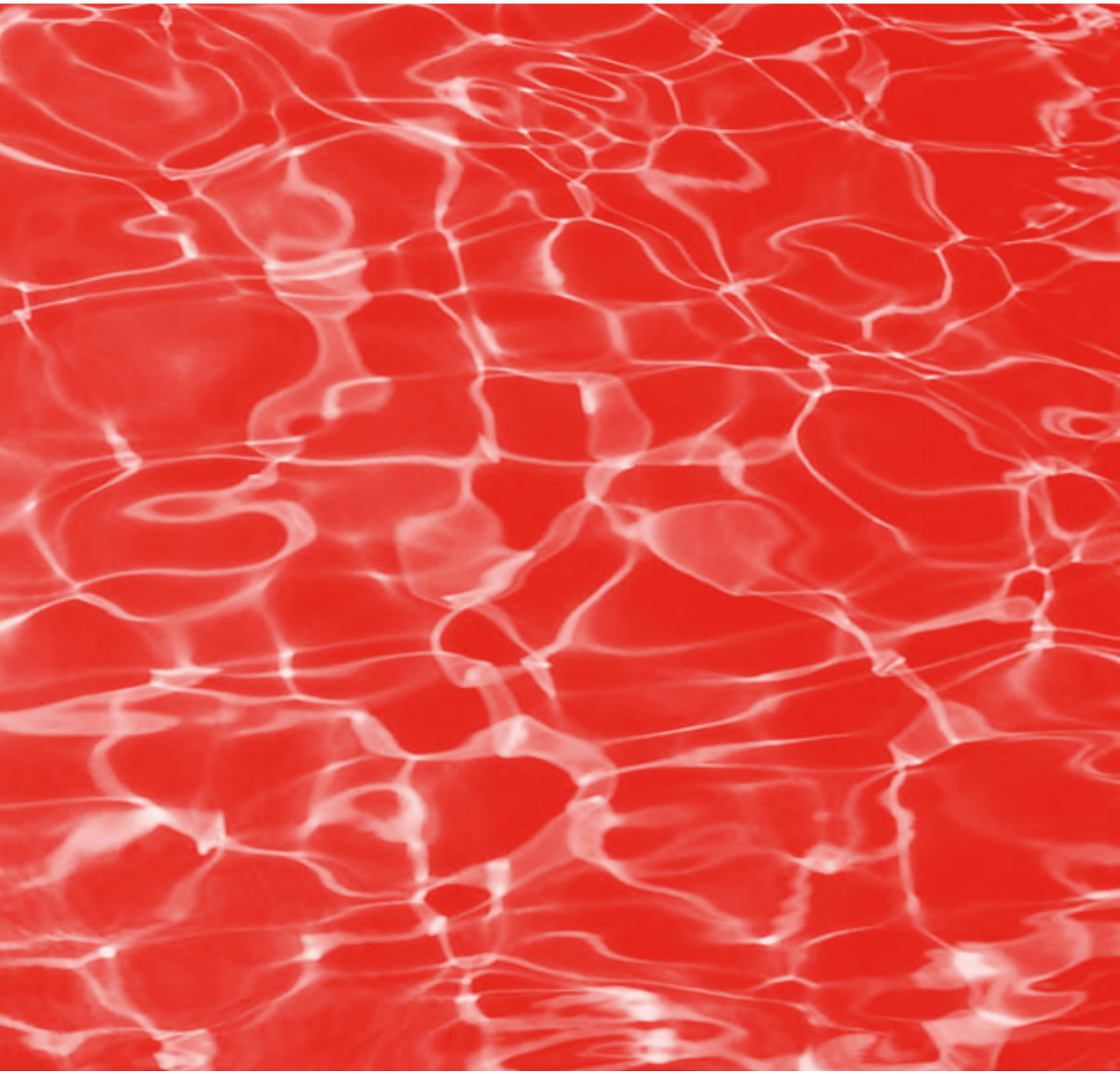
Victorian Sexually Transmissible Infections Strategy 2006–2009



Victoria
The Place To Be

Victorian Sexually Transmissible Infections Strategy 2006–2009

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Contents

Disclaimer ii

Foreword v

Acknowledgements vi

Executive summary vii

1. Background 1

2. Goal and aims 3
   - Goal 3
   - Aims 3
   - National strategic framework 3
   - Linked strategies 3

3. Clinical and public health significance of STIs 5
   - 3.1 Chlamydia 5
   - 3.2 Gonorrhoea 6
   - 3.3 Syphilis 6
   - 3.4 Herpes 7
   - 3.5 Human papilloma virus 7
   - 3.6 Hepatitis A 7
   - 3.7 Hepatitis B 7

4. Current epidemiology of STIs in Victoria 9
   - 4.1 Chlamydia 9
   - 4.2 Gonorrhoea 10
   - 4.3 Syphilis 11

5. Approaches to STI control 13
   - 5.1 Health promotion and education 13
   - 5.2 Access to clinical care 13
     - 5.2.1 Workforce development 13
   - 5.3 Screening and testing 14
   - 5.4 Partner notification 15
   - 5.5 Surveillance 15
   - 5.6 Vaccines 15
   - 5.7 Research 16

6. Priority populations for STI reduction **17**
6.1 Young people **17**
6.1.1 School-based education 18
6.1.2 Young people who do not attend school 18
Key approaches for young people 19
6.2 Men who have sex with men **19**
Key approaches for MSM 20
6.3 Aboriginal and Torres Strait Islander people **21**
Key approaches for Aboriginal and Torres Strait Islander people 22
6.4 Sex workers **22**
Key approaches for sex workers 23
6.5 People living with HIV/AIDS **23**
Key approaches for people living with HIV/AIDS 23
6.6 People at increased risk who are not in a priority population **24**
Key approaches for people at increased risk who are not in a priority population 24

7. Coordination and management **25**

8. Monitoring and evaluation **27**

Acronyms **29**

Glossary **31**

List of Figures

Figure 1: Notified cases and rate of chlamydia per 100,000 population, Victoria, 1995 to 2005 9
Figure 2: Notified cases of chlamydia by sex and age group, Victoria, 2005 9
Figure 3: Notified cases of gonorrhoea, Victoria, 1995 to 2005 10
Figure 4: Notified cases of gonorrhoea by sexual orientation, Victoria, 1995 to 2005 10
Figure 5: Notified cases of gonorrhoea by sex and age group, Victoria, 2005 11
Figure 6: Notified cases of infectious syphilis, Victoria, 1995 to 2005 12
Figure 7: Notified cases of infectious syphilis by sexual orientation, Victoria, 2005 12
Figure 8: Notified cases of infectious syphilis by sex and age group, Victoria, 2005 12

Foreword

The Victorian Government is committed to improving the overall sexual health and wellbeing of Victorians by reducing the rates of sexually transmissible infections (STIs) in the community.

This inaugural Victorian STI Strategy recognises that increasing levels of sexually transmissible infections in Victoria is of significant public health concern. It provides a framework for a coordinated and sustained response to reducing the incidence and impact of STIs throughout Victoria.

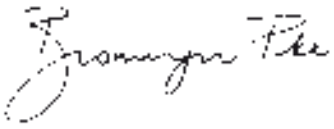
This strategy supports and builds on the achievements of other Victorian strategies, including the *Victorian HIV/AIDS Strategy*. The strategy has been developed within the broader framework of the *National Sexually Transmissible Infections Strategy 2005–2008*.

This strategy has particular focus on chlamydia, gonorrhoea and syphilis, three STIs with a concerning incidence in Victoria. These STIs are of particular public health significance, being associated with a range of negative health outcomes including infertility and the increased risk of HIV transmission.

There are a number of population groups that are at increased risk of STIs or carry a higher burden related to STIs. These priority groups are the focus of this strategy, namely young people, men who have sex with men, Aboriginal and Torres Strait Islander people, sex workers and people living with HIV/AIDS.

This strategy has been developed with the assistance of the Ministerial Advisory Committee on Blood Borne and Sexually Transmissible Infections (MACBSTI) and I commend them for their hard work and commitment. The strategy's effective implementation will require the continued cooperation and participation of government agencies, local government, health care professionals, researchers and the broader health and community sector.

This strategy is an important step in improving the sexual health of all Victorians and reducing the incidence of STIs in the community.



Hon Bronwyn Pike MP
Minister for Health

Acknowledgements

The Ministerial Advisory Committee on Blood-borne and Sexually Transmissible Infections and its Sexually Transmissible Infections Subcommittee provided guidance and support in the development of this first *Victorian Sexually Transmissible Infections Strategy*. A wide range of individuals and organisations also provided input into the strategy through a broad consultation process.

The composition of the Ministerial Advisory Committee on Blood-borne and Sexually Transmissible Infections is:

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The contributions of Ms Sharon O'Reilly of Resourcing Health and Education in the Sex Industry and Mr Steven O'Connor of the Department of Education and Training are also acknowledged.

Executive summary

Sex and sexuality are fundamental components of the sense of well-being experienced by people in their every day lives. Together they are powerful drivers of a variety of social behaviours and remain central to important aspects of contemporary life, including personal and social identity. All communities have particular cultural, structural and moral positions in relation to sex and sexuality that impact on efforts to address the challenges of sexually transmissible infections.

This inaugural *Victorian Sexually Transmissible Infections Strategy 2006–2009* aims to improve the overall sexual health and well-being of Victorians by reducing STIs in the community. Sexual behaviour and sexual health practices are powerfully influenced by individual, social and institutional factors. This strategy recognises that action at all of these levels is required to achieve any significant reduction in STI prevalence in Victoria.

The STIs identified as being of particular concern and which receive the greatest attention in this strategy are chlamydia, gonorrhoea and syphilis. A separate Victorian HIV/AIDS strategy already exists and therefore Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) are not discussed in detail in this strategy.

This strategy recognises that there is no one-size-fits-all response to reducing STIs in the Victorian community. Thus this strategy adopts a broad approach and identifies a variety of key methods for action at a number of different levels. While sustained action across all of the areas identified in this strategy is necessary, the three key methods that have the most potential to significantly reduce the prevalence and impacts of STIs in the Victorian community are to:

- Screen the following groups for chlamydia:
  - Sexually active people under the age of 25 years;
  - Aboriginal and Torres Strait Islander people who are at increased risk, when attending health care services;
  - Men who have sex with men; and
  - People over the age of 25 who are at increased risk as indicated by sexual history.
- Establish and monitor a "whole of school" approach to sexuality education in schools.
- Test men who have sex with men annually for chlamydia, gonorrhoea, syphilis and HIV.

In addition, this strategy recognises that human papilloma virus vaccines have the capacity to significantly improve the health of Victorians. The first vaccine was released in September 2006 and the second one is anticipated to be available soon. It is important to ensure that the Victorian community and clinicians are adequately informed about these vaccines and their benefits.

This strategy identifies a number of priority population groups that are at increased risk of STIs or carry a higher burden related to STIs. The priority population groups are young people, men who have sex with men, Aboriginal and Torres Strait Islander people, sex workers and people living with HIV/AIDS. The strategy recognises that these groups should be a priority for sexual health promotion activities, testing and treatment. The key approaches relating to these groups are summarised here:

People younger than 25 years of age

- Screen sexually active people under 25 years of age for chlamydia.
- Develop and implement approaches to increase effective condom use by young people.
- Establish and monitor a whole-of-school approach to sexuality education in schools and provide relevant supporting policies, including professional development for teachers.
- Establish a working party with representatives of relevant government and non-government bodies, young people and researchers to develop and coordinate approaches for providing sexuality education and services to people under 25 who no longer participate in formal education.
- Encourage agencies that work with young people to provide sexual health education where appropriate.

Men who have sex with men (MSM)

- Test MSM annually for chlamydia, gonorrhoea, syphilis and HIV. Those at increased risk may need more frequent testing.
- Support the role of high MSM caseload clinics in HIV prevention and STI reduction.
- Implement evidence based clinical guidelines for MSM STI testing, treatment and vaccination.

Aboriginal and Torres Strait Islander people

- Support broad primary care initiatives that reduce barriers to Aboriginal and Torres Strait Islander people accessing health services.
- Offer sexual history taking and STI screening for chlamydia (and other STIs if required) to Aboriginal and Torres Strait Islander people who are at increased risk, when attending for medical care.
- Ensure that mainstream health care workers and their support staff have knowledge and skills to provide culturally appropriate services to Aboriginal and Torres Strait Islander people, including the ability to ascertain basic demographic details such as Indigenous status.
- Provide culturally appropriate school sexual health education at the appropriate age.
- Implement initiatives to improve the availability and use of condoms within Indigenous communities.
- Establish a STI/blood-borne virus (BBV) education program for Indigenous adults and juveniles who are incarcerated.

Sex workers

- Develop and support programs to deliver STI education and treatment to sex workers from culturally and linguistically diverse backgrounds.
- Undertake research to map the size and nature of the sex industry, investigate the sexual health knowledge of the sector, identify needs, attitudes and practices in order to begin to ascertain the true public health impact of this sector, with a particular emphasis on the unregulated sector.
- Investigate the public health consequences of existing regulatory frameworks for sex work.

People living with HIV/AIDS

- Develop STI education campaigns for people living with HIV/AIDS, particularly MSM, to inform them of the consequences of co-infection with STIs and to promote sexual health monitoring and treatment.

People at increased risk who are not in a priority population

- Offer STI screening for people aged 25 years and over at increased risk.
- Investigate mechanisms to collect reliable data on prisoner health.
- Implement the Prisoner Health Initiative.

The Department of Human Services and the STI Subcommittee will develop an implementation plan to guide the achievement of the key approaches set out in this strategy. The implementation plan will set out in detail the specific activities that will be undertaken to achieve each key initiative. The implementation plan will also assign responsibility for the performance of each activity to lead and partner agencies.

1. Background

There have been annual increases in most notifiable* sexually transmissible infections (STIs) in Victoria since 1999, particularly chlamydia, gonorrhoea, syphilis and the human immunodeficiency virus (HIV). Chlamydia, gonorrhoea and syphilis are the primary focus of this strategy. HIV/AIDS is dealt with separately in the *Victorian HIV/AIDS Strategy*, and will only be discussed to the extent that co-existing STIs can have a significant impact on HIV transmission. STIs, such as donovanosis and lymphogranuloma venereum are rare in Victoria and are not discussed in this strategy.

Infections by the herpes simplex virus (HSV) and the human papilloma virus (HPV), while not notifiable, have been included in this strategy due to their public health significance. Hepatitis A and B viruses are notifiable and, whilst not always transmitted sexually, are also included in this strategy. Other genital infections, including pubic lice, trichomonas and bacterial vaginosis are not notifiable and are not discussed in this strategy as they are of limited public health concern.

Chlamydia is the most commonly notified disease in Victoria and hence is identified in this strategy as requiring urgent action. Between 2000 and 2004 chlamydia notifications rose by 133 per cent (3,294 to 7,634) and was highest in the 15 to 24 year old age group. This rising level of chlamydia is imposing increasing short and long-term health, social and economic costs on our community.

In recent years the Department of Human Services (the department) has prioritised STIs as a key area for action. A new Notifiable Infectious Diseases Surveillance (NIDS) system has been implemented, enabling improved STI epidemiology. A chlamydia health promotion website has been developed and an information and treatment fact sheet is now available.[1] Also a new position was created in the department to improve the partner notification process and to raise STI awareness amongst health care providers and the general community. In 2004, the department engaged the Burnet Institute to conduct sentinel surveillance for chlamydia, HIV and hepatitis C. This three-year project, at fifteen locations state-wide, will provide data on the true prevalence of these diseases. Funding for public health laboratory testing of STIs has also been increased.

The department developed and implemented the *Chlamydia Strategy for Victoria (2001–2004)* and the *Victorian HIV/AIDS Strategy (2002–2004)*, which identified ways forward for government, health service providers, the general community, and vulnerable populations. A community chlamydia awareness campaign, targeting 15 to 24 years olds, ran from November 2002 to September 2003. In addition, STI education strategies have focused on improving the content and extent of delivery of STI health promotion education to secondary school students.

The department funds a wide range of service providers and agencies that provide sexual health services and education. In 2004 the department commissioned a Review of Sexual Health Clinical Services in Victoria to facilitate strategic planning and to improve service delivery. The review mapped the breadth and scope of clinical service provision and identified barriers limiting access to existing sexual health services. The findings of the review and current epidemiological data have been used to inform the development of this strategy and identify priority populations.

Key recommendations of the review include:

- Increasing community awareness of STIs and their consequences, particularly amongst those most 'at risk' of acquiring an STI.
- Improving access to sexual health clinical services, especially for those living in rural and regional Victoria, and for marginalised groups in the community, such as people younger than 25 years of age, men who have sex with men (MSM), intravenous drug users, Aboriginal and Torres Strait Islander people, sex workers who work illegally and those from culturally and linguistically diverse communities.
- Improving sexual health service provision by supporting general practitioners (GPs) to undertake professional development in relation to STIs and their clinical management.
- Providing annual chlamydia screening for sexually active women younger than 25 years of age.

* Notifiable infections are those required to be reported to the Department of Human Services by the diagnosing clinician and laboratory under the *Health (Infectious Diseases) Regulations 2001*. The notification process is discussed in section 5.5.

1 See http://www.mshc.org.au/upload\ChlamydiaFactSheet_0405.pdf.

The increasing rates of notifications of STIs suggests a growing pool of infection in the Victorian community. The department acknowledges that a concerted effort is required to control and manage the spread of STIs. By building on the gains made by the *Chlamydia Strategy for Victoria* and identifying priority populations for action, this strategy provides direction for key activities over the next four years.

2. Goal and aims

This strategy provides a framework for the Victorian response to STIs, particularly in relation to prevention, education, treatment, care and support. This strategy has been developed within the context of the *National Sexually Transmissible Infections Strategy 2005–2008*, and is consistent with the principles, goals and objectives set out in the national strategy.

Goal

The goal of this strategy is to improve the overall sexual health and well-being of Victorians by reducing STIs in the community through a focused approach, and by directing resources and action towards population groups that are at increased risk.

Aims

The aims of this strategy are:

- To reduce the transmission of STIs.
- To reduce the prevalence of undiagnosed STIs.
- To minimise the transmission and morbidity of STIs in priority population groups.
- To improve access to appropriate health services for the management of STIs.
- To improve awareness of STIs and their impacts.
- To reduce the stigma and discrimination associated with STIs.

National strategic framework

This strategy fits within the framework provided by the *National Sexually Transmissible Infections Strategy 2005–2008* and reflects the guiding principles set out in that strategy, namely:

- a national strategy approach
- evidence-based policy
- health promotion
- an enabling environment
- early intervention
- access to appropriate health care
- the involvement of affected people and communitites.

Linked strategies

This strategy forms part of a comprehensive national approach to reducing the prevelence and impact of STIs. Thus, the implementation of this strategy requires coordination with other relevant Victorian and national strategies. These include:

- *National Sexually Transmissible Infections Strategy 2005–2008*
- *National HIV/AIDS Strategy 2005–2008: Revitalising Australia's Response*
- *National Hepatitis C Strategy 2005–2008*
- *National Drug Strategic Framework*
- *National Aboriginal and Torres Strait Islander Sexual Health and Blood Borne Virus Strategy 2005–2008*
- *National Drug Strategy Aboriginal and Torres Strait Islander Peoples' Complementary Action Plan 2003 – 2006*
- *Victorian Hepatitis C Strategy 2005–2008*
- *Victorian HIV/AIDS Strategy 2005–2008*
- *Victorian Prison Drug Strategy 2002*
- *Victorian Women's Helath and Wellbeing Strategy 2002*
- *Health and Sexual Diversity: A Health and Wellbeing Action Plan for Gay, Lesbian, Bisexual, Transgender and Intersex (GLBTI) Victorians 2003.*

3. Clinical and public health significance of STIs

The benefits of prevention and timely and appropriate management of STIs extend beyond gains in individual physical health. They include a reduction in the psychosocial and financial costs associated with complications such as pelvic inflammatory disease (PID), infertility, increased HIV transmission, and other STI-related morbidity and mortality.

The public health approach to reducing STI prevalence is based on providing people with the information, ability and opportunity to prevent the acquisition and transmission of STIs, as well as ensuring suitable access to best practice clinical management. Since many STIs are readily diagnosed, and some easily treated, effective health promotion campaigns should encourage appropriate STI testing and screening. Timely access to effective treatment and partner notification will reduce STI prevalence.

In addition, education and clinical programs need to recognise that some communicable diseases can be acquired from injecting drug use and subsequently transmitted sexually. Thus there are benefits to be gained from forming partnerships between STI and drug and alcohol services.

Reducing the prevalence of STIs is also important for reducing HIV transmission, as it is now clear that STIs can facilitate both the transmission and acquisition of the HIV. The relationship between STIs and HIV is complex and multifactorial. For example, people infected with an STI, particularly ulcerative STIs, are generally at increased risk of acquiring HIV. In addition, trends in STI notifications reflect the occurrence of high-risk sexual behaviour which is associated with HIV transmission.

People most at risk of STIs are often marginalised for reasons of sexuality, occupation, culture (including Aboriginality), poverty, geographic location, age, substance use, or a combination of these factors. Such concerns may be further compounded by the stigma associated with STIs. Thus STI health promotion and service delivery must seek to mitigate the impact of these factors and provide opportunities and environments that meet the needs of marginalised people. Respect, confidentiality, suitable access to appropriate clinical services in a timely fashion and participation in clinical decision making are key elements in the provision of any health service and are particularly important in the context of STIs.

Note: The following sections of this chapter contain technical terms. A glossary of terms has been included at the end of the strategy.

3.1 Chlamydia

Infection with *Chlamydia trachomatis* predominantly involves the cervix in women and the urethra in men, however, infection may also occur in the pharynx and rectum.

In women symptoms may include vaginal discharge or dysuria, however it has been reported that up to 85 per cent of cases are asymptomatic.[2] If untreated, chlamydia carries a significant risk of serious complications such as pelvic inflammatory disease (PID), tubal infertility and chronic pelvic pain. It is estimated that between 10 and 40 per cent of women with untreated chlamydial infection may develop PID, and up to 20 per cent of these women may subsequently become infertile.[3]

In men symptoms usually occur as urethritis, however asymptomatic infection has been reported to be as high as 85 per cent.[4] Complications in men are uncommon and usually take the form of epididymo-orchitis.

Rectal or oropharyngeal infections with chlamydia are mostly asymptomatic and are most commonly seen in men who have sex with men.

Pregnant women with chlamydia have an increased risk of pre-term labour. Infected women having gynaecological procedures such as termination of pregnancy or the insertion of an intra uterine device carry a particular risk of the infection ascending to the upper genital tract. It is of note that pregnant teenage girls and women having pregnancy terminations have been found to have a higher incidence of chlamydial infection, thereby increasing the risk of subsequent PID if the infection remains untreated.[5]

2 Watson E,Templeton A,Russell I, Paavoven J,Mardh P,Stary A,et al, 2002. The accuracy and efficacy of screening tests for *Chlamydia trachomatis*: a systemic review. *J Med Microbiology*. 51;1021–1031.

3 Stamm WE. Chlamydia trachomatis infections in adults. In: Holmes KK, Sparling PF, Mardh P-A, Lemon SM, Stamm WE, Piot P, et al., Editors. 1999. *Sexually Transmitted Diseases* 3rd ed. New York: McGraw Hill, pp 407–22.

4 Peipert, J.F. 2003. Genital Chlamydial Infection. *New England Journal of Medicine*. Vol 349, pp 2424–2430.

5 Quinlivan, JA. Evans, SF, 2004. Teenage antenatal clinics may reduce the rate of preterm birth; a prospective study. *BJOG: an International of Obstetrics and Gynaecology*. Vol 111, pp 571–578.

Untreated chlamydial infection may also be transmitted from pregnant women to their babies during vaginal delivery.

Chlamydial infection is easily diagnosed and treated. Newer forms of testing have emerged that require only a urine sample and these have been shown to be highly sensitive and specific. The current treatment schedule is a simple single dose of azithromycin (a relatively well-tolerated antimicrobial).

The public health significance of chlamydial infection relates to its high prevalence and the high number of asymptomatic cases, which results in a significant number of undiagnosed infections. Without adequate screening and treatment, further spread in the community will continue and increased numbers of cases and complications will occur. Of particular importance is the resulting harm to women in the form of pelvic pain and infertility. In addition, there is an increased risk of transmission and acquisition of HIV in MSM with coexistent chlamydial infection.

3.2 Gonorrhoea

Sexually transmitted infections of *Neisseria gonorrhoea* predominantly involve the cervix in women and urethra in men, however infection may also involve the pharynx and rectum.

In women symptoms may include vaginal discharge, bleeding after sex, and dysuria. The infection may also remain asymptomatic. Rectal infection may occur in women who have not had anal sex as a result of local spread of infective vaginal discharge. Approximately 10 to 15 per cent of gonococcal cervicitis is complicated by pelvic infection, which if untreated, may result in infertility or chronic pelvic pain.

In men gonorrhoea commonly presents with an acute purulent urethral discharge and dysuria. The majority of people who are notified with gonorrhoea are MSM. In this group, infection involving the pharynx or rectum is relatively common and is usually asymptomatic although rectal gonorrhoea may cause discharge, tenesmus or rectal bleeding. Complications in men are uncommon but may include epididymo-orchitis.

Disseminated gonococcal disease may affect both men and women (0.5 to one per cent of cases), resulting in septic arthritis, skin lesions and (rarely) meningitis or endocarditis.[6]

Gonorrhoea is readily diagnosed by appropriate microbiological testing and effective treatment is available. Microbiological isolates from both heterosexual men and women with overseas-acquired gonorrhoea and in MSM with locally acquired infections, have demonstrated a progressive rise in resistance to the antibiotic, ciprofloxacin. In 2004, 50 per cent of heterosexually acquired gonococcal infection was ciprofloxacin resistant, as was 28.3 per cent of MSM acquired infection.

The public health significance of gonorrhoea predominantly relates to its impact on the transmisison and acquisition of HIV. This is of paticular importance as gonorrhoea is most commonly seen in MSM.

3.3 Syphilis

Sexually transmitted syphilis (*Treponema pallidum*) is characterised into different stages reflecting the natural history of the disease. Early or infective syphilis is generally understood as occurring within the first two years of infection (incorporating primary, secondary and early latent syphilis) and is followed by late syphilis (incorporating late latent syphilis and late clinical disease). The primary form consists of an ulcer (chancre) which may involve the genitals, oral or ano-rectal areas. This lesion resolves spontaneously and the secondary stage develops with features that include a symmetrical generalized maculopapular rash and lymphadenopathy. Central nervous system (CNS) involvement in the form of acute syphilitic meningitis may occur in the secondary or early latent period.

If left untreated syphilis can result in serious conditions involving the cardiovascular system, gummas involving skin, viscera, bone or mucosal surfaces, or CNS disease (including paresis, tabes dorsalis and others). Immunosuppression related to coexisting HIV infection may increase the risk of syphilitic CNS disease.

Syphilis can also cause serious health consequences for a foetus infected during pregnancy. Untreated early syphilis in pregnant women is associated with a perinatal death in up to 40 per cent of cases. Untreated syphilis acquired during the four years preceding pregnancy leads to transmission to the foetus in over 70 per cent of cases, resulting in foetal

6 David L Heymann Editor. *Control of Communicable Diseases*, 18th Edition, 2004. Report of the American Public Health Association, p 232.

damage.[7] The high foetal consequences of syphilitic infection underscores the importance of antenatal screening.

The public health significance of syphilis has increased as a result of the marked percentage increase in case numbers identified in both Victoria and around the world. Screening for those at risk is important to minimise long-term morbidity and mortality.

In addition, coexisting primary syphilis increases the risk or HIV transmission and acquisition, which is of particular concern in MSM who have the highest rates of both these infections. HIV infection may also alter the natural history of syphilis, resulting in more severe disease.

3.4 Herpes

Sexually transmitted infections of herpes (*Herpes simplex*) may result in oral or genital ulceration, urethritis, cervicitis or proctitis. Approximately 70 per cent of genital lesions are caused by herpes simplex virus (HSV) type 2 which can be contracted through both genital and oral contact with either symptomatic or asymptomatic partners.

Newly acquired infections may be severe and some people suffer from recurrent disease, which may be accompanied with significant psychological distress.

There is no definitive treatment for genital herpes, however therapeutic options are available to reduce the severity of infection and frequency of recurrence.

Perinatal transmission of HSV (from mother to newborn) can occur and is most likely to result from vaginal deliveries by mothers with primary infection.

There is currently no available vaccination for HSV, however research is continuing and clinical trials of prospective vaccines are underway.

Of major public health concern is the fact that herpes can increase HIV transmission. The precise role of herpes in HIV transmission warrants further investigation.

3.5 Human papilloma virus

Human papilloma virus (HPV) is the most prevalent viral STI and has over 100 recognised genotypes, of which 30 to 40 involve the ano-genital area of men and women. Infection can result in a variety of clinical manifestations ranging from completely unidentifiable asymptomatic lesions, to small transient lesions, to easily identified persisting lesions, to cancers.

HPV causes cervical cytological abnormalities and certain types can lead to cervical cancer and other less frequent ano-genital cancers. Approximately 70 per cent of cancers are caused by types 16 and 18. Types 6 and 11 cause visible genital warts and are thought not to be premalignant.

The treatment options available include ablative therapies, anti-proliferation and immune-response-enhancement therapies.

The public health significance of HPV infection relates primarily to its role as a cause of cervical cancer. Recent clinical trials examining the efficacy of prophylactic vaccination have shown effectiveness against infection with oncogenic types of HPV associated with cervical cancer, as well as genital warts. The vaccines promise new hope in preventing cervical cancer and possibly other HPV related ano-genital cancers.

3.6 Hepatitis A

Adult-acquired hepatitis A is most frequently transmitted through household or sexual contact with a person with acute disease. Transmission is by the faecal-oral route and sporadic outbreaks have been repeatedly observed in MSM, making them an identified at-risk group.

The symptoms include fever, headache, malaise, nausea, anorexia and jaundice. The clinical disease generally increases in severity with age.

Prophylaxis through vaccination is available and highly effective. Hepatitis A vaccination is recommended for a range of groups including MSM, injecting drug users and certain health care workers.

3.7 Hepatitis B

Adult acquired hepatitis B virus (HBV) infection may occur through sexual or percutaneous exposure to infectious body fluids such as blood, semen and vaginal secretions. In addition, hepatitis B may be acquired at childbirth from an infected mother.

7 http://www.cdc.gov/std/stats02/syphilis.htm (citing Ingraham NR, 1951. The value of penicillin alone in the prevention and treatment of congenital syphilis. *Acta Derm Venereology* 31, supp24:06).

Symptoms of HBV infection often have a poorly defined onset and may include anorexia, nausea, vomiting, malaise, abdominal discomfort and jaundice (only a third to half of people infected with HBV will experience icteric disease). It can also result in acute fulminating liver disease (uncommonly) or continue to a more prolonged illness in the form of chronic hepatitis, cirrhosis or hepatoma.

HBV infection can persist for a variable amount of time, with most people recovering within six months. The rates of ongoing infection (chronic carriage) vary with age of infection and range from 90 per cent of infants infected at birth, to 20 per cent to 50 per cent of children infected at the age of one to five years, to one per cent to ten per cent of people infected as older children and adults.

Effective immunisation is available against HBV infection and now forms part of the standard childhood vaccination program. It is also recommended for a range of groups including MSM, sexual and household contacts of high-risk people, inmates and staff of long-term correctional facilities and health care workers.

Hepatitis B vaccination is recommended for injecting drug users and this vaccine is currently available through some needle and syringe programs.

4. Current epidemiology of STIs in Victoria

This section reviews the pattern of notifications for the sexually transmissible infections chlamydia, gonorrhoea and syphilis over the past ten years.

The *Health (Infectious Diseases) Regulations 2001* require both medical practitioners and pathology services to notify the department when they diagnose certain defined communicable diseases, including chlamydia, gonorrhoea, syphilis, donovanosis, hepatitis A and B and HIV. The notification system is discussed further in Section 5.5.

Figure 1: Notified cases and rate of chlamydia per 100,000 population, Victoria, 1995 to 2005

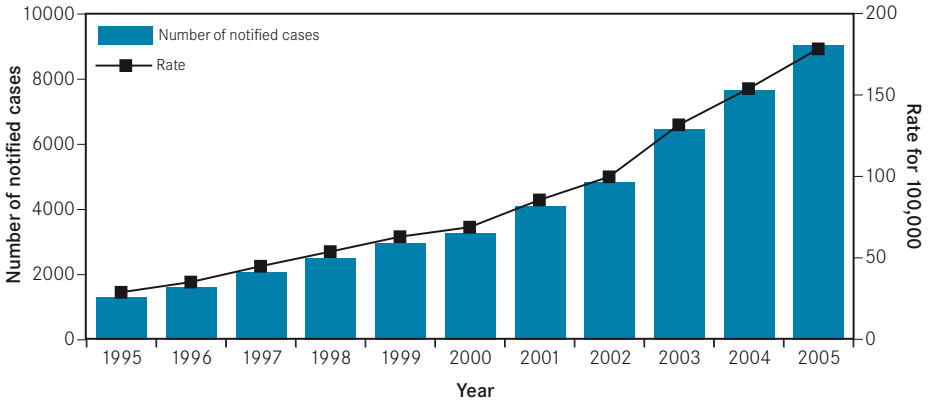
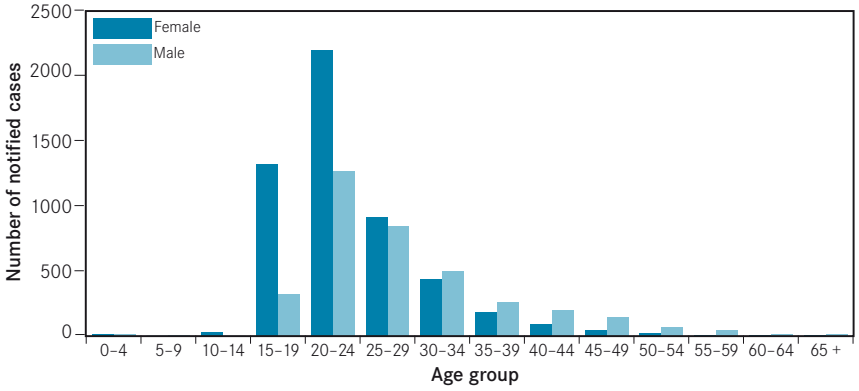


Figure 2: Notified cases of chlamydia by sex and age group, Victoria, 2005



4.1 Chlamydia

Chlamydia is the most commonly notified STI in Victoria. Notifications for chlamydia have risen dramatically over the last 10 years from a rate of 29 per 100,000 persons in 1995 to 178 per 100,000 persons in 2005 (Figure 1). There are many possible reasons for the increase in chlamydia notifications, including increased testing, the widespread adoption of more sensitive tests or a true rise in the prevalence of infection.

In 2005, 58 per cent of notified cases were among women. For women, 65 per cent of notified cases were among those aged 16 to 24 years compared with 43 per cent of men, a finding consistent with previous years' notifications. Men were older on average than women at diagnosis (Figure 2).

Due to the asymptomatic nature of chlamydia, especially in women, it is believed that notification data will continue to significantly underestimate population prevalence.[8] Studies seeking to determine chlamydial prevalence in certain populations in Victoria have been conducted in the last five years.[9] They have reported chlamydia prevalence estimates of 6.2 per cent among 16 to 24 year old women[10] and 5.8 per cent among young men and women aged 12 to 25 years[11] attending clinics targeting adolescents and young adults. In addition, an analysis of Melbourne Sexual Health Centre data reported a prevalence of 4.0 per cent among

8 Peipert JF, 2003. Genital Chlamydial Infections. *New England Journal of Medicine*. 349:2424–2430.

9 Hocking J, Willis J, Tabrizi S, et al, 2004. Chlamydia risk factor and prevalence survey of young women aged 18 to 35 years living in Victoria.

10 Williams H, Labrizi SN, Lee W, Kovacs GT, Garland S, 2003. Adolescence and other risk factors for Chlamydia trachomatis genitourinary infection in women in Victoria. *Sexually Transmitted Infections*. 79:31–34.

11 Jones S, Barker S, Athan E, Graves S, 2004. The tip of the iceberg: opportunistic screening for Chlamydia trachomatis in asymptomatic patients attending a young peoples clinic reveals a high prevalence: a pilot study. *Sexual Health*. 1:115–119.

women, with prevalence highest among those aged under 20 (5.7 per cent). The prevalence for men reporting male-to-male sexual contact was 9.1 per cent and highest among those aged 30 to 35 years (13.9 per cent). For men reporting heterosexual contact only, the prevalence was 6.8 per cent and highest among those aged less than 20 years (9.7 per cent).[12] A recent study of MSM attending sex on premises venues found 1.8 per cent of urine specimens and 5.9 per cent of rectal specimens tested positive for chlamydia.[13] Studies of sex workers in Victoria have reported chlamydia prevalence estimates of 6.9 per cent for street sex workers and 2.6 per cent for legal sex workers.[14]

Very high chlamydia prevalence estimates have been reported among Aboriginal and Torres Strait Islander people ranging from 7.2 per cent through to 21.2 per cent, however there is little published material about chlamydia prevalence among Aboriginal and Torres Strait Islander people living in Victoria.[15] Approximately 40 per cent of notifications in Victoria do not include the Indigenous status of the individual and therefore notification data does not accurately reflect the chlamydial prevalence in this community. The Well Person's Health Check identified high rates of chlamydia in young Indigenous Victorians.[16]

The data described above indicates that sexually active people under 25 years of age, MSM, street sex workers and Aboriginal and Torres Strait Islander people are at greatest risk of infection and should be targeted for chlamydia testing.

4.2 Gonorrhoea

Annual notifications of gonorrhoea in Victoria have increased steadily since the mid 1990s, from 347 cases in 1995 to 1,193 cases in 2005 (Figure 3). The population rate has increased from 14 cases per 100,000 men and one case per 100,000 women in 1995 to 41 cases per 100,000 men and six cases per 100,000 women in 2005. Like chlamydia, increases in notifications may be partly attributable to increases in testing and the use of diagnostic tests with greater sensitivity.

Figure 3: Notified cases of gonorrhoea, Victoria, 1995 to 2005

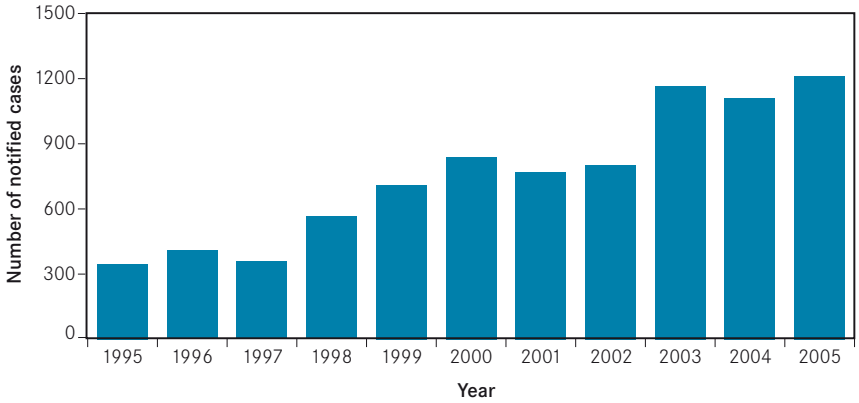
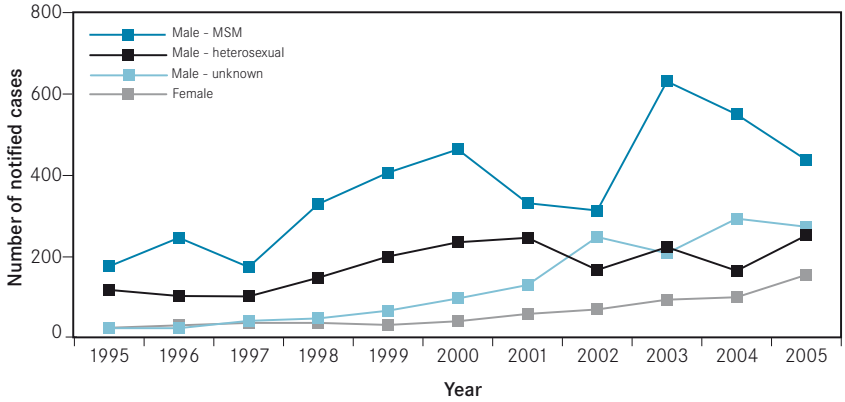


Figure 4: Notified cases of gonorrhoea by sexual orientation, Victoria, 1995 to 2005



12 Hocking J, Fairley CK, 2004. Chlamydia trachomatis infection among clients attending the Melbourne Sexual Health Centre, an analysis of clinic attendance data. IUSTI Asia Pacific Conference, Chiang Mai, Thailand.

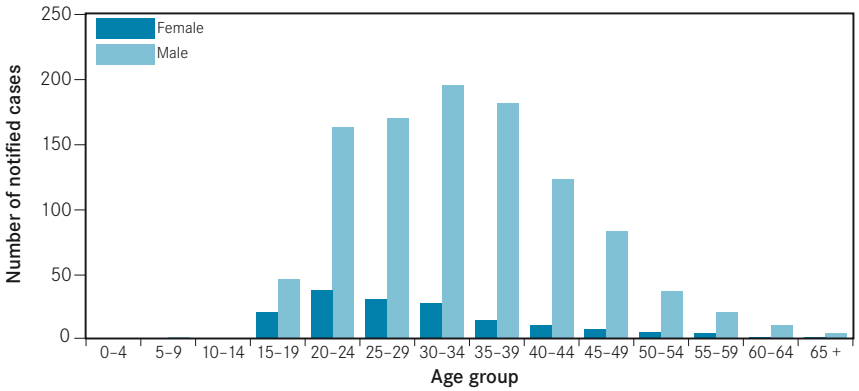
13 Lister N, Smith A, Tabrizi S, et al, 2003. Screening for Neisseria gonorrhoea and Chlamydia trachomatis in men who have sex with men at male-only saunas. *Sexually Transmitted Diseases*. 30:886–889.

14 Morton AN, Tabrizi SN, Garland SM, Lee PJ, 2002. Will the legalisation of street sex work improve health? *Sexually Transmitted Infections*. 78:309.

15 Skov SJ, Miller P, Hateley W, Bastian IB, Davis J, Tait PW, 1997. Urinary diagnosis of gonorrhea and chlamydia in men in remote Aboriginal communities. *Medical Journal of Australia*. 166:468–471.

16 Melbourne Sexual Health Centre and VACCHO 2004. *The Victorian Well Person's Health Check Report Sexual Health*.

Figure 5: Notified cases of gonorrhoea by sex and age group, Victoria, 2005



Notifications of gonorrhoea have predominantly been among MSM, with an ongoing and marked rise in notifications from this group in the past ten years (Figure 4). In 2005, among notifications where partner of gender was known, 57 per cent were reported in MSM.

High rates of gonorrhoea notifications occur predominantly in men aged 20 to 45 years (Figure 5).

4.3 Syphilis

In Victoria, infectious syphilis notifications have increased seven fold in the past decade from 17 in 1995 to 117 in 2005 (Figure 6). Previously only a minority of infectious syphilis notifications in Victoria related to MSM (two of nine cases in 2000), however, in 2005, 88 per cent of the male cases reported having a male sexual partner (89 per cent of these being acquired in Victoria).

The Victorian Infectious Diseases Reference Laboratory (VIDRL) conducts testing for STIs and HIV for three Melbourne sexual health clinics with a high caseload of MSM. In 2004, 62 male clinic patients tested positive for infectious syphilis and 40 per cent of these were HIV positive.[17]

The largest proportion of notifications for infectious syphilis related to males aged between 35 and 39 years.

This recent increase in syphilis notifications is consistent with experiences in other jurisdictions (Sydney,[18] Greater Manchester,[19] San Francisco[20]).

17 Guy R J, Leslie D E, Simpson K, Hatch B, Leydon J, Hellard M E, Kelly HA, 2005. A sustained increase in infectious syphilis notifications in Victoria, *Medical Journal of Australia*. 183 (4): 218.

18 Grulich A, Prestage G, Ven de Ven P, et al, 2004. Resurgent syphilis in gay men: where to from here? Paper presented at: 6th Annual Conference of the Australasian Society for HIV Medicine, Canberra.

19 Ashton M, Sopwith W, Clark P, et al, 2003. An outbreak no longer: factors contributing to the return of syphilis in Greater Manchester. *Sexually Transmitted Infections*. 79(4):291–293.

20 Klausner JD, Wolf W, Fischer-Ponce L, et al, 2000. Tracing a syphilis outbreak through cyberspace. *The Journal of the American Medical Association*. 284(4): 447–449.

Figure 6: Notified cases of infectious syphilis, Victoria, 1995 to 2005

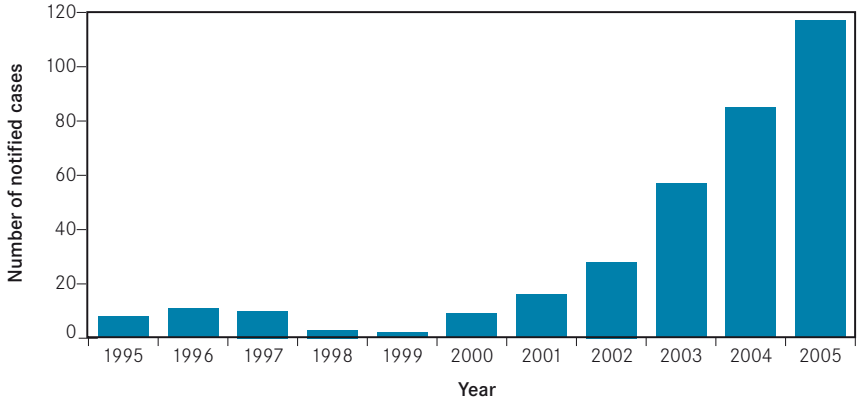


Figure 7: Notified cases of infectious syphilis by sexual orientation, Victoria, 2005

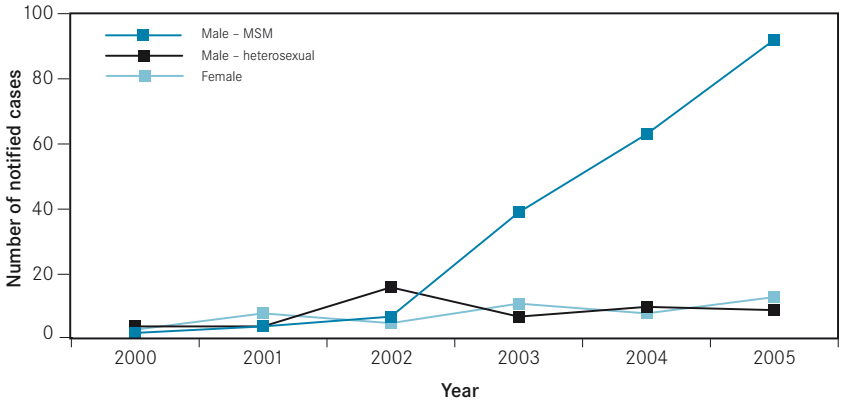
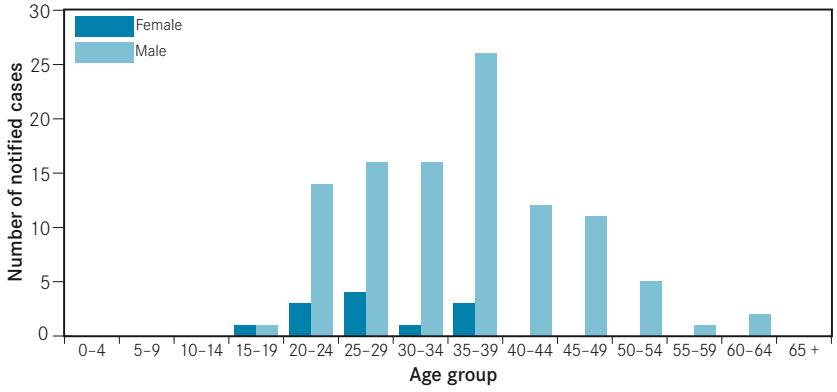


Figure 8: Notified cases of infectious syphilis by sex and age group, Victoria, 2005



5. Approaches to STI control

Three factors determine the prevalence of STIs in a community: the probability of transmission per partnership, the rate of partner change and the average duration of the infection in the community. Key approaches which impact on these factors in the control of STIs include health promotion and education, access to clinical care, screening and testing, partner notification, surveillance, vaccines and research. This section examines the role of each of these key approaches in the control of STIs.

5.1 Health promotion and education

The Ottawa Charter for Health Promotion established the key principles and practices of health promotion and education. These include the five action areas of building healthy public policy, creating supportive environments, strengthening community action, developing personal skills and reorienting health services.

In Victoria the principles informing STI health promotion and education are based on the Ottawa Charter principles and include:

- Each person, regardless of age, gender or location, should have information and education about STIs, access to treatment and the means to protect themselves and others from infection.
- The positive aspects of sexuality and being sexually healthy should be promoted.
- STI health promotion programs targeting specific communities are best delivered by the communities themselves.
- STI health promotion activities should be based on sound social, behavioural and epidemiological research.
- STI health promotion initiatives should take into account the characteristics of the target population, for example cultural and linguistic background, gender, age, sexual orientation, mental health, literacy standards, disability and geographical location.
- STI information and services should predominantly be provided to the general community through primary health care providers.

5.2 Access to clinical care

Accessible, high quality health care is a key element of any effective STI control program. This ensures the early treatment of any symptomatic STI and makes STI screening and preventative measures, such as counselling or vaccination, widely available.

The department provides funds to operate six sexual health clinical services in Victoria, one in the Melbourne metropolitan area and five in the non-metropolitan departmental regions. The *Review of Sexual Health Clinical Services in Victoria* found that it is unlikely that state-funded services alone can provide sexual health clinical services for all Victorians.[21] GPs are the major providers of sexual health clinical services in Victoria. Supporting GPs is therefore essential to improving STI service delivery.

Services funded to manage STIs need to ensure that they are suitably promoted and provide treatment to people most at risk of STIs. In doing so, service providers must recognise the significant barriers to service access and delivery. People can experience difficulty accessing appropriate services for a number of reasons including, age, sexual orientation, concerns about confidentiality, gender, cost, geographic location, transport, and cultural issues. The decline in bulk-billing rates in general practice may have significant impact upon access, particularly for those from the lower socio-economic group – a group at increased risk of STIs. Access to STI services is critical for those identified as most affected by STIs and specific approaches and promotion are needed for these groups.

5.2.1 Workforce development

The development of a highly skilled workforce is an important component in ensuring that the outcomes of this strategy can be successfully delivered.

GPs will require support to ensure that they have the appropriate skills and knowledge to fulfil the vital role they have in implementing this strategy. Not all GPs are be able to offer a full range of STI services, however, all GPs should provide best practice clinical management of the common STIs, or be able to refer patients to an appropriate service in a timely manner. Greater attention to STIs is needed in undergraduate medical training and post-graduate professional development. As well as increasing technical knowledge, training should increase awareness about who is at risk of STIs and encourage sexual history taking and sensitive service delivery. This form of support may

21 Poljski C, Atkin L, Williams H, 2005. *Review of Sexual Health Clinical Services in Victoria*.

require closer collaboration between the department and the two Victorian medical schools, the Royal Australian College of General Practitioners (RACGP) and the Divisions of General Practice.

In addition, there is widespread GP uncertainty about the Health Insurance Commission (HIC) screening and testing criteria. These criteria need to be clarified and included in promotion of best practice.

Some GPs may wish to provide 'specialist' STI services in the primary care setting and may require additional support, such as assistance for STI screening, human resources for STI prevention counselling, technical assistance with data collection and analysis, access to secondary consultant opinion, education and training or the provision of trained practice nurses.

The role of nurses in the provision of sexual health services could be expanded. Models of care, including the nurse practitioner model, should be further investigated.

Nurses working in other settings such as general practice, community health and schools also have an important role in sexual health, and nursing outreach services may enhance access to marginalised groups. Training may be required to support these expanded roles. School nurses are employed in both the government and non-government sector and can play an important role in the promotion of sexual health. Nurses working in school environments have regular contact with students and are therefore well positioned to contribute to the delivery of school-based STI prevention programs, as well as assisting young people to link with appropriate services where necessary.

There may also be opportunities to improve service delivery through improving coordination and collaboration between service providers.

5.3 Screening and testing

This Victorian strategy supports the discussion of screening in the *National Sexually Transmissible Infections Strategy*. That document states:

> The various definitions of screening have generated some confusion in relation to compliance under the Medicare Benefits Scheme (MBS) … MBS benefits are generally not payable for population health screening services; however testing of symptomless patients is subsidised if it is necessary for the management of the health of the individual. In a clinical context, this means that if after taking a sexual history, an individual is deemed to be at risk of STIs, testing for these conditions is justified.[22]

This *Victorian Sexually Transmissible Infection Strategy* identifies a number of key approaches in relation to screening in various priority populations. All screening of asymptomatic individuals within these priority populations should be carried out on the basis of an assessment of risk factors as raised during sexual history taking. Some nurses are able to obtain a Medicare item number for cervical screening and it may be appropriate for such a system to operate in relation to chlamydia screening.

Some of the Medicare rules relating to the reimbursement of costs for laboratory testing, for example 'coning,'[23] have been raised by some clinical providers, particularly those working in high MSM caseload clinics, as barriers to the implementation of best practice clinical care. This strategy supports the investigation of these rules, including an evaluation of their consequences in terms of clinical and economic impacts.

This strategy endorses the routine antenatal screening guidelines, which are currently recommended and endorsed by the Royal Australian and New Zealand College of Obstetrics and Gynaecology (RANZCOG). They include testing for syphilis, hepatitis B, HIV and, in the case of adolescent pregnancies, chlamydia.

Relatively recent changes in general practice have provided new opportunities to implement best practice guidelines for screening as set out in the *Red Book (Guidelines for Preventative Activities for General Practitioners)*. Specifically, the increasing use of computerised patient management systems has greatly improved the ability of GPs to better identify and manage patients that may need screening.

22 Department of Health and Ageing 2005. *National Sexually Transmissible Infections Strategy 2005–2008*. Commonwealth of Australia, p 16.

23 Coning is a process whereby the Health Insurance Commission progressively reduces the reimbursements to laboratories for particular patterns of pathology testing. It serves as a mechanism to reduce pathology expenditure. For example, reimbursement is limited to a maximum of one chlamydia test during a single GP visit.

5.4 Partner notification

Partner notification or 'contact tracing' is the process of informing, counselling and offering services to the sexual partner of an individual diagnosed with an STI. The primary objective of partner notification is to interrupt the transmission of an STI by alerting the sexual partner of risk. There are clinical, ethical and medico-legal reasons for undertaking partner notification. Contact tracing can reduce further transmission of STIs, thus reducing the number of infected individuals. It may also result in prompt treatment, which reduces the risk of complications. Partner notification is particularly effective with non-symptomatic diseases such as chlamydia.

Partner notification can be undertaken by the patient, a health care professional or the specialist departmental Partner Notification Officers, at the request of the clinician. Diagnosing clinicians are responsible for discussing the issue of partner notification with their patients and the majority of patients go on to advise their partners to seek suitable care. *The Australasian Contact Tracing Manual* produced by the Australian Society of HIV Medicine (ASHM) provides detailed information about contact tracing.[24]

In Victoria all patients with newly diagnosed HIV infection and infectious syphilis are offered departmental partner notification.

5.5 Surveillance

Surveillance of infectious diseases is a vital part of maintaining and improving public health in Victoria. As noted in Section 4, the *Health (Infectious Diseases) Regulations 2001* require both medical practitioners and pathology services to notify the department when they diagnose certain communicable diseases. Most notifiable STIs, namely chlamydia, gonorrhoea, syphilis and donovanosis, are for the purpose of notification, listed as *group C* diseases. As such, they are required to be notified within five days of detection and only in a format that contains the minium amount of patient identifiers that still permits suitable epidemiological analysis.[25]

Additional information may be requested from the treating medical practitioner through an enhanced surveillance form in order to ascertain patient demographics, risk factors, partner characteristics, indications for testing and treatment provided. This additional data is critical for identifying disease patterns and trends and plays an important role in policy development.

HIV/AIDS is a *group D* notifiable disease and a specific and detailed notification form is sent to all medical practitioners who have detected the condition. As with *group C* diseases, only minimal patient identifying details are collected.

Hepatitis A and B are *group B* diseases that are notified with full name and address details of the patient. Herpes simplex virus and human papilloma virus are not notifiable diseases.

The department regularly publishes surveillance data on its website and this is organised in state-wide, regional or GP divisional boundaries.[26]

The department has engaged the Burnet Institute to conduct an innovative Victorian sentinel surveillance system for chlamydia, hepatitis C, syphilis and HIV over a three-year period from 2006 to 2009. This will provide additional data as to the true prevalence of these infections and facilitate future strategic planning to improve control of these diseases.

5.6 Vaccines

Vaccination is one of the most efficient means of control for any infectious disease. Vaccination is currently available for hepatitis A and B. A vaccine against oncogenic strains of HPV was released in September 2006 and the second one is expected to be commercially available soon. Widespread vaccination against HPV is expected to have important public health benefits, including a significant reduction in cervical cancer.

Vaccine trials for herpes simplex virus 2 are also being conducted.

24 See http://www.ashm.org.au/index.php?PageCode=1310&SD=10&DExpand=1

25 To preclude identification and to protect privacy, the client identifiers are limited to include only the patient name in a coded form, gender, date of birth, Indigenous status and residential postcode.

26 See http://www.health.vic.gov.au/ideas/

5.7 Research

Research is necessary to inform public health policies and activities and to identify best practice. In particular, research should identify the epidemiological, social and behavioural aspects of STIs in Victoria. Effective research requires strong partnerships between researchers, policy makers and programmers, practitioners and affected communities.

The National Health and Medical Research Council (NHMRC) and the Australian Research Council provide the majority of research funding within Australia, however the department funds a range of research activities as project grants through its Public Health Research Program. Research into STIs funded by the department can be found at http://www.health.vic.gov.au/researchprograms/bbvsti_projects.htm

6. Priority populations for STI reduction

As noted above, there are a number of population groups that carry a higher burden of STI disease or risk. Young people, MSM, Aboriginal and Torres Strait Islander people and sex workers have either a high prevalence of STIs or an increased risk of acquiring an STI compared to the general population. The control of STIs in some populations of HIV positive people is an important HIV prevention measure. These priority groups are the focus of this strategy. It is important to note that there may be some overlap between the priority populations groups, for example, a young person may also be a sex worker and MSM.

By concentrating on these priority groups, this strategy aims to reduce the overall incidence of STIs in Victoria. Often the factors that create the vulnerability of these populations to STIs can also act as barriers to equitable access to information, prevention and treatment services. These factors include the stigma and discrimination associated with STIs, marginalisation, poverty and social exclusion, age, literacy, language and culture (including Aboriginality).

Approaches to reduce STIs and sustain low prevalence amongst these populations need to be sensitive to the varying attitudes, beliefs, sexual practices, and sexuality of individuals and communities. In developing approaches to reduce STI prevalence, the principles discussed in Section 5 must be applied, particularly health promotion and education and access to clinical care.

6.1 Young people

Young people have higher rates of some STIs, particularly chlamydia, than other groups in the community. STI epidemiology shows that a substantial percentage of chlamydia infections occur in people under 25 years of age. Research conducted by the Australian Research Centre in Sex, Health and Society found that a significant proportion of young Australians in years 10 to 12 at school are sexually active in some way and have generally poor levels of knowledge about STIs.[27]

Efforts must be made to ensure that all people under the age of 25 have knowledge about STIs and blood-borne viruses (BBVs) and are able to access appropriate education, prevention and treatment. This must include education about the potential for some STIs and BBVs to be transmitted through injecting drug use. Condom use in young people is inconsistent and there is a need for further health promotion activities to promote effective condom use.

Young people are a very diverse population and therefore a variety of different approaches are required across a range of settings, including within and external to educational settings. These approaches need to include sub-populations such as same sex attracted youth, incarcerated youth, Aboriginal or Torres Strait Islander youth, and young people who use drugs.

STI health education and services for young people should be delivered within a framework that builds on existing policies for sexuality education, reproductive health and human relationships. An effective response requires a whole-of-government approach with partnerships between health and other sectors, and with parents and communities. Increasing access to health services may involve increasing coordination between GPs, adolescent health services, school education programs, antenatal care and sexual health services.

The barriers which young people experience in accessing appropriate STI services and treatment need to be addressed. These include confidentiality and autonomous access to services. Services must be provided for young people who are at risk of STIs due to behaviours such as unprotected intercourse or drug use. Issues related to sexual identity and barriers to accessing services are identified in the document *Health and sexual diversity: A health and wellbeing action plan for gay, lesbian, bisexual and intersex (GLBTI) Victorians*, which was developed by the Ministerial Advisory Committee on Gay and Lesbian Health (MACGLH) in conjunction with the Department of Human Services.

Focusing upon young people is an effective way to generate greater and sustained levels of STI knowledge and preventive behaviour. This is expected to reduce STI transmission in the general population over the longer term.

The epidemiological data shows that young people are at increased risk of acquiring chlamydia. Chlamydia is often asymptomatic and is easily transmitted between sexual partners.

27 Smith A, Agius P, Dyson S, Mitchell A, Pitts M 2002. Secondary Students and Sexual Health. Summary of findings from the 3rd National Survey of Australian Secondary Students, HIV/AIDS and Sexual Health.

Chlamydia is eminently amenable to screening, which should reduce disease prevalence and complications. Both males and females should be screened for chlamydia to maximise the impact.

6.1.1 School-based education

Young people spend a large component of their lives in a school setting where the expectation that education will be the primary activity provides an excellent opportunity for STI prevention education to be delivered. In Victoria sexuality education in government schools is overseen by the Department of Education and Training and delivered as part of a broader health education curriculum set out in the Victorian Essential Learning Standards (VELS) for Health and Physical Education. These standards address the curriculum and assessment for the area from Prep to year 10 and provide coordinated, age-appropriate guidance on program development within individual schools. The *Victorian Government Schools Reference Guide* also provides a broad policy overview of effective sexuality education in schools. Schools develop their own programs within these guidelines and ideally link the curriculum to other aspects of a whole-school approach, linking them also to specific local and/or cultural needs. Sexuality education in non-government schools also follows the VELS framework. Sexuality education is not mandated and parents may withdraw their children from this area of instruction if they wish.

A whole-of-school approach to sexuality education is broader than curriculum development (which may also extend to other curriculum areas such as English and studies of society and the environment), and incorporates policy and practice in other areas, such as student wellbeing, including approaches to bullying and harassment. It involves a partnership approach with parents, local health service providers and local groups, and requires a commitment to professional learning for all members of the school community.

The scope and quality of sexuality education varies considerably in schools throughout Victoria in both the government and non-government sector. Schools need support and encouragement to further develop their programs and access examples of best practice which should be documented and placed on the Department of Education and Training website. The resources *Talking Sexual Health*, developed by the Australian Government in 2000 and *Catching On*, a Victorian resource released in 2004, are widely used at years 9 and 10 throughout Victoria. These resources focus on STI/HIV prevention within the broad context of the social world of young people. They are, however, not designed to cover reproductive health and fertility protection or address the particular needs of students with culturally and linguistically diverse backgrounds. These issues need to be addressed by additional resource development in the future.

Other areas requiring further attention include laying a strong foundation for sexuality education (including STI prevention education) at the primary school level and the provision of a practical model for the delivery of whole-of-school, comprehensive sexuality education.

Staff who teach sexuality education often have minimal formal training, can be ill prepared and can find professional learning hard to access. The expertise and personal comfort of teachers of sexuality education need to be addressed in pre-service education as well as in ongoing professional learning programs.

The effective implementation of sexuality education in all schools in Victoria requires a coordinated approach and continued commitment. The Department of Human Services and the Department of Education and Training should work together to provide the necessary resources, planning and policy support. In this context the secondary school nursing program and school-focused health services have a direct role to play at a local level. Assistance to schools should be coordinated through regional offices and be mindful of specific needs of local communities. The Catholic Education Commission and the Association of Independent Schools of Victoria are also stakeholders in a coordinated approach.

6.1.2 Young people who do not attend school

Young people outside and beyond secondary schools also need to receive STI education, prevention and treatment services. Again, a diverse range of approaches is required to address the different needs of young people.

Young people's capacity to learn about STIs and access services can be affected by factors such as culture, language and sexuality. Vulnerability to STIs can be affected by drug and alcohol use, violence, poverty, homelessness and incarceration. Agencies that

interact with young people need to be encouraged to provide sexual health education wherever appropriate.

A coordinated and resourced multi-sectoral approach is needed to develop effective strategies for young people external to the school system. A multi-sectoral working party on young people's sexual health should be established. Its membership should include relevant government departments, non-government agencies, youth representatives and researchers. Representation of the school education sector will ensure sector-wide consistency. The working party's mandate should be to develop appropriate methods for providing education about, and reducing the incidence of STIs amongst people aged under 25 external to secondary schools. This should occur within a comprehensive sexual health framework.

Key approaches for young people

- Screen sexually active people under 25 years of age for chlamydia.
- Develop and implement ways to increase effective condom use by young people.
- Establish and monitor a whole-of-school approach to sexuality education in schools and provide relevant supporting policies, including professional development for teachers.
- Establish a working party with representatives of relevant government and non-government bodies, young people and researchers to develop and coordinate approaches for providing sexuality education and services to people under 25 who no longer participate in formal education.
- Encourage agencies that work with young people to provide sexual health education where appropriate.

6.2 Men who have sex with men

In recent years there has been a dramatic change in the epidemiology of STIs, including HIV, amongst MSM in Victoria. Until 1997 Victorian MSM had amongst the lowest rates of STIs and new HIV notifications in the world. Since then, there have been increases in notifications of gonorrhoea, chlamydia and HIV and a dramatic reappearance of infectious syphilis in MSM.

This pattern has occurred in most MSM communities throughout the developed world. The cause is not known, but is likely to be a complex interaction of factors including change in sexual behaviour, demographic changes in the gay community, HIV treatments and recreational drug use.

The epidemiological similarities between STIs and HIV make the control of STIs in this population critically important as a HIV prevention measure. STIs increase HIV transmissibility and the probability of HIV acquisition. Gonorrhoea and chlamydia alone do not have a high morbidity in men and their main danger is in facilitating HIV transmission. However, untreated syphilis has serious health consequences as well as facilitating HIV transmission.

Safe sex messages to MSM are usually aimed at both educating about the risk of HIV transmission during anal sex and recommending the use of condoms. However, oral sex without condoms allows for the transmission of other STIs. Appropriate screening for these STIs is essential to remove carriage, to reduce further transmission and to reduce the overall risk of HIV transmission or acquisition.

Health promotion campaigns should address these two distinct aspects, namely condom usage during anal sex to prevent HIV transmission and appropriate testing and treatment of STIs to reduce their prevalence and to diminish the overall risk of HIV transmission or acquisition.

Gonorrhoea, chlamydia and syphilis are easily diagnosed and cured, and herpes can be suppressed. Therefore, a reduction in STIs in MSM could be expected with the implementation of appropriate testing, vaccination and treatment. The *Australian Immunisation Handbook 8th Edition 2003* recommends that MSM be vaccinated for both hepatitis A and B.[28]

Sexual health education and promotion campaigns also need to reflect the diversity of MSM, including community-attached gay men, gay men who are not closely attached to the gay community, other men who are homosexually active but do not identify as gay, and MSM who inject drugs. Health promotion to MSM needs to be evidence based, adequately evaluated, encourage testing and treatment for STIs and linked to HIV prevention.

Marginalisation affects access to health service provision, including STI testing, and is a factor that needs to be considered in campaigns and service delivery. Outreach testing and testing outside clinical settings are ways of increasing testing in this community.

The majority of MSM regularly test for HIV infection. A large percentage attend a small number of high caseload general practices located in central Melbourne. These clinics are currently the key STI testing and treatment centres for MSM.

Supporting and encouraging high quality and high volume testing through these clinics is an important part of STI control and HIV testing in the MSM community. These clinics may require assistance to develop and maintain comprehensive services. Support for these services might include logistical, intellectual or educational assistance. Medical practitioners will require substantial human resources and skill development and the use of sexual health nurse counsellors should be considered.

Financial and infrastructure pressures on these clinics are compounded by rising costs. Some clinics have discontinued bulk billing in order to maintain quality STI services, including sexual health and risk reduction counselling. This can create a financial impediment to testing, which may affect rates of testing.

In addition, Medicare schedule restrictions prohibiting the use of multiple pathology items for screening are an impediment to the implementation of full STI testing guidelines and run contrary to good practice.

Studies show that MSM who have not previously been tested for HIV are disproportionately represented in new HIV notifications. This suggests that regular testing for HIV and STIs and the risk reduction counselling that accompanies it are an important contribution to reducing the risk of HIV infection. A key action that has been identified as part of the *National Sexually Transmissible Infections Strategy* is 'to analyse and consider possibilities for addressing structural and remuneration barriers which may currently hinder increased STI testing of gay and other homosexually active men'.[29] This strategy supports the further examination of these barriers.

Nationally agreed standards for testing and screening MSM for STIs in Victoria should be implemented.[30] These standards should be based on best practice and include at least annual screening for chlamydia, gonorrhoea, syphilis and HIV.

Epidemiological and social research should inform and monitor STI education, prevention and treatment strategies amongst MSM.

Key approaches for MSM

- Test MSM annually for chlamydia, gonorrhoea, syphilis and HIV. Those at increased risk may need more frequent testing.
- Support the role of high MSM caseload clinics in HIV prevention and STI reduction.
- Implement evidence based clinical guidelines for MSM STI testing, vaccination and treatment.

28 See www.immunise.health.gov.au.

29 Department of Health and Ageing 2005. *National Sexually Transmissible Infections Strategy 2005–2008*. Commonwealth of Australia, p 24.

30 Sexually Transmitted Infection Testing Guidelines for Men who have Sex with Men see http://www.ashm.org.au/uploadFile/MSM_STI_Guidelines_PrintQualFinal%202005.pdf and Clinical Guidelines for the Management of Sexually Transmissible Infections Among Priority Populations see http://www.racp.edu.au/public/sh_contact.htm#msm.

6.3 Aboriginal and Torres Strait Islander people

The Aboriginal and Torres Strait Islander community carries a significantly higher burden of ill health, including poorer sexual health, compared to non-Indigenous communities. The Well Persons Health Check (WPHC) identified high rates of STIs and BBVs in young Indigenous Victorians.[31]

It is likely that the sexual health disparity with non-Indigenous people is even greater than indicated by Victorian notification data. Notification data is likely to significantly underestimate disease prevalence due to the poor data collected on Aboriginal and Torres Strait Islander status by health care providers. Therefore, a concerted effort is required to improve reporting in this data field to provide accurate data on the level of STIs in the Aboriginal and Torres Strait Islander community.

The WPHC and the *Review of Sexual Health Clinical Services in Victoria* confirm that Indigenous Victorians experience barriers to accessing STI/BBV services. These barriers include cost (for example, lack of bulk billing GPs), stigma and embarrassment, transport difficulties, discomfort in accessing non-Indigenous health services and lack of culturally appropriate information about STIs.

There are also barriers to Aboriginal and Torres Strait Islander youth accessing condoms. The joint Marie Stopes International Australia and Victorian Aboriginal Community Controlled Organisation's condom marketing project found that Indigenous young people's sexual health knowledge mostly came from secondary schools and peers and was inadequate. Existing secondary school STI resources are generic, lack cultural relevance for Aboriginal and Torres Strait Islander youth and need to be provided prior to year 9.

There are higher rates of incarceration of Aboriginal and Torres Strait Islander people than non-Indigenous people in both the adult and juvenile justice systems. As this population group does not always have ready access to mainstream health services, consideration should be given to improving STI/BBV prevention and treatment services in correctional settings.

Cultural awareness training programs and developing partnerships with Victorian Indigenous communities can improve the quality of services that are not seen as Koori friendly or culturally relevant. Sustained improvements could be expected from providing cultural training to health care providers at undergraduate and professional development levels. Due to the sensitivities around STIs and sexual health, including concerns about confidentiality, Aboriginal and Torres Strait Islander people need choice in service delivery.

This strategy supports the view of the *National Aboriginal and Torres Strait Islander Sexual Health and Blood Borne Virus Strategy 2006–2009* that STI/BBV prevention in Indigenous communities requires broader change than just modifying individual behaviour. In particular, there must be significant improvement to access to primary health care if sexual health, together with other health concerns, are to improve.

To reduce rates of STIs within the Aboriginal and Torres Strait Islander community, STI testing should be promoted to Victorian Indigenous people as appropriate when attending for general health checks. In May 2004 a new Medicare Benefits Schedule funding biennial health checks for Aboriginal and Torres Strait Islander people aged between 15 and 54 years was introduced. The aim of the health check is to ensure early diagnosis and intervention for treatable conditions. The health check can be provided by either Aboriginal community controlled health organisations or GPs. The biennial health check, if widely taken up, should assist with the control of STIs in Indigenous communities.

31 Melbourne Sexual Health Centre and VACCHO 2004. *The Victorian Well Person's Health Check Report Sexual Health*.

Key approaches for Aboriginal and Torres Strait Islander people

- Support broad primary care initiatives that reduce barriers to Aboriginal and Torres Strait Islander people accessing health services.
- Offer sexual history taking and STI screening for chlamydia (and other STIs if required) to Aboriginal and Torres Strait Islander people who are at increased risk, when attending for medical care.
- Ensure that mainstream health care workers and their support staff have knowledge and skills to provide culturally appropriate services to Aboriginal and Torres Strait Islander people, including the ability to ascertain basic demographic details such as Indigenous status.
- Provide culturally appropriate school sexual health education at the appropriate age.
- Implement initiatives to improve the availability and usage of condoms within Indigenous communities.
- Establish a STI/BBV education program for Indigenous adults and incarcerated youth.

6.4 Sex workers

Sex workers are a priority population in this strategy due to their occupational risk of acquiring and transmitting STIs and their potential to also be effective health educators with their clients.

In Victoria sex work occurs in both a regulated and unregulated environment. Anecdotal evidence indicates that the number of unregulated sex workers significantly outweighs the number of regulated workers. Regulated sex workers are required by legislation to have regular STI checks.

Victorian epidemiology has not identified regulated sex workers as having high rates of STIs. However one study found that the prevalence of STIs was significantly higher in unregulated street sex workers than in regulated workers.[32] The possible reasons for these higher STI rates could include risk-taking behaviour linked to substance abuse, mental health issues, violent assaults and homelessness.

The regulated industry consists of brothels and escort agencies licensed by the Business Licensing Authority. Consumer Affairs Victoria and the Victorian Police are responsible for appropriate monitoring and enforcement activities. The unregulated industry, which is illegal in Victoria, includes unlicensed brothels, opportunistic workers and street based sex workers. The street based workers may be female, male or transgender and work in a variety of settings, including in rural areas. They may include students or opportunistic sex workers.

The unregulated industry includes increasing numbers of workers who have come from other countries as part of a hidden sex industry. These workers have limited access to health workers and services. This group is a highly mobile population, moving around the nation and between the regulated and unregulated sector. Little is known about the STI knowledge and health status of these workers. Ways of providing them with appropriate STI education and health services need to be found. It is not sufficient to rely upon written resources: the involvement of service providers fluent with the language and familiar with the cultures of China, Thailand, Korea, Japan and Russia is required. There is a need to scope the size of this hidden sector and to develop effective approaches for providing STI information and services to these workers.

Suitable and accessible health education, promotion and treatment services should be provided to the whole sex industry, including the unregulated sector. These can be largely delivered by expanding, integrating and networking services currently accessed by sex workers. Resourcing Health and Education in the Sex Industry (RhED) is a state-wide support service for sex worker education. MSHC, community health centres, drug and alcohol services and certain GPs also provide services to sex workers and RhED has established partnerships with a number of these. RhED would need additional funding to extend its activities to the unregulated sector.

32 Morton AN, Tabrizi SN, Garland SM, Fairley CK, 2002. Will the legislation of street work improve health? *Sexually Transmitted Infections.* 78(4):39.

Other health agencies should be encouraged to incorporate STI education and treatment for sex workers into their services where appropriate. Access for regional workers must be ensured and could be achieved through outreach visits and the establishment of a free-call telephone service.

Under the V*ictorian Government Drugs Initiative–Saving Lives Drug Strategy*, five primary health care services operate in areas of high drug use. Due to their capacity to service unregulated sex workers they should be resourced to integrate STI education, support and referral into their programs.

There is insufficient research about sex work and STIs. Research should be commissioned to investigate the sexual health knowledge and practices of sex workers and to establish baseline data to inform education and health promotion.

Sex workers in the regulated industry are required to have regular STI checks. Therefore medical practitioners, particularly GPs, should be able to provide a service appropriate to sex workers. Suitable strategies to educate GPs can be developed through a partnership between RhED and the Divisions of General Practice.

STI medical check ups for sex workers are not funded by Medicare and this can have a major impact on compliance. This issue should be raised with the Australian Government.

It is not known what impact the regulatory framework for the sex industry within Victoria has on the transmission of STIs. Consideration should be given to investigating this matter, particularly given the risks inherent in street sex work.

Key approaches for sex workers

- Develop and support programs to deliver STI education and treatment to sex workers from culturally and linguistically diverse backgrounds.
- Undertake research to map the size and nature of the sex industry, investigate the sexual health knowledge of the sector, identify needs, attitudes and practices in order to begin to ascertain the true public health impact of this sector, with a particular emphasis on the unregulated sector.
- Investigate the public health consequences of existing regulatory frameworks for sex work.

6.5 People living with HIV/AIDS

For people living with HIV/AIDS the consequences of infection with STIs are more pronounced than for non-HIV positive people. Therefore, distinct STI education strategies are required for HIV positive people, particularly MSM. A wide body of evidence indicates that MSM with HIV have developed sexual understandings and practices that, whilst reducing the risk of transmission of HIV, still leave them vulnerable to STI transmission. Health promotion programs for MSM with HIV should educate this group on their vulnerability to STIs. In addition, MSM who have HIV should be screened for STIs as part of their standard care.

Key approaches for people living with HIV/AIDS

- Develop STI education campaigns for people living with HIV/AIDS, particularly MSM, to inform them of the consequences of co-infection with STIs and to promote sexual health monitoring and treatment.

6.6 People at increased risk who are not in a priority population

There are people within the wider community who do not fall within one of the priority populations discussed above but, nevertheless, are at increased risk of STIs. Testing and treatment should be offered to any person identified as being at increased risk as determined by sexual health history taking. For example, all women of reproductive years should be considered for opportunistic-targeted chlamydial screening at antenatal or gynaecological clinics.

Furthermore, people in correctional settings are important to consider in terms of STIs and BBVs and should be afforded health services which meet professional, community and public health standards. The provision of STI/BBV prevention, testing and treatment to people in correctional settings represents a significant opportunity to reduce the prevalence of infection within this population, thereby reducing transmission from this setting into the broader community.

The lack of standard health promotion (safe sex education) and harm reduction (condom provision) strategies available to prisoners, creates an environment that is conducive to an increased transmission of STIs including HIV and hepatitis B. As with the general community, there is a need to implement appropriate and efficient STI and BBV screening and surveillance activities to facilitate the early identification and prompt treatment of infected prisoners. There is also a need to ensure continuity of health care in a coordinated manner, as prisoners frequently move between different areas within the custodial system. In addition, the diversity of the prison population needs to be recognised in STI education and services for example, young prisoners, Indigenous prisoners and prisoners from culturally and linguistically diverse backgrounds.

Eighty per cent of prisoners spend less than 12 months in prison and there is a high rate of recidivism. Providing appropriate STI and BBV care through a public health framework can significantly diminish the pool of infection within prisons and limit the movement of undiagnosed infections acquired within the prison setting, out into the broader community.

During the course of this strategy, Corrections Victoria and the Department of Human Services will work in partnership to develop a communicable diseases policy to improve practices around prevention and management of STIs in Victorian correctional settings.

Further, the Department of Human Services has implemented the P*risoner Health Initiative January 2006–December 2007* in collaboration with Corrections Victoria. This initiative includes the provision of free hepatitis B vaccine for prisoners during the lifetime of the project. In addition, three public health nurses have been employed to assist with improving STI testing for prisoners on entry into the prison system, to facilitate the early identification and treatment of STIs.

Key approaches for people at increased risk who are not in a priority population

- Offer STI screening for people aged 25 years and over at increased risk.
- Investigate mechanisms to collect reliable data on prisoner health.
- Implement the Prisoner Health Initiative.

7. Coordination and management

This strategy sets out a comprehensive, multi-sectorial approach to responding to STIs in the Victorian community. The effective implementation of this strategy requires the collaboration and cooperation of a number of partners.

The key partners and their roles and responsibilities in implementing this strategy are:

- Department of Human Services: has primary responsibility for overseeing the implementation of the strategy and is also responsible for ongoing reporting to the Minister for Health.
- Ministerial Advisory Committee on Blood-Borne and Sexually Transmissible Infections (MACBSTI): provides advise to the Victorian Minister for Health on any aspect of BBVs and STIs. The STI Subcommittee of MACBSTI is responsible for providing advice on the implementation of this strategy, overseeing the Working Party on Young People's Sexual Health, and providing advice about research priorities.
- Department of Education and Training: has a key role in the provision of appropriate sexual health and sexuality education in Victorian schools.
- Corrections Victoria: has a key role in relation to prevention and management of STIs in Victorian correctional settings.
- Local governments: are in the best position to identify local needs and to develop local responses. Through their urban planning roles, local governments also have an important function in the location and operation of NSPs and sex work premises.
- Research, medical, scientific and health care professionals: play a key role in the development and implementation of treatment and care programs, health promotion, training, research and policy development.
- The community sector: the participation of communities and people affected and at risk of STIs is central to policy and program development, implementation, monitoring and evaluation.

The implementation plan that will accompany this strategy will set out the specific activities to be undertaken by these key players and identify important partnerships and linkages.

8. Monitoring and evaluation

The implementation of this strategy needs to be monitored and evaluated to ensure the strategy's effectiveness and efficacy. This will ensure that:

- the initiatives are appropriate for the context in which they take place.
- there are no detrimental consequences as a result of the initiatives.
- the capacity to deal with emerging issues is enhanced.

A range of mechanisms for monitoring and evaluation are needed to ensure that policy and practice are based on the best available evidence and reflect the goals, objectives and principles of the strategy.

Mechanisms for monitoring and evaluation include:

- An annual report from the Department of Human Services (in conjunction with MACBSTI) to the Minister for Health that will identify epidemiological trends, program expenditure and details of program implementation and program outcomes.
- Annual reporting of community organisations funded by the Department of Human Services, in accordance with performance indicators set out in funding agreements.
- Reports commissioned to evaluate individual projects and initiatives as determined by the Department of Human Services.

The implementation plan that will be implemented in conjunction with this strategy will provide details of specific deliverables, performance indicators and reporting requirements.

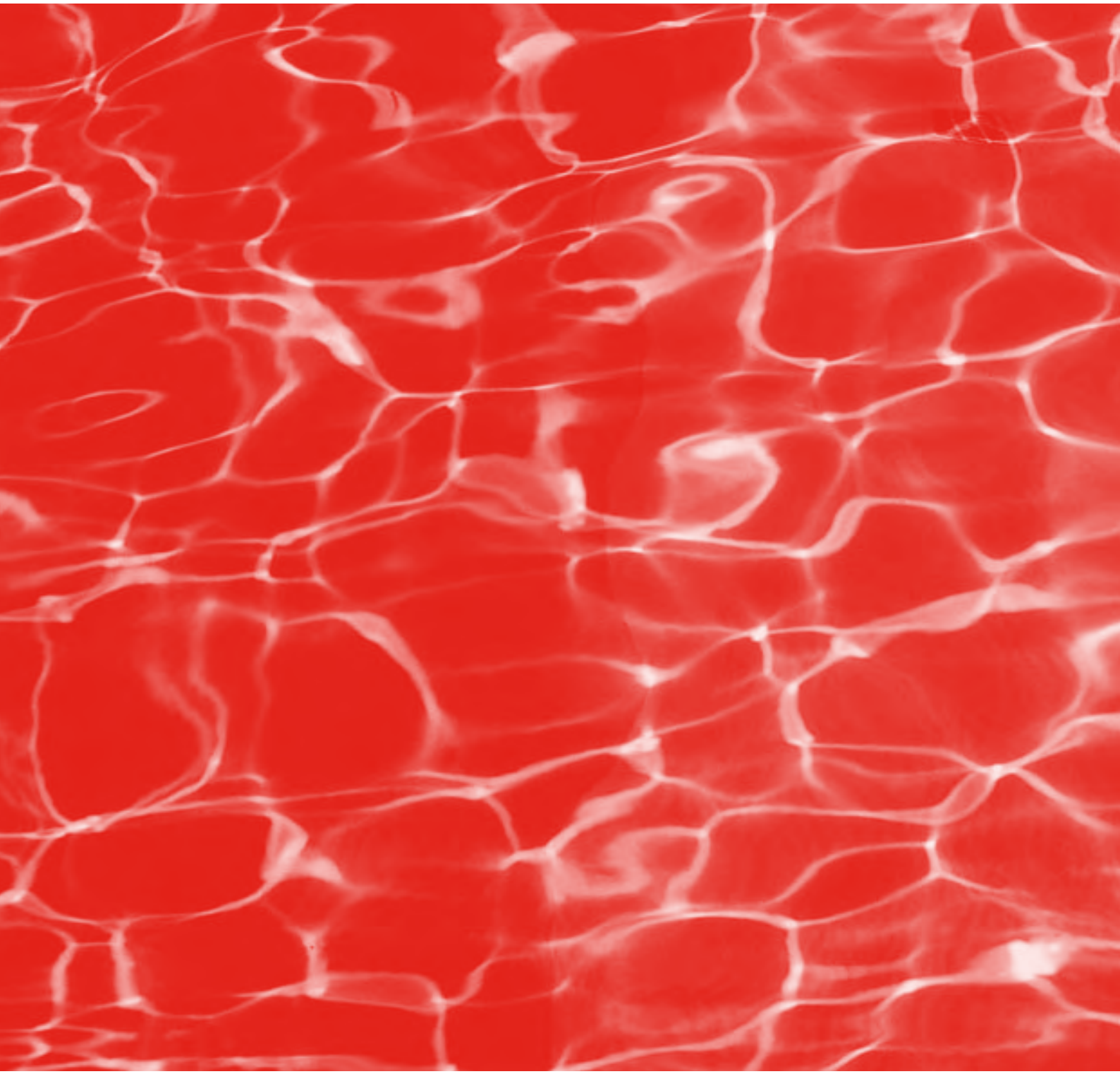
Acronyms

AIDS	Acquired Immune Deficiency Syndrome
BBV	Blood-borne virus
CALD	Culturally and linguistically diverse
CNS	Central nervous system
GP	General practitioner
HAV	Hepatitis A virus
HBV	Hepatitis B virus
HIC	Health Insurance Commission
HIV	Human Immunodeficiency Virus
HPV	Human papilloma virus
HSV	Herpes simplex virus
IDU	Injecting drug user
IUCD	Intra-uterine contraceptive device
MBS	Medicare Benefits Scheme
MSHC	Melbourne Sexual Health Centre
MSM	Men who have sex with men
NIDS	Notifiable Infectious Diseases Surveillance
NHMRC	National Health and Medical Research Council
PID	Pelvic inflammatory disease
PLWHA	People living with HIV/AIDS
PNO	Partner notification officer
RACGP	Royal Australian College of General Practitioners
RhED	Resourcing Health and Education in the Sex Industry
STI	Sexually transmissible infection
VELS	Victorian Essential Learning Standards
WPHC	Well Persons Health Check

Glossary

Ablative therapies	Used to remove the lesion by means such as surgical excision, cryotherapy, (eg freezing with liquid nitrogen)
Acute fulminating hepatitis	Sudden and severe inflammation of the liver
Ano-rectal	Pertaining to the anus and the rectum
Asymptomatic	Shows no symptoms
Cervicitis	Inflammation of the cervix
Cervix	The lower, narrow part of the uterus (womb)
Ciproflaxin	An antibiotic
Cirrhosis	An outcome of chronic liver disease resulting in a scarred nodular liver with impaired function
Co-existent	Existing at the same time
Cytological	Related to cells
Disseminated	Distributed away from site of initial infection
Endocarditis	Inflammation of the inner most lining of the heart cavities
Epidymo-orchitis	Inflammation of the testes and tubules behind each testes
Genotypes	The genetic constitution of an organism or cell, as distinct from its expressed features
Gonococcal cervicitis	Infection of the cervix
Gummas	Non cancerous growth in tertiary syphilis formed by a focal area of destructive inflammation
Hepatitis	Inflammation of the liver
Hepatoma	Carcinoma derived from liver cells
Icteric	Relating to jaundice
Immunosuppression	Suppression of the body's immune system
Incidence	The number of new disease cases reported in a population over a certain period of time
Jaundice	Yellowing of the skin (and whites of eyes)
Lymphadenopathy	Swelling of the lymph nodes
Maculopapular rash	Skin rash that contains small lesions, both flat and raised
Malaise	A feeling of tiredness and fatigue
Meningitis	Inflammation of the membranes covering the brain and spinal cord
Mucosal surfaces	Pertaining to the lubricated inner lining of the mouth, nasal passages, vagina and urethra, any membrane or lining which contains mucous secreting glands
Natural history	The course of a medical condition
Oncogenic	Tumour forming
Paresis	Slight or incomplete paralysis
Paresthesia	Abnormal neurological sensations which include: numbness, tingling, burning, prickling and increased sensitivity. Any abnormality of sensation

Percutaneous	Through the skin
Perinatal	Pertaining to or occurring in the period from 20 weeks gestation to 28 days after birth
Pharynx	The upper part of the throat
Prevalence	The amount of existing disease in a given population at a certain time
Proctitis	Inflammation of the rectum
Prophylaxis	Preventative treatment
Purulent	Consisting of or containing pus
Rectum	The last part of the intestine, ending in the anus
Septic arthritis	Arthritis resulting from an infection of a joint
Tabes dorsalis	Slow but progressive damage to the spinal cord resulting in impairment of position sense, gait disturbance, incontinence and others
Tenesmus	A feeling of incomplete defecation. Often painful
Ulceration	The formation or development of an ulcer
Urethra	The tube that carries urine from the bladder to the outside of the body
Urethritis	Inflammation of the urethra
Viscera	Any of the large interior organs of the body



State Government Victoria

Department of Human Services