There were more than 420,000 short-term cancer survivors, across all cancer sites combined (excluding non-melanoma skin cancer), in the UK in 2010.

There was very little variation between the nations in the UK in terms of the proportion of short-term survivors: 24% of Northern Ireland's cancer population in 2010 were short-term survivors compared to 23% in Wales, Scotland and England.

**Figure 1: People living with and beyond cancer in 2010, 0–2 years since diagnosis by cancer site and sex, UK<sup>4</sup>**



#### By common cancer site<sup>4</sup>

The most prevalent cancers in short-term survivors were breast, prostate and colorectal cancers. Breast cancer made up the greatest absolute number of all short-term survivors: equating to more than 87,000 females. There were around 74,000 short-term prostate cancer survivors, and almost 60,000 short-term colorectal cancer survivors.

The poorer prognosis cancers have the highest proportions of short-term survivors. People diagnosed with tumours of the pancreas, lung and liver have poorer survival outcomes, and are thus less likely to become longer term survivors. The majority of pancreatic cancer survivors (62%) were short-term survivors, accounting for around 4,000 people. More than half of those living with and beyond lung and liver cancers were short-term survivors, which accounted for around 29,400 and 2,700 people respectively.

#### By sex

Of all male cancer survivors, 26% were short-term survivors; whereas a smaller proportion of females living with and beyond cancer were short-term survivors (21%).

The largest percentage point difference between male and female short-term survivors was for skin cancer<sup>6</sup>. A larger proportion of males than females were designated as short-term survivors of skin cancer<sup>6</sup>. There had been a substantial rise in the skin cancer incidence rate for males in particular – for instance, between 1991 and 2010 the malignant melanoma incidence rate for females doubled, whereas for males it almost tripled<sup>7</sup>.

### Conclusions

There are substantial numbers of people in the UK who have been recently diagnosed with cancer and who are likely to be in active treatment and directly accessing health services. Variation between cancer types in short-term survival is largely reflective of prognosis, but is also influenced by historical incidence and survival trends.

There are also large numbers of long-term cancer survivors in the UK who may still require support years after diagnosis, due to their cancer or late effects of treatment, as well as other possible associated health problems.

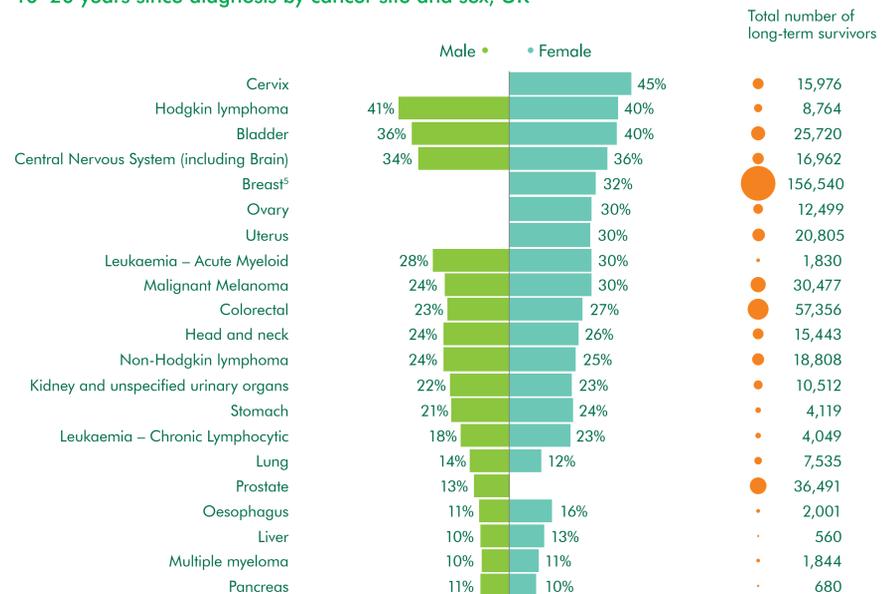
Our analysis provides a more granular understanding of the UK cancer survivorship population. Further analysis will be done to look at variations in time since diagnosis by other parameters such as deprivation. Segmenting the cancer population in this way can help better planning and tailoring of health and social care services, but further information on the health and quality of life of long term survivors is still needed.

Macmillan Cancer Support, registered charity in England and Wales (261017), Scotland (SC039907) and the Isle of Man (604) MAC15447\_20-YEARS

**Long-term survivors** There were almost half a million long-term cancer survivors, across all cancer sites combined (excluding non-melanoma skin cancer) in the UK in 2010.

There was some small variation in the proportion of long-term survivors within the UK: 28% of Scotland's cancer survivorship population were long-term survivors, compared to 27% in England, and 26% in Wales. Northern Ireland had a slightly smaller proportion of long-term survivors (24%) but this was likely due to the shorter time period of the Northern Ireland Cancer Registry data collection<sup>2</sup>, and may also reflect the younger population structure.

**Figure 2: People living with and beyond cancer in 2010, 10–20 years since diagnosis by cancer site and sex, UK<sup>4</sup>**



#### By common cancer site<sup>4</sup>

The most prevalent cancers in long-term survivors were breast, colorectal and skin<sup>6</sup> cancers. There were more than 156,000 long-term female breast cancer survivors, 57,000 long-term colorectal cancer survivors and 30,000 long-term skin cancer<sup>6</sup> survivors.

The high proportion of long-term cervical cancer survivors is likely a product of its high incidence in younger women aged under-35 and its relatively good survival<sup>7</sup>.

Prostate cancer had a relatively low proportion of long-term survivors (13%). Its prevalence has been affected by recent increases in incidence and survival, together with the older age profile of many of the men diagnosed with the disease. As such, a higher proportion of the survivors in our 1991–2010 cohort will be short- to mid-term, rather than long-term, survivors. Despite this, there were nearly 36,500 long-term prostate cancer survivors in 2010.

Even with the poor prognosis associated with lung cancer<sup>7</sup>, there were more than 7,500 long-term lung cancer survivors who had been living with lung cancer 10-20 years after diagnosis.

#### By sex

Of all male cancer survivors, 22% were long-term survivors; whereas a larger proportion of females living with and beyond cancer were long-term survivors (30%). Lung cancer was one of the few cancers which had a slightly higher proportion of males who were long-term survivors than females.

#### Acknowledgements

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#### References and notes:

- 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 2.5 million in 2015.
- Northern Ireland data is based on cancer registrations collected for people diagnosed with cancer between 1993 and 2010
- Data tables available at NCIN ([www.ncin.org.uk/about\\_ncin/segmentation](http://www.ncin.org.uk/about_ncin/segmentation)). Please refer to the supporting information on ICD-10 codes.
- A person is counted more than once if diagnosed with more than one cancer type within the period, meaning some people could be counted more than once in different cancer sites.
- Breast cancer figures relate to females only
- Skin cancer here refers to malignant melanoma.
- Cancer Research UK. Cancer statistics available at [www.cancerresearchuk.org/cancer-info/cancerstats](http://www.cancerresearchuk.org/cancer-info/cancerstats)