20-year cancer prevalence in the UK:
An increasingly granular understanding of the cancer population

Macmillan-NCIN data briefing

The National Cancer Intelligence Network (NCIN) at Public Health England and Macmillan Cancer Support are working on a joint project to quantify the UK cancer population, to support the improvement of services and care for patients.

New datasets are now available that present more detailed UK cancer prevalence statistics by a range of variables for up to 47 cancer sites for UK nations and the UK combined. Local cancer prevalence statistics are also available for each UK nation.

Method
Cancer prevalence refers to people alive who have been diagnosed with cancer. By linking cancer registrations to mortality records, we quantified how many people were diagnosed with cancer between 1991 and 2010 and still alive on 31 December 2010 – that is, 20-year prevalence\(^1\). More about the counting method can be found here.

Results
There were more than 1.8 million cancer survivors in the UK who were diagnosed between 1991 and 2010 and still alive at the end of 2010.

More than 1 million survivors were diagnosed with the four most prevalent cancers: breast, prostate, colorectal and skin cancers.

Almost half a million people living with cancer in the UK are long-term survivors.

More than half (58%) of cancer survivors were diagnosed when young or at working age. (0 to 64)

Cancer prevalence by cancer site
The four most prevalent cancers – breast, prostate, colorectal and malignant skin cancers\(^3\) – accounted for 3 in 5 tumours diagnosed in the UK cancer population. Breast cancer accounted for 491,311 diagnoses in UK females. There were 280,523 prostate cancer, 230,205 colorectal cancer and 110,330 skin cancer diagnoses in all people living with cancer.
Other common prevalent cancers were non-Hodgkin lymphoma, uterine, bladder, head and neck and lung cancers. The cancer prevalence data also includes rarer cancer sites, such as heart, mediastinum and pleura, vaginal and hypopharyngeal cancers.

Despite notably poor survival outcomes there were thousands of people living with: lung (57,181), stomach (18,546), pancreatic (6,614) and liver (4,975) cancer diagnoses. More investigation may be needed to confirm that all of these are genuine cases.

Cancer prevalence by time since diagnosis
There were 421,912 short-term survivors of 0 to 2 years, 910,355 mid-term survivors of 2 to 10 years and 484,155 long-term survivors of 10 to 20 years.

The time since diagnosis distributions vary widely across cancer sites. For example, females living with cervical cancer are more likely to be longer-term survivors with 45% surviving more than 10 years after being diagnosed. In contrast, people living with pancreatic cancer are more likely to be short-term survivors, with only 10% surviving for more than 10 years.

Cancer prevalence by age at diagnosis
More than 1m people were diagnosed with cancer aged 0 to 64; of these 280,454 were diagnosed aged under 45. Our analysis also shows that almost 80,000 people in the UK are living with a cancer that is more traditionally associated with old age (breast, prostate, colorectal and lung), who were diagnosed before the age of 45.

Cancer prevalence by age at end of 2010
Cancer is predominantly a disease of older people, however, the results show some interesting age distributions by cancer site, eg the majority of men living with prostate cancer (85%) are aged 65+. In contrast, the majority of females living with ovarian cancer (53%) are young or of working age (aged 0 to 64).

Cancer prevalence by UK geography
The distribution of people living with cancer across the UK in 2010 was: 83% in England, 2% in Northern Ireland, 9% in Scotland and 5% in Wales, which reflects the proportional spread of the population across the UK. We have more detailed reports by sub-national areas for each UK nation and a poster on visualising the prevalence data using maps.
References
1 Northern Ireland data are 1993-2010 only; 2 Data for all cancers combined exclude non-melanoma skin cancer (ICD10 C00-C97 excluding C44); 3 “Skin cancer” refers to malignant melanoma (ICD-10 C43); 4 Journal article on long-term pancreatic tumour survivors

Find out more:
NCIN: www.ncin.org.uk/about_ncin/understanding_the_cancer_population

Other useful resources within the NCIN partnership:
Macmillan does more research into the needs and experiences of people living with cancer and their carers than any other charity in the UK: www.macmillan.org.uk/Aboutus/Ouresearchandevaluation/Ourresearchpartners/NCIN.aspx

Data are sourced and presented in collaboration with the Welsh Cancer Intelligence and Surveillance Unit, Health Intelligence and Knowledge Management Division, Public Health Wales, the Scottish Cancer Registry and the Northern Ireland Cancer Registry. 

Acknowledgements

The National Cancer Intelligence Network is operated by Public Health England. It is a UK-wide initiative, working to drive improvements in standards of cancer care and clinical outcomes by improving and using the information collected about cancer patients for analysis, publication and research. Sitting within the National Cancer Research Institute, the NCIN works closely with cancer services in England, Scotland, Wales and Northern Ireland. In England, the NCIN is part of the National Cancer Programme.