

Accident and Emergency Attendances in England (Experimental Statistics) 2010-11

Explanatory Notes

26 January 2012

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2010-11 Accident and Emergency publication

This is the fourth publication of the accident and Emergency (A&E) attendance data within Hospital Episode Statistics (HES). It covers the period from April 2010 to March 2011 and draws on just over 16 million detailed records of attendances at major A&E departments, single specialty A&E departments, walk-in centres and minor injury units in England.

Changes to the Publication

In this fourth publication of Accident and Emergency statistics the original Word/pdf document has been replaced by this shorter 'Explanatory Notes' document, which highlights key points and changes from previous years' reports. This document should be read in conjunction with the accompanying Excel tables and charts, which have also been adjusted to provide a more concise format. (see Appendix 3 for conversion notes from previous tables)

The following changes have been made to charts in the A&E Attendances 2010-11 Excel file:

Chart 3: A&E attendances by day and hour of arrival (all), 2009-10 and 2010-11 (previously chart 3.3) has been adjusted to show attendances by day and hour of arrival as a percentage of all arrivals. Previously this chart showed attendance by hour of arrival as a percentage of that specific days total arrivals.

Chart 13: Average (mean) duration in department by arrival hour to A&E (previously chart 3.14) does not include planned attendances. Previously this chart has included planned attendances.

Chart 14: Attendance disposal method, by 10 minute time intervals (previously chart 3.15) – the category Other (inc. referred) has been split to be 'Other' and a separate category for 'Referred'.

As of April 2011, the Department of Health introduced a series of quality indicators for A&E departments which includes measures of duration to assessment (arrival by ambulance), treatment and departure. Information about these indicators is available from the [IC website](http://www.ic.nhs.uk/statistics-and-data-collections/hospital-care/accident-and-emergency-hospital-episode-statistics-hes):
[<http://www.ic.nhs.uk/statistics-and-data-collections/hospital-care/accident-and-emergency-hospital-episode-statistics-hes>]

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

Provider level analysis is available within the supporting Excel document [A&E Attendances - Provider level analysis (Experimental statistics) 2010-11].

The accompanying Excel spread-sheet provides information at provider level (where submitted) relating to:

- Number of attendances
- Gender and age group profiles
- Arrival to A&E, by day and time
- Arrival method by age
- Comparison with QMAE
- Duration spent in A&E department
- Method of discharge
- Average duration in A&E department by hour of arrival.

Key facts

In 2010-11:

- A&E HES data contains over 16.2 million accident and emergency attendances from April 2010 to March 2011 at major A&E departments, single specialty A&E departments, walk-in centres and minor injury units in England.
- Data is incomplete; there are 15.8 million attendances reported in A&E HES (excluding planned follow-up appointments), compared to 21.4 million reported in Quarterly Monitoring of Accident and Emergency (QMAE) aggregate data for the equivalent period.
- There are 187 providers with attendances in A&E HES compared to 327 providers that have submitted A&E attendances via QMAE. QMAE has seen an increase in the number of walk in centres and minor injury units which currently do not submit to HES.
- Of the 140 providers that do not submit A&E data to HES, 77 are primary care trusts (PCTs), 6 are trusts, 2 are Care Trusts and 55 are Other (incl. walk in centres, minor injury units and private providers).
- 44.0% (7.2 million) of all A&E attendances were for patients aged 29 or under, 16.2% (2.6 million) were for patients aged 20-29. Just over half of these (51%) were male.
- 25.8% (4.2 million) of all arrivals at A&E were by ambulance or helicopter, compared to 25.2% (3.9 million) of all arrivals in 2009-10.
- 59.6% (9.7 million) of all attendances at A&E had a valid diagnosis code and 12.4% (2.0 million) of all attendances had a diagnosis of 'Diagnosis not classifiable' recorded.
- 74.7% (12.1 million) of all attendances had a valid treatment code and 27.1% (4.4 million) of all attendances had a recorded treatment of 'guidance/advice only'.
- 57.4% (9.3 million) of all attendances were discharged ('GP follow-up required' or 'no follow-up required') and 21.9% (3.6 million) of all attendances were admitted to hospital.

Background

A&E departments

The role of major accident and emergency (A&E) departments is to assess and treat patients who have serious and unforeseen injuries or illnesses. Major A&E departments are consultant led, open 24 hours a day and 365 days a year with full resuscitation facilities. Not all hospitals have an A&E department.

In addition to major A&E departments, single specialty A&E departments, walk-in centres and minor injury units are also covered by the A&E HES data. People can attend these services without an appointment. They deal with a range of minor injuries and illnesses.

Reporting of A&E data

A&E HES

A&E HES data consists of individual records of patient care that are held within the HES database. These have been submitted from local NHS providers' patient administration systems (PAS), via the Secondary Uses Service (SUS). SUS is a national data warehouse that has been delivered as part of the National Programme for IT.

Quarterly Monitoring of Accident and Emergency (QMAE)

The collection process used for A&E HES data is very different from the process used for collecting the other nationally published source of information on A&E activity, the Quarterly Monitoring of Accident and Emergency (QMAE) return. QMAE is based on counts made in local NHS organisations and submitted to the Department of Health in aggregate form.

QMAE aggregate data is still the official source of A&E information and should be used in preference to A&E HES for information that is held in both datasets.

Coverage and quality

This fourth release of A&E HES data continues to be labelled as 'experimental statistics'. There have been improvements in the coverage and quality of data provided to A&E HES compared to last year, with relative coverage levels improving in A&E HES.

As detailed in this report, there are also some definitional differences between A&E HES data and QMAE data. The main difference is that QMAE data does not include attendances where the A&E appointment has been pre-arranged or planned. Therefore, where A&E HES is compared directly with QMAE planned follow up appointments are excluded.

Coverage within A&E HES has improved over the last year, both in terms of the comparison with QMAE and completed data fields within A&E HES. Codes were considered to be valid if they matched to one of the A&E Commissioning Data Set (CDS) data dictionary values for the specified field and were considered invalid if they did not match to one of the data dictionary values. Where a field has a null value it is considered invalid.

Multiple diagnosis, investigation and treatment codes can be submitted within the dataset. The analysis contained within this report only looks at the first (or primary) diagnosis, investigation and treatment codes submitted. It also only uses the first two characters of these codes covering the diagnosis condition, investigation and treatment sections of the six character codes. This is due to quality issues with these clinical fields.

Findings

Overall coverage

Total attendances (tables 1,2,3,4 & 17)

While QMAE remains the official source of A&E attendance numbers and 4 hour wait target information, A&E HES is able to offer more detailed analysis. As stated previously, A&E HES coverage (74 per cent of the QMAE attendances) has improved since the first publication of these experimental statistics in 2007-08 (62 per cent), aligning more closely to QMAE data.

In 2010-11 there were 16.2 million A&E attendances (all) recorded within HES, representing an increase of 4.9 per cent from the previous year. This difference is largely driven by coverage improvements within A&E HES. Over the same period A&E attendance levels reported within QMAE increased by 4.2 per cent.

Attendance records in A&E HES data can be split into groups based on whether the attendance was a first¹ or a follow-up² attendance. Furthermore, follow-up attendances can be split into whether the attendance was planned or unplanned.

The QMAE submission does not collect planned follow-up attendances, but does include unplanned follow-up attendances. Where A&E HES is being compared with QMAE directly, total attendance will exclude planned follow-up attendances.

Using this definition, the number of total attendances when derived from A&E HES is 15.8 million. Therefore, there are 5.6 million fewer attendances than those reported in QMAE for 2010-11.

Accident and emergency (A&E) attendances

Who attends A&E? (tables 5 & 6, chart 1)

Despite the improvements in coverage, the demographic profile of patients who use A&E departments has remained relatively stable when compared to previous years. In 2010-11 males are still marginally the main users of A&E departments in England.

When focusing specifically on age groups, these have changed very little in terms of the underlying distribution from last year. 44.0% (7,150,717) of all A&E attendances were for patients aged 29 or under, 16.2% (2,639,004) were for patients aged 20-29. Just over half of these (51%) were male.

When do A&E attendances occur? (tables 7 & 8, charts 2 & 3)

The distribution of A&E attendances compared to 2009-10 is very similar. The number of A&E attendances recorded (submitted) in the period May to July are generally higher.

When looking at the day and hour of arrival of A&E attendances, the busiest day continues to be Monday, the busiest time of arrival is 10am (hour). The trend for the arrival time / day is relatively similar for all weekdays; peaking between 10am and 11am there is a slight variation to the underlying trend on weekends, which doesn't see the 'post-work' peak at about 6pm.

Despite the changes in A&E attendance numbers and the people visiting these departments, these trends are similar between 2009-10 & 2010-11.

¹ First Attendance to A&E - the first in a series or the only attendance

² Follow-up Attendance to A&E - Planned: a subsequent planned attendance at the same department and for the same incident as the first attendance. Unplanned: a subsequent unplanned attendance at the same department and for the same incident as the first attendance. (Source: [A&E HES Data Dictionary](http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=289) [http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=289])

Referral method (table 9)

The majority of A&E attendances are self-referred, some 65.7% (10,679,790) in 2010-11. Referrals to A&E from all sources have remained relatively stable when compared to previous years.

Arrival method (tables 10 & 11, charts 4, 5, 6 & 7)

In 2010-11, 25.8% (4,195,075) of all arrivals at A&E were by ambulance or helicopter, compared to 25.2% (3,924,919) of all arrivals in 2009-10.

The number of attendances where the arrival method was 'ambulance or helicopter' is greatest during the 14:00 – 15:00 hour, when 228,876 patients arrived at A&E providers by ambulance or helicopter. However, these patients represent 22.5% of all attendances to A&E during the 14:00 -15:00 hour. Most attendances (proportionally) where the arrival mode is ambulance or helicopter are seen during the 03:00 - 04:00 hour, when 53.3% (109,431) of all attendances arrived that way.

More males arrive at A&E by ambulance or helicopter up to the age of 69 compared to females. However, from the age of 70 onwards the number of female attendances (arriving by ambulance or helicopter) is higher than male attendances; this is possibly linked to population demographics.

The age group with the highest proportion of A&E attendances (who arrived by ambulance or helicopter) is the 80 to 89 year-old age group (715,516 or 17.1%).

How a patient arrives at an A&E department can reflect the level of treatment / care required. Of patients who arrived at A&E by ambulance or helicopter, 49.0% (2,056,539) are admitted to hospital. Conversely, for those who arrived by another method, 12.4% (1,440,173) were admitted and 43.9% (5,109,242) discharged with no follow-up required.

Reason for A&E attendance

Patient Groups (table 12, charts 8, 9, 10 & 11)

Within the reason for attendance field, 95.3% of entries are valid records i.e. 'excluding "Not known"'. However, the majority of these 14,575,503 (or 89.7% of all records) are classified as either 'other accident' or 'other'.

Road accidents

Road accidents accounted for 1.5% (245,913) of all recorded attendances. There are peaks in the number of A&E attendances during the morning and evening rush hours. There are fewer road accident related attendances over the weekend.

Assaults

Assaults accounted for 1.1% (186,276) of all recorded attendances. There are more assault related attendances on Friday and Saturday nights.

Deliberate self-harm

Deliberate self-harm accounted for 0.7% (112,669) of all recorded attendances. There is a clear re-occurring pattern throughout the week, increasing slightly on Friday and Saturday evenings. The number of attendances increases throughout the day.

Sports injury

Sports injuries accounted for 2.2% (352,899) of all recorded attendances. These are most likely to occur on Saturday and Sunday afternoons.

Investigation, Diagnosis and Treatment

First investigation (table 13)

In total 14,175,261 (87.3%) of recorded attendances had a valid investigation code. This includes more than a third of valid records that have a first investigation recorded as 'none', and a further third showing 'X-ray plain film'.

Data coverage has increased for recorded first investigation, from 77.7% of valid records in 2009-10 to 87.3% in 2010-11. Most recorded first investigations have shown small fluctuations, however there has been an increase of 7.5 percentage points in attendances where the first investigation is recorded as 'none'.

First diagnosis (table 14)

In total 9,676,615 (59.6%) of recorded attendances had a valid diagnosis code, an increase of 1.5 percentage points from 2009-10.

The highest percentage of valid A&E HES attendances within primary diagnosis information are coded as 'diagnosis not classifiable', representing 20.8% of all valid records, followed by 'dislocation/fracture/joint injury/amputation' (7.8%) and then 'laceration' (6.5%), replicating last years' top three.

First treatment (table 15)

In total 12,141,322 (74.7%) of recorded attendances had a valid treatment code, an increase of 8.6 percentage points from 2009-10.

The highest percentage of A&E HES attendances with valid first treatment information are coded as 'guidance/advice only', representing 36.2% of all valid records, followed by 'none (consider guidance/advice option)' (14.3%).

Attendance disposal

Disposal method (table 16, charts 12, 13 & 14)

In 2010-11, 57.4% (9,322,289) of all attendances were discharged ('GP follow-up required' or 'no follow-up required') and 21.9% (3,565,357) of all attendances were admitted to hospital.

As the duration the patient has spent in the A&E department increases, so does the likelihood that the patient will be admitted to hospital, peaking in the 10 minute time slot between 3hrs 51 min and 4hrs.

Patients who have shorter durations in A&E are more likely to be discharged with no follow-up required, compared to those patients who wait longer.

Accessing HES

How to access A&E HES data

Freely available HES data, including this report, is accessible via [HESonline](http://www.hesonline.nhs.uk) [<http://www.hesonline.nhs.uk>].

Ad hoc tabulations and extracts based on experimental A&E HES data are available on request, subject to agreement of terms and conditions of use. Users requiring such access should refer to the information in the Request a tailor-made report area of the HESonline website.

Organisations can also request direct access to the full A&E HES data via the HES Interrogation System. Please note that there are restrictions on who can access HES data in this way. For further information on this service, please contact the Health and Social Care Information Centre (0845 300 6016 or enquires@ic.nhs.uk).

Feedback

Specific areas for feedback

The Health and Social Care Information Centre welcomes all feedback relating to any aspect of this publication.

In particular we would welcome feedback on the following issues highlighted within the publication:

- The underlying reasons behind providers not submitting data to A&E HES.
- Where large differences exist between the number of attendances submitted to A&E HES and QMAE, what are the reasons behind the A&E HES numbers being different?
- The reasons behind the current use of invalid codes in the clinical fields (diagnosis, investigation and treatment)

How to provide feedback

Feedback can be provided to the Health and Social Care Information Centre via: enquiries@ic.nhs.uk or 0845 300 6016.

Responsible statistician:

Tony Childs, Principal Information Analyst HES/SUS

Contact via enquiries@ic.nhs.uk or 0845 300 6016

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Appendix 1: Data submissions to A&E HES

A list of mandatory and optional fields for submission in the A&E Commissioning Data Set (CDS) is provided by Connecting for Health within the [CDS data dictionary](http://www.datadictionary.nhs.uk/data_dictionary/messages/cds_v6/cds_v6.asp) [http://www.datadictionary.nhs.uk/data_dictionary/messages/cds_v6/cds_v6.asp].

CDS V6 TYPE 010 - ACCIDENT AND EMERGENCY 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** available
- O = Optional: data need not be included
- * = Must **not** be used

Appendix 2: Glossary of terms

| | |
|---------|--|
| A&E | Accident and Emergency |
| A&E HES | <p>'Accident and Emergency Hospital Episodes Statistics' is a name given to the data set that contains data on individual A&E attendances. A&E HES is one of a number of data sets available from the family of HES products.</p> <p>More information on HES products is available on HESonline [http://www.hesonline.nhs.uk].</p> |
| 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 now A&E. |
| HSCIC | The Health and Social Care Information Centre |
| MIU | Minor Injury Unit |
| NHS | National Health Service |
| ONS | Office for National Statistics |
| OOH | Out of Hours |
| OP | Outpatient |
| PAS | Patient Administration Systems |
| PCT | Primary Care Trust |
| QMAE | Quarterly Monitoring of Accident and Emergency |
| SUS | Secondary Uses Service |
| WIC | Walk-in Centre |

Appendix 3: Table/Chart conversion notes

| Previous Table | | New Table | |
|----------------|---|-----------|---|
| No | Description | No | Description |
| 2.3 | Attendances recorded by type in A&E HES and QMAE | 1 | Attendances recorded by type in A&E HES and QMAE |
| 2.4 | Number of valid records in HES by A&E key field | 2 | Number of valid records in HES by A&E key field |
| 3.1 | Comparison of A&E attendances in A&E HES against those reported in QMAE, broken down by the organisation type | 3 | Comparison of A&E attendances in A&E HES against those reported in QMAE, broken down by the organisation type |
| 3.2 | A&E Attendances by attendance category | 4 | A&E Attendances by attendance category |
| 3.3 | A&E attendances by gender | 5 | A&E attendances by gender |
| 3.4 | A&E attendances by age group | 6 | A&E attendances by age group |
| 3.5 | A&E attendances by month | 7 | A&E attendances by month |
| 3.6 | A&E attendances by day | 8 | A&E attendances by day |
| 3.7 | A&E attendances by referral method | 9 | A&E attendances by referral method |
| 3.8 | A&E attendances by arrival method | 10 | A&E attendances by arrival method |
| 3.9 | A&E attendances by hour of arrival, where arrived by ambulance | 11 | A&E attendances by hour of arrival, where arrived by ambulance |
| 3.10 | A&E attendances by patient group | 12 | A&E attendances by patient group |
| 3.11 | A&E attendances by first investigation (top 10 investigations) | 13 | Number of A&E attendances, first A&E investigation '2 character description field' |
| 3.12 | A&E attendances by primary diagnosis (top 10 recorded primary diagnoses) | 14 | Number of A&E attendances, A&E primary diagnosis '2 character description field' |
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| 3.14 | A&E average duration at each stage of attendance (minutes) | Removed | |
| 3.15 | Total number of attendances in A&E HES by attendance disposal method | 16 | Total number of attendances in A&E HES by attendance disposal method |
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| App3 | Number of A&E attendances, A&E primary diagnosis '2 character description field' | 14 | Number of A&E attendances, A&E primary diagnosis '2 character description field' |
| App4 | Number of A&E attendances, first A&E treatment '2 character description field' | 15 | Number of A&E attendances, first A&E treatment '2 character description field' |

| Previous Chart | | New Chart | |
|----------------|--|-----------|--|
| No | Description | No | Description |
| 3.1 | A&E attendances by gender and age group | 1 | A&E attendances by gender and age group |
| 3.2 | A&E attendances by month of arrival | 2 | A&E attendances by month of arrival |
| 3.3 | A&E attendances by day and hour of arrival (all) | 3 | A&E attendances by day and hour of arrival (all) |
| 3.4 | A&E attendances by hour of arrival, where arrived by ambulance | 4 | A&E attendances by hour of arrival, where arrived by ambulance |
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Appendix 4: A&E 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 the Secondary Uses Service (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 caesarean rates for maternity statistics, the data is clearly labelled to state how the numbers have 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 Health and Social Care Information Centre 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 2 from the A&E Attendances 2010-11 Excel document (reproduced below) highlights the completeness of some key fields for this dataset.

| Table 2: Number of valid records in HES by A&E key field, 2009-10 and 2010-11 | | | | |
|--|--------------------------------|---------------------------|--------------------------------|---------------------------|
| | 2010-11 | | 2009-10 | |
| A&E key fields | Number of valid records | % of valid records | Number of valid records | % of valid records |
| Total number of records | 16,244,934 | | 15,569,736 | |
| A&E Arrival Mode | 15,824,313 | 97.4% | 15,145,652 | 97.3% |
| A&E Department Type (from April 2007) | 14,343,544 | 88.3% | 10,971,330 | 70.5% |
| A&E Attendance Category | 16,125,834 | 99.3% | 15,470,767 | 99.4% |
| A&E Attendance Disposal | 16,203,945 | 99.7% | 15,530,101 | 99.7% |
| A&E Incident Location Type | 14,509,845 | 89.3% | 14,057,208 | 90.3% |
| A&E Patient Group | 15,481,824 | 95.3% | 14,768,678 | 94.9% |
| Source of Referral for A&E | 16,105,631 | 99.1% | 15,443,282 | 99.2% |
| Arrival Date | 16,244,934 | 100.0% | 15,569,736 | 100.0% |
| Arrival Time | 16,244,934 | 100.0% | 15,569,736 | 100.0% |
| A&E Initial Assessment Time | 13,246,928 | 81.5% | 12,474,089 | 80.1% |
| A&E Time Seen For Treatment | 13,953,329 | 85.9% | 13,244,783 | 85.1% |
| A&E Attendance Conclusion Time | 15,613,643 | 96.1% | 14,631,019 | 94.0% |
| A&E Departure Time | 16,212,725 | 99.8% | 15,526,514 | 99.7% |
| Primary A&E Diagnosis - 2 Character Level ³ | 9,676,615 | 59.6% | 9,043,559 | 58.1% |
| First A&E Investigation - 2 Character Level ⁴ | 14,175,261 | 87.3% | 12,099,695 | 77.7% |
| First A&E Treatment - 2 Character Level ⁵ | 12,141,322 | 74.7% | 10,292,444 | 66.1% |

There is also further information about HES data quality available at [HESonline](http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=97):
[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 5 months to produce the A&E HES dataset and a further 2 months to complete publication production and data investigation.

In addition to annual data the Health and Social Care Information Centre also publishes 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.

³ An A&E diagnosis is a six-character code made up of diagnosis condition (n2), sub-analysis (n1), anatomical area (n2) and anatomical side (an1).

⁴ An A&E investigation is a six-character code made up of investigation (n2) and local sub-analysis (up to an4).

⁵ An A&E treatment is a six-character code made up of treatment (n2), sub-analysis (n1), local use (up to an3).

Accessibility and Clarity

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 the Health and Social Care Information Centre publishes 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>]

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.

A&E data is presented as attendances. People who have more than one attendance in a year will be counted for each attendance.

- UK comparisons

Separate collections of Hospital statistics are undertaken by Northern Ireland Scotland and Wales, Chapter 6 of the [United Kingdom Health Statistics report](#) looks at the comparability of these statistics. [<http://www.ons.gov.uk/ons/rel/ukhs/united-kingdom-health-statistics/2010/edition-4--2010.pdf>]

- 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

HES A&E data are available from 2007-08 onwards. These data are experimental statistics and coverage, when compared to the official Quarterly Monitoring of A&E data source, remains incomplete although it is improving.

- 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).

For more information about the ODS and changes to organisation codes and geographical boundaries [visit](#):

[<http://www.connectingforhealth.nhs.uk/ods>]

There is also some further information about [historic geographic changes in HES at](#):

[<http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=1168>]

Assessment of User Needs and Perceptions

Feedback on each publication is sought through the [IC website](http://www.ic.nhs.uk/statistics-and-data-collections/hospital-care/hospital-activity-hospital-episode-statistics—hes) [<http://www.ic.nhs.uk/statistics-and-data-collections/hospital-care/hospital-activity-hospital-episode-statistics—hes>]

We are also seeking feedback from users of HES on the HES Online website.

HES Online 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 bi-monthly HES User Group (HUG) meetings to discuss issues surrounding HES, such as data improvements, data quality and detailing any upcoming changes that would impact users. We also hold biannual meeting with the users who subscribe to our Monthly Managed Extract Service.

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 Health and Social Care Information Centre 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.

**Accident and Emergency Attendances
in England (Experimental Statistics),
2010-11**

Price: Free

**Published by The Health and Social Care
Information Centre
Part of the Government Statistical Service**

ISBN: 978-1-84636-656-7

This publication may be requested in large print or other
formats.

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