

Indigenous Better Cardiac Care measure: 5.1- Incidence of initial and recurrent episodes of acute rheumatic fever, 2016

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Indigenous Better Cardiac Care measure: 5.1- Incidence of initial and recurrent episodes of acute rheumatic fever, 2016

Identifying and definitional attributes

Metadata item type:	Indicator
Indicator type:	Indicator
Short name:	5.1-Incidence of acute rheumatic fever
METEOR identifier:	657058
Registration status:	Health , Standard 17/08/2017
Description:	Incidence of all episodes of acute rheumatic fever (ARF)—that is, initial and recurrent episodes combined—by Aboriginal and Torres Strait Islander status.
Rationale:	<p>This measure falls within Priority area 5 of the Better Cardiac Care project—strengthen the diagnosis, notification and follow-up of rheumatic heart disease. This priority area is based on the premise that:</p> <ul style="list-style-type: none">• all Aboriginal and Torres Strait Islander people suspected of having acute rheumatic fever or rheumatic heart disease (RHD) should receive an echocardiogram as early as possible• new cases of RHD should be automatically reported to a central register to help track patients and ensure ongoing care. <p>ARF occurs among Indigenous Australians but is very rarely seen among non-Indigenous Australians. It is the result of an autoimmune response to a group A streptococcus bacterial infection (Parnaby & Carapetis 2010). The acute episode of ARF can be very painful and can lead to inflammation affecting the heart, joints, brain and skin. ARF can also cause permanent damage to the heart muscle and heart valves—known as RHD. Thus, primary prevention of RHD involves reducing rates of group A streptococcus bacterial infection and treating such infections efficiently to prevent ARF from developing (RHD Australia et al. 2012).</p>
Indicator set:	Better Cardiac Care measures for Aboriginal and Torres Strait Islander people (2016) Health , Standard 17/08/2017

Collection and usage attributes

Computation description:	<p>The number of episodes (including both initial and recurrent episodes) of ARF in the calendar year, divided by the estimated population at the mid-point of that calendar year (that is, 30 June) and multiplied by 100,000.</p> <p>Data are presented as a crude rate per 100,000 population.</p> <p>Data are based on calendar years.</p> <p>The numerator for this measure is the registered number of initial and recurrent episodes of ARF. Note that individuals may be counted more than once in the numerator—that is, where they have more than one episode of ARF in the year (or relevant period).</p> <p><i>ARF</i>—an acute, serious disease that affects mainly children and young adults, and can damage the heart valves, the heart muscle and its lining, the joints and the brain. It is brought on by a reaction to an infection of the throat, and possibly the skin, with the bacterium Group A streptococcus (RHD Australia et al. 2012).</p>
Computation:	Crude rate: (Numerator ÷ Denominator) x 100,000
Numerator:	Number of episodes of ARF in the calendar year.

Denominator:

Estimated population at the middle of the calendar year (30 June). Where numerator data are summed across multiple years, the denominator is calculated by summing the mid-point population data for the relevant years.

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

Person—estimated resident population of Australia

Data Source

[ABS Estimated resident population \(2011 Census-based\)](#)

Guide for use

Used to derive population estimates for the non-Indigenous population, by subtracting estimates for the estimated Indigenous population from the total Australian estimated resident population (ERP).

Data source type: Census-based plus administrative by-product data

Data Element / Data Set**Data Element**

Person—estimated and projected Indigenous resident population

Data Source

[ABS Indigenous estimates and projections \(2011 Census-based\)](#)

Guide for use

Data source type: Census-based plus administrative by-product data

Disaggregation:

Current period (2011–2014) by:

- Indigenous status

Current period (2011–2014), Indigenous Australians, by:

- sex and age group (0–4, 5–14, 15–24, 25–34, 35–44, 45+)
- state/territory

Time series (2010 to 2014), Indigenous Australians, by:

- state/territory.

Comments:

General:

National data on the incidence of ARF are not available. For 2016 reporting, data for this measure are drawn from RHD registers in Queensland, Western Australia, South Australia and the Northern Territory where ARF is a notifiable disease, and register and control programs have been established. The available data about the incidence of ARF includes confirmed episodes for South Australia and the Northern Territory, and both confirmed and probable episodes for Queensland and Western Australia.

For 2016 reporting, the most recent data available are for 2014. With the exception of time trends, data are reported for the 4-year period 2011–2014 to enable disaggregation of the data by the variables of interest. Single-year data are reported for the time trend analysis (2010 to 2014). Data from Queensland, Western Australia and the Northern Territory are available for all years included in the analysis, while data for South Australia are available from 2013.

For the analysis by Indigenous status for this measure, the comparison group in the numerator data is 'Other Australians', which includes people who did not identify as being of Aboriginal and/or Torres Strait Islander origin, and people for whom information on their Indigenous status was not available.

Diagnosis of ARF:

There is no diagnostic pathology test for ARF; instead, its diagnosis is based on a clinical decision (RHD Australia et al. 2012). The *Australian Guideline for the prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease* (RHD Australia et al. 2012) provides criteria to guide the diagnosis of ARF. However, the clinical manifestation of ARF is non-specific and can be atypical, with delays in both presentation and referral of patients. Any improvements in ARF case ascertainment over time may influence observed trends.

All rates presented for this measure are crude rates. The necessary data to calculate age-standardised rates are not available due to the small numbers of episodes, particularly for the non-Indigenous population. This may limit the ability to compare rates between populations and/or over time.

Representational attributes

Representation class:	Rate
Data type:	Real
Unit of measure:	Episode
Format:	N[NN].N

Data source attributes

Data sources:**Data Source**

[ABS Estimated resident population \(2011 Census-based\)](#)

Frequency

Quarterly

Data custodian

Australian Bureau of Statistics

Data Source

[ABS Indigenous estimates and projections \(2011 Census-based\)](#)

Frequency

Periodic

Data custodian

Australian Bureau of Statistics

Accountability attributes

Reporting requirements:	Annual reporting by the Australian Institute of Health and Welfare (AIHW 2015, 2016).
Organisation responsible for providing data:	Queensland, Western Australia, South Australia and the Northern Territory RHD registers
Further data development / collection required:	Establishment of a national RHD register would improve reporting against this indicator. In October 2015, New South Wales made both ARF and RHD notifiable for people aged under 35, and established a register-based control program (Australian Indigenous HealthInfoNet 2015). Thus data from New South Wales might also be available in the future.
Release date:	24/11/2016

Source and reference attributes

Submitting organisation:	Australian Institute of Health and Welfare
Origin:	AIHW 2016. Better Cardiac Care measures for Aboriginal and Torres Strait Islander people: second national report 2016. Cat. no. IHW 169. Canberra: AIHW.
Reference documents:	<p>AIHW (Australian Institute of Health and Welfare) 2015. Better Cardiac Care measures for Aboriginal and Torres Strait Islander people: first national report 2015. Cat. no. IHW 156. Canberra: AIHW.</p> <p>AIHW 2016. Better Cardiac Care measures for Aboriginal and Torres Strait Islander people: second national report 2016. Cat. no. IHW 169. Canberra: AIHW.</p> <p>Australian Indigenous HealthInfoNet 2015. Acute rheumatic fever and rheumatic heart disease now notifiable in NSW. Perth: Australian Indigenous HealthInfoNet. Viewed 17 March 2016, www.healthinfo.net.au/about/news/3617</p> <p>Lawrence JG, Carapetis JR, Griffiths K, Edwards K & Condon JR. 2013. Acute Rheumatic Fever and Rheumatic Heart Disease. Incidence and Progression in the Northern Territory of Australia, 1997 to 2010. Circulation: 128: 492–501.</p> <p>Parnaby M & Carapetis J 2010. Rheumatic fever in Indigenous Australian children. Journal of paediatrics and child health 46:526–33.</p> <p>RHD Australia (Rheumatic Heart Disease Australia), National Heart Foundation of Australia & Cardiac Society of Australia and New Zealand 2012. The Australian guideline for the prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease. 2nd edn. Darwin: RHD Australia.</p>

Relational attributes

Related metadata references:

See also [Indigenous Better Cardiac Care measure: 5.2-Recurrent acute rheumatic fever, 2016](#)

[Health](#), Standard 17/08/2017

See also [Indigenous Better Cardiac Care measure: 5.3-Benzathine penicillin G doses, 2016](#)

[Health](#), Standard 17/08/2017