

15 Sexual health

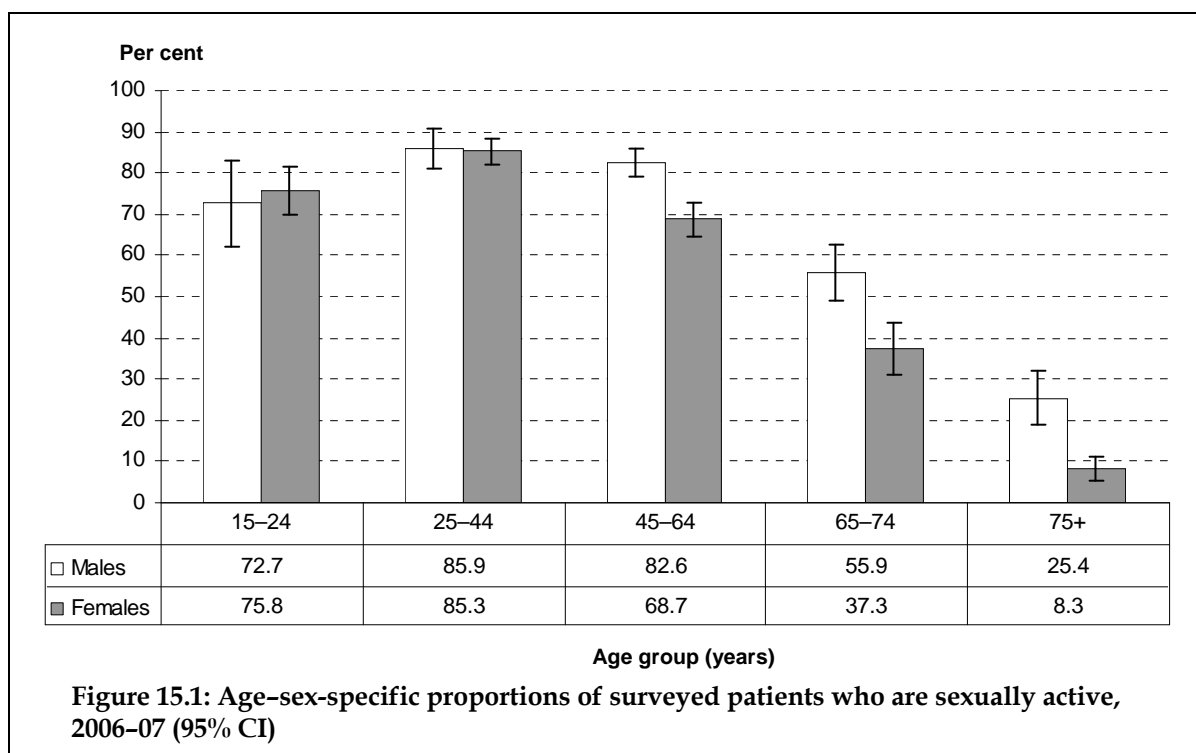
Christopher Harrison

This chapter looks at the management of sexual health problems in BEACH, and changes that have occurred over the decade to 2007–08. It focuses on three areas of sexual health: sexual dysfunction, pregnancy and family planning, and sexually transmitted infections (STIs). Some problem and concept labels in this chapter include grouped ICPC-2 and ICPC-2 PLUS codes (see Chapter 2). A full list of code groups is provided in Appendix 3.

15.1 Background

According to an Australian study by de Visser et al.¹, in 2001–02, 87.9% of males and 86.5% of females aged 16–59 years had sex within the previous year. According to two BEACH substudies^{2,3}, two-thirds of adults at general practice encounters are sexually active, with adult male patients significantly more likely to be sexually active (70.0%, 95% CI: 66.8–73.3) than their female counterparts (61.7%, 95% CI: 58.7–64.8). Results from BEACH studies for age groups similar to those of de Visser were 83.8% (95% CI: 80.2–87.5) among males aged 18–59 years and 78.9% (95% CI: 76.0–81.8) among females aged 18–59 years.

The advantage of the BEACH data is that it includes people aged 60 years and older. For patients aged 18–44 years, there was no difference in the proportions of male and female patients who were sexually active. For patients aged 45 years and older, a significantly greater proportion of male patients reported sexual activity, with males aged 75 years and older reporting sexual activity at 3 times the rate of females of the same age (Figure 15.1).



15.2 Sexual dysfunction in men

Sexual dysfunction was managed at a rate of 10.0 (95% CI: 8.7–11.2) per 1,000 adult male encounters in the 2007–08 BEACH year. Males aged 65–74 years had a significantly higher management rate of sexual dysfunction, with 16.4 (95% CI: 13.7–19.1) per 1,000 encounters than males aged 18–44 years (5.4 per 1,000, 95% CI: 3.8–7.0), and males aged 75 years and older (2.3 per 1,000, 95% CI: 1.0–3.5). By far, the most common sexual dysfunction problem managed was erectile dysfunction, accounting for three-quarters of all male sexual dysfunction problems managed.

In October 1998, the erectile dysfunction medication sildenafil citrate was introduced to the Australian market. Up until that time the main pharmacological treatment for erectile dysfunction was alprostadil, which was listed on the PBS. Two applications to the Pharmaceutical Benefits Advisory Committee to have sildenafil listed on the PBS arguing that sildenafil citrate significantly increased the quality of life of those affected by erectile dysfunction were unsuccessful. On the third attempt, the application was limited to only coverage for patients with diabetes, multiple sclerosis, spina bifida, Parkinson's disease, prostate cancer and spinal cord injury. The Pharmaceutical Benefits Advisory Committee recommended sildenafil for listing on the PBS for the 'limited range of conditions for which evidence of cost-effectiveness had been provided'⁴, however they thought the cost of its inclusion would be up to \$100 million per year and not the \$20 million estimated in the application. The application was denied in February 2002 by the Australian Government Health Minister because 'spending tens of millions of dollars a year for the treatment of erectile dysfunction is not the most cost-effective use of the PBS'.⁵ As a result of this decision, the drug alprostadil was delisted from the PBS.

Erectile dysfunction

Erectile dysfunction (ED) is relatively common among sexually active males.

- A 2003 telephone survey of men in Australia estimated the prevalence of erectile dysfunction in middle aged and older men to be 21%.⁶
- A global study of sexual attitudes and behaviour in 2001–02 found that 16% of Australian men experienced erectile difficulties.⁷
- In 2007, a BEACH substudy of 1,930 patients found that 20.3% (95% CI: 17.0–23.6, $n = 340$) of sexually active adults stated they/their partners had experienced erectile dysfunction.³

In the BEACH substudy:

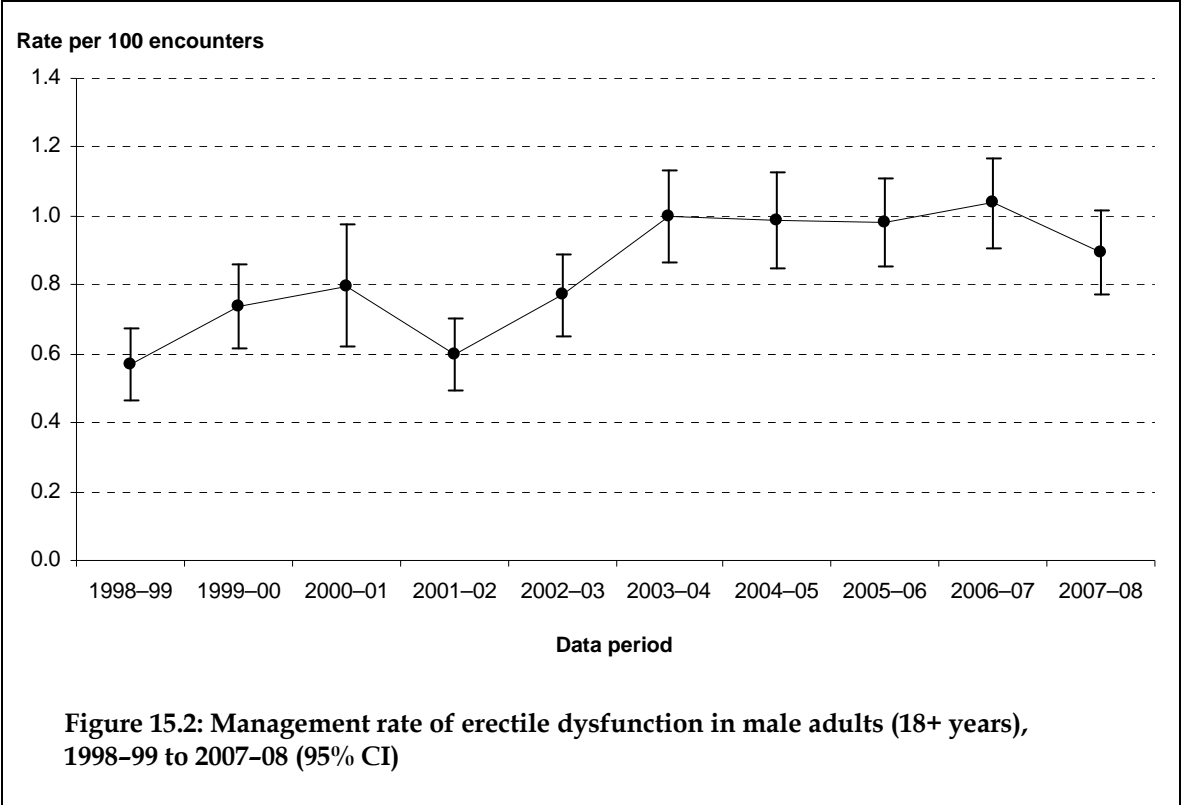
- A significantly greater proportion (27.5%, 95% CI: 22.6–32.4) of male patients reported having erectile dysfunction than female patients (16.2%, 95% CI: 12.7–19.7) reported their partners' experiencing erectile dysfunction. The same clinical definition of erectile dysfunction was applied in the question put to both female and male patients.
- The prevalence of erectile dysfunction leapt from 3.6% among male patients aged less than 40 years, to 54.1% among those aged 70 years and over. The proportion of male patients experiencing erectile dysfunction increased significantly with age (Mantel-Haenszel Chi-square test $p < 0.0001$).
- Of those patients or their partners experiencing ED, 39.9% did so at 1–25% of occasions, 22.5% at 26–50% of occasions, and the remainder (37.5%) more than half of the time.³

Even though erectile dysfunction is prevalent, it has been shown that advice or treatment is infrequently sought.⁶⁻⁸ In the BEACH substudy, less than a half of those experiencing erectile dysfunction (47.6%, 95% CI: 41.0-54.2) had sought help/advice for it. This is reflected in the low management rate of erectile dysfunction in general practice, at only 0.95 per 100 encounters with males aged 18 years and over in 2005-08 (Figure 15.3). Of those who did seek help, the majority sought it from their GP.

Of those patients with erectile dysfunction, 60% had tried at least one remedy, the majority (84.1%) using a prescribed medication from their doctor. Only 10.3% of patients had tried a behavioural treatment, and 7.1% had tried an over-the-counter product.

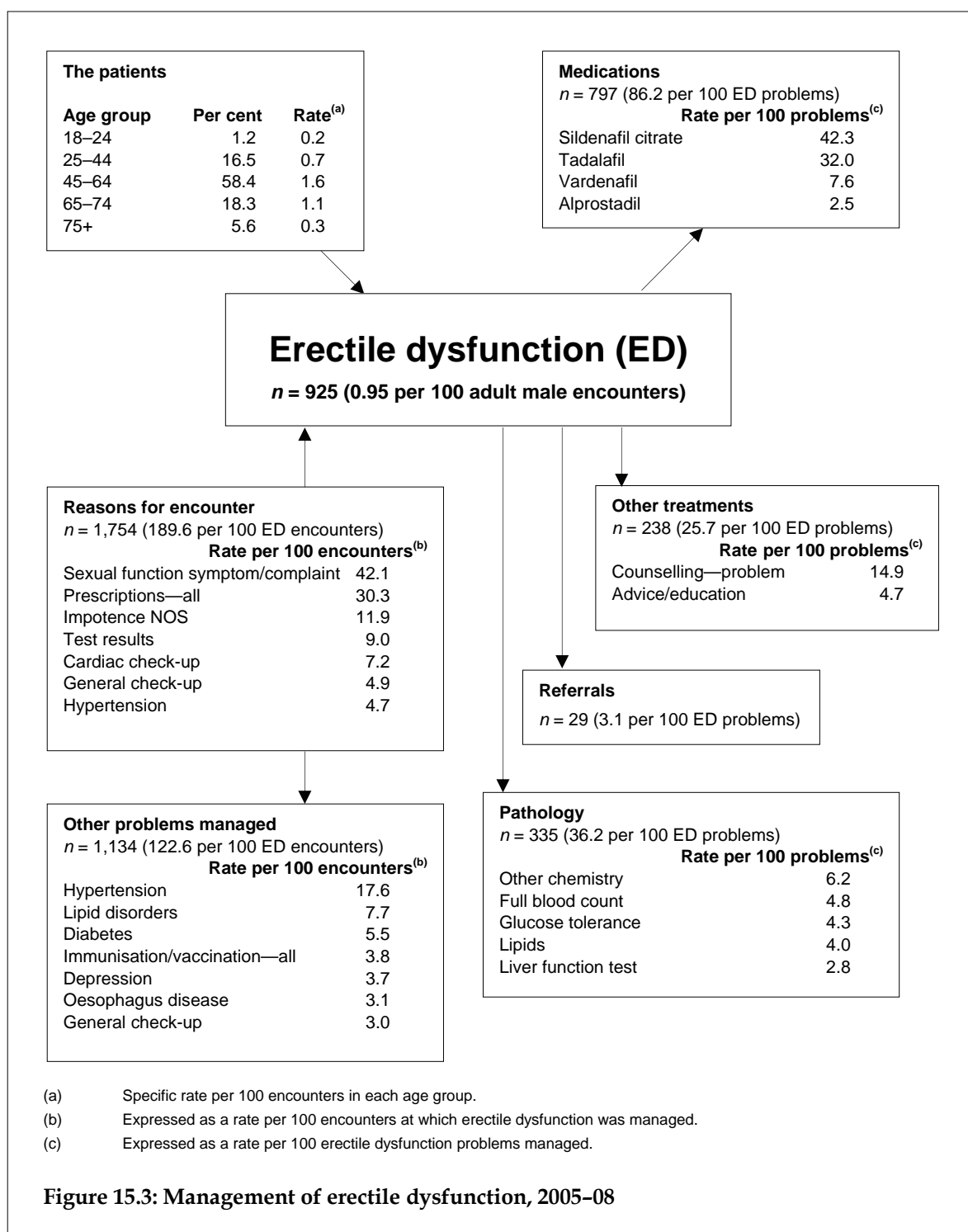
Over two-thirds of patients using a prescribed medication for erectile dysfunction reported that the medication was effective.

As Figure 15.2 shows, the rate of erectile dysfunction management increased significantly between 2001-02 and 2003-04, then remained steady through to 2007-08.



GP management of erectile dysfunction using BEACH data over 3 years (2005-06 to 2007-08) is presented in Figure 15.3.

- The highest rate of erectile dysfunction management was in male patients aged 45-64 years, at 1.6 per 100 encounters
- When erectile dysfunction was managed, the most frequent patient reasons for the encounter were directly linked to erectile dysfunction, with presentation for sexual function symptoms/complaint (42.1 per 100 encounters) and impotence (11.9 per 100) being the most common. The other major reason for encounter where erectile dysfunction was managed was a need for prescription(s) (at 30.3 per 100 encounters).



The other problems managed at encounters with erectile dysfunction were mainly chronic conditions such as hypertension, lipid disorder, diabetes and depression, reflecting the fact that 82.3% of patients managed for erectile dysfunction were aged 45 years and older.

- The most frequently recorded management method was medication with 86.2 recorded per 100 erectile dysfunction problems managed. The majority of these medications were unsurprisingly drugs used to treat erectile dysfunction, with sildenafil citrate (42.3 per 100 erectile dysfunction problems) and tadalafil (32.0 per 100) the most common.
- Counselling and advice were used at a rate of 25.7 per 100 erectile dysfunction problems. This result of comparatively low counselling compared with medication reflects the results found in the substudy, where 84% of those who were managing their erectile dysfunction were using medication and only 10.3% behavioural treatment.
- Pathology was ordered at a rate of 36.2 per 100 erectile dysfunction problems managed, with other chemistry (6.2 per 100 erectile dysfunction problems), full blood count (4.8 per 100) and glucose tolerance (4.3 per 100) being the most frequent.
- Patients with erectile dysfunction were rarely referred elsewhere for this problem with a rate of only 3.1 per 100 erectile dysfunction problems managed.

Premature ejaculation

Premature ejaculation is another sexual dysfunction which is common in the population.

- The global study of sexual attitudes and behaviour reported a prevalence of 16% among Australian men.⁷
- The Australian study of health and relationships found that 23.8% of men reported that they came to orgasm too quickly.⁸
- In a BEACH substudy of 2,186 patients, 18.4% (95% CI: 14.2–22.5) of patients stated that they or their partners had experienced premature ejaculation.²

The following results are from this BEACH substudy.

Similar to the result found for erectile dysfunction, a smaller proportion of female patients (13.0%, 95% CI: 9.6–16.5) reported their partners having premature ejaculation than male patients (24.0%, 95% CI: 18.3–29.7) reported having premature ejaculation.

Of those patients or their partners experiencing premature ejaculation, 61.4% experienced it on 1–25% of occasions, 19.7% on 26–50% of occasions and the remaining 18.9% more than half the time.

Of those patients or their partners with premature ejaculation, only 28.4% had sought help for the problem. The most common sources of help/advice were a GP (18.7%), their partner (5.8%) and other health professionals (4.7%). Just over a third (37.7%) of those with premature ejaculation had tried at least one remedy. The most common remedy was prescribed medications (16.0%) followed by behavioural treatment (13.7%) and alcohol/drugs (9.9%). Physical remedies (for example, more than one condom) were used by 8.5% of patients, over-the-counter products by 7.6%, herbal remedies by 4.3%, and a nasal spray by 1.4%.²

Premature ejaculation is rarely managed in Australian general practice: in 2007–08 it was only managed at a rate of 44 per 100,000 encounters with males aged 18 year and older.

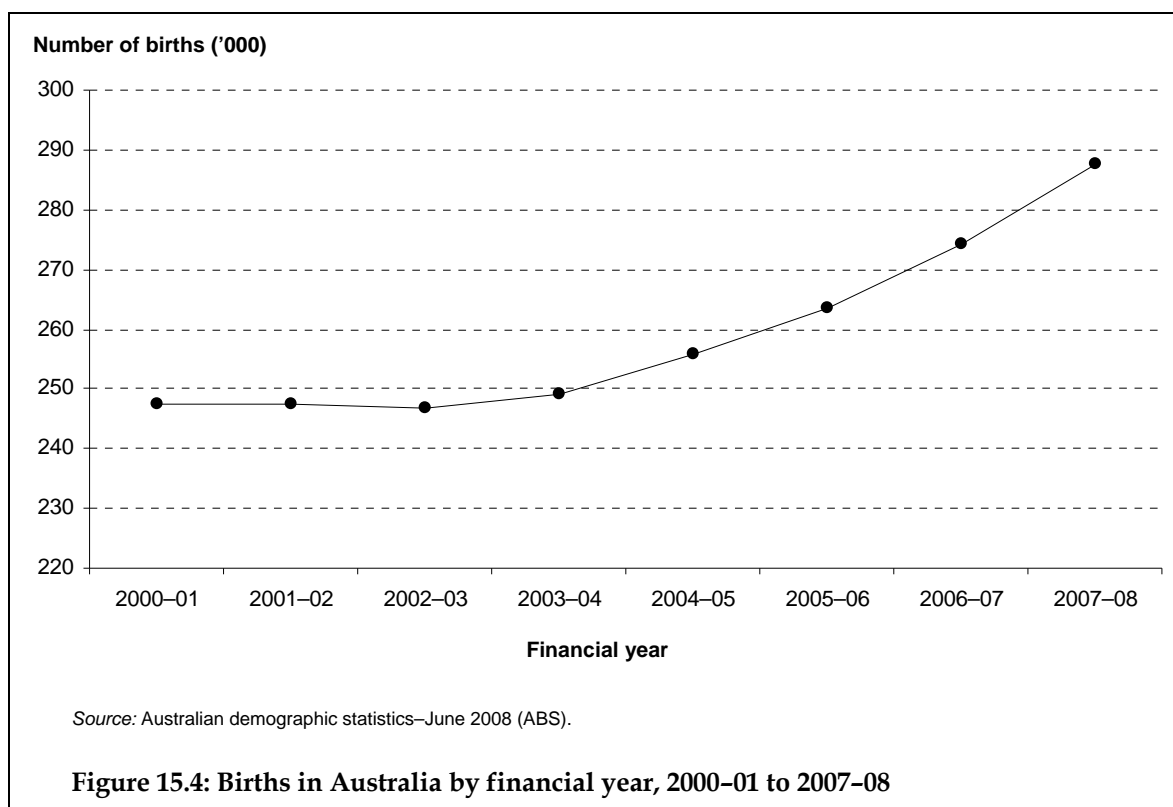
15.3 Sexual dysfunction in women

There is strong evidence to suggest that as many, if not more women than men, experience a sexual problem^{7,8}, yet women very rarely have such problems managed by a GP. In 2007-08, sexual problems were managed only 1.1 times per 1,000 encounters with women aged 18 years and over, the most commonly managed being painful intercourse (from vaginismus or dyspareunia) and lack or loss of libido, accounting for 47% and 37% of all female sexual dysfunction problems managed, respectively.

15.4 Pregnancy and family planning

Background

Family planning and the diagnosis and management of pregnancy have been integral to general practice clinical activity. Changes in social attitude to contraception and to family size will affect the birth rate, and changes in the birth rate would be expected to affect the clinical workload in these areas. Figure 15.4 shows Australian births by financial year and demonstrates a steady rise in the birth rate since 2003-04

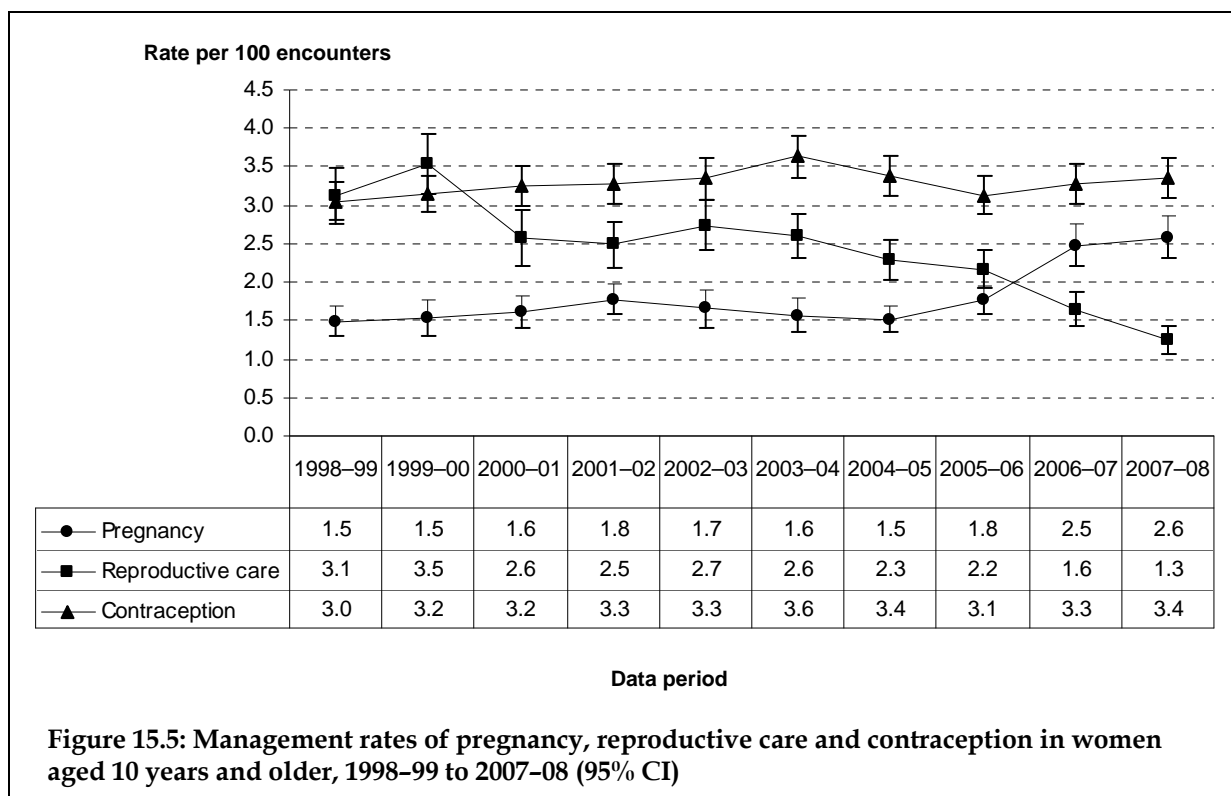


Management of pregnancy and family planning 1998–99 to 2007–08

As Figure 15.5 shows, the rate at which pregnancy (tested or confirmed) was managed stayed relatively stable between 1998–99 and 2004–05. After the Baby Bonus was announced in June 2004, the management rate of pregnancy increased from 1.5 per 100 in 2004–05 (95% CI: 1.4–1.7) to 2.6 per 100 in 2007–08 (95% CI: 2.3–2.9), a 73 increase.

However, despite an increase in pregnancy tests and confirmations, from 1999–00, there was a steady decline in GP management of reproductive issues (including pre- and post-natal care, pregnancy-related check-ups, complications of pregnancy, complications due to pregnancy, terminations and births). In 1999–00, reproductive care was managed at a rate of 3.5 (95% CI: 3.1–3.9) per 100 encounters with women aged 10 years and older. By 2007–08, this had decreased to 1.3 (95% CI: 1.1–1.4) per 100 encounters, 37% of the 1999–00 rate. This result highlights the diminishing role GPs play in obstetrics apart from the initial confirmation of pregnancy. This decrease was predicted in the late 1990s, with the number of GP obstetrics specialists retiring far outweighing those new to the field.^{9,10} Common reasons for the decrease in GP obstetricians were the price of medical indemnity and the fear of litigation.

The management rate of contraception significantly increased from 3.0 per 100 encounters in 1998–99 (95% CI: 2.8–3.3) to a high of 3.6 per 100 in 2003–04 (95% CI: 3.4–3.9), then remained stable between 2004–05 and 2007–08.



15.5 Sexually transmitted infections

Background

A sexually transmitted infection (STI) is an illness that has a significant probability of transmission by means of sexual contact. According to the burden of disease report, in 2003 STIs (sexually transmitted disease, human immunodeficiency virus/acquired immune deficiency syndrome HIV/AIDS and hepatitis B) accounted for 0.6% of all burden of disease and 12.7% of the burden for communicable diseases.¹¹ The report estimated there were over 53,000 new cases of STIs in 2003, the majority being chlamydia, with over 40,000 new cases alone. It should be noted that the burden of disease report does not include the two most common STIs – the Human Papillomavirus (HPV) and genital herpes. HPV is the most common STI in the developed world, with a majority of sexually active adults contracting it at some point in their lives.¹² It is estimated that one in eight Australian adults has genital herpes.¹³

Sex education in schools was formalised in New South Wales in 1967 when it was incorporated into the health syllabus. All other states and territories quickly adopted similar programs.¹⁴ Since the emergence of HIV/AIDS, there have been numerous public health campaigns on safe sex, especially in regards to AIDS prevention. In 1989, the Australian Government introduced the first National HIV/AIDS strategy,¹⁵ and it has been updated four times since then. One of the core strategies has been the education of affected groups (particularly homosexual men and sex workers), linked to non-discriminatory HIV/AIDS testing, treatment and care. Another was the needle and syringe exchange programs.¹⁶ These strategies appear to have been successful, the Australian prevalence of HIV in 2007 being about half that of France or Canada and about a third of the United States. However, a recent increase in HIV diagnoses in 2006–07 is of concern.¹⁷

The 2002 review of the fourth National HIV/AIDS Strategy took a broader view of prevention, recommending that in framing a fifth strategy, 'consideration be given to developing a national strategy for sexually transmissible infections'.¹⁸

This recommendation led to the Australian Government's introduction of the National Sexually Transmissible Infections Strategy 2005–2008, in parallel with the fifth National HIV/AIDS Strategy 2005–2008¹⁶, and the National Aboriginal and Torres Strait Islander Sexual Health and Blood Borne Virus Strategy 2005–2008 (a continuation of the National Indigenous Australians' Sexual Health Strategy 1996–97 to 2003–04).¹⁹ The goal of the National STIs Strategy is 'to reduce the transmission of STIs, with particular reference to STIs other than HIV, through improved awareness and access to appropriate health services'.²⁰

The objectives of the National STIs Strategy were:

- to improve awareness of STIs, in particular their economic, social and personal effects, within the government, medical and community sectors
- to establish a basis for coordinated national action on STIs now and in the future
- to increase access to diagnosis, treatment and care of STIs
- to minimise the transmission and morbidity of STIs in identified priority groups
- to improve surveillance and research activities in order to guide the development and implementation of prevention initiatives.²⁰

Three priority areas were also identified as part of the strategy:

- STIs in Aboriginal and Torres Strait Islander communities
- STIs in homosexually active men
- chlamydia control and prevention.²⁰

Management of STIs in Australian general practice

Table 15.1 lists the rates of STI screenings, STI risk factors and diagnosed STI problems managed in Australian general practice in 1998–99 and 2007–08. Over the decade the management rate of all STI-related problems increased from 480.5 per 100,000 encounters in 1998–99 to 781.7 per 100,000 encounters in 2007–08, an increase of two-thirds.

Examination of the rate of STI testing and risk factor management over the decade shows that it increased by more than 40% from 202.5 per 100,000 encounters in 1998–99 to 290.7 per 100,000 encounters in 2007–08. The increase was primarily due to the significant increase in management of problems labelled as STI tests, which tripled over the decade. Within this increase the rise in full STI screens in favour of specific tests such as HIV and hepatitis tests can be seen. It is likely that the six-fold increase in STI screens from 31.8 per 100,000 encounters in 1998–99 to 205.1 in 2007–08 was generated from patient demand. This may be due to success of public health campaigns promoting STI screens as standard practice for safe sex.²¹

It is interesting that the rate of unprotected sex as a problem managed decreased marginally over the decade. It is impossible to say whether this is because unprotected sex is happening less often in the population or that it is just being managed less in Australian general practice?

There was a marginal increase in the management rate of diagnosed STIs between 1998–99 (278 per 100,000 encounters) and 2007–08 (491 per 100,000). It should be noted that the 'diagnosed STIs' referred to in this chapter are in patients for whom the GP has recorded a STI diagnosis as the problem under management. Some of these may have been decided on the basis of clinical judgement. For example, a patient presents with symptoms that the GP judges to be caused by chlamydia, and records the problem under management as chlamydia. However the GP also orders pathology to confirm this clinical diagnosis. In this case, the problem managed would be classed as 'diagnosed STI' in this chapter, even though the diagnosis is not confirmed. Over the decade, the management rate doubled for both genital herpes (71.6 to 144.8 per 100,000 encounters) and HPV/genital warts (58.4 to 103.6 per 100,000 encounters). The management rate of chlamydia and syphilis increased significantly from very low rates in 1998–99. There was not a significant change in the management rate of HIV/AIDS between 1998–99 and 2007–08.

In 2000–08, the overall rate of STI management in Aboriginal and Torres Strait Islander peoples was 1,076 (95% CI: 828–1,325) per 100,000 encounters, significantly higher than that of non-Indigenous Australians (572 per 100,000, 95% CI: 528–617). Indigenous Australians had a higher rate of both screening/risk problems (397 per 100,000, 95% CI: 244–549) and diagnosed STI (680, 95% CI: 482–878) management than non-Indigenous Australian (220 per 100,000, 95% CI: 204–236 and 351, 95% CI: 314–389, respectively) (results not tabled). The higher rate of STI management in Indigenous Australians highlights the need for the National Aboriginal and Torres Strait Islander Sexual Health and Blood Borne Virus Strategy 2005–2008.

Table 15.1: Changes in management rates of problems associated with sexually transmitted infections, 1998–99 and 2007–08

	1998–99 (n = 96,901)		2007–08 (n = 95,898)	
	Rate per 100,000 encounters	95% CI	Rate per 100,000 encounters	95% CI
Screening and risk problems	202.5	160.0–245.0	290.7	239.1–342.3
All STI tests	77.1	55.0–99.1	226.0	179.9–272.2
STI screen NOS	31.8	18.8–44.9	205.1	161.9–248.2
Hepatitis B test	21.4	10.1–32.6	8.7	0.4–17.0
Chlamydia test	0.6	0.0–1.8	6.2	0.4–12.1
HIV test	23.3	12.1–34.4	6.0	0.6–11.4
Unprotected sex	55.4	28.6–82.1	19.7	9.3–30.2
Fear of STI	32.8	15.8–49.8	16.5	6.4–26.5
Fear of HIV	15.5	5.7–25.3	5.4	0.3–10.4
STI advice	7.8	1.3–14.3	11.3	3.8–18.7
Contact with STI	14.0	6.4–21.6	11.8	4.3–19.3
Diagnosed STIs	278.0	175.9–380.0	491.0	359.7–622.2
Genital herpes	71.6	52.0–91.1	144.8	114.5–175.1
HIV/AIDS	76.8	0.0–167.7	103.4	7.8–199.1
HPV/genital warts	58.4	41.0–75.9	103.6	74.4–132.8
Chlamydia	4.4	0.0–10.4	57.9	37.2–78.5
Hepatitis B	48.2	29.1–67.4	41.9	24.7–59.2
Syphilis	0.3	0.0–1.0	23.0	4.7–41.2
STI/STD/VD	9.3	2.2–16.4	13.0	4.2–21.9
Gonorrhoea	0.8	0.0–1.9	2.9	0.0–6.3
Trichomoniasis	8.2	0.0–17.4	0.4	0.0–1.3
Total problems related to STIs	480.5	368.2–592.7	781.7	619.1–944.3

Note: CI—confidence interval; STI—sexually transmitted infection; HIV/AIDS—human immunodeficiency virus/ acquired immune deficiency syndrome; HPV—Human Papillomavirus ; NOS—not otherwise specified; STD—sexually transmitted disease; VD—venereal disease.

Age and sex-specific STI management rates 1998–99 and 2007–08

As mentioned earlier, the overall rates of STI management (both testing and management of diagnosed STI) increased between 1998–99 and 2007–08. Figure 15.6 presents age and sex-specific rates of STI testing and diagnosed STI management in 1998–99 and 2007–08.

Sex-specific rates

In both 1998–99 and 2007–08, there was no significant difference found between the rates of STI testing and management between male and female patients. In 1998–99, female patients had a significantly higher management rate of diagnosed STIs than they did of STI testing/risk factor management. This difference was not found in male patients.

Between 1998–99 and 2007–08, there was a significant increase in the management rate of both STI testing/risk factors and of diagnosed STIs among female patients. There was no significant difference found across this period for male patients. Therefore, it seems that the overall significant increase in STI management (management of risk factors, testing and diagnoses) was driven by an increase in management among female patients.

Age-specific rates

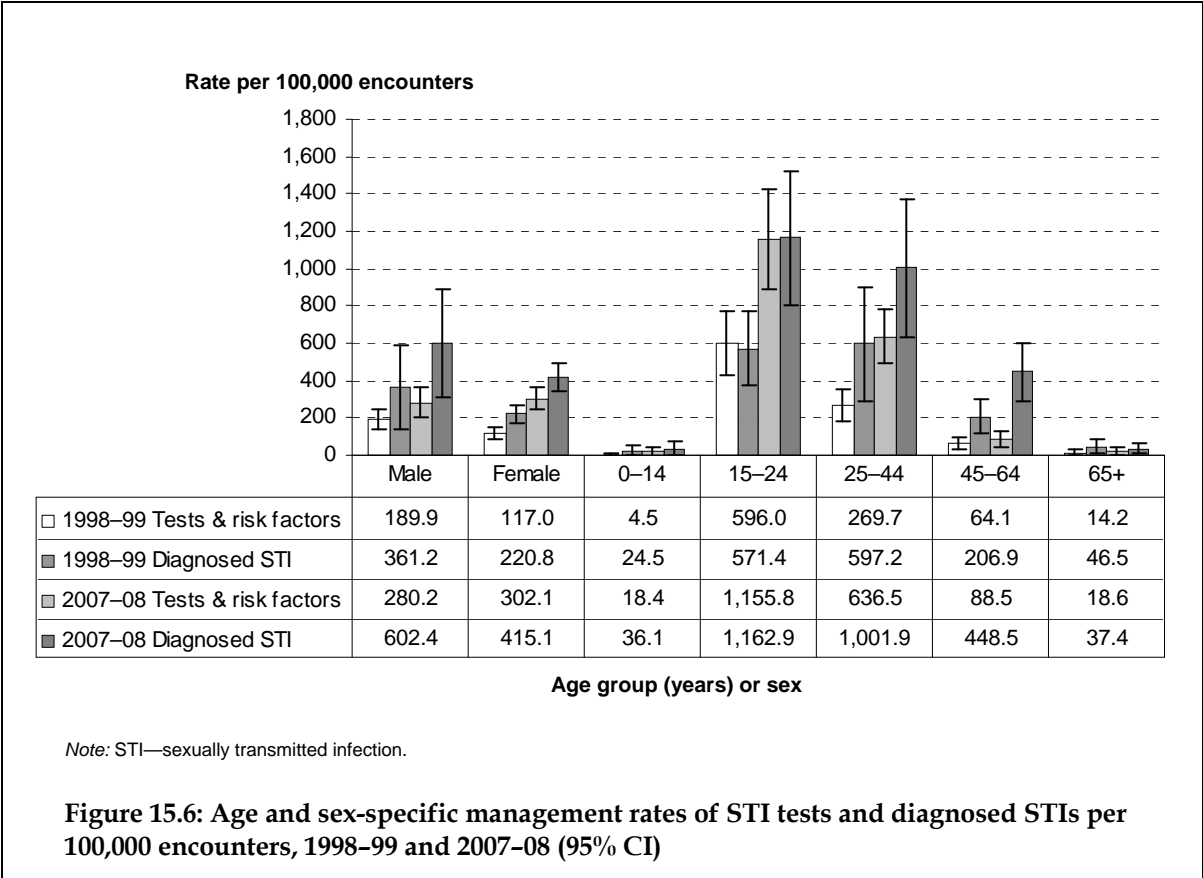
In both 1998–99 and 2007–08, the highest management rate of:

- STI screening and risk factors was in patients aged 15–24 years, and the lowest rate was in children aged less than 15 years and those aged 45 years and over
- diagnosed STIs was in patients aged 15–24 years and 25–44 years, while the lowest was among children aged less than 15 years of age and those aged 45 years and older.

Between 1998–99 and 2007–08, there was:

- a significant increase in management of diagnosed STIs in patients 15–24 and 25–44 years
- a marginal increase in the management among patients aged 45–64 years
- no significant difference in the management rate of diagnosed STIs for patients younger than 15 years and patients 65 years and older.

This means that the significant increase in STI testing/risk factor management was driven by an increase in patients aged 15–44 years, particularly among female patients, and that the marginal increase in the rate of diagnosed STIs came from a broader group, which included patients aged 45–64 years.



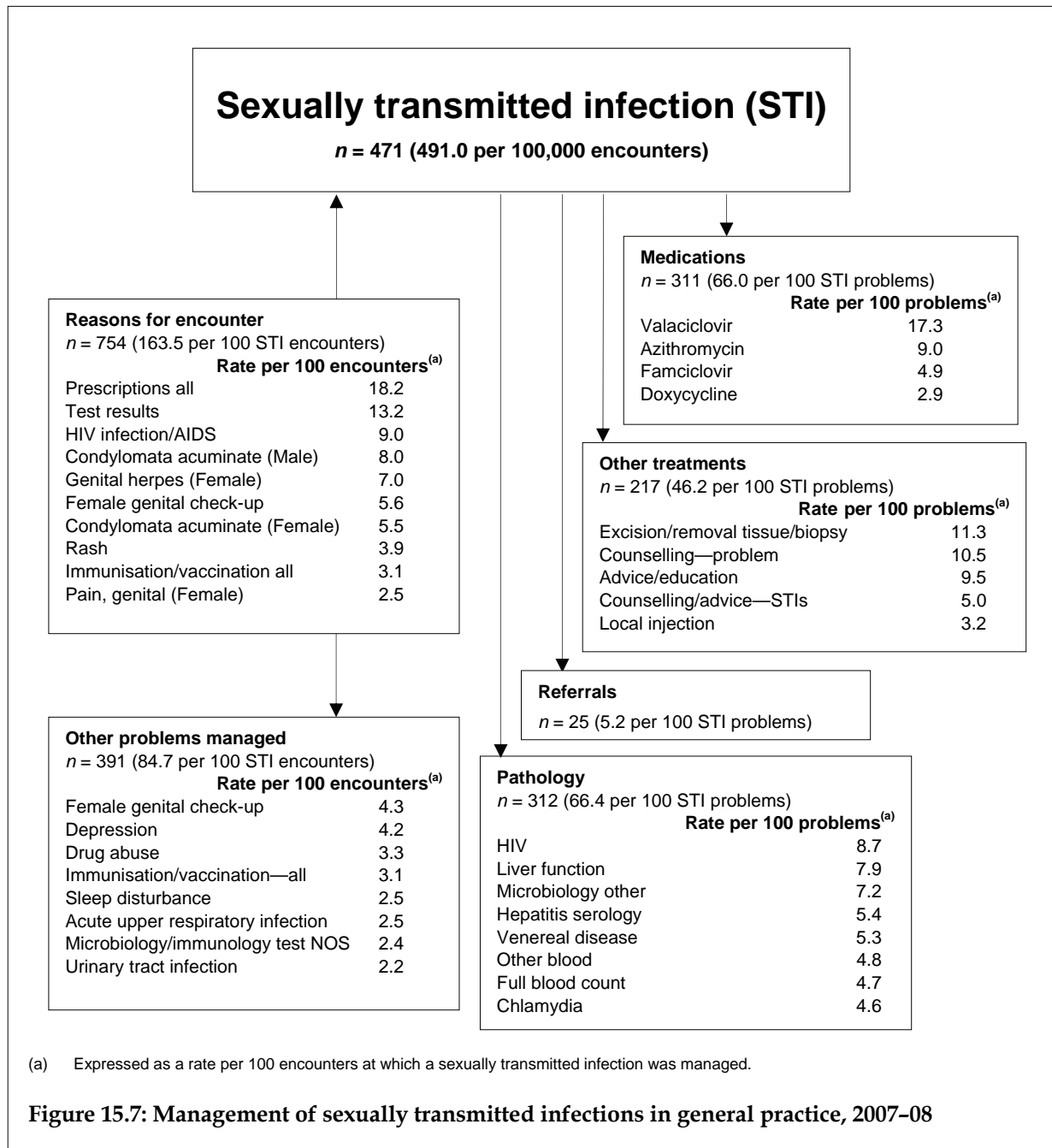
Note: STI—sexually transmitted infection.

Figure 15.6: Age and sex-specific management rates of STI tests and diagnosed STIs per 100,000 encounters, 1998–99 and 2007–08 (95% CI)

Management of diagnosed STIs

Figure 15.7 shows the management patterns for all diagnosed STI problems in 2007–08.

- The management rate of diagnosed STIs problems was 491 per 100,000 encounters.
- The most common reasons given by the patient for the encounter where a diagnosed STI was managed were, with the exception of requests for prescription(s), mainly related to the STI. Presentations for receipt of test results was frequent, as were reasons for encounter that specified STI diagnoses such as HIV infection/AIDS, condylomata acuminata and genital herpes.



- The most frequent other problems managed at diagnosed STI encounters were mainly acute in nature, with preventive reasons such as female genital check-up and immunisation/vaccination both being frequently given. Drug abuse was more often managed than usual, reflecting the risk-taking behaviour of many young people. Depression was the only chronic condition in the top three, once again not surprising since depression is common among the 15–44 age group (See Chapter 6).

15.6 Discussion

This chapter considered how STIs, sexual dysfunction, and pregnancy and family planning were managed in the Australian general practice. Changes over the 1998–99 to 2007–08 period have been presented and considered in relation to major policy changes. The major findings are discussed below:

- A similar proportion of male and female patients aged 18–44 years reported being sexually active. However male patients aged 45 years and over were significantly more likely to report being sexually active than females, with male patients aged 75 years and over being 3 times more likely to be sexually active than their female peers.
- For both erectile dysfunction and premature ejaculation, male patients were more likely to report that they had the problem than female patients when reporting about their partners. This is an interesting result, considering the definition of what erectile dysfunction and premature ejaculation constitute can be subjective.
- For both erectile dysfunction and premature ejaculation, advice and treatment were rarely sought, though when it was, GPs were the health professional most often seen.
- Since 2004, there has been a significant increase in the Australian birth rate as well as an increase in the number of pregnancy tests and confirmations in Australian general practice. However, although the rate of pregnancy increased after 2004, the GP management rate of pregnancy after 2004 continued to decrease. This is likely due to the decreasing role being played by general practice in obstetrics management.
- Over the 1998–99 to 2007–08 period, the rate of STI testing and screening significantly increased and the management rate of diagnosed STIs marginally increased. It remains unknown however, whether the increased management of diagnosed STI diagnoses represents a successful campaign with better testing for, recognition and management of STIs, or whether it represents a failure of educational programs focusing on safe sex with a resulting increase in prevalence in the wider population.

Since the 1980s, there has been a concerted effort to reduce the impact of HIV/AIDS in Australia. Comparing Australia's prevalence of HIV/AIDS to that of other developed countries, it seems that this effort has been successful.¹⁷ However, with the focus on HIV/AIDS, the rate of diagnosis for other STIs (such as chlamydia and gonorrhoea) have increased.²⁰ Because of this, the Australian Government introduced the National Sexually Transmissible Infections Strategy 2005–2008. It remains to be seen if this new strategy will be as effective as the earlier HIV/AIDS strategies.

Suggested chapter citation

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