National Healthcare Agreement: PI 18-Selected potentially preventable hospitalisations, 2018 QS

Identifying and definitional attributes

Metadata item type: Quality Statement

METEOR identifier: 681623

Registration status:

- Health, Standard 30/01/2018

Relational attributes

Indicators linked to this Quality statement:

National Healthcare Agreement: PI 18–Selected potentially preventable hospitalisations, 2018
Health, Superseded 19/06/2019

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

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

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

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

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

Data quality

Quality statement summary:

- The National Hospital Morbidity Database (NHMD) is a comprehensive data set that has records for all separations of admitted patients from essentially all public and private hospitals in Australia.
- Separations are reported by the jurisdiction of usual residence of the patient, not the jurisdiction of hospitalisation.
- The specification for this performance indicator was revised for the 2015 reporting period. The Australian Institute of Health and Welfare (AIHW) recalculated this indicator for the period 2007–08 to 2012–13 using the new specification. Therefore, the data are not comparable to data calculated in previous reporting periods. Data provided for this 2018 reporting period use the new specification and are comparable to data provided in the 2015, 2016 and 2017 reporting periods.
- Caution should be used in comparing data across reporting periods due to changes in the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) between the 5th edition (used in 2007–08), the 6th edition (used in 2008–09 and 2009–10), the 7th edition (used in 2010–11, 2011–12 and 2012–13), the 8th edition (used in 2013–14 and 2014–15) and the 9th edition (used in 2015–16).

    - changes to the Australian Coding Standard (ACS) for diabetes, which resulted in fluctuations in the reporting of diagnoses for diabetes (chronic category affected).

    - changes to the ACS for *Viral hepatitis* (ACS 0104), implemented in the 8th edition of ICD-10-AM affect the comparability over time in the reporting of the vaccine-preventable category of potentially preventable hospitalisations (PPHs), which includes counts for additional diagnoses of *Hepatits B*.

    - changes to the ACS for rehbilitation (ACS 2104), implemented in the 9th edition of ICD-10-AM affect the comparability over time in the reporting of PPHs for some acute and chronic conditions, as rehabilitation care separations may be included as PPHs from 2015–16, which were not previously included

    - these changes should also be taken into consideration in interpretation of these data against the National Healthcare Agreement performance benchmark for PPHs.

- In addition, interpretation of the related performance benchmark over time is problematic because the benchmark is specified as a proportion of separations rather than a population rate, and admission practices vary across jurisdictions and over time.
- The hospital separations data do not include episodes of non-admitted patient care provided in outpatient clinics or emergency departments.
- Variations in admission practices and policies lead to variation among providers in the number of admissions for some conditions.
- Remoteness data for 2011–12 and previous years are not directly comparable to remoteness data for 2012–13 and subsequent years.
- Socio-Economic Indexes for Areas (SEIFA) data for 2010–11 and previous years are not directly comparable with SEIFA data for 2011–12, and SEIFA data for 2011–12 and previous years are not directly comparable with SEIFA data for 2012–13 and subsequent years.

Institutional environment: The Australian Institute of Health and Welfare (AIHW) has calculated this indicator.

The 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 corporate Commonwealth entity 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 (see the following links):

/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 2015–16.

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

- *Australian hospital statistics* with associated Excel tables
- interactive data cubes for Admitted patient care (for Principal diagnoses, Procedures and Diagnosis Related Groups).

These products may be accessed on the AIHW website at:
http://www.aihw.gov.au/hospitals/

Interpretability:

Supporting information on the quality and use of the NHMD are published annually in *Admitted patient care: Australian hospital statistics* (technical appendixes), available in hard copy or on the AIHW website. Readers are advised to note caveat information to ensure appropriate interpretation of the performance indicator. Supporting information includes discussion of coverage, completeness of coding, the quality of Indigenous data, and variation in service delivery that might affect interpretation of the published data. Metadata information for the NMDS for Admitted patient care is published in the AIHW's online metadata repository, METeOR, and the National health data dictionary.

The *National health data dictionary* can be accessed online at:

/content/index.phtml/itemId/268110

The data quality statement for the NHMD can be accessed on the AIHW website at:

/content/index.phtml/itemId/638202

Relevance:

The purpose of the NMDS for Admitted patient care is to collect information about care provided to admitted patients in Australian hospitals. The scope of the NMDS is episodes of care for admitted patients in essentially all hospitals in Australia, including public and private acute and psychiatric hospitals, free-standing day hospital facilities, alcohol and drug treatment hospitals and dental hospitals. Hospitals operated by the Australian Defence Force, corrections authorities and in Australia's off-shore territories are not included. Hospitals specialising in dental, ophthalmic aids and other specialised acute medical or surgical care are included.

The hospital separations data do not include episodes of non-admitted patient care provided in outpatient clinics or emergency departments.

The analyses by state and territory, remoteness and socioeconomic status are based on the Statistical Area Level 2 (SA2) of usual residence of the patient, not the location of the hospital. Hence rates represent the number separations for patients living in each state/territory, remoteness area or SEIFA population group (regardless of the jurisdiction of the hospital they were admitted to) divided by the total number of people living in that remoteness area or SEIFA group in the state/territory.

The SEIFA categories for socioeconomic status represent approximately the same proportion of the national population, but do not necessarily represent that proportion of the population in each state or territory (each SEIFA decile or quintile represents 10% and 20% respectively of the national population). The SEIFA scores for each SA2 are derived from 2011 Census data and represent the attributes of the population in that SA2 in 2011.

Other Australians includes separations for non-Indigenous people and those for whom Indigenous status was not stated.

Accuracy:

For 2015–16 almost all public hospitals provided data for the NHMD, with the exception of all separations for a mothercraft hospital in the Australian Capital Territory.

The majority of private hospitals provided data, with the exception of the private day hospital facilities in the Australian Capital Territory.

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 against data from other data sets. Potential errors are queried with jurisdictions, and corrections and resubmissions may be made in response to these edit queries. The AIHW does not adjust data to account for possible data errors or missing or incorrect values.

The AIHW report *Indigenous identification in hospital separations data: quality report*(AIHW 2013) found that nationally, about 88% of Indigenous Australians were identified correctly in hospital admissions data in the 2011–12 study period, and the 'true' number of separations for Indigenous Australians was about 9% higher than reported. The report recommended that the data for all jurisdictions are used in analysis of Indigenous hospitalisation rates, for hospitalisations in total in national analyses of Indigenous admitted patient care. However, these data should be interpreted with caution as there is variation among jurisdictions in the quality of the Indigenous status data.

Variations in admission practices and policies lead to variation among providers in the number of admissions for some conditions.

Cells have been suppressed to protect confidentiality where the presentation could identify a patient or a service provider or where rates are likely to be highly volatile, for example where the denominator is very small. The following rule was applied:

- rates were suppressed where the numerator was less than 5 and/or the denominator was less than 1,000.

Coherence:

The specification for this performance indicator was revised for the 2015 reporting period. The AIHW recalculated this indicator for the period 2007–08 to 2012–13 using the new specification. Therefore, the data are not comparable to data calculated in previous reporting periods. Data provided for this 2018 reporting period use the new specification and are comparable to data provided in the 2015, 2016 and 2017 reporting periods.

For ICD-10-AM coding details, please refer to the specification for National Healthcare Agreement Performance Indicator 18 - Selected potentially preventable hospitalisations, 2018.

However, caution should be used when comparing data across reporting periods due to changes in the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) between the 5th edition (used in 2007–08), the 6th edition (used in 2008–09 and 2009–10), the 7th edition (used in 2010–11, 2011–12 and 2012–13) and the 8th edition (used in 2013–14 and 2014–15) and the 9th edition (used in 2015–16).

- changes to the Australian Coding Standard (ACS) for diabetes, which resulted in fluctuations in the reporting of diagnoses for diabetes (chronic category affected).
- changes to the ACS for *Viral hepatitis* (ACS 0104), implemented in the 8th edition of ICD-10-AM affect the comparability over time in the reporting of the vaccine-preventable category of potentially preventable hospitalisations (PPHs), which includes counts for additional diagnoses of *Hepatitis B*.
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- these changes should also be taken into consideration in interpretation of these data against the National Healthcare Agreement performance benchmark for PPHs.

In addition, Tasmanian data are not comparable over time as 2008–09 data for Tasmania does not include 2 private hospitals that were included in 2007–08 and 2009–10 data reported in the National Healthcare Agreement performance reports.

Interpretation of the related performance benchmark over time is also problematic because the benchmark is specified as a proportion of separations rather than a population rate, and admission practices vary across jurisdictions and over time. Changes in a jurisdiction's denominator (separations) can artificially increase or decrease the results of the benchmark. Therefore the data provided in 2013–14 (and interim years) may not be directly comparable to the baseline data from which the target is based.

National-level data disaggregated by Indigenous status for 2007–08 to 2009–10 included data from New South Wales, Victoria, Queensland, Western Australia, south Australia and the Northern Territory. National-level data disaggregated by Indigenous status for 2010–11 and subsequent years includes data from all eight states and territories. Therefore, data disaggregated by Indigenous status from 2007–08, 2008–09 and 2009–10 is not comparable to data for 2010–11 and subsequent years.

Methodological variations also exist in the application of SEIFA to various data sets and performance indicators. Any comparisons of the SEIFA analysis for this indicator with other related SEIFA analysis should be undertaken with careful consideration of the methods used, in particular the SEIFA Census year, the SEIFA index used and the approach taken to derive quintiles and deciles.

In 2011, the ABS updated the standard geography used in Australia for most data collections from the Australian Standard Geographical Classification to the Australian Statistical Geography Standard. Also updated at this time were remoteness areas and SEIFA, based on the 2011 ABS Census of Population and Housing. The new remoteness areas are referred to as RA 2011, and the previous remoteness areas as RA 2006. The new SEIFA is referred to as SEIFA 2011, and the previous SEIFA as SEIFA 2006.

Data for 2007–08 through to 2011–12 reported by remoteness are reported for RA 2006. Data for 2012–13, 2013–14, 2014–15 and 2015–16 are reported for RA 2011. The AIHW considers the change from RA 2006 to RA 2011 to be a series break when applied to data supplied for this indicator, therefore remoteness data for 2011–12 and previous years are not directly comparable to remoteness data for 2012–13 and subsequent years.

Data for 2007–08 through to 2010–11 reported for SEIFA quintiles and deciles are reported using SEIFA 2006 at the Statistical Local Area (SLA) level. Data for 2011–12 are reported using SEIFA 2011 at the SLA level. Data for 2012–13 are reported using SEIFA 2011 at the SA2 level. The AIHW considers the change from SEIFA 2006 to SEIFA 2011, and the change from SLA to SA2 to be series breaks when applied to data supplied for this indicator. Therefore, SEIFA data for 2010–11 and previous years are not directly comparable with SEIFA data for 2011–12, and SEIFA data for 2011–12 and previous years are not directly comparable with SEIFA data for 2012–13 and subsequent years.

Source and reference attributes

Reference documents: AIHW (Australian Institute of Health and Welfare 2013. Indigenous identification in hospital separations data: quality report. Cat. no. IHW 90. Canberra: AIHW. Viewed 22 June 2017, http://www.aihw.gov.au/publication-detail/?id=60129543215.

Relational attributes

Related metadata references: Supersedes National Healthcare Agreement: PI 18-Selected potentially preventable hospitalisations, 2017 QS

- Health, Standard 31/01/2017