Data quality statement: National Non-admitted Patient Emergency Department Care Database 2014–15

Identifying and definitional attributes

Metadata item type: Quality Statement

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Registration status:

- AIHW Data Quality Statements, Superseded 30/11/2016

Data quality

Quality statement summary:

Summary of key data quality issues

- The National Non-admitted Patient Emergency Department Care Database (NNAPEDCD) is a compilation of episode-level data for emergency department presentations in public hospitals.
- The NAPEDCD is based on the Non-admitted patient emergency department care National Minimum Data Set (NAPEDC NMDS).
- Changes in the scope of the NAPEDC NMDS between 2012–13 and 2013–14 affect the comparability of data for 2013–14 and subsequent years with data for other reference years.
- Excluded from the scope of the NMDS is care provided to patients in general practitioner co-located units.
- For 2014-15, a preliminary estimate of the proportion of emergency occasions of service reported to the NNAPEDCD was 88% for all public hospitals, based on the numbers of occasions of service reported to the National Public Hospital Establishments Database (NPHED) for 2013–14. For Victoria, the estimate is based on the numbers of occasions of service reported to the NPHED for 2012–13.
- For 2014–15, waiting times information could not be calculated for one *Public acute group B hospital* in South Australia, which reported about 40,000 emergency department presentations.
- Changes in data set specifications in the second half of 2011–12 may affect the comparability of these data with data for other reporting periods.
- 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. The quality of the data reported for Indigenous status has not been formally assessed; therefore, caution should be exercised when interpreting these data.

Description

The NNAPEDCD includes episode-level data on patients presenting to emergency departments in Australian public hospitals. The data supplied are based on the NAPEDC NMDS and include demographic information, administrative information, information on triage category as well as information on waiting times for treatment and length of time to the completion of the presentation. Since 2013–14, the NNAPEDCD has included information on patient diagnoses.

The NNAPEDCD includes data for each reference year from 2003–04 to 2014–15.

Institutional environment: The AIHW is a major national agency set up by the Australian Government under the Australian Institute of Health and Welfare Act 1987 (Cwlth) 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 AIHW 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 data sets based on data from each jurisdiction, to analyse these data sets and disseminate information and statistics.

The Australian Institute of Health and Welfare Act, in conjunction with compliance to the Privacy Act 1988 (Cwlth), 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 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: Data for the NNAPEDCD are reported annually. The most recent reference period for this data set includes records for non-admitted patient emergency department service episodes between 1 July 2014 and 30 June 2015.

States and territories provided a first version of the 2014–15 data to the AIHW during July 2015. This report was published in November 2015.

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

- the *Australian hospital statistics* series of products with associated Excel tables.

These products may be accessed on the AIHW website at:

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

Interpretability:

Metadata information for the Non-admitted patient emergency department care (NAPEDC) NMDS and the NAPEDC data set specification are published in the AIHW's Metadata Online Registry (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=10737422826.

Relevance:

Scope and coverage

Scope of the NAPEDC NMDS

The scope of the NAPEDC NMDS changed between 2012–13 and 2013–14.

Between 2003–04 and 2012–13, the scope of the NAPEDC NMDS was:

- non-admitted patients registered for care in emergency departments in selected public hospitals that are classified as either Peer Group A or B in the Australian Institute of Health and Welfare's Australian hospital statistics publication from the preceding financial year.

For 2013–14 and 2014–15, the scope of the NAPEDC NMDS was:

Patients registered for care in emergency departments in public hospitals where the emergency department meets the following criteria:

- purposely designed and equipped area with designated assessment, treatment and resuscitation areas
- ability to provide resuscitation, stabilisation and initial management of all emergencies
- availability of medical staff in the hospital 24 hours a day
- designated emergency department nursing staff 24 hours a day, 7 days a week, and a designated emergency department nursing unit manager.

Patients who were dead on arrival are in scope if an emergency department clinician certified the death of the patient. Patients who left the emergency department after being triaged and then advised of alternative treatment options are in scope.

The scope includes only physical presentations to emergency departments. Advice provided by telephone or videoconferencing is not in scope, although it is recognised that advice received by telehealth may form part of the care provided to patients physically receiving care in the emergency department.

Excluded from the scope of the NAPEDC NMDS is:

- care provided to patients in General Practitioner co-located units.

Coverage of the NNAPEDCD

Data coverage is estimated by comparing the number of emergency department presentations in the NNAPEDCD to the number of non-admitted patient emergency occasions of service reported to the NPHED, which includes data for all public hospitals, regardless of whether they have an emergency department. The coverage estimate is only indicative, as not all emergency occasions of service are provided through formal emergency departments. Between 2010–11 and 2013–14, the estimated proportion of emergency occasions of service reported to the NNAPEDCD increased from 82% to 88%.

For 2014–15, it is estimated that about 88% of emergency occasions of service were reported to the NNAPEDCD (based on emergency occasions of service reported to the NPHED for 2013–14). For Victoria, the estimate is based on the numbers of occasions of service reported to the NPHED for 2012–13. A final coverage estimate will not be available as the total numbers of emergency occasions of service will not be reported to the NPHED for 2014–15.

Coverage of the NNAPEDCD varied by remoteness area of the hospital. In 2014–

15 coverage ranged from 100% of emergency occasions of service reported in *Major cities* to 18% in *Very remote* areas.

Overlap between the NNAPEDCD and the National Hospital Morbidity Database (NHMD)

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 (including admission to a short stay unit, admission to elsewhere in the emergency department, admission to another hospital ward, or admission to hospital-in-the-home). All patients 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 there is an overlap in the scope of this NNAPEDCD and the admitted patient care data held in the NHMD.

Limitations of the NNAPEDCD

Although the NNAPEDCD is a valuable source of information on 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. Non-admitted patients who are treated in outpatient clinics are not included in the NNAPEDCD.

Because the scope of the NAPEDC NMDS is limited to emergency departments that meet the nationally agreed criteria above, most of the data provided to the 2014–15 NNAPEDCD 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.

Performance indicator reporting using the NNAPEDCD

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

Accuracy:

Data validation

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.

Quality of Indigenous identification

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.

Variation in reporting practices

Type of visit

The reporting of *Type of visit* by state or territory varied. Not all states and territories reported presentations for all types of visit category.

Episode end status

The reporting of *Episode end status* by state or territory varied. South Australia did not use the *Episode end status* value—*Dead on arrival*.

Before 2012-13, New South Wales did not report against the episode end status *Died in emergency department* (see 'Coherence').

Waiting time

For 2014–15, a waiting time could not be calculated for about 97,000 records due to missing or incorrect values (for example, for time of presentation or commencement of clinical care). Waiting times information could not be calculated for one *Public acute group B hospital* in South Australia, which reported about 40,000 emergency department presentations.

Emergency department treatment time

Treatment time could not be calculated for about 370,000 records due to missing or incorrect values (for example, for time of episode end or commencement of clinical care).

Emergency department length of stay

The length of emergency department stay could not be calculated for about 4,300 records due to missing or incorrect values (for example, for time of presentation or physical departure).

Diagnosis information

For 2014–15, 94% of records reported to the NNAPEDCD included diagnosis information. Diagnoses were reported using a variety of classifications. The quality of the information provided for emergency department principal diagnosis data has not yet been fully assessed. Therefore, these data should be interpreted with caution.

Geography

Area of usual residence

The NAPEDC NMDS for the 2014–15 period specified that states and territories should provide the Statistical Area Level 2 (SA2) of usual residence of patient. The SA2 is a geographical unit under the Australian Statistical Geography Standard (ASGS). The ASGS was introduced in 2011 by the Australian Bureau of Statistics (ABS).

Not all states provided information on the area of usual residence of the patient in the form of an SA2 code for all presentations. Where necessary, the AIHW mapped the supplied area of residence data for each separation to an SA2 and then to a remoteness area category based on Australian Bureau of Statistics (ABS) Australian Statistical Geography Standard (ASGS) correspondences and Remoteness Structures for 2011. These mappings were done on a probabilistic basis. Because of the probabilistic nature of the mappings, the SA2 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 (SES) of area of residence

SES is based on the SA2 of usual residence of the patient, mapped to Socio-Economic Indexes for Areas (SEIFA) 2011. For the purpose of this report, the SEIFA categories (quintiles) were assigned on the basis of ranking within the nation, not within the individual state/territory.

Coherence:

Changes in scope between 2012–13 and 2013–14 NAPEDC NMDS affect the comparability of data for 2013–14 and subsequent years with data for other reporting periods (see 'Relevance').

Before 1 January 2012, the data collection did not include care provided to admitted patients in emergency departments. From 1 January 2012, all care provided to patients treated in emergency departments is 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.

Changes in coverage may affect the comparability of data for 2013–14 and subsequent years with data for other reporting periods (see 'Relevance').

For 2012–13 and subsequent years, remoteness area of usual residence was based on the ASGS. Before 2012–13, remoteness area of usual residence was based on the ABS's ASGC Remoteness Structures for 2006. Therefore, comparisons of remoteness area of usual residence over time should be interpreted with caution.

For 2012–13 and subsequent years, SES of area of usual residence was based on the SEIFA 2011. For the reference years prior to 2012–13, SES of area of usual residence was based on the SEIFA 2006. Therefore, comparisons of SES of area of usual residence over time should be interpreted with caution.

Before 2012–13, New South Wales did not report against the episode end status Died in emergency department as a non-admitted patient. Therefore, caution should be used when making comparisons over time.

In 2012, the Australian Capital Territory (ACT) corrected information used to calculate the waiting time to commencement of clinical care and length of stay in the emergency department for 12,000 records for the period 2008–09 to 2011–12, that had been identified as 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 information 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. Due to this correction, emergency department waiting times data for the ACT presented in *Australian hospital statistics* publications from October 2012 differ to those published before October 2012.

Source and reference attributes

Submitting organisation: AIHW

Relational attributes

Related metadata references:

Supersedes National Non-admitted Patient Emergency Department Care Database, 2013-14; Data Quality Statement

- AIHW Data Quality Statements, Superseded 30/11/2016

Has been superseded by Data quality statement: National Non-admitted Patient Emergency Department Care Database 2014–15

- AIHW Data Quality Statements, Superseded 16/12/2016