



Gay Community Periodic Survey: Melbourne 2015

Never Stand Still

Arts and Social Sciences

Centre for Social Research in Health

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Glossary

AIDS acquired immune deficiency syndrome

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 to be of different HIV statuses, 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. HIVnegative, HIV-positive, or unknown

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

CAIC condomless anal intercourse with casual partners

CAIR condomless anal intercourse with regular partners

Report

Executive summary

The Melbourne Gay Community Periodic Survey is a cross-sectional survey of gay and homosexually active men recruited at a range of gay community sites in Melbourne. 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 seventeenth in Melbourne, recruited a total of 3,006 men in January 2015. The majority of these men (n=2,429, 81%) were recruited using face-to-face recruitment by trained staff at gay social venues (e.g. bars and community organisations), sex-on-premises venues, sexual health clinics, and the Midsumma Carnival. The remaining 577 men (19%) participated through an online version of the survey.

Online recruitment was conducted for the first time in 2015 through the social networking site Facebook. Men were directed to a website with an online version of the GCPS questionnaire (<u>http://gcpsonline.net</u>). The advertisements were targeted to all men aged 16 and above who were located in Victoria and indicated in their Facebook profile that they were 'interested' in men.

From its start in 1998, the project has been funded by the Victorian Department of Health and supported by the Victorian AIDS Council and Living Positive Victoria. The Centre for Social Research in Health coordinates the survey, with support from the Kirby Institute.

The overall response rate for the 2015 survey was 77%. The data presented in this report are from the period 2011 to 2015.

Since 2011, there have been significant decreases in the proportions of men recruited at sexual health clinics, social venues, and the Midsumma Carnival. The proportion of men recruited from sex-on-premises venues has remained stable over time.

The online sample was analysed before we incorporated it into the survey database. There were a number of differences between men recruited online and men recruited through venues and events. Men in the online sample were younger and were more likely to be born in Australia. Men in the online sample were also less likely to report testing for HIV in the 12 months prior to the survey and were more likely to report that they were HIV-negative. Compared to men recruited through physical venues, men recruited through online survey were more likely to be in a monogamous relationship and have condomless anal intercourse with their regular partner. They were also more likely to report condomless anal intercourse with casual partners and were less likely to know that PEP was available. The online and offline samples reported similar rates of STI testing and drug use.

However, despite these differences, when we merged the online and offline samples, the majority of key indicators did not appear to be affected by the change in sampling methods. We have therefore incorporated the online sample into the combined database and the reporting of trends. We will, however, continue to monitor the impact of online recruitment on the sample over time.

Key points

- In 2015, nearly a fifth of the sample (19%) was recruited online.
- The proportion of non-HIV-positive men who reported testing for HIV in the previous 12 months has increased over time to 73% in 2015.
- The proportion of HIV-positive men on treatment increased to 92% in 2015. Nearly all (95%) HIV-positive men on treatment in 2015 reported an undetectable viral load.
- In 2015, 58% of men with regular partners reported any condomless anal intercourse with those partners (CAIR), a significant increase from 2014.
- In 2015, 39% of men with casual partners reported any condomless anal intercourse with those partners (CAIC), continuing an upward trend over time. The rate of CAIC has increased among HIV-negative and untested/unknown status men and has remained high and stable among HIV-positive men.
- The proportion of men reporting an STI diagnosis in the year prior to the survey has increased over time (from 12% in 2012 to 14% in 2015).
- Use of crystal methamphetamine has increased since 2011 and was reported by 11% of all participants in 2015. Its use by HIV-positive men increased between 2014 and 2015 to 35%.

Demographic profile

As in previous surveys, the men in the overall sample were primarily of Anglo-Australian background, lived in metropolitan Melbourne or urban Victoria, were well-educated, and in full-time employment. The majority of the sample identified as gay (n=2,724, 90.6%) or bisexual (n=161, 5.4%). The majority of men (74.0%) were born in Australia. In 2015, 2.4% (n=72) of the sample reported an Aboriginal or Torres Strait Islander background. There has been no significant change in the proportion of Aboriginal or Torres Strait Islander men in the survey over the last five surveys.

In 2015, we asked survey participants about their gender identity for the first time. The majority of participants indicated that they only identified as male (n=2,951, 98.2%) with small numbers of participants identifying as male and trans (n=25, 0.8%) or male and intersex (n=16, 0.5%).

Between 2011 and 2015, the proportion of younger men aged between 25 to 29 years old in the survey increased significantly (from 17.6% to 19.7%) with a corresponding decrease in the proportion of men aged 40 to 49 years old. The proportions of men in the other age categories have remained unchanged.

HIV testing, status and treatment

In 2015, the majority of men reported having ever been tested for HIV (87.8%). Since 2011, the proportion of non-HIV-positive men who reported testing for HIV in the 12 months prior to the survey has increased significantly. However, compared to the previous survey in 2014, the proportion of non-HIV-positive men who reported testing for HIV in the 12 months prior to the survey remained stable at 73.2%.

In 2015, half of the non-HIV-positive men in the survey reported that their last HIV test was at a general practice (52.0%), and about two in five reported tested at a sexual health clinic or hospital (39.1%). A minority of men reported using a community-based service for testing, e.g., Pronto (6.4%). The proportion of men reporting testing at sexual health clinics/hospitals increased between 2014 and 2015 while testing at other locations remained unchanged. Among non-HIV-positive men, 39.9% reported having been tested more than once for HIV in the 12 months

prior to the 2015 survey. About one fifth (18.0%) of men reported having 3 or more HIV tests in the previous 12 months. The proportion of men receiving 3 or more HIV tests in the previous 12 months increased significantly from 13.9% in 2014 to 17.9% in 2015.

Among men who had been tested for HIV, nine out of ten reported that their HIV status was HIV-negative (89.2%). About one in ten men reported being HIV positive (9.5%) or not knowing their HIV status (1.3%). Between 2011 and 2015, there has been a significant decrease in the proportion of men who do not know their status in the survey. The proportions of HIV-positive men and HIV negative men have remained stable.

Between 2011 and 2015, there was a significant increase in the proportion of HIV-positive men taking combination antiretroviral treatment at the time of the survey (from 76.8% to 91.8%). More than half of the HIV-positive men in the 2015 survey (regardless of treatment status) reported a CD4 count of more than 500.

The majority of HIV-positive men (n=190, 72.8%) reported attending at least three clinical appointments to manage their HIV in the last year. Compared to the previous survey in 2014, the proportion of men who reported attending at least three clinical appointments remained unchanged.

Sexual partnerships and practices

At the time of the 2015 survey, one in four men reported having casual partners only (26.0%). There were similar proportions of men in monogamous relationships (29.0%) or having both regular and casual male partners (29.7%). There were 15.3% of men who reported no sexual relationships with men at the time of the survey. Between 2011 and 2015, there has been a significant increase in the proportion of men who reported having casual partners only (23.9% to 26.0%). The proportions of men reporting other relationship types have remained stable during the reporting period.

In 2015, almost half the sample reported using mobile applications to meet male sex partners (48.4%). The next most common way was through the internet (34.7%). Other common ways to meet male sex partners were saunas (27.6%), gay bars (26.9%), visiting other Australian cities (19.0%), and travelling overseas (19.1%). There has been a large and consistent increase in the proportion of men who meet men through mobile applications (from 23.6% in 2011 to 48.6% in 2015) while, at the same time, the use of physical venues and locations to meet partners has declined.

Regular male partners

Among men with regular partners in the six months prior to the 2015 survey, over half (56.6%) reported an agreement with their regular partner about sex within the relationship, and a slightly smaller proportion (53.6%) reported an agreement about sex outside the relationship. In 2015, the most commonly held agreements about sex within a relationship specified that anal intercourse could occur without a condom (34.6%) or that condoms must always be used for anal intercourse (15.8%). The proportion of men without an agreement about sex within the relationship has increased significantly from 37.2% in 2011 to 43.4% in 2015.

Among men with agreements with their regular partners about sex outside the relationship, one in four specified that casual sex was not allowed (25.5%) and one in five specified that condoms must always be used for anal intercourse with casual partners (21.8%). The proportion of men in relationships without an agreement about casual sex remained unchanged between 2011 and 2015.

Among HIV-positive men who had regular partners in the six months prior to the 2015 survey, two in five men were in a seroconcordant relationship (41.3%), over

a third were in serodiscordant relationships (35.4%), and the remainder (23.3%) reported being in a serononconcordant relationship. These categories have remained stable between 2011 and 2015.

HIV-negative men with regular partners continue to be more likely to be in seroconcordant relationships, compared with HIV-positive men. In 2015, more than two thirds of HIV-negative men with regular partners were in a seroconcordant relationship (70.9%), and a quarter reported a serononconcordant relationship (24.9%). Fewer than 5% of HIV-negative men reported having a serodiscordant partner (n=68). Between 2011 and 2015, there has been a significant decrease in the proportion of HIV-negative men in seroconcordant relationships and a corresponding increase in men in serononconcordant relationships.

More than half the men with a regular partner in the six months prior to the 2015 survey reported any condomless anal intercourse (CAIR) with their partner (58.4%) while about one in five men reported always using condoms for anal intercourse (18.7%) or having no anal intercourse with their regular partner (22.9%). Between 2011 and 2015, the proportion of men with regular partners who reported always using condoms for anal intercourse has decreased significantly while the proportion reporting any condomless anal intercourse has increased.

Among HIV-positive participants with regular partners in the six months prior to the 2015 survey, similar proportions reported CAIR that was not concordant (34.9%) or not having CAIR (34.9%). The remaining 30.2% of HIV-positive men with regular partners reported CAIR that was seroconcordant. These categories have remained stable between 2011 and 2015.

Compared to HIV-positive men, HIV-negative men with regular partners were more likely to restrict CAIR to seroconcordant partners or to avoid CAIR. Among HIV-negative men with regular partners in the six months prior to the 2015 survey, one in three reported seroconcordant CAIR (34.3%) and a larger proportion avoided CAIR (41.6%). The remaining quarter (24.1%) reported CAIR that was not concordant. The proportion of HIV-negative men reporting CAIR that was not concordant has increased significantly from 11.4% in 2011 to 24.1% in 2015.

Among HIV-negative men who reported CAIR with partners who were not seroconcordant in the six months prior to the survey in 2015, about one in five men (22.0%) reported always being the insertive partner (strategic positioning) and 16.0% reported consistent withdrawal before ejaculation by their partner.

Casual male partners

Use of condoms for anal intercourse remains more common with casual partners than with regular partners. In 2015, there were similar proportions of men with casual partners in the six months prior to the survey who reported always using condoms for anal intercourse (41.9%) or any condomless anal intercourse (CAIC; 38.9%). The proportion of men reporting any CAIC increased significantly between 2011 and 2015 (from 34.6% to 38.9%) while the proportion of men who always used condoms for anal intercourse remained stable. The level of CAIC recorded in 2015 is the highest ever recorded in the Melbourne survey.

In 2015, HIV-positive men with casual partners remained the most likely to report any CAIC (68.3%), compared with their HIV-negative counterparts (35.0%) and untested/unknown status men (38.6%). While the proportion of HIV-positive men who reported any CAIC remained stable between 2011 and 2015, the levels of CAIC reported by both HIV-negative men and untested/unknown status men increased. The increase in CAIC over time therefore appears to be attributable to HIV-negative and untested/unknown status men.

In 2015, disclosure of HIV status before sex to any casual partner continued to be more commonly reported by HIV-positive men (77.4%) than by HIV-negative

men (60.9%). A higher proportion of HIV-positive men than HIV negative men also reported HIV disclosure from their casual partners in 2015.

The proportions of HIV-negative men who disclosed their HIV status before sex to any casual partner and who reported disclosure from their casual partners increased significantly between 2011 and 2015. A similar upward trend was also observed among HIV-negative men who had CAIC in the six months prior to the survey, with an increase in the proportion who disclosed their HIV status to all their casual partners (from 27.2% in 2011 to 44.4% in 2015).

Among HIV-positive men who reported CAIC in the six months prior to the 2015 survey, three-quarters (75.7%) said they frequently relied on having an undetectable viral load before CAIC, while nearly two-thirds (64.7%) said that they frequently made sure that their partners were HIV-positive before CAIC (serosorting). One in four men (24.3%) reported frequently taking the receptive role during CAIC (strategic positioning) and about one in ten men frequently withdrew before ejaculation (9.6%). It is unclear whether HIV-positive men who report using an undetectable viral load as a risk reduction strategy disclose and discuss their viral load status with their partners (this is not measured in the survey).

Among HIV-negative men who reported CAIC in the six months prior to the 2015 survey, more than half (53.1%) said they frequently made sure their partners were HIV-negative before sex. One in four (25.3%) reported frequently taking the insertive role during CAIC (strategic positioning), or that their casual partners frequently withdrew before ejaculating inside them (14.0%). Similar to the previous survey in 2014, few HIV-negative men (6.4%) reported taking anti-HIV medication before or after CAIC. About one in ten HIV-negative men who had CAIC (12.5%) said that they frequently ensured that their HIV-positive partners had an undetectable viral load before CAIC. The proportion of HIV-negative men reporting frequent use of serosorting has increased significantly from 35.4% in 2011 to 53.1% in 2015.

Sexual health

As in previous surveys, in 2015 a higher proportion of HIV-positive men (91.6%) reported having had any sexual health test (including a blood test for syphilis) in the 12 months prior to the survey, compared with HIV-negative men (71.2%). The proportion of HIV-negative men reporting any STI testing has increased between 2011 and 2015 while the proportion of HIV positive men reporting any STI testing has remained stable in the same reporting period.

Between 2011 and 2015, the proportions of HIV-positive men reporting each sampling method (anal, throat or penile swab and urine samples) remained stable. Among HIV-negative men over the same period, there was a significant increase in the reporting of throat swabs and urine samples and a decline in penile swabs. In 2015, 60.6% of HIV-negative men and 80.5% of HIV-positive men reported a blood test for syphilis.

In 2015, 432 men (14.4% of the whole sample) reported having been diagnosed with an STI (other than HIV) in the 12 months prior to the survey. Among these men, the majority (80.3%) told at least one of their sex partners about their diagnosis, and nearly half (45.2%) told all of their sex partners. The proportion of men reporting an STI diagnosis in the year prior to the survey has increased over time (from 11.5% in 2012 to 14.4% in 2015).

In 2015, syphilis knowledge questions were only presented to men who completed the online questionnaire. Among these men (n=560), 79.5% reported being aware

that someone could have syphilis without any physical symptoms, and 72.0% reported being aware that you could get syphilis through oral sex.

In 2015, the majority of men reported having been tested for hepatitis C (74.6%). Among them, the large majority reported being hepatitis C negative (97.3%), and 39 men (1.8%) said they were hepatitis C positive. The proportion of men reporting being hepatitis C positive has remained stable in the last 3 surveys.

Recreational drug use

Recreational drug use remains common within the sample, with the most frequently used drugs being amyl/poppers (38.5%), marijuana (31.2%), ecstasy (19.5%), Viagra (17.8%), cocaine (15.2%), crystal methamphetamine (11.4%), and amphetamine (10.3%). Since 2011, there have been significant increases in the use of marijuana, amyl/poppers, crystal methamphetamine, and cocaine but a significant decrease in the use of amphetamine. There has been a significant increase in the proportion of men reporting the use of one or two drugs and a corresponding decrease in the proportion of men reporting no drug use in the six months prior to the survey.

In 2015, a new question about potentially harmful drinking (having more than four alcoholic drinks on one occasion) was included in the questionnaire. One in three men reported having more than four drinks at least weekly (33.9%), nearly a quarter said they had more than four drinks at least monthly (23.2%), and a fifth (22.1%) said they had had more than four drinks once or twice in the last 6 months.

In general, HIV-positive men remain more likely to report drug use compared with HIV-negative men. Similarly, HIV-positive men remain considerably more likely than HIV-negative men to report any injecting drug use (18.0% vs % 4.0% in 2015).

There were sharp increases in the reported use of crystal methamphetamine and erectile dysfunction drugs by HIV-positive men between 2014 and 2015. Crystal methamphetamine use by HIV-positive men increased from 24.2% to 35.3% and the use of erectile dysfunction drugs increased from 36.0% to 46.4%.

In 2015, 18.1% (n=545) of all men reported using party drugs for sex, and about one in ten men (11.3%) said they had engaged in group sex during or after drug use in the six months prior to the survey. The proportion of men using party drugs for sex has increased over time.

Knowledge and use of PEP and PrEP

In 2015, nearly two-thirds of men (62.4%) reported knowing post-exposure prophylaxis (PEP) was available. There has been a significant increase in PEP awareness between 2011 and 2015. Compared to the previous survey in 2014, there has been a significant increase in the proportion of non-HIV-positive men who believe that that pre-exposure prophylaxis (PrEP) is available now (28.5% in 2014 and 36.3% in 2015).

The proportion of non-HIV-positive men who reported taking a prescribed course of PEP in the six months prior to the survey has remained at around 3% over the last 3 surveys. A smaller proportion reported taking anti-HIV medication to reduce their chance of getting HIV (1.7% in 2015), which could be indicative of PrEP. The proportion of non-HIV-positive men taking PrEP has remained low and stable since a question about its use was introduced in 2013.

Reporting

Data are shown for the period 2011–2015. Each table includes the statistical significance (p-value), if any, of the change between 2014 and 2015 and the trend over time (2011–2015). An alpha level of .05 was used for all statistical tests. Changes between 2014 and 2015 were assessed with logistic regression

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(comparing one category with all the others). The p-value of the logistic regression test (if shown) indicates a statistically significant change within that category compared with all the others. For statistically significant trends over time, also 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 31 below.

Table 1: Recruitment venue

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (p-value)
Midsumma Carnival	1,228 (63.7)	1,307 (63.7)	1,658 (70.9)	1,336 (71.4)	1,628 (54.2)	Decrease <.001	Decrease <.001
Sexual health clinics	45 (2.3)	24 (1.1)	59 (2.5)	38 (2.0)	24 (0.8)	Decrease <.001	Decrease <.01
Sex-on-premises venues	215 (11.2)	283 (13.8)	223 (9.5)	171 (9.1)	344 (11.4)	Increase <.05	ns
Social venues ¹	441 (22.9)	439 (21.4)	399 (17.1)	327 (17.5)	433 (14.4)	Decrease <.01	Decrease <.001
Online ²	-	-	-	-	577 (19.2)	-	-
Total	1,929 (100)	2,053 (100)	2,339 (100)	1,872(100)	3,006 (100)		

¹ Social venues include men recruited at bars and community-based services e.g., Pronto and the Positive Living Centre ² Online recruitment was conducted for the first time in 2015

Table 2: Age

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (<i>p</i> -value)	Trend over time (<i>p</i> -value)
Under 25	352 (18.3)	365 (17.9)	446 (19.2)	321 (17.2)	587 (19.6)	Increase <.05	ns
25–29	338 (17.6)	361 (17.8)	444(19.1)	394 (21.2)	589 (19.7)	ns	Increase <.01
30–39	545 (28.4)	571 (28.0)	645 (27.7)	509 (27.3)	838 (28.0)	ns	ns
40–49	423 (22.0)	455 (22.4)	496 (21.3)	370 (19.9)	537 (18.0)	ns	Decrease <.001
50 and over	263 (13.7)	282 (13.9)	296 (12.7)	269 (14.4)	441 (14.7)	ns	ns
Total	1,921 (100)	2,034 (100)	2,327(100)	1,863 (100)	2992 (100)		

Table 3: HIV testing

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (<i>p</i> -value)
All participants							
Ever tested	1,656 (85.9)	1,773 (86.4)	1,966 (84.1)	1,639 (87.6)	2,638 (87.8)	ns	Increase <.05
Total	1,929 (100)	2,053 (100)	2,339 (100)	1,872 (100)	3,006 (100)		
Non-HIV-positive participants							
Tested in previous 12 months	1,034 (70.1)	1,125 (69.9)	1,245 (69.3)	1,064 (72.4)	1,737 (73.2)	ns	Increase <.01
Total	1,476 (100)	1,609 (100)	1,796 (100)	1,470 (100)	2,372 (100)		

Table 4: Where non-HIV-positive men were last tested for HIV

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (p-value)
General practice	-	_	974 (54.8)	784 (53.5)	1,224 (52.0)	ns	NA
Sexual health clinic/hospital	-	_	742 (41.8)	507 (34.6)	922 (39.1)	Increase <.05	NA
At home	-	_	6 (0.3)	4 (0.3)	7 (0.3)	NA	NA
Community-based service	-	-	-	140 (9.6)	150 (6.4)	NA	NA
Somewhere else	_	-	54 (3.1)	29 (2.0)	52 (2.2)	NA	NA
Total	-	-	1,776 (100)	1,464 (100)	2,355 (100)		

Note: This table only includes data from men who have ever been tested for HIV. The question about where men were last tested for HIV was included from 2013 onwards.

Table 5: Number of HIV tests in the previous 12 months

	2011 <i>n</i> (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (<i>p</i> -value)	Trend over time (p-value)
None	-	_	960 (44.0)	674 (39.4)	1,042 (38.0)	ns	NA
One	_	-	498 (22.8)	412 (24.1)	607 (22.1)	ns	NA
Two	-	_	465 (21.3)	386 (22.6)	604 (22.0)	ns	NA
3 or more	-	_	239 (11.9)	239 (13.9)	492 (17.9)	Increase <.01	NA
Total	-	-	2,181 (100)	1,711 (100)	2,745 (100)		

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

Table 6: HIV test result

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (<i>p</i> -value)	Trend over time (p-value)
HIV-positive	161 (9.7)	156 (8.8)	158 (8.1)	159 (9.7)	251 (9.5)	ns	ns
HIV-negative	1,454 (88.0)	1,571 (88.69)	1,750 (89.9)	1,433 (88.0)	2,346 (89.2)	ns	ns
Unknown status	38 (2.3)	41 (2.3)	39 (2.0)	44 (2.7)	34 (1.3)	Decrease <.01	Decrease <.05
Total	1,653 (100)	1,768 (100)	1,947 (100)	1,636 (100)	2,631 (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

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (<i>p</i> -value)
On treatment	119 (76.8)	120 (77.9)	122 (82.4)	138 (89.0)	234 (91.8)	ns	Increase <.001
Total	155 (100)	154 (100)	148 (100)	155 (100)	255 (100)		

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (<i>p</i> -value)
Men using ART							
Undetectable viral load	111 (93.3)	110 (91.7)	114 (93.4)	130 (94.2)	222 (94.9)	ns	ns
CD4 count > 500	-	64 (53.3)	62 (50.8)	69 (50.0)	129 (55.1)	ns	ns
Total	119 (100)	120 (100)	122 (100)	138 (100)	234 (100)		
Men not using ART							
Undetectable viral load	11 (30.6)	8 (23.5)	6 (23.1)	4 (23.5)	8 (38.1)	NA	NA
CD4 count > 500	-	19 (55.9)	17 (65.4)	9 (52.9)	11 (52.4)	NA	NA
Total	36 (100)	34 (100)	26 (100)	17 (100)	21 (100)		

Table 8: Undetectable viral load and CD4 count among HIV-positive men, by treatment status

Table 9: Current relationships with men

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (<i>p</i> -value)
None	282 (15.6)	315 (16.1)	348 (15.9)	249 (14.0)	442 (15.3)	ns	ns
Casual only	431 (23.9)	485 (24.9)	530 (24.2)	477 (26.8)	752 (26.0)	ns	Increase <.05
Regular plus casual	534 (29.6)	569 (29.2)	589 (26.9)	481 (27.0)	859 (29.7)	Increase <.05	ns
Regular only (monogamous)	558 (30.9)	580 (29.8)	723 (33.0)	573 (32.2)	837 (29.0)	Decrease <.05	ns
Total	1,805 (100)	1,949 (100)	2,190 (100)	1,780 (100)	2,890 (100)		

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (p-value)
No agreement about sex within the relationship	496 (37.2)	536 (38.1)	597 (37.8)	538 (41.4)	864 (43.4)	ns	Increase <.001
No sex within the relationship permitted	40 (3.0)	30 (2.1)	37 (2.3)	41 (3.2)	74 (3.7)	ns	Increase <.05
No anal intercourse permitted	51 (3.8)	53 (3.8)	54 (3.4)	33 (2.5)	49 (2.5)	ns	Decrease <.01
Anal intercourse permitted only with a condom	328 (24.6)	331 (23.5)	339 (21.5)	266 (20.5)	316 (15.8)	Decrease <.01	Decrease <.001
Anal intercourse permitted without a condom	417 (31.3)	457 (32.5)	553 (35.0)	421 (32.4)	690 (34.6)	ns	ns
Total	1,332 (100)	1,407 (100)	1,580 (100)	1,299 (100)	1,993 (100)		

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

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

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (<i>p</i> -value)
No agreement about casual sex	604 (45.4)	643 (45.7)	730 (46.2)	574 (44.2)	925 (46.4)	ns	ns
No sex with casual partners permitted	340 (25.5)	345 (24.6)	408 (25.8)	365 (28.1)	508 (25.5)	ns	ns
No anal intercourse with casual partners permitted	64 (4.8)	55 (3.9)	45 (2.9)	41 (3.1)	52 (2.6)	ns	Decrease <.01
Anal intercourse with casual partners permitted only with a condom	289 (21.7)	324 (23.0)	349 (22.1)	283 (21.8)	435 (21.8)	ns	ns
Anal intercourse with casual partners permitted without a condom	35 (2.6)	40 (2.8)	48 (3.0)	36 (2.8)	73 (3.7)	ns	ns
Total	1,332 (100)	1,407 (100)	1,580 (100)	1,299 (100)	1,993 (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.

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (<i>p</i> -value)	Trend over time (<i>p</i> -value)
HIV-positive men							
Seroconcordant	54 (51.4)	46 (41.1)	39 (34.8)	41 (36.9)	71 (41.3)	ns	ns
Serodiscordant	29 (27.6)	41 (36.6)	44 (39.3)	38 (34.2)	61 (35.4)	ns	ns
Serononconcordant	22 (21.0)	25 (22.3)	29 (25.9)	32 (28.8)	40 (23.3)	ns	ns
Total	105 (100)	112 (100)	112 (100)	111 (100)	172 (100)		
HIV-negative men							
Seroconcordant	775 (73.9)	816 (73.5)	883 (71.2)	724 (70.3)	1161 (70.9)	ns	Decrease <.05
Serodiscordant	48 (4.6)	42 (3.8)	51 (4.1)	49 (4.8)	68 (4.2)	ns	ns
Serononconcordant	226 (21.5)	253 (22.8)	306 (24.7)	256 (24.9)	408 (24.9)	ns	Increase <.05
Total	1,049 (100)	1,111 (100)	1,240 (100)	1,029 (100)	1,637 (100)		

Table 12: Match of HIV status between regular partners

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

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (<i>p</i> -value)
No anal intercourse	304 (22.8)	333 (23.7)	387 (24.5)	270 (20.8)	457 (22.9)	ns	ns
Always uses a condom	336 (25.2)	385 (27.3)	366 (23.2)	317 (24.4)	372 (18.7)	Decrease <.001	Decrease <.001
Sometimes does not use a condom	692 (52.0)	689 (49.0)	827 (52.3)	712 (54.8)	1164 (58.4)	Increase <.05	Increase <.001
Total	1,332 (100)	1,407 (100)	1,580 (100)	1,299 (100)	1,993 (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.

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (p-value)
HIV-positive men							
Seroconcordant CAIR	43 (41.0)	36 (32.1)	30 (26.8)	31 (27.9)	52 (30.2)	ns	ns
Not concordant CAIR	25 (23.8)	35 (31.3)	41 (36.6)	31 (27.9)	60 (34.9)	ns	ns
No CAIR	37 (35.2)	41 (36.6)	41 (36.6)	49 (44.1)	60 (34.9)	ns	ns
Total	105 (100)	112 (100)	112 (100)	111 (100)	172 (100)		
HV-negative men							
Seroconcordant CAIR	430 (41.0)	445 (40.1)	549 (44.3)	452 (43.9)	561 (34.3)	Decrease <.001	Decrease <.01
Not concordant CAIR	120 (11.4)	113 (10.2)	123 (9.9)	131 (12.7)	395 (24.1)	Increase <.001	Increase <.001
No CAIR	499 (47.6)	553 (49.8)	568 (45.8)	446 (43.3)	681 (41.6)	ns	Decrease <.001
Total	1,049 (100)	1,111 (100)	1,240 (100)	1,029 (100)	1,637 (100)		

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

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

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (p-value)
Took insertive position during CAIR	51 (42.5)	24 (21.2)	25 (20.3)	42 (32.1)	87 (22.0)	Decrease <.05	Decrease <.01
Partner withdrew before ejaculation when participant was receptive	24 (20.0)	27 (23.9)	28 (22.8)	20 (15.4)	63 (16.0)	ns	ns
Total (not mutually exclusive)	120	113	123	131	395		

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.

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (<i>p</i> -value)	Trend over time (<i>p</i> -value)
No anal intercourse	264 (21.6)	280 (22.1)	287 (20.5)	209 (17.6)	363 (19.2)	ns	Decrease <.05
Always uses a condom	537 (43.8)	590 (46.4)	665 (47.6)	552 (46.5)	791 (41.9)	Decrease <.05	ns
Sometimes does not use a condom	424 (34.6)	400 (31.5)	446 (31.9)	427(35.9)	734 (38.9)	ns	Increase <.001
Total	1,225 (100)	1,270 (100)	1,398 (100)	1,188 (100)	1,888 (100)		

Table 16: Anal intercourse and condom use with casual partners

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

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (<i>p</i> -value)	Trend over time (p-value)
HIV-positive men	85 (66.4)	77 (65.3)	74 (61.7)	75 (64.1)	136 (68.3)	ns	ns
Total	128	118	120	117	199		
HIV-negative men	291 (30.7)	283 (28.4)	304 (28.0)	297 (32.0)	529 (35.0)	ns	Increase <.01
Total	948	996	1,085	929	1510		
Untested/unknown status men	48 (32.2)	40 (25.6)	68 (35.2)	55 (38.7)	69 (38.6)	ns	Increase <.05
Total	149	156	193	142	179		

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.

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (<i>p</i> -value)	Trend over time (p-value)
HIV-positive men							
Told casual partners	103 (80.5)	93 (78.8)	91 (75.8)	88 (75.2)	154 (77.4)	ns	ns
Told by casual partners	81 (63.3)	80 (67.8)	80 (66.7)	72 (61.5)	138 (69.4)	ns	ns
Total (not mutually exclusive)	128	118	120	117	199		
HIV-negative men							
Told casual partners	497 (52.4)	530 (53.2)	607 (55.9)	543 (58.5)	919 (60.9)	ns	Increase <.001
Told by casual partners	496 (52.3)	545 (54.7)	613 (56.5)	542 (58.3)	923 (61.1)	ns	Increase <.001
Total (not mutually exclusive)	948	996	1,085	929	1510		

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

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

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (<i>p</i> -value)	Trend over time (p-value)
HIV-positive men who disclosed to							
all	34 (40.0)	33 (42.9)	33 (44.6)	35 (46.7)	64 (47.1)	ns	ns
Total	85 (100)	77 (100)	74 (100)	75 (100)	136 (100)		
HIV-negative men who disclosed to							
all	79 (27.2)	98 (34.6)	101 (33.2)	134 (45.1)	235 (44.4)	ns	Increase <.001
Total	291 (100)	283 (100)	304 (100)	297 (100)	529 (100)		

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

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	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (<i>p</i> -value)	Trend over time (p-value)
HIV-positive men							
Receptive only CAIC	12 (14.1)	12 (15.6)	15 (20.3)	15 (20.0)	24 (17.7)	NA	NA
Total	85 (100)	77 (100)	74 (100)	75 (100)	136 (100)		
HIV-negative men							
Insertive only CAIC	97 (33.3)	96 (33.9)	85 (28.0)	104 (35.0)	194 (36.7)	ns	ns
Total	291 (100)	283 (100)	304 (100)	297 (100)	529 (100)		

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

Note: This table only includes data from men who reported that they had 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

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (p-value)
HIV-positive men							
Ensured partners were seroconcordant before CAIC (serosorting)	57 (67.1)	52 (67.5)	45 (60.8)	43 (57.3)	88 (64.7)	ns	ns
Took receptive position during CAIC when partners were not concordant	17 (20.0)	12 (15.6)	15 (20.3)	11 (14.7)	33 (24.3)	ns	ns
Participant withdrew before ejaculation when he was insertive	13 (15.3)	6 (7.8)	13 (17.6)	9 (12.0)	13 (9.6)	NA	NA
Participant knew he had an undetectable viral load before having sex	-	-	50 (67.6)	53 (70.7)	103 (75.7)	ns	ns
Total (not mutually exclusive)	85	77	74	75	136		
HIV-negative men							
Ensured partners were seroconcordant before CAIC (serosorting)	103 (35.4)	118 (41.4)	129 (42.4)	159 (53.5)	281 (53.1)	ns	Increase <.001
Took insertive position during CAIC when partners were not concordant	72 (24.7)	76 (26.9)	72 (23.7)	67 (22.6)	134 (25.3)	ns	ns
Partner withdrew before ejaculation when participant was receptive	56 (19.2)	45 (15.9)	47 (15.5)	46 (15.5)	74 (14.0)	ns	ns
Ensured HIV-positive partner had an undetectable viral load before having sex			37 (12.2)	32 (10.8)	66 (12.5)	ns	ns
Participant took anti HIV medication before sex			12 (4.0)	5 (1.7)	34 (6.4)	NA	NA
Participant took anti HIV medication after sex			16 (5.3)	11 (3.7)	30 (5.7)	NA	NA
Total (not mutually exclusive)	291	283	304	297	529		

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.

	2011	2012	2013	2014	2015	Change from 2014	Trend over time
	n (%)	(p-value)	(p-value)				
nternet	772 (40.0)	806 (39.3)	836 (35.7)	707 (37.8)	1,043 (34.7)	Decrease <.05	Decrease <.001
Nobile app e.g., Grindr	456 (23.6)	721 (35.2)	901 (38.5)	868 (46.4)	1,455 (48.4)	ns	Increase <.001
Bay bar	669 (34.7)	639 (31.1)	656 (28.1)	549 (29.3)	808 (26.9)	ns	Decrease <.001
Other bar	-	-	-	-	269 (9.0)	NA	NA
Gay saunas	646 (33.5)	617 (30.1)	614 (26.3)	498 (26.6)	831 (27.6)	ns	Decrease <.001
Dance party	270 (14.0)	257 (12.5)	273 (11.7)	228 (12.2)	336 (11.2)	ns	Decrease <.01
Beat	311 (16.1)	293 (14.3)	280 (12.0)	232 (12.4)	420 (14.0)	ns	Decrease <.05
Other sex-on-premises venues	320 (16.6)	277 (13.5)	242 (10.4)	197 (10.5)	317 (10.6)	ns	Decrease <.001
Private sex parties	138 (7.2)	131 (6.4)	131 (5.6)	116 (6.2)	195 (6.5)	ns	ns
ex workers	46 (2.4)	63 (3.1)	41 (1.8)	41 (2.2)	70 (2.3)	ns	ns
Sym	119 (6.2)	119 (5.8)	127 (5.4)	83 (4.4)	138 (4.6)	ns	Decrease <.01
n other Australian cities	396 (20.5)	407 (19.8)	404 (17.3)	357 (19.1)	572 (19.0)	ns	ns
Isewhere in Australia	302 (15.7)	284 (13.8)	286 (12.2)	258 (13.8)	409 (13.6)	ns	ns
Dverseas	360 (18.7)	375 (18.3)	398 (17.0)	341 (18.2)	575 (19.1)	ns	ns
otal (not mutually exclusive)	1,929	2,053	2,339	1,872	3,006		

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

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (<i>p</i> -value)
Anal swab	110 (67.5)	101 (64.3)	115 (72.8)	113 (70.2)	191 (73.2)	ns	ns
Throat swab	112 (68.7)	103 (65.6)	117 (74.1)	110 (68.3)	190 (72.8)	ns	ns
Penile swab	90 (55.2)	77 (49.0)	88 (55.7)	66 (41.0)	128 (49.0)	ns	ns
Urine sample	134 (82.2)	109 (69.4)	131 (82.9)	126 (78.3)	206 (78.9)	ns	ns
Blood test other than for HIV	136 (83.4)	116 (73.9)	119 (75.3)	123 (76.4)	201 (77.0)	ns	ns
Blood test for syphilis	139 (85.3)	119 (75.8)	131 (82.9)	123 (76.4)	210 (80.5)	ns	ns
Any STI test (not including blood tests)	141 (86.5)	115 (73.3)	134 (84.8)	129 (80.1)	217 (83.1)	ns	ns
Any STI test (including blood tests)	151 (92.6)	132 (84.1)	144 (91.1)	145 (90.1)	239 (91.6)	Increase <.05	ns
Total (not mutually exclusive)	163	157	158	161	261		

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

Note: From 2010, the item 'Blood test for syphilis' was added and included in the calculation for any STI test (including blood tests).

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (p-value)
Anal swab	626 (42.7)	709 (45.0)	821 (46.6)	682 (47.2)	1068 (45.3)	ns	ns
Throat swab	681 (45.5)	747 (47.4)	878 (49.8)	771 (53.4)	1158 (49.1)	ns	Increase <.05
Penile swab	529 (36.1)	550 (34.9)	641 (36.4)	473 (32.8)	752 (31.9)	Decrease <.01	Decrease <.01
Jrine sample	801 (54.6)	899 (57.0)	1,031 (58.5)	860 (59.6)	1390 (59.0)	ns	Increase <.01
Blood test other than for HIV	747 (51.0)	842 (53.4)	919 (52.2)	712 (49.3)	1165 (49.4)	ns	Decrease <.05
lood test for syphilis	803 (54.8)	919 (58.3)	1,013 (57.5)	879 (60.9)	1428 (60.6)	Decrease <.05	Increase <.001
ny STI test (not including blood st)	838 (57.2)	935 (59.3)	1,091 (61.9)	916 (63.4)	1478 (62.7)	ns	Increase <.001
Any STI test (including blood tests)	976 (66.6)	1,100 (69.8)	1,231 (69.9)	1,041 (72.1)	1679 (71.2)	ns	Increase <.01
Fotal (not mutually exclusive)	1,466	1,576	1,762	1,444	2375		

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

Note: From 2010, 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

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (p-value)
Diagnosed with any STI	-	236 (11.5)	278 (11.9)	228 (12.2)	432 (14.4)	Increase <.05	Increase <.05
Total	-	2,053 (100)	2,339 (100)	1,872 (100)	3,006 (100)		
Disclosed STI diagnosis to any sex							
partner	-	168 (71.2)	213 (76.6)	179 (78.5)	347 (80.3)	ns	ns
Total		236 (100)	278 (100)	228 (100)	432 (100)		

Note: Questions on STI diagnosis and disclosure were included in the questionnaire from 2012 onwards.

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (<i>p</i> -value)	Trend over time (<i>p</i> -value)
Marijuana	533 (27.6)	559 (27.2)	647 (27.7)	545 (29.1)	938 (31.2)	ns	Increase <.01
Amyl nitrite (poppers)	682 (35.4)	726 (35.4)	781 (33.4)	693 (37.0)	1156 (38.5)	ns	Increase <.01
Ecstasy	414 (21.5)	371 (18.1)	387 (16.6)	349 (18.6)	587 (19.5)	ns	ns
Amphetamine (speed)	291 (15.1)	263 (12.8)	275 (11.8)	226 (12.1)	309 (10.3)	ns	Decrease <.001
Crystal methamphetamine	172 (8.9)	201 (9.8)	205 (8.8)	196 (10.5)	342 (11.4)	ns	Increase <.01
Viagra	319 (16.5)	331 (16.1)	355 (15.2)	309 (16.5)	536 (17.8)	ns	ns
Cocaine	239 (12.4)	261 (12.7)	297 (12.7)	266 (14.2)	456 (15.2)	ns	Increase <.01
Ketamine (special K)	116 (6.0)	117 (5.7)	97 (4.2)	97 (5.2)	150 (5.0)	ns	ns
GHB	125 (6.5)	121 (5.9)	117 (5.0)	114 (6.1)	204 (6.8)	ns	ns
Heroin	22 (1.1)	24 (1.2)	21 (0.9)	14 (0.8)	16 (0.5)	ns	Decrease <.01
Steroids	-	-	-	22 (1.2)	37 (1.2)	ns	-
Other drugs	162 (8.4)	162 (7.9)	170 (7.3)	131 (7.0)	217 (7.2)	ns	ns
Total (not mutually exclusive)	1,929	2,053	2,339	1,872	3,006		
Number of drugs used							
None	904 (46.9)	949 (46.2)	1,103 (47.2)	776 (41.5)	1215 (40.4)	ns	Decrease <.001
One or two drugs	551 (28.6)	640 (31.2)	751 (32.1)	661 (35.3)	1049 (34.9)	ns	Increase <.001
More than two drugs	474 (24.6)	464 (22.6)	485 (20.7)	435 (23.2)	742 (24.7)	ns	ns
Total	1,929 (100)	2,053 (100)	2,339 (100)	1,872 (100)	3,006 (100)		

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

Note: Questions about steroid use were not included in the questionnaire between 2010 and 2013.

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (<i>p</i> -value)
Marijuana	56 (34.4)	68 (43.3)	62 (39.2)	54 (33.5)	110 (42.2)	ns	ns
Amyl nitrite (poppers)	90 (55.2)	100 (63.7)	98 (62.0)	84 (52.2)	155 (59.4)	ns	ns
Ecstasy	44 (27.0)	33 (21.0)	40 (25.3)	28 (17.4)	63 (24.1)	ns	ns
Amphetamine (speed)	29 (17.8)	22 (14.0)	35 (22.2)	21 (13.0)	36 (17.8)	ns	ns
Crystal methamphetamine	41 (25.2)	40 (25.5)	44 (27.9)	39 (24.2)	92 (35.3)	Increase <.05	Increase <.05
Viagra	68 (41.7)	62 (39.5)	62 (39.2)	58 (36.0)	121 (46.4)	Increase <.05	ns
Total (not mutually exclusive)	163	157	158	161	261		
Number of drugs used							
None	46 (28.2)	32 (20.4)	34 (21.5)	43 (26.7)	51 (19.5)	ns	ns
One or two drugs	49 (30.1)	65 (41.4)	56 (35.4)	63 (39.1)	84 (32.2)	ns	ns
More than two drugs	68 (41.7)	60 (38.2)	68 (43.0)	55 (34.2)	126 (48.3)	Increase <.01	ns
Total	163 (100)	157 (100)	158 (100)	161 (100)	261 (100)		

Table 27: Recreational drug use among HIV-positive men in the six months prior to the survey

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (<i>p</i> -value)	Trend over time (<i>p</i> -value)
Marijuana	405 (27.6)	426 (27.0)	499 (28.3)	420 (29.1)	725 (30.8)	ns	Increase <.01
Amyl nitrite (poppers)	536 (36.6)	586 (37.2)	613 (34.8)	547 (37.9)	932 (39.5)	ns	Increase <.05
Ecstasy	334 (22.8)	307 (19.5)	306 (17.4)	295 (20.4)	476 (20.2)	ns	ns
Amphetamine (speed)	232 (15.8)	216 (13.7)	207 (11.8)	183 (12.7)	247 (10.5)	Decrease <.05	Decrease <.001
Crystal methamphetamine	118 (8.1)	149 (9.5)	145 (8.2)	142 (9.8)	234 (9.9)	ns	ns
∕iagra	234 (16.0)	253 (16.1)	262 (14.9)	236 (16.3)	389 (16.5)	ns	ns
Fotal (not mutually exclusive)	1,466	1,576	1,762	1,444	2,357		
Number of drugs used							
None	664 (45.3)	696 (44.2)	782 (44.4)	583 (40.4)	935 (39.7)	ns	Decrease <.001
One or two drugs	437 (29.8)	513 (32.6)	614 (34.9)	514 (35.6)	855 (36.3)	ns	Increase <.001
More than two drugs	365 (24.9)	367 (23.3)	366 (20.8)	347 (24.0)	567 (24.1)	ns	ns
Total	1,466 (100)	1,576 (100)	1,762 (100)	1,444 (100)	2,357 (100)		

Table 28: Recreational drug use among HIV-negative men in the six months prior to the survey

	-	=	-	-			
	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%))	2015 n (%)	Change from 2014 (p-value)	Trend over time (p-value)
All men	75 (3.9)	67 (3.3)	70 (3.0)	59 (3.2)	120 (4.0)	ns	ns
Total	1,929 (100)	2,053 (100)	2,339 (100)	1,872 (100)	3,006 (100)		
HIV-positive men	25 (15.3)	26 (16.6)	24 (15.2)	23 (14.3)	47 (18.0)	ns	ns
Total	163 (100)	157 (100)	158 (100)	161(100)	261 (100)		
HIV-negative men	36 (2.5)	37 (2.4)	34 (1.9)	29 (2.0)	63 (2.7)	ns	ns
Total	1,466 (100)	1,576 (100)	1,762 (100)	1,444 (100)	2,357 (100)		

Table 29: Injecting drug use in the six months prior to the survey, by HIV status of participants

Table 30: Party drug use and group sex in the six months prior to the survey

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (p-value)
Used party drugs for sex	306 (15.9)	300 (14.6)	346 (14.8)	292 (15.6)	545 (18.1)	Increase <.05	Increase <.01
Engaged in group sex during or after drug use	197 (10.2)	192 (9.4)	188 (8.0)	165 (8.8)	339 (11.3)	Increase <.01	ns
Total (not mutually exclusive)	1,929	2,053	2,339	1,872	3,006		

Table 31: Knowledge and use of pre- and post-exposure prophylaxis

	2011 n (%)	2012 n (%)	2013 n (%)	2014 n (%)	2015 n (%)	Change from 2014 (p-value)	Trend over time (p-value)
Belief that PEP is available now (all men)	1,101 (57.1)	1,220 (59.4)	1,398 (59.8)	1,199 (64.1)	1,875 (62.4)	ns	Increase <.001
Total	1,929 (100)	2,053 (100)	2,339 (100)	1,872 (100)	3,006 (100)		
Belief that PEP is available now (non- HIV-positive men)	964 (54.6)	1,088 (57.4)	1,264 (58.0)	1,058 (61.8)	1,655 (60.3)	ns	Increase <.001
Total	1,766 (100)	1,896 (100)	2,181 (100)	1,711 (100)	2,745 (100)		
Belief that PrEP is available now (all nen)	-	-	-	574 (30.7)	1151 (38.3)	Increase <.001	NA
Fotal	-	-	-	1,872 (100)	3,006 (100)		
elief that PrEP is available now (non- IIV-positive men)	-	-	-	488 (28.5)	997 (36.3)	Increase <.001	NA
otal	-	-	-	1,711 (100)	2,745 (100)		
Jse of PEP by non-HIV-positive men in he six months prior to survey	-	-	68 (3.1)	55 (3.2)	97 (3.5)	ns	NA
Fotal	-	-	2,181 (100)	1,711 (100)	2,745 (100)		
Jse of PrEP by non-HIV-positive men in he six months prior to survey	-	-	40 (1.8)	18 (1.1)	47 (1.7)	ns	NA
Total	-	-	2,181 (100)	1,711 (100)	2,745 (100)		

Note: Questions on the use of PEP and PrEP were included from 2013 onwards. The question on awareness of PrEP was included from 2014 onwards.

Appendix

Melbourne Gay Commun	nity Periodic Survey 2015
VICTORIAN AIDS COUNCIL WORKING TOGETHER	cted by living positive victoria PEOPLE LIVING WITH HIV/AIDS VICTORIA
CSRH	Kirby Institute
This survey is completely anonymous – pleas Your responses are very important – they pro	ho have had sex with another man in the last five years. se do not write your name on the questionnaire. ovide valuable information that assists in HIV health E SURVEY ONCE ONLY THIS YEAR (including online).
Section A – About you	Section B – Your sex partners
How many of your friends are gay or homosexual men? ¹ □None ² □A few ³ □Some ⁴ □Most ⁵ □All	In this survey we distinguish between REGULAR (boyfriend/lover) and CASUAL partners
 How much of your free time is spent with gay or homosexual men? ¹ None ² A little ³ Some ⁴ A lot 	13. Do you currently have sex with casual male partners? ¹ □No ² □Yes
 Which of the following best describes you: ¹ ☐ Male ² ☐ Trans male ³ ☐ Intersex male 	 14. Do you currently have sex with a regular male partner? ¹ No ² Yes 15. How would you describe your sexual relationship with your
 4. Do you think of yourself as: ¹ Gay/Homosexual ² Bisexual ³ Heterosexual 	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
⁴ Other (please specify)	³ I have casual sex with other men but my partner does
5. How old are you?	not ⁴ ☐ My partner has casual sex with other men but I do not ⁵ ☐ I have several regular male partners
 Are you of Aboriginal or Torres Strait Islander origin? ¹ No ² Yes 	⁶ ☐No current regular male partner → Go to Section C→
7. What is your ethnic background? (e.g. Dutch, Greek, Vietnamese, Lebanese)	 16. If you are in a regular relationship with a man, for how long has it been? ¹□Less than 6 months
¹ Anglo-Australian ² Other	² —6–11 months
8. Where were you born?	³ 1–2 years
¹ Australia ² Overseas	⁴ ☐More than 2 years ⁵ ☐Not in a regular relationship with a man Go to C→
9. Where do you live?	17. Do you have a clear (spoken) agreement with your regular
	male partner about sex within your relationship ? ¹ No agreement
Suburb/Town	² Agreement: No sex at all
10. Are you:	³ ∐Agreement: No anal sex at all ⁴ □Agreement: All anal sex is with a condom
¹ Employed full-time ⁴ A student	$5 \square$ Agreement: Anal sex can be without a condom
² □Employed part-time ⁵ □Unemployed ³ □On pension/social security ⁶ □Other	18. Do you have a clear (spoken) agreement with your regular
11. What is your occupation? (e.g. bartender, teacher, welder)	male partner about sex with casual male partners ?
(specify)	² Agreement: No sex at all
12. What is the highest level of education you have completed?	³ □Agreement: No anal sex at all ⁴ □Agreement: All anal sex is with a condom
¹ Up to Year 10	⁵ \Box Agreement: Anal sex can be without a condom
² Year 12 / VCE / HSC / QCE / SACE / WACE	Go to section C →
³ ☐Tertiary diploma or trade certificate / TAFE ⁴ ☐University degree Go to section B 矛	

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Section C – Sex 19. How many differ months?			last 6		any sex with any	tners – last 6 months casual male partner/s
¹ \square None ² \square One	⁴ □6–10 men ⁵□11–20 men	⁷ More than 5	0 men	¹⊡Yes ✔	²□No →	Go to section F →
³ 2–5 men	⁶ 21-50 men					often have you done the ASUAL male partner/s?
20. In the last 6 mor men you met at c		e you had sex with		Anal sex casua 31. I fucked him v		
Internet	Nev 1	2	3	¹ Never	² Occasion	ally ³ Often
Mobile app e.g. Gri	indr, Scruff		3	32. He fucked me		3 00 4 au
Gay bar	1 1		3	¹ Never	² Occasion	ally ³ ∐Often
Other bar	·1		3	33. I fucked him v	vithout a condom	but pulled out before I came.
Dance party Gym	1		3	¹ Never	² Occasion	ally ³ Often
Beat	1		3		without a condo	m but pulled out before he
Gay sauna	1		3	came.	2 .	
Other sex venue	 ۱		3	¹ Never	² Occasion	
Sex workers	1 1	2	3		vithout a condom	
Private sex parties	1	2	3	¹ Never	² Occasion	•
In other Australian	cities ¹	2	3	_		m and came inside.
Elsewhere in Austr	alia ¹	2	3	¹ Never	² Occasion	ally ³ Often
Overseas	1	2	3	HIV disclosure 37. How many of		s rs did you tell your HIV status
21. In the last 6 mon	ths, how often did two other men?	you have group se	х	before sex?		_
-		/ A few times		¹ None	² Some	³ AII
¹ Every week ² Monthly	⁴ Never			before sex?		rs told you their HIV status
22. In the last 6 mor	iths, how often hav	e you been paid f o	or sex?	¹ None	² Some	³ AII
¹ Every week	- —	/ A few times				
² Monthly	⁴ Never					
Section D – Reg	gular male partn	ers – last 6 moi	nths			
23. Have you had se in the last 6 mo		e partner/s				
¹⊡Yes ♥		o to section E 🛪				
	MONTHS how offered any of your REG					
		OLAR male part	nens :	Survey	/ continues	on next page
Anal sex regular 24. I fucked him with						
	² Occasionally	³ Often				
25. He fucked me w	-					
	² Occasionally	³ Often				
26. I fucked him with ¹ ⊡Never	nout a condom but ² ⊡Occasionally	·	l came.			
27. He fucked me wi came.	i thout a condom b	ut pulled out before	e he			
¹ Never	² Occasionally	³ Often				
28. I fucked him with	nout a condom and	d came inside.				
¹ Never	² Occasionally	³ Often				
29. He fucked me wi ¹ ⊡Never	ithout a condom a ²⊡Occasionally					
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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 <i>L</i>					
39. In the last 6 months, if you had anal sex without a condom with any casual male partner(s), how often 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	
I took anti-HIV medication before sex		² Occasionally	³ Often	⁴ Always	
I took anti-HIV medication after sex	¹ Never	² Occasionally	³ Often	⁴ Always	
When my partner was HIV-positive, I checked he had an undetectable viral load before we had sex	¹ Never	² Occasionally	³ Often	⁴ Always	
I knew I had an undetectable viral load before we had sex	¹ Never	² Occasionally	³ Often	⁴ Always	
			G	o to section F 🕊	
Section F – HIV testing and HIV status40. Have you ever had an HIV test?		are HIV-positive pl ext five questions. If			
¹ □No ² □Yes	47 When w	ere you first diagnose	d as HIV positi	402	
41. When were you last tested for HIV?				ve:	
¹ Never tested 5 7–12 months ago	Year 📖				
² Less than a week ago 6 1–2 years ago		st 12 months, how ma ng HIV have you atten		pintments about	
$^{3}\square$ 1–4 weeks ago $^{7}\square$ 2–4 years ago $^{4}\square$ 1–6 months ago $^{8}\square$ More than 4 years ago	¹ None		¹ □3-4	¹ ¹ ⁵ or more	
42 . Based on the results of your HIV tests,	49. Are vou	on combination antire	troviral therapy	?	
what is your HIV status?	² Yes	_	∃No		
¹ No test/Don't know ³ Positive	EQ What we	a vour last viral lasd	test regult?		
² Negative		as your last viral load etectable	lest result?		
43. Where did you have your last HIV test?					
¹ No test/don't know ⁵ Private home		t know/unsure			
² GP ⁶ Community-based service	51 What wa	is your last CD4 coun	t?		
³ Sexual health clinic e.g. Pronto ⁴ Hospital ⁷ Somewhere else	¹ □≤200	•	^₄ □>500		
	²□201-	350	Don't know	/unsure	
44. How many HIV tests have you had in the last 12 months ? ¹ None (no tests) ⁴ 3-4 tests	³ 351-	500			
¹ \square None (no tests) ⁴ \square 3-4 tests ² \square One test ⁵ \square 5 or more tests			G	o to section G >	
³ Two tests					
45. If you have a regular partner, do you know the result of his HIV test?					
¹ Positive 3 I don't know/He hasn't had a test					
² Negative ⁴ No regular partner					
46. If your regular partner is HIV positive, what was his last viral					
		Survey conclud	es on next	page	
¹ □Undetectable ³ □Don't know/unsure ² □Detectable ⁴ □No HIV-positive partner					
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Section G – STI testing	Section I – Drug use
52. Which of these sexual health tests have you had in the last 12 months?	61. How often have you used these drugs in the last 6 months?
NoneOnceTwice3 or moreAnal swab1234Throat swab1234Penile swab1234Urine sample1234Blood test for HIV1234Blood test for syphilis1234Other blood test1234	NeverOnce/ twiceAt least monthlyEvery weekAmyl/poppers1234Marijuana1234Viagra/Cialis etc1234Ecstasy1234Speed1234Cocaine1234Crystal meth1234GHB1234
53. Have you ever been tested for hepatitis C ? ¹ □Yes ² □No ³ □Don't know	Ketamine 1 2 3 4 (special K) 1 2 3 4 Heroin 1 2 3 4
54. What is your hepatitis C status? ¹ ☐ Negative ² ☐ Positive ³ ☐ Don't know	Steroids 1 2 3 4 Any other drug 1 2 3 4
 55. Were you diagnosed with any sexually transmitted infection (other than HIV) in the last 12 months? 1 yes 2 No 56. 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 – Medication to prevent HIV 57. What do you know about post-exposure prophylaxis (PEP)? PEP is a month-long course of anti-HIV medication prescribed after an exposure to HIV. 	 62. In the last 6 months, how often have you had more than four alcoholic drinks on one occasion? 1 Every week 2 At least monthly 4 Never 63. How often have you injected drugs in the last 6 months? 1 Every week 3 Once or twice 2 At least monthly 4 Never 64. Have you ever injected drugs? 1 Yes 2 No 65. In the last 6 months, how often have you used party drugs for the purpose of sex?
 ¹ It's readily available now ² It will be available in the future ³ I've never heard about it 58. What do you know about pre-exposure prophylaxis (PrEP)? PrEP is anti-HIV medication you take regularly to protect yourself from HIV. ¹ It's readily available now ² It will be available in the future 	 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
 ³ I've never heard about it If you are HIV-positive you can skip the next two questions and go to section I 7 59. In the last 6 months, did you take a prescribed course of PEP because you were exposed to HIV? 	The survey concludes here. Thank you for your time. As this survey is anonymous, feedback cannot be provided directly. Please check the CSRH
 ¹ No ² Yes, once ³ Yes, more than once 60. In the last 6 months, did you take anti-HIV medication regularly to protect yourself from HIV (PrEP)? ¹ No ² Yes, I was prescribed anti-HIV medication to take every day ³ Yes, I took anti-HIV medication that was not prescribed 	 and VAC/GMHC websites for the results of this survey. https://csrh.arts.unsw.edu.au http://www.vac.org.au
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