Data quality statement: National Hospital Morbidity Database 2013–14

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Identifying and definitional attributes

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Data quality

Data quality statement summary:

Summary of key issues

- The NHMD is a comprehensive dataset that has records for all separations of admitted patients from essentially all public and private hospitals in Australia.
- A record is included for each separation, not for each patient, so patients who separated more than once in the year have more than one record in the NHMD.
- For 2013–14, almost all public hospitals provided data for the NHMD. The exception was an early parenting centre in the Australian Capital Territory. The great majority of private hospitals also provided data, the exceptions being the private free-standing day hospital facilities in the Australian Capital Territory.
- There was some variation between jurisdictions as to whether hospitals that predominantly provide public hospital services, but are privately owned and/or operated, are reported as public or private hospitals. In addition, hospitals may be re-categorised as public or private between or within years.
- There was apparent variation among jurisdictions in the use of statistical discharges and the assignment of care types (for example when a patient's care type changes from acute care to rehabilitation) which may affect the comparability of the data. However, revised definitions for care types were implemented from 1 July 2013 with the aim to improve comparability in care type assignment among jurisdictions. Therefore, information presented by care type may not be comparable with data presented for earlier periods.
- There was variation between states and territories in the reporting of separations for Newborns (without qualified days or with a mixture of qualified and unqualified days).
- Data on state of hospitalisation should be interpreted with caution because of crossborder flows of patients. This is particularly the case for the Australian Capital Territory. In 2013–14, about 18% of separations for Australian Capital Territory hospitals were for patients who resided in New South Wales.
- Variations in admission practices and policies lead to variation among providers in the number of admissions for some conditions.
- Caution should be used in comparing diagnosis, procedure and external cause data over time, as the classifications and coding standards for those data can change over time.
    - Reporting in ICD-10-AM 8th edition commenced from 1 July 2013. A number of changes implemented in the 8th edition of the ICD-10-AM/ACHI classifications may affect the interpretation of data when compared with data reported in earlier years.
    - Changes to the Australian Coding Standard (ACS) 0401 Diabetes mellitus and intermediate hyperglycaemia between 2009–10 and 2013–14 have affected the comparability over time of data reported for diabetes.

- The Indigenous status data in the NHMD for all states and territories are considered of sufficient quality for statistical reporting for 2010–11, 2011–12, 2012–13 and 2013–14. In 2011–12, an estimated 88% of Indigenous patients were correctly identified in public hospitals. The overall quality of the data provided for Indigenous status is considered to be in need of some improvement and varied between states and territories.

Description

The National Hospital Morbidity Database (NHMD) is a compilation of episode-level records from admitted patient morbidity data collection systems in Australian hospitals. It is a comprehensive dataset that has records for all episodes of admitted patient care from essentially all public and private hospitals in Australia.

The data supplied are based on the National Minimum Data Set (NMDS) for Admitted patient care and include demographic, administrative and length of stay data, as well as data on the diagnoses of the patients, the procedures they underwent in hospital and external causes of injury and poisoning.

In 2013–14, diagnoses and external causes of injury and poisoning were recorded using the eighth edition of the International statistical classification of diseases and related health problems, 10th revision, Australian Modification (ICD-10-AM). Procedures were recorded using the eighth edition of the Australian Classification of Health Interventions (ACHI).

The counting unit for the NHMD is the ‘separation’. Separation is the term used to refer to the episode of admitted patient care, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute care to rehabilitation).

The NHMD contains records from 1993–94 to 2013–14. For each reference year, the NHMD includes records for admitted patient separations between 1 July and 30 June.

Institutional environment:

The Australian Institute of Health and Welfare (AIHW) is a major national agency set up by the Australian Government under the Australian Institute of Health and Welfare Act 1987 to provide reliable, regular and relevant information and statistics on Australia's health and welfare. It is an independent statutory authority established in 1987, governed by a management board, and accountable to the Australian Parliament through the Health portfolio.

The AIHW aims to improve the health and wellbeing of Australians through better health and welfare information and statistics. It collects and reports information on a wide range of topics and issues, ranging from health and welfare expenditure, hospitals, disease and injury, and mental health, to ageing, homelessness, disability and child protection.

The Institute also plays a role in developing and maintaining national metadata standards. This work contributes to improving the quality and consistency of national health and welfare statistics. The Institute works closely with governments and non-government organisations to achieve greater adherence to these standards in administrative data collections to promote national consistency and comparability of data and reporting.

One of the main functions of the AIHW is to work with the states and territories to improve the quality of administrative data and, where possible, to compile national datasets based on data from each jurisdiction, to analyse these datasets and disseminate information and statistics.

The Australian Institute of Health and Welfare Act 1987, in conjunction with compliance to the Privacy Act 1988, (Commonwealth) ensures that the data collections managed by the AIHW are kept securely and under the strictest conditions with respect to privacy and confidentiality.

For further information see the AIHW website www.aihw.gov.au

Data for the NHMD were supplied to the AIHW by state and territory health authorities under the terms of the National Health Information Agreement

/content/index.phtml/itemId/182135

The state and territory health authorities received these data from public and private hospitals. States and territories use these data for service planning, monitoring and internal and public reporting. Hospitals may be required to provide data to states and territories through a variety of administrative arrangements, contractual requirements or legislation.

Timeliness:

The reference period for this data set is 2013–14. This includes records for admitted patient separations between 1 July 2013 and 30 June 2014.

The agreed date for supply of a first version of data (based on best efforts) was 31 October 2014. Five states and territories provided a first version of 2013–14 data to the AIHW at the end of October 2013 and all had provided their first version by 28 November 2014. A second version of the data was agreed to be supplied by 10 December 2014. All states and territories had provided the second version of the data by 12 December 2014. The data were published on 19 March 2015.

Accessibility:

The AIHW provides a variety of products that draw upon the NHMD.

The Australian hospital statistics suite of products with associated Excel tables may be accessed on the AIHW website http://www.aihw.gov.au/hospitals/

Interpretability:

Metadata information for the APC NMDS are published in the AIHW's online metadata repository—METeOR, and the National health data dictionary.

METeOR and the National health data dictionary can be accessed on the AIHW website:

/content/index.phtml/itemId/181162

http://www.aihw.gov.au/publication-detail/?id=6442468385

Relevance:

The purpose of the NHMD is to collect information about care provided to admitted patients in Australian hospitals. The scope of the NHMD is episodes of care for admitted patients in all public and private acute and psychiatric hospitals, free-standing day hospital facilities and alcohol and drug treatment centres in Australia. Hospitals operated by the Australian Defence Force, corrections authorities and in Australia's off-shore territories are not in scope, but some are included.

The hospital separations data do not include episodes of non-admitted patient care provided in outpatient clinics or emergency departments. Patients in these settings may be admitted subsequently, with the care provided to them as admitted patients being included in the NHMD.

The NHMD is the source of information for three performance indicators for the National Healthcare Agreement and other national performance reporting.

Although the NHMD is a valuable source of information on admitted patient care, the data have limitations. For example, variations in admission practices and policies lead to variation among providers in the number of admissions for some conditions and procedures (such as chemotherapy and endoscopies).

Accuracy:

States and territories are primarily responsible for the quality of the data they provide. However, the AIHW undertakes extensive validations on receipt of data. Data are checked for valid values, logical consistency and historical consistency. Where possible, data in individual data sets are checked with data from other data sets. Potential errors are queried with jurisdictions, and corrections and resubmissions may be made in response to these queries. The AIHW does not adjust data to account for possible data errors or missing or incorrect values, except as stated.

Although there are national standards for data on admitted patient care, statistics may be affected by variations in admission and reporting practices across states and territories.

There is apparent variation between states and territories in the use of statistical discharges and associated assignment of care types. For example, for public hospitals, the proportion of separations ending with a statistical discharge variedfrom 1.0% to 2.2% across states and territories.

For 2013–14, principal diagnosis information was not provided for approximately 700 public hospital separations and 600 private hospital separations.

There was variation between states and territories in the reporting of separations for Newborns. For 2013–14:

- For Victoria, private hospitals did not report all Newborn episodes without qualified days. Therefore, the count of newborns is underestimated.

While the Indigenous status data in the NHMD for all states and territories are considered of sufficient quality for statistical reporting for 2013–14, separations for Aboriginal and Torres Strait Islander people are under-enumerated. In 2011–12, about 88% of Indigenous Australians were identified correctly in hospital admissions data, and the 'true' number of separations for Indigenous Australians was about 9% higher than reported (AIHW 2013). Caution should be used in the interpretation of Indigenous status data because of the under-enumeration overall and differences in under-enumeration among the jurisdictions. The quality of the data for private hospitals is not known, but likely to be poor.

Not all states provided information on the area of usual residence of the patient in the form of a Statistical Area Level 2 (SA2) code for all presentations. Where necessary, the AIHW mapped the supplied area of residence data for each separation to an SA2 and to a remoteness area category based on Australian Bureau of Statistics (ABS) Australian Statistical Geography Standard (ASGS) correspondences and Remoteness Structures for 2011. This mapping was done on a probabilistic basis. Because of the probabilistic nature of the mapping, the SA2 and remoteness areas data for individual records may not be accurate and reliable; however, the overall distribution of records by geographical area is considered useful.

Socioeconomic status is based on the reported area of usual residence of the patient. The SEIFA categories for socioeconomic status are assigned at the national level, not at the individual state/territory level.

Coherence: The NHMD includes data for each reference year from 1993–94 to 2013–14.

The data reported for 2013–14 are broadly consistent with data reported for the NHMD for previous years.

Time series presentations may be affected by changes in admission practices, particularly for same-day activity such as dialysis, chemotherapy and endoscopy.

Changes in the ICD-10-AM/ACHI classifications and the associated Australian Coding Standards may affect the comparability of the data over time. In particular:

- Reporting in ICD-10-AM 8th edition commenced from 1 July 2013. A number of changes implemented in the 8th edition of the ICD-10-AM/ACHI classifications may affect the interpretation of data when compared with data reported in earlier years.
- Changes to the Australian Coding Standard (ACS) 0401 Diabetes mellitus and intermediate hyperglycaemia between 2009–10 and 2013–14 have affected the comparability over time of data reported for diabetes.

Between 2010–11 and 2011–12, there were substantial increases in counts of Newborn episodes of care with qualified days for New South Wales due to changes in reporting practices. Therefore, the data for Newborn care in New South Wales public hospitals for 2011–12 to 2013–14 are not comparable to the data reported by New South Wales in previous years.

Between 2009–10 and 2013–14, there were changes in coverage or data supply for Victoria, Western Australia and Tasmania that may affect the interpretation of these data:

- For Victoria:
  - From 2009–10, the data for Albury Base Hospital (in New South Wales) have been reported by the Victorian Department of Health and Human Services as part of the Albury Wodonga Health Service. Therefore, the information presented for Victoria will include Albury Base Hospital.
  - From 2010–11, some same day mental health care provided in private hospitals was re-categorised as non-admitted patient activity.
  - Between 2011–12 and 2012–13, the large decrease in public hospital separations reflects a change in Victoria's emergency department admission policy.
- For Western Australia:
  - In 2009–10, Western Australia did not provide data for about 13,000 separations, 2,400 from public hospitals and 10,600 from one private hospital.
  - Between 2012–13 and 2013–14, the large decrease in public hospital separations may reflect a change in Western Australia's emergency department admission policy. The Western Australian Department of Health advised that “improved compliance to the Admission Readmission Discharge and Transfer (ARDT) policy led to a reduction in the reporting of invalid admitted activity in the 2013–14 financial year, and hence a decrease in the number of separations and patient days compared with 2012–13.”
- For Tasmania, some psychiatric care provide in public hospitals was categorised as residential care from 2010–11. In previous years, this activity was categorised as admitted patient care.

Data products

Implementation start date: 05/06/2015

Source and reference attributes

Submitting organisation: Australian Institute of Health and Welfare

Relational attributes

Related metadata references:

Supersedes National Hospital Morbidity Database 2012-13
AIHW Data Quality Statements, Superseded 03/06/2015

Has been superseded by Data quality statement: National Hospital Morbidity Database 2014–15
AIHW Data Quality Statements, Standard 31/08/2016

See also Number of lumbar spinal decompression (excluding lumbar spinal fusion) hospitalisations per 100,000 people aged 18 years and over, 2012-13 to 2014-15 and 2015-16 to 2017-18
Australian Commission on Safety and Quality in Health Care, Standard 27/04/2021

See also Number of lumbar spinal fusion (excluding lumbar spinal decompression) hospitalisations per 100,000 people, aged 18 years and over, 2012-13 to 2014-15 and 2015-16 to 2017-18
Australian Commission on Safety and Quality in Health Care, Standard 27/04/2021

See also Number of lumbar spinal fusion (with or without lumbar spinal decompression) hospitalisations per 100,000 people, aged 18 years and over, 2012-13 to 2014-15 and 2015-16 to 2017-18
Australian Commission on Safety and Quality in Health Care, Standard 27/04/2021