

Data quality statement: National Hospital Morbidity Database 2014–15

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Data quality statement: National Hospital Morbidity Database 2014–15

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 2014–15, 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).
- 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 2014–15, 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.
- Between 2010–11 and 2014–15, there were changes in coverage or data supply for New South Wales, Victoria, Queensland and Western Australian that may affect the interpretation of the data:
 - For New South Wales, increases in the number of separations reported for private hospitals are partly accounted for by improvement in the coverage of reporting.
 - For Victoria, between 2011–12 and 2012–13, a relatively large decrease in public hospital separations reflects a change in Victoria's emergency department admission policy.
 - For Queensland, between 2013–14 and 2014–15, a relatively large

increase in same-day separations in public hospitals partly reflects a change in admission practices for same-day chemotherapy in some hospitals.

- For Western Australia, between 2012–13 and 2013–14, the relatively large decrease in public hospital separations may reflect a change in Western Australia's emergency department admission policy, which resulted in fewer admissions.
- The Indigenous status data in the NHMD for all states and territories are considered of sufficient quality for statistical reporting for 2010–11 and subsequent reference years. 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 2014–15, 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 2014–15. 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 2014–15. This includes records for admitted patient separations between 1 July 2014 and 30 June 2015.

The agreed date for supply of a first version of data (based on best efforts) was 30 October 2015. Six states and territories provided a first version of 2014–15 data to the AIHW at the end of October 2015 and all had provided their first version by 10 November 2016. A second version of the data was agreed to be supplied by 16 December 2015. All states and territories had provided the second version of the data by 23 December 2015. The data were published on 16 March 2016.

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 varied from 1.0% to 2.9% across states and territories.

For 2014–15, principal diagnosis information was not provided for 2,367 public hospital separations and 8 private hospital separations.

There was variation between states and territories in the reporting of separations for Newborns. For 2014–15:

- For Victoria and the Northern Territory, 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 2014–15, 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 2014–15.

The data reported for 2014–15 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.

Revised definitions for care types were implemented from 1 July 2013 with the aim to improve comparability in care type assignment among jurisdictions. Information presented by care type may not be comparable with data presented for earlier periods.

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

Changes to the Australian Coding Standard (ACS) 0401 Diabetes mellitus and intermediate hyperglycaemia between 2009–10 and 2012–13 have affected the

comparability over time of data reported for diabetes.

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. In particular:

- Changes to the reporting of 'past history of hepatitis' affects the comparability over time in the reporting of the vaccine-preventable category of potentially preventable hospitalisations, which includes counts for additional diagnoses of *Hepatitis B*.
- The deletion of the category I84 *Haemorrhoids* and the creation of the category K64 *Haemorrhoids and perianal venous thrombosis*. As a result of this change, information presented at chapter level from 2013-14 is not directly comparable with similar information in previous years for the ICD-10-AM chapters of *Diseases of the circulatory system* and *Diseases of the digestive system*.

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 2014–15 are not comparable to the data reported by New South Wales in previous years.

Between 2009–10 and 2014–15 there were changes in coverage or data supply for New South Wales, Victoria, Western Australia and Tasmania that may affect the interpretation of these data:

- For New South Wales, increases in the number of separations reported for private hospitals in 2014–15 are partly accounted for by improvement in the coverage of reporting.
- 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. These records were removed from the NHMD.
 - 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: 01/07/2014

Source and reference attributes

Submitting organisation: Australian Institute of Health and Welfare

Relational attributes

Related metadata references:

Supersedes [Data quality statement: National Hospital Morbidity Database 2013–14](#)

[AIHW Data Quality Statements](#), Standard 03/06/2015

See also [Data quality statement: Admitted Patient Care 2015-16](#)

[AIHW Data Quality Statements](#), Standard 27/11/2019

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

See also [Number of potentially preventable hospitalisations - cellulitis per 100,000 people of all ages, 2014-15 to 2017-18](#)

[Australian Commission on Safety and Quality in Health Care](#), Standard 27/04/2021

See also [Number of potentially preventable hospitalisations - chronic obstructive pulmonary disease \(COPD\) per 100,000 people of all ages, 2014-15 to 2017-18](#)

[Australian Commission on Safety and Quality in Health Care](#), Standard 27/04/2021

See also [Number of potentially preventable hospitalisations - diabetes complications per 100,000 people of all ages, 2014-15 to 2017-18](#)

[Australian Commission on Safety and Quality in Health Care](#), Standard 27/04/2021

See also [Number of potentially preventable hospitalisations - heart failure per 100,000 people, of all ages, 2014-15 to 2017-18](#)

[Australian Commission on Safety and Quality in Health Care](#), Standard 27/04/2021

See also [Number of potentially preventable hospitalisations - kidney and urinary tract infections per 100,000 people of all ages, 2014-15 to 2017-18](#)

[Australian Commission on Safety and Quality in Health Care](#), Standard 27/04/2021

Indicators linked to this Data Quality statement:

[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

[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

[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