

Publication Report



Cancer Mortality in Scotland (2010)

Publication date – 25 October 2011



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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

Cancer deaths in Scotland are updated in this report, covering the years 1985-2010 for each main type of cancer. Information presented here replaces information previously available on the ISD website. The data are drawn from the National Records of Scotland (formerly General Register Office for Scotland) deaths tables.

This publication also includes an update of cancer incidence and mortality rates by the 2009 Scottish Index of Multiple Deprivation (SIMD) quintiles for 28 major types of cancer for which detailed information is provided on the [Cancer Information Programme website](#).

Throughout this publication we refer to all malignant neoplasms (cancers) EXCLUDING non-melanoma skin cancers (NMSC). We use this classification to be in keeping with our publication of [cancer incidence](#), which also excludes NMSC from the category 'all malignant neoplasms' because their recording is less likely to be complete than for other cancers. NMSC are very common, but do not usually result in death - more information can be found on our [FAQ](#) sheet. Exclusion of NMSC from the mortality statistics for 'all malignant neoplasms' has very limited impact because case-fatality is so low. Statistics on deaths from 'all malignant neoplasms' INCLUDING NMSC can be found on [this page](#) or on the website of the [National Records of Scotland](#).

Key points

- In recent years, the overall age-standardised cancer (excluding non-melanoma skin cancers) mortality rates have fallen for both males and females.
- There is considerable variation in trends for different types of cancer. For example, the rate of female deaths due to colorectal cancer has decreased 12% over the last 10 years, while female death rates due to lung cancer have increased almost 11% over the same time period.
- Although the age-standardised *rate* of death due to cancer has decreased, the actual *number* of deaths due to cancer has increased: this largely reflects an increase in older age groups within the population, and the fact that cancer is a relatively common disease among the elderly.
- Significant patterns exist when examining incidence and mortality rates by deprivation in Scotland. The most deprived areas have higher incidence and mortality rates for all cancers combined (excluding non-melanoma skin cancers). However, there are variations in this pattern when looking at specific types of cancer, for example malignant melanoma of the skin, which records higher incidence and mortality in the less deprived areas of Scotland.

Results and Commentary

Please note that details of these statistics can be found by cancer site on the [Cancer website](#) and summarised in the [Cancer in Scotland summary report](#).

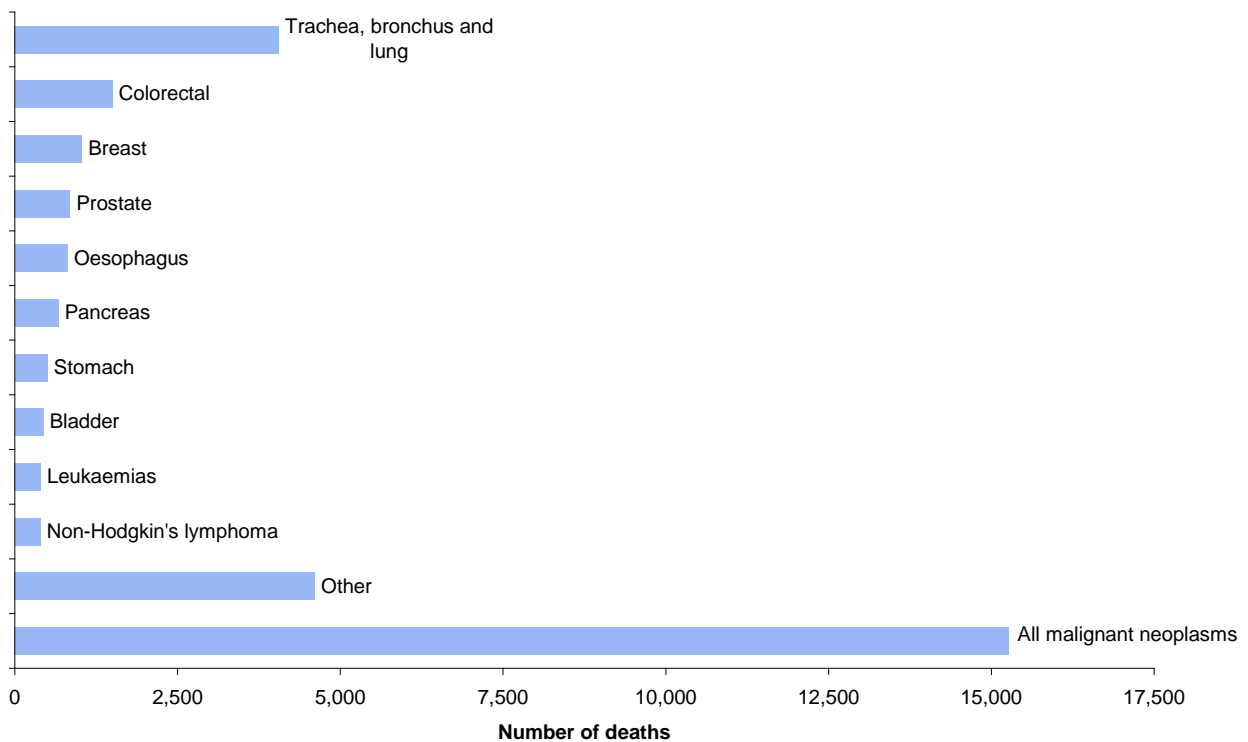
Cancer Mortality

In 2010, 15,270 people died from cancer (excluding non-melanoma skin cancers) in Scotland.

Taking all cancers combined, age-standardised cancer mortality rates have decreased by almost 12% over the 10 year period of 2000-2010, with a greater decrease in males than in females (15% and 7% decrease, respectively).

The cancers that account for the greatest number of deaths in Scotland are cancers of the lung (4,055), colorectum (1,501), breast (1,032) and prostate (849).

Deaths from cancer* in Scotland, 2010



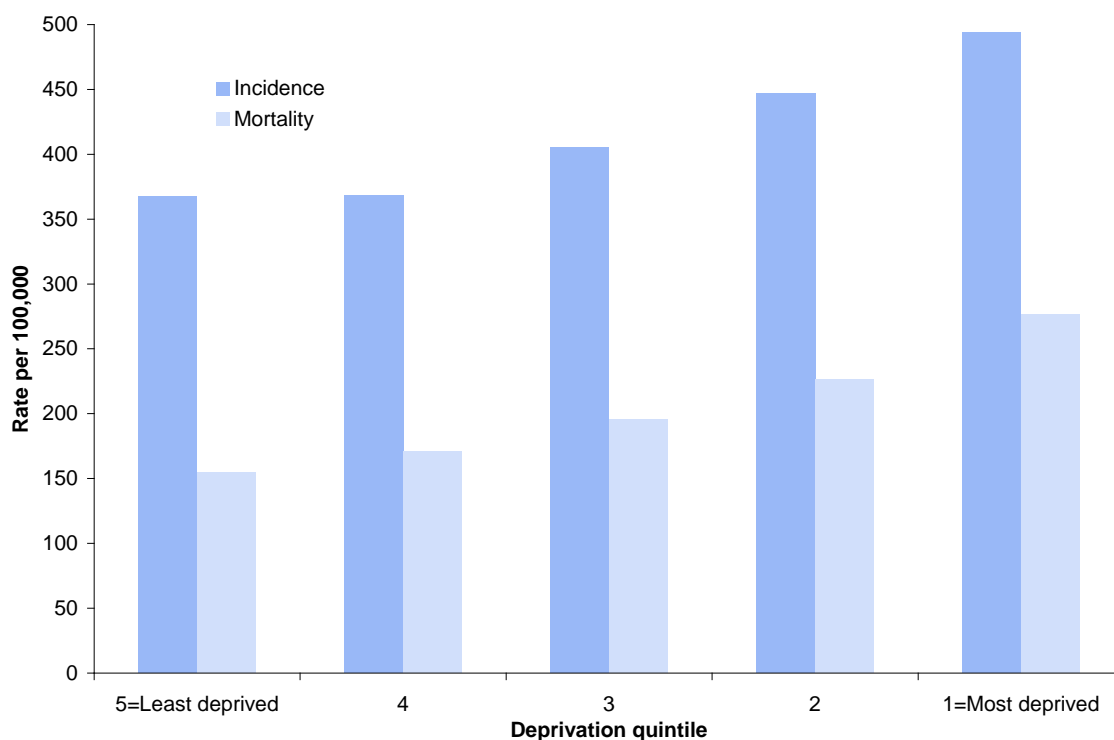
*excluding non-melanoma skin cancers

Source: General Register Office for Scotland (National Records of Scotland);

Cancer Incidence and Mortality by Deprivation Quintile

Significant patterns exist when examining incidence and mortality rates by deprivation in Scotland. Considering all cancers combined, the most deprived areas have incidence rates approximately 34% higher than the least deprived areas; mortality rates for all cancers combined are approximately 79% higher in the most deprived than the least deprived areas.

Cancer* Incidence and Mortality by deprivation quintile in Scotland



*excluding non-melanoma skin cancers

Incidence: 2005-2009; Mortality 2006-2010; deprivation quintile SIMD2009

Source: Scottish Cancer Registry, ISD (registrations); National Records of Scotland (deaths)

However, there are variations in this pattern when looking at specific types of cancer. For example, while lung cancer incidence and mortality rates are higher in the most deprived areas of Scotland, incidence and mortality rates of malignant melanoma of the skin (melanoma skin cancer) are higher in the least deprived areas of Scotland.

Cancers associated with smoking tend to be strongly correlated with deprivation by having the highest incidence and mortality rates in the most deprived areas; these include cancers of the trachea, bronchus and lung, oral cavity and larynx.

The incidence of (and mortality from) cervical cancer tends to be higher in more deprived women, reflecting socio-economic differences in exposure to risk factors, and lower attendance for cervical screening which aims to prevent cervical cancer by diagnosing and treating pre-cancerous changes.

In contrast, the incidence of breast cancer tends to be higher in less deprived areas. Again, this is likely to reflect differences in exposure to risk factors, and higher rates of attendance at breast screening, since breast screening is not designed to prevent breast cancer, but rather to diagnose the disease as early as possible, when treatment is more likely to be effective.

Similarly, incidence of prostate cancer is negatively correlated with deprivation (higher incidence in the less deprived areas) but mortality has no correlation with deprivation quintile. The higher incidence of prostate cancer in less deprived areas may reflect higher rates of PSA testing of the populations in these areas.

Glossary

Colorectal cancer Bowel cancer
Neoplasm abnormal growth/cancer

List of Tables

Table No.	Cancer Mortality by year	Time period	File & size
0	Cancer in Scotland Summary	2000-2010	PDF [264 kb]
1	All Cancers	1985-2010	Excel [749 kb]
2	Bladder	1985-2010	Excel [779 kb]
3	Bone and Connective Tissues	1985-2010	Excel [1578 kb]
4	Brain and CNS	1985-2010	Excel [1161 kb]
5	Breast	1985-2010	Excel [751 kb]
6	Colorectal	1985-2010	Excel [1461 kb]
7	Female Genital Organs	1985-2010	Excel [1172 kb]
8	Head and Neck	1985-2010	Excel [3510 kb]
9	Hodgkins Disease	1985-2010	Excel [777 kb]
10	Kidney	1985-2010	Excel [761 kb]
11	Leukaemias	1985-2010	Excel [2705 kb]
12	Liver	1985-2010	Excel [764 kb]
13	Lung and Mesothelioma	1985-2010	Excel [1115 kb]
14	Male Genital Organs	1985-2010	Excel [768 kb]
15	Multiple Myeloma	1985-2010	Excel [765 kb]
16	Non-Hodgkins Lymphoma	1985-2010	Excel [760 kb]
17	Oesophagus	1985-2010	Excel [752 kb]
18	Pancreas	1985-2010	Excel [754 kb]
19	Skin	1985-2010	Excel [1180 kb]
20	Stomach	1985-2010	Excel [752 kb]

Table No.	Summarised Cancer Mortality	Time period	File & size
21	All Cancers	2006-2010	Excel [168 kb]
22	Bladder	2006-2010	Excel [168 kb]
23	Bone and Connective Tissues	2006-2010	Excel [204 kb]
24	Brain and CNS	2006-2010	Excel [206 kb]
25	Breast	2006-2010	Excel [169 kb]
26	Colorectal	2006-2010	Excel [241 kb]
27	Female Genital Organs	2006-2010	Excel [206 kb]
28	Head and Neck	2006-2010	Excel [430 kb]
29	Hodgkins Disease	2006-2010	Excel [207 kb]
30	Kidney	2006-2010	Excel [168 kb]
31	Leukaemias	2006-2010	Excel [317 kb]
32	Liver	2006-2010	Excel [169 kb]
33	Lung and Mesothelioma	2006-2010	Excel [206 kb]
34	Male Genital Organs	2006-2010	Excel [170 kb]
35	Multiple Myeloma	2006-2010	Excel [169 kb]
36	Non-Hodgkins Lymphoma	2006-2010	Excel [169 kb]
37	Oesophagus	2006-2010	Excel [168 kb]
38	Pancreas	2006-2010	Excel [168 kb]
39	Skin	2006-2010	Excel [207 kb]
40	Stomach	2006-2010	Excel [169 kb]

Table No.	Cancer Incidence and Mortality by deprivation quintile	Time period	File & size
41	All Cancers	2005-2010	Excel [85 kb]

42	Bladder	2005-2010	Excel [29 kb]
43	Bone and Connective Tissues	2005-2010	Excel [29 kb]
44	Brain and CNS	2005-2010	Excel [29 kb]
45	Breast	2005-2010	Excel [30 kb]
46	Cervix	2005-2010	Excel [31 kb]
47	Colon	2005-2010	Excel [31 kb]
48	Colorectal	2005-2010	Excel [29 kb]
49	Corpus Uteri	2005-2010	Excel [29 kb]
50	Head and Neck	2005-2010	Excel [31 kb]
51	Hodgkins Disease	2005-2010	Excel [29 kb]
52	Kidney	2005-2010	Excel [29 kb]
53	Larynx	2005-2010	Excel [29 kb]
54	Leukaemias	2005-2010	Excel [29 kb]
55	Liver	2005-2010	Excel [29 kb]
56	Lung and Mesothelioma	2005-2010	Excel [29 kb]
57	Multiple Myeloma	2005-2010	Excel [29 kb]
58	Non-Hodgkins Lymphoma	2005-2010	Excel [29 kb]
59	Oesophagus	2005-2010	Excel [29 kb]
60	Oral	2005-2010	Excel [29 kb]
61	Ovary	2005-2010	Excel [31 kb]
62	Pancreas	2005-2010	Excel [29 kb]
63	Prostate	2005-2010	Excel [31 kb]
64	Rectum & Rectosigmoid junction	2005-2010	Excel [32 kb]
65	Skin	2005-2010	Excel [29 kb]
66	Stomach	2005-2010	Excel [29 kb]
67	Testis	2005-2010	Excel [31 kb]
68	Thyroid	2005-2010	Excel [29 kb]

Contact

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Further Information

Further information on cancer statistics can be found on the [Cancer Information Programme website](#).

For information on other health topics, please see the [ISD website](#)

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Appendix

A1 – Background Information

- The cancer mortality rates for the less common cancers may be highly variable from year to year; this is due in part to random fluctuation due to small numbers. As such, cancer mortality trends are more stable when assessed over longer time periods, such as decades.
- All time trends were estimated using Poisson regression in SPSS (IBM®, Inc)
- Cancer mortality data are sourced from the General Register Office for Scotland (GROS) of the National Records of Scotland, as released on [their website](#) in August 2011.
- For some cancers with short median survival times, such as liver and pancreas, there appear to be more deaths than incident cases. For the most part, this is likely to be an artefact of the different time periods used for the incidence data (2005-2009) compared to the mortality data (2006-2010).

A2 – Publication Metadata (including revisions details)

Metadata Indicator	Description
Publication title	Cancer Mortality
Description	Annual and 5 year summaries of deaths from cancer in Scotland, by Cancer Network Region and Health Board. Within Scotland and Network levels of reporting, the mortality figures are broken down by age group and sex.
Theme	Health and Social Care
Topic	Conditions and Diseases
Format	Excel workbooks
Data source(s)	General Register Office for Scotland (GROS), National Records of Scotland
Date that data are acquired	August 2011
Release date	25 October 2011
Frequency	Annual
Timeframe of data and timeliness	Data up to 31 December 2010. No delays between receipt and processing of data for publication.
Continuity of data	Reports data since 1985. GROS moved from ICD-9 to ICD-10 in 2000. ICD codes have been back-mapped to 1985 as accurately as possible for continuity of reporting.
Revisions statement	No revisions have occurred and there are no revisions planned.
Revisions relevant to this publication	None
Concepts and definitions	Cancer Information FAQs
Relevance and key uses of the statistics	The number and type of cancer deaths, 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	For coding of deaths see the website of the National Records of Scotland . Reported data are compared to previous years' figures and to expected trends.
Completeness	At time of extraction, data for the most recent year are considered to be complete. See above note on Revisions.
Comparability	Cancer mortality data are regularly compared with other UK countries and the UK as a whole (eg NCIS) and international reports (eg EUROCIM). In such comparisons, data are provided only at national (Scotland) level.
Accessibility	It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines .
Coherence and clarity	All Cancer tables are accessible via the Cancer section of the ISD website . 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 measurement	Number of deaths from cancer as count; rates of deaths from cancer as crude, European age standardised, World Age standardised, and as Standardised mortality ratios. Number, eg 1.1
Disclosure	The ISD protocol on Statistical Disclosure Protocol is followed.
Official Statistics designation	National Statistics
UK Statistics Authority Assessment	May 2010
Last published	26 October 2010
Next published	24 October 2012
Help email	nss.isdcancerstats@nhs.net
Date form completed	11 October 2011

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)

For publication on ISD homepage

Results Synopsis

The rate of deaths from cancer in Scotland continues to decrease. More deprived areas tend to have higher incidence and mortality than less deprived.

Not for publication Section

Sign-off

This form should be signed-off (electronically) by the relevant HoP/PP/HOG/AHoG.

Name: Roger Black, David Brewster

Date: 11 October 2011

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