Third National Sexually Transmissible Infections Strategy

2014 – 2017
Contents

1. Introduction ............................................................................................................. 3

2. STIs in Australia ...................................................................................................... 4
   Chlamydia ................................................................................................................. 4
   Gonorrhoea ................................................................................................................ 4
   Syphilis ..................................................................................................................... 4
   Human papillomavirus ............................................................................................... 4
   Herpes simplex virus ................................................................................................. 5
   Trichomonas .............................................................................................................. 5
   Pelvic inflammatory disease, ectopic pregnancy and infertility ............................... 5
   Emerging issues ......................................................................................................... 6

3. Achievements ........................................................................................................... 7

4. Measuring progress ................................................................................................. 8
   4.1 Goals ............................................................................................................. 8
   4.2 Objectives ...................................................................................................... 8
   4.3 Targets ........................................................................................................... 8
   4.5 Implementation and Evaluation .................................................................... 10

5. Guiding principles underpinning Australia’s response .......................................... 11

6. Priority populations ............................................................................................... 12

7. Priority areas for action ........................................................................................ 13
   7.1 Prevention .................................................................................................... 13
   7.2 Testing ......................................................................................................... 15
   7.3 Management, care and support ..................................................................... 17
   7.4 Workforce .................................................................................................... 19
   7.5 Removing barriers ........................................................................................ 20
   7.6 Surveillance, research and evaluation ........................................................... 21

Acknowledgements ............................................................................................................ 24

References .......................................................................................................................... 25

Appendix: Priority Populations ........................................................................................ 26
1. Introduction

Australia has made significant progress in the management of sexually transmissible infections (STIs) in recent years. Our world leading, highly successful National Human Papillomavirus (HPV) Vaccination Program was extended in 2013 to include adolescent males as well as females. This program has led to a rapid and significant decline in genital warts among young people around the country, and is expected to decrease the rates of HPV-related cancer in the coming years (1).

In northern Australia, we are close to eradicating donovanosis, with only two cases notified over the life of the Second National STI Strategy.

Our strong and sustained health promotion programs among sex workers mean that rates of STIs in this group continue to be among the lowest in the world.

However, even though safe and effective treatments are available for many STIs, there has been a steady increase in cases of gonorrhoea, chlamydia and syphilis in the last five years. Messages on safe sexual practices seem to no longer be meeting their mark. We need to get better at understanding at risk groups and how best to communicate with them and support behaviour change. Young men are a particularly difficult group to reach and we have to work on ways to get them better connected to health services that ask them the right questions and provide them with comprehensive services.

The burden of STIs and their complications is disproportionately experienced by Aboriginal and Torres Strait Islander peoples, and this issue must be urgently addressed. Cultural safety and respect must be paramount in prevention, testing and management of STIs in this population and health services need to provide holistic care to address their complex care needs.

We need to refocus the health care community towards the management of STIs. Management of STIs also underpins HIV control and provides opportunities for diagnosing viral hepatitis infection and providing hepatitis B vaccination where warranted. Our workforce needs support to provide prevention activities, testing and timely treatment for STIs, and to reduce barriers to testing among priority populations.

The importance of early detection of each of these infections is essential to a strategic approach to their management. While separate strategies allow for particular targeting, they need to work together to respond to high risk behaviour and not duplicate effort and approaches.
2. STIs in Australia

Surveillance data show that high levels of STIs continue to occur in Australia, and indicate upward trends for most STIs in many priority populations. These data must be carefully interpreted because notifications and trends may not reflect true population prevalence or change, and are influenced by testing practices and access to health services. These data, whilst important in providing information about changing rates of STIs, are unable to demonstrate the psychological, reproductive or sexual consequences of STIs.

**Chlamydia**

Chlamydia is the most frequently reported notifiable infection in Australia, with 82,707 diagnoses in 2012 (2). Rates continue to rise in both non-Indigenous Australians and Aboriginal and Torres Strait Islander peoples. Young people are disproportionately affected; with more than 80 percent of these occur in people under 29 years of age. Other groups with very high notification rates include females, those aged 15–19 years, the Aboriginal and Torres Strait Islander population, and people residing in regional and remote location (3).

**Gonorrhoea**

The population rate of gonorrhoea notifications in Australia has almost doubled over the past 4 years (2008-2012), reaching a rate of 59 per 100,000 population in 2012. In the non-Indigenous population, the rate increased by 95 per cent. The very high male to female ratio in this population suggests transmission is occurring predominantly by sex between males. In the Aboriginal and Torres Strait Islander population, there was a 7 per cent increase, with the male to female ratio (approximately 2:1) suggesting transmission predominantly through heterosexual contact.

Antimicrobial resistance (AMR) in *Neisseria gonorrhoeae* is increasing globally, which has important implications for Australia. In Australia, resistance to penicillin and ciprofloxacin varies by jurisdiction. While decreased susceptibility to ceftriaxone has been increasing in nearby regions, Australia is still detecting only low proportions of affected isolates.

**Syphilis**

The population rate of diagnoses of infectious syphilis has increased over the last 2 years to reach 6.7 per 100,000 population in 2012. In the non-Indigenous population, where most notifications are due to male to male sex, the rate increased 20 per cent from 2008 to 2012, with the highest rates in the 30-39 and 40-49 year age groups. In the Aboriginal and Torres Strait Islander population a 30 per cent increase in the notification rate in 2010-2011, attributed to an outbreak of syphilis in some remote communities, was followed by a slight decline in 2011-2012 (4).

**Human papillomavirus**

Specific subtypes of human papillomavirus (HPV) cause genital warts, and abnormalities that can progress to cervical, anogenital and rarely some types of head and neck cancer. The largest burden of HPV-associated cancers in Australia is attributable to cervical cancer, however the incidence of HPV-related cancers in men has been increasing over the past
decade (Australian Technical Advisory Group on Immunisation HPV Working Party Report on the use of Human papillomavirus vaccines. January 2012). Men who have sex with men (MSM) are at a particularly high risk of HPV-associated disease, with the incidence of anal cancer more than 30 times greater in MSM than in heterosexual males (5).

Following the implementation of HPV vaccine for females aged 12-13 years in 2007, moderately high coverage in females was reached over a short timeframe and has significantly reduced diagnoses of genital warts in females (6). There has also been a reduction in genital warts in young heterosexual males, probably suggestive of herd immunity (7). While the impact on HPV-related cancers will take many years to become evidence, early signs such as reductions in abnormal cervical cytology in those under 20 years, have already been demonstrated (8).

**Herpes simplex virus**

Genital herpes infections caused by herpes simplex virus type 2 (HSV 2) are estimated to affect one in eight Australians (9). Infections can cause psychological and physical morbidity. Transmission to neonates is rare, but potentially fatal. Infection with HSV2 also increases the risk of acquiring HIV several-fold. HSV type 1 has recently overtaken HSV-2 as the major cause of primary genital herpes in young women and MSM (10).

**Trichomonas**

*Trichomonas vaginalis* infection is often asymptomatic but associated with adverse pregnancy outcomes and increased risk of transmission of HIV (11). While it is considered endemic in some Aboriginal and Torres Strait Islander populations (NTH, 2002), it is only notifiable in Northern Territory and as such a national picture is not available. Surveillance data from this jurisdiction show higher notification rates than chlamydia and gonorrhoea in Aboriginal women, up until 40 years of age, than in men. Limited data are available on the prevalence of *trichomonas vaginalis* in men.

**Pelvic inflammatory disease, ectopic pregnancy and infertility**

Untreated STIs have been associated with an increased risk of pelvic inflammatory disease, ectopic pregnancy and infertility (12). They are also associated with adverse maternal and neonatal outcomes (13), such as premature rupture of membranes, premature delivery, low birth weight and congenital syphilis and neonatal death.

However, specific data are limited. The Prevention of Pelvic Infection (POPI) trial is likely the most recent and generalisable study, published in 2010 that almost ten percent of women with untreated chlamydia infection were diagnosed with PID by 1 year of follow-up (14). They estimated that untreated chlamydial infections increased the risk of PID by 6.5-25 fold, compared to no infection.

Some evidence suggests that repeated infections increases the risk of PID, PID can develop in only a few weeks (15), severe disease is associated with an increased likelihood of ectopic pregnancy and infertility (16).
**Emerging issues**

*Mycoplasma genitalium* is an established cause of urethritis and cervicitis, with increasing evidence to support a role in pelvic inflammatory disease (17). Furthermore, *Mycoplasma genitalium* may also be associated with increased risk of HIV acquisition. However, our ability to address this issue is limited by a lack of reliable Australian seroprevalence estimates and inadequate awareness beyond specialised services.
3. Achievements

<table>
<thead>
<tr>
<th>2010 to 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Implementation of HPV vaccine for boys and further provision of HPV vaccine for girls - associated reduction in genital warts and cervical pre-cancerous conditions</td>
</tr>
<tr>
<td>• Virtual elimination of donovanosis</td>
</tr>
<tr>
<td>• Development of the <em>National Gay Men’s Syphilis Action Plan</em></td>
</tr>
<tr>
<td>• Scaling up of programs to increase STI testing among priority populations</td>
</tr>
<tr>
<td>• Increased service access for priority populations</td>
</tr>
<tr>
<td>• Inclusion of sexual health in the national education curriculum being developed by the Australian Curriculum, Assessment and Reporting Authority</td>
</tr>
</tbody>
</table>
4. Measuring progress

4.1 Goals

The goals of the Third National Sexually Transmitted Infections Strategy 2014-2017 are to reduce the transmission of, and morbidity and mortality caused by, sexually transmissible infections and to minimise the personal and social impact of the infections.

4.2 Objectives

The following six objectives, in combination, are designed to support achieving the above goal:

1. Achieve and maintain high levels of HPV vaccination
2. Reduce the incidence of sexually transmitted infections
3. Improve knowledge and reduce risk behaviours associated with the transmission of STIs
4. Increase testing among priority populations
5. Increase appropriate management and reduce associated morbidity
6. Eliminate the negative impact of stigma, discrimination, legal and human rights issues on people’s health.

4.3 Targets

Targets are included for the first time in the Third National Sexually Transmitted Infections Strategy. These aspirational targets provide a specific focus for the efforts of all partners in moving towards achieving the above objectives and overall goal.

For the majority of these targets, the available evidence and surveillance data is insufficient to adequately inform the setting of quantitative targets. The focus of this strategy is on achieving improvements in these areas, while working towards being able to set justifiable targets for the next strategy.

The targets are, by 2017, to:

1. Achieve HPV vaccination coverage of 70 per cent
2. Increase testing coverage in priority populations
3. Reduce the incidence of chlamydia
4. Reduce the incidence of gonorrhoea
5. Reduce the incidence of infectious syphilis and eliminate congenital syphilis.

Australia’s world leading response in HPV vaccination should continue to be built on, with the achievement of 70 per cent vaccination coverage nationally through the school based programme. This aligns with the National Immunisation Strategy 2013-2018, where improving immunisation coverage is the first strategic priority. While recent data indicates 3 dose coverage for females is approximately 70 per cent, with male estimates pending, there are gains to be had in improved coverage in specific population groups.

Reducing the transmission and prevalence of STIs is critically dependent on increasing testing coverage. The national report suggests there has been some increase in the rate of
testing in some populations (young people aged 15-24 years), this still remains low (less than 14 per cent) and levels have remained stable in others (MSM). There is significant room for improved testing in all priority populations.

High rates of chlamydia and gonorrhoea continue to drive transmission of these infections. A reduction in incidence of both infections is necessary to achieving the goal of this strategy.

Infectious syphilis continues to be transmitted among MSM and within some Indigenous communities. Incidence must be reduced to minimise the impact of this infection. The elimination of congenital syphilis is dependent on a strong integrated public health response.

4.4 Indicators

Indicators will be used to monitor the implementation of the strategy, to report against the progress against achieving the above targets and objectives, and therefore to inform changes in the response as required.

The indicators listed below can currently be reported on. There are limitations in the ability to measure progress against many of the objectives and targets, both in the quality of the available indicators and in some cases a complete lack of available data or appropriate methodology. With respect to targets, further work in particular is required to define the indicator to inform Target 3.

The measurement of STI management and associated morbidity is limited to monitoring congenital syphilis, and there is no indicator currently available to measure progress in reducing the health impact of stigma, discrimination, legal and human rights. There is also limited ability to report against incidence for all identified STIs. These gaps and limitations are discussed further in the surveillance and monitoring section 6.6.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve and maintain high levels of HPV vaccination</td>
<td>HPV 3 dose vaccination coverage for males and females turning 15 years of age (Target 1)</td>
</tr>
<tr>
<td>Reduce the incidence of sexually transmitted infections</td>
<td>Annual rate of notifications of gonorrhoea (Target 4)</td>
</tr>
<tr>
<td></td>
<td>Annual rate of notifications of infectious syphilis (Target 5)</td>
</tr>
<tr>
<td></td>
<td>Proportion of chlamydia tests that yield a positive result in 15-29 year age group</td>
</tr>
<tr>
<td>Improve knowledge and reduce risk behaviours associated with the transmission of STIs</td>
<td>Proportion of secondary school students giving the correct answer to STI knowledge and behaviour questions</td>
</tr>
<tr>
<td>Increase testing among priority populations</td>
<td>Proportion of 15 to 29 year olds receiving a chlamydia test in the previous 12 months (Target 2)</td>
</tr>
<tr>
<td></td>
<td>Proportion of gay men who report having had a STI test in the previous 12 months (Target 2)</td>
</tr>
<tr>
<td>Increase appropriate management and reduce associated morbidity</td>
<td>Number of notifications of congenital syphilis annually (Target 5)</td>
</tr>
<tr>
<td>Eliminate the negative impact of stigma, discrimination, legal and human rights issues on people’s health</td>
<td></td>
</tr>
</tbody>
</table>
4.5 Implementation and Evaluation

The Third National Sexually Transmissible Infections Strategy 2014–2017 sets high level directions for action over the next four years. An Implementation and Evaluation Plan will be developed in consultation with partners and will detail how priority actions will be implemented, including roles and responsibilities, timeframes and lines of accountability.

Australia’s world recognised partnership approach will remain central to our response to blood borne viruses and sexually transmissible infections. Undertaking the actions set out in this strategy by December 2017 requires Australian, state and territory governments; community organisations; service delivery organisations; professional bodies; and, research institutions to work together. In doing this, we need to ensure that infected and affected individuals and communities remain at the heart of our response and involved in activities as they are proposed, developed and implemented.

This strategy builds on its two predecessors, which have guided Australia’s response to STIs between 2005 and 2013. It is one of five interrelated national strategies aiming to reduce the transmission and impact of BBVs and STIs. The other strategies are the:

- Seventh National HIV Strategy
- Fourth National Hepatitis C Virus Strategy
- Fourth National Aboriginal and Torres Strait Islander Blood Borne Viruses and Sexually Transmissible Infections Strategy
- Second National Hepatitis B Virus Strategy.

The five national strategies share common structural elements, designed to support a coordinated effort in addressing common concerns. Much of the prevention, health care and community responses contained in the strategies are intrinsically linked through co-infections, commonalities in risk factors and shared responsibility for the clinical management of BBVs and STIs.
5. Guiding principles underpinning Australia’s response

**Human rights:** People with HIV, STIs and viral hepatitis have a right to participate fully in society, without experience of stigma or discrimination, and have the same rights to comprehensive and appropriate health care as other members of the community (including the right to the confidential and sensitive handling of personal and medical information).

**Access and equity:** Health and community care in Australia should be accessible to all based on need. The multiple dimensions of inequality should be addressed, whether related to geographic location, gender, sexuality, drug use, occupation, socioeconomic status, migration status, language or culture. Special attention needs to be given to working with Aboriginal and Torres Strait Islander peoples to close the gap between Aboriginal and Torres Strait Islander health status and that of other Australians (18).

**Health promotion:** The Ottawa Charter for Health Promotion provides the framework for effective HIV, STI and viral hepatitis health promotion action and facilitates the:

- active participation of affected communities and individuals to increase their influence over the determinants of their health and
- formulation and application of law and public policy that support and encourage healthy behaviours and respect human rights.

**Prevention:** The transmission of HIV, STIs and viral hepatitis can be prevented by adopting and maintaining protective behaviours. Education and prevention programs, together with access to the means of prevention, are prerequisites for adopting and applying prevention measures.

**Harm reduction:** Harm reduction approaches underpin effective measures to prevent transmission of HIV and viral hepatitis, including needle and syringe programs and drug treatment programs.

**Shared responsibility:** Individuals and communities share responsibility to prevent themselves and others from becoming infected, and to inform efforts that address education and support needs. Governments and civil society organisations have a responsibility to provide the necessary information, resources and supportive environments for prevention.

**Partnership:** An effective partnership of governments, affected communities, researchers and health professionals is characterised by consultation, cooperative effort, respectful dialogue and joint action to achieve this strategy’s goal. This includes:

- recognition that those living with, and at risk of, infection are experts in their own experience and are therefore best placed to inform efforts that address their own education and support needs
- timely and quality research and surveillance to provide the necessary evidence base for action
- a skilled and supported workforce
- leadership from the Australian Government and the full cooperative efforts of all members of the partnership to implement the strategy’s agreed priority actions.
6. Priority populations

While STIs are an issue for the whole of Australian society, targeting responses to priority populations is critical to maximise the impact and sustainability of our response. The priority populations for this strategy reflect Australia’s epidemiological data and social context. Individuals may be members of more than one priority population.

Priority populations identified in this strategy are:

- Young People
- Aboriginal and Torres Strait Islander peoples
- Gay men and other men who have sex with men
- Sex workers
- Culturally and linguistically diverse people
- Travellers and mobile workers
- People in custodial settings

Further details on the main reasons for priority population status, specific subpopulations of higher prevalence and/or higher risk, and the main barriers and facilitators to effective responses are included in the Appendix.
7. Priority areas for action

Prevention, combined with voluntary STI testing and early treatment, is the most effective response to the spread of STIs. Safe sexual behaviours are the critical foundation to reducing the transmission of STIs. The use of condoms and water-based lubricants, combined with voluntary testing, remain the primary tool for the prevention of STI transmission.

Early detection of STIs is important to prevent the development of complications and to reduce further transmission of STIs, including limiting the facilitation of HIV transmission. Multiple factors influence STI testing, highlighting the importance of a comprehensive multifactorial approach to improving testing and achieving the associated benefits.

Timely and appropriate testing and antibiotic treatment of STIs will reduce infectiousness, improve control, and reduce the likelihood of complications from infection.

A clinical, public health and community sector workforce that is well trained and confident in their management of STIs is fundamental to implementing this strategy. All five national BBV and STI strategies have identified the difficulties of developing and maintaining such a workforce, including difficulties associated with recruitment, retention and training of an undersupplied and ageing workforce (19).

7.1 Prevention

<table>
<thead>
<tr>
<th>Priority actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increase condom use amongst priority populations</td>
</tr>
<tr>
<td>• Increase promotion of safer sex behaviours and regular testing</td>
</tr>
<tr>
<td>• Build STI-related knowledge and skills in priority populations</td>
</tr>
<tr>
<td>• Increase uptake of the HPV vaccine</td>
</tr>
</tbody>
</table>

Complex behavioural change, such as increasing use of condoms and reducing unsafe sex, requires an integrated and sustained health promotion and disease prevention approach. Comprehensive programs which have multiple components have been demonstrated to be effective in reducing sexual risk behaviour. Components include workshops, communication skills-building, community events, sex education in schools, trainings of teachers, community leaders, peer educators and counsellors, distribution of educational materials, provision of condoms, and social marketing.

STIs are predominantly contracted through unsafe sexual practices and while symptoms may not be obvious, long-term consequences may arise if not treated. Raising awareness and knowledge of STIs and their consequences among priority populations continues to be essential. This should include addressing skills to reduce sexual risk behaviour and in accessing and navigating the health system. These activities must be relevant and accessible to the priority populations, acknowledging different cultural, social and language needs.
Peer education and support have played an important role in reducing the risk of STI transmission and in reaching some hard to reach populations. Peers are credible, trusted sources of information and can assist in overcoming physical and socio-cultural barriers (20). Sex workers, for example, have played a longstanding and pivotal role in health promotion by establishing partnerships in community health initiatives, acting as pioneers in peer education programs (21). The utilisation of peer support and education models to target prevention activities in priority populations is important.

New media tools provide an opportunity to renew and refresh the ways in which health promotion and prevention activities are delivered. Existing and new media tools, such as interactive videos, email and SMS, should be explored to target activities to the priority populations in an appropriate and meaningly way.

The most recent National Secondary Schools Health Survey (22) identifies gaps in secondary students’ knowledge, attitudes and behaviour about sexual matters. Decreasing the very high notification rates for chlamydia and gonorrhoea in youth will require increased knowledge and skills amongst young people.

Sex education in schools, is a highly effective strategy for decreasing sexual risk taking in young people (23). Effective and culturally appropriate sex education should be received by all Australian school students. Currently, the delivery of sexual health education in Australian schools’ depends on the interest and capacity of individual schools and teachers (24). Additionally, young people of school age but who are no longer in the school system miss out on this important component. At particularly risk are some young Aboriginal and Torres Strait Islander people, where a greater proportion is outside the school system. The development and delivery of health promotion interventions targeted to young people, both in and out of school, is a priority.

Vaccination against specific infections is one of the most efficient methods of infectious disease control as it reduces or eliminates the risk of transmission. HPV specific vaccine was introduced and funded under the Immunise Australia Program for females aged 12-13 years in 2007, and for males aged 12-13 years in 2013. Recent data reports 71 per cent vaccination coverage (3 dose) in females turning 15 years of age. Data on the first year for males will shortly be available. The National HPV Vaccination program has been supplemented by catch up programs.
7.2 Testing

<table>
<thead>
<tr>
<th>Priority actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build on successful activities to improve testing rates and coverage in priority populations</td>
</tr>
<tr>
<td>Explore the feasibility, accessibility and cost-effectiveness of the range of existing and emerging testing methods such as rapid testing</td>
</tr>
<tr>
<td>Develop and promote nationally consistent STI testing and retesting guidelines</td>
</tr>
<tr>
<td>Maintain and strengthen links between comprehensive STI and HIV testing</td>
</tr>
</tbody>
</table>

Some of the important individual factors that influence STI testing decisions include perceived vulnerability to STIs, perceived benefits of testing, experiencing STI-related symptoms, having had unprotected intercourse and psychological fears, including a fear of negative attitudes (25). Social and system related aspects include physical access to testing and results, financial implications, and privacy and confidentiality concerns.

There is a significant need to increase STI-related awareness and knowledge in priority populations to improve STI testing. Effective STI education programs, addressing the above factors, will be used to improve engagement in STI testing and treatment. The role of peer educators and counsellors in engaging priority populations, in particular those hard to reach populations will be further explored. These activities could be linked to pre-existing services in community health and NSPs.

This needs to be accompanied by activities and tools which systematically increase the opportunities for priority groups to have voluntary STI tests. While a number of methods have been identified, the evaluation of their effectiveness and their implementation is inconsistent.

Options for health system changes include strengthening the integration of testing into existing health service delivery and reorienting existing services. Opportunities for integration with existing services include offering STI testing with appropriate routine activities such as during visits for pap smears, contraception, general health checks, and vaccinations for hepatitis B, A or HPV. Other areas of interest include clinic automatic alert systems and expanding the range of primary care providers who can actively participate in testing activities.

Testing or screening programmes may be considered, particularly in areas where there is high community prevalence of STIs. During the first National Sexually Transmissible Infections Strategy 2005 – 2008, a national chlamydia screening pilot program was implemented. This will be evaluated early in the life of this strategy, and its findings will inform future activity in this area.

In response to high rates of STIs in some Aboriginal and Torres Strait Islander communities, pilot projects using continuous quality improvement programmes to specifically increase testing and treatment are providing promising results. These findings should be leveraged in
the coming years, and opportunities for applications to other priority populations may be found.

Access to testing and the delivery of test results are frequently cited as barriers to testing. Outreach programs are particularly useful to target more difficult to reach priority groups, and could be considered for groups such as gay men, young people who are most at risk of STI infection, and people in correctional facilities. Different methods of delivering STI results are available, such as return visits, phone calls, emails, SMS, and other web-based tools. Continuing work on using a mixture of methods, that are acceptable to and appropriate for different priority populations, is important.

For all of these strategies to be effective, health care professionals require improved confidence, knowledge and skills in discussing sexual health and offering STI testing. Education on the importance of regular STI testing and how to identify at-risk behaviour and symptoms is an essential component, and is necessary to support health care professionals to offering and carrying out testing.

Testing strategies and models will need to be reviewed and updated to allow new testing technologies, such as rapid testing, to be included as they become available. Several pilot studies looking at acceptability, feasibility and cost-effectiveness of rapid testing in high prevalence populations are underway and will inform future directions during the life of this strategy. Chlamydia and gonorrhoea rapid testing may reduce average time to treatment (where it is 21 days in some remote Aboriginal communities), and syphilis rapid tests improve outbreak responses providing rapid screening and immediate treatment in communities.

Nationally consistent STI testing and treatment guidelines must be current and widely implemented to key groups such as primary care and antenatal care. Recommendations for chlamydia and gonorrhoea testing need to be reviewed to ensure they are evidence based and appropriate, particularly for remote Aboriginal communities and antenatal screening.

Comprehensive sexual health screening, including HIV and viral hepatitis screening where indicated, must be maintained. Efforts are required to maintain comprehensive STI and BBV testing in at risk individuals as new testing models and technologies become progressively available. The current challenge is ensuring that HIV and STI testing remain linked, as rapid testing for HIV progresses more quickly than for other BBV’s and STIs.
7.3 Management, care and support

<table>
<thead>
<tr>
<th>Priority actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Assess and implement effective tools and activities to improve STI treatment, management and referral</td>
</tr>
<tr>
<td>• Improve models of care for priority populations in primary health care settings</td>
</tr>
<tr>
<td>• Explore methods to enhance partner notification and treatment systems</td>
</tr>
<tr>
<td>• Broaden access to current evidence based sexual health clinical guidelines</td>
</tr>
</tbody>
</table>

Primary care services are the main providers of sexual health in Australia. Public sexual health services also play an essential role in improving access to high priority groups and managing more complex clinical problems. As well as a clinical role, many of these services have other responsibilities in providing continuing professional development, clinical advice and support, population health advice, contact tracing and research.

A common feature of the priority populations in this Strategy is their difficulty in accessing health services. Services are encouraged to consider how approachable they are for clients, and to ensure they provide a suitable and appropriate service for priority populations.

Models of care need to consider all these factors, and look at innovative ways to improve clinical management, treatment, care and support. These models should deliver best practice care and support and appropriate and timely referral between specialist and primary care services. Services may require reorientation to address the needs of priority populations, in particular young people. Differing roles for different health care professionals, particularly nurses and Aboriginal Health Workers, should be explored as part of these models.

Tools and activities to improve treatment and management need to be piloted, and those determined to be effective promoted and adapted as required. These must be targeted towards priority populations. There have been important advances in the use of continuing quality improvement programmes in primary care that deserve consideration including new media and web based decision support tools for practitioners.

Improvements in contact tracing activities need to be built on, with a particular focus on partner notification and treatment systems. Partner notification is important to increase the likelihood of diagnosis and treatment in the sexual contacts of people diagnosed with infection. Reducing transmission is dependent on increasing the likelihood of diagnosis and treatment of the sexual contacts of people diagnosed with a STI. It has the potential to reduce re-infection rates in index cases, and allow diagnosis and treatment in people who may not realise they have been exposed to an STI.

Traditional methods of partner management rely on the clinician or index case asking their partner/s to attend the clinic for testing and treatment. While these methods are important, they have been shown to reach only 25-40 per cent of partners following referral from the index case (26). Other methods to increase the testing and antibiotic treatment of sexual partners of individuals diagnosed with an STI need to be considered and include promotion...
of web-based partner notification schemes, and the feasibility of using patient delivered partner therapy.

Current and accessible clinical guidelines can be a cornerstone of best clinical practice. There is a range of clinical practice guidelines available for different health service providers in different settings. Improved access to appropriate treatment guidelines and use of decision support software could help to improve the standard and success of clinical management. The development of guidelines needs to be responsive to emerging issues.
7.4 Workforce

<table>
<thead>
<tr>
<th>Priority actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Work together with relevant organisations to ensure delivery of targeted responsive and coordinated training, continued education and professional support programs</td>
</tr>
<tr>
<td>• Consider options to broaden the range of health care professionals who can diagnose and treat STIs</td>
</tr>
<tr>
<td>• Improve skills, knowledge and capacity to increase testing rates and treatment of STIs among general practitioners</td>
</tr>
</tbody>
</table>

Professional support and training is essential for all sectors of health care and the community sector. Improvements in prevention, testing and management rely on the various sectors of the workforce feeling confident and skilled in discussing sexual health, and encouraging regular sexual health check-ups. Professional and community based organisations, working with specialist education providers, are well placed to tailor training in response to localised needs driven by epidemiology and workforce capacity. Resources and programs should highlight the sexual health needs of priority population groups.

Primary care services are the main providers of sexual health in Australia, and as such an important ongoing priority is to ensure sufficient numbers and distribution of primary health care providers who proactively provide sexual health services. This requires a range of strategies addressing recruitment, retention and training.

Models of service delivery should incorporate multidisciplinary teams and primary health care professionals. Members’ roles need to be explored and potentially expanded. As the number of practice nurses in primary health care settings increase in Australia, their role in providing STI testing, counselling, treatment, and assistance in partner notification approaches should be further explored. This needs to be accompanied by considerations of appropriate practice incentives and enhancements, and the strengthening of relevant training programs.

A key action for this strategy is specific ongoing support and training for general practitioners. Education programs need to address a variety of issues relevant to general practice including sexual history taking, screening and treating non-complex STI presentations, disease notification, contact tracing, referral information, and detection and management of STI complications such as pelvic inflammatory disease. Such programs should also include information on how to raise an STI testing opportunity in a non-sexual health consultation.
7.5 Removing barriers

**Priority actions**

- Develop programs to assess and address STI-related stigma and discrimination
- Support STI education programs that address the vulnerability of young people, young gay men and Aboriginal and Torres Strait Islander young people within the school system and also those who are outside the school system
- Reduce stigma and discrimination in community and health care settings, and empower priority populations to increase individual and community resilience
- Remove institutional, regulatory and systems barriers to equality of care for people infected and affected by STIs in the health sector
- Establish a dialogue between health and other sectors aimed at reducing stigma and discrimination against STI infected and affected individuals and communities

Discriminatory or unfair treatment increases the negative impact on the health status of people with BBVs and can reduce access to care. Stigma and discrimination have been correlated with poor access to health care and risk behaviour (27).

People from affected communities require protection from multiple forms of discrimination (28), not only because they may be thought to be living with a BBV, but also because of the primary stigma they may suffer because of their vulnerable status, such as men who have sex with men, people who inject drugs, prisoners and sex workers (29).

Adolescence and youth are key life stages with great personal change including physical development, the establishment of a sense of identity and values and emotional development including relationships. It is an age where health enablers, such as positive role models and health behaviours, as well as factors negatively impacting on health and wellbeing such as stigma and discrimination and limited access to education and social services, affects self-perceptions and behaviours.

Sex workers have played a longstanding and pivotal role in health promotion by establishing partnerships in community health initiatives, acting as pioneers in peer education programs, enjoying one of the lowest rates of HIV/STIs in the world, and being safe sex educators for their clients (30).

The best regulatory approach is a human rights approach that treats priority populations as partners in prevention and education. This strategy supports continued partnerships with community and peer support groups which seek to break the perpetuating isolation and marginalisation of priority populations, such as sex workers, culturally and linguistically diverse people and Aboriginal and Torres Strait Islander people, which has been demonstrated to limit the ability to seek information, support and health care.

All partners in Australia’s STI response have a responsibility to work toward ensuring that the response to STIs is human rights based. Discrimination, unfair treatment and social burdens increase the negative impact of health status and can reduce access to care.
There is an ongoing need for Australian governments to continue to review and work towards removing barriers to access to STI prevention, treatment, care and support; to promote and protect the human rights of people with HIV and people among affected communities; and to break down the stigma and discrimination associated with HIV.

Programs that address advocacy and empowerment of priority populations to access HIV prevention, treatment, care and support in community, education, workplace, health care and legal settings should be promoted. Approaches include awareness raising initiatives, education and training programs, supporting advocacy and empowerment, improving access to effective complaint systems, and promoting research.

Support must also be provided to health care professionals, such as clinicians at the front line of HIV diagnosis and treatment, to ensure they are well informed about legal issues, including their own legal obligations, and can provide optimal information and support to patients.

Implementation of this strategy rests within the health system. However, many of the barriers to access and equal treatment of affected individuals and communities fall outside the responsibility of the health system. For example, it could be argued that criminalisation perpetuates the isolation and marginalisation of priority populations and limits their ability to seek information, support and health care. It is important that the health sector enters into a respectful dialogue with other sectors to discuss impacts of wider decisions on the health of priority groups.

### 7.6 Surveillance, research and evaluation

<table>
<thead>
<tr>
<th>Priority actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve surveillance of the incidence of STIs in priority populations</td>
</tr>
<tr>
<td>Improve methods of monitoring testing coverage for STIs</td>
</tr>
<tr>
<td>Support surveillance and research to monitor, identify and address emerging issues</td>
</tr>
<tr>
<td>Evaluate health promotion, prevention, testing, and treatment programs and activities to ensure they are effective</td>
</tr>
<tr>
<td>Support research across the relevant disciplines, including social, behavioural, epidemiological, clinical and basic research to inform the delivery of the strategy</td>
</tr>
<tr>
<td>Strengthen research and research translation to guide interventions</td>
</tr>
</tbody>
</table>

#### 7.6.1 Surveillance and monitoring

The core surveillance system for STIs in Australia is the National Notifiable Disease Surveillance System (NNDSS). Notification data provided to the NNDSS by states and territories includes date of disease onset, sex, age, Indigenous status and postcode of residence. Information from a number of fields is frequently incomplete, particularly
indigenous status, which reduces the ability to analyse trends and inform effective interventions.

It is a priority of this strategy, as well as the Aboriginal and Torres Strait Islander Sexually Transmissible Infections and Blood Borne Viruses Strategy, to improve the completeness of surveillance data, particularly in important fields such as Indigenous status. Work has been underway at a national level to respond to this deficiency.

Some important sexually transmitted infections are not notified nationally including genital HSV and genital HPV. Trichomoniasis is notifiable in the Northern Territory only, limiting the epidemiological picture to inform our response to this infection.

Several gaps have been identified in the ability to measure the implementation and success of this strategy against the objectives and targets.

While notification rates can inform an understanding of changes in the incidence of gonorrhoea, chlamydia and infectious syphilis, it is important that the need for an ongoing and sustainable surveillance mechanism to monitor the incidence of these STIs is addressed during the life of this strategy. Given the focus of this strategy on increasing testing, the surveillance and interpretation of incidence will need to measure and take into account the effect of testing rates.

The measurement of students’ knowledge and behaviour is addressed through the National Secondary Schools Survey, and an essential component of the surveillance strategy is to address the sustainability of this important measure.

There is currently no ability to monitor and report on the management of STIs and STI related mortality and morbidity. There is a need to consider and develop an appropriate indicator, which may involve considering international efforts in this area.

An important gap identified across all 5 strategies, is the ability to monitor the impact of stigma, discrimination, legal and human rights. Options need to be explored to develop an indicator that informs activities and strategies in a meaningful way.

Other areas for development of surveillance tools include the monitoring of the reach or coverage of prevention activities and workforce priorities.

Antimicrobial resistance in *Neisseria gonorrhoeae* is an emerging global concern, and is identified as one of four core actions required to address AMR by the US Centres for Disease Control and Prevention.

With the increasing international and Australian focus on anti-microbial resistance, consideration should be given to surveillance requirements of STI related antibiotic resistance. Antibiotic options for *Neisseria gonorrhoeae* are becoming limited due to increasing antimicrobial resistance. Tests of cure and continuing surveillance are required to identify treatment failures and inform treatment guideline updates in Australia.

### 7.6.2 Research and evaluation

In partnership with the community sector, research will continue into the social, behavioural, clinical and structural drivers for and barriers to achieving optimal sexual health for all Australians, including research on patterns of sex work, mobility and migration, barriers to
accessing services, with a focus on identifying particularly vulnerable or marginalised groups.

Identifying specific research priorities in relation to primary health care access, epidemiological surveillance and health promotion needs for Aboriginal and Torres Strait Islanders is supported.

There is increasing evidence to support an important role for *Mycoplasma genitalium* in both acute and complicated STI disease, however there is a lack of reliable Australian seroprevalence estimates to describe the size and epidemiology of the problem in Australia. In addition, lack of an available commercial testing assay and limited awareness beyond specialised sexual health services inhibits the ability to improve our knowledge base and act appropriately. Improvements will be required to ensure appropriate action can be taken in the future.

Gonococcal antimicrobial resistance requires a multi-factorial response. Research in Australia on mapping resistant mutations may enhance our ability to monitor and manage resistance in the future. Globally, new antibiotics that are highly effective against resistant gonorrhoea will be required.

The National HPV Vaccination Program will continue to be monitored to ensure the anticipated short term outcomes in males and long term outcomes for HPV-related cancers are realised.

Monitoring and evaluating the implementation of the priority actions, and the supporting indicators and Implementation Plan, will ensure we are progressing towards, and remain focused on, reaching the targets outlined in this strategy.

A significant number of activities and programs have been undertaken under previous hepatitis C strategies and by state and territory governments, peak and community organisations and research centres across all six priority action areas. The national scale-up of activities and interventions with evidence for effectiveness and feasibility are recommended to be undertaken during the life of this strategy. This will be done using proven scale-up methodologies and with monitoring and evaluation mechanisms developed and in place.
Acknowledgements

The Third National Sexually Transmissible Infections Strategy 2014-2017 was developed through a broad and inclusive consultation process with contributions from governments, community organisations, researchers and expert health professionals. Thanks go to all those involved in developing this strategy.
References

1. The Kirby Institute. HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2012. The Kirby Institute, the University of New South Wales, Sydney, NSW 2052
3. The Kirby Institute. HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2012. The Kirby Institute, the University of New South Wales, Sydney, NSW 2052, p.15
4. The Kirby Institute. HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2012. The Kirby Institute, the University of New South Wales, Sydney, NSW 2052
6. The Kirby Institute. HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2012. The Kirby Institute, the University of New South Wales, Sydney, NSW 2052
7. The Kirby Institute. HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2012. The Kirby Institute, the University of New South Wales, Sydney, NSW 2052
14. The Kirby Institute. HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2012. The Kirby Institute, the University of New South Wales, Sydney, NSW 2052
28. HIV-related stigma, discrimination and human rights violations : case studies of successful programmes. Prepared for UNAIDS By Peter Aggleton, Kate Wood and Anne Malcolm Thomas Coram Research Unit, Institute of Education, University of London, United Kingdom Richard Parker Department of Sociomedical Sciences, Mailman School of Public Health, Columbia University, New York, United States of America
## Appendix: Priority Populations

<table>
<thead>
<tr>
<th>Priority Population</th>
<th>Reason for Priority Status</th>
<th>Specific Barriers to Effective Response</th>
<th>Additional Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexually active young people under 30.</td>
<td>15–29 year olds have the highest notification rates for chlamydia.</td>
<td>• Accessibility to information and services for young people, including those in regional, rural or remote areas, those who are homeless, those in juvenile detention, same-sex-attracted young people, and Aboriginal and Torres Strait Islander young people.</td>
<td>A wide variety of strategies and approaches is required to address the diversity of experience and needs of young people in relation to STIs. Young people must be involved in the development and implementation of STI programs. Adolescence and young adulthood represent a critical time to focus on a range of health related factors.</td>
</tr>
<tr>
<td></td>
<td>Notification rates of gonorrhoea were 2–3 times higher in 15–29 year olds than in other age groups.</td>
<td>• Normal developmental processes such as short-term relationships and risk taking are important for healthy adolescent adjustment but may expose young people to a greater risk of exposure to STIs. Factors defining the behavioural, cultural and social contexts (such as alcohol and peer norms) may also contribute to this risk.</td>
<td></td>
</tr>
<tr>
<td>Aboriginal and Torres Strait Islander people</td>
<td>The Aboriginal and Torres Strait Islander population continues to be overrepresented in notifications of STIs other than HIV.</td>
<td>• The availability and ease of access to culturally appropriate and sensitive services contributes to addressing possible barriers to seeking testing and treatment. Simultaneously, Aboriginal and Torres Strait Islander peoples should have access to health promotion messages that resonate culturally, are gender and age appropriate, and translate to improved health literacy and health service access and uptake.</td>
<td>Higher mobility among remote populations could continue to facilitate higher rates of STIs as demonstrated by mathematical modelling, particularly in small communities.</td>
</tr>
<tr>
<td>Priority Population</td>
<td>Reason for Priority Status</td>
<td>Specific Barriers to Effective Response</td>
<td>Additional Focus</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------</td>
<td>----------------------------------------</td>
<td>------------------</td>
</tr>
</tbody>
</table>
| Gay men and other men who have sex with men | Gay men and other men who have sex with men have a higher prevalence of STIs. Other reasons for prioritising this population are the role of STIs in HIV transmission, increasing both transmissibility of and susceptibility to HIV, and higher risk sexual practices. | - Non-condom based risk reduction strategies for HIV may result in an increased risk of other STIs.  
- STI risk is not equal across all gay men and other men who have sex with men, with some sexual practices and cultures having higher risks for STIs and therefore requiring specific targeting | High-priority subpopulations that require tailored interventions include sexually adventurous gay men, gay men with higher numbers of casual sexual partners, gay men with HIV, and same-sex attracted young men. |
<p>| Sex workers | Sex workers are a priority population because of their significantly higher number of sexual encounters than other community members and the higher potential for transmission of STIs. | - Despite the occupational risks, the incidence of STIs in sex workers in Australia is among the lowest in the world. Sustaining this achievement requires the acknowledgement of factors that define the community including: relative youth, discrimination, mobility and migration, and barriers to control over the occupation health and safety conditions of their work and to health service access. | High-priority subpopulations that require targeted interventions include transgender sex workers, street-based sex workers, Aboriginal and Torres Strait Islander sex workers (including those who engage in opportunistic sex work or provide sex for favours), Culturally and Linguistically Diverse sex workers, sex workers who inject drugs and male sex workers. |</p>
<table>
<thead>
<tr>
<th>Priority Population</th>
<th>Reason for Priority Status</th>
<th>Specific Barriers to Effective Response</th>
<th>Additional Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culturally and linguistically diverse people</td>
<td>The culturally and linguistically diverse population has grown rapidly in the last few years in Australia. About 60 per cent of Australia’s population growth is from immigration. The 2011 Census revealed that over a quarter (26%) of Australia’s population was born overseas, and a further one fifth (20%) had at least one parent who had been born overseas.</td>
<td>• Barriers that may affect the culturally and linguistically diverse populations accessing services for STIs could be: language and culture; stigma; cost; low awareness and knowledge; unfamiliarity with the Australian health system; traditional beliefs; and fear.</td>
<td>International students are increasing in numbers and understanding of sexual health and how to access services may be low in this young culturally and linguistically diverse population.</td>
</tr>
</tbody>
</table>
| Travellers and mobile workers | People may behave differently when they travel and in ways that may put them at risk of exposure to STIs. This group includes Australians who travel overseas and people from other countries who travel to Australia, and comprises:  
  • people who engage in unsafe sex while travelling  
  • fly in–fly out and seasonal workers and the communities they have contact with, particularly in regional, rural and remote areas. | • Travellers and mobile workers are often not eligible for Medicare benefits and may have difficulties accessing appropriate healthcare services.  
• Delivering health promotion and health services to mobile populations | |
<table>
<thead>
<tr>
<th>Priority Population</th>
<th>Reason for Priority Status</th>
<th>Specific Barriers to Effective Response</th>
<th>Additional Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>People in custodial settings</td>
<td>Whether in adult prison or juvenile detention, people who are incarcerated are at risk for STI and BBVs.(^{10,11,12})</td>
<td>The epidemiology of overlapping priority populations, as well as limited access to education and tools prior to incarceration, compounded by similar limited access in prison, results in a very high risk sub-population.</td>
<td>Custodial settings can provide people at high risk access to activities, tools and programs.(^{13}).</td>
</tr>
</tbody>
</table>
1. NNDSS data, accessed 25 Sept 2013

2. NNDSS data, accessed 25 Sept 2013


