Gay Community Periodic Survey: Sydney February 2012

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Sydney, February 2012

Never Stand Still | Faculty of Arts and Social Sciences | National Centre in HIV Social Research

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National Centre in HIV Social Research

Judi Rainbow

List of tables

Glossary

ART antiretroviral treatment

HIV human immunodeficiency virus

HIV-seroconcordant relationship a relationship in which both partners are of the same HIV status, either HIV-positive or HIV-negative

HIV-serodiscordant relationship a relationship in which both partners are known (as a result of testing) to be of different HIV status, e.g. HIV-positive and HIV-negative

HIV-serononconcordant relationship a relationship in which the HIV status of at least one partner in the relationship is not known, e.g. HIV-positive and untested, HIV-negative and untested, or both untested

HIV status a person's antibody status established by HIV testing, e.g. HIV-negative, HIV-positive, or unknown (untested)

PEP post-exposure prophylaxis

PrEP pre-exposure prophylaxis

STI sexually transmissible infection

UAIC unprotected anal intercourse with casual partners

UAIR unprotected anal intercourse with regular partners

Executive summary

The Sydney Gay Community Periodic Survey is a cross-sectional survey of gay and homosexually active men recruited at a range of gay community sites in Sydney. Since 1996 the project has been funded by the NSW Ministry of Health and supported by ACON and Positive Life NSW. The major aim of the survey is to provide data on sexual, drug use and testing practices related to the transmission of HIV and other sexually transmissible infections (STIs) among gay men in Sydney. The data presented in this report are from the period 2008 to 2012.

In February 2012, 2843 men were recruited at 20 data collection sites which included gay social venues (bars and gyms), sex-on-premises venues, sexual health clinics and Fair Day (part of the Sydney Gay and Lesbian Mardi Gras). The response rate was 66.1%. In the February 2012 round there was a significant increase in the proportions of men recruited from social venues and sexual health clinics, and a corresponding decrease in men recruited from Fair Day. These changes should be borne in mind when interpreting the results.

Key points

- The proportion of men reporting that they have ever been tested for HIV has fallen over time (to 88% in 2012). The proportion of non-HIV-positive men reporting a recent HIV test (in 12 months prior to survey) fell between 2011 and 2012 to 69%.
- The proportion of HIV-positive men on antiretroviral treatment continues to increase (to 87% in 2012). Nearly all of the men on treatment reported having an undetectable viral load in 2012.
- There is a continued switch from the use of physical venues and locations to meet male sex partners to online and mobile platforms. In 2012, the most commonly used ways to meet male partners were the internet, mobile applications and gay saunas.
- The proportion of men reporting any unprotected anal intercourse with their regular partners (UAIR) has declined slightly over time. Over time, UAIR has become more likely to be reported with seroconcordant partners.
- The proportion of men reporting any unprotected anal intercourse with casual partners (UAIC) is stable (at 34%). Over time, HIV-positive men have become much more likely to report UAIC.
- In general, drug use appears to be declining in the sample over time. However, between 2011 and 2012 there was a small but significant increase in the use of crystal methamphetamine by HIV-negative men. HIV-positive men remain disproportionately likely to report injecting drug use.

Demographic profile

As in previous surveys, the men in the sample were primarily of Anglo-Australian background, lived in the metropolitan Sydney area, were well educated and in full time employment. Since 2008, there have been slight though significant increases in the proportions of men aged 25–29 years and older than 50 and corresponding decreases in the proportions of men aged under 25 and in their thirties.

Almost two-thirds of the sample (61.6%) was born in Australia. Over time, there has been a steady increase in the ethnic diversity of the sample. Since 2008, the proportion of Anglo-Australian men has declined significantly.

HIV status and testing

The overwhelming majority of men in the sample reported having 'ever' been tested for HIV (88.0%). The proportion of men reporting being tested for HIV has been declining gradually over the past five years (from 93.4% in 2008). Over two-thirds of non-HIV-positive participants (69.1%) reported having an HIV test in the 12 months prior to the survey. This was a significant decrease since 2011, although the proportion of non-HIV-positive men reporting a recent HIV test has generally been stable during the last five years.

Of the participants that had been tested, most men reported that they were HIV-negative (85.1%) with smaller proportions reporting that they were HIV-positive (12.5%) or did not know their HIV status (2.4%). Between 2008 and 2012, there was a significant upward trend in the proportion of HIV-positive men who reported being on antiretroviral treatment. In 2012, 86.6% of HIV-positive men said they were receiving combination treatment for HIV. In 2012, nearly all the HIV-positive men on treatment (94.3%) reported an undetectable viral load, compared with 29.3% of HIV-positive men not on treatment.

Sexual relationships with men

In 2012, over a quarter of men reported being in a monogamous relationship with a regular male partner (28.4%). A similar proportion reported having both regular and casual partners (30.4%), and a quarter had casual partners only (24.9%). Sixteen percent of men surveyed reported no sexual relationships with men in the six months prior to the survey. These proportions have been relatively stable since 2008.

In 2012, just over a third of men (36.5%) said they had met male sex partners through the internet in the six months prior to survey. This remains the most common way that men meet male sex partners. Other commonly reported ways to meet male sex partners were gay saunas (30.7%), gay bars (27.3%) and travelling overseas (21.0%). In 2012, almost a third of men (31.5%) said they had used a mobile application like Grindr to meet sex partners, a significant increase from 2011. It is noticeable that between 2011 and 2012, as the use of mobile applications increased, the use of gay bars declined. It is also apparent that in general the use of physical venues and locations to meet partners has decreased since 2010; there appears to be an ongoing switch to mobile and online platforms to meet partners.

Regular male partners

Among men with regular partners in 2012, 61.1% reported they had an agreement with their regular partner about sex within the relationship and a smaller proportion (55.9%) reported having an agreement about sex outside the relationship. In 2012, the most commonly held agreements about sex within a relationship specified that anal intercourse could occur without a condom (32.2%) or that condoms must always be used for anal intercourse (24.7%). The most commonly held agreements about sex outside a relationship specified that no sex with casual partners was allowed (25.0%) or that condoms must always be used for anal intercourse with casual partners (25.5%). Over the reporting period the proportions of men who have relationship agreements about sex within or outside the relationship have increased.

In 2012, among HIV-positive men with regular partners, half (49.5%) reported that they were in a seroconcordant relationship, 40.1% said they were in a serodiscordant relationship, and 10.4% said they were in a serononconcordant relationship. Over the reporting period there was a significant increase in the proportion of HIV-positive

men in seroconcordant relationships and a corresponding decrease of those in serononconcordant relationships.

In 2012, over three-quarters of HIV-negative men with regular partners reported being in a seroconcordant relationship (76.3%), with considerably smaller proportions in serononconcordant (19.2%) and serodiscordant relationships (4.6%). Since 2008, the proportion of HIV-negative men in seroconcordant relationships has significantly increased, while the proportion of men in serononconcordant relationships has declined.

In terms of sex with regular partners, half the men with regular partners (51.3%) reported some unprotected anal intercourse with their regular partner (UAIR), while a quarter reported always using condoms for anal intercourse (24.7%). In 2012, almost a quarter of men with regular partners (24.0%) reported having no anal intercourse with their regular partner. Over the study period since 2008 there has been a significant increase in the proportion of men reporting no anal intercourse with their regular partners. At the same time, there were slight, though significant, falls in the proportions of men that always used condoms with regular partners and those that reported UAIR.

Rates of UAIR typically vary according to the HIV status of regular partners. In 2012, among HIV-positive men with regular partners, any UAIR was much more likely to be reported by men with seroconcordant regular partners (35.9%) than by men with partners who were not concordant (19.8%). Almost half of HIV-positive men in relationships (44.3%) avoided UAIR.

Among HIV-negative men with regular partners, nearly half (44.0%) reported UAIR with a seroconcordant partner, and fewer than one in ten (8.9%) reported UAIR that was not concordant. Nearly half (47.1%) of HIV-negative men with a regular partner avoided UAIR. Since 2008, there has been a significant increase in the proportion of HIV-negative men who engage in seroconcordant UAIR, and a significant decrease in the proportion of HIV-negative men who report UAIR that is not seroconcordant.

Casual male partners

Use of condoms for anal intercourse remains more common with casual partners than with regular partners. In 2012, almost half of men with casual partners reported always using condoms for anal intercourse (46.5%), while a third (34.0%) reported any unprotected anal intercourse with casual partners (UAIC). The rate of UAIC was stable between 2011 and 2012, and the trend over time is also stable. Consistent condom use has declined slightly since 2008.

In 2012, HIV-positive men with casual partners remained more likely to report any UAIC (69.1%) than HIV-negative men with casual partners (29.1%). Since 2008, the proportion of HIV-positive men who report UAIC has increased significantly, while the proportion of HIV-negative men reporting UAIC has remained stable. In 2012, HIV-positive men remained much more likely to report any disclosure of their HIV status before sex to casual partners compared with HIV-negative men (81.6% vs. 55.5%). However, HIV-negative men have become much more likely to report disclosure of HIV status to casual partners over time.

Among men who reported any UAIC, a greater proportion of HIV-positive men (48.7%) consistently disclosed their HIV status to all casual partners compared with HIV-negative men (34.8%). Over time, HIV-negative men who engage in UAIC have become significantly more likely to disclose their HIV status to all casual partners.

In 2011, new questions were introduced to assess the use of non-condom-based risk reduction strategies among men who engage in UAIC. In 2012, about four in every ten HIV-positive men who reported engaging in UAIC (41.6%) said they only had UAIC when they knew their partners were seroconcordant (serosorting). The proportions of HIV-positive men who reported always using strategic positioning or

withdrawal during UAIC were relatively small (less than 10%). Among HIV-negative men who engaged in UAIC, a third (32.0%) said they only had UAIC with casual partners who they knew were seroconcordant (serosorting), with smaller proportions (around one in ten) reporting consistent strategic positioning or withdrawal before ejaculation.

Sexual health

As in previous surveys, in 2012 a higher proportion of HIV-positive men (89.2%) reported having any sexual health test (including a blood test for syphilis) compared with HIV-negative men (71.7%). Since 2008, there has been a significant increase in the proportion of HIV-positive men reporting any STI test (not including blood tests) while this proportion has been steady among HIV-negative men. In 2012, 78.7% of HIV-positive men and 61.0% of HIV-negative men reported a blood test for syphilis. Almost three-quarters of all men were aware that syphilis can be symptomless (73.4%) and that it is transmissible through oral sex (69.5%). There has been a small but significant decline in knowledge about syphilis between 2010 and 2012.

Drug use

Recreational drug use remains common within the sample, although over time the proportion of men who say they haven't used any drugs in the previous six months has increased significantly (to 38.8% of all men in 2012). Correspondingly, the proportion of men who say they have used drugs for sex has decreased significantly since 2008.

The most frequently used drugs in the six months prior to the survey were amyl/poppers (40.9%), ecstasy (26.9%), marijuana (28.8%), Viagra (21.5%), cocaine (19.2%) and GHB (11.6%). Since 2008, there have been significant decreases in the use of ecstasy, marijuana, crystal methamphetamine, amphetamine/speed, ketamine and GHB.

In general, HIV-positive men remain more likely to report drug use compared with HIV-negative men. HIV-positive men are disproportionately likely to report any injecting drug use compared with HIV-negative men (18.2% vs. 2.9% in 2012).

Knowledge and use of PEP and PrEP

In 2012, over half the participants (58.2%) reported that they knew post-exposure prophylaxis (PEP) was available, no change from 2011. In 2011, questions were added to assess the use of anti-HIV (antiretroviral) drugs for prevention of HIV before and after unprotected sex—pre-exposure prophylaxis (PrEP) and PEP. Unlike PEP, PrEP is not currently available in Australia through the health system. In 2012, 28 men (1.1%) said they had used anti-HIV drugs as PrEP and 65 men (2.6%) said they had used PEP. These proportions are unchanged from 2011.

Findings

Reporting

Data are shown for the period 2008–2012. Each table includes the statistical significance (*p*-value), if any, of the change between 2011 and 2012 and the trend over time (2008–2012). An alpha level of 0.05 was used for all statistical tests. Changes between 2011 and 2012 were assessed with logistic regression (comparing one category with all the others) or chi-square (looking for any overall change in the distribution of responses). In tables where there are mutually exclusive categories (shown on separate rows), the *p*-value of the logistic regression test (if shown) indicates a statistically significant change within that category compared with all the others. In tables where a chi-square test has been performed, there is one test result reported (and this is highlighted with shading). For statistically significant trends over time, tested with logistic regression, the direction of the change (an increase or decrease) is indicated. Where there is no significant change, ns (non-significant) is shown. Where there are low frequencies or data over time are not comparable, tests have not been performed and are marked NA (not applicable). Please exercise caution when interpreting results where there are low frequencies. When data are missing or were not collected in a given year, this is indicated in the table by a dash (–).

Tables

The findings of the survey are presented in tables 1 to 30 below.

Table 1: Recruitment venue

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Fair Day	1302 (58.6)	1288 (54.9)	1639(60.3)	1464 (45.8)	1127 (39.6)	Decrease $p < .001$	Decrease $p < .001$
Sexual health clinics	199 (9.0)	261 (11.1)	152(5.6)	327 (10.2)	318 (11.2)	ns	Increase $p < .05$
Sex-on-premises venues	240 (10.8)	209 (8.9)	299(11.0)	334 (10.5)	369 (13.0)	Increase $p < .01$	Increase $p < .01$
Gay social venues	481 (21.7)	588 (25.1)	629(23.1)	1069 (33.5)	1029 (36.2)	Increase $p < .05$	Increase $p < .001$
Total	**2222 (100)**	**2346 (100)**	**2719 (100)**	**3194 (100)**	**2843 (100)**		

The proportion of men recruited at Fair Day in 2012 was significantly lower than in 2011. Conversely, there were significantly greater proportions of men recruited at gay social venues and sex-on-premises venues in 2012. Since 2008 there has been a significant decrease in the proportion of participants recruited at Fair Day while the proportions recruited from gay social venues, sexual health clinics and sex-on–premises have significantly increased.

Table 2: Age

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Under 25	268 (12.3)	308 (13.8)	281(10.4)	356 (11.2)	286 (10.1)	ns	Decrease $p < .01$
25–29	302 (13.8)	313 (14.0)	396(14.6)	544 (17.1)	427 (15.1)	Decrease $p < .05$	Increase $p < .01$
30–39	705 (32.3)	753 (33.6)	880(32.5)	973 (30.6)	866 (30.6)	ns	Decrease $p < .05$
40–49	630 (28.8)	560 (25.0)	758(28.0)	843 (26.5)	765 (27.1)	ns	ns
50 and over	281 (12.9)	306 (13.7)	392(14.5)	460 (14.5)	484 (17.1)	Increase $p < .01$	Increase $p < .001$
Total	**2186 (100)**	**2240 (100)**	**2707 (100)**	**3176 (100)**	**2828 (100)**		

Since 2008 there have been small but significant changes to the age distribution of the sample. There have been slight, though significant, downward trends in the proportions of participants either aged under 25 or in their thirties. Conversely, over the same period, there have been significant upward trends in the proportions of participants aged 25–29 years and over 50.

Table 3: HIV testing

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
All men							
Ever tested for HIV	2075 (93.4)	2134 (91.0)	2503 (92.1)	2860 (89.5)	2501 (88.0)	ns	Decrease $p < .001$
Total	**2222 (100)**	**2346 (100)**	**2719 (100)**	**3194 (100)**	**2843 (100)**		
Non-HIV-positive men							
Tested for HIV in previous 12 months	1271 (72.1)	1319 (71.8)	1462 (66.7)	1790 (71.9)	1500 (69.1)	Decrease $p < .05$	ns
Total	**1763 (100)**	**1836 (100)**	**2191 (100)**	**2490 (100)**	**2172 (100)**		

Between 2008 and 2012 there was a significant decline in the proportion of men that reported ever being tested for HIV. The proportion of non-HIV-positive men reporting having been tested for HIV in the previous 12 months has been generally been stable during the reporting period, but decreased slightly between 2011 and 2012.

Table 4: HIV test result

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
HIV-positive	301 (14.5)	280 (13.2)	287 (11.5)	352 (12.3)	313 (12.5)	ns	Decrease $p < .05$
HIV-negative	1725 (83.2)	1681 (79.1)	2145 (85.9)	2145 (85.9)	2125 (85.1)	ns	Increase $p < .001$
Unknown status	48 (2.3)	164 (7.7)	64 (2.6)	64 (2.2)	59 (2.4)	ns	Decrease $p < .001$
Total	**2074 (100)**	**2125 (100)**	**2496 (100)**	**2854 (100)**	**2497 (100)**		

Over the period between 2008 and 2012 there has been a slight, though significant, downward trend in the proportion of men reporting that they are HIV-positive and a corresponding upward trend in the proportion of men reporting that they are HIV-negative.

Table 5: Use of combination antiretroviral treatment among HIV-positive men

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
On treatment	216 (73.5)	212 (77.1)	215 (77.6)	270 (80.6)	264 (86.6)	Increase $p < .05$	Increase $p < .001$
Total	**294 (100)**	**275 (100)**	**277 (100)**	**335 (100)**	**305 (100)**		

In 2102 there was significant increase in the proportion of HIV-positive men reporting they were using combination antiretroviral treatment, continuing the trend over time.

Table 6: Undetectable viral load and CD4 count among HIV-positive men, by treatment status

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Men using ART							
Undetectable viral load	185 (85.7)	183 (86.3)	197 (91.6)	256 (94.8)	249 (94.3)	ns	Increase $p < .001$
CD4 count > 500	–	–	–	–	148 (56.1)	–	–
Total	**216 (100)**	**212 (100)**	**215 (100)**	**270 (100)**	**264 (100)**		
Men not using ART							
Undetectable viral load	10 (13.2)	10 (15.9)	20 (33.3)	13 (20.3)	12 (29.3)	ns	Increase $p < .05$
CD4 count > 500	–	–	–	–	16 (39.0)	–	–
Total	**76 (100)**	**63 (100)**	**60 (100)**	**64 (100)**	**41 (100)**		

The proportion of men using ART and reporting an undetectable viral load has increased significantly over the period since 2008. While the proportion of men not using ART that report an undetectable viral load has also increased significantly over time, it is apparent that men on treatment are much more likely to report an undetectable viral load than men not on treatment.

Table 7: Sexual relationships with men in the six months prior to the survey

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
None	309 (15.2)	370 (16.8)	–	446 (14.8)	436 (16.3)	ns	ns
Casual only	466 (23.0)	534 (24.2)	–	740 (24.6)	665 (24.9)	ns	ns
Regular plus casual	644 (31.8)	659 (29.9)	–	897 (29.8)	812 (30.4)	ns	ns
Regular only (monogamous)	608 (30.0)	641 (29.1)	–	926 (30.8)	758 (28.4)	Decrease $p < .05$	ns
Total	**2027 (100)**	**2204 (100)**	**–**	**3009 (100)**	**2671 (100)**		

Note: Reliable data not available for 2010.

There was a slight, though significant, decrease in the proportion of participants in monogamous relationships between 2011 and 2012.

Table 8: Agreements with regular male partners about sex *within* the relationship

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
No agreement about sex within the relationship	638 (41.1)	695 (40.9)	803 (43.6)	814 (37.7)	726 (38.9)	ns	Decrease $p < .05$
No anal intercourse permitted	73 (4.7)	88 (5.2)	53 (2.9)	69 (3.2)	78 (4.2)	ns	Decrease $p < .05$
Anal intercourse permitted only with a condom	355 (22.8)	399 (23.5)	442 (24.0)	562 (26.0)	460 (24.7)	ns	ns
Anal intercourse permitted without a condom	488 (31.4)	517 (30.4)	545 (29.6)	716 (33.1)	601 (32.2)	ns	ns
Total	**1554(100)**	**1699 (100)**	**1843 (100)**	**2161 (100)**	**1865 (100)**		

Over the period since 2008 there has been slight, though significant, downward trend in the proportion of participants reporting no agreement about sex within the relationship. The proportion of participants with an agreement to have no anal intercourse within the relationship has declined slightly since 2008.

Table 9: Agreements with regular male partners about sex *outside* the relationship

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
No agreement about casual sex	722 (46.5)	801 (47.2)	789 (42.8)	910 (42.1)	822 (44.1)	ns	Decrease $p < .01$
No sex with casual partners permitted	373 (24.0)	393 (23.1)	487 (26.4)	564 (26.1)	467 (25.0)	ns	ns
No anal intercourse with casual partners permitted	44 (2.8)	64 (3.8)	73 (4.0)	61 (2.8)	53 (2.8)	ns	ns
Anal intercourse with casual partners permitted only with a condom	379 (24.4)	394 (23.2)	440 (23.9)	571 (26.4)	476 (25.5)	ns	ns
Anal intercourse with casual partners permitted without a condom	36 (2.3)	47 (2.8)	54 (2.9)	55 (2.5)	47 (2.5)	ns	ns
Total	**1554 (100)**	**1699 (100)**	**1843 (100)**	**2161 (100)**	**1865 (100)**		

Since 2008 there has been a slight downward trend in the proportion of men reporting no agreement with their regular partners about sex with casual partners.

Table 10: Match of HIV status between regular partners

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
HIV-positive men							
Seroconcordant	68 (35.8)	67 (34.4)	69 (39.7)	79 (37.8)	95 (49.5)	Increase $p < .05$	Increase $p < .01$
Serodiscordant	79 (41.6)	76 (39.0)	65 (37.4)	94 (45.0)	77 (40.1)	ns	ns
Serononconcordant	43 (22.6)	52 (26.7)	40 (23.0)	36 (17.2)	20 (10.4)	ns	Decrease $p < .001$
Total	**190 (100)**	**195 (100)**	**174 (100)**	**209 (100)**	**192 (100)**		
HIV-negative men							
Seroconcordant	752 (61.8)	794 (64.3)	762 (51.5)	1303 (74.4)	1119 (76.3)	ns	Increase $p < .001$
Serodiscordant	63 (5.2)	63 (5.1)	43 (2.9)	100 (5.7)	67 (4.6)	ns	ns
Serononconcordant	402 (33.0)	378 (30.6)	676 (45.6)	348 (19.9)	281 (19.2)	ns	Decrease $p < .001$
Total	**1217 (100)**	**1235 (100)**	**1481 (100)**	**1751 (100)**	**1467 (100)**		

In the 2012 survey there was a significant increase in the proportion of HIV-positive participants that reported their partners were also HIV-positive. Furthermore, there has been a significant upward trend in this proportion since 2008. Conversely, the proportion of HIV-positive participants reporting serononconcordant relationships has declined since 2008. HIV-negative men with regular partners have also become more likely to report being in a seroconcordant relationship and less likely to report being in a serononconcordant relationship over time.

Table 11: Anal intercourse and condom use with regular partners

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
No anal intercourse	298 (19.2)	275 (16.2)	183 (9.9)	494 (22.9)	448 (24.0)	ns	Increase $p < .001$
Always uses a condom	436 (28.1)	510 (30.0)	546 (29.6)	602 (27.9)	460 (24.7)	Decrease $p < .05$	Decrease $p < .01$
Sometimes does not use a condom	820 (52.8)	914 (53.8)	1114 (60.4)	1065 (49.3)	957 (51.3)	ns	Decrease $p < .05$
Total	**1554 (100)**	**1699 (100)**	**1843 (100)**	**2161 (100)**	**1865 (100)**		

Over the period from 2008 there was an upward trend in the proportion of men reporting no anal intercourse with their regular partners. Conversely there was a significant downward trend in the proportion of participants that always used condoms for anal intercourse with casual partners. The proportion of men reporting any unprotected anal intercourse with their regular partners has declined slightly over time.

Table 12: Unprotected anal intercourse with regular partners, by match of HIV status

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
HIV-positive men							
Seroconcordant UAIR	49 (25.3)	50 (25.3)	61 (35.1)	49 (23.4)	69 (35.9)	Increase $p < .01$	ns
Not concordant UAIR	50 (25.8)	60 (30.3)	47 (27.0)	55 (26.3)	38 (19.8)	ns	ns
No UAIR	95 (49.0)	88 (44.4)	66 (37.9)	105 (50.2)	85 (44.3)	ns	ns
Total	**194 (100)**	**198 (100)**	**174 (100)**	**209 (100)**	**192 (100)**		
HIV-negative men							
Seroconcordant UAIR	456 (36.6)	497 (39.8)	521 (35.0)	740 (42.3)	646 (44.0)	ns	Increase $p < .001$
Not concordant UAIR	207 (16.6)	187 (15.0)	392 (26.3)	160 (9.1)	130 (8.9)	ns	Decrease $p < .001$
No UAIR	584 (46.8)	564 (45.2)	577 (38.7)	851 (48.6)	691 (47.1)	ns	ns
Total	**1247 (100)**	**1248 (100)**	**1490 (100)**	**1751 (100)**	**1467 (100)**		

The proportion of HIV-positive participants with HIV-positive regular partners that reported unprotected anal intercourse with their partners increased between 2011 and 2012. Among HIV-negative participants with regular partners there has been a significant upward trend since 2008 in the proportion reporting unprotected anal intercourse with HIV-negative regular partners and a decline in the proportion reporting UAI with partners who are not concordant.

Table 13: HIV-negative men who engaged in UAIR and always used risk-reduction strategies with partners who were not concordant

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Took insertive position during UAIR	54 (26.1)	65 (34.8)	112 (28.6)	52 (32.5)	40 (30.8)	ns	ns
Partner withdrew before ejaculation when participant was receptive	52 (25.1)	34 (18.2)	84 (21.4)	46 (28.8)	27 (20.8)	ns	ns
Total (not mutually exclusive)	**207**	**187**	**392**	**160**	**130**		

Table 14: Anal intercourse and condom use with casual partners

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
No anal intercourse	288 (19.3)	252 (16.0)	263 (15.5)	399 (20.0)	346 (19.5)	ns	ns
Always uses a condom	765 (51.4)	743 (47.1)	850 (50.1)	937 (46.9)	823 (46.5)	ns	Decrease $p < .01$
Sometimes does not use a condom	436 (29.3)	583 (36.9)	585 (34.5)	660 (33.1)	602 (34.0)	ns	ns
Total	**1489 (100)**	**1578 (100)**	**1698 (100)**	**1996 (100)**	**1771 (100)**		

Since 2008 there has been a significant downward trend in the proportion of participants with casual partners that reported always using condoms for anal intercourse with those partners.

Table 15: Any unprotected anal intercourse with casual partners, by HIV status of participants

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
HIV-negative men	291 (24.9)	363 (32.2)	419 (31.1)	462 (29.8)	394 (29.1)	ns	ns
Total	**1167 (100)**	**1129 (100)**	**1349 (100)**	**1551 (100)**	**1354 (100)**		
HIV-positive men	120 (53.8)	127 (61.1)	127 (59.6)	141 (56.2)	154 (69.1)	Increase $p < .01$	Increase $p < .05$
Total	**223 (100)**	**208 (100)**	**213 (100)**	**251 (100)**	**223 (100)**		

HIV-positive men remain more likely than HIV-negative men to report unprotected anal intercourse with casual partners. Furthermore, the proportion of HIV-positive participants reporting any unprotected anal intercourse with casual partners has increased significantly since 2008.

Table 16: Disclosure of HIV status to or from casual partners, by HIV status of participants

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
HIV-positive men							
Told casual partners	168 (75.3)	160 (76.9)	164 (77.0)	191 (76.1)	182 (81.6)	ns	ns
Told by casual partners	145 (65.0)	127 (61.1)	143 (67.1)	165 (65.7)	155 (69.5)	ns	ns
Total (not mutually exclusive)	**223**	**208**	**213**	**251**	**223**		
HIV-negative men							
Told casual partners	557 (47.7)	555 (49.2)	703 (52.1)	820 (52.9)	752 (55.5)	ns	Increase $p < .001$
Told by casual partners	548 (47.0)	556 (49.2)	740 (54.9)	837 (54.0)	760 (56.1)	ns	Increase $p < .001$
Total (not mutually exclusive)	**1167**	**1129**	**1349**	**1551**	**1354**		

Over the period since 2008 there have been significant upward trends in the proportions of HIV-negative participants reporting that they told any of their casual partners their HIV status before sex or that any of their casual partners disclosed to them before sex.

Table 17: Consistent disclosure of HIV status to casual partners among men who engaged in unprotected anal intercourse, by HIV status of participants

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
HIV-positive men who disclosed to all	39 (32.5)	49 (38.9)	45 (35.4)	52 (36.9)	75 (48.7)	Increase $p < .05$	Increase $p < .05$
Total	**120 (100)**	**126 (100)**	**127 (100)**	**141(100)**	**154 (100)**		
HIV-negative men who disclosed to all	67 (23.3)	99 (28.7)	104 (25.1)	168 (37.3)	137 (34.8)	ns	Increase $p < .001$
Total	**291 (100)**	**363 (100)**	**419 (100)**	**462 (100)**	**394 (100)**		

In 2012, among HIV-positive participants that engaged in UAI with casual partners, there was a significant increase in the proportion who reported that they disclosed their HIV status to all casual partners. Since 2008, consistent disclosure to all partners has increased significantly among HIV-positive and HIV-negative men who engaged in UAIC.

Table 18: Positioning in unprotected anal intercourse with casual male partners, by HIV status of participants

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
HIV-positive men							
Receptive only UAIC	20 (16.7)	11 (8.7)	31 (24.4)	22 (15.6)	36 (23.4)	ns	Increase $p < .05$
Total	**120 (100)**	**127 (100)**	**127 (100)**	**141 (100)**	**154 (100)**		
HIV-negative men							
Insertive only UAIC	99 (34.0)	120 (33.1)	148 (35.3)	162 (35.1)	141 (35.8)	ns	ns
Total	**291 (100)**	**363 (100)**	**419 (100)**	**462 (100)**	**394 (100)**		

The proportion of HIV-positive men reporting receptive only UAIC increased significantly between 2008 and 2012.

Table 19: Men who always used risk-reduction strategies when engaging in unprotected anal intercourse with casual partners in the six months prior to the survey, by HIV status of participants

	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)
HIV-positive men			
Ensured partners were seroconcordant before UAIC (serosorting)	52 (36.9)	64 (41.6)	ns
Took receptive position during UAIC when partners were not concordant	7 (5.0)	8 (5.2)	
Participant withdrew before ejaculation when he was insertive	6 (4.3)	13 (8.4)	
Partner withdrew before ejaculation when participant was receptive	6 (4.3)	14 (9.1)	
Total (not mutually exclusive)	**141** (100)	**154 (100)**	
HIV-negative men			
Ensured partners were seroconcordant before UAIC (serosorting)	150 (32.5)	126 (32.0)	ns
Took insertive position during UAIC when partners were not concordant	49 (10.6)	49 (12.4)	
Participant withdrew before ejaculation when he was insertive	38 (8.2)	29 (7.4)	
Partner withdrew before ejaculation when participant was receptive	50 (10.8)	42 (10.7)	
Total (not mutually exclusive)	**462 (100)**	**394 (100)**	

Table 20: Where men met their male sex partners in the six months prior to the survey

	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Internet	1048(38.5)	1233 (38.6)	1038 (36.5)	ns	ns
Mobile app e.g. Grindr	–	730 (22.9)	896 (31.5)	Increase $p < .001$	–
Gay bar	971 (35.7)	968 (30.3)	776 (27.3)	Decrease $p < .01$	Decrease $p < .001$
Dance party	577 (21.2)	504 (15.8)	421 (14.8)	ns	Decrease $p < .001$
Beat	425(15.6)	413 (12.9)	347 (12.2)	ns	Decrease $p < .001$
Gay saunas	983 (36.2)	995 (31.2)	874 (30.7)	ns	Decrease $p < .001$
Other sex-on-premises venues	470 (17.3)	474 (14.8)	404 (14.2)	ns	Decrease $p < .001$
Sex workers	77(2.8)	95 (3.0)	93 (3.3)	ns	ns
In other Australian cities	611(22.5)	587 (18.4)	490 (17.2)	ns	Decrease $p < .001$
Elsewhere in Australia	417 (15.3)	390 (12.2)	341 (12.0)	ns	Decrease $p < .001$
Private sex parties	245 (9.0)	210 (6.6)	203 (7.1)	ns	Decrease $p < .01$
Gym	265 (9.8)	297 (9.3)	241 (8.5)	ns	ns
Overseas	690 (25.4)	672 (21.0)	597 (21.0)	ns	Decrease $p < .001$
Total (not mutually exclusive)	**2719 (100)**	**3194 (100)**	**2843 (100)**		

The proportions of participants that reported meeting male sex partners at gay bars, dance parties, beats, gay saunas, other sex venues and private sex parties have decreased significantly since 2010. In contrast, since 2011 there has been a significant increase in the proportion of participants reporting using mobile applications to meet male sex partners.

Table 21: Knowledge about syphilis

	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Aware that syphilis can have no physical symptoms	2154 (79.2)	2306 (72.2)	2086 (73.4)	ns	Decrease $p < .001$
Aware that syphilis can be transmitted through oral sex	2013 (74.0)	2240 (70.1)	1975 (69.5)	ns	Decrease $p < .001$
Total (not mutually exclusive)	**2719 (100)**	**3194 (100)**	**2843 (100)**		

Over the period since 2010 there has been a significant fall in the proportion of participants who were aware that someone could have syphilis without physical symptoms and a similar decrease in the proportion of participants who were aware that syphilis can be transmitted through oral sex.

Table 22: STI testing among HIV-positive men in the 12 months prior to the survey

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Anal swab	149 (49.3)	151 (53.9)	175(61.0)	220 (62.5)	190 (60.5)	ns	Increase $p < .001$
Throat swab	165 (54.6)	158 (56.4)	176(61.3)	220 (62.5)	199 (63.4)	ns	Increase $p < .01$
Penile swab	133 (44.0)	115 (41.1)	134(46.7)	155 (44.0)	139 (44.3)	ns	ns
Urine sample	183 (60.6)	175 (62.5)	192(66.9)	252 (71.6)	235 (74.8)	ns	Increase $p < .001$
Blood test other than for HIV	237 (78.5)	220 (78.6)	196(68.3)	275 (78.1)	235 (74.8)	ns	ns
Blood test for syphilis	–	224 (80.0)	220(76.7)	280 (79.6)	247 (78.7)	ns	ns
Any STI test (not including blood tests)	205 (67.9)	197 (70.4)	206 (71.8)	269 (76.4)	247 (78.7)	ns	Increase $p < .001$
Any STI test (including blood tests)	260 (86.1)	252 (90.0)	249(86.7)	320 (90.9)	280 (89.2)	ns	ns
Total (not mutually exclusive)	**302 (100)**	**280 (100)**	**287 (100)**	**352 (100)**	**314 (100)**		

Note: From 2009, the item 'Blood test for syphilis' was added and included in the calculation for any STI test (including blood tests).

Between 2008 and 2012 there have been upward trends in the proportions of HIV-positive participants reporting anal swabs, throat swabs and urine sample testing for STIs.

Table 23: STI testing among HIV-negative men in the 12 months prior to the survey

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Anal swab	796 (45.9)	778 (46.1)	954 (44.4)	1184 (48.4)	996 (46.7)	ns	ns
Throat swab	853 (49.1)	830 (49.1)	1023 (47.6)	1245 (50.9))	1072 (50.2)	ns	ns
Penile swab	669 (38.5)	636 (37.7)	789 (36.7)	941 (38.5)	790 (37.0)	ns	ns
Urine sample	1000 (57.6)	957 (56.7)	1210 (56.3)	1441 (58.9)	1262 (59.1)	ns	ns
Blood test other than for HIV	1034 (59.6)	962 (57.0)	1189 (55.3)	1318 (53.9)	1181 (55.3)	ns	Decrease $p < .001$
Blood test for syphilis	–	1030 (61.0)	1273 (59.2)	1483 (60.7)	1302 (61.0)	ns	ns
Any STI test (not Including blood test)	1045 (60.2)	1022 (60.5)	1278 (59.4)	1517 (62.0)	1313 (61.5)	ns	ns
Any STI test (including blood tests)	1230 (70.8)	1199 (71.0)	1533 (71.3)	1741 (71.2)	1530 (71.7)	ns	ns
Total (not mutually exclusive)	**1736 (100)**	**1689 (100)**	**2151 (100)**	**2445 (100)**	**2134 (100)**		

Note: From 2009, the item 'Blood test for syphilis' was added and included in the calculation for any STI test (including blood tests).

Table 24: Recreational drug use among all men in the six months prior to the survey

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Marijuana	749 (33.7)	767 (32.7)	901 (33.1)	891 (27.9)	819 (28.8)	ns	Decrease $p < .001$
Amyl	927 (41.7)	1028 (43.8)	1203 (44.2)	1291 (40.4)	1163 (40.9)	ns	ns
Ecstasy	857 (38.6)	933 (39.8)	975 (35.9)	593 (29.8)	766 (26.9)	Decrease $p < .05$	Decrease $p < .001$
Amphetamine (speed)	351 (15.8)	374 (15.9)	*386 (14.2)*	361 (11.3)	311 (10.9)	ns	Decrease $p < .001$
Crystal methamphetamine	344 (15.5)	293 (12.5)	317 (11.7)	355 (11.1)	393 (13.8)	Increase $p < .001$	Decrease $p < .05$
Viagra	465 (20.9)	501 (21.4)	592 (21.8)	683 (21.4)	610 (21.5)	ns	ns
Cocaine	392 (17.6)	492 (21.0)	598 (22.0)	659 (21.6)	546 (19.2)	ns	ns
Ketamine (special K)	282 (12.7)	301 (12.8)	*284 (10.5)*	306 (9.6)	233 (8.2)	ns	Decrease $p < .001$
LSD	102 (4.6)	127 (5.4)	150 (5.5)	–	–	–	–
GHB	309 (13.9)	326 (13.9)	356 (13.1)	422 (13.2)	330 (11.6)	ns	Decrease $p < .05$
Heroin	15 (0.7)	31 (1.3)	15 (0.6)	27 (0.9)	24 (0.8)	ns	ns
Mephedrone (meow meow)	–	–	–	69 (2.2)	50 (1.8)	–	–
Steroids	51 (2.3)	46 (2.0)	60 (2.2)	–	–	–	–
Other drugs	88 (3.7)	129 (5.5)	148 (5.4)	208 (6.5)	197 (6.9)	ns	Increase $p < .001$
Total (not mutually exclusive)	**2222 (100)**	**2346 (100)**	**2719 (100)**	**3194 (100)**	**2843 (100)**		
Number of drugs used							
None	754 (33.9)	777 (33.1)	927 (34.1)	1246 (39.0)	1104 (38.8)	ns	Increase $p < .001$
One or two drugs	661 (29.8)	715 (30.5)	838 (30.8)	948 (29.7)	863 (30.4)	ns	ns
More than two drugs	807 (36.3)	854 (36.4)	954 (35.1)	1000 (31.31)	876 (30.8)	ns	Decrease $p < .001$
Total	**2222 (100)**	**2346 (100)**	**2719 (100)**	**3194 (100)**	**2843 (100)**		

While there is a significant downward trend in the use of crystal methamphetamine since 2008, in the 2012 survey there was a slight, though significant increase in the proportion of participants reporting the use of this drug. There have been significant downward trends since 2008 in the use of marijuana, ecstasy, amphetamine, ketamine and GHB. However, there was a significant increase in the use of 'other drugs' over this time. Overall, drug use appears to be declining with a significant increase in the proportion of participants reporting no drug use and a corresponding fall in the proportion reporting the use of more than two drugs in the previous six months.

Table 25: Recreational drug use among HIV-positive men in the six months prior to the survey

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Marijuana	157 (52.0)	151 (53.9)	141 (49.1)	145 (41.2)	134 (42.7)	ns	Decrease $p < .001$
Amyl nitrite (poppers)	165 (54.6)	153 (54.6)	169 (58.9)	184 (52.3)	165 (52.6)	ns	ns
Ecstasy	131 (43.4)	110 (39.3)	124 (43.2)	113 (32.1)	96 (30.6)	ns	Decrease $p < .001$
Amphetamine (speed)	64 (21.2)	54 (19.3)	53 (18.5)	45 (12.8)	46 (14.7)	ns	Decrease $p < .01$
Crystal methamphetamine	86 (28.5)	80 (28.6)	74 (25.8)	97 (27.6)	105 (33.4)	ns	ns
Viagra	116 (38.4)	124 (44.3)	117 (40.8)	143 (40.6)	124 (39.5)	ns	ns
Total (not mutually exclusive)	**302 (100)**	**280 (100)**	**287 (100)**	**352 (100)**	**314 (100)**		
Number of drugs used							
None	51 (16.9)	41 (14.6)	50 (17.4)	77 (21.9)	78 (24.8)	ns	Increase $p < .001$
One or two drugs	93 (30.8)	97 (34.6)	88 (30.7)	120 (34.1)	88 (28.0)	ns	ns
More than two drugs	158 (52.3)	142 (50.7)	149 (51.9)	155 (44.0)	148 (47.1)	ns	Decrease $p < .05$
Total	**302 (100)**	**280 (100)**	**287 (100)**	**352 (100)**	**314 (100)**		

Drug use among HIV-positive participants remains more common than among HIV-negative participants. However, there have been significant downward trends in the use of marijuana, ecstasy and amphetamine by HIV-positive participants since 2008. Overall, drug use by HIV-positive participants also appears to be falling with a significant increase in the proportion of participants reporting no drug use and a corresponding fall in the proportion reporting the use of more than two drugs in the previous six months.

Table 26: Recreational drug use among HIV-negative men in the six months prior to the survey

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Marijuana	539 (31.1)	519 (3.07)	678 (31.5)	657 (26.9)	600 (28.1)	ns	Decrease $p < .001$
Amyl nitrite (poppers)	716 (41.2)	755 (44.7)	943 (43.8)	1025 (41.9)	919 (43.1)	ns	ns
Ecstasy	683 (39.3)	707 (41.9)	778 (36.2)	776 (31.7)	608 (28.5)	Decrease $p < .05$	Decrease $p < .001$
Amphetamine (speed)	264 (15.2)	267 (15.8)	*302 (14.0)*	285 (11.7)	241 (11.3)	ns	Decrease $p < .001$
Crystal methamphetamine	240 (13.8)	185 (11.0)	232 (10.8)	235 (9.6)	261 (12.2)	Increase $p < .01$	ns
Viagra	331 (19.1)	335 (19.8)	451 (21.0)	505 (20.7)	453 (21.2)	ns	ns
Total (not mutually exclusive)	**1736 (100)**	**1689 (100)**	**2151 (100)**	**2445 (100)**	**2134 (100)**		
Number of drugs used							
None	608 (35.0)	564 (33.40	740 (34.4)	921 (37.70	784 (36.7)	ns	Increase $p < .05$
One or two drugs	524 (30.2)	511 (30.3)	668 (31.1)	742 (30.4)	685 (32.1)	ns	ns
More than two drugs	604 (34.8)	614 (36.40	743 (34.5)	782 (32.0)	665 (31.2)	ns	Decrease $p < .001$
Total	**1736 (100)**	**1689 (100)**	**2151 (100)**	**2445 (100)**	**2134 (100)**		

While there has been a significant downward trend among HIV-negative participants in the use of crystal methamphetamine since 2008, in the 2012 survey there was a slight, though significant increase in the proportion of participants reporting use of this drug. Since 2008 there have been declines in the use of marijuana, ecstasy and amphetamine. Overall, drug use by HIV-negative participants appears to be falling with a significant increase in the proportion of participants reporting no drug use and a corresponding fall in the proportion reporting the use of more than two drugs in the previous six months.

Table 27: Injecting drug use in the six months prior to the survey, by HIV status of participants

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
All men	123 (5.5)	151 (6.4)	126 (4.6)	126 (3.9)	134 (4.7)	ns	ns
Total	**2222 (100)**	**2346 (100)**	**2719 (100)**	**3194 (100)**	**2843 (100)**		
HIV-positive men	52 (17.2)	57 (20.4)	47 (16.4)	50 (14.2)	57 (18.2)	ns	ns
Total	**302 (100)**	**280 (100)**	**287 (100)**	**352 (100)**	**314 (100)**		
HIV-negative men	61 (3.5)	68 (4.0)	72 (3.4)	65 (2.7)	62 (2.9)	ns	ns
Total	**1736 (100)**	**1689 (100)**	**2151 (100)**	**2445 (100)**	**2134 (100)**		

Table 28: Party drug use and group sex in the six months prior to the survey

	2008 *n* (%)	2009 *n* (%)	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Used party drugs for sex	615 (27.7)	579 (24.7)	676 (24.9)	669 (21.0)	578 (20.3)	ns	Decrease $p < .001$
Engaged in group sex during or after drug use	357 (16.1)	510 (21.7)	377 (13.9)	401 (12.6)	332 (11.7)	ns	Decrease $p < .001$
Total (not mutually exclusive)	**2222 (100)**	**2346 (100)**	**2719 (100)**	**3194 (100)**	**2843 (100)**		

Over the period between 2008 and 2012 there were significant downward trends in the proportions of participants reporting the use of party drugs for sex and engaging in group sex during or after drug use.

Table 29: Knowledge that post-exposure prophylaxis is available

	2010 *n* (%)	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)	Trend over time (*p*-value)
Aware of PEP among all men	1690 (62.2)	1820 (57.0)	1655 (58.2)	ns	Decrease $p < .01$
Total	**2719 (100)**	**3194 (100)**	**2843 (100)**		
Aware of PEP among non-HIV-positive men	1455 (59.8)	1544 (51.3)	1399 (55.3)	ns	Decrease $p < .001$
Total	**2432 (100)**	**2842 (100)**	**2529 (100)**		

Awareness of post-exposure prophylaxis has declined between 2010 and 2012.

Table 30: Use of anti-HIV medication (PREP or PEP) to prevent HIV infection by non-HIV-positive men in the last six months

	2011 *n* (%)	2012 *n* (%)	Change from 2011 (*p*-value)
Use of PrEP before UAI	37 (1.3)	28 (1.1)	ns
Use of PEP after UAI	80 (2.8)	65 (2.6)	ns
Total (not mutually exclusive)	**2842 (100)**	**2529 (100)**	

Sydney Gay Community Periodic Survey 2012

Conducted by

NCHSR · Kirby Institute · UNSW The University of New South Wales · PositiveLifeNSW the voice of people with HIV since 1988 · acon Building our community's health & wellbeing

This is a survey of sexual practices of men who have had sex with another man in the last five years. This survey is completely anonymous – please do not write your name on the questionnaire.

Your responses are very important, they provide valuable information that assists in HIV health promotion efforts. PLEASE COMPLETE THE SURVEY ONCE ONLY.

Section A – About you

1. How many of your friends are gay or homosexual men?
[1]☐None [2]☐A few [3]☐Some [4]☐Most [5]☐All

2. How much of your free time is spent with gay or homosexual men?
[1]☐None [2]☐A little [3]☐Some [4]☐A lot

3. Do you think of yourself as:
[1]☐ Gay/Homosexual [2]☐ Bisexual [3]☐ Heterosexual
[4]☐ Other _____ (please specify)

4. How old are you?
☐☐ Years

5. Are you of Aboriginal or Torres Strait Islander origin?
[1]☐No [2]☐Yes

6. What is your ethnic background? (e.g. Dutch, Greek, Vietnamese, Lebanese)
[1]☐Anglo-Australian [2]☐Other _____

7. Where were you born?
[1]☐ Australia [2]☐Overseas

8. Where do you live?
Postcode ☐☐☐☐ **OR**
Suburb/Town _____

9. Are you:
[1]☐Employed full-time [4]☐A student
[2]☐Employed part-time [5]☐Unemployed
[3]☐On pension/social security [6]☐Other

10. What is your occupation? (e.g. bartender, teacher, welder)
_____ (specify)

11. What is the highest level of education you have had?
[1]☐Less than or up to 3 years of high school / Year 10
[2]☐Year 12 / HSC / SACE / TEE / VCE
[3]☐Tertiary diploma or trade certificate / TAFE
[4]☐University degree or CAE **Go to section B ↗**

Section B – Your sex partners

In this survey we distinguish between **REGULAR** (boyfriend/lover) and **CASUAL** partners

12. Do you **currently** have sex with **casual** male partners?
[1]☐No [2]☐Yes

13. Do you **currently** have sex with a **regular** male partner?
[1]☐No [2]☐Yes

14. How would you describe your sexual relationship with your current **regular** male partner? (choose one)
[1]☐**We** are monogamous – **neither of us** has casual sex
[2]☐**Both my partner and I** have casual sex with other men
[3]☐I have casual sex with other men but **my partner does not**
[4]☐**My partner** has casual sex with other men but **I do not**
[5]☐I have **several regular** male partners
[6]☐No current regular male partner ➔ **Go to Section C➔**

15. If you are in a **regular** relationship with a man, for how long has it been?
[1]☐Less than 6 months
[2]☐6–11 months
[3]☐1–2 years
[4]☐More than 2 years
[5]☐Not in a regular relationship with a man

16. Do you have a **clear (spoken) agreement** with your regular partner about anal sex (fucking) **within your relationship**?
[1]☐No agreement
[2]☐Agreement: No sex at all
[3]☐Agreement: No anal sex at all
[4]☐Agreement: All anal sex is with a condom
[5]☐Agreement: Anal sex can be without a condom

17. Do you have a **clear (spoken) agreement** with your regular partner about sex **with casual partners**?
[1]☐No agreement
[2]☐Agreement: No sex at all
[3]☐Agreement: No anal sex at all
[4]☐Agreement: All anal sex is with a condom
[5]☐Agreement: Anal sex can be without a condom

Go to section C ➔

Section C – Sex in the last 6 months

18. How many different *men* have you had sex with **in the last 6 months**?

[1] ☐ None
[2] ☐ One
[3] ☐ 2–5 men
[4] ☐ 6–10 men
[5] ☐ 11–20 men
[6] ☐ 21-50 men
[7] ☐ More than 50 men

19. **In the last 6 months** how often have you had sex with men you met at or through:

	Never	Occasionally	Often
Internet	[1] ☐	[2] ☐	[3] ☐
Mobile app e.g. Grindr	[1] ☐	[2] ☐	[3] ☐
Gay bar	[1] ☐	[2] ☐	[3] ☐
Dance party	[1] ☐	[2] ☐	[3] ☐
Gym	[1] ☐	[2] ☐	[3] ☐
Beat	[1] ☐	[2] ☐	[3] ☐
Gay sauna	[1] ☐	[2] ☐	[3] ☐
Other sex venue	[1] ☐	[2] ☐	[3] ☐
Sex workers	[1] ☐	[2] ☐	[3] ☐
Private sex parties	[1] ☐	[2] ☐	[3] ☐
In other Australian cities	[1] ☐	[2] ☐	[3] ☐
Elsewhere in Australia	[1] ☐	[2] ☐	[3] ☐
Overseas	[1] ☐	[2] ☐	[3] ☐

20. In the **last 6 months**, how often did you have group sex involving **at least two other men**?

[1] ☐ Every Week
[2] ☐ Monthly
[3] ☐ Once / A few times
[4] ☐ Never

Go to section D ↓

Section D – Regular male partners – last 6 months

21. Have you had sex with **regular** male partner/s **in the last 6 months**?

[1] ☐ Yes ↓
[2] ☐ No → **Go to section E →**

In the last 6 MONTHS which of the following have you done with any of your **REGULAR male partner/s**?

Oral sex regular partner/s:

22. I sucked his cock but **he did NOT** come in **my** mouth.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

23. He sucked my cock but **I did NOT** come in **his** mouth.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

24. I sucked his cock and **he came in my mouth.**
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

25. He sucked my cock and **I came in his mouth**.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

Anal sex regular partner/s:

26. I fucked him **with a condom**.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

27. He fucked me **with a condom.**
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

28. I fucked him **without a condom** but pulled out before I came.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

29. He fucked me **without a condom** but pulled out before he came.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

30. I fucked him **without a condom** and came inside.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

31. He fucked me **without a condom** and came inside.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

Section E – Casual male partners – last 6 months

32. Have you had any sex with any **casual** male partner/s **in the last 6 months**?

[1] ☐ Yes ↓
[2] ☐ No → **Go to section F →**

In the last 6 MONTHS which of the following have you done with any of your **CASUAL male partner/s**?

Oral sex casual partner/s:

33. I sucked his cock but **he did NOT** come in **my** mouth.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

34. He sucked my cock but **I did NOT** come in **his** mouth.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

35. I sucked his cock and **he came in my mouth.**
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

36. He sucked my cock and **I came in his mouth**.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

Anal sex casual partner/s:

37. I fucked him **with a condom.**
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

38. He fucked me **with a condom.**
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

39. I fucked him **without a condom** but pulled out before I came.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

40. He fucked me **without a condom** but pulled out before he came.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

41. I fucked him **without a condom** and came inside.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

42. He fucked me **without a condom** and came inside.
[1] ☐ Never [2] ☐ Occasionally [3] ☐ Often

HIV disclosure casual partner/s

43. How many of your casual partners did you tell **your** HIV status before sex?
[1] ☐ None [2] ☐ Some [3] ☐ All

44. How many of your casual partners told you **their** HIV status before sex?
[1] ☐ None [2] ☐ Some [3] ☐ All

The following questions are for men who have had <u>any anal sex *without* a condom</u> with casual male partner(s) in the last 6 months.

If you have not had any anal sex without a condom with casual male partners, **go to section F** ↙

45. In the **last 6 months**, if you had anal sex without a condom with any casual male partner(s), did you do any of the following to avoid getting or passing on HIV?

I made sure we were the **same HIV status** before we fucked without a condom	[1] Never	[2] Occasionally	[3] Often	[4] Always
I chose to take the **top role** (I fucked him) because his HIV status was different or unknown to me	[1] Never	[2] Occasionally	[3] Often	[4] Always
I chose to take the **bottom role** (he fucked me) because his HIV status was different or unknown to me	[1] Never	[2] Occasionally	[3] Often	[4] Always
When I fucked him, I chose to **pull out before cumming** because his HIV status was different or unknown to me	[1] Never	[2] Occasionally	[3] Often	[4] Always
When he fucked me, I made sure **he pulled out before cumming** because his HIV status was different or unknown to me	[1] Never	[2] Occasionally	[3] Often	[4] Always

Go to section F ↓

Section F – HIV testing

46. Have you ever had an HIV antibody test?

[1] No [2] Yes

47. When were you last tested for HIV antibodies?

[1] Never tested
[2] Less than a week ago
[3] 1–4 weeks ago
[4] 1–6 months ago
[5] 7–12 months ago
[6] 1–2 years ago
[7] 2–4 years ago
[8] More than 4 years ago

48. Based on the results of your HIV antibody tests, what is your HIV status?

[1] No test/Don't know
[2] Negative
[3] Positive

49. If you have a regular partner, do you know the result of his HIV antibody test?

[1] Positive [2] Negative
[3] I don't know/He hasn't had a test

50. If your regular partner is HIV positive, what was his last viral load test?

[1] Undetectable
[2] Detectable
[3] Don't know / unsure

If you are **HIV-positive** please complete the next four questions. If not, go to section G →

51. When were you first diagnosed as HIV-positive?

Year ☐☐☐☐

52. Are you on combination antiretroviral therapy?

[2] Yes [1] No

53. What was your last **viral load test**?

[1] Undetectable
[2] Detectable
[3] Don't know / unsure

54. What was your last **CD4 count**?

[1] <200
[2] 201-350
[3] 351-500
[4] >500
[5] Don't know/unsure

Go to section G →

Survey continues on next page

Section G – STI testing

55. Which of these sexual health tests have you had in the last 12 months?

	None	Once	Twice	3 or more
Anal swab	1☐	2☐	3☐	4☐
Throat swab	1☐	2☐	3☐	4☐
Penile swab	1☐	2☐	3☐	4☐
Urine sample	1☐	2☐	3☐	4☐
Blood test for HIV	1☐	2☐	3☐	4☐
Blood test for syphilis	1☐	2☐	3☐	4☐
Other blood test	1☐	2☐	3☐	4☐

56. Where did you go the **last time** you had a syphilis test?

1☐ My regular GP
2☐ Another GP
3☐ Sexual health clinic
4☐ HIV clinic
5☐ Never tested

57. Were you aware that someone could have syphilis without any physical symptoms?

1☐ Yes, I was aware 2☐ No, I wasn't aware

58. Were you aware you could get syphilis through oral sex?

1☐ Yes, I was aware 2☐ No, I wasn't aware

59. Were you diagnosed with any sexually transmitted infection (other than HIV) in the last 12 months?

1☐ Yes 2☐ No

60. If you were diagnosed with a sexually transmitted infection in the last 12 months, how many of your sex partners did you tell about your diagnosis?

1☐ None 2☐ A few 3☐ Some 4☐ All
5☐ Not been diagnosed with an STI in the last 12 months

Go to section H ⬇

Section H – HIV medication to prevent HIV

61. What do you know about post-exposure prophylaxis (PEP)?

1☐ It's readily available now
2☐ It will be available in the future
3☐ I've never heard about it

If you are **HIV-positive** you can skip the next question and go to **section I ↗**

62. In the **last 6 months**, have you taken any **anti-HIV medication** to prevent HIV infection:

Before anal sex without a condom 1☐ Yes 2☐ No

After anal sex without a condom e.g. PEP 1☐ Yes 2☐ No

Go to section I ↗

Section I – Drug use

63. How often have you **used** these drugs in the **last 6 months**?

	Never	Once/ twice	At least monthly	Every week
Amyl/poppers	1☐	2☐	3☐	4☐
Marijuana	1☐	2☐	3☐	4☐
Viagra/Cialis etc	1☐	2☐	3☐	4☐
Ecstasy	1☐	2☐	3☐	4☐
Speed	1☐	2☐	3☐	4☐
Cocaine	1☐	2☐	3☐	4☐
Crystal meth	1☐	2☐	3☐	4☐
GHB	1☐	2☐	3☐	4☐
Ketamine (special K)	1☐	2☐	3☐	4☐
Heroin	1☐	2☐	3☐	4☐
Meow meow (mephedrone)	1☐	2☐	3☐	4☐
Any other drug	1☐	2☐	3☐	4☐

64. How often have you **injected** drugs in the **last 6 months**?

1☐ Every week 3☐ Once or twice
2☐ At least monthly 4☐ Never

65. In the **last 6 months**, how often have you used party drugs for the purpose of sex?

1☐ Every week 3☐ Once or twice
2☐ At least monthly 4☐ Never

66. In the **last 6 months**, how often have you had group sex after or while using party drugs?

1☐ Every week 3☐ Once or twice
2☐ At least monthly 4☐ Never

The survey concludes here.

Thank you for your time.

As this survey is anonymous, feedback cannot be provided directly. Please check the NCHSR and ACON websites for the results of this survey.

http://nchsr.arts.unsw.edu.au

http://www.acon.org.au/