

# Publication Report



## Cancer Mortality in Scotland (2009)

29 October 2010



## Contents

Contents .....	1
About ISD .....	2
Official Statistics .....	2
Introduction .....	3
Key points .....	4
Results and Commentary .....	5
Cancer Mortality .....	5
Cancer Incidence and Mortality by Deprivation Quintile .....	6
Glossary .....	8
List of Tables .....	9
Contact .....	10
Further Information .....	10
Appendix.....	11
A1 – Background Information.....	11
A2 – Publication Metadata (including revisions details) .....	12
A3 – Early Access details (including Pre-Release Access).....	14

## 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 1985-2009 for each main type of cancer. Information presented here replaces information previously available on the ISD website. The data are drawn from the General Register Office for Scotland deaths tables.

This publication also includes an update of cancer incidence and mortality rates by the 2006 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.

## Key points

- In recent years, the overall age-standardised cancer 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 14% over the last 10 years, while female death rates due to lung cancer have increased almost 12% 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. However, there are variations in this pattern when looking at specific types of cancer, for example malignant melanoma.

## 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](#).

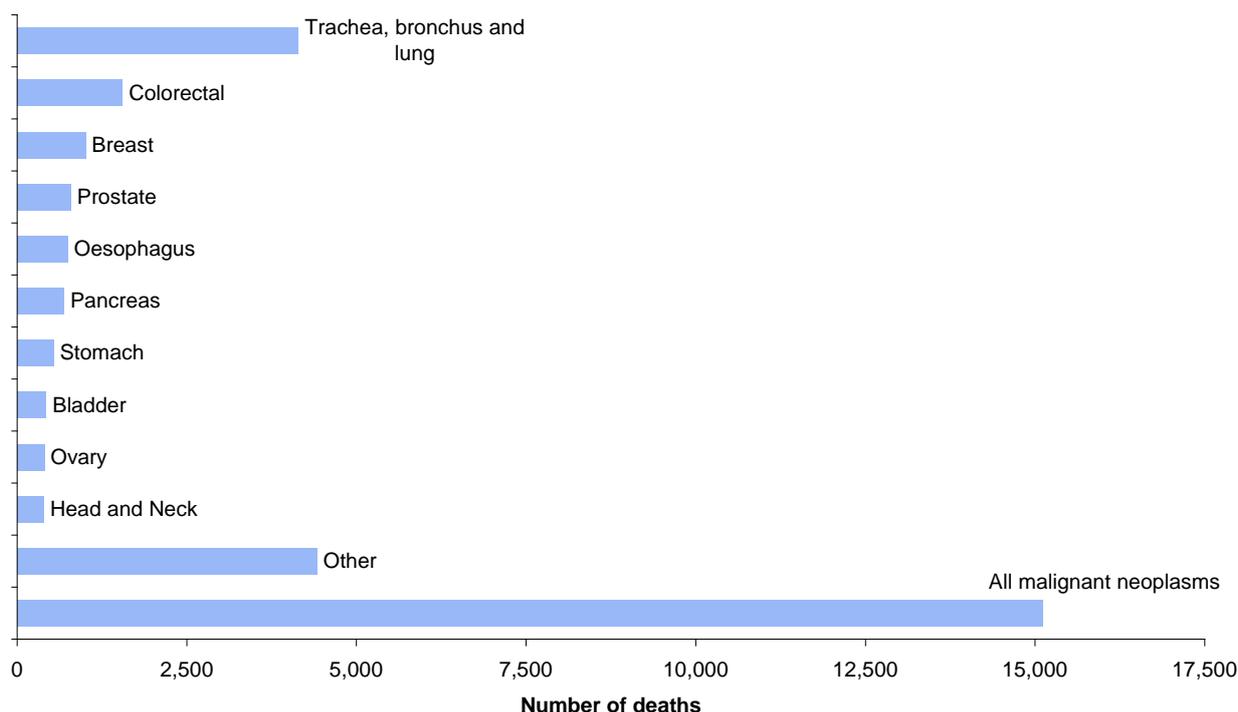
### Cancer Mortality

In 2009, 15,119 people died from cancer in Scotland.

Taking all cancers combined, age-standardised cancer mortality rates have decreased by about 9% over the 10 year period of 1999-2009, with a greater decrease in males than in females (14% and 6% decrease, respectively).

The cancers that account for the greatest number of deaths in Scotland are cancers of the lung (4147), colorectum (1555), breast (1010) and prostate (790).

**Deaths from cancer in Scotland, 2009**



Source: General Register Office for Scotland

The mortality rates for these four major cancers are decreasing except for lung cancer in females, which continues to increase. The changes in cancer mortality rates over the period 1999-2009 were: colorectal for males and females combined, -16%; female breast, -17%; prostate, -18%, male lung cancer -20%, female lung cancer +12%.

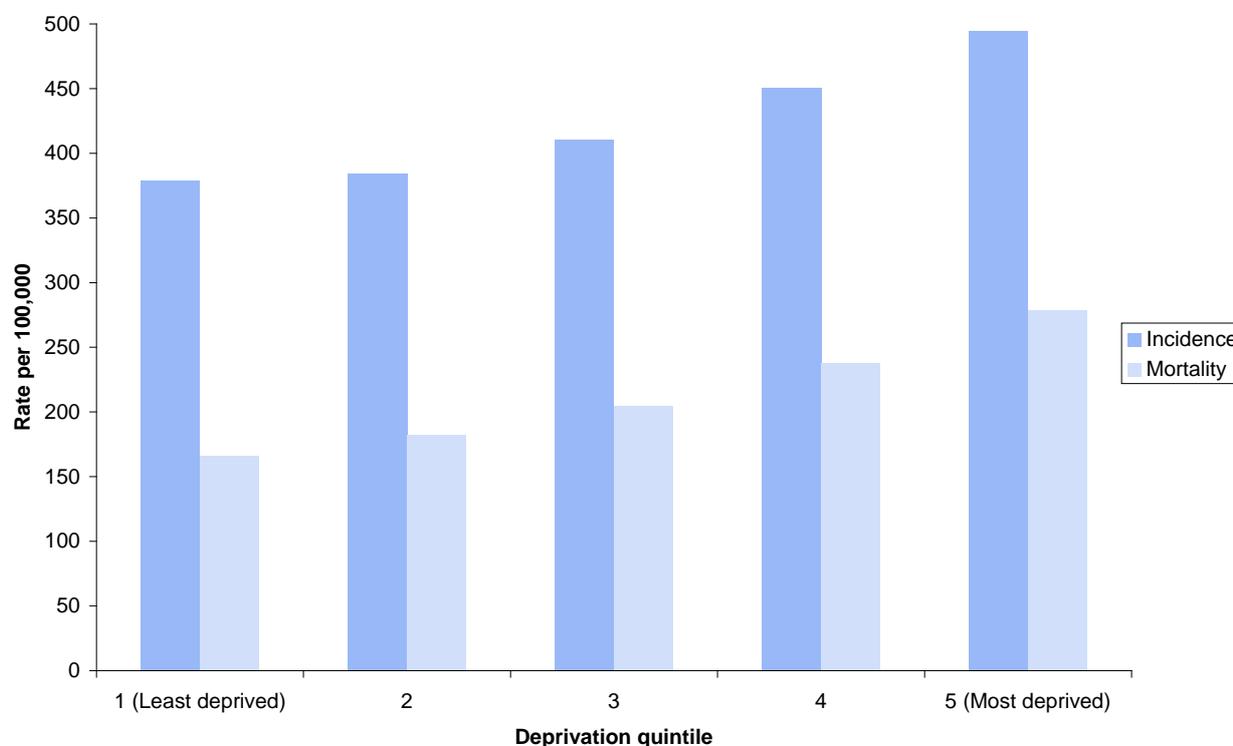
Taking all cancers combined, the rate of cancer mortality (standardised to the European standard population) in under 75 year olds has decreased by 22% since 1995. The Scottish

Government has a target to reduce the cancer mortality rate in this age group by 20% between 1995 and 2010.

## 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 almost 31% higher than the least deprived areas; mortality rates for all cancers combined are approximately 68% higher in the most deprived than the least deprived areas.

### Cancer Incidence and Mortality by deprivation quintile in Scotland



Incidence: 2004-2008; Mortality 2005-2009

Source: Scottish Cancer Registry, ISD (registrations); General Register Office for 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	<a href="#">Cancer in Scotland Summary</a>	1985-2009	PDF [264 kb]
1	<a href="#">All Cancers</a>	1985-2008	Excel [730 kb]
2	<a href="#">Bladder</a>	1985-2008	Excel [758 kb]
3	<a href="#">Bone and Connective Tissues</a>	1985-2008	Excel [1541 kb]
4	<a href="#">Brain and CNS</a>	1985-2008	Excel [1132 kb]
5	<a href="#">Breast</a>	1985-2008	Excel [751 kb]
6	<a href="#">Colorectal</a>	1985-2008	Excel [1461 kb]
7	<a href="#">Female Genital Organs</a>	1985-2008	Excel [1142 kb]
8	<a href="#">Head and Neck</a>	1985-2008	Excel [3430 kb]
9	<a href="#">Hodgkins Disease</a>	1985-2008	Excel [777 kb]
10	<a href="#">Kidney</a>	1985-2008	Excel [761 kb]
11	<a href="#">Leukaemias</a>	1985-2008	Excel [2705 kb]
12	<a href="#">Liver</a>	1985-2008	Excel [764 kb]
13	<a href="#">Lung and Mesothelioma</a>	1985-2008	Excel [1087 kb]
14	<a href="#">Male Genital Organs</a>	1985-2008	Excel [768 kb]
15	<a href="#">Multiple Myeloma</a>	1985-2008	Excel [765 kb]
16	<a href="#">Non-Hodgkins Lymphoma</a>	1985-2008	Excel [760 kb]
17	<a href="#">Oesophagus</a>	1985-2008	Excel [752 kb]
18	<a href="#">Pancreas</a>	1985-2008	Excel [754 kb]
19	<a href="#">Skin</a>	1985-2008	Excel [1151 kb]
20	<a href="#">Stomach</a>	1985-2008	Excel [752 kb]

Table No.	Summarised Cancer Mortality	Time period	File & size
21	<a href="#">All Cancers</a>	2005-2009	Excel [168 kb]
22	<a href="#">Bladder</a>	2005-2009	Excel [168 kb]
23	<a href="#">Bone and Connective Tissues</a>	2005-2009	Excel [204 kb]
24	<a href="#">Brain and CNS</a>	2005-2009	Excel [169 kb]
25	<a href="#">Breast</a>	2005-2009	Excel [245 kb]
26	<a href="#">Colorectal</a>	2005-2009	Excel [206 kb]
27	<a href="#">Female Genital Organs</a>	2005-2009	Excel [169 kb]
28	<a href="#">Head and Neck</a>	2005-2009	Excel [241 kb]
29	<a href="#">Hodgkins Disease</a>	2005-2009	Excel [207 kb]
30	<a href="#">Kidney</a>	2005-2009	Excel [430 kb]
31	<a href="#">Leukaemias</a>	2005-2009	Excel [170 kb]
32	<a href="#">Liver</a>	2005-2009	Excel [169 kb]
33	<a href="#">Lung and Mesothelioma</a>	2005-2009	Excel [206 kb]
34	<a href="#">Male Genital Organs</a>	2005-2009	Excel [170 kb]
35	<a href="#">Multiple Myeloma</a>	2005-2009	Excel [169 kb]
36	<a href="#">Non-Hodgkins Lymphoma</a>	2005-2009	Excel [169 kb]
37	<a href="#">Oesophagus</a>	2005-2009	Excel [168 kb]
38	<a href="#">Pancreas</a>	2005-2009	Excel [168 kb]
39	<a href="#">Skin</a>	2005-2009	Excel [207 kb]
40	<a href="#">Stomach</a>	2005-2009	Excel [169 kb]

## Contact

### **Susan Jensen**

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

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

## 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.
- Cancer mortality data are sourced from the General Register Office for Scotland (GROS), as released on their website in August 2010: <http://www.gro-scotland.gov.uk/>
- 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 (2004-2008) compared to the mortality data (2005-2009).

## A2 – Publication Metadata (including revisions details)

Metadata Indicator	Description
Publication title	<b>Cancer Mortality</b>
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)
Date that data is acquired	July 2010
Release date	26 October 2010
Frequency	Annual
Timeframe of data and timeliness	Data up to 31 December 2009. 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.
Concepts and definitions	<a href="#">Cancer Information FAQs</a>
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: <a href="http://www.gro-scotland.gov.uk/statistics/deaths/death-certificates-and-coding-the-causes-of-death/index.html">http://www.gro-scotland.gov.uk/statistics/deaths/death-certificates-and-coding-the-causes-of-death/index.html</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 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. For further details <a href="#">go to our accessibility page.</a>
Coherence and clarity	All Cancer tables are accessible via the <a href="#">Cancer section of the ISD website</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 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 <a href="#">ISD protocol on Statistical Disclosure Protocol</a> is followed. For this publication, at the levels of aggregation presented, the risk of disclosure was assessed as being low risk and so no further statistical disclosure control methods were employed.
Official Statistics designation	National Statistics
UK Statistics Authority Assessment	May 2010
Help email	<a href="mailto:nss.isdcancerstats@nhs.net">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)