

# Data quality statement: National Non-Admitted Patient Emergency Department Care Database 2011–12

## Identifying and definitional attributes

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## Data quality

**Quality statement summary:** This data quality statement provides information relevant to interpretation of the National Non-admitted Patient Emergency Department Care Database (NNAPEDCD) for 2011–12.

### Summary of key issues

- The National Non-Admitted Patient Emergency Department Care Database (NNAPEDC) is a compilation of episode-level data for emergency department presentations in public hospitals.
- The scope of the NNAPEDCD is non-admitted patients registered for care in emergency departments in public hospital peer groups A and B (Principal referral and specialist women's and children's and Large hospitals). Some states and territories also provided data for public hospitals that were classified in peer groups other than A or B.
- For 2011–12, the presentations to emergency departments reported to the NNAPEDCD were estimated to account for 84% of all emergency occasions of service in public hospitals.
- Before 1 January 2012, the data collection does not include care provided to admitted patients in emergency departments. From 1 January 2012, all care provided to patients treated in emergency departments remain in scope for this collection. Care is included until the patient is recorded as having physically departed the emergency department, regardless of whether they have been admitted. Care provided to patients admitted to 'short stay units' within emergency departments is also not included in the NNAPEDCD.
- Although there are national standards for data on non-admitted patient emergency department services, there are some variations in how those services are defined and counted across states and territories and over time. For example:
  - There is variation in Type of visit by state or territory, particularly for patients who were Dead on arrival.
  - There is variation in the point at which the non-admitted patient emergency department presentation is reported as completed for those patients subsequently admitted within the emergency department and/or elsewhere in the hospital.
  - There is apparently variation in the recording of the 'time of commencement of clinical care' in emergency departments across states and territories. This may affect the comparability of waiting times and the proportion of patients who commenced care within the clinically recommended time.
  - There is variation in the way that patients who died in the emergency department were reported to the NNAPEDCD.
- The proportion of presentations by triage category varied by state or territory. This may reflect different triage categorisation, differing mixes of patients or both.

- The quality of the data reported for Indigenous status has not been formally assessed; therefore, caution should be exercised when interpreting these data.
- Changes in data set specifications in the second half of 2011–12 may affect the comparability of these data with other reporting periods and across the 2011–12 reporting period.

#### Description

The NNAPEDCD includes episode-level data on non-admitted patients treated in the emergency departments of Australian public hospitals. The data supplied for the period from 1 July to 31 December 2011 are based on the National Minimum Data Set for Non-admitted patient emergency department care (NAPEDC NMDS). Data supplied for the period from 1 January to 30 June 2012 are based on the Non-admitted patient emergency department care Data Set Specification (DSS) 1 January 2012 to 30 June 2012.

While the scope of the NNAPEDCD covers public hospitals in public hospital peer groups A and B (Principal referral and specialist women's and children's hospitals and Large hospitals) in the Australian Institute of Health and Welfare's Australian hospital statistics of the previous year, data were also provided by some states and territories for hospitals in peer groups other than A and B. Data were also provided for:

- 23 Medium hospitals, 20 Small hospitals and 9 Unpeered/Other hospitals in New South Wales
- 6 Medium hospitals in Victoria
- 4 Medium hospitals in Queensland
- 3 Small remote acute hospitals in Western Australia
- 7 Medium hospitals and 1 Small remote acute hospital in South Australia
- 1 Medium hospital in Tasmania
- 3 Small remote acute hospitals in the Northern Territory.

The NNAPEDCD includes data for each year from 2003–04 to 2011–12.

**Institutional environment:** 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 and Ageing 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 (Cwth), 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](http://www.aihw.gov.au)>

Data for the NNAPEDCD were supplied to the AIHW by state and territory health authorities under the terms of the National Health Information Agreement (see the following links):

<<http://www.aihw.gov.au/nhissc/>>

</content/index.phtml/itemId/182135>

The state and territory health authorities received these data from public 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:** Timeliness

Data for the NNAPEDCD are reported annually. The most recent reference period for this data set is 2011–12. The data set includes records for Non-admitted patient emergency department service episodes between 1 July 2011 and 30 June 2012.

States and territories provided a first version of the 2011–12 data to the AIHW during August 2012. These data were first published in September 2012. Data provision and publication were in accordance with agreed timetables.

**Accessibility:** Accessibility

The AIHW provides a variety of products that draw upon the NNAPEDCD. Published products available on the AIHW website are:

- Australian hospital statistics suite of products with associated Excel tables.

These products may be accessed on the AIHW website at:

<<http://www.aihw.gov.au/hospitals/>>

**Interpretability:**

## Interpretability

Metadata information for the NAPEDC NMDS and the NAPEDC DSS 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 at:

</content/index.phtml/itemId/181162>

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

**Relevance:**

## Relevance

The NNAPEDCD provides information on the care provided (including waiting times for care) for non-admitted patients registered for care in emergency departments in public hospitals that were classified as either peer group A (Principal referral and specialist women's and children's hospitals) or B (Large hospitals). Data were also provided by some states and territories for hospitals that were not classified as either peer group A or B hospitals.

For 2011–12, the proportion of emergency occasions of service reported to the NNAPEDCD was 100% for public hospitals in peer groups A and B and 84% for all public hospitals.

The data in the NNAPEDCD are not necessarily representative of the hospitals not included in the NNAPEDCD. Hospitals not included do not necessarily have emergency departments that are equivalent to those in hospitals in peer groups A and B.

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

Although the NNAPEDCD is a valuable source of information on non-admitted patient emergency department care, the data have limitations. For example, sick or injured people who do not present to emergency departments are not included. Persons who present to an emergency department more than once in a reference year are counted on each occasion.

The care provided to patients in emergency departments is, in most instances, recognised as being provided to 'non-admitted' patients. Patients being treated in emergency departments may subsequently become 'admitted'. The care provided to non-admitted patients who are treated in the emergency department prior to being admitted is included in this database.

Before 1 January 2012, care provided to patients who were being treated in an emergency department site as an admitted patient (e.g. in an observation unit, short-stay unit, 'emergency department ward' or awaiting a bed in an admitted patient ward of the hospital) was not included in this database.

From 1 January 2012, the care provided to all patients treated in emergency departments remain in scope for this collection until they are recorded as having physically departed the emergency department, regardless of whether they have been admitted. For this reason, from 1 January 2012, there is an overlap in scope of the NNAPEDCD and the National Hospital Morbidity Database (NHMD). Care provided to patients admitted to 'short stay units' within Emergency Departments is also not included in the NNAPEDCD.

Non-admitted patients who are treated in outpatient clinics are not included in the NNAPEDCD.

## Reference period

The reference period for this data set is 2011–12. The data set includes records for Non-admitted patient emergency department service episodes between 1 July 2011 and 30 June 2012.

**Accuracy:**

## 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 edit queries.

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

There was variation in the reporting of Type of visit by state or territory. Not all states and territories reported presentations for all type of visit categories. The variation includes variation in reporting on patients who were Dead on Arrival at the emergency department. For South Australia, patients who are Dead on arrival are not managed or reported by emergency departments. For Western Australia, patients who are Dead on arrival are only occasionally managed and reported by emergency departments.

The proportion of presentations by triage category varied by state and territory. This may reflect different triage categorisation, differing mixes of patients or both.

There is apparent variation in the recording of the 'time of commencement of clinical care' in emergency departments across states and territories. This may affect the comparability of waiting times and the proportion of patients who commenced care within the clinically recommended time.

There is variation in the way that patients who died in the emergency department were reported to the NNAPEDCD. In New South Wales, presentations where the patient died in the emergency department were categorised as Admitted to this hospital, whereas other jurisdictions reported these to the NNAPEDCD as Died in the emergency department as a non-admitted patient. In addition, Western Australia and South Australia did not use the episode end status Dead on arrival (see also discussion above on variation in reporting of Type of visit).

The quality of the data reported for Indigenous status in emergency departments has not been formally assessed; therefore, caution should be exercised when interpreting these data.

As the scope of the database is limited to public hospitals in peer groups A and B, most of the data relates to hospitals within major cities. Consequently, the NNAPEDCD may not include areas where the proportion of Indigenous people (compared with other Australians) may be higher than average. Similarly, disaggregations by socioeconomic status and remoteness should be interpreted with caution.

While the NNAPEDCD NMDS specifies that states and territories should provide Statistical Local Area (SLA) of usual residence of patient, not all states provided this information in the form of an SLA code for all presentations. In addition, not all states and territories provided the version of SLA specified in the NMDS.

Where necessary, the AIHW mapped the supplied area of residence data for each presentation to the same SLA version and to remoteness area categories based on the Australian Bureau of Statistics (ABS) Australian Standard Geographical Classification (ASGC) Remoteness Structure for 2006. This mapping was done on a probabilistic basis. Because of the probabilistic nature of the mapping, the SLA and remoteness areas data for individual records may not be accurate; 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 Socio-Economic Indexes for Areas (SEIFA) categories for socioeconomic status are assigned at the national level, not at the individual state/territory level.

For 2011–12, approximately 48,000 records did not have a valid waiting time recorded.

The AIHW does not adjust data to account for possible data errors or missing or incorrect values, except as stated.

**Coherence:****Coherence**

The data reported for 2011–12 are consistent with data reported for the NNAPEDCD for previous years for individual hospitals.

In addition, the data reported to the NNAPEDCD for 2011–12 and for previous years has been consistent with the numbers of emergency occasions of services reported to the National Hospital Establishments Database (NPHEd) for each hospital for the same reference year.

Time series presentations may be affected by changes in the number of hospitals reported to the collection and changes in coverage.

The number of hospitals in peer groups A and B included in the NNAPEDCD increased from 112 in 2003–04 to 125 in 2011–12. Over the same period, there was a notable increase in the number of hospitals that were not classified in peer groups A and B included in the NNAPEDCD (from 21 to 78).

Between 2003–04 and 2011–12, the estimated proportion of emergency occasions of service reported to the NNAPEDCD increased from 98% to 100% for hospitals in peer groups A and B, and from 73% to 84% for all public hospitals.

For the period 2008–09 to 2011–12, the Australian Capital Territory (ACT) corrected information that is used to calculate the waiting time to commencement of clinical care and length of stay in the emergency department for 12,000 records that were identified as previously changed contrary to established audit and validation policies. The ACT Health Directorate undertook a manual process to over-write the times recorded in the ACT system with the original times retained in the hospital's emergency department information system. A validation process was undertaken to determine that all records had been amended to reflect the originally recorded times. The AIHW has updated published data previously reported for 2008–09 to 2011–12 to reflect the supply of the corrected records to the NNAPEDCD.

In December 2011, the National Health Information Standards and Statistics Committee (NHISSC) agreed to implement changes to the collection of data provided to the NNAPEDCD and for the National Partnership Agreement (NPA) purposes from 1 January 2012 in the form of a data set specification (DSS). These changes were made to enable consistent reporting of the NPA on Improving Public Hospital Services— National Emergency Access Target (NEAT). The goal of the NEAT is to increase the proportion of emergency department patients who physically leave the emergency department in four hours or less.

Due to these changes, data collected from 1 January to 30 June 2012 may not be directly comparable to data collected between 1 July and 31 December 2011 and earlier years.

## Data products

**Implementation start date:** 05/07/2013

## Source and reference attributes

**Submitting organisation:** AIHW