Non-admitted patient care data collections: Data Quality Statements

This appendix includes data quality summaries and additional detailed information relevant to interpretation of non-admitted patient care data collections.

Complete data quality statements for the National Non-admitted Patient Care (aggregate) Database (NNAPC(agg)D) and the National Non-admitted Patient (episode-level) Database (NNAP(el)D) are available online at meteor.aihw.gov.au.

Overview

The aim of the Non-admitted Patient Care data collections is to report episode-level data on non-admitted activity in Australia's public hospital system. Data suppliers report non-admitted patient activity in either aggregate or episode-level format.

The episode level data is collected under the Non-admitted patient National Best Endeavours Data Set (NAP NBEDS) while the aggregate level data is collected under the Non-admitted patient care aggregate National Best Endeavours Data Set (NAPC aggregate NBEDS).

The NAP NBEDS and NAPC aggregate NBEDS work together to collect data on non-admitted activity in the public hospital system. The two collections are designed to be complementary, with the NAPC aggregate NBEDS providing the remainder of non-admitted activity that is unable to be provided at the episode-level.

Each year the collection increasingly reports on episode-level data, however not all data suppliers are able to report data in this format. In 2021–22, 80% of non-admitted patient service events were recorded at the episode-level.

National Non-admitted Patient Care (aggregate) Database

In 2021–22, the NNAPC(agg)D is based on data provided for the Non-admitted patient care aggregate National Best Endeavours Data Set (NAPC aggregate NBEDS) (METeOR identifier 727333).

It holds aggregated clinic-level data on:

- the type of outpatient clinic
- counts of individual and group service events
- the funding source for the service events
- whether the service involved care from multiple health care providers.

The scope is non-admitted patient service events involving non-admitted patients provided by:

- public hospitals
- Local Hospital Networks
- other public hospitals services that are managed by a state or territory health authority and are included in the General List of in-scope public hospital services which have been developed under the National Health Reform Agreement (2011).

This also includes all in-scope services contracted by a public hospital, Local Hospital Network, or jurisdiction regardless of the physical location of the contracting public hospital, Local Hospital Network or jurisdiction, or the location where the services are delivered.

The reference period for this data set is 2021–22. The data set includes records for non-admitted patient service events provided between 1 July 2021 and 30 June 2022.

Summary of key issues

- In 2019–20:
  - there was a change in scope for the NAPC aggregate NBEDS to include all NAP activity not captured in the NAP NBEDS
  - the NNAPC(agg)D was formed using data from the NAPC aggregate NBEDS and NAP NBEDS. See Table A1 for the total number of service events in the NNAPC(agg)D
- there is variation in admission practices between states and territories and the types of services provided for non-admitted patients in a hospital setting (AIHW 2017).

Changes in scope between 2014–15 and 2021–22

In 2021–22, the NAPC aggregate NBEDS included non-admitted patient activity not captured in the NAP NBEDS collection.

Between 2013–14 and 2014–15, the scope of the Non-admitted patient care hospital aggregate National Minimum Data Set (NAPC NMDS) changed—from a focus on activity-based funded hospitals to all public hospitals. This change in scope resulted in increases in the number of hospitals and other services reporting for the NNAPC(agg)D between 2013–14 and 2014–15.

From 2014–15 onward, information was also provided for non-admitted patient service events at the LHN-level, at state/territory health authority-level, for other public hospital services and by some private hospitals providing public patient non-admitted patient services under contract. Table A1 illustrates changes to the data provided for the NNAPC(agg)D between 2014–15 and 2021–22.

Due to the changing scope of the non-admitted patient care data, 2021–22 data are not comparable with previous reporting years.

Table A1: Total number[(a)] of hospitals and other services reporting service events, 2015–16 to 2021–22

	2015–16[(b)]	2016–17	2017–18	2018–19	2019–20	2020–21	2021–22
Total non-admitted patient service events	33,439,723	36,672,013	38,937,235	39,014,521	38,162,773	46,846,617	55,351,636
Public hospitals reporting	604	602	601	602	595	602	598
Other services reporting[(c)]	19	31	29	28	35	41	32

(a) Prior to 2019–20, the total service events was the service events reported to the NNAPC(agg)D. Due to changes in reporting from 2019–20 onwards, the total episodes are episodes reported to the NNAPC(el)D and NNAPC(agg)D

(b) The Australian Capital Territory did not provide data for 2015–16.

(c) This is the count of reporting units at LHN-level, state/territory health authority level, other public hospital services and private hospitals providing non-admitted services for public patients.

Source: NNAPC(agg)D (prior to 2019–20), NNAP(el)D and NNAPC(agg)D (2019–20 onward)

National Non-admitted Patient (episode-level) Database

The NNAP(el)D is based on the Non-admitted patient National Best Endeavours Data Set (NAP NBEDS, METeOR identifier 727331).

The reference period for this data set is 2021–22. The data set includes records for non-admitted patient service events provided between 1 July 2021 and 30 June 2022.

For 2021–22, the scope of the NAP NBEDS is non-admitted patient service events provided by:

- public hospitals
- Local Hospital Networks (LHNs)
- other public hospital services that are managed by a state or territory health authority and are included in the *General list of in-scope public hospital services*, developed under the *National Health Reform Agreement* (2011).

It holds episode-level data including:

- selected patient characteristics
- the type of outpatient clinic
- whether the episode was an individual or a group service event
- the source of the request for service
- the service delivery setting
- the service delivery mode
- the type of care provided
- whether the service involved care from multiple health-care providers
- the funding source for the service event.

For the NNAP(el)D, a record is included for each service event, not for each patient, so patients who receive more than one non-admitted patient service event in the year have more than one record in the NNAP(el)D.

Summary of key issues

For 2021–22:

- not all jurisdictions submitted data to the NAP NBEDS:
  - the proportion of total patient service events reported to the NAP NBEDS range from 59% to 100% across jurisdictions that reported at least some data to the NAP NBEDS
  - Tasmania, the Australian Capital Territory and the Northern Territory provided 100% of service events to the NAP NBEDS
- there is variation among states and territories in admission practices (AIHW 2017) and also in the types of services provided for non-admitted patients in a hospital setting that must be taken into account when interpreting the data in the NNAP(el)D
- the sex of the patient was "not stated/inadequately described" and "other" for 396,152 service events
- the patient's date of birth was not reported for 0.2% of service events (79,483) and therefore the age of the patient could not be determined
- the Indigenous status of the patient was not reported for 9% of service events (4 million). In addition, the quality of the data reported for Indigenous status in non-admitted patient settings has not been formally assessed, so caution should be used when interpreting these data
- the patient's area of usual residence was not reported for 4% of service events (2 million), and therefore, the patient's remoteness area and socioeconomic status group could not be determined
- service request source was not reported for 15.6% of service events (3.9 million).

Fluctuating coverage between 2015–16 and 2021–22

Before 2015–16, the scope of the NAP NBEDS was defined as non-admitted patient service events in activity-based funded hospitals only. Between 2014–15 and 2015–16, the scope of the NAP NBEDS changed to include public hospitals and other services that were not activity-based funded.

Table A2 illustrates the changes in coverage for the data provided for the NNAP(el)D between 2015–16 and 2021–22. Therefore, changes in the numbers of service events reported between 2015–16 and 2021–22 should be treated with caution.

Table A2: Number of public hospitals and other services reporting non-admitted patient service events (episode-level data), 2014–15 to 2021–22

	2015–16[a]	2016–17	2017–18	2018–19	2019–20[b]	2020–21	2021-22
Non-admitted patient service events	15,285,999	25,918,439	28,219,012	29,023,866	28,553,678	35,141,935	44,490,863
Public hospitals reporting	291	492	511	520	501	507	574
Other services reporting[c]	1	18	10	10	10	13	25
Proportion of service events reported at episode-level (%)	46	71	72	74	75	75	80

(a) Victoria, Queensland and the Australian Capital Territory did not report data for the NNAP(el)D in 2015–16.

(b) South Australia did not report data for the NNAP(el)D in 2019–20 and 2020–21.

(c) This is the count of reporting units at LHN-level, state/territory health authority level, other public hospital services and private hospitals providing non-admitted services for public patients.

Source: NNAP(el)D.

Differences in definitions of non-admitted patient care

A non-admitted patient service event that involves multiple health professionals (and related diagnostic services) within the same clinic is counted as one service event. If a patient attends more than one clinic on the same day, then each attendance is counted as a separate service event.

In AIHW reports for the 2012–13 financial year and earlier, non-admitted patient occasions of service were counted as the number of services provided to a patient in each functional unit of a health service establishment. Each diagnostic test or simultaneous set of related diagnostic tests for a patient were counted as a separate occasion of service.

Therefore, the data presented for non-admitted patient service events in this report are not comparable with data reported for non-admitted patient occasions of service in reports for the 2012–13 reference year and earlier periods.

Differences in clinic classes

Tier 2 clinic classes change over time. For example, clinic 40.01 *Aboriginal and Torres Strait Islander people's health clinic* (which was in-scope for 2013–14 and 2014–15) was out-of-scope for 2015–16 onwards.

In 2019–20, four new Tier 2 clinic classes were added to capture activity associated with providing patients with a COVID-19 vaccination, and diagnosis or treatment of patients with COVID-19 in the outpatient hospital setting.

The new Tier 2 clinic classes were:

- *10.21 COVID-19 vaccination*—for vaccinations provided to admitted and non-admitted patients
- *20.57 COVID-19 response*—clinics where a medical officer or nurse practitioner provide the majority of COVID-19 related services
- *40.63 COVID-19 response*—clinics where an allied health professional or clinical nurse specialist provide the majority of COVID-19 related services
- *30.09 COVID-19 response diagnostics*—diagnostic testing as a result of the Australian Health Sector Emergency Response Plan for Coronavirus Disease 2019 (COVID-19).

More information can be found on the Independent Health and Aged Care Pricing Authority website - Rules for Coding and Reporting COVID-19 Episodes of Care | Resources | IHACPA.

Differences in counting rules for non-admitted patient care

In 2013–14 and 2014–15, for the NAPC NMDS, the NAPCLHN NBEDS and the NAP DSS/NBEDS, each session of renal dialysis, total parenteral and enteral nutrition, and ventilation performed by the patient in their own home was counted as a non-admitted patient service event.

After 2015–16, the counting rules for some home-delivered non-admitted patient services changed to 'temporal care bundling'. Temporal care bundling means that all non-admitted patient sessions performed per month are 'bundled' and counted as one non-admitted patient service event per patient per calendar month regardless of the number of sessions (IHPA 2016).

This resulted in a marked decrease in reporting of non-admitted patient services events in total, and for *Procedural clinics*, and for the following Tier 2 clinics:

- 10.15 *Renal dialysis–haemodialysis–home delivered*
- 10.16 *Renal dialysis–peritoneal dialysis–home delivered*
- 10.17 *Total parenteral nutrition–home delivered*
- 10.18 *Enteral nutrition–home delivered*
- 10.19 *Ventilation–home delivered.*

Information no longer collected

Between 1993–94 and 2013–14, the AIHW reported aggregated non-admitted patient occasions of service data from the National Outpatient Care Database and the National Public Hospital Establishments Database (NPHED).

Historically, the NPHED covered a wider range of non-admitted patient care than is collected for the NNAPC(agg)D and NNAP(el)D. Since 2014–15, information is no longer available for:

- *Emergency* occasions of service provided by hospitals that do not have a designated emergency department.
- Information on emergency presentations provided by hospitals that have a designated emergency department are reported on the AIHW website.
- *Pharmacy* occasions of service
- most *Pathology* and *Radiology and organ imaging services* occasions of service—as these are considered 'related diagnostic services' connected with other service events and are not reported separately for the NNAPC(agg)D and NNAP(el)D
- most occasions of service for *Community health services*—although some community health services are in scope for the NNAPC(agg)D and NNAP(el)D.

Technical information

This appendix covers:

- definitions and classifications used
- presentation of data in this report.

Definitions and classifications

If not otherwise indicated, data elements were defined according to the definitions available online for the:

- Non-admitted patient care hospital aggregate NBEDS 2021–22 at Non-admitted patient care aggregate NBEDS 2021–22
- Non-admitted patient NBEDS 2021–22 at Non-admitted patient NBEDS 2021–22.

Hospital peer groups

In some tables, hospitals have been presented using the AIHW's hospital peer group classification:

- *Principal referral* hospitals provide a very broad range of services and have very large patient volumes. Most include an intensive care unit, a cardiac surgery unit, a neurosurgery unit, an infectious diseases unit and a 24-hour emergency department.
- *Women's and children's* hospitals provide specialised treatment for women and/or children.
- *Public acute group A* hospitals provide a wide range of services (but narrower than the *Principal referral* group) to a large number of patients and are usually situated in metropolitan centres or inner regional areas. Most have an intensive care unit and a 24-hour emergency department and a range of specialist units.
- *Public acute group B* hospitals provide a narrower range of services than the *Principal referral* and *Public acute group A* hospitals. They have a range of specialist units, potentially including obstetrics, paediatrics, psychiatric and oncology units.
- *Other* public hospitals include a range of different types of hospitals that are generally smaller than the *Public acute group B* hospitals. This group may include small and very small hospitals providing acute care, hospitals specialising in subacute and non-acute care, psychiatric hospitals, and outpatient hospitals.

For more information about public hospital peer groups, see *Australian hospital peer groups* (AIHW 2015).

Geographical classifications

Data on geographical location are collected on the area of usual residence of patients in the NNAP(el)D. These data are specified in the NBEDS as state or territory of residence and by Statistical Area Level 2 (SA2), which is a small area unit within the Australian Bureau of Statistics (ABS) Australian Statistical Geography Standard (ASGS).

Remoteness areas

The patient's area of usual residence can be used to derive its remoteness category.

Remoteness categories divide Australia into areas depending on distances from population centres, using the Australian Bureau of Statistics (ABS) Australian Statistical Geography Standard (ASGS) Remoteness Structure 2016 (ABS 2016).

The ABS's ASGS Remoteness Structure 2016 categorises geographical areas in Australia into remoteness areas, described in detail on the ABS website <www.abs.gov.au>.

The classification is as follows:

- *Major cities*—for example, Sydney, Melbourne, Brisbane, Adelaide, Perth, Canberra and Newcastle
- *Inner regional*—for example, Hobart, Launceston, Wagga Wagga, Bendigo and Murray Bridge
- *Outer regional*—for example, Darwin, Moree, Mildura, Cairns, Charters Towers, Whyalla and Albany
- *Remote*—for example, Port Lincoln, Esperance, Queenstown and Alice Springs
- *Very remote*—for example, Mount Isa, Cobar, Coober Pedy, Port Hedland and Tennant Creek.

Reporting data on area of usual residence of the patient

Area of usual residence was provided as SA1 or SA2 for the NNAP(el)D.

The AIHW mapped the provided SA2 codes to remoteness area categories based on the ABS's ASGS Remoteness Structure 2016. These mappings were undertaken on a probabilistic basis as necessary, using ABS correspondence information describing the distribution of the population by remoteness areas and SA2s. Because of the probabilistic nature of this mapping, the SA2 and remoteness area data for individual records may not be accurate; however, the overall distribution of records by geographical areas is considered useful.

Socioeconomic status

Data on socioeconomic status groups are defined using the ABS's Socio-Economic Indexes for Areas 2016 (SEIFA 2016). The SEIFAs are described in detail on the ABS website - 2033.0.55.001 - Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2016 (abs.gov.au)

Counts of non-admitted patient service events by socioeconomic status were generated by the AIHW using the IRD scores for the SA2 of usual residence of the patient reported for each service event. The '1—Lowest' group represents the areas containing the 20% of the national population with the most disadvantage, and the '5—Highest' group represents the areas containing the 20% of the national population with the least disadvantage. These SES groups do not necessarily represent 20% of the population in each jurisdiction.

Presentation of data

Data are presented by the state or territory of the hospital, not by the state or territory of usual residence of the patient. The exceptions to this occur in the presentation of data in Tables S2.3 and S2.4 (available to download from the Info & Downloads section of the MyHospitals area of the AIHW website Australian Institute of Health and Welfare which present data at a national level based on the place of usual residence of the patient. The totals in tables include data only for those states and territories for which data were available, as indicated in the tables.

Throughout the publication, percentages may not add up to 100.0 because of rounding. Percentages printed as 0.0 or 0 generally indicate a zero. The symbol '<0.1' denotes less than 0.05 but greater than 0.

Suppression of data

The AIHW operates under a strict privacy regime which has its basis in Section 29 of the *Australian Institute of Health and Welfare Act 1987* (AIHW Act). Section 29 requires that confidentiality of data relating to persons (living and deceased) and organisations be maintained. The Privacy Act governs confidentiality of information about living individuals.

The AIHW is committed to reporting that maximises the value of information released for users while being statistically reliable and meeting legislative requirements described above.

The abbreviation 'n.p.' is used in tables to denote the suppression of data. Data (cells) in tables may be suppressed to maintain the privacy or confidentiality of a person or organisation, or because a proportion or other measure is related to a small number of events and may therefore not be reliable.

Data may also be suppressed to avoid attribute disclosure. Where necessary, other cells in the table may also be suppressed to prevent calculation of the confidential information. Unless otherwise noted, the totals in these tables include the suppressed information.

References

ABS (Australian Bureau of Statistics) 2016. Australian Statistical Geography Standard (ASGS): Volume 1—Main Structure and Greater Capital City Statistical Areas. ABS cat. no. 1270.0.55.001. Canberra: ABS

AIHW 2015. Australian hospital peer groups. Cat. no. HSE 170. Canberra: AIHW.

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