

# CANCER PREVALENCE

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## How many people were living with cancer in 2013?

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### Purpose

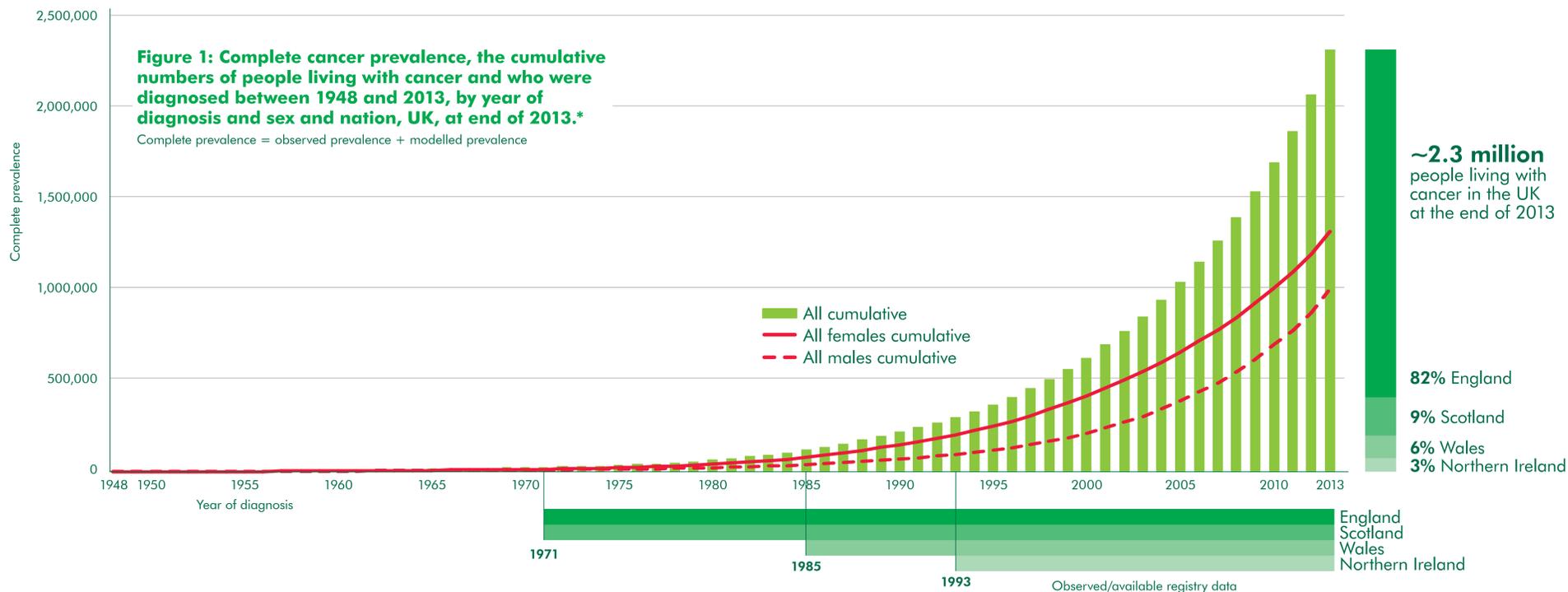
Maddams et al (2009)<sup>1</sup> estimated that there were 2 million people living with cancer in the UK at the end of 2008. As part of the Macmillan-NCRAS UK Cancer Prevalence Project, we extended this work to incorporate more recent data and to estimate prevalence (the number of people living with cancer in a population at a given point in time) in the UK at the end of 2013.

### Methods

Cancer registration data on individuals who were diagnosed with cancer and alive on the 31st December 2013 were extracted from the registration systems for England, Northern Ireland, Scotland and Wales by each registry and provided to NCRAS in anonymised format. Cancer registrations were categorised into female breast, colorectal, lung, prostate and all other cancers

(excluding non-melanoma skin cancers). Data on age, sex and year of diagnosis were also used for analysis. A negative binomial regression model was used to estimate the number of people who were still living with cancer at the end of 2013 and who were diagnosed before cancer registries were established in their respective nations.

### Provisional results and discussion\*



Complete prevalence is defined as the sum of observed prevalence, from the years of diagnosis that were available in the registry data, and modelled prevalence, from those that were not (Figure 1). We estimated that there were ~2.27 million people living with cancer in the UK at the end of 2013 (57% women and 43% men).<sup>\*</sup> This is in line with estimates predicted by Maddams et al (2012)<sup>2</sup>.

England shows the highest numbers of patients living with cancer, owing to its relatively large population size. Similarly, Northern Ireland has the lowest number, probably due to it having the smallest population size. When adjusted to account for these differing population sizes, the nation with the highest crude prevalence rate per 100,000 people is Wales, with England the lowest. This differs slightly from the work carried out by Maddams et al (2009),<sup>1</sup> which showed that Northern Ireland had the lowest crude rates of all four nations. Proportions in Figure 2 do not account for differing age distributions across nations, which could reveal that the known older population in Wales is a contributing factor to this trend.

Table 1 presents complete prevalence numbers broken down by cancer site, focusing on the four most common cancers by incidence (female breast, prostate, lung and colorectal). Lung was the least prevalent (3% of total complete prevalence) reflecting poor prognosis associated with this cancer type. Female breast cancer was the most prevalent (26%) across the whole of the UK, owing partly to a high incidence due to early diagnosis from screening programmes and higher cancer survival as a result of effective cancer treatments. Number of years that have passed since diagnosis varies across cancer sites, however the overall trend shows that the majority of people living with cancer were diagnosed between 1-4 years prior to the end of 2013.

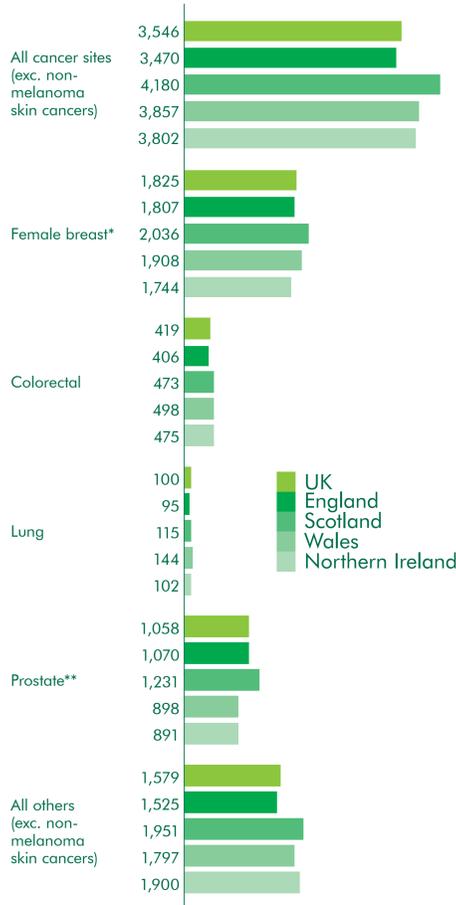
As might be expected the majority of people living with cancer were diagnosed aged 40-69 (61%), with the younger 0-39 age group (14%) reflecting lower incidence and the older 70+ age group (25%) reflecting poorer survival and deaths due to other conditions related to old age (Figure 3). Female breast is the most prevalent in the 0-39 and 40-69 age groups, with prostate showing a higher prevalence in the 70+ group, reflecting the age profiles of these cancers.

**Table 1: Complete cancer prevalence, by time since diagnosis and cancer site, UK, at end of 2013.\*†**

|                                 | 0-1 year | 1-5 years | 5-10 years | 10-20 years | >20 years | Total     |
|---------------------------------|----------|-----------|------------|-------------|-----------|-----------|
| Female breast                   | 45,500   | 184,000   | 137,000    | 158,000     | 69,900    | 594,500   |
| Prostate                        | 41,500   | 152,300   | 90,800     | 46,300      | 2,800     | 333,800   |
| Colorectal                      | 29,800   | 102,700   | 57,200     | 56,600      | 22,300    | 268,600   |
| Lung                            | 20,000   | 25,000    | 7,500      | 6,500       | 5,100     | 64,200    |
| All other malignant neoplasms†† | 106,800  | 321,200   | 194,800    | 222,500     | 166,800   | 1,012,100 |
| All malignant neoplasms††       | 243,700  | 785,200   | 487,300    | 490,000     | 267,000   | 2,273,200 |

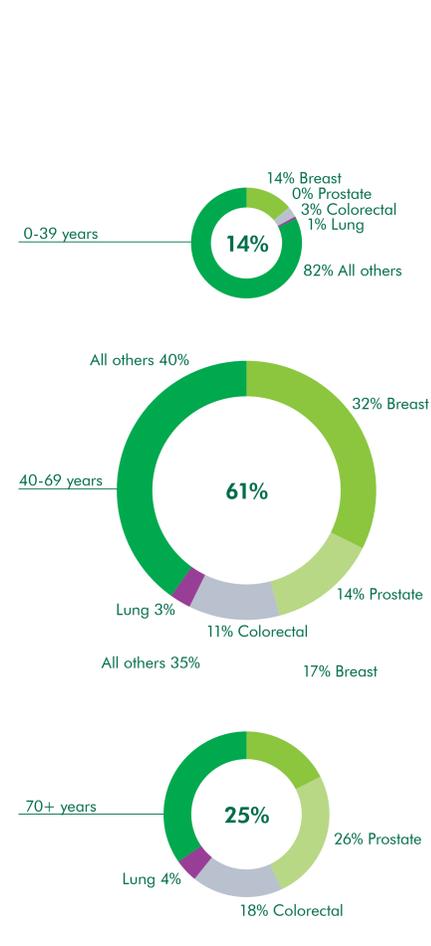
\*numbers rounded to the nearest hundred  
†excluding non-melanoma skin cancers

**Figure 2: Complete cancer prevalence (crude proportion per 100,000) adjusted for population size, by nation and cancer site, UK, at end of 2013.\***



\*using female population size only  
\*\*using male population size only

**Figure 3: Complete cancer prevalence, by age at diagnosis and cancer site, UK, at end of 2013.\***



### Conclusions

The provisional cancer prevalence figure for the end of 2013 is as was predicted by work done by Maddams et al (2012)<sup>2</sup>. Our analysis provides a more up-to-date understanding of the UK population of people living with cancer using the latest available data. This has fed into a further work programme aiming to project the cancer prevalence population. This will allow an understanding of the potential future trends associated with people living with cancer in the UK and is important for planning for future distributions of resources in this area.

### Acknowledgements

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Together with



### References and notes:

- \* Provisional results.
- 1. Maddams J, Brewster D, Gavin A, Steward J, Elliot J, Uitley M, Møller H (2009) Cancer prevalence in the United Kingdom: estimates for 2008. *Br J Cancer* 101(3): 541-547.
- 2. Maddams J, Uitley M, Møller H (2012). Projections of cancer prevalence in the United Kingdom, 2010-2040. *Br J Cancer* 107: 1195-1202. (Projections scenario 1).

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