

Quarterly Acute Hospital Activity and NHS Beds Information for Scotland

Quarter ending December 2016

Publication date – 28 March 2017



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Introduction

This quarterly publication summarises information on different aspects of hospital care sourced from hospital administrative systems across Scotland. It is designed to provide timely, high level hospital activity and beds statistics.

This release includes newly published information for NHSScotland from quarter ending December 2011 to quarter ending December 2016 on:

- Inpatient and day case activity
- Outpatient activity
- Bed statistics

Points to Note

Estimations / provisional data

It should be noted that beds figures may include an element of estimation for any incomplete or outstanding data submissions. Therefore, data should be treated as provisional as subsequent data submissions could be lower or higher than the estimated values. The data tables which accompany this report identify where estimation has been used. See the [Beds methodology](#) section for specific issues on beds data and the estimation process.

Main Points

Outpatients

- There were 1,029,730 total outpatient attendances in the quarter ending December 2016, a slight decrease on the quarter ending December 2015 (1,091,724), with an 11.4% increase in the last five years.
- Of the total outpatient attendances, there were 356,257 new attendances and 673, 473 follow-up attendances.
- Less than one in ten patients did not attend their first outpatient appointment, which is a slight reduction compared to the same quarter in 2015.

Inpatient and day case discharges

- In total there were 401,412 acute inpatient, day case episodes of care and transfers recorded in the quarter ending December 2016. This is a decrease of 3.2 % from 414,592 in quarter ending December 2015.
- Driven by changes in recording practices and service redesign to the emergency care services in some NHS Boards the number of transfers have increased by 1.3% to 104,518 episodes compared to the quarter ending December 2015.

Bed statistics

- There were on average 15,495 available staffed beds for all acute specialties in December 2016. This is a decrease of 0.7% since the quarter ending December 2015.

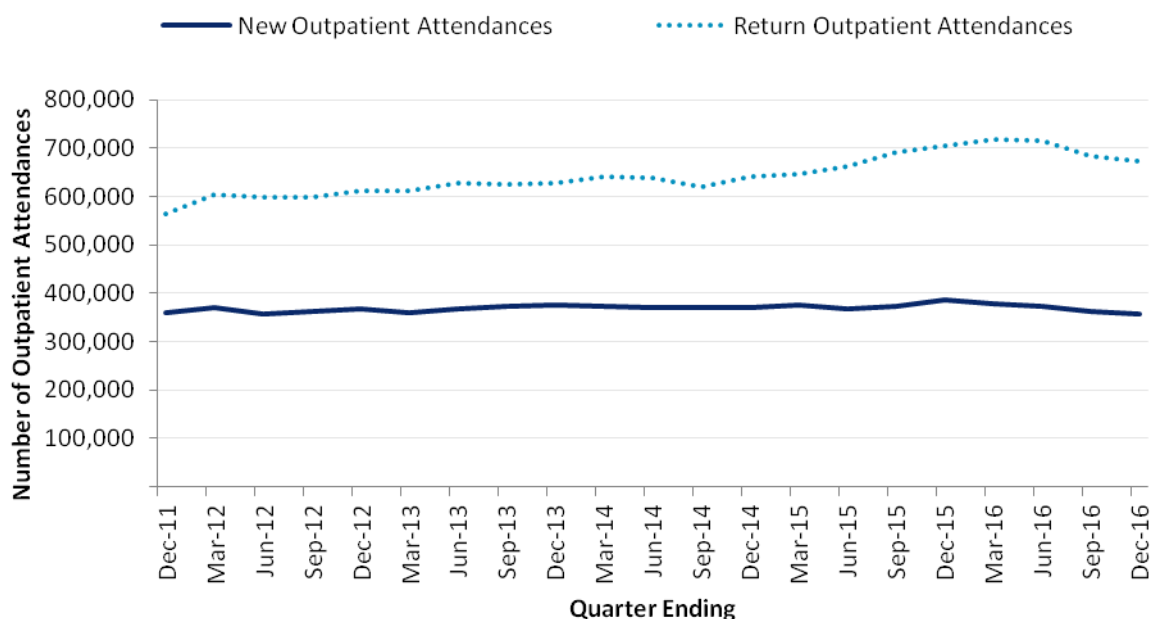
Known Data Issues: NHS Forth Valley figures have been resubmitted since the March 2017 publication due to data errors, which has resulted in a slight impact (around 1% difference) at NHSScotland level. The revised figures will be reflected in the June 2017 publication.

Results and Commentary

1. Quarterly Outpatient Activity for all specialties

Over the last five years the volume of outpatient attendances (new and return) in NHSScotland has remained at around 1 million each quarter. Over the last five years there has been on average 370,000 new outpatient attendances each quarter and almost twice as many return attendances, around 643,000 attendances on average. Further details can be found in the [Quarterly Outpatient Activity Table](#).

Chart 1: Quarterly outpatient activity for patients treated in NHSScotland for quarters ending December 2011 to December 2016^P

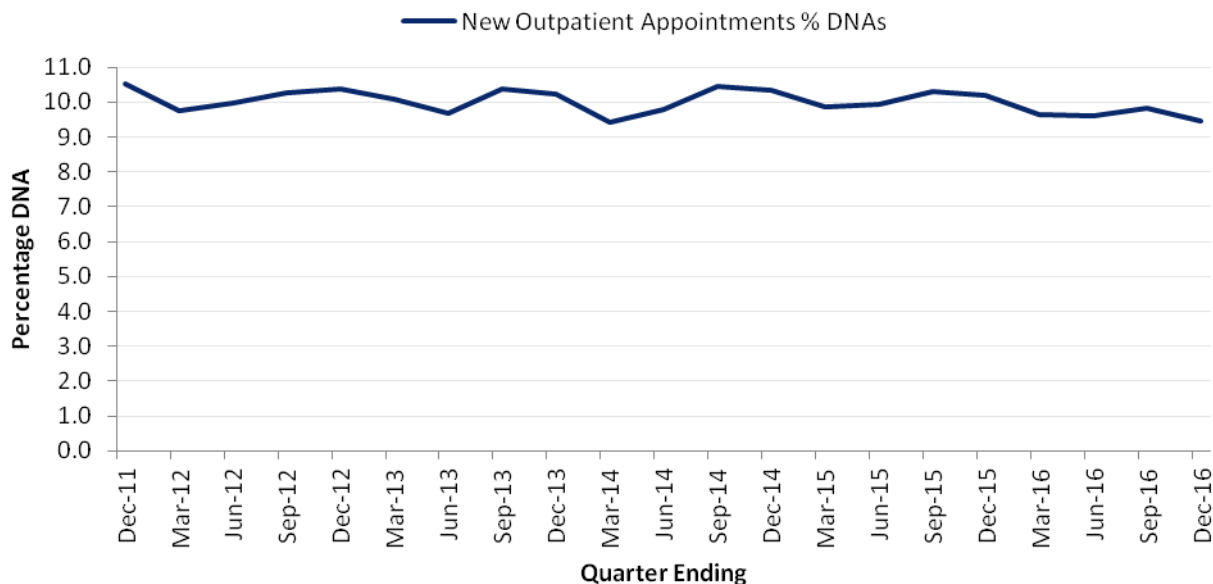


Source: ISD Scotland, SMR00

^P - Provisional. Please note that SMR00 data are taken from a live system and can be updated by NHS Boards. Data are therefore provisional and may be revised in future publications.

If a patient does not turn up to their outpatient appointment without prior notice then this is recorded as a 'Did Not Attend' (DNA). The DNA rate for new attendances in NHSScotland is shown below.

Chart 2: DNA rates (per 100 new outpatient appointments), NHSScotland for quarters ending December 2011 to December 2016p



Source: ISD Scotland, SMR00

p - Provisional. Please note that SMR00 data are taken from a live system and can be updated for a number of quarters by NHS Boards. Data are therefore provisional and may be revised in future publications. Further details can be found in [Table 2](#).

The DNA rate displays some slight seasonal variation, with higher rates occurring in quarters ending September and December. The DNA rate for quarter ending December 2016 was 9.5%, a slight reduction compared to the same quarter in 2015 (10.2%).

Health Board data relating to [Chart 1](#) and [Chart 2](#) are provided in the [Quarterly Outpatient Activity Table](#).

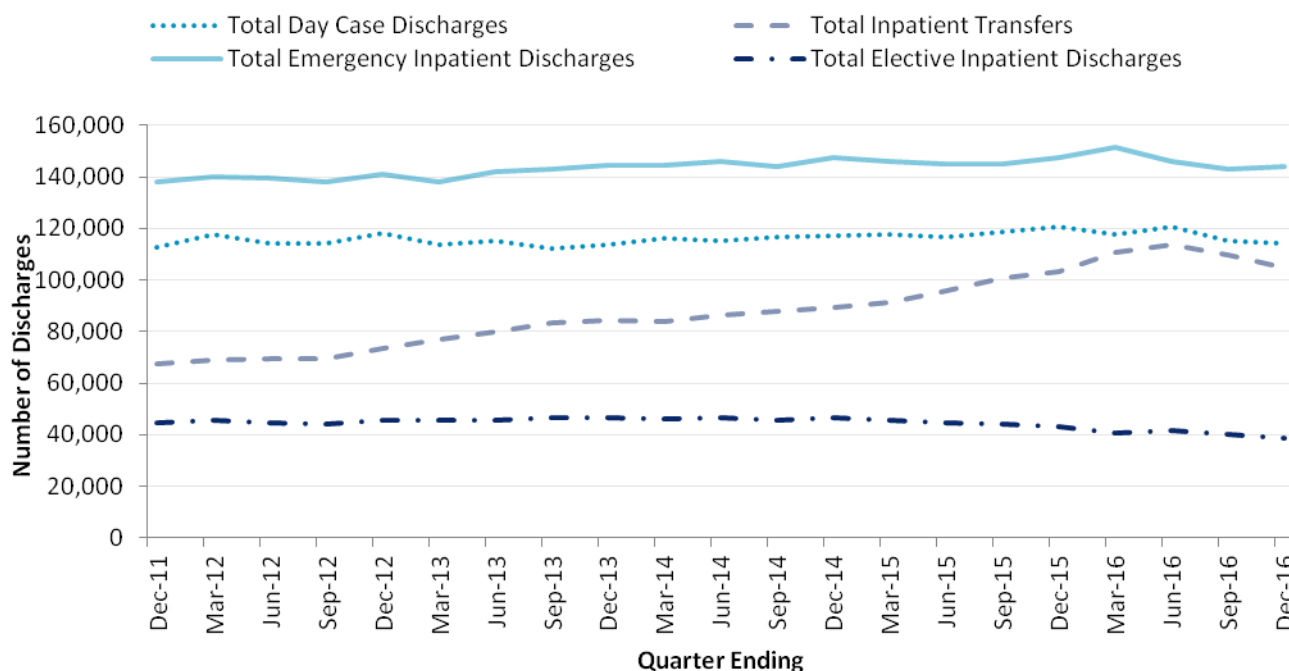
2. Quarterly Inpatient and Day Case Activity for Acute Specialties

When a patient is first admitted to hospital as an inpatient, they can be admitted as either an [emergency](#) or an [elective](#) (planned) inpatient. Patients may then need to be transferred to the care of another consultant, moved to another specialty or facility within the hospital or moved to another hospital altogether to receive the specialist care that they require. These moves are known as [transfers](#).

[Chart 3](#) below shows the number of inpatient /day case episodes of care or discharges split by admission type. Note that discharges do not count patients, i.e. NHS Boards may record several discharges or episodes of care for one patient.

The total number of inpatient episodes of care can be found in the [Quarterly Inpatient and Day Case Activity Table](#).

Chart 3: Inpatient episodes of care (discharges) by admission type, for acute specialties, in NHSScotland, for quarters ending December 2011 to December 2016^P



Source: ISD Scotland, SMR01

^P - Provisional. Please note that SMR01 data are taken from a live system and can be updated for a number of quarters by NHS Boards.

For acute specialties comparisons between quarters ending December 2015 and December 2016 show that:

- The number of **inpatient and day case episodes of care** has decreased by 13,180 (3.2%) to 401,412.
- The number of **day case episodes of care** recorded has decreased by 5.3% to 114,033.
- The number of **emergency inpatient episodes of care** has decreased by 2.4% to 144,127 episodes.
- The number of **elective inpatient episodes of care** has decreased by 10.6 % to 38,734 episodes.
- The number of **transfers** has increased by 1.3% to 104,518 episodes of care. This increase has been driven by changes in recording practices and service redesign to the emergency care services in some NHS Boards.

Health Board data relating to [Chart 3](#) are provided in the [Quarterly Inpatient and Day Case Activity Table](#).

3. NHS Hospital Quarterly Beds Statistics

To provide an effective, safe and efficient service to patients, hospitals must balance the provision of staffed beds against anticipated demand. Historically, the total number of beds had been reducing in line with evolving models of healthcare provision which aim to reduce the frequency and duration of hospital admissions. This downward trend is currently continuing. The following indicators only take into account the use of beds by inpatients.

The main unit used to measure bed provision within this publication is an [available staffed bed](#). As the number of available beds in a ward or specialty can vary, due to factors such as demand and seasonality (peaking in quarter ending March and falling in quarter ending September) the total number of available beds is calculated by taking the average of the number of beds available in each day of the quarter.

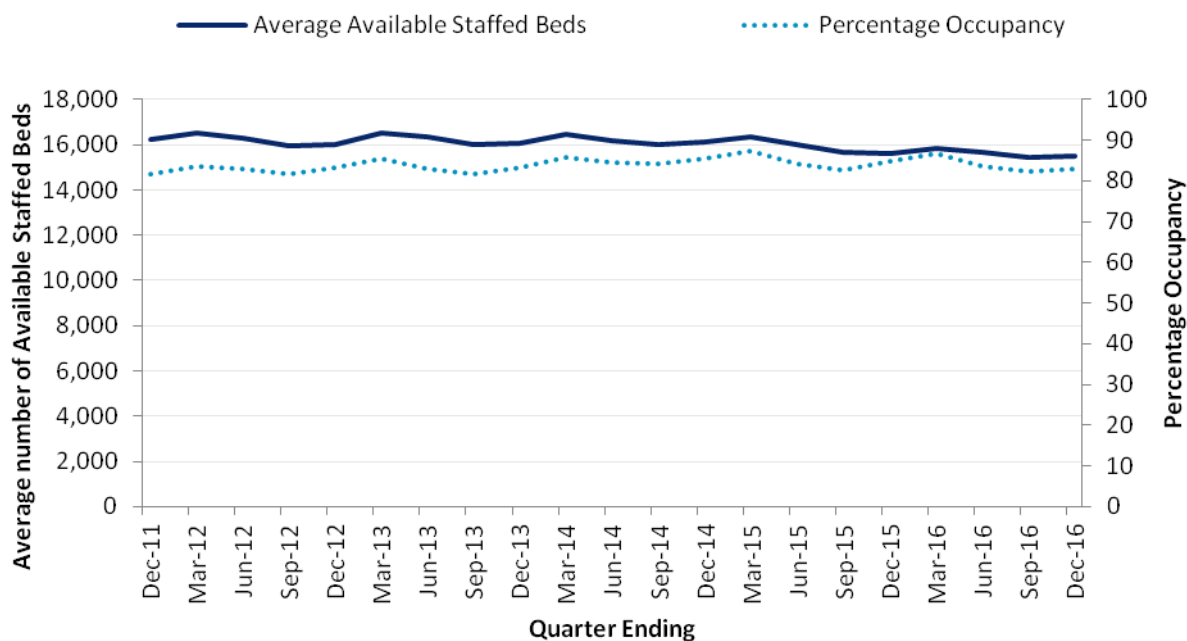
Known Data Issues: NHS Forth Valley figures have been resubmitted since the March 2017 publication due to data errors, which has resulted in a slight impact (around 1% difference) at NHSScotland level. The revised figures will be reflected in the June 2017 publication.

Average Available Staffed beds

There were on average 15,495 available staffed beds for all acute specialties in quarter ending December 2016. This is a reduction of 0.7% since quarter ending December 2015 and a reduction of 4.7% over five years. See also section on [Beds Methodology](#) for data issues and estimations.

[Chart 4](#) shows the number of average available staffed beds and percentage occupancy for all specialties.

Chart 4: Average available staffed beds and percentage occupancy for all acute specialties NHSScotland, quarters ending December 2011 to December 2016p



Source: ISD Scotland, ISD(S)1

^P - Data for quarter ending December 2016 are provisional.

Health Board data relating to [Chart 4](#) is provided in the [Quarterly Trends in Available Beds Table](#).

Percentage occupancy

Bed use is measured by [percentage occupancy](#). [Chart 4](#) above shows the number of average available staffed beds and percentage occupancy for acute specialties. The fluctuation in the percentage occupancy can be explained by seasonal demand. Bed occupancy for example increases during winter months because of increased hospital activity at that time of year.

For all acute specialties in quarter ending December 2016 the percentage occupancy was 83%. This compares with 85% in quarter ending December 2015 and 86% in quarter ending December 2014.

Beds methodology

NHS Grampian

Due to problems with the implementation of its new patient administration system, no data were extracted for NHS Grampian between September 2010 and June 2014. NHS Grampian has now been able to submit bed numbers from their local system for the last ten quarters (i.e. September 2014 to December 2016).

The missing data for each specialty was estimated by creating a slope between the first and last known data points and plotting the missing figures for each quarter along the line.

NHS Highland

NHS Highland has experienced similar problems with submitting ISD(S)1 which has meant that they were not able to submit bed numbers from March 2014 to September 2015. For March 2014 to December 2015, missing data was starred out due to data quality issues. Work is ongoing to resolve these issues and it is hoped that redevelopment of the underlying systems will go some way to resolving these. In the meantime, any data which may be provided for the period should be treated with extreme caution.

Known Data Issues: NHS Forth Valley figures have been resubmitted since the March 2017 publication due to data errors, which has resulted in a slight impact (around 1% difference) at NHSScotland level. The revised figures will be reflected in the June 2017 publication.

Glossary

Acute Hospital Care/Activity	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, psychiatric and long stay care services.
Average available staffed beds	The average daily number of beds, which are staffed and are available for the reception of inpatients (borrowed and temporary beds are included).
Continuous inpatient stay	A continuous inpatient stay is an unbroken period of time that a patient spends as an inpatient.
Day case	A day case patient 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.
Discharge	A discharge marks the end of an episode of care. Discharges include deaths and transfers to other specialties/significant facilities and hospitals as well as routine discharges home.
Elective Admission	An elective admission is when the patient has already been given a date to come to hospital for a planned procedure or treatment.
Emergency Admission	An emergency admission occurs when, for clinical reasons, a patient is admitted at the earliest possible time after seeing a doctor.
Episode	An SMR01 episode 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.
Inpatient	An inpatient 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.

Occupancy (%)	Occupancy is the percentage of available staffed beds that were occupied by inpatients during the period.
Occupied Bed	An occupied bed is an available staffed bed, which is either being used to accommodate an inpatient or reserved for a Patient on Pass .
Outpatient	An outpatient is 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 outwith a clinic session. Outpatients are categorised as new outpatients or follow-up (return) outpatients.
Specialty	A specialty is defined as a division of medicine or dentistry covering a specific area of clinical activity. A full listing of specialties covered by the data sets used in this publication is available on the NHSScotland Health & Social Care data dictionary Specialty Listing web page.
Transfers	A transfer is where a patient will already have been admitted to hospital and is either transferred between specialties or hospital, and will be part of the same continuous inpatient stay.

Further details are available in the [NHS Scotland Health & Social Care data dictionary](#).

List of Tables

Table No.	Name	Time period	File & size
1	Charts and Tables	December 2011 to December 2016	Excel [42kb]
2	Quarterly Outpatient Activity	December 2011 to December 2016	Excel [69kb]
3	Quarterly Inpatient and Day Case Activity	December 2011 to December 2016	Excel [62kb]
4	Quarterly trends in available beds	December 2011 to December 2016	Excel [1,310kb]

Note: in order to view these documents, your macro security settings will need to be set to medium. To change macro security settings using Tools, Macro, Security - set security level to Medium and re-open the report.

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Further Information

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

NHS Performs

A selection of information from this publication is included in [NHS Performs](#). NHS Performs is a website that brings together a range of information on how hospitals and NHS Boards within NHSScotland are performing.

Rate this publication

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

Appendix

A1 – Background Information

Outpatient, inpatient and day case activity and hospital beds data are collected across NHSScotland and are based on nationally available information routinely drawn from hospital administrative systems across the country. The data sources used in this publication are SMR00 (source for outpatients and DNA information), SMR01 (source for acute specialties inpatient and day case hospital activity information) and ISD(S)1 (source for bed data).

Revisions

Most of the revisions to data within this publication are planned and are due to incomplete data returns at the time of publication. All tables will be revised quarterly. In general these revisions have minimal effect on the statistics. If missing/incomplete data are significant and are due to be submitted and published in subsequent releases this will be highlighted within the notes on the affected table and the [data issues and completeness document](#). Please see the [ISD revisions policy](#) for further details.

Revisions may also result from the estimation process used differing from one quarter to another, e.g. the beds estimations may be applied to the last four quarters in one release, but due to further submission of data in the following quarter these estimations may no longer be used in the following release.

Table 1 gives examples of changes in the data between the December 2016 and March 2017 releases.

Table 1 Examples of revisions for quarters ending June 2016 and September 2016

Scotland level	June 2016 data		% change	September 2016 data		% change
	December 2016 release	March 2017 release		December 2016 release	March 2017 release	
Total Inpatient Discharges (acute specialties)	423,957	422,262	-0.40%	411,057	407,449	-0.88%
Total Day case Discharges (acute specialties)	121,315	120,512	-0.66%	116,162	114,980	-1.02%
Total Outpatient Attendances (all specialties)	1,124,324	1,088,219	-3.21%	1,091,282	1,043,891	-4.34%
Average Available Staffed Beds (acute specialties)	15,643	15,643	0.00%	15,462	15,464	0.01%

Source: SMR01 is the main source for inpatient and day case activity, ISD(S)1 is the main source for beds and (until December 2016 release) outpatient activity. From March 2017, SMR00 is the main source for outpatient activity.

Downward revisions can occur if actual submissions are lower than estimates.

Data Sources

ISD(S)1

ISD(S)1 contains summarised data by NHS Board of Treatment, hospital and specialty. This data return is in place to allow NHS Boards to report activity more frequently than that recorded on SMRs. ISD(S)1 is also the only source of bed occupancy and availability data. Where possible, missing or incomplete ISD(S)1 data have been estimated for affected NHS Boards. Estimates are based on an average of the last three monthly submissions from the relevant NHS Boards.

SMR00

Outpatient attendance figures and outpatient DNA rates are sourced from SMR00. SMR00 collects patient-based data on new appointments at outpatient clinics in all specialties (except A&E and Genito-Urinary Medicine). There is provision to record data on return attendances and outpatient procedures and diagnosis.

SMR01

Inpatient and day case 'acute specialties' figures are sourced from SMR01 records. SMR01 is an episode-based patient record relating to all inpatients and day cases discharged from non-obstetric and non-psychiatric specialties. Only patients treated as inpatients or day cases are included. The specialty of geriatric long stay is excluded from the figures published here.

Information on SMR data completeness can be found in the [data issues and completeness document](#) and also on the [Hospital Records Data Monitoring SMR Completeness web page](#). Information on the timeliness of SMR data submissions can be found on the [SMR Timeliness web page](#). Details on completeness can also be found within the Excel data files.

For further information on the data sources and clinical coding used in this publication please refer to the following [Data Sources and Clinical Coding document](#).

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.

The DQA team's [assessments](#) web page contains details of past Data Quality Assurance Assessments of inpatient/day case data, including findings on the accuracy of submitted SMR01 data items used in our analysis (specialty, admission type, main condition, main operation etc). A data quality assurance assessment of SMR01 data items was released in 2016 and results are available on this [page](#) too.

The OECD published a review of the Healthcare quality for the UK in 2016; the review is available in <http://www.oecd.org/unitedkingdom/oecd-reviews-of-health-care-quality-united-kingdom-2016-9789264239487-en.htm>

A2 – Publication Metadata (including revisions details)

Metadata Indicator	Description
Publication title	Quarterly Acute Hospital Activity and NHSScotland Beds Information for Scotland March 2017
Description	Summary of inpatient, day case and outpatient activity and bed statistics for NHSScotland
Theme	Health and Social Care
Topic	Hospital Care
Format	Excel, PDF
Data source(s)	ISD(S)1 aggregated data returns (beds), Scottish Morbidity Records SMR01 (inpatient and day case for acute specialties) and SMR00 (outpatient)
Date that data are acquired	All data were extracted in February 2017
Release date	28 March 2017
Frequency	Quarterly
Timeframe of data and timeliness	Data up to quarter ending December 2016
Continuity of data	<p>Reports include quarterly data up to December 2016.</p> <p>Due to problems with the implementation of a new patient administration system, no ISD(S)1 data were successfully extracted for NHS Grampian between September 2010 and June 2014. NHS Grampian's missing data were estimated and are presented in Table 4. More details on this estimating process can be found in the Beds Methodology section.</p> <p>NHS Highland has had similar problems between quarter ending March 2014 and September 2015. As a result NHS Highland data for quarters ending March 2014 to December 2015 have been starred out due to data quality issues.</p>
Revisions statement	<p>All revisions to data within this publication are planned and are due to incomplete data returns at the time of publication. All tables will be revised annually or quarterly. In general these revisions have minimal effect on the statistics. If missing/incomplete data are significant and is due to be submitted and published in subsequent releases this will be highlighted within the notes on the affected table. Please see the ISD revisions policy for further details.</p>
Revisions relevant to this publication	<p>In general, revisions have minimal effect on the statistics as noted in Appendix A1 of this report.</p> <p>Following a consultation on the annual acute publication,</p>

	<p>we followed the same approach for the quarterly release and as a result, and as agreed with our main stakeholders, we removed the Total Inpatient/Day Case Episodes of care for All Specialties from the Inpatient table.</p> <p>Similarly, the quarterly table on the Emergency admissions for patients aged over 75 and over was last updated in March 2016 and is no longer updated.</p>
Concepts and definitions	See Hospital Care: Background Information
Relevance and key uses of the statistics	<p>To allow NHS Board employees to compare activity levels nationally, e.g. NHS clinical consultants interested in their specialty figures by NHS Board, NHS information managers planning capacity, to assist in the development of Service Agreements between NHS boards.</p> <p>Private companies interested in hospital activity levels in Scotland such as pharmaceutical companies, consultancy companies employed by NHS Trusts in England, advertising/media companies on behalf of clients.</p> <p>To provide statistical information for political campaigns, e.g. to halt reductions in acute NHS beds.</p>
Accuracy	<p>Please refer to Appendix A1 of this report. Summary data within this publication is also compared to previously published figures.</p> <p>Please also refer to 'Continuity of data' above.</p>
Completeness	<p>Details of data submission issues are available on the Hospital Records Data Monitoring SMR Completeness web page, while details of the associated backlogs can be found on the SMR Timeliness web page. Additional detail can also be found within the data issues and completeness document which accompanies this publication.</p>
Comparability	<p>The Office of National Statistics United Kingdom Health Statistics 2010 publication provides a single point of reference for the comparison of key figures between the four constituent countries of the UK. Hospital activity and bed statistics can be found within chapters 6 and 8 respectively. Whilst the four UK countries worked collaboratively to maximise the comparability of the figures, it is important to note that differences between the countries remain in the way that data measures are collected and classified, and because of differences between countries in the organisation of health and social services. The report includes the details of these differences where relevant.</p> <p>Hospital activity data from England, Wales and Northern Ireland are available separately but should not be directly compared with published data from Scotland.</p> <p>England - NHS Outcomes and Performance, NHS Hospital Episode Statistics (HES) Wales - Health and care statistics</p>

	Northern Ireland - Hospital Statistics & Research
Accessibility	It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines .
Coherence and clarity	The Acute Hospital Activity and NHSScotland Beds information released for each publication is listed on the Hospital Care Publication page .
Value type and unit of measurement	In general, figures are shown as numbers, percentages or rates.
Disclosure	The ISD protocol on Statistical Disclosure Protocol is followed.
Official Statistics designation	The majority of information in this publication is currently classed as National Statistics. Data on Bed Statistics are classed as Official Statistics. Currently the statistics are produced in line with the Code of Practice for Official Statistics, available on the UK Statistics Authority website .
UK Statistics Authority Assessment	The Hospital Care information was assessed by the UK Statistics Authority in September 2011 and successfully received confirmation of designation as National Statistics.
Last published	20 December 2016
Next published	June 2017
Date of first publication	
Help email	NSS.isdSCT@nhs.net , sophie.david@nhs.net , salomi.barkat@nhs.net
Date form completed	06/03/17

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

Pre-Release Access

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

Standard Pre-Release Access:

Scottish Government Health Department

NHS Board Chief Executives

NHS Board Communication leads

A4 – 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](#).

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.