

# HIV/AIDS, Hepatitis C & Related Diseases in Australia Annual Report of Behaviour 2003

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HIV/AIDS, Hepatitis C &  
Related Diseases in Australia

*Annual Report of Behaviour*  
2003

edited by National Centre in HIV Social Research



HIV/AIDS, Hepatitis C &  
Related Diseases in Australia

*Annual Report of Behaviour*  
**2003**

***Edited by***

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 Management and staff of venues and sexual health/medical centres across the country and many thousands of participants in the research projects.

We also thank Dean Murphy for many helpful suggestions regarding this report.

# *Preface*

This report is the fifth in the annual series to review behavioural data relevant to HIV/AIDS and related diseases in Australia. Specifically these data relate to behavioural risk of transmission of HIV and behaviours related to the social aspects of treatment and care. Where available, data relevant to the related diseases—other sexually transmissible infections and hepatitis C—are also presented.

Unless stated otherwise, all data provided in this report are from the five-year period 1998–2002 inclusive. In this way, this annual report builds on the previous reports by comparing data from the last year with data from the previous four. Data pertaining to trends over time in behaviour relevant to risk of HIV transmission over a period extending from 1984 to 1995 can be found in *Valuing the past, Investing in the future: Evaluation of the National HIV/AIDS Strategy 1993–94 to 1995–96* (Feachem, 1995) and its *Technical Appendices* 3 (Crawford et al., 1995), 4 (Crofts et al., 1995) and 5 (Smith et al., 1995). Data from periods (1995–1998, 1996–1999, 1996–2000 and 1996–2001, respectively) after the Feachem evaluation were presented in the four earlier reports in this series, *HIV/AIDS and Related Diseases in Australia: Annual Report of Behaviour* (National Centre in HIV Social Research, 1999), *HIV/AIDS, Hepatitis C and Related Diseases in Australia: Annual Report of Behaviour* (National Centre in HIV Social Research, 2000), *HIV/AIDS, Hepatitis C and Related Diseases in Australia: Annual Report of Behaviour* (National Centre in HIV Social Research, 2001) and *HIV/AIDS, Hepatitis C and Related Diseases in Australia: Annual Report of Behaviour* (Van de Ven, Rawstorne & Treloar [Eds], 2002).

It is opportune for this extensive and detailed information—edited by the National Centre in HIV Social Research (NCHSR)—to be made available to interested organisations and individuals.

As for previous years, this report is published as a companion to the *HIV/AIDS, Viral Hepatitis and Sexually Transmissible Infections in Australia: Annual Surveillance Report* (National Centre in HIV Epidemiology and Clinical Research [NCHECR], 2003). Some of the tables herein provide data which overlap with or duplicate those in the NCHECR report. We acknowledge the contribution of the National Centre in HIV Epidemiology and Clinical Research to this report.

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We thank a large number of organisations and people involved in health throughout Australia for their help and support. Their contribution to this report is very gratefully acknowledged.

# *Summary*

This report brings together information for the period 1998 to the end of 2002 regarding the monitoring of practices which may risk transmission of HIV and practices related to the social and behavioural aspects of the treatment and care of people living with HIV/AIDS. It builds on data from the *Valuing the past, Investing in the future: Evaluation of the National HIV/AIDS Strategy 1993–94 to 1995–96* (Feachem, 1995) and the earlier reports in this series, *HIV/AIDS and Related Diseases in Australia: Annual Report of Behaviour* (National Centre in HIV Social Research, 1999), *HIV/AIDS, Hepatitis C and Related Diseases in Australia: Annual Report of Behaviour* (National Centre in HIV Social Research, 2000), *HIV/AIDS, Hepatitis C and Related Diseases in Australia: Annual Report of Behaviour* (National Centre in HIV Social Research, 2001) and *HIV/AIDS, Hepatitis C and Related Diseases in Australia: Annual Report of Behaviour* (Van de Ven, Rawstorne & Treloar [Eds], 2002). Data are organised around a number of themes or topics, namely:

1. SEXUAL PRACTICE
2. LIVING WITH HIV
3. DRUG USE
4. HEPATITIS C
5. THE CURRENT CLIMATE

With regard to **sexual practice**, the most detailed information in this report comes from studies of homosexually active men, the population most affected by HIV in Australia. Limited data were available regarding other populations, namely people living with HIV; first-year tertiary students; and women in contact with gay and lesbian communities. The data from other populations have been greatly augmented by the *Australian Study of Health and Relationships* and a summary of key findings from a representative sample of the Australian population is included in Section 1.2.1.

From the mid 1980s there was a decrease in the practices which risk transmission of HIV and an increase in protective behaviour, particularly condom use, among homosexually active men and other populations. These changes happened quite early (that is, by the middle to late 1980s) and were mostly sustained through to the mid 1990s. There was little evidence of anything other than stability in these practices from the early 1990s to around 1995 (Feachem, 1995).

However, as indicated by data detailed in this and previous reports, there is evidence of increases in unprotected anal intercourse among homosexually active men since 1996 in some areas. For the period covered by this report (1998–2002) the increases in unprotected anal intercourse which have occurred among men in regular relationships are in general of the order of 6–10% (see Table 1.1.5b), for example from around 49% to 59% in Sydney *Gay Community Periodic Survey* data (with parallel increases reported in Melbourne, Brisbane and Perth). It is important to point out that much of the unprotected anal intercourse within regular relationships is safe with regard to HIV transmission as it occurs within seroconcordant relationships.



## Summary

Changes from 1998 to 2002 in levels of unprotected anal intercourse in casual sexual encounters are uneven across the country. There is, nonetheless, evidence of an increase among men with casual partners in Sydney from around 24% in 1998 to 34% in 2002, based on *Gay Community Periodic Survey* data (see Table 1.1.4b). Such increases have also been documented in Melbourne, Brisbane and Perth. HIV-positive men are (almost universally) more likely to engage in unprotected anal intercourse than HIV-negative men, although some of this unprotected anal intercourse is safe with regard to HIV transmission as it occurs between HIV-positive partners (see Table 1.1.10).

Data based on surveys conducted from 1998 to 2002 indicate that the overwhelming majority of homosexually active men have had a test for HIV, consistent across most of the areas studied (see Table 1.1.7 and Figure 3). However, data collected in the 2002 *Gay Community Periodic Surveys* in Melbourne and Brisbane indicate a slight decline in the proportion of men ever tested for HIV.

Recent HIV testing ('in the previous six months') among HIV-negative gay men has been quite stable (see Table 1.1.8) in most areas. Exceptions were found among men who participated in the Sydney-based *HIM* cohort (2001 to 2002) and the *Periodic Survey* in Melbourne (1998 to 2002), as well as among *Gay Asian Men* in Sydney (1999 to 2002). In each of these datasets there was a decline in recent HIV testing.

The proportion of younger gay men (under 25 years of age) 'ever tested for HIV' was steady in most areas (see Table 1.1.9 and Figure 4). However, Brisbane, Perth and Sydney Asian Gay Community *Periodic Survey* data confirm a downward trend in HIV testing among younger gay men in each of these communities.

The *HIM* cohort of HIV-negative gay men in Sydney allows estimates of HIV incidence in the population from which the participants are drawn, namely Sydney gay community. Based on the first two years of data collection (2001 and 2002), HIV incidence was recorded at just below 1% overall (see Table 1.1.12).

As noted in the **living with HIV** section, retrospective accounts of the seroconversion of homosexually active men indicate that about 40% of the seroconversions were attributed to regular relationships (see Section 2.7).

Information in this section is also provided relating to the uptake of therapies and other treatment-related issues. HIV-positive homosexually active men in Australia took up combination antiretroviral therapy very quickly. However, over time, there has been a significant decline in the proportion of people currently taking combination therapy, notably among *pH* participants in both Sydney and Melbourne, and among Sydney, Melbourne and Brisbane participants in the *Gay Community Periodic Surveys* (see Table 2.3.1 and Figure 5). Whereas use of combination antiretroviral therapy was around 60–85% in 1998, use was in the 50–75% range in 2002.

The need for adherence to antiretroviral therapy regimens is generally well understood and current data indicate a high level of commitment to adherence (see Section 2.6) despite the adverse side effects experienced by many of those on antiretroviral therapy. Over time

(see Table 2.4), there was a tendency for a greater proportion of participants in the *pH* study to report side effects, so much so that by 2002 nearly all participants in both Sydney and Melbourne experienced some side effects. Of note, experience of lipodystrophy among the *pH* participants increased from approximately 60% in 1999 to approximately 70% in 2002. Increase in the proportion of *pH* participants experiencing diarrhoea/nausea was even more pronounced, from approximately 50% in 1999 to approximately 75% in 2002.

Section 2.5 documents important summary findings from two projects: *Side Effects* and *Locating Lipodystrophy: A Regional Study of HIV and Body Shape Change*. Preliminary analyses show that people live and cope with lipodystrophy in a variety of ways depending on their personal biography, disease history and social situation. Nevertheless, certain recurring themes have emerged in participants' accounts, including: concerns about forced HIV disclosure; feeling unattractive, different, or aged; sexual and social isolation; loss of confidence and self-esteem; conflicting feelings towards HIV treatment; lack of support and discussion around lipodystrophy; fears that the condition will worsen; but also acceptance, fortitude, as well as resistance to the negative representations of lipodystrophy.

Measures of 'contact' with the HIV epidemic ('Knows anyone with HIV' and 'Ever knew anyone who died following AIDS'—see Table 2.8) indicate that HIV-positive men in Sydney had continuing high levels of contact with the epidemic. The exception was HIV-positive *Gay Asian Men* whose values on these indicators were substantially lower. HIV-positive men in other parts of Australia had high levels of contact with the epidemic although somewhat less in some places than their Sydney counterparts. Information from various studies showed that in terms of 'knowing anyone with HIV', HIV-negative men had fairly high levels of contact with the epidemic but over time there was a downward trend in some places.

Up until the end of 2002, the National Centre in HIV Social Research had obtained some data on **drug use**, especially 'recreational' drug use among homosexually active men. The data indicate high levels of drug use, particularly among men who are attached to gay community (see Table 3.1.1). From recent data collection, approximately 40–80% of gay men (depending on location) reported the use of at least one non-prescription drug 'in the previous six months'. While drug use is common, injecting drugs is very much a minority practice (see Table 2.3.2). It is difficult to comment on changes in drug use although the available data suggest stability in use on the whole.

Key qualitative findings from the *Initiation and Transition to Injecting* study, based on depth interviews with 24 young injectors recruited from Sydney and Brisbane, are presented in Section 3.2. Participants' retrospective accounts of transition to injecting highlighted the role of older persons (such as trusted friends, partners, family members, or friends of friends) in first opportunities to inject. Such opportunities typically occurred in a group setting and the young person was living away from home. The participants' accounts also pointed to fun, opportunity and experimentation being prime (though not necessarily the exclusive) motivating factors.

## Summary

Education about modes of transmission presents as the most viable means of containing the spread of **hepatitis C**. The promotion of *Blood Awareness* has been identified as a key strategy for such education as it may ensure greater care on the part of the general community in the prevention of blood exposures (see Section 4.2). However, the development of a heightened awareness of blood as a source of infection is fraught with social and health implications, particularly those resulting from phobias about blood when the latter is linked to existing sets of discrimination such as injecting drug use and racial, ethnic and sexual identity categories.

The *3D Project* highlights that people with hepatitis C infection often do not receive adequate information about their condition or referral to appropriate services following diagnosis (see Section 4.3). They experience a range of negative reactions and outcomes following disclosure of their infection. Hepatitis C-related discrimination occurs in a variety of settings and is especially salient for people identified as, or presumed to be, injecting drug users. These factors have the potential to alienate large numbers of people with hepatitis C infection from a range of health and information services, and may impede attempts to prevent the further spread of infection.

Many years have elapsed since Australia first responded to HIV and the **current climate** is very different to that at the advent of the epidemic. In general, the majority of homosexually active men have sustained a 'safe sex culture' even though sustaining safe sex over such a long period is difficult. People have aged and the young have become sexually active. Many have become accustomed to living with the epidemic—they no longer live with a constant sense of crisis. The announcement at the 11<sup>th</sup> International AIDS Conference in Vancouver in July 1996 of the comparative success of new combination antiretroviral therapies added to this sense of post-crisis. New therapies have lessened the burden on most people living with HIV and AIDS: there are fewer deaths and, despite often serious side effects, less debilitating illness among many PLWHA.

Based on extensive data from the Sydney *Gay Community Periodic Surveys*, supplemented with data from the *HIM* and *pH* cohorts, patterns of risk management among men in serodiscordant regular relationships and in casual partnerships are highlighted in Section 5.1. Among men who had unprotected anal intercourse which involved ejaculation inside their partner, there was a pattern of strategic positioning based on serostatus—HIV positive men tended to be receptive and HIV negative men tended to be insertive. Some men practised consistent withdrawal (rather than sometimes ejaculation inside) during unprotected anal intercourse with serodiscordant regular partners or with casual partners. Among these men there was also a pattern, though less pronounced, of HIV positive/receptive and HIV negative/insertive behaviour. These risk reduction strategies highlight the current complexity of HIV education.

Through the Australian-Thai HIV Vaccine Initiative, local researchers prepared to undertake trials (which commenced in Sydney in June 2003) of a locally developed HIV vaccine candidate. Important questions for the conduct of future preventive HIV vaccine efficacy trials are the degree to which HIV-negative gay men will enrol in such trials and the factors associated with willingness to participate. A scale of Willingness to Participate in HIV Vaccine Trials has been developed and data have been collected in the *HIM* cohort study. These data (see Section 5.2) provide evidence that Sydney HIV-negative gay men as a group are somewhat willing to participate in HIV vaccine trials. More likely to participate

are those who perceive themselves at greater likelihood of HIV infection and those who actually engage in sexual risks with discordant/non-concordant regular partners or with casual partners.

Based on data from *Gay Community Periodic Surveys*, there has been a recent and significant increase in awareness among gay men of the availability of post-exposure prophylaxis (PEP) (see Table 5.3). Relatively few gay men indicated that they had received PEP themselves, though larger proportions know others who have done so.

1

# *Sexual Practice*

During the period covered by this report (1998 to 2002) much of the work of the NCHSR was concerned with documenting sexual practice among homosexually active men, the population most affected by HIV. The NCHSR has also concerned itself with other populations at comparatively lower HIV risk, including young people and the general population. In this report a distinction is made between regular and casual sexual partners. This distinction is important because the meanings of sexual behaviour change depending on whether such behaviour occurs within a regular or committed relationship or in a casual encounter. Moreover, strategies for safe sex take into account the context (regular partner or casual encounter) of sexual practice. Among homosexually active men, many of whom have both regular and casual partners, the distinction is especially relevant.

## **1.1 SAFE SEX BEHAVIOUR AMONG HOMOSEXUALLY ACTIVE MEN**

With respect to homosexually active men, information in this report comes from both national data (*2000 Male Out Survey*) and State-based data. In the *2000 Male Out Survey* (Van de Ven et al., 2001)—as in the earlier studies, *Male Call 96* (Crawford et al., 1998) and *Project Male Call* in 1992 (Kippax et al., 1994)—two groups of men could be identified. One group included men who are attached to gay community, and are referred to as gay community attached (GCA). The other group consisted of men who are not attached to gay community, many of whom do not identify as gay but instead as bisexual or heterosexual and many of whom, unlike most of their gay counterparts, have sex with women as well as men. This group is designated non gay community attached (NGCA). Men in the *Male Out* study were classified as GCA or NGCA on the basis of their responses to a set of questions relating to their social life. In the *2000 Male Out Survey*, two questions relating to social life—number of gay friends; amount of free time spent with gay men—were used to classify men as GCA or NGCA. As the GCA and NGCA groups of men differed significantly with respect to many of the indicators included in this report, *2000 Male Out Survey* data are given for each group separately.

In general, data from State-based studies such as the *Gay Community Periodic Surveys*, the Health in Men cohort of HIV-negative men (*HIM*) and the Positive Health (*pH*) cohort of HIV-positive people are based mainly on men recruited from gay communities.

The most complete State-based data are from Sydney where *HIM* was available as a source of information from 2001 (Mao et al., 2002), *pH* sexual practice data from 2001, and where the *Gay Community Periodic Surveys* funded by the New South Wales Health Department have been carried out on a six-monthly basis since February 1996. Results from the Sydney *Periodic Surveys* have been reported in the form of six-monthly updates as well as published summary reports (Prestage et al., 1999; Hull, Van de Ven, Prestage et al., 2003). For the purpose of this report, Sydney *Periodic Survey* data have been aggregated in order to report on an annual basis. Data were also available from *Asian Gay Community Periodic Surveys* conducted in 1999 (Prestage et al., 2000) and 2002 (Mao et al., 2003).

Surveys based on the *Periodic Survey* questionnaire have also been carried out in Melbourne in February 1998 (Van de Ven et al., 1998a), February 2000 (Aspin et al., 2000a), February 2001 (Rawstorne et al., 2001) and February 2002 (Hull, Van de Ven et al., 2002), Queensland in June 1998 (Van de Ven et al., 1998b), June 1999 (Van de Ven, Prestage, Kippax et al., 1999c), June 2000 (Aspin et al., 2000b), June 2001 (Rawstorne et al., 2002b) and June 2002 (Hull, Rawstorne et al., 2002), Perth in October 1998 (Van de Ven et al., 1999a), October 2000 (Brown et al., 2001) and October 2002 (Hull, Brown, Van de Ven et al., 2003), Adelaide in November 1998 (Van de Ven et al., 1999b), November 1999 (Van de Ven, Prestage, Kippax et al., 2000) and November 2001 (Rawstorne et al., 2002a), and Canberra in November 2000 (Aspin et al., 2001). *Queensland Gay Community Periodic Surveys* covered Brisbane and the Sunshine Coast and Gold Coast in 1998–2002. Cairns was included from 1999 on. (In the Tables and Figures, Queensland *Periodic Survey* data are referred to as 'Brisbane' where most of the participants were recruited but data from elsewhere are included.)

Data for gay community attached (GCA) men and non gay community attached (NGCA) men in the *2000 Male Out Survey* (August–September, 2000) (Van de Ven et al., 2001) are provided for both the whole of Australia and for selected cities in order to provide some comparison with results gathered from other parts of Australia. Nationwide information relating to people living with HIV comes from *HIV Futures II* of 1999 (Grierson et al., 2000) and *HIV Futures III* of 2001 (Grierson et al., 2002).

In each of the surveys for which data are included in this report, men were asked about sexual practice in the six months prior to each survey. Key indicators in this area are:

- the percentage of men with regular and/or casual partners
- the percentage of men who engage in unprotected anal intercourse (with either regular and/or casual partners)
- the percentage of men who engage in unprotected anal intercourse with casual partners
- the percentage of men who engage in unprotected anal intercourse with regular partner/s
- mean scores on a scale of esoteric practices for men who engaged in (a) any unprotected anal intercourse, (b) unprotected anal intercourse with regular partner/s and (c) unprotected anal intercourse with casual partners.

It should be noted that in general a sizeable proportion of homosexually active men report sexual practice with both regular and casual partners.

Tables 1.1.1 to 1.1.6 show the percentages of men who engaged in the above practices over the period 1998 to 2002. Information enabling an assessment of change in behaviour over the whole of this period is now available for Sydney, Melbourne, Brisbane, Perth and Adelaide men.

## 1.1.1. PERCENTAGE REPORTING REGULAR, CASUAL, AND BOTH REGULAR AND CASUAL PARTNERS

As mentioned above, sexual behaviour often depends on the context, in particular the relationship between the people involved in the behaviour. Table 1.1.1 shows the percentage of men who reported that they had regular or casual partner/s, and those who reported both regular and casual partners in the six months prior to the survey. These percentages are derived from responses about sexual behaviour with regular and/or casual partners. These are not mutually exclusive categories, since those who had sex with both regular and casual partners were also counted as having had sex with each category of partner.

For regular partners, the GCA and NGCA samples showed a high degree of consistency in the percentages reported in Table 1.1.1. Around 60–70% of gay men reported sex with a regular partner in the six months prior to each survey, a slightly greater proportion among *HIM* participants and a slightly lower proportion among *Gay Asian Men* in Sydney in 2002.

The picture for casual partners was one of fairly consistent percentages (around 65–75%) for the GCA and NGCA samples.

Around 40–50% of men reported sex with both regular and casual partners in 2002, fairly consistent with previous years for GCA and NGCA men.

Sexual practice data became available from Sydney HIV-positive men in the Positive Health cohort study (*pH*) in 2001. Consistent with past findings, smaller proportions of HIV-positive men in 2002 reported regular/casual partners than, say, their HIV-negative counterparts in *HIM*. Therefore, in drawing conclusions throughout this report, it is important to differentiate between studies whose samples comprised HIV-negative participants only (*HIM*), HIV-positive participants only (*pH*), and those which included HIV-negative and HIV-positive as well as those who did not know their serostatus (eg *Periodic Surveys*). (Note: See Table 1.1.10 for a breakdown of some sexual practice data by serostatus.)



**Table 1.1.1: Percentage of men who reported (a) regular partners, (b) casual partners and (c) both regular and casual partners<sup>1</sup>**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>(a) Men with regular partner/s</b>										
<b>Australia</b>										
Male Out: GCA					1181	76.0				
Male Out: NGCA					651	63.6				
<b>Sydney</b>										
HIM							450	68.2	845	75.0
pH							265	49.4	235	62.6
Periodic	3037	61.3	3343	66.6	2916	64.0	2862	64.2	2884	63.0
Male Out: GCA					223	74.4				
Male Out: NGCA					78	65.4				
Gay Asian Men			319	65.8					457	56.5
<b>Melbourne</b>										
Periodic	1891	64.3			1578	63.8	1830	65.5	1877	63.6
Male Out: GCA					258	74.4				
Male Out: NGCA					103	67.0				
<b>Brisbane</b>										
Periodic	1341	61.6	1225	62.2	1285	62.5	1570	61.7	1787	59.3
Male Out: GCA					99	80.8				
Male Out: NGCA					62	61.3				
<b>Perth</b>										
Periodic	846	62.3			1035	65.6			790	63.3
Male Out: GCA					93	77.4				
Male Out: NGCA					49	53.1				
<b>Adelaide</b>										
Periodic	552	65.4	463	63.5			565	65.7		
Male Out: GCA					78	74.4				
Male Out: NGCA					42	66.7				
<b>Canberra</b>										
Periodic					350	61.4				
<b>(b) Men with casual partner/s</b>										
<b>Australia</b>										
Male Out: GCA					1181	71.7				
Male Out: NGCA					651	66.1				
<b>Sydney</b>										
HIM							450	80.0	845	77.6
pH							265	57.0	235	67.7
Periodic	3037	75.3	3343	70.3	2916	72.8	2862	73.3	2884	71.5
Male Out: GCA					223	75.3				
Male Out: NGCA					78	74.4				
Gay Asian Men			319	75.2					457	76.8
<b>Melbourne</b>										
Periodic	1891	72.0			1578	71.2	1830	66.1	1877	67.6
Male Out: GCA					258	69.8				
Male Out: NGCA					103	66.0				
<b>Brisbane</b>										
Periodic	1341	71.7	1225	73.6	1285	70.8	1570	71.6	1787	69.8
Male Out: GCA					99	70.7				
Male Out: NGCA					62	67.7				
<b>Perth</b>										
Periodic	846	65.1			1035	66.0			790	62.5
Male Out: GCA					93	71.0				
Male Out: NGCA					49	65.3				
<b>Adelaide</b>										
Periodic	552	60.5	463	61.8			565	66.4		
Male Out: GCA					78	74.4				
Male Out: NGCA					42	71.4				
<b>Canberra</b>										
Periodic					350	64.3				

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>(c) Men with both regular and casual partners</b>										
<b>Australia</b>										
Male Out: GCA					1181	52.5				
Male Out: NGCA					651	39.2				
<b>Sydney</b>										
HIM							450	49.6	845	54.9
pH							265	29.4	235	41.7
Periodic	3037	42.6	3343	42.1	2916	42.4	2862	42.7	2884	40.9
Male Out: GCA					223	52.0				
Male Out: NGCA					78	42.3				
Gay Asian Men			319	47.3					457	43.8
<b>Melbourne</b>										
Periodic	1891	42.0			1578	42.6	1830	39.0	1877	39.4
Male Out: GCA					258	49.6				
Male Out: NGCA					103	39.8				
<b>Brisbane</b>										
Periodic	1341	42.7	1225	42.4	1285	41.6	1570	40.9	1787	38.4
Male Out: GCA					99	55.6				
Male Out: NGCA					62	38.7				
<b>Perth</b>										
Periodic	846	40.0			1035	39.5			790	35.6
Male Out: GCA					93	52.7				
Male Out: NGCA					49	30.6				
<b>Adelaide</b>										
Periodic	552	36.1	463	35.6			565	40.2		
Male Out: GCA					78	50.0				
Male Out: NGCA					42	47.6				
<b>Canberra</b>										
Periodic					350	34.3				

<sup>1</sup> Based on responses to questions about sexual behaviour with regular and/or casual partners.

## 1.1.2 PERCENTAGE ENGAGING IN ANY ANAL INTERCOURSE

The following table (1.1.2) shows the percentage of men who reported that they had engaged in any anal intercourse with either regular or casual sex partners—including anal intercourse without ejaculation ('withdrawal') during the six months prior to the survey.

Generally, around 70–80% of gay men engaged in any anal intercourse during the six months prior to interview, slightly greater proportions among *HIM* participants.

**Table 1.1.2: Men engaging in any anal intercourse**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
Male Out: GCA					1181	85.3				
Male Out: NGCA					651	76.2				
<b>Sydney</b>										
HIM							450	92.9	845	90.4
pH							232	81.9	214	82.2
Periodic	3037	83.5	3343	82.4	2916	84.0	2862	85.5	2884	84.4
Male Out: GCA					223	87.0				
Male Out: NGCA					78	83.3				
Gay Asian Men			319	76.8					457	74.6
<b>Melbourne</b>										
Periodic	1891	79.5			1578	80.1	1830	78.9	1877	78.8
Male Out: GCA					258	84.1				
Male Out: NGCA					103	73.8				
<b>Brisbane</b>										
Periodic	1341	77.4	1225	80.7	1285	79.8	1570	81.1	1787	78.8
Male Out: GCA					99	85.9				
Male Out: NGCA					62	66.1				
<b>Perth</b>										
Periodic	846	70.7			1035	77.4			790	75.2
Male Out: GCA					93	86.0				
Male Out: NGCA					49	77.6				
<b>Adelaide</b>										
Periodic	552	75.0	463	75.2			565	77.3		
Male Out: GCA					78	87.2				
Male Out: NGCA					42	78.6				
<b>Canberra</b>										
Periodic					350	77.7				

### 1.1.3 PERCENTAGE ENGAGING IN ANY UNPROTECTED ANAL INTERCOURSE

The following table (1.1.3) shows the number and percentage of men who reported that they had engaged in unprotected anal intercourse at last once in the six months prior to interview—including anal intercourse without ejaculation ('withdrawal')—with any male partner/s, regular or casual for the years 1998 to 2002. This indicator varied considerably from sample to sample reflecting differences between samples with respect to sex with regular/casual partners as shown in Table 1.1.1 above. Nevertheless, there was an overall trend from 1998 toward a greater proportion of men engaging in any unprotected anal intercourse. In the *Periodic Surveys* in Sydney, Melbourne, Brisbane and Perth there was a significant upward trend in any engagement in unprotected anal intercourse, a trend not evident in the data from Adelaide nor among Gay Asian Men in Sydney. Data from the last two years are strongly suggestive of rates of unprotected anal intercourse having reached a plateau.

**Table 1.1.3: Men engaging in unprotected anal intercourse**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
Male Out: GCA					1181	56.5				
Male Out: NGCA					651	50.5				
<b>Sydney</b>										
HIM							450	63.1	845	64.6
pH							232	50.0	214	55.6
Periodic	3037	41.7	3343	43.1	2916	48.3	2862	51.2	2884	51.3
Male Out: GCA					223	54.3				
Male Out: NGCA					78	48.7				
Gay Asian Men			319	36.4					457	31.9
<b>Melbourne</b>										
Periodic	1891	36.8			1578	42.6	1830	46.8	1877	46.2
Male Out: GCA					258	51.6				
Male Out: NGCA					103	46.6				
<b>Brisbane</b>										
Periodic	1341	38.3	1225	38.8	1285	44.0	1570	44.0	1787	45.1
Male Out: GCA					99	60.6				
Male Out: NGCA					62	50.0				
<b>Perth</b>										
Periodic	846	36.1			1035	45.7			790	45.4
Male Out: GCA					93	57.0				
Male Out: NGCA					49	44.9				
<b>Adelaide</b>										
Periodic	552	41.7	463	39.7			565	41.9		
Male Out: GCA					78	50.0				
Male Out: NGCA					42	50.0				
<b>Canberra</b>										
Periodic					350	42.9				

## 1.1.4 PERCENTAGE ENGAGING IN UNPROTECTED ANAL INTERCOURSE WITH CASUAL PARTNERS

The following tables (1.1.4a—total samples; 1.1.4b—reduced base of those who had casual partners) show the number and percentage of men who reported that they had engaged in unprotected anal intercourse—including anal intercourse without ejaculation (‘withdrawal’)—with casual partners during the six months prior to the survey for the years 1998 to 2002.

Data from the *Gay Community Periodic Surveys* conducted in Sydney, Melbourne, Brisbane and Perth provide evidence of significant increases in rates of unprotected anal intercourse with casual partners (not the case in Adelaide or among Gay Asian Men in Sydney). More detailed analyses of the data from the *Sydney Periodic Surveys* pinpoint that the upturn was significant for the five consecutive Fair Day samples as well as for the samples of men recruited from clinics and gay community venues (see ‘Consistent sites’ in Table 1.1.4a). Evidence from the latter years of data collection is suggestive that rates of unprotected anal intercourse with casual partners have reached a plateau.

**Table 1.1.4a: Men engaging in unprotected anal intercourse with casual partners (based on all the men who participated)**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
Male Out: GCA					1181	25.7				
Male Out: NGCA					651	25.3				
<b>Sydney</b>										
HIM							450	30.0	845	29.1
pH							232	34.1	214	41.6
Periodic										
Total sample	3037	18.2	3343	18.5	2916	23.0	2862	25.7	2884	24.5
Consistent sites	1274	23.2	1103	27.3	995	31.9	903	37.1	572	37.9
Fair Days	1156	12.7	1436	12.5	1162	14.5	1326	17.6	1432	16.6
Male Out: GCA					223	26.9				
Male Out: NGCA					78	20.5				
Gay Asian Men			319	16.3					457	14.4
<b>Melbourne</b>										
Periodic	1891	13.4			1578	16.6	1830	17.0	1877	19.1
Male Out: GCA					258	19.8				
Male Out: NGCA					103	21.4				
<b>Brisbane</b>										
Periodic	1341	14.0	1225	14.7	1285	18.4	1570	19.2	1787	22.1
Male Out: GCA					99	26.3				
Male Out: NGCA					62	21.0				
<b>Perth</b>										
Periodic	846	11.8			1035	18.1			790	18.5
Male Out: GCA					93	18.3				
Male Out: NGCA					49	24.5				
<b>Adelaide</b>										
Periodic	552	14.1	463	12.1			565	15.9		
Male Out: GCA					78	19.2				
Male Out: NGCA					42	28.6				
<b>Canberra</b>										
Periodic					350	14.3				

Key data from Table 1.1.4a—based on total samples—are also presented graphically in Figure 1. Where available, relevant data from surveys conducted during the two years prior to 1998 are also included. For the purposes of comparison with the *Periodic* surveys, only data for GCA men are presented from the *Male Call/Out* surveys. (Note that for legibility the Y-axis has been drawn from 0–50% rather than the complete 0–100%.)

**Figure 1: Percentage of men engaging in unprotected anal intercourse with casual partners**

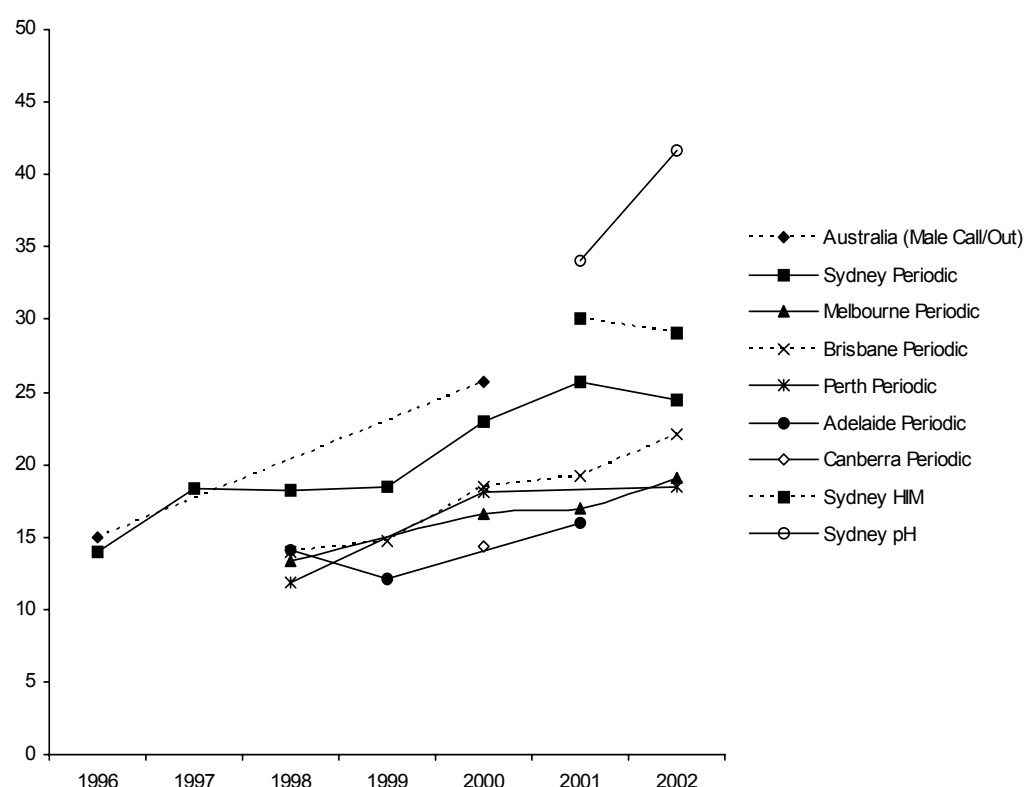


Table 1.1.4b, based on those men who had casual partners, shows the number and percentage of men who reported that they had engaged in any unprotected anal intercourse—including anal intercourse without ejaculation ('withdrawal')—with casual partners during the six months prior to the survey for the years 1998 to 2002. For the *Periodic Survey* datasets from Sydney, Melbourne, Brisbane and Perth (but not Adelaide or Gay Asian Men in Sydney), there was a significant increase over time in the proportion of men engaging in unprotected anal intercourse with their casual partners. Evidence from the latter years of *Periodic Survey* and *HIM* data collection in Sydney suggests that rates of unprotected anal intercourse with casual partners have reached a plateau (although Melbourne, Brisbane and Perth *Periodic Survey* data are inconclusive as to whether rates have peaked when the reduced base of those with casual partners is examined).

**Table 1.1.4b: Men engaging in unprotected anal intercourse with casual partners (based on the men who had casual partners)**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
Male Out: GCA					847	35.8				
Male Out: NGCA					430	38.4				
<b>Sydney</b>										
HIM							360	37.5	656	37.5
pH							151	52.3	159	56.0
Periodic										
Total sample	2287	24.1	2350	26.4	2122	31.6	2098	35.0	2062	34.2
4 consistent sites	1094	27.0	927	32.5	841	37.7	790	42.4	487	44.6
Fair Days	780	18.8	876	20.8	732	23.0	845	27.7	922	25.8
Male Out: GCA					168	35.7				
Male Out: NGCA					58	27.6				
Gay Asian Men			240	21.7					351	18.8
<b>Melbourne</b>										
Periodic	1362	18.6			1123	23.3	1209	25.7	1268	28.3
Male Out: GCA					180	28.3				
Male Out: NGCA					68	32.4				
<b>Brisbane</b>										
Periodic	962	19.5	901	20.0	910	25.9	1124	26.9	1248	31.7
Male Out: GCA					70	37.1				
Male Out: NGCA					42	31.0				
<b>Perth</b>										
Periodic	551	18.1			683	27.4			494	29.6
Male Out: GCA					66	25.8				
Male Out: NGCA					32	37.5				
<b>Adelaide</b>										
Periodic	334	23.4	286	19.6			375	24.0		
Male Out: GCA					58	25.9				
Male Out: NGCA					30	40.0				
<b>Canberra</b>										
Periodic					225	22.2				

### 1.1.5 PERCENTAGE ENGAGING IN UNPROTECTED ANAL INTERCOURSE WITH REGULAR PARTNERS

The following tables (1.1.5a—total samples; 1.1.5b—reduced base of those who had regular partners) show the number and percentage of men who reported that they had engaged in any unprotected anal intercourse—including anal intercourse without ejaculation (‘withdrawal’)—with regular partners during the six months prior to the survey for the years 1998 to 2002.

Based on the Sydney *Periodic Surveys* values for this indicator increased significantly, for the overall samples and for the different recruitment sites (but not among Gay Asian Men). For HIV-negative gay men in the *HIM* cohort, there was also an increase overall.

Data from other areas of Australia also show a consistent pattern of increase (except the Adelaide *Periodic Survey* which shows no significant change, and the Canberra *Periodic Survey* for which there was one data point only). Data from the *Gay Community Periodic Surveys* conducted in Melbourne, Brisbane and Perth provide evidence of increases in levels of unprotected anal intercourse with regular partners.

**Table 1.1.5a: Men engaging in unprotected anal intercourse with regular partners (based on all the men who participated)**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
Male Out: GCA					1181	49.7				
Male Out: NGCA					651	40.4				
<b>Sydney</b>										
HIM							450	43.1	845	49.5
pH							232	29.3	214	31.3
Periodic										
Total sample	3037	30.4	3343	34.0	2916	35.0	2862	35.8	2884	36.9
4 consistent sites	1274	25.1	1103	30.5	995	28.2	903	31.6	572	28.8
Fair Days	1156	35.5	1450	38.0	1162	39.8	1326	37.8	1432	41.1
Male Out: GCA					223	45.3				
Male Out: NGCA					78	38.5				
Gay Asian Men			319	27.9					457	24.3
<b>Melbourne</b>										
Periodic	1891	29.1			1578	33.2	1830	37.5	1877	34.9
Male Out: GCA					258	43.8				
Male Out: NGCA					103	36.9				
<b>Brisbane</b>										
Periodic	1341	30.6	1225	29.9	1285	34.2	1570	33.4	1787	33.1
Male Out: GCA					99	54.5				
Male Out: NGCA					62	38.7				
<b>Perth</b>										
Periodic	846	30.0			1035	36.3			790	34.7
Male Out: GCA					93	52.7				
Male Out: NGCA					49	30.6				
<b>Adelaide</b>										
Periodic	552	34.4	463	33.0			565	34.7		
Male Out: GCA					78	42.3				
Male Out: NGCA					42	40.5				
<b>Canberra</b>										
Periodic					350	34.0				



Key data from Table 1.1.5a—based on total samples—are presented graphically in Figure 2. Again, where available, relevant data from surveys conducted during the two years prior to 1998 are also included. For the purposes of comparison with the *Periodic* surveys, only data for GCA men are presented from the *Male Call/Out* surveys. (Note that for legibility the Y-axis has been drawn from 0–70% rather than the complete 0–100%.)

**Figure 2: Percentage of men engaging in unprotected anal intercourse with regular partners**

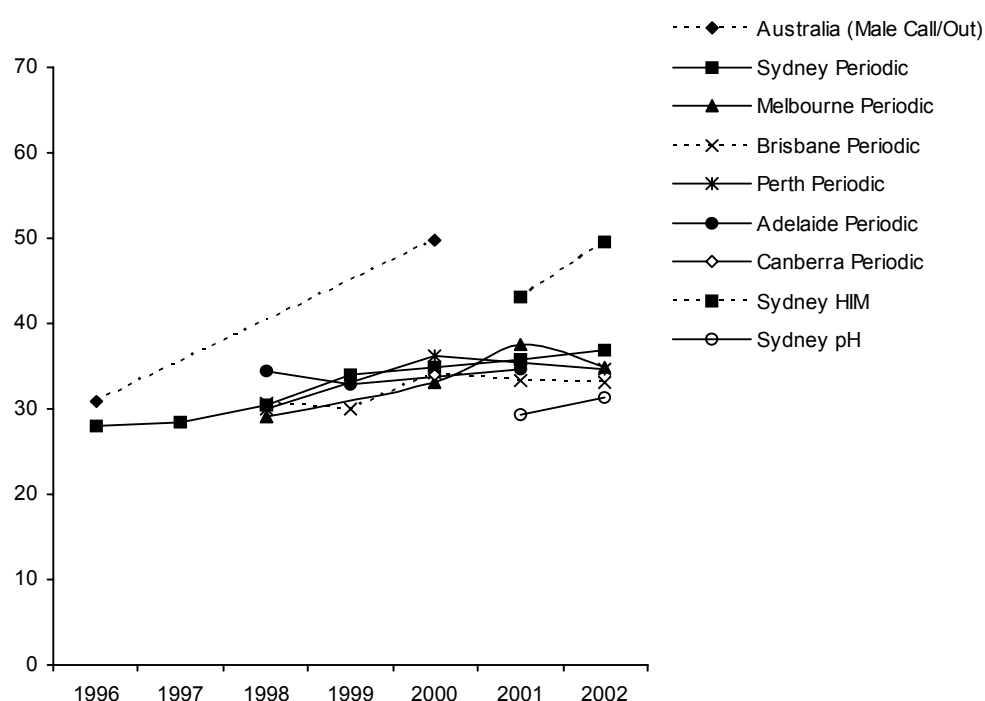


Table 1.1.5b, based on those men who had regular partners, shows the number and percentage of men who reported that they had engaged in unprotected anal intercourse—including anal intercourse without ejaculation ('withdrawal')—with regular partners during the six months prior to the respective survey for the years 1998 to 2002. In most of the datasets, there was a significant increase over time in the proportion of men engaging in unprotected anal intercourse with regular partners. The upward trend applied to *Periodic Survey* data from Sydney, Melbourne, Brisbane and Perth (but not Adelaide or Gay Asian Men in Sydney).

**Table 1.1.5b: Men engaging in unprotected anal intercourse with regular partners (based on the men who had regular partners)**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
Male Out: GCA					898	65.4				
Male Out: NGCA					414	63.5				
<b>Sydney</b>										
HIM							307	63.2	634	65.9
pH							132	51.5	139	48.2
Periodic										
Total sample	1862	49.3	2227	51.0	1867	54.6	1836	55.8	1816	58.6
4 consistent sites	700	45.7	669	50.2	549	51.2	493	57.8	289	57.1
Fair Days	797	51.4	1049	52.5	821	56.4	926	54.1	998	59.0
Male Out: GCA					166	60.8				
Male Out: NGCA					51	58.8				
Gay Asian Men			210	42.4					258	43.0
<b>Melbourne</b>										
Periodic	1215	45.3			1007	52.0	1199	57.2	1193	54.9
Male Out: GCA					192	58.9				
Male Out: NGCA					69	55.1				
<b>Brisbane</b>										
Periodic	826	49.8	762	48.0	803	54.8	968	54.2	1059	55.8
Male Out: GCA					80	67.5				
Male Out: NGCA					38	63.2				
<b>Perth</b>										
Periodic	527	48.2			679	55.4			500	54.8
Male Out: GCA					72	68.1				
Male Out: NGCA					26	57.7				
<b>Adelaide</b>										
Periodic	361	52.6	294	52.0			371	52.8		
Male Out: GCA					58	56.9				
Male Out: NGCA					28	60.7				
<b>Canberra</b>										
Periodic					215	55.3				

## 1.1.6 RANGE OF ESOTERIC PRACTICES

Research at the NCHSR (Kippax et al., 1998) has indicated that there is a significant relationship between seroconversion and engaging in a range of esoteric practices, although these specific practices are not directly related to transmission of HIV. These practices include fisting, urolagnia (water sports), use of sex toys, cock rings, engaging in sadomasochistic and bondage/dominance practices, and dressing up as part of fantasy. Although information in Table 1.1.6 confirms that there is a significant relationship between engaging in esoteric practices and engaging in unprotected anal intercourse, there is no evidence for change over time in the level of engagement in these practices.

The following table gives the number and mean score on a scale of esoteric practices for men who reported any unprotected anal intercourse (UAI) and those who did not report any unprotected anal intercourse (no UAI). N refers to the number from which the mean was calculated.

**Table 1.1.6: Mean of esoteric practices by unprotected anal intercourse (UAI)<sup>1</sup>**

Source	1998		1999		2000		2001		2002	
	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
<b>Sydney</b>										
HIM										
Any UAI							284	2.08	546	1.87
No UAI							166	1.14	299	1.24
pH										
Any UAI							116	3.38	119	3.29
No UAI							116	1.39	95	1.40

<sup>1</sup> The difference between the means for those who did and those who did not report unprotected anal intercourse was statistically significant for both studies.

### 1.1.7 TESTING FOR HIV AMONG HOMOSEXUALLY ACTIVE MEN

Table 1.1.7 shows that, among homosexually active men who are socially attached to gay community (GCA) a large percentage, over 80% of those in each sample, have ever been tested for HIV. Nevertheless, the most recent round of complete data (2002) from the *Periodic Surveys* provides evidence of slightly increasing proportions of gay men without HIV test results in Melbourne and Brisbane. (Trends for Sydney, Perth and Adelaide were flat.)

Among homosexually active men not socially attached to gay community (NGCA), *Male Out* data from 2000 indicated less HIV testing than among GCA counterparts. The most recent data (2002) from the *Asian Gay Community Periodic Survey* in Sydney indicated less HIV testing overall in this group, although no change from 1999.

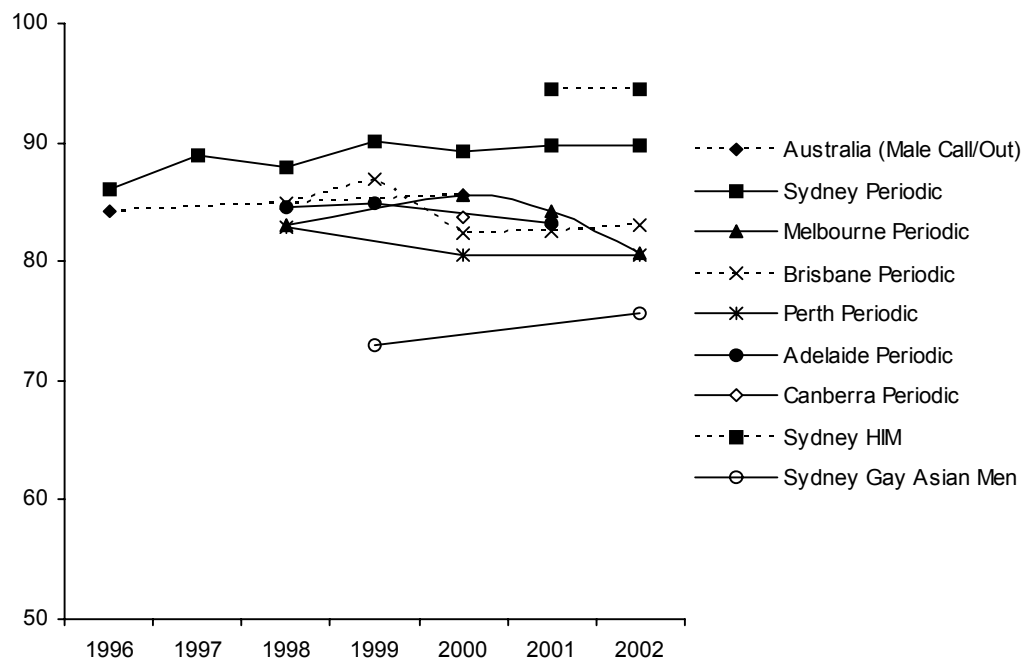
**Table 1.1.7: Percentage of men who had ever been tested for HIV**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
Male Out: GCA					1181	85.5				
Male Out: NGCA					651	67.0				
<b>Sydney</b>										
HIM <sup>1</sup>							450	94.4	453	94.5
Periodic	3037	87.9	3343	90.1	2916	89.2	2862	89.7	2884	89.8
Male Out: GCA					223	85.7				
Male Out: NGCA					78	76.9				
Gay Asian Men			319	73.0					457	75.7
<b>Melbourne</b>										
Periodic	1891	83.0			1578	85.6	1830	84.2	1877	80.7
Male Out: GCA					258	88.8				
Male Out: NGCA					103	64.1				
<b>Brisbane</b>										
Periodic	1341	84.9	1225	86.9	1285	82.4	1570	82.5	1787	83.0
Male Out: GCA					99	90.9				
Male Out: NGCA					62	69.4				
<b>Perth</b>										
Periodic	846	82.9			1035	80.5			790	80.6
Male Out: GCA					93	86.0				
Male Out: NGCA					49	73.5				
<b>Adelaide</b>										
Periodic	552	84.6	463	84.9			565	83.2		
Male Out: GCA					78	88.5				
Male Out: NGCA					42	64.3				
<b>Canberra</b>										
Periodic					350	83.7				

<sup>1</sup>Based on new participants in *HIM* as annual HIV testing is a criterion for participation in the cohort.

Key data from Table 1.1.7 are presented graphically in Figure 3. Again, where available, relevant data from surveys conducted during the two years prior to 1998 are also included. For the purposes of comparison with the *Periodic* surveys, only data for GCA men are presented from the *Male Call/Out* surveys. (Note that for legibility the Y-axis has been drawn from 50–100% rather than the complete 0–100%.)

**Figure 3: Percentage of men who had ever been tested for HIV**



### 1.1.8 FREQUENCY OF TESTING FOR HIV-NEGATIVE MEN

One of the ways in which some homosexually active men have responded to the HIV/AIDS epidemic is to monitor their own HIV antibody status by a series of HIV antibody tests. Table 1.1.8 gives information from a number of studies regarding recent testing for HIV. The question asked was, 'How long is it since you had a test for HIV?', and the percentages were derived by counting those whose responses indicated that they had been tested within the six months prior to the respective surveys. The data from the *HIM* cohort (2001 to 2002) and *Periodic Surveys* in Melbourne (1998 to 2002) and among *Gay Asian Men* in Sydney (1999 to 2002) indicate a decline in recent HIV testing (among those ever tested). No trends were evident in other cities/studies.

**Table 1.1.8: Homosexually active men who are HIV-negative: tested for HIV within the six months prior to the survey**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
Male Out: GCA					924	40.5				
Male Out: NGCA					419	33.4				
<b>Sydney</b>										
<i>HIM</i> <sup>1</sup>							425	59.3	428	51.6
Periodic	2041	48.8	2381	47.8	2099	47.0	2095	44.4	2144	50.3
Male Out: GCA					169	43.8				
Male Out: NGCA					59	27.1				
Gay Asian Men			223	48.0					330	39.4
<b>Melbourne</b>										
Periodic	1413	44.6			1201	41.5	1373	40.3	1412	39.4
Male Out: GCA					215	36.3				
Male Out: NGCA					57	29.8				
<b>Brisbane</b>										
Periodic	1021	51.5	942	50.0	981	50.2	1217	51.0	1381	50.5
Male Out: GCA					82	39.0				
Male Out: NGCA					41	26.8				
<b>Perth</b>										
Periodic	662	45.2			792	40.9			596	42.8
Male Out: GCA					77	41.6				
Male Out: NGCA					35	48.6				
<b>Adelaide</b>										
Periodic	420	46.7	353	43.3			431	45.5		
Male Out: GCA					66	37.9				
Male Out: NGCA					27	29.6				
<b>Canberra</b>										
Periodic					270	33.7				

<sup>1</sup>Based on new participants in *HIM* as annual HIV testing is a criterion for participation in the cohort.

## 1.1.9 TESTING AMONG MEN UNDER 25

Findings from *Male Call 96* (Crawford et al., 1998) and the *2000 Male Out* survey (Van de Ven et al., 2001) indicated a significant downward trend in the percentage of young men under the age of 25 who had been tested for HIV. Table 1.1.9 shows a variable picture for HIV testing among younger gay and homosexually active men. These data are based in part on small numbers so should be treated with caution.

Brisbane, Perth and Sydney Asian Gay Community *Periodic Survey* figures confirm a significant downward trend in HIV testing among younger gay men. Melbourne and Adelaide *Periodic Survey* data indicate no significant linear trend, as do overall Sydney *Periodic Survey* data taken as a whole over the period 1998 to 2002.

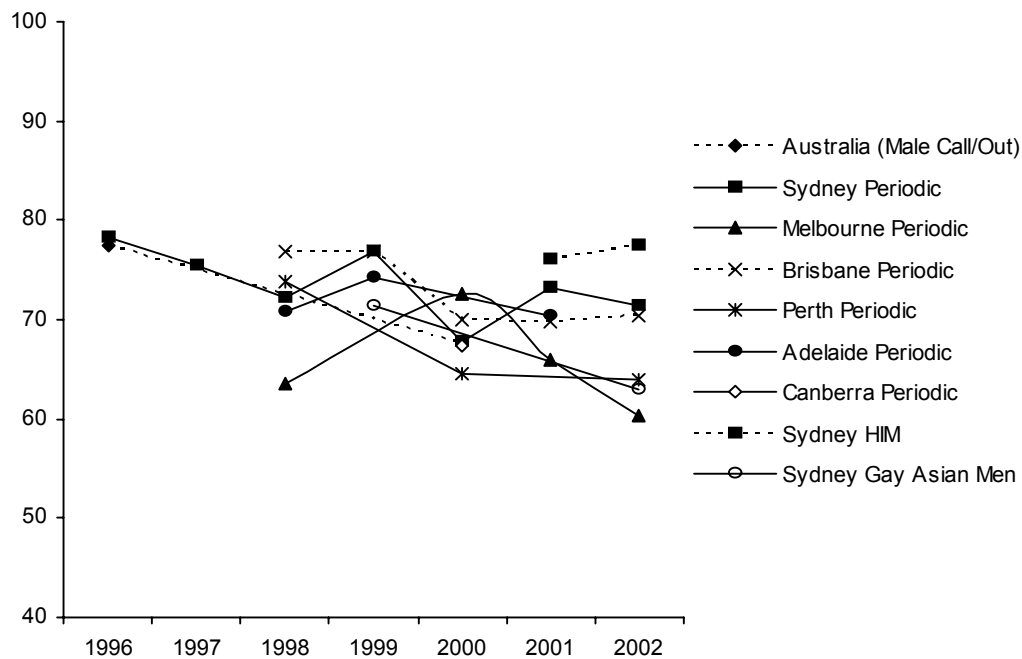
**Table 1.1.9: Men under 25 ever tested for HIV**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
Male Out: GCA					71	67.6				
Male Out: NGCA					65	52.3				
<b>Sydney</b>										
HIM <sup>1</sup>							46	76.1	53	77.4
Periodic	320	72.2	346	76.9	260	67.7	281	73.3	291	71.5
Male Out: GCA					11	—				
Gay Asian men			56	71.4					62	62.9
<b>Melbourne</b>										
Periodic	286	63.6			223	72.6	267	65.9	307	60.3
Male Out: GCA					10	—				
<b>Brisbane</b>										
Periodic	224	76.8	212	76.9	291	70.1	439	69.7	409	70.4
Male Out: GCA					12	—				
<b>Perth</b>										
Periodic	119	73.9			198	64.6			175	64.0
Male Out: GCA					8	—				
<b>Adelaide</b>										
Periodic	103	70.9	74	74.3			115	70.4		
Male Out: GCA					5	—				
<b>Canberra</b>										
Periodic					52	67.3				

<sup>1</sup>Based on new participants in *HIM* as annual HIV testing is a criterion for participation in the cohort.

Key data from Table 1.1.9 are presented graphically in Figure 4. Where available, relevant data from surveys conducted during the two years prior to 1998 are also included. For the purposes of comparison with the *Gay Community Periodic Surveys*, only data for GCA men are presented from the *Male Call/Out* surveys. (Note that for legibility the Y-axis has been drawn from 40–100% rather than the complete 0–100%.)

**Figure 4: Percentage of men under 25 ever tested for HIV**





## 1.1.10 PERCENTAGE ENGAGING IN UNPROTECTED ANAL INTERCOURSE WITH CASUAL PARTNERS BY SEROSTATUS

The following table (1.1.10) shows the number and percentage of men who engaged in any unprotected anal intercourse with casual partners by serostatus during the six months prior to the survey for the years 1998 to 2002. It confirms that men who are HIV-positive are more likely to engage in unprotected anal intercourse with casual partners than men who are HIV-negative. Some unprotected anal intercourse reported by people living with HIV may be with partners who are also HIV antibody positive. Note, however, that information from *SMASH* (Grulich et al., 1998) showed that even if positive men who engaged in unprotected anal intercourse only with other positive men are removed, the remainder of positive men report more unprotected anal intercourse with casual partners than do negative men.

Data from the *Periodic Surveys* conducted in Sydney, Melbourne and Brisbane provide evidence of increasing engagement in unprotected anal intercourse with casual partners among HIV-positive and HIV-negative men alike. Perth *Periodic Survey* data indicated an increasing trend among HIV-negative men but not among their HIV-positive counterparts.

Information comparable to that in the following table is not provided for unprotected anal intercourse with regular partners because it would be meaningful only if the data were further categorised according to the seroconcordance of the partners. In most of the studies, this would result in very small numbers from which to calculate percentages. Section 1.1.11 addresses the related issue of agreements reached between regular partners regarding protection for anal intercourse within and outside the relationship.

**Table 1.1.10: Men engaging in unprotected anal intercourse with casual partners by serostatus<sup>1</sup>**  
(based on the men who had casual partners)

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
HIV Futures										
Positive <sup>2</sup>			795	26.3			725	29.1		
Male Out										
Positive					69	62.3				
Negative					936	34.3				
<b>Sydney</b>										
HIM										
Negative							360	37.5	656	37.5
pH										
Positive							151	52.3	159	56.0
Periodic										
Positive	502	38.4	481	43.2	404	51.5	375	61.3	337	59.9
Negative	1526	19.9	1647	21.9	1519	27.3	1521	28.8	1521	29.3
Gay Asian Men										
Positive			7	— <sup>3</sup>					16	— <sup>3</sup>
Negative					173	19.7			255	15.7
<b>Melbourne</b>										
Periodic										
Positive	135	33.3			110	36.4	115	49.6	122	57.4
Negative	1019	15.9			864	22.2	909	23.0	972	24.6
<b>Brisbane</b>										
Periodic										
Positive	86	30.2	74	27.0	68	42.6	74	48.6	96	47.9
Negative	735	17.6	696	19.5	696	24.9	869	25.1	963	30.1
<b>Perth</b>										
Periodic										
Positive	33	33.3			42	26.2			18	33.3
Negative	440	16.1			530	27.9			381	28.9
<b>Adelaide</b>										
Periodic										
Positive	28	42.9	25	32.0			24	41.7		
Negative	260	20.8	216	18.5			293	23.9		
<b>Canberra</b>										
Periodic										
Positive					10	— <sup>3</sup>				
Negative					175	21.7				

<sup>1</sup>This table excludes men whose serostatus was unknown, either because they reported that they had not been tested or because they did not provide information regarding serostatus. The difference between positive and negative men in the percentage who reported unprotected anal intercourse with casual partners is statistically significant throughout, except for the Perth 2000 *Periodic Survey* data.

<sup>2</sup>*HIV Futures* figures are an underestimation as they are based on all homosexual/bisexual participants, not just those who had casual male partners—such reduced base could not be determined because of the way questions were asked.

<sup>3</sup>Number of men too small to give a reliable percentage.

## **1.1.11 AGREEMENTS AMONG HOMOSEXUALLY ACTIVE MEN WITH REGULAR PARTNERS REGARDING UNPROTECTED ANAL INTERCOURSE**

Agreements with regular partners to have only protected anal intercourse (or no anal intercourse) both within the relationship and with casual partners (that is, outside the relationship) are regarded as 'safe sex' agreements, regardless of the serostatus of the partners. Agreements with regular partners to have some unprotected anal intercourse can be assessed for safety only if both partners have been tested and each knows the serostatus of the other. That is, unless the seroconcordance (or otherwise) of men in regular relationships can be assessed reliably by such men, any agreement to have unprotected anal intercourse within the relationship is not a safe sex agreement. Table 1.1.11 shows the percentage of men with regular partners in seroconcordant relationships, and relationships which were not known to be seroconcordant, who had agreements to engage only in 'safe' sex. An agreement to have unprotected anal intercourse was classified as a safe sex agreement when: partners were seroconcordant (either positive or negative); had a clear spoken agreement regarding anal intercourse within the relationship; and a clear spoken agreement existed regarding anal intercourse with casual partners which involved no unprotected anal intercourse outside the relationship. Research at NCHSR has highlighted the importance of agreements in a series of published papers relating to 'negotiated safety' (Crawford et al., 2001; Kippax et al., 1993; Kippax, Noble, Prestage et al., 1997; Van de Ven et al., 1999). Findings from this research show that a high proportion of men have agreements and stick to them.

Only men with regular partners were included in Table 1.1.11. In this table, non concordant refers to men in relationships with regular partners where HIV serostatus of both partners was known and was discordant, or serostatus of one or both partners was stated as 'unknown'. In every study, very few respondents reported that they were in a serodiscordant relationship, and this is why data from such respondents have been included in the non concordant category rather than being reported separately. Men with regular partners who did not respond to questions regarding their own or their partner's serostatus were excluded from the table.

The data are consistent across a number of studies in suggesting that around 70% of men in seroconcordant relationships have an agreement to have 'safe' sex only (that is, to have no unprotected anal intercourse outside the seroconcordant relationship). The exception is among Gay Asian Men in Sydney where safe sex agreements pertain to approximately 50% of those in seroconcordant relationships. There is no evidence in the various *Periodic Surveys* that this percentage is changing (except in Brisbane which indicates a downward trend).

Among non concordant couples, the percentage with an agreement to have only 'safe' sex—that is an agreement to have no unprotected anal intercourse at all (either within the relationship or with casual partners)—is around 30% in most samples, but sometimes lower, especially in the later years of data collection.

Of those without safe sex agreements, both concordant and non concordant, some had agreements which allow the possibility of unsafe sex, some had no agreements, and some did not answer the questions. (Note: Lack of a safe sex agreement does not necessarily imply unsafe practice.)

**Table 1.1.11: Men with regular partners with 'safe sex agreements' by seroconcordance**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
Male Out										
Seroconcordant					605	70.6				
Non concordant					246	27.2				
<b>Sydney</b>										
HIM										
Seroconcordant							209	72.7	437	69.6
Non concordant							67	22.4	176	20.5
pH										
Seroconcordant									67	38.8
Non concordant									122	23.8
Periodic										
Seroconcordant	847	72.6	1032	73.0	865	70.9	857	71.8	885	72.9
Non concordant	534	38.6	563	37.7	460	38.7	483	36.0	424	29.7
Male Out										
Seroconcordant					98	77.6				
Non concordant					38	34.2				
Gay Asian Men										
Seroconcordant			90	45.6					102	52.0
Non concordant			74	27.0					94	21.3
<b>Melbourne</b>										
Periodic										
Seroconcordant	545	72.8			423	68.8	571	73.2	515	71.7
Non concordant	351	30.5			232	28.0	320	26.6	318	25.8
Male Out										
Seroconcordant					123	78.9				
Non concordant					52	21.2				
<b>Brisbane</b>										
Periodic										
Seroconcordant	395	75.2	368	75.0	365	71.0	431	72.4	514	63.6
Non concordant	228	28.1	214	39.3	231	28.1	256	26.2	247	30.4
Male Out										
Seroconcordant					54	74.1				
Non concordant					25	40.0				
<b>Perth</b>										
Periodic										
Seroconcordant	224	71.9			278	74.8			204	67.6
Non concordant	134	33.6			200	25.0			136	25.0
Male Out										
Seroconcordant					54	72.2				
Non concordant					21	33.3				
<b>Adelaide</b>										
Periodic										
Seroconcordant	171	67.8	146	76.0			183	61.2		
Non concordant	83	27.7	74	40.5			83	26.5		
Male Out										
Seroconcordant					38	76.3				
Non concordant					13	30.8				
<b>Canberra</b>										
Periodic										

## 1.1.12 HIV INCIDENCE IN THE HIM COHORT

Among other things, the *HIM* cohort allows estimates of HIV incidence in the population from which participants are drawn, namely Sydney gay community. As shown in Table 1.1.12, based on the first year of data collection (including HIV testing) HIV incidence was recorded at 0.73 per 100PY.

**Table 1.1.12: HIV seroconversion in the HIM cohort**

	Intake 2001 <sup>1</sup>
Number recruited	451
Number completed first follow-up interview	392
Number of confirmed HIV seroconversions	3
Incidence rate (per 100PY)	0.73

<sup>1</sup>First annual follow-up interviews conducted in 2002.

## 1.2 OTHER STUDIES

Since the publication of our last *Annual Report of Behaviour* (Van de Ven, Rawstorne & Treloar [Eds], 2002), the information available on populations other than homosexually active men has been transformed by the publication of the main report of the Australian Study of Health and Relationships, a grant-funded study carried out jointly by the Australian Research Centre in Sex, Health and Society (La Trobe University), NCHSR, NCHECR and the Health Promotion Unit of Central Sydney Area Health Service. The study surveyed 19,307 Australians aged 16 to 59 and is thus the largest representative sample survey on sexual health behaviour, attitudes and knowledge ever carried out in Australia and one of the larger national sex surveys around the world (Smith et al., 2003a).

Sections 1.2.2 and 1.2.3 present summary results from convenience-sample surveys of university students and of women in contact with the gay and lesbian community in Sydney.

### 1.2.1 THE AUSTRALIAN STUDY OF HEALTH AND RELATIONSHIPS

Telephone interviews were carried out from mid-2001 to mid-2002 with 10,173 men and 9,134 women in households (i.e. not in institutions such as hospitals, boarding houses or prisons), with an overall response rate of 73.1%. The response rate was higher in women than men, but men in central Sydney were over-sampled to give a large enough sample size to enable accurate comparisons with targeted samples of homosexually active men. The sample was weighted to reflect the location, age and sex distribution of the 2001 Census, and is therefore regarded as being broadly representative of the Australian population. The full report (volume 27 number 2 of the *Australian and New Zealand Journal of Public Health*) can be purchased for \$30 from the Australian Research Centre in Sex, Health and Society at [www.latrobe.edu.au/arcshts](http://www.latrobe.edu.au/arcshts).

Percentages are presented below without standard errors or confidence intervals (CI). The 95% CIs for estimates involving the entire sample will be within one percentage point either side of the estimates. When smaller subsamples are used, the standard error increases. Thus for a subsample of 331 (1.7% of the total sample) if the observed percentage is 50%, the 95% CI is from 42% to 58%, and if the observed percentage is 5%, the 95% CI is 0.7% to 9.3%.

## **SEXUAL BEHAVIOUR**

Of the total sample, 85.3% of men and 89.5% of women were in a regular heterosexual relationship. Of those, 82.7% (72.3% of the total) lived together. People who had had a regular partner for the past 12 months (about 90% of those with regular partners) had had sex with their partner an average of 1.84 times per week in the four weeks before interview; younger people had sex more often. Among people who had had a regular partner for the past 12 months, 4.9% of men and 2.9% of women had had sex with someone else in the past year (Rissel et al., 2003a).

For men, the median age at first vaginal intercourse declined from 18 among men aged 50–59 to 16 for men aged 16–19. For women the decline in median age was from 19 to 16. Contraceptive use at first intercourse has increased from less than 30% of men and women in the 1950s to over 90% in the 2000s (Rissel et al., 2003b).

Men had had more opposite-sex partners than women in their lifetime (mean 16.5, median 6) than women (mean 6.8, median 3) and also in the last year (men: mean 1.5, median 1; women: mean 1.0, median 1). Of the total sample, 92% had experience of vaginal intercourse. In the most recent sexual encounter in the past year, 95.6% of men and 93.9% of women engaged in vaginal intercourse. Although 20.9% of men and 15.1% of women have tried anal intercourse, less than 1% did it at their last heterosexual encounter (de Visser et al., 2003a).

Less than 3% of men and women thought of themselves as anything other than heterosexual (i.e. gay, lesbian, bisexual or other). However, more people (8.6% of men and 15.1% of women) reported some same-sex attraction or experience. Of the men with any lifetime sexual experience with other men, 40% identified as either gay or bisexual. Of women with any lifetime sexual experience with other women, only 24% identified as either lesbian or bisexual (Smith et al., 2003b).

In the most recent sexual encounter between men, 90% engaged in manual stimulation of the partner and 89% were stimulated by the partner; 75% received fellatio and 76% gave it; and 38% had insertive anal intercourse and 30% had receptive ( $n = 185$  for these questions). In the most recent sexual encounter between women, 91% manually stimulated their partner and 95% were stimulated by the partner; 66% received cunnilingus and 62% gave it ( $n = 123$ ; Grulich et al., 2003a).

Although the majority of respondents had used a condom at some time in their lives, fewer than half of the respondents who were sexually active in the past year had used a condom. For vaginal intercourse, only 8% of people always used condoms in the last six

months for vaginal intercourse with a regular live-in partner, but 29% did so with a regular non-live-in partner, and 45% with a casual partner. Among men having sex together in the last six months, 23% always used a condom for anal intercourse with a regular live-in partner, 38% with a regular non-live-in partner and 87% with a casual partner. In other words, of 61 men with a regular live-in partner, 77% did not always use condoms for anal intercourse (in fact 74% never did). This was true of 62% of 25 men with regular non-live-in partners but only 13% of 41 men having sex with casual partners (de Visser et al., 2003b).

## **TESTING FOR HIV**

About two in five Australians aged 16–59 have been tested for HIV: 40.7% of men and 38.9% of women. Men who identified as gay or bisexual were more likely to have been tested and to have had a test recently. Of those tested, 0.3% of men and 0.4% of women were HIV antibody positive (Grulich et al., 2003b).

### **1.2.2 SEXUAL BEHAVIOUR AND CONDOM USE AMONG FIRST-YEAR UNIVERSITY STUDENTS**

Table 1.2.1 contains data from the annual survey of students in a first-year course at Macquarie University from the years 1997 to 1999 inclusive. Questionnaires were handed out in lectures and the response rate was about 95% each year. About half the students were virgins, i.e. had no experience of vaginal intercourse. Most students who were sexually active had sex only with a regular partner; in the last month, of those with a regular partner, 32% to 39% said they never used a condom and 30% to 35% of them reported using a condom 'every time'. Of those with casual partners (10% to 20% of the total), more than half reported using a condom every time. More than half of the male students said they kept condoms handy; this was true of only 30% to 44% of the female students.

Table 1.2.1 also shows the results of a convenience-sample survey carried out from a stall at Orientation Week at the University of New South Wales in 2002. Although they were also in first year, and had all finished high school in 2000 or 2001, these students were on average somewhat older than the Macquarie student sample. (Students 22 and over were excluded from this analysis.) However, they were less likely to be sexually experienced: 55% had no experience of vaginal intercourse. Of those with a regular partner, 40% had used a condom every time in the past month, as had 56% of the small number who had had sex with a casual partner in the past six months. Slightly less than half of the young men and about a third of the young women kept condoms handy.

	(aged 17-19) <sup>1</sup>			(aged 17-21) <sup>2</sup>
	1997 N=381	1998 N=336	1999 N=206	2002 N=303
<b>Male</b>	85	92	52	121
<b>Female</b>	296	244	154	182
<b>Number of partners ever</b>	%	%	%	%
0	39.3	45.2	42.2	40.0
1	26.7	23.5	27.7	20.8
2-4	27.5	26.5	21.8	22.8
>4	6.4	4.8	8.3	16.5
<b>Ready access to condoms<sup>3</sup></b>				
Male	56.0	65.4	58.8	48.8
Female	30.3	40.6	44.0	36.3
<b>Condom use with regular partner in the last month (total samples)</b>				
Never	14.9	10.4	14.6	6.6
Sometimes	4.6	5.4	4.4	3.6
Most times	6.2	5.1	5.3	5.6
Every time	18.6	13.4	14.1	11.9
No partner or no intercourse	55.7	65.8	61.7	64.0
<b>Condom use with regular partner in the last month (based on those with a regular partner)</b>	n=139	n=104	n=89	n=73
Never	36.0	31.7	38.8	17.8
Sometimes	11.0	16.3	10.2	12.3
Most times	13.2	13.5	12.2	16.4
Every time	35.3	30.8	29.6	39.7
No intercourse	4.4	7.7	9.2	13.7
<b>Condom use with casual partners in the last 6 months (total samples)</b>				
Never	2.4	1.2	2.9	5.6
Sometimes	0.8	1.2	1.5	3.0
Most times	1.3	3.9	3.9	4.0
Every time	9.4	8.9	7.8	12.5
No partner or no intercourse	86.1	84.8	84.0	74.9
<b>Condom use with casual partners in the last 6 months (based on those with casual partners)</b>	n=40	n=50	n=42	n=59
Never	10.0	6.0	11.9	13.6
Sometimes	5.0	8.0	7.1	11.9
Most times	12.5	26.0	21.4	18.6
Every time	67.5	58.0	50.0	55.9
No intercourse	5.0	2.0	9.5	— <sup>4</sup>
<b>Sexual practice, ever</b>				
Vaginal sex	56.7	49.1	51.0	45.2
Regular partner	54.2	46.5	50.0	42.9
Casual partner	21.0	14.3	16.5	21.5
Anal sex	7.6	5.7	5.8	8.9
Regular partner	6.1	4.8	5.8	8.3
Casual partner	1.8	1.8	0.5	3.6
Any form of sex (oral, vaginal, anal)	66.4	57.4	60.7	53.5

<sup>1</sup> Students were attending a first-year class, but were not asked when they had left school. So as to include recent school-leavers and exclude mature-age students, students over 19 years and 6 months were removed from the sample.

<sup>2</sup> Students aged under 22 who finished high school in 2000 or 2001.

<sup>3</sup> Answering 'yes' to the question: 'Do you currently keep condoms readily accessible, for example, in a purse, wallet, glove box or a bedside table?'

<sup>4</sup> From 2002 questions changed and were based solely on those who had sexual intercourse with casual partners.



## 1.2.3 WOMEN IN CONTACT WITH SYDNEY'S GAY AND LESBIAN COMMUNITIES

Table 1.2.2 contains data from the biennial Sydney Women and Sexual Health (SWASH) surveys conducted by the National Centre in HIV Social Research, the National Centre in HIV Epidemiology and Clinical Research and the AIDS Council of New South Wales in 1998, 2000 and 2002. (See also Richters et al., 2001, 2002.) Each year, most of the women (71%–85%) were recruited at the Sydney Gay and Lesbian Mardi Gras Fair Day. Some respondents were also recruited through other groups, venues and clinics in contact with gay, bisexual and lesbian communities, but to allow for reliable comparisons over time, the data in the table are based only on the women recruited at Fair Day.

In 2002, ages ranged from 16 to 59 (median age 30) and 71% had post-school education. Asked how they thought of themselves, 71% identified as lesbian/dyke/homosexual/gay, 8% as bisexual and 15% as heterosexual; 6% chose the 'other' category or did not answer. Sexual identity was correlated with age: younger women more likely to identify as bisexual and less likely to identify as lesbian. Five respondents were transgender/trannies. Most respondents (424, 84%) had had sex with a woman; 341 women (68%) had done so in the past six months. A quarter of the women (124; 25%) had had sex with a man they knew to be gay or bisexual; 16 women (3%) had done so in the past six months. Four of the lesbians said they had had sex with a gay or bisexual man in the past six months, as had six of the bisexual women and six of the heterosexual women. Ten women (2%) had had unprotected vaginal or anal intercourse with a male gay or bi partner (regular or casual) in the past six months. Ten women had done sex work in the past six months.

Of the 309 women who had had oral sex with a woman in the past six months, only 9% had ever used a dental dam, and most of those (including the one HIV-positive woman) had done so only once. Use of gloves (13% of women who had had sex with a woman) and condoms (17%) was more common and they were used more frequently. Only a minority of women had received oral sex during menstruation, or given oral sex to a woman who was menstruating, but it was far more common to do so with a tampon in place than to use a dental dam.

**Table 1.2.2: Women surveyed at Sydney Gay and Lesbian Mardi Gras Fair Day<sup>1</sup>**

	<b>1998 (n = 554)</b>		<b>2000 (n = 883)</b>		<b>2002 (n = 505)</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
<b>Sexual identity</b>						
Lesbian	396	71.5	611	69.2	360	71.3
Bisexual	54	9.7	80	9.1	78	7.5
Heterosexual	84	15.2	177	20.0	36	15.0
Other/missing	20	3.6	15	1.7	31	6.1
<b>HIV status</b>						
Negative	326	62.4	477	55.6	279	59.9
Positive	6	1.1	2	0.2	3	0.6
Unknown	199	36.5	379	44.2	184	39.5
<b>Had an HIV test in past 12 months (% of those ever tested)</b>						
	149	44.0	146	29.8	106	21.0 <sup>2</sup>
<b>Had sex with a gay or bisexual man in past 6 months</b>						
	12	2.2	21	2.4	16	1.8
Lesbian	3		2		4	
Bisexual	3		12		6	
Heterosexual	5		5		6	
<b>Unprotected vaginal or anal intercourse with a gay or bisexual man</b>						
Total sample: no UVAI	540	97.5	866	98.1	495	98.0
Total sample: some UVAI	14	2.5	17	1.9	10	2.0
<b>Injecting drug use in past 6 months</b>						
Total sample: no IDU	525	94.8	864	97.8	492	97.4
Total sample: some IDU	29	5.2	19	2.2	13	2.6

<sup>1</sup>Sample size varies slightly for different questions due to non-response.

<sup>2</sup>In 2002 the questionnaire response categories were changed; this figure is for testing up to 11 (not 12) months ago.

# 2

*Living with HIV*

On a national basis, only one study *HIV Futures*—conducted initially in 1997 (Ezzy et al., 1998) and repeated in 1999 (Grierson et al., 2000) and 2001 (Grierson et al., 2002)—provides reliable information on both sexual practice and treatment uptake for people living with HIV and AIDS, including representation of people from all categories of HIV transmission.

Regional information is available from other surveys, notably the *Positive Health (pH)* cohort study conducted in Sydney by NCHSR with input from ARCSHS for a smaller Melbourne arm. The first round of face-to-face interviews for the *pH* study was conducted in 1999, the second round in late 2000/early 2001. Sexual practice questions were not included in the baseline *pH* interview schedule but were included in the Sydney follow-up in 2000/2001.

## 2.1 SEXUAL PRACTICE

With respect to sexual practice and the period covered by this report, only two data points (1999 and 2001) are available on a national basis for people living with HIV, and so trends over time cannot be fully assessed. The number of responses from women in the *HIV Futures* study to questions regarding unprotected intercourse is too small to give reliable data, as are the number of responses from men who had female partners.

The *HIV Futures* study indicates little change in the percentages of HIV-positive men engaging in unprotected intercourse with casual male partners (see Table 2.1). With regular male partners, however, there was an increase in this practice from 1999 to 2001, with HIV-positive regular male partners *and* with HIV-negative regular male partners.

The *pH* data indicate no change in (though relatively high proportions of) unprotected anal intercourse with casual male partners or seroconcordant regular partners. The data, however, do indicate a decrease in unprotected anal intercourse with discordant or non concordant regular partners. Sexual practice among homosexually active men who are HIV-positive from other studies (Table 1.1.10 above) also shows a relatively high level of unprotected anal intercourse with casual partners among these men.

**Table 2.1: Unprotected intercourse among people living with HIV/AIDS<sup>1</sup>**

Partner Type	1999				2001				2002			
	Men		Women		Men		Women		Men		Women	
	n	%	n	%	n	%	n	%	n	%	n	%
<b>HIV Futures</b>	<b>N=828</b>		<b>N=89</b>		<b>N=818</b>		<b>N=74</b>					
Casual												
Male	414	52.1	10	10.0	371	59.0	8	25.0				
Female	22	47.4			17	41.2						
Regular												
Male (HIV+ve)	123	83.4	12	61.6	122	91.8	9	100				
Male (HIV-ve)	125	34.7	25	41.7	121	41.3	21	42.9				
Female (HIV+ve)	11	70.0			8	87.5						
Female (HIV-ve)	13	28.6			19	27.3						
<b>pH</b>					<b>N=242</b>				<b>N=280</b>			
Casual												
Male (HIV+ve only) <sup>2</sup>					79	74.7			102	73.5		
Male (HIV-ve/unknown) <sup>2</sup>					146	51.4			179	53.1		
Regular												
Male (HIV+ve)					52	71.2			65	73.8		
Male (HIV-ve/unknown)					67	40.3			80	20.0		

<sup>1</sup> Shows the number and the percentage of people living with HIV/AIDS who reported unprotected intercourse (vaginal or anal) with casual and regular partners in the six months prior to the survey. N is the size of the complete sample and n is the number of people who answered the question (that is, who had a partner of the type shown).

<sup>2</sup> Based on only those who engaged in unprotected anal intercourse with casual partners (and therefore not comparable with HIV Futures figures above).

## 2.2 SELF-RATINGS OF HEALTH

In various studies, HIV-positive people were asked to rate their health as 'excellent', 'good', 'fair' or 'poor'. Table 2.2 shows the percentage of people reporting 'excellent' or 'good' overall health. Over time, HIV-positive people's self-ratings of health varied little in the *HIV Futures* studies. Sydney participants in the *pH* cohort study tended to report better overall health in 2001 than in 1999, whereas the reverse was the case among Melbourne *pH* participants.

**Table 2.2: Self ratings of health as 'excellent' or 'good'<sup>1</sup>**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
HIV Futures			949	72.8			891	69.2		
<b>Sydney</b>										
pH			362	76.2			292	79.8	252	80.6 <sup>2</sup>
<b>Melbourne</b>										
pH			56	76.7			105	68.6	83	70.7 <sup>2</sup>

<sup>1</sup> Rather than 'fair' or 'poor'.

<sup>2</sup> Includes 'excellent', 'very good' and 'good'.

## 2.3 TREATMENT UPTAKE AND VIRAL LOAD

HIV-positive homosexually active men in Sydney, Melbourne and other parts of Australia took up combination antiretroviral therapy very quickly after it became available. Evidence regarding the effectiveness of these treatments became widespread in the second half of 1996. As shown in Table 2.3.1, uptake was rapid and high levels were reported in many parts of Australia. In the national sample from the *HIV Futures* study, 73.5% of positive people reported being on combination antiretroviral therapy in 1999, a figure corroborated by data from other studies throughout Australia in 1999. (The different percentages in Table 2.3.1 to some extent reflect different definitions of 'combination antiretroviral therapy' as indicated by the footnotes to this table.)

However, more recent data indicate a significant decline in the proportion of people living with HIV using combination therapy, among *pH* participants in both Sydney and Melbourne, and among Sydney, Melbourne and Brisbane participants in the *Gay Community Periodic Surveys*. In 2002, data from the Australian HIV Observational Database (AHOD) became available.

**Table 2.3.1: People living with HIV/AIDS on combination therapy**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
HIV Futures			952	73.5			884	71.0		
AHOD									1841	78.2
<b>Sydney</b>										
Periodic <sup>1</sup>	606	72.4	602	71.3	504	75.2	443	65.5	420	68.1
pH <sup>2</sup>			362	72.1			292	66.4	252	61.5
<b>Melbourne</b>										
Periodic <sup>1</sup>	155	82.6			138	78.3	151	66.9	150	70.0
pH <sup>2</sup>			56	80.4			105	66.7	83	59.0
<b>Brisbane</b>										
Periodic <sup>1</sup>	112	68.8	99	67.7	77	66.2	88	59.1	121	48.8
<b>Perth</b>										
Periodic <sup>1</sup>	45	62.1			50	74.0			27	74.1
<b>Adelaide</b>										
Periodic <sup>1</sup>	34	64.7	34	73.5			33	57.6		
<b>Canberra</b>										
Periodic <sup>1</sup>					18	66.7				

<sup>1</sup> 'Combination therapy' means 'combination antiretroviral therapy'

<sup>2</sup> 'Combination therapy' means more than two antiretrovirals.

Key data from Table 2.3.1 are presented graphically in Figure 5. Where available, relevant data from surveys conducted during 1997 are also included. (Note that for legibility the Y-axis has been drawn from 40–100% rather than the complete 0–100%.)

**Figure 5 : Percentage of people living with HIV/AIDS on combination therapy**

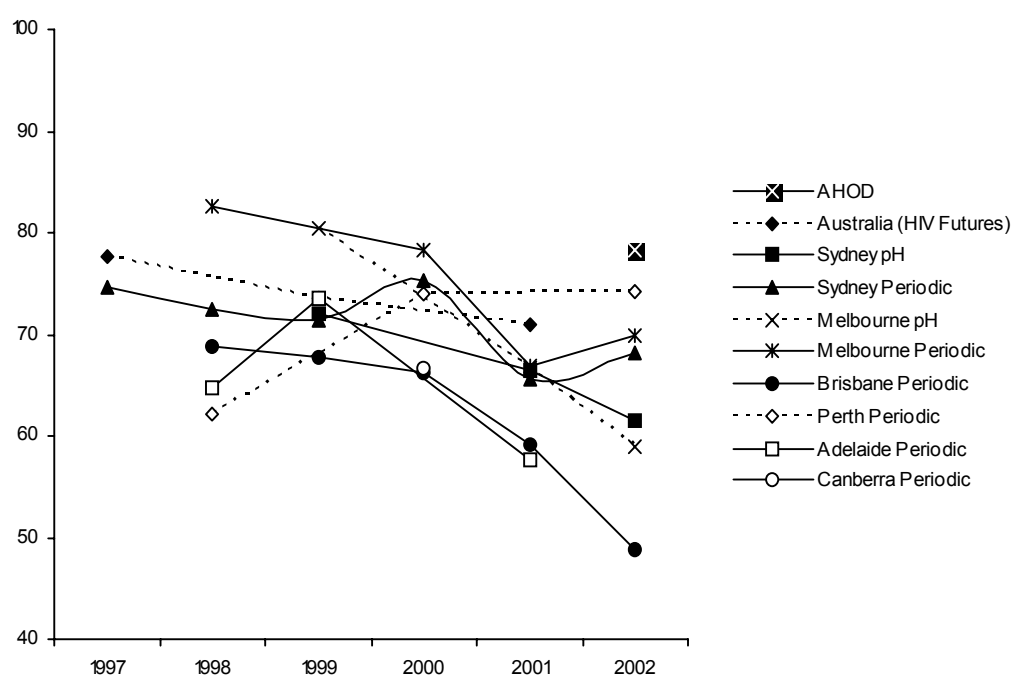


Table 2.3.2 presents data from various sources on the proportion of people living with HIV/AIDS with undetectable viral load. Data are presented separately for those using antiretroviral therapy (ART) and those not using ART at the time of data collection. Clearly, a larger proportion of those using ART have undetectable viral load than those not using ART. There is a general trend for a smaller proportion of people living with HIV/AIDS to have undetectable viral load in more recent years although at least two-thirds of those using ART in 2002 reported undetectable viral load.

**Table 2.3.2: People living with HIV/AIDS with undetectable viral load**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
HIV Futures										
Using ART			628	68.5			568	70.8		
Not using ART			199	13.4			200	17.7		
AHOD										
Using ART									1440	73.3
Not using ART									401	25.7
<b>Sydney</b>										
Periodic										
Using ART									100	80.0
Not using ART									53	13.2
pH										
Using ART			292	80.8			186	64.5	174	69.0
Not using ART			70	32.9			74	10.8	78	23.1
<b>Melbourne</b>										
pH										
Using ART			49	83.7			75	56.0	59	66.1
Not using ART			7	57.1			28	10.7	24	8.3
<b>Brisbane</b>										
Periodic										
Using ART									58	75.9
Not using ART									61	21.3
<b>Perth</b>										
Periodic										
Using ART									18	84.2
Not using ART									8	15.8

## 2.4 TREATMENT EXPERIENCES

A significant consideration for people on combination therapy is the prospect or experience of adverse side effects. As indicators of side effects (see Table 2.4), the experiences of (a) diarrhoea or nausea, (b) anxiety or depression or fear, (c) lipodystrophy and (d) any side effects were computed. There are few time points and therefore trends are difficult to discern. However, based on the available data, a smaller proportion of *HIV Futures* participants reported side effects. (The lower percentages from *HIV Futures* were attributable to the way the questions were asked, as an open-ended ('please specify') question, so the figure would be an underestimation of participants' experiences of side effects.) Over time, there was a tendency for a greater proportion of *pH* participants to report side effects, so much so that by 2002 nearly all participants in both Sydney and Melbourne experienced some side effects. Of note, experience of lipodystrophy among *pH* participants increased from approximately 60% in 1999 to approximately 70% in 2002. Increase in the proportion of *pH* participants experiencing diarrhoea/nausea was even more pronounced, from approximately 50% in 1999 to approximately 75% in 2002.



**Table 2.4: Experience of side effects by people on combination therapy<sup>1</sup>**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>(a) Diarrhoea/Nausea</b>										
<b>Australia</b>										
HIV Futures			700	33.5			588	24.5		
<b>Sydney</b>										
pH			292	50.1			194	64.5	155	73.6
<b>Melbourne</b>										
pH			49	46.9			70	81.4	49	75.5
<b>(b) Anxiety/Depression/Fear</b>										
<b>Australia</b>										
HIV Futures							886	21.3		
<b>Sydney</b>										
pH			292	66.4			194	60.8	155	69.0
<b>Melbourne</b>										
pH			49	79.6			70	72.9	49	77.6
<b>(c) Lipodystrophy</b>										
<b>Australia</b>										
HIV Futures			909	28.5			836	38.4		
<b>Sydney</b>										
pH			261	60.2			194	71.6	155	72.9
<b>Melbourne</b>										
pH			45	57.8			70	74.3	49	69.4
<b>(d) Any side effects</b>										
<b>Australia</b>										
HIV Futures			708	54.8			588	43.9		
<b>Sydney</b>										
pH			292	96.9			194	81.4	155	94.2
<b>Melbourne</b>										
pH			49	100			70	90.0	49	95.9

<sup>1</sup> The side effects may not all be attributable to taking antivirals. From 2001, slightly different questions were asked in pH than in 1999.

## 2.5 LIPODYSTROPHY

Since its introduction in 1996, HIV combination therapy has significantly reduced AIDS related deaths and greatly improved life for many people with HIV/AIDS, but many also experience a range of sometimes distressing side effects from antiretroviral drugs, including body shape changes known as *lipodystrophy*. This metabolic disorder manifests in an unusual process of fat redistribution which has given rise to a distinctive, yet arbitrary repertoire of physical features, including pronounced wasting (*lipoatrophy*) of arms, legs, buttocks, and face, and fat accumulation on abdomen, breasts and back of neck. Prominent veins on legs and arms are also common due to loss of subcutaneous fat. Other symptoms include metabolic abnormalities such as elevated levels of harmful fats in the blood, as well as blood sugar disturbances, increasing the risk of heart disease and diabetes.

Two projects, *The Side Effects* and *Locating Lipodystrophy: A Regional Study of HIV and Body Shape Change*, are qualitative research studies that document and explore how people experience, negotiate and manage lipodystrophy and other treatment side effects, particularly in relation to body image, social and sexual relationships, and decisions around HIV treatment and health priorities. The study includes an urban arm and a regional arm. In all, 40 in-depth interviews were conducted in 2002, including 18 interviews in Sydney, 17 interviews in the Northern Rivers district of NSW, and five interstate telephone interviews (Queensland and Tasmania). The majority of participants had been HIV-positive for 10 to 20 years and had extensive treatment histories. In addition, five interviews were conducted with HIV health professionals in Sydney.

A preliminary analysis suggests that people live and cope with lipodystrophy in a variety of ways depending on their personal biography, disease history and social situation. Nevertheless, certain recurring themes are emerging in the participants' stories, including: concerns about forced HIV disclosure; feeling unattractive, different, or aged; sexual and social isolation; loss of confidence and self-esteem; conflicting feelings towards HIV treatment; lack of support and discussion around lipodystrophy; fears that the condition will worsen; but also acceptance, fortitude, as well as resistance to negative representations of lipodystrophy.

## FORCED DISCLOSURE

Forced HIV disclosure is by far the most common concern among the research participants. Many feel that lipodystrophy makes HIV visible. They speak of lipodystrophy as a kind of manifestation of HIV, forcing them to confront their status, suddenly made 'real' by their transformed bodies, regardless of their actual health. This experience is compounded by the belief that lipodystrophy (in particular facial wasting) marks them as HIV-positive, or 'sick', in the eyes of others, thus undermining their sense of control over their serostatus in social situations.

Among the Sydney participants, forced disclosure is predominantly expressed as a concern in relation to gay community itself where the physical signs of lipodystrophy are thought to be well known. Few claim to have experienced overt instances of discrimination, but many speak of a subtle division within gay community between HIV-positive and HIV-negative people which makes coming to terms with lipodystrophy more difficult.

Forced disclosure, or 'people thinking there is something wrong with you', is identified as a significant issue also by the Northern Rivers participants, but more so in relation to the local population as a whole because of the higher degree of visibility and 'talk' that comes with living in a smaller community. Yet many believe that the local gay community, which includes a significant proportion of people from major cities, is generally more accepting than in Sydney partly due to older age, and partly due to the 'alternative' and 'relaxed' local cultural environment.

## SOCIAL AND SEXUAL IMPACT

It is a common belief among the participants that lipodystrophy has a negative impact on social and sexual esteem, because they feel their body shape makes them look 'different', 'unattractive', 'bizarre' or, as one man put it, 'damaged'. This needs to be understood within the context of a cultural landscape defined by forceful and rigid body ideals. Advertising,

with its emphasis on beauty and youth, is raised by many as particularly unhelpful. It is also a recurrent view among the men that the body-focused Sydney gay 'scene' unduly exacerbates the difficulties of lipodystrophy.

The participants describe how this loss of confidence has various ramifications, such as choosing clothes that conceal their bodies, 'going out' a lot less and avoiding particular social interactions and spaces such as the beach, parties, or the gym at busy times, to escape stares and questions.

Those in regular and supportive relationships generally express less concern about lipodystrophy. The situation is more difficult for those with no regular partner. They often speak of loss of physical and sexual intimacy and some have resorted to self-imposed isolation because they fear rejection. Among those who continue to have casual sex, some say they now choose venues and contexts that allow minimal exposure of their bodies and faces.

## PREMATURE AGEING

Many participants rationalise their changing bodies by speculating that lipodystrophy may partly be a result of HIV drugs and partly of aging. But many also conceive lipodystrophy as a kind of premature ageing, primarily because they feel the changes are so sudden, and thus not part of the 'natural' ageing process. In a culture that celebrates youth as part of the dominant body image, this adds another layer of complexity to lipodystrophy, and there is a sense of anger among the participants that they are not ageing 'normally', but are being 'chemically aged', as one man put it.

## ALIENATION AND PHYSICAL DISCOMFORT

Body image is central to understanding the impact of body shape changes, but lipodystrophy can also challenge people's *sense* of embodiment. Dramatic or unexpected body changes can produce feelings of uncertainty and powerlessness. The participants tell of being confronted with an unfamiliar face or body in the mirror, and of frustrated efforts in the gym to regain their former body shape. Some speak of a sense of alienation: 'This isn't my real body', as one woman described it. A few participants also claim that their bodies feel less reliable now because of the limitations and discomfort caused by severe fat loss and muscle wasting in buttocks, legs or feet, making movement more arduous.

## MANAGEMENT STRATEGIES

The lack of a cure for lipodystrophy is a major concern for most participants. However, many have changed their combination therapy, removing those HIV drugs that contribute to lipodystrophy in favour of safer alternatives. While most think that this strategy has prevented a worsening of lipodystrophy, only a few say that their symptoms have reversed to some degree. Some have been involved in clinical trials testing the effects of hormones and other substances on lipodystrophy, but are unsure about the results. The most common non-medical strategy for dealing with lipodystrophy among the participants is diet and exercise. Many are particularly enthusiastic about a regular gym routine as a way to counteract the more severe effects of lipodystrophy, to maintain cardiovascular health, to establish some sense of control over their situation, or simply to 'feel better'.

## **NEW-FILL<sup>1</sup>**

In terms of dealing with facial fat loss, a small number of participants have had New-Fill injections in their cheeks and are generally quite pleased with the results. Many more express an interest in New-Fill and believe it would have a positive impact on their self esteem, but argue that the cost of this procedure is prohibitive. Others are more critical and contend that New-Fill is a temporary solution that does not address the core issues around lipodystrophy and HIV.

## **LIPODYSTROPHY AND HIV THERAPY: WEIGHING IT ALL UP**

Despite its difficulties, most participants describe lipodystrophy as a regrettable and frustrating 'trade off' when considered in a broader health context. They argue that things could be a lot worse and that adverse effects of HIV therapy need to be weighed against the positive outcomes of survival and being alive. While there is a sense of anger about this predicament, most participants express a determination to 'work through' their experience of lipodystrophy, to 'come to terms with it', and some have come to accept the way they look. Others express a more ambivalent attitude towards HIV therapy as something inherently contradictory; a remedy and yet a poison. These people speak more frequently about taking treatment breaks as an attempt to 'detoxify' their bodies.

## **RESISTING NEGATIVE REPRESENTATIONS**

A few participants resist what they see as an overly negative representation of lipodystrophy as something inevitably disfiguring and dismal, representations which they claim are fuelled by the ongoing stigma around HIV and inflexible body ideals within sections of gay community. Beauty, they argue, is in the eye of the beholder. Those who take this view are generally open about their HIV status in the community and tend to position lipodystrophy as a sign of survival and pride, as a 'badge of honour', or as an imprint of their history and identity: 'In a way it's a statement, a confirmation of who I am and what I am', one man said. For others, the principally negative attention given to lipodystrophy is seen as unhelpful and unwarranted, yet they struggle to articulate alternative perspectives.

## **LIPODYSTROPHY AND SILENCE**

Considering the impact lipodystrophy can have on people's lives, one of the more disquieting findings of the research study is the general lack of support and discussion around lipodystrophy foregrounded by many participants. Few claim to have anyone to talk to about their experience and many are hesitant to approach other people with lipodystrophy fearing they may 'touch a raw nerve' or acknowledge its visibility, which is precisely what concerns people the most. Social avoidance and silence are common themes raised in the interviews. While most think it would be hard to change community attitudes, the need for education campaigns, projects, and role models is forcefully argued by some, as a way to help reposition and demystify lipodystrophy.

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<sup>1</sup> New-Fill is composed of micro particles of polylactic acid from 40 to 60 microns in diameter in suspension, in a solution of carmellose gel.

## 2.6 COMPLIANCE

Adherence to antiretroviral regimens is an important issue. An indicator of adherence—having missed any doses ‘during the last two days’—was available from the *HIV Futures* and the *pH* studies. On this indicator, approximately 85% of the 2002 *pH* participants missed no doses. In the *HIV Futures* study, missing doses was related to the belief that medication gave an unwanted reminder of HIV status, and to the presence of depressive symptoms. Recent data from the *HIV Futures* and *pH* studies show that approximately 50 percent of those ‘currently’ taking antiretrovirals experienced any difficulty taking pills on time (see Table 2.6).

**Table 2.6: Experience of taking pills**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>(a) Missed any doses during last two days</b>										
<b>Australia</b>										
HIV Futures			700	15.9			640	17.2		
<b>Sydney</b>										
pH			292	22.3			194	13.9	178	14.0
<b>Melbourne</b>										
pH			49	18.4			70	28.6	60	15.0
<b>(b) Experienced any difficulty taking pills on time</b>										
<b>Australia</b>										
HIV Futures			699	47.8			588	45.0		
<b>Sydney</b>										
pH			292	32.5			194	49.0	178	48.9
<b>Melbourne</b>										
pH			49	40.8			70	60.0	60	48.3

## 2.7 SEROCONVERSION

This study, which began in 1993, documents discursive understandings of HIV transmission risk. These understandings are present in the accounts that gay men give of the event that they believe led to their seroconversion. Changes over time in these accounts provide insights into changing notions of risk.

Men who recently seroconverted are interviewed within six months of a documented seroconversion. There was a break in interviewing men between 1998 and 1999. The year 1996 has become a watershed in the lives of gay men and others living with HIV. Sixty-five men were interviewed up until the end of 1996, and 34 men were interviewed between 1997 and the end of 2002.

The findings (as shown in Tables 2.7.1 to 2.7.3) indicate that over the period of the study about 40% of seroconversions were believed by the men to have occurred within their regular relationships, some of which were known by them to be serodiscordant for HIV. However, in the interviews since 1997 it appears that infection was more likely to be attributed to casual sex. Most men knew the HIV status of their regular partner while most did not know the HIV status of their casual sexual partners. Receptive anal intercourse is the practice that most men believed led to their infection.

The accounts of men who believed they seroconverted within their regular relationships continued to be couched in terms of love and intimacy or attributed to a breakdown in communication and/or trust. On the other hand, men who believed they became infected within a casual sexual encounter continued to account for their infections in terms of 'being out of control' with references to lust, drugs and alcohol, or in terms of unsubstantiated assumptions about serostatus (Kippax et al., in press).

This in-depth study enables exploration of men's perceptions of risk and the meanings they attach to different sexual practices and contexts. The presumed mode of transmission offered by respondents early in their interviews was not always the same as the joint conclusion drawn by the end of the interview and presented in the tables below (or indeed the same as the conclusion drawn by the researchers on review of the transcripts). The interviews become a joint process of reconstruction of 'what probably happened' as well as memories offered by the man to the interviewer. For example, in a recent analysis of the first 75 Seroconversion interviews to explore the possibility of transmission through oral sex, it was established that 59 men had had at least one episode of unprotected anal intercourse with an HIV-positive partner or one of unknown serostatus. However, some of these men did not at first report brief or partial insertion as 'intercourse' and regarded themselves as having had 100% safe sex. Eleven of the other men had protected anal intercourse only, which they often assumed was 100% safe and did not report until questioned in detail. Several men in each of these categories initially thought they had acquired HIV through oral sex, but it is questionable whether all of them in fact did so (see Richters, Grulich et al., in press).

An earlier analysis of the first 75 interviews (Richters, Hendry et al., 2003) focused on describing the usual patterns of sexual interaction reported by the men who had seroconverted. It found that: oral sex was almost always practised without condoms; 'nudging' or brief anal insertion of the penis without a condom was often not regarded as 'anal intercourse'; although ejaculation inside the partner was generally avoided, there was often semen on men's bodies or hands; and fisting was usually done with gloves, but anal fingering was not. Thus even in a community where the practice of safe sex is explicitly accepted, there is room for HIV transmission without men necessarily being aware of risk-taking.

**Table 2.7.1: Type of sexual relationship at time of seroconversion**

	Pre treatment success (1993–1996)	Post treatment success (1997–2002)
Regular relationship in which neither the participant nor his partner had casual sex	21 <sup>1</sup>	2
Regular relationship in which participant and his partner had casual sex	13	14
Regular relationship in which participant had casual sex	4	2
Participant had two regular sexual partners	1	1
Total regular relationships	39 (60%)	19 (56%)
Casual sexual partners only	26 (40%)	15 (44%)
TOTAL	65	34

<sup>1</sup>Includes three participants each of whom engaged in sex with his regular partner in a threesome.

**Table 2.7.2: Assumed HIV status of partner at presumed event of HIV transmission**

Assumed HIV status	Pre treatment success (1993–1996)		Post treatment success (1997–2002)	
	Regular	Casual <sup>1</sup>	Regular	Casual <sup>1</sup>
Positive	13	4	4	1
Negative	14	3	4	6
Unknown	7	24	0	19
TOTAL	34	31	8	26

<sup>1</sup>‘Casual’ includes participants in open regular relationships who believe they contracted HIV from a casual partner.

**Table 2.7.3: Purported event of HIV transmission leading to seroconversion: type of sexual practice by partner**

Sexual practice	Pre treatment success (1993–1996)				Post treatment success (1997–2002)			
	Regular	Casual within open relationship	Casual	Total	Regular	Casual within open relationship	Casual	Total
Anal receptive	16	1 <sup>1</sup>	17	34	2	6	10	18
Anal insertive	8	1	2	11	4	1	1	6
Receptive and insertive	6	2	4	12	1	2	2	5
Other <sup>2</sup>	4	1	3	8	1	2	2	5
TOTAL	34	5	26	65	8	11	15	34

<sup>1</sup>This man’s regular partner was HIV-positive.

<sup>2</sup>These men believed they had become infected via oral-genital sex (8), sharing a needle (1), esoteric sexual practice involving sado-masochism (2), and blood contact with skin lesions (2).

## **2.8 CONTACT WITH THE EPIDEMIC**

There is little quantitative information available regarding what impact the changing nature of the HIV/AIDS epidemic has had on behaviour. Two indicators of the degree of contact with the HIV epidemic which may be important in monitoring change are 'knowing people with HIV' and 'ever knowing anyone who died following AIDS'. These indicators were included in various studies including the *HIM* and *pH* cohort studies, *2000 Male Out* and the *Periodic Surveys* in some State capital cities. In Table 2.8 data on these indicators are presented separately for HIV-negative and HIV-positive men.

The data show that HIV-positive men in Sydney had continuing high levels of contact with the epidemic. The exception is HIV-positive Gay Asian Men whose values on these indicators are substantially lower. HIV-positive men in other parts of Australia also had high levels of contact with the epidemic although somewhat less in some places than their Sydney counterparts.

Information from the various studies shows that in terms of 'knowing anyone with HIV', HIV-negative men in various parts of Australia had fairly high levels of contact with the epidemic but over time there was a downward trend in some places.



**Table 2.8: Indicators of contact with the HIV epidemic**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>(a) Knows anyone with HIV</b>										
<b>Australia</b>										
Male Out										
HIV-negative men					1305	66.8				
HIV-positive men					81	93.8				
<b>Sydney</b>										
Male Out										
HIV-negative men					389	67.6				
HIV-positive men					29	96.6				
Gay Asian Men										
HIV-negative men			223	46.6					330	52.1
HIV-positive men			10	60.0					16	81.3
HIM										
HIV-negative men							450	83.6	718	85.0
pH										
HIV-positive men			292	97.2			277	97.4	241	95.9
<b>Melbourne</b>										
Male Out										
HIV-negative men					353	70.8				
HIV-positive men					20	95.0				
pH										
HIV-positive men			49	100			92	94.6	69	97.1
<b>Brisbane</b>										
Male Out										
HIV-negative men					246	63.4				
HIV-positive men					19	89.5				
<b>Perth</b>										
Periodic										
HIV-negative men	649	77.8							590	68.1
HIV-positive men	45	95.6							26	96.2
Male Out										
HIV-negative men					134	68.7				
HIV-positive men					5	— <sup>1</sup>				
<b>Adelaide</b>										
Periodic										
HIV-negative men	406	75.9	345	75.4			423	69.5		
HIV-positive men	34	100	33	97.0			34	100		
Male Out										
HIV-negative men					118	59.3				
HIV-positive men					2	— <sup>1</sup>				
<b>Canberra</b>										
Male Out										
HIV-negative men					23	65.2				
HIV-positive men					—	—				

.../continued

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>(b) Ever knew anyone who died following AIDS</b>										
<b>Australia</b>										
Male Out										
HIV-negative men					1343	57.8				
HIV-positive men					86	77.9				
<b>Sydney</b>										
Male Out										
HIV-negative men					394	66.0				
HIV-positive men					31	77.4				
Gay Asian Men										
HIV-negative men			223	27.8					330	18.5
HIV-positive men			10	20.0					16	50.0
HIM <sup>2</sup>										
HIV-negative men							450	67.6	453	58.1
pH										
HIV-positive men			292	61.3 <sup>3</sup>			277	50.9	241	38.6
<b>Melbourne</b>										
Male Out										
HIV-negative men					364	58.2				
HIV-positive men					22	81.8				
pH										
HIV-positive men			49	73.5 <sup>3</sup>			92	58.7	69	40.6
<b>Brisbane</b>										
Male Out										
HIV-negative men					256	52.3				
HIV-positive men					19	78.9				
<b>Perth</b>										
Periodic										
HIV-negative men	652	60.4								
HIV-positive men	44	88.6								
Male Out										
HIV-negative men					139	54.7				
HIV-positive men					5	— <sup>1</sup>				
<b>Adelaide</b>										
Periodic										
HIV-negative men	406	62.9	342	62.6			426	55.4		
HIV-positive men	34	91.2	33	81.8			34	91.2		
Male Out										
HIV-negative men					119	51.3				
HIV-positive men					2	— <sup>1</sup>				
<b>Canberra</b>										
Male Out										
HIV-negative men					23	43.5				
HIV-positive men					1	— <sup>1</sup>				

Note: To provide larger and more reliable samples, *Male Out* figures are State based rather than Capital City based.

<sup>1</sup> Number of men too small to give a reliable percentage.

<sup>2</sup> Based on new participants in *HIM* only.

<sup>3</sup> Not comparable with other data as this figure is based on knowing 'in the last 12 months' anyone who died following AIDS, rather than 'ever'.

# 3

## *Drug Use*

## 3.1 HOMOSEXUALLY ACTIVE MEN

### 3.1.1 HOMOSEXUALLY ACTIVE MEN AND RECREATIONAL DRUG USE

Use of recreational drugs among homosexually active men is high for those attached to gay community (see Table 3.1.1). This information comes from the *2000 Male Out* survey, the *HIM* and *pH* cohort studies, and also from several *Periodic Surveys* (where relevant questions were included). Close to 70% of these men (more among men in the *HIM*, *pH* and *Living as Men* studies) reported using at least one non-prescription drug in the six months prior to the survey. Use of more than one such drug was reported by around 65% of those in the *HIM* and *pH* cohorts and around 30–50% in other surveys.

Generally, the level of use as measured in the percentages reported here appears to be fairly stable over the time period observed. An exception is among Gay Asian Men in Sydney where any drug use is showing an increasing trend albeit from a much lower base than most other samples.

Recreational drug use is one variable which shows strong regional variation. Differences between cities are highlighted where data were collected from more than one city for the same study. An example is the *Living as Men* study (Lambevski et al., 2000) which provided evidence that recreational drug use was at a much higher level in Sydney than in Melbourne (see Table 3.1.1). Similarly, the *Gay Community Periodic Surveys* indicate more extensive use of drugs in Sydney than in other cities.

**Table 3.1.1: Recreational drug use among homosexually active men ('past six months')**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>(a) Any drug use</b>										
<b>Australia</b>										
Male Out: GCA					1181	60.4				
Male Out: NGCA					651	48.1				
HIV Futures <sup>1</sup>			738	71.1			725	70.6		
<b>Sydney</b>										
HIM							450	81.1	845	78.6
pH			345	82.9			263	89.7	233	86.3
Periodic			3343	70.5	2916	73.3	2862	73.2	2884	70.4
Male Out: GCA					223	73.1				
Male Out: NGCA					78	53.8				
Gay Asian Men			319	30.1					457	38.1
Living as Men <sup>2</sup>			528	82.4						
<b>Melbourne</b>										
pH			52	84.6			90	67.8	65	86.2
Periodic					1578	60.4	1830	60.7	1877	59.4
Male Out: GCA					258	62.8				
Male Out: NGCA					103	47.6				
Living as Men <sup>2</sup>			310	74.8						

.../ continued

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>(a) Any drug use (continued)</b>										
<b>Brisbane</b>										
Periodic	1341	29.2	1225	43.6	1285	48.6	1570	52.1	1787	47.8
Male Out: GCA					99	60.6				
Male Out: NGCA					62	61.3				
<b>Perth</b>										
Periodic					1035	58.0			790	55.3
Male Out: GCA					93	57.0				
Male Out: NGCA					49	38.8				
<b>Adelaide</b>										
Periodic							565	54.9		
Male Out: GCA					78	47.4				
Male Out: NGCA					42	40.5				
<b>Canberra</b>										
Male Out: GCA					18	50.0				
Male Out: NGCA					10	— <sup>3</sup>				
<b>(b) Used more than one drug</b>										
<b>Australia (Male Call/Out)</b>										
Male Out: GCA					1181	38.9				
Male Out: NGCA					651	23.3				
HIV Futures <sup>1</sup>			724	49.4			702	49.4		
<b>Sydney</b>										
HIM							450	67.8	845	65.1
pH			345	62.6			263	69.6	233	56.7
Periodic			3343	51.0	2916	58.6	2862	57.1	2884	53.6
Male Out: GCA					223	55.2				
Male Out: NGCA					78	19.2				
Gay Asian Men			319	15.4					457	21.9
Living as Men <sup>2</sup>			528	69.9						
<b>Melbourne</b>										
pH			52	53.8			90	51.1	65	53.8
Periodic					1578	39.7	1830	41.8	1877	40.1
Male Out: GCA					258	37.2				
Male Out: NGCA					103	23.3				
Living as Men <sup>2</sup>			310	49.0						
<b>Brisbane</b>										
Periodic	1341	17.6	1225	23.0	1285	27.5	1570	32.5	1787	29.3
Male Out: GCA					99	39.4				
Male Out: NGCA					62	25.8				
<b>Perth</b>										
Periodic					1035	39.9			790	34.6
Male Out: GCA					93	33.3				
Male Out: NGCA					49	26.5				
<b>Adelaide</b>										
Periodic							565	30.8		
Male Out: GCA					78	24.4				
Male Out: NGCA					42	31.0				
<b>Canberra</b>										
Male Out: GCA					18	27.8				
Male Out: NGCA					10	— <sup>3</sup>				

<sup>1</sup> Gay and homosexually active men only.

<sup>2</sup> Gay and homosexually active men only. Of 254 heterosexual men in Sydney, 55.9% used at least one drug (other than alcohol) and 37.0% used more than one drug. Of 320 heterosexual men in Melbourne, the corresponding percentages were 39.1% for at least one drug and 14.1% for more than one drug.

<sup>3</sup> Number of men too small to give a reliable percentage.

### 3.1.2 HOMOSEXUALLY ACTIVE MEN & INJECTING DRUG USE

A minority of homosexually active men reported using a needle to inject drugs in the six months prior to various surveys from which data are available (Table 3.1.2). In general, gay community attached men were more likely to report such practice. A much higher percentage of men in the *pH* and *HIV Futures* studies reported injecting, although the latter study asked about injecting 'in the previous 12 months' so this figure is not directly comparable with the others in Table 3.1.2.

The longitudinal data available suggest that on the whole the level of injecting drug use has remained relatively stable over the reporting period, albeit higher than rates in the general population based on *National Drug Strategy Household Surveys*—for example, any injecting drug use in the past 12 months (cf. six months for most of the data in Table 3.1.2) was reported by 1.1 per cent of metropolitan respondents and 0.7 per cent of regional respondents in 1998 (Williams, 2001).

**Table 3.1.2: Injecting drug use among homosexually active men in the six months prior to the survey**

Source	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>Australia</b>										
Male Out: GCA					1181	11.3				
Male Out: NGCA					651	9.2				
HIV Futures <sup>1</sup>			716	13.5			720	14.6		
<b>Sydney</b>										
HIM							450	3.3	845	2.7
pH			345	17.7			263	13.3	233	6.4
Periodic	836 <sup>2</sup>	12.4	3343	7.6	2916	7.2	2862	7.0	2884	5.4
Male Out: GCA					223	14.3				
Male Out: NGCA					78	6.4				
Gay Asian Men			319	0.6					457	0.2
Living as Men <sup>3</sup>			524	3.6						
<b>Melbourne</b>										
pH			52	13.5			90	13.3	65	9.2
Periodic					1578	5.0	1830	4.0	1877	4.8
Male Out: GCA					258	6.2				
Male Out: NGCA					103	2.9				
Living as Men <sup>3</sup>			309	4.8						
<b>Brisbane</b>										
Periodic	1341	8.7	1225	9.1	1285	8.6	1570	9.6	1787	10.1
Male Out: GCA					99	11.1				
Male Out: NGCA					62	11.3				
<b>Perth</b>										
Periodic	846	6.7			1035	5.1			790	4.1
Male Out: GCA					93	15.1				
Male Out: NGCA					49	6.1				
<b>Adelaide</b>										
Periodic <sup>4</sup>	552	8.7	463	7.5			565	4.1		
Male Out: GCA					78	7.7				
Male Out: NGCA					42	11.9				
<b>Canberra</b>										
Male Out: GCA					18	0				
Male Out: NGCA					10	0				

<sup>1</sup> Gay and homosexually active men only. Data are for IDU in last 12 months.

<sup>2</sup> August 1998 sample only.

<sup>3</sup> Gay and homosexually active men only. Of 254 heterosexual men in Sydney, 3.6% had injected; of 320 heterosexual men in Melbourne, 0.9% had injected.

<sup>4</sup> Questions changed over time and figures are not directly comparable.

## 3.2 INITIATION AND TRANSITION TO INJECTION

The Initiation and Transition study was funded by the NHMRC and conducted from 1999 to 2001. The study consisted of a quantitative survey of young injectors in three sites (reported in National Centre in HIV Social Research, 2001) and an in-depth semi-structured interview arm. The following represents the main findings from these interviews with 24 young injectors recruited from Sydney and Brisbane.

Recruitment techniques included: snowballing through interpersonal networks (particularly within hidden networks of IDUs); fliers and posters advertising the study in treatment and youth services, cafes, clubs, gyms, and other sites identified as places frequented by young IDUs; advertisements placed in local and subcultural press; and newspaper stories on the project in local and subcultural press. Participants were reimbursed \$20 for their travel expenses at the completion of the interview.

Participants were asked to provide retrospective accounts of transition and initiation to injecting. Information was also requested with regard to: drug use career; contexts of use; past and current membership of IDU networks; mobility between networks; the user's initiation process, including the role of the initiator (where applicable); factors influencing transition to injecting; barriers to use of non-injecting routes of administration; current pattern of drug use; knowledge of risk and hepatitis C transmission; and past and present sources of knowledge.

A summary was made of the context, practices and stated knowledge at the time of first injection. Further, descriptions of subsequent injecting practices were summarised. Close reading of these summaries produced themes and associations between experiences. These are presented with attribution by pseudonym, age of first injection and current age, drug of initiation and current drug of choice, e.g. James, 17-23, speed-heroin.

A total of 24 interviews were conducted: 11 in Brisbane and 13 in Sydney. Most participants were male (n=15), ranged in age from 16 to 25 and were not employed (n=12 unemployed, n=4 employed, n=2 student, n=6 not recorded). Twelve participants were living in rented accommodation and eight in transient accommodation (homeless, lived in a squat, refuge or hotel): data were not recorded for four participants. Fifteen participants described opioids as the drug of choice (i.e. drug most frequently used), eight stimulants, and one could not differentiate between opioids and stimulants as drug of choice. Length of time since first injection ranged from less than one year to more than five years, with most injecting for three to five years. Six participants self-reported a positive hepatitis C status. One of these participants stated that she had purposefully reused injection equipment to give herself hepatitis C. Two other participants stated that they had acquired hepatitis C through an accident which did not involve injection drugs. Fourteen participants self-reported as having hepatitis C negative status, while four did not know their status or had not been tested.

The age of initiation into injecting in the qualitative sample ranged from 13 to 23 years. Participants were divided into three age groups by age of initiation: an early (13-15 years), middle (16-20 years) and late (21-23 years) group. Most participants (n=14) in this sample began injecting between the ages of 16 and 20 years: eight participants began

injecting drugs between the ages of 13 and 15, and two at the age of 23 years. There did not appear to be differences between early and later initiates in terms of whether the drug was used in other ways before injection or was injected first. A typical pattern, regardless of age at initiation, was that an older person (often partner) was described as first offering the opportunity to inject.

There appeared to be an association between living arrangements and earlier age of initiation. Most of the participants who first injected between the ages of 13 and 15 (early injectors) were not living at home when they first injected but on the streets, with older friends: one participant was living at home with 'junkie' parents.

The living arrangements of those who initiated injecting between 16 and 20 years of age were more variable. The two 16 year-old initiators were living out of home, one with friends and the other in a squat. One of the 17 year-old initiators was living on the streets. Those who initiated injecting between 18 and 20 typically described their decision to inject in ways (described below) that appeared to be unrelated to the stability of their accommodation.

Generally, those who had initiated injection with opioids continued to use opioids as their drug of choice: only one had changed over to stimulants. About half of those who had injected stimulants first, currently used stimulants as their drug of choice. Other stimulant initiators had moved to opioids as their current drug of choice. One stimulant initiator was currently using both stimulants and opioids.

The general pattern for participants was use of illicit drugs for some time before initiation of injecting. Participants described this as 'the done thing' in their circle of friends (Josephine, 19-20, heroin-heroin). Rob (19-24, heroin-heroin) claimed that he 'wanted to be a bad boy' and that drugs were a way of achieving that.

Some participants mentioned that their decision to use illicit drugs was not a result of 'peer pressure' but that they wanted to 'expand' their 'mind' (Grace 14-17, 'speed'-heroin) or that they 'digged the ideas of drugs ... liked escaping from reality' (Sam, 19-24, 'speed'-heroin).

Social networks appeared to be related to choice of drug. For example, most people initiated injecting with stimulants or had used stimulants in other ways before injecting opioids. Stimulant use was associated with the music scene (Liz 18-21, 'speed'-'speed', Snowball 16-19, 'speed'-'speed'), the stripping industry (Alice 23-25, 'speed'-'speed'), and the gay dance scene (Jon 18-24, 'speed'-'speed').

Most participants claimed they were offered drugs for injection by a trusted friend, partner, family member or friend of a friend. These contacts were typically older and, in some cases, acted as dealers.

Use of drugs to 'block out' emotional issues (Dennis 17-25, heroin-heroin) or to feel 'comfortable and happy' (Jasmine 17-21, heroin-heroin) were also given as reasons for initiating injection. However, reasons related to fun, opportunity and experimentation were more typical in this sample.

Economic reasons for injecting were mentioned only infrequently. Garth (17-25, heroin-heroin) was told that it was a 'waste' not to inject heroin and Snowball (16-19, 'speed'-'speed') claimed that 'speed' was 'easier to share evenly' when injected.



Presented below are a series of case studies of transition into injecting drugs to highlight the issues discussed above. These cases have been chosen because they illustrate typical as well as unusual elements in transition to injection patterns.

## **CASE 1: GRACE 14-17, 'SPEED'-HEROIN**

Grace on the whole illustrates a typical pattern of transition into injecting for the younger group of initiators. Like most participants, Grace had a history of illicit drug use prior to injecting. She described using 'pot', LSD, 'mushies', alcohol, Valium and 'rohies' from the age of 12 years. She tried drinking and snorting 'speed' at the age of 13 years. She described her decision to use drugs as 'not peer pressure' but that she wanted to 'expand [her] mind'. She used drugs with trusted older friends among the music and band scene, some of whom used injecting drugs. She first injected 'speed' at the age of 14 and a half years. At the time, she was living with friends. A friend, also a dealer, injected her. Her boyfriend was also present. At 15 and a half years she began to inject heroin and described herself as 'being friends with all the dealers'. At the time of interview, she was 17 and described herself as a 'heroin junkie' and 'poly drug user'.

Some elements of Grace's story are typical of young initiators. She was living out of home at a young age. Like other young initiators, she had considerable experience with illicit drugs prior to injection. Her involvement with older people and associated networks of IDUs gave her opportunities for drug injection and ready access to drugs and equipment. Her decision to inject drugs was not, in her view, due to peer pressure but was couched in positive language. She stressed the fun of the social contexts. However, while Grace did not perceive the presence of her boyfriend as in any way coercive, the issue of gender was relevant for some older female participants (see below).

In other respects, Grace was not typical of injecting drug users in this sample. Her current attitude to her drug use was different from most and she was one of the few people in the sample who had not taken repeated steps to reduce her drug use and who still described herself as a 'positive drug user'. Also, she was atypical of this sample in continuing to refer to the dealing and drug use network in terms of friendship. Other participants, who had often attempted to reduce their drug use, commented on the false friendships or even overt manipulation, or exploitation that occurs in drug use networks.

## **CASE 2: DENNIS 17-25, HEROIN-HEROIN**

Dennis also had a history of illicit drug use prior to injection. He used marijuana in order to 'get rid' of his stepfather whom he described as abusive. At 17, a friend suggested that he try heroin if he wanted to 'block [him]self out, block it all out'. He tried heroin with his cousin. His second injection occurred at 21 years of age, after a gap of about four years. Nine months later, he tried heroin again. At that time, he had money and bought a bag of heroin to sell for profit. He described being assaulted by his stepfather at that time and his cousin told him 'you need it'. Dennis said: 'I couldn't take anymore, I was ready to snap'. From this point forward, Dennis' injection of heroin escalated to weekends, then alternate days, and then daily use.

Dennis' story is unusual in the length of time between initiation of injection and establishment of an injecting drug use pattern. His description of initiation of injecting drug use as being for emotional release is similar to some other opioid initiators. Only one stimulant initiator (who, after two injecting experiences, claimed he would not use stimulants again) described his injecting drug use in these terms.

### **CASE 3: ALICE 23-25, 'SPEED'-'SPEED'**

The final case study reported here is Alice who is one of the few late initiators. During her teens Alice had smoked 'pot' with her father and tried 'E' and 'acid'. She described a period where she 'started hating all drugs, all drugs were bad'. At 21 years, she started work as a stripper and found that 'heaps of drugs' were available in that industry. At about this time, she used 'speed' by eating, snorting and drinking it. At 23 years, she injected 'speed' at her boyfriend's house, with her boyfriend and two other men present. The second injection occurred the next day. Alice's use of 'speed' increased to each Thursday, Friday and Saturday. She said she would sleep on Sunday. Alice said that her preference is to drink 'speed', but she injects it because this is her boyfriend's preference.

Although Alice was a relatively late initiate to injecting, she shared with other participants a history of illicit drug use prior to injection and drug contacts within her immediate social network. It was as a result of the social network that she eventually 'just ended up getting onto drugs'. Of interest in Alice's transition to injecting, is the role played by her boyfriend. Alice reported that she preferred to drink 'speed'—she enjoys the effect more this way than with injected 'speed'. However, she nevertheless continues to inject because her boyfriend is 'full on into it'. Issues of gender were important also for the transition of the other older female initiate.

### **EQUIPMENT USED AT FIRST INJECTION**

All participants in the qualitative study were able to describe the source of equipment used for their first injection and their involvement in obtaining that equipment. Participants' experiences ranged from being given equipment by someone else to being themselves active in obtaining equipment from a vending machine, pharmacy, or other secondary outlet. Involvement in obtaining equipment did not appear to be related to the type of drug first injected or the situation in which first injection occurred.

More than half the qualitative sample described being provided injecting equipment used for their first injection experience, but not able to describe the specific origin of that equipment. Most insisted that the needle and syringe was 'clean' and that they remembered the equipment being taken out of its wrapping.

*They just gave me a clean needle. (Jocko, 16-16, 'speed'-'speed')*

*It was his stuff. He pulled it out and goes 'here you're looking at a brand new in the packet, it's not been used'. And I was like 'alright, sweet, as long as that's the way you know'. (Garth, 17-25, heroin-heroin)*

Most initiation occurred in a group setting. Participants claimed that clean needles were available for all those injecting. These comments focused on the needle and syringe only; participants did not describe the source of other equipment (spoons, tourniquets etc).

A small number of participants were actively involved in obtaining the equipment they used at initiation. The source of injecting equipment most frequently reported was a pharmacy. No participant in the qualitative sample stated that they obtained equipment directly from a primary NSP for their initiation experience. Some who purchased their initiation equipment from a pharmacy stated that they were unaware of NSPs until some time after they began injecting. Others claimed that there were no NSPs in their local rural area. The following equipment sources were each used by one participant: a vending machine in Kings Cross, a hospital emergency unit, a facility accommodating homeless youth.

Three women reported that their sexual partner injected them the first time. In each case the partner obtained and supplied the equipment. All three participants claimed the equipment was 'clean' but, as above, the emphasis was on needle and syringes rather than other equipment.

*He always ends up doing himself first and then he does me, but it's always with a clean needle. (Alice, 23-25, 'speed'-'speed')*

One of the participants Clint (15-19, 'speed'-heroin), who claimed that he had his own injecting equipment for his first injection experience, nevertheless stated that he shared the mix of drugs ('speed').



*Hepatitis C*

## 4.1 HEPATITIS C TESTING, DIAGNOSIS AND TREATMENTS

Data on hepatitis C testing, diagnosis and treatments were available from a number of studies including *HIV Futures*, the *Australian HIV Observational Database (AHOD)*, the *HIM* cohort of HIV-negative gay men in Sydney, and the *pH* cohort of people living with HIV/AIDS (PLWHA) in Sydney and Melbourne.

Substantial proportions of PLWHA and gay community attached men have ever been tested for hepatitis C (see Table 4.1). PLWHA are generally more likely than HIV-negative gay men to have been diagnosed with hepatitis C. In the full samples, HIV and hepatitis C coinfection is higher than 10% in all of the studies with PLWHA participants. Among those PLWHA who are coinfecting with hepatitis C, in the respective studies, relatively small proportions have taken medical treatments specifically for hepatitis C.

**Table 4.1: Hepatitis C testing, diagnosis and treatments**

	1998		1999		2000		2001		2002	
	N	%	N	%	N	%	N	%	N	%
<b>a) Tested for hepatitis C<sup>1</sup></b>										
<b>Australia</b>										
HIV Futures			924	63.8			894	65.4		
AHOD									2086	81.7
<b>Sydney</b>										
HIM							400	72.0	400	69.0
pH			362	34.3			292	33.6	252	35.3
<b>Melbourne</b>										
pH			56	23.2			105	27.6	83	34.9
<b>(b) Ever tested positive for hepatitis C</b>										
<b>Australia</b>										
HIV Futures			924	17.2			894	13.9		
AHOD									2086	10.7
<b>Sydney</b>										
HIM							381	6.8	417	3.4
pH			362	16.6			292	13.7	252	11.5
<b>Melbourne</b>										
pH			56	8.9			105	17.2	83	10.8
<b>(c) Ever taken treatments specifically for hepatitis C<sup>2</sup></b>										
<b>Australia</b>										
HIV Futures							125	10.7		
<b>Sydney</b>										
pH									29	10.3
<b>Melbourne</b>										
pH									9	11.1

<sup>1</sup> Questions about testing for Hepatitis C were framed differently in the various studies reported here. In the *HIV Futures*, *AHOD* and *HIM* studies, questions were framed in the context of 'ever tested' for Hepatitis C, whereas in the *pH* study, questions referred to testing for Hepatitis C in the previous 12 months.

<sup>2</sup> These treatments included interferon monotherapy or combination therapy of interferon and ribavirin.

## **4.2 BLOOD AWARENESS FOR HEPATITIS C PREVENTION EDUCATION**

Education about modes of transmission presents as the most viable means of containing the spread of hepatitis C. The promotion of 'blood awareness' has been identified as a key strategy for such education as it may ensure greater care on the part of the general community in the prevention of blood exposures. However, the development of a heightened awareness of blood as a source of infection is fraught with social and health implications, particularly those resulting from phobias about blood when the latter is linked to existing sets of discrimination such as injecting drug use and racial, ethnic and sexual identity categories.

A crucial concern for those directly involved in promoting 'blood awareness' is the need to ensure that such a strategy does not contribute to the existing stigmatisation of those with hepatitis C or, more generally, promote 'irrational' phobias about blood. In conjunction with social justice reasons for preventing discrimination against those with hepatitis C, the future of testing, treatment and prevention will also depend largely on the social responses to increasing awareness of hepatitis C.

This NHMRC-funded project conducted interviews with 82 people who had 'special' relationships or experiences with blood to investigate ways in which understandings of blood could contribute to prevention messages. Here we report from recent papers from the project (Fraser, in press; Treloar & Fraser, 2002).

Participants were recruited in the following groups: ex or current drug injectors; blood donors; blood recipients (including those with 'one-off' transfusions and those who had acquired hepatitis C through transfusion); people with blood disorders (haemophilia and thalassemia); ambulance officers; people who practise body modification. Although we categorised participants into one main group for recruitment and identification, these categories were not mutually exclusive.

In this report we will focus on the findings from interviews with the 32 current or ex injectors recruited to the project. Sexes were equally represented, and ages ranged from 18 to 51 years. Most participants were in their 20s or 30s. Twenty reported they were seropositive for hepatitis C, eight reported being seronegative for the virus and four had 'cleared' the virus.

Injectors were recruited through a variety of means: by advertising in the Hep C Review (the quarterly publication of the Hepatitis C Council of NSW); in an inner city Sydney GP practice specialising in methadone maintenance programs and treatment of people with hepatitis C; in an inner city needle and syringe program; and through snowballing with participants.

The interview opened with a word-association prompt for blood. The situations in which participants encountered blood were then prompted. Participants' responses to accidents involving strangers' and friends' blood were sought; reactions to horror movies and 'reality' medical television programmes; the bio-identity of blood in donation and transfusion procedures; knowledge of hepatitis C; and experiences of blood in the injecting process.

Below, selected findings are presented. These and other findings have been developed as hypotheses for innovative health promotion strategies.

## CURRENT PRACTICES 1: 'SUPER SAFE' STATEMENTS

Current injecting practice was described in a number of ways. Many participants asserted that they do not share any injecting equipment, that they go to some trouble to get new equipment rather than share and that they avoid people who think nothing of sharing. These people used 'super safe' statements to describe their injecting practice:

*Yeah I would never use someone else's fit. I would even, even if I'm in a place where I'm an hour and a half from my place, I prefer to run back to my place and actually tell them to have a shot there instead. And travel by cab or whatever, even if I don't have enough money, just to go and get fits. Or run around anywhere. (Lana)*

## CURRENT PRACTICES 2: 'IMPROVED SAFETY'

Others employed 'improved safety' or 'safety compromise' statements to describe injecting behaviours. Safety awareness increased for participants after the advent of messages regarding HIV and hepatitis C risks associated with injecting: 'better to wait and have a safe shot than lose your liver' (David). However, some described compromising their safe injecting behaviours when 'desperate', although steps to avoid infection were also described: 'to be brutally honest, if I was really sick, I'd just put it to the back of my mind and use [used equipment]. To be really honest, do you know what I mean. But bleach it and that first' (Jill).

## CURRENT PRACTICES 3: RESISTING SAFETY

Other IDU participants disregard their safety in various ways. Bugsy stated that his carefulness in injecting diminished after being diagnosed with hepatitis C: 'I thought, 'what's the use?'. Others reported that their injecting practice did not change 'immediately' once they became aware of risk associated with injecting.

## INDIVIDUAL AND INTERPERSONAL FACTORS

IDU participants typically felt that individual responsibility was paramount in protecting themselves from blood borne viruses: 'It's just up to the person to actually do it, you can't put brains into a statue' (Christine). The issue of caring for others was, however, also a part of the injecting process for participants. This orientation to care for others was found among those who expressed 'super safe' statements, such as Lana. Although safe in her own injecting practice, Lana's intimate involvement with others' blood places her in other situations of risk.

*I've got a girlfriend where I have to help, you know, shoot it up for her. Each time I jack back sometimes I get pus, sometimes I get very black jelly blood and it congeals so quick. She's got hep C. And yeah, just weird blood.*



## HIGHLY AWARE, BUT ON AUTOMATIC PILOT

Blood seems to figure strongly in the meaning and character of injecting, and this was evidenced by the demonstration of a high level of awareness of blood in injecting. However, for some, blood becomes invisible when injecting: 'when you're using drugs you're always putting the needle in and when you take it out there's always blood running down your arm or your foot or whatever so you get used to it' (David).

Sue also speaks of approaching the act of injecting without considering the risk of blood contact inherent in injecting, despite contact with large quantities.

*I don't associate injecting with lots of blood, even though I've sat in pools of my own blood... Like I don't think 'geez I'm going to get a heap of blood over me now I'm going to have a shot'. But if it's there is, it's not even thought about, it's just because it's so much a part of it, you're so used to seeing it when you're using.*

## BLOOD AS LIFE SAVING

Blood was perceived to be typically life saving rather than life threatening.

*Oh no it's life sustaining. No matter which way you look at it. Whether it is diseased or not. Without it you are dead. It's as simple as that ... I'm diseased at the moment. I've got the virus running through me 24 hours a day. But is there. Without my blood I wouldn't be here. So as far as I'm concerned it is essential to life no matter whether its diseased or not. Put it this way, I haven't yet heard any medical report saying that blood is detrimental. (Wolfe)*

Where blood was seen as threatening, this was usually among hepatitis C positive participants concerned about infecting others or about the risks associated with transfusion.

## BLOOD

Participants described blood in predominantly biomedical terms, but had little knowledge of its structure or functions within the body. Characteristics of blood were thought by some IDU participants to change with drug use and hepatitis C infection. For example, some stated that people who do not use drugs have 'clear' blood that is bright red, whereas the blood of IDUs is compromised: 'my blood is always dark red, a shade darker than it should be' (Raymond). Other non-biomedical ways of seeing blood—such as those based on spirituality or kinship—were rarely expressed.

## DEVALUING OF BLOOD

Some participants with hepatitis C, such as Bugsy, were unconcerned about acquiring other blood borne diseases. They characterised their blood in terms such as 'bad', 'dirty' or 'useless'. Like many, Sandra described her blood in ambivalent terms—useful for her but useless and dangerous for others.

*My blood has potential, um, sickness you know. Someone else could catch it, I mean, in that way bad. Well I can't give blood, my blood is useless for anyone else except me.' (Sandra)*

The view that hepatitis C positive blood is so diseased that it is not worth preserving from further infection has clear health promotion implications. Education around the functions of blood, and its valuable role in the body (even when infected) could minimise apathy around further infection.

## LEVELS OF RESPONSIBILITY

Although a strong theme of responsibility towards others runs through the interviews, this does not divest others of the obligation to be responsible for themselves. In short, many express the sentiment that although it is up to us to take responsibility for others, there is a limit to what we can achieve through this, and that ultimately, nothing can really change until the individual comes good by taking responsibility for him or herself. Real responsibility lies with the individual—responsibility for the community as a whole as well as for the self.

## REFLECTION ON PAST PRACTICE

One of the most common reflexive strategies found in the interview data is the establishment of current responsibility based on critical reflection upon an irresponsible past self. In some cases, past methods of injecting are criticised as unsafe and uninformed, and past attitudes towards safety are judged wanting. Daniel relates an incident from his past in which his desperation to inject the drugs he had just purchased overrode his concern about health. Daniel demonstrates the gulf between his old self and his current self by asking 'how stupid is that?', and by emphasising that he cannot believe he behaved in the way that he did.

*I actually once, it was in Cabramatta, I went into the pub to go to the toilet and take the drugs and the bouncer got me and broke my fit and it was like 11 o'clock at night and there was nowhere, I didn't have a cent. There was nowhere to get a fit. I had to get one off the street and clean it out and use it. That's what—heroin addiction's that bad. I mean how stupid is that? Picking a needle up off the street, a used needle in Cabramatta. And using it, but that's how bad it is. I had sat on a train for like five hours to get there. Imagine. If you've witnessed heroin addicts—how worked up I was by the time I got there. So yeah. I can't believe I've done it. But I did.*

## **RESPONSIBLE CURRENT PRACTICE**

Typically, most participants demonstrated a high level of awareness about the importance of cleanliness and caution around blood when injecting. They described specific techniques to minimise exposure to blood, and significantly, drew contrasts between their own responsible behaviour and the risky, irresponsible behaviour of other injectors, who are said to be unconcerned about managing their blood and the potential for passing on blood-borne viruses.

## **THE IRRESPONSIBLE OTHER**

Descriptions of others' poor injecting practices were extremely common in the interview data. In some instances, specific unsafe behaviour, such as the washing of used syringes in communal water, the discarding of used equipment in public areas and the failure to clean up spilt blood were described and criticised. In these cases, the citing of poor practice in others provides the opportunity to construct a contrast between the inadequacies of other injectors and the proper practice of the interviewee. In relation to the latter issue, many of the interviewees generate extended discussions on the unsafe practices of others, and suffuse them with a censorious moral tone, including positioning hepatitis C almost as a form of moral retribution for bad behaviour.

Participants also expressed strong disapproval of injectors who endanger others, for example, by 'throwing away' their syringes without thought for the safety of others. For Sasha, this act alone demonstrates that they have 'no respect for themselves and other people'. The need to respect the safety of others is stated repeatedly in the interview data, and not surprisingly, carries with it strong moral associations.

Similarly, Sasha constructs a moral taxonomy of injectors, citing the drug user, the drug addict and the junkie, with the junkie label denoting the least morally upright. David makes a similar distinction, pointing out that 'there's a difference between a junkie and users you know . . . junkies don't give a shit anymore.'

## **CARING FOR OTHERS**

Unlike the irresponsible Other invoked in some of the interviews, the responsible injecting subject undertakes to also care for other injectors and the community at large. For example, many interviewees indicate a desire to impart safe injecting knowledge to other injectors, especially those considered young and inexperienced. Likewise, many allude to the need to discourage others from trying to reuse their (the interviewees') old injecting equipment.

Clearly, some injectors are more than willing to reuse equipment. How responsible do the interviewees feel for counteracting this tendency? The data suggest some feel extremely responsible for the behaviour of others. Several describe snapping off the needle to make reuse impossible. This is a fairly interventionist approach to minimising the harm others may do to themselves.

By everyday standards, this willingness on the part of some injecting drug users to risk disapproval and even physical harm by refusing to pass on used syringes to those who may harm themselves by using them indicates a high level of responsibility towards others. Similar concern for the safety of others is expressed elsewhere in the interviews. Dorothy casts herself as a volunteer 'Mummy' to the inexperienced young injectors in her area, and

David, by contrast, but with an equally developed sense of responsibility refuses to inject with 'young people'.

## RESISTING THE RESPONSIBILISED SELF

Two interview subjects made little or no reference to responsibility towards the self or others, and no attempts to construct a reflexive self were made. Jill, for example, differs from all other interview subjects by describing instances of current equipment sharing with others, and by not reflecting critically on the behaviour of others as a means of constructing a responsibilised self.

## 4.3 THE 3D PROJECT: DIAGNOSIS, DISCLOSURE, DISCRIMINATION AND PEOPLE WITH HEPATITIS C

To date, very little social research has enquired into hepatitis C infection. The 3D Project, a quantitative and qualitative study, surveyed people in NSW with hepatitis C infection and aimed to describe their experiences of hepatitis C diagnosis, disclosure and discrimination. The sample for the quantitative arm, reported below, was drawn from people who read *The Hep C Review* (a quarterly magazine of the Hepatitis C Council of NSW) and callers to the Council's information telephone service (n=450). An additional 54 current injecting drug users were recruited from a central Sydney needle and syringe program. The age of participants ranged between 18 and 77 years (mean=42 years). There were approximately equal numbers of men and women (Table 4.3.1). Most participants (57.5%, n=290) cited injecting drug use as the source of their hepatitis C infection and over a quarter (27.4%, n=138) had injected drugs in the month prior to completing the questionnaire. Participants in this study were mainly older, former injecting drug users. Most had not undertaken post-secondary education and had low incomes (Table 4.3.1).

**Table 4.3.1: Characteristics of 3D sample (N=504)**

Characteristic	n	%
<b>Gender</b> (n=499)		
Male	254	50.4
Female	244	48.4
Transgender	1	0.2
<b>Education</b> (n=495)		
Up to and including Year 12	269	53.4
Diploma/degree	183	36.2
Postgraduate	43	8.5
<b>Income</b> (n=448)		
<\$10,000	184	36.5
\$10,001-\$20,000	92	18.3
\$20,001-\$30,000	58	11.5
\$30,001-\$40,000	29	5.8
\$40,001-\$50,000	33	6.5
\$50,001-\$60,000	30	6.0
>\$60,000	22	4.4

## DIAGNOSIS

The majority of participants (79.6%, n=401) were first told of their infection by a doctor. When asked if their doctor had explained what it means to have hepatitis C, nearly a third of participants (30.6%, n=154) said that they had received 'no explanation'. A further 209 participants (41.5%) reported that their doctor had 'partly explained' hepatitis C virus infection and 135 participants (26.8%) reported that their doctor 'had explained' what it means to have hepatitis C infection. Female participants were significantly more likely to report receiving 'no explanation' about hepatitis C from their doctor than male participants ( $p<.01$ ). Following diagnosis, 175 participants (34.7%) reported that they had not been given information or advice about conventional treatments, natural therapies, referral to a specialist, counselling, information about how the virus might affect health or information about support groups. Participants who reported receiving none of the above following diagnosis were more likely to have acquired their infection from injecting drug use ( $p<.05$ ), to be current injectors ( $p<.05$ ), or to have been diagnosed before 1995 ( $p<.01$ ). Participants who were referred to a specialist were more likely to be older ( $p<.01$ ).

## DISCLOSURE

Most participants had disclosed their infection to their doctor, another healthcare worker, partner, family and friends, and many participants had experienced 'bad' reactions from disclosure (Table 4.3.2). Women were significantly more likely than men to have disclosed their hepatitis C infection to their partner ( $p<.01$ ) and doctor ( $p<.05$ ), however, no other gender differences in relation to disclosure were found.

**Table 4.3.2: Disclosure of hepatitis C infection and subsequent 'bad' reactions (N=504)**

Disclosed to:	Disclosure		Reacted 'badly'	
	n	% <sup>a</sup>	n	% <sup>b</sup>
Doctor	383	76.0	44	11.5
Other health care worker(s)	331	65.7	54	16.3
Wife/husband/partner	369	73.2	63	17.1
Family (i.e. parents/siblings)	359	71.2	81	22.6
Children	143	28.4	14	9.8
Friend	348	69.0	68	19.5
Flatmate	90	17.9	17	18.9
Boss	83	16.5	14	16.9
Workmate	87	17.3	12	13.8
Casual sex partner	96	19.0	26	27.1

<sup>a</sup> Percentage of total sample.

<sup>b</sup> Of those who had disclosed, the percentage of people who had experienced a 'bad' reaction.

In all, 189 participants (37.5%) said that they regretted telling someone about their infection. Over a third of participants (36.7%, n=185) reported that information about their hepatitis C infection had been told to someone without their permission. A common source of unauthorised disclosure included friends (15.9%, n=80) and doctor or other health care worker (13.5%, n=68). Sixty participants (11.9%) reported that they had been pressured into

disclosing their infection and of these people, 31 (51.7%) reported that a health care worker had pressured them into disclosing and 17 (28.3%) reported that a government department had pressured them into disclosing their hepatitis C infection.

## DISCRIMINATION

Reports of hepatitis C-related discrimination were common throughout the study and involved a variety of sources. In relation to healthcare, over a quarter (27.8%, n=140) of all survey participants reported experiencing discrimination from a healthcare worker other than a doctor, and 65 participants (12.9%) from a doctor. Some participants (12.7%, n=64) reported that they had been refused medical treatment because they have hepatitis C infection. Compared with participants who do not inject drugs, current injecting drug users were significantly more likely to report: being refused any medical treatment because they have hepatitis C ( $p<.05$ ); being refused any medical treatment because they had been injecting at the time ( $p<.001$ ); hepatitis C-related discrimination from their doctor ( $p<.01$ ); from their family ( $p<.01$ ); and from friends ( $p<.05$ ).

A reduced linear regression model (Table 4.3.3) contained four variables that predicted widespread discrimination when other variables were taken into account.

**Table 4.3.3: Reduced model for hepatitis C-related discrimination (N=504)**

	<b>B</b>	<b>SE</b>	<b>p</b>
Currently injecting drugs	0.8	0.19	<.01
Knowing many other people with hepatitis C	0.5	0.08	<.01
Pessimism about own future health with hepatitis C	0.3	0.10	<.01
Less time spent with family, friends, neighbours, or groups because of hepatitis C	0.6	0.11	<.01

A total of 227 participants (45.0%) reported that discrimination had negatively affected their emotional health, with 180 (35.7%) reporting that their physical health had been adversely affected by discrimination. In all, 108 participants (21.4%) reported that discrimination had a negative affect on their employment and 134 participants (26.6%) reported that discrimination had adversely affected their personal relationships.

## SUMMARY

People with hepatitis C infection often do not receive information about their condition or referral to appropriate services following diagnosis. They experience a range of negative reactions and outcomes from disclosing their infection. Hepatitis C-related discrimination occurs in a variety of social domains and is especially salient for people identified as, or assumed to be, injecting drug users. These factors have the potential to alienate large numbers of people with hepatitis C infection from a range of health and information services, and may impede attempts to prevent the further spread of infection.

*The Current Climate*

During more than two decades of responding to HIV, many changes have occurred. Time itself means that many have become used to living with the epidemic; they no longer live with a constant sense of crisis. Those who were young then are now older and the young have become newly sexual and may be trying non-prescription drugs. The announcement at the 11<sup>th</sup> International AIDS Conference in Vancouver in July 1996 of the comparative success of new combination antiviral therapies added to a sense of post-crisis. New therapies have lessened the burden for most people living with HIV and AIDS: there are fewer deaths and, despite often serious side effects, less debilitating illness among PLWHA.

Researchers at the NCHSR have documented a number of phenomena associated with the post Vancouver landscape. These phenomena include the increasing proportions of gay and homosexually active men engaging in unprotected anal intercourse (as reported in Section 1 of this report) and the related issue reported in this Section, the adoption of HIV risk reduction strategies.

Data on two other subjects of current interest are included here. With the commencement of the HIV vaccine trial in Sydney in June 2003, HIV vaccine attitudes among gay men remain an important consideration. Likewise, recent data on post-exposure prophylaxis (PEP) uptake and understandings are topical and merit examination for significant trends.

## **5.1 GAY MEN'S HIV RISK REDUCTION STRATEGIES BASED ON MODALITY OF ANAL INTERCOURSE AND WITHDRAWAL**

Data from the Sydney *Gay Community Periodic Surveys* over the seven-year period to August 2002 ( $n = 19911$ ) were examined for patterns of risk taking and risk management, among men in serodiscordant regular relationships and in casual partnerships (Rosengarten et al., 2000; Van de Ven, Kippax, Crawford et al., 2002). The analyses were aimed at uncovering patterns in unprotected anal intercourse which might provide additional evidence of risk reduction strategies adopted by gay men. In this report, apart from updating data from the Sydney *Periodic Surveys*, new data from the *HIM* and *pH* cohorts have been included, where relevant.

Among men who had unprotected anal intercourse which involved ejaculation inside their serodiscordant regular partner, there was a clear pattern of strategic positioning based on serostatus (see Table 5.1.1). Few couples reciprocated, i.e. were both receptive and insertive. Most HIV-positive men were receptive only and most HIV-negative men were insertive only.



**Table 5.1.1: Unprotected anal intercourse which included ejaculation inside between men in serodiscordant regular relationships by serostatus**

	HIV-positive		HIV-negative	
	n	%	n	%
Sydney Periodic (n = 220)				
Both receptive and insertive	23	21.7	27	23.7
Receptive only	74	69.8	10	8.8
Insertive only	9	8.5	77	67.5

Some men practised consistent withdrawal (rather than sometimes ejaculation inside) during unprotected anal intercourse with a serodiscordant regular partner. Among these men there was a less clear-cut pattern of strategic positioning as one might expect for this lower risk practice. More of these men (than their counterparts who included ejaculation inside in their repertoire) reciprocated. Nevertheless, among the remainder, there was a pattern toward HIV-positive/receptive and HIV-negative/insertive behaviour (see Table 5.1.2).

**Table 5.1.2: Unprotected anal intercourse, involving consistent withdrawal, between men in serodiscordant regular relationships by serostatus**

	HIV-positive		HIV-negative	
	n	%	n	%
Sydney Periodic (n = 142)				
Both receptive and insertive	37	44.6	21	35.6
Receptive only	30	36.1	12	20.3
Insertive only	16	19.3	26	44.1

From the *Sydney Periodic Survey* data, among those men who had unprotected anal intercourse which involved ejaculation inside with casual partners, there was a pattern of strategic positioning (see Table 5.1.3). Many couples reciprocated, i.e. were both receptive and insertive, especially HIV-positive men. Among the remainder, HIV-positive men tended to be receptive and HIV-negative men tended to be insertive. This pattern of risk reduction also pertained to HIV-negative men in the *HIM* cohort, but not among HIV-positive men in the *pH* study.

**Table 5.1.3: Unprotected anal intercourse which included ejaculation inside between men in casual partnerships by serostatus**

	HIV-positive		HIV-negative	
	n	%	n	%
Sydney Periodic (n = 1875)				
Both receptive and insertive	426	55.6	422	38.1
Receptive only	232	30.3	186	16.8
Insertive only	108	14.1	501	45.2
HIM (n = 191)				
Both receptive and insertive			45	23.6
Receptive only			35	18.3
Insertive only			111	58.1
pH (n = 76)				
Both receptive and insertive	48	63.2		
Receptive only	13	17.1		
Insertive only	15	19.7		

Some men practised consistent withdrawal (rather than sometimes ejaculation inside) during unprotected anal intercourse with casual partners. Among these men, there was a less clear-cut pattern of strategic positioning. As shown in Table 5.1.4 and among the datasets examined, HIV-positive men tended to reciprocate, as did HIV-negative men to a lesser extent. Among the remainder, HIV-positive men adopted receptive and insertive positions with almost the same frequency whereas HIV-negative men were more likely to be exclusively insertive.

**Table 5.1.4: Unprotected anal intercourse, involving consistent withdrawal, between men in casual partnerships by serostatus**

	HIV-positive		HIV-negative	
	n	%	n	%
Sydney Periodic (n = 1693)				
Both receptive and insertive	259	50.6	475	40.2
Receptive only	139	27.1	208	17.6
Insertive only	114	22.3	498	42.2
HIM (n = 190)				
Both receptive and insertive			63	33.2
Receptive only			37	19.5
Insertive only			90	47.3
pH (n = 29)				
Both receptive and insertive	16	55.2		
Receptive only	7	24.1		
Insertive only	6	20.7		

## 5.2 HIV VACCINE ATTITUDES AMONG GAY MEN

Important questions for the conduct of future preventive HIV vaccine efficacy trials are the degree to which HIV-negative gay men will enrol in such trials and the factors associated with willingness to participate. A scale of Willingness to Participate in HIV Vaccine Trials has been developed (Van de Ven, Bartholow et al., 2002). The scale contains three items:

- I would participate in an HIV vaccine trial even if I thought the vaccine might not work;
- I want to take part in HIV vaccine trials because I think it will benefit me personally;
- Gay men have nothing to lose by participating in an HIV vaccine trial.

Responses to each item are from 'strongly disagree' (=1) to 'strongly agree' (=4), and overall means are also calculated from 'very unwilling to participate' (=1) to 'very willing to participate' (=4).

This HIV vaccine attitude scale has been included in the *HIM* (Health in Men) longitudinal cohort study of HIV-negative gay men in Sydney and the data presented here are from this study.

Willingness to Participate was associated with sexual risk practice (see Table 5.2.1). Men who reported unprotected anal intercourse (UAI) with casual partners and/or with a serodiscordant or non-concordant regular partner were *more* willing to participate in HIV vaccine trials than those who reported no UAI or UAI only with a seroconcordant regular partner.

**Table 5.2.1: Willingness to participate in HIV vaccine trials by sexual risk practice**

	2001		2002	
	N	Mean	N	Mean
No unprotected anal intercourse (UAI)	165	2.47	299	2.49
UAI with seroconcordant primary regular partner only	115	2.35	234	2.48
UAI with casual partners and/or with a serodiscordant or non-concordant primary regular partner	167	2.63	312	2.54

Willingness to Participate was also related to regular partner's HIV status (see Table 5.2.2). Those with an HIV-positive regular partner were significantly *more* willing to participate than those without regular partners or whose regular partner's status was HIV-negative or unknown.

**Table 5.2.2: Willingness to participate in HIV vaccine trials by primary regular partner's HIV status**

	2001		2002	
	N	Mean	N	Mean
No regular partner	142	2.57	215	2.53
HIV-negative	215	2.44	447	2.49
Unknown	61	2.48	134	2.43
HIV-positive	29	2.68	49	2.66

Willingness to Participate was associated with level of education (see Table 5.2.3). In 2001, men who had not progressed beyond Year 12 and those who had attended university were *less* willing to participate in HIV vaccine trials than their counterparts who had undertaken studies for diplomas or trade certificates. In 2002, men who had attended university remained were *less* willing to participate in HIV vaccine trials.

**Table 5.2.3: Willingness to participate in HIV vaccine trials by educational level**

	2001		2002	
	N	Mean	N	Mean
Up to year 12	108	2.57	217	2.60
Diploma/Trade certificate	91	2.60	182	2.58
University	244	2.43	446	2.43

Willingness to Participate was significantly associated with self-rated likelihood of HIV infection (see Table 5.2.4). Men who rated themselves as highly or moderately unlikely to become infected with HIV were *less* willing to participate in HIV vaccine trials than those who rated their chances as 'about even' or more likely.

**Table 5.2.4: Willingness to participate in HIV vaccine trials by self-rated likelihood of HIV infection**

	2001		2002	
	N	Mean	N	Mean
Highly/moderately unlikely	389	2.46	738	2.48
'About even' or more likely	57	2.79	98	2.65

The HIM cohort also provides data for three other HIV vaccine attitude scales: Comfort with Participation in HIV Vaccine Trials (based on 8 items such as 'It concerns me that if I take the vaccine the HIV antibody test will show me as being positive'); Optimism about HIV Vaccines/Trials (10 items such as 'There will be an effective HIV vaccine within five years'); and Sexual Freedom (6 items such as 'An effective vaccine will make safe sex less important'). Responses to each item are from 'strongly disagree' (=1) to 'strongly agree' (=4). Overall means are also calculated from 1 (= the sceptical response) to 4 (= the optimistic response).

As shown in Table 5.2.5, means for the other HIV vaccine attitude scales did not change from 2001 to 2002. HIV-negative gay men in Sydney remain quite comfortable with participation in HIV vaccine trials though not overly optimistic about the success of HIV vaccines/trials. In addition, the notion of 'sexual freedom' is not an overly potent motivating factor.

**Table 5.2.5: Means for other HIV vaccine attitude scales**

	2001		2002	
	N	Mean	N	Mean
Comfort with Participation in HIV Vaccine Trials	448	2.72	841	2.73
Optimism about HIV Vaccines/Trials	449	2.15	844	2.16
Sexual Freedom	450	2.13	845	2.16

## 5.3 POST-EXPOSURE PROPHYLAXIS (PEP)

Data on non-occupational post-exposure prophylaxis (PEP) were available from the *Periodic Surveys* in Sydney, Melbourne and Queensland, as well as from HIV-negative gay men in the *HIM* study in Sydney. These data relate to awareness of the availability of PEP, self receipt of PEP and knowing others who have received PEP.

In the short period since PEP has been available in NSW, and now in many other states, there has been a significant increase in awareness of its availability (see Table 5.3). Gay community attached men in Sydney are significantly more aware of the availability of PEP than their counterparts in either Melbourne or Queensland. Relatively few people have received PEP to date. Awareness of another person having received PEP is higher in Sydney than in Melbourne.

**Table 5.3: Awareness and use of non-occupational post-exposure prophylaxis (PEP)**

		1998		1999		2000		2001		2002	
		N	%	N	%	N	%	N	%	N	%
<b>(a) PEP is readily available now</b>											
<b>Sydney</b>											
	Periodic							2760	39.0	2670	55.2
<b>Melbourne</b>											
	Periodic							1651	19.2	1767	26.8
<b>Brisbane</b>											
	Periodic									1606	23.8
<b>(b) Received PEP<sup>1</sup></b>											
<b>Sydney</b>											
	Periodic							2721	2.9	2634	3.3
	HIM							450	6.4	845	6.9
<b>Melbourne</b>											
	Periodic							1683	2.0	1727	2.1
<b>(c) Know anyone who has received PEP</b>											
<b>Sydney</b>											
	Periodic							2710	10.6	2594	14.6
<b>Melbourne</b>											
	Periodic							1652	6.7	1716	6.9

<sup>1</sup> With the exception of Periodic Survey results from 2002 onwards, which report PEP use in the previous six months, all other percentages are based on whether participants had ever received PEP.

# *References*

- Aspin, C., Van de Ven, P., Prestage, G., Kippax, S., Horn, G. & Madeddu, D. (2000a). *Melbourne gay community periodic survey: February 2000* (Monograph 4/2000). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Aspin, C., Van de Ven, P., Prestage, G., Kippax, S., Mason, D., Lewis, C. & Gallagher, S. (2000b). *Queensland gay community periodic survey: June 2000* (Monograph 6/2000). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Aspin, C., Van de Ven, P., Prestage, G., Kippax, S., Schamburg, K. & Coase, D. (2001). *Gay community periodic survey: Canberra 2000* (Monograph 3/2001). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Brown, G., Maycock, B., Van de Ven, P., Prestage, G., Langdon, T. & Shaw, T. (2001). *Perth gay community survey: Full report October 2000*. Perth: Centre for Health Promotion Research, Curtin University.
- Crawford, J., Bermingham, S. & Kippax, S. (1995). *An analysis of trends over time in social and behavioural factors related to the transmission of HIV in men who have sex with men: Evaluation of the National HIV/AIDS Strategy 1993–94 to 1995–96* (Technical Appendix 3). Canberra: Australian Government Publishing Service.
- Crawford, J., Kippax, S., Rodden, P., Donohoe, S. & Van de Ven, P. (1998). *Male Call 96: National telephone survey of men who have sex with men*. Sydney: National Centre in HIV Social Research, Macquarie University.
- Crawford, J., Rodden, P., Kippax, S. & Van de Ven, P. (2001). Negotiated safety and other agreements between men in relationships: Risk practice redefined. *International Journal of STD and AIDS*, 12, 164–170.
- Crofts, N., Webb-Pullman, J. & Dolan, K. (1995). *An analysis of trends over time in social and behavioural factors related to the transmission of HIV among injecting drug users and prison inmates: Evaluation of the National HIV/AIDS Strategy 1993–94 to 1995–96* (Technical Appendix 4). Canberra: Australian Government Publishing Service.
- de Visser, R., Smith, A., Rissel, C., Richters, J. & Grulich, A. (2003a). Sex in Australia: Heterosexual experience and recent heterosexual encounters among a representative sample of adults. *Australian and New Zealand Journal of Public Health*, 27, 146–154.
- de Visser, R., Smith, A., Rissel, C., Richters, J. & Grulich, A. (2003b). Sex in Australia: Safer sex and condom use among a representative sample of adults. *Australian and New Zealand Journal of Public Health*, 27, 223–229.
- Ezzy, D., de Visser, R., Bartos, M., McDonald, K., O'Donnell, D. & Rosenthal, D. (1998). *HIV Futures community report: Health, relationships, community and employment*. Melbourne: Centre for the Study of Sexually Transmissible Diseases, La Trobe University.
- Feachem, R. (1995). *Valuing the past ... investing in the future: Evaluation of the National HIV/AIDS Strategy 1993–94 to 1995–96*. Canberra: Australian Government Publishing Service.



# References

- Fraser, S. (in press). "It's Your Life!": Injecting drug users, individual responsibility and hepatitis C prevention. *Health*.
- Grierson, J., Bartos, M., de Visser, R. & McDonald, K. (2000). *HIV Futures II: The health and well-being of people with HIV/AIDS in Australia* (Monograph Series No. 17). Melbourne: Australian Research Centre in Sex, Health and Society, La Trobe University.
- Grierson, J., Mission, S., McDonald, K., Pitts, M. & O'Brien, M. (2002). *HIV Futures 3: Positive Australians on services, health and well-being* (Monograph Series No. 37). Melbourne: Australian Research Centre in Sex, Health and Society, La Trobe University.
- Grulich, A., de Visser, R., Smith, A., Rissel, C. & Richters, J. (2003a). Sex in Australia: Homosexual experience and recent homosexual encounters among a representative sample of adults. *Australian and New Zealand Journal of Public Health*, 27, 155–163.
- Grulich, A., de Visser, R., Smith, A., Rissel, C. & Richters, J. (2003b). Sex in Australia: Sexually transmissible infection and blood-borne virus history in a representative sample of adults. *Australian and New Zealand Journal of Public Health*, 27, 155–163.
- Grulich, A., Prestage, G., Kippax, S., Crawford, J. & Van de Ven, P. (1998). HIV serostatus of sexual partners of HIV positive and HIV negative homosexual men in Sydney. *AIDS*, 12, 2508.
- Hull, P., Brown, G., Van de Ven, P., Prestage, G., Rawstorne, P., Kippax, S. & Langdon, T. (2003). *Gay community periodic survey: Perth 2002* (Monograph 3/2003). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Hull, P., Rawstorne, P., Van de Ven, P., Prestage, G., Kippax, S., Walton, J., Harrison, G., Tunley, F. & Ferguson, G. (2002). *Gay community periodic survey: Queensland 2002* (Monograph 7/2002). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Hull, P., Van de Ven, P., Prestage, G., Rawstorne, P., Grulich, A., Crawford, J., Kippax, S., Madeddu, D., McGuigan, D. & Nicholas, A. (2003). *Gay community periodic survey: Sydney 1996–2002* (Monograph 2/2003). Sydney: National Centre in HIV Social Research. The University of New South Wales.
- Hull, P., Van de Ven, P., Prestage, G., Rawstorne, P., Kippax, S., Horn, G., Kennedy, M., Hussey, G. & Batrouney, C. (2002). *Gay community periodic survey: Melbourne 2002* (Monograph 5/2002). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Kippax, S., Campbell, D., Van de Ven, P., Crawford, J., Prestage, G., Knox, S., Culpin, A., Kaldor, J. & Kinder, P. (1998). Cultures of sexual adventurism as markers of HIV seroconversion: A case control study in a cohort of Sydney gay men. *AIDS Care*, 10, 677–688.
- Kippax, S., Crawford, J., Davis, M., Rodden, P. & Dowsett, G. (1993). Sustaining safe sex: A longitudinal study of a sample of homosexual men. *AIDS*, 7, 257–263.
- Kippax, S., Crawford, J., Rodden, P. & Benton, K. (1994). *Report on Project Male Call: National telephone survey of men who have sex with men*. Canberra: Australian Government Publishing Service.

- Kippax, S., Noble, J., Prestage, G., Campbell, D., Baxter, D. & Cooper, D. (1997). Sexual negotiation in the 'AIDS era': Negotiated safety revisited. *AIDS*, 11, 191–197.
- Kippax, S., Slavin, S., Ellard, J., Hendry, O., Richters, J., Grulich, A. & Kaldor, J. (in press). Sero-conversion in context. *AIDS Care*.
- Lambevski, S., Kippax, S. & Bartos, M. (2000, December). *Body practices of male pleasure: Post-industrial urbanity, unorthodox masculinities and male corporeal subjectivity*. Paper presented at Manning the Millennium Conference, Surfers Paradise, Qld.
- Mao, L., Van de Ven, P., Prestage, G., Jin, F., Grulich, A., Crawford, J., Kippax, S., Murphy, D. & Allan, B. (2002). *Health in Men: Baseline data* (Monograph 6/2002). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Mao, L., Van de Ven, P., Prestage, G., Wang, J., Hua, M., Prihaswan, P. & Ku, A. (2003). *Asian gay community periodic survey: Sydney 2002* (Monograph 1/2003). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- National Centre in HIV Epidemiology and Clinical Research. (2003). *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia: Annual surveillance report*. Sydney: National Centre in HIV Epidemiology and Clinical Research, The University of New South Wales.
- National Centre in HIV Social Research (1999). *HIV/AIDS and related diseases in Australia: Annual report of behaviour*. Sydney: National Centre in HIV Social Research, The University of New South Wales.
- National Centre in HIV Social Research (2000). *HIV/AIDS, hepatitis C and related diseases in Australia: Annual report of behaviour*. Sydney: National Centre in HIV Social Research, The University of New South Wales.
- National Centre in HIV Social Research (2001). *HIV/AIDS, hepatitis C and related diseases in Australia: Annual report of behaviour*. Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Prestage, G., Van de Ven, P., Knox, S., Grulich, A., Kippax, S. & Crawford, J. (1999). *The Sydney gay community periodic surveys 1996–1999: Changes over time* (Monograph 11/1999). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Prestage, G., Van de Ven, P., Mahat, M., Wong, K. & McMahon, T. (2000). *Asian gay men in Sydney: December 1999–January 2000* (Monograph 2/2000). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Rawstorne, P., Van de Ven, P., Prestage, G., Kippax, S., Horn, G., Kennedy, M. & Voon, D. (2001). *Gay community periodic survey: Melbourne 2001* (Monograph 7/2001). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Rawstorne, P., Van de Ven, P., Prestage, G., Kippax, S., Ngo, P., Brotherton, A., Horwood, B. & Petersen, K. (2002a). *Gay community periodic survey: Adelaide 2001* (Monograph 4/2002). Sydney: National Centre in HIV Social Research, The University of New South Wales.

# References

- Rawstorne, P., Van de Ven, P., Prestage, G., Kippax, S., Walton, J., Lewis, C., Tunley, F. & Clementson, C. (2002b). *Gay community periodic survey: Queensland 2001* (Monograph 1/2002). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Richters, J., Bebbington, M., Prestage, G., Ellard, J. & Cassar, L. (2001). *Women in contact with the gay and lesbian community: Sydney Women and Sexual Health survey 1996, 1998 and 2000* (Monograph 11/2001). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Richters, J., Bergin, S., Lubowitz, S. & Prestage, G. (2002). Women in contact with Sydney's gay and lesbian community: Sexual identity, practice and HIV risks. *AIDS Care*, 14, 193–202.
- Richters, J., Grulich, A., Ellard, J., Hendry, O. & Kippax, S. (in press). HIV transmission among gay men through oral sex and other uncommon routes: Case series of HIV seroconverters, Sydney [Research letter]. *AIDS*.
- Richters, J., Hendry, O. & Kippax, S. (2003). When safe sex isn't safe. *Culture, Health & Sexuality*, 5, 37–52.
- Rissel, C., Richters, J., Grulich, A., de Visser, R. & Smith, A. (2003a). Sex in Australia: Selected characteristics of regular relationships. *Australian and New Zealand Journal of Public Health*, 27, 124–130.
- Rissel, C., Richters, J., Grulich, A., de Visser, R. & Smith, A. (2003b). Sex in Australia: First experiences of vaginal intercourse and oral sex among a representative sample of adults. *Australian and New Zealand Journal of Public Health*, 27, 131–137.
- Rosengarten, M., Race, K. & Kippax, S. (2000). *"Touch wood, everything will be OK": Gay men's understandings of clinical markers in sexual practice* (Monograph 7/2000). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Smith, A., Rissel, C., Richters, J., Grulich, A. & de Visser, R. (2003a). Sex in Australia: The rationale and methods of the Australian Study of Health and Relationships. *Australian and New Zealand Journal of Public Health*, 27, 106–117.
- Smith, A., Rissel, C., Richters, J., Grulich, A. & de Visser, R. (2003b). Sex in Australia: Sexual identity, sexual attraction and sexual experience among a representative sample of adults. *Australian and New Zealand Journal of Public Health*, 27, 138–145.
- Treloar, C. & Fraser, S. (2003). *Blood, stigma and models of the body: New directions for hepatitis C prevention education*. Unpublished manuscript, National Centre in HIV Social Research, The University of New South Wales.
- Van de Ven, P., Bartholow, B., Rawstorne, P., Crawford, J., Kippax, S., Grulich, A., Prestage, G., Woodhouse, M. & Murphy, D. (2002). Scaling HIV vaccine attitudes among gay men in Sydney. *AIDS Research and Human Retroviruses*, 18, 1333–1337.
- Van de Ven, P., French, J., Crawford, J. & Kippax, S. (1999). Sydney gay men's agreements about sex. In P. Aggleton, G. Hart & P. Davies (Eds.), *Families and communities responding to AIDS* (pp. 133–146). London: UCL Press.

## References

- Van de Ven, P., Kippax, S., Crawford, J., Rawstorne, P., Prestage, G., Grulich, A. & Murphy, D. (2002). In a minority of gay men, sexual risk practice indicates strategic positioning for perceived risk reduction rather than unbridled sex. *AIDS Care*, 14, 471–480.
- Van de Ven, P., Prestage, G., Kippax, S., French, J., Benzie, T. & Clementson, C. (1998b). *South East Queensland gay community periodic survey: June 1998* (Monograph 4/1998). Sydney: National Centre in HIV Social Research, Macquarie University.
- Van de Ven, P., Prestage, G., Kippax, S., French, J., Bonello, J. & Kay, P. (1999b) *Adelaide gay community periodic survey: November 1998* (Monograph 2/1999). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Van de Ven, P., Prestage, G., Kippax, S., French, J., Derrin, L. & Bebbington, M. (1999a). *Perth gay community periodic survey: September/October 1998* (Monograph 1/1999). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Van de Ven, P., Prestage, G., Kippax, S., French, J., Horn, G. & Brotherton, A. (1998a). *Melbourne gay community periodic survey: February 1998* (Monograph 1/1998). Sydney: National Centre in HIV Social Research, Macquarie University.
- Van de Ven, P., Prestage, G., Kippax, S., Knox, S., Benzie, T., Sorrentino, J. & Gallagher, S. (1999c). *Queensland gay community periodic survey: June 1999* (Monograph 10/1999). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Van de Ven, P., Prestage, G., Kippax, S., Knox, S., Nicholas, G., Horwood, B. & Petersen, K. (2000). *Adelaide gay community periodic survey: November 1999* (Monograph 1/2000). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Van de Ven, P., Rawstorne, P. & Treloar, C. (Eds.). (2002). *HIV/AIDS, hepatitis C and related diseases in Australia: Annual report of behaviour*. Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Van de Ven, P., Rawstorne, P., Crawford, J. & Kippax, S. (2001). *Facts & figures: 2000 Male Out survey* (Monograph 2/2001). Sydney: National Centre in HIV Social Research, The University of New South Wales.
- Williams, P. (2001). *Illicit drug use in regional Australia* (No. 192). Canberra: Australian Institute of Criminology.