Heart Disease Statistics Update

Year Ending 31 March 2014

Publication date – 27 January 2015
Contents

Introduction .................................................................................................................. 2
Key points .................................................................................................................... 3
Methods ...................................................................................................................... 4
Clarification of Terminology ...................................................................................... 4
Results and Commentary ......................................................................................... 5
Hospital Activity ........................................................................................................ 5
Incidence .................................................................................................................... 10
Operations .................................................................................................................. 12
Survival ....................................................................................................................... 15
Mortality ....................................................................................................................... 17
Deprivation .................................................................................................................. 21
Cardiovascular Prescribing ...................................................................................... 23
Primary Care Activity ............................................................................................... 25
Ambulance Service Activity ...................................................................................... 27
Glossary ....................................................................................................................... 29
List of Tables .............................................................................................................. 34
Contact ....................................................................................................................... 37
Further Information .................................................................................................. 37
Rate this publication .................................................................................................. 37
Appendix ..................................................................................................................... 38
A1 – Changes to the European Standard Population .............................................. 38
A2 – Background Information ................................................................................. 41
A3 – Publication Metadata (including revisions details) .......................................... 45
A4 – Early Access details (including Pre-Release Access) ....................................... 50
A5 – ISD and Official Statistics ............................................................................... 51
Introduction

Although coronary heart disease (CHD) is a preventable disease, there were 7,239 deaths in Scotland in 2013 where CHD was the underlying cause. The disease is caused when the heart's blood vessels, the coronary arteries, become narrowed or blocked and cannot supply enough blood to the heart.

Scotland has a high prevalence of the risk factors associated with heart disease such as smoking, poor diet and physical inactivity. Treating and preventing heart disease is a national clinical priority for Scotland.¹

It is estimated that around 7.1% of men and 5.3% of women are living with CHD (Scottish Health Survey 2013).

This ‘Heart Disease Statistics Update’ is produced annually to provide information on a range of different heart conditions in Scotland including:

- All heart disease
- Acute myocardial infarction (a medical term for a heart attack)
- Angina
- Heart failure
- Coronary heart disease (also referred to as Ischaemic Heart Disease, a collective term that includes angina, heart attack and heart failure)

and the different types of procedures used to diagnose and treat heart disease, including;

- Angiography
- Angioplasty (full name percutaneous transluminal coronary angioplasty)
- Coronary Artery Bypass Graft

This update contains information on hospital activity, incidence, operations, 30 day survival following first emergency admission, GP prescribing and ambulance service activity up to the period 1 April 2013 - 31 March 2014, and mortality up to the period 1st January - 31st December 2013. The update also includes previously published Practice Team Information (PTI) and Quality Outcomes Framework (QOF) data.

¹ Better Heart Disease and Stroke Care Action Plan, June 2009; Heart Disease Improvement Plan, August 2014
Key points

- Coronary heart disease (CHD), which includes heart attacks, is a leading cause of illness and death in Scotland.

- The number of new cases of CHD (incidence) has decreased over the past decade. The age and sex standardised incidence rate decreased by 30.4% between 2004/05 and 2013/14.

- There has been a steady downward trend in deaths from CHD in Scotland, UK and Europe over the last 10 years with the mortality rate in Scotland falling by 43.2%.

- The reduction in death rates for CHD over the decade 2004-2013 has been seen in both the most and least materially deprived communities. The percentage reduction in deaths in the most deprived category (40.7%) over the last 10 years is smaller than that in the least deprived category (46.4%). However, the absolute difference in the death rate between the most and least deprived areas has decreased over the last decade.

- For those admitted to hospital as an emergency with their first heart attack, the chances of surviving at least 30 days have improved over the last ten years from 85.1% to 91.8%.

- The number of angioplasties used in the treatment of CHD has increased over the last 10 years (standardised discharge rate up by 47.1%), compared with a reduction in the number of coronary artery bypass grafts (CABGs) over the same period (standardised rate down by 45.5%).

- Although the number of prescriptions for drugs to treat cardiovascular disease (all diseases of the circulation, including CHD) increased by 16.9% in the last 10 years, the overall costs of prescriptions dispensed for cardiovascular drugs fell in 2013/14 to £102.9 million, a reduction of 7.8% on the previous year. This is the lowest cost for these drugs over the last ten years (since 2004/05). Costs may continue to reduce as more medicines become available in less expensive non-branded (generic) form.
Methods

Apparent differences in disease rates between areas or deprivation groups may be partially or entirely due to the fact that one population is different from the other in age structure. Information in this update has been ‘standardised’ using the 2013 European standard population to calculate the European Age Standardised Rates (EASRs). This makes allowances for differences in the age and sex structure of the population between areas or time periods and allows fairer comparisons to be made.

The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Figures using ESP1976 and ESP2013 are not comparable. Therefore, findings from this publication are not comparable with previous ISD reports. Further detail regarding this change and a worked example of EASRs using both ESP1976 and ESP2013 is included in Appendix A1.

Please note that since the last publication of this report, the population estimates for 2002-2010 have been recalculated based on the 2011 census by National Records of Scotland. These updated population estimates have resulted in slightly different crude rates for 2002-2010 compared to the report that was published in January 2014.

Clarification of Terminology

Different terms can be used when talking about heart disease conditions and operations and sometimes these are interchangeable. For consistency the following terms will be used throughout this report.

<table>
<thead>
<tr>
<th>Term used in report</th>
<th>Also known as</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angioplasty</td>
<td>Percutaneous transluminal coronary angioplasty (PTCA)</td>
<td>A procedure performed to treat coronary heart disease that involves passing a thin, hollow tube into the coronary arteries under X-ray guidance, from an artery in the groin or arm (under local anaesthetic). A device on the tube is then used to unblock the artery, and stretch the artery walls so that more blood and oxygen can flow to the heart muscle.</td>
</tr>
<tr>
<td>Coronary heart disease</td>
<td>Ischaemic heart disease</td>
<td>Disease of the coronary arteries that supply the heart. This includes acute myocardial infarction, angina and most cases of heart failure.</td>
</tr>
<tr>
<td>Heart attack</td>
<td>Acute myocardial infarction</td>
<td>The result of sudden complete blockage of the blood supply to part of the heart.</td>
</tr>
<tr>
<td>Heart failure</td>
<td>Cardiac failure</td>
<td>The failure of the heart to function properly as a pump.</td>
</tr>
</tbody>
</table>
Results and Commentary

Hospital Activity\(^2\)

Discharges

This section of the report examines the number of discharges from hospital with a specific heart disease condition. Note that a patient can have more than one discharge from hospital within a given time period.

Figures on discharges provide an indication of hospital usage for the diagnosis and treatment of heart disease in either an inpatient or day case setting. This excludes activity relating to outpatients.

Coronary Heart Disease (CHD)

In the last decade the overall trend in the number of discharges from hospital with CHD has been decreasing. The European age and sex standardised discharge rate fell by 15.4% from 1,201.8 to 1,016.5 per 100,000 population.

**Figure 1: Discharges from hospital with coronary heart disease\(^1\); 2013 European age and sex standardised discharge rates per 100,000 population\(^2\)**

![Graph showing discharges from hospital with coronary heart disease]

Notes: 1. Analysis includes ICD-10 codes I20-I25.
2. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Figures using ESP1976 and ESP2013 are not comparable.
3. Data are provisional for 2013/14 and are subject to change in future analyses.
Data Source: ISD SMR01 - discharges; National Records Scotland – population estimates.

\(^2\) See Appendix A2 for details of completeness of hospital activity figures derived from SMR01 records.
The standardised discharge rate for females is less than half that for males in 2013/14 and there has been a slightly larger percentage decrease for females over the last decade (16.4% for females compared to 15.0% for males).

Comparing mainland NHS Boards, in 2013/14 the standardised discharge rate was lowest in NHS Lothian (754.6 per 100,000 population) and highest in NHS Lanarkshire (1471.2 per 100,000 population).

Tables AC1 and AC4 provide more detail at Health Board and Community Health Partnership (CHP) level.

**Heart Attacks**

In the last decade the number of discharges from hospital with a diagnosis of heart attack, decreased until 2007/08. There was a large increase in the number of discharges with a diagnosis of heart attack between 2007/08 and 2010/11 and since then the number of discharges has remained relatively stable (Table AC1 and Figure 2).

![Figure 2: Discharges from hospital with a diagnosis of heart attack; 2013 European age and sex standardised discharge rates per 100,000 population](image)

Notes: 1. Analysis includes ICD-10 codes I20-I25.
2. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Figures using ESP1976 and ESP2013 are not comparable.
3. Data are provisional for 2013/14 and are subject to change in future analyses.

The increase in the number of discharges from hospital with a diagnosis of heart attack since 2007/08 is likely to be due to a change in the way that heart attacks are diagnosed. The more sensitive troponin blood test is now routinely used to diagnose heart attacks. This means that some cases that might previously have been diagnosed as angina or another similar condition may now be classified as a heart attack. It is not possible to calculate the number of additional cases diagnosed because of the use of the troponin test. More information on this test is provided in the background information in Appendix A2.
**Angina**

Angina is chest pain on exertion as a result of CHD. In the period 2004/05 to 2011/12 there was a general downward trend in the number of hospital discharges with a diagnosis of angina. Since 2011/12 the rate has remained fairly stable. The age and sex standardised discharge rate was 312.3 per 100,000 population in 2004/05 compared to 152.9 in 2013/14.

Figure 3: Discharges from hospital with a diagnosis of angina; 2013 European age and sex standardised discharge rates per 100,000 population

Notes: 1. Analysis includes ICD-10 codes I20 and I24.9.  
2. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Figures using ESP1976 and ESP2013 are not comparable.  
3. Data are provisional for 2013/14 and are subject to change in future analyses.  
Data Source: ISD SMR01 - discharges; National Records Scotland – population estimates.

The general downward trend in hospital discharges with angina is reflected in all age groups (0-44, 45-64, 65-74 and 75 & over) and both sexes between 2004/05 and 2013/14. The percentage decrease in the standardised rate was larger in the under 75 age group (54.2%) compared to the over 75 age group (44.8%) - Tables AC1 and AC4.

**Heart Failure**

Heart failure occurs when the heart cannot provide sufficient pump action to meet demand. The age and sex standardised discharge rate was 288.2 per 100,000 population in 2004/05. The rate decreased to 264.9 in 2006/07, after which it has fluctuated slightly. In 2013/14 the figure was 281.5 per 100,000 population (Table AC1).
Figure 4: Discharges from hospital with a diagnosis of heart failure\(^1\); 2013 European age and sex standardised discharge rates per 100,000 population\(^2\)

Notes:  
1. Analysis includes ICD-10 codes I50.  
2. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Figures using ESP1976 and ESP2013 are not comparable.  
\(^\text{p}\) data are provisional for 2013/14 and are subject to change in future analyses.  
Data Source: ISD SMR01 - discharges; National Records Scotland – population estimates.

**Chest Pain**

Chest pain can be symptomatic of other heart conditions. In the last 10 years, the age and sex standardised discharge rate for chest pain rose from 698.3 per 100,000 population in 2004/05 to 784.0 per 100,000 population in 2013/14.

In the over 75 age group, there was an increase in the age and sex standardised rate between 2004/05 to 2013/14 from 1,604.3 to 2,019.7 per 100,000 population (Table AC1).
Figure 5: Discharges from hospital with a diagnosis of chest pain\textsuperscript{1}; 2013 European age and sex standardised discharge rates per 100,000 population\textsuperscript{2}

Notes:  
1. Analysis includes ICD-10 codes R07.  
2. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Figures using ESP1976 and ESP2013 are not comparable.  
3. Data are provisional for 2013/14 and are subject to change in future analyses.  
Data Source: ISD SMR01 - discharges; National Records Scotland – population estimates.

Details of hospital activity for all heart disease, angina, chest pain, CHD, heart attacks and heart failure by age, gender, type of admission and health board area are given in Table AC1. Corresponding information by Community Health Partnership area can be found in Table AC4.
Incidence

Incidence is the number of new cases of a specific condition in a population during a defined time-period. It is presented here as the number of people with a first hospital admission for CHD (or death from CHD without a prior admission to hospital). Information has been provided for CHD and heart attacks as it is likely that people with these conditions would be admitted to hospital. Further information is available in the glossary.

Age and sex standardised rates are presented here. Further information is available in the section on terminology.

**Coronary Heart Disease (CHD)**

The number of new cases of CHD has decreased over the past decade. The age and sex standardised incidence rate decreased from 553.7 per 100,000 in 2004/05 to 385.4 in 2013/14, a decrease of 30.4% (see figure 6).

![Figure 6: Coronary Heart Disease](image)

2013 European age and sex standardised incidence rates per 100,000 population

Notes: 1. Analysis includes ICD-10 codes I20-I25  
2. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Figures using ESP1976 and ESP2013 are not comparable.  
3. Data are provisional for 2013/14 and are subject to change in future analyses.  
Data Source: ISD SMR01 - discharges; National Records Scotland – Population

The incidence of CHD increases sharply with age. The age and sex standardised incidence rate for the under 75 age group in 2013/14 was 245.2 per 100,000 population but for the 75 and over age group, it was 1,803.0 per 100,000 population (see Table IC1).

Across all age groups presented in this publication, males are more likely than females to have a new diagnosis of CHD (Table IC1).
Heart Attacks

The standardised incidence rate of heart attack decreased from 302.9 in 2004/05 to 242.1 in 2007/08, a decrease of 20.1%. The incidence rate increased between 2007/08 and 2010/11 (see Table IC2 and figure 7). As previously noted, this is likely to be due to the introduction of more sensitive tests for diagnosis (see Appendix A2 for more information). The incidence rate has since decreased to 235.6 per 100,000 population in 2013/14.

Figure 7: Heart attack

2013 European age and sex standardised incidence rates per 100,000 population

Notes: 1. Analysis includes ICD-10 codes I21-I22
        2. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Figures using ESP1976 and ESP2013 are not comparable.
        3. Data are provisional for 2013/14 and are subject to change in future analyses.

Data Source: ISD SMR01 - discharges; National Records Scotland – Population
Operations

In CHD the blood supply to the heart is reduced or blocked. Two types of operation are used to improve the flow of blood to the heart. These are Coronary Artery Bypass Grafts (CABG) and angioplasties (Percutaneous Transluminal Coronary Angioplasty - PTCA).

A CABG is an operation in which a blood vessel from another part of the body is grafted to the coronary artery or arteries, to bypass narrowed sections and restore blood flow to the heart muscle. This involves a general anaesthetic and major open surgery.

An angioplasty involves passing a thin, hollow tube into the coronary arteries from an artery in the groin or arm. A device on the tube is then used to unblock the artery, and stretch the artery walls so that blood and oxygen can flow to the heart muscle. A small tube (or stent) may be left inside the vessel to ensure that it stays open. An angioplasty has the advantage that it is generally regarded as a less major procedure than a CABG.

Age and sex standardised discharge rates are presented here. Further information on standardisation is given in the terminology section.

Over the last decade there has been a decrease in the number of CABG operations. The standardised hospital discharge rate for CABG operations decreased from 58.2 per 100,000 population in 2004/05 to 31.8 per 100,000 population in 2013/14, a reduction of 45.5% (Table OC1 and figure 8).

Figure 8: Coronary Artery Bypass Grafts

2013 European age and sex standardised discharge rates per 100,000 population

Notes: 1. Analysis includes OPCS codes K40-K46 (main A position only)
2. Rates are directly standardised to the 2013 European standard population
Data Source: ISD SMR01 - discharges; National Records Scotland – Population
P = Provisional

The general downward trend in the number of CABG operations reflects the increasing use of angioplasties in the treatment of CHD. The standardised hospital discharge rate for angioplasties increased from 108.5 per 100,000 population in 2004/05 to 159.6 in 2013/14, an increase of 47.1% (Table OC1 and figure 9).
CABG and angioplasty are collectively known as revascularisation procedures. The standardised hospital discharge rate for revascularisation procedures has increased over the last 10 years from 166.6 per 100,000 population in 2004/05 to 191.3 in 2013/14, an increase of 14.8% (Table OC1).

**Coronary Angiography**

Coronary angiography is carried out to diagnose coronary artery disease and also as part of its treatment, for example when angioplasty is carried out.

For diagnostic angiographies (angiography with no associated angioplasty), there has been a general downward trend in the last decade, with the age and sex standardised hospital discharge rate dropping from 292.4 per 100,000 population in 2004/05 to 221.6 in 2013/14, a reduction of 24.2% (Table OC1 and figure 10).
For diagnostic angiographies used to assist in treatment (angiographies done in association with angioplasty), the standardised hospital discharge rate more than doubled from 58.8 per 100,000 population in 2004/05 to 134.9 in 2013/14. This, again, reflects the increased use of angioplasties in the treatment of CHD (Table OC1 and figure 11).

Notes: 1. Analysis includes OPCS codes K63, K65, U10.2, U10.5 (any A position)
2. Rates are directly standardised to the 2013 European standard population
Data Source: ISD SMR01 - discharges; National Records Scotland – Population
P = Provisional
Survival

Thirty day survival is widely used as a measure of the outcome of hospital admission and reflects the severity of disease as well as the quality of care.

Heart Attacks

The percentage of people surviving 30 days or more following their first emergency admission to hospital with a heart attack improved over the period 2004/05 to 2013/14 (Figure 5). The percentage surviving 30 days for both sexes combined was around 85% until 2006/07 and increased to 91.8% in 2013/14 (Table S1 and Figure 12).

It should be noted that there was an increase in the number of discharges from hospital with a diagnosis of heart attack from 2007/08. More information is provided in the section on hospital activity.

For those aged 75 and over 30 day survival was 71.9% in 2004/05, rising to 83.3% in 2013/14.

Heart Failure

Heart failure is the failure of the heart as a pump to maintain sufficient blood flow. For heart failure, there has been a general increase in the number of people surviving 30 days following a first emergency admission to hospital. In the period 2004/05 to 2012/13, the
percentage surviving 30 days rose from 82.5% to 87.2% (Table S3 and figure 13). For those aged 75 and over, there is a similar pattern with a figure of 85.6% in 2013/14.

Figure 13: Heart failure\(^1\);
Percentage of patients surviving 30 days or more after first emergency admission\(^2\)

Notes: 1. Analysis includes ICD-10 codes I50
2. y-axis (percentage surviving 30 days) starts at 76% to enable clearer comparison between sexes.
Data Source: ISD SMR01 - discharges; National Records Scotland – Population
Mortality

All Heart Disease

This section provides information for all heart diseases combined. As well as CHD, this includes disease of the heart valves and high blood pressure as well as other less common conditions like infections of the heart.

As in the rest of UK, there is a continuing downward trend in mortality from heart disease (including CHD). As with other figures in this publication, the rates in Figure 6 have been standardised using the 2013 European standard population. Further information is available in the terminology section.

In Scotland, the age and sex standardised mortality rate for all heart disease (including CHD) fell from 344.3 in 2004 to 221.8 per 100,000 population in 2013, a reduction of 35.6% in the last 10 years and a reduction of 2.9% in the last year (Table MC1 and Figure 14).

Figure 14: All heart disease\(^3\): all ages by sex 2004-2013
2013 European age and sex standardised mortality rates per 100,000 population\(^2\)

Notes: 1. Analysis includes ICD-10 codes I00-I52  
2. Rates are directly standardised to the 2013 European standard population  
Data Source: National Records Scotland - Deaths and Population

The reduction in mortality for all types of heart disease was slightly greater for people under the age of 75 (37.7%) than for people aged 75 and over (34.6%) (Table MC1).

\(^3\) The figures included in this section refer to calendar years.
Coronary Heart Disease (CHD)

Over the last 20 years, CHD mortality rates in Scotland have been higher than those in the United Kingdom as a whole and much higher than those for the European Union. However the absolute gap in rates has narrowed considerably (see figure 15 below but please note that the mortality rates are standardised to the 1976 European Standard Population).

Figure 15: Coronary heart disease mortality in Scotland, UK and EU 1976 European age and sex standardised mortality rates per 100,000 population

Notes: 1. Analysis includes ICD-10 codes I20-I25
2. Rates are directly standardised to the 1976 European standard population
Data Source: WHO/Europe and ScotPHO, Scotland and European HFA Database 2012

---

The age and sex standardised mortality rate for CHD fell from 280.3 per 100,000 population in 2004 to 159.3 in 2013, a reduction of 43.2% over the last 10 years and 4.9% in the last year (Table MC1 and figure 16).

**Figure 16: Coronary heart disease\(^1\): all ages by sex 2004-2013
2013 European age and sex standardised mortality rates per 100,000 population\(^2\)**

![Graph showing the reduction in mortality rates for CHD from 2004 to 2013](image)

Notes:  
1. Analysis includes ICD-10 codes I20-I25  
2. Rates are directly standardised to the 2013 European standard population  
Data Source: National Records Scotland - Deaths and Population

Between 2004 and 2013 the reduction in age and sex standardised mortality rates for CHD was slightly greater for females (44.8%) than males (42.3%). The difference in rates between men and women narrowed from 167 deaths per 100,000 population in 2004 to 101 deaths per 100,000 population in 2013.

Of the mainland NHS Health Boards, NHS Lanarkshire had the highest age and sex standardised mortality rate in 2013 (207.8 per 100,000 population). NHS Tayside and NHS Grampian had the lowest rate (141.2 per 100,000 population). NHS Tayside also had the highest percentage reduction in the rate between 2004 and 2013 (51.7%). NHS Dumfries & Galloway had the lowest percentage reduction in the mortality rate among the mainland Health Boards between 2004 and 2013 (30.0%).

**Heart Attacks**

The age and sex standardised mortality rate for heart attacks decreased substantially over the last ten years, falling by 48.9% from 164.5 per 100,000 population in 2004 to 84.1 in 2013 (Table MC1 and figure 17).
Figure 17: Heart attacks\textsuperscript{1}: all ages by sex 2004-2013
2013 European age and sex standardised mortality rates per 100,000 population\textsuperscript{2}

Notes:  
1. Analysis includes ICD-10 codes I21-I22  
2. Rates are directly standardised to the 2013 European standard population  
Data Source: National Records Scotland - Deaths and Population

Details of mortality from all heart disease, CHD, heart attacks and heart failure by age, gender and health board area are given in Table MC1. Corresponding information by council area can be found in Table MC4.
Deprivation

Heart disease varies greatly between areas of greater or less material deprivation. In Scotland the Scottish Index of Multiple Deprivation (SIMD) is used to measure area deprivation. It is a measurement of multiple deprivation which combines information on income, employment, education, housing, health, crime and geographical access. More information is provided in the glossary and on the Scottish Government website. For this publication, areas in Scotland were divided into five equal groups (quintiles) with decreasing levels of deprivation.

Age and sex standardised mortality rates are presented here. Further information is provided in the terminology section.

**Coronary Heart Disease Mortality by Deprivation Quintile.**

There has been a reduction in mortality in all the deprivation quintiles over the decade 2004-2013. The reduction in the age and sex standardised CHD mortality rate among the most deprived quintile (quintile 1) was 40.7% compared with 46.4% in the least deprived quintile (quintile 5) - see Table DC7 and Figure 18. This implies a slight widening of relative inequalities.

**Figure 18: Coronary Heart Disease\(^1\) Deaths by Deprivation (SIMD) Quintile\(^2\)
2013 European age and sex standardised mortality rates per 100,000 population\(^3\)**

![Graph showing Coronary Heart Disease Deaths by Deprivation Quintile](image)

**Notes:**
1. Analysis includes ICD-10 codes I20-I25
2. Uses 2012 version of SIMD
3. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Figures using ESP1976 and ESP2013 are not comparable.

Data Source: National Records Scotland - Deaths and Population

---

\(^5\) The figures included in this section refer to calendar years.
However, the absolute difference in the age and sex standardised mortality rate between the most deprived (quintile 1) and least deprived (quintile 5) quintiles decreased over the last decade from 152 to 102.

The Deprivation topic area of the Heart Disease web pages provides links to detailed data tables relating to mortality by deprivation.

**Premature mortality**

CHD is a major cause of premature mortality (defined as death before the age of 75). For the figures shown below deprived areas are defined as the 15% most deprived datazones based on the Scottish Index of Multiple Deprivation. (More information on SIMD is provided in the [glossary](#)).

CHD mortality among those aged under 75 is a national indicator that informs progress in relation to the Scottish Government's [Healthier Strategic Objective](#). It has been previously published as [Indicator 26 in the Technical Notes for the 2007 Spending Review](#).

**Coronary Heart Disease Mortality in Under 75s in the 15% Most Deprived Areas**

In the 15% most deprived areas in Scotland, the age and sex standardised under 75 mortality rate from CHD for both sexes combined decreased by 39.7% over the last 10 years from 169.3 per 100,000 in 2004 to 102.1 in 2013. The rate has also decreased by 4.6% in the last year (Table DC3 and Figure 19).

![Figure 19: CHD Mortality Rates among under 75s in the 15% most deprived areas (SIMD); 2013 European age-standardised rate (EASR) per 100,000 population](image)

1 Analysis includes ICD-10 codes I20-I25
2 SIMD 2006 has been applied for years 2004-2008. SIMD 2009 has been applied for years 2007-2009. SIMD 2012 has been applied for years 2010-2013.
3 Rates are directly standardised to the 2013 European standard population
Data Source: National Records Scotland - Deaths and Population

---

6 Datazones are small geographical areas that have a population of around 750. See glossary.
Cardiovascular Prescribing

Cardiovascular disease covers a range of conditions including heart disease, strokes and diseases of the arteries and veins. This section describes statistics on drugs prescribed for the treatment of cardiovascular disease.

Of the prescriptions dispensed in the community, GPs write the vast majority. The remainder are written by nurses, dentists or are written in hospital to be dispensed in the community. Information on those NHS prescriptions is compiled by ISD's Prescribing Team from data provided by Practitioner Services Division (PSD) of NHS National Services Scotland. PSD is responsible for the processing and pricing of all prescriptions dispensed in the community in Scotland. Note that these data exclude drugs dispensed within hospitals.

The overall cost of cardiovascular drugs reduced year on year for the last ten years, whilst the number of prescriptions rose up to 2009/10. The changing price of statin drugs (used to prevent heart disease) partly explains this. Simvastatin, pravastatin and atorvastatin, three of the most widely used drugs, have come out of patent during this time, allowing equivalent lower cost non-branded (generic) drugs to be made available. Since then, the prices of these drugs have continued to decline, resulting in reduced overall costs, despite growth in the total volume prescribed.

In addition, lower prices have now been set for the non-branded drugs, resulting in further reduction in costs. The introduction of targets for quality improvement in General Practice, as part of the Quality and Outcomes Framework (QOF), is likely to have added to the growth in prescribing volume of statins by providing incentives to identify and treat those at high risk of cardiovascular disease.

Atorvastatin, one of the drugs used to reduce the risk of cardiovascular disease, was amongst the Top 10 Drugs by Cost in 2012/13 as detailed in the Prescribing area of ISD Scotland's website. This drug came out of patent in 2012/13 and as a result, the gross ingredient cost has dropped from approximately £13 million in 2012/13 to approximately £5 million in 2013/14. Atorvastatin no longer appears in the list of top 10 drugs by cost.

The data presented here are identical to those in the prescribing section of the Stroke Statistics publication. This is because many drugs can be used for the treatment of both stroke and heart disease and it is not possible from available data to distinguish whether a drug was used to treat stroke or heart disease.

Prescriptions Dispensed

Over the decade 2004/05 - 2013/14, the numbers of prescriptions dispensed for cardiovascular related drugs rose from 21,108,333 items to 24,680,809 items prescribed, an increase of 16.9%. However, there has been no appreciable change since 2009/10 (Table G1 and figure 20).
Gross Ingredient Costs

Gross ingredient cost indicates the total cost of a prescription drug. The overall cost of prescriptions dispensed for cardiovascular-related drugs fell in 2013/14 to £102.9 million, a reduction of 7.8% on the previous year. This is the lowest gross ingredient cost for cardiovascular drugs observed for any year over the last decade 2004/05 to 2013/14.

The large decrease in gross ingredient cost for statins over the last year (£32.6 million to £23.5 million) can be explained by atorvastatin coming out of patent in May 2012. The large decrease in gross ingredient cost for angiotensins over the last year (£12.8 million to £6.7 million) can be explained by the fact that the angiotensin-II group of inhibitors is in the process of leaving patent and also is slowly growing in activity. This has contributed to the increase in defined daily doses of angiotensins as a whole increasing from 45.6 million to 83.7 million in the last year.

Cardiovascular related drugs form approximately 10.6% of the total gross ingredient cost in Scotland (see Prescription Cost Analysis 2013/14). This has reduced from 11.7% of the total gross ingredient cost in 2012/13.

The GP Prescribing topic area of the Heart Disease web pages provides links to detailed tables relating to cardiovascular prescribing.
Primary Care Activity

There are two main sources of data relating to primary care activity for heart disease. The first is an estimate of the number of consultations with a GP or practice nurse, which was collected by the Practice Team Information (PTI) programme. The second is an estimate of the prevalence of heart-related conditions which is taken from Quality & Outcomes Framework (QOF) data recorded by practices in the form of disease registers.

Information on the number of consultations with a GP or practice nurse is available from the PTI programme for the years 2003/04 to 2012/13. Data has been collected from a sample of 6% of practices through the PTI programme. Information was recorded for CHD and angina by age group and sex.

It should be noted that 2012/13 is the last year the PTI data is available. A new national GP information system - the Scottish Primary Care Information Resource (SPIRE) - is in development and will supersede and build on the data collected for PTI. SPIRE aims to include richer data from a greater number of practices and will help to inform public health surveillance, research and data linkage. For more information on SPIRE see: [http://www.spire.scot.nhs.uk/](http://www.spire.scot.nhs.uk/).

Figure 21: Patients in Scotland consulting a GP or practice nurse at least once in the year for CHD or angina; 2003/04 – 2012/13; Rates per 1,000 registered patients\(^1,2\)

---


\(^2\) Based on 59, 53, 51, 49, 48, 58, 60, 59, 59 and 60 PTI practices that submitted complete GP and practice nurse data for the years ending 31 March 2004 to 2013 respectively.

Figure 21 shows the crude rate of consultations per 1,000 population for patients consulting a GP/practice nurse for CHD and angina between 2003/04 and 2012/13. The initial increase between 2003/04 and 2004/05 may be related to the introduction of the Quality and Outcomes Framework as part of the new GP contract in April 2004. The decrease in the rate for angina following 2004/05 may be a result of the introduction of troponin testing. Cases that would otherwise have been diagnosed as angina were diagnosed as a heart attack. The rates for both CHD and angina also tend to increase with age. The rates for
males are generally higher than those for females. More information can be found in the PTI data tables for CHD and angina.

The QOF measures a general practice’s achievement against a set of evidence-based indicators designed to promote good practice. Payments are made to each general practice on the basis of their level of achievement against those indicators. One of the features of QOF is the collection of prevalence data in the form of practice “registers”. A QOF register may count patients with one specific disease or condition, or it may include multiple conditions. There may also be other criteria for inclusion on a QOF register, such as age or date of diagnosis. More details are available on the ISD website.

Prevalence data is recorded as part of QOF for CHD, heart failure and atrial fibrillation. The prevalence estimates are available for Scotland, NHS Board, CHP and practice. Table 1 shows the number of patients on each register for Scotland and the raw prevalence rate per 100 patients in 2013/14. There were 231,442 patients on the CHD QOF register in 2013/14 (4.3% of the patients registered with a practice in Scotland). There were smaller numbers of patients on the atrial fibrillation and heart failure QOF registers (88,058 and 45,186 patients respectively). A more detailed table can be found on the ISD website.

Table 1. Estimated Scottish prevalence of heart-related conditions reported from QOF registers¹; 2013/14.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Patients on QOF register</th>
<th>Raw prevalence rate (per 100 patients)²,³</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHD</td>
<td>231,442</td>
<td>4.3</td>
</tr>
<tr>
<td>Atrial fibrillation</td>
<td>88,058</td>
<td>1.6</td>
</tr>
<tr>
<td>Heart failure</td>
<td>45,186</td>
<td>0.8</td>
</tr>
</tbody>
</table>

¹ Although the QOF is part of the new General Medical Services (GMS), practices with other contract types (17C or 2C) may also choose to use the QOF. These figures include data from practices of any contract type, and are therefore based on larger numbers of practices than tables based on GMS practices alone.
² Prevalence = number of patients on the specified QOF register, divided by list size, multiplied by 100.
³ List size is the total number of patients registered to the practice. This information is as at 1st January in the given financial year.
Ambulance Service Activity

Information on Scottish Ambulance Service (SAS) activity is collected for (a) incidents where a SAS resource attended and (b) conveyances where a patient was conveyed to hospital. More details are included in the glossary and in the definitions for tables SC1 and SC2. The SAS activity data gives an indication of demand on unscheduled care services (also including NHS24 and A&E) for people with suspected heart disease problems.

SAS records two main groupings of conditions which could indicate heart disease – heart problems and chest pain. The data presented in tables SC1 and SC2 are for the last 5 years and by health board of the location of the incident. As the numbers for each age group were too small to be published, the information is presented for all ages.

SAS Diagnosis - Heart Problems

The full list of conditions included in the heart problems/AICD (automatic implantable cardioverter defibrillator) diagnosis group are given in Table SC1. They include cardiac history, abnormal breathing, chest pains, severe respiratory distress, firing of AICD, abnormal heart rate. Note that the final diagnosis codes used here are not compatible with ICD10 diagnosis codes used elsewhere in this publication.

In the last 5 years, the number of incidents has increased by 74.5% from 3,273 to 5,713 whereas the rate of increase in the number of conveyances has been less – 65.2% from 3,024 to 4,996 (Table SC1 and Figure 22).

Figure 22: Scottish Ambulance Service incidents and conveyances with heart problem diagnosis

SAS Diagnosis - Chest Pains

The full list of conditions included in chest pains are given in Table SC2. They include cardiac history, abnormal breathing, changing colour, nausea/vomiting, difficulty speaking between breaths, heart attack/angina history. Note that the final diagnosis codes used here are not compatible with ICD10 diagnosis codes used elsewhere in this publication.
In the last 5 years, the number of incidents has increased overall by 29.4% from 34,304 to 44,392 whereas the rate of increase in the number of conveyances has been slightly less – 24.6% from 31,230 to 38,914. In both cases there has been a slight decrease in the last year – 1.7% for incidents and 2.6% for conveyances. (Table SC2 and Figure 23).

**Figure 23: Scottish Ambulance Service incidents and conveyances with chest pain diagnosis**

Data Source: SAS Data Warehouse

The increase in numbers reflects the increased overall demand experienced by the Scottish Ambulance Service. However, it should be noted that better recording of the diagnosis over time may also be responsible for some of the increase.
# Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACS</td>
<td>Acute Coronary Syndrome - an inclusive term referring to AMI (see below) and unstable angina.</td>
</tr>
<tr>
<td>Acute Hospital</td>
<td>Acute Hospital Care/Activity includes services such as: consultation with specialist clinicians; emergency treatment; routine, complex and life saving surgery; specialist diagnostic procedures; close observation and short-term care of patients. 'Acute' hospital care includes activity occurring in major teaching hospitals, district general hospitals and community hospitals but excludes obstetric and psychiatric services.</td>
</tr>
<tr>
<td>AICD</td>
<td>Automatic implantable cardioverter defibrillator, a device that monitors a person's heart rate. It is generally implanted into heart failure patients to speed or slow down their heart rate.</td>
</tr>
<tr>
<td>AMI (also referred to as Heart Attack)</td>
<td>Acute myocardial infarction (heart attack): the result of sudden complete blockage of the blood supply to part of the heart.</td>
</tr>
<tr>
<td>Angina pectoris</td>
<td>Chest pain on exertion as a result of coronary heart disease.</td>
</tr>
<tr>
<td>Angiography</td>
<td>A procedure in which under X-ray guidance a long, thin tube is threaded into the coronary arteries via a blood vessel in the groin or arm. A dye, which can be seen on the X-ray screen, is injected, showing the pattern of the coronary arteries, and demonstrating where the artery is narrowed.</td>
</tr>
<tr>
<td>Angioplasty</td>
<td>A procedure performed to treat coronary heart disease that involves passing a thin, hollow tube into the coronary arteries under X-ray guidance, from an artery in the groin or arm (under local anaesthetic). A device on the tube is then used to unblock the artery, and stretch the artery walls so that more blood and oxygen can flow to the heart muscle. (The full name of the procedure is percutaneous transluminal coronary angioplasty - PTCA).</td>
</tr>
<tr>
<td>Atrial Fibrillation</td>
<td>A heart condition where the upper chambers of the heart (atria) contract randomly, causing an irregular and abnormally fast heart rate.</td>
</tr>
<tr>
<td>CABG</td>
<td>Coronary artery bypass graft. An operation in which a blood vessel from another part of the body is grafted to the coronary artery or arteries, to bypass narrowed sections and restore blood flow to the heart muscle.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
</tr>
<tr>
<td>Cardiovascular disease (CVD)</td>
<td>Cardiovascular disease describes disease of the heart or blood vessels, including strokes and other related conditions.</td>
</tr>
<tr>
<td>CHD (also referred to as Ischaemic Heart Disease)</td>
<td>Coronary heart disease. Disease of the coronary arteries that supply the heart. This includes acute myocardial infarction, angina and most cases of heart failure.</td>
</tr>
<tr>
<td>Conveyance</td>
<td>A SAS resource has recorded an at hospital time, indicating the patient was conveyed to hospital.</td>
</tr>
<tr>
<td>Datazone</td>
<td>A small geographical area with a population between 500-1,000 household residents. They are based on groups of 2001 Census output areas.</td>
</tr>
<tr>
<td>Day case</td>
<td>This is when a patient makes a planned attendance to a specialty for clinical care, and requires the use of a bed or trolley in lieu of a bed.</td>
</tr>
<tr>
<td>Discharge</td>
<td>Discharges include transfers to other specialties/significant facilities and hospitals as well as routine discharges home or deaths in hospital. A patient could have more than one discharge in a year.</td>
</tr>
<tr>
<td>Emergency</td>
<td>An emergency admission occurs when, for clinical reasons, a patient is admitted at the earliest possible time after seeing a doctor.</td>
</tr>
<tr>
<td>ePRF</td>
<td>Electronic patient record form used by ambulance crews to record important patient information, including diagnostic data and treatment provided. This information can be accessed electronically by hospital staff.</td>
</tr>
<tr>
<td>European age-standardised rate</td>
<td>The rate that would have been found if the population in Scotland had the same age-composition as the hypothetical standard European population. The 2013 European Standard Population (ESP2013) has been used to calculate EASRs within this publication. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Previous reports used ESP1976 to calculate EASRs. Figures using ESP1976 and ESP2013 are not comparable. Therefore, findings from this publication are not comparable with previous ISD reports. See Appendix A1 for further details.</td>
</tr>
<tr>
<td>Final diagnostic code (SAS)</td>
<td>Diagnosis codes recorded by SAS resource after treating the patient.</td>
</tr>
</tbody>
</table>
### Generic drugs
When the patent expires on a branded drug, the manufacturer loses exclusive rights to produce it. Generic drugs are non-branded versions produced by different manufacturers that produce equivalent clinical effects. Normally, the differences in formulation, and the small variation in the amount of drugs absorbed, make no difference clinically. Generic drugs are generally cheaper than their branded equivalents.

### Gross Ingredient Cost (GIC)
Cost of drugs and appliances reimbursed before deduction of any dispenser discount (note: this definition differs from other parts of the UK).

### Heart attack
The result of sudden complete blockage of the blood supply to part of the heart. Also known as acute myocardial infarction (AMI).

### Heart failure
Failure of the heart as a pump, the commonest cause being coronary heart disease.

### Heart problems/AICD
A final diagnostic code group used by SAS. This includes abnormal breathing, cardiac history, changing colour, chest pain, clammy, cocaine taken, difficulty speaking between breaths, firing of AICD, low/high heart rate, just resuscitated or defibrillated, not alert, severe respiratory distress.

### Ischaemic Heart Disease (IHD) – also referred to as CHD
Disease that involves inadequate blood supply to the heart, and in practice is synonymous with coronary heart disease.

### Incidence
Incidence refers to the number of new cases of a condition in a defined population during a defined period and is typically expressed as the number of new cases per 100,000 population per year (or other suitable units). In this publication, an incident case is defined as the first admission to hospital (or death without a hospital admission). A first admission is defined as an admission where there has been no admission for the same condition in the previous 10 years. For example, a patient might be admitted with coronary heart disease in 2004 and again in 2005 for the same diagnosis. For the purpose of counting incidence, only the hospital admission in 2004 would be counted. The 2005 admission would not be counted because the previous admission occurred less than 10 years previously. First hospital admission is a reasonable measure of incidence for AMI and most forms of acute CHD since most cases are treated in hospital.
Incident
An incident where a SAS resource attends and record an at scene time.

Inpatient
This is when a patient occupies an available staffed bed in a hospital and either remains overnight whatever the original intention or is expected to remain overnight but is discharged earlier.

Items prescribed
Prescription items are prescribed and dispensed in the community. GPs write the vast majority of these prescriptions, with the remainder written mainly by nurses and dentists. The totals for items prescribed include prescriptions written in hospitals and dispensed in the community, but exclude drugs dispensed within hospitals themselves.

Mainland Health Boards
Health Boards in Scotland excluding the three Island Health Boards (Orkney, Shetland and Western Isles)

Mortality rate
The number of deaths as a rate per 100,000 population per year.

Outpatient
A patient who attends (outpatient attendance) a consultant or other medical clinic or has an arranged meeting with a consultant or a senior member of their team out with a clinic session.

Prevalence rate
The proportion of people with a given condition over a period of time (e.g. a year).

PTCA
Percutaneous Transluminal Coronary Angioplasty. The full name for an angioplasty.

A procedure performed to treat coronary heart disease that involves passing a thin, hollow tube into the coronary arteries under X-ray guidance, from an artery in the groin or arm (under local anaesthetic). A device on the tube is then used to unblock the artery, and stretch the artery walls so that more blood and oxygen can flow to the heart muscle.

PTI
Practice Team Information (PTI) collects information from a 6% sample of Scottish general practices (60 practices in 2012/13). The population in the sample is a reasonable reflection of the Scottish population with regard to age, gender and deprivation. The information collected is on face-to-face consultations between patients and a GP or practice nurse. 2012/13 was the last year PTI data was collected since it is being superceded by SPIRE (see below).
| **QOF** | The Quality & Outcomes Framework (QOF) represents one of the main sources of potential income for general practices (GP surgeries) across the UK. It is a major part of the new General Medical Services (GMS) contract, introduced on 1st April 2004. Participation by general practices in the QOF is voluntary. For those that do participate, the QOF measures achievement against a range of evidence-based indicators, with points and payments awarded according to the level of achievement. |
| **Quintiles** | Deprivation quintiles each contain 20% of the total population in Scotland. Deprivation quintile 1 contains the 20% of the population living in the most deprived datazones, while quintile 5 contains the 20% of the population living in the least deprived datazones. |
| **Revascularisation** | An inclusive term referring to CABG and angioplasty procedures. |
| **SAS** | The Scottish Ambulance Service. |
| **SIMD** | Deprivation for individuals is estimated from aggregate data derived from the census and other routine sources. These are used to estimate the deprivation of small geographical areas. The Scottish Index of Multiple Deprivation (SIMD) has seven domains (income, employment, education, housing, health, crime, and geographical access) at datazone level, which have been combined into an overall index to pick out area concentrations of multiple deprivation. See notes in tables as to which version of SIMD is used. |
| **SMR01** | An SMR01 is generated when a patient is discharged from hospital but also when a patient is transferred between hospitals, significant facilities, specialties or to the care of a different consultant. |
| **SPIRE** | Scottish Primary Care Information Resource (SPIRE) is a national GP information service being developed. It is open to all consenting GP practices in Scotland and will create a dataset to provide a national analysis. |
| **Standardisation** | See European age standardised rates. |
| **30 day survival** | Percentage of people who survive 30 days following a first emergency admission to hospital for a specific condition. |
| **Unstable angina** | Unstable angina is a form of acute coronary syndrome (ACS). |
### List of Tables

<table>
<thead>
<tr>
<th>Table No.</th>
<th>Name</th>
<th>Time period</th>
<th>File &amp; size</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC1</td>
<td>Heart Disease discharges - by diagnosis (all heart disease, ischaemic heart disease, acute myocardial infarction, cardiac failure, angina, chest pain), health board, admission type, age group and sex for financial years 2004/05-2013/14; numbers, crude rates, age and sex standardised rates (direct to Europe).</td>
<td>2004/05-2013/14</td>
<td>Excel [3,097kb]</td>
</tr>
<tr>
<td>AC4</td>
<td>Heart Disease discharges - by diagnosis (all heart disease, ischaemic heart disease, acute myocardial infarction, cardiac failure, angina, chest pain), Community Health Partnership, admission type, age group and sex for financial years 2004/05-2013/14; numbers, crude rates, age and sex standardised rates (direct to Europe).</td>
<td>2004/05-2013/14</td>
<td>Excel [10,156kb]</td>
</tr>
<tr>
<td>IC1</td>
<td>Coronary heart disease (CHD) incidence by year, health board, age group and sex for financial years 2004/05 – 2013/14; numbers, crude rates and age and sex standardised rates (direct to Europe)</td>
<td>2004/05-2013/14</td>
<td>Excel [168kb]</td>
</tr>
<tr>
<td>IC2</td>
<td>Acute myocardial infarction incidence by year, health board, age group and sex for financial years 2004/05 – 2013/14; numbers, crude rates and age and sex standardised rates (direct to Europe)</td>
<td>2004/05-2013/14</td>
<td>Excel [172kb]</td>
</tr>
<tr>
<td>OC1</td>
<td>Operations by type (Coronary Artery Bypass Graft, Angioplasty, Angiography, Revascularisation, Valve Surgery) by year, health board, admission type, age group and sex for financial years 2004/05-2013/14; numbers, crude rates, age and sex standardised rates (direct to Europe); Information at Scotland and Health Board level</td>
<td>2004/05-2013/14</td>
<td>Excel [5,098kb]</td>
</tr>
<tr>
<td>S1</td>
<td>Survival after first emergency admission for acute myocardial infarction and unstable Angina; numbers of patients treated and % surviving 30 days for financial years 2004/05-2013/14.</td>
<td>2004/05-2013/14</td>
<td>Excel [63kb]</td>
</tr>
<tr>
<td>S3</td>
<td>Survival after first emergency admission for heart failure; numbers of patients treated and % surviving 30 days for financial years 2004/05-2013/14</td>
<td>2004/05-2013/14</td>
<td>Excel [54kb]</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Year Range</td>
<td>Format</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>MC1</td>
<td>Number of deaths, with crude and age and sex standardised mortality rates, by age, health board of residence and year of death registration, 2004-2013.</td>
<td>2004-2013</td>
<td>Excel [1,034kb]</td>
</tr>
<tr>
<td>MC4</td>
<td>Number of deaths, with crude and age and sex standardised mortality rates, by age, council area of residence and year of death registration, 2004-2013.</td>
<td>2004-2013</td>
<td>Excel [1,106kb]</td>
</tr>
<tr>
<td>DC1</td>
<td>Coronary heart disease – Number of deaths, crude rates and standardised mortality ratios by Scottish Index of Multiple Deprivation deciles (2009-2013 combined)</td>
<td>2009-2013 combined</td>
<td>Excel [78kb]</td>
</tr>
<tr>
<td>DC3</td>
<td>Trends (2004-2013) in mortality rate from coronary heart disease among the under 75s in the 15% most deprived SIMD areas.</td>
<td>2004-2013</td>
<td>Excel [20kb]</td>
</tr>
<tr>
<td>DC4</td>
<td>Number of deaths and European age-standardised rates by NHS board; ages under 75; 15% most deprived SIMD areas.</td>
<td>3 year rolling averages 2002-2004 to 2011-2013</td>
<td>Excel [34kb]</td>
</tr>
<tr>
<td>DC5</td>
<td>Number of deaths and European age-standardised rates by community health partnership (CHP); ages under 75; 15% most deprived SIMD areas.</td>
<td>5 year rolling averages 2002-2006 to 2009-2013</td>
<td>Excel [25kb]</td>
</tr>
<tr>
<td>DC6</td>
<td>Number of deaths and European age-standardised rates by local authority / council area; ages under 75; 15% most deprived SIMD areas.</td>
<td>5 year rolling averages 2002-2006 to 2009-2013</td>
<td>Excel [26kb]</td>
</tr>
<tr>
<td>G1</td>
<td>Cardiovascular prescribing (costs and number of prescriptions) for financial years ending 2004/05-2013/14.</td>
<td>2004/05-2013/14</td>
<td>Excel [76kb]</td>
</tr>
<tr>
<td>G2</td>
<td>Cardiovascular prescribing (costs, defined daily doses and numbers per 1000 population) by drug group and Health Board for year 2013/14.</td>
<td>2013/14</td>
<td>Excel [144kb]</td>
</tr>
<tr>
<td>G3</td>
<td>Cardiovascular prescribing (costs, defined daily doses and numbers per 1000 population) by drug group and Community Health Partnership for year 2013/14.</td>
<td>2013/14</td>
<td>Excel [329kb]</td>
</tr>
<tr>
<td>SC1</td>
<td>Heart Problems – number of SAS incidents and conveyances by health board and sex for financial years 2009/10 to 2013/14.</td>
<td>2009/10 to 2013/14</td>
<td>Excel [191kb]</td>
</tr>
<tr>
<td>SC2</td>
<td>Chest Pains – number of SAS incidents</td>
<td>2009/10 to 2013/14</td>
<td>Excel [270kb]</td>
</tr>
</tbody>
</table>
and conveyances by health board and sex for financial years 2009/10 to 2013/14.

| 2013/14 |  |
Contact

Charles Guthrie
Senior Information Analyst
charles.guthrie@nhs.net
0131 275 6340

Alex Henriquez
Information Analyst
ahenriquez@nhs.net
0131 275 7999

Andrew Deas
Principal Information Analyst
andrew.deas@nhs.net
0131 275 7030

Heart Disease and Stroke Mailbox

Nss.isdhdstroke@nhs.net

Further Information

Further information on heart disease can be found on the Heart Disease area of the ISD website.

Corresponding information on stroke and cerebrovascular disease can be found on the Stroke area of the ISD website.

Further information on other ISD publications and datasets can be found on the ISD website.

Rate this publication

It is important that we understand the range of users and uses of the statistics and gain feedback on our publications so that we can make the data more useful to users.

Click here to provide feedback and rate this publication.
Appendix

A1 – Changes to the European Standard Population

The 2013 European Standard Population (ESP2013) has been used to calculate the European Age Standardised Rates (EASRs) within this publication. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Previous reports used ESP1976 to calculate EASRs. EASRs calculated using ESP1976 cannot be compared with EASRs calculated using ESP2013. This section contains a worked example of EASRs using both ESP1976 and ESP2013 to show how the rates differ and why they cannot be compared.

Example: Trend in age-standardised mortality rates for heart disease 2004-2013)

Based on the number of death registrations in each of the calendar years, the following rates were calculated:

Crude Rate

| The crude rate is the total number of people with an illness (or who die) in a country or region, divided by the total population of that country or region, and is normally expressed ‘per 1,000’, ‘per 10,000’ or ‘per 100,000’. |

Making comparisons on the crude rate can be misleading if the age structures of the populations of the countries or regions are quite different. Areas with larger percentages of younger people are unlikely to have as high levels of death as areas with larger percentages of older people – and therefore if we don’t adjust for these differences we may draw the wrong conclusion about the health of an area simply because of the age-structure of the population. EASRs allow us to make comparisons between different geographical areas as they allow the effects of having different age structures in either the same population over time or different geographies to be removed.

European Age-Sex Standardised Rate (EASR) using ESP1976

For each 5 year age group, the crude rate is calculated and then the weighted average of all age groups is taken based on the weightings of the 1976 European Standard Population, to give the overall EASR.

European Age-Sex Standardised Rate (EASR) using ESP2013

For each 5 year age group, the crude rate is calculated and then the weighted average of all age groups is taken based on the weightings of the 2013 European Standard Population, to give the overall EASR.

The table and chart below are for illustrative purposes to show how the rates differ.
Table A1.1: Comparison of European Age-Sex Standardised Rates (EASRs)\textsuperscript{1,2} of mortality for heart disease using both 1976\textsuperscript{3} and 2013\textsuperscript{4,5} European Standard Populations, and crude rates, by calendar year (2004-2013)

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of deaths</td>
<td>13,292</td>
<td>12,990</td>
<td>12,119</td>
<td>12,026</td>
<td>11,385</td>
<td>10,752</td>
<td>10,662</td>
<td>10,247</td>
<td>10,330</td>
<td>10,112</td>
</tr>
<tr>
<td>Crude rate per 100,000 population</td>
<td>261.4</td>
<td>254.2</td>
<td>236.1</td>
<td>232.6</td>
<td>218.8</td>
<td>205.5</td>
<td>202.6</td>
<td>193.3</td>
<td>194.4</td>
<td>189.8</td>
</tr>
<tr>
<td>EASR per 100,000 population (ESP1976)</td>
<td>179.1</td>
<td>171.3</td>
<td>156.8</td>
<td>154.3</td>
<td>142.5</td>
<td>132.2</td>
<td>129.0</td>
<td>121.2</td>
<td>119.4</td>
<td>115.5</td>
</tr>
<tr>
<td>EASR per 100,000 population (ESP2013)</td>
<td>344.3</td>
<td>328.3</td>
<td>302.0</td>
<td>296.4</td>
<td>274.8</td>
<td>256.6</td>
<td>248.9</td>
<td>232.4</td>
<td>228.4</td>
<td>221.8</td>
</tr>
</tbody>
</table>

Source: National Records of Scotland

Notes:
1. The population estimates used in the calculation of rates above are based on the 2011 Census results.
2. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. European Age-Sex Standardised Rates (EASRs) using ESP1976 and ESP2013 are not comparable.
3. European Age-Sex Standardised Rate (EASR), calculated using ESP1976 and using 5 year age groups 0-4, 5-9 up to an upper age group of 85+.
4. European Age-Sex Standardised Rate (EASR), calculated using ESP2013 and using 5 year age groups 0-4, 5-9 up to an upper age group of 90+.
5. The upper age group for the 2013 European Standard Population structure is 95+. However, due to Scotland population estimates data being unavailable for the 95+ age group for all required geographies and for all required years, the upper age group used is 90+. This is an amalgamated age group containing both the 90-94 and 95+ age groups.

From this example (see Table A1.1 and Figure A1.1 above), it can be seen that the EASR (using ESP2013) is the highest of the three rates. The Crude Rate is in the middle and the EASR (using ESP1976) is the lowest. The mortality of heart disease is higher in older age groups. ESP2013 differs from ESP1976 by its inclusion of fewer young people and more people from older age groups. Therefore, in this example, the EASRs calculated using
ESP2013 are higher than those calculated using ESP1976. The trends shown for each method of calculating rates are similar, giving confidence to trend analysis. EASRs (using ESP1976) are not comparable with EASRs (using ESP2013). For example, comparing the EASR (using ESP1976) for calendar year 2012 in a report issued in 2013, to an EASR (using ESP2013) relating to the same year 2012, in a report issued in 2014, is meaningless. On this basis, findings from this publication are not comparable with previous ISD reports.

Further information can be obtained from:
ISD website: http://www.isdscotland.org/Products-and-Services/GPD-Support/


A2 – Background Information

Heart Disease

Coronary heart disease (CHD) is a disease caused by the build up of fatty materials in the wall of the arteries blood vessels that supply the heart with oxygen. Obstruction of these arteries can cause a heart attack, chest pain or angina. Heart disease is more common in older people.

Risk factors associated with CHD

The main preventable risk factors for CHD are smoking, high blood pressure, low levels of physical activity and a poor diet. There is also a strong relationship between social deprivation and these risk factors.

Detailed information on the prevalence of these risk factors is available from the Scottish Health Survey, the latest published report being from 2013. The 2003 survey included a specific report on Cardiovascular Disease. The Scottish Health Survey is now operating as a rolling survey running continuously from 2008-2015.

The results of the Scottish Health survey can be found on the Scottish Government website.

Policy Context

NHS Scotland service provision for patients with CHD operates within the framework of Scottish Government policy. A chronology of policy documents that steer service provision for CHD and stroke patients is outlined below.

Coronary heart disease & stroke task force (2001)

Coronary heart disease & stroke strategy for Scotland (2002)


Delivering for Health (2005) (Scottish Government response to the "Kerr" report "Building a health service fit for the future")

Better health, better care - action plan. (2007)


Better heart disease & stroke care action plan (2009)

Heart disease improvement plan (2014)

Data Collection

Hospital Activity data

Hospital activity data are collected across NHS Scotland and are based on nationally available information routinely drawn from hospital administrative systems across the country. Hospital activity data includes inpatient and day case activity occurring in major
teaching hospitals, district general hospitals and community hospitals but excludes obstetric and psychiatric services. This data collection is known as SMR01.

**Tests for Heart Attacks (AMI)**

The introduction of more sensitive tests such as troponin for the diagnosis of CHD - and the incorporation of troponin (and other biomarker) levels in definitions of heart attacks, has affected the diagnosis of heart attack over recent years. Since it is likely that cases previously undiagnosed would now be correctly determined as heart attack, variations in the definition, recording and coding of heart attack may affect inter-Health Board comparisons of heart attack incidence, and post-heart attack survival. ISD issued coding guidance in June 2007 covering the recording of troponin levels in acute coronary syndromes- see Coding Guidelines Number 20.

Troponin

Troponin is a protein that is produced by the body when heart muscle is damaged. During a heart attack, the levels of certain types of troponin increase in the bloodstream. Troponin levels in the blood can therefore be used to determine whether a heart attack has taken place. Prior to the introduction of troponin testing, less severe heart attacks may have been diagnosed as unstable angina.

**Prescribing data**

Practitioner Services (PSD), a division of NHS National Services Scotland, processes all NHS prescriptions for payment of pharmacists, dispensing doctors and appliance suppliers. Hospital dispensed prescriptions are NOT included in the figures.

Information on NHS prescriptions dispensed in the community in Scotland is compiled by ISD's Prescribing Team from data provided by Practitioner Services Division (PSD). PSD are responsible for the processing and pricing of all prescriptions dispensed in Scotland.

**Deaths data**

Information on the quality of National Records of Data on Deaths can be found on the National Records of Scotland website;


**Data Completeness**

The hospital activity figures in this publication are sourced from SMR01 records and the levels of completeness of the SMR01 data are deemed to be fit for publication (99% of the expected figure at the time of extraction).

Information on SMR01 data completeness can be found on the Hospital Records Data Monitoring [SMR Completeness](http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths) web page, while information on the timeliness of SMR01 data submissions can be found on the [SMR Timeliness](http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths) web page. Details on completeness can also be found within the excel data files.

ISD are working with NHS Boards to resolve ongoing data submission issues. The majority of these issues have resulted from implementation of the new PMS TrakCare system and other existing system issues.
Data Quality

The ISD Data Quality Assurance (DQA) team is responsible for evaluating and ensuring SMR datasets are accurate, consistent and comparable across time and between sources. Details of the quality assurance process for SMRs can be found are published on the DQA methodology web page.

The DQA team’s previous projects web page contains details of past Data Quality Assurance Assessments, including final reports and findings.

The most recent report “Assessment of SMR01 Data 2010-2011” [350kb] was published in May 2012. This report includes feedback on clinical coding accuracy, sensitivity and completeness within defined groups and includes commonly encountered conditions including Ischaemic Heart Disease, Cerebrovascular Disease and Myocardial Infarction.

An earlier report, “Towards Better Data from Scottish Hospitals: An Assessment of SMR01 and Associated Data 2004-2006” [1.77Mb], contains sub-sections on specific conditions and interventions, including some related to CHD.

In hospital discharge data, clinical information for diagnoses and operations/interventions is currently recorded using ICD10 (the International Classification of Diseases 10th Revision maintained by the World Health Organization) and OPCS4 (the Office of Population Censuses & Surveys 4th Revision Classification of Surgical Operations and Procedures maintained by NHS Connecting for Health (CfH)).


For an extract of OPCS4 codes related to the heart see the file OPCS4 Classification of Surgical Operations and Procedures (Heart) [91kb] for details of the heart operations and procedures in its Chapter K. This document should be read in conjunction with the Information Standards Board document Summary of Changes from OPCS-4.6 to OPCS-4.7 for details of the latest updates to the coding classification.

Supporting information from ISD Scotland

Further information relating to heart disease and stroke is published by ISD Scotland:

1. ScotPHO – the Health and Well Being Profiles produce charts at NHS Board and Local Authority on premature mortality from CHD and CVD and patients hospitalised with CHD and CVD.

2. The Hospital Standardised Mortality Ratios updated quarterly produce information on deaths in hospitals participating in the Scottish Patient Safety Programme. Deaths will include those dying from heart disease and stroke.

3. Detailed tables on number/incidence of hospital episodes by diagnosis, including diseases of the circulatory system and number of procedures in main hospitals, including those associated with heart disease. This is available as part of the Hospital Care topic on the ISD website.
Independent and voluntary sector

Although there are a number of independent and voluntary sector organisations involved in the provision of information and services to CHD patients, two of the main ones, with links to NHSScotland, are the British Heart Foundation (BHF) and Chest, Heart & Stroke Scotland (CHSS). Both organisations are involved in the funding of research and provide extensive information for patients and carers on their respective web sites at http://www.bhf.org.uk/ and http://www.chss.org.uk/

Comparisons

**UK comparisons**

Hospital activity data relating to CHD in England, Wales and Northern Ireland are available separately. Please note that these figures are sometimes not directly comparable with published data from Scotland due to differences in recording and definitions. Prior to making comparisons, please check the definitions carefully for each of the sources.

England: [NHS Hospital Episode Statistics (HES)]

Wales: [Health and care statistics]

Northern Ireland: [Hospital Statistics & Research]

Mortality from specific causes, including heart disease, in England and Wales is available from the [Office for National Statistics].

**International comparisons**

The [Scotland and European Health for All database] allows users to make comparisons of trends in CHD mortality in Scotland with countries in the rest of Europe. These include standardised death rates and hospital discharges for ischaemic heart disease and cerebrovascular disease. European comparisons indicate that while CHD mortality rates have fallen, Scotland still compares unfavourably with most other European countries.

**Further Information**

Our "[Links to other sources]" section offers a few examples of other information sources.
## A3 – Publication Metadata (including revisions details)

<table>
<thead>
<tr>
<th>Metadata Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication title</td>
<td>Heart Disease Statistics</td>
</tr>
<tr>
<td>Description</td>
<td>Annual update of heart disease statistics. Update including hospital activity, incidence, operations, 30 days survival, mortality, deprivation, prescribing, primary care and ambulance service activity.</td>
</tr>
<tr>
<td>Theme</td>
<td>Health and Social Care</td>
</tr>
<tr>
<td>Topic</td>
<td>Conditions and Diseases</td>
</tr>
<tr>
<td>Format</td>
<td>Excel workbooks</td>
</tr>
<tr>
<td>Data source(s)</td>
<td>Scottish Morbidity Record 01 (SMR01), National Records of Scotland (NRS) Death Registrations, Prescribing Information System (PIS), Scottish Index of Multiple Deprivation (Scottish Government), SAS Data Warehouse, Practice Team Information (PTI), Quality Outcomes Framework (QOF).</td>
</tr>
<tr>
<td>Date that data are acquired</td>
<td>October 2014</td>
</tr>
<tr>
<td>Release date</td>
<td>27th January 2015</td>
</tr>
<tr>
<td>Frequency</td>
<td>Annual</td>
</tr>
<tr>
<td>Timeframe of data and timeliness</td>
<td>10 years annual data up to 31-Mar-2014 (hospital activity, operations, prescribing, incidence, survival), 31-Dec-2013 (mortality). 5 years annual data up to 31-Mar-2014 (ambulance service).</td>
</tr>
<tr>
<td>Continuity of data</td>
<td>Mortality data: Reports data since 1995. Mortality coding moved from ICD-9 to ICD-10 in 2000. ICD codes have been back-mapped to 1995 as accurately as possible for continuity of reporting. There was a change to the coding of causes of death by National Records of Scotland between 2010 and 2011. The overall scale of change was small. For full details, please consult the NRS website: <a href="http://www.nrscotland.gov.uk/files/statistics/vital-events/changes-to-coding-of-causes-of-death-between-2010-2011.pdf">http://www.nrscotland.gov.uk/files/statistics/vital-events/changes-to-coding-of-causes-of-death-between-2010-2011.pdf</a>. Prescribing data: The definition of the main measures such as gross ingredient cost and number of items are unchanged over this period. Types and value of dispensing fees are agreed the Scottish Government and set annually. Details can be found in the Scottish Drug Tariff and in Primary Care circulars issued by the Government. Drug products are first licensed as proprietary medicines but generic versions often appear once the original patent expires. This can affect the price and uptake of these drugs. The Scottish Government sets the reimbursement price of generic drug products via the <a href="http://www.nrscotland.gov.uk/files/statistics/vital-events/changes-to-coding-of-causes-of-death-between-2010-2011.pdf">Scottish Drug Tariff</a>.</td>
</tr>
</tbody>
</table>
which is updated and issued quarterly. Hospital admissions: The introduction of more sensitive tests for the diagnosis of acute coronary ischaemia - e.g. troponin - and the incorporation of troponin (and other biomarker) levels in definitions of acute myocardial infarction (AMI), may have affected the recording of AMI over recent years. Variations in the definition, recording and coding of AMI may affect inter-hospital and inter-Health Board comparisons of AMI incidence, prevalence and post-AMI survival. ISD issued coding guidance in June 2007 covering the recording of troponin levels in acute coronary syndromes - see Coding Guidelines Number 20.

<table>
<thead>
<tr>
<th>Revisions statement</th>
<th>No revisions have occurred and there are no revisions planned.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revisions relevant to this publication</td>
<td>The 2013 European Standard Population (ESP2013) has been used to calculate the European Age Standardised Rates (EASRs) within this publication. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Previous reports used ESP1976 to calculate EASRs. EASRs calculated using ESP1976 cannot be compared with EASRs calculated using ESP2013. Therefore, findings from this publication are not comparable with previous ISD reports. Further detail regarding this change and a worked example of EASRs using both ESP1976 and ESP2013 is included in Appendix A1.</td>
</tr>
<tr>
<td>Concepts and definitions</td>
<td>See Glossary and Appendix A2 contained within this report.</td>
</tr>
<tr>
<td>Relevance and key uses of the statistics</td>
<td>Uses of the data include: To allow NHS Boards and the Scottish Government to compare activity levels nationally; To provide health intelligence and performance information for NHS Boards and the Scottish Government; To provide information to support answers to Parliamentary Questions; To support the information requirements of voluntary sector organisations such as British Heart Foundation (BHF), including research and media activity; To allow members of the public to readily access information on heart disease; To respond to information requests for a variety of customers e.g. researchers, charities, public companies, Freedom of Information requests; To assist students and universities conducting studies on topics such as heart disease; To assist private companies interested in heart disease information in Scotland, such as pharmaceutical companies</td>
</tr>
<tr>
<td>Category</td>
<td>Details</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| **Accuracy** | Mortality: For coding of deaths see the website of the [National Records of Scotland](https://www.nrscotland.gov.uk). Reported data are compared to previous years' figures and to expected trends.  
Prescribing: The data is sourced from a payment system and routine monthly checks are carried out by PSD on a random sample of approximately 5% of prescription payments. These check all data captured for payment and the accuracy of the payment calculation and have a target accuracy of 98% which is routinely met. Data that is captured but is not mandatory for payment purposes can be of lower quality; principally this includes the prescriber code which links a prescription back to the individual prescriber e.g. GP and their organisation including NHS Board. Routine monitoring of unallocated prescriptions is carried out and correct codes are applied before publication. This ensures that unallocated prescriptions account for under 2% of all prescriptions. For remaining unallocated prescriptions, the prescribing NHS Board is assumed to be the same as the dispensing NHS Board.  
Hospital Activity: SMR01 data are subjected to validation on submission. The figures are compared to previous years’ figures and to expected trends. The SMR01 data are also assessed for accuracy by ISD’s Data Quality Assurance team – see Appendix A2. |
| **Completeness** | Mortality: Death registrations are deemed to be complete and finalised.  
Prescribing: The Prescribing Information System holds information on 100% of NHS Scotland prescriptions dispensed within the community and claimed for payment by a pharmacy contractor (i.e. pharmacy, dispensing doctor or appliance supplier). It does not include data on prescriptions dispensed but not claimed (likely to be very small) or prescriptions prescribed but not submitted for dispensing by a patient. Some research has estimated these latter prescriptions to account for around 6% of all prescriptions issued to patients. It is not possible to determine from payment data how much of the medicine dispensed to patients is actually taken in accordance with dosage instructions.  
Hospital Activity: Levels of SMR01 submission are deemed to be 99% complete compared to expected levels of submission at time of extraction. |
| **Comparability** | Prescribing: The main measures of drug ingredient cost and volumes of items dispensed in the community are comparable across the UK countries. However it should be... |
Information Services Division

| | noted that the Gross Ingredient Cost (GIC) within Scotland is equivalent to the Net Ingredient Cost (NIC) in England, i.e. the reimbursement cost of drugs before any pharmacy discounts are applied. Also each country determines its own dispensing fees based on separate contractual arrangements with dispensing contractors in each country. A common formulary called the British National Formulary (BNF) is used to classify drugs based on therapeutic use. |
| | Hospital activity data relating to coronary heart disease in England, Wales and Northern Ireland are available separately. Please note that these figures are sometimes not directly comparable with published data from Scotland due to differences in recording and definitions. Prior to making comparisons, please check the definitions carefully for each of the sources. |
| | England: NHS Hospital Episode Statistics (HES) |
| | Wales: Health and care statistics |
| | Northern Ireland: Hospital Statistics & Research |
| Accessibility | Accessibility: It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines. |
| Coherence and clarity | Coherence and clarity: Relevant key statistics are presented on each Topic Area page. Statistics are presented within Excel spreadsheets. Geographical areas and national figures are presented using drop down menus. Further features to aid clarity: 1. Tables use drop down menus to display data by Age Band, Diagnostic and other Groupings. 2. Key data presented graphically. 3. Each Excel workbook contains a notes page. |
| Value type and unit of measurement | Value type and unit of measurement: The number of deaths in a given year is based on the date of registration. Rates are expressed as both a crude rate per 100,000 population and directly standardised for age only or both age and sex as detailed on the notes pages of the relevant Excel table. The main units of measure of drug reimbursement costs are Gross Ingredient Cost (GIC) and Net ingredient cost (NIC) quantity. The latter takes account of pharmacy discounts, the rates for which are set by the Scottish Government in the Scottish Drug Tariff. There are a large number of individual dispensing remuneration fees paid to dispensing contractors details of which can be found in the Scottish Drug Tariff. The main measures of drug volume are items (the number of individual drug items on a
prescription form), quantity (the total number of tablets, capsules etc), and defined daily doses (DDDs - estimated average daily maintenance doses for a total quantity of prescribed).

Hospital activity is based on hospital episodes, which if based on the date of discharge. Rates are expressed as both a crude rate per 100,000 population and directly standardised for age only or both age and sex as detailed on the notes page of the relevant Excel tables.

Disclosure

The ISD protocol on Statistical Disclosure Protocol is followed.

Official Statistics designation

National Statistics

UK Statistics Authority Assessment

April 2013

Last published

28th January 2014

Next published

November 2015

Date of first publication

22nd February 2011 (in current format)

Help email

andrew.deas@nhs.net

Date form completed

9th January 2015
A4 – 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
A5 – ISD and Official Statistics

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 (i.e. assessed by the UK Statistics Authority as complying with the Code of Practice)
- National Statistics (i.e. legacy, still to be assessed by the UK Statistics Authority)
- Official Statistics (i.e. 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.