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CANCER INCIDENCE AND SURVIVAL STATISTICS FOR NORTHERN IRELAND 1993-2017

Official Statistics on cancers diagnosed in Northern Ireland during 1993-2017 were published today. This release provides details of the number of cancer cases diagnosed each year along with incidence rates from 1993 to 2017 for all cancers combined and for a wide range of cancer types. The number of cases and rates for a range of geographic areas is also available. Survival trends for a range of cancer types and prevalence (the number of people alive) for these cancers is also provided.

Key facts and figures are presented below.

Number of cancer cases diagnosed

- There were 9,401 (4,691 male, 4,710 female) patients diagnosed with cancer each year during 2013-2017.
- This excludes the frequently diagnosed but easily treated non-melanoma skin cancer (NMSC). There were 3,720 cases of NMSC diagnosed each year.
- The most common cancers diagnosed between 2013 and 2017 were:
 - Prostate cancer (24% of all male cancers ex NMSC), lung cancer (14%) and bowel cancer (14%) among men;
 - Breast cancer (30% of all female cancers ex NMSC), lung cancer (13%) and bowel cancer (11%) among women.
- Cancer risk was strongly related to age with 63% of cases occurring in people over the age of 65 years and incidence rates greatest for those aged 85-89 years.
- Despite this younger people can still get cancer. On average 51 children (aged 0-14) were diagnosed with cancer each year, while half of all testicular and cervical cancers are diagnosed among men aged under 35 and women aged under 42 respectively.
- The odds of developing cancer by the age of 75 was 1 in 3.5 for men and 1 in 3.7 for women.

Trends in cancer cases diagnosed

- Over the last ten years the number of cancer cases (ex. NMSC) has increased by 15% from 8,269 cases in 2008 to 9,521 cases in 2017. These increases are largely due to our ageing population.
- The magnitude of the increase was similar for men and women. Specifically there was a:
 - 14% increase for men, from 4,187 cases in 2008 to 4,777 cases in 2017;
 - 16% increase for women, from 4,082 cases in 2008 to 4,744 cases in 2017.
- After removing the effect of changes in the age and size of the population over time:
 - Cancer incidence rates in males decreased during 2009 to 2017 by an average of 0.7% per year.
 - In contrast, cancer incidence rates in females have shown a continuous increase by an average of 0.8% per year since 1993.
- Cancer types with increases greater than 25% in the average number of cases per year between 2008-2012 and 2013-2017 were:
 - For men: kidney cancer (34% increase), melanoma (33% increase), myeloma (30% increase) and liver cancer (28% increase);
 - For women: liver cancer (66% increase), myeloma (34% increase) and lung cancer (33% increase).
- Decreases in the number of cases were observed between 2008-2012 and 2013-2017 for male testicular cancer (6% decrease), female stomach cancer (7% decrease), ovarian cancer (17% decrease) and cervical cancer (22% decrease).
- Changes in the number of cases diagnosed over time are driven by changes in the population size, particularly the number of elderly people. Removing these factors for the four most common cancers:
 - Rates of female breast cancer increased between 1993 and 2017 by 1.3% per year;
 - Rates of bowel cancer decreased between 2012 and 2017 by 4.8% per year among men, and decreased between 1993 and 2017 by 0.3% per year among women;
 - Rates of lung cancer decreased between 1993 and 2017 by 0.8% per year among men, but increased between 2006 and 2017 by 3.6% per year among women;

- Rates of prostate cancer decreased between 2007 and 2017 by 1.0% per year.

Geographic patterns in cancer cases diagnosed

- Incidence rates of cancer in 2013-2017 were 8% higher among people living within the Belfast Health and Social Care Trust area compared to the Northern Ireland average. Incidence rates were lower than average among people living in the Northern and South-Eastern Trust areas.
- Cancer incidence was 10% higher in the most deprived areas compared to the Northern Ireland average and 4% lower than average in the least deprived areas.
- The relationship with deprivation varies by cancer type with incidence of lung cancer, bowel cancer (males only), head & neck cancer, oesophageal cancer, stomach cancer, and cervical cancer higher than average in the most deprived areas. Incidence of melanoma and breast cancer were higher than average in the least deprived areas.

Cancer survival

- Among patients diagnosed with cancer, one-year net survival after diagnosis was 71%, while five-year net survival was 56%. However, 22% of patients died within 6 month of diagnosis.
- Five-year net survival for patients diagnosed between 2007 to 2011 for the most common cancers was as follows:
 - Female breast = 82%;
 - Male bowel = 59%, Female bowel = 61%;
 - Prostate = 88%;
 - Male lung = 11%, Female lung = 11%.
- Five-year net survival was highest for testicular cancer (97%) and melanoma (91%), but remained poor for liver cancer (9%) and pancreatic cancer (5%).
- Overall five-year net survival for patients diagnosed in 2007-2011 was higher for women than men (57% vs. 54%), although this can be partially attributed to men and women being diagnosed with different cancer types. For specific types of

cancer there was no significant difference between men and women in five-year net survival, except for five-year net survival from bladder cancer which was better among men than women (56 % vs 42%).

- There were significant improvements in five-year survival between 1993-1996 and 2007-2011 for bowel cancer, male lung cancer, prostate cancer, male kidney cancer, male oesophageal cancer, myeloma, lymphoma and leukaemia. No cancer type demonstrated significant reductions in cancer survival during his period.
- Stage at diagnosis remains the biggest factor in cancer survival. The contrast in five-year survival between early and late disease was as follows:
 - 18% for late stage breast cancer, compared to 99% for early stage
 - 9% for late stage bowel cancer, compared to 98% for early stage
 - 2% for late stage lung cancer, compared to 44% for early stage

Cancer prevalence

- At the end of 2017 there were 63,413 people living in Northern Ireland who had been diagnosed with cancer since 1993. Of these, 44% were male, 48% were aged 70 and over and 11% had been diagnosed in the previous year.
- The most prevalent types of cancer were prostate cancer, with 10,337 men living with the disease, and breast cancer, with 15,995 women living with the disease.

NOTES TO EDITORS:

1. All the statistics in this release are available at <http://www.qub.ac.uk/research-centres/nicr/CancerInformation/official-statistics/>
2. Legislation designating the Northern Ireland Cancer Registry (NICR) as an official producer of statistics came into place on 1st April 2012. Today's release of data adheres to the code of practice referenced in this legislation.
3. About the data:
 - a. New cases of cancer are registered from pathology reports, hospital administration records, and death certificates. GP or hospital charts may also be accessed if the above sources do not yield a reliable registration.
 - b. Registrations are validated and quality-checked according to internationally recognised standards.
 - c. Released statistics are not patient identifiable.
4. Incidence is the number of new cases of cancer diagnosed in a particular time and population. It is not equivalent to the number of patients as it is possible for a person to be diagnosed with two or more separate tumours in any given period of time.
5. Incidence rates are defined as the number of cases divided by the population that the cases came from. It is usually expressed as cases per 100,000 people. Age-standardised rates, using the 2013 European Standard Population, are used to detect trends over time, or differences between regions, that are not related to differences in the size or age of the population.
6. Five-year survival refers to the proportion of people diagnosed with a cancer who are still alive 5 years later. Age-standardised net survival used here is a survival statistic that has been adjusted for background mortality and age profile between periods. Net survival is the theoretical survival of patients if they could die only from the cancer in question.
7. The data in this release was produced by:
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