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Disability and Ageing



Interim
Australian
Centre for
Disease
Control

National Syphilis Surveillance and Monitoring Plan

Version 1.0

Prepared in consultation with CDNA, BBVSS and NATSIHP

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Table of Contents

Overview	6
Purpose	6
Development of future indicators	7
Specific populations	7
Reporting	7
Review	8
Governance and implementation	8
Abbreviations	9
National data sources	11
National Notifiable Diseases Surveillance System	11
Australian Institute of Health and Welfare	11
Australian Bureau of Statistics	11
Data quality	12
Data completeness indicators	12
Why is data quality important?	12
Indicator notes	12
Reporting against indicators	13
Goals	15
Goal 1 – Strengthen prevention and testing strategies for syphilis in priority populations and settings, targeting high-burden areas	15
Why is this goal important?	15
Data gaps	15
Indicator notes	16
Reporting against indicators	17
Goal 2 – Reduce ongoing transmission and incidence of syphilis across priority populations	21
Why is this goal important?	21
Data gaps	21
Indicator notes	21
Reporting against indicators	22
Goal 3 – Reduce morbidity and mortality associated with syphilis	28
Why is this goal important?	28
Data gaps	28
Indicator notes	28
Reporting against indicators	29

Goal 4 – Eliminate congenital syphilis (defined as sustained zero congenital syphilis cases)	31
Why is this goal important?	31
Data gaps.....	31
Indicator notes.....	31
Reporting against indicators.....	32
Appendix A – Data considerations for Aboriginal and Torres Strait Islander populations.....	38
Appendix B – Data sources and reporting schedule	40
References.....	44

Version History

Version	Date	Reason/Key changes
Version 1.0	October 2025	Initial release

Overview

Purpose

Syphilis poses a threat to public health with significant increases in notifications across Australia in the past decade. Despite previous efforts to control a preventable and curable disease, Australia continues to have cases of congenital syphilis and associated infant deaths.

In response, the Australian Health Protection Committee (AHPC), the Communicable Diseases Network Australia (CDNA), National Aboriginal and Torres Strait Islander Health Protection (NATSIHP) and the Blood Borne Viruses and Sexually Transmissible Infections Standing Committee (BBVSS) have developed a *National Syphilis Response Plan 2023 – 2030* (Response Plan). The Response Plan consolidates existing recommendations into a focused framework, to be governed under new and re-invigorated governance arrangements. Ensuring a consistent approach across the country will enhance collaboration and effectively tackle syphilis as a public health concern.

Four overarching national goals have been adopted to be pursued throughout the life cycle of the Response Plan (2023-2030):

- Strengthen prevention and testing strategies for syphilis in priority populations and settings, targeting high-burden areas.
- Reduce ongoing transmission and incidence of syphilis across priority populations.
- Reduce morbidity and mortality associated with syphilis.
- Eliminate congenital syphilis (defined as sustained zero congenital syphilis cases).

The Response Plan builds on the efforts of the *National strategic approach for responding to rising rates of syphilis 2021*.

The National Syphilis Surveillance and Monitoring Plan (the Surveillance Plan) outlines indicators that will be used to monitor progress towards achieving the above goals. Each goal covers a set of related indicators that can be disaggregated to allow finer-grained interpretation.

The Surveillance 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 which supports the five National Strategies for BBVs and STIs.

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

The CDNA, BBVSS and NATSIHP 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.

At the time of drafting, the Surveillance Plan is a product of the interim Australian Centre for Disease Control but it is intended that the Surveillance Plan be a product of the independent Australian Centre for Disease Control from its commencement.

It is important to note that the programs mentioned in the Surveillance Plan were operational at the time of writing. Inclusion of programs in the Surveillance Plan does not denote funding from the Australian Centre for Disease Control.

Development of future indicators

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

Specific populations

The Surveillance Plan recognises the need to continue to enhance our understanding of the impact of syphilis on specific populations, including Aboriginal and Torres Strait Islander people, people of reproductive age, people from culturally and linguistically diverse (CALD) backgrounds, people with a disability, people who identify as LGBTIQ+¹ and people living in rural and remote areas. These groups are a priority for surveillance and response as they may be at higher risk of syphilis infection and poorer health outcomes as a result. These priority groups will be represented in reports against the Surveillance Plan where data are available, with a view to improve representativeness in the long-term in syphilis surveillance data.

Considerations for Aboriginal and Torres Strait Islander populations have been incorporated into the Surveillance Plan to ensure relevant data is collected; analysis and reporting are carried out; and that these data are reviewed, reported, and interpreted with an appropriate cultural lens. More detail on data considerations for Aboriginal and Torres Strait Islander populations is at [Appendix A](#).

A note on terminology

Please note that throughout the Surveillance Plan, we generally use the term 'women' to refer to people who are pregnant or giving birth. However, we respectfully acknowledge that some people with a uterus do not identify as women and are equally impacted by syphilis.

The terms female and male are used when they relate to data collected and coded as either female or male, e.g. national notification data.

Reporting

The Australian Centre for Disease Control will produce a short report at the end of each quarter, and a more detailed report at the end of each calendar year on progress towards achieving goals in the Surveillance Plan. Each report will be produced at the earliest 3

¹ 1 LGBTIQ+ refers to lesbian, gay, bisexual, transgender, intersex, queer, asexual and other sexually or gender diverse. Other variations of this acronym exist. Acronym choice can vary depending on the groups or issues being discussed and the available evidence.

months (one quarter) after the reporting period to ensure adequate data cleaning and review can occur at the jurisdictional and commonwealth levels.

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 Surveillance Plan will complement reporting against related national strategies and action plans.

Disaggregation of data when reporting against the indicators will be undertaken where the output provides meaningful evidence to support the national syphilis response. Every effort will be made to provide data that supports on-going implementation of the national syphilis response, within the bounds of respective data release and reporting responsibilities at the Commonwealth while maintaining the confidentiality of individuals.

Indicators included in the Surveillance Plan are quantitative unless otherwise specified.

Data sources and reporting schedule is at [Appendix B](#).

Review

The Surveillance 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 Centre for Disease Control in consultation with CDNA, BBVSS and NATSIHP.

Governance and implementation

The Surveillance Plan was developed through the National BBV STI Surveillance Subcommittee (NBBVSTISSC) of the CDNA. The NBBVSTISSC is comprised of experts in sexual health and disease surveillance working across government and non-government organisations.

The Surveillance Plan was endorsed by CDNA, BBVSS and NATSIHP and by parent committee the AHPC in October 2025.

Abbreviations

Abbreviations	Description
ABS	Australian Bureau of Statistics
ACCESS	Australian Collaboration for Coordinated Enhanced Sentinel Surveillance of Sexually Transmissible Infections and Blood Borne Viruses
ACCHS	Aboriginal Community Controlled Health Services
AHPC	Australian Health Protection Committee
AIHW	Australian Institute of Health and Welfare
BBV	Blood Borne Virus
BBVSS	Blood Borne Viruses and Sexually Transmissible Infections Standing Committee
CALD	Culturally and Linguistically Diverse
CDNA	Communicable Diseases Network Australia
DALY	Disability-Adjusted Life Year
Doxy-PEP	Doxycycline Post-Exposure Prophylaxis
IARE	Indigenous Areas
ICD	International Classification of Diseases
LGBTIQA+	Lesbian, Gay, Bisexual, Transgender, Intersex, Queer, Asexual, and other sexually or gender diverse identities
NACCHO	National Aboriginal Community Controlled Health Organisation
NATSIHP	National Aboriginal and Torres Strait Islander Health Protection
NBBVSTISSC	National Blood Borne Viruses and Sexually Transmissible Infections Surveillance Sub-committee

Abbreviations	Description
NNDSS	National Notifiable Diseases Surveillance System
NPDC	National Perinatal Data Collection
PoCT	Point of Care Testing
PrEP	Pre-Exposure Prophylaxis
RA	Remoteness Area
SA3	Statistical Area 3
STI	Sexually Transmissible Infection
YLD	Years Lived with Disability
YLL	Years of Life Lost

National data sources

National Notifiable Diseases Surveillance System

De-identified notification data are provided daily by all jurisdictions to the National Notifiable Diseases Surveillance System (NNDSS) managed within the Australian Centre for Disease Control under the provisions of the National Health Security Act 2007 [1].

Syphilis notifications are reported to the NNDSS under three defined categories: infectious syphilis (<2 years duration); unspecified syphilis (>2 years or unknown duration); and congenital syphilis. The CDNA national surveillance case definitions, including any historical edits, are available at: <https://www.health.gov.au/casedefinitions>.

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.

Australian Institute of Health and Welfare

The Surveillance Plan includes references to AIHW data collections and studies including:

- [National Hospital Morbidity Database \(NHMD\)](#) is part of the National Hospitals data collection and is a compilation of episode-level records from admitted patient morbidity data collection systems in Australian public and private hospitals.
- [National Perinatal Data Collection \(NPDC\)](#) is a national population-based dataset on pregnancy and childbirth in Australia.
- [Australian Burden of Disease Study](#) measures disease specific impact on the Australian population. Burden of disease is measured using the summary metric of disability-adjusted life years (DALY, also known as the total burden), 'years lived with disability' (YLD) and 'years of life lost' (YLL) and are measured against an ideal life expectancy.

Australian Bureau of Statistics

The ABS [Cause of Death](#) data collection is referenced in the Surveillance Plan. These data include all deaths that occurred and were registered in Australia, including deaths of persons whose usual residence was overseas. Deaths of Australian residents that occurred outside Australia may be registered by individual registries but are not included in ABS deaths or causes of death statistics.

Data quality

Data completeness indicators

Indicators

Proportion of notifications with Indigenous status field completed:

I.C 1 Infectious syphilis (<2 years duration)

I.C 2 Congenital syphilis

I.C 3 Unspecified syphilis (>2 years or unspecified duration)

Proportion of notifications with enhanced data field completed:

E.C 1 Infectious syphilis (<2 years duration)

E.C 2 Congenital syphilis

Why is data quality important?

High levels of completeness for variables such as Indigenous status, and selected enhanced STI and congenital syphilis data fields, enhance our capability to draw reasonable conclusions from the data, and support a meaningful public health response to syphilis in priority populations and settings.

It is recognised that there are on-going and considerable efforts in states and territories and public health units to complete these data fields. The Australian Centre for Disease Control will continue to work in partnership with CDNA jurisdictional representatives as data owners, to ensure this work is prioritised and supported.

Indicator notes

Indigenous status completeness – notification data

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.

The determination of the Indigenous status is by descent, self-identification and community acceptance. The Indigenous status identifier is defined in NNDSS as:

- Indigenous (Aboriginal and/or Torres Strait Islander origin)
- Non-Indigenous (Not of Aboriginal or Torres Strait Islander origin)
- Unknown (Not stated, unknown or blank)

In 2009, CDNA targeted key NNDSS priority diseases for ≥95% completeness of the Indigenous status identifier as part of its 'Closing the Gap' strategy, including congenital syphilis and infectious syphilis. In addition, CDNA set a goal of 80% completeness of the Indigenous status identifier for all other diseases, including unspecified syphilis, reported to the NNDSS.

Enhanced data completeness – notification data

Enhanced data, complementary to core data collection in the NNDSS, provides additional information specific to infectious (<2 years durations) and congenital syphilis. These data include variables related to treatment, testing and risk factors. Completeness will be varied across jurisdictions and enhanced data fields due to limitations noted above.

Reporting against indicators

I.C. 1 Proportion of infectious syphilis (<2 years duration) notifications with Indigenous status field completed

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Numerator	NNDSS	Number of infectious syphilis notifications with Indigenous status reported as either Indigenous or Non-Indigenous	Australian Centre for Disease Control	Quarterly
Denominator	NNDSS	Total number of infectious syphilis notifications reported to the NNDSS	Australian Centre for Disease Control	Quarterly

I.C. 2 Proportion of congenital syphilis notifications with Indigenous status field completed

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Numerator	NNDSS	Number of congenital syphilis notifications with Indigenous status reported as either Indigenous or Non-Indigenous	Australian Centre for Disease Control	Quarterly
Denominator	NNDSS	Total number of congenital syphilis notifications reported to the NNDSS	Australian Centre for Disease Control	Quarterly

I.C. 3 Proportion of unspecified syphilis (>2 years or unspecified duration) notifications with Indigenous status field completed

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Numerator	NNDSS	Number of unspecified syphilis notifications with Indigenous status reported as either Indigenous or Non-Indigenous	Australian Centre for Disease Control	Quarterly
Denominator	NNDSS	Total number of unspecified syphilis notifications reported to the NNDSS	Australian Centre for Disease Control	Quarterly

E.C. 1 Proportion of infectious syphilis (<2 years duration) notifications with enhanced field completed

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Numerator	NNDSS	Number of infectious syphilis notifications with enhanced field completed	Australian Centre for Disease Control	Quarterly
Denominator	NNDSS	Total number of infectious syphilis notifications reported to the NNDSS	Australian Centre for Disease Control	Quarterly

E.C. 1 Proportion of congenital syphilis notifications with enhanced field completed

Indicator components	Source	Description	Custodian/ stakeholder	Availability of data for reporting
Numerator	NNDSS	Number of congenital syphilis notifications with enhanced field completed	Australian Centre for Disease Control	Quarterly
Denominator	NNDSS	Total number of congenital syphilis notifications reported to the NNDSS	Australian Centre for Disease Control	Quarterly

Goals

Goal 1 – Strengthen prevention and testing strategies for syphilis in priority populations and settings, targeting high-burden areas

Indicators

- 1.1 Reported risk factors for people giving birth to an infant with congenital syphilis
- 1.2 Cumulative number of syphilis tests delivered through participating ACCHS, by target and total population
- 1.3 Proportion of people attending participating ACCHS receiving a syphilis test within the previous 12 months, by target and total population (syphilis testing coverage)
- 1.4 Proportion of gay and bisexual men who have sex with men who have been tested for syphilis three or more times in the previous 12 months attending a site within the ACCESS network
- 1.5 Proportion of gay and bisexual men who have sex with men who have been tested for syphilis three or more times in the previous 12 months attending a site within the ACCESS network
- 1.6 Proportion of women who gave birth, by duration of pregnancy at first antenatal visit
- 1.7 Proportion of women who gave birth, by duration of pregnancy at first antenatal visit, by remoteness area
- 1.8 Proportion of women who gave birth, by number of antenatal visits
- 1.9 Proportion of women who gave birth, by number of antenatal visits, by remoteness area
- 1.10 Proportion of women who gave birth, by country of birth

Why is this goal important?

Goal 1 is important as it provides information on syphilis prevention and testing strategies occurring in Australia, and in which at-risk population groups and settings these activities are occurring. Reporting against this goal will contribute to national understanding of syphilis testing coverage, antenatal care and characteristics of pregnant people, risk factors for pregnant people and implementation of national programs and guidance to support the national syphilis response.

Data gaps

It is acknowledged that at the time of writing there are gaps in routine data collection for this goal, including availability of population-level syphilis testing data and data related to preventative strategies (e.g. doxy-PEP) and care in pregnancy related to syphilis (for example syphilis testing frequency as part of standard antenatal care and in-line with recommendations for 3 universal syphilis tests during pregnancy) [2, 3]. Considerable work is being undertaken in relation to these gaps, with a view to include indicators utilising new data sources in future iterations of the Surveillance Plan.

Indicator notes

Reporting against this goal will include descriptions of national syphilis response activities occurring within the reporting period, including implementation of public health promotion and prevention activities and development of national guidelines and recommendations.

Enhanced NNDSS 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. The free text enhanced field that will be analysed and reported against for the purposes of the Surveillance Plan provides the opportunity for reporting jurisdictions to highlight additional information about the person giving birth to the notified congenital syphilis case. Such information may include current living arrangements, harmful substance use and other contextual information about the person giving birth. Highlighting this information will be valuable in informing appropriate interventions and public health policies in context.

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

Testing data

Aboriginal Community Controlled Health Services (ACCHS) within selected regions across Australia provide testing data directly to the Australian Centre for Disease Control. Participating ACCHS are funded by the Australian Centre for Disease Control to deliver syphilis point of care testing as part of the national syphilis response. Syphilis testing as measured through funded ACCHS does not necessarily reflect all syphilis testing across selected regions. Routine collection of other suitable data sources, including data from mainstream services and ACCHS not currently funded through the national syphilis response are currently being explored and will be indicated, as appropriate, in future iterations of the Surveillance Plan.

Data from clinical services – testing in priority populations

The [Australian Collaboration for Coordinated Enhanced Sentinel Surveillance of Sexually Transmissible Infections and Blood Borne Viruses \(ACCESS\)](#) is a collaboration between the Burnet Institute, the Kirby Institute, the National Serology Reference Laboratory (NRL), and more than 100 sexual health clinics, general practices, hospitals, community health services and pathology laboratories across Australia that contribute de-identified patient data [4]. There is representation from all jurisdictions on the ACCESS project, however there is some variation in the number of health services/laboratories participating within each jurisdiction. Overall testing numbers and subsequent notification of infection collected through the ACCESS project may be influenced by testing policies and preferential testing among high-risk groups such as sex workers and people using pre-exposure prophylaxis (PrEP) for HIV and may not be representative of broader trends in the Australian population.

Antenatal care

The National Perinatal Data Collection (NDPC), as reported in the Australian Institute of Health and Welfare (AIHW) [Australia's mothers and babies](#) data tables have been used to formulate selected antenatal care indicators. Methodology and notes related to the NPDC are available on the [AIHW website](#). The NPDC does not include specific data related to syphilis testing, so assumptions have been made in relation to the indicators described in the Surveillance Plan. It is assumed that each antenatal visit provides an opportunity for a syphilis test. For example, indicator 1.6 Proportion of people who gave birth, by duration of pregnancy at first antenatal visit, assumes that a syphilis test was requested at the first antenatal visit, and that based on duration of pregnancy at the first visit indicates the stage of pregnancy when the person was first tested for syphilis.

These data will be used as a proxy as work continues to develop more robust mechanisms of reporting syphilis testing coverage and antenatal care among pregnant people.

The NPDC uses the terms 'woman' and 'women' to mean 'female' as these data sources are based on sex. Information on gender is not recorded in these data collections. It is acknowledged that the NPDC includes people who do not identify as women or mothers, and that individual parents and families may use different words to those used in the NPDC. This may include women, transgender men, intersex people, non-binary and gender diverse people.

Australian Statistical Geography Standard (ASGS) – ABS

Geographical regions are based on the ABS ASGS classifications for [Remoteness Areas](#) (RA)

Reporting against indicators

1.1 Reported risk factors for women² giving birth to an infant with congenital syphilis

Indicator components	Source	Description	Custodian/stakeholder	Availability for reporting
Qualitative	NNDSS	Risk factors reported for people giving birth to an infant with congenital syphilis	Australian Centre for Disease Control	Quarterly

1.2 Cumulative number of syphilis tests³ delivered through participating⁴ Aboriginal Community Controlled Health Services (ACCHS), by target⁵ and total population

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Single measure	ACCHS	Cumulative number of syphilis tests delivered through participating ACCHS by target age group and total population	NACCHO	Quarterly

² The term women is used, but it is acknowledged that this may also include people with a uterus who are non-female identifying.

³ Syphilis tests include point of care and/or serology.

⁴ Participating services refers to ACCHS currently funded by the Australian Government Department of Health and Aged Care as part of the national syphilis response.

⁵ Target age group is currently defined as 15-34 year olds.

1.3 Proportion of people attending participating⁴ ACCHS receiving a syphilis test³ within the previous 12 months (syphilis testing coverage), by target and total population⁵

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 previous 12 months, by target and total population	NACCHO	Quarterly
Denominator	ACCHS	Total number of individuals attending participating services within the previous 12 months by target and total population	NACCHO	Quarterly

1.4 Proportion of people from priority populations⁶ tested for syphilis in the previous 12 months attending a site⁷ within the ACCESS network

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Numerator	ACCESS	Number of people, by priority population group, attending a site and tested for syphilis in the previous 12 months	Burnet/Kirby Institute	Annually
Denominator	ACCESS	Number of people, by priority population group, attending a site in the previous 12 months	Burnet/Kirby Institute	Annually

1.5 Proportion of gay and bisexual men who have sex with men who have been tested for syphilis three or more times in the previous 12 months attending a site⁷ within the ACCESS network

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Numerator	ACCESS	Number of gay and bisexual men who have sex with men attending a site and tested for syphilis three or more times in the previous 12 months	Burnet/Kirby Institute	Annually
Denominator	ACCESS	Number of gay and bisexual men who have sex with men attending a site in the previous 12 months	Burnet/Kirby Institute	Annually

⁶ Priority populations include people from culturally and linguistically diverse populations, and people born overseas, Aboriginal and Torres Strait Islander people, gay and bisexual men who have sex with men Trans and gender diverse people, pregnant people, adolescents and young adults, sex workers and people who inject drugs.

⁷ Sites within the ACCESS network include sexual health clinics, general practice, hospital clinics, community sites, drug and alcohol services and pathology laboratories.

1.6 Proportion of women² who gave birth, by duration of pregnancy⁸ at first antenatal visit

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Indigenous				
Numerator	NPDC	Number of Indigenous women who gave birth, by duration of pregnancy at first antenatal visit	AIHW	Annually*
Denominator	NPDC	Total number of Indigenous women who gave birth	AIHW	Annually*
Non-Indigenous				
Numerator	NPDC	Number of non-Indigenous people who gave birth, by duration of pregnancy at first antenatal visit	AIHW	Annually*
Denominator	NPDC	Total number of non-Indigenous people who gave birth	AIHW	Annually*

* Data reported annually, however there is a delay of 1-2 years for each calendar year.

1.7 Proportion of women² who gave birth, by duration of pregnancy⁸ at first antenatal visit, by remoteness area⁹

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Numerator	NPDC	Number of women who gave birth, by duration at first antenatal visit of pregnancy and remoteness area classification	AIHW	Annually*
Denominator	NPDC	Total number of women who gave birth by remoteness area classification	AIHW	Annually*

* Data reported annually, however there is a delay of 1-2 years for each calendar year.

1.8 Proportion of women² who gave birth, by number of antenatal visits¹⁰

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Indigenous				

⁸ Duration of pregnancy categorised as: less than 14 weeks; 14-19 weeks; 20 weeks or more; not applicable (no care), and; not stated.

⁹ ABS ASGS remoteness area categories reported under three remoteness area categories: major cities; inner and outer regional; and remote and very remote.

¹⁰ Number of antenatal visits categorised as: no visits; 1 visit; 2-4 visits; 5 or more visits; and not stated.

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Numerator	NPDC	Number of Indigenous women who gave birth, by number of antenatal visits	AIHW	Annually*
Denominator	NPDC	Total number of Indigenous women who gave birth	AIHW	Annually*
Non-Indigenous				
Numerator	NPDC	Number of non-Indigenous women who gave birth, by number of antenatal visits	AIHW	Annually*
Denominator	NPDC	Total number of non-Indigenous women who gave birth	AIHW	Annually*

* Data reported annually, however there is a delay of 1-2 years for each calendar year.

1.9 Proportion of women² who gave birth, by number of antenatal visits, by remoteness area

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Numerator	NPDC	Number of women who gave birth, by number of antenatal visits and remoteness area classification	AIHW	Annually*
Denominator	NPDC	Total number of women who gave birth by remoteness area classification	AIHW	Annually*

* Data reported annually, however there is a delay of 1-2 years for each calendar year.

1.10 Proportion of women² who gave birth, by country of birth

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Numerator	NPDC	Number of women who gave birth, by country of birth	AIHW	Annually*
Denominator	NPDC	Total number of women who gave birth	AIHW	Annually*

* Data reported annually, however there is a delay of 1-2 years for each calendar year.

Goal 2 – Reduce ongoing transmission and incidence of syphilis across priority populations

Indicators

- 2.1 Notification rate of infectious syphilis by Indigenous status, sex, age and remoteness area
- 2.2 Notification rate of infectious syphilis in Aboriginal and Torres Strait Islander peoples by Indigenous Areas (IAREs)
- 2.3 Notification rate of infectious syphilis by Statistical Area 3 (SA3), by Indigenous status
- 2.4 Notification rate of infectious syphilis in women of reproductive age (15-44 years) by Indigenous status and remoteness area
- 2.5 Proportion of infectious syphilis notifications in men reporting sexual exposure with men only
- 2.6 Proportion of infectious syphilis notifications in men reporting sexual exposure with men and women
- 2.7 Proportion of infectious syphilis notifications by reason for testing
- 2.8 Proportion of infectious syphilis notifications in gay and bisexual men who have sex with men reporting HIV PrEP use at time of syphilis diagnosis
- 2.9 Proportion of infectious syphilis notifications by clinical facility where the syphilis infection was diagnosed
- 2.10 Proportion of infectious syphilis notifications receiving treatment, by time to treatment

Why is this goal important?

Goal 2 is important as it increases understanding of syphilis trends and the impact of the national syphilis response at reducing transmission across Australia. Reporting against this goal will provide valuable information on infection among priority populations and settings and whether mechanisms to reduce ongoing transmission, including testing and treatment, are effective. These data will highlight gaps and opportunities for service improvement among priority populations and across geographical locations to minimise proliferation of infection and adverse outcomes of syphilis infection.

Data gaps

At the time of writing, identified limitations with enhanced NNDSS data collections included completeness of fields and timeliness of collection across jurisdictions. While considerable efforts are being made at local levels to provide these data, opportunities are currently being explored to support and complement these collections. Data to report against the success of other mechanisms to minimise ongoing transmission, including partner notification and repeat syphilis testing, are not routinely available.

Other population-level data sets to further contextualise syphilis in Australia, such as socio-economic factors, are currently being investigated with a view to include indicators and concepts in future iterations of the Surveillance Plan.

Indicator notes

Reporting against this goal will include descriptions of national syphilis trends across priority populations and settings occurring within the reporting period. Where data are available, national guidance to support early intervention will be described.

Enhanced NNDSS data – syphilis treatment

Time to treatment is calculated among a subset of notifications where treatment was recorded as yes and a date treatment commenced was reported. The time to treatment will reflect the days/months difference between diagnosis date and the date treatment commenced.

Further information on enhanced NNDSS data is available [indicator notes](#) in goal 1.

Australian Statistical Geography Standard (ASGS) – ABS

Geographical regions are based on the ABS ASGS classifications for:

- [Statistical Area 3](#) (SA3)
- [Remoteness Areas](#) (RA)
- [Indigenous Areas](#) (IARE)

Further information on the ASGS and Census data is available on the [ABS website](#).

Notifications are mapped to the respective geographical regions using the postcode of residence. As there is no precise one-to-one conversion from postcode to SA3, RA and IARE, an ABS correspondence file is used to determine the respective geographical area which has the highest proportion identified to a single postcode. Postcode of residence usually reflects the residential location of a case at the time of testing and will not always indicate the place where the disease was acquired.

Reporting against indicators

2.1 Notification rate of infectious syphilis by Indigenous status, sex, age and remoteness area⁹

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications reported in Indigenous people by age, sex and remoteness area classification	Australian Centre for Disease Control	Quarterly
Denominator	ABS	Indigenous population estimates of age, sex and remoteness area classification	Australian Bureau of Statistics	Annually
Non-Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications reported in non-Indigenous people by age, sex and remoteness area classification	Australian Centre for Disease Control	Quarterly
Denominator	ABS	Non-Indigenous population estimates of age, sex and remoteness area classification	Australian Bureau of Statistics	Annually

2.2 Notification rate of infectious syphilis in Aboriginal and Torres Strait Islander people by Indigenous Areas (IAREs) – mapped output

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Numerator	NNDSS	Number of infectious syphilis notifications reported in Indigenous people, by IAREs	Australian Centre for Disease Control	Quarterly
Denominator	ABS	Population estimates for Indigenous people, by IAREs	Australian Bureau of Statistics	Annually

2.3 Notification rate of infectious syphilis by Statistical Area 3 (SA3), by Indigenous status – mapped output

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications reported in Indigenous people by SA3	Australian Centre for Disease Control	Quarterly
Denominator	ABS	Indigenous population estimates by SA3	Australian Bureau of Statistics	Annually
Non-Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications reported in non-Indigenous people by SA3	Australian Centre for Disease Control	Quarterly
Denominator	ABS	Non-Indigenous population estimates by SA3	Australian Bureau of Statistics	Annually

2.4 Notification rate of infectious syphilis in women of reproductive age¹¹ (15-44 years) by Indigenous status and remoteness area⁹

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications reported in	Australian Centre for Disease Control	Quarterly

¹¹ For the purposes of reporting, notifications that report sex at birth as 'female' will be used as a proxy for people who are more likely to get pregnant (15-44 years), including people with a uterus who are non-female identifying.

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
		Indigenous women of reproductive age (15-44 years) by remoteness area classification		
Denominator	ABS	Population estimates for Indigenous women aged 15-44 years of age reported by remoteness area classification	Australian Bureau of Statistics	Annually
Non-Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications in non-Indigenous women of reproductive age (15-44 years of age) by remoteness area classification	Australian Centre for Disease Control	Quarterly
Denominator	ABS	Population estimates for non-Indigenous women aged 15-44 years of age reported by remoteness area classification	Australian Bureau of Statistics	Annually

2.5 Proportion of infectious syphilis notifications in men reporting sexual exposure¹² with men only

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Numerator	NNDSS	Number of infectious syphilis notifications reporting sexual exposure with men only to the NNDSS	Australian Centre for Disease Control	Quarterly
Denominator	NNDSS	Total number of infectious syphilis notifications reporting sexual exposure to the NNDSS	Australian Centre for Disease Control	Quarterly

¹² 'Sexual exposure' refers to the sex of the sexual contact of the notified case and can be reported as either: person (s) of different sex only; person (s) of same sex only; person (s) of different sex AND person(s) of same sex; and sexual exposure unknown.

2.6 Proportion of infectious syphilis notifications in men reporting sexual exposure¹² with men and women

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Numerator	NNDSS	Number of infectious syphilis notifications reporting sexual exposure with both men and women to the NNDSS	Australian Centre for Disease Control	Quarterly
Denominator	NNDSS	Total number of infectious syphilis notifications reporting sexual exposure to the NNDSS	Australian Centre for Disease Control	Quarterly

2.7 Proportion of infectious syphilis notifications by primary reason for testing¹³

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications reported in Indigenous people by primary reason for testing	Australian Centre for Disease Control	Annually
Denominator	NNDSS	Total number of infectious syphilis notifications reported in Indigenous people reporting a primary reason for testing to the NNDSS	Australian Centre for Disease Control	Annually
Non-Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications reported in non-Indigenous people by primary reason for testing	Australian Centre for Disease Control	Annually
Denominator	NNDSS	Total number of infectious syphilis notifications reported in non-Indigenous people reporting a primary reason for testing to the NNDSS	Australian Centre for Disease Control	Annually

¹³ 'Reason for testing' refers to the primary reason for testing for syphilis infection and can be reported as either: clinical symptoms; sexual contact of a person (s) with an STI; screening associated with pregnancy; correctional service/justice health screening; STI screening; confirm reactive PoCT; and other.

2.8 Proportion of infectious syphilis notification in gay and bisexual men who have sex with men¹⁴ reporting HIV PrEP use¹⁵ at time of syphilis diagnosis

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Numerator	NNDSS	Number of infectious syphilis notifications reported in gay and bisexual men who have sex with men by HIV PrEP use at time of syphilis diagnosis	Australian Centre for Disease Control	Annually
Denominator	NNDSS	Total number of infectious syphilis notifications reported in gay and bisexual men who have sex with men reporting HIV PrEP use at time of syphilis diagnosis	Australian Centre for Disease Control	Annually

2.9 Proportion of infectious syphilis notifications by clinical facility¹⁶ where the syphilis infection was diagnosed

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications reported in Indigenous people by clinical facility	Australian Centre for Disease Control	Annually
Denominator	NNDSS	Total number of infectious syphilis notifications reported in Indigenous people reporting clinical facility where diagnosed to the NNDSS	Australian Centre for Disease Control	Annually
Non-Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications reported in non-Indigenous people by clinical facility	Australian Centre for Disease Control	Annually
Denominator	NNDSS	Total number of infectious syphilis notifications reported in non-Indigenous people reporting clinical facility where diagnosed to the NNDSS	Australian Centre for Disease Control	Annually

¹⁴ Defined as men reporting sexual contact with person(s) of same sex only and person(s) of different sex AND person(s) of same sex.

¹⁵ 'HIV PrEP use at syphilis diagnosis' is categorised as either yes or no.

¹⁶ 'Clinical facility' can be reported as: public hospital; private hospital; sexual health clinic; family planning clinic; general practice; other; correctional service/justice health; Aboriginal health service; migration services; drug and alcohol services; and online services.

2.10 Proportion of infectious syphilis notifications receiving treatment¹⁷, by time to treatment

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications reported in Indigenous people receiving treatment, by time to treatment	Australian Centre for Disease Control	Annually
Denominator	NNDSS	Total number of infectious syphilis notifications reported in Indigenous people reporting treatment to the NNDSS	Australian Centre for Disease Control	Annually
Non-Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications reported in non-Indigenous people receiving treatment, by time to treatment	Australian Centre for Disease Control	Annually
Denominator	NNDSS	Total number of infectious syphilis notifications reported in non-Indigenous people reporting treatment to the NNDSS	Australian Centre for Disease Control	Annually

¹⁷ 'Treatment' refers to whether the current infection has been treated in-line with the local treatment guidelines.

Goal 3 – Reduce morbidity and mortality associated with syphilis

Indicators

- 3.1 Number of syphilis related deaths (ICD-10 coded), by stage of infection
- 3.2 Number of hospitalisations with a principal diagnosis of syphilis (ICD-10 coded)
- 3.3 Estimated number of Disability-adjusted life years (DALY) due to syphilis

Why is this goal important?

Goal 3 is important as it quantifies the significant health impacts of untreated syphilis, including hospitalisations due to disease, severe disease outcomes and mortality. Reporting against this goal will provide information to evaluate the long-term impact of non-congenital syphilis (congenital syphilis outlined in goal 4) and support interventions to minimise 'missed' opportunities within populations at-risk in Australia.

Data gaps

Death and hospitalisations data reported to the NNDSS are not used in reporting against this goal due to poor completeness and inconsistencies in reporting. More comprehensive data are available through ABS and AIHW data collections, however these data are less timely with at least a minimum 1-2 year delay from the reporting year.

Indicator notes

Reporting against this goal will include descriptions of published ABS and AIHW data for International Classification of Diseases (ICD) coded syphilis (early syphilis A51, late syphilis A52, other and unspecified syphilis A53) deaths and hospitalisations, noting the availability of these data is delayed 1-2 years (for example 2022 data is available in 2024). Where data are available disaggregation by clinical manifestations of syphilis infection, including neurosyphilis, will be reported.

Causes of death - ABS

The [ABS Causes of Death](#) collection includes all deaths that occurred and were registered in Australia, including deaths of persons whose usual residence was overseas. Deaths of Australian residents that occurred outside Australia may be registered by individual registries but are not included in ABS deaths or causes of death statistics. Conditions on the medical certificate of cause of death are coded to the ICD. The ICD is the international standard classification for epidemiological purposes and is designed to promote international comparability in the collection, processing, classification, and presentation of causes of death statistics. The classification is used to classify diseases and causes of disease or injury as recorded on many types of medical records as well as death records. The ICD has been revised periodically to incorporate changes in the medical field. Currently the ICD 10th revision is used for Australian causes of death statistics.

Syphilis as a cause of death is expected to be underreported due to incomplete death certificates and attribution of death to more immediate causes (e.g. sepsis), rather than syphilis.

Hospitalisations - AIHW

Hospitalisations data are sourced from the [National Hospital Morbidity Database](#). It contains separation statistics for all separations excluding newborns with only unqualified days, borders and posthumous organ procurement. The separations are categorised by ICD code for the principal diagnosis, which is defined as the diagnosis established after study to be chiefly responsible for

occasioning the patient's episode of care in hospital. Data on principal diagnoses provide information on the diseases, such as syphilis, for which hospitalisations occur and can provide an indirect measure of community morbidity.

Hospitalisations due to syphilis is expected to be underreported as the data are limited to a (single) principal diagnosis, and do not include any subsequent co-morbidity diagnoses such as syphilis.

Burden of disease - AIHW

Burden of disease analysis measures the impact of disease and injury in a population by estimating the years of life lost (YLL, fatal burden) and years lived with disability (YLD, non-fatal burden). The sum of fatal and non-fatal burden equates to the total burden (disability-adjusted life year, DALY). One (1) DALY is equivalent to 1 year of healthy life lost. Calculating syphilis YLL and YLD estimates, includes data inputs from ABS mortality data, NNDSS notification data, disability weightings of the syphilis stage, duration of illness and life expectancy.

Burden of disease studies allow the impact of both deaths and living with illness to be compared and reported in a consistent manner. The health impacts and distribution of diseases such as syphilis contribute to the evidence base to inform health policy and programs, and service delivery.

Reporting against indicators

3.1 Number of syphilis related deaths (ICD-10 coded), by stage of infection

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Single measure	Causes of Death	Number of deaths with the cause reported as syphilis (early syphilis A51, late syphilis A52, other and unspecified syphilis A53)	Australian Bureau of Statistics	Annually*

* Data reported annually, however there is a delay of 1-2 years for each calendar year.

3.2 Number of hospitalisations with a principal diagnosis of syphilis (ICD-10 coded)

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Single measure	National Hospital Morbidity Database	Number of hospitalisations with a principal diagnosis of syphilis (early syphilis A51, late syphilis A52, other and unspecified syphilis A53)	Australian Institute of Health and Welfare	Financial year*

* Data reported by financial year, however there is a delay of 1-2 years for each financial year.

3.3 Estimated number of Disability-adjusted life years (DALY) due to syphilis

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Single measures	Burden of Disease Study	Estimated number of DALYs due to syphilis, by sex and age	Australian Institute of Health and Welfare	Annually*

* Data reported annually, however there is a delay of 1-2 years for each calendar year. For example, 2023 data reported in 2024.

Goal 4 – Eliminate congenital syphilis (defined as sustained zero congenital syphilis cases)

Indicators

- 4.1 Number of congenital syphilis cases by remoteness area and Indigenous status
- 4.2 Number of congenital syphilis related deaths by Indigenous status
- 4.3 Notification rate of congenital syphilis per 100,000 live births by remoteness area and Indigenous status
- 4.4 Proportion of syphilis notifications among women of reproductive age (15- 44 years) who were pregnant at time of diagnosis, by remoteness area and Indigenous status
- 4.5 Number of women giving birth to an infant with congenital syphilis who were diagnosed with syphilis 'late' in pregnancy by Indigenous status
- 4.6 Proportion of people giving birth to an infant with congenital syphilis receiving adequate treatment prior to delivery
- 4.7 Number of people giving birth to an infant with congenital syphilis by number of syphilis tests received during their pregnancy
- 4.8 Number of people giving birth to an infant with congenital syphilis reinfected during their pregnancy
- 4.9 Number of women of reproductive age (15-44 years) hospitalised with a principal diagnosis of syphilis (ICD-10 coded)
- 4.10 Number of people hospitalised with a principal diagnosis of syphilis in pregnancy, childbirth and puerperium (ICD-10 coded)

Why is this goal important?

Goal 4 is important as it sets the target for elimination of congenital syphilis in Australia. Monitoring congenital syphilis cases, incidents and care of pregnant people with syphilis provides critical information to monitor the effectiveness of antenatal care in relation to syphilis and develop and refine prevention strategies to mitigate the risk of severe outcomes (e.g. congenital syphilis).

Data gaps

As noted in [goal 1](#) population level syphilis testing data during pregnancy is a current limitation of national data collections, noting the considerable on-going work to address this issue.

Indicator notes

Congenital syphilis is a nationally notifiable disease. Although the majority of congenital syphilis cases are diagnosed at birth, diagnosis can occur at a later stage in life.

Notification rates for congenital syphilis are calculated using cases notified to the NNDSS as the numerator and [live-birth data](#) sourced from the ABS as the denominator. The number of live-births refers to births that occurred in Australia including births to mothers whose place of usual residence was overseas. Stillbirths and fetal deaths are excluded. The numerator for any calculation of rate in this section includes all congenital syphilis cases notified in the specified period regardless of the clinical outcome. This means that the numerator will include still-births and deaths post-birth as well as live-births.

Indigenous births are recorded 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.

Deaths and hospitalisations - NNDSS

Reporting of deaths and hospitalisations due to congenital syphilis varies across jurisdictions. Core data reported to NNDSS will be interpreted in conjunction with enhanced congenital syphilis data to present the most accurate reflection of the incident.

Pregnancy - NNDSS

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.

Enhanced congenital syphilis data - NNDSS

Refer to the [indicator notes](#) section of goal 1.

Hospitalisations (AIHW) and Causes of death (ABS)

Refer to the [indicator notes](#) section of goal 3.

Reporting against indicators

4.1 Number of congenital syphilis cases by remoteness area9 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	Australian Centre for Disease Control	Quarterly
Non-Indigenous				
Single measure	NNDSS	Number of non-Indigenous congenital syphilis notifications reported to NNDSS by remoteness area classification	Australian Centre for Disease Control	Quarterly

4.2 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	Australian Centre for Disease Control	Quarterly
Non-Indigenous				
Single measure	NNDSS	Number of non-Indigenous congenital syphilis notifications reported to NNDSS reported to have died	Australian Centre for Disease Control	Quarterly

4.3 Notification rate of congenital syphilis per 100,000 live births¹⁸ by remoteness area⁹ 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	Australian Centre for Disease Control	Quarterly
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	Australian Centre for Disease Control	Quarterly
Denominator	ABS	Number of registered non-Indigenous births in Australia by remoteness area classification	Australian Bureau of Statistics	Annually

¹⁸ The numerator includes all notified congenital syphilis cases regardless of the clinical outcome (e.g. live-born, still-births and death post-birth due to infection). The denominator is based on live-births and excludes any still-births or fetal deaths.

4.4 Proportion of infectious syphilis notifications among women² of reproductive age (15-44 years) who were pregnant at the time of diagnosis by remoteness area⁹ and Indigenous status

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

4.5 Number of women² giving birth to an infant with congenital syphilis who were diagnosed with syphilis 'late'¹⁹ 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	Australian Centre for Disease Control	Quarterly
Non-Indigenous				
Single measure	NNDSS	Number of non-Indigenous women giving birth to an infant with congenital syphilis diagnosed late in pregnancy	Australian Centre for Disease Control	Quarterly

¹⁹ Late diagnosis is defined as a diagnosis of infection within 30 days prior to delivery, at birth (day of delivery), or post birth.

4.6 Proportion of women² giving birth to an infant with congenital syphilis receiving adequate treatment²⁰ prior to delivery

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications in Indigenous women giving birth to an infant with congenital syphilis receiving adequate treatment prior to delivery reported to the NNDSS	Australian Centre for Disease Control	Quarterly
Denominator	NNDSS	Total number of infectious syphilis notifications in Indigenous women giving birth to an infant with congenital syphilis reported to the NNDSS	Australian Centre for Disease Control	Quarterly
Non-Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications in non-Indigenous women giving birth to an infant with congenital syphilis receiving adequate treatment prior to delivery reported to the NNDSS	Australian Centre for Disease Control	Quarterly
Denominator	NNDSS	Total number of infectious syphilis notifications in non-Indigenous women giving birth to an infant with congenital syphilis reported to the NNDSS	Australian Centre for Disease Control	Quarterly

4.7 Number of women² giving birth to an infant with congenital syphilis by number of syphilis tests received during their pregnancy

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Indigenous				
Single measure	NNDSS	Number of infectious syphilis notifications in Indigenous women giving birth to an infant with congenital syphilis reported to the NNDSS by number of syphilis tests	Australian Centre for Disease Control	Quarterly
Non-Indigenous				
Single measure	NNDSS	Number of infectious syphilis notifications in non-Indigenous	Australian Centre for Disease Control	Quarterly

²⁰ Adequate treatment of syphilis in pregnancy, treatment must be completed at a minimum of one month (30 days) prior to delivery.

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
		women giving birth to an infant with congenital syphilis reported to the NNDSS by number of syphilis tests		

4.8 Number of women² giving birth to an infant with congenital syphilis reinfected during their pregnancy

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications in Indigenous women giving birth to an infant with congenital syphilis reported to the NNDSS reinfected during their pregnancy	Australian Centre for Disease Control	Quarterly
Non-Indigenous				
Numerator	NNDSS	Number of infectious syphilis notifications in non-Indigenous women giving birth to an infant with congenital syphilis reported to the NNDSS reinfected during their pregnancy	Australian Centre for Disease Control	Quarterly

4.9 Number of women of reproductive age¹¹ (15-44 years) hospitalised with a principal diagnosis of syphilis (ICD-10 coded)

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Single measure	National Hospital Morbidity Database	Number of women of reproductive age (15-44 years) hospitalised with a principal diagnosis of syphilis (early syphilis A51, late syphilis A52, other and unspecified syphilis A53)	Australian Institute of Health and Welfare	Financial year*

* Data reported by financial year, however there is a delay of 1-2 years for each financial year.

4.10 Number of women² hospitalised with a principal diagnosis of syphilis in pregnancy, childbirth and puerperium (ICD-10 coded)

Indicator components	Source	Description	Custodian/stakeholder	Availability of data for reporting
Single measure	National Hospital Morbidity Database	Number of people hospitalised with a principal diagnosis of syphilis in pregnancy, childbirth and puerperium (O98.1)	Australian Institute of Health and Welfare	Financial year*

* Data reported by financial year, however there is a delay of 1-2 years for each financial year.

Appendix A – Data considerations for Aboriginal and Torres Strait Islander populations

Aboriginal and Torres Strait Islander peoples reserve the right to determine culturally appropriate forms for data reporting, and therefore the right to grant or withhold permission from other agencies or organisations for its use. All Aboriginal and Torres Strait Islander data should undergo a cultural review by Aboriginal and Torres Strait Islander peoples within a culturally appropriate governance model.

The National Aboriginal and Torres Strait Islander Health Protection (NATSIHP) Sub-committee of the Australian Health Protection Principal Committee has endorsed the following considerations in relation to the Plan:

- A strength-based approach to health and wellbeing for Aboriginal and Torres Strait Islander peoples is the focus, and deficits which can have a negative impact on health outcomes, are not emphasised [5].
- The public health context for Aboriginal and Torres Strait Islander peoples are considered, for example:
 - Aboriginal and Torres Strait Islander peoples live in many different settings across Australia, including urban, regional, remote, and very remote locations.
 - Special considerations are needed for Aboriginal and Torres Strait Islander peoples living in hostels; detention centres; aged care and other residential facilities; town camps; and homeless populations.
 - Many communities experience shortages of housing, and/or inadequate housing infrastructure.
 - The strength and leadership of the Aboriginal and Torres Strait Islander community-controlled health sector means that locally led holistic, comprehensive, and culturally appropriate and safe primary health care can be delivered to communities. However, many Aboriginal and Torres Strait Islander peoples still experience reduced access to acute and primary health care (including testing) and other health services. This can be due to factors such as location, lack of workforce, lack of available transport and differing health care literacy. This can also occur because of concerns of racism; feelings of shame; fear of separation from loved ones and family or mistrust of mainstream health services. These factors could lead to reduced syphilis presentations or unwell people presenting later in the disease progression.
 - Aboriginal and Torres Strait Islander peoples experience a disproportionately high burden of syphilis (and other sexually transmissible infections) and are therefore more susceptible to severe outcomes, including infections in-utero causing congenital syphilis, miscarriage and fetal death.
- Data quality and completeness for Aboriginal and Torres Strait Islander status influences the representativeness of the data. Factors contributing to the level of data completeness include:
 - the structure of the data collection systems;
 - the influence of systemic racism on the willingness of Aboriginal and Torres Strait Islander peoples to identify based on the perceived consequences; and

- that Aboriginal and Torres Strait Islander peoples may also wish to identify retrospectively, which may require historical data to be revised.
- It is important to note limitations of data sources, particularly those that do not have complete population ascertainment and may not be representative of Aboriginal and Torres Strait Islander peoples. Therefore, it is particularly important that for the relevant datasets, the proportion of people without a known Aboriginal and Torres Strait Islander status is reported where possible.
- Data on Aboriginal and Torres Strait Islander status should be interpreted with caution where completeness is low.

Where possible, data are to be made available to Aboriginal and Torres Strait Islander communities and organisations. The *National Agreement on Closing the Gap* highlights the importance of sharing disaggregated data and information so Aboriginal and Torres Strait Islander organisations and communities can make informed decisions while meeting privacy requirements and ensuring data security and integrity.

The decision to report on small numbers requires that the benefits of, and the need for information to inform decision-making and responses in communities be balanced against the potential privacy implications for individuals and communities.

Further surveillance and epidemiological considerations for Aboriginal and Torres Strait Islander populations are located in other documents such as *the National Aboriginal and Torres Strait Islander Health Plan 2021–2031*.

Appendix B – Data sources and reporting schedule

Table 1: Data completeness indicators

No. Indicator	Indicator	Data source (s)	Reporting
Data completeness			
I.C. 1	Proportion of notifications with Indigenous status field completed - Infectious syphilis (<2 years duration) - Congenital syphilis - Unspecified syphilis (>2 years or unspecified duration)	NNDSS	Quarterly
I.C. 2			
I.C. 3			
E.C. 1	Proportion of notifications with enhanced data field completed: - Infectious syphilis (<2 years duration) - Congenital syphilis	NNDSS	Quarterly
E.C. 2			

Table 2: National syphilis goals and indicators

No. Indicator	Indicator	Data source (s)	Reporting
GOAL 1 - Strengthen prevention and testing strategies for syphilis in priority populations and settings, targeting high-burden areas			
1.1	Reported risk factors for people giving birth to an infant with congenital syphilis	NNDSS	Quarterly
1.2	Cumulative number of syphilis tests delivered through participating ACCHS, by target and total population	ACCHS	Quarterly
1.3	Proportion of people attending participating ACCHS receiving a syphilis test within the previous 12 months, by target and total population (syphilis testing coverage)	ACCHS	Quarterly
1.4	Proportion of people from priority populations tested for syphilis in the previous 12 months attending a site within the ACCESS network	ACCESS	Annually

No. Indicator	Indicator	Data source (s)	Reporting
1.5	Proportion of gay and bisexual men who have sex with men who have been tested for syphilis three or more times in the previous 12 months attending a site within the ACCESS network	ACCESS	Annually
1.6	Proportion of women who gave birth, by duration of pregnancy at first antenatal visit	NPDC	Annually
1.7	Proportion of women who gave birth, by duration of pregnancy at first antenatal visit, by remoteness area	NPDC	Annually
1.8	Proportion of women who gave birth, by number of antenatal visits	NPDC	Annually
1.9	Proportion of women who gave birth, by number of antenatal visits, by remoteness area	NPDC	Annually
1.10	Proportion of women who gave birth, by country of birth	NPDC	Annually
GOAL 2 - Reduce ongoing transmission and incidence of syphilis across priority populations			
2.1	Notification rate of infectious syphilis by Indigenous status, sex, age and remoteness area classification	NNDSS/ABS	Quarterly
2.2	Notification rate of infectious syphilis in Aboriginal and Torres Strait Islander peoples by Indigenous Areas (IAREs)	NNDSS/ABS	Quarterly
2.3	Notification rate of infectious syphilis by Statistical Area 3 (SA3), by Indigenous status	NNDSS/ABS	Quarterly
2.4	Notification rate of infectious syphilis in women of reproductive age (15-44 years) by Indigenous status and remoteness area	NNDSS/ABS	Quarterly
2.5	Proportion of infectious syphilis notifications in men reporting sexual exposure with men only	NNDSS	Quarterly
2.6	Proportion of infectious syphilis notifications in men reporting sexual exposure with men and women	NNDSS	Quarterly

No. Indicator	Indicator	Data source (s)	Reporting
2.7	Proportion of infectious syphilis notifications by primary reason for testing	NNDSS	Annually
2.8	Proportion of infectious syphilis notifications in gay and bisexual men who have sex with men reporting HIV PrEP use at time of syphilis diagnosis	NNDSS	Annually
2.9	Proportion of infectious syphilis notifications by clinical facility where the syphilis infection was diagnosed	NNDSS	Annually
2.10	Proportion of infectious syphilis notifications receiving treatment, by time to treatment	NNDSS	Annually
GOAL 3 - Reduce morbidity and mortality associated with syphilis			
3.1	Number of syphilis related deaths (ICD-10 coded), by stage of infection	Causes of Death (ABS)	Annually
3.2	Number of hospitalisations with a principal diagnosis of syphilis (ICD-10 coded)	National Hospital Morbidity Database (AIHW)	Annually
3.3	Estimated number of Disability-adjusted life years (DALY) due to syphilis	Burden of Disease (AIHW)	Annually
GOAL 4 - Eliminate congenital syphilis (defined as sustained zero congenital syphilis cases)			
4.1	Number of congenital syphilis cases by remoteness area and Indigenous status	NNDSS	Quarterly
4.2	Number of congenital syphilis related deaths by Indigenous status	NNDSS	Quarterly
4.3	Notification rate of congenital syphilis per 100,000 live births by remoteness area and Indigenous status	NNDSS/ABS	Quarterly
4.4	Number of women giving birth to an infant with congenital syphilis who were diagnosed with syphilis in pregnancy by remoteness area and Indigenous status	NNDSS	Quarterly
4.5	Number of women giving birth to an infant with congenital syphilis who were diagnosed with syphilis 'late' in pregnancy by Indigenous status	NNDSS	Quarterly

No. Indicator	Indicator	Data source (s)	Reporting
4.6	Proportion of women giving birth to an infant with congenital syphilis receiving adequate treatment prior to delivery	NNDSS	Quarterly
4.7	Number of women giving birth to an infant with congenital syphilis by number of syphilis tests received during their pregnancy	NNDSS	Quarterly
4.8	Number of women giving birth to an infant with congenital syphilis reinfected during their pregnancy	NNDSS	Quarterly
4.9	Number of women of reproductive age (15-44 years) hospitalised with a principal diagnosis of syphilis (ICD-10 coded)	National Hospital Morbidity Database (AIHW)	Annually
4.10	Number of women hospitalised with a principal diagnosis of syphilis in pregnancy, childbirth and puerperium (ICD-10 coded)	National Hospital Morbidity Database (AIHW)	Annually

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