

# Publication Report



## Cancer Incidence (2008)

26 October 2010



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## About ISD

Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.

Information Services Division (ISD) is a business operating unit of NHS National Services Scotland and has been in existence for over 40 years. We are an essential support service to NHSScotland and the Scottish Government and others, responsive to the needs of NHSScotland as the delivery of health and social care evolves.

**Purpose:** To deliver effective national and specialist intelligence services to improve the health and wellbeing of people in Scotland.

**Mission:** Better Information, Better Decisions, Better Health

**Vision:** To be a valued partner in improving health and wellbeing in Scotland by providing a world class intelligence service.

## Official Statistics

Information Services Division (ISD) is the principal and authoritative source of statistics on health and care services in Scotland. ISD is designated by legislation as a producer of 'Official Statistics'. Our official statistics publications are produced to a high professional standard and comply with the Code of Practice for Official Statistics. The Code of Practice is produced and monitored by the UK Statistics Authority which is independent of Government. Under the Code of Practice, the format, content and timing of statistics publications are the responsibility of professional staff working within ISD.

ISD's statistical publications are currently classified as one of the following:

- National Statistics (ie assessed by the UK Statistics Authority as complying with the Code of Practice)
- National Statistics (ie legacy, still to be assessed by the UK Statistics Authority)
- Official Statistics (ie still to be assessed by the UK Statistics Authority)
- other (not Official Statistics)

Further information on ISD's statistics, including compliance with the Code of Practice for Official Statistics, and on the UK Statistics Authority, is available on the [ISD website](#).

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics. Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

## Introduction

The Scottish Cancer Registry has been collecting information on cancer since 1958. Data collected by the Registry are published by ISD and are used for a wide variety of purposes including: public health surveillance; health needs assessment, planning and commissioning of cancer services; evaluation of the impact of interventions on incidence and survival; clinical audit and health services research; epidemiological studies; and providing information to support genetic counselling and health promotion.

The updated figures show cancer incidence (1985-2008) for each major cancer, and replace information previously available on the ISD Scotland website. Cancer registrations are believed to be essentially complete (>98% at time of analysis) for the year 2008, but it is important to note that the cancer registration database is dynamic. In common with cancer registries in other countries, cancer incidence rates in Scotland can take up to five years after the end of a given calendar year to reach 100% completeness and stability, due to the continuing accrual of late registrations coming to light through death certification, for example.

It may be misleading to focus too much attention on any apparent changes in incidence between 2007 and 2008; it is more informative to examine trends in incidence observed over a number of years. Striking changes from one year to the next may occur in the case of rare cancers, but these are likely to reflect random fluctuation caused by small numbers of cases. In such cases it is even more important to examine incidence rates for a number of years aggregated together, rather than focussing on a single year of incidence.

## Key points

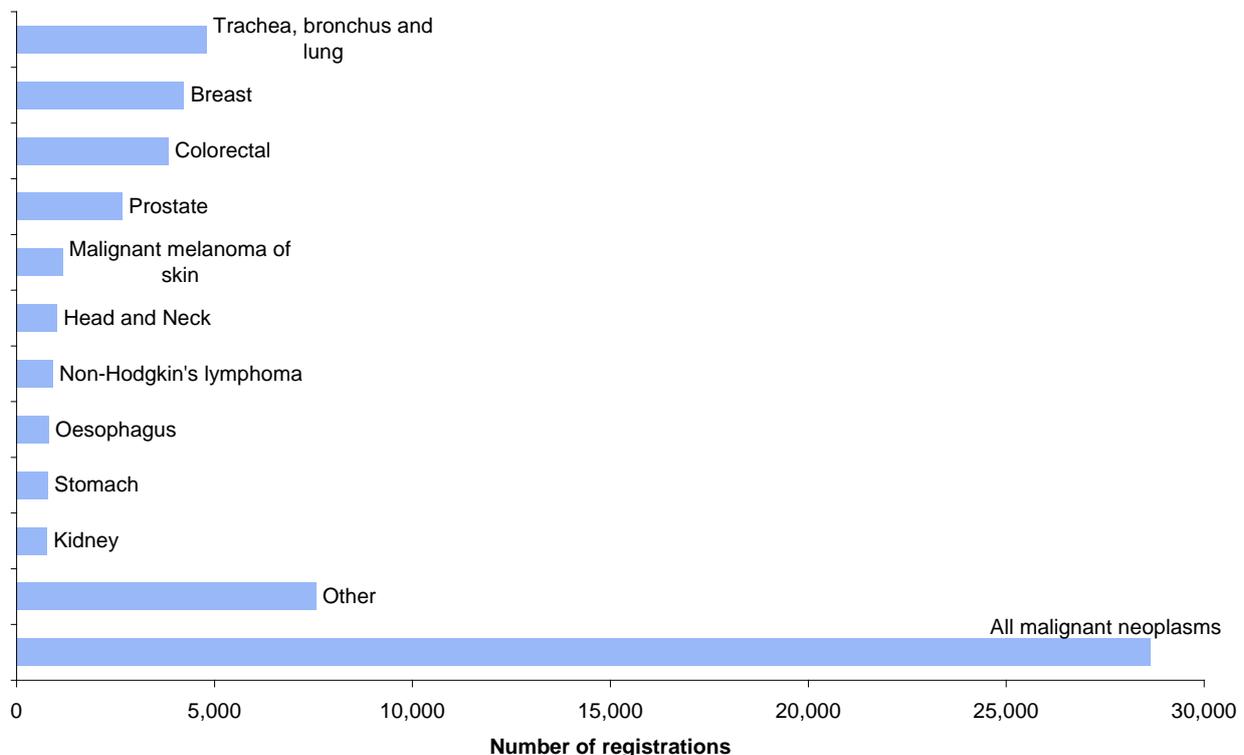
- In recent years, the overall age-standardised incidence rates have fallen slightly for males and increased slightly for females.
- Incidence rates show considerable variation between cancers, with substantial increases in melanoma of the skin and kidney cancers (both sexes), and decreases in stomach (both sexes) and lung cancers (males only).
- Actual numbers of cases of cancer have risen over the last decade, largely due to an ageing population.

## Results and Commentary

Please note that details of these statistics can be found by cancer site on <http://www.isdscotland/Health-Topics/Cancer/Cancer-Statistics/>, and summarised in <http://www.isdscotland/Health-Topics/Cancer/Cancer-Statistics/Cancer in Scotland summary m.pdf>

- Approximately 13,800 males and 15,000 females were diagnosed with cancer (excluding non-melanoma skin cancer) in 2008. These figures for all cancers combined are slight increases on 2007 data.
- Over the last decade (1998-2008), the age-standardised incidence rate of cancer has fallen steadily for males (a 6% decrease) and for the first time shows a significant increasing trend for females (4% increase). Despite the overall decreasing trend in rate, the number of new cancer cases per year has grown from 25,771 cases in 1998 to 28,638 in 2008. This increase is due in large part to an ageing population.
- Lung cancer is the most common cancer diagnosed in all persons combined. The long-term decline seen in the incidence rate in males has continued, with a significant fall in the incidence rate of 18% over the last ten years. Lung cancer incidence rates in females continue to increase, with a 16% increase over the last ten years, which is a higher rate of increase than in previous years' analyses. To a large extent, these trends reflect historic trends in the prevalence of smoking, which have differed between men and women.

### Top 10 cancers in all persons in Scotland, 2008



Source: Scottish Cancer Registry, ISD

- Breast cancer is the most common cancer in women, with the incidence rate continuing to rise. Over the last decade the incidence rate has increased by 8%; this is partly due to increased detection by the Scottish Breast Screening Programme, which has seen a rise in attendance over the same time period, and an extension in the age range invited for screening to include women up to the age of 70 years, phased in over the 3-year period beginning 1<sup>st</sup> April 2003. However, increases in the incidence of breast cancer might also be anticipated with higher prevalence of known risk factors among the female population, such as increases in the mother's age at the birth of her first child, and increases in alcohol consumption.
- Prostate and lung cancers are the most common cancers in men with relative frequencies of 19% and 18% respectively, but the incidence rate of lung cancer is generally decreasing while the incidence rate of prostate cancer has risen approximately 17% over the last decade. The increased prostate cancer incidence rate is due, at least in part, to increased detection through use of the prostate specific antigen (PSA) test, and is not necessarily due to a genuine increase in the risk of developing the cancer.
- Malignant melanoma of the skin rises in rank to become the sixth most common cancer in men and the fourth most common in women. Incidence rates continue to rise significantly, with a steep increase of 68% in males and 71% in females over the last decade. The primary recognised risk factor for melanoma of the skin is exposure to natural and artificial sunlight, especially but not exclusively at a young age.
- Cancers of the kidney, while small in absolute numbers, show significant increases in incidence rates over the last 10 years of 16% and 26% for males and females, respectively. The increase has occurred primarily in cancers of the renal parenchyma (ICD-10 C64) rather than of the renal pelvis (C65). The reason for this increase is not clear. Established risk factors include obesity and smoking, but advances in imaging may also have led to an increase in incidental diagnosis of some tumours.
- Other sites where the incidence rates of cancer have risen significantly over the past ten years include: in females, cancer of the uterus (23% increase), and non-melanoma skin cancers in both (approximately 37% for females, 48% for males). While still relatively small in absolute numbers, the incidence rate of cancer of the liver in males has increased by approximately 51% in the last decade.
- Cancers for which incidence rates have fallen significantly over the past ten years include stomach (28% in males and 32% in females), cancer of the larynx in males (22% decrease); cancers of the cervix and ovary in females (15% and 6% decrease, respectively), and leukaemias in both sexes (20% decrease in males, 25% decrease in females).
- The decline in bladder cancer incidence since 1998 is an artefact due to a change in coding practice across cancer registries in the UK. Around a quarter of bladder tumours are no longer coded as invasive bladder cancers. This decrease is large enough to have an impact on the figures for all cancers combined.

## Glossary

Colorectal cancer    Bowel cancer  
Neoplasm    abnormal growth/cancer

## List of Tables

Table No.	Name	Time period	File & size
0	<a href="#">Cancer in Scotland Summary</a>	1985-2008	PDF [264 kb]
1	<a href="#">i cancer all types</a>	1985-2008	Excel [709 kb]
2	<a href="#">i cancer bladder</a>	1985-2008	Excel [728 kb]
3	<a href="#">i cancer bone conn</a>	1985-2008	Excel [1492 kb]
4	<a href="#">i cancer brain cns</a>	1985-2008	Excel [2047 kb]
5	<a href="#">i cancer breast</a>	1985-2008	Excel [1096 kb]
6	<a href="#">i cancer colorectal</a>	1985-2008	Excel [1404 kb]
7	<a href="#">i cancer female genital organs</a>	1985-2008	Excel [1209 kb]
8	<a href="#">i cancer head neck</a>	1985-2008	Excel [3295 kb]
9	<a href="#">i cancer hodgkins</a>	1985-2008	Excel [747 kb]
10	<a href="#">i cancer kidney</a>	1985-2008	Excel [734 kb]
11	<a href="#">i cancer leukaemias</a>	1985-2008	Excel [2212 kb]
12	<a href="#">i cancer liver</a>	1985-2008	Excel [743 kb]
13	<a href="#">i cancer lung mesothelioma</a>	1985-2008	Excel [1083 kb]
14	<a href="#">i cancer male genital organs</a>	1985-2008	Excel [737 kb]
15	<a href="#">i cancer myeloma</a>	1985-2008	Excel [741 kb]
16	<a href="#">i cancer nonhodgkins</a>	1985-2008	Excel [730 kb]
17	<a href="#">i cancer oesophagus</a>	1985-2008	Excel [731 kb]
18	<a href="#">i cancer pancreas</a>	1985-2008	Excel [733 kb]
19	<a href="#">i cancer skin</a>	1985-2008	Excel [1753 kb]
20	<a href="#">i cancer stomach</a>	1985-2008	Excel [728 kb]
21	<a href="#">si cancer all types</a>	2004-2008	Excel [169 kb]
22	<a href="#">si cancer bladder</a>	2004-2008	Excel [170 kb]
23	<a href="#">si cancer bone conn</a>	2004-2008	Excel [247 kb]
24	<a href="#">si cancer brain cns</a>	2004-2008	Excel [283 kb]
25	<a href="#">si cancer breast</a>	2004-2008	Excel [207 kb]
26	<a href="#">si cancer colorectal</a>	2004-2008	Excel [243 kb]
27	<a href="#">si cancer female genital organs</a>	2004-2008	Excel [221 kb]
28	<a href="#">si cancer head neck</a>	2004-2008	Excel [433 kb]
29	<a href="#">si cancer hodgkins</a>	2004-2008	Excel [170 kb]
30	<a href="#">si cancer kidney</a>	2004-2008	Excel [169 kb]
31	<a href="#">si cancer leukaemias</a>	2004-2008	Excel [322 kb]
32	<a href="#">si cancer liver</a>	2004-2008	Excel [170 kb]
33	<a href="#">si cancer lung mesothelioma</a>	2004-2008	Excel [207 kb]
34	<a href="#">si cancer male genital organs</a>	2004-2008	Excel [170 kb]
35	<a href="#">si cancer myeloma</a>	2004-2008	Excel [170 kb]
36	<a href="#">si cancer nonhodgkins</a>	2004-2008	Excel [169 kb]
37	<a href="#">si cancer oesophagus</a>	2004-2008	Excel [169 kb]
38	<a href="#">si cancer pancreas</a>	2004-2008	Excel [169 kb]
39	<a href="#">si cancer skin</a>	2004-2008	Excel [280 kb]
40	<a href="#">si cancer stomach</a>	2004-2008	Excel [169 kb]

## Contact

### **Susan Jensen**

Principal Information Analyst

[Susan.Jensen@nhs.net](mailto:Susan.Jensen@nhs.net)

0131 275 6125

### **Paula McClements**

Senior Statistician

[Paula.McClements@nhs.net](mailto:Paula.McClements@nhs.net)

0131 275 7666

## Further Information

Further information can be found on the [ISD website](#)

## Appendix

### A1 – Background Information

The updated figures show cancer incidence (1985-2008) for each major cancer, and replace information previously available on the ISD Scotland website. Cancer registrations are believed to be essentially complete (>98% at time of analysis) for the year 2008, but it is important to note that the cancer registration database is dynamic. In common with cancer registries in other countries, cancer incidence rates in Scotland can take up to five years after the end of a given calendar year to reach 100% completeness and stability, due to the continuing accrual of late registrations coming to light through death certification, for example.

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**A2 – Publication Metadata (including revisions details)**

<b>Metadata Indicator</b>	<b>Description</b>
Publication title	<b>Cancer Incidence</b>
Description	Annual and 5 year summaries of new incidence cases of cancer in Scotland, by Cancer Network Region and Health Board. Within Scotland and Network levels of reporting, the incidence figures are broken down by age group and sex.
Theme	Health and Social Care
Topic	Conditions and Diseases
Format	Excel workbooks
Data source(s)	Scottish Cancer Registry (SMR06)
Date that data is acquired	September 2010
Release date	26 October 2010
Frequency	Annual
Timeframe of data and timeliness	Data up to 31 December 2008. No delays between data availability and processing of data for publication.
Continuity of data	Reports include data from 1985 to 2008. Coding of cancer registrations moved from ICD-9 to ICD-10 and from ICD-O to ICD-O2 in incidence year 1997, then to ICD-O3 in incidence year 2006. ICD codes have been back-mapped to 1985 for continuity of reporting. The range of statistics provided does mean that the continuity will vary, and while considered to be very high, any notable discontinuities (eg for specific conditions) will be highlighted within the published data.
Revisions statement	As with other population-based cancer registries, the Scottish Cancer Registry is dynamic, with ongoing updating of records. Each year's release includes a refresh of the previous years, and as new registrations from previous years come to light, or changes in the coding are taken into account, the numbers may change. The timing of the release is intended to balance the likelihood of significant revision with timeousness of data.
Concepts and definitions	<a href="#">Cancer Information FAQs</a>
Relevance and key uses of the statistics	The number and type of cancer registrations, by sex and geography, allow planning for provision of cancer treatment services and palliative care planning. Permits indirect measure of success of public health measures and interventions over the longer term.

Accuracy	Registry data are subject to validation at data entry and quality assurance procedures. See the <a href="#">Cancer Information FAQs</a> Reported data are compared to previous years' figures and to expected trends.
Completeness:	At time of extraction, data for the most recent year are estimated to be at least 98% complete. See above note on Revisions. Routine indicators of data quality are compared to the rest of the UK and to other countries, and are available at <a href="http://www.ukacr.org">www.ukacr.org</a> . There have been adhoc studies of data completeness in the past. See the <a href="#">Cancer Information FAQs</a> .
Comparability	Cancer incidence data are regularly compared with the UK and other countries, for example in the publication Cancer Incidence in Five Continents: <a href="http://www-dep.iarc.fr/C15_IX_frame.htm">www-dep.iarc.fr/C15_IX_frame.htm</a>
Accessibility	It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines. For further details, please see: <a href="http://www.isdscotland.org/About-ISD/Accessibility/">www.isdscotland.org/About-ISD/Accessibility/</a>
Coherence and clarity	All Cancer tables are accessible via the ISD website at <a href="http://www.isdscotland.org/cancer">www.isdscotland.org/cancer</a> . Cancer sites are presented within Excel spreadsheets of cancer groupings, where appropriate. This should minimise the number of spreadsheets a user has to go through to find data, as well as ensure that they are selecting the correct data. Geographical hierarchies are also presented using drop down menus. Spreadsheet formats are being altered for increased clarity by introducing drop-down menus, to avoid a frequent problem of confounding data on males and females, and geographical designations.
Value type and unit of measure	Number of new cases of cancer as count; rates of cancer as crude, European age standardised, World Age standardised, and as Standardised incidence ratios. Number, eg 1.1
Official Statistics designation	National Statistics
UK Statistics Authority Assessment	May 2010
Help email	<a href="mailto:nss.isdcancerstats@nhs.net">mailto:nss.isdcancerstats@nhs.net</a>
Date form completed	1 October 2010

### **A3 – Early Access details (including Pre-Release Access)**

#### **Pre-Release Access**

Under terms of the "Pre-Release Access to Official Statistics (Scotland) Order 2008", ISD are obliged to publish information on those receiving Pre-Release Access ("Pre-Release Access" refers to statistics in their final form prior to publication). The standard maximum Pre-Release Access is five working days. Shown below are details of those receiving standard Pre-Release Access and, separately, those receiving extended Pre-Release Access.

Standard Pre-Release Access:  
Scottish Government Health Department  
NHS Board Chief Executives  
NHS Board Communication leads

#### **Extended Pre-Release Access**

Extended Pre-Release Access of 8 working days is given to a small number of named individuals in the Scottish Government Health Department (Analytical Services Division). This Pre-Release Access is for the sole purpose of enabling that department to gain an understanding of the statistics prior to briefing others in Scottish Government (during the period of standard Pre-Release Access).

Scottish Government Health Department (Analytical Services Division)