

National Syphilis Surveillance and Monitoring Plan 2021

Prepared through the Communicable Disease Network Australia (CDNA) and the Bloodborne Virus and Sexually Transmissible Infections Standing Committee (BBVSS)

Revision History

Version	Date	Revised by	Changes
1.0	January 2021	Developed by the Office of Health Protection and Response Division in consultation with Indigenous Health Division, the Multijurisdictional Syphilis Outbreak Working Group (MJSO), the National BBV and STI Surveillance Sub-Committee (NBBVSTISSC), the Communicable Diseases Network Australia (CDNA) and the BBV STI Standing Committee (BBVSS).	Original Endorsed by AHPPC: 23 March 2021

Contents

Purpose.....	3
Public health action and response	3
Review	3
Development of indicators	4
Reporting.....	4
Further information.....	4
<i>Target 1: Reduce the incidence of infectious syphilis overall, with a focus on women of reproductive age</i>	<i>5</i>
<i>Target 2: Eliminate congenital syphilis</i>	<i>9</i>
<i>Target 3: Control outbreaks among Aboriginal and Torres Strait Islander people in Queensland, the Northern Territory, Western Australia and South Australia.....</i>	<i>13</i>
References.....	16

Purpose

The *National Syphilis Surveillance and Monitoring Plan (Syphilis Plan)* outlines indicators that will be used to monitor progress towards achieving specific targets outlined in the *National strategic approach for responding to rising rates of syphilis in Australia, 2020* developed to guide the national response to the continued rise in syphilis notifications in Australia.

Three national targets provide a specific focus for efforts towards rising rates of syphilis and adverse outcomes in Australia:

1. Reduce incidence of syphilis overall, with a focus on women of reproductive age.
2. Eliminate¹ congenital syphilis.
3. Control outbreaks² among Aboriginal and Torres Strait Islander peoples in Queensland, the Northern Territory, Western Australia and South Australia.

The Syphilis Plan builds on and intersects with existing national surveillance and monitoring activities related to syphilis, including the:

- *National BBV and STI Surveillance and Monitoring Plan* [1] which supports the five National Strategies for BBVs and STIs.
- *National Strategic Approach for an enhanced response to the disproportionately high rates of STI and BBV in Aboriginal and Torres Strait Islander people (Enhanced Response to Syphilis)*[2].

It is important to note that the programs mentioned in the Syphilis Plan were operational at the time of writing. Inclusion of programs in the Syphilis Plan does not denote funding from the Australian Government Department of Health.

Public health action and response

While the Plan does not outline specifically public health actions to address the rising rates of syphilis, it is important to acknowledge the significant work has been done individually by State and Territory Health services, primary health care and other community organisations to address rising rates of syphilis, including the investment in the Enhanced Response to Syphilis and the National Strategies for BBVs and STIs.

The CDNA and BBVSS are, in collaboration, developing further priority public health actions, including those related to workforce and community engagement, to ensure progress is made towards reducing the incidence of syphilis and elimination of congenital syphilis in Australia. These actions will be provided to AHPPC for endorsement.

Review

The Syphilis Plan will be reviewed periodically to ensure currency and alignment with national priorities and will be updated as appropriate to reflect new data sources and changes to existing systems and programs. The review will be led by the Australian Government Department of Health in consultation with CDNA, BBVSS, NBBVSTISSC and the MJSO.

¹ The 2018-22 National STI Strategy and Aboriginal and Torres Strait Islander BBV and STI Strategy, define elimination of congenital syphilis as 'no new cases of congenital syphilis nationally notified for two consecutive years'

² At the time of writing Queensland, the Northern Territory, Western Australia and South Australia were the only jurisdictions with officially declared outbreak regions. New outbreak regions in other jurisdictions may be declared with endorsement from the CDNA, after which this target will be amended.

Development of indicators

At the time of writing additional indicators and suitable data sources, including those related to syphilis testing, re-infections and sexual partners (particularly male partners of women of reproductive age) were being explored by the Australian Government Department of Health. Any new indicators will be incorporated into future iterations of the Syphilis Plan following consultation with the respective expert groups noted above.

Reporting

The Australian Government Department of Health will produce a short report at the end of each quarter, on progress towards achieving the Syphilis Plan targets. The surveillance data presented in these reports will also incorporate current policy and programmatic commentary in relation to associated syphilis public health activities. Reporting on progress under the Syphilis Plan will complement reporting against related national strategies and action plans.

Further information

- [Forth National STI Strategy 2018-22](#)
- [National Aboriginal and Torres Strait Islander BBV and STI Strategy 2018-22](#)
- [National BBV and STI Surveillance and Monitoring Plan 2018-22](#)
- [Enhanced Response to Syphilis](#) (including the Strategic Approach, Action Plan and routine surveillance reports)

Target 1: Reduce the incidence of infectious syphilis overall, with a focus on women of reproductive age

Indicator/s:

- Rate of infectious syphilis notifications by:
 - o Indigenous status
 - o Remoteness area
 - o Sex
 - o Age
 - o Sexual exposure (as appropriate).
- Rate of infectious syphilis notifications among women of reproductive age (15-44) by:
 - o Indigenous status
 - o Remoteness area
- Proportion of infectious syphilis notifications in men reporting sexual exposure with men only.
- Proportion of infectious syphilis notifications in men reporting sexual exposure with both men and women.

Indicator notes

Notifications

De-identified notification data are provided daily by all jurisdictions to the National Notifiable Diseases Surveillance System (NNDSS) managed within the Australian Government Department of Health under the provisions of the *National Health Security Act (2007)* [3]. Notifications of infectious syphilis (less than two years duration) [4] are routinely reported by all jurisdictions to NNDSS, providing a stable and robust measure of disease incidence. Indigenous status is usually obtained from medical notification or public health follow-up and completeness varies by disease and by state and territory. This reflects differences in notification requirements (i.e. depending on the jurisdiction, some diseases are primarily or exclusively notified by pathology laboratories rather than clinicians) and the fact that it is not possible to follow-up all cases for diseases with a large volume of notifications and/or not requiring specific case-based public health action.

In 2009, the CDNA targeted 18 key NNDSS priority diseases for $\geq 95\%$ completeness of the Indigenous status identifier as part of its 'Closing the Gap' strategy, including infectious syphilis.

Incidence is a difficult indicator to measure where notifications have been used as a surrogate, recognising that for most infections, they represent only a proportion of the total cases (e.g. only those cases for which health care was sought, a test conducted and a diagnosis made, followed by a notification to health authorities).

Due to the high proportion of asymptomatic STI, diagnoses are heavily influenced by testing patterns. High rates of STI diagnoses in identified populations may be due to higher levels of screening and not necessarily associated with increased levels of transmission. Enhanced opportunistic and targeted screening, active contact tracing and in some instances community-wide screening programs, all contribute to the higher notification rates of infection detection observed in remote regions relative to urban regions. However, despite these control measures, higher rates in remote regions may also reflect higher underlying incidence of disease.

Enhanced data – sexual exposure

Enhanced data for infectious syphilis are collected against nationally agreed data specifications and reported, by some jurisdictions, to the NNDSS. These data are collected in addition to the core dataset.

A key enhanced data field that will be analysed and reported, as appropriate, for the purposes of the Syphilis Plan is ‘sexual exposure³’ which will allow valid inferences to be drawn from the core dataset. The surveillance and identification of high-risk populations, including men who have sex with men and women, is essential for informing intervention strategies. Completion of these fields is variable by jurisdiction and is reliant on public health follow-up.

Remoteness Area

‘Postcode’ is used to allocate notifications to the Australian Bureau of Statistics Australian Statistical Geography Standard (ABS ASGS) Remoteness Areas Structure, noting that due to the small number of notifications in some regions notifications are reported nationally under three remoteness area categories: major cities; inner and outer regional and; remote and very remote. Where a postcode is not provided with the NNDSS notification notifications are excluded from reporting by remoteness area. Postcode usually reflects the residential location of a case at the time of testing, and does not necessarily represent the place where the disease was acquired.

Women of reproductive age

Foetal infection with syphilis is most likely to occur if the mother has infectious syphilis but it can occur in the latent stages of infection, defined as an infection greater than 2 years duration [5], although the risk is lower. Elevated rates of infectious syphilis among women of reproductive age, defined by the Australian Institute of Health and Welfare as women 15-44 years of age [6], increases the risk of congenital syphilis.

Target 2 provides additional indicators in relation to monitoring syphilis infection in pregnant women and the occurrence of congenital syphilis.

Testing

Suitable syphilis testing data sources are currently being explored and will be indicated, as appropriate, in future iterations of the Syphilis Plan.

³ ‘Sexual exposure’ refers to the sex of the sexual contact of the notified case and can be reported as either: person (s) of opposite sex only; person (s) of same sex only; person (s) of both sexes and, sexual exposure unknown.

Rate of infectious syphilis notifications by Indigenous status, sex, age and remoteness area⁴

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications in Indigenous people reported to NNDSS by sex, age and remoteness area	Department of Health	As required ('live' data ⁵)
Denominator	ABS	Indigenous population estimates by age, sex and remoteness area reported by the ABS	Australian Bureau of Statistics	Annually ⁶
Non-Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications in non-Indigenous people reported to NNDSS by sex, age and remoteness area	Department of Health	As required ('live' data ⁴)
Denominator	ABS	Population estimates by age, sex and remoteness area reported by the ABS	Australian Bureau of Statistics	Annually ⁵

Notification rate of infectious syphilis in women of reproductive age (15-44 years of age) by remoteness area and Indigenous status

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications in Indigenous women of reproductive age (15-44 years of age) reported to NNDSS by remoteness area classification	Department of Health	As required ('live' data ⁴)
Denominator	ABS	Population estimates for Indigenous women aged 15-44 years of age reported by the ABS by remoteness area classification	Australian Bureau of Statistics	Annually ⁵
Non-Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications in non-Indigenous women of reproductive age (15-44 years of age) reported to NNDSS by remoteness area classification	Department of Health	As required ('live' data ⁴)
Denominator	ABS	Population estimates for non-Indigenous women aged 15-44 years of age reported by the ABS by remoteness area classification	Australian Bureau of Statistics	Annually ⁵

⁴ ABS ASGS remoteness area categories reported under three remoteness area categories: major cities; inner and outer regional and; remote and very remote.

⁵ Data are transmitted at least once a day from jurisdictions to the NNDSS however there may be a delay between patient diagnosis and reporting to the NNDSS.

⁶ ABS Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 2006 to 2031 (cat. no. 3238.0)

Proportion of infectious syphilis notifications in men reporting sexual exposure with men only

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Numerator	NNDSS/ jurisdictional inputs	Number of infectious syphilis notifications reporting sexual exposure with men only to the NNDSS	Department of Health	Quarterly
Denominator	NNDSS	Total number of infectious syphilis notifications reporting sexual exposure to the NNDSS	Department of Health	Quarterly

Proportion of infectious syphilis notifications in men reporting sexual exposure with both men and women

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Numerator	NNDSS/ jurisdictional inputs	Number of infectious syphilis notifications reporting sexual exposure with both men and women to the NNDSS	Department of Health	Quarterly
Denominator	NNDSS	Total number of infectious syphilis notifications reporting sexual exposure to the NNDSS	Department of Health	Quarterly

Target 2: Eliminate⁷ congenital syphilis

Indicator/s:

- Number of congenital syphilis notifications by:
 - o Indigenous status
 - o Remoteness area
- Number of congenital syphilis cases that were reported to have died from the condition by Indigenous status.
- Notification rate of congenital syphilis per 100,000 live births by:
 - o Indigenous status
 - o Remoteness area
- Proportion of syphilis notifications among women who were pregnant at time of diagnosis by:
 - o Indigenous status
 - o Remoteness area
- Number of women giving birth to an infant with congenital syphilis who were diagnosed with syphilis in pregnancy by gestation period and Indigenous status.
- Number of women giving birth to an infant with congenital syphilis who were diagnosed with syphilis late in pregnancy.

Indicator notes

Congenital syphilis [7] is a nationally notifiable disease (see Target 1 for notes on NNDSS notifications). Although the majority of congenital syphilis cases are diagnosed at birth, diagnosis can occur at a later stage in life.

Live birth data sourced from the ABS [8], refers to the number of births that occurred in Australia including births to mothers whose place of usual residence was overseas. Still births and foetal deaths are excluded.

A birth is recorded as being Indigenous where at least one parent reported themselves as being an Aboriginal person, Torres Strait Islander, or both on the birth registration form. Therefore Indigenous births may be attributed to either:

- Aboriginal and/or Torres Strait Islander mothers, including births where both the mother and father are Aboriginal and/or Torres Strait Islander Australians; or
- Aboriginal and/or Torres Strait Islander fathers and non-Indigenous mothers.

Pregnancy

Where data are available jurisdictions will provide additional information on female infectious syphilis cases including:

- Pregnancy status at time of diagnosis;
- Reason for testing (e.g. antenatal screen);
- Maternal stage of pregnancy at diagnosis.

Development of national enhanced data specifications for women pregnant at the time of their syphilis diagnosis is currently underway, and once finalised will be presented in future iterations of the Syphilis Plan.

⁷ The 2018-22 [National STI Strategy](#) and [Aboriginal and Torres Strait Islander BBV and STI Strategy](#), define elimination of congenital syphilis as ‘no new cases of congenital syphilis nationally notified for two consecutive years’.

Enhanced data – congenital syphilis

Enhanced data for congenital syphilis are collected against nationally agreed data specifications and reported, where data are available to the NNDSS. These data are collected in addition to the core dataset. A key enhanced data field that will be analysed and reported against for the purposes of the Syphilis Plan is the stage of pregnancy in which a mother of a notified congenital syphilis case was diagnosed. This will be a valuable indicator in informing appropriate interventions and public health policies.

Completion of these fields is variable by jurisdiction and is reliant on public health follow-up.

Reporting against indicators

Number of congenital syphilis cases by remoteness area and Indigenous status

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Indigenous				
Single measure	NNDSS	Number of Indigenous congenital syphilis notifications reported to NNDSS by remoteness area classification	Department of Health	As required ('live' data ⁸)
Non-Indigenous				
Single measure	NNDSS	Number of non-Indigenous congenital syphilis notifications reported to NNDSS by remoteness area classification	Department of Health	As required ('live' data ⁶)

Number of congenital syphilis related deaths by Indigenous status

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Indigenous				
Single measure	NNDSS	Number of Indigenous congenital syphilis notifications reported to NNDSS reported to have died	Department of Health	As required ('live' data ⁶)
Non-Indigenous				
Single measure	NNDSS	Number of non-Indigenous congenital syphilis notifications reported to NNDSS reported to have died	Department of Health	As required ('live' data ⁶)

⁸ Data are transmitted at least once a day from jurisdictions to the NNDSS however there may be a delay between patient diagnosis and reporting to NNDSS.

Notification rate of congenital syphilis per 100,000 live births by remoteness area and Indigenous status

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Indigenous				
Numerator	NNDSS	Number of Indigenous congenital syphilis notifications reported to NNDSS by remoteness area classifications	Department of Health	As required ('live' data ⁹)
Denominator	ABS	Number of registered Indigenous births in Australia by remoteness area classification	Australian Bureau of Statistics	Annually
Non-Indigenous				
Numerator	NNDSS	Number of non-Indigenous congenital syphilis notifications reported to NNDSS by remoteness area classifications	Department of Health	As required ('live' data ⁷)
Denominator	ABS	Number of registered non-Indigenous births in Australia by remoteness area classification	Australian Bureau of Statistics	Annually

Proportion of syphilis notifications among women who were pregnant at time of diagnosis by Indigenous status and remoteness area

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Indigenous				
Numerator	NNDSS/ Jurisdictional inputs	Number of syphilis notifications in Indigenous women pregnant at the time of diagnosis by remoteness area classification	Department of Health	Quarterly
Denominator	NNDSS	Total number of syphilis notifications in Indigenous women of reproductive age reported to the NNDSS by remoteness area classification	Australian Bureau of Statistics	Quarterly
Non-Indigenous				
Numerator	NNDSS/ Jurisdictional inputs	Number of syphilis notifications in non-Indigenous women pregnant at the time of diagnosis by remoteness area classification	Department of Health	Quarterly
Denominator	NNDSS	Total number of syphilis notifications in non-Indigenous women of reproductive age reported to	Department of Health	Quarterly

⁹ Data are transmitted at least once a day from jurisdictions to the NNDSS however there may be a delay between patient diagnosis and reporting to NNDSS.

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
		the NNDSS by remoteness area classification		

Number of women giving birth to an infant with congenital syphilis who were diagnosed with syphilis in pregnancy by gestation period and Indigenous status

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Indigenous				
Single measure	NNDSS	Number of Indigenous women giving birth to an infant with congenital syphilis diagnosed with syphilis during pregnancy by gestation period	Department of Health	Quarterly
Non-Indigenous				
Single measure	NNDSS	Number of non-Indigenous women giving birth to an infant with congenital syphilis diagnosed with syphilis during pregnancy by gestation period	Department of Health	Quarterly

Number of women giving birth to an infant with congenital syphilis who were diagnosed with syphilis ‘late’¹⁰ in pregnancy by Indigenous status

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Indigenous				
Single measure	NNDSS	Number of Indigenous women giving birth to an infant with congenital syphilis diagnosed late in pregnancy	Department of Health	Quarterly
Non-Indigenous				
Single measure	NNDSS	Number of non-Indigenous women giving birth to an infant with congenital syphilis diagnosed late in pregnancy	Department of Health	Quarterly

¹⁰ Late diagnosis is defined as a diagnosis of infection within 30 days prior to delivery, at birth (day of delivery) or post birth.

Target 3: Control outbreaks¹¹ among Aboriginal and Torres Strait Islander people in Queensland, the Northern Territory, Western Australia and South Australia

Indicator/s:

- Number of outbreak associated infectious syphilis notifications by:
 - o Affected jurisdiction and outbreak region
 - o Age
 - o Sex
- Number of outbreak associated congenital syphilis notifications by affected jurisdictions.
- Number of outbreak associated congenital syphilis cases that were reported to have died from the condition by affected jurisdiction.
- Proportion of outbreak associated infectious syphilis notifications among women who were pregnant at time of diagnosis.
- Cumulative number of syphilis tests delivered through participating ACCHS in outbreak affected jurisdictions.
- Proportion of people attending participating ACCHS who received a syphilis test within the previous 12 months by:
 - o Age
 - o Sex

Considerable efforts and investment has already been directed towards this target through the Australian Government Department of Health *Enhanced response to the disproportionately high rates of STI and BBV* and jurisdictional health departments. For further information on the enhanced response please refer to the [Infectious Syphilis Outbreak](#) webpage on the Department of Health website.

Indicator notes

For information on NNDSS notifications see Target 1 and Target 2 for information on pregnancy status at time of diagnosis.

Outbreak associated cases are defined as per the Multi-jurisdictional Syphilis Outbreak syphilis outbreak case definition¹²:

Nationally, an infectious syphilis outbreak case is defined as: any person who is newly diagnosed with confirmed or probable infectious syphilis according to the CDNA national surveillance case definition for infectious syphilis, **AND**, is an Aboriginal or Torres Strait Islander person who resides in any of the following outbreak declared regions as defined and documented by that jurisdiction, at or after the dates indicated: Qld - North West Hospital and Health Service area (from 1 January 2011); Torres and Cape Hospital and Health Service area (from 1 December 2012); Cairns and Hinterland Hospital and Health Service area (from 1 August 2013); Townsville Hospital and Health Service area (from 1 January 2014); Central Queensland Hospital and Health Service area (from 1 June 2017) NT - Alice Springs Rural and Urban or Barkly district (from 1 July 2013); Katherine district (from 1 May 2014); East Arnhem district (from 1 November 2015); Darwin Rural and Urban (from 1 January 2017); WA - Kimberley region (from 1 June 2014); Pilbara region (from 1 February 2018); Goldfields region (from 1 January 2019); SA - Far North and Western and Eyre regions (from 15 November 2016); Adelaide (from 1 February 2018) (category 1 outbreak cases) **OR**, is a sexual contact of a confirmed outbreak case (category 2 outbreak cases).

¹¹ At the time of writing Queensland, the Northern Territory, Western Australia and South Australia were the only jurisdictions with officially declared outbreak regions. New outbreak regions in other jurisdictions may be declared with endorsement from the CDNA, after which this target will be amended.

¹² The outbreak case definition is up to date at the time of writing. New outbreak regions may be declared at the discretion of jurisdictional health departments, after which the outbreak case definition will be amended.

Testing data

Syphilis testing data are provided directly from Aboriginal Community Controlled Health Services (ACCHS) within affected outbreak regions currently funded by the Australian Government Department of Health to deliver syphilis point of care testing as part of the enhanced response, to the Department of Health.

Syphilis testing as measured through funded ACCHS does not necessarily reflect all syphilis testing across outbreak declared regions. Routine collection of other suitable data sources, including data from mainstream services and ACCHS not currently funded through the enhanced response are currently being explored and will be indicated, as appropriate, in future iterations of the Syphilis Plan.

Reporting against the indicators

Number of outbreak associated infectious syphilis notifications by affected jurisdiction, outbreak region age and sex

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Single measure	NNDSS/ Jurisdictional inputs	Number of outbreak associated infectious syphilis notifications by affected jurisdiction, outbreak region, age and sex	Department of Health	Quarterly

Number of outbreak associated congenital syphilis notifications by affected jurisdiction

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Single measure	NNDSS	Number of outbreak associated congenital syphilis notifications reported to NNDSS	Department of Health	Quarterly

Number of outbreak associated congenital syphilis notifications reported to have died from the condition by affected jurisdiction

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Single measure	NNDSS	Number of outbreak associated congenital syphilis notifications reported to NNDSS reported to have died from the conditions by affected jurisdictions	Department of Health	Quarterly

Proportion of outbreak associated infectious syphilis notifications among women who were pregnant at time of diagnosis

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Numerator	NNDSS/ Jurisdictional inputs	Number of outbreak associated infectious syphilis notifications in women pregnant at the time of diagnosis by remoteness area classification	Department of Health	Quarterly
Denominator	NNDSS	Total number of outbreak associated infectious syphilis notification in women of reproductive age by remoteness area classification	Department of Health	Quarterly

Cumulative number of syphilis tests¹³ delivered through participating¹⁴ Aboriginal Community Controlled Health Services (ACCHS) in outbreak affected jurisdictions.

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Single measure	ACCHS	Cumulative number of syphilis tests delivered through participating ACCHS	Department of Health	Quarterly

Proportion of people attending participating ACCHS receiving a syphilis test¹¹ within the previous 12 months

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Numerator	ACCHS	Number of individuals who had a syphilis test at participating services within the reporting period	Department of Health	Quarterly
Denominator	ACCHS	Total number of people attending participating services within the previous 12 months by age group and sex	Department of Health	Quarterly

¹³ Syphilis tests include point of care and/or serology.

¹⁴ Participating services refers to Aboriginal Community Controlled Health Services (ACCHS) currently funded by the Australian Government Department of Health as part of the enhanced response.

References

1. Australian Government Department of Health. *National BBV and STI Surveillance and Monitoring Plan 2018-2022*. Available from: <https://www1.health.gov.au/internet/main/publishing.nsf/Content/ohp-bbvs-1>.
2. Australian Government Department of Health. *National strategic approach for an enhanced response to the disproportionately high rates of STI and BBV in Aboriginal and Torres Strait Islander people* Available from: <https://www1.health.gov.au/internet/main/publishing.nsf/Content/ohp-infectious-syphilis-outbreak.htm>.
3. Australian Government Department of Health. *National Health Security Act 2007*. Available from: <https://www.legislation.gov.au/Details/C2016C00847>.
4. Australian Government Department of Health. *Syphilis - infectious (primary, secondary and early latent), less than 2 years duration case definition*. 2015; Available from: https://www1.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-casedefs-cd_syph12.htm.
5. Australian Government Department of Health. *Syphilis - more than 2 years or unknown duration case definition*. 2010; Available from: https://www1.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-casedefs-cd_syphm2.htm.
6. Australian Institute for Health and Welfare, *Australia's mothers and babies 2018: in brief*, in *Perinatal statistics series no. 36. Cat. no. PER 108*. 2020, AIHW: Canberra.
7. Australian Government Department of Health. *Syphilis (congenital) case definition*. 2015; Available from: https://www1.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-casedefs-cd_consyph.htm
8. Australian Bureau of Statistics. *Births, Australia*. Available from: <https://www.abs.gov.au/statistics/people/population/births-australia/latest-release>