

# **National Indigenous Reform Agreement: PI 11-Child under 5 hospitalisation rates by principal diagnosis, 2012**

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# National Indigenous Reform Agreement: PI 11-Child under 5 hospitalisation rates by principal diagnosis, 2012

## Identifying and definitional attributes

<b>Metadata item type:</b>	Indicator
<b>Indicator type:</b>	Indicator
<b>Short name:</b>	PI 11-Child under 5 hospitalisation rates by principal diagnosis, 2012
<b>METEOR identifier:</b>	438622
<b>Registration status:</b>	<a href="#">Indigenous</a> , Superseded 13/06/2013
<b>Description:</b>	Hospital separation rates for children aged under five years by principal diagnosis, by Indigenous status.
<b>Rationale:</b>	Monitoring hospitalisation rates for different diseases so that it is understood which diseases are major contributors to morbidity among Indigenous children and where programs are succeeding and where they are not will assist in achieving the closing the gap targets.
<b>Indicator set:</b>	<a href="#">National Indigenous Reform Agreement (2012)</a> <a href="#">Indigenous</a> , Superseded 13/06/2013
<b>Outcome area:</b>	<a href="#">Indigenous children have the same health outcomes as other Australian children</a> <a href="#">Indigenous</a> , Standard 21/07/2010
<b>Data quality statement:</b>	<a href="#">National Indigenous Reform Agreement: PI 11-Child under 5 hospitalisation rates by principal diagnosis, 2012 QS</a> <a href="#">Indigenous</a> , Superseded 13/06/2013

## Collection and usage attributes

<b>Population group age to:</b>	Children aged under 5 years.
<b>Computation description:</b>	<p>Rates are calculated for Indigenous and Other Australians.</p> <p>Rate ratios and rate differences are calculated for Indigenous: Other Australians.</p> <p>Principal diagnoses to be listed from highest to lowest Indigenous percentage for the most recent period (2 years combined data).</p> <p>For variability bands: More work is to be undertaken by the AIHW regarding the use of variability bands for hospitalisation data for COAG reporting.</p> <p>For trends: percentage change and statistical significance of change is to be calculated (required for CRC reporting).</p> <p><u>Presentation:</u></p> <p>Number; rate per 1,000 persons; percentage; rate ratio and rate difference.</p> <p>Excludes care types of:</p> <ul style="list-style-type: none"><li>• newborn-unqualified days only</li><li>• organ procurement-posthumous</li><li>• hospital boarder</li></ul> <p><u>Definitions:</u></p> <p>Leading principal diagnoses (and ICD-10-AM codes) are those reported in the Aboriginal and Torres Strait Islander Health Performance Framework:</p> <ul style="list-style-type: none"><li>• Diseases of the respiratory system (J00-J99)</li><li>• Certain conditions originating in the perinatal period (P00-P96)</li></ul>

- Certain infectious and parasitic diseases (A00-B99)
- Injury and poisoning and certain other consequences of external causes (S00-T98)
- Contact with health services (Z00-Z99)
- Symptoms, signs and abnormal clinical and laboratory findings n.e.c. (R00-R99)
- Diseases of the digestive system (K00-K93)
- Diseases of the skin and subcutaneous tissue (L00-L99)
- Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)
- Diseases of the ear and mastoid process (H60-H95)
- Diseases of the genitourinary system (N00-N99)
- Diseases of the nervous system (G00-G99)
- Other

• Total hospitalisations

For single year data by state/territory, the following top 6 principle diagnoses are to be reported:

- Diseases of the respiratory system (J00-J99)
- Certain conditions originating in the perinatal period (P00-P96)
- Certain infectious and parasitic diseases (A00-B99)
- Contact with health services (Z00-Z99)
- Injury and poisoning and certain other consequences of external causes (S00-T98)
- Symptoms, signs and abnormal clinical and laboratory findings n.e.c. (R00-R99)
- Sub-total
- Other
- Total hospitalisations

The top 6 principal diagnoses need to be re-assessed each reporting period. If a change is identified, data may need to be backcast to the baseline year for the most recent set of top 6 diagnoses to ensure a consistent time series.

Excludes care types of:

- newborn-unqualified days only
- organ procurement-posthumous
- hospital boarder

Other Australians includes non-Indigenous and 'not stated' Indigenous status.

## Computation:

Crude percentage: number of separations by principal diagnosis divided by total separations.

Rate:  $1,000 \times (\text{Numerator} \div \text{Denominator})$ .

Rate ratio: Indigenous rate divided by Other Australian rate.

Rate difference: Indigenous rate minus Other Australian rate.

Percentage change: Calculated by multiplying the average annual change over the period by the number of data points less 1. This is then divided by the rate for the first year in the series and multiplied by 100.

The average annual change in rates, rate ratios and rate differences are calculated using linear regression which uses the least squares method to calculate a straight line that best fits the data and returns an array that best describes the line. The simple linear regression line,  $Y = a + bX$ , or 'slope' estimate was used to determine the average annual change in the data over the period. The formula used to calculate the slope estimate and standard error of the slope in Microsoft Excel is:

LINEST (known\_y's, known\_x's, true) entered as an array formula (Ctrl, Shift, Enter).

Statistical significance of change: More work to be undertaken by the AIHW regarding the use and methodology for statistical significance of change for hospitalisation data.

**Numerator:** Number of hospital separations for children aged under five years by leading principal diagnosis.

**Numerator data elements:**

**Data Element / Data Set**

[Episode of admitted patient care—admission date, DDMMYYYY](#)

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

NMDS / DSS

[Admitted patient care NMDS 2009-10](#)

**Guide for use**

Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of admitted patient care—separation date, DDMMYYYY](#)

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

NMDS / DSS

[Admitted patient care NMDS 2009-10](#)

**Guide for use**

Data source type: Administrative by-product data

**Data Element / Data Set**

[Person—date of birth, DDMMYYYY](#)

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

NMDS / DSS

[Admitted patient care NMDS 2009-10](#)

**Guide for use**

Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of care—principal diagnosis, code \(ICD-10-AM 6th edn\) ANN{.N\[N\]}](#)

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

NMDS / DSS

[Admitted patient care NMDS 2009-10](#)

**Guide for use**

Data source type: Administrative by-product data

**Denominator:** Total population of children aged under five years.

**Denominator data elements:**

**Data Element / Data Set**

[Person—age, total years N\[NN\]](#)

**Data Source**

[ABS Estimated resident population \(total population\)](#)

**Guide for use**

Data source type: ERP is derived from Census, PES and estimates of fertility, mortality, net migration etc.

**Data Element / Data Set**

[Person—age, total years N\[NN\]](#)

**Data Source**

[ABS Indigenous experimental estimates and projections \(2001 Census-based\)](#)

**Guide for use**

Data source type: ERP is derived from Census, PES and estimates of fertility, mortality, net migration etc.

**Data Element / Data Set**

[Person—estimated resident population of Australia, total people N\[N\(7\)\]](#)

**Data Source**

[ABS Estimated resident population \(total population\)](#)

**Guide for use**

Data source type: Estimated resident population (ERP) is derived from Census, post-enumeration survey (PES) and estimates of fertility, mortality, net migration etc.

**Data Element / Data Set**

[Person—estimated resident population of Australia, total people N\[N\(7\)\]](#)

**Data Source**

[ABS Indigenous experimental estimates and projections \(2001 Census-based\)](#)

**Guide for use**

Data source type: ERP is derived from Census, PES and estimates of fertility, mortality, net migration etc.

**Disaggregation:****Current period:** 2008-09 to 2009-10:

For Indigenous and non-Indigenous (numbers, percentage, rates, rate ratio, and rate difference):

- State and territory (including national total) by Indigenous status, by principal diagnosis at the ICD-10-AM chapter level.

**Time series:** 2007-08, 2008-09 (previously supplied), 2009-10 (required for 2012 reporting):

For Indigenous and non-Indigenous (rates, rate ratio, rate difference, and percentage change. Variability bands and statistical significance of change to be advised by AIHW):

- National by Indigenous status by leading principal diagnosis at ICD-10-AM chapter level.
- State and territory (including national total) by Indigenous status for top 6 leading principal diagnosis at ICD-10-AM chapter level (as listed under 'definitions').

**Disaggregation data elements:****Data Element / Data Set**

[Person—Indigenous status, code N](#)

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

**Guide for use**

Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of care—principal diagnosis, code \(ICD-10-AM 5th edn\) ANN{.N\[N\]}](#)

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

**Guide for use**

Data source type: Administrative by-product data

**Data Element / Data Set**

[Person—area of usual residence, geographical location code \(ASGC 2008\) NNNNN](#)

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

**Guide for use**

Data source type: Administrative by-product data

**Comments:**

Most recent data available for 2012 CRC report is 2009-10.

Aggregated data (2008-09 to 2009-10) will be used for the current reporting period.

Single year data (2007-08, 2008-09 and 2009-10) will be used for time series (national for total hospitalisations and for leading principal diagnoses; state/territory for total hospitalisations and for top six leading principal diagnoses (ICD-10-AM 6th edition chapter level); noting that previously supplied data will be used unless a resupply is provided).

National disaggregation by Indigenous status will be based on data only from jurisdictions for which the quality of Indigenous identification is considered acceptable.

At this stage, only selected state/territories are considered of accepted quality for reporting hospitalisations of Indigenous persons: NSW, Vic, Qld, WA, SA & NT public hospitals. National rates should include these six states and territories only. Tas/ACT data should be reported separately with caveats.

Disaggregation by state/territory is based on the state/territory of the usual residence of the patient.

Disaggregation by Indigenous status is to be reported using 2 years combined data for the current reporting period. Single year data is to be reported for time series.

To report trends, the COAG Reform Council will separately request percentage change and statistical significance testing for this indicator directly from the data provider (AIHW).

More work is to be undertaken by the AIHW regarding the use of variability bands for hospitalisation data for COAG reporting.

Baseline year for NIRA target (Halve the child mortality gap within a decade) is 2008; baseline year for this indicator is 2007-08; target year is 2018.

## Representational attributes

<b>Representation class:</b>	Rate
<b>Data type:</b>	Real
<b>Unit of measure:</b>	Person
<b>Format:</b>	N[NN].N

## Indicator conceptual framework

<b>Framework and dimensions:</b>	<a href="#">Health Conditions</a>
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## Data source attributes

## Data sources:

### Data Source

[ABS Estimated resident population \(total population\)](#)

#### Frequency

Quarterly

#### Data quality statement

[ABS Estimated resident population \(total population\), QS](#)

#### Data custodian

Australian Bureau of Statistics

### Data Source

[National Hospital Morbidity Database \(NHMD\)](#)

#### Frequency

Annual

#### Data custodian

Australian Institute of Health and Welfare

### Data Source

[ABS Indigenous experimental estimates and projections \(2001 Census-based\)](#)

#### Frequency

Periodic

#### Data quality statement

[ABS Indigenous experimental estimates and projections, QS](#)

#### Data custodian

Australian Bureau of Statistics

## Accountability attributes

**Reporting requirements:** National Indigenous Reform Agreement.

**Organisation responsible for providing data:** Australian Institute of Health and Welfare.

**Further data development / collection required:** Specification: Long-term.  
Improve the quality of Indigenous identification in hospital separations data.

## Source and reference attributes

**Steward:** [National Indigenous Reform Agreement Performance Information Management Group](#)

## Relational attributes

**Related metadata references:** Supersedes [National Indigenous Reform Agreement: PI 11-Child under 5 hospitalisation rates by principal diagnosis, 2011 Indigenous](#), Superseded 01/07/2012