Hospital Episode Statistics 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, eg average length of stay for inpatients or caesarean rates for maternity statistics, 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 NHS 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 5 in the 2010-11 headline figures document highlights the completeness of some key fields for this dataset.

There is also further information about HES data quality published on HESonline:
[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. Eg 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 3 months to produce the inpatient HES dataset and a further 2 months to complete publication production and data investigation.

In addition to annual data the NHS Information Centre 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.

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 NHS Information Centre publish data dictionaries for HES describing the format and possible values for all HES data items within HESonline.
[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 within HESonline.
[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.

Inpatient data is presented as finished consultant episodes (periods of care under one consultant in one hospital provider) which may include people more than once.

- 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 data are available from 1989-90 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 reductions in activity may be due to a number of procedures which may now be undertaken in outpatient settings and so no longer include in admitted patient HES data.

- Changes to clinical classifications

Diagnoses are coded in HES using the ICD10 classification.

Operative procedures are coded in HES using the OPCS classification.

Further information about these classifications, and changes to them, can be found within HESonline.
[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).

For more information about the ODS and changes to organisation codes and geographical boundaries visit NHS Connecting for Health.
[http://nww.connectingforhealth.nhs.uk/ods]

There is also some further information about historic geographic changes in HES within HESonline.
[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].

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 meetings 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 NHS 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.