National Non-admitted Patient Emergency Department Care Database 2015–16; Quality Statement

Identifying and definitional attributes

Metadata item type: Quality Statement

METEOR identifier: 659714

Registration status:

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

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.
- Australian Capital Territory emergency department care data for the 2015–16 reference year were not available at time of publication of the Emergency department care 2015–16: Australian hospital statistics report.
- For 2015–16, states and territories were able to provide data for the NNAPEDCD using either the Non-admitted patient emergency department care National Minimum Data Set (NAPEDC NMDS) or the NAPEDC Data Set Specification (DSS). Queensland provided data to the NNAPEDCD using the DSS while all other states and territories provided data using the NMDS specification. Therefore, the data for Queensland may not be entirely comparable with data provided for other states and territories.
- For 2015–16, waiting times for care information could not be calculated for about 93,000 emergency department presentations (for which waiting times are applicable), including about 43,000 presentations for 1 Public acute group B hospital in Western Australia.
- For 2015–16, the length of emergency department stay could not be calculated for about 6,600 emergency department presentations, mostly in New South Wales.
- The scope of the NAPEDC NMDS changed between 2012–13 and 2013–14.
- 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.
- A principal diagnosis was not reported for about 352,000 records.

Description

The NNAPEDCD is a compilation of episode-level data that provides information on the care provided (including waiting times for care) for 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 per day 7 days per week, and a designated emergency department nursing unit manager.

For the 2015–16 reference year, states and territories were able to provide data for the NNAPEDCD using either the NAPEDC NMDS specification or the NAPEDC DSS (see also 'Relevance', 'Coherence' and ''Interpretability').

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/

http://www.aihw.gov.au/publication-detail/?id=60129550408.

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 2015 and 30 June 2016.

States and territories provided a first version of the 2015–16 data to the AIHW during July and August 2016. Australian Capital Territory emergency department care data for the 2015–16 reference year were not available at time of publication of the *Emergency department care 2015–16: Australian hospital statistics* report. This report was published on 17 November 2016.

Accessibility:

The AIHW provides a variety of products that draw upon the NNAPEDCD. Published products (including the *Australian hospital statistics* series of products with associated Excel tables) are available on the AIHW website.

These products may be accessed on the AIHW website at:

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

Interpretability:

Metadata information for the NAPEDC NMDS and DSS 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=60129550408.

Relevance:

Scope and coverage

Scope

From 2013–14, the scope of the NAPEDC NMDS (and the DSS for 2015–16) has been 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. Also excluded from the NMDS is care provided to patients in general practitioner co-located units.

The following episodes are included in the NMDS, but are excluded for the DSS:

- where only a clerical service is provided to people supporting a pre-arranged admission
- where people are awaiting transit to another facility and receive no clinical care.

These differences in scope are reflected in the domain values for the data elements *Type of visit* and *Episode end status*.

For 2012–13 and earlier years, the scope of the NAPEDC NMDS was non-admitted patients registered for care in emergency departments in public hospitals that were classified using the AIHW's previous peer group classification as either Peer Group A or B, in the *Australian hospital statistics* publication from the preceding financial year.

Coverage of the NNAPEDCD

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 National Public Hospital Establishments Database (NPHED) for 2013–14). For Victoria, the estimate was based on the numbers of occasions of service reported to the NPHED for 2012–13. A more accurate coverage estimate for 2015–16 is not available as the total numbers of emergency occasions of service was not reported to the NPHED for 2014–15.

Coverage of the NNAPEDCD varies by remoteness area of the hospital. In 2014–15, coverage ranged from 100% of emergency occasions of service reported for hospitals in *Major cities* to 18% for hospitals 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 the 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.

Because the scope of the collection is limited to emergency departments that meet the nationally agreed criteria above, most of the data provided to the NNAPEDCD relates to emergency department care provided to people living in *Major cities*. Consequently, the collection may not include data for emergency services provided in 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 two 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 timeto commencement of clinical care

For 2015–16, a waiting time to commencement of clinical care could not be calculated for about 93,000 records (for which waiting times are applicable) 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 1 *Public acute group B hospital* in Western Australia, which reported about

43,000 emergency department presentations.

Duration of clinical care

Duration of clinical care could not be calculated for about 117,000 records due to missing or incorrect values (for example, for time of episode end or commencement of clinical care or time of episode end).

Length of emergency department stay

The length of emergency department stay could not be calculated for about 6,600 records (mostly in New South Wales) due to missing or incorrect values (for example, for time of presentation or physical departure).

Diagnosis information

For 2015–16, 95% of records reported to the NNAPEDCD included diagnosis information (approximately 352,000 records did not have a principal diagnosis reported). Diagnoses were reported using a variety of classifications. The majority of records (67%) were reported using one edition or another of the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification* (ICD-10-AM).

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 and DSS for 2015–16 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 presentation to an SA2 and then to a remoteness area category based on ABS 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. Where data are reported by SEIFA categories (e.g. SES quintiles) categories were assigned on the basis of ranking within the nation, not within the individual state/territory.

Coherence:

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

For 2015–16, Queensland provided data to the NNAPEDC using the DSS while other states and territories provided data using the NMDS specification. Therefore, the data for Queensland may not be entirely comparable with data provided for other states and territories.

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.

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 for this measure.

Source and reference attributes

Submitting organisation: AIHW

Relational attributes

Related metadata references:

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

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