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Canberra 2021

Gay Community Periodic Survey

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Survey participants
The 403 participants who participated in the survey

Contents

List of tables

Glossary

ART antiretroviral treatment

CAIC condomless anal intercourse with casual partners

CAIR condomless anal intercourse with regular partners

Cisgender a term used to describe people whose gender is the same as what was presumed for them at birth

HIV human immunodeficiency virus

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

Non-binary an umbrella term for any number of gender identities that sit within, outside of, across or between the spectrum of the male and female binary

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

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

Serodiscordant 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

Serononconcordant 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

Serosorting choosing a sexual partner who shares the same HIV status

STI sexually transmissible infection

Transgender an umbrella term that describes people whose gender is different to what was assigned to them at birth

Executive summary

The Canberra Gay Community Periodic Survey is a cross-sectional survey of gay and bisexual men recruited from a range of gay venues and events in Canberra and online throughout the Australian Capital Territory. 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). The survey is conducted every two years.

The COVID-19 pandemic emerged in 2020 and led to various health, social and economic impacts, including periods of government-mandated, public health-related lockdowns, restrictions on freedom of movement, businesses, and private and public gatherings. Because of this, the 2021 questionnaire included additional questions about participants' experiences of COVID-19 and how COVID-19 might have affected their HIV and STI-related behaviour.

The most recent Canberra survey was conducted in October and November 2021 to coincide with the SpringOUT Festival. Due to ongoing COVID-19 considerations, SpringOUT was a series of online events. While participants are typically recruited face-to-face from a range of gay community sites across Canberra, the 2021 survey was conducted solely online due to COVID-19 restrictions.

From its start in 2000, the Canberra survey has been funded by ACT Health and recruitment facilitated by Meridian (formerly the AIDS Action Council of the ACT). The Centre for Social Research in Health coordinates the survey, with support from the Kirby Institute.

In total, 403 participants completed the 2021 survey. The response rate was 85.0%. Online recruitment was coordinated by Meridian via social media advertising and multiple platforms, e.g. Facebook, Grindr, Jack'd, Scruff and Squirt. Additional advertising of the survey was placed in gay venues (using QR codes on promotional flyers). Potential participants were directed to the the study website (https://gcpsonline.net) or the online version of the survey, and were presented participant information before being asked for their consent to participate. The website provides additional information about the study. Participants were not offered or provided compensation or incentives for completing the survey.

Key points

- In 2021, over half the sample (53%) reported having fewer sex partners because of COVID-19, and 94% indicated they were fully vaccinated against COVID-19 (i.e. two doses of the vaccine).
- In 2021, the proportion of participants who reported ever being tested for HIV remained stable at 86%.
- The proportion of non-HIV-positive participants who reported testing for HIV in the previous 12 months decreased between 2019 and 2021 (from 75% to 61%). This is likely due to various impacts of COVID-19.
- The proportion of non-HIV-positive participants reporting three or more HIV tests in the previous year has increased over time, but decreased between 2019 and 2021 (from 37% to 20%). Higher frequency testing was concentrated amongst HIV-negative participants using pre-exposure prophylaxis (PrEP), 65% of whom reported three or more HIV tests in the previous year.
- All HIV-positive participants in the 2021 survey reported being on HIV treatment. Nearly all HIV-positive participants (94%) said they had an undetectable viral load.
- In 2021, the most common way of meeting male sex partners was by using mobile apps (reported by 49% of the sample).
- The proportion of participants with regular partners who reported any condomless anal intercourse with those partners (CAIR) has increased over time to 71% in 2021.

- The proportion of participants with casual partners who reported any condomless anal intercourse with those partners (CAIC) has increased over time to 66% in 2021. This increase is attributable to the increase in the number of HIV-negative participants using PrEP.
- The proportion of non-HIV-positive participants using PrEP increased over time, but fell between 2019 and 2021 from 36% to 26%. This is likely due to COVID-19.
- PrEP remains the most commonly used HIV risk reduction strategy with casual male partners in Canberra.

Demographic profile

As in previous surveys, in 2021 the majority of the sample reported an Anglo-Australian ethnicity (72.1%, a decrease from 81.9% in 2013). In 2021, 8.0% of participants identified as Aboriginal or Torres Strait Islander. This was a larger proportion than has been recruited in previous years (ranging from 2.3% to 4.7%; Table 2).

Most participants were born in Australia (83.1%). Participants who were born overseas were most commonly from high-income English-speaking countries (7.7% of the whole sample), followed by Asia (3.7%). Among overseas-born participants (n=68), most had been living in Australia for more than five years (75.0%), with smaller proportions having lived in Australia for between two and five years (14.7%) or less than two years (10.3%).

The proportion of participants who were university educated increased from 53.2% in 2013 to 59.3% in 2021, though this was a decline from 65.6% in 2019. In 2021, 67.7% of participants were in full-time employment. The majority of participants identified as gay (78.2%, a decrease from 82.7% in 2013), while the proportion who identified as bisexual has increased over time, from 6.9% in 2013 to 16.9% in 2021 (Table 2).

In 2021, 91.8% of participants indicated that they were cisgender men (a decline from 98.3% in 2017). A small number of participants indicated they were transgender men (n=11, 2.7%) or non-binary (n=19, 4.7%; Table 2).

Between 2013 and 2021, the proportion of participants aged 25-29 years decreased from 23.1% to 16.6%. The proportions of all other age groups remained stable over time (Table 3).

COVID-19

The 2021 survey was conducted in the context of continuing COVID-19 restrictions (although they had eased in Canberra in 2021 compared with late 2020). We expected that a significant number of participants would have experienced disruptions to their employment or income, ability to socialise or travel, and capacity to meet sexual partners or engage with sexual health services because of the pandemic and related restrictions. COVID-19 is therefore likely to have influenced many of the key variables measured in the survey in 2021.

More than one-fifth of participants (22.1%) reported that they had lost income or their job because of COVID-19, and 53.4% reported that they had reduced the number of male sex partners they had had in the six months prior to the survey because of COVID-19. Nearly three-quarters of participants (74.0%) reported having been tested for COVID-19. The majority of participants (94.3%) reported being fully vaccinated against COVID-19 (i.e., receiving two doses of the vaccine).

HIV testing, status and treatment

In 2021, the majority of participants reported ever having been tested for HIV (85.9%). This has remained stable since 2013, but decreased from 92.7% in 2019. It is possible that the focus on online recruitment in 2021 reached more participants who had not previously sought testing. Among non-HIV-positive participants (i.e., HIV-negative and untested/unknown status participants), 60.8% reported an HIV test in the 12 months prior to the 2021 survey. This has been largely stable, but fell significantly between 2019 and 2021 (Table 4), which is likely due to COVID-19.

In 2021, non-HIV-positive participants most commonly reported that their last HIV test was at a sexual health clinic or hospital (56.9%) or a general practice (34.5%). The proportions of non-HIV-positive participants who most recently tested at a general practice or sexual health clinic/hospital remained stable between 2013 and 2021, while the proportion who last tested at a community-based service decreased from 9.2% in 2015 to 5.1% in 2021 (Table 5).

The proportion of non-HIV-positive participants reporting three or more HIV tests in the 12 months prior to the survey has been increasing over time, but decreased significantly from 37.3% in 2019 to 19.9% in 2021. The proportions who reported one or two HIV tests in the previous 12 months decreased between 2013 and 2021 (from 24.8% to 20.2% and 18.6% to 14.3%, respectively). The proportion reporting no HIV tests in the previous 12 months remained stable over time, but increased significantly from 29.4% in 2019 to 45.6% in 2021. The falls in HIV testing frequency between 2019 and 2021 are likely to be a result of COVID-19.

Frequent HIV testing was concentrated among HIV-negative participants taking pre-exposure prophylaxis (PrEP), 65.3% of whom reported three or more HIV tests in the 12 months prior to the 2021 survey (compared with 4.3% of non-HIV-positive participants not on PrEP). The proportion of HIV-negative participants on PrEP who reported three or more HIV tests in the previous 12 months decreased from 83.7% in 2017 to 65.3% in 2021, while the proportion who reported two tests increased from 14.0% to 24.2% over that time. The frequency of HIV testing has declined among non-HIV-positive participants not on PrEP, with the proportion reporting no HIV tests in the previous 12 months increasing from 46.7% in 2013 to 60.9% in 2021 (Table 6).

Among participants who had ever been tested for HIV, 89.3% reported that they were HIV-negative in 2021. Smaller proportions reported that they were HIV-positive (9.2%) or did not know their HIV status (1.4%). These proportions have all remained stable since 2013 (Table 7).

In 2021, all HIV-positive participants (n=31) reported taking combination antiretroviral treatment at the time of the survey. This has increased from 90.0% in 2013 (Table 8). Almost all HIV-positive participants on treatment in 2021 reported an undetectable viral load (93.5%). This proportion has remained stable over the last five survey rounds (Table 9). In 2021, 25.8% of HIV-positive participants reported attending at least three clinical appointments in the 12 months before the survey. This proportion has decreased from 68.4% in 2015 and from 56.5% in 2019. The proportion who attended one or two clinical appointments in the previous 12 months has increased over that time, from 26.3% in 2015 and 43.5% in 2019, to 67.7% in 2021.

Sexual partnerships and practices

At the time of the 2021 survey, 30.9% of participants reported having casual partners only (an increase from 18.8% in 2013). Smaller proportions reported being in monogamous relationships (27.3%) or having both regular and casual male partners (20.1%), both of which have remained stable since 2013. The proportion reporting both regular and casual partners, however, decreased significantly from 42.1% in 2019. Approximately one in five participants (21.8%) reported having no sexual relationships with men at the time of the survey, an increase from 13.3% in 2019 (Table 10). These changes are likely to be due to the inclusion of advertising on sex and dating apps for the first time in the Canberra survey (increasing the proportion of men with casual partners) and COVID-19 (the increase in the proportion of men with no recent partners). A minority of participants (n=50, 12.5%)

reported having sex with women in the six months prior to the 2021 survey, including 6.5% who had sex with one woman and 6.0% who had sex with multiple women. The majority of participants who reported sex with women identified as bisexual (76.0%).

HIV-negative participants on PrEP were the most likely to report more than 20 different male sex partners in the six months prior to the 2021 survey (12.6%) or 6-20 different male sex partners (25.3%), though these proportions have both decreased since 2017 (from 23.8% and 47.6%, respectively). The proportion of PrEP users who reported 2-5 different male partners increased from 16.7% in 2017 to 45.3% in 2021 (Table 11).

The proportion of non-HIV-positive participants not on PrEP who reported one male sex partner in the six months prior to the survey increased from 32.1% in 2013 to 41.5% in 2021. Over that time, the proportion who reported 6-20 different male sex partners decreased (from 18.7% to 10.2%; Table 11).

In 2021, mobile applications were the most common way of meeting male sex partners (49.4%, an increase from 34.7% in 2013). This was followed by the internet (27.0%), travelling in Australia (15.1%), beats (13.6%), and gay saunas/sex venues (10.7%). Between 2013 and 2021, there have been significant decreases in the proportions of participants who met male sex partners at gay bars or while travelling overseas. COVID-19 restrictions appear to have affected where participants met their partners, with significant decreases between 2019 and 2021 in the proportions who met male sex partners while travelling in Australia or overseas, at gay saunas/sex venues, gay bars, dance parties, and via mobile apps (Table 12).

In 2021, 19.6% of participants reported any group sex in the six months prior to the survey. This has largely remained stable over time, but decreased significantly from 35.0% in 2019 (Table 24). In 2021, 4.6% of participants (n=18) reported having been paid for sex at least once in the six months prior to the survey. This proportion has remained stable since 2013.

Relationships with men and regular male partners

In 2021, 48.9% of participants reported being in a relationship with a man at the time of the survey. More than three-quarters of participants in relationships had been in those relationships for more than two years (78.1%) and 72.3% reported living with their partner. Among participants in relationships, 66.3% reported an agreement about sex within the relationship and 59.2% reported an agreement about sex outside the relationship. In 2021, the most commonly held agreement about sex within the relationship permitted anal intercourse without a condom (48.4%, stable since 2013). The proportion of participants in relationships who reported an agreement that anal intercourse was only permitted with a condom decreased from 24.8% in 2013 to 7.1% in 2021. In 2021, smaller proportions reported that no sex was permitted in the relationship (6.5%) or that no anal sex was permitted (4.3%; Table 13).

The most commonly held agreement about sex outside a relationship specified that no sex with casual partners was permitted (32.6%, stable since 2013). The proportion of participants in relationships who reported that condoms must always be used for anal intercourse with casual partners decreased from 25.0% in 2013 to 12.5% in 2021. Over that time, the proportion who reported that condomless anal sex with casual partners was permitted increased from 3.0% to 12.5%. In 2021, agreements permitting condomless anal sex with casual partners were equally as common as agreements that required condoms to be used with casual partners (Table 14), which probably reflects the increase in PrEP use in the sample over time.

Among HIV-positive participants who had regular male partners in the six months prior to the 2021 survey (n=16), 31.3% reported HIV-positive (seroconcordant) partners (n=5), 56.3% reported HIV-negative (serodiscordant) partners (n=9), and the remainder (n=2, 12.5%) did not know their partners' HIV status (serononconcordant; Table 15).

Compared with HIV-positive participants, HIV-negative participants with regular partners (n=157) were more likely to be in seroconcordant relationships. In 2021, 85.4% of HIV-negative participants with regular male partners reported HIV-negative (seroconcordant) partners and 8.9% reported did not know their partners' HIV status (serononconcordant). In 2021, 5.7% of HIV-negative participants with a regular partner reported HIV-positive

(serodiscordant) partners. Between 2013 and 2021, the propotion of HIV-negative participants with regular partners who were in seroconcordant relationships increased from 72.3% to 85.4%, while the proportion in serononconcordant relationships decreased from 21.7% to 8.9% (Table 15).

In 2021, 71.4% of participants with a regular partner reported any condomless anal intercourse with their partner (CAIR) in the six months prior to the survey, an increase from 60.9% in 2013. Over that time, the proportion who reported always using a condom for anal intercourse with their regular partner decreased (from 25.2% to 8.0%), while the proportion who reported no anal intercourse with their regular partner remained stable (20.6% in 2021; Table 16). The proportion of participants reporting CAIR is the highest recorded in the Canberra surveys, but should be understood in the context of rising PrEP use and a greater understanding of the effectiveness of undetectable viral load for HIV prevention.

Among participants who had HIV-negative regular partners in the six months prior to the 2021 survey (n=147), 13.6% reported that those partners were on PrEP (a decline from 36.8% in 2019). Among participants who had HIV-positive regular partners in the six months prior to the 2021 survey (n=14), all but one reported that those partners had an undectable viral load.

Casual male partners

Use of condoms for anal intercourse remains slightly more common with casual partners than with regular partners. In 2021, 65.5% of participants with casual partners reported any condomless anal intercourse with casual partners (CAIC) in the six months prior to the survey, an increase from 29.7% in 2013. The proportion who reported consistent condom use with casual partners decreased from 46.2% in 2013 to 20.3% in 2021 and the proportion who reported no anal intercourse with their casual partners decreased from 24.2% in 2013 to 14.2% in 2021 (Table 17). The proportion of participants reporting CAIC is the highest recorded in the Canberra surveys. This is in the context of PrEP becoming the most commonly used HIV prevention strategy and a greater understanding of the effectiveness of undetectable viral load.

Table 17 provides additional details about the HIV statuses of participants who engaged in CAIC and the use of antiretroviral-based prevention (specifically HIV-positive participants maintaining an undetectable viral load through HIV treatment and HIV-negative participants taking PrEP). There has been a large increase in the proportion of participants with casual partners who are HIV-negative, on PrEP, and report CAIC (from 14.0% of participants with casual partners in 2017 to 34.0% in 2021). This reflects the increase in availability and use of PrEP, particularly since its listing on the Pharmaceutical Benefits Scheme in April 2018. HIV-positive participants who have an undetectable viral load and report CAIC represented 6.6% of participants with casual partners in 2021. In 2021, 75.1% of participants with casual partners reported HIV prevention coverage or safe sex (i.e. avoiding anal sex, consistent condom use, PrEP, or undetectable viral load), which has remained stable since 2013. The proportion of participants reporting the highest risk practice for HIV transmission (HIV-negative and untested participants not on PrEP engaging in receptive CAIC) remained stable between 2013 and 2021 (14.2% of participants with casual partners in 2021).

In 2021, HIV-positive participants remained more likely than HIV-negative participants to disclose their HIV status to casual partners (75.0% vs. 69.3%). A larger proportion of HIV-negative participants (71.2%) reported HIV status disclosure from any of their casual partners compared with HIV-positive participants (68.8%). The proportions of HIV-negative participants who reported HIV status disclosure to and from their casual partners increased between 2013 and 2021 (from 54.1% to 69.3% and 51.4% to 71.2%, respectively; Table 18).

Among HIV-negative participants who reported CAIC in the six months prior to the 2021 survey (n=105), 63.8% were taking PrEP (an increase from 39.5% in 2017). The other most commonly reported HIV risk reduction strategies used by HIV-negative men were having partners on PrEP (PrEP sorting; 54.3%), followed by ensuring that their partners were HIV-negative before CAIC (serosorting; 42.9%). Smaller proportions reported ensuring that their HIV-positive partners had an undetectable viral load before sex (21.9%), taking the insertive positive during nonconcordant CAIC (strategic positioning; 11.4%), or that their casual partners withdrew before

ejaculation (7.6%). The proportion of HIV-negative participants who reported frequent PrEP sorting increased from 36.2% in 2017 to 54.3% in 2021, while the proportion who reported frequent serosorting decreased from 66.7% in 2013 to 42.9% in 2021 and the proportion who reported frequent strategic positioning decreased from 38.1% in 2013 to 11.4% in 2021 (Table 19).

Sexual health

As in previous surveys, in 2021 a higher proportion of HIV-positive participants reported having had any sexual health test (including blood tests) in the 12 months prior to the survey (81.3%), compared with HIV-negative participants (68.4%; Table 20).

The proportions of HIV-positive participants reporting each type of STI test (anal swab, throat swab, urine sample, blood tests) all remained stable between 2013 and 2021 (Table 21). The proportions of HIV-negative participants reporting each type of STI test had been increasing over time, but decreased between 2019 and 2021. The proportion of HIV-negative participants who reported any STI test (including blood tests) was stable between 2013 and 2021, but decreased from 77.5% in 2019 to 68.4% in 2021. The decreases in STI testing between 2019 and 2021 are likely due to COVID-19.

In 2021, 13.8% of participants reported an STI diagnosis in the 12 months prior to the survey. This had been increasing over time, but decreased from 28.7% in 2019. The most commonly diagnosed STI was chlamydia (9.3%), followed by gonorrhoea (5.6%). Smaller proportions of participants reported being diagnosed with syphilis (4.0%) or another STI (2.1%). The proportions of participants reporting chlamydia, gonorrhoea and syphilis diagnoses had been increasing between 2017 and 2020, but all decreased between 2020 and 2021 (Table 21). The decreases in STI diagnoses between 2019 and 2021 are likely due to the reduced number of sexual partners and lower testing frequency during COVID-19 restrictions.

We examined how STI diagnoses varied by HIV status, PrEP use and sexual behaviour. In 2021, 22.6% of HIV-positive participants, 33.7% of HIV-negative participants on PrEP and 5.5% of HIV-negative and untested participants not on PrEP reported a diagnosis with any STI other than HIV. In 2021, 30.7% of participants who had engaged in CAIC in the six months prior to the survey reported an STI diagnosis, compared with 5.5% of participants who had not engaged in CAIC. STI diagnoses remain concentrated among HIV-negative participants on PrEP (who typically engage in higher frequency STI testing) and participants who engage in condomless anal sex with casual partners (a higher risk practice for STI transmission).

Recreational drug use

The proportion of participants who reported no drug use in the six months prior to the survey decreased from 57.2% in 2013 to 44.7% in 2021, while the proportion who reported using one or two drugs increased from 31.2% to 39.0% (Table 22).

The most frequently used drugs in the six months prior to the 2021 survey were amyl/poppers (35.2%), cannabis (27.5%), erectile dysfunction medication like Viagra (17.4%), and cocaine (12.9%; Table 23). Between 2013 and 2021, there were increases in the proportions of participants who reported using amyl (from 26.6% to 35.2%), cannabis (from 20.2% to 27.5%), Viagra (from 8.7% to 17.4%), and cocaine (from 4.6% to 12.9%).

In general, HIV-positive participants remain more likely to report any drug use (65.6%) compared with HIV-negative participants (56.1%). The proportion of HIV-negative participants reporting no drug use decreased from 54.6% in 2013 to 43.9% in 2021.

A small proportion of participants (3.4%) reported any injecting drug use in the six months prior to the 2021 (Table 23). In 2021, 11.1% of participants reported using drugs for the purpose of sex in the six months prior to the survey. This has remained stable since 2013 (Table 25).

Knowledge and use of PEP and PrEP

In 2021, 86.2% of all participants reported being aware of post-exposure prophylaxis (PEP). PEP awareness has increased over time, from 71.6% in 2013 to 86.2% in 2021. There has been an even larger increase in the awareness of PrEP (from 39.4% in 2015 to 96.5% in 2021; Table 25).

A small proportion of non-HIV-positive participants (2.3%) reported taking a prescribed course of PEP in the six months prior to the 2021 survey. The proportion of non-HIV-positive participants who reported using PrEP in the six months prior to the survey increased from 13.9% in 2017 to 25.6% in 2021, however, the 2021 figure was a fall from the high of 36.2% in 2019 (most likely due to COVID-19). The proportion of non-HIV-positive participants who had CAIC in the six months prior to the survey and reported PrEP use increased from 38.8% in 2017 to 58.8% in 2021 (following a high of 68.0% in 2019; Table 26).

Among participants who reported taking PrEP in the six months prior to the 2021 survey (n=95), the majority used it daily or most days (61.1%, a decline from 93.0% in 2019), while 33.7% used PrEP around the time of sex but not daily (on demand or event-based dosing). A small proportion of PrEP users (5.3%) reported using PrEP daily for a limited period of time (periodic dosing). The most common ways to obtain PrEP were from a chemist (89.5%), followed by buying it online from overseas (8.4%). Among current and former PrEP users (n=109), 44.0% reported that COVID-19 did not affect their PrEP use, while 37.6% reported that they took PrEP less often and 18.4% reported that they had stopped PrEP due to COVID-19.

Reporting

Data are shown for the period 2013–2021. Each table includes the statistical significance (*p*-value), if any, of the change between 2019 and 2021 and the trend over time (2013–2021). An alpha level of .05 was used for all statistical tests. Changes between 2019 and 2021 were assessed with logistic regression (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 (–).

Table 1: Recruitment source

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
Fair Day	121 (69.9)	98 (32.3)	147 (36.6)	147 (26.7)	1 (0.3)	NA	NA
Sexual health clinics	0	0	18 (4.5)	66 (12.0)	4 (1.0)	NA	NA
Sex-on-premises venues	10 (5.8)	21 (6.9)	46 (11.4)	11 (2.0)	0	NA	NA
Social venues	42 (24.3)	84 (27.7)	117 (29.1)	167 (30.3)	0	NA	NA
Online	-	100 (33.0)	74 (18.4)	160 (29.0)	398 (98.8)	NA	NA
Total	**173 (100)**	**303 (100)**	**402 (100)**	**551 (100)**	**403 (100)**		

Note: In 2021, peer-led recruitment was not conducted at clinics, venues and events, due to COVID-19 restrictions. Participants shown as completing the survey at clinics, venues and events in 2021 responded to posters and flyers placed at those locations, and completed the questionnaire online.

Table 2: Demographics

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
Anglo-Australian	140 (81.9)	232 (76.8)	302 (75.1)	409 (74.5)	289 (72.1)	ns	Decrease <.05
Aboriginal or Torres Strait Islander	4 (2.3)	10 (3.3)	19 (4.7)	18 (3.3)	32 (8.0)	Increase <.01	Increase <.01
Total	**171 (100)**	**302 (100)**	**402 (100)**	**549 (100)**	**401 (100)**		
Born in Australia	152 (87.9)	251 (82.8)	321 (80.0)	434 (79.1)	335 (83.1)	ns	ns
Total	**173 (100)**	**303 (100)**	**401 (100)**	**549 (100)**	**403 (100)**		
University educated	92 (53.2)	163 (53.8)	253 (63.1)	361 (65.6)	239 (59.3)	Decrease <.05	Increase <.05
Total	**173 (100)**	**303 (100)**	**401 (100)**	**550 (100)**	**403 (100)**		
Full-time employed	119 (68.8)	204 (67.3)	299 (74.4)	391 (71.0)	273 (67.7)	ns	ns
Total	**173 (100)**	**303 (100)**	**402 (100)**	**551 (100)**	**403 (100)**		
Gay identity	143 (82.7)	257 (85.1)	361 (90.0)	466 (84.6)	315 (78.2)	Decrease<.05	Decrease <.05
Bisexual identity	12 (6.9)	28 (9.3)	22 (5.5)	57 (10.3)	68 (16.9)	Increase <.01	Increase <.001
Total	**173 (100)**	**302 (100)**	**401 (100)**	**551 (100)**	**403 (100)**		
Cisgender[1]	-	293 (97.3)	395 (98.3)	523 (94.9)	370 (91.8)	ns	Decrease <.001
Transgender[1]	-	6 (2.0)	0	16 (2.9)	11 (2.7)	NA	NA
Non-binary[1]	-	-	4 (1.0)	9 (1.6)	19 (4.7)	NA	NA
Total	**173 (100)**	**301 (100)**	**402 (100)**	**551 (100)**	**403 (100)**		

1 Questions related to gender were altered from 2017 onwards. Trends have been calculated from 2017.

Table 3: Age

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
Under 25	28 (16.2)	64 (21.2)	38 (9.5)	78 (14.2)	70 (17.4)	ns	ns
25–29	40 (23.1)	67 (22.2)	66 (16.6)	105 (19.1)	67 (16.6)	ns	Decrease <.05
30–39	34 (19.7)	75 (24.8)	121 (30.4)	151 (27.5)	91 (22.6)	ns	ns
40–49	31 (17.9)	51 (16.9)	81 (20.4)	94 (17.1)	76 (18.9)	ns	ns
50 and over	40 (23.1)	45 (14.9)	92 (23.1)	122 (22.2)	99 (24.6)	ns	ns
Total	**173 (100)**	**302 (100)**	**398 (100)**	**550 (100)**	**403 (100)**		

Table 4: HIV testing

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
All participants							
Ever tested	144 (83.2)	259 (85.5)	362 (90.0)	511 (92.7)	346 (85.9)	Decrease <.01	ns
Total	**173 (100)**	**303 (100)**	**402 (100)**	**551 (100)**	**403 (100)**		
Non-HIV-positive participants							
Tested in previous 12 months	89 (67.4)	160 (67.8)	238 (71.5)	349 (75.4)	191 (60.8)	Decrease <.001	ns
Total	**132 (100)**	**236 (100)**	**333 (100)**	**463 (100)**	**314 (100)**		

Table 5: Where non-HIV-positive participants were last tested for HIV

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
General practice	48 (36.6)	64 (26.9)	99 (29.9)	137 (29.7)	108 (34.5)	ns	ns
Sexual health clinic/hospital	70 (53.4)	145 (60.9)	209 (63.1)	305 (66.0)	178 (56.9)	Decrease <.05	ns
At home	0	0	1 (0.3)	0	4 (1.3)	NA	NA
Community-based service	-	22 (9.2)	20 (6.0)	19 (4.1)	16 (5.1)	ns	Decrease <.05
Somewhere else	13 (9.9)	7 (2.9)	2 (0.6)	1 (0.2)	7 (2.2)	NA	NA
Total	**131 (100)**	**238 (100)**	**331 (100)**	**462 (100)**	**313 (100)**		

Table 6: Number of HIV tests in the previous 12 months

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
All non-HIV-positive participants							
None	70 (43.5)	116 (41.1)	128 (34.4)	148 (29.4)	169 (45.6)	Increase <.001	ns
One	40 (24.8)	66 (23.4)	73 (19.6)	83 (16.5)	75 (20.2)	ns	Decrease <.05
Two	30 (18.6)	56 (19.9)	76 (20.4)	85 (16.9)	53 (14.3)	ns	Decrease <.05
3 or more	21 (13.0)	44 (15.6)	95 (25.5)	188 (37.3)	74 (19.9)	Decrease <.001	Increase <.001
Total	**161 (100)**	**282 (100)**	**372 (100)**	**504 (100)**	**371 (100)**		
HIV-negative participants on PrEP[1]							
None	0	0	0	1 (0.6)	1 (1.1)	NA	NA
One	0	0	1 (2.3)	8 (4.8)	9 (9.5)	NA	NA
Two	0	0	6 (14.0)	24 (14.5)	23 (24.2)	ns	Increase <.05
3 or more	1 (100)	1 (100)	36 (83.7)	132 (80.0)	62 (65.3)	Decrease <.05	Decrease <.01
Total	**1 (100)**	**1 (100)**	**43 (100)**	**165 (100)**	**95 (100)**		
Non-HIV-positive participants not on PrEP							
None	63 (46.7)	93 (38.3)	109 (39.1)	131 (43.8)	168 (60.9)	Increase <.001	Increase <.001
One	33 (24.4)	64 (26.3)	60 (21.5)	69 (23.1)	66 (23.9)	ns	ns
Two	22 (16.3)	49 (20.2)	63 (22.6)	52 (17.4)	30 (10.9)	Decrease <.05	Decrease <.05
3 or more	17 (12.6)	37 (15.2)	47 (16.8)	47 (15.7)	12 (4.3)	Decrease <.001	Decrease <.01
Total	**135 (100)**	**243 (100)**	**279 (100)**	**299 (100)**	**276 (100)**		

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

1 From 2019, 'participants on PrEP' includes both regular (daily) and on-demand (event-based) users. Prior to 2019, regular and on-demand users could not be differentiated.

Table 7: HIV test result

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
HIV-positive	12 (8.3)	21 (8.1)	29 (8.0)	46 (9.0)	32 (9.2)	ns	ns
HIV-negative	129 (89.6)	234 (90.3)	329 (90.9)	455 (89.2)	309 (89.3)	ns	ns
Unknown status	3 (2.1)	4 (1.5)	4 (1.1)	9 (1.8)	5 (1.4)	NA	NA
Total	**144 (100)**	**259 (100)**	**362 (100)**	**510 (100)**	**346 (100)**		

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

Table 8: Use of combination antiretroviral treatment among HIV-positive participants

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
On treatment	9 (90.0)	16 (80.0)	29 (100)	45 (97.8)	31 (100)	ns	Increase <.05
Total	**10 (100)**	**20 (100)**	**29 (100)**	**46 (100)**	**31 (100)**		

Table 9: Undetectable viral load among HIV-positive participants using antiretroviral treatment

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
Undetectable viral load	7 (77.8)	16 (100)	24 (82.8)	43 (95.6)	29 (93.5)	ns	ns
Total	**9 (100)**	**16 (100)**	**29 (100)**	**45 (100)**	**31 (100)**		

Table 10: Current relationships with men

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
None	34 (20.0)	61 (20.7)	50 (12.8)	71 (13.3)	79 (21.8)	Increase <.01	ns
Casual only	32 (18.8)	51 (17.3)	83 (21.2)	110 (20.7)	112 (30.9)	Increase <.01	Increase <.001
Regular plus casual[1]	51 (30.0)	95 (32.3)	126 (32.2)	224 (42.1)	73 (20.1)	Decrease <.001	ns
Regular only (monogamous)	53 (31.2)	87 (29.6)	132 (33.8)	127 (23.9)	99 (27.3)	ns	ns
Total	**170 (100)**	**294 (100)**	**391 (100)**	**532 (100)**	**363 (100)**		

1 Includes participants with multiple regular partners

Table 11: Number of different male sex partners in the six months prior to the survey, by HIV status of participants

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
HIV-positive participants							
None	2 (16.7)	2 (9.5)	5 (16.7)	5 (10.9)	12 (38.7)	NA	NA
One	2 (16.7)	4 (19.0)	8 (26.7)	5 (10.9)	4 (12.9)	NA	NA
2-5	5 (41.7)	4 (19.0)	2 (6.7)	12 (26.1)	8 (25.8)	NA	NA
6-20	2 (16.7)	3 (14.3)	11 (36.7)	16 (34.8)	5 (16.1)	NA	NA
More than 20	1 (8.3)	8 (38.1)	4 (13.3)	8 (17.4)	2 (6.5)	NA	NA
Total	**12 (100)**	**21 (100)**	**30 (100)**	**46 (100)**	**31 (100)**		
HIV-negative participants on PrEP[1]							
None	0	0	2 (4.8)	1 (0.6)	1 (1.1)	NA	NA
One	0	0	3 (7.1)	8 (4.8)	15 (15.8)	NA	NA
2-5	0	0	7 (16.7)	48 (29.1)	43 (45.3)	Increase <.01	Increase <.001
6-20	1 (100)	0	20 (47.6)	72 (43.6)	24 (25.3)	Decrease <.01	Decrease <.01
More than 20	0	1 (100)	10 (23.8)	36 (21.8)	12 (12.6)	ns	Decrease <.05
Total	**1 (100)**	**1 (100)**	**42 (100)**	**165 (100)**	**95 (100)**		
Non-HIV-positive participants not on PrEP							
None	25 (18.7)	35 (14.5)	40 (14.5)	52 (17.4)	57 (20.7)	ns	ns
One	43 (32.1)	76 (31.4)	93 (33.8)	107 (35.9)	114 (41.5)	ns	Increase <.05
2-5	36 (26.9)	67 (27.7)	84 (30.5)	80 (26.8)	70 (25.5)	ns	ns
6-20	25 (18.7)	49 (20.2)	50 (18.2)	50 (16.8)	28 (10.2)	Decrease <.05	Decrease <.01
More than 20	5 (3.7)	15 (6.2)	8 (2.9)	9 (3.0)	6 (2.2)	NA	NA
Total	**134 (100)**	**242 (100)**	**275 (100)**	**298 (100)**	**275 (100)**		

1 From 2019, 'participants on PrEP' includes both regular (daily) and on-demand (event-based) users. Prior to 2019, regular and on-demand users could not be differentiated.

Table 12: Where participants met their male sex partners in the six months prior to the survey

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
Mobile app, e.g. Grindr	60 (34.7)	139 (45.9)	186 (46.3)	311 (56.4)	199 (49.4)	Decrease <.05	Increase <.001
Internet	49 (28.3)	100 (33.0)	98 (24.4)	160 (29.0)	109 (27.0)	ns	ns
Travelling in Australia[1]	42 (24.3)	91 (30.0)	111 (27.6)	118 (21.4)	61 (15.1)	Decrease <.05	NA
Beat	23 (13.3)	36 (11.9)	39 (9.7)	69 (12.5)	55 (13.6)	ns	ns
Gay sauna/sex venue[2]	35 (20.2)	54 (17.8)	71 (17.7)	118 (21.4)	43 (10.7)	Decrease <.001	NA
Gay bar	30 (17.3)	54 (17.8)	70 (17.4)	109 (19.8)	33 (8.2)	Decrease <.001	Decrease <.01
Private sex parties	6 (3.5)	15 (5.0)	25 (6.2)	50 (9.1)	33 (8.2)	ns	Increase <.01
Dance party	11 (6.4)	26 (8.6)	30 (7.5)	64 (11.6)	31 (7.7)	Decrease <.05	ns
Overseas	23 (13.3)	54 (17.8)	59 (14.7)	114 (20.7)	18 (4.5)	Decrease <.001	Decrease <.01
Sex workers	5 (2.9)	7 (2.3)	11 (2.7)	28 (5.1)	16 (4.0)	ns	ns
Total (not mutually exclusive)	**173**	**303**	**402**	**551**	**403**		

1 Prior to 2019, the questionnaire listed meeting men 'In other Australian cities' and 'Elsewhere in Australia' as separate items. They have been combined here.

2 Prior to 2019, the questionnaire listed gay saunas and sex venues as separate items. They have been combined here.

Table 13: Agreements with regular male partners about sex *within* the relationship

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
No agreement about sex within the relationship	26 (24.8)	53 (29.1)	65 (27.3)	115 (35.9)	62 (33.7)	ns	Increase <.05
No sex within the relationship permitted	1 (1.0)	4 (2.2)	9 (3.8)	13 (4.1)	12 (6.5)	NA	NA
No anal intercourse permitted	5 (4.8)	4 (2.2)	9 (3.8)	7 (2.2)	8 (4.3)	NA	NA
Anal intercourse permitted only with a condom	26 (24.8)	44 (24.2)	34 (14.3)	30 (9.4)	13 (7.1)	ns	Decrease <.001
Anal intercourse permitted without a condom	47 (44.8)	77 (42.3)	121 (50.8)	155 (48.4)	89 (48.4)	ns	ns
Total	**105 (100)**	**182 (100)**	**238 (100)**	**320 (100)**	**184 (100)**		

Note: This table only includes data from participants who reported that they were currently in a relationship with a man. The percentages from 2013-2019 are slightly different to those included in previous reports due to an adjustment in how this indicator has been calculated.

Table 14: Agreements with regular male partners about sex *outside* the relationship

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
No agreement about casual sex	40 (40.0)	57 (32.0)	84 (35.7)	122 (39.0)	75 (40.8)	ns	ns
No sex with casual partners permitted	30 (30.0)	57 (32.0)	64 (27.2)	61 (19.5)	60 (32.6)	Increase <.01	ns
No anal intercourse with casual partners permitted	2 (2.0)	2 (1.1)	6 (2.6)	8 (2.6)	3 (1.6)	NA	NA
Anal intercourse with casual partners permitted only with a condom	25 (25.0)	54 (30.3)	58 (24.7)	68 (21.7)	23 (12.5)	Decrease <.05	Decrease <.001
Anal intercourse with casual partners permitted without a condom	3 (3.0)	8 (4.5)	23 (9.8)	54 (17.3)	23 (12.5)	ns	Increase <.001
Total	**100 (100)**	**178 (100)**	**235 (100)**	**313 (100)**	**184 (100)**		

Note: This table only includes data from participants who reported that they were currently in a relationship with a man. The percentages from 2013-2019 are slightly different to those included in previous reports due to an adjustment in how this indicator has been calculated.

Table 15: Match of HIV status between regular partners

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
HIV-positive participants							
Seroconcordant	1 (11.1)	9 (75.0)	7 (35.0)	8 (26.7)	5 (31.3)	NA	NA
Serodiscordant	5 (55.6)	3 (25.0)	12 (60.0)	16 (53.3)	9 (56.3)	NA	NA
Serononconcordant	3 (33.3)	0	1 (5.0)	6 (20.0)	2 (12.5)	NA	NA
Total	**9 (100)**	**12 (100)**	**20 (100)**	**30 (100)**	**16 (100)**		
HIV-negative participants							
Seroconcordant	60 (72.3)	133 (84.2)	182 (82.7)	259 (85.5)	134 (85.4)	ns	Increase <.05
Serodiscordant	5 (6.0)	5 (3.2)	10 (4.5)	10 (3.3)	9 (5.7)	NA	NA
Serononconcordant	18 (21.7)	20 (12.7)	28 (12.7)	34 (11.2)	14 (8.9)	ns	Decrease <.05
Total	**83 (100)**	**158 (100)**	**220 (100)**	**303 (100)**	**157 (100)**		

Note: This table only includes data from participants who reported that they had a regular male partner in the six months prior to the survey. The percentages from 2013-2019 are slightly different to those included in previous reports due to an adjustment in how this indicator has been calculated.

Table 16: Anal intercourse and condom use with regular partners

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
No anal intercourse	16 (13.9)	42 (20.3)	61 (21.5)	75 (19.2)	54 (20.6)	ns	ns
Always uses a condom	29 (25.2)	41 (19.8)	41 (14.4)	44 (11.3)	21 (8.0)	ns	Decrease <.001
Sometimes does not use a condom	70 (60.9)	124 (59.9)	182 (64.1)	271 (69.5)	187 (71.4)	ns	Increase <.01
Total	**115 (100)**	**207 (100)**	**284 (100)**	**390 (100)**	**262 (100)**		

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

Table 17: Anal intercourse and condom use with casual partners

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
No anal intercourse	22 (24.2)	37 (22.2)	45 (19.7)	48 (13.2)	28 (14.2)	ns	Decrease <.01
Always uses a condom	42 (46.2)	72 (43.1)	74 (32.5)	83 (22.9)	40 (20.3)	ns	Decrease <.001
Sometimes does not use a condom	27 (29.7)	58 (34.7)	109 (47.8)	232 (63.9)	129 (65.5)	ns	Increase <.001
Subcategories of participants who did not always use condoms:							
HIV-positive on treatment with undetectable viral load	2 (2.2)	8 (4.8)	9 (3.9)	25 (6.9)	13 (6.6)	NA	NA
HIV-negative on PrEP[1]	0	1 (0.6)	32 (14.0)	128 (35.3)	67 (34.0)	ns	Increase <.001
HIV-positive not on treatment or detectable viral load	1 (1.1)	2 (1.2)	1 (0.4)	2 (0.6)	2 (1.0)	NA	NA
HIV-negative/untested not on PrEP (only insertive anal intercourse)	9 (9.9)	21 (12.6)	17 (7.5)	18 (5.0)	19 (9.6)	NA	NA
HIV-negative/untested not on PrEP (any receptive anal intercourse)	15 (16.5)	26 (15.6)	50 (21.9)	59 (16.3)	28 (14.2)	ns	ns
Net prevention coverage	**66 (72.5)**	**118 (70.7)**	**160 (70.2)**	**284 (78.2)**	**148 (75.1)**	**ns**	**ns**
Total	**91 (100)**	**167 (100)**	**228 (100)**	**363 (100)**	**197 (100)**		

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

1 From 2019, 'participants on PrEP' includes both regular (daily) and on-demand (event-based) users. Prior to 2019, regular and on-demand users could not be differentiated.

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

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
HIV-positive participants							
Told casual partners	4 (66.7)	13 (92.9)	15 (93.8)	31 (88.6)	12 (75.0)	NA	NA
Told by casual partners	3 (50.0)	13 (92.9)	14 (87.5)	28 (80.0)	11 (68.8)	NA	NA
Total (not mutually exclusive)	**6**	**14**	**16**	**35**	**16**		
HIV-negative participants							
Told casual partners	40 (54.1)	82 (67.8)	123 (67.6)	228 (78.9)	106 (69.3)	Decrease <.05	Increase <.01
Told by casual partners	38 (51.4)	84 (69.4)	124 (68.1)	223 (77.2)	109 (71.2)	ns	Increase <.01
Total (not mutually exclusive)	**74**	**121**	**182**	**289**	**153**		

Note: This table only includes data from participants who reported that they had any casual male partners in the six months prior to the survey. The percentages from 2013-2019 are slightly different to those included in previous reports due to an adjustment in how this indicator has been calculated.

Table 19: Participants who frequently used risk reduction strategies when engaging in condomless anal intercourse with casual partners (CAIC) among HIV-negative participants

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
Ensured partners were seroconcordant before CAIC (serosorting)	14 (66.7)	30 (65.2)	49 (52.1)	99 (51.3)	45 (42.9)	ns	Decrease <.01
Took insertive position during CAIC when partners were not concordant	8 (38.1)	14 (30.4)	16 (17.0)	31 (16.1)	12 (11.4)	ns	Decrease <.001
Partner withdrew before ejaculation when participant was receptive	7 (33.3)	9 (19.6)	9 (9.6)	18 (9.3)	8 (7.6)	NA	NA
Ensured HIV-positive partner had an undetectable viral load before having sex	2 (9.5)	4 (8.7)	18 (19.1)	33 (17.1)	23 (21.9)	ns	ns
Participant knew partner was on PrEP before sex	-	-	34 (36.2)	101 (52.3)	57 (54.3)	ns	Increase <.05
Total (not mutually exclusive)	**21**	**46**	**94**	**193**	**105**		

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

Table 20: STI testing in the 12 months prior to the survey, by HIV status of participants

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
HIV-positive participants							
Anal swab	8 (66.7)	15 (71.4)	18 (60.0)	36 (78.3)	20 (62.5)	ns	ns
Throat swab	8 (66.7)	15 (71.4)	19 (63.3)	36 (78.3)	20 (62.5)	ns	ns
Urine sample	9 (75.0)	17 (81.0)	23 (76.7)	40 (87.0)	22 (68.8)	ns	ns
Blood test for syphilis	8 (66.7)	17 (81.0)	23 (76.7)	37 (80.4)	23 (71.9)	ns	ns
Other blood test	7 (58.3)	15 (71.4)	23 (76.7)	37 (80.4)	24 (75.0)	ns	ns
Any STI test (not including blood tests)	9 (75.0)	17 (81.0)	24 (80.0)	40 (87.0)	22 (68.8)	ns	ns
Any STI test (including blood tests)	10 (83.3)	19 (90.5)	26 (86.7)	42 (91.3)	26 (81.3)	ns	ns
Total (not mutually exclusive)	**12**	**21**	**30**	**46**	**32**		
HIV-negative participants							
Anal swab	65 (50.0)	116 (49.4)	205 (62.3)	296 (64.6)	147 (47.4)	Decrease <.001	ns
Throat swab	69 (53.1)	125 (53.2)	212 (64.4)	299 (65.3)	157 (50.6)	Decrease <.001	ns
Urine sample	79 (60.8)	143 (60.9)	226 (68.7)	326 (71.2)	182 (58.7)	Decrease <.01	ns
Blood test for syphilis	81 (62.3)	143 (60.9)	223 (67.8)	319 (69.7)	173 (55.8)	Decrease <.001	ns
Other blood test	65 (50.0)	109 (46.4)	173 (52.6)	288 (62.9)	193 (62.3)	ns	Increase <.001
Any STI test (not including blood test)	82 (63.1)	149 (63.4)	234 (71.1)	336 (73.4)	186 (60.0)	Decrease <.001	ns
Any STI test (including blood tests)	94 (72.3)	165 (70.2)	252 (76.6)	355 (77.5)	212 (68.4)	Decrease <.01	ns
Total (not mutually exclusive)	**130**	**235**	**329**	**458**	**310**		

Table 21: STI diagnoses in the 12 months prior to the survey

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
Chlamydia	-	-	40 (10.5)	93 (17.4)	35 (9.3)	Decrease <.01	ns
Gonorrhoea	-	-	30 (7.9)	89 (16.6)	21 (5.6)	Decrease <.001	ns
Syphilis	-	-	11 (2.9)	28 (5.2)	15 (4.0)	NA	NA
Other STI	-	-	6 (1.6)	10 (1.9)	8 (2.1)	NA	NA
Any STI diagnosis[1]	14 (8.2)	35 (12.0)	70 (18.4)	154 (28.7)	52 (13.8)	Decrease <.001	ns
Total (not mutually exclusive)	**170**	**291**	**381**	**536**	**377**		

[1] Due to a change in questions regarding STI diagnoses, trends over time have been calculated from 2017 onwards.

Table 22: Recreational drug use among all participants in the six months prior to the survey

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
Amyl nitrite (poppers)	46 (26.6)	93 (30.7)	135 (33.6)	233 (42.3)	142 (35.2)	Decrease <.05	Increase <.01
Cannabis	35 (20.2)	69 (22.8)	90 (22.4)	134 (24.3)	111 (27.5)	ns	Increase <.05
Viagra	15 (8.7)	34 (11.2)	77 (19.2)	128 (23.2)	70 (17.4)	Decrease <.05	Increase <.001
Cocaine	8 (4.6)	32 (10.6)	58 (14.4)	91 (16.5)	52 (12.9)	ns	Increase <.01
Ecstasy	20 (11.6)	35 (11.6)	51 (12.7)	86 (15.6)	39 (9.7)	Decrease <.01	ns
Amphetamine (speed)	12 (6.9)	18 (5.9)	15 (3.7)	33 (6.0)	20 (5.0)	ns	ns
Crystal methamphetamine	4 (2.3)	15 (5.0)	19 (4.7)	26 (4.7)	20 (5.0)	ns	ns
Ketamine (special K)	4 (2.3)	11 (3.6)	16 (4.0)	20 (3.6)	19 (4.7)	NA	NA
GHB	3 (1.7)	8 (2.6)	15 (3.7)	29 (5.3)	15 (3.7)	NA	NA
Other drugs[1]	10 (5.8)	13 (4.3)	18 (4.5)	36 (6.5)	41 (10.2)	Increase <.05	NA
Total (not mutually exclusive)	**173**	**303**	**402**	**551**	**403**		
Number of drugs used							
None	99 (57.2)	153 (50.5)	195 (48.5)	217 (39.4)	180 (44.7)	ns	Decrease <.001
One or two drugs	54 (31.2)	102 (33.7)	129 (32.1)	227 (41.2)	157 (39.0)	ns	Increase <.01
More than two drugs	20 (11.6)	48 (15.8)	78 (19.4)	107 (19.4)	66 (16.4)	ns	ns
Total	**173 (100)**	**303 (100)**	**402 (100)**	**551 (100)**	**403 (100)**		

1 Prior to 2019, heroin and steroids were listed as individual response items. They have been combined with "Other drugs" here.

Table 23: Injecting drug use in the six months prior to the survey

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
All participants	3 (1.8)	6 (2.1)	6 (1.6)	18 (3.4)	13 (3.4)	NA	NA
Total	**169 (100)**	**290 (100)**	**387 (100)**	**535 (100)**	**378 (100)**		

Table 24: Drug use for sex and group sex in the six months prior to the survey

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
Used drugs for sex	21 (12.4)	34 (11.7)	48 (12.2)	70 (13.2)	42 (11.1)	ns	ns
Total	**169 (100)**	**290 (100)**	**394 (100)**	**530 (100)**	**378 (100)**		
Engaged in group sex[1]	36 (20.8)	73 (24.1)	115 (28.6)	193 (35.0)	79 (19.6)	Decrease <.001	ns
Total	**173 (100)**	**303 (100)**	**402 (100)**	**551 (100)**	**403 (100)**		

1 The percentages from 2013-2019 are slightly different to those included in previous reports due to an adjustment in how this indicator has been calculated.

Table 25: Knowledge and use of pre- and post-exposure prophylaxis

	2013 n (%)	2015 n (%)	2017 n (%)	2019 n (%)	2021 n (%)	Change from 2019 (*p*-value)	Trend over time (*p*-value)
Aware of PEP	116 (71.6)	194 (68.6)	334 (87.0)	465 (87.2)	326 (86.2)	ns	Increase <.001
Total	**162 (100)**	**283 (100)**	**384 (100)**	**533 (100)**	**378 (100)**		
Aware of PrEP	-	112 (39.4)	316 (81.9)	491 (91.9)	388 (96.5)	Increase <.01	Increase <.001
Total	**-**	**284 (100)**	**386 (100)**	**534 (100)**	**402 (100)**		
Use of PEP by non-HIV-positive participants in the six months prior to the survey	2 (1.6)	6 (2.4)	21 (6.3)	24 (5.1)	8 (2.3)	NA	NA
Total	**129 (100)**	**246 (100)**	**333 (100)**	**469 (100)**	**347 (100)**		
Use of PrEP by non-HIV-positive participants in the six months prior to the survey[1]	1 (0.7)	1 (0.4)	45 (13.9)	170 (36.2)	95 (25.6)	Decrease <.01	Increase <.001
Total	**136 (100)**	**244 (100)**	**324 (100)**	**469 (100)**	**371 (100)**		
Use of PrEP by non-HIV-positive participants who reported CAIC in the six months prior to the survey[1]	0	1 (2.2)	33 (38.8)	132 (68.0)	67 (58.8)	ns	Increase <.001
Total	**18 (100)**	**46 (100)**	**85 (100)**	**194 (100)**	**114 (100)**		

1 From 2019, 'participants on PrEP' includes both regular (daily) and on demand (event-based) users. Prior to 2019, regular and on demand users could not be differentiated.