Government of **Western Australia**
Department of **Health**

Talk Test Treat Trace

Western Australian Sexually Transmitted Infections (STI) & Blood-borne Viruses (BBV) Manual for Aboriginal Communities

The Western Australian Department of Health acknowledges the Aboriginal people of the many traditional lands and language groups of Western Australia.

It acknowledges the wisdom of Aboriginal Elders both past and present and pays respect to Aboriginal communities of today.

Message from the Minister for Health

Aboriginal people in Western Australia are disproportionately affected by STIs and BBVs, which are a significant public health issue if not prevented, detected early and treated. Whilst important achievements have been made, there is still significant work to be done to reduce the incidence and prevalence of STIs and BBVs amongst Aboriginal communities in WA. There is a clear need for effective prevention, early detection and treatment of STIs and BBVs to reduce the prevalence and impact of these infections on communities. It is essential to consider all components in planning and implementing programs and services including culturally appropriate prevention and education, accessible testing and treatment, contact tracing, a skilled workforce, availability of health hardware, timely surveillance reports, research, evaluation and enabling environments.

To support the public health and primary healthcare service providers in rural and remote regions to plan, deliver, monitor and evaluate comprehensive STI and BBV programs, the WA Department of Health has developed a comprehensive manual.

The Manual was developed in joint partnership with WA public health practitioners and co-designed with representatives from the Aboriginal community controlled sector with expertise in public health and clinical management of STIs and BBVs.

This manual aims to complement a number of existing strategic documents developed by the Department of Health, including the *WA Aboriginal Sexual Health and Blood-borne Virus Strategy 2019–2023* and the *WA Syphilis Outbreak Response Action Plan*. Combined, these documents provide a framework and guiding principles to support public health programs and primary care services to address STIs and BBVs.

In light of the STI and BBV trends in WA, there is a need for a comprehensive public health response and innovative, community-led approaches to address these issues. The syphilis outbreak that commenced in WA in 2014 calls for increased and strengthened efforts in regional and remote WA to control the spread infectious syphilis and prevent congenital syphilis cases.

The introduction of new hepatitis C treatments in 2016 is also an exciting opportunity for health professionals working in this field and the affected populations. This has been incorporated into the Manual to provide guidance for the workforce to increase access, uptake and adherence to the treatment.

The Manual is demonstrative of a statewide commitment to addressing STIs and BBVs. I hope it provides the service providers with a reference tool that is easy to use to aid the vital work necessary in regional and remote WA to control STIs and BBVs.

Honourable Roger Cook MLA
Minister for Health

Acronyms

ACCHS	Aboriginal Community Controlled Health Services
AHC	adult health check
AHCWA	Aboriginal Health Council of Western Australia
AHMAC	Australian Health Ministers' Advisory Council
AHPPC	Australian Health Protection Principal Committee
AHW	Aboriginal Health Worker
Anti-HBc	antibody to hepatitis B core antigen
Anti-HBe	antibody to hepatitis B e antigen
Anti-HBs	antibody to hepatitis B surface antigen
ARV	antiretroviral
ASHM	Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine
ATSI	Aboriginal and Torres Strait Islander
BBV	blood-borne virus
BV	bacterial vaginosis
CDCD	Communicable Disease Control Directorate
CDEP	community development employment projects
CDNA	Communicable Diseases Network Australia
CNS-PH	Clinical Nurse Specialist Public Health
COAG	Council of Australian Governments
CQI	continuous quality improvement
CT	Chlamydia trachomatis
DAA	direct acting antiviral agents
Department	WA Department of Health
DNA	deoxyribonucleic acid
ED	emergency department
EIA	enzyme immunoassay
FTA ABS	fluorescent treponemal antibody absorption

GP	general practitioner
HAV	hepatitis A virus
HBeAg	Hepatitis B e antigen
HBIG	hepatitis B immunoglobulin
HBsAg	hepatitis B surface antigen
HBV	hepatitis B virus
HBV DNA	Hepatitis B deoxyribonucleic acid
HCC	hepatocellular carcinoma
HCV	hepatitis C virus
HCV Ab	hepatitis C antibody
HCV RNA	hepatitis C virus ribonucleic acid
HIS	health information system
HIV	human immunodeficiency virus
HPV	human papillomavirus
HSV	herpes simplex virus
HWWC	Hedland Well Women's Centre
IDU	injecting drug use
IgG	immunoglobulin G
IgM	immunoglobulin M
IUD	intra-uterine device
JMO	junior medical officer
KAMS	Kimberley Aboriginal Medical Services
KPI(s)	key performance indicator(s)
KPHU	Kimberley Population Health Unit
MC&S	microscopy, culture and sensitivity testing
MJSO	multijurisdictional syphilis outbreak working group
MOU	memorandum of understanding
MSM	men who have sex with men
NAAT	nucleic acid amplification test
NACCHO	National Aboriginal Community Controlled Health Organisation
NG	*Neisseria gonorrhoea*
NSEP	needle and syringe exchange programs

NSP	needle and syringe programs
NSW	New South Wales
NT	Northern Territory
PBS	Pharmaceutical Benefits Scheme
PCR	polymerase chain reaction
POC	point of care
POCT	point of care testing
PEP	post-exposure prophylaxis
PrEP	pre-exposure prophylaxis
PHU	population/public health unit
PID	pelvic inflammatory disease
PROM	premature rupture of membranes
PDSA	plan, do, study, act
PWID	people who inject drugs
Qld	Queensland
RHW	Rural Health West
RNA	ribonucleic acid
RPR	rapid plasma reagin
SA	South Australia
SAHMRI	South Australian Health and Medical Research Institute
SHBBVP	Sexual Health and Blood-borne Virus Program
SHQ	Sexual Health Quarters
SiREN	WA Sexual Health and Blood-borne Virus Applied Research and Evaluation Network
SOLVS	self-obtained lower vaginal swab
STI(s)	sexually transmissible infection(s)
SVR	sustained virological response
TAFE	Technical and Further Education
TTANGO	Test Treat ANd Go
TGA	Therapeutic Goods Administration
TOP	termination of pregnancy
TP	Treponema pallidum
TPHA	Treponema pallidum haemagglutination assay

TPPA	Treponema pallidum particle agglutination assay
TV	Trichomonas vaginalis
UTI	urinary tract infection
VDRL	Venereal Disease Research Laboratory
WA	Western Australia
WAAC	Western Australian AIDS Council
WACHS	Western Australia Country Health Service
WANIDD	Western Australia Notifiable Infectious Diseases Database
WAPHA	Western Australia Primary Health Alliance
WA SORG	Western Australia Syphilis Outbreak Response Group
YACWA	Youth Affairs Council of Western Australia

Contents

Introduction

The Talk Test Treat Trace, Western Australian Sexually Transmitted Infections (STI) and Blood-borne Virus (BBV) Manual for Aboriginal Communities (the Manual) is a comprehensive tool to guide the prevention, early detection and treatment of sexually transmissible infections (STIs) and blood-borne viruses (BBVs). It has been developed to support health professionals to plan, deliver, monitor and evaluate STI and BBV programs.

Topics cover the continuum of care from prevention and treatment through to workforce development. In addition, it provides practical guides to establish programs such as outreach initiatives, and needle and syringe programs (NSPs).

The Manual is aimed at regional and remote professionals and those working with Aboriginal populations. People providing services in the metropolitan area and for other priority populations are also likely to benefit from the guidance it provides. The content has been developed with a number of different workforces in mind, including:

- Aboriginal health workers (AHWs)
- nurses
- doctors
- health promotion officers
- program coordinators
- service managers.

Dr Janet Knox was employed by the Western Australian Department of Health (Department) as a consultant to write the Manual. A reference group was established to guide the development of the content and structure. Three workshops were held in Perth to provide a forum for staff to discuss content, identify gaps, and provide suggestions. The workshops were attended by non-government organisations, WA Country Health Service (WACHS) staff and staff from Aboriginal Community Controlled Health Services (ACCHS). Drafts were developed and reviewed in depth by the reference group, the Sexual Health and BBV Program (SHBBVP) and staff who attended the workshops in Perth.

The Department would like to acknowledge the following people who were integral in developing the Manual:

- Dr Janet Knox
- SHBBVP staff
- Reference Group
- Workshop participants
- Contribution of images from stakeholders

1. Requirements for an effective sexual health and BBV program

Key points

- The requirements for effective sexual health and BBV programs include:
  - prevention and education
  - an enabling environment
  - workforce development
  - testing and diagnosis
  - disease management and clinical care
  - research, evaluation and surveillance.
- Appropriate and effective consultation enables communities themselves to help determine the processes, outcomes and sustainability of programs.
- Program activities are always enhanced by collaboration between various organisations that have contact with, or provide services to people and communities affected by STIs and BBVs.
- An enabling environment is one that is acceptable and improves access for people at risk of, or who are affected by, STIs and BBVs and it is also important for the effective delivery of clinical services.
- Workforce training should focus on current and emerging issues, address gaps in testing and management and meet the needs of staff working across a range of services.

Key goals of sexual health and BBV programs

The key goals and core components required for comprehensive programs are outlined in the *Fourth National Sexually Transmissible Infections Strategy 2018–2022* and *WA Sexual Health and Blood-borne Virus (BBV) Strategies (2015–2018)*.[1,2] The WA strategies (2019–2023) incorporate new developments, which are highlighted throughout this manual.

New and highly effective direct acting antivirals (DAA) for the treatment of hepatitis C became available on the Pharmaceutical Benefits Scheme (PBS) in 2016, making the elimination of hepatitis C an achievable goal. Other significant advancements that have occurred in recent years include new treatments for human immunodeficiency virus (HIV), and the rollout of the human papillomavirus (HPV) vaccine. While this manual will not specifically cover issues relating to HIV and HPV, it will focus on increasing access to testing and management of hepatitis B, hepatitis C and treatable STIs.

Despite those advancements, a syphilis outbreak that commenced in 2011 has extended beyond Queensland to the Northern Territory (NT), Western Australia (WA) and South Australia (SA), affecting mainly 15 to 30-year-old Aboriginal and Torres Strait Islander people living in remote and regional areas. The re-emergence of cases of congenital syphilis and neonatal deaths has necessitated an increased emphasis on responses and strategies to contain this outbreak and prevent adverse outcomes.

Increasing access to effective hepatitis C treatment and addressing the syphilis outbreak needs a multifaceted approach that highlights the key goals and requirements for effective sexual health and BBV programs. The *WA Aboriginal Sexual Health and Blood-Borne Virus Strategy 2015–2018*[3] emphasises the importance of partnerships between government, non-government organisations and the community in reducing the transmission and impact of STIs and BBVs.

Key goals are to:

- build awareness among priority populations
- improve testing rates
- increase access and awareness among priority populations and through the ongoing provision of coordinated and responsive training, resources and support programs for the workforce
- increase access to new HIV and hepatitis C treatments
- orient primary healthcare services to enhance STI and BBV testing among priority populations
- maximise community engagement with health programs by eliminating stigma and discrimination among priority populations
- conduct ongoing evaluation of health promotion and treatment programs and services to ensure they are meeting the needs of communities.[1]

Core components of a sexual health and BBV strategy

The core components of effective programs include:

- prevention and education
- an enabling environment
- workforce development
- testing and diagnosis
- disease management and clinical care
- research, evaluation and surveillance.[2]

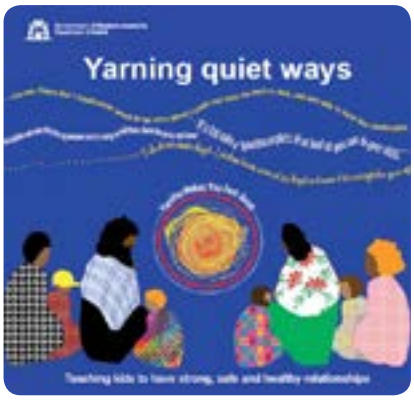
This section provides an overview of community consultation, partnerships, enabling environments and workforce development; other components will be discussed in the following chapters.

Community consultation and engagement

Appropriate and effective consultation enables communities to be engaged and involved in determining the processes, outcomes and sustainability of sexual health and BBV programs. It involves genuine listening and giving careful consideration to the views of community members, enabling them to be involved and collaborate to influence and shape programs. Effective communication also involves sharing information and providing feedback on the progress and outcomes of programs.

Good engagement and communication between services and communities develops trust and relationships that have many benefits for both. Elders and other key community members can provide unique knowledge, experience and insight. Their involvement can be empowering for the community and mutually valuable, as well as contributing to the success and sustainability of programs.[4, 5] Advice from local Aboriginal staff is essential to understanding cultural protocols when planning community engagement, community education programs or clinical services.

> "Community involvement and ownership help to build self-determination and community control. The more a community is involved, the more people will access sexual health services. Positive community involvement is also good for young people. Research shows that young Aboriginal and Torres Strait Islander people who feel connected to their families and have caring adults who are involved in their lives have a lower risk of poor sexual and reproductive health." — Djiyadi – can we talk? [4]



Yarning quiet ways resource

Partnerships

The *WA Aboriginal Sexual Health and BBV Strategy 2015–2018* recognises the unacceptably high rates of STIs among Aboriginal people in WA and the importance of service providers and communities working together to improve sexual health outcomes.[3] Program activities are always enhanced by collaboration between various organisations that have contact with, or who provide services to, people and communities affected by STIs and BBVs. As every community differs with regard to what services are available, who accesses them and how they are accessed, an important first step in developing partnerships is to map out the main services and organisations in the community that engage with or provide services to priority populations.

Effective partnerships already exist in many regions; in others, if they do not need to be developed from scratch, they could be reinvigorated or strengthened. Where partnerships do exist, it is useful to revisit what programs are being delivered to ensure they support the key goals of current sexual health and BBV strategies.

Services and organisations that already collaborate or could be engaged in partnerships include:

- Health services (both primary care and hospital-based services and programs):
  - ACCHS
  - Sexual health clinics
  - Sexual Health Quarters (SHQ)
  - General practices
  - Antenatal outpatient clinics and outreach services
  - Mental health services
  - Headspace
  - Drug and alcohol services
  - NSPs
  - Corrective Services health clinics

Ngangganawili Aboriginal Health Service in Wiluna

- Community-based organisations:
  - Youth centres
  - Sporting clubs
  - High schools
  - Education and employment agencies such as TAFE colleges and Community Development Employment Projects (CDEP) programs
  - LGBTI (lesbian, gay, bisexual, transgender and intersex) organisations
  - Community council offices
- Networks and organisations that provide representation, education, counselling and advocacy:
  - Aboriginal Health Council of WA (AHCWA)
  - SHQ
  - Youth Affairs Council of Western Australia (YACWA)
  - Western Australian AIDS Council (WAAC)
  - Peer Based Harm Reduction WA
  - HepatitisWA.

Enabling environment

An enabling environment is one that is acceptable and improves access for people at risk or affected by STIs and BBVs, and is important for the effective delivery of clinical services. Ensuring clients are treated by all staff in a way that is respectful, non-judgemental and free of discrimination is essential for a service to be accessed by people who may be marginalised and who have limited access due to factors such as young age, culture, language, gender, sexuality, socioeconomic status and drug use. With regard to Aboriginal people, organisations and staff should have an understanding of cultural security and how to ensure it is provided through their services and programs.

Cultural security

It is essential that organisations and agencies understand the cultural context in which they are working, and ensure their programs and services are built upon elements that strengthen cultural identity, connection and leadership capacity among the Aboriginal people accessing them. The steps towards providing cultural security include:

Cultural awareness: sensitivity to the similarities and differences that exist between two different cultures and the use of this sensitivity in effective communication with members of another cultural group.

Cultural competency: becoming aware of the cultural differences that exist, appreciating and having an understanding of those differences and accepting them. It also means being prepared to guard against accepting your own behaviours, beliefs and actions as the norm.

Cultural safety: shared respect, shared meaning, shared knowledge and experience of learning, living and working together with dignity and truly listening. It is about creating an environment that is safe for people; where there is no assault, challenge or denial of their identity, of who they are and what they need.[5]

Reference: Engaging with Aboriginal Children and Young People toolkit. Commissioner for Children and Young People WA, 2018.

Despite the presence of specialist sexual health services, most STI management is provided through primary healthcare services that provide a range of health care to the entire community. While it may not be possible to meet all the needs of priority populations or be feasible to change the location or infrastructure of existing services, changes can be made to reduce stigma and discrimination and remove barriers to access. Be mindful about who the priority population is and issues specific to them. Engage the community to determine changes that could be made to reduce barriers and improve access. Think about what your service does well and identify where there are barriers that could be addressed. These factors will be different, depending on the location and client group, but could include changing opening hours, providing transport to enable youth to attend after school, setting aside specific clinic days, providing separate entrances for men and women, providing waiting rooms that are welcoming, and having youth and culturally appropriate resources available.

Case study

SHQ: how we are making SHQ a more culturally safe space

Some activities and changes SHQ has implemented to become a more culturally safe and appropriate workplace include:

- receiving ongoing input from an external Aboriginal Advisory Committee
- involving Aboriginal educators in planning, delivery and evaluation of programs
- ensuring Aboriginal educators take a leadership role in promoting sexual health
- displaying culturally appropriate paintings in the waiting room of the clinic
- displaying a framed National Apology to the Stolen Generation
- displaying the National Apology translated into Chinese for the Magenta clinic so that Chinese sex workers are able to read and understand the National Apology and its significance
- implementing daily STI drop-in clinics
- implementing free appointments for people 18 years and under
- employing an Aboriginal educator to provide outreach services to street-based sex workers
- targeting marginalised groups (Aboriginal young people are commonly in the classes held by youth educators and promote SHQ services)
- encouraging visits by school groups, who either pretend or actually get tested for STIs.

The SHQ is upskilling our workforce to become more culturally aware and appropriate by:

- forming a Reconciliation Working Group to discuss issues as well as plan all-staff events for significant times such as Reconciliation Week, National Sorry Day and NAIDOC Week
- receiving ongoing input from an external Aboriginal Advisory Committee
- conducting cultural safety training for the SHQ workforce
- enhancing cultural awareness and understanding through social relationships and collaboration between Aboriginal and non-Aboriginal staff members
- developing a Reconciliation Action Plan that has been ratified by Reconciliation Australia.

Workforce development

Successful programs rely on having a skilled, knowledgeable, respected and committed workforce who can work as a team. Ensuring that our large, mobile health workforce is adequately trained as well as kept up-to-date with new and emerging issues presents many challenges.

Workforce development should aim to:

- build capacity and broaden the range of healthcare workers able to test for and manage STIs and BBVs
- enable practitioners to have the confidence, skills and knowledge to increase testing and provide appropriate and up-to-date management of STIs and BBVs
- work in partnership and use the skills of relevant health services and staff and existing programs to deliver training and support programs.

Most people with STIs are managed through primary healthcare services and, while training is often focused on staff working in primary care, people with STIs and BBVs are also frequently managed through hospitals. It is important when considering training programs to ensure that relevant hospital staff members are not overlooked, particularly those working in obstetrics, surgery and emergency departments.

Training the health workforce, particularly those working in regional and remote areas, presents unique challenges and issues such as:

- competing health priorities and training needs
- lack of adequate funds and staff to deliver training in some areas
- rapid staff turnover
- locum staff and visiting specialists who may have limited prior experience working in areas of high STI prevalence
- lack of knowledge about the epidemiology of STIs and clinical and public health guidelines specific to the region
- lack of experience and skills related to managing STIs and BBVs
- potential barriers due to gender, language and culture
- real or perceived lack of professional support available.

Identify the specific needs of the workforce and address gaps in management. Focus on key and emerging issues, gaps in management and the needs of staff in both primary care and hospital settings such as:

- local epidemiology of STIs and BBVs, the key age groups and priority populations affected
- clinical management guidelines specific to the region or priority population

- new and emerging issues, such as the responses to the syphilis outbreak, who is affected and updated testing and management protocols
- availability and access to new, better tolerated and more effective DAA treatment for hepatitis C
- addressing common gaps in testing and management such as:
  - increasing the low rates of testing among the highest risk age group (15 to 30) and in particular among 15 to 19-year-old women and young men
  - increasing the uptake of testing in a way that is easy and acceptable
  - integrating testing into routine healthcare delivery
  - improving the management of low abdominal pain and pelvic inflammatory disease (PID) among young women by increasing awareness of common presenting signs and symptoms, and addressing the common mismanagement of PID as urinary tract infections (UTIs) or appendicitis
- complying with public health responsibilities with regard to the notification of STIs and BBVs and mandatory reporting requirements.

Develop partnerships and use existing networks to assist with accessing and delivering training. Be familiar with what is available with regard to up-to-date STI and BBV clinical management guidelines, staff training and support. STI and BBV clinical management guidelines include:

- *Silver Book – A guide for managing sexually transmitted infections (Silver Book)*
- *Sexual Health Orientation Manual for Endemic Regions*
- Australian STI management guidelines
- Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM) HIV and viral hepatitis resources and management guidelines
- *Communicable Diseases Network Australia (CDNA) National Guidelines for Public Health Units* – updated syphilis management guidelines
- Guidelines specific to a region or organisation such as the Kimberley Aboriginal Medical Services (KAMS) and Kimberley Population Health Unit (KPHU) clinical guidelines.

Organisations and services that provide or can assist with training:

- ASHM
- SHQ
- AHCWA
- Fremantle and Royal Perth Hospital Sexual Health Services
- Regional population/public health units (PHUs)

Case study

The Birds and the BBVs training: AHCWA

The Birds and the BBVs is a two-day training course that aims to build the capacity of Aboriginal health workers (AHWs) and others working with Aboriginal people to yarn about and normalise STI and BBV testing.

"Just following up with some good news in regards to the training you provided. A client presented who mentioned he was recently released from prison. I noticed he had a few tattoos so I asked a few questions about his time spent on the inside. He informed me he received two new tattoos. From there, I was able to identify the risk for hepatitis B, C and HIV. I informed him of the possible risk and he consented to blood tests. I was pleased that the training I received was able to be used in my practice so soon." — feedback from a health practitioner following the training.

Different models of health service delivery

While the main focus of this manual is on the delivery of sexual health and BBV programs through primary healthcare services, we acknowledge that people with or at risk of STIs and BBVs access a range of health services, and that their management is not confined to primary care. Hospitals have a significant role to play with regard to managing people with STIs and BBVs. In regional and remote areas, there are also different models of health service delivery that span both primary and hospital care. Hospitals may provide primary health care through outpatient clinics, and staff often provides both primary and tertiary care within those services, or they may work both in primary healthcare services and hospitals. Other services such as private general practices, the Royal Flying Doctor Service, Corrective Services health clinics and mental health services also provide primary and emergency care to people with STIs and BBVs.

Have plenty of condoms on hand

Nullagine shop

Case study

Junior medical officer training: Kalgoorlie Hospital

The Goldfields PHU provides Goldfields-specific public health training to the junior medical officers who are on 12-week rural placement at Kalgoorlie Hospital. The unit, which has delivered this training since 2014, works through a structured program at the Kalgoorlie Health Campus. The Kalgoorlie Hospital runs a regular weekly education program for junior medical officers, which is also open to other medical officers, medical students and nurses. The unit nominates a session, preferably towards the start of the new term, to orient new staff, many of whom have never worked in the Goldfields before. Topics for discussion include the epidemiology of STIs and BBVs in the region, priority populations, management of common STIs and the role of the unit's sexual health team. Each session draws 12 to 15 participants and allows time for questions, discussion and networking. Delivering training on a regular basis not only provides information to new staff but has improved relationships and communication between staff at the hospital and the unit.

Hospital emergency departments, antenatal and maternity services and other outpatient services should be made aware of acute presentations such as:

- young women presenting with lower abdominal (pelvic) pain due to PID
- pregnant women presenting with adverse outcomes (possibly due to chlamydia, gonorrhoea and other STIs) such as early miscarriage, ectopic pregnancy, premature rupture of membranes, post-partum infection, and neonatal infections
- pregnant women presenting with adverse outcomes due to syphilis such as mid-term miscarriage, stillbirth and congenital syphilis
- men presenting with urethritis or epididymo-orchitis (inflammation) due to chlamydia or gonorrhoea, or both
- men and women presenting with complications of gonorrhoea such as septic arthritis or disseminated infections.

Orientation and training should also make staff aware of their responsibilities under WA health legislation regarding access for people who inject drugs (PWID) to clean needles and syringes, and appropriate information as required. For further information, see Chapter 9.

Staff and organisations who provide workforce training should be mindful and inclusive of relevant staff working outside of primary healthcare services to ensure that the broader workforce is able to provide appropriate services to people with or at risk of STIs and BBVs.

2. Community information and education

Key points

- The broad aim of sexual health and BBV education programs is to empower communities and individuals to make choices and behavioural changes to:
  - maintain and enhance their sexual health and wellbeing
  - avoid negative sexual health outcomes, including minimising the transmission and complications of STIs and BBVs.
- Providing specific information can increase awareness of current and emerging issues that is relevant to priority populations as well as to their clinical and non-clinical service providers.
- The content and method of delivery of STI and BBV awareness and education programs should take into account the specific needs of priority populations, the best way to engage them, and issues such as age, culture, gender and level of literacy.
- Engagement with the community is an important part of the process in developing and delivering appropriate and meaningful messages and programs.
- Different methods can be used to provide information, including peer educators, social marketing and media, text, email, internet, printed resources and radio.
- Healthcare workers should be familiar with current campaigns and programs and how they can be used or adapted both on-the-ground and to strengthen partnerships with relevant organisations.

Community information and education

Community-based education is an essential part of an effective program for the prevention, detection and treatment of STIs and BBVs. While there are many challenges to increasing awareness and providing education, a lot of work has already been done and resources developed by a range of organisations that can be used or built on.

The Meekatharra Indigenous HIP HOP Project engaged with local young people

The broad aim of sexual health and BBV education programs is to empower communities and individuals to make choices and behavioural changes to:

- maintain and enhance their sexual health and wellbeing
- avoid negative sexual health outcomes, including minimising the transmission and complications of STIs and BBVs.

Effective sexual health and BBV education programs will impart the knowledge, skills and attitudes required for people to choose healthy behaviours. The key behaviours that STI and BBV education aims to promote are condom use, safer injecting, getting tested and treated for STIs and BBVs, and HPV immunisation. Additionally, awareness and education programs should emphasise current and emerging issues relevant to the target group, such as those related to the syphilis outbreak and the availability and access to new, effective treatments for hepatitis C.

STI and BBV education programs should:

- provide clear and accurate information about the transmission, consequences and prevention of STIs and BBVs
- build the motivation and confidence to act on that knowledge
- develop the skills necessary to put the knowledge into action.

Education about contraception for the prevention of unintended pregnancy, as well as the importance of early and regular engagement of pregnant women with health services, is also vital, given the severe consequences of STIs in pregnancy.

It is important not only to engage the priority population but also the organisations that provide services to them, such as health practitioners, teachers and peer educators. Think about the aim of your program and who you need to engage beyond the target audience to make it effective.

Young Leaders[1] is a program aimed at Aboriginal and Torres Strait Islander youth in WA. The program was developed by AHCWA and funded by the Department. It aims to identify and upskill future leaders in the Aboriginal health sector and encourage young leaders to pass on relevant health information to other young people in their communities.

Youth Peer Education Sessions in Wiluna

For example, if the aim of a program is to encourage increased testing for STIs among 15 to 25-year-old people, it is important to engage the appropriate health services to ensure access and appropriate testing and management is supported by the health service and staff. There is not much point encouraging young people to attend a service if it is inaccessible, unacceptable or not offering appropriate testing and management for young people in practice.

Clear messages about STIs and BBVs

Providing clear, specific messages about risky and protective behaviours is one of the most important characteristics of effective programs. Clear, accurate information about the transmission, consequences and prevention of STIs and BBVs is an essential part of effective STI and BBV education. The focus should be on information that is practical and directly relevant to the desired behaviours.

Providing specific information can increase awareness about current and emerging issues and be relevant for priority populations as well as their clinical and non-clinical service providers. Topics may include:

- prevention and harm reduction:
  - condom use and access (e.g. health services, emergency departments, condom trees, vending machines)
  - safer injecting and access to NSPs
  - who is at risk and of what?
  - testing and treatment: how easy it is, and where and when to seek testing
- HPV vaccine:
  - benefits for reducing the risk of cervical cancer and genital warts
  - availability, access to and encouraging the uptake of the vaccine
- chlamydia, gonorrhoea and trichomonas:
  - asymptomatic nature of chlamydia infection, reproductive health consequences of untreated chlamydia and gonorrhoea (e.g. PID, ectopic pregnancy, infertility)
  - adverse outcomes in pregnancy such as early miscarriage and post-partum infection/PID (chlamydia, gonorrhoea), premature rupture of membranes, premature delivery and neonatal infection
  - common symptoms of chlamydia and gonorrhoea (low abdominal pain, abnormal bleeding, discharge) and trichomonas (vaginal itch, discharge)
  - ease of testing with self-collected specimens such as urine and self-obtained vaginal swabs and single-dose treatment
  - when and how frequently testing is recommended
- syphilis:
  - current outbreak affecting primarily 15 to 30-year-old Aboriginal men and women in regional and remote communities

Aboriginal and Torres Strait Islander HIV Awareness Week

- increasing rates among men who have sex with men (MSM) in urban areas
- common signs and symptoms of primary and secondary syphilis (genital sores, unexplained rashes, hair loss)
- consequences of syphilis in pregnancy and prevention of congenital syphilis through regular screening and prompt management of women and their partners

- hepatitis C:
  - new treatments with effective cure rates, single dosing and fewer side-effects
  - easier criteria for accessing treatment
  - treatment available through primary healthcare services
- hepatitis B:
  - hepatitis B immunisation recommended in high-risk groups
  - new, more effective treatment available
- HIV:
  - increased risk of HIV transmission in the presence of STIs, particularly those causing ulcers
  - importance of early treatment for preventing transmission and limiting progression of the disease
  - new antiretrovirals (ARV), which have fewer side-effects and can be given as a daily dose
  - rising incidence of HIV in Aboriginal populations in regional areas
  - availability and access to preventive methods including pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP)
- prevention of mother to child transmission:
  - Importance of appropriate testing and management of STIs and BBVs in pregnancy to prevent transmission of infection to the baby
  - Importance of engagement with health services early and throughout pregnancy.

The content and method of delivery of STI and BBV awareness and education programs will vary depending on the specific needs of priority populations and the best way to engage them. Information must be relevant and appropriate, taking into account issues such as age, culture, gender, level of literacy and risk factors specific to the community or individual. The diversity of people in the community must be recognised and respected. In particular, information and the way it is delivered must address the needs and be inclusive of all people, regardless of sexual orientation or gender identity. Engagement with the community is an important part of the process in developing and delivering appropriate and meaningful messages and programs. Advice from local Aboriginal staff is essential to understanding cultural protocols when planning community engagement or community education programs. Further opportunities to talk to community leaders about health problems might include requesting a meeting with the boards of Aboriginal health services, land councils, language centres, or arts and culture centres.

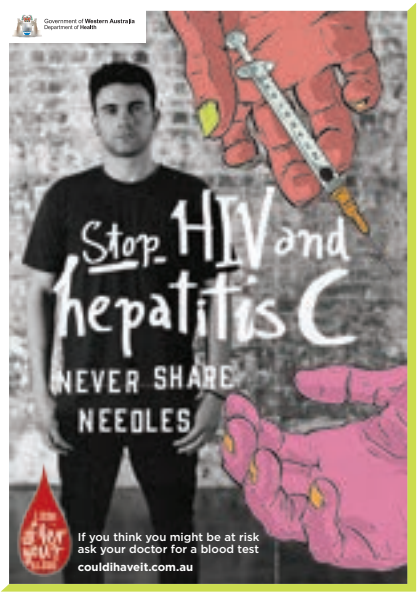
There are many ways to provide information and different methods can be used, including peer educators, social marketing and media, text, email, internet, printed resources and radio. Be familiar with current campaigns and programs. What can you use or adapt? How can you develop or strengthen partnerships with relevant organisations to assist? Examples of current campaigns and resources include:

- *Young Deadly Free*[2] campaign: https://youngdeadlyfree.org.au
  - one-stop shop for resources about STIs and BBVs affecting young people in regional and remote Aboriginal and Torres Strait Islander communities (video clips, animations, TV and radio ads, infographics and posters)

- *Better to know*: http://www.bettertoknow.org.au
  - provides information about common STIs for Aboriginal and Torres Strait Islander people, including separate men's and women's business sections (includes anonymous partner notification)
- *U and me can stop HIV*: http://www.atsihiv.org.au
  - HIV health promotion resources for Aboriginal communities, including infographics, posters, animations

- *Let's Yarn!* https://letsyarn.health.wa.gov.au
  - learning activities, student resources, information on culturally appropriate sex and relationship education
  - information for parents on how to talk to kids as they grow up
  - *Kaiyai girl* – interactive film about alcohol and other drug use and its impact on safe decision-making around STIs and pregnancy

- *Stay Safe You Mob* campaign: https://ww2.health.wa.gov.au/Articles/A_E/Campaign-Aboriginal-sexual-health
  - social marketing campaign that encourages young Aboriginal people to wear condoms and get tested for STIs (videos, poster and radio clips)
- *Look After Your Blood* campaign: https://ww2.health.wa.gov.au/Articles/A_E/Campaign-sexual-health-Aboriginal-BBV
  - social marketing campaign that promotes the importance of prevention, testing and treatment of BBVs (videos, poster and radio clips)



Look After Your Blood Campaign

Stay Safe You Mob Campaign

- condom game (available from SHQ)
- *Live deadly stronger and longer* posters: http://biblio.healthinfonet.org.au/key-resources/promotion-resources?lid=31170
  - posters from WA AIDS Council that encourage testing.

Young Deadly Free campaign

These resources have been developed and collated by the South Australian Health and Medical Research Institute (SAHMRI) as part of two intiatives funded by the Australian Government Department of Health:

- the Remote STI and BBV Project – Young, deadly, STI and BBV free
- the Young, deadly, syphilis free campaign

The project comprises a set of interrelated activities that aims to substantially increase STI and BBV testing and treatment rates for Aboriginal young people living in remote communities across Queensland (Qld), Northern Territory (NT), Western Australia (WA) and South Australia (SA).

Sexual health and BBV education programs

STI and BBV education is most effective when provided within a broader sexual health education program. Providing clear and relevant information is a vital part of sexual health education. As well as providing information, effective programs develop the attitudes to motivate healthy behaviours, and the skills required to put those behaviours into practice. Promoting respectful relationships is vital, as unequal power in a relationship will limit a person's capacity to negotiate sexual behaviour and safer sex.

Attributes of effective sexual health education programs:

- based on respect for human rights and diversity
- focus on addressing gender expectations and developing gender equality in relationships
- culturally relevant and context appropriate
- enable the development of the life skills needed for respectful relationships and to support healthy behavioural choices.

There are a range of resources available to assist with the planning and delivery of sexual health education programs. These include:

- *The Practical Guide to Love, Sex and Relationships*: http://www.lovesexrelationships.edu.au
  - teaching resource for Years 7 to 10 from the Australian Research Centre in Sex, Health and Society, La Trobe University – explores relationships, sexual consent, equity and sexual and reproductive health
- *Resilience, Rights and Respectful Relationships*: http://fuse.education.vic.gov.au
  - learning materials that cover eight topics of social and emotional learning across all levels of primary and secondary education – emotional literacy, personal strengths, positive coping, problem solving, stress management, help seeking, gender and identity, and positive gender relationships

- *Growing and Developing Healthy Relationships*: https://gdhr.wa.gov.au
  - GDHR website designed to support and assist WA teachers, school nurses and schools to provide positive and comprehensive sexual health education
- *RELATE. Respectful Relationships Education*: https://shq.org.au
  - comprehensive, evidence-based, respectful relationships and sexual health program for Years 7 to 10m – an easy to use three-stage program with eight sequential session plans in each stage
- *Djiyadi – Can we talk?*[3] https://www.ashm.org.au
  - Resource manual to promote positive sexual health among Aboriginal and Torres Strait Islander young people. Chapter 3 titled 'Educating about sexual health' discusses formal and informal sexual health education for young people in schools and other settings.

Sexual health education programs should be delivered by well-trained and supported staff. When planning programs, ask yourself:

- Does your organisation have staff with sound skills to plan and deliver sexual health education?
- Who are the people and organisations in your community that have these skills?
- Can you work in partnership to ensure people in your community have access to comprehensive sexual health education?

Organisations that deliver education and could be engaged in partnerships include:

- AHCWA
- SHQ
- regional sexual health teams
- PHUs
- youth agencies
- schools
- TAFE colleges
- Inclusive Education WA

Education stall, Great Southern

Workforce development

Courses to develop knowledge and skills to provide sexual health education include:

- Mooditj Leader training (SHQ)
- Nuts and Bolts of Sexual Health (SHQ)
  - three-day course to develop the core knowledge, attitudes and skills required to provide information and support for young people around respectful relationships and sexual health issues (designed for youth and community workers)
- Tools of the Trade (SHQ)
  - two-day course that builds on Nuts and Bolts to develop the skills required to plan and deliver sexual health education
- Sexuality and Relationships Education (SRE) in schools
  - two-day course offered by the SRE Teacher Training Project (Curtin University) for teachers and school health nurses to improve their capacity and confidence to teach relationships and sexuality education in a school environment.

Case study

Mooditj program

Mooditj is an interactive education program for Aboriginal young people aged 10 to 14 years. It was developed by SHQ in consultation with Aboriginal people from across WA. The aim of the program is to help build strong young Aboriginal people who can make positive and informed choices about their relationships and sexual health.

The full program is 10 sessions of one hour each. Young people learn about:

- identity – growing a strong sense of themselves
- respectful relationships
- understanding feelings
- speaking up
- goals and staying on track
- puberty
- what becoming a young parent might mean to both families
- making decisions about sex, consent and their rights
- contraception and STI prevention.

Mooditj is designed to be taught by Aboriginal community workers. It can also be run by non-Aboriginal people in partnership with community members. People who want to run a Mooditj program for young people in their community need to attend training.

Mooditj Leader training is a four-day, hands-on course run by SHQ in Perth and in regional WA by negotiation. The training is culturally safe, fun and interactive. A Mooditj manual, which provides all the information and session plans needed to run a Mooditj program, is provided.

3. Increasing the uptake of testing

Key points

- Early detection and treatment of STIs and BBVs aims to:
  - interrupt ongoing transmission
  - prevent or limit adverse outcomes
  - reduce the risk of HIV transmission
  - reduce the prevalence of STIs and BBVs in the community.
- Ensure testing is directed to 15 to 30-year-old people and other priority populations at regular time intervals and avoid asymptomatic screening of low prevalence populations.
- Integrate testing of 15 to 30-year-old people into routine health screening, reproductive health checks and opportunistically at other visits.
- Provide appropriate information on STIs and BBVs to enable prevention, harm reduction and encourage health-seeking behaviour that leads to the uptake of testing.
- Ensure that health services and staff provide an environment that is accessible and acceptable for priority populations.
- Understand when a comprehensive sexual history and check-up should be conducted and when it is not necessary and can be simplified.
- Simplify obtaining consent to testing to make it quick, easy and acceptable to clients and practitioners.
- Ensure that health information system (HIS) templates and recalls align with recommendations for STI and BBV testing.

Promoting testing at Leonora Health Service


Point of care testing

Epidemiology

STIs and BBVs can affect anyone of any age, either because of their own or their partner's behaviour, or because they are in a certain age or risk group among whom infections are common. The pattern of distribution of STIs and BBVs among populations and regions is well defined, and regardless of individual risks, the majority of treatable STIs occur among 15 to 29 year olds. With regard to chlamydia, 73 per cent of all notifications occur among 15 to 29 year olds, with 15 to 19 year old women being the highest risk age group.[1] Among 15 to 24 year olds, national surveillance reports indicate chlamydia is detected in about 1 in 20 tested (5.9 per cent) through primary health services.[2] Between 2008 and 2013, 36 clinical audits of STI testing and treatment were conducted at 16 ACCHS in both urban and remote areas of WA, NSW, NT and Qld. These audits identified very high chlamydia positivity rates that were consistent across services, regardless of location. Among all women tested for any reason, chlamydia was detected among 10 per cent of all antenates, about 20 per cent of all 15 to 24 year olds and 25 per cent of 15 to 19 year olds. About 50 per cent of these women were tested as part of routine asymptomatic screening.[3]

In contrast to chlamydia, the rates of gonorrhoea, trichomonas and syphilis vary with geographic location and increase with remoteness, which is also associated with less availability of and access to clinical services. Before the introduction of the diagnostic tool PCR (polymerase chain reaction), the inability to detect some infections due to limited access to laboratories, has also contributed to the higher rates of gonorrhoea, trichomonas and syphilis in remote areas. Consequently, young people living in remote areas are at much higher risk of several STIs compared to those living in urban areas, simply because they are sexually active within a community where those infections are very common and easily transmitted.

Early detection and treatment

STIs are frequently asymptomatic or cause minimal signs and symptoms that can go unrecognised both by those affected and practitioners. Because of the asymptomatic nature of many infections, early detection and treatment of people known to be at risk is a core component of our STI and BBV strategies. Early detection and treatment aims to:

- interrupt ongoing transmission
- prevent or limit adverse outcomes such as:
  - adverse reproductive health outcomes (e.g. PID, chronic pelvic pain, infertility)
  - adverse outcomes in pregnancy (e.g. ectopic pregnancy, miscarriage, premature rupture of membranes, post-partum and neonatal infections)
  - cirrhosis and liver cancer
  - progression to severe immune suppression and AIDS
- reduce the risk of HIV transmission
- reduce the prevalence of STIs and BBVs in the community.

There are many circumstances when individuals with symptoms or specific risk factors should be tested for STIs and BBVs. Nevertheless, to be cost-effective at a population level, early detection and treatment should be directed to those who are known to be at high risk of STIs. With regard to testing and treatment, it is also important to take into account what infections are common, and therefore likely in the region or among specific priority populations.

Reducing barriers and increasing the uptake of testing among priority populations

Barriers to testing for STIs and BBVs are varied and may include:

- **client factors**: fear, shame, embarrassment, lack of knowledge or awareness, gender of practitioner or relationship of practitioner to the client
- **practitioner barriers**: personal barriers with regard to talking with clients about sex, fear of not being the appropriate gender to the client, lack of knowledge or confidence, lack of time or competing priorities
- **the way in which it is offered**: real or perceived lack of privacy and confidentiality or the way in which the subject is approached or questions asked
- **health services and systems**: STIs and BBVs may not be prioritised or well supported at a health service level, systems may not support easy testing and treatment, continuous quality improvement (CQI) may not be carried out or used effectively to identify and address barriers.

Although some of these barriers may be difficult to address, others can be reduced in a way that enhances the uptake of STI and BBV testing among priority populations. These include:

- **providing an appropriate service** that is confidential, non-judgemental, non-discriminatory, and is accessible and acceptable to the priority population
- **providing appropriate information** on STIs and BBVs to enable prevention, reduce harm, and encourage health-seeking behaviour that leads to proactive access to early detection and treatment
- **ensuring testing is directed to those at highest risk** at appropriate time intervals (avoid testing low prevalence populations)
- **integrating testing** into routine primary healthcare delivery
- **simplifying obtaining consent** to testing to make it straightforward and easy
- ensuring that testing is **offered in an appropriate way** that leads to an increase in the uptake of testing
- understanding when a comprehensive sexual history and check-up should be conducted and when it is not needed, or understanding when it can be **simplified to make it quick, easy and more acceptable** to clients and practitioners
- using CQI to identify and address barriers to testing.

Providing appropriate service and information

Providing appropriate information and education on STIs and BBVs to the community in general and specifically to those at highest risk enables people to make informed choices to reduce their individual risk such as through prevention and harm reduction strategies. Providing education and encouraging health-seeking behaviour empowers people to be proactive in their healthcare, including accessing services to request testing for STIs and BBVs. At the same time, health services must also provide an environment that is acceptable and enables access for clients. Displaying health promotion materials that promote and normalise testing for STIs and BBVs can assist practitioners to offer – and clients to request – STI and BBV testing. More detail about enabling environments and education are provided in Chapters 1 and 2.

Ensure testing is directed to priority populations at regular intervals

In addition to ensuring STI and BBV testing is primarily directed to all 15 to 30 year olds, be familiar with other priority populations in the community, what tests should be taken and how often. Understand the difference between testing someone of any age when they present with signs or symptoms or specific risk factors, as well as what tests should be taken in the context of routine asymptomatic testing. Remember that concurrent infections are common and that being at risk of one STI or BBV indicates risk for others.

Offer testing for **all** STIs and BBVs (chlamydia/gonorrhoea/trichomonas*, syphilis, hepatitis B† and C, HIV) when people present for **any** of the following reasons:

- STI or BBV has been detected on asymptomatic screening
- they present with signs or symptoms that could be due to an STI or BBV
- their own or their partner's history indicates specific risk factors
- they have had a recent change in sexual partner
- they are a contact of someone with an STI or BBV
- they are pregnant where the consequences of not detecting and treating STIs and BBVs have potentially serious adverse outcomes
- they request a sexual health check-up.

How frequently should asymptomatic testing be offered?

As with other health screening, testing for STIs and BBVs should occur routinely at regular intervals among people who are at risk but who have no symptoms (asymptomatic testing) to enable early detection and management. Table 1 outlines the recommendations for testing among certain priority populations. Be mindful that an individual client's risk may make it appropriate to test for more STIs and BBVs and more frequently than the minimum outlined in the table. Table 1 is a summary of WA and national protocols and provides a guide to testing, particularly in the context of the syphilis outbreak and high rates of STIs. More information on STI and BBV testing and what specimens to collect can be found in the *Silver Book* and the *Australian STI Management Guidelines*:

http://ww2.health.wa.gov.au/Silver-book

http://www.sti.guidelines.org.au/

* *Add trichomonas PCR if at risk or living in an endemic area*

† *Add hepatitis B if never tested before or hepatitis B status is unknown*

Table 1. Recommended frequency of asymptomatic testing[4,5]

Who or when to test	What to test	How often to test
15 to 30 year olds	Chlamydia/gonorrhoea/ trichomonas* PCR, syphilis, HBV#, HCV, HIV	Annually
15 to 30 year olds If change of partner, other high risk or living in endemic or outbreak areas	Chlamydia/gonorrhoea PCR add trichomonas* PCR and syphilis if in endemic/outbreak area, and HBV#, HCV, HIV at least annually or as appropriate	3 to 6 monthly
MSM	Chlamydia/gonorrhoea PCR, syphilis, HAV^, HBV#, HCV, HIV	Annual at a minimum 3 to 6 monthly if new or frequent change of partners
Antenatal women	Chlamydia/gonorrhoea/ trichomonas* PCR, syphilis, HBV, HCV, HIV	Test **all** women at 1st visit Repeat in 3rd trimester if STI detected during pregnancy, at high risk or living in an endemic region Important note: Current CDNA guidelines recommend testing for syphilis five times in outbreak regions: 1st visit, 28 weeks, 36 weeks, delivery, 6 weeks post-partum
Sex workers	Chlamydia/gonorrhoea PCR, syphilis, HAV^,HBV# , HCV, HIV	3 monthly 1st visit and annually
Sharing equipment used for injecting drugs, tattooing, body piercing or scarification or a history of imprisonment	HBV# , HCV, HIV	As required
STI identified clinically or on a laboratory test	Chlamydia/gonorrhoea/ trichomonas* PCR and syphilis, HBV#, HCV, HIV if high risk **or** not done at initial presentation	At follow-up of a positive result (if not done at the initial visit) and repeat 3 months after treatment

HAV = *hepatitis A virus; HBV = hepatitis B virus; HCV = hepatitis C virus*

** If at risk or living in an endemic area including the Pilbara, Goldfields, Midwest and Kimberley regions*

 # HBV test at first visit or if immune status is unknown. No need to test if immune or immunisation completed. Offer immunisation if not immune

^ HAV test at first visit or immune status unknown for MSM and sex workers. No need to repeat if immune or immunisation completed

Requesting a check-up usually indicates that someone has concerns about their risk for STIs and BBVs and should not be dismissed or ignored. A request should prompt more direct questions as to whether they have specific concerns about themselves or their partner to identify what they are concerned about and why. There are many reasons why people may not want to disclose their concerns. While taking a thorough sexual history is ideal, it is not always possible, so it is important not to make assumptions. For instance, don't just offer testing for STIs when they may be concerned about BBVs. Also consider that their sexual history may indicate what site(s) to collect specimens from. Ensure that you provide appropriate information, discuss the window period and specimens required for specific STIs and BBVs and whether they are requesting an examination, to assist them to make an informed choice about what check-up and tests are appropriate.

The pattern and distribution of infections can change over time, such as when new infections emerge or outbreaks occur. Be familiar with local epidemiology and current recommendations regarding STIs and BBVs among age and risk groups as well as identifying changes and directing strategies in response.

Who should not be offered routine asymptomatic screening at a population level?

While STIs and BBVs can affect anyone of any age, most infections occur among 15 to 30-year-olds and relatively few occur among people aged over 40 years. Asymptomatic screening of low-risk populations, such as those aged over 40 years, not only results in very low detection of cases but diverts significant time and resources away from where they should be focused. It is therefore not cost-effective and not recommended.

Effective case detection and management among low-prevalence populations relies not on asymptomatic screening but on ensuring appropriate testing of individuals who present with a specific risk history, with signs and symptoms, as a contact of someone with STIs and BBVs or who request testing. HIS templates and recalls, such as the adult health check, should be consistent with the recommendations for asymptomatic screening of STIs and BBVs with regard to age groups and frequency of asymptomatic screening.

In all regions, asymptomatic screening of chlamydia and gonorrhoea should be directed to 15 to 30 year olds. Extending the upper age limit to 35 or 40 years should be guided by local epidemiology.

Note that the epidemiology of trichomonas is different from that of chlamydia and gonorrhoea with regard to the age range affected. In areas where trichomonas is endemic, prevalence is highest among 15 to 30 year olds but is not confined to that age group and extends into older age groups. Untreated, women can remain infected with trichomonas for years; therefore, detection among older women is not necessarily a sign of recent acquisition. Case detection and treatment of trichomonas among older women relies on a combination of ensuring appropriate PCR testing when women present with signs and symptoms or a risk history as well as detection on routine cervical screening.

Testing, screening or early detection and treatment?

There are several terms used for testing, some of which are interchangeable, while others have a slightly different meaning. Some of the terminology includes health screening, population screening, asymptomatic screening, early detection and treatment, and opportunistic testing.

Screening generally refers to when a test is directed to people who are likely to have or be at risk of an infection or health problem but who do not have symptoms. The aim of screening is to identify those people and provide treatment or management early to prevent or limit poor outcomes. Tests used for screening should be easy to use, acceptable and directed to those at risk of the health problem to be cost-effective. Therefore, asymptomatic, population or health screening are interchangeable terms*.

Early detection and treatment refers to testing and treating people early in the course of an infection to prevent or limit the development of poor outcomes. Early detection can refer to testing people with or without symptoms.

Opportunistic testing refers to testing people who may have presented to health services for related or unrelated issues but present an opportunity to also test for other health issues during their consultation in an easy and appropriate way. This is a particularly important strategy for optimising testing and providing information to young people at risk of STIs and BBVs but who present infrequently to services.

*Note that with regard to pathology request forms, it is preferable to request testing due to the presence of symptoms or 'STI risk' rather than to request an 'STI screen'.

Integrating early detection and treatment into routine primary healthcare

Early detection and treatment is an important strategy that includes testing people who are at risk but who are asymptomatic, as well as those who have signs and symptoms. STIs and BBVs can be truly asymptomatic or cause minimal signs and symptoms that go unrecognised by both those affected and health practitioners. The ability to recognise and present with those signs and symptoms is impacted by many factors including the knowledge and experience of both clients and practitioners as well as health-seeking behaviour. The development of symptoms from the time of infection with STIs and BBVs is variable, but can take months to years, providing a long timeframe for potential transmission to others. Early detection and treatment is therefore an important strategy to detect infections early and prevent or limit the development of complications and interrupt ongoing transmission.

The principles of early detection for STIs and BBVs are no different from many other health issues that are routinely screened for through primary health services. Primary health services often use a variety of ways to conduct testing for STIs and BBVs. Where appropriate, STI and BBV screening should be integrated and conducted at the same time as other health screening activities, such as antenatal screening and adult health checks. Screening may also be conducted in the context of outreach programs, which are discussed in more detail in Chapter 5.

STI and BBV testing should be an integral part of routine health screening in the following circumstances:

- antenatal screening
- adult health check for 15 to 30 year olds
- cervical screening up to 30 years.*

Integrating early detection into routine visits for young women

Young women present frequently to primary health services for reproductive health issues, providing many opportunities to integrate STI testing in a simple and straightforward way. A urine sample is often taken as part of those consultations, making sample collection for PCR easy. Common presentations among young women who are, or plan to be, sexually active include:

- pregnancy tests (positive and negative results)
- pre-pregnancy check-ups
- contraception
- UTI
- referral for termination of pregnancy (TOP)
- insertion of an intra-uterine device (IUD)
- other reproductive health issues.

Ideally, when testing for STIs at the same time as conducting a pregnancy test, regardless of whether a woman wishes to proceed with the pregnancy or not, women should be tested for chlamydia, gonorrhoea and bacterial vaginosis (BV). The early detection and management of these infections can prevent early miscarriage and the development of PID following miscarriage and TOP.

Integrating testing into routine visits for young men

While young women bear the burden of ill health from STIs, the failure to engage young men in early detection and treatment programs contributes to high rates of reinfection of women and ongoing transmission in the community. The current large disparity and low rates of testing among young men compared to young women is not simply explained by men not presenting to primary healthcare services or by the absence of male practitioners. While a lack of male practitioners is an issue for many services, very low rates of testing among young men have been reported from many health services with an adequate number and range of male health practitioners.[3]

* *Extending the upper age limit to 35 or 40 years should be guided by local epidemiology.*

Young men do present to primary health services but in fewer numbers than young women and significantly much less frequently and rarely for reproductive health visits, resulting in fewer opportunities to offer testing. This highlights the need to ensure testing is maximised by integrating testing into all visits where possible and appropriate. In particular, testing of 15 to 30 year old males should be integrated routinely into health screening, such as adult health checks, and offered opportunistically at other visits in a way that is easy, simple and likely to lead to the uptake of testing.

Case study

Spinifex Health Service: integrating and increasing the uptake of STI and BBV testing

Spinifex Health Service is a community controlled health service that operates in the remote community of Tjuntjuntjara about 680 km north-west of Kalgoorlie–Boulder.

The health service recognises STI control as a public health issue that requires the active involvement of all primary healthcare clinical staff to reduce STIs in the community. 14 to 35 year olds have been identified as being at highest risk and staff are encouraged to offer testing for gonorrhoea, chlamydia and trichomonas PCR with a urine sample or self-obtained low vaginal swab at any visit and for everyone in that age group. This includes when young people attend for another reason, or when accompanying another person to the clinic. This approach is recognised and supported within the community, and young people are almost always happy to accept testing.

As well as opportunistic screening, an STI screening program takes place for six weeks in May each year, where an active effort is made to test everyone aged 14 to 35 years. Testing for syphilis and HIV is included in annual health checks as well as when blood is taken for other reasons. People with positive test results are treated as a priority, with contacts traced and treated, syphilis and HIV testing conducted and sexual health education provided.

Audits conducted every three months have shown that the prevalence of chlamydia, gonorrhoea and trichomonas has been maintained below 10 per cent in all age groups, with no cases of syphilis or HIV identified in recent years. Contact tracing shows that most cases occur following sexual contact outside the community, indicating that the concerted effort with regard to community education and support, frequent testing, prompt management and active surveillance has significantly reduced STI transmission within the community.

While other health services are contacted to assist with the follow-up of people who have moved away from the community, the program would be enhanced by point of care testing (testing at the time and place of patient care) to address occasions of loss to follow-up.

Integrating tests into outreach programs

Conducting STI and BBV testing in the context of outreach programs can be an effective way to reach people at risk who may be marginalised or who have difficulty accessing health services. Outreach programs can consume a lot of time and resources; they should be well targeted and evaluated. Do not try them before ensuring that testing is well integrated into existing primary healthcare services that are, or could be, accessed by specific age and risk groups. While Chapter 5 provides more detail about conducting outreach programs, note that the principles of testing as discussed in this chapter should be consistent regardless of the context.

How to increase the uptake of testing

The principles of asymptomatic screening for STIs and BBVs are no different than testing for any other health issue with regard to consent, confidentiality, who testing is offered to and how frequently, and the follow-up of abnormal test results. Currently, STI and BBV screening is well integrated into routine antenatal screening but the integration into other routine health screening, such as adult health checks, is variable with low STI screening rates among women in the highest risk age group (15 to 19 years) and young men in general.[3]

To address barriers to STI and BBV testing among those at highest risk, it is important to acknowledge that barriers exist and to identify the ones that can be mitigated. Antenatal screening can be used as a model or guide to how STI and BBV screening has been integrated into routine screening in a way that is universally offered, easy, simple and acceptable to both clients and practitioners.

Some of the factors that directly impact the ability of practitioners to offer testing and for clients to agree to the uptake of testing include:

- gender or the relationship of the practitioner to the client
- experience, expertise and confidence of practitioners
- whether a sexual history is taken or not

Routine antenatal screening for STIs and BBVs

All antenatal women are offered routine tests (including for STIs and BBVs) at regular intervals in pregnancy, irrespective of their individual risk, to prevent or limit poor health outcomes for women and their babies. Women are generally well informed about the need for regular check-ups during pregnancy and have an expectation that they will be asked to provide urine and blood samples to check for a range of health issues. Even if not skilled in obstetric care, most practitioners are able to offer routine screening to antenatal women in an opt-off manner, leading to a high uptake of testing. All antenatal women are informed about what tests are taken and why, and can choose to opt out of any testing but are then usually counselled as to why testing is important. The amount of detailed discussion regarding various health issues at the time of testing may vary. In the event of any abnormal results, follow-up is arranged with an appropriate practitioner to discuss the results, their history and case management in more detail.

- whether testing is offered using an opt-off versus an opt-on approach
- how consent is gained
- whether testing has been integrated into routine primary healthcare delivery
- whether HIS support and facilitate routine testing.

Gender or the relationship of the practitioner to the client

Practitioners may be concerned that their gender or relationship to the client may make it difficult or inappropriate to gain consent to testing for STIs and BBVs. Be mindful that while these factors might be an issue for some people, they might not be for others. Remember that all clients have a right to have access to the best available health care and to be provided with information to enable them to make informed decisions.

In ideal circumstances where many options are available, individuals may choose to see a particular practitioner for a variety of reasons. However, in many settings those options are not readily available and often people will make a choice to access a health service despite the lack of a practitioner most appropriate or acceptable to them. Be careful not to make assumptions about what is or isn't acceptable to individual clients.

Healthy conversations

The 'Healthy conversations' video is for health professionals working with Aboriginal clients. It provides advice on how to have positive discussions about sexual health and blood-borne viruses with your clients and is presented by practising specialists in the field. The video is produced by the Department. You can view the video here: https://www.youtube.com/watch?v=i1V2iepNBa4&feature=youtu.be

Rather than avoiding the subject or denying someone access to testing and management, the easiest way to assess whether you are the appropriate practitioner for them is to simply ask permission in a sensitive, respectful but straightforward manner. This may involve asking upfront if they are happy to see you or whether they would prefer to see another practitioner, or asking during the consultation whether it is OK if you ask them some specific questions to assess whether they might be at risk of an STI or BBV, or to conduct an examination.

Experience, expertise and confidence of practitioners

While experience and expertise make taking a sexual history, conducting an examination and providing appropriate management easier, a lack of expertise should not create a barrier or an excuse for not conducting tests for STIs and BBVs. While not all practitioners are experts in antenatal care or diabetes management, all practitioners working in primary healthcare services should be able to provide a minimum of information to clients to gain consent to testing and to take specimens required in the context of screening. If an abnormal result is identified or symptoms are apparent, clients can be referred to a more appropriate or experienced practitioner to provide more information or management. In the same way, practitioners do not need to have expertise in STI or BBV management in order to gain consent and obtain specimens for testing. If issues arise during the course of conducting screening or an STI or BBV is detected on screening, clients can be referred as appropriate. But testing should not be deferred due to the risk of loss to follow-up.

Does a sexual history need to be taken?

Taking a detailed sexual history before asymptomatic screening for STIs and BBVs is ideal but not always practical or necessary. With regard to routine testing, being aged 15 to 30 years alone determines that testing should be offered. While taking a history or risk assessment can be valuable, it is not necessary to determine whether testing should be offered to this age group and can create barriers to testing for both practitioners and clients.

Other factors that can also make it difficult or impractical to take a sexual history include that practitioners may lack confidence, may have limited time and may have competing priorities. Clients might find it confronting to be asked about their sexual history, especially if they are young or have presented for unrelated reasons.

STI and BBV testing also often occurs in the context of more comprehensive check-ups, such as adult health checks or antenatal screening or opportunistically when they present for other reasons. In those circumstances, even though it might not be practical or appropriate to ask for a detailed sexual history, you should not be deterred from offering testing in a simple and easy way. It is far preferable to encourage the uptake of testing among those at high risk and to take a history at follow-up if an STI or BBV is detected than not to offer testing because of the inability to take a thorough history at that time.

If a sexual history and risk assessment is warranted, it can also be simplified by asking a few key questions in an appropriate manner. At a minimum, a few simple questions such as those shown below can provide useful information and may lead to more detailed questions being asked.

- Do you have a regular partner? If so, how long have you been together? When was the last time you had sex with your regular partner?
- When was the last time you had sex with a different partner?
- When was the last time you used a condom for sex? Do you use condoms with your regular and/or casual partners?
- Ask some specific questions about STI symptoms: have you noticed any low abdominal pain, abnormal bleeding (women), pain on passing urine, discharge or genital sores or rashes (both).

The reason for presentation, the context of testing, the expertise of the practitioner and the time available will all contribute to whether a sexual history or risk assessment is practical or if it is needed at all in order to determine whether testing should be offered and gaining consent to testing.

Remember that a detailed sexual history and risk assessment should always be taken if possible, or at least simplified, when someone:

- presents with signs or symptoms that could be due to a STI or BBV
- presents as a contact of someone with a STI or BBV
- presents at follow-up if an STI or BBV was detected on an asymptomatic screening test
- requests a check-up.

More information about taking a detailed sexual history and examination can be found in the *Australian STI Management Guidelines* and the *Silver Book* available via the links below:

http://www.sti.guidelines.org.au/

http://ww2.health.wa.gov.au/Silver-book/

Gaining consent to testing

Regardless of the context of testing, clients should always be informed about what they are being tested for and why it is important. They should also provide verbal consent to testing. Always ensure the client's privacy and confidentiality and use a sensitive and respectful approach. Gaining consent does not need to involve a lengthy discussion but should provide a brief explanation of what is being tested for and why, and provide an opportunity for clients to ask questions. Make sure you explain what will happen if any result needs to be followed up, clarify how they would like to be contacted and check that contact details are up-to-date.

With regard to notifiable diseases, clients should be informed that the Department receives confidential positive test results. All the named results are stored on the confidential database called the WA Notifiable Infectious Diseases Database (WANIDD). Access to this database is restricted to epidemiology and surveillance staff working at the Communicable Disease Control Directorate (CDCD) at the Department and disease control doctors and nurses at regional PHUs.

Clients should also be informed about My Health Record. The specific information that needs to be discussed will vary depending on their age, whether it has already been discussed and clarified at a previous consultation, and whether clients have already chosen to opt-on or opt-off. More information about My Health Record with regard to STI and BBV testing can be found on the ASHM website and the Australian Government Digital Health Agency website.[6, 7]

A Guide to My Health Record: for BBV and STI healthcare providers to support their patients has been developed by ASHM is available via the links below:

https://www.ashm.org.au/

Australian Digital Health Agency, Australian Government. How to Take Control of Your Record From Age 14.

https://www.myhealthrecord.gov.au/for-you-your-family/howtos/take-control-your-record-age-14

Opt-off versus opt-on approach to testing

Be mindful that the way in which testing is offered and questions are asked can have a significant impact on whether someone will consent to testing or not. Using an opt-off approach, as used with antenatal screening, rather than an opt-on approach is much more likely to result in the uptake of testing. An opt-off approach refers to the practitioner informing clients who have already been identified on their basis of their age or other factors that routine testing is offered to them at regular intervals, why and what it involves. Clients have the right to decline but are less likely to if they understand that these tests are offered routinely, why they are being offered, and that testing is quick and easy.

In contrast, an opt-on approach is when the client is asked if **they** think they are at risk of STIs or need a check-up with questions such as, “Do you think you might have an STI? Do you want to have an STI check-up?” Questions asked in that way without an explanation that testing is offered to all young people (and why and how easy it is) can be confronting. They are likely to be answered in the negative and are much less likely to lead to an acceptance of testing. While some people might be well informed about their risks for STIs and BBVs, the asymptomatic nature of infections, what tests are involved and how often they should be tested, many other people, particularly adolescents, may not be aware of those issues and may not know that they are at risk. Remember, it is not up to clients to necessarily have a good understanding of specific STIs and BBVs and what test are required for each, so always make sure you clarify exactly what STIs and BBVs are tested for by different specimens.

In a similar way, asking a young person whether they are sexually active can be confronting, is often misunderstood and may put people offside or make them fearful of why you are asking. While young women aged 15 to 19 years are the highest age risk group for STIs, many in that age group are not yet sexually active. Rather than asking them if they are, it is much easier to use an opt-off approach to determine whether they are sexually active. When you inform them that a check-up for STIs is being offered to all 15 to 30 year olds, if they have never been sexually active they are likely tell you that and that they don’t need to have that test. Approaching the subject in this way can also enable further discussion about whether they want to ask any questions about STIs or contraception. In contrast, asking whether they are sexually active at the start is unlikely to enable a conversation about sexual health.

Opt-off

There are many ways to present the information to clients using an opt-off approach. The following is an example of how simple an opt-off approach can be.

"I know that it's not why you are here today, but I want to let you know that we offer a simple urine test to check for chlamydia and gonorrhoea every six months to all 15 to 30 year olds because we know those infections are common and can have serious consequences if not treated. Most people have no symptoms, so don't know that they are infected.

"Are you happy for me to send off your urine sample today to check for chlamydia and gonorrhoea? Do you have any questions about STIs or the tests?"

Remember that if people accept the offer of a test, make sure you inform them that in the event of a positive test result that you will need to recall them for treatment, and notify the result to CDCD and check their contact details.

Table 2. Integrating STI and BBV testing into routine antenatal and adult health check screening: enhancers and barriers to the uptake of testing.*

	Antenatal screening	Adult health check	Addressing barriers
Integration of STI/BBV testing into routine screening	Consistent	Variable	Ensure HIS adult health check and other health screening templates are consistent with recommended guidelines for age 15 to 30 years* and frequency
Prompt for testing	Pregnancy – offered to **all** pregnant women	Age 15 to 30 but upper age limit often not well clarified in HIS	
Guidelines	Clear and consistent	Mixed messages: guidelines regarding age and frequency often not consistent in HIS templates	
Barriers	None identified	Practitioner-related more than client-related	Integrate and simplify to ensure it is offered universally Use an opt-off approach History/risk assessment can be optional but is not a prerequisite for screening Train staff on how to offer to increase uptake of testing
The way it is offered	Opt-off	Should be opt-off but is often opt-on	
Acceptance	High	Related to how it is offered and whether systems support it	
Implementation	Well established and accepted by women and practitioners	Not as well established, variable acceptance	Evaluate with a continuous quality improvement approach to identify and address gaps such as updated HIS templates, staff training

** Extending the upper age limit to 35 or 40 years should be guided by local epidemiology*

HIS templates, prompts and recalls

Ensure that the templates, prompts and recalls used for routine health screening such as adult health checks, antenatal and cervical screening are consistent with the recommendations with regard to age and frequency for screening. Review and update templates for routine STI and BBV screening and recalls to ensure that:

- age parameters and frequency for testing are consistent with guidelines, in particular:
  - annual STI testing for all 15 to 30 year olds
  - six-monthly testing for 15 to 30 year olds, if at higher risk or living in an endemic area
- clinical or laboratory diagnosis of chlamydia or gonorrhoea prompts a three-month recall for retesting to check for reinfection
- prompts for PCR testing are embedded as a minimum and for BBVs as an option
- prompts for taking a sexual history or risk assessment are optional and not a prerequisite for testing.

Many templates currently in use for adult health checks have a tick box to identify that a discussion regarding sexual history or risk assessment has been conducted rather than explicitly prompting for STI and BBV testing. While discussion or history taking is always preferable, it is not a prerequisite for routine screening or an indicator that screening has been conducted, and it can create barriers. It can be in templates as an option but should not be a mandatory requirement for conducting STI and BBV screening among identified age and risk groups. A tick box should be included to indicate that a PCR for chlamydia and gonorrhoea has been done at a minimum and blood for BBVs as an option.

4. Contact tracing

Key points

- Contact tracing is an essential component of STI and BBV case management.
- Effective contact tracing interrupts the ongoing transmission of STIs and BBVs, prevents reinfection and helps to reduce their prevalence in a community in the longer term.
- Both index cases and their contacts should have a thorough history taken and be provided with information, testing and treatment for **all** STIs and BBVs, not just the one that has been identified.
- How far back to contact trace varies depending on the specific STI or BBV as well as the individual's history, which may indicate when they were likely infected.
- Contact tracing should be led by the managing clinician; however, other staff, particularly those with local knowledge, can assist to ensure it is done in an appropriate way.
- Priority should always be given to infections that may have significant consequences if not followed up.
- Always contact the regional PHUs for advice and assistance with difficult or complex cases.

What is contact tracing and why is it important?

Contact tracing or partner notification is the process undertaken to identify contacts of someone with an STI or BBV, to enable them to access appropriate information, testing and treatment. The person first identified with having an STI or BBV is usually referred to as the 'index case' while 'contacts' or 'partners' refer to those who may have been exposed to an infection.

Contact tracing is an essential component of STI and BBV case management. Effective contact tracing is important to:

- provide information on prevention, harm reduction and the early detection and treatment of STIs and BBVs
- prevent the transmission of STIs and BBVs
- prevent the reinfection of the index case
- reduce the overall prevalence of infections in a community in the longer term.

The index case provides a starting point for contact tracing; however, both index cases and contacts should be managed in the same way with regard to history taking, providing appropriate information, testing and treatment. Be aware that the index cases of STIs such as chlamydia are often first identified among women, simply as a result of women being tested more frequently than men. Thus the index case is not necessarily the person who has ongoing risks for transmission.

Definitions

Contact tracing or partner notification is the process undertaken to identify contacts of someone with a STI or BBV, to enable them to access appropriate information, testing and treatment.

The **index case** refers to the person first identified with an STI or BBV, who provides a starting point for the process of contact tracing.

Contacts refer to people who may have been exposed to a STI or BBV as a result of contact with the index case, such as sexual contact or sharing needles.

Patient referral is when the index case (patient) notifies their contacts either directly or indirectly.

Provider referral is when the provider (practitioner) notifies the contacts directly or indirectly.

Conducting contact tracing can present challenges but it is important to remember the following:

- Effective contact tracing usually involves following up more than one contact.
- The index case may not necessarily have, or disclose, identifiable risk behaviours or be at risk of ongoing transmission.
- Don't make assumptions and be careful not to attach blame to index cases and contacts but do provide accurate information regarding the transmission of STIs and BBVs.
- Both index cases and contacts could be at ongoing risk and should have a thorough history taken and be provided with information, testing and treatment for **all** STIs and BBVs, not just the one that has been identified.
- Contact tracing should always be conducted in a way that ensures privacy and confidentiality.
- Priority should always be given to infections that are uncommon or that may have significant consequences if not followed up.

How far back to contact trace varies depending on the incubation and infectious timeframe of the specific STI or BBV, as well as the individual's history or the development of symptoms that may indicate when they were likely infected. Six months is often used as a general guide for how far back to trace; however, as outlined in Table 3 (adapted from the *Australasian Contact Tracing Guidelines 2016*), this timeframe is variable.[1] Infections such as HIV may have been acquired years ago and it may take time to develop rapport and gain trust with the index case to provide effective contact tracing and consequently enable contacts to access treatment.

More information on contact tracing is available in the Australasian and WA guidelines:[1,2]

http://contacttracing.ashm.org.au/

http://ww2.health.wa.gov.au/Silver-book

Some services, such as KAMS[3], have adapted or developed these guidelines to provide useful guidelines to contact tracing in the local region. The adapted guidelines are available on their website: https://kams.org.au/

Table 3. Guidelines on how far back in time to trace contacts

Infection	How far back to trace†
Chlamydia	6 months
Gonorrhoea	2 months
Syphilis	Primary syphilis – 3 months plus duration of symptoms Secondary syphilis – 6 months plus duration of symptoms Early latent – 12 months
Trichomonas	Unknown*
Mycoplasma genitalium	Unknown*
Hepatitis B	6 months prior to onset of acute symptoms
Hepatitis C	Only if appropriate to do so 6 months prior to onset of acute symptoms; if asymptomatic, according to risk history
HIV	Start with recent sexual or needle-sharing partners; outer limit is onset of risk behaviour or last known negative HIV test result

Adapted from the *Australasian Contact Tracing Guidelines 2016*[1]

† These periods should be used as a general guide only: discussion about which partners to notify should take into account the sexual or relevant risk history, clinical presentation and patient circumstances. With regard to hepatitis C and trichomonas, refer to the information provided in this chapter for further guidance.

* *There is currently insufficient data to provide a definite period for some infections, although partner notification is likely to be beneficial, is recommended and should be guided by the sexual history.*

When should contact tracing be initiated?

Contact tracing should be initiated when **either**:

- an STI or BBV is detected on a laboratory test

  or

- on clinical diagnosis when a person presents with signs or symptoms that are likely or definitely due to a STI or BBV.

Symptoms that are highly suggestive of STIs that should prompt the commencement of contact tracing **before** a test result include:

- urethritis (dysuria or discharge) and epididymitis in men
- symptoms in young women suggestive of PID (when other causes of low abdominal pain have been excluded)
- genital ulcers suggestive of primary or secondary syphilis.

Contact tracing should be initiated at the time of presentation of STI symptoms. If the diagnosis is not clear, at a minimum, practitioners should advise clients to abstain from sex until the diagnosis can be confirmed, or determined to be likely, due to the history, signs and symptoms, and the exclusion of other causes. Detecting an STI on a laboratory test usually confirms the diagnosis; however, a negative test result does not exclude a diagnosis, particularly in the case of urethritis, epididymitis and PID. Test results are often negative in the context of these symptoms, but other factors such as a rapid response to appropriate treatment and the exclusion of other causes can make the diagnosis likely. Therefore, contact tracing should be initiated on the basis of both laboratory test results and a clinical diagnosis of STI syndromes.

In the context of STI syndromes, do not wait for a confirmed laboratory test result before initiating contact tracing because:

- syndromes are highly suggestive of STIs
- PID, urethritis and epididymitis are clinical diagnoses
- antibiotic treatment is given to cover the most common causes of STI syndromes but only some of those STIs are routinely tested for
- laboratory tests may confirm a diagnosis, but negative laboratory test results are common and do not exclude the diagnosis
- test results may be negative for many reasons such as another causative STI (i.e. testing from the lower genital tract may not detect infection in the upper genital tract)
- failure to treat contacts appropriately in a timely manner leads to a high risk of reinfection of the index case and ongoing transmission to others.

Discussions regarding follow-up and contact tracing should begin at the time of testing for STIs and BBVs; however, the amount of information provided at that time will vary depending on the context and reason for testing. How much information is given at the time of testing may depend on why the person is being tested (asymptomatic screening versus presenting with symptoms),

how much time is available, the skills of the practitioner to conduct a detailed discussion, the appropriateness of the practitioner to the client, and the reason for the consultation. Start the conversation by asking permission if it is OK to ask them some more questions and provide them with an opportunity to ask questions about STIs and BBVs.

Index cases and contacts are much more likely to cooperate with the process of contact tracing if they are provided with appropriate information explaining why it is important. At a minimum, at the time of testing for STIs and BBVs the practitioner should:

- briefly explain what tests are being taken and why
- obtain verbal consent to testing
- assure clients of their privacy and confidentiality but also inform them that if an infectious disease is identified, you are required by law to notify the Department's public health department
- provide relevant and current information about the E-Health record with regard to STI and BBV testing
- check contact details and establish the best way to contact them and arrange for treatment in the event that an STI or BBV is detected.

A detailed sexual and risk history should always be taken when someone presents as a contact or with any signs or symptoms of STIs or BBVs. In the context of asymptomatic screening, it may not always be possible or appropriate to take a detailed sexual and risk history at the time of testing; however, if an STI or BBV is detected, a history should be taken at follow-up.

Treatment and follow-up

Contacts should be given treatment as soon as possible, irrespective of whether they have symptoms or not. Explain to the index case the importance of treating their contacts both to avoid reinfection to themselves and ongoing transmission to others. Reinforce the advice that they should abstain from sex until their regular partner(s) has been given treatment plus the time taken for treatment to take effect to avoid reinfection (usually five to seven days). Discuss transmission and prevention of STIs and BBVs and provide information and condoms as appropriate.

It may not always be possible to check whether contacts were treated within an appropriate timeframe; however, it is good practice to ask the index case at follow-up whether they know if their contact(s) were treated in a timely manner, to determine if they have been at risk of reinfection. In the context of symptomatic infections, this should be asked at a follow-up appointment or by a phone call conducted within two weeks of treatment to ensure symptoms have resolved, or at the time of follow-up testing in three months. If a contact of an index case has symptoms or an STI is detected, they should also have a follow-up test in three months or return earlier if they develop any symptoms. People should be informed that a follow-up test is recommended in three months and informed how they will be contacted (such as by SMS or email). You should gain their consent for a reminder to be sent and check their contact details.

How is contact tracing done?

There are many different ways in which contact tracing can be done. Practitioners should provide information and options to individual clients and guide discussions to identify the most appropriate way for them. While it is generally the responsibility of the clinician who ordered the test or who is managing the client to lead the process of contact tracing, assistance can be provided by other staff members. In particular, Aboriginal and Torres Strait Islander health staff often have valuable local knowledge that can assist with guiding how best to conduct contact tracing. Cooperation between various staff members can enable appropriate and effective contact tracing.

Patient referral refers to when the index case (patient) notifies their contacts either directly or indirectly. Patients may choose to inform their contact(s) directly in person, by phone, SMS, email or social media. Practitioners can assist this process by providing a proforma letter that can advise what STI or BBV the patient may have been in contact with, what tests and treatment should be offered and what services they can access. Many services have developed their own templates for letters (such as the template available on the *Silver Book* website).

Patients may also choose to notify their contact(s) indirectly through websites such as *Let Them Know* and *Better 2 Know* that can send an SMS or email anonymously.

https://letthemknow.org.au

https://www.better2know.com.au

Provider referral is when the provider (practitioner) notifies the contacts directly or indirectly.

Both methods require discussion with the index case to provide information such as the name and phone number of the contacts. In some cases, it may be appropriate for the practitioner to recommend provider referral as the most appropriate way for contact tracing to be done. For example, if HIV, syphilis or resistant gonorrhoea is identified, if a contact is pregnant or if domestic violence is of concern, practitioners may need to seek assistance from their local PHU and inform the index case of the reasons for that approach.

Women with infectious syphilis need to be informed of the infectious nature of the condition, even in the absence of visible lesions or symptoms, and to abstain from sexual activity for five days post-treatment (of themselves and partner) or until symptoms have completely resolved (whichever is the longer) — (CDNA 2018)[2]

Patient-delivered partner therapy

There are many benefits for contacts to access health services beyond receiving treatment, including being provided with appropriate information, testing for other STIs and BBVs and assessment to determine if other contacts need to be treated. Despite this, it is not always straightforward and contacts may not be willing to attend health services for treatment. Patient-delivered partner therapy refers to providing medication or a prescription to the index case to give to their contact(s) in the event that other ways of treating contacts have failed. While this method of contact tracing is currently not permitted under WA legislation, Victoria and the NT do allow this method for the follow-up of uncomplicated chlamydia infections only. Where it is allowed, it should not be used if index cases have been diagnosed with more than one STI or HIV, if a partner is pregnant or if there is a risk of domestic violence.

When to refer to PHUs or other agencies

Whichever method is chosen, health services and staff have a responsibility to ensure that contacting tracing is undertaken as an integral part of appropriate case management of people with STIs and BBVs. In most instances, it is the responsibility of the managing practitioner (who ordered the test or who is managing treatment or follow-up) who should discuss contact tracing with the index case and the manner in which it can be done. Health services should have clear guidelines regarding roles and responsibilities relating to contact tracing and may have specific staff who can assist with this process, either at the point of discussion with the index case or with the follow-up of contacts.

It is important to note that contact tracing for STIs and BBVs is the responsibility of the managing clinician and health service and not the PHUs. However, on receipt of a notification form, the unit can be contacted to assist with this process. PHUs are an important point of contact for assisting with follow-up of contacts who may be mobile or where the follow-up of contacts is a priority, such as with HIV or syphilis. When a contact is known to live in a different community, the local health service can also be contacted directly to assist. Ideally, PHUs and other health services should also provide feedback to confirm whether a contact was able to be treated or not.

Special considerations

Conducting contact tracing for some STIs and BBVs may require more urgency and should be done more carefully due to the potential for harm to individuals and relationships if not done appropriately.

In the case of HIV, syphilis and antibiotic-resistant gonorrhoea, a notification will trigger the local PHU to contact the service provider to complete the enhanced surveillance form and discuss treatment and contact tracing. With regard to HIV, referral to an HIV specialist will need to be arranged or, if not practical, an HIV specialist can be consulted and assist management in partnership with the local medical officer or health service.

Syphilis is an STI that can cause serious health problems if it is not treated. Clinicians and laboratories are required by law to notify likely clinical and laboratory confirmed cases of new or infectious syphilis. In the context of the current syphilis outbreak, priority needs to be given to the urgent management of both index cases and contacts. Notification forms need to be completed by a medical officer or nurse practitioner and faxed to the nearest regional or metropolitan PHU as soon as possible and within 72 hours of the diagnosis. The receipt of a notification form will trigger the PHU to contact the service provider to complete the enhanced surveillance form and discuss treatment and contact tracing. More information about the role of the unit with regard to syphilis notifications is outlined in Chapter 7.

Hepatitis C is not routinely contact traced in WA due to the complexity of issues such as those related to how and when it may have been acquired (e.g. injecting drug use and use of illegal drugs). Despite that, affected people who are current injecting drug users should be encouraged to advise their regular injecting partners to enable them to access testing and treatment.

Regular contacts of young women with **trichomonas** should be treated to prevent reinfection; however, contact tracing among older women can be complicated by several factors. Unlike chlamydia and gonorrhoea, in communities where trichomonas is common, it is not confined to young age alone, and women can remain infected for years. Among older women, trichomonas is often detected on a vaginal swab or cervical screening, which may not necessarily indicate recent acquisition, but could simply be the first time in years that they have had a test that can detect trichomonas. Women should always be treated and the treatment of their regular partner should be discussed with them. Care needs to be taken that the women and their partners understand that the infection could have been acquired a long time ago. Contact tracing for trichomonas among older women should not be undertaken if there are concerns that doing so will cause harm to the women and their relationships.

Kimberley Aboriginal Medical Services (KAMS) contact tracing guidelines[3]

- Contact tracing is ideally led by the clinician who ordered the tests.
- The person who reviews the positive result must ensure that contact tracing is carried out even if they are not the person who ordered the tests.
- Make sure that you are familiar with your clinic's usual process for following up positive STI results.
- Your local STI coordinator is a resource who can assist you.
- It is your health service's responsibility to ensure contact tracing is completed.
- Timeliness is important and notification should not be left to the staff member who takes on the STI portfolio if they are not able to do this promptly.
- When making an STI diagnosis, it is your responsibility to initiate a discussion about contact tracing.

As part of good clinical care, your role is to encourage and support your patient in notifying their contacts.

Prioritising cases

Contact tracing can be a time-consuming process, so it is important to understand the occurrence of infections or circumstances that make it appropriate to spend time and resources on contact tracing and when decisions should be made to discontinue trying to follow-up contacts.

Factors to consider when prioritising cases include the following:

- if the infection is serious, such as HIV and syphilis
- if the contact is known to be pregnant due to the potential consequences for both mother and baby
- if the infection is uncommon
- if antibiotic-resistant gonorrhoea is identified.

Healthcare providers have ethical and legal responsibilities for the health and wellbeing of the contacts and/or potential contacts of the index patient. More information about these responsibilities as well as non-compliant cases is described in the *Silver Book*. The *WA Public Health Act 2016* (Division 3, Part 9)[4] has more information regarding ethical and legal responsibilities.

With regard to non-compliant patients, people will usually cooperate if they are provided with information as to why contact tracing is important. Some people may require more time spent with them for counselling. Practitioners need to also be aware of their duty of care with respect to protecting the privacy and maintaining the confidentiality of both index cases and contacts. If you are unsure about any of these issues or have difficult or non-compliant cases, always contact the regional PHU for advice and support.

Deciding when to stop following up contacts

In practice, if contacts are not followed up within a few weeks, they often they get lost to follow-up, either because health service systems are not robust or because individual practitioners do not follow through with case management. Health services and staff should address gaps in their systems to prevent people becoming lost to follow-up simply because they weren't able to be found quickly.

Some contacts truly are difficult to follow up for a number of reasons, such as contact details are not accurate or current, or contacts refuse to cooperate and don't present to services for treatment. Health services should have made reasonable steps to follow up contacts within their services and by seeking assistance from other services or the regional PHU. Ideally, health services should have a process whereby individual cases are discussed with appropriate staff in collaboration with PHUs and collective decisions are made to discontinue follow-up. If decisions are made to discontinue, there should be clear documentation regarding what attempts have been made to follow up contacts, any correspondence with the unit and the reasons for discontinuing contact tracing.

Documentation and evaluation

While clear documentation regarding attempts to follow up and the timely treatment of contacts is important to assist with continuity of care as well as for medico-legal reasons, it is equally important to ensure that the confidentiality of both index cases and contacts is maintained in this process. While the names of contacts should not be recorded in the index case notes (and vice versa), information can still be documented that clarifies what attempts have been made to follow up contact(s) and if and when they were treated (if known). Many health services maintain a separate, confidential system or register for recording details about contact tracing.

Evaluation of contact tracing may differ between health services but should focus on the timeliness of treatment and the proportion of contacts successfully treated. As part of the national response to the syphilis outbreak, PHUs in affected regions report against two key performance indicators (KPIs) to the Multijurisdictional Syphilis Outbreak working group (MJSO).

Key performance indicators (KPIs)

KPIs for contact tracing are outlined in the CDNA guidelines as part of the national response to the syphilis outbreak.[3]

To achieve best practice management outcomes for contacts of infectious syphilis:

- Target: 80 per cent of named contacts are examined, tested and treated for syphilis at their first presentation to a health service.
- Target: 80 per cent of named contacts are examined, tested and treated for syphilis within one month of being named.

5. Outreach programs: planning, implementation and evaluation

Key points

- Outreach programs can be an effective way to reach groups at risk of STIs and BBVs who have limited access to existing services.
- Outreach programs can consume a lot of time and resources so should be well targeted and properly evaluated to ensure the aims of the program have been met.
- Health service data should be used to identify whether the target group is already accessing the health service, whether STI and BBV management is appropriately integrated into routine visits and supported by health services systems, or whether services can be reorganised to become more accessible and acceptable for the target group.
- Effective outreach programs rely on good planning and effective partnerships between organisations.
- Evaluation of the process and outcomes is integral to the ongoing success of outreach programs.

What is an outreach program?

Outreach programs involve targeting health care to priority populations at risk of STIs and BBVs, particularly those who may be marginalised or who have limited access to existing services. Outreach programs can be delivered outside of established health services or they may use existing services in a way that is more suitable and acceptable to the target group.

STI and BBV outreach programs have many direct and indirect benefits including that they can:

- enable engagement with priority populations who may be marginalised or who have limited access to services
- provide access for a lot of people to information, testing and treatment in a short time
- be tailored to meet the needs of the priority population
- provide a level of anonymity for people to access testing and treatment
- enable the development and strengthening of partnerships across a range of services.

Even superheros need protection

While outreach programs can be very effective, they can also consume a lot of time and resources and involve careful planning and implementation. When a program comes to an end, evaluation is important to ensure that priority populations were appropriately engaged and that the goals of the program were met in a cost-effective manner. Planners should bear in mind that outreach programs:

- are time and resource intensive and so should be targeted only to priority populations who have limited access to services
- should align with the broad aims of national and WA sexual health and BBV strategies
- should involve careful planning and engagement with key stakeholders, including priority populations, community, health and other organisations, to maximise success
- should be evaluated to ensure that the aims of the program were met or to enable parts of the program to be reviewed and fine-tuned to ensure the success of ongoing programs
- may be difficult to sustain in the longer term so should also aim to facilitate ongoing access for marginalised groups to existing services
- should not be delivered at the expense of ensuring that STI and BBV testing and management has been appropriately integrated into existing primary healthcare services already accessed by those at risk.

Engaging young Aboriginal people in Nullagine

Is an outreach program needed and is it targeting the priority group for STIs and BBVs?

The following two hypotheticals demonstrate some of the things that should be considered when planning and delivering outreach programs.

Well Women's Health Day

Due to the high rates of chlamydia among women in one community, health service staff decide to integrate STI and BBV testing into the Well Women's Health screening day, which is run every six months at a site away from the local clinic. Feedback and evaluation found that while the participants were interested in the information given, particularly as it gave them an opportunity to ask questions that they had felt embarrassed to ask at the clinic, no STIs or BBVs were detected. A review of the age of the participants identified that 80 per cent were over 40 and none were aged under 30 years. While there may have been value in providing information to this group, they are not the target age group for STI and BBV testing. Future involvement might include providing a staff member to give out information but in terms of testing and treatment, resources would be much better spent by focusing on the age group affected.

Outreach for young men

Staff at the clinic of a small community are concerned about the high rates of STIs among young people. They would like to conduct an outreach program for 15 to 24 year olds whom they believe do not access the clinic. The intended program would be similar to the program presented by another health service at a recent workshop. During the planning, however, the clinic manager extracted data on attendance and STI testing among 15 to 24 year olds over the past 12 months and found that 80 per cent of young women compared with only 50 per cent of young men attended the clinic. Among the young men who did attend, only 10 per cent had a PCR test taken compared to 65 per cent of young women. As a result, they identified that while attendance among men was lower than women, very few men had a PCR test when they did attend. Extracting this data before running the outreach program helped the staff to identify and address gaps within the existing service as well as identify the subgroup who truly were not accessing the service and who could benefit from a well-targeted outreach program.

Models of delivery of outreach programs

Outreach programs can be delivered in many different ways but should be tailored to meet the needs of the priority population and delivered in the most cost-effective way. STI and BBV outreach programs should focus on those at highest risk, such as 15 to 30 year olds or specific risk groups such as MSM, sex workers or injecting drug users. Be mindful that some priority populations within a community may not be easily identifiable or easily defined by young age alone. Consultations and partnerships with appropriate community members and organisations can assist to better identify priority populations and how best to improve access for them. While it may not always be possible to identify individuals at risk, it may be easier to identify and work with their broader social groups and networks to reach individuals within those groups who may be at risk of STIs or BBVs.

The box below outlines priority populations as defined in the WA and national STI and BBV strategies. Note that in the context of outreach programs, priority populations may be referred to as the 'target group'.

Priority population groups

Australia's response to STIs and BBVs is targeted towards specific priority populations who are identified based on epidemiological data. Past STI, hepatitis B, hepatitis C and HIV national strategies have specified the following priority populations:

- Gay men and other men who have sex with men
- People who inject drugs
- Young people
- Aboriginal and Torres Strait Islander People
- Sex workers
- People living with HIV and/or other BBVs
- People living within custodial settings
- Culturally and linguistically diverse populations
- Migrants and new refugees
- People from high HIV prevalence countries
- Travellers and mobile workers.

Outreach programs can have different goals and be delivered in a number of ways through:

- providing information, awareness raising, health promotion
- testing and treatment
- standalone STI and/or BBV programs
- integrated into, or delivered alongside, other outreach programs such as adult health checks or immunisation
- non-clinical settings in the community
- existing services reorganised to make them more accessible and acceptable, such as dedicated clinics, changing opening hours or providing transport.

It is always ideal to offer programs that are holistic and aim to deliver a number of outcomes, but this must be balanced by what is realistic and achievable, particularly in view of time and resource constraints. If integrating into or delivering alongside other outreach programs, ensure that the target group for the existing program aligns with the priority population for STI and BBV programs.

Where and how outreach programs are delivered will vary depending on many factors including what other services are available and accessible. Programs can be enhanced by developing and strengthening partnerships with other organisations that deliver services to the priority population. The services that people may already access within communities might include:

- youth or community centres
- sport and recreation centres
- educational facilities such as high schools and TAFE colleges
- employment programs
- drug and alcohol services
- mental health services
- corrective services.

There are many different examples and models that have been used across the country to deliver successful outreach programs to priority populations. Many have involved partnerships between health services and other organisations in a variety of settings to capitalise on the mix and skills of staff and maximise access to priority populations in an appropriate and acceptable way. Examples of outreach programs and models of STI and BBV testing include:

- annual community-wide STI screening conducted by health services such as the Nganampa Health Council, Ngaanyatjarra Health Service and Spinifex Health Service
- partnerships between ACCHS and other services such as schools, drug and alcohol services, and corrective services
- mobile buses
- programs coordinated by sexual health services and PHUs that use hospital emergency departments to conduct STI testing among 15 to 30 year olds[3]
- chlamydia and BBV testing using websites for young people to access pathology test request forms so they can drop off specimens via the mail or directly to a laboratory.[4]

Case study

Gonorrhoea and chlamydia WACHS Pilbara Emergency Department Project, Nickol Bay Hospital Karratha

The aims of this project were to:

- inform and raise the level of awareness among people attending the emergency department of the risks and possible outcomes of STIs
- increase awareness among staff of STIs and encourage them to increase asymptomatic screening among at risk groups
- increase STI screening rates among people at risk of STIs attending the emergency department
- reduce the time interval to treatment to reduce further transmission and complications of STIs
- implement the project in a manner that did not impede or increase the workload of staff in the emergency department.

Planning the project, developing the forms and processes (such as the inclusion and exclusion criteria) occurred in consultation and collaboration between the public health physician, the emergency department Medical Director, staff and the sexual health team. Posters and pamphlets were placed in the waiting area to raise awareness of the project. Participants signed a consent form and all pathology results were followed up by the sexual health team. The project started in February 2018, initially as a three-month trial, but the project remains ongoing. As the project progressed, staff identified some areas for improvement, modifying processes and consent forms.

Evaluation was conducted to determine the number of tests taken and the number of positive results by specific STI, as well as feedback from emergency department staff. To date, 37 people have been tested for chlamydia, gonorrhoea and trichomonas PCR through a urine sample. Eleven people were offered testing but declined and six were ineligible. Trichomonas was detected among three (8 per cent) of 37 people tested. Feedback from staff was that as a result of the project there was an increased awareness of STIs. In addition, the project resulted in improved communication and an increase in referrals from the emergency department to the sexual health team.

Factors that impacted the project included a planned move to a new health campus, new computer systems and a change of staff in the emergency department. The challenges highlighted the importance of having a nurse champion in the department to drive the project and encourage staff to participate, as well as the maintenance of good communication between the emergency department and the sexual health team through regular monthly meetings.

Planning and implementing outreach programs

Successful outreach programs rely on good planning, effective engagement with the target community and collaboration with other services. The Sexual Health and Blood-borne Virus Applied Research and Evaluation Network (SiREN) has developed a toolkit to help plan and evaluate programs. The toolkit can be used and SiREN program staff can be contacted to help set up programs. The toolkit contains templates and checklists, and other resources include the *Aboriginal Health and Medical Research Council of NSW (AH&MRC) STI and BBV Manual*.[2] These and other comprehensive resources can be adapted and simplified to meet the needs of many outreach programs.

https://siren.org.au

http://www.ahmrc.org.au

When planning outreach programs, here are some things to consider:

- Identify the priority population for the program and think about the following:
  - Are members of the target group already accessing existing clinical services and, if so, are they offered appropriate information, testing and management for STIs and BBVs?
  - Is an outreach program warranted or do existing services, systems and staff need to be reorganised to make them more appropriate, acceptable and accessible?
  - What other services do they access?
  - Is there a target group such as a peer or social group that truly does not access services and that should be prioritised?
  - Are other outreach programs already delivered to them and, if so, can they be integrated?
- Identify the goals of the outreach program:
  - Is it to provide education, health promotion or to test and treat?
  - What other organisations should be involved to ensure an appropriate mix of skills is used to maximise the success of the program?
- Outline how the program will be delivered:
  - Do partnerships already exist between relevant services or do they need to be developed or strengthened?
  - Will it be delivered over one or several days?
  - What sites or organisations will be needed to implement the program and do they enable a safe environment for staff and participants?
  - Will follow-up be needed and where and when will that take place?
  - Have you clarified the roles and responsibilities of organisations and staff involved?
  - Have you mapped what resources will be needed with regards to time, equipment, workforce and mix of skills?
  - Have you estimated the number of participants and amount of equipment, medications and other supplies that may be needed?

- Can the program be run within existing resources or will additional funds be needed for certain parts of the program?
- Does transport need to be organised for participants?
- Do you need to use any activities, competitions or incentives to engage participants?
- How will consent be gained from participants?
- Does an information sheet or consent form need to be developed to assist with the consent process?

- Community ownership and engagement:
  - Does permission need to be gained from community representatives and leaders to run the program?
  - Have you liaised with the appropriate community representatives with regard to where and when to run the program and how to advertise it effectively?
  - Have you sought permission from community Elders prior to any program delivery? (Contact the local ACCHS for guidance on who to talk to within the community. In the absence of a local ACCHS, seek advice from other Aboriginal organisations such as the local land council.)
- Clarify the roles and responsibilities of staff and community members engaged to run the program with regard to:
  - engaging the target group
  - planning the fine detail
  - implementing the program
  - following up
  - entering data
  - evaluating the outcome
  - ensuring provision is made to keep staff and participants safe, such as the safe disposal of sharp implements and medical waste.
- Data management:
  - What information will be recorded? (e.g. the number of participants by age and gender, test results, treatment given)
  - How will information be recorded? (e.g. entered into an existing HIS or into a database or spreadsheet specifically for the program, or both)
  - Do you need to record unique identifiers to follow up abnormal test results?
  - How will confidentiality be maintained?
  - Regardless of the system used, data should be entered in a way that is easily extracted to enable evaluation.
  - Who will be responsible for data entry, extraction and analysis?
  - How will information about the program be fed back to staff and participants or community representatives?

Testing and treatment

If the aim of the outreach program is to provide testing for STIs or BBVs, planning needs to include both follow-up and management of abnormal test results. Outreach programs may aim to provide both testing and treatment at the same time, or may provide information only and links to clinical services that can provide testing and treatment.

For example, while information on STIs and BBVs is often provided to adolescents at schools, it may not always be appropriate or acceptable to staff and parents for adolescents to access testing and treatment at school. However, it may be acceptable to provide information regarding the clinical services that can be accessed for testing and treatment. If outreach programs aim to strengthen access for youth to existing services, it is important to ensure that part of that program is to work with health services and staff to ensure that the services are accessible and acceptable for adolescents and that they are offered appropriate testing and treatment for STI and BBVs when they do access the service. This may involve reorganising clinic hours, having specific clinics or staff on designated days or providing transport to improve access and ensure appropriate management.

When planning to test for STIs and BBVs through outreach programs:

- Clarify what STIs and BBVs will be tested for and what specimens will be required such as:
  - first void urine or self-obtained lower vaginal swab (SOLVS) for PCR +/- blood for BBVs
  - follow-up blood tests for BBVs for those with an STI detected (if not done initially).
- Determine how consent to testing will be obtained – on the day of testing or beforehand? Verbally or by signing a simple information and consent form?
- Ensure confidentiality and access to toilets and rooms for privacy.
- Clarify how participants will be informed of abnormal results, clarify the method for giving these results and ensure contact details are up-to-date.
- Determine how many staff members will be needed for the different stages of the program to ensure effective use of time and flow of participants (e.g. providing information, gaining consent, checking contact details and conducting testing).
- Determine whether the laboratory needs to be notified and prepared for additional specimens to process
- Know where and when follow-up and treatment will be given (e.g. will staff return to the site of testing to treat the following week or will participants be advised to access a particular health service for treatment?).
- If treatment is to be given on the day of testing:
  - will testing be conducted on the basis of an STI detected (if point of care testing is to be conducted)?
  - will presumptive treatment (before the receipt of test results) be given to all participants on the basis of high positivity rates and to avoid loss to follow-up?

- Will other tests be taken at follow-up?
- How will contact tracing be conducted?

Regardless of whether testing occurs within an established clinic or off-site, the same principles apply such as consent to testing, follow-up and management of abnormal results, contact tracing, appropriate handling, storage and transport of specimens to the laboratory, and occupational health and safety.

Case study

Pilbara PHU, Karratha.

In response to several syphilis notifications in the region, the aim was to provide education and STI testing for 14 to 25 year old Aboriginal people. Consultations were held with community Elders and other key stakeholders, including youth groups and staff from education, police and health services to discuss how best to access young men who may be marginalised from services. The Aboriginal Sexual Health Promotion Officer contacted four local football clubs to discuss providing education and STI testing for players. All clubs were keen to participate as they had a number of young Aboriginal men who attended training but who possibly weren't engaged with other organisations. Permission was given from the managers of the four clubs for the Aboriginal health worker to attend training after hours and to provide education on STIs with two 20-minute talks given over two nights. On completion of training, the players were given the opportunity to have STI screening conducted on-site and in private by two nurses.

Education was given to 45 players, with 18 STI and BBV screens conducted over two nights. One client who was identified as a contact of syphilis, also returned a positive test for gonorrhoea and was treated within seven days. Another 10 young men were identified as being at high risk of STIs.

Informal evaluation showed that while there was good attendance and encouragement to participate from both the players and coaches, participation could have been enhanced by more promotion. The consultation with community members proved valuable in reaching marginalised young men and highlights the need to be flexible in service provision.

Evaluation

Evaluating outreach programs is important to ensure that the aims were met and that the outcomes were worth the time and resources used. A CQI approach can also be used to review the measurable outcomes of outreach programs. CQI and program evaluation is discussed in more detail in Chapter 6 and resources such as the SiREN SHBBVP planning toolkit can be used as a guide. https://siren.org.au

In addition to evaluating the impact and outcomes of outreach programs, evaluating the process should involve discussions with staff from the organisations involved as well as with participants or representatives from the community. Discussions should be focused on what went well, what didn't go well or what were the gaps and how could they be improved upon for next time. Questions could include:

- Did the program run smoothly on the day?
- Was planning effective and were adequate resources allocated to run the program?
- Were staff members clear about their roles and responsibilities?
- Were participants properly informed? If not, how could community engagement be improved?
- Were participants and the community happy with the way the program was advertised and delivered?

Outreach through art: competition in Leonora

6. Health service data, continuous quality improvement and program evaluation

Key points

- High quality health service data can be used to plan, implement and evaluate STI and BBV programs and improve health outcomes.
- HIS templates, prompts and recalls should be reviewed and updated regularly to support best practice guidelines for STI and BBV testing and management.
- KPIs are measurable values used by funding bodies and health services to report against the progress and outcomes of strategies and measure the success of programs over time.
- CQI refers to a process whereby a systematic and cyclical approach is used to improve health outcomes.
- To be effective, CQI programs need to engage appropriate staff in the process and use a team approach to develop plans and to identify and implement actions.
- KPIs may be used to measure the success of CQI programs and action plans can assist with the planning, implementation and evaluation.
- Evaluation of the process, impact and outcomes can be simplified and guided by the aims of the program as well as the time and resources available.

Background

Health service data is used for many functions relating to clinical care and health service and public health program activities. Access to timely and high quality STI and BBV health service data enables:

- improved continuity of clinical care, case management and follow-up
- reporting against national and state-based sexual health and BBV strategies
- reporting against KPIs required by funders and managers
- measuring of CQI activities
- feedback to stakeholders such as funders, health service management and staff, other relevant organisations, community members, representatives and leaders
- monitoring and evaluation of short, medium and long-term goals

- public health requirements and functions such as:
  - reporting of notifiable diseases
  - identifying emerging infections and outbreaks
  - monitoring antibiotic resistance
  - identifying patterns and distribution of diseases within populations
- informed resource allocation at both public health and clinical service level
- data-driven planning, implementation and evaluation of research projects.

Health information systems (HIS)

Digital HIS are integral to being able to access and manage quality data. They should enable the following:

- security and confidentiality of personal information
- data such as KPIs to be entered and extracted in a way that is straightforward, standardised and not reliant on individual users
- monitoring, evaluation and reporting of program activities
- templates that support the integration of STI and BBV testing into routine health screening and are aligned with current recommendations regarding who and how often to test
- prompts and recalls to enhance appropriate case management, continuity of care and follow-up.

Information technology is a dynamic area and health services should regularly review and update systems to ensure they support best practice and are used effectively to improve health outcomes. Changes to HIS should be consistent with current guidelines and made with the involvement and approval of health service management and staff.

Notification of infectious diseases

The notification of certain infectious diseases and related conditions is required by law and enables important public health functions, such as the monitoring, control and prevention of diseases, identifying and responding to outbreaks, monitoring antibiotic sensitivities and identifying the pattern and distribution of diseases within populations.

In WA notifications are guided by the *Public Health Act 2016* and the *Public Health Regulations 2017*[1] that require STIs and BBVs to be notified by laboratories and medical officers or nurse practitioners on the basis of case definitions, which may include laboratory test results and clinical findings. Notifications are entered into the WA Notifiable Infectious Diseases Database (WANIDD), which is managed by the CDCD, which also publishes regular epidemiological reports on the Department's website. Access to WANIDD is restricted to specific CDCD and regional PHUs staff. More information about notification of STIs and BBVs is available at: https://ww2.health.wa.gov.au/Silver-book

Key performance indicators (KPIs)

KPIs are measurable values that can be used by funding bodies, health services and organisations to:

- assist with monitoring, evaluating and measuring the success of programs over time
- report against progress and outcomes of national and state strategies, and regional and local action plans
- ensure the appropriate allocation of resources and cost-effectiveness of programs.

At a health service level, KPIs can provide important information that can be used effectively as part of continuous quality processes and strategies to improve primary healthcare delivery.[2] These indictors should not only capture key information but enable quality data to be extracted and collated easily in a timely manner. They need to align with current programs and strategies but also need to be dynamic in response to outcomes as well as emerging health issues.

At a funding level, KPIs are used increasingly to support progress on national strategies such as the Council of Australian Governments (COAG) Closing the Gap targets and national health goals set out in the implementation plan for the *National Aboriginal and Torres Strait Islander Health Plan 2013–2023*.[3]

While a nationally agreed set of KPIs for STIs and BBVs is currently lacking, work is progressing in WA (in partnership with various stakeholders) to develop consistent and effective indicators. KPIs have been developed as part of research projects, such as Test, Treat, ANd GO 2 (TTANGO2) and STRIVE*, that have been implemented in WA in recent years. Research projects are usually adequately funded to enable the time and expertise to conduct a detailed analysis and reporting of project outcomes. While it may be impractical for health services to conduct the same level of evaluation, KPIs can be adapted in a way that is practical, achievable and will result in the ability to measure and monitor outcomes in a sustainable way.

TTANGO2 Project

TTANGO2 builds on a research trial Test, Treat, ANd GO (TTANGO[5]) that was conducted in participating remote primary healthcare services between 2011 to 2016 to determine the acceptability, performance and short-term health impacts of point of care testing (POCT) for chlamydia and gonorrhoea. TTANGO2 builds on this research project through the addition of testing for trichomonas and wider implementation, and will be evaluated to determine the uptake, sustainability and impact of POCT in settings with high STI prevalence.

Point of care testing

KPIs for STIs (adapted from TTANGO2)

- Age is reported on in five-year age brackets (15 to 19, 20 to 24, 25 to 29, 30 to 34, 35 and older).
- Proportion of clinic attendees tested for STIs (**STI testing rate**).
- Proportion of current patients tested for STIs **once or twice** in a 12-month period (**STI testing coverage**).
- Proportion of clinic attendees with at least one positive STI test in a 12-month period (**unique STI test positivity**).
- **Completeness of testing**: Proportion of clinic attendees with a positive Chlamydia trachomatis (CT) and/or Neisseria gonorrhoea (NG) and/or Trichomonas vaginalis (TV) result tested for syphilis and HIV within three months of the date of initial specimen collection.
- **Treatment interval**: Time (days) from date of positive STI investigation request to date of treatment.
- Proportion of clinic attendees retested at three months (60 to 120 days) after an initial positive STI result (**STI retesting rate**).
- Proportion of STI retests that were positive (**STI repeat positivity rate**).

Key process indicators to measure quality of data recording

- Among those with an STI test performed, location in the patient management system where STI testing was documented (**STI test documentation**) e.g. adult health check, STI check, antenatal check, or other.
- The proportion of laboratory STI tests with a POCT performed at the same consultation (**POC test uptake**).
- The proportion of patients with positive STI results who had treatment information recorded in prescription or relevant patient management system/clinical item (not progress notes) (**treatment record**).

* ***STI** in **R**emote communities: **I**mpro**V**ed & **E**nhanced primary health care (STRIVE) was an STI quality improvement research project conducted by the Kirby Institute between 2011 and 2013 with participation from government and the ACCHS in the NT, Qld and the Kimberley region of WA. As part of STRIVE, STI templates were developed and made available for use beyond the life of the study in HIS such as Communicare.*

The key performance and process indicators developed for TTANGO2 have been adapted and used beyond the research project in primary healthcare services in WA. They are outlined below and provide an example of indicators that services could use to evaluate a CQI project.

Continuous quality improvement (CQI) programs

CQI refers to a process whereby a systematic and cyclical approach is used to improve health outcomes. Health services use CQI to help improve many areas of health, including STI and BBV programs.

While CQI programs may use the same or similar indicators as the KPIs required by funding bodies, they often look at broader indicators that may provide health services with more detail to fine-tune programs. More detail can be time-consuming to extract and analyse, but can provide useful information to enable gaps in service delivery to be identified and addressed. To be effective, CQI programs should align with the objectives of national and state strategies, engage appropriate staff in the process, use a team approach to develop plans and implement actions, and focus on goals that will lead to improved health outcomes.

There are different ways of planning for CQI programs but it is helpful to start with an action plan that can identify key aims, strategies and outcomes. An action plan could be developed to encompass the whole program or may be used as a starting point for one part of a program that can be built on over time. An example of an action plan can be found on the National Aboriginal Community Controlled Health Organisation (NACCHO) website[4]. It uses the following five components:

- Aims: what are you trying to achieve?
- Strategies: how will you do this?
- Performance indicators: how will you measure performance?
- Targets: what are your targets?
- Timeframe: when will this be delivered?

https://www.naccho.org.au

CQI is an ongoing process that uses a plan, do, study, act (PDSA) cycle to assist with identifying and enacting changes that will lead to improvements in outcomes. CQI programs are dynamic and should be reviewed and refined over time to ensure that actions are being implemented and new goals are being set to ensure ongoing improvements. While an overall CQI program is an ongoing process, there may be components of the program that will be a one-off activity (outlined in the action plan).

CQI programs use a cycle that has the following or similar components:

- Plan: identify goals or an opportunity for change
- Do: implement the change on a small scale
- Study or check: use data to analyse whether the change has been effective
- Act or adjust: if successful, implement the change on a wider scale and continue to assess results. If not successful, review or update the plan and begin the cycle again.

Diagram 1. Cycle of continuous quality improvement programs (Source: SiREN toolkit)[6]

Things to consider when developing CQI programs are whether the goals and outcomes are feasible and achievable given time and resource constraints and whether assistance is available from other organisations to help achieve the goals of the program. A team approach is critical to the success of CQI programs and action plans can be used to clarify roles and responsibilities of individual team members and provide timeframes for delivering outcomes. While CQI involves a team approach, it is important to identify one or two staff members to be responsible for driving the program to ensure timelines are met and actions are implemented.

Developing an action plan

Things to consider when developing an action plan include:

- What are the **aims** of the project?
- Do the aims **align** with the broad objectives of national and WA strategies?
- What are the **strategies** and **actions** needed to meet the aims?
- What is the **timeframe** for the overall project and milestones?
- What key performance or other indicators will be used to **measure or evaluate** the project?
- What are the **targets** of the program?
- How will data be entered into the HIS and will **data entry and extraction** be straightforward, consistent and reliable?
- How will **information be fed back** to relevant staff and other stakeholders e.g. written reports, verbal feedback?
- Will the project be done in a **cost-effective** way?
- How will **milestones or outcomes be actioned**?

- **Who is responsible** for the different components of the program and action plan? That is:
  - Who will manage or drive the program?
  - Data entry, extraction and analysis?
  - Written and verbal feedback to stakeholders?
  - Implementation of actions and outcomes of the project?

Evaluation

Evaluating programs is important to ensure that the aims were met and that the outcomes were worth the time and resources used. The *SiREN Sexual Health and Blood-borne Virus Program planning toolkit* provides detail about how to conduct an evaluation that includes evaluating the process, impact and outcomes. While this toolkit provides a comprehensive overview, evaluation of programs can be simplified, guided by the aims as well as the time and resources available. For example, it may be feasible for services to measure some key outcomes but it may not be simple to measure the impact of a program on the priority population. Failure to meet some key goals does not necessarily mean that the program was not successful overall, but it does mean that parts of the program may need to be reviewed and refined before repeating.

The following information regarding evaluation has been adapted from the *SiREN Sexual Health and Blood-borne Virus Program planning toolkit*.[6] More information is available at: https://siren.org.au/

Evaluation linked to program planning[6]

Strategies	measured by	**Process evaluation**
Objectives	measured by	**Impact evaluation**
Goal	measured by	**Outcome evaluation**

Evaluating the process, impact and outcomes of programs (adapted from the SiREN Sexual Health and Blood-borne Virus Program planning toolkit)

Process evaluation is used to measure program planning, delivery and progress. It can be conducted throughout the duration of the program and assess the quality, appropriateness and cost-effectiveness of the program. Questions that should be asked include whether it reached and satisfied the needs of the target audience, what did or didn't work well and what could be done differently to improve the program.

Impact evaluation measures the immediate short-term effects of the program. It is related to the program objectives and can measure short-term changes in behaviour, knowledge, participation, policy and risk factors. It is undertaken on completion of certain stages throughout implementation or on completion of the program, or both. It could involve questions such as what proportion of the target group has heard of the program strategies? Has there been a change in behaviour such as an increase in the uptake of STI or BBV testing? Have more condoms been dispensed? Did the program increase STI and BBV knowledge, skills or management? What changed as a result of the program?

Outcome evaluation measures long-term program effects and assesses whether, or to what extent, the program goal has been achieved. It may be conducted from a few weeks to several years after the completion of a program. Long-term changes may include decreases in incidence or prevalence of STI or BBV rates and sustainable behaviour change.

Evaluation may involve the use of both qualitative and quantitative methods of data collection:

- **Qualitative evaluation** methods can use interviews and questionnaires to assess or describe the thoughts or feelings of participants about the intervention or program
- **Quantitative evaluation** methods use numbers, frequencies, percentages and statistics to measure change.

Remember that with regard to CQI programs that aim to address or improve gaps in systems and health service delivery, the target audience may be the clinic staff rather than the priority population who will ultimately benefit from those improvements or outcomes. The target audience could also be both staff and the priority population, such as with programs that aim to improve access to services, increasing the uptake of testing and improving the management of STIs and BBVs.

Data analysis

Analysis of programs can involve analysing qualitative or quantitative data, or both. Large, well-funded research programs often use highly skilled staff to conduct detailed analysis in order to conduct an evaluation. While the evaluation and analysis of a project might sound daunting, it doesn't have to be difficult. Evaluation can be as simple as conducting interviews with participants or asking them to fill out an easy evaluation form to get their feedback. Quantitative data analysis can look at some simple indicators that can be extracted from HIS, such as what proportion of 15 to 29 year olds by five-year age group and gender attended the service and had STI or BBV testing in a timeframe before and after an intervention.

From the outset of a CQI project, it is important to think about what KPIs would be useful to measure, and how feasible it will be to obtain or extract that information and conduct a simple but meaningful analysis.

Ensure that the information or data is appropriately managed with regard to how it is reported, fed back to participants and stakeholders and stored so that it can be used as a baseline or interim measure against which to measure future progress.

Act or adjust to implement change

Evaluation of the program should help to identify whether it was worthwhile and cost-effective, whether it identified gaps that could be addressed or successes that could be expanded or built upon. Taking further actions to adjust, progress or implement changes are an important part of the CQI process. It often involves team discussion and teamwork to determine what action is needed or feasible, assign tasks and responsibilities to appropriate staff and set timeframes in which to progress or complete actions.

Appendix 2 provides a hypothetical example of how a health service could develop a CQI program and action plan in response to findings of low STI testing rates among 15 to 29 year olds attending the service.

Access to services is an important consideration in regional and remote areas

7. Improving the testing and management of syphilis

Key points

- Notifications of infectious syphilis cases have risen significantly since 2012 with:
  - an outbreak occurring among Aboriginal communities, predominantly affecting 15 to 29 year olds living in remote areas, with 15 to 19 year old women being the highest risk age group
  - an increase among MSM, primarily living in urban areas.
- The re-emergence of congenital syphilis cases and deaths highlights the need to ensure prevention through increased antenatal screening, urgent management of affected women and their partners and improved engagement of pregnant and young women with health services.
- Practitioners should be familiar with the signs and symptoms of syphilis as well as the recent changes to the national syphilis testing and management guidelines, and maintain a low threshold for initiating treatment of cases and contacts.
- All health services and staff have an important role to play with regard to implementing the priority areas of the *Enhanced response to addressing sexually transmissible infections (and blood borne viruses) in Indigenous populations action plan* (National Syphilis Action Plan).
- The establishment of state and regional syphilis outbreak working groups has enabled effective communication and collaboration among government and non-government stakeholders to implement, monitor and evaluate the aims of the National Syphilis Action Plan.
- Syphilis POCT is being rolled out in response to the syphilis outbreak and, while they have benefits, practitioners should be mindful of both the indications and limitations of their use.

Epidemiology

Syphilis has the potential to cause serious, but preventable, poor outcomes in pregnancy such as congenital syphilis as well as increasing the transmission of HIV and other STIs. Notifications of infectious syphilis cases in Australia increased significantly from 2012, with 4398 cases reported in 2017, indicating a doubling and tripling of cases among non-Indigenous and Aboriginal and Torres Strait Islander populations respectively. The differences in age and geographic distribution among the two main population groups most affected are as follows:[1]

- an outbreak occurring among Aboriginal people, mainly affecting 15 to 29 year olds living in regional and remote areas in WA, Qld, NT and SA
- increasing cases among MSM.

Among non-Indigenous people, 87 per cent of infectious syphilis cases have occurred among men, predominantly MSM living in major cities.[1]

Current syphilis outbreak

Prior to the current outbreak, significant reductions in infectious syphilis had occurred among Aboriginal people living in remote areas with previously endemic levels of syphilis. Factors likely to have contributed to these reductions include the widespread use of antibiotics, effective syphilis screening programs and regionally based syphilis registers that have assisted with improved case detection and appropriate management.[2] Despite those gains, an outbreak of infectious syphilis occurred recently, commencing in north-west Qld in 2011 and subsequently affecting communities in the NT, WA and SA, with more than 2344 cases notified.

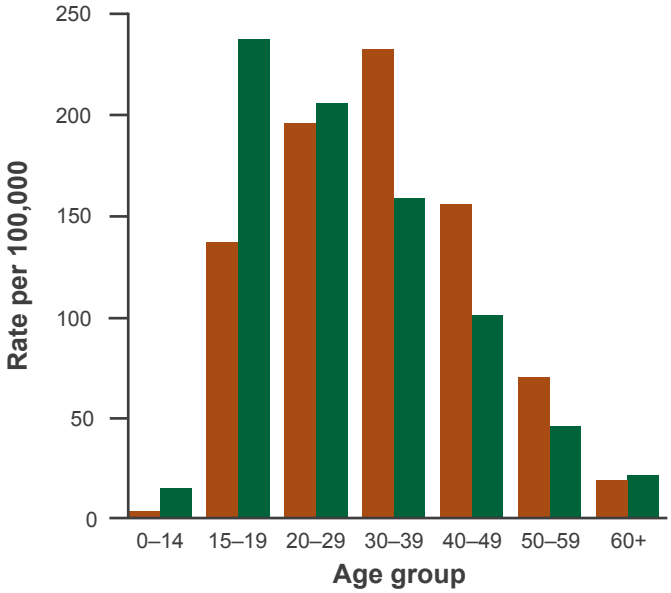
In 2017, notification data of infectious syphilis cases among Aboriginal and Torres Strait Islander people identified the following:

- The majority of cases occurred among 15 to 29 year olds, similar to the age distribution of chlamydia and gonorrhoea notifications.
- 19 per cent of all notifications were among 15 to 19 year olds.
- 15 to 19 year old women are the highest risk age group.
- Cases are spread evenly between men and women.
- Remoteness is associated with increased notifications.[3]

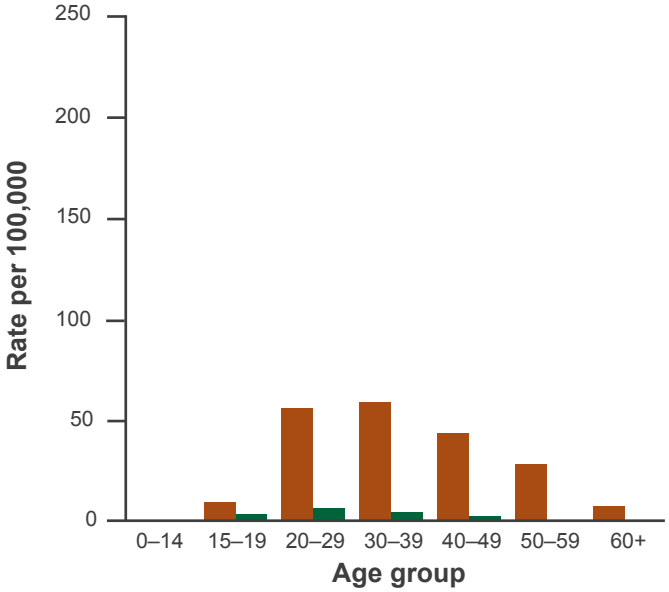
As of November 2018, seven confirmed cases of congenital syphilis and three deaths have been reported in the NT, Qld and SA.[4]

Graph 1 Infectious syphilis notification rate per 100,000 population, 2017, by Aboriginal and Torres Strait Islander status and age group[3]

Aboriginal and Torres Strait Islander



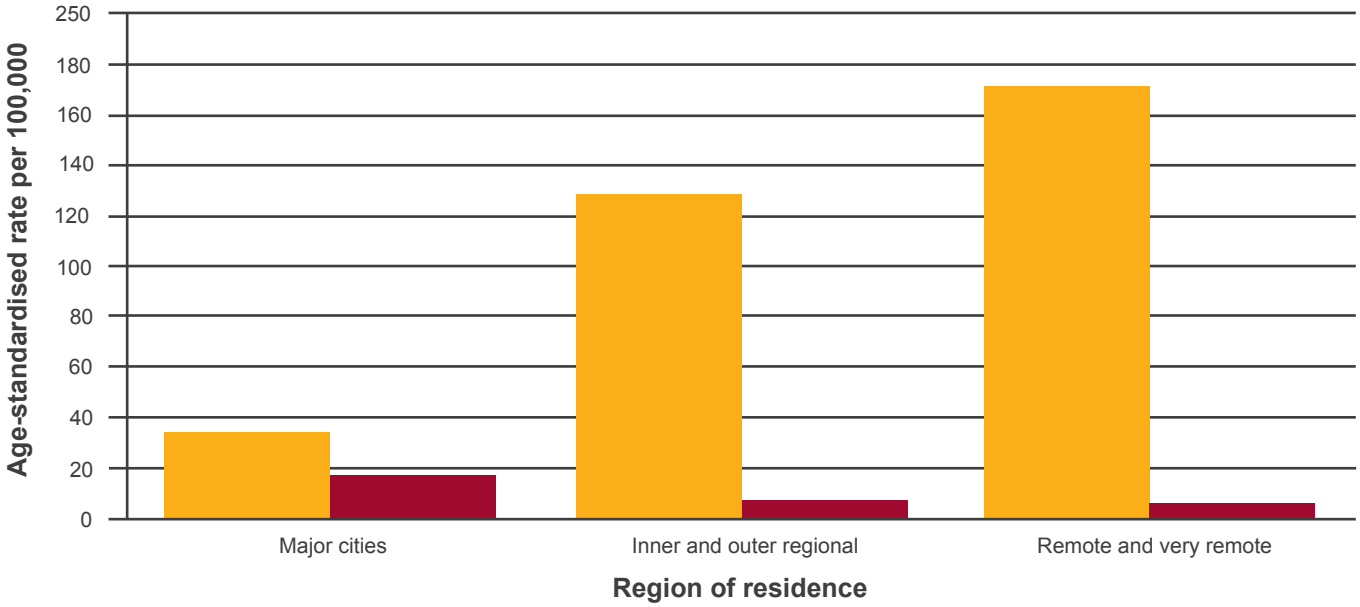
Non-Indigenous



	0–14	15–19	20–29	30–39	40–49	50–59	60+
Males	3.1	138.1	196.3	232.6	155.3	69.7	19.4
Females	15.3	238.0	205.8	158.7	100.8	46.1	20.9
Males	0.0	10.0	56.6	59.6	43.4	28.7	7.5
Females	0.0	3.5	6.8	4.1	2.1	0.8	0.2

Source: Australian National Notifiable Diseases Surveillance System; includes all jurisdictions as Indigenous status was ≥ 50% in each of the 10 years.

Graph 2 Infectious syphilis notification rate per 100,000 population, 2017, by Aboriginal and Torres Strait Islander status and area of residence[3]



Aboriginal and Torres Straight Islander	33.7	128.8	171.8
Non-Indigenous	17.6	6.8	6.3

Source: Australian National Notifiable Diseases Surveillance System; includes all jurisdictions as Indigenous status was ≥50% in each of the 10 years.

Response to the syphilis outbreak

Responses to the syphilis outbreak have recognised the need for a multifaceted approach and to focus not just on syphilis but more broadly, to address the high rates of other STIs among populations affected. Responses have included the establishment of new strategies and strengthening of existing strategies including the:

- establishment of the Multijurisdictional Syphilis Outbreak Working Group (MJSO) by the Communicable Diseases Network of Australia (CDNA) in April 2015 to advise governments on coordinating the public health response for outbreak control and preventing transmission of syphilis from infected women to their babies, through rigorous antenatal testing and care
- development of the *National Syphilis Action Plan* by the Australian Health Protection Principal Committee (AHPPC) Governance Group and endorsed by the Australian Health Ministers' Advisory Council (AHMAC) in December 2017
- development of *National Syphilis Guidelines* by CDNA and updated in August 2018, to provide nationally consistent guidelines for PHUs in responding to notifiable disease events
- development of public awareness raising campaigns such as 'Young, Deadly, Syphilis Free' developed by the South Australian Health and Medical Research Institute (SAHMRI) and funded by the Australian government, which aims to:
  - increase the uptake of testing for syphilis and other STIs among Aboriginal and Torres Strait Islander people aged 15 to 34 years
  - test 30,000 young people in communities affected for syphilis and other STIs by June 2019.

The CDNA *National Syphilis Action Plan* and *National Syphilis Guidelines* have short and longer term goals that will be aligned with the *Fifth National Aboriginal and Torres Strait Islander Blood-Borne Viruses and Sexually Transmissible Infections Strategy 2018–2022*. Four priority areas identified in the action plan are:

- **Testing and treatment:** increasing the number of people tested, frequency of testing, the subsequent treatment of those infected and contact tracing of known sexual contacts
- **Surveillance and reporting:** enhancing the quality and improving access to laboratory testing data and development of key reporting indicators to monitor the outbreak.
- **Education and awareness:** access to consistent and appropriate resources for at-risk communities with a particular emphasis on young and pregnant women and the health workforce servicing these areas
- **Antenatal care:** ensuring consistent recommendations for repeat testing during pregnancy among women at high risk of infection and improving the management of perinatal syphilis.

In addition to the four priority areas, the action plan recognises the importance of monitoring and evaluation by the AHPPC Governance Group and through the national BBV and STI strategies. Monitoring and evaluation plans for the new 2018 to 2022 strategies will be developed in consultation with state and territory governments and partners.

Case study

Establishment of the WA Syphilis Outbreak Response Group

The syphilis outbreak began in the Kimberley in 2014 and the Pilbara in 2018. In 2018 the CDCD established the WA Syphilis Outbreak Response Group in partnership with AHCWA to align with the national enhanced response to addressing syphilis and other STIs and BBVs in Aboriginal populations. The group includes representation from AHCWA, CDCD, WACHS, relevant ACCHS, the WA Primary Health Alliance (WAPHA) and Rural Health West (RHW). The response group will:

- share information and data between participating regions
- plan, set targets, direct and monitor KPIs of the statewide and regional coordinated public health response
- implement standardised indicators and reporting in affected regions
- identify, implement and monitor strategies to improve testing, case detection and management of syphilis among antenatal women
- strengthen partnerships with government and non-government services to develop and implement strategies
- establish or monitor statewide and regional response groups for targeted interventions identified in an agreed WA syphilis action plan
- develop a communications plan for stakeholders, including strategies to engage affected communities in the regions.

A *WA Syphilis Outbreak Response Action Plan* has been developed based on input gained from a stakeholder workshop conducted in November 2018 that involved a range of staff from government and non-government organisations. The Kimberley and Pilbara have developed and implemented targeted approaches to controlling the outbreak in their regions, including prevention, education, testing, treatment, contact tracing and workforce development. Both regions have established syphilis outbreak response groups and developed action plans to provide direction and coordination and that align with the statewide action plan. Positive outcomes as a result of statewide activities and regional response groups include:

- a coordinated public health response that aligns with national action plans
- coordinated communication among the regions
- engagement and development of the regional workforce
- opportunities for partnerships.

Evaluation of the aims and progress of the action plans includes reporting against KPIs outlined by the MJSO group, while data maintained by the CDCD is used to monitor notifications and the status of the outbreak. Stakeholders have acknowledged the urgency of the issue and the need for an effective and coordinated response. Setting up relevant networks and committees has provided a channel for effective collaboration.

Implementation of Syphilis Action Plan

All health services and staff have an important role to play with regard to implementing the priority areas of the syphilis action plan. For an effective response, multifaceted approaches across services and regions that focus on the four priority areas are needed. Health services and staff should consider how they can contribute to ensuring those priority areas are implemented or enhanced. Responses could include the following:

- increase awareness of the outbreak in the community, particularly with regard to who is affected, the importance of early detection and treatment, and the prevention of congenital syphilis
- increase awareness among women and antenatal services of the risk and prevention of congenital syphilis and the importance of staying connected with health services early and throughout the pregnancy
- use the skills of Aboriginal health and community workers and appropriate women in the community, such as Elders and grandmothers, to assist and support young pregnant women to engage with early and regular antenatal care
- facilitate community engagement and awareness through meetings with community Elders and leaders, boards of health services and community organisations; organise community meetings; use local radio, social and print media to provide information
- provide or facilitate access to training to ensure the workforce at primary care, antenatal services and hospitals are familiar with the updated CDNA guidelines, particularly with regard to the increased frequency of testing and urgency of treatment
- provide orientation to new and locum staff regarding the syphilis outbreak, testing and management guidelines, notifications and the role of regional PHUs
- use the regional PHUs to provide or facilitate training and assist with community education and awareness.

Case study

Kimberley sexual health coordinators partnership

The Regional Sexual Health Facilitator at the Kimberley Aboriginal Medical Service and Public Health Nurse STI Coordinator at Kimberley Population Health Unit work together in partnership to develop resources, provide educational support to clinicians and provide leadership in the development of sexual health programs and policies to improve sexual health outcomes in the Kimberley region.

Partnership activities undertaken by the sexual health coordinators include:

- Co-chairing the Kimberley Aboriginal Health Planning Forum Sexual and Reproductive Health Subcommittee (KAHPF SRHSC) which coordinates regional planning and development of sexual health programs and services.
- Coordination of development and review of regional evidence based clinical guidelines.
- Delivery of education sessions to expand and up-skill the general clinical workforce in sexual health management.
- Leading the Kimberley Sexual Health Network which provides support and regular surveillance updates to clinicians.

The partnership has facilitated:

- A significant increase in syphilis testing across the Kimberley to over 600 tests per month
- 90% of syphilis cases treated within two weeks of diagnosis
- Improved follow up and treatment of contacts
- Improved provision of clinical support to health care staff in managing STIs.

Successes include:

- A joint action plan under the KAHPF SRHSC, allowing collaboration on clinical guideline, resource and health promotion development.
- Sharing of resources and strengths improves productivity and avoids duplication of services.
- Having structure to the partnership allowed quick collaboration in outbreak responses.
- Face to face education sessions delivered by the sexual health coordinators in partnership have helped to nurture trusting relationships between the government and Aboriginal community controlled health sectors.

This collaborative approach will be promoted across all services/sites through the KAHPF SHSC. A lesson learned is that with high staff turnover in the region, governance and executive support is needed to ensure relationship continuity.

Notification of syphilis and the role of PHUs in WA

In WA syphilis is notifiable under the *Public Health Act 2016* and the *Public Health Regulations 2017*. A notification form needs to be completed by a medical officer or nurse practitioner and faxed to the nearest regional or metropolitan PHU as soon as possible and within 72 hours of the diagnosis. The receipt of a notification form will trigger the unit to contact the service provider to complete an enhanced surveillance form and discuss treatment and contact tracing.

Laboratories are also required to report test results that indicate a likely new infectious syphilis case. Notifications are stored on the WA Notifiable Infectious Diseases Database (WANIDD), access to which is restricted to disease control medical officers and nurses at the CDCD and regional PHUs. PHU staff check new notifications on WANIDD daily, and prioritise and discuss any new syphilis notifications with the Medical Officer to verify the case and treatment required. Identifying a new case on WANIDD will also trigger a phone call from the PHU to the relevant service provider. As laboratories report on test results only, they may miss early cases of infectious syphilis. PHUs therefore also rely on clinicians to notify them on the basis of clinical findings to trigger a response and particularly to ensure early cases are not missed.

Syphilis: testing and treatment

Detailed protocols regarding syphilis testing and clinical management are available in the *Silver Book* and the *Australian STI Management Guidelines*. While not replicating those protocols or providing details about treatment regimens, the following information aims to highlight some of the key information regarding the natural history, testing and management of syphilis.

Clinical stages of syphilis

Syphilis (*Treponema pallidum*) is associated with different clinical stages although about 50 per cent of people infected have no symptoms.

Primary syphilis: A sore (or chancre) may occur at the site of infection, nine to 90 days after transmission. Chancres are typically painless, 1 to 2 cm in diameter, single or a few sores (on opposed skin) with associated lymphadenopathy. Chancres heal rapidly with treatment; without treatment they will heal spontaneously in three to eight weeks and may still be present in up to one-third of people at the onset of secondary syphilis symptoms.

Secondary syphilis: Untreated, syphilis enters a secondary stage marked by a range of signs and symptoms that can come and go over 12 months. Symptoms resolve rapidly with treatment; and spontaneously without treatment within two years and can include any of the following:

- sores or lumps on mucosal membranes (condylomata lata)
- systemic symptoms such as low-grade fever, malaise, headache, muscle aches and pains, lymphadenopathy
- rashes on palms and soles, maculopapular rash on the body
- patchy hair loss of the scalp and eyebrows.

Latent syphilis: Occurs after the resolution of secondary symptoms, when signs and symptoms are no longer present but the infection remains latent and detectable in the blood. While most sexual transmission occurs during primary and secondary syphilis in the presence of infectious sores, transmission from mother to baby can occur during pregnancy via blood up to nine years after the initial infection. Treatment of latent syphilis differs, depending on whether it was acquired within the past two years (early latent) or more than two years ago (late latent syphilis).

Tertiary syphilis: Can cause bony, cardiovascular and neurological changes in up to one-third of untreated people at least seven years after the initial infection but is now rare due to effective treatment and the widespread use of antibiotics.

Congenital syphilis: Syphilis can be transmitted from mother to baby during pregnancy and at delivery. Transmission is extremely high in early syphilis (90 to 100 per cent transmission in primary or secondary) and decreases over time but can still occur up to nine years after the initial infection. The outcome of syphilis in pregnancy depends on what stage the mother was infected and therefore at what stage in pregnancy it is transmitted. Poor outcomes include mid-term miscarriage, death in utero, stillbirth and congenital syphilis. Congenital syphilis refers to a range of abnormalities and manifestations that may or may not be evident at birth. Babies infected in late pregnancy or delivery may have no clinical abnormalities evident at birth but will likely present with congenital syphilis within the first few years of life if not managed appropriately at birth.

The diagnoses of tertiary and congenital syphilis are difficult and should always be done in consultation with an appropriate specialist.

Who and when to test for syphilis

Prompt and appropriate testing and management of syphilis is essential to:

- prevent the ongoing transmission to sexual partners
- prevent transmission from mother to baby and subsequent poor outcomes such as miscarriage, stillbirth and congenital syphilis
- reduce transmission of HIV and other STIs and BBVs, which increase in the presence of genital sores.

In the context of the current syphilis outbreak, practitioners should maintain a low threshold for testing and treating people presenting with any signs or symptoms that could be due to syphilis or other STIs and BBVs. In addition, the frequency of screening should increase among those at highest risk, in particular pregnant women, 15 to 30 year olds and MSM. Testing for syphilis should always be included when conducting a thorough check-up for STIs and BBVs and when any other

Recommendations for clinical management of syphilis

To improve the clinical management of infectious syphilis, the *CDNA National Syphilis Guidelines*[5] emphasise the importance of prompt and appropriate management of cases and contacts that support the existing state and national STI management guidelines. They include the following recommendations:

- Pregnant women at high risk or living in outbreak areas should be tested for syphilis up to five times during their pregnancy (first visit, 28 weeks, 36 weeks, delivery and six weeks post-partum).
- Infectious syphilis in a pregnant woman requires an urgent response, with treatment and follow-up commenced as soon as possible and within 24 hours.
- Treatment should be given at the time of presentation to people presenting with signs or symptoms of primary or secondary syphilis.
- Treatment of infectious syphilis identified on serology should be given as soon as possible and ideally within two days.
- A rapid plasma reagin (RPR) test (a simple blood test that screens for syphilis) should be taken at baseline on the day of treatment and repeated between three and six months later and 12 months following treatment, ideally using the same laboratory.

STI or BBV has been detected, as co-infections are common.

Test for syphilis when someone of any age presents with **any** signs and symptoms possibly due to syphilis, other STIs and BBVs such as:

- genital ulcers, sores or lumps
- rashes in genital skin
- unexplained rashes anywhere on the body
- patchy hair loss in the scalp or eyebrows
- unexplained headache, fevers, muscle aches pains or lymphadenopathy

Or when any STI or BBV is detected.

Asymptomatic screening for syphilis should be done routinely in the following circumstances:

- Pregnancy:
  - all women at first visit
  - repeat at 28, 36 weeks, delivery and 6 weeks post-partum if syphilis is detected or treated during pregnancy and for all high-risk women, including all women living in the Goldfields, Kimberley, Midwest and Pilbara

- Thorough check-up for STIs and BBVs including:
  - at least annually for all 15 to 30 year olds and three to six monthly if casual partners
  - new or change of partner
  - at follow-up when any STI or BBV is detected, if not tested at the initial presentation
  - if a contact of a person with any STI or BBV
  - if requests a sexual health check-up
  - at adult health checks for 15 to 30 year olds (up to 40 years, depending on local epidemiology)
- MSM at least annually, and three to six monthly with casual partners
- HIV positive up to four times a year with a routine CD4 cell count and viral load testing.

Men and non-pregnant women treated for infectious syphilis should have a follow-up clinical assessment and repeat RPR taken at three, six and 12 months. Note that the RPR is used to monitor response to treatment. Once reactive, the syphilis screening test will remain positive for life and does not need to be repeated.

Women treated for syphilis during pregnancy should at a minimum be retested in the third trimester, at delivery and six weeks post-partum; however, management may vary depending on when syphilis was acquired, and should always be done in consultation with the regional PHU and appropriate specialists.

Contact tracing

In the context of the syphilis outbreak, contact tracing of infectious syphilis cases, and particularly those involving pregnant women, should be managed urgently and as a priority. When conducting contact tracing of infectious syphilis cases among men, always ask up front if their contact(s) are or could be pregnant and explain the importance of treating pregnant women urgently. While some cases may involve significant time and human resources to ensure all contacts are treated appropriately and in a timely manner, the importance of doing so should be stressed in order to prevent ongoing transmission, congenital syphilis and neonatal deaths.

Pregnant women with syphilis need to be informed about the risk of transmission to their baby, treatment, the need for ongoing monitoring and the high risk of reinfection later in pregnancy if their sexual partner(s) are not treated promptly and appropriately. Women should be advised to abstain from sex until five days after their regular partner(s) are treated, or until any symptoms have resolved (whichever is the longer).

While it is important to increase the frequency of testing for syphilis among people at highest risk, asymptomatic screening at a population level among people **over the age of 40 years** should be avoided. Be mindful that in many remote areas where syphilis has been endemic in the past, a significant proportion of people over the age of 40 years will have evidence of exposure to syphilis in the past on their screening test, as the test will remain positive for life, regardless of treatment.[6]*

Most people aged over 40 with reactive syphilis serology will have a history of being treated in the past and are therefore not at risk of transmitting syphilis or developing tertiary syphilis. While there may be individuals in that age group who remain at risk of STIs and should be tested appropriately, population screening of that age group has little benefit with regard to case detection but could consume a significant amount of time and resources at the expense of directing appropriate case detection and management to those at highest risk. Remember, the majority of cases of infectious syphilis among Aboriginal people are among 15 to 29 year olds with 15 to 19 year old women being the highest risk age group. Resources to increase case detection should remain focused on those groups at higher risk and not be diverted to asymptomatic screening among low prevalence age or population groups.

How to interpret syphilis test results

Interpreting syphilis test results can be difficult, particularly without the availability of previous test results and treatment histories. A key role of PHUs is to assist with the accurate interpretation of syphilis serology by having access to and managing a central register of information regarding previous test results and treatments that may have been generated from different health services.

In order to interpret syphilis test results you need to know the:

- treponemal test result, **and**
- RPR test result, **and**
- previous syphilis serology results, **and**
- history of treatment.

Treponemal tests detect specific treponemal antibodies and are used as a screening test to identify whether someone has been exposed to syphilis or not. Most laboratories currently use a treponemal test that is reported as reactive or non-reactive. Other specific tests include enzyme immunoassay (EIA) IgM and IgG, TPHA, TPPA, FTA Abs as well as the newer POCT.

** Clinical audits conducted in WA between 2008 and 2013 identified syphilis sero-prevalence, indicating past exposure, of greater than 30 per cent among people aged older than 40 years living in the Pilbara, Goldfields and Kimberley areas of WA.*

A **non-reactive** test indicates that the person has never been exposed to syphilis; however, it should be repeated in two weeks, if exposure to infection was very recent.

A **reactive** test:

- indicates the person has been infected with syphilis
- does not tell you:
  - how long ago the person was infected, **or**
  - whether they have been treated in the past, **or**
  - whether they currently require treatment.

Non-treponemal tests detect non-specific antibodies. The **RPR (rapid plasma reagin)** is the most common non-treponemal test in use and is done by the laboratory if the treponemal (screening) test is reactive. The RPR is performed manually. Reactivity is measured by serial dilutions and is reported as a 'titre'. The RPR titre changes over the course of an infection and in response to treatment as shown in Graph 3. While an RPR does not tell you whether someone has been treated, it can give some indication of infectivity and is used to monitor treatment and identify reinfections.

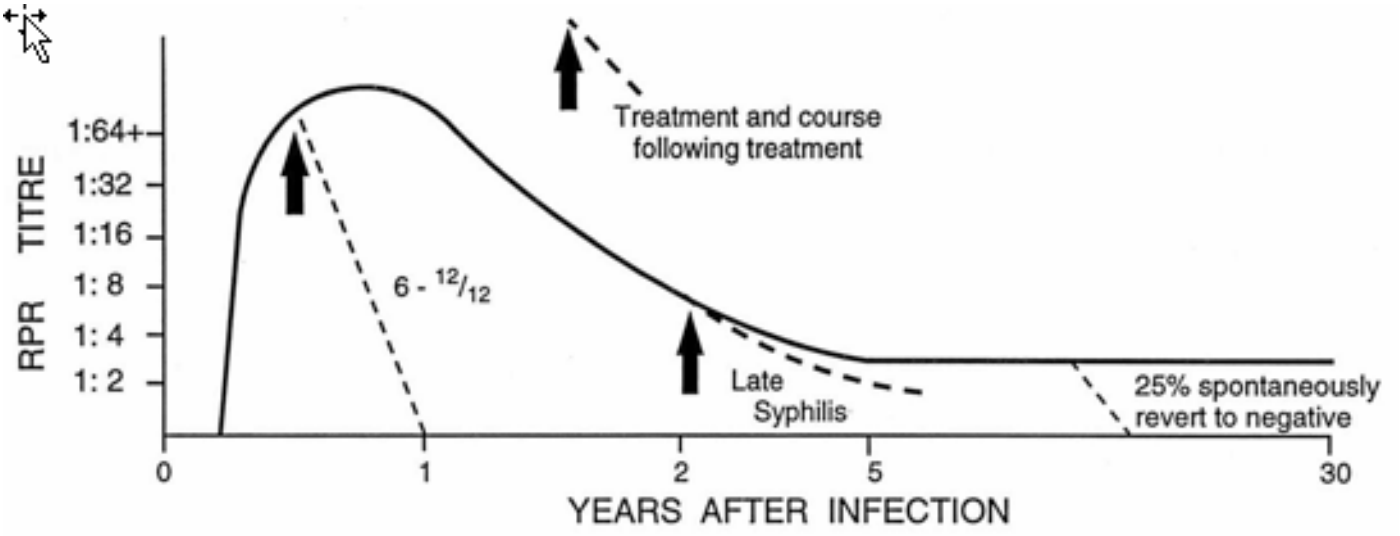
- A two titre or fourfold fall in the RPR (e.g. 1:32 to 1:8) within six months following treatment of infectious syphilis usually indicates an adequate response to treatment.
- The RPR is unlikely to fall if the baseline titre is very low (as in latent syphilis) and therefore cannot be used in this context to monitor treatment response, but it can be used to identify new infections.
- A two titre or fourfold rise from a previous RPR result (e.g. 1:2 to 1:8) can indicate a new infection.

VDRL (venereal disease research laboratory) test is a non-treponemal test which is currently only used in Australia for testing cerebrospinal fluid (CSF).

Syphilis nucleic acid amplification test (NAAT/PCR)
A swab should be taken for the syphilis NAAT/PCR test directly from any sore or lesion possibly due to primary or secondary syphilis. A reactive NAAT/PCR test from a lesion confirms infectious syphilis. Indicate on the pathology form where the swab has been taken from (e.g. genital ulcer) and request 'syphilis and herpes PCR'. A blood test should always be taken at the same time for screening and RPR testing if infectious syphilis is suspected.

NOTE: Blood tests for syphilis provide valuable information and a baseline against which to measure future testing, response to treatment and reinfections. Blood tests should always be taken if syphilis is suspected and an RPR taken again at the time of commencement of treatment to provide a baseline against which to measure response to treatment. If a point of care test has been conducted and is reactive, venous blood must also be sent to the laboratory for RPR as outlined. **The lack of regular transportation to the laboratory is not a reason not to take blood tests**. Check specific storage and transportation requirements with the local laboratory but, in general, specimens can be kept in the fridge and should be transported at 2 to 8°C.

Graph 3. Variation in RPR results over time and with treatment [7]



False positive test results are uncommon but can occur with both treponemal and RPR tests. False positive treponemal tests may be identified in the laboratory as an equivocal or indeterminate test result but confirmatory tests are usually conducted with another treponemal test before the result is reported as reactive or non-reactive.

The RPR test is read manually and therefore results may vary slightly among specimens taken at different times or processed at different laboratories. Biological false positive results can also occur with the RPR for a number of reasons, including acute infections, injecting drug use and pregnancy. False positive RPR results should only cause a low titre reading (1:1, 1:2) while laboratory errors or variations are generally only within one titre of each other. Reactive RPR results should always be considered as true positives among people at risk and an increase in RPR of two titres from the previous RPR considered a likely new infection.

False negative test results can occur among people who have:

- very early syphilis and are tested before the test is measurable in the blood
- a 'prozone reaction' whereby a large antibody response can make the test inaccurate
- immune suppression due to HIV or other causes.

If there are any concerns about possible false positive results among people at low risk of infection, or false negative results among people likely to have syphilis, always contact the regional PHU or appropriate specialists for advice and repeat testing.

Syphilis POC tests

The Determine Syphilis TP is currently the only POC test registered for use in Australia and is being rolled out in response to the syphilis outbreak. The Determine Syphilis TP is a treponemal test that can be used with whole-blood samples from either finger-prick or venepuncture. As with other treponemal tests, a reactive test indicates exposure only, and in isolation of other tests and treatment histories, does not provide any information about when the infection was likely acquired or whether the person has been treated in the past or not. If a POC test is done at the bedside and is reactive, blood must be sent to the laboratory for RPR testing and all test results whether reactive or non-reactive need to be appropriately documented within the client's medical records and forwarded to the regional PHU. In settings where POC tests will be used, staff need to be appropriately trained in order to conduct the test, interpret results and relay test results accurately to the client. Staff should be provided with POC test user manuals, ensure quality assurance is conducted and comply with certification, surveillance, monitoring and notification requirements. As the roll out of POCT for syphilis is recent, information may change. Check with your local PHU or the SHBBVP for updated information.

Syphilis POC tests can be a useful addition to laboratory testing and can lead to a reduction in the time interval between testing and treatment. However, they also have limitations that must be taken into account when being used:

- The Determine Syphilis POC test currently in use provides an adjunct to, but does not replace, syphilis tests conducted in the laboratory:
  - If a POC test is non-reactive, venous blood does not need to be sent to the laboratory for syphilis screening unless there is concern about very recently acquired syphilis or symptoms suggestive of syphilis.
  - If a POC test is reactive, venous blood **does** need to be sent to the laboratory for RPR.
- The syphilis POC test is a treponemal test and a reactive test result indicates exposure only.
- A reactive POC test does not indicate when the person was infected, if they have been treated or if they require treatment.
- As with other treponemal tests, once reactive it will remain reactive for life and should not be repeated.
- Indications for use:
  - A POC test should only be used on people who have never been tested or who have never had a reactive treponemal or screening test.
  - To be cost-effective, its use should be limited and directed to those at highest risk of syphilis – antenatal women, 15 to 30 year olds, MSM and individuals at high risk.
- Limitations to use:
  - It should not be used on people who have **ever** had a reactive treponemal test as it will return a reactive result; therefore, it has no value in this context.
  - If reactive, venous blood is still required to be sent to the laboratory for RPR testing.

- In remote areas with previous endemic syphilis, a significant number of people aged over 40 years will return a reactive result. Most will have been adequately treated in the past.[6]*
- Inappropriate use can lead to over-treatment of people, which is not only a waste of time and resources but has the potential to cause unnecessary damage to relationships and domestic violence.
- Both reactive and non-reactive test results need to be recorded in the client's medical record and relayed to the regional PHU syphilis register.

Before using a syphilis POC test, check the client's previous syphilis testing history in their medical records:

- If a syphilis screening test has **ever** been reactive, the POC test will also be reactive and therefore should not be used – send venous blood to the laboratory for RPR.
- If a client's last documented syphilis screening test was non-reactive, a reactive POC test indicates a new infection acquired since the last non-reactive screening test – commence treatment as a new infection and send venous blood to the laboratory for RPR.
- If there is no previous testing history and the POC test is reactive, this indicates they have been infected with syphilis but does not tell you when:
  - contact the PHU to check if the patient has ever had a previous screening test and treatment
  - commence treatment on the spot if they have any symptoms, are a contact or are at high risk of syphilis.

New infection

Remember that if a POC test or clinical signs and symptoms identify a likely new infection:

- Take venous blood and send it to the laboratory for RPR.
- Commence treatment.
- Take a full sexual history.
- Conduct an examination as appropriate.
- Test for other STIs and BBVs.
- Initiate contract tracing.
- Advise the client to abstain from sex until five days after contact(s) have been treated
- Complete a notification form and fax it to the regional PHU
- Contact the PHU for advice.

8. Improving access to testing and treatment of hepatitis B and C

Key points

- Direct acting antiviral agents (DAA) for the treatment of hepatitis C:
  - have greater than 95 per cent cure rates
  - can prevent or limit progression to cirrhosis and liver cancer
  - can be given as a single daily dose over shorter treatment times and have fewer side-effects than older treatments, enabling improved adherence
  - can be prescribed by medical and nurse practitioners through primary healthcare services, improving access to treatment.
- Regular monitoring and treatment of chronic hepatitis B can reduce the progress of liver damage.
- Despite advances in treatment, most people living with hepatitis B and C remain untreated and are not receiving appropriate management.
- Primary health services can help to address gaps in testing and management and improve access to treatment of hepatitis B and C in a variety of ways:
  - Ensure services are accessible and acceptable for often marginalised clients.
  - Provide community education highlighting easy access to new and effective treatments for hepatitis C.
  - Support training to ensure all staff understand the benefits and criteria for accessing new hepatitis C treatments.
  - Support training to enable practitioners to increase their confidence and competence with regard to management and prescribing of DAA.
  - Strengthen recall systems to reduce loss to follow-up.
  - Conduct clinical audits to identify those lost to follow-up, to re-engage them with health services and increase access to treatment.

Background

Hepatitis B and hepatitis C remain common infections that can lead to serious consequences, such as cirrhosis and hepatocellular (liver) cancer (HCC). Aboriginal people are over-represented with regard to rates of infection and burden of ill health. Of the 10,537 new hepatitis C infections notified in Australia in 2017, 69 per cent were among men[1] and 11 per cent were among Aboriginal people.[2] The rates of new infections have also increased significantly since 2012, possibly due to a combination of factors such as higher unsafe injecting rates, high rates of incarceration and increased case detection.[1]

The availability of new DAA, which have greater than 95 per cent cure rates for hepatitis C, can prevent or limit the progression of liver disease and make the elimination of hepatitis C in the community achievable. In contrast to older treatments, DAA have fewer side-effects and can be given as a single daily dose over a shorter time, leading to improved adherence. In 2017, among an estimated 182,144 people living with chronic hepatitis C in Australia, 80 per cent had been diagnosed but only 47 per cent of those people had an HCV RNA blood test to confirm the diagnosis of chronic infection. Among people confirmed as having a chronic infection, only 31 per cent received DAA treatment, among whom 95 per cent were cured.[1]

Among about 233,947 people living with chronic hepatitis B in Australia in 2017, it is estimated that only 64 per cent have been diagnosed, only 18 per cent are receiving regular guideline-based care and only 8 per cent have received antiviral treatment, highlighting significant gaps in testing and management.[1] While the treatment of chronic hepatitis B is not as straightforward or effective as with hepatitis C, qualified s100 community prescribers can prescribe hepatitis B treatment which, together with regular six to 12 month monitoring through primary health services, can reduce the progress of liver damage and loss of liver function.

Medical and nurse practitioners can prescribe DAA for hepatitis C, enabling treatment and support to be given through primary health services, increasing access for priority populations. The challenge for health services is to ensure barriers to access are reduced through providing appropriate information to clients, active case finding of those lost to follow-up and supporting staff training to enable provision of effective management.

Transmission of hepatitis A, B and C[3,4]

Hepatitis A is transmitted by the faecal–oral route, usually after ingestion of contaminated food and water or through oral–anal sex. Hepatitis A can be a serious infection, especially if acquired during pregnancy, but it never leads to chronic infection or reinfection. People become immune to hepatitis A following the resolution of infection or after immunisation.

Hepatitis B is transmitted through blood and body fluids, with most cases a result of mother to baby transmission, unsafe injecting or unprotected sex. Chronic infection occurs in up to 90 per cent of people infected at birth in contrast to up to 10 per cent infected as adults. Immunity against reinfection occurs following resolution of an acute infection or after immunisation.

Hepatitis C is transmitted mainly by blood to blood exposure with about 90 per cent of new infections among people with a history of injecting drug use. A history of imprisonment is an independent risk factor for hepatitis C, with prevalence of 30 to 40 per cent among all prisoners and higher rates of 50 to 60 per cent among female prisoners.[3] The risk of sexual transmission is low, but increases among people with HIV or high risk sexual practices.

Natural history of hepatitis A, B and C[3,4]

Hepatitis B and hepatitis C can both cause chronic infections, which may progress to chronic liver disease, cirrhosis and HCC liver cancer. The progression to cirrhosis increases in the presence of other factors, including co-infection with hepatitis B and hepatitis C, HIV, obesity, insulin resistance and alcohol intake > 40 g/day.

Hepatitis C can resolve naturally within six months from the time of infection; however, most people (55 to 85 per cent) do not clear the virus, leading to chronic infection. Between 5 and 10 per cent of people with a chronic infection will develop cirrhosis within 20 years and a further 10 to 15 per cent after 40 years. Each year, 3 to 5 per cent of people with cirrhosis will develop HCC.

Among people with chronic hepatitis B, up to 25 per cent will progress to cirrhosis and HCC.

In contrast to hepatitis B, people who clear hepatitis C naturally or following treatment do not develop immunity and can be reinfected if re-exposed to the virus.

Mother to child transmission

Hepatitis B and hepatitis C can be transmitted from mother to child although transmission of hepatitis B is now rare in Australia due to the universal immunisation of neonates (newborns) and appropriate management of mothers and their babies. Pregnant women should always be managed in conjunction with specialists experienced in managing hepatitis B and hepatitis C.

Transmission of hepatitis C from mother to baby is about 4 to 6 per cent and increases in the presence of HIV. Currently, treatment with DAA cannot be given during pregnancy, highlighting the need for increasing access to testing and treatment for women at risk prior to pregnancy. Babies born to mothers with hepatitis C should have an HCV RNA test at eight weeks and again 4 to 6 weeks later to confirm or exclude hepatitis C as well as an anti-HCV antibody test (HCV Ab) at 18 months.

Immunisation

Hepatitis A and hepatitis B are vaccine preventable infections, but there is no vaccine currently available for hepatitis C. Ensure those at risk for hepatitis are fully immunised for both hepatitis A and hepatitis B (if not already immune) and that their immunisation history and immune status are appropriately documented in their medical records.

Table 4. Hepatitis A, B and C viruses

Transmission	Hepatitis A virus (HAV)	Hepatitis B virus (HBV)	Hepatitis C virus (HCV)
Infective matter	Faeces	Blood and body fluids – mainly vaginal fluids and semen*	Blood
Main mode of transmission	Faecal–oral route	Unsafe injecting, unsafe sex, mother to baby	Injecting drug use
Incubation period	15 to 50 days	45 to 180 days	6 to 12 weeks
% symptomatic with acute infection	Asymptomatic or mild symptoms in infants > 70% in adults	Asymptomatic in infants, 30–50% in adults	15–30%
Mother to child transmission (MTCT)	No risk of MTCT Infection in pregnancy can be severe and can cause maternal death (rarely)	Preventable with immunoglobulin and immunisation commenced at birth	4–6% but can be reduced with appropriate perinatal care
Chronic infection	Nil	Up to 90% if acquired at birth Up to 10% if acquired as an adult	55–85%
Progression of chronic infection to cirrhosis	Nil	25%	20–30%
Immunity following clearance	Yes	Yes	No
Vaccine preventable	Yes	Yes	No
Treatment curative	Not required as no chronicity	Not curative but can be managed to limit progression	Yes > 95% cure

** Hepatitis B is found in small amounts in tears, saliva and breast milk but not in levels considered high enough to cause transmission.*

Hepatitis C: risk factors, testing and treatment

Who and when to test for hepatitis C

Be familiar with the different types of tests for hepatitis C, when to use them and how to interpret results in order to provide clients with appropriate information regarding test results. Information regarding the interpretation of these and other tests is outlined below.

Most people with a past history of risk for transmission, rather than an ongoing risk, only need to be screened once for hepatitis C. With regard to screening, the HCV Ab test should be used among people who have either never been tested or who have never had a reactive HCV Ab test result. As the HCV Ab test will remain reactive for life, it cannot be used to check for re-infection. The HCV RNA test needs to be used to check for re-infection among people at ongoing risk who have previously had a reactive HCV Ab but cleared the infection.

People with any indication of liver disease should be tested for hepatitis C. Liver disease may result from a combination of infective and other causes, and risks for one BBV may indicate risk for others. Even if one cause of liver disease, such as alcohol misuse, is evident, all people with liver disease should be tested for possible infective causes (hepatitis A, hepatitis B and hepatitis C at a minimum) and HIV. Tests should be taken among people who present with:

- any signs or symptoms of liver disease
- abnormal liver function tests (LFTs), in particular elevated enzymes (alanine aminotransferase or ALT)
- liver abnormalities identified on imaging.

People should also be tested for hepatitis C at least once if they have ever had a risk factor for transmission. More frequent screening may be needed among people with ongoing risk factors. People who may have been at risk for hepatitis C and who should be tested include those who have:

- ever injected drugs
- ever been in prison
- ever had any unsafe tattooing, skin piercings or scarification
- had a needle stick injury (occupational or non-occupational exposure)
- received organ, tissue or blood products prior to the introduction of hepatitis C screening in Australia in 1990 (or at any time in other countries)
- hepatitis B or HIV
- sexual practices that put them at risk, such as traumatic sexual practices, group sex or unprotected anal intercourse, particularly in the presence of HIV or STIs.

Other people who should be tested are:

- sexual partners of people with hepatitis C
- children born to mothers with hepatitis C
- people born in high prevalence regions such as Africa, the Middle East, the Mediterranean, Eastern Europe, and South Asia.

In addition to those with specific risk factors, all pregnant women should be tested for hepatitis C at their first antenatal visit and again in the third trimester if at higher risk.

Testing for hepatitis C among people with ongoing risks

Screening for hepatitis C should be done at least annually and more frequently (3 to 6 monthly) among people with ongoing risks for transmission such as:

- PWID:
  - annually among those with safe, sterile injecting practices
  - 3 to 6 monthly among those with unsafe, unsterile injecting practices
- sexual partners of people with hepatitis C with high risk sexual practices
- HIV positive people.

If a person has ever had a reactive HCV Ab test, it will remain reactive for life and therefore cannot be used to check for reinfection among people who have been exposed but cleared the infection in the past. In this case, an HCV RNA test is used to check for reinfection. Screening for hepatitis C should be done using the following test:

- HCV Ab – if never tested or previous HCV Ab was non-reactive
- HCV RNA – if they have ever had a reactive HCV Ab test.

An **HCV RNA** test should also be taken in the following circumstances:

- following an initial reactive HCV Ab test to determine cleared or chronic infection
- repeat in six months after an acute infection to determine whether the virus has been cleared or not
- repeat in six months if reactive and there is no history of a previous HCV RNA test to confirm chronic infection
- at the completion of DAA therapy to measure response to treatment
- annually as a screening test to check for reinfection among people who have ever had a reactive HCV Ab test and have ongoing risks for reinfection.

The HCV viral load (how much of the hepatitis C virus is in the blood) can be measured. While not clearly associated with the likelihood of clearing the infection, measuring the viral load is usually done before treatment and may identify people eligible for shorter treatment regimens.

Hepatitis C: interpretation of test results

Be familiar with the different types of tests for hepatitis C, when to use them and how to interpret results in order to provide clients with appropriate information regarding test results.

The **HCV Ab** test is used as a **screening** test and identifies whether someone has been exposed to the virus or not. The test is usually reactive by six weeks, but it could take up to 12 weeks for the HCV Ab test to become reactive after infection (the window period).

- A **non-reactive HCV Ab** test indicates that the person has **not been exposed** to hepatitis C. The exception is if their risk is very recent and they have been tested within the window period before the test becomes positive. In this case, a repeat HCV Ab test should be taken in one to two months.
- A **reactive HCV Ab** test indicates that the person **has been exposed** to hepatitis C but it does not tell you:
  - how long ago they were exposed, **or**
  - whether the infection has resolved naturally or following treatment, **or**
  - whether they have a chronic infection.

Regardless of whether the infection has resolved or not, the HCV Ab test will remain reactive for life; therefore, if someone has **ever** had a reactive HCV Ab test, there is no point in repeating this test. The **HCV RNA** test identifies whether hepatitis C is circulating in the bloodstream and should be taken at least once following a reactive HCV Ab test.

- A **non-reactive HCV RNA** indicates that HCV is **not detected** and that the person has cleared the infection either naturally **or** following successful treatment.
- A **reactive HCV RNA** test indicates the virus is **detected** due to either an acute or chronic infection. If hepatitis C has been acquired recently, the RNA test should be repeated in six months to check whether hepatitis C has resolved or whether it persists, indicating chronic infection.

HCV genotype testing: There are seven different strains or genotypes of hepatitis C, of which type 1 and type 3 are the most common in Australia. Prior to the initiation of DAA (direct acting antiviral) treatment, hepatitis C genotype testing is required to be taken and documented in the patient's medical record.

Table 5. Interpreting HCV tests

Status	HCV antibody test (HCV Ab)	HCV RNA test (HCV RNA)	HCV genotype test	Action needed
Never exposed*	Non-reactive	n/a	n/a	No further action*
Exposed but cleared the virus (naturally or following treatment)	Reactive	Non-reactive	n/a	No further action unless ongoing risks for reinfection – if so, screen with HCV RNA
Active infection (acute or chronic)	Reactive	Reactive	n/a	If recent infection, repeat HCV RNA in 6 months#
Chronic infection (history or tests indicate infection was acquired more than 6 months ago)	Reactive	Reactive	Test to determine genotype	Genotype may guide treatment regimen and is required prior to DAA treatment
Chronic infection cured after treatment	Reactive	Non-reactive	n/a	HCV RNA at 12 weeks after the end of treatment
Neonates born to mothers with hepatitis C	18 months	8 weeks and repeat 4 to 6 weeks later	n/a	Manage and interpret results in consultation with a specialist

n/a = not applicable /not needed

** unless very recent exposure – repeat test in 1 to 2 months – or with ongoing risk of infection*

 # At the time of writing, post-exposure prophylaxis and DAA treatment of acute hepatitis C is not recommended. Any updates or changes to current recommendations can be found at the Australian recommendations for the management of hepatitis C infection.[5]
http://www.hepcguidelines.org.au/

Management of hepatitis C

Increasing access to DAA and improving adherence are crucial to enabling the effective treatment and cure of hepatitis C. As treatment regimens with DAA are likely to change over time, detailed information regarding current treatment is not included in this manual but can be found at the *Australian Recommendations for the Management of Hepatitis C Virus Infection*:[5]
http://www.hepcguidelines.org.au/

DAA treatment can be prescribed by medical officers and nurse practitioners through primary health services. Even if not prescribing DAA, it is important for all practitioners to understand the principles of hepatitis C management as they are likely to be involved either directly or indirectly in different aspects of the care of people with hepatitis C. Always ensure information provided is accurate and up-to-date, and given in a way that respects privacy and confidentiality. Also be sensitive to issues such as health literacy.

In addition to DAA treatment, there are many other benefits for people with hepatitis C to engage with primary healthcare services, particularly as some may have complex medical and social needs. Appropriate management not only prevents or limits progression of liver disease but also provides opportunities to manage and support other medical and social issues through primary health or referral to other services.

The following key points are provided as a guide to initial and ongoing management of people with hepatitis C. Further advice and support can be provided through HepatitisWA:
http://www.hepatitiswa.com.au/

Initial diagnosis of hepatitis C

- Provide appropriate information to explain what the reactive HCV Ab screening test means.
- Explain the need for further testing with HCV RNA to exclude or confirm chronic infection.
- If chronic infection is confirmed by a reactive HCV RNA, explain what other tests are needed as part of initial management.
- People who are currently injecting drugs should be encouraged to advise their regular injecting partners of their diagnosis, to enable them to access testing and treatment.

Recall, follow-up and ongoing management of hepatitis C

How people will react to the diagnosis of chronic hepatitis C and their knowledge regarding consequences and treatment will vary; therefore, follow-up should be tailored to the needs of individuals. While several consultations may be needed following the initial diagnosis, information that should be discussed includes general information regarding hepatitis C, follow-up and management, and specific information about the availability and benefits of DAA treatment. Facilitate follow-up by gaining consent to recall, clarifying the preferred method for follow-up and checking contact details are up-to-date. While the decision to commence DAA will be straightforward for many, for others it may take some time. Ensure people are supported throughout this process and provided with appropriate management in the meantime. More information on management and pre-treatment assessment can be found in the *Silver Book*.
www.health.wa.gov.au/Silverbook

Ensure that key information regarding DAA is provided to people with hepatitis C:

- Highlight the benefits of treatment and ensure clients are aware of access to treatment, general principles of treatment regimens and cure rates.
- Address any misconceptions regarding treatment, particularly those that have changed with new DAA treatment such as:
  - improved adherence due to single daily dosing, fewer side-effects and shorter treatment times
  - liver biopsy no longer required as a criterion for treatment
  - current injecting drug use not a barrier to accessing treatment.

DAA can be prescribed by medical practitioners or authorised nurse practitioners experienced in the treatment of hepatitis C, or in consultation with experienced specialist physicians. Further information regarding training and support for practitioners to prescribe DAA can be found on the ASHM website: https://ashm.org.au/

Following the initial diagnosis and before DAA treatment is commenced, people with hepatitis C should have a six-monthly check-up at a minimum. Management should include, but is not limited to, the following:

- physical examination to check for signs of chronic liver disease and cirrhosis
- full blood examination, tests for liver function, alpha-fetoprotein (AFP), urea and electrolytes, and eGFR (estimated glomerular filtration rate, which is an overall measure of kidney function)
- liver fibrosis assessment (which may require liver elastography)
- liver ultrasound among people with cirrhosis to exclude HCC
- provide information regarding key issues such as preventing ongoing transmission and limiting progression to cirrhosis and liver cancer
- offer testing for other BBVs (HIV, hepatitis B) and STIs as appropriate
- provide hepatitis A and B immunisation (if not immune)
- encourage and support the reduction of alcohol consumption
- conduct a general or adult health check, if due
- identify and manage co-morbidities such as obesity, diabetes and renal disease
- review concurrent medications (prescription and other drug use)
- provide counselling, support and referral to other services, such as alcohol and other drug services and mental health services, as required
- enable access to peer and social support.

Criteria for treatment of hepatitis C

Virtually all people with hepatitis C are now eligible for treatment, including those who are current injecting drug users who were previously ineligible for treatment or intolerant of interferon. The exceptions to this are that treatment is not recommended for people with limited life expectancy or for women who are pregnant. Pregnancy should also be avoided for six months following treatment. Children under the age of 18 should be managed by a paediatrician experienced in managing hepatitis C.

In addition to clearing the infection, successful treatment also leads to improvements in quality of life, regression of liver fibrosis and cirrhosis, and reduction in the risk of liver failure and liver cancer. Key points with regard to DAA treatment for hepatitis C:

- DAA treatment enables greater than 95 per cent cure rates.
- Some medications are co-formulated to enable single daily dosing.
- Treatment regimens may be guided by the specific HCV genotype or cover most genotypes (pan-genotypic).
- Other factors influencing the choice of treatment regimen include prior treatments, the presence of cirrhosis, drug interactions with other medications, and co-morbidities.
- Treatment is given for an average of 12 weeks (ranging from 8 to 24 weeks).
- Fatigue, headache and nausea are the most common side-effects but are uncommon and typically mild.
- 'Cure' is measured by having a sustained virological response (non-reactive HCV RNA) at 12 weeks following completion of treatment.
- Drug interactions and co-morbidities such as HIV, hepatitis B and renal disease may complicate treatment but not necessarily prevent it.
- Renal function needs to be assessed prior to treatment.
- People with significant renal impairment (eGFR < 50 mL/min/1.73 m^2), and others with complex co-morbidities, should be referred to or managed in consultation with appropriate specialists.

Less intense monitoring is needed while on DAA treatment; however, follow-up may need to be tailored for individual clients, particularly if there are other medical or social issues that may complicate management or where more support may be needed to ensure adherence.

Treatment failure is defined as a reactive HCV RNA at 12 weeks following the end of treatment. While uncommon, in the event of treatment failure, consult with a specialist regarding ongoing management or referral.

Hepatitis B: testing and treatment

The risk factors and general management of hepatitis B share many similarities to that of hepatitis C, as well as some distinct differences. While DAA is also used in the management of hepatitis B, treatment is ongoing and does not necessarily lead to a cure, but can limit progression to cirrhosis and HCC. Treatment of hepatitis B is not as straightforward as for hepatitis C. It can only be prescribed by specialists and by accredited and approved GP s100 prescribers, and is often managed in conjunction with specialists. All people with chronic hepatitis B, regardless of DAA treatment, should have a regular 6 to 12 monthly check-up with their general practitioner (GP) to check for signs and symptoms of liver disease.

Who and when to test for hepatitis B

Hepatitis B is transmitted via blood and body fluids so that while risk factors are similar to those outlined for hepatitis C, hepatitis B is primarily transmitted from mother to baby, through unsafe sex or unsafe injecting. Aboriginal people, particularly those born before the introduction of universal neonatal vaccines, as well as people born in high prevalence countries, remain at significant risk of infection and progression to cirrhosis and liver cancer.

In contrast to hepatitis C, hepatitis B is a vaccine preventable infection, so ensuring people at risk are adequately immunised is an important public health measure to prevent transmission. All Aboriginal and Torres Strait Islander people and others at risk should be tested at least once to determine their hepatitis B status. If not immune and not infected, immunisation should be encouraged and provided as outlined in the *Australian Immunisation Handbook*,[4] and their immune status should be appropriately documented. People who are immune, either as a result of a resolved infection or immunisation, do not need to be screened again for hepatitis B. The exception to this is during pregnancy, when all women are tested for hepatitis B at their first visit as part of routine antenatal screening and again in the third trimester, if at high risk.

Remote vaccination clinic in the Kimberley

Interpretation of hepatitis B tests

There are several tests for hepatitis B and three different tests are needed to interpret results appropriately. The following tests should be taken when screening for hepatitis B among people who have never been tested:

- antibody to core antigen (anti-HBc)
- antibody to surface antigen (anti-HBs)
- hepatitis B surface antigen (HBsAg).

Anti-HBc indicates **exposure** to hepatitis B:

- A **non-reactive** test means that the person has **not been exposed** to hepatitis B. Unless they have had a recent exposure, in which case repeat the test in 1 to 2 months.
- A **reactive** test means that the person has been **exposed** to hepatitis B but does not tell you:
  - how long ago they were exposed, **or**
  - whether they have a chronic infection, **or**
  - whether they cleared the infection and are now immune.

HBsAg indicates an acute or chronic infection:

- A **reactive** test means that the person has either an acute or a chronic infection – repeat in six months after an acute infection or if there is no prior history of testing.
- **Two** reactive HBsAg taken at least six months apart indicate a chronic infection.
- **A non-reactive test** *and* **a reactive anti-HBc** means that the person has cleared the virus naturally following exposure.

The HBsAg test is often the only test taken as part of antenatal screening to identify active infections and prevent mother to child transmission. Be aware that an HBsAg test alone does not tell you whether the person is immune or needs vaccination.

Hepatitis B surface antibodies (anti-HBs) indicate immunity and can be measured following clearance of an acute infection or successful immunisation:

- A **reactive** test indicates immunity after vaccination or clearance of an infection.
- A **non-reactive** test means that the person is not immune.

Hepatitis B e antigen (HBeAg) may be routinely tested by the laboratory if HBsAg is reactive. While a reactive HBeAg indicates higher infectivity, a non-reactive test (and reactive anti-HBe) does not mean that the person is not infectious.

Hepatitis B DNA (HBV DNA) measures the amount of virus in the blood and can be used to monitor chronic infection and response to treatment.

Table 6. Interpreting hepatitis B tests

Status	Anti-HBc (core antibody)	HBsAg (surface antigen)	Anti-HBs (surface antibody)	Action and documentation
Never exposed or immunised	Non-reactive	Non-reactive	Non-reactive	Needs immunisation#
Immune following vaccination	Non-reactive	Non-reactive	Reactive	No further testing needed*
Immune following exposure to infection	Reactive	Non-reactive	Reactive	No further testing needed
Acute or chronic infection (no previous tests taken)	Reactive	Reactive	Non-reactive	Repeat HBsAg in 6 months to check if resolved or chronic infection
Chronic infection	Reactive	Reactive (2 reactive tests taken at least 6 months apart)	Non-reactive	Needs follow-up and management

Management of hepatitis B

To prescribe treatment for hepatitis B through primary healthcare services, GPs need to complete the Hepatitis B Community s100 Prescribers Program, which is administered by ASHM and the Department. This program provides initial training and ongoing support such as through access to specialist clinicians working in designated liver clinics and continuing professional development activities. More information on prescribing and training can be found on the ASHM website: https://ashm.org.au/

Regardless of DAA treatment, remember that people with chronic hepatitis B should be monitored regularly (every 6 to 12 months) by their GP for signs and symptoms of liver disease.

Re-engaging people with hepatitis B or C who are lost to follow-up

Enabling access to treatment involves the detection of new cases through increased screening as well as re-engaging people diagnosed in the past who may be unaware of new treatments or who have become lost to follow-up. There are many reasons why people become lost to follow-up and they may be related to both the client and health service:

- Client-related factors:
  - lack of awareness of the benefits of new DAA over older treatments
  - misconceptions about the criteria for accessing treatment
  - other health or social issues taking priority
  - change in contact details or place of residence
  - not wishing to engage with any health services
  - using another health service.
- Health service factors:
  - real or perceived issues that create barriers to accessing services (e.g. privacy, acceptability, and fear of being judged or discriminated against)
  - recall systems may not be robust enough to prevent loss to follow-up of clients over a long period of time.

Some of these issues may not be easily addressed, but there are many ways in which health services can reduce barriers for people accessing the service and treatment, including:

- ensuring staff provide an environment that is confidential, non-judgemental, non-discriminatory and acceptable and accessible to clients
- supporting staff training to ensure all staff are aware of the benefits of new DAA treatment and criteria for prescribing and accessing treatment through primary healthcare services
- reviewing and strengthening systems for documentation and recall to enable effective management and prevent or limit loss to follow-up
- conduct clinical audits to re-engage with people who may not have had chronic hepatitis C infection confirmed with HCV RNA, who may not be aware of DAA treatment or who have become lost to follow-up.

Health service staff should be familiar with their responsibilities with regard to data entry and HIS. Documentation should be clear and consistent, and easily extractable at a later date. In particular, staff should ensure appropriate documentation of hepatitis B and hepatitis C status, follow-up relating to outstanding tests, and management of hepatitis A and hepatitis B immunisation.

Conducting clinical audits to re-engage people lost to follow-up

Conducting clinical audits to identify people with HBV and HCV lost to follow-up can be complicated by the fact that their medical histories may go back many years, data may have been entered in an inconsistent manner and extracting relevant data may not be straightforward. While HIS continue to evolve, making data entry and extraction easier, depending on the size of the service, it may still take a dedicated staff member several days to conduct an audit. However, the time and resources spent have significant health benefits for individuals and cost benefits for health services in the long run.

Some of the information that could be extracted through an audit to assist with follow-up includes the following:

- Among people who have had a reactive HCV Ab test, identify and recall those for HCV RNA testing (if it has not been done) to confirm or exclude chronic infection.
- Identify all people who have had chronic HCV or HBV confirmed, and check whether they are having regular monitoring or are having treatment.
- Identify and recall people with HCV who have either not been treated, or for whom treatment was not successful (indicated by a reactive HCV RNA at follow-up).
- Create and maintain a list of those who do require follow-up and those who do not.
- During the process of conducting an audit, ensure missing or incorrect data is entered accurately in a way that can be extracted easily at a later date.

Clinical audits have already been conducted in some regions and by individual health services. To conduct an audit, seek advice from staff of the health service CQI program or contact AHCWA or the regional PHUs in regard to whether they are able to provide more information or support. ASHM and Communicare have developed a manual to assist with conducting audits that can be accessed through the ASHM website: https://ashm.org.au/

9. Needle and syringe programs: aims, benefits and how to set up a program

Key points

- NSPs provide a range of services and have many health and cost benefits for individuals, communities and health services. For instance, they:
  - provide information and equipment to encourage safe injecting
  - reduce harm associated with injections for PWID, and their families
  - reduce the transmission of HIV, hepatitis B and C
  - provide referral to other treatment and support services.
- NSPs should aim to provide a friendly, safe environment and one that is culturally appropriate, free of judgement and discrimination, accessible and acceptable to PWID.
- NSPs are provided through a variety of services using different models of service delivery.
- The process of setting up an NSP involves strong engagement with communities and various organisations which in itself provides opportunities to give information, address misinformation and assumptions, promote the benefits of NSPs, and develop partnerships.
- Information and support regarding what steps are involved in setting up NSPs is provided through the Department's website and the SHBBVP.

Aims of NSPs

NSPs are supported and recommended by the national drug, HIV and hepatitis C strategies as well as the national and WA Aboriginal blood-borne virus and sexually transmissible infections strategies as a key public health measure to prevent transmission of BBVs among PWID.

The *National Drug Strategy 2017–2026*[1] advocates a balanced approach to the three principles of harm minimisation that are central to the strategy. The three principles are:

- **demand reduction:** preventing the uptake of, or delaying the onset of, use of alcohol, tobacco and other drugs; reducing the misuse of alcohol, tobacco and other drugs in the community; and supporting people to recover from dependence through evidence-informed treatment
- **supply reduction:** preventing, stopping, disrupting or otherwise reducing the production and supply of illegal drugs; and controlling, managing or regulating the availability of legal drugs
- **harm reduction:** reducing the adverse health, social and economic consequences of the use of drugs, for the user, their families and the wider community.[1]

The *National Drug Strategy* also emphasises the importance of the following factors underpinning those strategic principles:

- partnerships
- coordination and collaboration
- national direction, jurisdictional implementation
- evidence-informed responses.

While the *National Drug Strategy* does not condone drug use, it acknowledges the occurrence of injecting drug use and recognises the importance of preventing and minimising the associated health, social, cultural and economic harm among individuals, families and communities in order to build safe, healthy and resilient communities.

The key aims of NSPs are to:

- reduce the transmission of HIV, hepatitis B and C
- minimise related harm for individuals and communities
- encourage safer injecting by providing education and access to clean needles, clean injecting equipment and safe disposal containers.

Benefits of NSPs

NSPs not only reduce harm for PWID but have many health and cost benefits for individuals, communities and health services, such as those associated with reducing the transmission of HIV and hepatitis C. In Australia, between 2000 and 2009 it was estimated that 32,050 HIV and 96,667 hepatitis C infections were avoided due to the availability of NSPs, saving $1.28 billion in national healthcare costs. For every dollar spent on NSPs, an estimated $4 is saved.[2]

NSPs aim to provide a non-judgemental and friendly environment and have many benefits for individuals and communities. These programs:

- provide clean needles, syringes and other equipment to encourage and enable safer injecting and disposal of used needles and syringes
- reduce the incidence of sharing and reusing injecting equipment
- prevent the ongoing transmission of BBVs, such as HIV, hepatitis B and hepatitis C
- provide information to PWID on safer injecting
- reduce health harms, such as infections associated with injecting, and other drug-related harms
- provide friendly, safe spaces for PWID which also enable social connectedness
- provide a point of contact with health services for people who may be vulnerable or marginalised
- promote health-seeking behaviour

- enable access to testing and treatment of STIs and BBVs, such as HIV and hepatitis C
- enable brief intervention and referral to support services, such as counselling, mental health, drug and alcohol, legal and social services
- enable partnerships between communities, drug treatment, education and other services to reduce drug-related harms
- improve the community's understanding and knowledge to reduce stigma PWID.

Case study

Hedland Well Women's Centre (HWWC)

Since 1995, the HWWC in Port Hedland has been operating a successful NSP that provides free, sterile injecting equipment to PWID. The program aims to prevent sharing of needles, encourage the safe disposal of used equipment, and prevent the transmission of hepatitis C and HIV. In 2008, the service was enhanced by support from the SHBBVP and now provides brief intervention, education and referrals. It also develops and distributes harm reduction information.

The HWWC offers intervention and interaction for local PWID in a confidential, non-judgemental and non-discriminatory way. This creates a better understanding of BBV risk, and aims to build a safer environment for members of the local community. The NSP is well accessed by Aboriginal clients, who accounted for 80 per cent of client contacts in 2017. Occasions of brief intervention interactions have also consistently increased over time. The NSP receives good feedback from clients, who tell us that our centre is the preferred NSP site in the local community.

Interactions with clients have opened up conversations about rehabilitation and enabled us to offer options for services and support, if asked. We have learnt the importance of investing time to build rapport and trust with clients, as it can take years for them to feel comfortable enough to ask for further assistance. Over time, we have also developed and maintained close relationships with other service providers in order to better serve our clients.

We continue to address ongoing misconceptions about needle programs in the community and also need more involvement with local government, particularly with regard to the placement of safe disposal units. Easy to understand information to accompany our NSP packs, more options for referral, and support for people who choose to discontinue use are also important.

Barriers and access to NSPs

PWID cover the spectrum of society and include occasional through to dependent users. Nevertheless, there are higher rates of injecting drug use among people who have a history of trauma, mental health issues or incarceration. These factors can make people more vulnerable to injecting drug use or may occur as a consequence of their drug use. Already marginalised groups, such as Aboriginal and Torres Strait Islander people, may face additional stigma if they inject drugs, particularly if they live in small communities where their choice of services may be limited or where maintaining their privacy may be more difficult.

Reducing barriers and enabling access to services as outlined in Chapter 1 are particularly important for NSPs and their clients. Services should ensure a friendly, safe environment and one that is culturally appropriate, free of judgement and discrimination, and accessible and acceptable to the client group.

Models of delivering NSPs

NSPs can be delivered in different ways. The SHBBVP coordinates NSPs statewide, guides health service providers, and specifies requirements for setting up and delivering the programs. Links to relevant policy documents are provided in the references to this chapter. The different types of NSPs dictate different service delivery methods. For instance, NSPs based in the health service provide sterile injecting equipment in the form of packaged kits, including a safe disposal receptacle, but services are not dependent on the return of used equipment. On the other hand, needle and syringe exchange programs (NSEP) exchange free equipment on a one-to-one basis upon return of used equipment, or in some instances, at a cost if no used equipment is returned.

NSPs operate through different services and locations throughout WA and use different models. A shared practice however is to distribute needles and syringes along with disposal receptacles and information on safe disposal. The four main models of NSP provision are:

- NSEPs
- NSPs
- pharmacy-based NSPs
- needle and syringe vending and dispensing machines.

Access to NSPs in regional and remote areas is limited, highlighting the importance of ensuring access through pharmacies and hospitals. Community pharmacies are not mandated to sell needles and syringes, but most do. All regional and rural hospitals that provide emergency after hours services are required to ensure access to sterile needles and syringes to PWID after hours, and provide 24-hour access if there is no local pharmacy.

Needle and Syringe Exchange Program in Kalgoorlie

Access is generally provided through emergency departments. Additionally, health service staff should provide information to PWID as required, especially the availability of treatment services for drug and alcohol dependency and hepatitis C.

A range of products is available through the NSPs. More information is available within the NSP online orientation and training package at: https://aodelearning.mhc.wa.gov.au/

Setting up an NSP

Obtaining approval for an NSP is not a difficult process, and the SHBBVP can assist with the steps required and completing the application form. The SHBBVP can guide and assist the NSP coordinator with an information pack, and ongoing support and training as needed. More information can be found on the websites below or by contacting the SHBBVP.

Setting up an NSP involves:

- effective engagement with PWID agencies that work in the sector, relevant health services, organisations and the community
- applying for approval through the SHBBVP
- completing the following steps:
  - nominate an NSP coordinator (see the link below for who can be an NSP coordinator and the duties of the position)
  - fill out an application form
  - develop guidelines to establish and operate an NSP (contact the SHBBVP for assistance)
  - submit these documents to the SHBBVP.

https://ww2.health.wa.gov.au/Articles/F_I/How-to-obtain-a-needle-and-syringe-program-NSP-approval

http://ww2.health.wa.gov.au/Articles/F_I/Information-for-needle-and-syringe-program-NSP-providers

For more details, contact the SHBBVP, Department of Health, Western Australia. Phone: 9222 2355. Email: NSP@health.wa.gov.au

Engagement of services around NSPs

Setting up an NSP requires effective engagement with PWID as well as local health and community services, the SHBBVP and community members.

While community engagement can take some time, the SHBBVP can provide assistance and support with this process. Client satisfaction surveys conducted by NSPs provide information that may be useful as a starting point. Depending on the location and available services in the area, representatives of the following programs and organisations may be helpful:

- client advocacy groups, such as Peer Based Harm Reduction WA
- boards of ACCHS
- regional PHUs
- STI and BBV health services
- drug and alcohol services
- mental health services
- regional hospitals
- community leaders and forums.

The process of engagement itself offers opportunities for giving information, addressing misinformation, promoting the benefits of NSPs and developing ongoing partnerships with other organisations. It is important to discuss concerns and barriers to setting up an NSP as well as to acknowledge the real challenges that services may face in meeting the needs of both PWID and the broader community. Some of the issues and concerns that may need to be addressed include:

- attitudes of services and communities towards PWID
- difficulties with acknowledging that drug use is happening in their communities
- perceptions that NSPs may facilitate drug use or harbour illegal activity
- barriers to NSPs promoting their services in some communities
- assumptions made about what services PWID may want to access, or do access
- stigma, discrimination, privacy and confidentiality
- understanding that PWID (and their families) may need to be supported for many years before deciding to seek treatment for drug and alcohol use
- respecting the rights of PWID to choose not to engage in diversionary programs but still be able to access health care
- safety for clients and staff
- lack of awareness among the community and health service staff about the availability and access to newer and highly effective treatments for hepatitis C
- lack of availability of dedicated services or practitioners in some regions to provide treatment for hepatitis C, drug and alcohol, mental health and support.

Case study

Staff orientation to NSP: Goldfields PHU

The Goldfields PHU provides both an NSEP and NSP. All new staff and student nurses at the PHU spend time with the Regional NSP Coordinator as part of their orientation to learn about the programs, BBVs, brief interventions and safe sharps disposal. Preconceived ideas and perceptions are discussed, along with the rationale behind having NSPs in all community health centres and hospitals in the Goldfields. The insights and benefits that staff and students on placement receive from this orientation is highlighted by the following quotes:

"I had my knowledge developed, my opinions challenged and my views opened during my time with the Regional NSP Coordinator in the NSEP. I believe that having the opportunity to learn about this program and understand the harm reduction approach has tremendously shaped my future nursing practice. I have challenged my idea of a 'drug user' and have learnt that their story is not black and white and the choice to start or stop is never simple."

"Often it is said it takes 'a certain type of person to do your job' but they are reminded it only takes the ability to look past the drug use and see the person with a reminder my job is not to 'save' everyone but to meet consumers where they are, here and now, and address their needs – a chat, equipment, referral or a bottle of water. We all have that ability as a human being."

A range of free sterile injecting equipment is available at the Needle and Syringe Exchange Program in Kalgoorlie

Appendix 1. A checklist for planning an outreach program

Chapter 5 and Chapter 6 of this manual provide details on planning, implementing and evaluating outreach programs. The following checklist is an example only, which can be adapted or used as a guide for planning and delivering outreach programs.

This checklist has been adapted from the ***STI and BBV Manual: Early Detection and Treatment of Sexually Transmissible Infections and Blood-borne Viruses.*** Aboriginal Health and Medical Research Council of NSW (AH&MRC) 2014.

Identify the goals of the program, the priority population and what other organisations should be involved	Notes, roles and responsibilities of staff members and time frame for actions
Identify the priority or target group.	☐
Do you need to engage and involve their broader peer or social group in the program?	☐
What STIs and/or BBVs are common among the priority group?	☐
What are the aims of the program? e.g. provide education, testing and treatment, or both?	☐
Does the priority group have any recognisable leaders or organisations that represent or advocate for them who should be involved in the program?	☐
What services or other organisations do they already access? e.g. sporting clubs	☐
Could the program be integrated or delivered alongside an existing program? i.e. Would it be appropriate and feasible? Consider whether the target groups are the same.	☐
What other services or organisations should be involved?	☐
Do partnerships already exist with those organisations that could be built on?	☐
Which specific staff members should be approached to discuss the program?	☐
Is there an appropriate mix of skills from participating organisations? e.g. male, female and Aboriginal practitioners	☐
Estimate the timeframes needed to plan and deliver the program.	☐

Are adequate resources (staff and costs) available to run the program?	☐
Do you need to seek additional resources from your own or other organisations? e.g. seek donations from local organisations that could be used as incentives or prizes	☐

Community engagement and ownership

Does permission need to be gained from Elders, community representatives and/or leaders to run the program? With regard to Aboriginal communities, first seek advice from the local ACCHS or other Aboriginal organisations in the absence of a local ACCHS.	☐
Identify key people in the community who need to be informed and give permission to run the program.	☐
Identify key people who could liaise between program staff and the community.	☐

Plan the overall program delivery

Estimate the number of participants.	☐
Map what resources will be needed in terms of time, workforce and what mix of skills is needed.	☐
Will you be using any activities, competitions or incentives to engage participants?	☐
Clarify the roles and responsibilities of participating organisations and individual staff members. e.g. Who will: ▶ liaise with the community ▶ promote the program ▶ organise the equipment needed ▶ deliver the program (education, testing, treatment, contact tracing) ▶ manage the data (data entry, analysis, reporting) ▶ give feedback to the community and/or organisations.	☐ ☐ ☐ ☐ ☐ ☐
Where will the program be delivered? e.g. at an existing health service or another site?	☐
Will transport need to be organised for participants?	☐
Will the program be run over several days or require several visits? e.g. to deliver education and/or testing and follow-up	☐
Visit the site to check whether the facilities and space are adequate for the program. e.g. does it have private rooms, sinks, toilets? Do you need separate spaces for men and women?	☐

Think about how participants will flow through the site on the day. e.g. from information giving to consent and testing.	☐
Ensure workforce health and safety and the safe disposal of sharps and other medical waste.	☐
Develop consent forms.	☐
What data will be collected and how will it be managed? e.g. Will it be entered into a database or spreadsheet? How will it be analysed and reported on? How will confidentiality be maintained?	☐
Consider whether a simple memorandum of understanding (MOU) is required with participating organisations regarding the collection and use of data.	☐
What will be the most effective way to advertise the program to the priority group? e.g. posters, local radio, social media. Do you need to approach other organisations, such as the local radio station, to assist with promoting the program?	☐

Plan the detail of the program	
Decide on the dates for the program to enable: ▶ providing information/education ▶ delivering the program ▶ follow-up ▶ feedback	☐ ☐ ☐ ☐
Decide what tests and specimens will be taken.	☐
Determine how you will manage informing people of both positive and negative results and how you will conduct contact tracing.	☐
Estimate the expected number of positive test results.	☐
Will other tests or referrals be needed for people with positive test results?	☐
Estimate the amount of equipment, medications and other supplies that may be needed.	☐
Can pathology forms be pre-printed/stamped/signed prior to the day to reduce the amount of paperwork on the day?	☐
Determine how specimens will be transported to the laboratory and equipment needed e.g. eskies, ice packs	☐
Do you need to inform the laboratory if you are expecting a large number of specimens?	☐

Check or order equipment needed for taking specimens, including gloves, sharps and waste disposal.	☐
Check or order medications.	☐
Prepare pathology forms.	☐
Prepare a participation list, if applicable.	☐

Evaluation and feedback	
How will data be managed and who will be responsible?	☐
How will the data be analysed? e.g. by: ▶ number of participants by 5-year age groups and gender ▶ % of tests returning a positive result by specific STI/BBV, age and gender ▶ % of participants treated at follow-up	☐ ☐ ☐
Who will write a brief report on the process and outcomes of the program?	☐
How will results be fed back to the community, participating organisations or funding bodies?	☐
Use a continuous quality approach to identify what went well, what didn't go well, how the program could be improved. Consider whether the program was effective and should be repeated or adapted.	☐

Appendix 2: Action plan to increase uptake of STI and BBV testing among young men

This hypothetical action plan is designed to increase the uptake of STI and BBV testing among young men attending a primary healthcare service.

Chlamydia and gonorrhoea PCR testing rates among 15 to 29 year olds attending the ACCHS were reviewed by the health service management and clinical staff at a regular team meeting.

In the past three years, testing rates had increased significantly among women but remained low among men, despite the service having already identified this as an issue and conducting community and high school-based education sessions over the past two years in response. Staff believe the main reason for the low testing rates is due to young men not accessing the service; however, this is not backed up by health service data, which shows that attendance and adult health checks among young men have increased since the introduction of the targeted education sessions. The data shows that while there has been an increase in adult health checks among 15 to 30 year olds, only 22 per cent of men compared to 72 per cent of women had a diagnostic PCR test taken at that time, highlighting a big discrepancy in the uptake of testing.

At the team meeting, staff suggested a number of possible explanations for these findings:

- Young men are being offered STI testing but are refusing.
- Young men don't want to talk about sex when they present for other reasons.
- Staff feel it is inappropriate to bring up the subject of sex in the context of other presentations.

They said possible responses included conducting focus group interviews with young men to identify barriers to accessing the service and requesting testing, and an outreach program targeting those not attending high school education sessions or the clinic, or both.

While valid, these responses assumed that the gaps in testing were related to client factors alone rather than barriers within the health system or among staff. Management agreed they should first try to identify whether there were any barriers or gaps relating to staff and systems that could be addressed to increase the uptake of PCR testing among men who were already accessing the service.

Staff met to develop an action plan to improve uptake of PCR testing for chlamydia and gonorrhoea. The action plan was to form part of their broader broader CQI program that aimed at improving education, access and uptake of testing for both STIs and BBVs.

To keep actions simple and manageable, they focused specifically on health system and staff barriers but designed the plan to be built on over time. The roles and responsibilities of staff were clarified, agreed to and documented.

Action plan

The sexual health coordinator guided the discussion to focus on developing an action plan that covered the following key components:

- Aim: what are you trying to achieve?
- Strategies: how will you do this?
- Performance indicators: how will you measure performance?
- Target: what is your target?
- Timeframe: when will this be delivered?

Staff recorded their response in a template that also captured the responsibilities of various staff members and timeframes.

Aim: what are you trying to achieve?

To increase the uptake of PCR testing for chlamydia and gonorrhoea among 15 to 29 year old men in the context of adult health checks, and opportunistically.

Strategies: how will you do this?

Identify any current staff or health system barriers to the uptake of PCR testing among young men at the time of conducting adult health checks. Specifically:

- review the adult health check template to check that it is aligned with recommendations on the age group and frequency for STI testing and clearly prompts staff to conduct PCR testing among 15 to 29 year olds
- check that the template is not creating barriers to asymptomatic STI testing for 15 to 29 year olds, such as requiring a detailed sexual history
- conduct informal interviews with staff to explore and identify any barriers to conducting STI screening among 15 to 29 year olds, including how they are offering testing, whether they feel comfortable offering testing, what is hindering them or what could help them

Performance indicators: how will you measure performance?

KPIs will be reported in five-year age brackets (15–19, 20–24, 25–29) over a 12-month timeframe, with an interim report conducted at six months to review progress.

- Total number and percentage of 15 to 29 year old men attending the service over the timeframe who had a chlamydia and gonorrhoea PCR test
- Total number and percentage of 15 to 29 year old men over the timeframe who had a chlamydia and gonorrhoea PCR test taken at the time of an adult health check.

Target: what is your target?

To increase the uptake of PCR testing at the time of an adult health check from 22 per cent to 50 per cent in the first year, and 70 per cent in the second year.

Timeframe: when will this be delivered?

The sexual health coordinator was to report initial findings back to staff at the next team meeting in two months' time.

The sexual health coordinator agreed to the drive the action plan but reviewed the template with other team members, including the CQI coordinator and the data manager. All clinical staff involved in conducting adult health checks agreed to have a brief informal discussion with the sexual health coordinator to identify any real or perceived barriers to offering PCR testing when conducting an adult health check.

While not included in this group's plan, additional KPIs and targets that could have been added, if feasible, include:

- positivity rate: per cent of PCR tests positive by individual STI and five-year age group
- per cent of men treated appropriately within seven days and 14 days from the time of testing
- per cent of men with either chlamydia or gonorrhoea detected who were retested by PCR at three months (between 2 to 4 months after treatment)
- per cent of men tested by PCR who also had syphilis and BBV testing at the time of the adult health check and/or at follow-up of a positive test result
- checks of whether positive test results and treatment were being entered correctly in order to prompt a follow-up PCR test in three months.

Findings

The sexual health coordinator reported the findings at the next team meeting:

- The adult health check template had a tick box to indicate that sexual health had been discussed but did not specify that a chlamydia and gonorrhoea PCR test should be taken.
- There were no age parameters (15 to 29 years) around the sexual health component in the adult health check to identify which age group should routinely be offered testing.
- The pre-printed pathology forms for tests included in an adult health check did not include chlamydia and gonorrhoea PCR.
- There were no prompts in the HIS for six-monthly PCR testing among 15 to 29 year olds.
- Some staff said they asked the target clients whether they wanted an STI check but the men had always declined; others had a good response rate.

Digging deeper, staff were asked specifically how they approached the subject to determine whether the deciding factor was the gender of the practitioner or the way in which testing was offered.

Outcomes

The findings identified that the template and pathology forms should be updated to ensure PCR testing was specified for adult health checks for 15 to 29 year olds, as recommended.

The team concluded that the way in which testing was offered to young men, rather than the gender of the practitioner, was likely to be impacting the results in the context of adult health checks. They believed that using an opt-off rather than opt-on approach was more likely to lead to consent to testing in the future.

Proposed changes to the adult health checks would need to be approved by the health service management and implemented by the data manager or HIS support.

Staff agreed to in-service training on how to offer STI testing in a simple, easy way using an opt-off approach that would make the offer of testing more acceptable to clients and themselves, and lead to an increase in the uptake of testing.

The sexual health coordinator agreed to review PCR testing with adult health checks at six months after implementation to measure performance and report back to staff.

Evaluation

The six-month review of PCR testing and discussions with staff showed that the proportion of 15 to 29 year old men having PCR testing at the time of an adult health check had increased from 22 per cent to 45 per cent and that PCR testing has been done by all (rather than a few) staff members. While there was still room for improvement, the results showed movement in the right direction. During the feedback session at a team meeting, staff also reported that the in-service training had given them more knowledge and confidence to offer testing for STIs and BBVs in a way that led to uptake, both as part of an adult health check and opportunistically at other visits.

The male staff also reported they had noticed young men asking more questions about issues relating to STIs and BBVs when they brought up the subject. Unfortunately, they did not always have more information at hand to give them.

This feedback prompted the sexual health coordinator to review whether STI/BBV resources available in the waiting room and clinic rooms were up-to-date and appropriate for the young men attending the service, and to obtain more up-to-date resources from relevant organisations on current issues such as the syphilis outbreak and hepatitis C treatment.

Contacts

Organisation	Phone number	Website
Aboriginal Community Controlled Health Services (ACCHS)	See website for phone numbers	https://www.ahcwa.org.au/members
Aboriginal Health Council WA (AHCWA)	(08) 9227 1631	https://www.ahcwa.org.au/
The Australian Injecting and Illicit Drug Users League (AIVL)	(02) 6279 1600	http://aivl.org.au/
Australian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM)	(02) 8204 0700	https://ashm.org.au/
Clinical Immunology (HIV only) Royal Perth Hospital	(08) 9224 2899	–
Communicable Disease Control Directorate (CDCD)	(08) 9222 4222	www.health.wa.gov.au
Curtin University – The RSE Project (teacher training)	(08) 9266 3968	https://www.eventbrite.com.au/o/curtin-rse-project-7945958061
Gastroenterology, Fiona Stanley Hospital	0414 857 669	–
Gastroenterology, Royal Perth Hospital	(08) 9224 2186	–
Gastroenterology, Sir Charles Gairdner Hospital	(08) 6457 3228	–
Harm Reduction Australia	0408 244 552	https://www.harmreductionaustralia.org.au/
Headspace	Refer to website for centre contact details	https://headspace.org.au/
Hedland Well Women's Centre	(08) 9140 1124	https://www.wellwomens.com.au/
HepatitisWA	Office: (08) 9227 9800 Helpline: (08) 9328 8538 Country: 1800 800 070	http://www.hepatitiswa.com.au/
HIV Service, Infectious Diseases, Fiona Stanley Hospital	(08) 6152 6744	–

Inclusive Education WA	0484 642 540 or 0484 649 016	https://waaids.com/item/773-inclusive-education-wa.html
Kimberley Syphilis Outbreak Response Team	Phone the Kimberley PHU on (08) 9194 1630	–
Magenta (Sex Worker Support)	(08) 9328 1387	https://magenta.org.au/
Metropolitan Communicable Disease Control	(08) 9222 8588	–
Peer Based Harm Reduction WA	(08) 9325 8387	http://harmreductionwa.org/
Pilbara Syphilis Outbreak Response Team	Phone the Pilbara PHU on (08) 9174 1660	–
Regional Population/Public Health Units	See website for phone numbers	https://healthywa.wa.gov.au/Articles/A_E/Contact-details-for-population-public-health-units
Rural Health West	(08) 6389 4500	http://www.ruralhealthwest.com.au/
Sexual Health and Blood-borne Virus Program (SHBBVP)	(08) 9222 2355	https://ww2.health.wa.gov.au/Health-for/Health-professionals/Infectious-diseases
Sexual Health Clinic, Royal Perth Hospital	(08) 9224 2178	https://rph.health.wa.gov.au/Our-services/Sexual-Health
Sexual Health Quarters (SHQ)	Office: (08) 9227 6177 Sexual Health Helpline: (08) 9227 6178 Country: 1800 198 205	https://shq.org.au/
South Terrace Clinic, Infectious Diseases Department, Fremantle Hospital	(08) 9431 2149	https://www.fhhs.health.wa.gov.au/Our-services/Service-Directory/Sexual-Health
WA AIDS Council (WAAC)	(08) 9482 0000	https://waaids.com/
Western Australian Sexual Health and Blood-borne Virus Applied Research and Evaluation Network (SiREN)	(08) 9266 7819 (ask for SiREN)	https://siren.org.au/

WA Primary Health Alliance (WAPHA)	(08) 6272 4900	https://www.wapha.org.au/ (Visit website for information on regional offices)
WA Syphilis Outbreak Response Group (WA SORG)	Phone the CDCD on (08) 9222 4222	–
Western Australian Network of Alcohol and other Drug Agencies (WANADA)	(08) 6557 9400	http://www.wanada.org.au/
Women's Health and Family Services	(08) 6330 5400	https://whfs.org.au/
Youth Educating Peers Program (YEP) at the Youth Affairs Council of WA (YACWA)	(08) 9227 5440	https://theyepproject.org.au/

Resources

While the information in this manual can inform your clinical practice, you are also directed to other resources:

National Blood-Borne Viruses and Sexually Transmissible Infections Strategies 2018–2022

Eighth National HIV Strategy

Fifth National Aboriginal and Torres Strait Islander BBV and STI Strategy

Fifth National HCV Strategy

Fourth National STI Strategy

Third National Hepatitis B Strategy

health.gov.au/internet/main/publishing.nsf/Content/ohp-bbvs-1

National Drug Strategy 2017–2026

nationaldrugstrategy.gov.au

WA Sexual Health and Blood-borne Virus Strategies 2019–2023

WA Aboriginal Sexual Health and Blood-borne Virus (BBV) Strategy 2019–2023

WA Hepatitis B Strategy 2019–2023

WA Hepatitis C Strategy 2019–2023

WA HIV Strategy 2019–2023

WA Sexually Transmitted Infections (STI) Strategy 2019–2023

National STI and BBV surveillance reports

Annual Surveillance Report on HIV, Viral Hepatitis and STIs in Australia 2018. The Kirby Institute.

Blood Borne Viral and Sexually Transmissible Infections in Aboriginal and Torres Strait Islander People: Annual Surveillance Report 2018. The Kirby Institute.
kirby.unsw.edu.au

WA STI and BBV surveillance reports

health.wa.gov.au/STIBBVepidemiology

National Response to the Syphilis Outbreak – epidemiological and syphilis resources

Australian Government Department of Health, Infectious Syphilis Outbreak. Information regarding the infectious syphilis outbreak include the:

- National Strategic Approach and Action Plan
- Communicable Diseases Network Australia (CDNA) *National Guidelines for Public Health Units*
- Information regarding syphilis point of care (POC) testing
- Multijurisdictional syphilis outbreak surveillance reports.

health.gov.au/internet/main/publishing.nsf/Content/ohp-infectious-syphilis-outbreak.htm

Young Deadly, STI and BBV Free campaign. South Australian Health and Medical Research Institute.
youngdeadlyfree.org.au

Miller P, Skov S, Knox J. *How to Interpret Syphilis Results: A Manual for Nursing and Medical Staff in Remote Communities.* 2nd edition. Nganampa Health Council Inc. 1999.
nganampahealth.com.au

STI and BBV management and guidelines

Silver Book: Guidelines for Managing Sexually Transmitted Infections and Blood-Borne Viruses. WA Department of Health, 2015.
health.wa.gov.au/Silverbook

Australian STI Management Guidelines for Use in Primary Care. Produced by ASHM, 2018.
sti.guidelines.org.au

ASHM *Hepatitis C Testing and Management Guidelines.*
testingportal.ashm.org.au/hcv/indications-for-hcv-testing

Australian Recommendations for the Management of Hepatitis C Virus Infection: A Consensus Statement (September 2018).
hepcguidelines.org.au

Kimberley Aboriginal Medical Services STI and PID guidelines
kams.org.au

Health screening guidelines

National Guide to a Preventive Health Assessment for Aboriginal and Torres Strait Islander People. 3rd edn. 2018. RACGP and NACCHO.
www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/national-guide

Guidelines for Preventive Activities in General Practice. (The Red Book) 9th edn. Royal Australian College of General Practitioners
www.racgp.org.au/your-practice/guidelines/redbook/6-communicable-diseases/62-sexually-transmissible-infections

Sexual health and BBV programs

Sexual Health Orientation Manual for Endemic Regions. 5th edn. June 2019. Government of Western Australia Department of Health.
Request a copy from: SHBBVP@health.wa.gov.au

Sexual Health and Blood-borne Virus Program planning toolkit. 2nd edn. 2018. Perth, WA, Curtin University.
siren.org.au

STI and BBV Manual. Aboriginal Health and Medical Research Council of NSW (AH&MRC), 2nd edn. 2014.
ahmrc.org.au

National Framework for Continuous Quality Improvement in Primary Health Care for Aboriginal and Torres Strait Islander People, 2018–2023. NACCHO 2018.
naccho.org.au

TTANGO2 Project (Test Treat ANd GO)
ttango.com.au

Contact tracing

Australasian Contact Tracing Guidelines. Developed by ASHM, 2016.
contacttracing.ashm.org.au

Silver Book: Guidelines for Managing Sexually Transmitted Infections and Blood-Borne Viruses. WA Department of Health, 2015.
health.wa.gov.au/Silverbook

Kimberley Aboriginal Medical Services Contact Tracing Guidelines, 2015.
kams.org.au

Websites that have resources to assist with contact tracing:

bettertoknow.org.au

letthemknow.org.au

thedramadownunder.info

Immunisation handbook

The Australian Immunisation Handbook. 2018.
immunisationhandbook.health.gov.au

Community information and education

Sexual Health Quarters education and training:

- Mooditj Leader training (SHQ)
- Nuts and Bolts of Sexual Health (SHQ)
- Tools of the Trade (SHQ)

shq.org.au

Curtin University Sexuality and Relationships Education
handbook.curtin.edu.au/units/31/318794.html

Young Leaders Program
https://www.ahcwa.org.au

Youth Affairs Council of WA (YACWA)
yacwa.org.au

Engaging with Aboriginal Children and Young People Toolkit. Commissioner for Children and Young People WA, 2018.
ccyp.wa.gov.au

Young Deadly, STI and BBV Free campaign. South Australian Health and Medical Research Institute.
youngdeadlyfree.org.au

Djiyadi – Can We Talk? ASHM in partnership with NACCHO, 2011.
ashm.org.au

The Practical Guide to Love, Sex and Relationships
lovesexrelationships.edu.au

Resilience, Rights and Respectful Relationships
fuse.education.vic.gov.au/ResourcePackage/ByPin?pin=2JZX4R

Growing and Developing Healthy Relationships
gdhr.wa.gov.au

RELATE – Respectful Relationships Education. 2nd edn.
shq.org.au/relate

Young Deadly Free campaign: https://youngdeadlyfree.org.au

Better to Know: bettertoknow.org.au

U and Me Can Stop HIV*:* atsihiv.org.au

Let's Yarn! etsyarn.health.wa.gov.au

Kaiyai Girl: letsyarn.health.wa.gov.au/for-educators/kaiyai-girl

Condom game (available from SHQ)

Live Deadly Stronger and Longer posters: waaids.com

The Practical Guide to Love, Sex and Relationships: lovesexrelationships.edu.au

Organisations and services that provide or can assist with workforce development and training

Sexual Health Quarters education and training:

- FPAA National Certificate in Reproductive and Sexual Health for Doctors
- Certificate in Sexual and Reproductive Health for Nurses
- Short courses, clinical updates and tailored programs

shq.org.au

Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM)
ashm.org.au

Birds and the BBVs Training, AHCWA
ahcwa.org.au

Hepatitis C and needle and syringe programs

Sexual Health and Blood-Borne Virus Program, Department of Health, Western Australia.
Phone: 9222 2355. Email: NSP@health.wa.gov.au
Information about needle and syringe programs including how to obtain program approval
health.wa.gov.au/NSP

NSP Online Orientation and Training Package
aodelearning.mhc.wa.gov.au

Peer Based Harm Reduction WA
harmreductionwa.org

Harm Reduction Australia
harmreductionaustralia.org.au

The Australian Injecting and Illicit Drug Users League (AIVL)
aivl.org.au

Western Australian AIDS Council
waaids.com

Hepatitis WA
hepatitiswa.com.au

Hepatitis Australia
hepatitisaustralia.com

WA Health Policy Frameworks
health.wa.gov.au/PolicyFrameworks
The provision of Sterile Needle and Syringes from Rural and Regional Hospitals to People Who Inject Drugs, including guidelines and appendix
The operation and maintenance of needle and syringe vending machines

WA Health legislation

The Medicines and Poisons Act 2014
legislation.wa.gov.au/legislation/statutes.nsf/main_mrtitle_13171_homepage.html

The Medicines and Poisons Regulations 2016
legislation.wa.gov.au/legislation/statutes.nsf/main_mrtitle_13861_homepage.html

My Health Record

A Guide to My Health Record: for BBV and STI Health Providers to Support their Patients. ASHM 2018.
ashm.org.au

Australian Digital Health Agency, Australian Government. *How to Take Control of your Record from Age 14.*
myhealthrecord.gov.au/for-you-your-family/howtos/take-control-your-record-age-14

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2. Government of Western Australia Department of Health. *WA Sexual Health and Blood-borne Virus Strategies 2015–2018*. Available from: https://ww2.health.wa.gov.au/Articles/U_Z/WA-Sexual-Health-and-Blood-borne-Virus-Strategy-2015-2018
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4. ASHM in partnership with NACCHO, 2011. *Djiyadi – Can We Talk?* Available from: https://www.ashm.org.au/
5. Commissioner for Children and Young People WA, 2018. *Engaging with Aboriginal Children and Young People toolkit*. Available from: https://www.ccyp.wa.gov.au/

Chapter 2. Community information and education

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3. ASHM in partnership with NACCHO, 2011. *Djiyadi – Can We Talk?* Available from: https://www.ashm.org.au/

Chapter 3. Increasing the uptake of STI and BBV testing

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2. The Kirby Institute. *Annual Surveillance Report on HIV, Viral Hepatitis and STIs in Australia 2015*. Available from: https://kirby.unsw.edu.au/
3. Knox, J. *Conducting clinical audits to improve sexual health service delivery in primary health care services: successes, challenges and lessons learnt*. Presented at the Australasian Sexual Health ASHM Conference, 2013.

4. Government of Western Australia Department of Health, 2015. *Silver Book: Guidelines for Managing Sexually Transmitted Infections and Blood-Borne Viruses*. Available from: http://ww2.health.wa.gov.au/Silver-book

5. ASHM, 2018. *Australian STI Management Guidelines for Use in Primary Care*. Available from: http://www.sti.guidelines.org.au/

Chapter 4. Contact tracing

1. ASHM, 2016. *Australasian Contact Tracing Guidelines*. Available from: http://contacttracing.ashm.org.au/

2. Communicable Diseases Network Australia (CDNA), 2018. *National Guidelines for Public Health Units*. Available from: http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-infectious-syphilis-outbreak.htm

3. Government of Western Australia. *Public Health Act 2016* (WA). Public health legislation. Available from: https://www.legislation.wa.gov.au/legislation/statutes.nsf/main_mrtitle_13787_homepage.html

Chapter 5. Outreach programs: planning, implementation and evaluation

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2. Aboriginal Health and Medical Research Council of NSW (AH&MRC), 2nd edn, 2014. *STI and BBV Manual*. Available from: http://www.ahmrc.org.au/

3. Mossenson A, Algie K, Olding M, Garton L, Reeve C. 'Yes wee can' – a nurse-driven asymptomatic screening program for chlamydia and gonorrhoea in a remote emergency department. Sexual Health. 2012 May; 9(2):194-5. Available from: https://doi.org/10.1071/SH11064

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1. Government of Western Australia. *Public Health Act 2016 (WA)* and *Public Health Regulations 2017*. Public health legislation. Available from: https://www.legislation.wa.gov.au/

2. Bailie R, Si D, O'Donoghue L & Dowden M. 2007a, Indigenous health: Effective and sustainable health services through continuous quality improvement, *Med J Aust*. *2007*; 186(10): 525–527.

3. Australian Government Department of Health. *National Aboriginal and Torres Strait Islander Health Plan 2013–2023*. Available from: http://www.health.gov.au/natsihp

4. NACCHO 2018. *National Framework for Continuous Quality Improvement in Primary Health Care for Aboriginal and Torres Strait Islander People, 2018–2023*. Available from: https://www.naccho.org.au/

5. National Health and Medical Research Council (NHMRC), 2018. TTANGO2 (Test Treat ANd GO 2) trial. Available from: https://www.ttango.com.au/

6. Curtin University, Western Australia, 2nd edn. 2018. *Sexual Health and Blood-borne Virus Program planning toolkit*. Available from: https://siren.org.au/

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1.The Kirby Institute. *Annual Surveillance Report on HIV, Viral Hepatitis and STIs in Australia 2018*. Available from: https://kirby.unsw.edu.au/

2. Ward JS, Guy RJ et al. Epidemiology of syphilis in Australia: moving towards elimination of infectious syphilis from remote Aboriginal and Torres Strait Islander communities? *Med J Aust 2011*; 194 (10): 525–529.

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4. Australian Government Department of Health, November, 2018. *Multijurisdictional Syphilis Outbreak Surveillance Report*. Available from: http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-infectious-syphilis-outbreak.htm

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2. The National Centre in HIV Epidemiology and Clinical Research, University of New South Wales and the Australian Government Department of Health, 2009. *Return on Investment 2: Evaluating the Cost-Effectiveness of Needle and Syringe Programs in Australia 2009*. Available from: http://www.health.gov.au/internet/main/publishing.nsf/Content/needle-return-2

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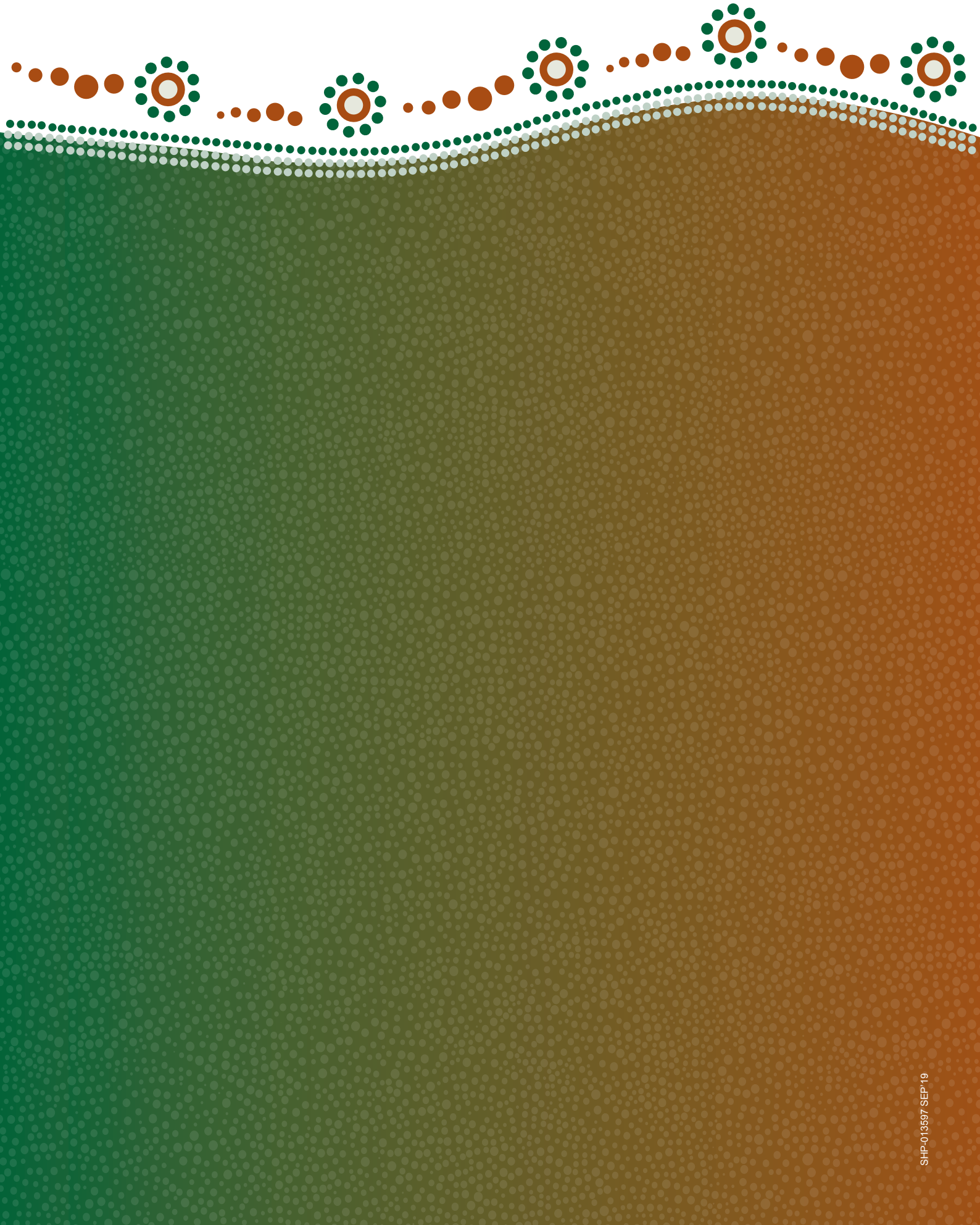

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