

Percentage of End of Life Spent at Home or in a Community Setting

Financial years ending 31st March 2011 to 2017

30th May 2017

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Introduction

The [NHS Healthcare Quality Strategy](#) was launched in May 2010 by the Scottish Government with the aim of delivering high quality healthcare service to the people of Scotland. A direct action identified by the Quality Strategy was to develop a [Quality Measurement Framework](#) supporting a number of Quality Outcome Measures (QOMs). These measures cover a range of healthcare topics including; care experience, healthcare acquired infections, hospital mortality rates and end of life care.

This publication by the Information Services Division presents information in support of the action plan “[Living and Dying Well: A National Action Plan for Palliative and End of Life Care in Scotland](#)” which has as one of its objectives to “produce achievable and measurable changes which will ensure quality improvement and enhance patient and carer experience”.

Ideally, the measure would relate directly to the patient’s preferred place of care at the end of their life. However, there is no national and systematic data recorded on a person’s preferred place of care at end of life and so this publication uses instead the following surrogate measure: “*Percentage of last six months spent at home or in a community setting*”. Although this is not a direct measure of compliance with people’s preferred place of death, it can serve to provide a broad indication of progress in implementing the national action plan.

More recently in December 2015 the “[Strategic Framework for Action on Palliative and End of Life Care](#)” was launched, which outlines the key actions to be taken to ensure that everyone in Scotland receives services that respond to their individual palliative and end of life care needs.

Provisional Figures

Please note that hospital data for the latter part of 2016/17 is not yet complete so this may mean that the time spent in hospital in the last six months before death for 2016/17 is slightly undercounted. Figures for this financial year are considered to be provisional and this should be taken into account when interpreting the results. National Records of Scotland death data for 2016 and 2017 are provisional and may be revised slightly in the future.

Main points

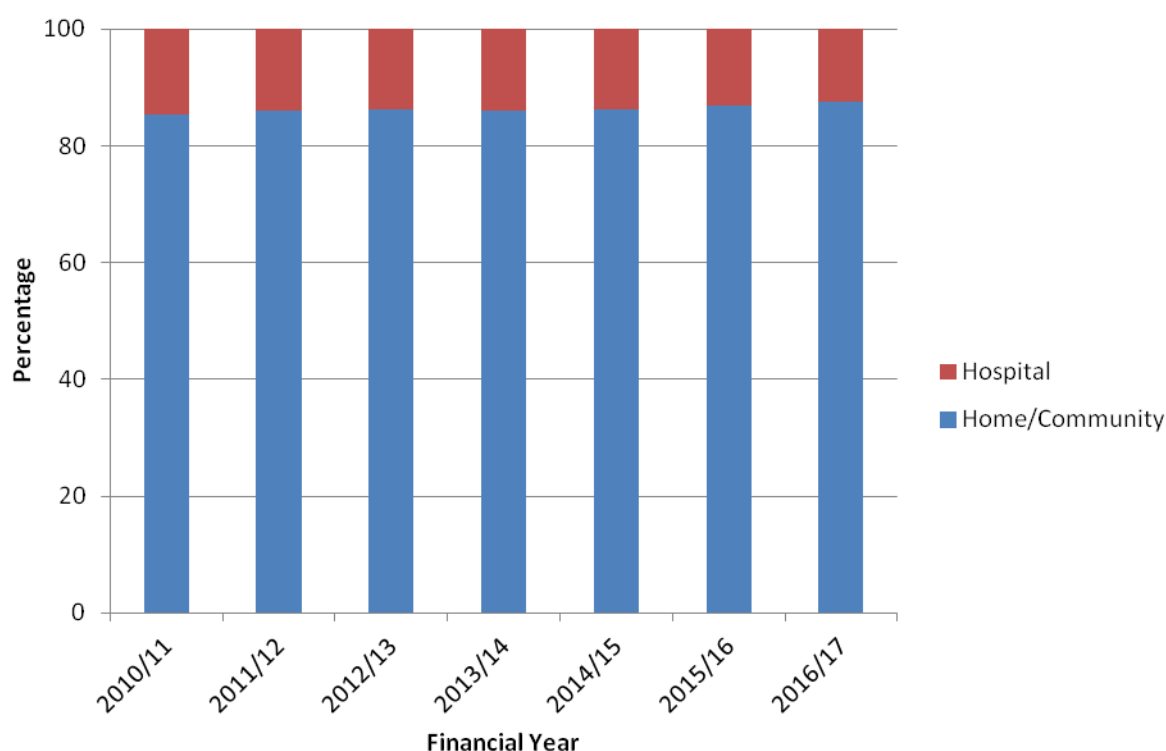
- There were 53,870 deaths in Scotland during 2016/17, excluding those where an external cause such as unintentional injury was recorded.
- Of these people, 87% of their last six months of life was spent at home or in a community setting with the remaining 13% of time spent in hospital. This has remained broadly similar over the seven years from 2010/11 to 2016/17.
- The percentage of those in the youngest age group that spent their last 6 months at home or in the community was slightly higher than the percentage in the oldest age group; 92% in the 0-54 age group compared to 87% for those aged 85+. This may reflect the different causes of death in these age groups.
- The percentage of the last six months of life spent at home or in a community setting for those living in the most deprived areas is the same as those living in the least deprived areas.

Results and Commentary

For the 53,870 residents of Scotland who died in 2016/17, 87% of their last six months were spent either at home or in the community (Table 1) and 13% of their last six months were spent in hospital. This is equivalent to each resident spending an average of 23 days in hospital in the 6 months prior to their death (Table 1 in the [data tables](#)).

Over the seven financial years from 2010/11 to 2016/17 the percentage of time spent at home or in a community setting has remained broadly similar (see Figure 1 below).

Figure 1: Percentage of last six months of life spent at home or in a community setting; financial years 2010/11 – 2016/17¹



1. Figures from 2015/16 and 2016/17 are provisional. Please see the [Provisional Figures section](#) for more detail.

Health and Social Care Partnership

Table 1 shows the percentage of the last six months of life spent at home or in a community setting for each of the Health and Social Care Partnerships. There is some variation between partnerships with the figures ranging from 85% (South Ayrshire) through to 94% (Shetland Islands). This could be due to differences in the age profile and rurality of each of the local areas.

Table 1: Percentage of last six months of life spent at home or in a community setting in 2016/17¹; by Health and Social Care Partnership

Health and Social Care Partnership	No. Deaths	% of time spent at home/in the community
Aberdeen City	1,961	89.0
Aberdeenshire	2,270	89.5
Angus	1,385	89.5
Argyll & Bute	1,036	89.9
Clackmannanshire and Stirling	1,319	87.1
Dumfries and Galloway	1,790	88.2
Dundee City	1,570	87.3
East Ayrshire	1,439	88.1
East Dunbartonshire	1,052	87.7
East Lothian	994	86.2
East Renfrewshire	843	85.9
Edinburgh	4,087	85.5
Falkirk	1,645	86.0
Fife	3,834	87.8
Glasgow City	6,059	86.5
Highland	2,246	90.6
Inverclyde	1,002	86.1
Midlothian	811	86.1
Moray	918	90.6
North Ayrshire	1,525	87.3
North Lanarkshire	3,375	87.0
Orkney Islands	218	92.1
Perth and Kinross	1,540	88.3
Renfrewshire	1,989	87.3
Scottish Borders	1,215	85.7
Shetland Islands	226	93.9
South Ayrshire	1,352	85.0
South Lanarkshire	3,335	87.3
West Dunbartonshire	987	88.1
West Lothian	1,502	88.2
Western Isles	345	87.0
Scotland	53,870	87.5

- Figures from 2015/16 and 2016/17 are provisional. Please see the [Provisional Figures section](#) for more detail.
- The Health and Social Care Partnership is the usual place of residence prior to death.

The trend in the percentage of the last six months of life spent at home or in a community setting over the past 7 years is presented in graphical format in Figure A1.1 (see [List of Figures](#) or [Appendix A1](#)) and the corresponding data can be found in Table 1 in the [data tables](#). Many of the partnerships show a broadly consistent pattern over the 7 year period from 2010/11 to 2016/17.

Health Board of Residence

Information on the percentage of the last six months of life spent at home or in a community setting is provided for each of the Health Boards in Scotland in Table 2. Again the variation in values will be influenced by rurality and age profile of the different health boards. The trend in the percentages over the past 7 years is presented in graphical format in Figure A1.2 (see [List of Figures](#) or [Appendix A1](#)).

Table 2: Percentage of last six months of life spent at home or in a community setting in 2016/17¹; by Health Board of Residence

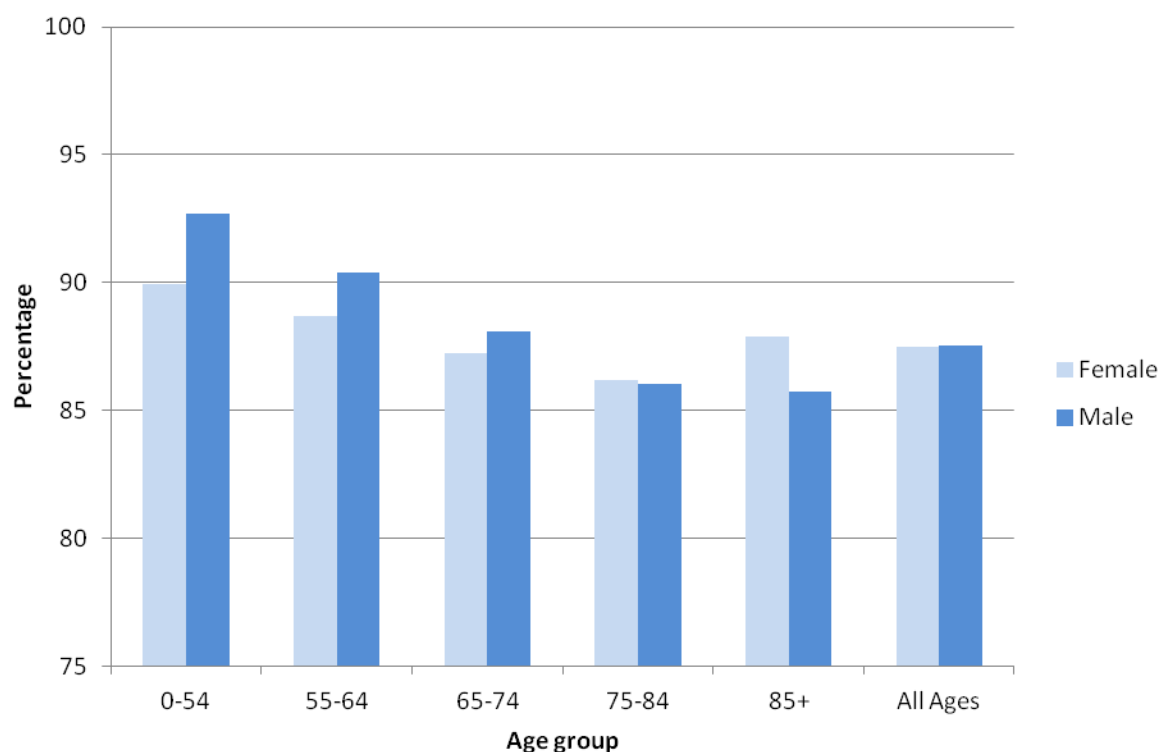
Health Board of Residence	No. Deaths	% of time spent at home/in the community
Ayrshire & Arran	4,316	86.9
Borders	1,215	85.7
Dumfries & Galloway	1,790	88.2
Fife	3,834	87.8
Forth Valley	2,964	86.5
Grampian	5,149	89.5
Greater Glasgow & Clyde	11,932	86.8
Highland	3,282	90.4
Lanarkshire	6,710	87.2
Lothian	7,394	86.2
Orkney	218	92.1
Shetland	226	93.9
Tayside	4,495	88.3
Western Isles	345	87.0
Scotland	53,870	87.5

1. Figures from 2015/16 and 2016/17 are provisional. Please see the [Provisional Figures section](#) for more detail.
2. The Health Board of Residence is the usual place of residence prior to death.
3. Health Boards are based on the new NHS Board boundaries which came into effect 1st April 2014.

Age and Gender

Figure 2 below shows the percentage of time spent at home or in the community in the last six months by age group and gender (Table 3 in the [data tables](#)).

Figure 2: Percentage of last six months of life spent at home or in a community setting in 2016/17¹; by age and gender.



1. Figures from 2015/16 and 2016/17 are provisional. Please see the [Provisional Figures section](#) for more detail.
2. Please note that the y-axis does not start at zero.

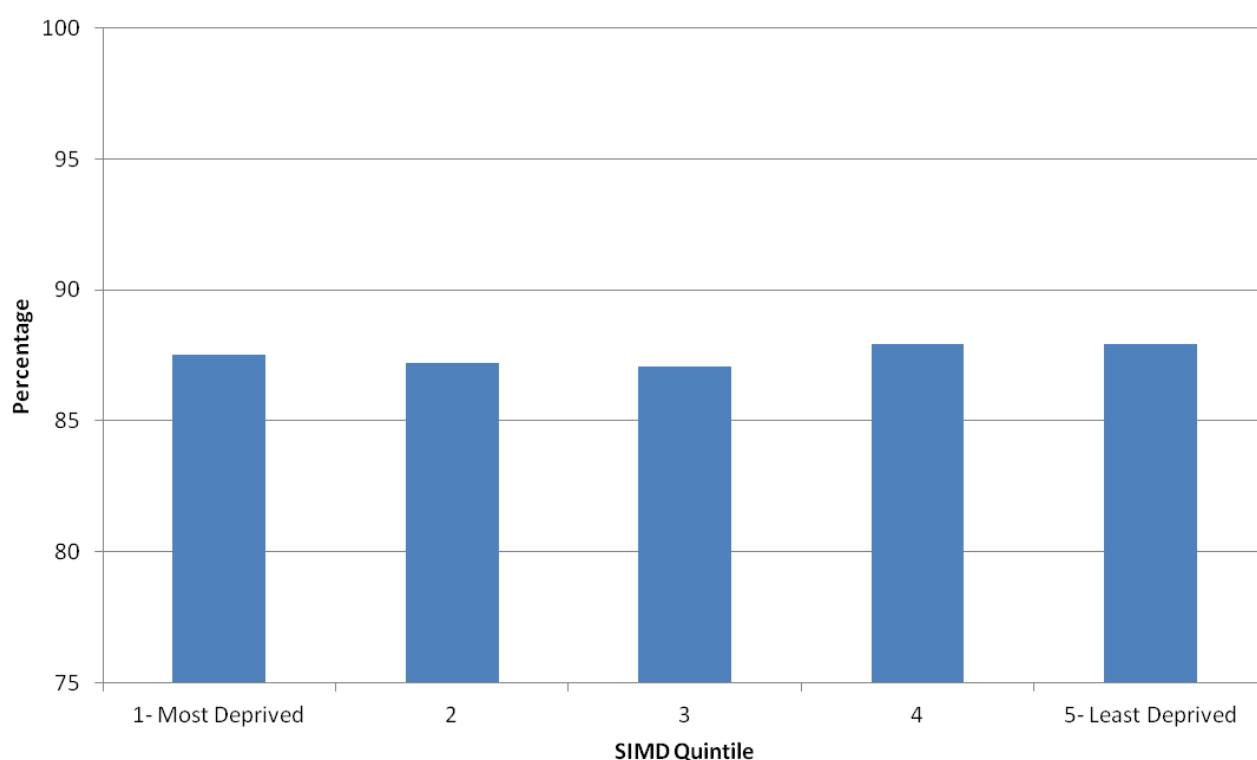
Looking at all ages combined there is little difference between males and females in the amount of time spent at home or in a community setting in the last six months of life. When split by age group there are small differences between males and females in the younger and older age groups. In the 0-54 age group, nearly 93% of time for males was spent at home or in the community in the last six months of life compared to 90% for females. In the 85 and over age group, nearly 88% of time for females was spent at home or in the community in the last six months of life compared to nearly 86% for males.

When looking at both sexes combined there is a difference between age groups with a higher percentage of time spent at home or in the community in the last six months of life in the 0-54 age group (92%, for both sexes combined) compared to the 75-84 age group (86%) and the 85+ age group (87%). This may reflect the different causes of death experienced in these age groups.

Deprivation

The percentage of time spent at home or in a community setting in the last six months of life by deprivation is shown in Figure 3 (Table 4 in the [data tables](#)). Deprivation category has been assigned using the Scottish Index of Multiple Deprivation. See the [Glossary](#) for further information on Scottish Index of Multiple Deprivation.

Figure 3: Percentage of last six months of life spent at home or in a community setting in 2016/17¹; by Deprivation Quintile²



1. Figures from 2015/16 and 2016/17 are provisional. Please see the [Provisional Figures section](#) for more detail.
2. Deprivation 2012 quintiles have been used.
3. Please note that the y-axis does not start at zero.

The percentage of time spent at home or in the community for those living in the most deprived areas is the same as those living in the least deprived (88%, Figure 3; Table 4 in [data tables](#)).

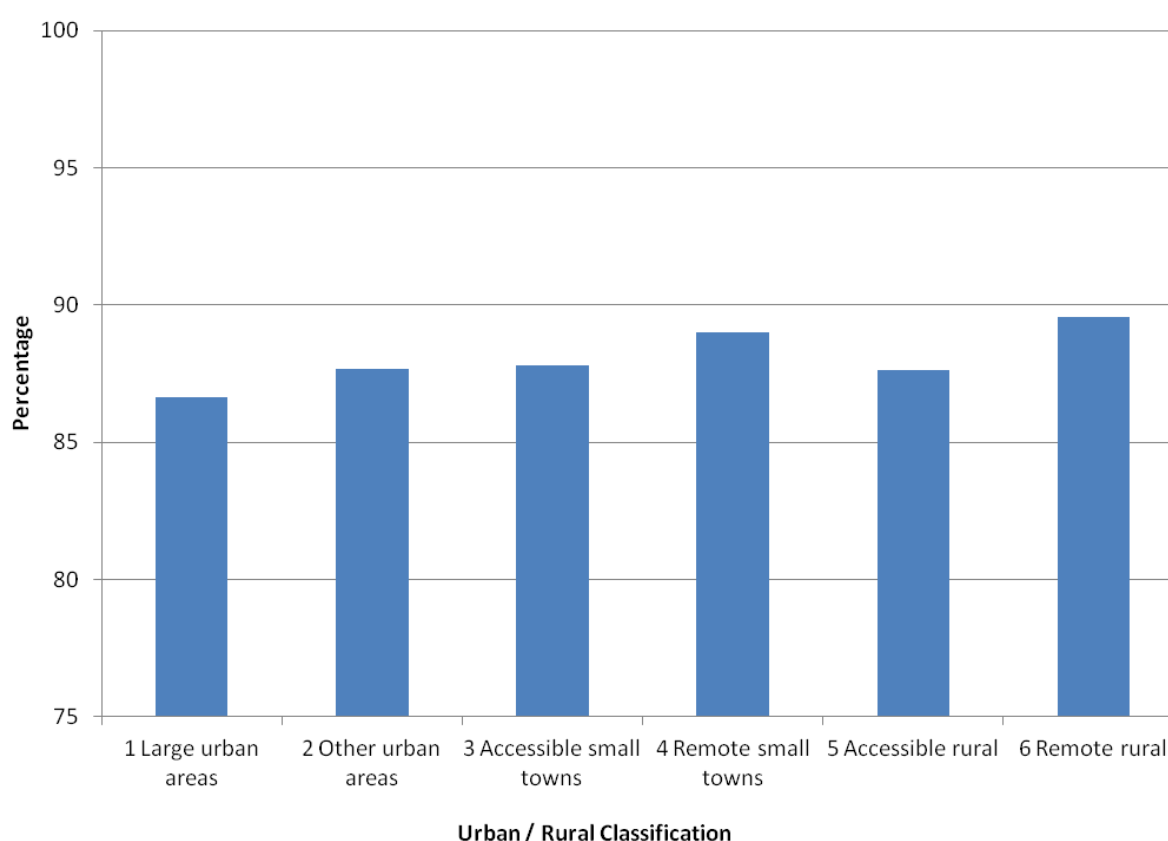
The trend over time by deprivation category is presented in Figure A1.3 (see [List of Figures](#) or [Appendix A1](#)). No significant change over time has been detected in any of the categories.

Where People Live - Urban/Rural

To help investigate whether where people live has any effect on the amount of time spent at home or in a community setting, the Scottish Government 6-fold [urban rural classification](#) has been used.

Figure 4 below shows the percentage of time spent at home or in the community in the last six months of life by urban rural classification.

Figure 4: Percentage of last six months of life spent at home or in a community setting by Urban/Rural classification in 2016/17¹.



1. Figures from 2015/16 and 2016/17 are provisional. Please see the [Provisional Figures section](#) for more detail.
2. Please note that the y-axis does not start at zero.

The percentage of the last six months of life spent at home or in the community ranged from 87% for residents in large urban areas to 90% for residents from remote rural areas (Figure 4; Table 5 in [data tables](#)). Those living in more remote rural areas spent more time at home or in a community setting in the last six months of life compared to those living in urban areas.

Trend data on the percentage of the last six months of life spent at home or in a community setting by Urban/Rural classification are presented in Figure A1.4 (see [List of Figures](#) or [Appendix A1](#)).

Glossary

Palliative Care	Palliative care is an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness. This is achieved through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other physical, psychosocial and spiritual problems.
Bed day	Unit of measurement relating to an overnight stay in an inpatient hospital bed.
Time spent in a hospital setting	Time spent in acute, community or psychiatric hospitals. Refers to all hospital bed days calculated from SMR01 records (acute and geriatric long stay specialties) and SMR04 records (mental health specialties).
SIMD	<p>Scottish Index of Multiple Deprivation</p> <p>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. Data in this report are analysed by the 'Scotland level' SIMD population weighted quintiles. Each quintile consists of approximately 20% of the population living in Scotland, with deprivation quintile 1 indicating the population living in the most deprived areas.</p>
Urban/Rural classification	The Scottish Government Urban/Rural classification can be used to classify geographies as urban, rural or remote. Each data zone is assigned to an urban rural category based upon the location of its population weighted centroid. Further information can be found on the SG website .

List of Tables

Table No.	Name	Time period	File & size
1	Percentage of last six months of life spent at home or in a community setting by: <ul style="list-style-type: none"> • Health and Social Care Partnership • Health Board • Age & Gender • Deprivation (SIMD) • Urban / Rural Classification 	2010/11-2016/17	Excel [156kb]

List of Figures

Figure No.	Name	Time period	File & size
1	Percentage of last six months of life spent at home or in a community setting; financial years 2010/11 – 2016/17.	2010/11-2016/17	Excel [36kb]
2	Percentage of last six months of life spent at home or in a community setting by age and gender.	2016/17	Excel [36kb]
3	Percentage of last six months of life spent at home or in a community setting by deprivation (SIMD).	2016/17	Excel [36kb]
4	Percentage of last six months of life spent at home or in a community setting by Urban/Rural classification.	2016/17	Excel [35kb]
A1.1	Percentage of end of life spent at home or in a community setting by financial year for each Health and Social Care Partnership.	2010/11-2016/17	Excel [199kb]
A1.2	Percentage of end of life spent at home or in a community setting by financial year for each NHS Health Board of residence.	2010/11-2016/17	Excel [108kb]
A1.3	Percentage of end of life spent at home or in a community setting by financial year for each SIMD quintile.	2010/11-2016/17	Excel [57kb]
A1.4	Percentage of end of life spent at home or in a community setting by financial year for each Urban/Rural classification.	2010/11-2016/17	Excel [60kb]
A3.1	Percentage of end of life spent at home or in a community setting by financial year: comparison to previous measure.	2010/11-2016/17	Excel [36kb]

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Further Information

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

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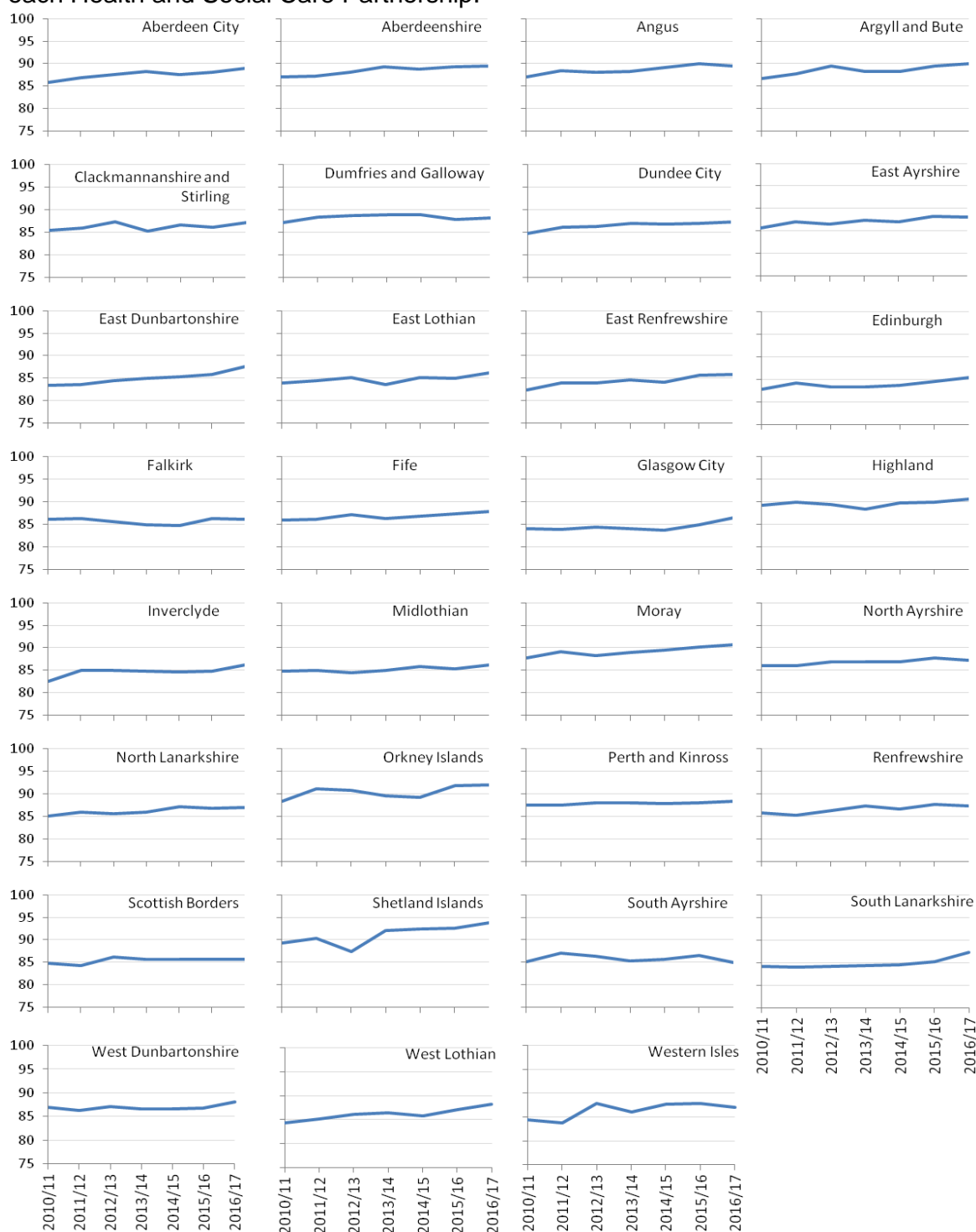
Please [provide feedback](#) on this publication to help us improve our services.

Appendices

A1 – Trend Data

Percentage of end of life spent at home or in a community setting by Health and Social Care Partnership.

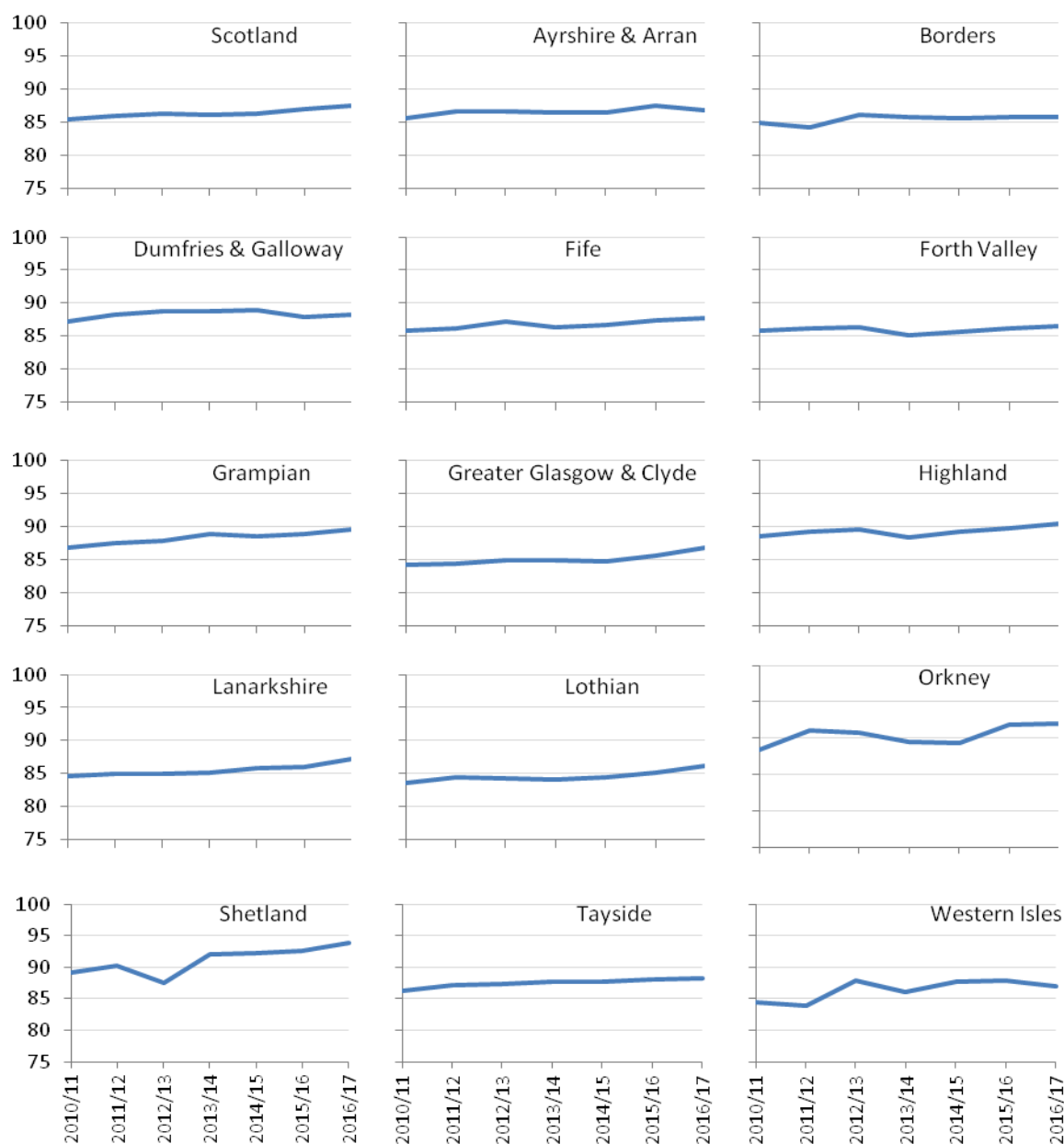
Figure A1.1: Percentage of end of life spent at home or in a community setting by financial year for each Health and Social Care Partnership.



1. Figures from 2015/16 and 2016/17 are provisional. Please see the [Provisional Figures section](#) for more detail.
2. Please note that the y-axis does not start at zero.

Percentage of end of life spent at home or in a community setting by NHS Health Board of Residence.

Figure A1.2: Percentage of end of life spent at home or in a community setting by financial year for each NHS Health Board of residence.

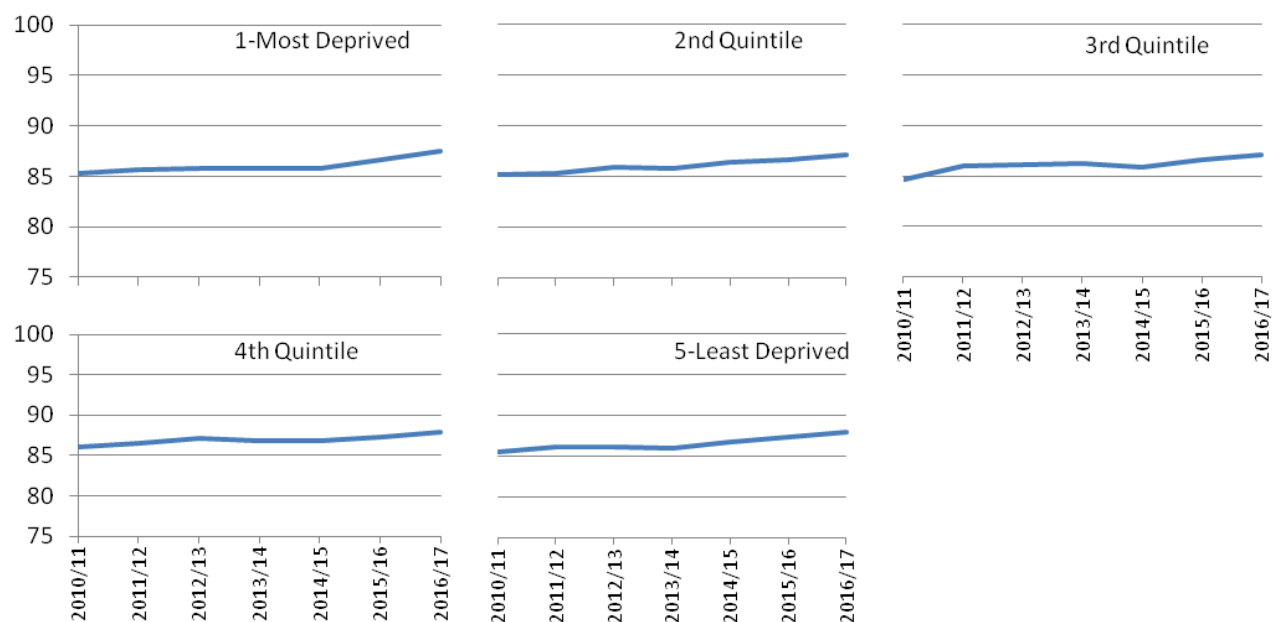


1. Figures from 2015/16 and 2016/17 are provisional. Please see the [Provisional Figures section](#) for more detail.
2. Please note that the y-axis does not start at zero.

Caution should be used when comparing health and social care partnership / health board data due to different service designs and rurality of the area.

Percentage of end of life spent at home or in a community setting by Deprivation.

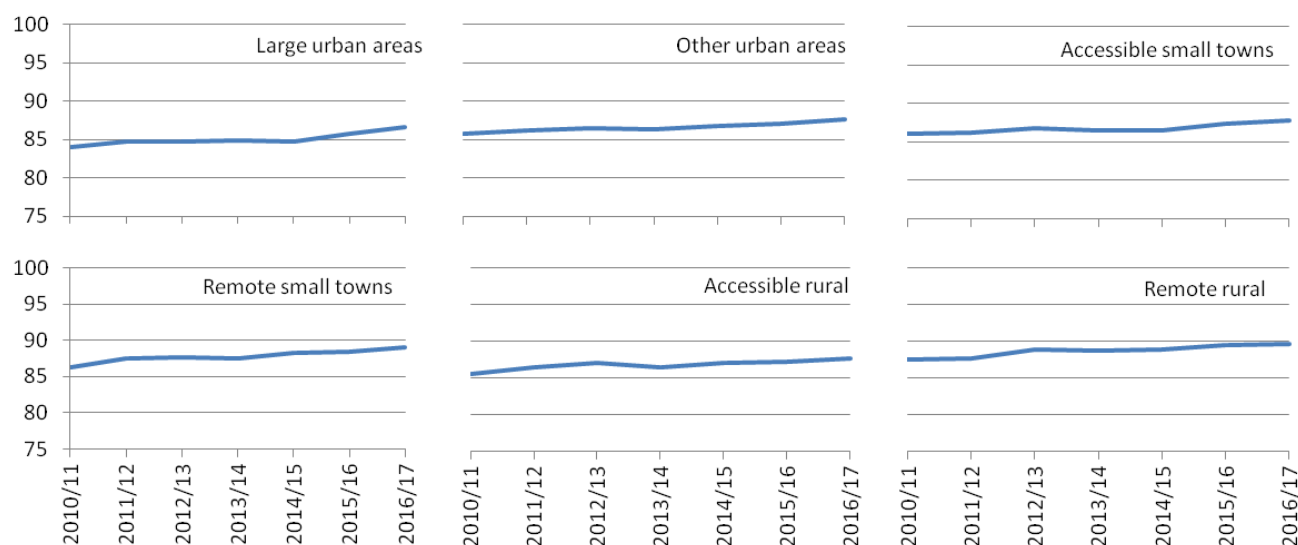
Figure A1.3: Percentage of end of life spent at home or in a community setting by financial year for each deprivation quintile.



- Figures from 2015/16 and 2016/17 are provisional. Please see the [Provisional Figures section](#) for more detail.
- Deprivation 2012 quintiles have been used.
- Please note that the y-axis does not start at zero.

Percentage of end of life spent at home or in a community setting by Urban/Rural Classification.

Figure A1.4: Percentage of end of life spent at home or in a community setting by financial year for each Urban/Rural classification



- Figures from 2015/16 and 2016/17 are provisional. Please see the [Provisional Figures section](#) for more detail.
- Please note that the y axis does not start at zero

A2 – Background Information

End of life care (palliative care) is an important, integral aspect of the health care provided to those living with and dying from any advanced or progressive and life-threatening condition. It is now possible to predict the progress of many of these conditions, enabling a planned approach to end of life care in ways which reflect, as far as possible, the needs and wishes of patients, carers and their families.

[Living and Dying Well: A National Action Plan for Palliative and End of Life Care in Scotland](#) was published in 2008 with the aim to provide focus and momentum to improve palliative and end of life care for everyone in Scotland who requires it, regardless of their geographic or demographic circumstances, and to encourage efficient collaborative practice across health care, social care and voluntary sectors.

More recently, in May 2010, the [NHS Healthcare Quality Strategy](#) was launched with the aim of delivering high quality healthcare services to people in Scotland. A direct action identified by the Quality Strategy was to develop a [Quality Measurement Framework](#) supporting a number of Quality Outcome Measures (QOMs). These measures cover a range of healthcare topics including; care experience, healthcare acquired infections, hospital mortality rates and end of life care.

ISD have been working in support of the Quality Measurement Framework to develop Quality Outcome Measure 10: *'The percentage of last six months of life spent at home or in a community setting'*.

The proportion of time spent at home or in a community setting towards the end of life provides a high level indication of progress in implementation of the national action plan. This is inferred by measuring the amount of time spent in a hospital setting during the last months of life (using hospital admissions data) and from this estimating the time spent at home or in a community setting.

It is envisaged that an increase in this measure will reflect both quality and value through more effective, person centred and efficient end of life care with people being better able to be cared for at home or closer to home with a planned approach to end of life care resulting in less time in a hospital setting.

Over time, an increase in the proportion of time spent at home / in a community setting at the end of life may indicate an improvement in the quality and efficiency of palliative care. This increase would be expected in the medium to long term as a result of an increase in the use of anticipatory care plans and electronic palliative care summaries.

This measure is based on SMR01 and SMR04 returns covering non-obstetric hospitals in Scotland. Information on SMR data completeness can be found on the [ISD Data Monitoring Service webpage](#).

A3 – Methodology

This publication includes data from financial years 2010/11 to 2016/17 at Scotland, Health Board and Health and Social Care Partnership level.

From the August 2016 release onwards we have revised the methodology on how the measure: *'percentage of the last six months of life spent at home or in a community setting'* is calculated compared to previous years' publications. Therefore results presented in this publication will not be comparable to figures published prior to that. However trend data from 2010/11 to 2016/17 is available using the revised methodology in this publication.

Calculation of Measure

Using date of death, Scottish residents who died between 2010/11 and 2016/17 are identified using data sourced from National Records of Scotland death records and the possible number of bed days that could have been spent in hospital in a six-month period is calculated by multiplying the total number of deaths by 182.5. Patients who died where an external cause of death (e.g. unintentional injuries) is recorded on the death record have been excluded from the analysis; however patients who died where a fall is recorded are included.

The deaths data are linked to hospital discharge data (SMR01 and SMR04) and the actual number of bed days spent in hospital in Scotland in the six months prior to the death of each patient is calculated and added together for all patients. This includes bed days from all acute and community hospitals, psychiatric hospitals or geriatric long stay facilities.

The percentage of time spent in hospital in the last six months of life is therefore arrived at by dividing the actual number of bed days by the possible number of bed days and this is subtracted from 100% to obtain the percentage of time spent at home or in a community setting.

For each financial year from 2010/11 to 2016/17 this report presents the percentage of the last six months of life which was spent at home or in a community setting for patients who died within each financial year. A summary of how the measure is calculated can be found below.

Calculation of Measure

Actual bed days	=	Total bed days in hospital in the 6 months prior to death for those people who died within specific year
Possible bed days	=	Total number of deaths in specified period x 182.5
% of time in a hospital in last 6 months of life	=	(Actual bed days/ possible bed days) x 100
% of time at home or in a community setting in last 6 months of life	=	100 – % time in hospital in last 6 months before death

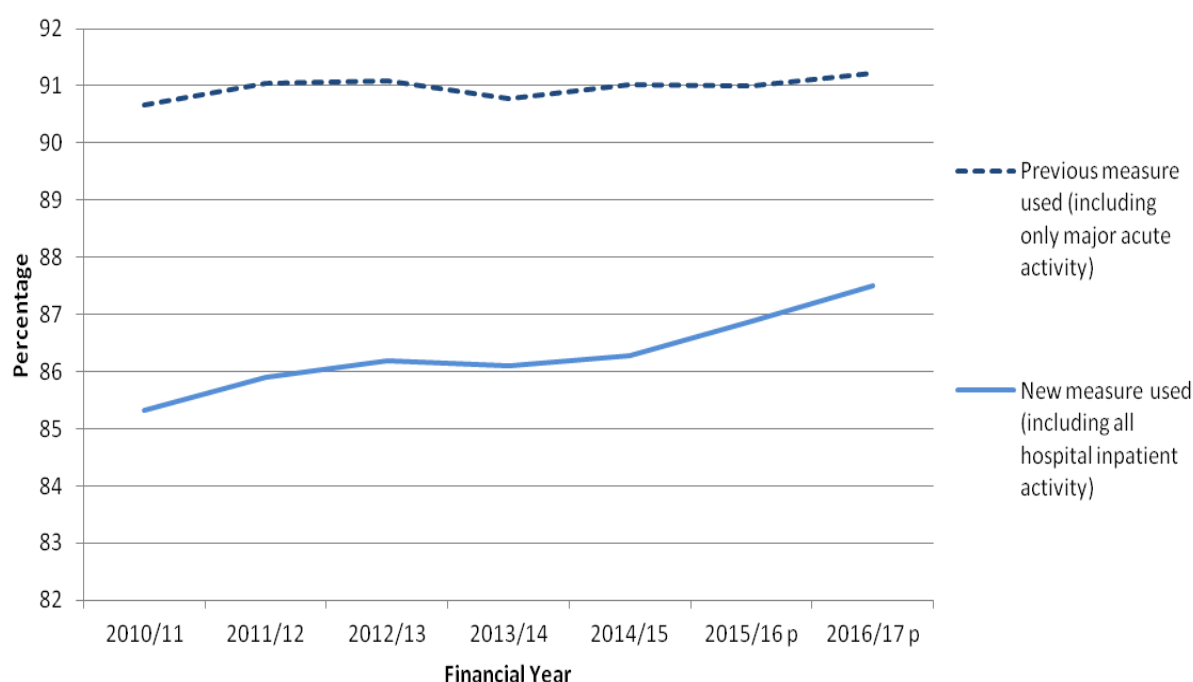
Comparison to previous measure

Prior to the August 2016 release, the total number of bed days was calculated using only SMR01 records from major acute hospitals. From August 2016 onwards, we have calculated the total number of bed days using all inpatient records from acute and community hospitals (SMR01), psychiatric hospitals (SMR04) and geriatric long stay facilities (SMR01 GLS). This means that the measure used now counts **more** time spent in hospital and therefore will count **less** time spent at home.

Figure A3.1 below gives a comparison of these two measures over the seven financial years. The percentage of time spent at home or in a community setting was around 91% using the previous methodology and around 87% using the new methodology. This is because more activity or bed days have been counted under the new measure as 'time spent in hospital'. The trend over the seven financial years is very similar for both measures, both showing a broadly consistent pattern over this period.

Revising the methodology to include all hospital inpatient activity rather than only major acute activity is intended to give a more accurate estimate of the *percentage of time spent at home or in a community setting*.

Figure A3.1: Percentage of end of life spent at home or in a community setting by financial year; comparison to previous measure.



1. Figures from 2015/16 and 2016/17 are provisional. Please see the [Provisional Figures section](#) for more detail.
2. Please note that the y-axis does not start at zero.

The measure is under development and the definitions are subject to change in light of stakeholder feedback. This may result in future revisions to the published data in accordance with ISD's revisions policy.

A4 – Publication Metadata (including revisions details)

Metadata Indicator	Description
Publication title	Percentage of end of life spent at home or in a community setting
Description	Percentage of time in the last six months of life that is spent outside of a hospital setting. Figures are presented at health board and health and social care partnership levels with further demographic breaks on Gender, Age, Deprivation and Rurality.
Theme	Health and Social Care
Topic	Health and Social Care
Format	PDF publication report Excel tables
Data source(s)	SMR01 / SMR01 GLS / SMR04 / NRS deaths
Date that data are acquired	May 2017
Release date	30 May 2017
Frequency	Annual
Timeframe of data and timeliness	Financial years ending 31 st March 2011 - 2017
Continuity of data	Reports include annual data up to 2016/17
Revisions statement	This measure is at an early stage of development and is subject to review in future as feedback is received. Revisions to the published data may be necessary.
Revisions relevant to this publication	See changes in methodology described in Appendix 3 - Methodology .
Concepts and definitions	Policy concepts; http://www.gov.scot/Topics/Health/Policy/Quality-Strategy/Quality-Measurement-Framework Methodology; Appendix 2 – Background Information Appendix 3 - Methodology
Relevance and key uses of the statistics	Making information publicly available; Allowing assessment of implementation/impact of policies or targets
Accuracy	SMR01 and SMR04 standard validation processes; Wide stakeholder consultation on technical methodology
Completeness	SMR01 and SMR01 GLS considered more than 99% complete for 2015/16.

	<p>SMR04 considered 98% complete for 2015/16.</p> <p>At the time of publication, exact completeness figures were not available for 2016/17 but will soon be available at the following link:</p> <p>http://www.isdscotland.org/Products-and-Services/Data-Support-and-Monitoring/SMR-Completeness/</p>
Comparability	<p>Due to a change in methodology (which is described in Appendix 3) results presented in this publication will not be comparable to figures published prior to August 2016,</p> <p>Trend information from 2010/11 to 2016/17 is available in this publication.</p>
Accessibility	<p>It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines.</p>
Coherence and clarity	N/A
Value type and unit of measurement	Proportion expressed as a percentage.
Disclosure	<p>The ISD protocol on Statistical Disclosure Protocol is followed.</p>
Official Statistics designation	Official Statistics
UK Statistics Authority Assessment	Not currently put forward for assessment
Last published	30/08/2016
Next published	29/05/2018
Date of first publication	30/08/2011
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Date form completed	22/05/2017

A5 – 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.

Standard Pre-Release Access:

- Scottish Government Health Department
- NHS Board Chief Executives
- NHS Board Communication leads

A6 – 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 (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](#).