Hospital Episode Statistics: Hospital Outpatient Activity 2011-12 Summary report
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Executive Summary

Introduction

Hospital Episode Statistics (HES) is a data warehouse containing details of all admissions to NHS hospitals in England. It includes private patients treated in NHS hospitals, patients who were resident outside of England and care delivered by treatment centres (including those in the independent sector) funded by the NHS.

HES is the data source for a wide range of healthcare analysis for the NHS, Government and many other organisations and individuals.

Records in the Outpatient HES database are called ‘appointments’, and each outpatient appointment relates to a period of care for a patient under a single consultant.

Each record in HES includes a wide range of information including details of the patient (age, sex, geographic details), details about the appointment (first attendance, follow up attendance, cancellations), when they were treated and under what specialty the treating consultant was contracted (main specialty) and working (treatment specialty). This National Statistics publication releases some high level analyses of HES data relating to outpatient appointments funded by the NHS.
Key facts

- In 2011-12 there were 91.0 million outpatients appointments, of which 72.6 million (79.8%) were attended.
- Patient and hospital cancellations were similar, 6.1% and 6.3% respectively of all appointments.
- 6.8 million appointments (7.5%) were not attended.
- While the total number of appointments has increased year on year, the percentage which are attended (79.8%) has remained relatively stable since 2007-08, decreasing by 1.8 percentage points.
- First appointments accounted for 21.8 million attendances (30.1% of all attendances), of which 11.3 million (51.5%) were referred from a General Medical Practitioner.
- Following first attendances, 31.7% (6.9 million) were discharged (last attendance), 34.1% (7.5 million) booked a follow up appointment and 33.2% (7.2 million) were to be given a follow up appointment at a later date.
- London Strategic Health Authority (SHA) had the greatest number of appointments at 18.5 million appointments, compared with the North East SHA which had 4.9 million. London SHA also had the highest rate of appointments (by population), with an average of 2.25 per person, and South Central SHA had the lowest at 1.34 per person.
- The main consultant specialties with the most attendances were Trauma & Orthopaedics (7.1 million; 9.8%), Allied Health Professional Episodes (6.5 million; 9.0%), Ophthalmology (6.3 million; 8.6%) and General Surgery (4.1 million; 5.7%) which together made up a third (33.1%) of all attendances.
- Overall, patients in their sixties had the highest number of attendances (11.5 million), although for females the highest number of attendances were recorded for those aged 30-39 (6.4 million) largely due to maternity related appointments.
**Changes to the publication**

This document replaces the NHS Outpatients Statistics Explanatory Notes document, which previously accompanied the publication data tables. It provides key background information and commentary that assists in the interpretation of the data contained within the publication tables. The new document has been structured to bring it into line with other HES data publications and to make it more accessible to users.

No changes have been made to the published tables in 2011-12.

**Published tables**

For the 2011-12 financial year, Hospital Episode Statistics (HES) has collected almost 91 million records detailing outpatient appointments at NHS hospitals in England or performed in the independent sector, and commissioned by the English NHS.

The publication includes six tables at a national level (with breakdowns including attendance type, consultant specialty, primary diagnosis and main procedure) and a workbook allowing provider level (and SHA) comparisons.

**Target audience**

This document has been written primarily for those working in the NHS, to inform and support strategic and policy led processes for the benefit of patient care.

**Provider level analysis**

Publishing this allows key statistics at provider and strategic health authority level to be analysed more effectively.

The purpose of the provider level analysis is to contribute to the improvement of both the quality and coverage of outpatient data submitted to HES. It is hoped this will stimulate discussion and ultimately contribute to enhancements in patient care.

To fully realise the advantages, the quality and coverage of the HES outpatient data needs to be improved with the support of providers throughout England. Provider level information is available in the supporting Excel document, ‘NHS Outpatient Statistics: Provider Level Analysis, 2010-11 to 2011-12’. This presents information at national, strategic health authority and hospital provider level (where submitted) relating to:

- type of attendance and sex
- attendances by age
- non attendances by age
- first attendances by source of referral
Hospital Episode Statistics: NHS Outpatients Statistics, 2011-12

- first attendance by outcome
- first attendances for patients referred by General Medical and Dental Practitioners by time waited
- selected main specialties

Background

Outpatient HES data was collected for the first time in 2003-04. The Health and Social Care Information Centre (HSCIC) first released outpatient data at the end of July 2006 and the data was originally released on an 'experimental' basis. Since then, the experimental label has been removed and in 2008 the outpatient published tables were accredited as a National Statistic. This means the data within these specific tables have been produced in accordance with the 'Code of Practice for Official Statistics'.

Coverage and quality

HES data are compiled from data sent by over 400 NHS trusts, foundation trusts, care trusts and primary care trusts (PCTs) in England. Data is also received from a number of independent sector organisations for activity commissioned by the English NHS. The HSCIC liaises closely with these organisations to encourage submission of complete and valid data, and seeks to minimise inaccuracies and the effect of missing and invalid data. While this brings about improvement over time, some shortcomings remain.

It is not mandatory for providers to code procedures and diagnoses on outpatient records and therefore the coverage of clinical information is low. The poor coverage may in part be accounted for by the fact that there may be no appropriate OPCS-4 code available, or that the cause of morbidity was unknown. In 2011-12 around 3.3% of records had a known cause of morbidity and 15.7% of records had completed or appropriate OPCS-4 procedure codes. It is not clear how representative the figures are as we have no reliable existing data source to validate the data against; Department of Health aggregate returns have never collected clinical codes.

Please see the Outpatient Data Quality Reports from the ‘Processing the data: Data quality of HES’ section of HESonline for more information about coverage and data quality issues:
http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=898

The HSCIC continues to monitor data quality and has developed an outpatient Data Quality Dashboard [http://www.ic.nhs.uk/services/secondary-uses-service-sus/data-quality-and-operational-support/sus-data-quality-dashboards-dqd] with the intention of encouraging NHS trusts to quality assure their data. The Data Quality Dashboard is a national resource designed to support improvement and completeness of all Commissioning Dataset (CDS) data flows to the Secondary Uses Service (SUS), and is available to NHS staff. We will continue to review and update
methodology in order to maintain best practice and produce a high quality outpatient statistics publication.

Users of the data who discover apparent anomalies should contact the HES team at enquiries@ic.nhs.uk, so that we can investigate further.
Findings

For full information on all HES fields in Outpatient tables refer to the Outpatient data dictionary:
http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=289

Changes over time

Table 2: National Summary figures
Activity in English NHS Hospitals and English NHS Commissioned activity in the independent sector, 2010-11 and 2011-12

<table>
<thead>
<tr>
<th>All appointments</th>
<th>2010-11</th>
<th>2011-12</th>
<th>Annual change</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Appointments</td>
<td>87,998,505</td>
<td>90,956,844</td>
<td>2,958,339</td>
</tr>
<tr>
<td>Attendances</td>
<td>70,265,964</td>
<td>72,620,492</td>
<td>2,354,528</td>
</tr>
<tr>
<td>Did not attend</td>
<td>6,883,886</td>
<td>6,785,034</td>
<td>-98,852</td>
</tr>
<tr>
<td>Patient cancellations</td>
<td>5,337,877</td>
<td>5,559,560</td>
<td>221,683</td>
</tr>
<tr>
<td>Hospital cancellations</td>
<td>5,199,133</td>
<td>5,756,878</td>
<td>557,745</td>
</tr>
<tr>
<td>Unknown</td>
<td>311,645</td>
<td>234,880</td>
<td>-76,765</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attended appointments by age</th>
<th>2010-11</th>
<th>2011-12</th>
<th>Annual change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendances</td>
<td>70,265,964</td>
<td>72,620,492</td>
<td>2,354,528</td>
</tr>
<tr>
<td>0-9</td>
<td>4,219,923</td>
<td>4,466,130</td>
<td>246,207</td>
</tr>
<tr>
<td>10-19</td>
<td>4,434,776</td>
<td>4,517,444</td>
<td>82,668</td>
</tr>
<tr>
<td>20-29</td>
<td>7,214,646</td>
<td>7,462,456</td>
<td>247,810</td>
</tr>
<tr>
<td>30-39</td>
<td>8,604,875</td>
<td>8,789,287</td>
<td>184,412</td>
</tr>
<tr>
<td>40-49</td>
<td>8,591,486</td>
<td>8,692,650</td>
<td>101,164</td>
</tr>
<tr>
<td>50-59</td>
<td>9,055,801</td>
<td>9,320,872</td>
<td>265,071</td>
</tr>
<tr>
<td>60-69</td>
<td>11,048,420</td>
<td>11,464,527</td>
<td>416,107</td>
</tr>
<tr>
<td>70-79</td>
<td>10,309,313</td>
<td>10,571,580</td>
<td>262,267</td>
</tr>
<tr>
<td>80-89</td>
<td>5,922,175</td>
<td>6,258,893</td>
<td>336,718</td>
</tr>
<tr>
<td>90 &amp; over</td>
<td>794,974</td>
<td>920,944</td>
<td>125,970</td>
</tr>
<tr>
<td>Not known</td>
<td>69,575</td>
<td>155,709</td>
<td>86,134</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source of referral for first attendances</th>
<th>2010-11</th>
<th>2011-12</th>
<th>Annual change</th>
</tr>
</thead>
<tbody>
<tr>
<td>First attendances</td>
<td>21,325,385</td>
<td>21,846,959</td>
<td>521,574</td>
</tr>
<tr>
<td>General medical practitioner</td>
<td>11,217,899</td>
<td>11,256,462</td>
<td>38,563</td>
</tr>
<tr>
<td>Referred from A&amp;E department</td>
<td>1,277,247</td>
<td>1,318,178</td>
<td>40,931</td>
</tr>
</tbody>
</table>
Table 2 shows the change in attendances types, age of patients and source of referral since 2010-11. These have shown relatively little change since 2010-11.

Chart 2 – Outpatient appointments in England, by attendance type 2007-08 to 2011-12

Chart 2 shows the increase in the number of appointments recorded in HES since 2007-08. There has been a steady increase in recorded appointments and attendances over this time period. The ratio of attendances to did not attends (DNAs) has slightly increased in recent years (10.7: 1 in 2011-12 compared to 9.8: 1 in 2007-08) and there has been a small increase in the percentage of cancellations. Hospital cancellations increased by 0.4 percentage points (to 6.3%) in 2011-12.

Assessing Growth through time

Outpatient HES figures are available from 2003-04 onwards. Changes to the figures over time need to be interpreted in the context of both improvements in data quality and coverage and changes in activity. The introduction of Payment by Results, increased private sector involvement in the delivery of secondary care and some changes in clinical practice (including some procedures occurring as outpatient appointments instead of hospital admissions) will have all affected trends.

Payment by Results is a system whereby hospitals are paid for the number of patient treatments, known as activity, they perform and the complexity of these treatments. It was introduced in a phased way from the middle of the last decade onwards. In order to get paid correctly, hospitals need to
record the activity they perform and the clinical codes that outline the patients’ conditions and treatment. This has provided a major financial incentive for hospitals to ensure all of the activity they perform and the clinical coding is fully recorded. This improved recording of information captured by HES could be one of the factors leading to the reported activity increases.

One of the key government priorities over the 11 years has been for patients to wait for as short a time as possible. In order to decrease patients’ waiting times there has been the need for additional elective operations to be performed and more capacity in NHS funded care to perform this activity. In the middle of the last decade, additional capacity was brought in from the private sector via Treatment Centres, with the NHS funding some patients to be treated there for routine operations.

Improvements in technology and the need to increase efficiency to allow more patients to be treated have led to a reduction in the length of time patients need to stay in hospital for certain planned operations. In particular, many of those operations that would have involved an overnight stay at the start of the period are now routinely performed as day cases. In addition, many operations where a patient would have been admitted to hospital at the start of the period are now routinely performed in outpatients. This has led to increases in day case rates and outpatient attendances over the period.

The NHS has seen increases in real terms expenditure throughout the period. In the earlier years of the period, the year on year increase in this expenditure was higher than in the most recent years. The period has also seen a rise in the number of emergency admissions. One factor contributing to this is likely to be the increased demand on health services from an ageing population. Alongside this there has been the introduction of observation or medical assessment units at many hospitals to which patients arriving in Accident and Emergency departments are admitted, often for around a day, to enable observation and tests to be performed on them.

The data we have provided here highlight these changes over the past nine years. Care should be taken when interpreting these changes as improvements in coverage in HES will contribute alongside growth from increased activity.

Extra care should be taken when looking at clinical data, as changes in NHS practices (such as the introduction of new procedures and interventions) can have an effect on changes through time.
**Table: All attendances (by age, gender & main specialty)**

There were 72,620,492 outpatient attendances in 2011-12, a 3.4% increase from 2010-11. The 10 year age group with the most overall attendances was 60-69 (11,464,527; 15.8%) although for females it was 30-39. 58.1% (42,193,494) of attendances were for females with the difference largely being accounted for by a higher percentage of female attendances aged 20 to 49 – see chart 3. This was largely due to maternity related attendances.

**Chart 3: Outpatient attendances by age and gender, 2011-12**

The main specialties with the highest number of attendances included Trauma and Orthopaedics (7,113,420; 9.8%), Allied health professional episodes (6,526,829; 9.0%) and Ophthalmology (6,281,564; 8.6%) although Gynaecology and Obstetric specialties also saw a high number of attendances for females.

**Table: First attendances (by age, gender & specialty)**

There were 21,846,959 first outpatient attendances (30.1% of all attendances), a 2.4% increase from 2010-11. Trends for age, gender and specialty were similar as for all attendances although a slightly higher percentage of first attendances in those aged under 60 (i.e. more follow up attendances for those aged over 60).

**Table: Treatment specialty (by attendance type)**

The treatment specialties with the highest number of attendances included Trauma and orthopaedics (7,394,676; 10.2%), Ophthalmology (6,485,109; 8.9%) and Obstetrics (3,403,068; 4.7%).
The treatment specialty of adult mental illness saw the highest number of tele consultations (50,416), although this was only 3.0% of all attendances for this specialty.

**Table: Main specialty (by attendance type)**

Among main specialties with at least a one million attendances, the specialties with the highest ratio of follow up attendances to first attendances included Clinical Haematology (9.5 :1), Clinical Oncology (7.9 :1) and Adult Mental Illness (5.5 :1) - compared to 2.3 :1 for all attendances.

**Table: Main procedure (by attendance type)**

Main operative procedures are poorly coded in outpatient HES data with 80.3% (58,316,253) of attendances recorded with an unknown main procedure in 2011-12. The procedures with the highest recorded numbers of attendances were X62.1 Assessment by uni-professional team NEC (2.8%), X62.2 Assessment by multi-professional team NEC (1.3%), and X65.4 Delivery of a fraction of external beam radiotherapy NEC (0.6%).

**Table: Primary diagnosis (by attendance type)**

Primary diagnosis is very poorly coded in outpatient HES data (4.1% of attendances). However, the diagnoses with the highest recorded attendances included F20.0 Paranoid Schizophrenia (0.2%), R68.8 Other specified general symptoms and signs (0.2%) and C50.9 Malignant neoplasm of breast, unspecified (0.2%)

**Provider level analysis**

Chart 4 and table 3 below show the distribution of outpatient appointments by SHA in England. In 2011-12 London SHA had the greatest number of appointments at nearly 18.5 million appointments, compared with the North East SHA which had 4.9 million. London SHA also has the highest rate (by population) of appointments with an average of 2.25 per person, with the lowest rate in South Central SHA at 1.34 appointments per person.
Chart 4: Outpatient appointments by SHA, England 2011-12
Table 3: Outpatient appointments and population rate per person by SHA, 2011-12

<table>
<thead>
<tr>
<th></th>
<th>Appointments</th>
<th>Population</th>
<th>Rate per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>90,956,844</td>
<td>53,107,200</td>
<td>1.71</td>
</tr>
<tr>
<td>North East SHA</td>
<td>4,945,922</td>
<td>2,596,400</td>
<td>1.90</td>
</tr>
<tr>
<td>North West SHA</td>
<td>12,963,553</td>
<td>7,056,000</td>
<td>1.84</td>
</tr>
<tr>
<td>Yorkshire and the Humber SHA</td>
<td>8,726,555</td>
<td>5,288,200</td>
<td>1.65</td>
</tr>
<tr>
<td>East Midlands SHA</td>
<td>6,145,020</td>
<td>4,537,400</td>
<td>1.35</td>
</tr>
<tr>
<td>West Midlands SHA</td>
<td>10,168,555</td>
<td>5,608,700</td>
<td>1.81</td>
</tr>
<tr>
<td>East of England SHA</td>
<td>8,803,568</td>
<td>5,862,400</td>
<td>1.50</td>
</tr>
<tr>
<td>London SHA</td>
<td>18,455,877</td>
<td>8,204,400</td>
<td>2.25</td>
</tr>
<tr>
<td>South East Coast SHA</td>
<td>6,267,025</td>
<td>4,475,800</td>
<td>1.40</td>
</tr>
<tr>
<td>South Central SHA</td>
<td>5,600,994</td>
<td>4,177,000</td>
<td>1.34</td>
</tr>
<tr>
<td>South West SHA</td>
<td>8,879,770</td>
<td>5,300,800</td>
<td>1.68</td>
</tr>
</tbody>
</table>

Table 4 shows that for England overall there was a ratio of one first attendance to 2.32 subsequent attendances (1: 2.3), with the ratio lowest in the South Central SHA region (1: 1.97) and highest in the North West SHA region (1: 2.56).

Table 4: Outpatient first and follow up attendances, by SHA, 2011-12

<table>
<thead>
<tr>
<th>Strategic Health Authority</th>
<th>First attendances</th>
<th>Follow up attendances for each 1st attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>21,846,959</td>
<td></td>
</tr>
<tr>
<td>Q30 North East</td>
<td>1,250,042</td>
<td>2.32</td>
</tr>
<tr>
<td>Q31 North West</td>
<td>3,021,922</td>
<td>2.56</td>
</tr>
<tr>
<td>Q32 Yorkshire and the Humber</td>
<td>2,012,254</td>
<td>2.52</td>
</tr>
<tr>
<td>Q33 East Midlands</td>
<td>1,377,087</td>
<td>2.25</td>
</tr>
<tr>
<td>Q34 West Midlands</td>
<td>2,607,771</td>
<td>2.35</td>
</tr>
<tr>
<td>Q35 East of England</td>
<td>2,201,359</td>
<td>2.16</td>
</tr>
<tr>
<td>Q36 London</td>
<td>3,923,676</td>
<td>2.54</td>
</tr>
<tr>
<td>Q37 South East Coast</td>
<td>1,619,746</td>
<td>2.05</td>
</tr>
<tr>
<td>Q38 South Central</td>
<td>1,539,539</td>
<td>1.97</td>
</tr>
<tr>
<td>Q39 South West</td>
<td>2,293,560</td>
<td>2.07</td>
</tr>
</tbody>
</table>
Accessing HES

The HES publications focus on headline information about hospital activity. Each annual publication includes a series of national tables and also provider level breakdowns for some main areas.

The publication tables are also made available in machine readable format (as .CSVs) in line with the making public data public transparency agenda.

All data items included in the published tables are explained in footnotes and HSCIC publish data dictionaries for HES describing the format and possible values for all HES data items: http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=289

The data is also readily accessible via an online interrogation service (for NHS users) or via our bespoke extract service: http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=1342

Feedback

Feedback on this publication can be provided via our website: http://www.ic.nhs.uk/statistics-and-data-collections/hospital-care/outpatients ('Have your say - give us your comments on this publication') or the HES customer feedback survey on HESonline. Alternatively, feedback can be provided to the HSCIC via enquiries@ic.nhs.uk or 0845 300 6016.

The HSCIC welcomes all feedback relating to any aspect of this publication. In particular we would welcome feedback on the usefulness of the information to different users, the ways in which the information is used and what further information would be useful.

HESonline gets over 70,000 unique visitors each year, with over 1,000,000 page views and over 250,000 downloads. In order to continually meet the needs of our online interrogation service users, we hold HES User Group (HUG) meetings every two months to discuss issues surrounding HES, such as data improvements, data quality and details of any upcoming changes that would impact users. We also hold meetings every six months with the users who subscribe to our Monthly Managed Extract Service.
Appendices

**Appendix 1: Data submissions to Outpatients HES**

A list of mandatory and optional fields for submission in the Outpatient Commissioning data set (CDS) provided by Connecting for Health within the CDS data dictionary

http://www.datadictionary.nhs.uk/web_site_content/cds_supporting_information/cds_version_6-2_type_list.asp?shownav=1

**CDS V6-2 Type 020 - Outpatient CDS**

**CDS V6-2 Type 021 - Future Outpatient CDS**

Please note: The markers in the columns “OPT, U/A and HES” indicate the NHS recommendations for the inclusion of data:

M= Mandatory: data must be included where applicable
O= Optional: data need not be included
*= Must not be used

**Appendix 2: Glossary of terms**

A&E  Accident and Emergency
CDS  Commissioning Data Set
DH  Department of Health
HES  Hospital Episode Statistics is a brand that holds a collection of data sets produced from regular CDS submissions, these data sets include, admitted patient care, outpatients and A&E.
HSCIC  The Health and Social Care Information Centre
NHS  National Health Service
ONS  Office for National Statistics
OP  Outpatient
PAS  Patient Administration Systems
PCT  Primary Care Trust
SHA  Strategic Health Authority
SUS  Secondary Uses Service
Appendix 3: Data Quality Statement

Introduction

Hospital Episode Statistics (HES) includes patient level data on hospital admissions, outpatient appointments and A&E attendances for all NHS trusts in England. It covers acute hospitals, primary care trusts and mental health trusts. HES includes information about private patients treated in NHS hospitals, patients who were resident outside of England and care delivered by treatment centres (including those in the independent sector) funded by the NHS.

Healthcare providers collect administrative and clinical information locally to support the care of the patient. This data is submitted to SUS to enable hospitals to be paid for the care they deliver. HES is created to enable secondary use of this data.

HES is the data source for a wide range of healthcare analysis used by a wide variety of people including the NHS, Government, Regulators, academic researchers, the media and members of the public.

HES is a unique data source, whose strength lies in the richness of detail at patient level going back to 1989 for inpatient episodes, 2003 for outpatient appointments and 2007 for A&E attendances. HES data includes:

- Specific information about the patient, such as age, gender and ethnicity
- Clinical information about diagnoses, operations and consultant specialties
- Administrative information, such as time waited, and dates and methods of admission and discharge
- Geographical information such as where the patient was treated and the area in which they live.

The principal benefits of HES are in its use to:

- monitor trends and patterns in NHS hospital activity
- assess effective delivery of care and provide the basis for national indicators of clinical quality
- support NHS and parliamentary accountability
- inform patient choice
- provide information on hospital care within the NHS for the media
- determine fair access to health care
- develop, monitor and evaluate Government policy
- reveal health trends over time
- support local service planning
Relevance

The HES publications focus on headline information about hospital activity. Each annual publication includes a series of national tables and also provider level breakdowns for some main areas.

Most data included in the published tables are aggregate counts of hospital activity. Where averages are published, e.g. average length of stay for inpatients or mean time waited for outpatients, the data is clearly labelled stating how the data has been calculated.

Accuracy and Reliability

The accuracy of HES data is the responsibility of the NHS providers who submit the data to SUS. This data is required to be accurate to enable them to be correctly paid for the activity they undertake.

The Audit Commission audits the data submitted to SUS to ensure NHS providers are being correctly paid by Payment by Results for the care they provide.

Each month the HSCIC make data quality dashboards available to NHS providers to show the completeness and validity of their data submissions. This helps to highlight any issues prevalent in the provisional data allowing time for corrections to be made before the annual data is submitted.

Table 5 illustrates the general improvement in the coverage of outpatient fields submitted to HES since 2010-11.

<table>
<thead>
<tr>
<th>Outpatient key fields</th>
<th>Number of valid records</th>
<th>% of all records</th>
<th>Number of valid records</th>
<th>% of all records</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total appointments</td>
<td>87,998,505</td>
<td>99.6%</td>
<td>90,956,844</td>
<td>99.7%</td>
</tr>
<tr>
<td>Attendance type</td>
<td>87,686,860</td>
<td>99.6%</td>
<td>90,721,964</td>
<td>99.7%</td>
</tr>
<tr>
<td>Source of referral</td>
<td>86,998,654</td>
<td>98.9%</td>
<td>90,031,053</td>
<td>99.0%</td>
</tr>
<tr>
<td>Outcome</td>
<td>84,082,174</td>
<td>95.5%</td>
<td>87,454,503</td>
<td>96.1%</td>
</tr>
<tr>
<td>Main specialty</td>
<td>87,821,523</td>
<td>99.8%</td>
<td>90,786,167</td>
<td>99.8%</td>
</tr>
<tr>
<td>Treatment specialty</td>
<td>87,625,122</td>
<td>99.6%</td>
<td>90,590,729</td>
<td>99.6%</td>
</tr>
<tr>
<td>Primary diagnosis</td>
<td>2,677,362</td>
<td>3.0%</td>
<td>2,970,322</td>
<td>3.3%</td>
</tr>
<tr>
<td>Main procedure</td>
<td>13,313,923</td>
<td>15.1%</td>
<td>14,275,573</td>
<td>15.7%</td>
</tr>
</tbody>
</table>
Final and provisional data comparison 2011-12

Collection of HES data is carried out on a monthly basis throughout the financial year, with a final Annual Refresh (AR) once the year end has passed. Each monthly collection refreshes data back to the start of the financial year.

Month 13 represents the provisional full year data and was published in July 2012. Hospital providers and the HSCIC HES Data Quality team work to improve the quality and completeness of the data in order to produce the final annual refresh data used in this report.

Table 6 shows the change from the Month 13 provisional data to the final Annual Refresh data.

### Table 6: Rolling 12 month period comparison

<table>
<thead>
<tr>
<th></th>
<th>Apr 11 to Mar 12 provisional data</th>
<th>Apr 11 to Mar 12 final data</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Appointments</td>
<td>90,944,794</td>
<td>90,956,844</td>
<td>0.00%</td>
</tr>
<tr>
<td>Attended appointments</td>
<td>72,612,135</td>
<td>72,620,492</td>
<td>0.00%</td>
</tr>
<tr>
<td>% of all appointments</td>
<td>79.8%</td>
<td>79.8%</td>
<td>-</td>
</tr>
<tr>
<td>Did not attend appointment</td>
<td>6,783,692</td>
<td>6,785,034</td>
<td>0.00%</td>
</tr>
<tr>
<td>% of all appointments</td>
<td>7.5%</td>
<td>7.5%</td>
<td>-</td>
</tr>
<tr>
<td>Follow-up attendances for each first attendance</td>
<td>2.32</td>
<td>2.32</td>
<td>-</td>
</tr>
</tbody>
</table>

Chart 5 shows the number of appointments occurring in each month, by the submission version for 2011-12.

### Chart 5: Provisional and final monthly HES data, 2011-12
There is also further information about HES data quality published online: http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=97

This information includes links to HES data quality notes which specify known data quality issues each year e.g. if a trust has a known shortfall of secondary diagnoses this will be documented in the data quality note.

**Timeliness and Punctuality**

HES data is published as early as possible. The production of the underlying HES datasets takes several months after the reference period. The final submission deadline for NHS providers to send annual data to SUS is normally at the end of the May, almost 2 months after that year has finished. It then takes approximately 4 months to produce the outpatient HES dataset and a further 2 to 3 months to complete publication production and data investigation.

In addition to annual data the HSCIC also publish provisional monthly HES data approximately 3 and a half months after the reference period.

The final annual data includes additional data cleaning, validation and processing than the provisional monthly data.

**Coherence and Comparability**

Users can misinterpret HES data as relating to numbers of patients but care should be taken as HES data relates to hospital activity not individuals.

Outpatient data is presented as appointments, whether attended or not, and as such a patient may have more than one appointment in a given period.

**UK comparisons**

Separate collections of hospital statistics are undertaken by Northern Ireland, Scotland and Wales. There are a number of important differences between the countries in the way that data measures are collected and classified, and because of differences between countries in the organisation of health and social services. For these reasons, any comparisons made between HES and other UK data should be treated with caution.

ONS used to produce UK Health Statistics which contained key figures about the use of health and social services, including hospital in-patient activity and waiting times across the UK. The last version of this discontinued series can be found at: http://www.ons.gov.uk/ons/rei/ukhs/united-kingdom-health-statistics/2010/edition-4--2010.pdf
Other UK Data
Hospital data for the other administrations can be found at:
Northern Ireland - Hospital Statistics & Research
Scotland – Hospital Care
Wales - Health and care statistics

The Department of Health also publish hospital activity data: NHS Outcomes and Performance

A paper comparing Department of Health waiting time data and total time waited data from HES is available at:

Wider international comparisons
HES and similar statistics from the devolved administrations are used to contribute to World Health Organisation, Organisation for Economic Co-operation and Development (OECD) and Eurostat compendiums on health statistics.

Improvements over time
Admitted patient care HES data are available from 1989-90 onwards whilst outpatient HES data are available from 2003-04 onwards. Changes to the figures over time need to be interpreted in the context of improvements in data quality and coverage (particularly in earlier years), improvements in coverage of independent sector activity (particularly from 2006-07) and changes in NHS practice. For example, apparent increases in activity may be due to a number of procedures which may now be undertaken in an outpatient setting and as such will no longer be included in admitted patient HES data.

Changes to clinical classifications
Diagnoses are coded in HES using the ICD-10 classification.
Operative procedures are coded in HES using the OPCS classification.
Further information about these classifications, and changes to them, can be found at:
http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=1165

Changes to organisation codes and geographical boundaries
The Organisation Data Service (ODS) is provided by NHS Connecting for Health. It is responsible for the publication of all organisation and practitioner codes and national policy and standards with regard to the majority of organisation codes, and encompasses the functionality and services previously provided by the National Administrative Codes Service (NACS).
Performance, Cost and Respondent Burden

The production of HES data is a secondary use of data collected during the care of patients in the NHS and submitted for NHS Providers to be paid for the care they deliver. Therefore HES does not incur additional costs or burden on the providers of the data.

Confidentiality, Transparency and Security

Although certain information is considered especially sensitive, all information about someone's health and the care they are given must be treated with regard to confidentiality at all times.

There are a limited number of people authorised to have access to the record level data, all of who must adhere to the written protocol issued by the HSCIC on the dissemination of HES data. For example guidance is given on handling the very small numbers that sometimes occur in tables, to reduce the risk that local knowledge could enable the identification of either a patient, the only consultant of a particular specialty within a trust, or a single-handed GP.

HES is a record level data warehouse and it contains information that could (if it was made freely available) potentially identify patients or the consultant teams treating them. In some cases record level data may be provided for medical/health care research purposes. For example data is likely to be required by the Care Quality Commission and other such bodies. The information may be given following a stringent application procedure, where the project can justify the need and where aggregated data will not suffice. Any request involving sensitive information, or where there may be potential for identification of an individual, is referred to the Data Access Advisory Group (DAAG) or the Ethics and Confidentiality Committee (ECC).

HES data is stored to strict standards, a system level security protocol is in place, this details the security standards that are in place to ensure data is secure and only accessed by authorised users.