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Gay Community Periodic Survey: Tasmania 2016



Toby Lea¹
Limin Mao¹
Faline Howes²
Mark Veitch²
Sabine Wagner³
Garrett Prestage⁴
Iryna Zablotska⁴
Martin Holt¹

¹Centre for Social Research in Health, UNSW Sydney

²Department of Health and Human Services, Government of Tasmania

³Tasmanian Council on AIDS, Hepatitis & Related Diseases (TasCAHRD)

⁴The Kirby Institute, UNSW Sydney

For media enquiries, please contact Associate Professor Martin Holt on m.holt@unsw.edu.au or +61 2 9385 6410

Centre for Social Research in Health

UNSW Sydney NSW 2052

T +61 2 9385 6776

F: +61 2 9385 6455

E: csr@unsw.edu.au

W: <http://csr.arts.unsw.edu.au>

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Survey participants

The 200 men who participated in the survey

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Glossary

AIDS acquired immune deficiency syndrome

ART antiretroviral treatment

CAIC condomless anal intercourse with casual partners

CAIR condomless anal intercourse with regular partners

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 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, a course of antiretroviral drugs used to reduce the risk of HIV infection after potential exposure has occurred

PrEP pre-exposure prophylaxis, antiretroviral drugs used to reduce the risk of HIV infection before a potential exposure

STI sexually transmissible infection

Executive summary

The Tasmania Gay Community Periodic Survey is a cross-sectional survey of gay and homosexually active men recruited online throughout Tasmania. 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. The most recent survey, the second to be conducted in Tasmania, was conducted in November-December 2016.

From its inception in 2014, the project has been funded by the Tasmanian Department of Health and Human Services. The Centre for Social Research in Health coordinates the survey, with support from the Kirby Institute. The Tasmanian Council on AIDS, Hepatitis & Related Diseases (TasCAHRD) provided advice on recruitment and promoted the survey.

In total, 200 men completed the 2016 survey, and all participants were recruited online. As 257 eligible participants commenced the online questionnaire, this represents a 78% completion rate. Recruitment in Tasmania for the Gay Community Periodic Survey is unlike other jurisdictions where the bulk of recruitment is conducted face-to-face, by trained staff, at gay social events and venues, sex-on-premises venues and clinics. Online recruitment has, however, been conducted in all participating jurisdictions since 2014, and is done via paid advertisements on the social networking site Facebook. For the 2016 Tasmanian survey, advertisements were targeted to men aged 16 and above who indicated in their Facebook profile that they resided in Tasmania and were 'interested in men'. Potential participants were directed to the study website with links to the online version of the questionnaire (<http://gcpsonline.net>).

Key points

- The proportion of men who had ever tested for HIV remained stable at 81% in 2016.
- Over three-fifths of men (63%) were aware that rapid HIV testing was available in Tasmania in 2016, and 10% reported having had a rapid test.
- The proportion of men who reported that they were HIV-positive was 12% in 2016, and all but one participant was on antiretroviral treatment.
- The use of mobile phone apps continued to be the most common way that men met male sex partners (40% in 2016).
- The proportion of men who reported being in a monogamous relationship dropped from 41% in 2014 to 32% in 2016.
- The proportion of men with regular partners who reported condomless anal intercourse with those partners remained stable at 71% in 2016.
- There was a reduction in the proportion of men who reported any condomless anal intercourse with casual partners in 2016, from 53% to 38%.
- Rates of recreational drug use remained stable but high, with 51% of men reporting any recreational drug use in the six months prior to the survey.
- The proportion of non-HIV-positive men who believed that pre-exposure prophylaxis (PrEP) was available increased significantly from 14% in 2014 to 48% in 2016.

Demographic profile

As in the 2014 survey, the majority of the men surveyed lived in or close to Hobart, had an Anglo-Australian background, had completely a university degree or other tertiary qualification, and were in paid employment. The majority of the sample identified as gay (91.5%) or bisexual (4.0%), and most were born in Australia (89.5%). A minority of participants identified as Aboriginal and/or Torres Strait Islander (4.5%).

In the 2016 survey we asked about gender identity for the first time. The majority of participants identified as cisgender men (97.5%), with a small number of men identifying as trans men (n=4) or intersex (n=1).

The mean age of the sample was 36.2 years (standard deviation = 14.8). Compared to 2014, there was an increase in 2016 in the proportion of men aged 40 and above (see Table 1). There was no significant change in the proportions of other age categories.

HIV status and testing

In 2016, 4 in 5 men reported having ever been tested for HIV (81.0%; see Table 2). The proportion of men who reported ever testing for HIV has remained stable between 2014 and 2016. Being untested was concentrated among younger men in the sample; in 2016, 2 in 5 men aged under 25 years reported that they had never had a HIV test (42.1%). The proportion of non-HIV-positive men who reported testing for HIV in the previous 12 months remained stable in 2016 (at 61.7%).

The most common locations where non-HIV-positive participants said they had had their last HIV test were at a general practice (47.2%) or a sexual health clinic or hospital (46.5%; see Table 3). Between 2014 and 2016, there was an increase in the proportion of men who reported testing at a sexual health clinic or hospital, and a decrease in the proportion of men who reported testing at a community-based service.

Among non-HIV-positive men in the 2016 survey, a higher proportion of participants reported having been tested for HIV once (22.7%) than the proportion who reported being tested twice (15.5%) or three or more times in the previous 12 months (9.4%; see Table 4). There was no change in the number of tests men reported between 2014 and 2016.

In 2016, questions were included in the survey about awareness and experience of rapid HIV testing in Tasmania. Among non-HIV-positive men, over 3 in 5 men reported being aware that rapid HIV testing was available in Tasmania (62.9%), and 1 in 10 reported having had a rapid HIV test (10.3%; see Table 5). Among men who were aware that rapid HIV testing was available, participants most commonly reported hearing about rapid testing at the sexual health clinic (40.9%), through the mobile app Grindr (20.0%) or through advertisements on buses (13.6%; see Table 5).

Among men who had been tested for HIV, the majority reported that they were HIV-negative (87.7%; see Table 6). More than 1 in 10 men reported that they were HIV-positive (11.7%) and one man reported that he did not know his HIV status. There was no significant change in the proportion of men who reported being HIV-negative between 2014 and 2016. While the proportion of HIV-positive men increased, the number of HIV-positive men was too small (n=19) to determine whether this was a meaningful change (and thus should be interpreted with caution).

In 2016, all but one of the HIV-positive men reported taking combination antiretroviral treatment at the time of the survey (94.4%; see Table 7). All but one of the HIV-positive men on treatment reported having an undetectable viral load (94.1%; see Table 8). In 2016, 2 in 3 HIV-positive men reported having attended at least three clinical appointments in the previous 12 months to manage their HIV.

Sexual relationships with men

At the time of the 2016 survey, there were equal proportions of men who reported having no sexual relationships with men (24.5%) or having both regular and casual male partners (24.5%; see Table 9). A higher proportion of participants reported being in a monogamous relationship (32.0%), while nearly one fifth reported having casual partners only (19.0%). Between 2014 and 2016, there was a decline in the proportion of men who reported being in monogamous relationships.

Regular male partners

Among men with regular male partners in the six months prior to the survey, the majority reported having an agreement with their regular partner about sex within the relationship (70.5%; see Table 10), and a similar proportion reported having an agreement about sex outside of the relationship (65.2%; see Table 11). The most common agreement about sex within the relationship was that anal intercourse could occur without a condom (48.2%) or that anal intercourse could only occur with condoms (15.2%; see Table 10). There was no significant change between 2014 and 2016 in the proportion of men who reported an agreement about sex within the relationship.

The most common agreements about sex outside of the relationship were that sex with casual partners could not occur (35.7%), or that condoms must be used for anal intercourse with casual partners (17.9%; see Table 11). There was no significant change between 2014 and 2016 in the proportion of men who reported an agreement about sex outside the relationship.

Men with regular partners were asked if they knew the HIV status of their partner. Based on their response to this question and their self-reported HIV status, men were categorised as being in a seroconcordant, serodiscordant or serononconcordant relationship. In 2016, among the 11 HIV-positive men with regular partners in the six months prior to the survey, four were in seroconcordant relationships, two were in serodiscordant relationships and five were in serononconcordant relationships (see Table 12). Among HIV-negative men with regular partners, most were in seroconcordant relationships (62.4%) or serononconcordant

relationships (34.9%; see Table 12). There were no significant changes in the proportions of HIV-negative men reporting these different relationship types between 2014 and 2016.

The majority of men with regular partners in the six months prior to the survey reported at least some condomless anal intercourse with their partners (CAIR) during this time (70.9%), while over 1 in 10 men reported consistently using condoms with their partner (12.7%; see Table 13). Rates of CAIR did not significantly change between 2014 and 2016.

Among the 11 HIV-positive participants with regular partners in the six months prior to the survey, six reported CAIR that was not concordant, two reported seroconcordant CAIR and three reported no CAIR (see Table 14). Among HIV-negative men with regular partners, nearly half reported seroconcordant CAIR (48.6%), over 1 in 5 reported CAIR that was not concordant (22.0%) and over a quarter reported no CAIR (29.4%; see Table 14).

In 2016, among HIV-negative men who reported CAIR with partners who were not concordant, 2 in 5 (41.7%) reported always being the insertive partner during CAIR (strategic positioning) and more than 1 in 10 (12.5%) reported that their partner consistently withdrew before ejaculation when they were the receptive partner during CAIR (see Table 15).

Casual male partners

As is typically found in samples of Australian gay men, the use of condoms for anal intercourse was more commonly reported with casual male partners than with regular partners. Among men who had casual partners, just under a quarter of men reported no anal intercourse with those partners (24.3%), over a third of men reported consistent condom use (37.4%), and nearly 2 in 5 men reported any condomless anal intercourse with casual partners (CAIC; 38.3%) in the six months prior to the survey (see Table 16). Between 2014 and 2016, there was a reduction in the proportion of men who reported CAIC and an increase in the proportion of men who reported no anal intercourse with casual partners. Condom use remained stable. The reduction in CAIC between 2014 and 2016 was largely attributable to a doubling in the proportion of men reporting no anal intercourse with casual partners (from 11.6% in 2014 to 24.3% in 2016), and a reduction in the proportion of HIV-negative and untested men not on PrEP who reported any receptive CAIC (from 37.9% of men with casual partners in 2014 to 15.9% in 2016). There were small but statistically non-significant increases in the numbers of men who reported CAIC who were either HIV-positive on treatment with an undetectable viral load (n=6 in 2016), or HIV-negative men on prescribed PrEP (n=4 in 2016; see Table 16).

Among men with casual partners in 2016, HIV-positive participants were more likely to report CAIC (70.0%) compared with HIV-negative participants (38.3%) and HIV untested and unknown status participants (18.8%; see Table 17). Between 2014 and 2016, there was a reduction in the proportion of HIV untested and unknown status men who reported CAIC. Rates of CAIC reported by HIV-positive and HIV-negative men remained stable.

In 2016, HIV-positive and HIV-negative men were similarly likely to disclose their HIV status to casual male partners (66.7% vs. 67.9%; see Table 18). However, HIV-positive men were somewhat less likely to report disclosure of HIV status from their casual partners than HIV-negative men (44.4% vs. 67.9%). These findings remained stable between 2014 and 2016, although caution should be exercised in interpreting these results due to the small number of HIV-positive men in the sample. The proportion of HIV-negative men who reported consistent HIV disclosure to all casual partners remained stable in 2016 (45.2%; see Table 19).

Among the seven HIV-positive men who reported CAIC in the six months prior to the 2016 survey, the most frequently used risk reduction strategy was having an undetectable viral load (n=6), followed by serosorting (n=2; see Table 21). Among HIV-negative men who reported CAIC in the six months prior to the survey, the most commonly reported risk reduction strategies were serosorting (48.4%), taking anti-HIV medication prior to sex (16.1%), and taking the insertive position during anal intercourse when their partner was not concordant (12.9%; see Table 21).

In 2016, just under 2 in 5 men (39.5%) reported meeting male sex partners via mobile apps such as Grindr in the six months prior to the survey (see Table 22). The next most common ways of meeting sex partners included the Internet (29.5%), meeting men in other Australian cities (25.5%), and meeting men elsewhere in Australia (19.5%). There were no significant changes between 2014 and 2016 in the ways that men reported meeting male sex partners.

Sexual health

In 2016, a similar proportion of HIV-positive and HIV-negative men reported having had any sexual health test (including a blood test for syphilis) in the 12 months prior to the survey (68.4% vs. 68.5%; see Tables 23 and 24). Rates of any sexual health testing (including a blood test for syphilis) in the 12 months prior to the survey were considerably lower among men who reported that their HIV status was untested or unknown (23.7%) than among HIV-positive and HIV-negative men. Rates of sexual health testing remained stable between 2014 and 2016, irrespective of the HIV status of participants.

In 2016, fewer than 1 in 10 participants (7.5%) reported having been diagnosed with an STI (other than HIV) in the 12 months prior to the survey (see Table 25). Rates of STI diagnoses remained stable between 2014 and 2016. Among men who reported an STI diagnosis, most said that they had disclosed their STI diagnosis to at least one of their sex partners (73.3%; Table 25).

In the 2016 survey, a new question was introduced about whether participants had been vaccinated against hepatitis B. Nearly half the participants (48.0%) reported having completed a course of three doses of hepatitis B vaccine. Having completed a course of hepatitis B vaccine was more commonly reported by HIV-positive men (52.6%) and HIV-negative men (52.4%) than by HIV untested and unknown status men (28.9%).

In 2016, almost 3 in 5 men (57.5%) reported having ever been tested for hepatitis C, while 1 in 5 men (21.0%) did not know whether they had been tested. Among men who had been tested, the majority reported not having hepatitis C (97.4%), and one participant reported having hepatitis C. There was no significant change in rates of hepatitis C testing between 2014 and 2016.

Drug use

In 2016, recreational drug use was commonly reported by participants, with half of men (51.0%) reporting the use of any drug in the six months preceding the survey (see Table 26). The most commonly used drugs were cannabis (28.0%), amyl nitrite (25.0%), and Viagra or similar erectile dysfunction medications (15.0%). Between 2014 and 2016, there was no significant change in the use of any drug. HIV-positive participants were no more likely to report recreational drug use than HIV-negative men (52.6% vs. 55.9%).

Injecting drug use was not commonly reported by participants, with only three men (1.5%) reported any injecting in the six months prior to the 2016 survey (see Table 27). All of these participants were HIV-positive.

In 2016, almost 1 in 10 men (8.0%) reported the use of party drugs for sex in the six months prior to the survey, while only four men (2.0%) reported that they had engaged in group sex during or after drug use (see Table 28). The proportion of men who engaged in group sex during or after drug use declined between 2014 and 2016 (from 6.2% in 2014).

In 2016, a new question about potentially harmful drinking (defined as having more than four alcoholic drinks on one occasion) was included in the questionnaire. More than a quarter of men reported drinking more than four drinks on one occasion at least weekly (28.0%), less than one quarter reporting doing so at least monthly (23.0%), and more than a quarter reported doing this once or twice in the six months prior to the survey (27.5%).

Knowledge and use of PEP and PrEP

In 2016, half of all participants reported knowing that post-exposure prophylaxis (PEP) was available (48.5%; see Table 29). Between 2014 and 2016, there was a significant increase among non-HIV-positive men in the proportion who reported knowing that PEP was available (from 30.2% to 45.9%).

In 2016, half of men (50.5%) reported that they believed that pre-exposure prophylaxis (PrEP) was available (see Table 29). Between 2014 and 2016, there was a large increase among non-HIV-positive men in the proportion who reported that PrEP was available (from 15.7% to 50.5%).

Among non-HIV-positive participants, four men (2.2%) reported taking a prescribed course of PEP during the six months prior to the survey, while seven men (3.9%) reported taking PrEP in the previous six months. Six of these men reported obtaining PrEP online from overseas, and one man reported using drugs prescribed for PEP as PrEP. Taken with the data shown in Tables 16 and 21, the 2016 survey data indicate a small group of HIV-negative men who had used PrEP in the six months prior to the 2016 survey, primarily through personal importation.

Reporting

Data are shown for the period 2014 to 2016. Each table includes the statistical significance (*p*-value), if any, of the change between 2014 and 2016. An alpha level of .05 was used for all statistical tests. Changes between 2014 and 2016 were assessed with logistic regression. The *p*-value of the logistic regression test (if shown) indicates a statistically significant change within that category. 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, particularly for results that are analysed separately by HIV status due to the small number of HIV-positive participants in the survey. When data are missing or were not collected in a given year, this is indicated in the table by a dash (-).

Table 1: Age

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
Under 25	79 (37.6)	57 (28.6)	ns
25–29	30 (14.3)	22 (11.1)	ns
30–39	57 (27.1)	43 (21.6)	ns
40–49	22 (10.5)	35 (17.6)	Increase <.05
50 and over	22 (10.5)	42 (21.1)	Increase <.01
Total	210 (100)	199 (100)	

Table 2: HIV testing

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
All participants			
Ever tested	162 (77.1)	162 (81.0)	ns
Total	210 (100)	200 (100)	
Non-HIV-positive participants			
Tested in previous 12 months	94 (62.3)	86 (60.1)	ns
Total^a	151 (100)	143 (100)	

^aThis total only includes non-HIV-positive participants who had ever tested for HIV.

Table 3: Where non-HIV-positive men were last tested for HIV

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
General practice	71 (47.3)	67 (47.2)	ns
Sexual health clinic/hospital	52 (34.7)	66 (46.5)	Increase <.05
At home	1 (0.7)	2 (1.4)	NA
Community-based service	23 (15.3)	4 (2.8)	Decrease <.001
Somewhere else (including gay bar)	3 (2.0)	3 (2.1)	NA
Total	150 (100)	142 (100)	

Note: This table only includes men who have ever been tested for HIV.

Table 4: Number of HIV tests in the previous 12 months

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
None	107 (54.0)	95 (52.5)	ns
One	45 (22.7)	41 (22.7)	ns
Two	30 (15.2)	28 (15.5)	ns
3 or more	16 (8.1)	17 (9.4)	ns
Total	198 (100)	181 (100)	

Note: This table only contains data from non-HIV-positive men.

Table 5: Rapid HIV testing in Tasmania

	2016 n (%)
Aware rapid testing is available	110 (62.9)
Had rapid HIV test	18 (10.3)
Total (not mutually exclusive)	175 (100)
Became aware of rapid testing via:	
At the clinic	45 (40.9)
Grindr	22 (20.0)
Back of bus advertisement	15 (13.6)
Television	12 (10.9)
Radio	7 (6.4)
Total (not mutually exclusive)	110 (100)

Note: These questions were only asked in Tasmania in 2016. This table only contains data from non-HIV-positive men.

Table 6: HIV test result

	2014 n (%)	2016 n (%)	Change from 2014 (p-value)
HIV-positive	11 (6.8)	19 (11.7)	ns
HIV-negative	149 (92.0)	142 (87.7)	ns
Unknown status	2 (1.2)	1 (0.6)	NA
Total	162 (100)	162 (100)	

Note: This table only includes data from men who have been tested for HIV.

Table 7: Use of combination antiretroviral treatment among HIV-positive men

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
On treatment	11 (100)	17 (94.4)	NA
Total	11 (100)	18 (100)	

Table 8: Undetectable viral load and CD4 count among HIV-positive men using ART

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
Men using ART			
Undetectable viral load	11 (100)	16 (94.1)	NA
CD4 count > 500	8 (72.7)	13 (76.5)	ns
Total	11 (100)	17 (100)	

Note: In 2014, all HIV-positive participants reported being on ART. In 2016, only one HIV-positive participant was not on ART.

Table 9: Current relationships with men

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
None	46 (21.9)	49 (24.5)	ns
Casual only	35 (16.7)	38 (19.0)	ns
Regular plus casual	42 (20.0)	49 (24.5)	ns
Regular only (monogamous)	87 (41.4)	64 (32.0)	Decrease <.05
Total	210 (100)	200 (100)	

Table 10: Agreements with regular male partners about sex within the relationship

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
No agreement about sex within the relationship	52 (40.0)	33 (29.5)	ns
No sex within the relationship permitted	1 (0.8)	3 (2.7)	NA
No anal intercourse permitted	4 (3.1)	5 (4.5)	NA
Anal intercourse permitted only with a condom	22 (16.9)	17 (15.2)	ns
Anal intercourse permitted without a condom	51 (39.2)	54 (48.2)	ns
Total	130 (100)	112 (100)	

Note: This table only includes data from men who reported that they had a regular male partner in the six months prior to survey.

Table 11: Agreements with regular male partners about sex outside the relationship

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
No agreement about casual sex	48 (36.9)	39 (34.8)	ns
No sex with casual partners permitted	61 (46.9)	40 (35.7)	ns
No anal intercourse with casual partners permitted	1 (0.8)	7 (6.3)	NA
Anal intercourse with casual partners permitted only with a condom	17 (13.1)	20 (17.9)	ns
Anal intercourse with casual partners permitted without a condom	3 (2.3)	6 (5.4)	NA
Total	130 (100)	112 (100)	

Note: This table only includes data from men who reported that they had a regular male partner in the six months prior to survey.

Table 12: Match of HIV status between regular partners

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
HIV-positive men			
Seroconcordant	2	4 (36.4)	NA
Serodiscordant	0	2 (18.2)	NA
Serononconcordant	3	5 (45.5)	NA
Total	5	11 (100)	
HIV-negative men			
Seroconcordant	79 (68.1)	68 (62.4)	ns
Serodiscordant	4 (3.4)	2 (2.8)	NA
Serononconcordant	33 (28.4)	38 (34.9)	ns
Total	116 (100)	109 (100)	

Note: This table only includes data from men who reported that they had a regular male partner in the six months prior to the survey.

Table 13: Anal intercourse and condom use with regular partners

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
No anal intercourse	18 (11.8)	22 (16.4)	ns
Always uses a condom	30 (19.7)	17 (12.7)	ns
Sometimes does not use a condom	104 (68.4)	95 (70.9)	ns
Total	152 (100)	134 (100)	

Note: This table only includes data from men who reported that they had a regular male partner in the six months prior to the survey.

Table 14: Condomless anal intercourse with regular partners, by match of HIV status

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
HIV-positive men			
Seroconcordant CAIR	1	2 (18.2)	NA
Not concordant CAIR	0	6 (54.5)	NA
No CAIR	4	3 (27.3)	NA
Total	5	11 (100)	
HIV-negative men			
Seroconcordant CAIR	55 (47.4)	53 (48.6)	ns
Not concordant CAIR	24 (20.7)	24 (22.0)	ns
No CAIR	37 (31.9)	32 (29.4)	ns
Total	116 (100)	109 (100)	

Note: This table only includes data from men who reported that they had a regular male partner in the six months prior to survey.

Table 15: HIV-negative men who engaged in CAIR and always used risk-reduction strategies with partners who were not concordant

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
Took insertive position during CAIR	4 (16.7)	10 (41.7)	ns
Partner withdrew before ejaculation when participant was receptive	5 (20.8)	3 (12.5)	ns
Total (not mutually exclusive)	24	24	

Note: This table only includes data from HIV-negative men who reported CAIR with partners who were not concordant in the six months prior to the survey.

Table 16: Anal intercourse and condom use with casual partners

	2014 n (%)	2016 n (%)	Change from 2014 (p-value)
No anal intercourse	11 (11.6)	26 (24.3)	Increase <.05
Always uses a condom	34 (35.8)	40 (37.4)	ns
Sometimes does not use a condom	50 (52.6)	41 (38.3)	Decrease <.05
Subcategories of men who did not always use condoms:			
HIV-positive on treatment with undetectable viral load	3 (3.2)	6 (5.6)	NA
HIV-negative on PrEP	0	4 (3.7)	NA
HIV-positive not on treatment or detectable viral load	0	1 (0.9)	NA
HIV-negative/untested not on PrEP (only insertive anal intercourse)	11 (11.6)	13 (12.1)	ns
HIV-negative/untested not on PrEP (any receptive anal intercourse)	36 (37.9)	17 (15.9)	Decrease <.001
Total	95 (100)	107 (100)	

Note: This table only includes data from men who reported that they had any casual male partners in the six months prior to the survey.

Table 17: Any condomless anal intercourse with casual partners, by HIV status of participants

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
HIV-positive men	3	7 (70.0)	NA
Total	7	10 (100)	
HIV-negative men	35 (50.7)	31 (38.3)	ns
Total	69 (100)	81 (100)	
Untested/unknown status men	12 (63.2)	3 (18.8)	Decrease <.05
Total	19 (100)	16 (100)	

Note: This table only includes data from men who reported that they had any casual male partners in the six months prior to the survey. Untested and unknown status includes men who have never been tested for HIV and men who have been tested but do not know their results. For HIV-positive men in 2014, only *n* is reported due to the small number of HIV-positive participants reporting CAIC.

Table 18: Disclosure of HIV status to or from casual partners, by HIV status of participants

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
HIV-positive men			
Told casual partners	5	6	NA
Told by casual partners	5	4	NA
Total (not mutually exclusive)	6	9	
HIV-negative men			
Told casual partners	48 (70.6)	53 (67.9)	ns
Told by casual partners	48 (70.6)	53 (67.9)	ns
Total (not mutually exclusive)	68	78	

Note: This table only includes data from men who reported that they had any casual male partners in the six months prior to survey.

Table 19: Consistent disclosure of HIV status to casual partners among men who engaged in condomless anal intercourse, by HIV status of participants

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
HIV-positive men who disclosed to all	1	2	NA
Total	3	7	
HIV-negative men who disclosed to all	15 (42.9)	14 (45.2)	ns
Total	35 (100)	31 (100)	

Note: This table only includes data from men who reported that they had any CAIC in the six months prior to survey.

Table 20: Positioning in condomless anal intercourse with casual male partners, by HIV status of participants

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
HIV-positive men			
Receptive only CAIC	0	0	NA
Total	3	7	
HIV-negative men			
Insertive only CAIC	7 (20.0)	13 (41.9)	ns
Total	35 (100)	31 (100)	

Note: This table only includes data from men who reported any CAIC in the six months prior to the survey.

Table 21: Men who frequently used risk reduction strategies when engaging in condomless anal intercourse with casual partners, by HIV status of participants

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
HIV-positive men			
Ensured partners were seroconcordant before CAIC (serosorting)	2	2	NA
Took receptive position during CAIC when partners were not concordant	0	1	NA
Participant withdrew before ejaculation when he was insertive	0	1	NA
Participant knew he had an undetectable viral load before having sex	2	6	NA
Total (not mutually exclusive)	3	7	
HIV-negative men			
Ensured partners were seroconcordant before CAIC (serosorting)	19 (54.3)	15 (48.4)	ns
Took insertive position during CAIC when partners were not concordant	2 (5.7)	4 (12.9)	NA
Partner withdrew before ejaculation when participant was receptive	3 (8.6)	3 (9.7)	NA
Ensured HIV-positive partner had an undetectable viral load before having sex	2 (5.7)	3 (9.7)	NA
Participant took anti HIV medication before sex	1 (2.9)	5 (16.1)	NA
Participant took anti HIV medication after sex	1 (2.9)	2 (6.5)	NA
Total (not mutually exclusive)	35	31	

Note: This table only includes data from men who reported having CAIC in the six months prior to the survey. Men who reported 'often' or 'always' using each strategy were classified as 'frequently' using the strategy.

Table 22: Where men met their male sex partners in the six months prior to the survey

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
Mobile app e.g. Grindr	77 (36.7)	79 (39.5)	ns
Internet	76 (36.2)	58 (29.0)	ns
In other Australian cities	47 (22.4)	51 (25.5)	ns
Elsewhere in Australia	28 (13.3)	39 (19.5)	ns
Gay bar	33 (15.7)	26 (13.0)	ns
Beat	19 (9.0)	20 (10.0)	ns
Overseas	20 (9.5)	18 (9.0)	ns
Other bar	-	17 (8.5)	-
Gay saunas	17 (8.1)	15 (7.5)	ns
Dance party	18 (8.6)	8 (4.0)	ns
Gym	5 (2.4)	8 (4.0)	ns
Sex workers	9 (4.3)	4 (2.0)	ns
Other sex-on-premises venues	8 (3.8)	4 (2.0)	ns
Private sex parties	8 (3.8)	2 (1.0)	ns
Total (not mutually exclusive)	210	200	

Note: The question about other bars was included in the questionnaire from 2016 onwards.

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

	2014 n (%)	2016 n (%)	Change from 2014 (p-value)
Anal swab	7 (63.6)	6 (31.6)	ns
Throat swab	8 (72.3)	5 (26.3)	Decrease <.05
Penile swab	4 (36.4)	2 (10.5)	NA
Urine sample	10 (90.9)	12 (63.2)	ns
Blood test other than for HIV	9 (81.8)	11 (57.9)	ns
Blood test for syphilis	9 (81.8)	10 (52.6)	ns
Any STI test (not including blood tests)	10 (90.9)	12 (63.2)	ns
Any STI test (including blood tests)	11 (100)	13 (68.4)	NA
Total (not mutually exclusive)	11	19	

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

Table 24: STI testing among HIV-negative men in the 12 months prior to the survey

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
Anal swab	51 (34.2)	50 (35.0)	ns
Throat swab	56 (37.6)	53 (37.1)	ns
Penile swab	37 (24.8)	24 (16.8)	ns
Urine sample	75 (50.3)	77 (53.8)	ns
Blood test other than for HIV	79 (53.0)	82 (57.3)	ns
Blood test for syphilis	74 (49.7)	77 (53.8)	ns
Any STI test (not including blood test)	79 (53.0)	79 (55.2)	ns
Any STI test (including blood tests)	97 (65.1)	98 (68.5)	ns
Total (not mutually exclusive)	149	143	

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

Table 25: Diagnosis with STIs and disclosure to sex partners about the diagnosis in the 12 months prior to the survey

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
Diagnosed with any STI	16 (7.6)	15 (7.5)	ns
Total	210 (100)	200 (100)	
Disclosed STI diagnosis to any sex partner	11 (68.8)	11 (73.3)	ns
Total	16 (100)	15 (100)	

Table 26: Recreational drug use among all men in the six months prior to the survey

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
Cannabis	65 (31.0)	56 (28.0)	ns
Amyl nitrite (poppers)	39 (18.6)	50 (25.0)	ns
Ecstasy	14 (6.7)	20 (10.0)	ns
Amphetamine (speed)	12 (5.7)	6 (3.0)	ns
Crystal methamphetamine	8 (3.8)	10 (5.0)	ns
Viagra	23 (11.0)	30 (15.0)	ns
Cocaine	6 (2.9)	9 (4.5)	ns
Ketamine	4 (1.9)	1 (0.5)	NA
Gamma hydroxybutyrate (GHB)	5 (2.4)	3 (1.5)	NA
Heroin	4 (1.9)	0	NA
Steroids	6 (2.9)	0	NA
Other drugs	14 (6.7)	14 (7.0)	ns
Total (not mutually exclusive)	210	200	
Number of drugs used			
None	114 (54.3)	98 (49.0)	ns
One or two drugs	72 (34.3)	74 (37.0)	ns
More than two drugs	24 (11.4)	28 (14.0)	ns
Total	210 (100)	200 (100)	

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

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
All men	8 (3.8)	3 (1.5)	ns
Total	210 (100)	200 (100)	
HIV-positive men	1 (9.1)	3 (15.8)	NA
Total	11 (100)	19 (100)	
HIV-negative men	6 (4.0)	0	NA
Total	149 (100)	143 (100)	

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

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
Used party drugs for sex	18 (8.6)	16 (8.0)	ns
Engaged in group sex during or after drug use	13 (6.2)	4 (2.0)	Decrease <.05
Total (not mutually exclusive)	210	200	

Table 29: Knowledge and use of pre- and post-exposure prophylaxis

	2014 <i>n</i> (%)	2016 <i>n</i> (%)	Change from 2014 (<i>p</i> -value)
Belief that PEP is available now (all men)	69 (32.9)	97 (48.5)	Increase <.01
Total	210 (100)	200 (100)	
Belief that PEP is available now (non-HIV-positive men)	60 (30.2)	83 (45.9)	Increase <.01
Total	199 (100)	181 (100)	
Belief that PrEP is available now (all men)	33 (15.7)	101 (50.5)	Increase <.001
Total	210 (100)	200 (100)	
Belief that PrEP is available now (non-HIV-positive men)	28 (14.1)	86 (47.5)	Increase <.001
Total	199 (100)	181 (100)	
Use of PEP by non-HIV-positive men in the six months prior to survey	1 (0.5)	4 (2.2)	NA
Total	199 (100)	181 (100)	
Use of PrEP by non-HIV-positive men in the six months prior to survey	1 (0.5)	7 (3.9)	NA
Total	199 (100)	181 (100)	