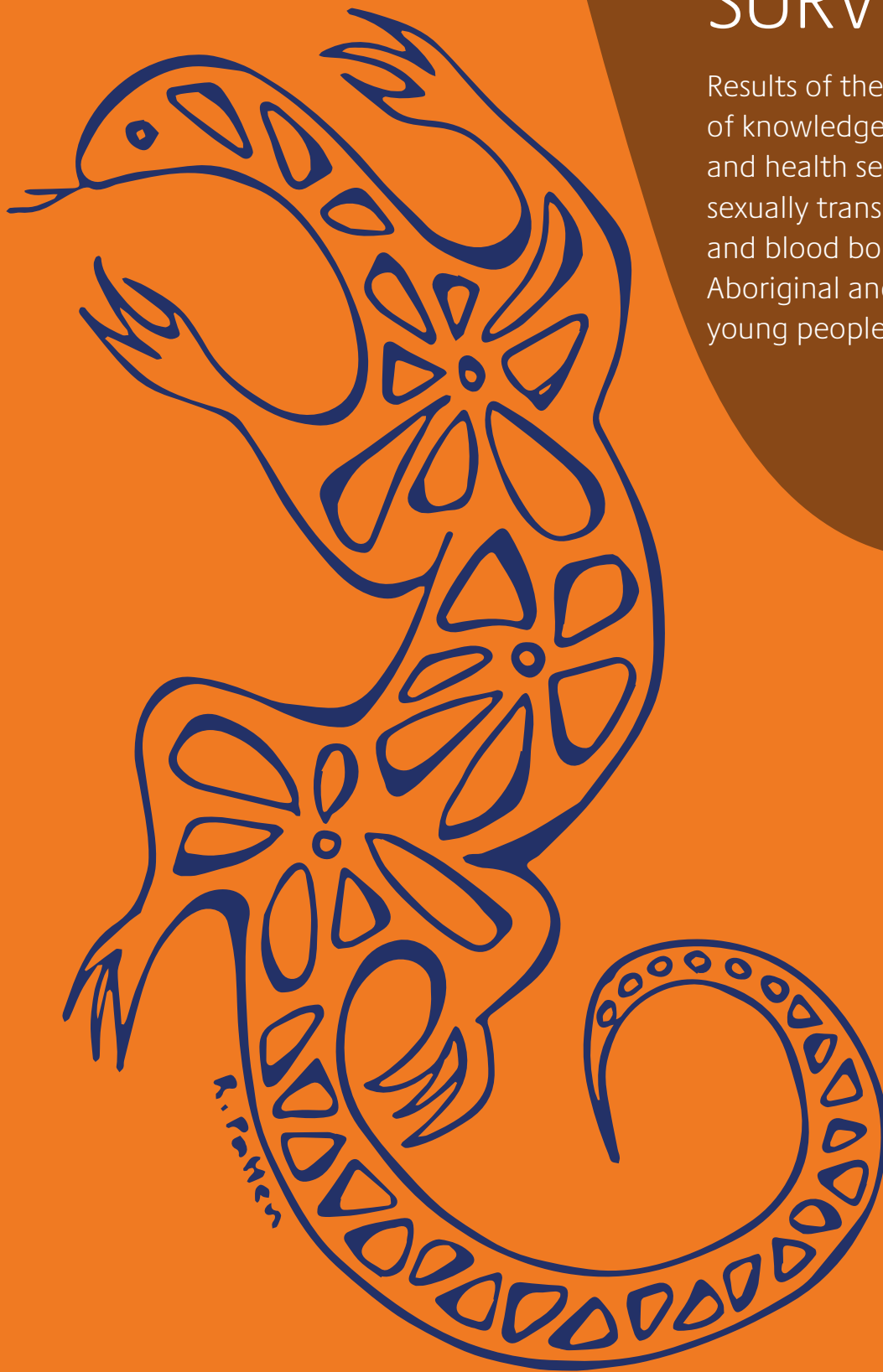


# THE GOANNA SURVEY 2

Results of the second Australian survey of knowledge, relationships, behaviour and health service access relating to sexually transmissible infections (STIs) and blood borne viruses (BBVs) among Aboriginal and Torres Strait Islander young people.



**SAHMRI**  
South Australian Health &  
Medical Research Institute

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# THE GOANNA SURVEY 2

Results of the second Australian survey of knowledge, relationships, behaviour and health service access relating to sexually transmissible infections (STIs) and blood borne viruses (BBVs) among Aboriginal and Torres Strait Islander young people.

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Artwork for the GOANNA Survey 2 project was provided by Ms Rochelle Patten of the Cumeragunja community on the Murray River in Yorta Yorta Country.

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# Executive Summary

Aboriginal and Torres Strait Islander people experience higher rates of sexually transmissible infections (STIs) including chlamydia, gonorrhoea and syphilis and blood borne viruses (BBVs) such as hepatitis B and C and HIV compared to non-Indigenous Australians. As such, Aboriginal and Torres Strait Islander people are recognised as a priority population in national and jurisdictional STI and BBV strategies (1).

The GOANNA Survey (2011-13) was the first national survey to gather social and behavioural data relating to STIs and BBVs from a large sample of young Aboriginal and Torres Strait Islander people. The survey was held at sporting and community events and established a baseline for ongoing surveillance to monitor trends over time. Data collection for the GOANNA Survey 2 commenced in September 2017 and finished in January 2020. The survey covers domains including demographics, knowledge of STIs and BBVs, relationships and behaviours underlying STI and BBV risk, and access to health care for testing, treatment and support for STIs, BBVs and drug and alcohol use. Over 1300 Aboriginal and Torres Strait Islander people aged 16-29 years participated in six mainland jurisdictions. The project was coordinated by Aboriginal organisations in each jurisdiction and funded by the Australian Government Department of Health. The GOANNA Survey 2 provides an update to the evidence base, identifies changes since the first survey and explores new issues relevant to sexual health.

## Key findings

### Study population

A total of 1343 Aboriginal and Torres Strait Islander participants aged 16-29 years completed surveys.

### Survey implementation

The survey was administered at 26 community and sporting events in six jurisdictions across mainland Australia (excluding ACT) between September 2017 and January 2020.

### Demographics

#### Gender

62% female, 36% male, <1% each transgender female, transgender male or other.

#### Age

40% aged 16-19 years, 35% 20-24 years and 24% 25-29 years (of those who reported age; missing for 10% of all participants).

#### Residential location

62% urban, 25% regional, 12% remote (of those who provided residential location; missing for 7% of all participants).

#### Sexual identity

82% heterosexual, 9% bisexual (11% female, 5% male), 5% homosexual/gay/lesbian, 4% unsure/other.

#### Relationship

62% single, 38% in a relationship.

#### Parenting

19% of all female participants had given birth and 16% of all male participants had fathered children.

#### Education

63% had completed year 12 or higher qualifications.

#### English

95% spoke English as their first language.

## History of imprisonment

7% had ever been in prison or a juvenile justice centre (11% males, 28% trans/gender diverse, 5% females; 14% remote residents compared with 5% urban or 6% regional residents).

## Knowledge of STIs and BBVs

Median score for ten questions on knowledge of STIs/BBVs was 7/10 (IQR 5-8).

Respondents aged 16-19 years had a slightly lower median score of 6/10 (interquartile range (IQR) 4-8) compared to older respondents (7/10 (IQR 5-8) for 20-24 yo and 7/10 (IQR 6-8) for 25-29 yo).

There was little variation in knowledge scores by gender or region.

Only 46% of respondents knew that chlamydia could cause infertility in women and 32% knew there was medicine available that could cure hepatitis C.

## Relationships and behaviours related to STI/BBV risk

### Sexual activity

80% of respondents reported having had sex (oral, vaginal or anal), and 78% had previously had intercourse (vaginal or anal sex). Trans/gender diverse respondents were less likely to report any form of sex.

Previous oral sex was reported by 65%, vaginal sex by 76% and anal sex by 25%.

### Median age of first sex

Median age of first sex was 16 years (IQR 15-17) for oral or vaginal sex and 18 years (IQR 16-20) for anal sex. Trans and gender diverse respondents reported a younger median age of first oral, vaginal and anal sex compared to those who identified as male or female.

### Sexual partners

Of respondents who reported previous vaginal or anal sex, 49% had either no sexual partner or one partner in the last year while 51% had 2 or more partners. Females, 25-29 yo and remote residents were less likely to report multiple partners.

Fifty percent of respondents reported that their last sex was with a current partner and 12% reported that it was with someone they had just met.

Last sexual partner was Aboriginal/Torres Strait Islander for 51% of respondents (81% of remote residents).

At last sex, 96% of females reported a male partner, 88% of males reported a female partner, 4% of females reported a female partner and 12% of males reported a male partner.

Most respondents reported their last sexual partner was someone of a similar age. Seventy four percent of 16-19 yo had a partner who was less than 20 years old, and a further 24% had a partner 20-24 years old. Among 25-29 yo, 75% had a partner 25 years or older.

Twenty-seven percent of respondents had used the internet and 28% had used mobile phone apps to find partners in the past year.

### Condom use

Participants who had had vaginal or anal sex previously were asked how often they used condoms in the last year. One quarter (26%) of respondents reported always using condoms, 44% used condoms sometimes and 31% never used them. Sixteen to 19 yo were more likely to always use a condom (33%) than older age groups (23% of 20-24 yo and 22% of 25-29 yo).

Participants were also asked about condom use at last sex and 40% reported they had used condoms. This was more common for 16-19 yo (47%, compared to 38% of 20-24 yo and 35% of 25-29 yo). Condom use at last sex was more likely to be reported with a new partner (51%) than a current partner (29%).

### Source of condoms

Most respondents accessed condoms from a shop/store or chemist (51%) followed by an Aboriginal Medical Service (23%). Aboriginal Medical Services were the primary source of condoms for trans/gender diverse respondents (44%) and respondents from remote areas (41%).



## **Sex under the influence of alcohol or drugs**

Over one quarter (27%) of respondents reported they were 'drunk or high' the last time they had sex. This was more common among males (33%) and trans/gender diverse respondents (44%) than females (24%).

## **Was last sex wanted?**

Ninety two percent of respondents reported that their last sex was wanted.

## **Tattoos**

Forty three percent of respondents had tattoos and 23% had acquired tattoos in an unregulated setting (eg. home, community, park, prison).

## **Smoking, alcohol and other drugs**

### **Cigarette smoking**

Twenty eight percent of respondents reported smoking cigarettes.

A higher proportion of trans/gender diverse respondents smoked (46%) compared to females (26%) or males (30%).

Smoking cigarettes increased with age (21% of 16-19 yo compared to 33% of 20-24 yo and 30% of 25-29 yo).

### **Alcohol**

Seventy nine percent of respondents reported drinking alcohol in the last 12 months. Seventy one percent of drinkers exceeded 4 drinks per occasion.

Respondents from remote areas were less likely to have drunk alcohol (73%, compared to 82% of urban residents and 83% of regional residents). Drinkers from regional and remote areas were more likely to drink more than 4 drinks per occasion (83% and 80% compared with 66% of urban residents, respectively).

### **Illicit drug use**

Forty seven percent of respondents had used illicit drugs in the last 12 months. Marijuana was the most commonly used drug (35%), followed by ecstasy (18%) and cocaine (14%). Six percent of respondents reported using meth/amphetamine in the last 12 months.

Drug use was more common in males (54%) and trans/gender diverse respondents (77%) compared with females (42%) and more common in 20-24 yo (54%) than other age groups (43% of both 16-19 yo and 25-29 yo).

Three percent of respondents reported injecting drugs in the past 12 months.

One third of trans/gender diverse respondents reported injecting drug use compared with only 2% each of males and females.

Among those who reported injecting, meth/amphetamine, heroin and methadone were the most commonly injected drugs (50%, 34% and 25% of injectors, respectively).

Twenty three percent of those who reported injecting had shared needles/syringes and 32% had shared other injecting equipment.

## **Health service access, testing, treatment and support for STIs and BBVs**

### **Health checks**

Sixty four percent of respondents reported they had had a full health check in the last year.

Trans/gender diverse respondents were less likely to report a health check (48%) than males (60%) or females (67%).

A lower proportion of 16-19 yo respondents reported health checks in the last year (58%) (compared to 66% of 20-24 yo and 70% of 25-29 yo).

Health checks were more commonly reported by regional and remote residents (69% and 77%, respectively) than those living in urban areas (61%).

Aboriginal Medical Services were the most common location for health checks (66% overall), particularly for those living in remote areas (81% compared to 62% of urban and 66% of regional respondents).

Sixty one percent of respondents had been offered STI testing as part of their health check. This was much less common for 16-19 yo (42% compared to 70% of 20-24 yo and 74% of 25-29 yo) and also less common for male respondents (54% compared to 64% of both females and trans/gender diverse).

## **STI testing**

Sixty percent of all respondents and 70% of those who were sexually active (oral, vaginal or anal sex previously) reported ever being tested for STIs.

Sexually active females were more likely to report STI testing (74%) than males (61%) or trans/gender diverse respondents (64%).

Only half of sexually active 16-19 yo (51%) had ever been tested for STIs.

Higher proportions of urban and remote residents reported STI testing ever compared to regional residents (72% and 78% versus 61%, respectively).

Half of respondents had been tested at an Aboriginal Medical Service and a further 39% at a General Practice clinic. Regional and remote residents were more likely to have been tested at an Aboriginal Medical Service (54% and 70%, respectively) than urban residents (45%).

## **STI diagnosis**

Almost one quarter (24%) of those ever tested had been diagnosed with an STI, 10% in the last year (13% of all participants and 17% of sexually active respondents had ever been diagnosed). Chlamydia was the most common STI reported (18% of those ever tested) followed by gonorrhoea (4%).

## **HIV testing, diagnosis and treatment**

One third of respondents had been tested previously for HIV and 24% reported testing in the last year.

The youngest age group (16-19 yo) was least likely to be tested (16% in the last year compared to 28% of 20-24 yo and 30% of 25-29 yo).

HIV testing ever was reported by 53% of people who injected drugs, 61% of males whose last sexual partner was male and 45% of those previously imprisoned.

Over half of respondents received HIV testing at an Aboriginal Medical Service (53%) and approximately one-third at a General Practice clinic (31%).

Aboriginal Medical Services were also the most likely place attended for HIV testing by those with recent injecting drug use, history of imprisonment or males with a male sexual partner.

Fourteen respondents were HIV positive. Five reported they were on HIV treatment, seven were not on treatment and two did not answer the treatment question.

## **Hepatitis C testing**

Thirty two percent of respondents reported ever testing for hepatitis C (HCV), with 23% tested in the last year.

A smaller proportion of respondents aged 16-19 years reported they had been HCV tested, with only 13% tested in the last year compared to 28% of 20-24 yo and 32% of 25-29 yo.

Of respondents who reported injecting drug use in the last 12 months, 45% had ever been tested for HCV, and among those with a history of imprisonment, 44% had been previously tested.

Hepatitis C testing was most likely to be conducted at an Aboriginal Medical Service (52%) followed by general practice (33%), regardless of age, gender or residential location.



### **Hepatitis C diagnosis and treatment**

Four percent of those tested were HCV positive. Positivity was 47% for those with injecting drug use in the last 12 months and 15% for those who had previously been imprisoned.

Nine of 17 HCV positive respondents (53%) had not previously had treatment.

Among those who were HCV negative, eighteen had previously been treated for hepatitis C (5%).

### **Source of advice on sex and STIs**

Aboriginal Medical Services were reported as the first place to go for advice on sex and STIs by 45% of respondents, followed by General Practice (20%). Younger respondents aged 16-19 yo more commonly sought advice from family (15% compared to 4% of those either 20-24 yo or 25-29 yo). The internet was used more by older age groups (9% of 20-24 yo and 7% of 25-29 yo compared with 3% of 16-19 yo).

### **Help for alcohol and other drugs**

Aboriginal Medical Services were reported as the best place to get help for alcohol or drug use by 48% of respondents followed by drug and alcohol services (21%).

### **Social and emotional wellbeing**

Forty six percent of respondents reported high or very high levels of psychological distress during the four weeks before the survey (based on a modified Kessler Psychological Distress Scale). High/very high levels were more commonly reported by females (51%) and trans/gender diverse respondents (68%) than males (37%).

Positive feelings of wellbeing were reported all or most of the time by around 40-50% of respondents (calm and peaceful 40%, happy person 52%, full of life 43%, having a lot of energy 39%).



# 1 Introduction

Sexually transmissible infections and blood-borne viruses have been identified as an area of health disadvantage for Aboriginal and Torres Strait Islander people, particularly young people. Chlamydia and gonorrhoea are the leading incident conditions in Aboriginal and Torres Strait Islander adolescents aged 15-24 yo (2) and notification rates of these STIs are several-fold higher for Aboriginal and Torres Strait Islander people compared to non-Indigenous Australians (3). An outbreak of syphilis is currently occurring in Aboriginal and Torres Strait Islander communities across northern and central Australia with sometimes devastating consequences for pregnant women and their babies (3). Hepatitis C rates are increasing in Aboriginal young people, and in recent years for the first time, HIV rates have been higher in Aboriginal and Torres Strait Islander people than Australian born non-Indigenous people (3). Despite the successful prevention of hepatitis B through immunization programs, chronic hepatitis B continues to affect older Aboriginal and Torres Strait Islander people, with suboptimal rates of diagnosis and treatment (3).

In order to design effective health promotion strategies and develop policies to address these conditions, it is important to understand the underlying social and behavioural factors that impact on STI/BBV risk. Whilst several sexual health surveys are held regularly in Australia at both a jurisdictional and national level (4-7), the number of Aboriginal and Torres Strait Islander participants included tends to be small. To address this, the GOANNA Survey was conducted across Australia in 2011-2013 and recruited almost 3000 Aboriginal and Torres Strait Islander young people aged 16-29 years (8). Data was collected on demographics, STI/BBV knowledge, behaviours and health service access in relation to STIs and BBVs. The findings established an evidence base for this population that was widely used by healthcare providers and policymakers.

Over five years have now passed since the release of the first GOANNA Survey Report in 2014. Given the dynamic nature of sexual health, it is essential that regular surveillance of social and behavioural factors continues to ensure that decision-making is being informed by current evidence. The GOANNA Survey 2 project was funded by the Australian Government Department of Health to update the evidence, monitor trends since the first survey and explore emerging issues. The GOANNA Survey 2 was led by Professor James Ward and coordinated from the South Australian Health and Medical Research Institute. Eight Aboriginal community controlled organisations partnered in the project and played a lead role in survey implementation. Research capacity building for Aboriginal and Torres Strait Islander people and organisations was again an important part of the project. The methodology closely followed that of the original survey, to allow for identification of key changes in social and behavioural factors impacting on STIs and BBVs.

## Aims

- 1 Describe patterns of knowledge, behaviours and health service access related to STIs and BBVs in Aboriginal and Torres Strait Islander people aged 16-29 years to provide current evidence to support policy and program interventions to address STIs and BBVs in this population**
- 2 Identify changes in these domains since the first survey**
- 3 Examine additional areas of interest**
- 4 Provide research capacity development to Aboriginal and Torres Strait Islander people and communities**



## 2 Methods

### Role of partnering organisations

Aboriginal community-controlled organisations including three NACCHO affiliates, four Aboriginal Community Controlled Health services and the National Centre of Indigenous Excellence (NCIE) partnered in the project and took a lead role in coordinating the survey.

Each organisation nominated staff members to manage the survey. Survey coordinators selected local events at which to run the survey, liaised with event coordinators and recruited young Aboriginal and Torres Strait Islander people to work as survey collectors. Survey coordinators took part in face-to-face workshops where they were provided with training in research ethics, methodology and survey implementation. Resources and instruction on survey collector training were also provided. Survey coordinators then delivered training sessions for survey collectors prior to each event.

### Survey implementation

The methodology for the GOANNA Survey has been published previously (8). Surveys were held at sporting and cultural events (eg. Aboriginal football/netball carnivals, NAIDOC week events, Yabun, Survival day) with full permission of event coordinators and payment of stall-holder fees where required. At most events, survey coordinators established a stall with a banner promoting the survey and offered a range of merchandise and health promotion material (eg. Wrist bands, temporary tattoos, bottled water, phone wallets, condoms, brochures). Survey coordinators and collectors wore GOANNA-branded T-shirts. At some events, photo booths, Instagram corflutes and mascots were used to promote the survey. Raffles were held for participants with prizes such as gift vouchers and mobile phones.

Survey coordinators decided on the approach for data collection. Often one or two coordinators/collectors remained at the stall, while other collectors roamed the event. Survey collectors invited event attendees to participate. For those expressing interest, they provided a brief explanation of the survey, confirmed that participants were eligible (16–29 years old, Aboriginal and/or Torres Strait Islander) and conducted an informed consent process. Participants were provided with contact details for local health services where they could access sexual health and other services and offered correct answers to STI/BBV knowledge questions after they had completed the questionnaire.

### Data management

The REDCap platform was used to collect and manage survey data (9). REDCap (Research Electronic Data Capture) is a secure, web-based application designed to support data capture for research studies (9). Questionnaires were completed on Samsung tablets using either the REDCap app or the web-based platform with a 4G Wi-Fi modem to provide secure internet access. The web-based platform allowed completed questionnaires to be submitted directly to the SAHMRI database. When the app was used, completed questionnaires were temporarily stored on the tablet but uploaded regularly to the database after connecting to WiFi via the modem.

### Questionnaire

The questionnaire (see Appendix) was based on the one used for the first GOANNA survey and covered four domains: demographics, knowledge of STIs and BBVs, relationships and behaviours related to STI/BBV risk (including alcohol and other drug use), and health service access for STI/BBV testing, treatment, advice and support.

The original GOANNA Survey questionnaire was based on other Australian sexual health surveys including the Australian Study of Health and Relationships (ASHR (4)) and the National Survey of Australian Secondary Students and Sexual Health (5) and had been pilot tested before implementation. For the GOANNA Survey 2, modifications were made to address questions where some ambiguity had been identified, simplify language and add new questions to explore emerging topics. Further pilot testing was conducted with a group of young Aboriginal and Torres Strait Islander people in South Australia and their feedback was incorporated. Some more minor changes were made in the first year of survey implementation in response to feedback from survey coordinators/collectors to improve clarity and shorten the questionnaire.

Eligibility and consent questions were completed on the tablet before the participant was able to access the questionnaire. Questions were a mix of single option answers (including Yes/No), multiple option answers and free text responses (eg. age, postcode, number of children).

## Data analysis

Study data were collected and managed using REDCap electronic data capture tools (9) hosted at the South Australian Health and Medical Research Institute (SAHMRI). Data were exported to Excel and analysed using Stata (Version 16.0). Simple statistical measures (frequencies, percentages for categorical variables and medians for continuous variables) were used to summarise the data. Missing data are indicated in each table but have been excluded when calculating proportions, so the number of respondents (not the total number of participants) has been used as the denominator. Note that this differs from the first GOANNA Survey report.

## Ethical approval

Ethical approval for the study was granted by the Flinders University Social and Behavioural Research Ethics Committee (OH-00144) and the relevant Human Research Ethics Committee (HREC) in each jurisdiction where applicable: AHREC in South Australia (04-17-721), St Vincent's Hospital Melbourne HREC (097/17), AHMRC Ethics Committee in NSW (1277/17), HREC of the Northern Territory Department of Health and Menzies School of Health Research (2017-2854), Central Australian HREC (CA-18-3058), the Kimberley Research Subcommittee (2018-001) and WAAHEC in Western Australia (840) and the Executive of the Queensland Aboriginal and Islander Health Council (as there is no dedicated Aboriginal Health HREC in Queensland).





## 3 Results: Surveys and demographics

Surveys were collected between September 2017 and January 2020 at 26 events in 13 locations across six mainland jurisdictions. Results are reported by gender (female, male, trans and gender diverse), age at time of survey (16-19 years old (yo), 20-24 yo, 25-29 yo) and residential location (urban, regional, remote) based on self-reported postcode, town or community and classified using The Australian Statistical Geography Standard classification of Remoteness Areas (10).

Table 3.1 presents the number of events at which surveys were held and number of participants by State and Territory.

**Table 3.1 Events and participant numbers by jurisdiction and year**

	2017	2018	2019	2020	Total Events	Total participants
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i> (%)
<b>Jurisdiction</b>						
SA	44	51	48	0	3	143 (11%)
VIC	0	26	165	69	4	260 (19%)
QLD	0	147	140	0	5	287 (21%)
NT	0	89	65	0	6	154 (11%)
NSW	0	113	278	28	4	419 (31%)
WA	0	0	80	0	4	80 (6%)
<b>Total</b>	44	426	776	97	26	1,343

### Eligibility and participation

A total of 1455 individuals commenced the survey, however 6% of these ( $n = 81$ ) were ineligible because they were non-Indigenous or outside the 16-29 year age range. A further 2% of eligible individuals ( $n = 31$ ) either did not provide consent or consented but did not answer any further questions.

After excluding participants who were ineligible or did not proceed beyond consent, there were 1343 Aboriginal and Torres Strait Islander participants aged 16-29 years who completed surveys. Ninety five percent of these participants completed the last question. Participants were asked at the end of the survey whether they found it easy to complete. Eighty five percent of respondents agreed (81% of all participants including those who did not answer). Participants were also asked whether they had done the GOANNA Survey 2 previously. Thirteen percent of respondents (11% of all participants) reported that they had. However, there were no duplicate surveys, so all surveys were retained for analysis.

### Demographics of study participants

Of all participants, 90% ( $n = 1,207$ ) identified as Aboriginal, 4% ( $n = 50$ ) as Torres Strait Islander and 6% ( $n = 86$ ) as both Aboriginal and Torres Strait Islander.

Sixty two percent of respondents identified as female, 36% as male, and <1% each as transgender female, transgender male or other (Table 3.2). Nine participants did not answer the gender question.

**Table 3.2 Participant gender**

Gender	
<b>Number of participants</b>	1343
Female	829 (62%)
Male	477 (36%)
Transgender female	8 (<1%)
Transgender male	10 (<1%)
Other	10 (<1%)
<i>Number of respondents</i>	1334
<i>Did not answer</i>	9

Number of respondents has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

Of those who provided their age (n = 1206), 40% were 16-19 yo, 35% were 20-24 yo and 24% were 25-29 yo (Table 3.3). Median age was 21 years (interquartile range (IQR) 18-24). Age was not reported by 137 participants. Non-responders have been excluded from age specific analyses.

**Table 3.3 Participant age**

Age group	
<b>Number of participants</b>	1343
16-19 yo	488 (40%)
20-24 yo	426 (35%)
25-29 yo	292 (24%)
<i>Number of respondents</i>	1206
<i>Did not answer</i>	137

Number of respondents has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

Of those who reported their postcode, town or community (n = 1255), 62% were residents of urban areas, 25% were from regional areas and 12% from remote areas (Table 3.4). Residential location was not reported by 88 participants (7% of total). Non-responders have been excluded from region specific analyses.

**Table 3.4 Participant residential location (based on Australian Statistical Geography Standard Remoteness Areas (10))**

Region	
<b>Number of participants</b>	1343
Urban	781 (62%)
Regional	319 (25%)
Remote	155 (12%)
<i>Number of respondents</i>	1255
<i>Did not answer</i>	88

Number of respondents has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 3.5 Participant gender by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	475	418	290
<b>Gender</b>			
Female	291 (62%)	268 (64%)	188 (66%)
Male	179 (38%)	150 (36%)	99 (34%)
<i>Number of respondents</i>	470	418	287
<i>Did not answer</i>	5	0	3

a. Participants with missing data for age (n = 137, 10%) have been excluded.

Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

Number of respondents has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

The relative proportion of females was slightly higher in older age groups (64% of 20-24 yo and 66% of 25-29 yo compared to 62% of 16-19 yo) (Table 3.5). Over half of trans and gender diverse participants were 16-19 yo (57% (13/23) of those who provided age).

**Table 3.6 Participant gender by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	764	315	153
<b>Gender</b>			
Female	509 (67%)	189 (60%)	95 (63%)
Male	254 (33%)	124 (40%)	56 (37%)
<i>Number of respondents</i>	763	313	151
<i>Did not answer</i>	1	2	2

a. Participants with missing data for region (n = 88, 7%) have been excluded.

Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

Number of respondents has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

There were slightly higher proportions of female participants from urban locations (67% compared to 60% in urban and 63% in remote areas) (Table 3.6). The majority of trans and gender diverse participants were urban residents (74% (17/23) who provided residential location).

**Table 3.7 Participant residential location by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	488	426	292
<b>Region</b>			
Urban	276 (60%)	253 (62%)	187 (67%)
Regional	135 (29%)	94 (23%)	62 (22%)
Remote	48 (10%)	58 (14%)	31 (11%)
<i>Number of respondents</i>	459	405	280
<i>Did not answer</i>	29	21	12

a. Participants with missing data for age (n = 137, 10%) have been excluded.

Number of respondents has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

Most respondents identified as heterosexual (82%), followed by bisexual (9%). Among females, 11% identified as bisexual, 3% as lesbian/homosexual and 4% as unsure/other (Table 3.8). Seven percent of males identified as gay/homosexual, 5% as bisexual and 3% as unsure/other. Less than 15% of trans and gender diverse respondents identified as heterosexual. Heterosexual identity was more commonly reported by the youngest age group (86% of 16-19 yo compared to 79% of 20-24 yo and 83% of 25-29 yo) (Table 3.9). The proportion of respondents identifying as heterosexual was slightly lower in urban areas (81% compared to 87% in regional and 86% in remote areas) (Table 3.10).

Sixty two percent of respondents were single and 38% were in a relationship (22% living with a partner and 16% in a relationship but not living with a partner) (Table 3.8). A higher proportion of 16-19 yo reported being single (71% compared to 60% of 20-24 yo and 52% of 25-29 yo) (Table 3.9).

Twenty seven percent of female respondents who had previously had vaginal sex had given birth (19% of all female participants) (Table 3.8). This increased from 4% of 16-19 yo to 46% of 25-29 yo among females with previous vaginal sex. The median number of births was 2 (range 1-6) (Table 3.9). A similar proportion of males with previous vaginal sex had fathered children (23%) (16% of all male participants) (Table 3.8). This ranged from 6% of 16-19 yo to 48% of 25-29 yo among males with previous vaginal sex (Table 3.9). The median number of children fathered was 2 (range 1-8).

Sixty three percent of respondents had completed year 12 or higher qualifications (Table 3.8). This was lower for 16-19 yo (many of whom would still be attending high school) compared to older age groups (Table 3.9). Fifteen percent had completed a degree or diploma, with higher proportions of females, 25-29 yo and urban residents having post-school qualifications (Tables 3.8-3.10).

Most respondents spoke English as their first language (95%) (Table 3.8), but the proportion was lower for residents from remote areas (89%) compared to regional or urban areas (95% and 98%, respectively) (Table 3.10).

Seven percent of respondents had ever been in prison or a juvenile justice centre for more than 24 hours (Table 3.8). Previous imprisonment was more prevalent in trans and gender diverse respondents (7/25, 28%) and males (11%) compared to females (5%) (Table 3.8), and in remote residents (14%) compared with those living in urban (5%) or regional (6%) areas (Table 3.10). Those who did not report their age were more likely to have been in prison (15% (18/124); compared to 6%, 8% and 6% of 16-19 yo, 20-24 yo and 25-29 yo, respectively) (Table 3.9).



**Table 3.8 Participant characteristics overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants</b>	1343	829	477
<b>Sexuality</b>			
Heterosexual	1097 (82%)	683 (83%)	403 (85%)
Homosexual/lesbian/gay	69 (5%)	23 (3%)	34 (7%)
Bisexual	116 (9%)	88 (11%)	23 (5%)
Unsure/other	51 (4%)	31 (4%)	13 (3%)
<i>Number of respondents</i>	1333	825	473
<i>Did not answer</i>	10	4	4
<b>Cohabitation</b>			
Single	823 (62%)	511 (62%)	292 (61%)
Living with partner	294 (22%)	181 (22%)	105 (22%)
Relationship but not living together	217 (16%)	132 (16%)	79 (17%)
<i>Number of respondents</i>	1334	824	476
<i>Did not answer</i>	9	5	1
<b>Given birth<sup>b</sup></b>			
Yes	161 (26%)	161 (27%)	-
No	449 (74%)	443 (73%)	-
<i>Number of respondents</i>	610	604	-
<i>Did not answer</i>	27	13	-
<b>Fathered children<sup>c</sup></b>			
Yes	79 (23%)	-	78 (23%)
No	265 (77%)	-	260 (77%)
<i>Number of respondents</i>	344	-	338
<i>Did not answer</i>	23	-	12
<b>Highest level of education</b>			
Less than year 12	490 (37%)	286 (35%)	190 (40%)
Completed year 12	648 (49%)	402 (49%)	229 (49%)
Diploma/degree	195 (15%)	139 (17%)	52 (11%)
<i>Number of respondents</i>	1333	827	471
<i>Did not answer</i>	10	2	6
<b>English as first language</b>			
Yes	1263 (95%)	787 (96%)	446 (95%)
No	65 (5%)	35 (4%)	25 (5%)
<i>Number of respondents</i>	1328	822	471
<i>Did not answer</i>	15	7	6
<b>Imprisonment</b>			
Never	1189 (93%)	767 (95%)	398 (89%)
Last year	36 (3%)	18 (2%)	15 (3%)
More than a year ago	55 (4%)	19 (2%)	32 (7%)
<i>Number of respondents</i>	1280	804	445
<i>Did not answer</i>	63	25	32

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

b. Females with previous vaginal sex only.

c. Males with previous vaginal sex only.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 3.9 Participant characteristics by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	488	426	292
<b>Sexuality</b>			
Heterosexual	418 (86%)	334 (79%)	239 (83%)
Homosexual/lesbian/gay	20 (4%)	18 (4%)	22 (8%)
Bisexual	31 (6%)	51 (12%)	22 (8%)
Unsure/other	16 (3%)	20 (5%)	6 (2%)
<i>Number of respondents</i>	485	423	289
<i>Did not answer</i>	3	3	3
<b>Cohabitation</b>			
Single	343 (71%)	253 (60%)	152 (52%)
Living with partner	46 (10%)	102 (24%)	102 (35%)
Relationship but not living together	94 (19%)	69 (16%)	37 (13%)
<i>Number of respondents</i>	483	424	291
<i>Did not answer</i>	5	2	1
<b>Given birth<sup>b</sup></b>			
Yes	7 (4%)	52 (23%)	76 (46%)
No	158 (96%)	171 (77%)	89 (54%)
<i>Number of respondents</i>	165	223	165
<i>Did not answer</i>	10	6	5
<b>Fathered children<sup>c</sup></b>			
Yes	6 (6%)	23 (20%)	41 (48%)
No	99 (94%)	93 (80%)	44 (52%)
<i>Number of respondents</i>	105	116	85
<i>Did not answer</i>	3	6	0
<b>Highest level of education</b>			
Less than year 12	258 (54%)	79 (19%)	96 (33%)
Completed year 12	213 (44%)	266 (62%)	111 (38%)
Diploma/degree	10 (2%)	81 (19%)	85 (29%)
<i>Number of respondents</i>	481	426	292
<i>Did not answer</i>	7	0	0
<b>English as first language</b>			
Yes	467 (97%)	396 (93%)	276 (96%)
No	16 (3%)	29 (7%)	11 (4%)
<i>Number of respondents</i>	483	425	287
<i>Did not answer</i>	5	1	5
<b>Imprisonment</b>			
Never	441 (95%)	374 (92%)	268 (94%)
Last year	8 (2%)	16 (4%)	6 (2%)
More than a year ago	17 (4%)	15 (4%)	11 (4%)
<i>Number of respondents</i>	466	405	285
<i>Did not answer</i>	22	21	7

a. Participants with missing data for age (n = 137, 10%) have been excluded.

b. Females with previous vaginal sex only.

c. Males with previous vaginal sex only.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 3.10 Participant characteristics by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	781	319	155
<b>Sexuality</b>			
Heterosexual	627 (81%)	276 (87%)	133 (86%)
Homosexual/lesbian/gay	38 (5%)	14 (4%)	8 (5%)
Bisexual	85 (11%)	18 (6%)	na <sup>b</sup>
Unsure/other	26 (3%)	9 (3%)	13 (8%) <sup>b</sup>
<i>Number of respondents</i>	776	317	154
<i>Did not answer</i>	5	2	1
<b>Cohabitation</b>			
Single	474 (61%)	199 (63%)	93 (60%)
Living with partner	165 (21%)	69 (22%)	46 (30%)
Relationship but not living together	139 (18%)	48 (15%)	16 (10%)
<i>Number of respondents</i>	778	316	155
<i>Did not answer</i>	3	3	0
<b>Given birth<sup>c</sup></b>			
Yes	79 (21%)	46 (32%)	26 (39%)
No	300 (79%)	99 (68%)	41 (61%)
<i>Number of respondents</i>	379	145	67
<i>Did not answer</i>	16	4	2
<b>Fathered children<sup>d</sup></b>			
Yes	41 (22%)	25 (28%)	9 (25%)
No	145 (78%)	65 (72%)	27 (75%)
<i>Number of respondents</i>	186	90	36
<i>Did not answer</i>	5	5	2
<b>Highest level of education</b>			
Less than year 12	239 (31%)	144 (46%)	67 (43%)
Completed year 12	388 (50%)	144 (46%)	77 (50%)
Diploma/degree	153 (20%)	27 (9%)	11 (7%)
<i>Number of respondents</i>	780	315	155
<i>Did not answer</i>	1	4	0
<b>English as first language</b>			
Yes	757 (98%)	300 (95%)	137 (89%)
No	19 (2%)	15 (5%)	17 (11%)
<i>Number of respondents</i>	776	315	154
<i>Did not answer</i>	5	4	1
<b>Imprisonment</b>			
Never	728 (95%)	286 (94%)	117 (86%)
Last year	14 (2%)	5 (2%)	10 (7%)
More than a year ago	21 (3%)	12 (4%)	9 (7%)
<i>Number of respondents</i>	763	303	136
<i>Did not answer</i>	18	16	19

a. Participants with missing data for region (n = 88, 7%) have been excluded.

b. **na** Not available; results for bisexual/unsure/other have been combined because of small numbers.

c. Females with previous vaginal sex only.

d. Males with previous vaginal sex only.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.



## 4 Results: Knowledge about STIs and BBVs

Participants' knowledge about STIs and BBVs and their treatment and prevention were assessed using ten questions. The number of correct answers was calculated for each respondent. "Don't Know" responses were treated as incorrect. Only respondents who answered all ten questions received an aggregate score (n = 1283). Results are presented by gender, age group and residential location in Tables 4.1-4.3.

The highest scoring questions were those about HIV transmission/prevention and hepatitis C risk linked to injecting drug use (more than 70% of respondents answered correctly). Conversely, only 46% of respondents knew that chlamydia could cause infertility in women and only 32% knew there was medicine available that could cure hepatitis C. The median knowledge score out of 10 for 16-19 yo was 6 (IQR (4-8)) compared to 7 (IQR 5-8) in 20-24 yo and 7 (IQR 6-8) in 25-29 yo (Figure 4.1). Median knowledge scores were similar across gender and region.





**Table 4.1 Knowledge questions answered correctly overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants</b>	1343	829	477
<b>If a woman with HIV (AIDS) is pregnant, can her baby become infected with HIV? (YES)</b>	895 (67%)	575 (70%)	294 (63%)
<i>Number of respondents</i>	1327	826	465
<i>Did not answer</i>	16	3	12
<b>Does a person with a sex disease/STI always have symptoms? (NO)</b>	873 (66%)	576 (70%)	280 (60%)
<i>Number of respondents</i>	1324	823	468
<i>Did not answer</i>	19	6	9
<b>Are people who have injected drugs at risk for Hepatitis C? (YES)</b>	998 (76%)	610 (74%)	362 (78%)
<i>Number of respondents</i>	1321	820	467
<i>Did not answer</i>	22	9	10
<b>Does the pill (birth control) protect a woman from HIV (AIDS) infection? (NO)</b>	1064 (80%)	690 (84%)	352 (75%)
<i>Number of respondents</i>	1326	824	467
<i>Did not answer</i>	17	5	10
<b>Can Chlamydia make a woman unable to have a baby? (YES)</b>	607 (46%)	386 (47%)	204 (44%)
<i>Number of respondents</i>	1320	823	462
<i>Did not answer</i>	23	6	15
<b>If condoms are used during sex, does this help to protect people from getting HIV (AIDS)? (YES)</b>	937 (71%)	566 (69%)	348 (75%)
<i>Number of respondents</i>	1318	820	464
<i>Did not answer</i>	25	9	13
<b>Is there medicine that can cure hepatitis C? (YES)</b>	420 (32%)	248 (30%)	157 (34%)
<i>Number of respondents</i>	1312	817	460
<i>Did not answer</i>	31	12	17
<b>Could someone who looks healthy pass on HIV (AIDS) infection? (YES)</b>	889 (68%)	570 (70%)	299 (64%)
<i>Number of respondents</i>	1317	817	465
<i>Did not answer</i>	26	12	12
<b>Can Hepatitis B be passed on by sex? (YES)</b>	672 (51%)	385 (47%)	269 (59%)
<i>Number of respondents</i>	1307	814	459
<i>Did not answer</i>	36	15	18
<b>Can Chlamydia be easily treated with antibiotics? (YES)</b>	819 (63%)	532 (65%)	270 (59%)
<i>Number of respondents</i>	1309	820	454
<i>Did not answer</i>	34	9	23
<b>Median score/10 (IQR)</b>	7 (5-8)	7 (5-8)	7 (5-8)
<i>Number of respondents</i>	1283	796	454
<i>Did not answer</i>	60	33	23

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 4.2 Knowledge questions answered correctly by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	488	426	292
<b>If a woman with HIV (AIDS) is pregnant, can her baby become infected with HIV? (YES)</b>	301 (62%)	312 (74%)	202 (70%)
<i>Number of respondents</i>	485	421	290
<i>Did not answer</i>	3	5	2
<b>Does a person with a sex disease/STI always have symptoms? (NO)</b>	257 (54%)	305 (72%)	224 (77%)
<i>Number of respondents</i>	478	422	290
<i>Did not answer</i>	10	4	2
<b>Are people who have injected drugs at risk for Hepatitis C? (YES)</b>	312 (66%)	344 (81%)	251 (87%)
<i>Number of respondents</i>	476	423	290
<i>Did not answer</i>	12	3	2
<b>Does the pill (birth control) protect a woman from HIV (AIDS) infection? (NO)</b>	357 (75%)	352 (83%)	256 (88%)
<i>Number of respondents</i>	479	422	291
<i>Did not answer</i>	9	4	1
<b>Can Chlamydia make a woman unable to have a baby? (YES)</b>	166 (35%)	214 (51%)	158 (54%)
<i>Number of respondents</i>	473	422	290
<i>Did not answer</i>	15	4	2
<b>If condoms are used during sex, does this help to protect people from getting HIV (AIDS)? (YES)</b>	338 (71%)	305 (72%)	200 (69%)
<i>Number of respondents</i>	474	422	289
<i>Did not answer</i>	14	4	3
<b>Is there medicine that can cure hepatitis C? (YES)</b>	140 (30%)	135 (32%)	97 (34%)
<i>Number of respondents</i>	470	421	289
<i>Did not answer</i>	18	5	3
<b>Could someone who looks healthy pass on HIV (AIDS) infection? (YES)</b>	287 (60%)	298 (71%)	221 (77%)
<i>Number of respondents</i>	475	420	288
<i>Did not answer</i>	13	6	4
<b>Can Hepatitis B be passed on by sex? (YES)</b>	230 (49%)	223 (53%)	150 (52%)
<i>Number of respondents</i>	468	420	288
<i>Did not answer</i>	20	6	4
<b>Can Chlamydia be easily treated with antibiotics? (YES)</b>	230 (49%)	291 (69%)	220 (76%)
<i>Number of respondents</i>	468	422	289
<i>Did not answer</i>	20	4	3
<b>Median score/10 (IQR)</b>	6 (4-8)	7 (5-8)	7 (6-8)
<i>Number of respondents</i>	455	412	289
<i>Did not answer</i>	33	14	3

a. Participants with missing data for age (n = 137, 10%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.



**Table 4.3 Knowledge questions answered correctly by residential location**

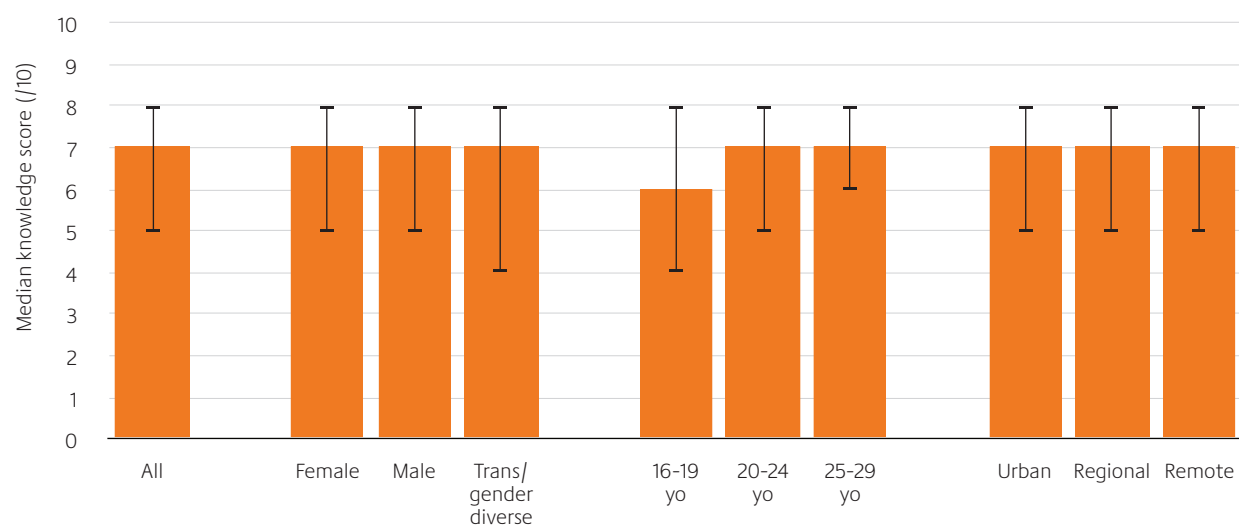
	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	781	319	155
<b>If a woman with HIV (AIDS) is pregnant, can her baby become infected with HIV? (YES)</b>	528 (68%)	205 (65%)	116 (76%)
<i>Number of respondents</i>	782	314	153
<i>Did not answer</i>	7	5	2
<b>Does a person with a sex disease/STI always have symptoms? (NO)</b>	563 (73%)	181 (57%)	81 (53%)
<i>Number of respondents</i>	772	315	154
<i>Did not answer</i>	9	4	1
<b>Are people who have injected drugs at risk for Hepatitis C? (YES)</b>	605 (78%)	233 (74%)	113 (74%)
<i>Number of respondents</i>	772	314	153
<i>Did not answer</i>	9	5	2
<b>Does the pill (birth control) protect a woman from HIV (AIDS) infection? (NO)</b>	654 (84%)	249 (79%)	109 (72%)
<i>Number of respondents</i>	776	316	151
<i>Did not answer</i>	5	3	4
<b>Can Chlamydia make a woman unable to have a baby? (YES)</b>	359 (46%)	132 (42%)	88 (59%)
<i>Number of respondents</i>	774	316	149
<i>Did not answer</i>	7	3	6
<b>If condoms are used during sex, does this help to protect people from getting HIV (AIDS)? (YES)</b>	571 (74%)	211 (67%)	107 (71%)
<i>Number of respondents</i>	773	314	150
<i>Did not answer</i>	8	5	5
<b>Is there medicine that can cure hepatitis C? (YES)</b>	224 (29%)	97 (31%)	70 (48%)
<i>Number of respondents</i>	772	313	147
<i>Did not answer</i>	9	6	8
<b>Could someone who looks healthy pass on HIV (AIDS) infection? (YES)</b>	547 (71%)	202 (64%)	104 (70%)
<i>Number of respondents</i>	772	315	149
<i>Did not answer</i>	9	4	6
<b>Can Hepatitis B be passed on by sex? (YES)</b>	391 (51%)	155 (51%)	87 (59%)
<i>Number of respondents</i>	772	306	148
<i>Did not answer</i>	9	13	7
<b>Can Chlamydia be easily treated with antibiotics? (YES)</b>	503 (65%)	196 (63%)	90 (60%)
<i>Number of respondents</i>	771	309	149
<i>Did not answer</i>	10	10	6
<b>Median score/10 (IQR)</b>	7 (5-8)	7 (5-8)	7 (5-8)
<i>Number of respondents</i>	752	301	151
<i>Did not answer</i>	29	18	4

a. Participants with missing data for region (n = 88, 7%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

Figure 4.1 Knowledge score for 10 questions on STIs and BBVs (median and interquartile range)





## 5 Results: Relationships and behaviours related to STI and BBV risk

Participants were asked about relationships, previous sexual experience and behaviours related to STI and BBV risk.

### Previous sexual experience

Overall, 80% of respondents reported having had sex (oral, vaginal or anal), and 78% had previously had intercourse (vaginal or anal sex) (Table 5.1).

Trans and gender diverse respondents were less likely to have had sex previously (61% (17/28)) compared to male (79%) or female respondents (84%) (Table 5.1). The youngest age group (16-19 yo) were less likely to have had sex than 20-24 yo or 25-29 yo (Table 5.2). The proportion of respondents reporting previous sex was similar in urban, regional and remote areas (Table 5.3).

Sixty five percent of respondents reported previous oral sex. Oral sex was less common in trans/gender diverse respondents (57% (16/28)) compared to males (68%) and females (64%) (Table 5.1). The 16-19 yo age group were less likely to have engaged in oral sex (52%) compared with 20-24 yo (75%) and 25-29 yo (75%) (Table 5.2). Oral sex was less commonly reported by respondents from remote areas (51%) compared to respondents from regional (65%) and urban (70%) areas (Table 5.3).

Vaginal sex was reported by 76% of respondents. A lower proportion of trans/gender diverse respondents reported previous vaginal sex (43% (12/28)) compared to males (77%) and females (77%) (Table 5.1). Only 60% of 16-19 yo had had vaginal sex compared to 86% of 20-24 yo and 90% of 25-29 yo (Table 5.2). The proportion with previous vaginal sex was similar in urban, regional and remote areas (Table 5.3).

Twenty five percent of respondents reported previous anal sex, 32% of males, 21% of females and 31% (8/26) of trans/gender diverse respondents (Table 5.1). While only 12% of 16-19 yo reported anal sex, approximately one-third of older age groups (34% of 20-24 yo and 33% of 25-29 yo) had engaged in anal sex (Table 5.2). Anal sex was more commonly reported by respondents from urban (27%) and regional (24%) areas than remote areas (16%) (Table 5.3).

### Age of first sex

Participants were asked how old they were when they first had oral, vaginal or anal sex. Among those who reported previous sex, the median age for either oral or vaginal sex was 16 years (IQR 15-17 years), and for anal sex was 18 years (IQR 16-20 years) (Table 5.1). Median age of first intercourse (vaginal or anal) was 16 years (IQR 15-17). Trans and gender diverse respondents had a younger median age of first oral, vaginal and anal sex compared with males and females (13 years (IQR 12-16) for oral sex, 15 years (IQR 13-16) for vaginal sex and 16 years (IQR 15-17) for anal sex) (Table 5.1). Among 16-19 yo, median age of first sex was younger than for older age groups (16 (IQR 15-16) years for oral sex, 15 (IQR 15-16) years for vaginal sex and 17 (IQR 16-18) years for anal sex), but this excluded respondents who had not yet had sex (Table 5.2). The median age of first oral or vaginal sex was similar in respondents from urban, regional and remote areas (Table 5.3). Median age of first anal sex was younger in respondents from regional (18 years (IQR 16-20)) and remote areas (17 years (IQR 16-18)) than urban areas (19 years (IQR 16-20)).

**Table 5.1 Sexual experience overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants</b>	1343	829	477
<b>Oral sex</b>			
Yes	840 (65%)	515 (64%)	306 (68%)
No	453 (35%)	292 (36%)	145 (32%)
<i>Number of respondents</i>	1293	807	451
<i>Did not answer</i>	50	22	26
Median age of first oral sex (IQR)	16 (15-17) years	16 (15-18) years	16 (14-17) years
<b>Vaginal sex</b>			
Yes	980 (76%)	617 (77%)	348 (77%)
No	310 (24%)	185 (23%)	105 (23%)
<i>Number of respondents</i>	1290	802	453
<i>Did not answer</i>	53	27	24
Median age of first vaginal sex (IQR)	16 (15-17) years	16 (15-18) years	16 (15-17) years
<b>Anal sex</b>			
Yes	319 (25%)	169 (21%)	141 (32%)
No	956 (75%)	630 (79%)	302 (68%)
<i>Number of respondents</i>	1275	799	443
<i>Did not answer</i>	68	30	34
Median age of first anal sex (IQR)	18 (16-20) years	19 (17-20 years)	17 (16-20 years)
<b>Ever had sex (oral, vaginal, anal)</b>			
Yes	1052 (80%)	646 (79%)	385 (84%)
No	262 (20%)	171 (21%)	75 (16%)
<i>Number of respondents</i>	1312	817	460
<i>Did not answer</i>	31	12	17
<b>Ever had intercourse (vaginal, anal)</b>			
Yes	1019 (78%)	626 (77%)	374 (82%)
No	285 (22%)	187 (23%)	82 (18%)
<i>Number of respondents</i>	1304	813	456
<i>Did not answer</i>	39	16	21

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 5.2 Sexual experience by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	488	426	292
<b>Oral sex</b>			
Yes	247 (52%)	306 (75%)	213 (75%)
No	225 (48%)	100 (25%)	72 (25%)
<i>Number of respondents</i>	472	406	285
<i>Did not answer</i>	16	20	7
Median age of first oral sex (IQR)	16 (15-16) years	16 (15-18) years	16 (15-18) years
<b>Vaginal sex</b>			
Yes	280 (60%)	351 (86%)	255 (90%)
No	187 (40%)	59 (14%)	29 (10%)
<i>Number of respondents</i>	467	410	284
<i>Did not answer</i>	21	16	8
Median age of first vaginal sex (IQR)	15 (15-16) years	16 (15-18) years	16 (15-18) years
<b>Anal sex</b>			
Yes	56 (12%)	137 (34%)	94 (33%)
No	408 (88%)	266 (66%)	190 (67%)
<i>Number of respondents</i>	464	403	284
<i>Did not answer</i>	24	23	8
Median age of first anal sex (IQR)	17 (16-18) years	19 (16-20) years	20 (18-22) years
<b>Ever had sex (oral, vaginal, anal)</b>			
Yes	313 (66%)	374 (90%)	267 (93%)
No	164 (34%)	43 (10%)	19 (7%)
<i>Number of respondents</i>	477	417	286
<i>Did not answer</i>	11	9	6
<b>Ever had intercourse (vaginal, anal)</b>			
Yes	292 (62%)	366 (88%)	263 (92%)
No	180 (38%)	49 (12%)	23 (8%)
<i>Number of respondents</i>	472	415	286
<i>Did not answer</i>	16	11	6

a. Participants with missing data for age (n = 137, 10%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 5.3 Sexual experience by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	781	319	155
<b>Oral sex</b>			
Yes	530 (70%)	200 (65%)	74 (51%)
No	230 (30%)	106 (35%)	70 (49%)
<i>Number of respondents</i>	760	306	144
<i>Did not answer</i>	21	13	11
Median age of first oral sex (IQR)	16 (15-17) years	16 (15-17) years	16.5 (15-18) years
<b>Vaginal sex</b>			
Yes	581 (77%)	244 (79%)	109 (76%)
No	173 (23%)	65 (21%)	35 (24%)
<i>Number of respondents</i>	754	309	144
<i>Did not answer</i>	27	10	11
Median age of first vaginal sex (IQR)	16 (15-17) years	16 (15-17) years	16 (15-17) years
<b>Anal sex</b>			
Yes	202 (27%)	72 (24%)	23 (16%)
No	549 (73%)	231 (76%)	117 (84%)
<i>Number of respondents</i>	751	303	140
<i>Did not answer</i>	30	16	15
Median age of first anal sex (IQR)	19 (17-20) years	18 (16-20) years	17 (16-18) years
<b>Ever had sex (oral, vaginal, anal)</b>			
Yes	625 (81%)	257 (83%)	116 (79%)
No	146 (19%)	53 (17%)	30 (21%)
<i>Number of respondents</i>	771	310	146
<i>Did not answer</i>	10	9	9
<b>Ever had intercourse (vaginal, anal)</b>			
Yes	607 (79%)	248 (80%)	113 (78%)
No	160 (21%)	61 (20%)	31 (22%)
<i>Number of respondents</i>	767	309	144
<i>Did not answer</i>	14	10	11

a. Participants with missing data for region (n = 88, 7%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.





## Sexual partners

Of respondents with previous vaginal or anal sex, 49% had either no sexual partner or one partner in the last year while 32% had 2 - 4 partners and 19% had 5 or more partners (Table 5.4). Multiple partners in the last year were more commonly reported by males (55%) and trans/gender diverse respondents (80%, 12/15) than by females (48%) (Table 5.4). Respondents from the oldest age group (25-29 yo) were less likely to report multiple partners (44% compared to 51% of 20-24 yo and 59% of 16-19 yo) (Table 5.5). Respondents from remote areas were less likely to report multiple partners (44%) than those from regional (52%) or urban areas (51%) (Table 5.6).

Fifty percent of sexually active respondents (previous oral, vaginal or anal sex) reported that their last sex was with their current partner (Table 5.4). The oldest age group (25-29 yo) was most likely to report last sex with their current partner (59%, compared to 48% of 20-24 yo and 43% of 16-19 yo) (Table 5.5). Respondents from remote areas more commonly reported last sex with their current partner (56%) than those from urban or regional areas (49% or 52%, respectively) (Table 5.6).

Approximately half of respondents (51%) reported that their last sexual partner was Aboriginal/Torres Strait Islander. This was more likely among female respondents (54%) than respondents who were male (47%) or trans/gender diverse (31%, 5/16). Remote residents were almost twice as likely as urban residents to report that their partner was Aboriginal/Torres Strait Islander (81% compared to 42%) (Table 5.6).

Participants were asked about the gender of their last sexual partner. Ninety six percent of females reported a male partner and 88% of males reported a female partner (Table 5.4). Four percent of females and 12% of males had a partner of the same gender. Less than 1% reported a trans/gender diverse partner. Respondents identifying as trans/gender diverse reported male, female or trans/gender diverse partners (numbers too small to report).

Most respondents reported their last sexual partner was someone of a similar age. Seventy four percent of 16-19 yo had a partner who was less than 20 yo, and a further 24% had a partner 20-24 yo. Among 25-29 yo, 75% had a partner 25 years or older. Less than 1% of respondents had a partner younger than 16 yo.

**Table 5.4 Sexual partners overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants with previous oral/vaginal/anal sex</b>	1052	646	385
<b>Number of sexual partners last year<sup>b</sup></b>			
None	60 (6%)	29 (5%)	29 (8%)
One	436 (43%)	298 (48%)	134 (36%)
2-4	324 (32%)	210 (34%)	112 (30%)
5 or more	190 (19%)	87 (14%)	93 (25%)
<i>Number of respondents</i>	1010	624	368
<i>Did not answer</i>	9	2	6
<b>Relationship with last partner<sup>c</sup></b>			
Current partner	514 (50%)	331 (52%)	178 (48%)
Just met	124 (12%)	55 (9%)	63 (17%)
Known but no previous sexual relationship	384 (38%)	246 (39%)	130 (35%)
<i>Number of respondents</i>	1022	632	371
<i>Did not answer</i>	30	14	14
<b>Indigenous status of last partner<sup>c</sup></b>			
Aboriginal/Torres Strait Islander	523 (51%)	343 (54%)	174 (47%)
Not Aboriginal/Torres Strait Islander	431 (42%)	268 (42%)	156 (42%)
Not sure	73 (7%)	24 (4%)	43 (12%)
<i>Number of respondents</i>	1027	635	373
<i>Did not answer</i>	25	11	12
<b>Gender of last partner<sup>c</sup></b>			
Female	360 (35%)	28 (4%)	326 (88%)
Male	662 (65%)	608 (96%)	44 (12%)
<i>Number of respondents</i>	1022	636	370
<i>Did not answer or other<sup>d</sup></i>	30	10	15
<b>Age of last partner<sup>c</sup></b>			
<20 years old	295 (29%)	155 (24%)	136 (37%)
20-24 years old	370 (36%)	229 (36%)	132 (36%)
25 years or older	357 (35%)	254 (40%)	98 (27%)
<i>Number of respondents</i>	1022	638	366
<i>Did not answer or not sure</i>	30	8	19

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

b. Among participants who reported previous vaginal or anal sex.

c. Among participants who reported previous oral, vaginal or anal sex.

d. Data for trans and gender diverse partners not presented in table because of small numbers.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 5.5 Sexual partners by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants with previous oral/vaginal/anal sex</b>	313	374	267
<b>Number of sexual partners last year<sup>b</sup></b>			
None	13 (4%)	22 (6%)	17 (6%)
One	106 (37%)	154 (43%)	131 (50%)
2-4	112 (39%)	114 (32%)	71 (27%)
5 or more	59 (20%)	70 (19%)	44 (17%)
<i>Number of respondents</i>	290	360	263
<i>Did not answer</i>	2	6	0
<b>Relationship with last partner<sup>c</sup></b>			
Current partner	129 (43%)	173 (48%)	157 (59%)
Just met	31 (10%)	55 (15%)	25 (9%)
Known but no previous sexual relationship	143 (47%)	132 (37%)	84 (32%)
<i>Number of respondents</i>	303	360	266
<i>Did not answer</i>	10	14	1
<b>Indigenous status of last partner<sup>c</sup></b>			
Aboriginal/Torres Strait Islander	147 (49%)	194 (53%)	124 (47%)
Not Aboriginal/Torres Strait Islander	122 (40%)	156 (43%)	124 (47%)
Not sure	34 (11%)	15 (4%)	15 (6%)
<i>Number of respondents</i>	303	365	263
<i>Did not answer</i>	10	9	4
<b>Gender of last partner<sup>c</sup></b>			
Female	116 (39%)	122 (33%)	90 (34%)
Male	179 (61%)	245 (67%)	177 (66%)
<i>Number of respondents</i>	295	367	267
<i>Did not answer or other<sup>d</sup></i>	18	7	0
<b>Age of last partner<sup>c</sup></b>			
<20 years old	221 (74%)	50 (14%)	9 (3%)
20-24 years old	71 (24%)	208 (57%)	58 (22%)
25 years or older	7 (2%)	105 (29%)	198 (75%)
<i>Number of respondents</i>	299	363	265
<i>Did not answer or not sure</i>	14	11	2

a. Participants with missing data for age (n = 137, 10%) have been excluded.

b. Among participants who reported previous vaginal or anal sex.

c. Among participants who reported previous oral, vaginal or anal sex.

d. Data for trans and gender diverse partners not presented in table because of small numbers.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 5.6 Sexual partners by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants with previous oral/vaginal/anal sex</b>	625	257	116
<b>Number of sexual partners last year<sup>b</sup></b>			
None or one	294 (49%)	118 (48%)	62 (56%)
2-4	203 (34%)	72 (29%)	32 (29%)
5 or more	105 (17%)	56 (23%)	17 (15%)
<i>Number of respondents</i>	602	246	111
<i>Did not answer</i>	5	2	2
<b>Relationship with last partner<sup>c</sup></b>			
Current partner	301 (49%)	129 (52%)	62 (56%)
Just met	77 (13%)	25 (10%)	8 (7%)
Known but no previous sexual relationship	233 (38%)	94 (38%)	40 (36%)
<i>Number of respondents</i>	611	248	110
<i>Did not answer</i>	14	9	6
<b>Indigenous status of last partner<sup>c</sup></b>			
Aboriginal/Torres Strait Islander	259 (42%)	146 (59%)	91 (81%)
Not Aboriginal/Torres Strait Islander	316 (51%)	81 (33%)	19 (17%)
Not sure	40 (7%)	21 (8%)	2 (2%)
<i>Number of respondents</i>	615	248	112
<i>Did not answer</i>	10	9	4
<b>Gender of last partner<sup>c</sup></b>			
Female	202 (33%)	91 (37%)	40 (36%)
Male	410 (67%)	157 (63%)	71 (64%)
<i>Number of respondents</i>	612	248	111
<i>Did not answer or other<sup>d</sup></i>	13	9	5
<b>Age of last partner<sup>c</sup></b>			
<20 years old	150 (25%)	90 (36%)	36 (33%)
20-24 years old	228 (37%)	94 (38%)	35 (32%)
25 years or older	234 (38%)	65 (26%)	39 (35%)
<i>Number of respondents</i>	612	249	110
<i>Not sure or did not answer</i>	13	8	6

a. Participants with missing data for region (n = 88, 7%) have been excluded.

b. Among participants who reported previous vaginal or anal sex.

c. Among participants who reported previous oral, vaginal or anal sex.

d. Data for non-binary partners not presented in table because of small numbers.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

## Finding partners

Participants were asked whether they had used the internet or mobile phone apps to find partners in the past year. Respondents could select more than one answer. Twenty-seven percent of respondents had used the internet and 28% had used mobile phone apps (Tables 5.7). Males and trans/gender diverse respondents were more likely than females to use either method (among males, 31% used the internet and 32% used mobile phone apps and among trans/gender diverse 33% (8/24) used the internet and 46% (11/24) used apps compared with 24% and 25% respectively, for females) (Table 5.7). The oldest age group (25-29 yo) was somewhat less likely to use these approaches to find partners (Table 5.8). Use of mobile phone apps was reported by only 22% of respondents from remote areas compared to 26% of respondents from regional and 30% of respondents from urban areas (Table 5.9).

**Table 5.7 Use of internet or mobile phone apps to find partners overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants</b>	1343	829	477
<b>Finding partners in the past year<sup>b</sup></b>			
Internet	338 (27%)	191 (24%)	136 (31%)
Mobile phone app	350 (28%)	198 (25%)	140 (32%)
<i>Number of respondents</i>	1257	791	437
<i>Did not answer</i>	86	38	40

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

b. Respondents could select more than one answer and only positive responses indicated – columns do not add to 100%.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

**Table 5.8 Use of internet or mobile phone apps to find partners by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	488	426	292
<b>Finding partners in the past year<sup>b</sup></b>			
Internet	129 (29%)	114 (28%)	69 (24%)
Mobile phone app	132 (29%)	119 (30%)	70 (25%)
<i>Number of respondents</i>	451	403	284
<i>Did not answer</i>	37	23	8

a. Participants with missing data for age (n = 137, 10%) have been excluded.

b. Respondents could select more than one answer and only positive responses indicated – columns do not add to 100%.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

**Table 5.9 Use of internet or mobile phone apps to find partners by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	781	319	155
<b>Finding partners in the past year<sup>b</sup></b>			
Internet	189 (25%)	90 (30%)	34 (26%)
Mobile phone app	226 (30%)	77 (26%)	28 (22%)
<i>Number of respondents</i>	755	298	130
<i>Did not answer</i>	26	21	25

a. Participants with missing data for region (n = 88, 7%) have been excluded.

b. Respondents could select more than one answer and only positive responses indicated – columns do not add to 100%.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

## Condom use

Condoms are an important component of STI and BBV prevention strategies. Approximately one quarter (26%) of respondents who had had vaginal or anal sex in the last year reported always using condoms, 44% used condoms sometimes and 31% never used them (Tables 5.10). Always using a condom was more commonly reported by trans/gender diverse respondents (36%, 5/14) than males (28%) or females (24%). Sixteen to 19 year olds were more likely to always use a condom (33%) than older age groups (23% of 20-24 yo and 22% of 25-29 yo) (Table 5.11). There was little variation in the use of condoms (always, sometimes or never) by residential area (Table 5.12).

Condom use at last sex was reported by 40% of respondents who had previously had vaginal or anal sex (Table 5.10). Trans/gender diverse respondents were more likely to report condom use at last sex (53%, 8/15) than males (42%) or females (39%). Condom use at last sex was more common for 16-19 yo (47%, compared to 38% of 20-24 yo and 35% of 25-29 yo) (Table 5.11).

Condom use at last sex was analysed according to whether respondents indicated their partner at last sex was their current partner or a new partner ("met for the first time" or "known for a while, but not your current partner"). Condom use was more likely to be reported with a new partner (51%) than a current partner (29%) (Table 5.10). A smaller proportion of females reported using condoms with a new partner (48%) compared to males (55%). Condom use at last sex with a current or new partner was more common in 16-19 yo than older age groups (Table 5.11). By residential location, condom use at last sex with a current partner was highest in remote residents (37% compared with 27% of urban or regional residents) (Table 5.12). With a new partner, regional residents were most likely to report condom use (61% compared to 47% of urban and 48% of remote residents).

**Table 5.10 Condom use overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants with previous vaginal or anal sex</b>	1019	626	374
<b>Condom use during last year<sup>b</sup></b>			
Always	242 (26%)	144 (24%)	93 (28%)
Sometimes	409 (44%)	256 (43%)	148 (44%)
Never	288 (31%)	189 (32%)	93 (28%)
<i>Number of respondents</i>	939	589	334
<i>Did not answer</i>	20	8	11
<b>Used condom at last sex<sup>c</sup></b>			
Yes	401 (40%)	238 (39%)	154 (42%)
No	595 (60%)	378 (61%)	209 (58%)
<i>Number of respondents</i>	996	616	363
<i>Did not answer</i>	23	10	11
<b>Used condom at last sex (current partner)<sup>c</sup></b>			
Yes	147 (29%)	95 (30%)	51 (29%)
No	354 (71%)	227 (71%)	124 (71%)
<i>Number of respondents</i>	501	322	175
<i>Did not answer</i>	8	6	1
<b>Used condom at last sex (new partner)<sup>c</sup></b>			
Yes	245 (51%)	137 (48%)	100 (55%)
No	235 (49%)	147 (52%)	83 (45%)
<i>Number of respondents</i>	480	284	183
<i>Did not answer</i>	6	2	4

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

b. Among participants who reported vaginal or anal sex in last year.

c. Among participants who reported previous vaginal or anal sex.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 5.11 Condom use by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants with previous vaginal or anal sex</b>	292	366	263
<b>Condom use during last year<sup>b</sup></b>			
Always	91 (33%)	76 (23%)	54 (22%)
Sometimes	122 (45%)	149 (45%)	102 (42%)
Never	61 (22%)	109 (33%)	89 (36%)
<i>Number of respondents</i>	274	334	245
<i>Did not answer</i>	5	10	1
<b>Used condom at last sex<sup>c</sup></b>			
Yes	135 (47%)	137 (38%)	91 (35%)
No	151 (53%)	220 (62%)	170 (65%)
<i>Number of respondents</i>	286	357	261
<i>Did not answer</i>	6	9	2
<b>Used condom at last sex (current partner)<sup>c</sup></b>			
Yes	49 (40%)	44 (26%)	39 (25%)
No	74 (60%)	127 (74%)	115 (75%)
<i>Number of respondents</i>	123	171	154
<i>Did not answer</i>	3	1	2
<b>Used condom at last sex (new partner)<sup>c</sup></b>			
Yes	86 (53%)	87 (49%)	51 (48%)
No	76 (47%)	89 (51%)	55 (52%)
<i>Number of respondents</i>	162	176	106
<i>Did not answer</i>	0	4	0

a. Participants with missing data for age (n = 137, 10%) have been excluded.

b. Among participants who reported vaginal or anal sex in last year.

c. Among participants who reported previous vaginal or anal sex.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 5.12 Condom use by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants with previous vaginal or anal sex</b>	607	248	113
<b>Condom use during last year<sup>b</sup></b>			
Always	132 (24%)	65 (28%)	25 (24%)
Sometimes	244 (44%)	101 (43%)	47 (45%)
Never	180 (32%)	67 (29%)	32 (31%)
<i>Number of respondents</i>	556	233	104
<i>Did not answer</i>	9	4	6
<b>Used condom at last sex<sup>c</sup></b>			
Yes	224 (38%)	104 (42%)	45 (43%)
No	373 (62%)	139 (57%)	60 (57%)
<i>Number of respondents</i>	597	243	105
<i>Did not answer</i>	10	5	8
<b>Used condom at last sex (current partner)<sup>c</sup></b>			
Yes	80 (27%)	34 (27%)	22 (37%)
No	213 (73%)	93 (73%)	37 (63%)
<i>Number of respondents</i>	293	127	59
<i>Did not answer</i>	4	2	2
<b>Used condom at last sex (new partner)<sup>c</sup></b>			
Yes	137 (47%)	70 (61%)	21 (48%)
No	155 (53%)	45 (39%)	23 (52%)
<i>Number of respondents</i>	292	115	44
<i>Did not answer</i>	4	0	2

a. Participants with missing data for region (n = 88, 7%) have been excluded.

b. Among participants who reported vaginal or anal sex in past year.

c. Among participants who reported previous vaginal or anal sex.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

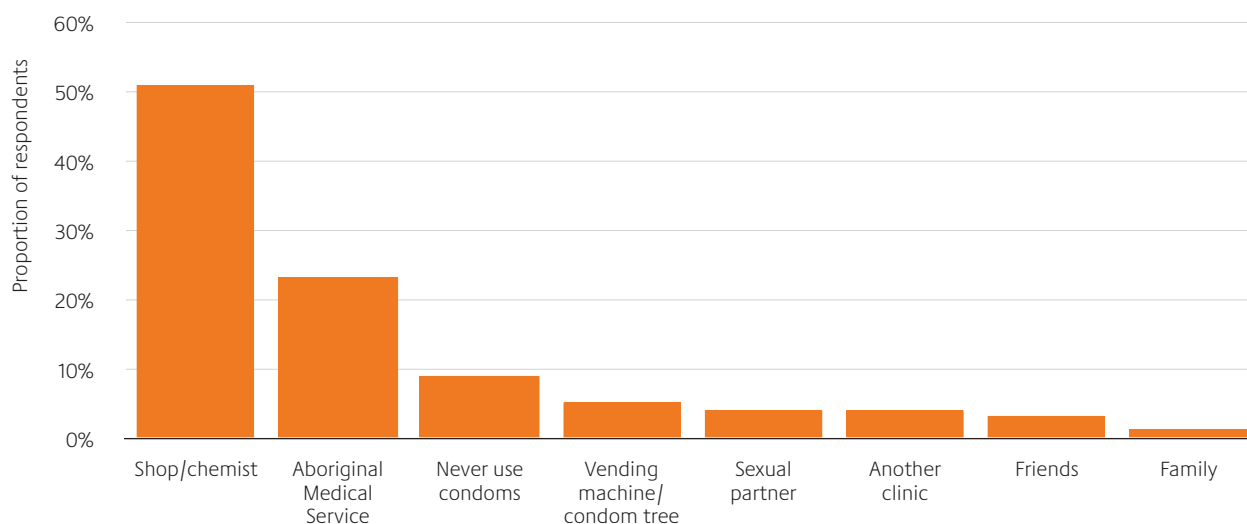
Percentages have been rounded up to the nearest whole number, columns may not equal 100%.



## Source of condoms

A shop/store or chemist was the site where most respondents usually accessed condoms (51%) followed by Aboriginal Medical Services (23%) (Figure 5.1). Aboriginal Medical Services were the primary source of condoms for trans/gender diverse respondents (44% (7/16)) and respondents from remote areas (41%).

**Figure 5.1 Source of condoms**



## Sex under the influence of alcohol or drugs

Over one quarter (27%) of respondents reported they were 'drunk or high' the last time they had sex (Tables 5.13). This was more common among males (33%) and trans/gender diverse respondents (44% (7/16)) than females (24%) (Table 5.13). Sex under the influence of alcohol or drugs was most common among remote respondents (32%, compared with 28% of regional and 25% of urban respondents) (Table 5.15).

**Table 5.13 Experience of last sex overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants with previous sex<sup>a</sup></b>	1052	646	385
<b>Drunk or high at last sex<sup>b</sup></b>			
Yes	279 (27%)	150 (24%)	122 (33%)
No	752 (73%)	486 (76%)	253 (67%)
<i>Number of respondents</i>	1031	636	375
<i>Did not answer</i>	21	10	10
<b>Was last sex wanted<sup>b</sup></b>			
Yes	938 (92%)	584 (93%)	339 (91%)
No	81 (8%)	46 (7%)	33 (9%)
<i>Number of respondents</i>	1019	630	371
<i>Did not answer</i>	33	16	14

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

b. Among those with previous oral, vaginal or anal sex.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 5.14 Experience of last sex by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants with previous sex</b>	313	374	267
<b>Drunk or high at last sex<sup>b</sup></b>			
Yes	82 (27%)	112 (31%)	60 (22%)
No	223 (73%)	252 (69%)	207 (78%)
<i>Number of respondents</i>	305	364	267
<i>Did not answer</i>	8	10	0
<b>Was last sex wanted<sup>b</sup></b>			
Yes	271 (91%)	329 (91%)	253 (95%)
No	28 (9%)	31 (9%)	13 (5%)
<i>Number of respondents</i>	299	360	266
<i>Did not answer</i>	14	14	1

a. Participants with missing data for age (n = 137, 10%) have been excluded.

b. Among those with previous oral, vaginal or anal sex.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 5.15 Experience of last sex by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants with previous sex</b>	625	257	116
<b>Drunk or high at last sex<sup>b</sup></b>			
Yes	153 (25%)	70 (28%)	36 (32%)
No	464 (75%)	179 (72%)	75 (68%)
<i>Number of respondents</i>	617	249	111
<i>Did not answer</i>	8	8	5
<b>Was last sex wanted<sup>b</sup></b>			
Yes	564 (92%)	229 (92%)	102 (94%)
No	46 (8%)	20 (8%)	7 (6%)
<i>Number of respondents</i>	610	249	109
<i>Did not answer</i>	15	8	7

a. Participants with missing data for region (n = 88, 7%) have been excluded.

b. Among those with previous oral, vaginal or anal sex.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

## Was last sex wanted?

Ninety two percent of respondents reported that their last sex was wanted. Trans/gender diverse respondents were slightly less likely to report that sex was wanted (87% (13/15) compared with 91% of males and 93% of females) although the number of respondents from this demographic was small (Table 5.13). Older respondents were somewhat more likely to report sex was wanted (95% compared to 91% of 20-24 yo or 16-19 yo) (Table 5.14). There was little variation by residential location (Table 5.15).

## Tattoos

Acquiring tattoos in unregulated settings such as in the community or in prison is a recognised risk for BBV transmission. Participants were asked if they had tattoos and where they were acquired. Forty three percent of respondents reported having a tattoo: 45% of females, 39% of males and 36% (9/25) of trans/gender diverse respondents (Table 5.16). Tattoos were much more common in older age groups (51% of 20-24 yo and 64% of 25-29 yo compared to 21% of 16-19 yo) (Table 5.17). Similar proportions of respondents from urban, regional and remote settings had tattoos (Table 5.18).

Eighty two percent of respondents with tattoos had been to a tattoo parlour but 23% of respondents had acquired tattoos in an unregulated setting including home, community, park, prison, other (note that respondents could report tattoos in both regulated and unregulated settings). Males were more likely to have had tattoos done in an unregulated setting (28% compared to 20% of females) (Table 5.16). Use of unregulated settings was also more common in 16-19 yo (29% compared to 19% of 20-24 yo and 22% of 25-29 yo; Table 5.17) and in regional and remote areas (27% of respondents from each, compared to 19% of respondents from urban areas; Table 5.18).

**Table 5.16 Tattoos overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants</b>	1343	829	477
<b>Tattoos</b>			
Yes	546 (43%)	363 (45%)	171 (39%)
No	731 (57%)	439 (55%)	273 (61%)
<i>Number of respondents</i>	1277	802	444
<i>Did not answer</i>	66	27	33
<b>Place to get tattoos<sup>b</sup></b>			
Regulated	450 (82%)	307 (85%)	133 (78%)
Unregulated	123 (23%)	73 (20%)	47 (28%)
<i>Number of respondents</i>	542	362	169
<i>Did not answer</i>	4	1	2

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

b. Respondents could select more than one answer and only positive responses indicated – columns do not add to 100%.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 5.17 Tattoos by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	488	426	292
<b>Tattoos</b>			
Yes	96 (21%)	208 (51%)	184 (64%)
No	366 (79%)	197 (49%)	103 (36%)
<i>Number of respondents</i>	462	405	287
<i>Did not answer</i>	26	21	5
<b>Place to get tattoos<sup>b</sup></b>			
Regulated	73 (76%)	176 (85%)	157 (85%)
Unregulated	28 (29%)	39 (19%)	41 (22%)
<i>Number of respondents</i>	96	206	184
<i>Did not answer</i>	0	2	0

a. Participants with missing data for age (n = 137, 10%) have been excluded.

b. Respondents could select more than one answer and only positive responses indicated – columns do not add to 100%.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 5.18 Tattoos by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	781	319	155
<b>Tattoos</b>			
Yes	338 (44%)	128 (43%)	56 (41%)
No	422 (56%)	172 (57%)	81 (59%)
<i>Number of respondents</i>	760	300	137
<i>Did not answer</i>	21	19	18
<b>Place to get tattoos<sup>b</sup></b>			
Regulated	291 (86%)	99 (77%)	44 (79%)
Unregulated	64 (19%)	34 (27%)	15 (27%)
<i>Number of respondents</i>	334	128	56
<i>Did not answer</i>	4	0	0

a. Participants with missing data for region (n = 88, 7%) have been excluded.

b. Respondents could select more than one answer and only positive responses indicated – columns do not add to 100%.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.



## 6 Results: Cigarettes, alcohol and other drug use

Understanding behaviours relating to use of alcohol and other drugs can potentially inform policy and programs to reduce transmission of STIs and BBVs. This chapter describes participants' use of cigarettes, alcohol and other drugs, presented by gender, age-group and residential location.

### Cigarette smoking

Overall, 28% of respondents reported smoking cigarettes (Table 6.1). Cigarette smoking was much more common in respondents who reported their gender as trans/gender diverse (46% (12/26)) compared to females (26%) or males (30%) (Table 6.1). Reports of smoking cigarettes increased with age (21% of 16-19 yo compared to 33% of 20-24 yo and 30% of 25-29 yo) (Table 6.2). Urban residents were the least likely to smoke cigarettes (27% compared to 29% of regional residents and 31% of remote residents) (Table 6.3).

### Alcohol

Alcohol use was common, with 79% of respondents reporting that they drank alcohol in the last 12 months (Table 6.1). Among those who reported drinking alcohol, 40% drank at least once per week (reported drinking daily or once a week or more). A large proportion of drinkers (71%) exceeded National Health and Medical Research Council (NHMRC) guidelines which recommend no more than four standard drinks per day. Almost half of drinkers (47%) reported consuming more than seven drinks per occasion.

Females were less likely to drink at least once per week (33%) compared to males (50%) and trans/gender diverse (57% (12/21)) (Table 6.1). Drinking that exceeded recommended guidelines (>4 drinks per occasion) was least common in trans/gender diverse respondents (57% (12/21) of drinkers compared with 76% of males and 68% of females).

A smaller proportion of 16-19 yo had consumed alcohol in the last 12 months (70%) compared with older age groups (85% of 20-24 yo and 88% of 25-29 yo) (Table 6.2). Respondents aged 20-24 yo were the most likely to drink at least once per week (47% compared with 33% of 16-19 yo and 34% of 25-29 yo). The proportion of drinkers exceeding 4 drinks per occasion was similar in all age groups.

Residents of remote areas were somewhat less likely to have drunk alcohol in the last 12 months (73%, compared to 82% of urban residents and 83% of regional residents) (Table 6.3). Drinkers from regional and remote areas were more likely than those in urban areas to drink more than 4 drinks per occasion (83% and 80% compared with 66%, respectively).

**Table 6.1 Cigarettes and alcohol overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants</b>	1343	829	477
<b>Cigarettes</b>			
Yes	359 (28%)	211 (26%)	136 (30%)
No	925 (72%)	594 (74%)	310 (70%)
<i>Number of respondents</i>	1284	805	446
<i>Did not answer</i>	59	24	31
Median number of cigarettes/day (IQR)	6 (4-10)	6 (4-10)	5.5 (3-10)
<b>Alcohol in last 12 months</b>			
Yes	1027 (79%)	649 (80%)	351 (78%)
No	266 (21%)	160 (20%)	99 (22%)
<i>Number of respondents</i>	1293	809	450
<i>Did not answer</i>	50	20	27
<b>Alcohol Frequency<sup>b</sup></b>			
Every day	37 (4%)	13 (2%)	20 (6%)
Once a week or more	363 (36%)	202 (31%)	153 (44%)
About once a month	321 (31%)	215 (33%)	95 (27%)
Every few months	228 (22%)	163 (25%)	61 (18%)
Once or twice a year	73 (7%)	54 (8%)	19 (5%)
<i>Number of respondents</i>	1022	647	348
<i>Did not answer</i>	5	2	3
<b>Drinks per occasion<sup>b</sup></b>			
1-2 drinks	111 (11%)	78 (12%)	29 (8%)
3-4 drinks	187 (18%)	125 (19%)	55 (16%)
5-6 drinks	240 (24%)	162 (25%)	71 (21%)
7+ drinks	479 (47%)	279 (43%)	191 (55%)
<i>Number of respondents</i>	1017	644	346
<i>Did not answer</i>	10	5	5

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

b. Among those who reported drinking alcohol in last 12 months.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 6.2 Cigarettes and alcohol by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	488	426	292
<b>Cigarettes</b>			
Yes	100 (21%)	135 (33%)	86 (30%)
No	368 (79%)	271 (67%)	199 (70%)
<i>Number of respondents</i>	468	406	285
<i>Did not answer</i>	20	20	7
Median number of cigarettes/day (IQR)	5 (3-10)	5 (3-10)	10 (5-15)
<b>Alcohol in last 12 months</b>			
Yes	329 (70%)	345 (85%)	253 (88%)
No	142 (30%)	61 (15%)	34 (12%)
<i>Number of respondents</i>	471	406	287
<i>Did not answer</i>	17	20	5
<b>Alcohol Frequency<sup>b</sup></b>			
Every day	11 (3%)	9 (3%)	10 (4%)
Once a week or more	99 (30%)	150 (44%)	76 (30%)
About once a month	102 (31%)	104 (30%)	89 (35%)
Every few months	88 (27%)	63 (18%)	57 (23%)
Once or twice a year	29 (9%)	17 (5%)	19 (8%)
<i>Number of respondents</i>	329	343	251
<i>Did not answer</i>	0	2	2
<b>Drinks per occasion<sup>b</sup></b>			
1-2 drinks	30 (9%)	32 (9%)	37 (15%)
3-4 drinks	68 (21%)	65 (19%)	35 (14%)
5-6 drinks	76 (23%)	77 (23%)	67 (27%)
7+ drinks	153 (47%)	168 (49%)	109 (44%)
<i>Number of respondents</i>	327	342	248
<i>Did not answer</i>	2	3	5

a. Participants with missing data for age (n = 137, 10%) have been excluded.

b. Among those who reported drinking alcohol in last 12 months.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 6.3 Cigarettes and alcohol by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	781	319	155
<b>Smokes cigarettes</b>			
Yes	202 (27%)	89 (29%)	43 (31%)
No	560 (73%)	215 (71%)	95 (69%)
<i>Number of respondents</i>	762	304	138
<i>Did not answer</i>	19	15	17
Median number of cigarettes/day (IQR)	6 (3-10)	6 (4-10)	9 (5-14)
<b>Alcohol in last 12 months</b>			
Yes	626 (82%)	253 (83%)	102 (73%)
No	141 (18%)	53 (17%)	37 (27%)
<i>Number of respondents</i>	767	306	139
<i>Did not answer</i>	14	13	16
<b>Alcohol Frequency<sup>b</sup></b>			
Every day	21 (3%)	8 (3%)	na <sup>c</sup>
Once a week or more	216 (35%)	101 (40%)	35 (35%)
About once a month	186 (30%)	86 (34%)	39 (39%)
Every few months	148 (24%)	45 (18%)	19 (19%)
Once or twice a year	53 (8%)	11 (4%)	8 (8%)
<i>Number of respondents</i>	624	251	101
<i>Did not answer</i>	2	2	1
<b>Drinks per occasion<sup>b</sup></b>			
1-2 drinks	80 (13%)	13 (5%)	8 (8%)
3-4 drinks	134 (22%)	37 (15%)	9 (9%)
5-6 drinks	161 (26%)	51 (20%)	21 (21%)
7+ drinks	246 (40%)	151 (60%)	61 (62%)
<i>Number of respondents</i>	621	252	99
<i>Did not answer</i>	5	1	3

a. Participants with missing data for region (n = 88, 7%) have been excluded.

b. Among those who reported drinking alcohol in last 12 months.

c. **na** Not available; Results for 'every day' and 'once a week or more' combined due to small numbers.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

## Illicit drug use

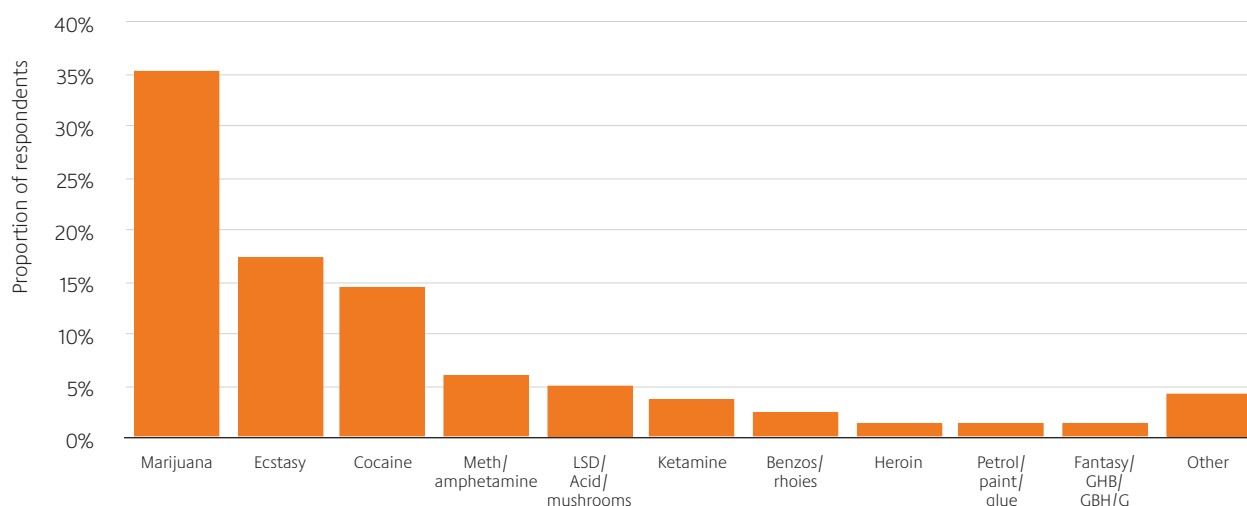
### Any drug use

Overall, 47% of respondents had used any illicit drugs in the last 12 months (Table 6.4). Marijuana was the most commonly used drug (35%), followed by ecstasy (18%) and cocaine (14%) (Figure 6.1). Drug use was more common in males (54%) and trans/gender diverse respondents (77% (20/26)) compared with females (42%) (Table 6.4) and in 20-24 yo (54%) than other age groups (43% of both 16-19 yo and 25-29 yo) (Table 6.5). Drug use was reported by a higher proportion of respondents from urban areas (50%, compared with 43% of residents from both regional and remote areas) (Table 6.6).





**Figure 6.1** Reported use of illicit drugs in the last 12 months



## Marijuana

Marijuana was the most commonly used drug (35% of respondents) (Table 6.4). Marijuana use was more likely to be reported by trans/gender diverse respondents (52% (13/25) and males (40%) than females (33%) (Table 6.4). Use was also higher in 20-24 yo (43% compared with 31% of 16-19 yo and 34% of 25-29 yo; Table 6.5) but similar regardless of residential location (Table 6.6). A high proportion of marijuana users reported regular use (22% every day and a further 19% once a week or more) (Table 6.7).

## Ecstasy

Ecstasy use was reported commonly (18%), with 12% of users reporting using ecstasy at least once per week (Table 6.7). A higher proportion of males (23%) and trans/gender diverse respondents (30% (8/27)) reported ecstasy use compared with females (14%) (Table 6.4). The 20-24 yo age group had the highest proportion of ecstasy users (21%, compared to 16% of 16-19 yo and 18% of 25-29 yo). Residents of urban areas were much more likely to use ecstasy (22%) than those from regional (12%) or remote areas (9%) (Table 6.6). Regular use of ecstasy was less common than marijuana (12% reported use at least once a week compared with 41% of marijuana users) (Table 6.7).

## Cocaine

Cocaine use in the last 12 months was reported by 14% of respondents. Cocaine was less likely to be reported by females (10%) than by males (21%) or trans/gender diverse respondents (40% (10/25)) (Table 6.4). The youngest age group (16-19 yo) was least likely to report use (10%), compared to 19% of 20-24 yo and 15% of 25-29 yo (Table 6.5). A higher proportion of urban residents had used cocaine (19%) compared to those from regional (7%) or remote (6%) areas.

## Meth/amphetamine

Six percent of respondents (n = 77) reported using meth/amphetamine in the last 12 months (Table 6.4). Meth/amphetamine use was reported much more commonly by trans/gender diverse respondents (37% (10/27)) compared to males (6%) or females (5%) (Table 6.4). Older age groups were more likely to report use (8% of 20-24 yo and 6% of 25-29 yo compared to 4% of 16-19 yo) (Table 6.5) and it was more commonly reported by those from urban (7%) or remote (7%) areas rather than regional areas (4%) (Table 6.6).

Over one third (35%) of respondents reporting meth/amphetamine use were regular users, with 22% reporting use every day and another 13% using once a week or more (Table 6.7). The preferred form was ice/crystal (58% (44/76)) followed by speed (35% (27/76)) with only a small proportion using base (7% (5/76)). The preferred mode of use was inhaling/smoking (43% (33/76)) followed by snorting (32% (24/76)). Less commonly reported were swallowing (17% (13/76) and injection (8% (6/76)).

**Table 6.4 Illicit drug use in the last 12 months overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants</b>	1343	829	477
<b>Any drug</b>			
Yes	577 (47%)	332 (42%)	225 (54%)
No	656 (53%)	451 (58%)	193 (46%)
<i>Number of respondents</i>	1233	783	418
<i>Did not answer</i>	110	46	59
<b>Marijuana use in last 12 months</b>			
Yes	456 (35%)	265 (33%)	178 (40%)
No	830 (65%)	543 (67%)	269 (60%)
<i>Number of respondents</i>	1286	808	447
<i>Did not answer</i>	57	21	30
<b>Ecstasy use in last 12 months</b>			
Yes	225 (18%)	113 (14%)	104 (23%)
No	1058 (82%)	693 (86%)	340 (77%)
<i>Number of respondents</i>	1283	806	444
<i>Did not answer</i>	60	23	33
<b>Cocaine use in last 12 months</b>			
Yes	178 (14%)	79 (10%)	89 (21%)
No	1051 (86%)	703 (90%)	327 (79%)
<i>Number of respondents</i>	1229	782	416
<i>Did not answer</i>	114	47	61
<b>Meth/amphetamine use in last 12 months</b>			
Yes	77 (6%)	41 (5%)	26 (6%)
No	1207 (94%)	769 (95%)	415 (94%)
<i>Number of respondents</i>	1284	810	441
<i>Did not answer</i>	59	19	36

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 6.5 Illicit drug use in the last 12 months by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	488	426	292
<b>Any drug</b>			
Yes	188 (43%)	214 (54%)	119 (43%)
No	247 (57%)	183 (46%)	158 (57%)
<i>Number of respondents</i>	435	397	277
<i>Did not answer</i>	53	29	15
<b>Marijuana use in last 12 months</b>			
Yes	143 (31%)	174 (43%)	98 (34%)
No	321 (69%)	235 (57%)	188 (66%)
<i>Number of respondents</i>	464	409	286
<i>Did not answer</i>	24	17	6
<b>Ecstasy use in last 12 months</b>			
Yes	74 (16%)	87 (21%)	50 (18%)
No	391 (84%)	321 (79%)	234 (82%)
<i>Number of respondents</i>	465	408	284
<i>Did not answer</i>	23	18	8
<b>Cocaine use in last 12 months</b>			
Yes	43 (10%)	75 (19%)	41 (15%)
No	395 (90%)	317 (81%)	234 (85%)
<i>Number of respondents</i>	438	392	275
<i>Did not answer</i>	50	34	17
<b>Meth/amphetamine use in last 12 months</b>			
Yes	18 (4%)	32 (8%)	18 (6%)
No	446 (96%)	376 (92%)	266 (94%)
<i>Number of respondents</i>	464	408	284
<i>Did not answer</i>	24	18	8

a. Participants with missing data for age (n = 137, 10%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 6.6 Illicit drug use in the last 12 months by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	781	319	155
<b>Any drug</b>			
Yes	363 (50%)	125 (43%)	58 (43%)
No	372 (50%)	166 (57%)	77 (57%)
<i>Number of respondents</i>	735	291	135
<i>Did not answer</i>	46	28	20
<b>Marijuana use in last 12 months</b>			
Yes	277 (36%)	108 (35%)	49 (36%)
No	491 (64%)	198 (65%)	88 (64%)
<i>Number of respondents</i>	763	306	137
<i>Did not answer</i>	18	13	18
<b>Ecstasy use in last 12 months</b>			
Yes	169 (22%)	37 (12%)	13 (9%)
No	593 (78%)	267 (88%)	124 (91%)
<i>Number of respondents</i>	762	304	137
<i>Did not answer</i>	19	15	18
<b>Cocaine use in last 12 months</b>			
Yes	142 (19%)	19 (7%)	8 (6%)
No	587 (81%)	271 (93%)	128 (94%)
<i>Number of respondents</i>	729	290	136
<i>Did not answer</i>	52	29	19
<b>Meth/amphetamine use in last 12 months</b>			
Yes	51 (7%)	13 (4%)	9 (7%)
No	713 (93%)	291 (96%)	129 (93%)
<i>Number of respondents</i>	764	304	138
<i>Did not answer</i>	17	15	17

a. Participants with missing data for region (n = 88, 7%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 6.7 Frequency of marijuana, ecstasy and meth/amphetamine use among users**

	Marijuana	Ecstasy	Meth/amphetamine
<b>Frequency of use</b>			
Every day	99 (22%)	11 (5%)	17 (22%)
Once a week or more	86 (19%)	15 (7%)	10 (13%)
About once a month	53 (12%)	50 (22%)	10 (13%)
Every few months	76 (17%)	55 (25%)	16 (21%)
Once or twice a year	137 (30%)	93 (42%)	24 (31%)
<i>Number of respondents</i>	451	224	77
<i>Did not answer</i>	5	1	0

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.



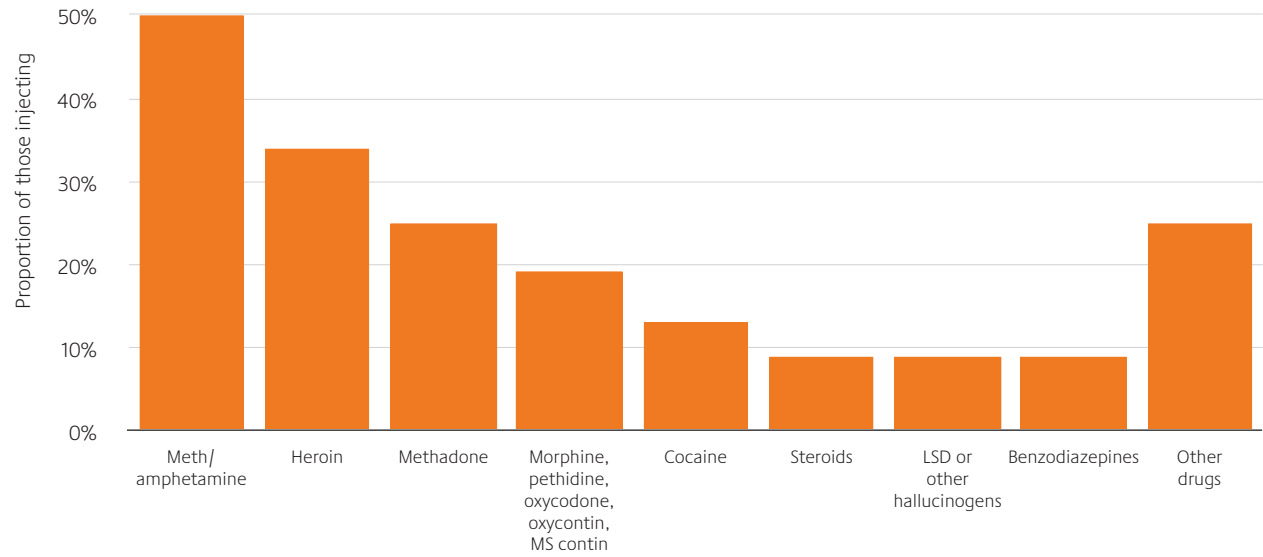
# Injecting drug use

Three percent of respondents reported injecting drugs in the past 12 months (n = 33). One third of trans/gender diverse respondents reported injecting drug use (33% (8/24)) compared with only 2% (8/442) of males and 2% (17/799) of females. The absolute numbers were small, but injecting was reported by a slightly higher proportion of 16-19 yo ((3%) 12/462) compared with older respondents aged 20-29 years (2% (12/687), combined due to small numbers). There was a similar proportion of injecting drug users in urban (2% (13/755)) and regional/remote areas (2% (7/438)) (Table 6.10).

Meth/amphetamine was the most commonly injected drug (50% (16/32) of those reporting injecting) followed by heroin (34% (11/32)) and methadone (25% (8/32)) (Figure 6.2).

Twenty three percent (7/31) reported sharing needles/syringes and almost a third (32%, 10/31) had shared other equipment such as tourniquets, spoons, filters or swabs.

**Figure 6.2 Drugs injected in the last 12 months**





## 7 Results: Health service access, testing, treatment and support for STIs and BBVs

Health service access and appropriate testing and treatment are recognised as important factors in reducing STI and BBV incidence and prevalence in Aboriginal and Torres Strait Islander communities. Participants were asked about testing, diagnosis and treatment of STIs and BBVs and where they would access information or support for STIs and alcohol and other drug problems. Results are presented by gender, age group, residential location and risk groups (where relevant).

Participants were asked if they had a “full health check up” in the last year and at what type of service this occurred. Sixty four percent of respondents reported they had had a full health check in the last year. Trans/gender diverse respondents were less likely to report a health check (48%, 11/23) than males (60%) or females (67%) (Table 7.1). A higher proportion of older respondents reported health checks (66% of 20-24 yo and 70% of 25-29 yo) compared to 16-19 yo (58%) (Table 7.2). Health checks were more common in regional and remote residents (69% and 77%, respectively) than those living in urban areas (61%) (Table 7.3). Aboriginal Medical Services were the most common location for health checks (66% overall), particularly for those living in remote areas (81% compared to 62% of urban and 66% of regional respondents) (Fig 7.1). A further 32% of respondents reported they had their health check at a General Practice clinic (Fig 7.1).

Participants were asked whether they were offered an STI check as part of the health check. Males were somewhat less likely to report they had been offered STI testing than females or trans/gender diverse respondents (54% compared to 64% and 64% (7/11), respectively) (Table 7.1). Respondents aged 16-19 yo were much less likely to have been offered an STI check (42% compared to 70% of 20-24 yo and 74% of 25-29 yo) (Table 7.2). Regional residents were also less likely than those from urban and remote areas to have been offered STI testing (55% compared to 64% and 64%, respectively) (Table 7.3).

**Table 7.1 Health checks overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants</b>	1343	829	477
<b>Full health check in last year</b>			
Yes	812 (64%)	535 (67%)	263 (60%)
No	450 (36%)	259 (33%)	176 (40%)
<i>Number of respondents</i>	1262	794	439
<i>Did not answer</i>	81	35	38
<b>Offered STI check<sup>b</sup></b>			
Yes	489 (61%)	340 (64%)	140 (54%)
No	313 (39%)	190 (36%)	118 (46%)
<i>Number of respondents</i>	802	530	258
<i>Did not answer</i>	10	5	5

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

b. Among those with health checks.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 7.2 Health checks by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	488	426	292
<b>Full health check in last year</b>			
Yes	265 (58%)	264 (66%)	199 (70%)
No	192 (42%)	137 (34%)	84 (30%)
<i>Number of respondents</i>	457	401	283
<i>Did not answer</i>	31	25	9
<b>Offered STI check<sup>b</sup></b>			
Yes	109 (42%)	182 (70%)	145 (74%)
No	151 (58%)	79 (30%)	52 (26%)
<i>Number of respondents</i>	260	261	197
<i>Did not answer</i>	5	3	2

a. Participants with missing data for age (n = 137, 10%) have been excluded.

b. Among those with health checks.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 7.3 Health checks by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	781	319	155
<b>Full health check in last year</b>			
Yes	461 (61%)	210 (69%)	103 (77%)
No	290 (39%)	93 (31%)	30 (23%)
<i>Number of respondents</i>	751	303	133
<i>Did not answer</i>	30	16	22
<b>Offered STI check<sup>b</sup></b>			
Yes	290 (64%)	114 (55%)	65 (64%)
No	165 (36%)	93 (45%)	37 (36%)
<i>Number of respondents</i>	455	207	102
<i>Did not answer</i>	6	3	1

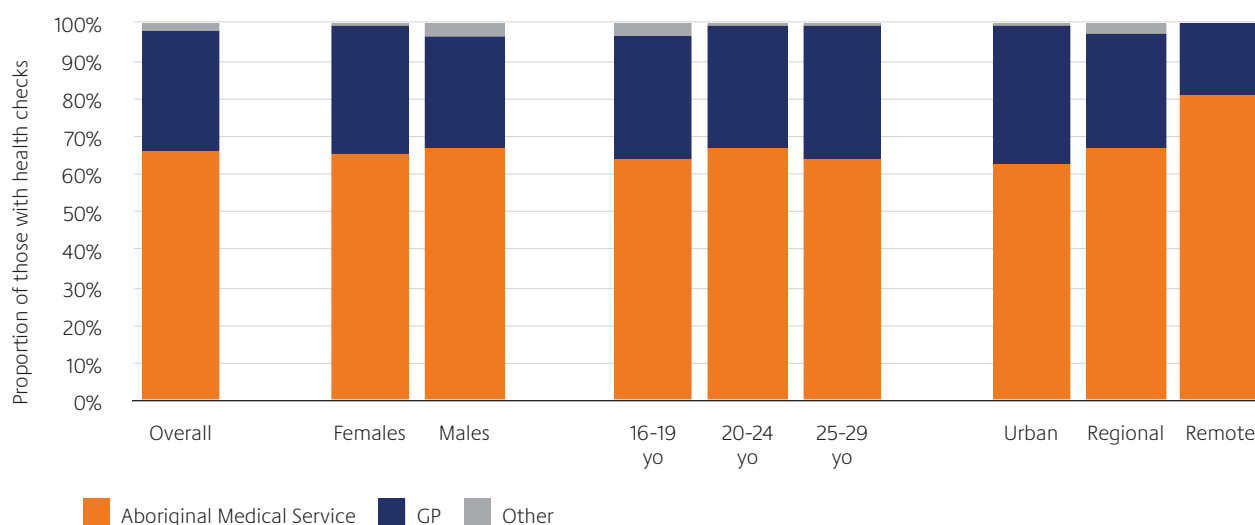
a. Participants with missing data for region (n = 88, 7%) have been excluded.

b. Among those with health checks.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Figure 7.1 Location of health check in the last year**



## Self-reported rates of testing, diagnosis and treatment of STIs, hepatitis C and HIV

### STI testing and diagnoses

Sixty percent of all respondents and 70% of those who were sexually active (oral, vaginal or anal sex) reported being tested previously for STIs. Approximately half of sexually active (52%) respondents had been tested in the last year. Sexually active females were more likely to report STI testing (74%) than males (61%) or trans/gender diverse respondents (64%, 9/14) (Table 7.4). Only half of sexually active 16-19 yo (51%) had ever been tested for STIs (Table 7.5). STI testing was more commonly reported by residents of urban and remote regions than regional residents (72% and 78% versus 61%, respectively) (Table 7.6).

Half of respondents had been tested at an Aboriginal Medical Service and a further 39% at a General Practice clinic (Fig 7.2). Males were a little more likely to have attended an Aboriginal Medical Service for testing (54% compared to 48% of females) (Fig 7.2). Younger people (16-19 yo) also more commonly had testing performed at an Aboriginal Medical Service (54% compared to 48% of 20-24 yo and 49% of 25-29 yo) (Fig 7.2). A higher proportion of respondents from regional and remote areas had STI testing at an Aboriginal Medical Service (54% and 70%) compared to urban respondents (45%) who also commonly attended General Practice for testing (42%) (Fig 7.2).

**Figure 7.2 Location of STI testing**

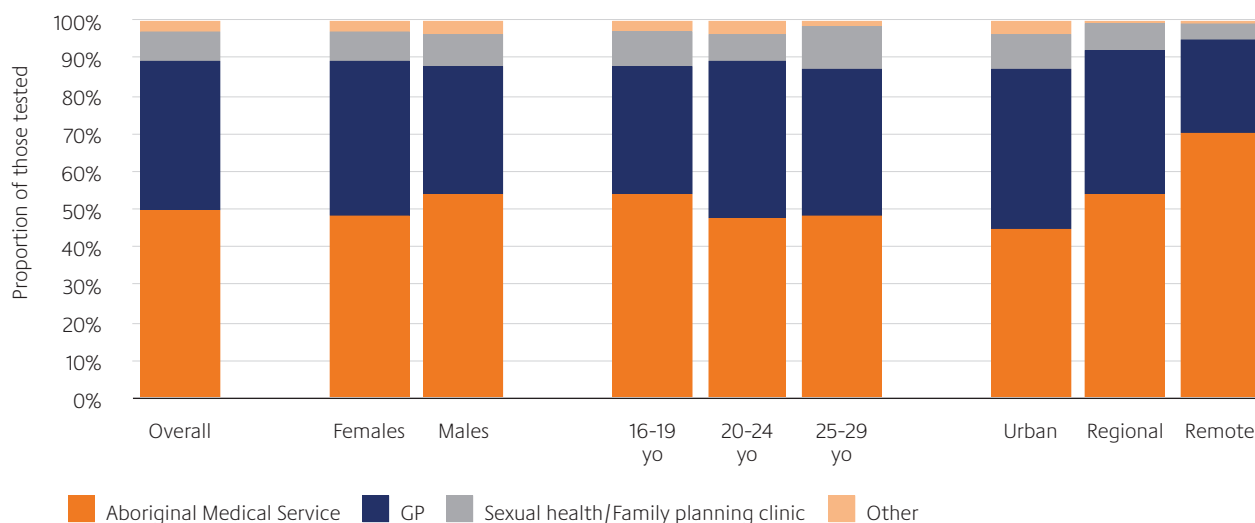




Table 7.4 STI testing overall and by gender

	Overall	Gender <sup>a</sup>	
		Female	Male
Number of participants	1343	829	477
<b>STI testing (overall)</b>			
Ever tested for STIs	<b>765 (60%)</b>	<b>509 (63%)</b>	<b>243 (55%)</b>
Tested last year	563 (44%)	374 (46%)	178 (40%)
Tested over a year ago	202 (16%)	135 (17%)	65 (15%)
Never	442 (35%)	262 (33%)	169 (38%)
Don't know	74 (6%)	35 (4%)	33 (7%)
Number of respondents	1281	806	445
Did not answer	62	23	32
<b>STI testing (sexually active)<sup>b</sup></b>			
Ever tested for STIs	<b>711 (70%)</b>	<b>472 (74%)</b>	<b>228 (61%)</b>
Tested last year	528 (52%)	352 (56%)	167 (45%)
Tested over a year ago	183 (18%)	120 (19%)	61 (16%)
Never	258 (25%)	138 (22%)	118 (32%)
Don't know	53 (5%)	24 (4%)	25 (7%)
Number of respondents	1022	634	371
Did not answer	30	12	14
<b>Diagnosed with STI<sup>c</sup></b>			
Ever diagnosed	<b>179 (24%)</b>	<b>122 (24%)</b>	<b>50 (21%)</b>
Yes last year	75 (10%)	52 (10%)	19 (8%)
Yes over a year ago	104 (14%)	70 (14%)	31 (13%)
No	579 (76%)	384 (76%)	189 (79%)
Number of respondents	758	506	239
Did not answer	7	3	4

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

b. Oral, vaginal or anal sex previously.

c. Among those tested for STIs.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

Table 7.5 STI testing by age group

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	488	426	292
<b>STI testing (overall)</b>			
<b>Ever tested for STIs</b>	<b>173 (37%)</b>	<b>293 (72%)</b>	<b>225 (79%)</b>
Tested last year	138 (30%)	222 (54%)	153 (54%)
Tested over a year ago	35 (8%)	71 (17%)	72 (25%)
Never	264 (57%)	94 (23%)	46 (16%)
Don't know	27 (6%)	21 (5%)	14 (5%)
<i>Number of respondents</i>	464	408	285
<i>Did not answer</i>	24	18	7
<b>STI testing (sexually active)<sup>b</sup></b>			
<b>Ever tested for STIs</b>	<b>154 (51%)</b>	<b>280 (77%)</b>	<b>214 (81%)</b>
Tested last year	124 (41%)	216 (59%)	145 (55%)
Tested over a year ago	30 (10%)	64 (18%)	69 (26%)
Never	133 (44%)	67 (18%)	39 (15%)
Don't know	17 (6%)	17 (5%)	12 (5%)
<i>Number of respondents</i>	304	364	265
<i>Did not answer</i>	9	10	2
<b>Diagnosed with STI<sup>c</sup></b>			
<b>Ever diagnosed</b>	<b>26 (15%)</b>	<b>78 (27%)</b>	<b>53 (24%)</b>
Yes last year	13 (8%)	39 (13%)	13 (6%)
Yes over a year ago	13 (8%)	39 (13%)	40 (18%)
No	145 (85%)	213 (73%)	169 (76%)
<i>Number of respondents</i>	171	291	222
<i>Did not answer</i>	2	2	3

a. Participants with missing data for age (n = 137, 10%) have been excluded.

b. Oral, vaginal or anal sex previously.

c. Among those tested for STIs.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 7.6 STI testing by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	781	319	155
<b>STI testing</b>			
<b>Ever tested for STIs</b>	<b>464 (61%)</b>	<b>164 (54%)</b>	<b>99 (72%)</b>
Tested last year	343 (45%)	120 (39%)	80 (58%)
Tested over a year ago	121 (16%)	44 (14%)	19 (14%)
Never	265 (35%)	120 (39%)	29 (21%)
Don't know	32 (4%)	21 (7%)	10 (7%)
<i>Number of respondents</i>	761	305	138
<i>Did not answer</i>	20	14	17
<b>STI testing (sexually active)<sup>b</sup></b>			
<b>Ever tested for STIs</b>	<b>443 (72%)</b>	<b>152 (61%)</b>	<b>86 (78%)</b>
Tested last year	331 (54%)	110 (44%)	71 (65%)
Tested over a year ago	112 (18%)	42 (17%)	15 (14%)
Never	149 (24%)	79 (32%)	17 (15%)
Don't know	22 (4%)	18 (7%)	7 (6%)
<i>Number of respondents</i>	614	249	110
<i>Did not answer</i>	11	8	6
<b>Diagnosed with STI<sup>c</sup></b>			
<b>Ever diagnosed</b>	<b>105 (23%)</b>	<b>44 (27%)</b>	<b>22 (23%)</b>
Yes last year	45 (10%)	18 (11%)	9 (9%)
Yes over a year ago	60 (13%)	26 (16%)	13 (13%)
No	356 (77%)	120 (73%)	75 (77%)
<i>Number of respondents</i>	461	164	97
<i>Did not answer</i>	3	0	2

a. Participants with missing data for region (n = 88, 7%) have been excluded.

b. Oral, vaginal or anal sex previously.

c. Among those tested for STIs.

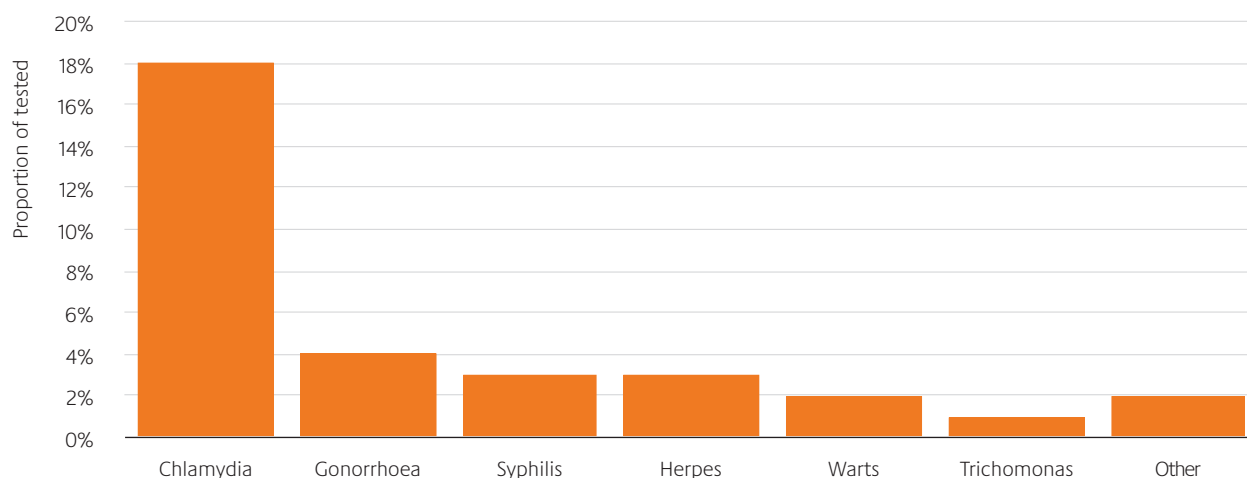
Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

Among those ever tested, almost one quarter (24%) had been diagnosed with an STI, 10% in the last year (Table 7.4). This represented 13% of all participants (179/1343) and 17% of sexually active respondents (179/1052). Of those tested, 24% of females, 21% of males and 60% (6/10) of trans/gender diverse respondents had been previously diagnosed with an STI (Table 7.4). A lower proportion of 16-19 yo who had been tested reported an STI diagnosis (15% compared with 27% of 20-24 yo and 24% of 25-29 yo) (Table 7.5). The proportion of tested who were diagnosed with an STI was slightly higher in regional than urban or remote areas (27% compared with 23% and 23%, respectively) (Table 7.6).

Chlamydia was the most commonly reported STI (18% of those ever tested (141/765)), followed by gonorrhoea (4% (34/765)) (Figure 7.3).

**Figure 7.3 STIs diagnosed among those who had ever been tested**

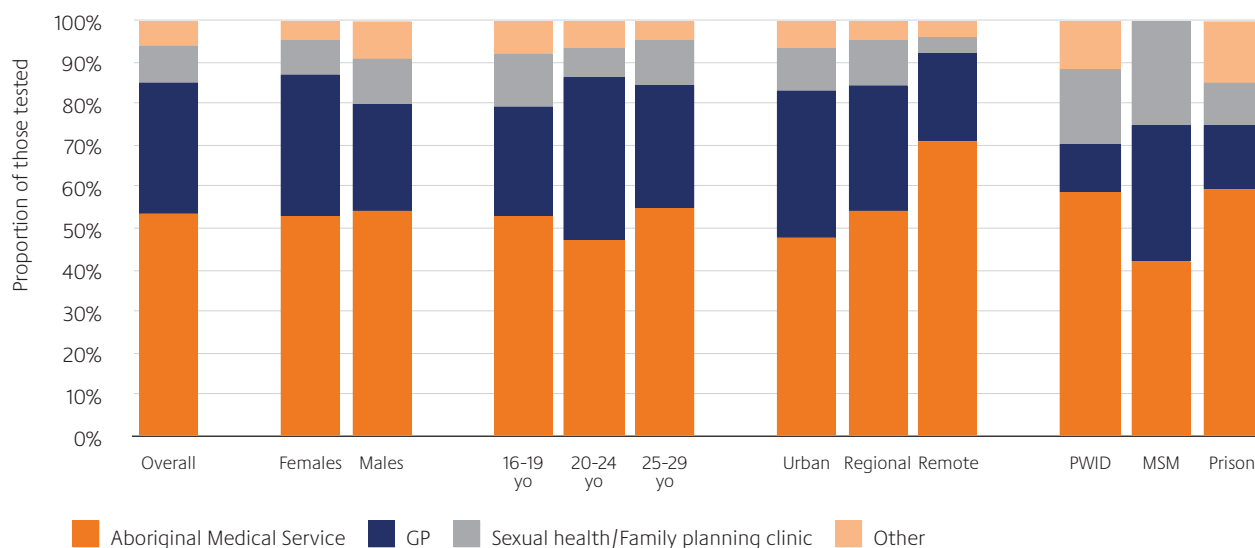


## HIV testing

One third of respondents had been tested previously for HIV (33%) and 24% reported testing in the last year (Table 7.7). HIV testing was more common in females (34%) and trans/gender diverse respondents (44%, 11/25) than males (29%) (Table 7.7). The youngest age group (16-19 yo) was least likely to be tested ever or in the last year (16% in the last year compared to 28% of 20-24 yo and 30% of 25-29 yo, Table 7.8). There was less HIV testing reported by regional respondents than those from urban and remote areas (28% compared with 34% and 36%, respectively; Table 7.9). HIV testing was reported by 53% of people who injected drugs (Table 7.10), 61% of males whose last sexual partner was male (Table 7.11) and 45% of those previously imprisoned (Table 7.12).

Over half of respondents received HIV testing at an Aboriginal Medical Service (53%) and approximately one-third at a General Practice clinic (31%) (Fig 7.4). Trans/gender diverse respondents were also most likely to attend an Aboriginal Medical Service for HIV testing (45%, 5/11). Respondents from remote areas were much more likely to be tested at an Aboriginal Medical Service (70%, compared with 48% of urban and 54% of regional respondents). Aboriginal Medical Services were also the most likely place attended for HIV testing by those with recent injecting drug use, history of imprisonment or males with a male sexual partner (Fig 7.4).

**Figure 7.4 Location of HIV testing. (PWID people who inject drugs, MSM men who have sex with men, prison indicates previous imprisonment)**





## HIV diagnosis and treatment

Fourteen respondents reported they were HIV positive (3% of those tested, 1% of all participants). This included respondents of all genders (female, male, trans and gender diverse) and age categories. Half were urban residents (7/14). Prevalence was highest in those who reported injecting drug use (29% compared to 2% among those with no injecting history). Prevalence was also increased in respondents with a prison history and males with a male sexual partner. Of the 14 HIV positive respondents, five reported they were on HIV treatment, seven were not on treatment and two did not answer the treatment question. Some details have not been reported here because of small numbers.

**Table 7.7 HIV testing overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants</b>	1343	829	477
<b>HIV testing</b>			
<b>Ever tested for HIV</b>	<b>411 (33%)</b>	<b>270 (34%)</b>	<b>127 (29%)</b>
Tested last year	302 (24%)	196 (25%)	94 (21%)
Tested over a year ago	109 (9%)	74 (9%)	33 (8%)
Never	671 (53%)	418 (53%)	242 (55%)
Don't know	182 (14%)	106 (13%)	70 (16%)
<i>Number of respondents</i>	<i>1264</i>	<i>794</i>	<i>439</i>
<i>Did not answer</i>	<i>79</i>	<i>35</i>	<i>38</i>

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 7.8 HIV testing by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	488	426	292
<b>HIV testing</b>			
<b>Ever tested for HIV</b>	<b>91 (20%)</b>	<b>151 (38%)</b>	<b>128 (45%)</b>
Tested last year	73 (16%)	110 (28%)	86 (30%)
Tested over a year ago	18 (4%)	41 (10%)	42 (15%)
Never	318 (70%)	179 (45%)	114 (40%)
Don't know	47 (10%)	70 (18%)	44 (15%)
<i>Number of respondents</i>	<i>456</i>	<i>400</i>	<i>286</i>
<i>Did not answer</i>	<i>32</i>	<i>26</i>	<i>6</i>

a. Participants with missing data for age (n = 137, 10%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 7.9 HIV testing by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	781	319	155
<b>HIV testing</b>			
<b>Ever tested for HIV</b>	<b>256 (34%)</b>	<b>85 (28%)</b>	<b>47 (36%)</b>
Tested last year	188 (25%)	64 (21%)	35 (27%)
Tested over a year ago	68 (9%)	21 (7%)	12 (9%)
Never	403 (54%)	175 (58%)	59 (45%)
Don't know	94 (12%)	41 (14%)	26 (20%)
<i>Number of respondents</i>	753	301	132
<i>Did not answer</i>	28	18	23

a. Participants with missing data for region (n = 88, 7%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 7.10 HIV testing by injecting drug use in last 12 months**

	Injected drugs in last 12 months <sup>a</sup>	
	No	Yes
<b>Number of participants</b>	1238	33
<b>HIV testing</b>		
<b>Ever tested for HIV</b>	<b>388 (32%)</b>	<b>17 (53%)</b>
Tested last year	287 (24%)	10 (31%)
Tested over a year ago	101 (8%)	7 (22%)
Never	658 (54%)	8 (25%)
Don't know	168 (14%)	7 (22%)
<i>Number of respondents</i>	1221	32
<i>Did not answer</i>	24	1

a. Participants with missing data for injecting drug use last 12 months (n = 72, 5%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 7.11 HIV testing among males by gender of last sexual partner**

	Male last sexual partner <sup>a</sup>	
	No	Yes
<b>Number of participants</b>	331	45
<b>HIV testing</b>		
Ever tested	98 (31%)	25 (61%)
Never	171 (53%)	12 (29%)
Don't know	55 (17%)	4 (10%)
<i>Number of respondents</i>	324	41
<i>Did not answer</i>	7	4

a. Sexually active male participants with missing data for gender of last partner (n = 12, 3%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 7.12 HIV testing by history of imprisonment**

	Prison ever <sup>a</sup>	
	No	Yes
<b>Number of participants</b>	1189	91
<b>HIV testing</b>		
<b>Ever tested for HIV</b>	<b>367 (31%)</b>	<b>40 (45%)</b>
Tested last year	271 (23%)	27 (31%)
Tested over a year ago	96 (8%)	13 (15%)
Never	635 (54%)	32 (36%)
Don't know	165 (14%)	16 (18%)
<i>Number of respondents</i>	1167	88
<i>Did not answer</i>	22	3

a. Participants with missing data for prison ever (n = 63, 5%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

## Hepatitis C testing

Thirty two percent of respondents reported ever testing for hepatitis C (HCV), with 23% tested in the last year and 9% tested over a year ago (Tables 7.13). Males were slightly less likely to report ever being tested (30%) than females (33%) or trans and gender diverse respondents (36%, 9/25). A smaller proportion of respondents aged 16-19 yo reported being tested (16% ever tested compared to 40% of 20-24 year olds and 47% of 25-29 yo, and 13% tested in the last year compared to 27% of 20-24 yo and 32% of 25-29 yo) (Table 7.14). Respondents living in regional areas were less likely to report ever being tested (25%) compared to those in urban and remote areas (34% and 43%, respectively) (Table 7.15). Of respondents who reported injecting drug use in the last 12 months, 45% had ever been tested for HCV (Table 7.16), and among those with a history of imprisonment, 44% had been previously tested (Table 7.17).

Hepatitis C testing was most likely to be conducted at an Aboriginal Medical Service (52%) followed by general practice (33%), regardless of age, gender or residential location (Fig 7.5). Respondents from remote areas were relatively more likely to report HCV testing at an Aboriginal Medical Service (70% compared with 48% of urban and 55% of regional respondents). Aboriginal Medical Services were also the most common location for HCV testing reported by respondents with injecting drug use in the past 12 months (47%, 7/15) or a history of imprisonment (51%, 20/39).

**Table 7.13 HCV testing overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants</b>	1343	829	477
<b>HCV testing</b>			
<b>Ever tested for HCV</b>	<b>407 (32%)</b>	<b>262 (33%)</b>	<b>135 (30%)</b>
Tested last year	288 (23%)	186 (24%)	95 (21%)
Tested over a year ago	119 (9%)	76 (10%)	40 (9%)
Never	492 (39%)	303 (38%)	177 (40%)
Don't know	367 (29%)	225 (28%)	133 (30%)
<i>Number of respondents</i>	1266	790	445
<i>Did not answer</i>	77	39	32

a. Participants with missing data for gender (n = 9, <1%) have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 7.14 HCV testing by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	494	429	293
<b>HCV testing</b>			
<b>Ever tested for HCV</b>	<b>72 (16%)</b>	<b>161 (40%)</b>	<b>132 (47%)</b>
Tested last year	61 (13%)	112 (28%)	89 (32%)
Tested over a year ago	11 (2%)	49 (12%)	43 (15%)
Never	246 (54%)	125 (31%)	76 (27%)
Don't know	141 (31%)	117 (29%)	73 (26%)
<i>Number of respondents</i>	459	403	281
<i>Did not answer</i>	29	23	11

a. Participants with missing data for age (n = 137, 10%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 7.15 HCV testing by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	789	319	155
<b>HCV testing</b>			
<b>Ever tested for HCV</b>	<b>255 (34%)</b>	<b>75 (25%)</b>	<b>58 (43%)</b>
Tested last year	184 (24%)	52 (17%)	39 (29%)
Tested over a year ago	71 (9%)	23 (8%)	19 (14%)
Never	288 (38%)	134 (44%)	36 (26%)
Don't know	209 (28%)	93 (31%)	42 (31%)
<i>Number of respondents</i>	752	302	136
<i>Did not answer</i>	29	17	19

a. Participants with missing data for region (n = 88, 7%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.



**Table 7.16 HCV testing by injecting drug use in last 12 months**

	Injected drugs in last 12 months <sup>a</sup>	
	No	Yes
<b>Number of participants</b>	1238	33
<b>HCV testing</b>		
<b>Ever tested for HCV</b>	<b>386 (32%)</b>	<b>15 (45%)</b>
Tested last year	274 (23%)	10 (30%)
Tested over a year ago	112 (9%)	5 (15%)
Never	475 (39%)	10 (30%)
Don't know	352 (29%)	8 (24%)
<i>Number of respondents</i>	1213	33
<i>Did not answer</i>	25	0

a. Participants with missing data for injecting drug use last 12 months (n = 75, 6%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 7.17 HCV testing by history of imprisonment**

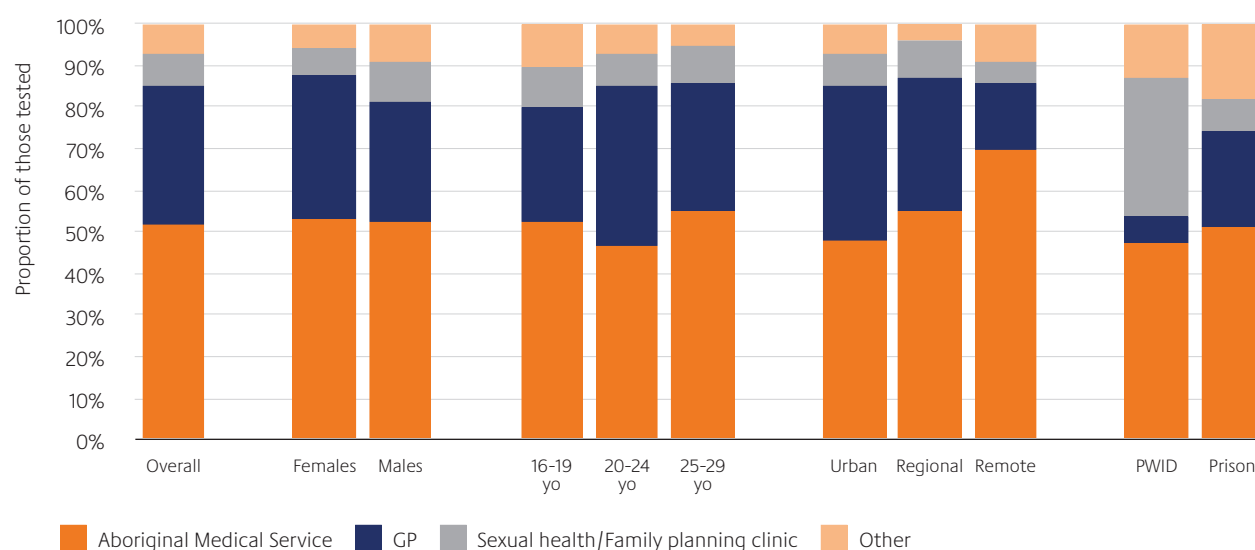
	Prison ever <sup>a</sup>	
	No	Yes
<b>Number of participants</b>	1189	91
<b>HCV testing</b>		
<b>Ever tested for HCV</b>	<b>361 (31%)</b>	<b>40 (44%)</b>
Tested last year	257 (22%)	26 (29%)
Tested over a year ago	104 (9%)	14 (15%)
Never	464 (40%)	25 (27%)
Don't know	341 (29%)	26 (29%)
<i>Number of respondents</i>	1166	91
<i>Did not answer</i>	23	0

a. Participants with missing data for prison ever (n = 65, 5%) have been excluded.

Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Figure 7.5 Location of hepatitis C testing. 'Other' includes testing in prison, hospital or other; PWID = people who inject drugs, prison indicates previous imprisonment**



## HCV diagnosis and treatment

Of respondents tested for HCV, 4% (n = 17) reported being hepatitis C positive. This included respondents of all genders, age groups and residential locations. Among respondents with recent injecting drug use who had been HCV tested, 47% were HCV positive (7/15; this represented 21% of all injecting drug users). Fifteen percent of people with a history of imprisonment and HCV testing were HCV positive (6/39; this represented 7% of all who had been in prison previously).

Nine of 17 HCV positive respondents (53%) had never previously had treatment. Among the eight respondents who were still HCV positive despite previous treatment, most had been treated before 2016 (numbers too small to report).

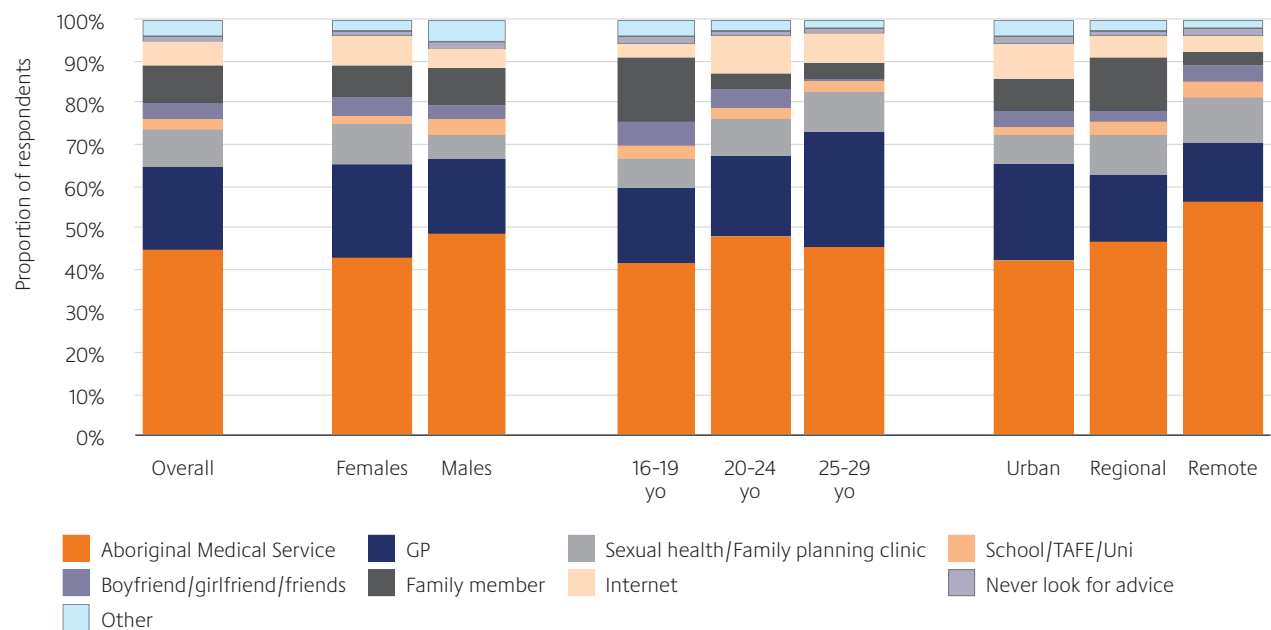
Among those who were HCV negative (n = 385), eighteen had previously been treated for hepatitis C (5%). Eleven of these respondents had been treated since 2016 (when direct acting antiviral medication became available) and nine respondents had received treatment prior to 2016 (two had been treated both before and after 2016).

## Source of advice on sex and STIs

Aboriginal Medical Services were reported as the first place to go for advice on sex and STIs by 45% of respondents, followed by General Practice (20%) (Fig 7.6). Males were somewhat more likely than females to get advice from an Aboriginal Medical Service (49% compared to 43%), and trans/gender diverse respondents were less likely (36%, 9/25). Younger respondents aged 16-19 yo more commonly sought advice from family than older respondents (15% compared to 4% of those either 20-24 yo or 25-29 yo). The internet was used more by older age groups (9% of 20-24 yo and 7% of 25-29 yo compared with 3% of 16-19 yo). Remote respondents were the most likely to seek advice at an Aboriginal Medical Service (57% compared to 42% of urban and 47% of regional respondents).



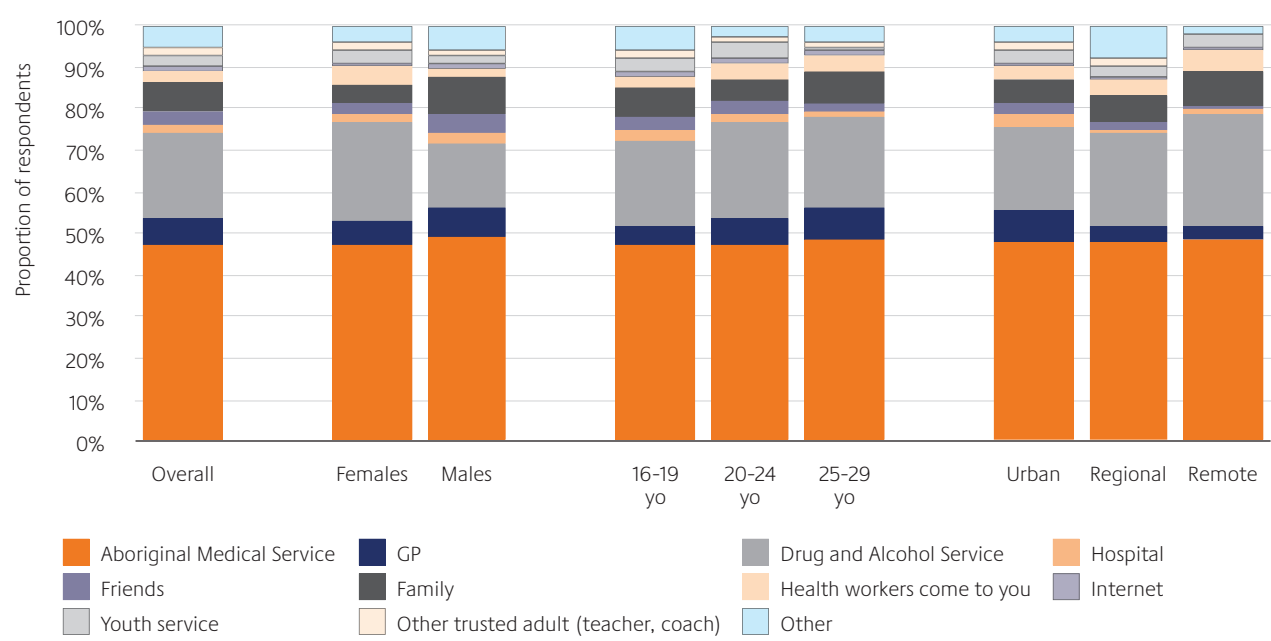
**Figure 7.6** First place to go for advice on sex and STIs



## Help for alcohol and drug use

Aboriginal Medical Services were reported as the best place to get help for alcohol or drug use by 48% of respondents (Fig 7.7). There were no obvious variations by gender, age group or region. Drug and alcohol services were recommended by 21% of respondents, although males were less likely than females to suggest these services (15% compared to 24%, respectively).

**Figure 7.7** Best place to get help for alcohol or drug use





## 8 Results: Social and emotional wellbeing

Poor mental health in young people has been associated with behaviours that may increase their risk of STIs and BBVs. We included social and emotional wellbeing questions in the GOANNA Survey 2 that were used in the 2004-05, 2012-13 and 2018-19 National Aboriginal and Torres Strait Islander Health Surveys (NATSIHS) and the 2008 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (11).

Five modified questions were included from the Kessler Psychological Distress Scale (12, 13); the K5. Participants were asked about whether they felt:

- nervous
- without hope
- restless or jumpy
- everything was an effort
- so sad that nothing could cheer them up.

For each question the respondent could indicate how often they felt this way in the previous four weeks.

- all of the time
- most of the time
- some of the time
- a little of the time
- none of the time.

The minimum score for each question was '1' (none of the time) and the maximum score was '5' (all of the time). A score was only calculated for respondents who answered all five questions, with possible scores ranging between 5-25. Higher scores are an indicator of higher levels of psychological distress.

Four questions on positive wellbeing from the SF-36 short form survey (14) were also included. Participants were asked how often in the last four weeks they:

- felt calm and peaceful
- had been a happy person
- felt full of life
- had a lot of energy.

The same 5-level response scale was used as for the K5 questions.

Forty six percent of respondents reported high or very high levels of psychological distress (score 12-25) during the four weeks before the survey (Table 8.1). High/very high levels were more commonly reported by females (51%) and trans/gender diverse respondents (68%, 15/22) than males (37%) (Table 8.1) and more often by 20-24 yo (53%) compared to other age groups (43% of both 16-19 yo and 25-29 yo) (Table 8.2). Regional areas had the lowest proportion of respondents with high/very high psychological distress (39%, compared to 48% of urban residents and 54% of remote residents) (Table 8.3).

Positive feelings of wellbeing were reported all or most of the time by around 40-50% of respondents (calm and peaceful 40%, happy person 52%, full of life 43%, having a lot of energy 39%). Trans/gender diverse respondents were less likely than males or females to report positive wellbeing all or most of the time, especially for being a happy person, full of life or having a lot of energy. The oldest age group (25-29 yo) more commonly reported being a happy person or full of life than younger age groups. The proportion of respondents answering 'all or most of the time' was higher for remote residents than urban or regional residents for all four positive wellbeing questions (Table 8.3). However, there were no consistent differences by residential location in the proportion who reported positive wellbeing 'little or none of the time'.



**Table 8.1 Psychological distress and positive wellbeing, overall and by gender**

	Overall	Gender <sup>a</sup>	
		Female	Male
<b>Number of participants</b>	1309	807	465
<b>Psychological distress</b>			
High/very high (K5 score 12-25)	553 (46%)	382 (51%)	153 (37%)
Low/moderate (K5 score 5-11)	645 (54%)	373 (49%)	263 (63%)
<i>Number of respondents</i>	1198	755	416
<i>Did not answer</i>	111	52	49
<b>Calm and peaceful</b>			
All or most of the time	488 (40%)	301 (39%)	175 (41%)
Some of the time	369 (30%)	243 (32%)	117 (27%)
Little or none of the time	370 (30%)	227 (29%)	135 (32%)
<i>Number of respondents</i>	1227	771	427
<i>Did not answer</i>	82	36	38
<b>Happy person</b>			
All or most of the time	633 (52%)	396 (52%)	227 (53%)
Some of the time	297 (24%)	197 (26%)	89 (21%)
Little or none of the time	295 (24%)	175 (23%)	113 (26%)
<i>Number of respondents</i>	1225	768	429
<i>Did not answer</i>	84	39	36
<b>Full of life</b>			
All or most of the time	531 (43%)	325 (42%)	196 (46%)
Some of the time	352 (29%)	234 (30%)	106 (25%)
Little or none of the time	348 (28%)	216 (28%)	124 (29%)
<i>Number of respondents</i>	1231	775	426
<i>Did not answer</i>	78	32	39
<b>A lot of energy</b>			
All or most of the time	477 (39%)	280 (36%)	188 (44%)
Some of the time	396 (32%)	268 (35%)	120 (28%)
Little or none of the time	358 (29%)	226 (29%)	119 (28%)
<i>Number of respondents</i>	1231	774	427
<i>Did not answer</i>	78	33	38

a. A further (n = 9, <1%) participants with missing data for gender have been excluded. Data for trans and gender diverse participants (n = 28) not presented in table because of small numbers.

These questions were excluded from surveys in one region at the request of the local research committee so total eligible participants n = 1309. Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.

**Table 8.2 Psychological distress and positive wellbeing, by age group**

	Age group <sup>a</sup>		
	16-19 yo	20-24 yo	25-29 yo
<b>Number of participants</b>	476	415	285
<b>Psychological distress</b>			
High/very high (K5 score 12-25)	185 (43%)	202 (53%)	115 (43%)
Low/moderate (K5 score 5-11)	248 (57%)	182 (47%)	154 (57%)
<i>Number of respondents</i>	433	384	269
<i>Did not answer</i>	43	31	16
<b>Calm and peaceful</b>			
All or most of the time	186 (42%)	144 (37%)	120 (44%)
Some of the time	115 (26%)	143 (36%)	78 (28%)
Little or none of the time	140 (32%)	107 (27%)	77 (28%)
<i>Number of respondents</i>	441	394	275
<i>Did not answer</i>	35	21	10
<b>Happy person</b>			
All or most of the time	224 (51%)	204 (52%)	161 (58%)
Some of the time	106 (24%)	102 (26%)	59 (21%)
Little or none of the time	110 (25%)	87 (22%)	56 (20%)
<i>Number of respondents</i>	440	393	276
<i>Did not answer</i>	36	22	9
<b>Full of life</b>			
All or most of the time	185 (42%)	170 (43%)	140 (51%)
Some of the time	131 (30%)	113 (29%)	75 (27%)
Little or none of the time	127 (29%)	113 (29%)	62 (22%)
<i>Number of respondents</i>	443	396	277
<i>Did not answer</i>	33	19	8
<b>A lot of energy</b>			
All or most of the time	181 (41%)	144 (36%)	112 (41%)
Some of the time	132 (30%)	140 (35%)	93 (34%)
Little or none of the time	132 (30%)	113 (28%)	71 (26%)
<i>Number of respondents</i>	445	397	276
<i>Did not answer</i>	31	18	9

a. A further (n =133, 10%) participants with missing data for age have been excluded.

These questions were excluded from surveys in one region at the request of the local research committee so total eligible participants n = 1309. Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.



**Table 8.3 Psychological distress and positive wellbeing, by residential location**

	Region <sup>a</sup>		
	Urban	Regional	Remote
<b>Number of participants</b>	780	319	125
<b>Psychological distress</b>			
High/very high (K5 score 12-25)	354 (48%)	113 (39%)	52 (54%)
Low/moderate (K5 score 5-11)	386 (52%)	179 (61%)	45 (46%)
<i>Number of respondents</i>	740	292	97
<i>Did not answer</i>	40	27	28
<b>Calm and peaceful</b>			
All or most of the time	303 (40%)	106 (35%)	54 (53%)
Some of the time	236 (31%)	92 (31%)	20 (20%)
Little or none of the time	215 (29%)	101 (34%)	27 (27%)
<i>Number of respondents</i>	754	299	101
<i>Did not answer</i>	26	20	24
<b>Happy person</b>			
All or most of the time	392 (52%)	153 (51%)	61 (60%)
Some of the time	196 (26%)	69 (23%)	14 (14%)
Little or none of the time	165 (22%)	76 (26%)	26 (26%)
<i>Number of respondents</i>	753	298	101
<i>Did not answer</i>	27	21	24
<b>Full of life</b>			
All or most of the time	334 (44%)	129 (43%)	48 (48%)
Some of the time	217 (29%)	87 (29%)	25 (25%)
Little or none of the time	208 (27%)	83 (28%)	27 (27%)
<i>Number of respondents</i>	759	299	100
<i>Did not answer</i>	21	20	25
<b>A lot of energy</b>			
All or most of the time	290 (38%)	116 (39%)	45 (45%)
Some of the time	257 (34%)	95 (32%)	26 (26%)
Little or none of the time	212 (28%)	87 (29%)	29 (29%)
<i>Number of respondents</i>	759	298	100
<i>Did not answer</i>	21	21	25

a. A further (n = 85, 6%) participants with missing data for region have been excluded.

These questions were excluded from surveys in one region at the request of the local research committee so total eligible participants n = 1309. Number of respondents to each question has been used as the denominator when calculating proportions (%).

Percentages have been rounded up to the nearest whole number, columns may not equal 100%.



## 9 Key comparisons with the first GOANNA Survey

	First GOANNA Survey (2011-2013)	GOANNA Survey 2 (Sept 2017-Jan 2020)
Study population		
Number of participants	N = 2877	N = 1343
Gender	Female 60% (n=1705) Male 40% (n=1132) Transgender <1% (n=13)	Female 62% (n=829) Male 36% (n=477) Transgender female <1% (n=8) Transgender male <1% (n=10) Other <1% (n=10)
Age	16-19 years 44% (n=1265) 20-24 years 31% (n=897) 25-29 years 25% (n=715)	16-19 years 40% (n=488) 20-24 years 35% (n=426) 25-29 years 24% (n=292)
Residential location	Urban 54% (n=1460) Regional 38% (n=1023) Remote 9% (n=244)	Urban 62% (n=781) Regional 25% (n=319) Remote 12% (n=155)
Sexual identity	Heterosexual 92% (n=2570) Bisexual 4% (n=109) Homosexual/gay/lesbian 4% (n=120)	Heterosexual 82% (n=1097) Bisexual 9% (n=116) Homosexual/gay/lesbian 5% (n=69) Unsure/other 4% (n=51)
Relationship status	Single 58% (n=1631) In a relationship 42% (n=1195)	Single 62% (n=823) In a relationship 38% (n=511)
Parenting (% of all participants)	Females – 27% given birth (n=455) Males – 23% fathered children (n=265)	Females – 19% given birth (n=161) Males – 16% fathered children (n=79)
Highest education level	Completed year 12 or higher qualifications – 45% (n=1265)	Completed year 12 or higher qualifications – 63% (n=286)
English as first language	96% (n=2699)	95% (n=1263)
Previous imprisonment	8% (n=213)	7% (n=91)
Knowledge of STIs and BBVs		
If a woman with HIV (AIDS) is pregnant, can her baby become infected with HIV? (YES)	78% correct (n=2187)	67% correct (n=895)
Does a person with a sex disease/STI always have symptoms? (NO)	84% correct (n=2346)	66% correct (n=873)
Are people who have injected drugs at risk for Hepatitis C? (YES)	87% correct (n=2431)	76% correct (n=998)
Does the pill (birth control) protect a woman from HIV (AIDS) infection? (NO)	83% correct (n=2321)	80% correct (n=1064)





First GOANNA Survey (2011-2013)		GOANNA Survey 2 (Sept 2017-Jan 2020)
Knowledge of STIs and BBVs (continued)		
Can Chlamydia make a woman unable to have a baby? (YES)	62% correct (n=1729)	46% correct (n=607)
If condoms are used during sex, does this help to protect people from getting HIV (AIDS)? (YES)	78% correct (n=2186)	71% correct (n=937)
Could someone who looks healthy pass on HIV (AIDS) infection? (YES)	83% correct (n=2320)	68% correct (n=889)
Can Hepatitis B be passed on by sex? (YES)	58% correct (n=1635)	51% correct (n=672)
Can Chlamydia be easily treated with antibiotics? (YES)	67% correct (n=1888)	63% correct (n=819)
Relationships and behaviours		
Ever had intercourse (vaginal or anal sex)	84% (n=2320)	78% (n=1019)
Ever had oral sex	79% (n=2188)	65% (n=840)
Median age of first intercourse	16 years (IQR 14-17)	16 years (IQR 15-17)
More than one sexual partner in last 12 months	45% of sexually active (n=1036)	51% of sexually active (n=514)
Last sex with current partner	69% (n=1465)	50% (n=514)
Aboriginal and/or Torres Strait Islander partner	53% (n=1127)	51% (n=523)
Gender of last partner	Females: 93% male (n=1158), 7% female (n=87) Males: 91% female (n=780), 9% male (n=74)	Females: 96% male (n=608), 4% female (n=28) Males: 88% female (n=326), 12% male (n=44)
Age of last partner	16-19 years: 81% <20 years (n=639) 20-24 years: 81% ≥20 years (n=585) 25-29 years: 54% ≥25 years (n=322)	16-19 years: 74% <20 years (n=221) 20-24 years: 86% ≥20 years (n=313) 25-29 years: 75% ≥25 years (n=198)
Used condoms last 12 months	Always: 38% (n=791) Sometimes: 41% (n=854) Never: 22% (n=463)	Always: 26% (n=242) Sometimes: 44% (n=409) Never: 31% (n=288)
Used condoms at last sex	54% (n=1136)	40% (n=401)
Source of condoms	Shop/chemist/store: 44% (n=919) Aboriginal Medical Service: 35% (n=730)	Shop/chemist/store: 51% (n=527) Aboriginal Medical Service: 23% (n=235)
Last sex while drunk or high	27% (n=564)	27% (n=279)
Was last sex wanted?	95% (n=2003)	92% (n=938)
Tattoos	42% (n=1136) 23% from unregulated setting (n=260)	43% (n=546) 23% from unregulated setting (n=123)

First GOANNA Survey (2011-2013)		GOANNA Survey 2 (Sept 2017-Jan 2020)
Smoking, alcohol and other drugs		
Smoked cigarettes	40% (n=1106)	28% (n=359)
Alcohol in last 12 months	82% (n=2244)	79% (n=1027)
More than 4 alcoholic drinks per session	67% (n=1482)	71% (n=719)
Marijuana	32% (n=874)	35% (n=456)
Ecstasy	11% (n=307)	18% (n=225)
Meth/amphetamine	10% (n=272)	6% (n=77)
Cocaine	5% (n=128)	14% (n=178)
Injecting drug use	3% (n=95)	3% (n=33)
Sharing needles/syringes among users	37% (n=35)	23% (n=7)
Health service access for STIs and BBVs		
Health check in last year	59% (n=1573)	64% (n=812)
Site for health check	Aboriginal Medical Service: 67% (n=1043) General Practice: 33% (n=509)	Aboriginal Medical Service: 66% (n=527) General Practice: 32% (n=260)
STI testing (all respondents)	Ever: 58% (n=1563) Last year: 44% (n=1204)	Ever: 60% (n=765) Last year: 44% (n=563)
Site for STI test	Aboriginal Medical Service: 57% (n=865) General Practice: 35% (n=534)	Aboriginal Medical Service: 50% (n=380) General Practice: 39% (n=294)
STI diagnosis	Of those tested: 27% (n=426) Overall: 16% (n=426)	Of those tested: 24% (n=179) Overall: 13% (n=179)
STIs most often diagnosed (% of those tested)	Chlamydia: 15% (n=237) Gonorrhoea: 3% (n=41) Syphilis: 2% (n=24) Herpes: 2% (n=26)	Chlamydia: 18% (n=141) Gonorrhoea: 4% (n=34) Syphilis: 3% (n=23) Herpes: 3% (n=21)
HIV testing	Ever: 42% (n=1133) Last year: 32% (n=865)	Ever: 33% (n=411) Last year: 24% (n=302)
Site for HIV test	Aboriginal Medical Service: 55% (n=624) General Practice: 30% (n=345)	Aboriginal Medical Service: 53% (n=215) General Practice: 31% (n=127)
Hepatitis C testing	Ever: 42% (n=1138) Last year: 32% (n=864)	Ever: 32% (n=407) Last year: 23% (n=288)
Site for hepatitis C test	Aboriginal Medical Service: 57% (n=641) General Practice: 30% (n=343)	Aboriginal Medical Service: 52% (n=208) General Practice: 33% (n=130)

Number of respondents to each question has been used as the denominator when calculating proportions (%) except where indicated. Note that results from the first GOANNA Survey presented here may differ slightly from those in the original report where the number of total participants was used as the denominator.



## 10 Discussion and Conclusions

This is the second national sexual health survey of Aboriginal and Torres Strait Islander young people. The study population had a similar age and gender distribution to the first GOANNA survey but a higher proportion of urban residents. Like the first GOANNA survey, the GOANNA Survey 2 has shown that relationships and behaviours that impact on STI and BBV risk reported by young Aboriginal and Torres Strait Islander people are broadly similar to what has been reported in other Australian sexual health surveys of young people (5, 6). Sexual identity was more diverse than reported in the previous GOANNA survey, with more young people identifying as bisexual, particularly females. This trend towards increased sexual diversity has also been observed in other surveys recently (5, 15).

Gaps in knowledge about STIs and BBVs were identified, and there were fewer correct responses among the youngest age group. Concerningly, for questions that were included in both GOANNA surveys there was an overall trend towards fewer correct responses. Aboriginal medical services and GPs were reported as the first places young people were likely to seek advice on sexual health, and family members were also an important source of advice for 16-19 year olds. While a lot of internet-based sexual health resources have been developed recently, these more traditional sources of information for Aboriginal and Torres Strait Islander young people should continue to be supported.

Median age of first sex was similar to that reported by other Australian young people (16-18). Most respondents' last sex was with a person of a similar age. Half of respondents had an Aboriginal or Torres Strait Islander partner at last sex, and this was much higher in remote areas. Compared with the first GOANNA Survey, a lower proportion of sexually experienced respondents reported always using condoms in the last year (26% versus 38%) or using condoms at last sex (40% versus 54%) which is an important finding to consider in sexual health promotion initiatives. Also concerning was the high proportion who reported being under the influence of drugs or alcohol when they last had sex, as this may be associated with an elevated STI risk (19, 20), and highlights the need for a broader approach to sexual health that incorporates strategies to address alcohol and other drug use. For the first time a question was included about use of internet and mobile phone apps to find partners, and over one-quarter of respondents reported using these methods. The nature of these relationships may differ from those established through conventional ways of meeting, and warrants further exploration to determine what the implications may be for sexual health.

Smoking had declined from 40% of respondents in the first GOANNA survey to 28% in GOANNA Survey 2. Use of alcohol and illicit drugs was common. A high proportion of respondents reported consuming more than 4 drinks per session and almost half consumed more than 7 drinks per session, an indication that some of these young people are at risk of alcohol-related harm (NHMRC guidelines recommend no more than 4 standard drinks per day (21)). Illicit drug use was also common, with the increased use of cocaine a notable change since the first GOANNA Survey. Additional questions were included about meth/amphetamine use. A lower proportion of respondents had used meth/amphetamine in the last 12 months (6% compared with 10% in the first GOANNA Survey). The majority used ice or crystal, and most preferred to inhale/smoke or snort rather than inject. The proportion reporting any injecting drug use had not changed since the first GOANNA Survey (3%) but users were less likely to report sharing needles or syringes although numbers were small.

The proportion of participants tested and diagnosed with an STI was similar to the first GOANNA Survey but the proportion of respondents who had been tested for hepatitis C or HIV had declined and even among recognised high-risk groups (people who inject drugs, those who had been imprisoned previously, men who have sex with men) testing coverage was far from universal. Another concern was the number of respondents who reported being positive for hepatitis C or HIV but were not on treatment, posing a risk not only to the health of the individuals themselves but also risking further transmission within their communities. It's notable that knowledge about curative treatment for hepatitis C was poor among respondents (32% answered correctly) which indicates a need to raise awareness of the availability of direct acting antiviral medication for hepatitis C in Aboriginal and Torres Strait Islander communities. There is obviously still considerable scope to improve engagement of young Aboriginal and Torres Strait Islander people in STI/BBV prevention and treatment programs.

Responses to questions about health service access highlighted the critical role played by Aboriginal Medical Services in providing testing, treatment, advice and support for STIs and BBVs. Aboriginal Medical Services were reported as the first place to go for advice on sex/STIs and help for alcohol and other drug use, and as an important source of condoms, especially for trans and gender diverse respondents and those in remote areas. Aboriginal Medical Services were also the most commonly reported services used for health checks, STI testing and testing for hepatitis C and HIV. Males and 16-19 yo were relatively more likely to visit an Aboriginal Medical Service than an alternative service for STI testing, highlighting their role in providing sexual health for those demographics that may be harder to engage in sexual health care. Aboriginal Medical Services were also an important provider of BBV testing to vulnerable groups including prisoners, people who inject drugs and men who have sex with men.

Findings of this survey highlighted subgroups within Aboriginal and Torres Strait Islander communities who may require particular attention when developing STI/BBV policies and interventions, the first being sexually active teenagers. Only half of sexually active 16-19 yo (51%) had ever been tested for STIs, despite some of their behaviours putting them at a higher risk than older age groups. They were more likely to have multiple partners, and they performed somewhat worse on STI/BBV knowledge questions. Respondents from the 16 - 19 year old age group were least likely to have had a full health check in the last year and those who had received a health check were less likely than older age respondents to have been offered STI testing. This age group was also the least likely to be tested for hepatitis C and HIV, but had higher test positivity and higher absolute numbers of HCV and HIV cases than any other age group.

Only small numbers of respondents identified as trans and gender diverse but their responses suggested that members of this demographic are vulnerable (history of imprisonment, drug use, unwanted sex, high psychological distress), at high risk of STI/BBVs (much more likely to be diagnosed), have less access to STI testing compared to other genders and have inadequate BBV testing for their level of risk. These results are consistent with data from the Australian Trans and Gender Diverse Sexual Health Survey (22). Further research is required to better understand the particular challenges and needs of this subgroup within Aboriginal and Torres Strait Islander communities.

Finally, we included questions on social and emotional wellbeing for the first time in the GOANNA Survey 2. The questions were the same as those used previously for the Aboriginal and Torres Strait Islander Health Survey (11) and included five questions from the Kessler Psychological Distress Scale (Kessler 5) (12, 13) and four questions on positive wellbeing from the SF-36 short form survey (14). A high proportion of respondents reported high or very high levels of psychological distress based on Kessler 5 score. Poor mental health in young people has been associated with behaviours that may increase their risk of STIs and BBVs (such as unsafe or unwanted sex, sex while drunk or high, injecting drug use). Findings of the GOANNA Survey 2 will be analysed further to identify whether mental health could be another domain that needs to be considered when addressing risks for STIs and BBVs among young Aboriginal and Torres Strait Islander people.

Major strengths of the study include the key roles played by Aboriginal community-controlled organisations and the young Aboriginal and Torres Strait Islander people who worked as peer survey collectors. They once again helped to recruit a larger sample of Aboriginal and Torres Strait Islander young people than has been included in any other Australian sexual health survey. Using similar methodology for this second survey, we have shown that many of the data are replicable, which adds weight to those results where changes have occurred since the first survey. We acknowledge the limitations, most obviously the use of convenience sampling which may affect the generalisability of the findings, particularly to members of marginal or disadvantaged populations who are probably less likely to attend community events or participate in a survey. There was an over-representation of female participants which is common in survey research but may have biased the overall findings. Those with limited English might not have participated or may have misunderstood some questions. Information collected by survey, particularly sensitive information, may not be accurately reported although this was hopefully minimised by administering anonymous questionnaires on tablets. Recruitment was more challenging for GOANNA Survey 2 than the first GOANNA Survey, which might be partly explained by an increase in survey research being conducted in Aboriginal communities, often at community events. Sample sizes in some regions were too small to analyse data at a local level. Given these difficulties it would be worth exploring alternative data collection strategies such as online surveys in future.

In conclusion, the GOANNA Survey 2 was conducted around Australia between September 2017-January 2020 and has generated updated evidence on the social and behavioural factors relating to STIs and BBVs in Aboriginal and Torres Strait Islander young people. Many of the findings were similar to those of the original GOANNA Survey, but there have been key changes which will be further explored through detailed data analysis. New questions were asked about topical issues and provided preliminary data upon which further research can be based. The GOANNA Survey is now established as an ongoing program of research to gather social and behavioural data and monitor long term trends in order to support policies and health interventions targeting STIs and BBVs in Aboriginal and Torres Strait Islander communities.



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# Appendix 1—Questionnaire

*Confidential*

## GOANNA Survey 2



Please complete the survey below.

Thank you!

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### PRIVATE AND CONFIDENTIAL

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---

Are you Aboriginal or Torres Strait Islander?

- ☐ Aboriginal
- ☐ Torres Strait Islander
- ☐ Both Aboriginal and Torres Strait Islander
- ☐ Non-Indigenous **[IF SELECTED EXIT SURVEY]**

---

Are you 16 to 29 years old?

- ☐ Yes
  - ☐ No **[IF SELECTED EXIT SURVEY]**
- 

This questionnaire is anonymous and your responses are confidential. Your honest response to questions is important.

#### BEFORE YOU START:

- I have received and read the information sheet or had someone explain the survey to me.
- I have had a chance to ask questions and I understand the survey and what I will be asked to do.
- I understand that I can stop at any stage without giving a reason and without any consequence.
- I understand that I may not directly benefit from taking part.
- I understand that all answers are anonymous and I will not be identified in any way in reports of the results.
- I freely agree to take part in the survey.

☐ Agree

☐ Disagree **[IF SELECTED EXIT SURVEY]**

---

Q01 How old are you (in years)?

\_\_\_\_\_

---

Q02 Is English your first language?

- ☐ Yes  
☐ No

---

Q03 What is the highest level of education you have completed?

- ☐ I completed primary school only  
☐ I left high school before finishing Year 10  
☐ I completed Year 10  
☐ I completed Year 12  
☐ I completed a diploma or university degree

---

Q04 Postcode or town where you currently live

\_\_\_\_\_

---

Q05 State

- ☐ ACT  
☐ NSW  
☐ NT  
☐ QLD  
☐ SA  
☐ TAS  
☐ VIC  
☐ WA

---

Q06 Are you?

- ☐ Female  
☐ Male  
☐ Transgender female (trans woman, sistergirl)  
☐ Transgender male (trans man, brotherboy)  
☐ Other

---

Q07 Are you?

- ☐ Single  
☐ Living with a partner  
☐ In a relationship but not living with a partner

---

Q08 At the moment do you think of yourself as?

- ☐ Straight/Heterosexual  
☐ Gay/Homosexual  
☐ Lesbian/Homosexual  
☐ Bisexual  
☐ I don't know/unsure  
☐ Other



**Q09 These questions check what you know about sex diseases (sexually transmissible infections - STIs), HIV (AIDS) and hepatitis.**

Q9a If a woman with HIV (AIDS) is pregnant, can her baby become infected with HIV?

☐ Yes  
☐ No  
☐ Don't know

Q9b Does a person with a sex disease/STI always have symptoms?

☐ Yes  
☐ No  
☐ Don't know

Q9c Are people who have injected drugs at risk for Hepatitis C?

☐ Yes  
☐ No  
☐ Don't know

Q9d Does the pill (birth control) protect a woman from HIV (AIDS) infection?

☐ Yes  
☐ No  
☐ Don't know

Q9e Can Chlamydia make a woman unable to have a baby?

☐ Yes  
☐ No  
☐ Don't know

Q9f If condoms are used during sex, does this help to protect people from getting HIV (AIDS)?

☐ Yes  
☐ No  
☐ Don't know

Q9g Is there medicine that can cure hepatitis C?

☐ Yes  
☐ No  
☐ Don't know

Q9h Could someone who looks healthy pass on HIV (AIDS) infection?

☐ Yes  
☐ No  
☐ Don't know

Q9i Can Hepatitis B be passed on by sex?

☐ Yes  
☐ No  
☐ Don't know

Q9j Can Chlamydia be easily treated with antibiotics?

☐ Yes  
☐ No  
☐ Don't know

**This section asks you about your own personal experiences with sex. Some people have had sex and others have not.**

Q10 Have you had oral sex (mouth on genitals) before?

- ☐ Yes  
☐ No

Q11 How old were you when you first had oral sex?

**[IF ORAL SEX = YES]**

\_\_\_\_\_

Q12 Have you had vaginal sex (penis in vagina) before?

- ☐ Yes  
☐ No

Q13 How old were you when you first had vaginal sex?

**[IF VAGINAL SEX BEFORE = YES]**

\_\_\_\_\_

Q14 Have you had anal sex (penis in anus) before?

- ☐ Yes  
☐ No

**[IF Q10 & Q12 & Q14 = NO, GO TO Q30]**

Q15 How old were you when you first had anal sex?

**[IF ANAL SEX BEFORE = YES]**

\_\_\_\_\_

Q16 In the last year how many people have you had sex with (vaginal or anal)?

**[IF VAGINAL OR ANAL SEX = YES]**

- ☐ None  
☐ 1 person  
☐ 2 people  
☐ 3 people  
☐ 4 people  
☐ 5 to 10 people  
☐ 11 or more people

Q17 Was the last person you had sex with?

**[IF ORAL, VAGINAL OR ANAL SEX = YES]**

- ☐ Your current partner  
☐ Someone you met for the first time  
☐ Someone you had known for a while, but not your current partner

Q18 Was the last person you had sex with?

**[IF ORAL, VAGINAL OR ANAL SEX = YES]**

- ☐ Aboriginal or Torres Strait Islander  
☐ Not Aboriginal or Torres Strait Islander  
☐ I'm not sure

Q19 Was the last person you had sex with?

**[IF ORAL, VAGINAL OR ANAL SEX = YES]**

- ☐ Female  
☐ Male  
☐ Transgender female (trans woman, sistergirl)  
☐ Transgender male (trans man, brotherboy)  
☐ Other

Q20 How old was the last person you had sex with?

**[IF ORAL, VAGINAL OR ANAL SEX = YES]**

- ☐ Under 16 years old  
☐ 16-17 years old  
☐ 18-19 years old  
☐ 20-24 years old  
☐ 25-29 years old  
☐ 30 years of age or older  
☐ I'm not sure

Q21 When you had sex (vaginal or anal) in the last year, how often were condoms used?

**[IF VAGINAL OR ANAL SEX = YES]**

- ☐ Always used condoms  
☐ Sometimes used condoms  
☐ Never used condoms

---

Q22 Did you use a condom the last time you had sex (vaginal or anal)?

- ☐ Yes  
☐ No

**[IF VAGINAL OR ANAL SEX = YES]**

---

Q23 Where do you usually get your condoms from?

- ☐ Aboriginal Medical Service  
☐ Another clinic  
☐ Shop/local store/chemist  
☐ Never use condoms  
☐ Friends  
☐ Family member(s)  
☐ My sexual partner(s)  
☐ Other (eg. vending machine, condom tree)

**[IF ORAL, VAGINAL OR ANAL SEX = YES]**

---

Q24 Were you drunk or high last time you had sex?

- ☐ Yes  
☐ No

**[IF ORAL, VAGINAL OR ANAL SEX = YES]**

---

Q25 The last time you had sex did you want to have sex?

- ☐ Yes  
☐ No

**[IF ORAL, VAGINAL OR ANAL SEX = YES]**

---

Q26 Have you given birth to any children?

- ☐ Yes  
☐ No

**[IF GENDER = FEMALE, TRANSGENDER MALE OR OTHER, AND VAGINAL SEX = YES]**

---

Q27 How many children have you ever given birth to?

**[IF GIVEN BIRTH = YES]**

\_\_\_\_\_

---

Q28 Have you fathered any children?

- ☐ Yes  
☐ No

**[IF GENDER = MALE, TRANSGENDER FEMALE OR OTHER, AND VAGINAL SEX = YES]**

---

Q29 How many children do you know you have fathered?

**[IF FATHERED CHILDREN = YES]**

\_\_\_\_\_

**This section asks about your personal experiences with cigarette smoking, alcohol and other drug use.**

Q30 Do you smoke cigarettes?

- ☐ Yes  
☐ No

Q31 How many cigarettes a day do you smoke?

**[IF CIGARETTES = YES]**

\_\_\_\_\_

Q32 Have you drunk alcohol (grog) in the past 12 months?

- ☐ Yes  
☐ No

Q33 In the last 12 months, how often did you have an alcoholic drink (grog) of any kind?

**[IF ALCOHOL = YES]**

- ☐ Every day  
☐ Once a week or more  
☐ About once a month  
☐ Every few months  
☐ Once or twice a year

Q34 On the days that you have an alcoholic drink (grog), how many alcoholic drinks do you usually have?

**[IF ALCOHOL = YES]**

- ☐ 1 to 2 drinks  
☐ 3 to 4 drinks  
☐ 5 to 6 drinks  
☐ 7 or more drinks

Q35 Have you used marijuana (yarndi, gunga, grass, dope, pot, cannabis) in the last 12 months?

- ☐ Yes  
☐ No

Q36 In the last 12 months, how often did you use marijuana (yarndi, gunga, grass, dope, pot, cannabis)?

**[IF MARIJUANA = YES]**

- ☐ Every day  
☐ Once a week or more  
☐ About once a month  
☐ Every few months  
☐ Once or twice a year

Q37 Have you used methamphetamine (speed, ice, go-e, base, gas, crystal) in the last 12 months?

- ☐ Yes  
☐ No

Q38 In the last 12 months, how often did you use methamphetamine (speed, ice, go-e, base, gas, crystal)?

**[IF METHAMPHETAMINE = YES]**

- ☐ Every day  
☐ Once a week or more  
☐ About once a month  
☐ Every few months  
☐ Once or twice a year

Q39 When you used methamphetamine in the last 12 months, what kind did you usually use?

**[IF METHAMPHETAMINE = YES]**

- ☐ Ice or crystal (white crystal)  
☐ Base (brown paste or toffee-like)  
☐ Speed (powder, tablet or capsule)

Q40 When you used methamphetamine in the last 12 months, how did you usually take it?

**[IF METHAMPHETAMINE = YES]**

- ☐ Inhaling/smoking (inhaling vapours "chasing" or smoking a pipe)  
☐ Swallowing  
☐ Snorting  
☐ Injection

Q41 Have you used ecstasy (E, eccies, MDMA, XTC, Ex) in the last 12 months?

- ☐ Yes  
☐ No

<p>Q42 In the last 12 months, how often did you use ecstasy (E, eccies, MDMA, XTC, Ex)?</p> <p><b>[IF ECSTASY = YES]</b></p>	<p> <input type="radio"/> Every day  <input type="radio"/> Once a week or more  <input type="radio"/> About once a month  <input type="radio"/> Every few months  <input type="radio"/> Once or twice a year         </p>
<p>Q43 Have you used any other drugs in the last 12 months? Tick all the ones you used.</p>	<p> <input type="checkbox"/> No other drugs  <input type="checkbox"/> Cocaine  <input type="checkbox"/> Heroin  <input type="checkbox"/> Petrol / paint / glue  <input type="checkbox"/> Fantasy/ GHB / GBH / G  <input type="checkbox"/> Benzos / Rholies  <input type="checkbox"/> Ketamine  <input type="checkbox"/> LSD/Acid/Mushrooms  <input type="checkbox"/> Other         </p>
<p>Q44 In the last 12 months, have you injected any drugs?</p>	<p> <input type="radio"/> Yes  <input type="radio"/> No         </p>
<p>Q45 What drug(s) have you injected in the last 12 months? Tick all the ones you injected.</p> <p><b>[IF INJECTED DRUGS = YES]</b></p>	<p> <input type="checkbox"/> Meth/amphetamine (ice, go-e, speed, gas, crystal, base)  <input type="checkbox"/> Heroin  <input type="checkbox"/> Methadone  <input type="checkbox"/> Morphine, pethidine, oxycodone, oxycontin, MS contin  <input type="checkbox"/> Steroids  <input type="checkbox"/> Cocaine  <input type="checkbox"/> LSD or other hallucinogens  <input type="checkbox"/> Benzodiazepines  <input type="checkbox"/> Other drugs         </p>
<p>Q46 In the last 12 months, did you use any of the following for injecting a drug after someone else used it (even if it was cleaned)? Tick all those you used.</p> <p><b>[IF INJECTED DRUGS = YES]</b></p>	<p> <input type="checkbox"/> None of these  <input type="checkbox"/> Needle/Syringe  <input type="checkbox"/> Tourniquet  <input type="checkbox"/> Spoon  <input type="checkbox"/> Filter  <input type="checkbox"/> Swab         </p>
<p>Q47 What do you think is the best way for a person to get help for alcohol (grog) and/or drug use?</p>	<p> <input type="radio"/> Go to an Aboriginal Medical Service  <input type="radio"/> Go to a General Practice clinic  <input type="radio"/> Go to a drug and alcohol service  <input type="radio"/> Go to a hospital  <input type="radio"/> Get help from friends  <input type="radio"/> Get help from family  <input type="radio"/> Get the health workers to come to them  <input type="radio"/> Internet  <input type="radio"/> Youth Service  <input type="radio"/> Other trusted adult (teacher, coach)  <input type="radio"/> Other         </p>
<p>Q48 Do you have any tattoo(s)?</p>	<p> <input type="radio"/> Yes  <input type="radio"/> No         </p>
<p>Q49 Where did you get the tattoo(s)? Tick all the places where they were done.</p> <p><b>[IF TATTOOS = YES]</b></p>	<p> <input type="checkbox"/> Professional parlour  <input type="checkbox"/> In my community (home, park)  <input type="checkbox"/> Prison /jail/ juvenile justice centre  <input type="checkbox"/> Other         </p>
<p>Q50 Have you ever been in prison/jail or a juvenile justice centre for more than 24 hours?</p>	<p> <input type="radio"/> No  <input type="radio"/> Yes, in the last 12 months  <input type="radio"/> Yes, more than 12 months ago         </p>

**This section has questions about getting advice, testing and treatment for sex diseases/STIs, HIV (AIDS) and hepatitis.**

Q51 Where would you go first for advice about sex and sex diseases/STIs including HIV/AIDS?

- ☐ Aboriginal Medical Service
- ☐ Local doctor at a General Practice clinic
- ☐ Family planning clinic / Sexual health clinic
- ☐ School / TAFE/ university
- ☐ Boyfriend / girlfriend / friends
- ☐ Family member(s)
- ☐ Internet
- ☐ Magazines
- ☐ Never look for advice
- ☐ Other

Q52 Have you ever been tested for a sex disease/STI?

- ☐ Yes. In the last year
- ☐ Yes. More than a year ago
- ☐ I don't know
- ☐ Never tested

Q53 Where did you get your last sex disease/STI test?

**[IF TESTED FOR STI = YES, IN THE LAST YEAR OR YES, MORE THAN A YEAR AGO]**

- ☐ At an Aboriginal Medical Service
- ☐ Local doctor at a General Practice clinic
- ☐ Family planning clinic / Sexual health clinic
- ☐ Other

Q54 Have you ever tested positive for a sex disease/STI?

**[IF TESTED FOR STI = YES, IN THE LAST YEAR OR YES, MORE THAN A YEAR AGO]**

- ☐ Yes, in the last year
- ☐ Yes, more than a year ago
- ☐ No

Q55 Which sex diseases/STI(s)? Tick all those that apply.

**[IF TESTED POSITIVE FOR STI = YES, IN THE LAST YEAR OR YES, MORE THAN A YEAR AGO]**

- ☐ Chlamydia
- ☐ Gonorrhea
- ☐ Syphilis
- ☐ Trichomoniasis (Trich/"trike")
- ☐ Genital Herpes
- ☐ Genital Warts
- ☐ Other

Q56 Have you ever been tested for HIV (AIDS)?

- ☐ Yes, in the last year
- ☐ Yes, more than a year ago
- ☐ I don't know
- ☐ Never tested

Q57 Where did you get your last HIV (AIDS) test?

**[IF TESTED FOR HIV = YES, IN THE LAST YEAR OR YES, MORE THAN A YEAR AGO]**

- ☐ At an Aboriginal Medical Service
- ☐ Local doctor at a General Practice clinic
- ☐ At a Sexual Health Clinic/Family Planning Clinic
- ☐ In a hospital
- ☐ In a prison/jail or juvenile justice centre
- ☐ Other

Q58 Are you HIV positive?

**[IF TESTED FOR HIV = YES, IN THE LAST YEAR OR YES, MORE THAN A YEAR AGO]**

- ☐ Yes
- ☐ No

Q59 Are you on treatment for HIV?

**[IF HIV POSITIVE = YES]**

- ☐ Yes
- ☐ No

---

Q60 Have you been tested for hepatitis C?

- ☐ Yes, in the last year
- ☐ Yes, more than a year ago
- ☐ Never tested
- ☐ I don't know

---

Q61 Where did you get your last hepatitis C test?

**[IF TESTED FOR HEPATITIS C = YES, IN THE LAST YEAR OR YES, MORE THAN A YEAR AGO]**

- ☐ At an Aboriginal Medical Service
- ☐ Local doctor at a General Practice clinic
- ☐ At a Sexual Health Clinic/Family Planning Clinic
- ☐ In a prison/jail or juvenile justice centre
- ☐ In a hospital
- ☐ Other

---

Q62 Are you hepatitis C positive?

**[IF TESTED FOR HEPATITIS C = YES, IN THE LAST YEAR OR YES, MORE THAN A YEAR AGO]**

- ☐ Yes
- ☐ No

---

Q63 Are you having, or have you had, treatment for hepatitis C?

**[IF HEPATITIS C POSITIVE = YES]**

- ☐ No
- ☐ Yes I had treatment in 2015 or earlier
- ☐ Yes I had treatment in 2016 or later

---

Q64 Have you had a full health check up in the last year?

- ☐ Yes
- ☐ No

---

Q65 Where did you have your health check?

**[IF FULL HEALTH CHECK UP = YES]**

- ☐ At an Aboriginal Medical Service
- ☐ Local doctor at a General Practice clinic
- ☐ Other

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Q66 Were you offered a check for sex diseases/STIs?

**[IF FULL HEALTH CHECK UP = YES]**

- ☐ Yes
- ☐ No

Q67 In the past year, have you used these ways to meet partners? Tick all those you have used.

- ☐ Internet
- ☐ Mobile phone app
- ☐ Neither

Q68 In the past 4 weeks, about how often did you feel nervous?

- ☐ All of the time
- ☐ Most of the time
- ☐ Some of the time
- ☐ A little of the time
- ☐ None of the time

Q69 In the past 4 weeks, about how often did you feel so sad that nothing could cheer you up ?

- ☐ All of the time
- ☐ Most of the time
- ☐ Some of the time
- ☐ A little of the time
- ☐ None of the time

Q70 In the past 4 weeks, about how often did you feel restless or jumpy?

- ☐ All of the time
- ☐ Most of the time
- ☐ Some of the time
- ☐ A little of the time
- ☐ None of the time

Q71 In the past 4 weeks, about how often did you feel without hope?

- ☐ All of the time
- ☐ Most of the time
- ☐ Some of the time
- ☐ A little of the time
- ☐ None of the time

Q72 In the past 4 weeks, about how often did you feel that everything was an effort?

- ☐ All of the time
- ☐ Most of the time
- ☐ Some of the time
- ☐ A little of the time
- ☐ None of the time

Q73 In the past 4 weeks, about how often did you feel calm and peaceful?

- ☐ All of the time
- ☐ Most of the time
- ☐ Some of the time
- ☐ A little of the time
- ☐ None of the time

Q74 In the past 4 weeks, about how often have you been a happy person?

- ☐ All of the time
- ☐ Most of the time
- ☐ Some of the time
- ☐ A little of the time
- ☐ None of the time

Q75 In the past 4 weeks, about how often did you feel full of life?

- ☐ All of the time
- ☐ Most of the time
- ☐ Some of the time
- ☐ A little of the time
- ☐ None of the time

Q76 In the last four weeks, about how often did you have a lot of energy?

- ☐ All of the time
- ☐ Most of the time
- ☐ Some of the time
- ☐ A little of the time
- ☐ None of the time



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Q77 Have you completed the GOANNA Survey 2 previously (2017-2019)?

☐ Yes  
☐ No

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Q78 Did you find this survey easy to complete?

☐ Yes  
☐ No

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**You have finished the survey! Thank you.**



## INVESTIGATORS

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## COORDINATORS

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