



A study about you
and your experiences

Flux Study COVID-19 Diary

Monthly Report

Report 02: Reporting week ending 12 July

Prepared by Daniel Storer

On behalf of the BRISE Reference Group for the Flux Study

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Collaborating Organisations

COVID-19 Diary Study is a collaboration between the Kirby Institute, the National Drug and Alcohol Research Centre (NDARC), the Australian Research Centre in Sex Health and Society (ARCSHS), the Centre for Social Research in Health (CSRH), University of Auckland, Australian Federation of AIDS Organisations (AFAO), National LGBTI Health Alliance, ACON, and Thorne Harbour Health.

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Executive summary

This is a report on the findings from the Flux Study COVID-19 Diary for the period 15th June 2020 to 12th July 2020, Weeks 7 to 10 of the study. The report is a summary of data collected during the COVID-19 pandemic in Australia among gay and bisexual men (GBM). Weekly data are collected on key sexual and other risk behaviours, and monthly data collected on health seeking practices and social connectedness in relation to COVID-19.

Between 362 and 508 gay and bisexual men completed online diary entries at weekly intervals followed by an extended weekly diary at Week 8. There were 362 responses in Week 7, 501 responses in Week 8, 487 responses in Week 9, and 508 responses in Week 10.

Summary of findings:

- The number of sexual partners among GBM remained relatively stable over the reporting period with a slight increase across the total sample in Week 10. Men in NSW tended to have higher partner numbers than men in other jurisdictions.
- Consistently, around half of men reported any type of sex each week over this four-week period.
- The proportion of men reporting sex with a non-relationship partner varied from 21.4% to 26.4%.
- Among men with more than one non-relationship partner receptive and insertive condomless anal intercourse (CLAI) remained stable over the four-week period with both peaking in Week 9.
- Between 66.7% and 89.1% of non-HIV-positive men reporting CLAI with more than one non-relationship partner were protected by PrEP.
- Group sex was uncommon, with around one in 14 men reporting group sex at Week 8.
- NSW respondents were more likely to report sex with multiple non-relationship partners.
- The proportion of men reporting being tested for COVID-19 was relatively uncommon and peaked in Week 10 at approximately 5.7%.
- About one in five men indicated they were coping poorly with the current COVID-19 crisis over the four-week period.
- About one in seven men reported testing for HIV and/or STIs at Week 8.

Previous reports

- [Flux Study COVID-19 Diary Monthly Report 01](#)

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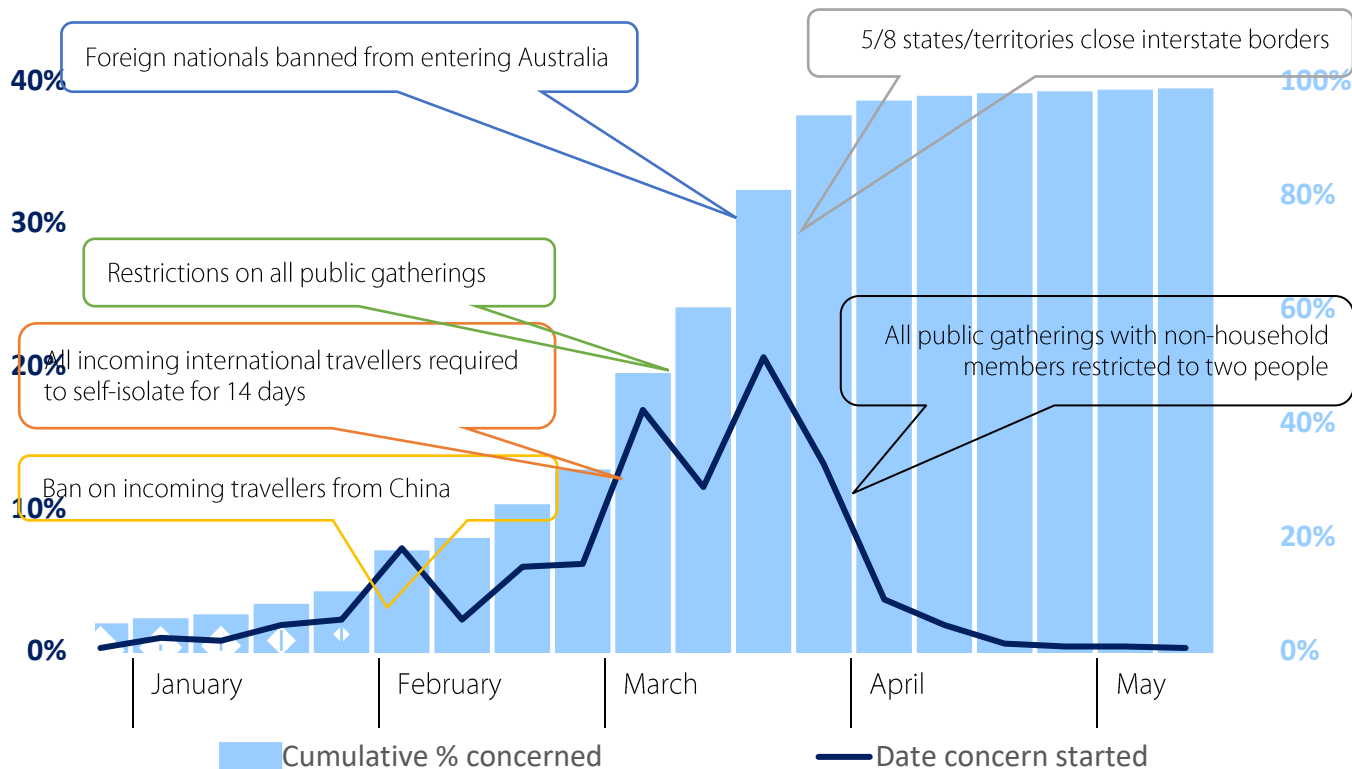
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Background

At baseline, gay and bisexual men reported the date they became concerned about the COVID-19 pandemic. Figure 1 details the cumulative percentage as men became concerned and the date concern started. This is accompanied by implementation of restrictions around the country.

Figure 1. Onset of concern about COVID-19 by date and cumulative frequency



Changes in restriction by study week

The COVID-19 Diary Study commenced collecting weekly diary entries from participants on 10th May 2020. Each Sunday thereafter participants are asked to complete their diary entries within 48 hours of receiving an emailed invitation. Below are the details of restrictions across each jurisdiction from Week 7 to 10 of the study.

Week 7 (15-21 June 2020)

NSW: No changes.

Victoria: Driving tests resume.

Queensland: 100 mourners allowed at funerals. Up to 2,000 people allowed in stadiums to watch football. Aged-care residents allowed two visitors at a time, including children, with no cap on time limit or the number of visitors in a day.

ACT: Gatherings to increase to 100 people across all areas, within one person per four square metre rule. The following business can now open: cinemas, concert venues, theatres, arenas, auditoriums or stadiums, indoor and outdoor place centres, amusement arcades and outdoor amusement parks.

NT: Transition from mandatory 14 day monitored quarantine to 14 day mandatory, self-quarantine. People arriving from interstate can undertake quarantine in their own home, private accommodation or in appropriate commercial accommodation at their own cost.

Week 8 (22-28 June 2020)

NSW: No changes.

Victoria: Announcements made about the following activities commencing and restrictions easing from this week: Libraries, community centres and halls can open up to 50 people. Religious ceremonies can also increase to 50 people. Pubs and clubs able to have 50 seated patrons with no requirements to purchase a meal with your drink but contact details must be given. Standalone TABs able to open and those in pubs must observe density and patron limits. All sports training and competitions resumes for people 18 and under. Non-contact sport resumes for every age group. Restaurants and cafes can increase to 50 patrons. Cinemas, concert venues, theatres and auditoriums can open up to 50 people. Ski season and ski accommodation opens. These are then revised to: Restaurants, pubs, auction halls, community halls, libraries, museums and places of worship stay at a maximum of 20 people. Gyms, cinemas, theatres and TABs can open with a maximum of 20. Community sport for kids and non-contact for adults can all continue. Ski season and accommodation can open with increased screening and safeguards. Testing blitz begins in ten priority suburbs of Melbourne. Mandatory testing introduced for all returned travellers.

WA: All gather limits removed but should abide by one person per two square metre rule. Requirements for seated service and maintenance of patron register at food businesses and licensed venues removed. No longer to be seated to consume alcohol in venues. All events but large scale, multi-stage music festivals permitted. Unseated performances allowed at concert halls, live music venues, bars, pubs, and nightclubs. Gyms allowed to operate unstaffed but must still clean regularly. Casino gaming floor reopens. Major sporting and entertainment venues limited to 50 percent capacity.

Tasmania: Size of gatherings now determined by density of the area with a maximum of 250 people for undivided space indoors and 500 in an undivided space outdoors, including for sport. Maximum density limit is one person per two square metres. The following premises should not exceed total number of patrons specified in the occupancy permit under the *Building Act 2016*: airports, medical or health services including vets, disability or aged care facilities, prisons, correction facilities and youth justice centres, courts or tribunals, parliament, schools, universities, education institutions, childcare and child and family centres, premises that deliver services to disadvantaged community members, indoor and outdoor transit spaces and emergency services. The following businesses are allowed to reopen: indoor amusement parks, play centres and arcades, saunas and bath houses, garage sales, strip clubs, casinos and gaming venues, indoor zoos, stadiums, markets and food vans, sex work, food courts, nightclubs (for seated alcohol service only). Where alcohol is served, patrons must be seated. Sporting activities now allowed: full contact training, full competition sport (contact and non-contact), sharing equipment and use of change rooms and other shared facilities.

Week 9 (29 June–5 July 2020)

NSW: Capacity of indoor venues determined solely by one person per four square metre rule with no upper limit. Cultural and sporting events at outdoor venues with a maximum capacity of 40,000 will be allowed 25 percent of capacity, events must be ticketed and seated. Funerals moved to one person per four square metre rule. Public transport capacity increased.

Victoria: International flights diverted from Victoria. Local lockdowns (return to Stage 3 Stay at Home restrictions) introduced for specific postcodes until at least 29th July, including for all businesses. Nine public housing estates subject to strict lock down conditions with residents restricted to their homes for at least five days.

Queensland: Queenslanders returning from Victoria required to hotel quarantine for two weeks at their own expense, rather than in their home. Private gatherings, including funerals, weddings and house parties, can have a maximum of 100 people. Full-contact sporting competitions resume. Outdoor sport to resume but physical distancing essential for spectators. Indoor sport to resume with one person per four square metres for spectators. Up to 25,000 or 50 percent capacity allowed at major sporting venues. Commercial events of up to 500 people can occur without permission from the Chief Health Officer. Some exemptions for Victorians depending on their place of origin within Victoria. Smaller businesses with less than 200 square metres can have one person per two square metres up to 20 people. Larger venues must continue with one person per four square metre rule. Theatres and concert venues can have 50 percent capacity or one person per four square metres.

ACT: Residents asked to reconsider non-essential travel to Melbourne. All people entering the ACT who has been in a Melbourne hotspot is required to quarantine for 14 days.

Week 10 (6-12 July 2020)

NSW: NSW-Victoria border closes.

Victoria: Stage 3 Stay at Home restrictions reintroduced for metropolitan Melbourne and Mitchell Shire for six weeks and businesses also returning to Stage 3 restrictions. Restaurants and cafes return to takeaway and delivery services only. Beauty and personal services, and entertainment and cultural venues closed. Community sport stopped. Year 11 and 12 in metropolitan Melbourne and Mitchell Shire to return to school for Term 3 as planned and school holidays extended for prep to Year 10 students. Eight of nine public housing estates moved to Stage 3 Stay at Home restrictions while one remained in isolation for 14 days. Residents in metropolitan Melbourne and Mitchell Shire recommended to wear face masks in situations outside the home where physical distancing is not possible.

Queensland: Border reopened to visitors from all states except non-residents who have been Victoria in the last 14 days.

WA: Cap on international arrivals to Perth Airport to a maximum of 535 international passengers per week for an initial four weeks.

Tasmania: People travelling from Victoria not permitted other than those deemed essential travellers. Tasmanian residents coming from Victoria must quarantine in government provided accommodation. People travelling from other parts of the country can transit through Victoria provided this is done directly.

ACT: From 6 July anyone entering ACT who has been in greater Melbourne metropolitan area must quarantine for 14 days. From 8 July anyone other than ACT residents entering the ACT from Victoria will be denied entry unless granted an exemption. ACT residents returning must quarantine for 14 days. Residents advised not to travel to Victoria unless absolutely necessary. New venue capacity limits introduced: a maximum of 25 people or one person per four square metres (whichever is greater). Sporting and entertainment venues move to 25% capacity. 24-hour gyms can have a maximum of 25 people in the facility at once when unstaffed. Contact community spot recommences. Indoor community sporting venues with tiered seating can have no more than 25% capacity for spectators.

Outdoor community sporting events should limit spectators to 250. Canberra Casino, gaming and gambling venues reopen.

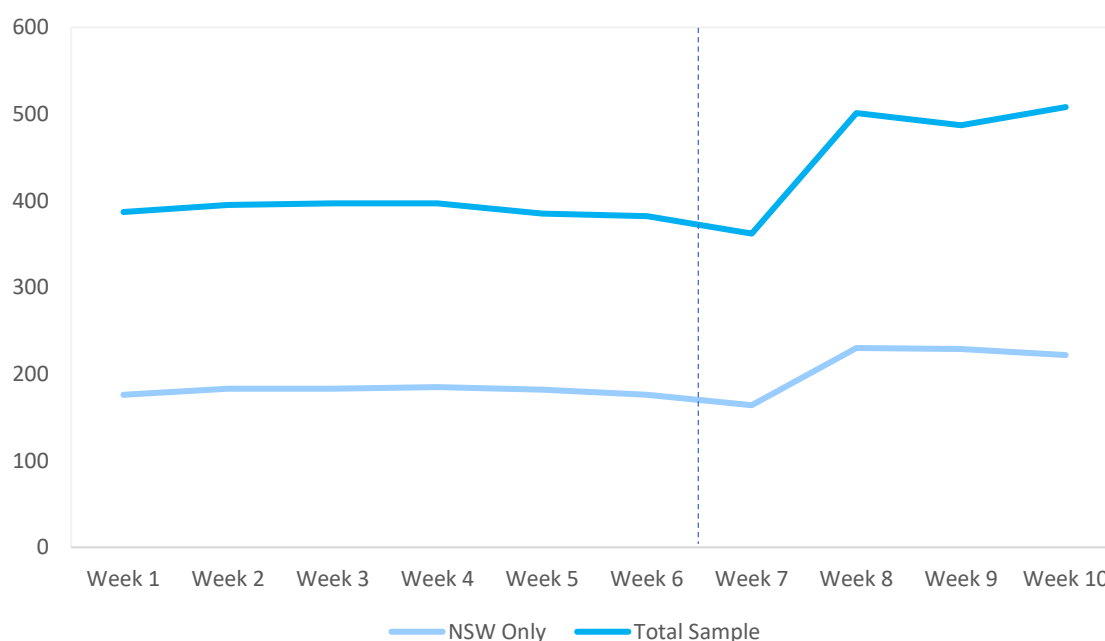
Responses

Responses have been consistent with high retention. Increases at Week 8 can be seen due to recruitment efforts for new participants. Men from NSW comprised around 45% of participants each week.

Table 1. Responses (for all study weeks see Table 1 in Appendix C)

	Week 7	Week 8	Week 9	Week 10
NSW only	164	230	229	222
Total sample	362	501	487	508
Initial enrolment	0	127	45	68
Previous enrolment	362	374	442	440
Non-response	79	67	126	173
Cumulative total	441	468	513	534

Figure 2. Number of respondents each week (total and NSW)*



*Note: weeks to the right of the dotted line in all figures indicates the period covered by this report.

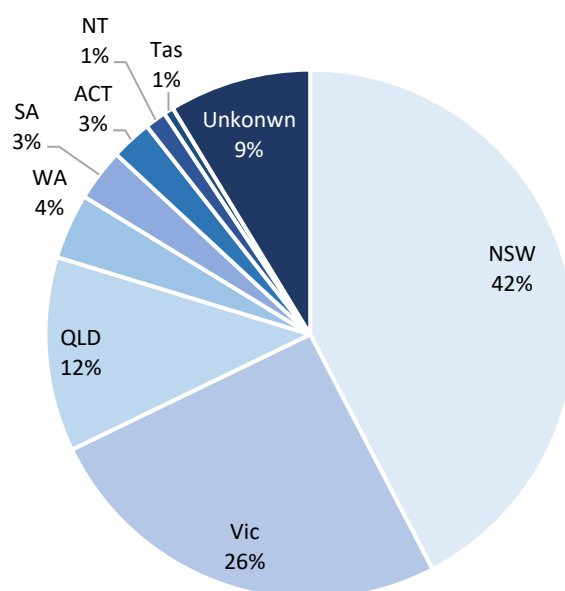
Geographic distribution

Table 2. Geographic distribution of sample

	Existing Flux cohort	Newly enrolled cohort*	Total
State			
New South Wales	239 (41.1)	50 (49.0)	289 (42.4)
Victoria	140 (24.1)	34 (33.3)	174 (25.5)
Queensland	73 (12.6)	8 (7.8)	81 (11.9)
Western Australia	27 (4.6)	0 (0.0)	27 (4.0)
South Australia	19 (3.3)	3 (2.9)	22 (3.2)
ACT	17 (2.9)	1 (1.0)	17 (2.5)
Northern Territory	8 (1.4)	1 (1.0)	9 (1.3)
Tasmania	3 (0.5)	1 (1.0)	4 (0.6)
Unknown	55 (9.5)	4 (3.9)	59 (8.7)
Postcode			
Highly gay populated	147 (25.4)	16 (15.7)	163 (23.9)
Moderately gay populated	229 (39.4)	33 (32.4)	262 (38.4)
Sparsely gay populated	144 (24.9)	17 (16.6)	161 (23.6)
No response	60 (10.4)	36 (35.3)	96 (14.1)

*Note: new enrolments began in Week 8

Figure 3. State of residence



Sample characteristics

Table 3. Sample characteristics

		Existing Flux cohort	New enrolled cohort*	Total
Age	Mean (SD)	45.2 (14.0)	42.9	45.5 (14.1)
	Median	45	39	45
	Under 25	27 (4.6%)	9 (8.8%)	36 (5.3%)
HIV Status	Positive	38 (6.6)	17 (16.7)	55 (8.1)
	Negative	473 (81.7)	80 (78.4)	553 (81.2)
	Unknown	68 (11.7)	5 (4.9)	73 (10.7)
Sexuality	Gay	485 (83.8)	92 (90.2)	577 (84.7)
	Bisexual	28 (4.8)	7 (6.9)	35 (5.1)
	Other/unknown	66 (11.4)	3 (2.9)	69 (10.1)
Country of birth	Australia/NZ	422 (71.6)	81 (79.4)	503 (72.8)
	Asia	24 (4.1)	3 (2.9)	27 (3.9)
	Other	143 (24.3)	18 (17.6)	161 (23.3)
Changes to employment				
Laid off temporarily		16 (3.1)	0 (0.0)	16 (2.8)
Laid off completely		13 (2.5)	1 (2.4)	14 (2.5)
Reduced hours		34 (6.5)	5 (12.0)	39 (6.9)
Working from home		104 (20.0)	11 (26.2)	115 (20.4)
Redeployed due to COVID-19		6 (1.2)	0 (0.0)	6 (1.1)
Commenced new job		14 (2.7)	0 (0.0)	14 (2.5)
Returned to workplace		37 (7.1)	1 (2.4)	38 (6.7)
Increased hours		43 (8.3)	6 (14.3)	49 (8.7)
Began taking payment for sex		0 (0.0)	0 (0.0)	0 (0.0)
No changes		254 (48.8)	18 (42.9)	272 (48.3)

*Note: new enrolments began in Week 8

Sexual Behaviour

Number of sexual partners

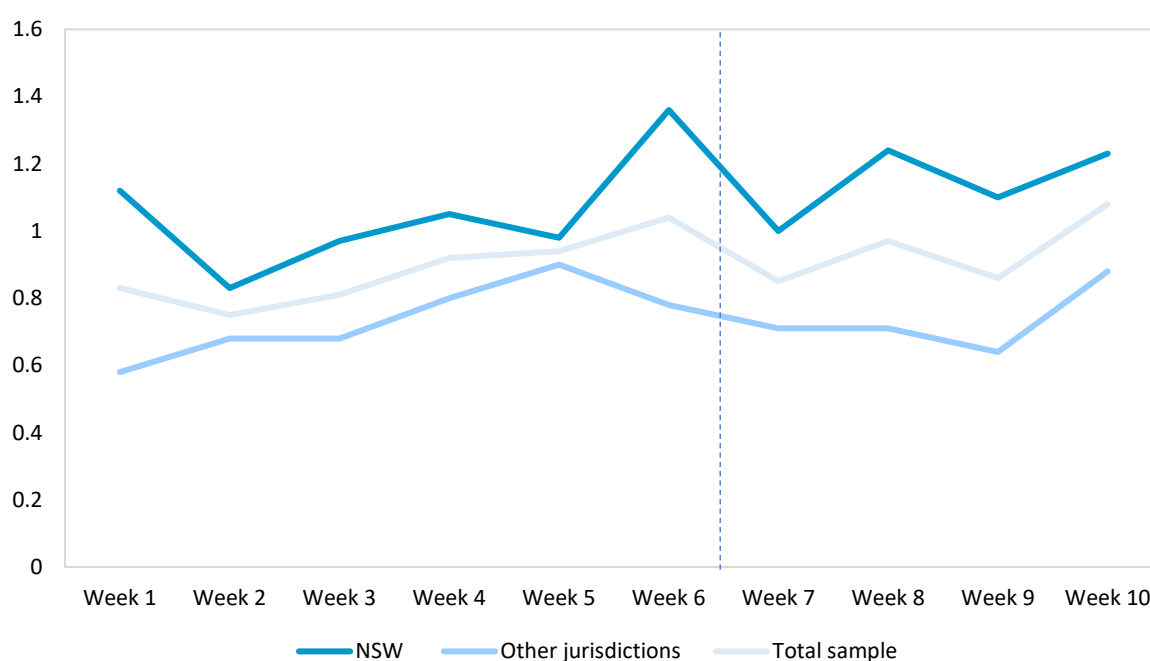
Number of partners remained stable over the reporting four-week period and then appeared to begin to increase slightly across the total sample in Week 10, possibly reflecting some easing of restrictions around the country.

Table 4. Number of sexual partners (for all study weeks see Table 4 in Appendix C)

Mean (SD)	Week 7	Week 8	Week 9	Week 10
NSW	1.00 (1.61)	1.24 (2.09)	1.10 (1.77)	1.23 (2.17)
Other jurisdictions	0.71 (1.30)	0.71 (1.21)	0.64 (1.35)	0.88 (2.64)
Total sample	0.85 (1.45)	0.97 (1.68)	0.86 (1.58)	1.08 (2.43)
Median	0	1	0	1

Men in NSW tended to have a higher mean number of partners than men in other jurisdictions during this period. It should be noted that most men had one or no partners.

Figure 4. Mean number of sexual partners by week of response



Non-relationship partners and condomless anal intercourse (CLAI)

Around half of men reported any type of sex peaking at Week 8 in this four-week reporting period, with around a quarter engaging in sex with a non-relationship partner (fuckbuddy/casual partner).

Table 5. Sex by partner type and CLAI (for all study weeks see Table 5 in Appendix C)

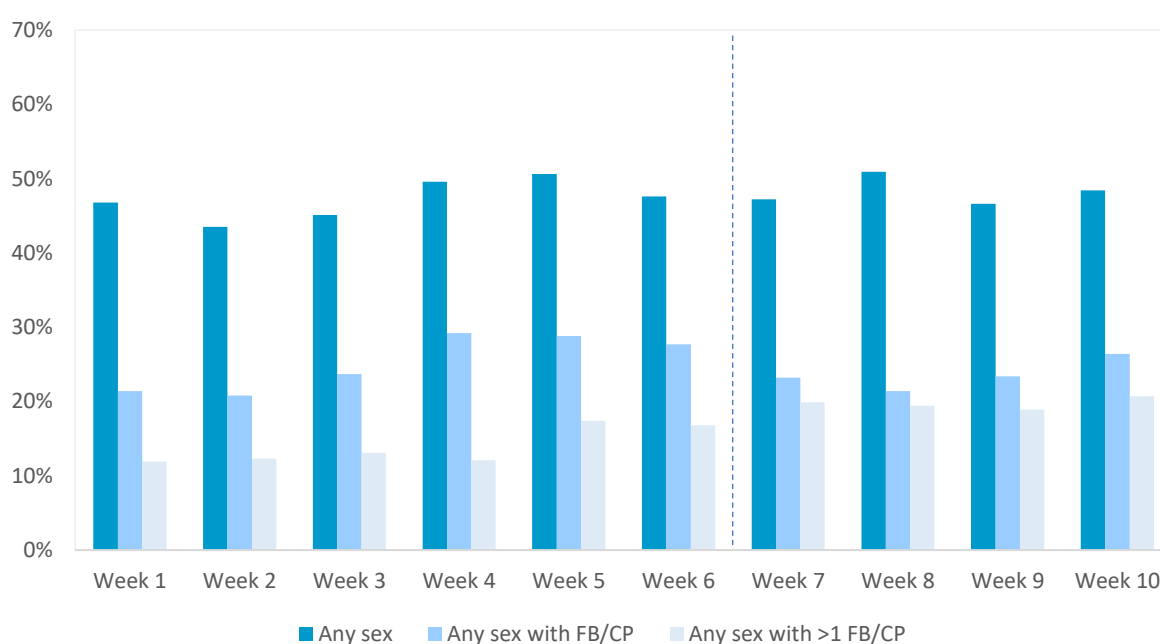
	Week 7	Week 8	Week 9	Week 10
Any sex	171 (47.2)	255 (50.9)	227 (46.6)	246 (48.4)
Sex with 1 partner only	115 (31.8)	167 (33.3)	150 (30.0)	169 (33.3)
Any sex with FB/CP	84 (23.2)	107 (21.4)	117 (23.4)	134 (26.4)
Any sex with >1 FB/any CP	72 (19.9)	97 (19.4)	92 (18.9)	105 (20.7)
Any receptive CLAI*	31 (43.1)	42 (43.3)	42 (45.7)	44 (41.9)
Used PrEP or TasP**	26 (83.8)	34 (81.0)	33 (78.6)	36 (81.8)
Any insertive CLAI*	40 (55.6)	54 (55.7)	53 (57.6)	52 (49.5)
Used PrEP or TasP**	31 (77.5)	36 (66.7)	38 (71.7)	37 (71.2)

*Note: CLAI is reported specifically among men who had sex with >1 FB/ any CP.

**Note: PrEP/TasP coverage is reported specifically among men who reported CLAI and had sex with >1 FB/ any CP.

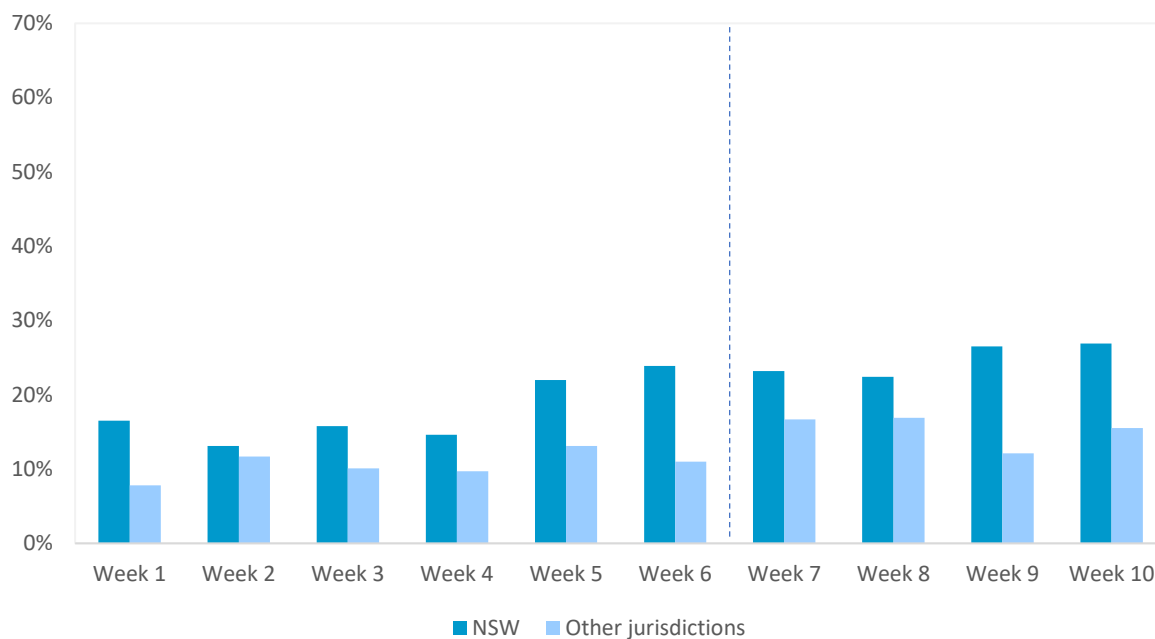
Men engaging in any sex remained relatively stable with a slight increase in Week 8. Reports of any sex with non-relationship partners slightly decreased at Week 8 and then increased over Weeks 9 and 10. Any sex with any casual or more than one non-relationship partner remained stable over the four-week period. The proportion of men using PrEP or TasP during receptive CLAI with casual or multiple non-relationship partners fluctuated slightly over the four-week period, as did the proportion of men using PrEP or TasP for insertive CLAI.

Figure 5a. Proportion of men engaging in any sex and sex with FBs/CPs



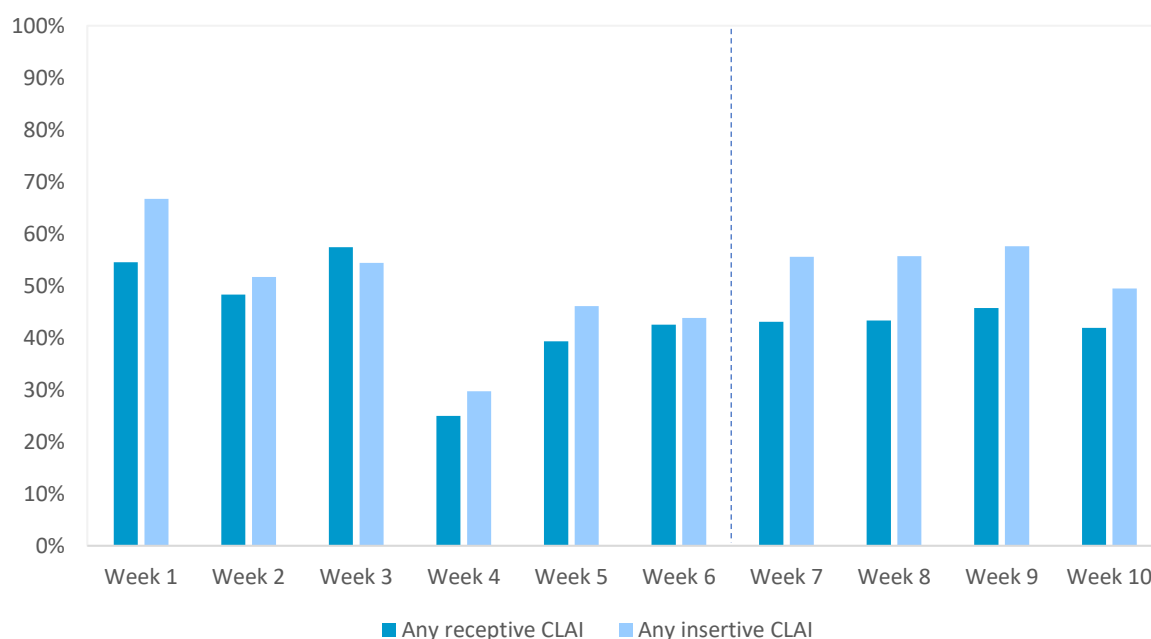
NSW respondents were generally more likely to report sex with more than one non-relationship partner over the four weeks, but this difference has become more pronounced in recent weeks. The decline in other jurisdictions was largely due to changing restrictions in Victoria.

Figure 5b. Proportion of men in NSW vs other jurisdictions engaging in sex with multiple (>1) non-relationship partners



Receptive and insertive CLAI with any casual or more than one non-relationship partner remained stable over the four-week period with both peaking in Week 9.

Figure 5c. Proportion of men engaging in CLAI with multiple (>1) non-relationship partners



Group sex

Participation in group sex was uncommon with approximately one in 14 men reporting that they had engaged in group sex at some time at Week 8.

Sex within the household and with fuckbuddies/casual partners

Of the men that had sex with any non-relationship partners, only a small proportion indicated that they lived with all the men with whom they had sex over the four-week period. Sex was mostly conducted with men outside of the participant's household. This changed little from week to week.

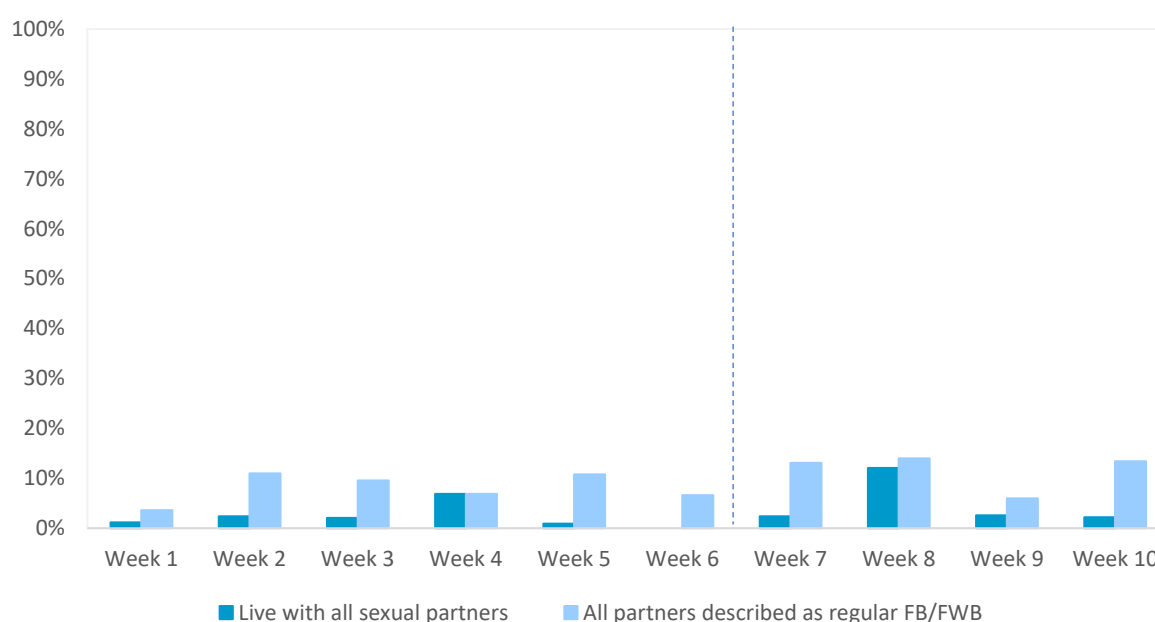
Table 6. Sex within the household and characterisation as FBs/FWBs (for all study weeks see Table 6 in Appendix C)

	Week 7 N=72*	Week 8 N=97*	Week 9 N=92*	Week 10 N=105*
Live with all sexual partners	2 (2.4)	13 (12.1)	3 (2.6)	3 (2.2)
All partners described as regular FB/FWB	11 (13.1)	15 (14.0)	7 (6.0)	18 (13.4)

*N = men each week who reported having >1 fuckbuddy or casual partner

In all weeks except Week 9, around one in eight of the small number of men who had sex with any non-relationship partners reported that they would describe all these sexual partners as regular fuckbuddies or friends with benefits. Data were not collected to determine whether these were previously established or new regular partners. Around one in ten gay and bisexual men who engaged in sex outside of their immediate household chose men who would all be considered familiar sexual partners. This proportion remained fairly steady over time, although in recent weeks there was some indication that slightly fewer men were restricting their sexual contacts to these more familiar partners.

Figure 6. Proportion of men having sex with FBs/CPs within their immediate household and describe as FBs/FWBs



PrEP and PEP use

About a third of non HIV-positive men were using PrEP over the four-week period. On average, men who had PrEP pills in their possession had between 36-39 pills remaining.

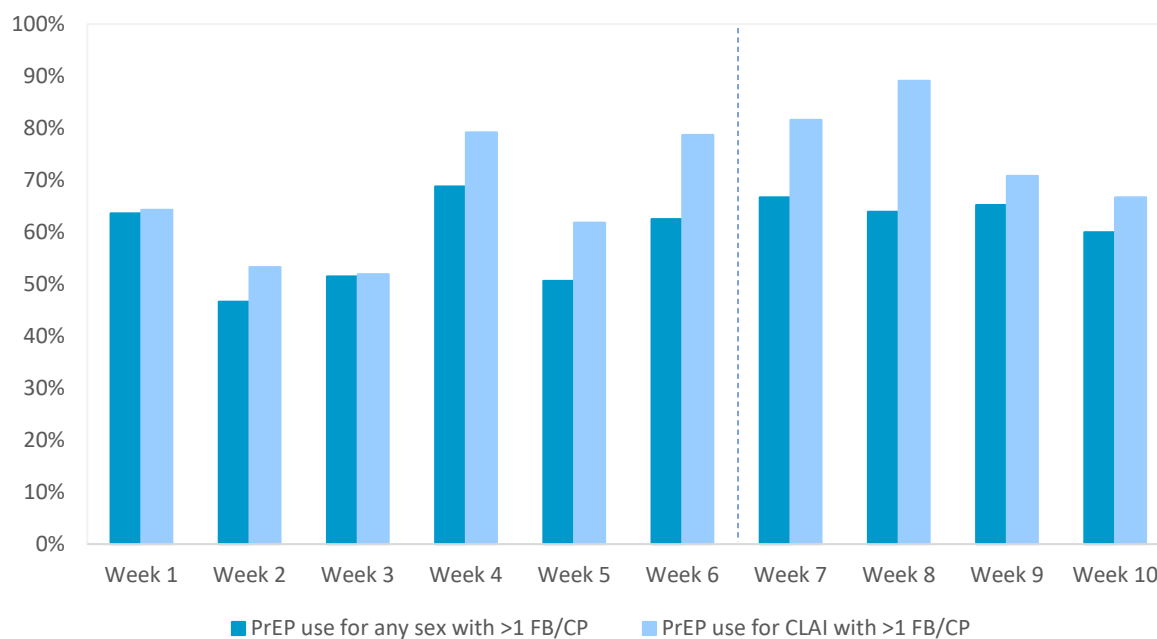
Table 7. PrEP and PEP use among non HIV-positive men (for all study weeks see Table 7 in Appendix C)

	Week 7	Week 8	Week 9	Week 10
No use	216 (65.7)	304 (67.3)	294 (67.6)	299 (66.0)
PrEP use	113 (34.3)	148 (32.7)	141 (32.4)	154 (34.0)
PEP use	11			
Mean PrEP pills remaining	38.8 (31.0)	38.1 (28.3)	37.2 (29.9)	36.3 (31.5)
Any sex with >1 FB/CP	72	97	92	105
PrEP use among men reporting any sex with >1 FB/CP	48 (66.7)	62 (63.9)	60 (65.2)	63 (60.0)
Any CLAI with >1 FB/CP	49	55	72	78
PrEP use among men reporting any CLAI with >1 FB/CP	40 (81.6)	49 (89.1)	51 (70.8)	52 (66.7)
4+ days/week PrEP use among men reporting sex with >1 FB/CP	35 (71.4)	45 (81.8)	47 (65.3)	48 (61.5)

HIV-positive men excluded.

Among non HIV-positive men reporting any casual or multiple non-relationship partners, about two thirds reported using PrEP with a slight decrease in Week 10. Among men reporting any CLAI with any casual or multiple non-relationship partners the proportion peaked in Week 8 with almost all protected by PrEP. This proportion decreased in Weeks 9 and 10 to about two thirds of men. Most of the men who used PrEP had done so on at least four days in the previous week.

Figure 7. Proportion of men with multiple non-relationship partners and having CLAI with multiple non-relationship partners using PrEP



COVID-19 Testing

Recent (in the past 7 days) testing for COVID-19 has been relatively uncommon among participants but increased between weeks 9 and 10, possibly reflecting concerns about increasing community transmission in Victoria and NSW.

Table 8. COVID-19 testing (for all study weeks see Table 8 in Appendix C)

	Week 7	Week 8	Week 9	Week 10
Tested in previous week	4 (1.1)	16 (3.2)	19 (3.9)	29 (5.7)

Figure 8. Proportion of men tested for COVID-19 in previous seven days

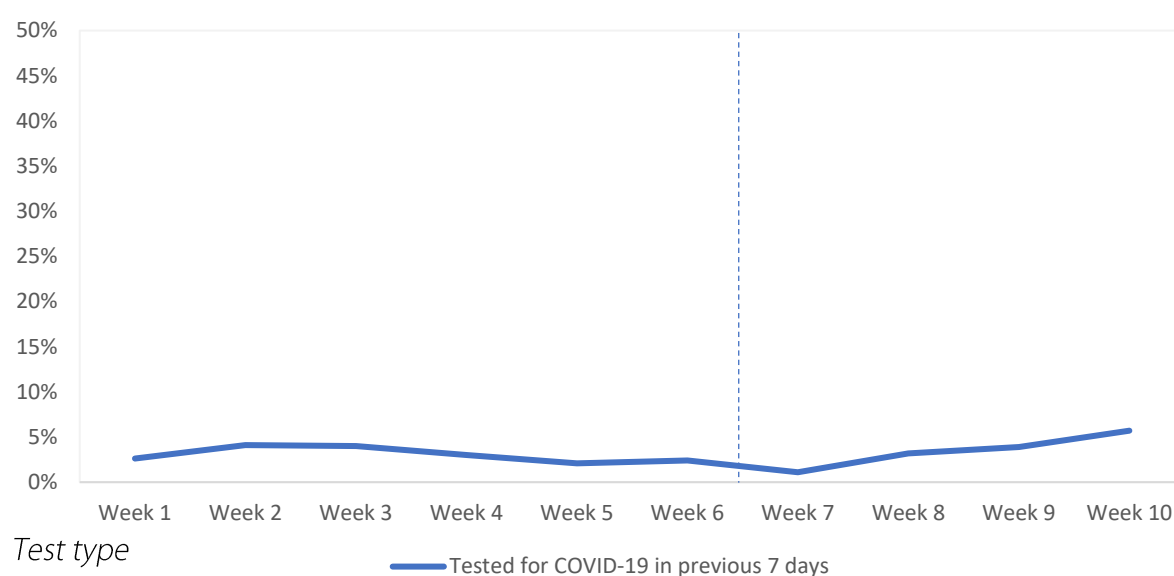


Table 9. COVID-19 test type (for all study weeks see Table 9 in Appendix C)

	Week 7	Week 8	Week 9	Week 10
Blood test	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Nose and throat swab	4 (100.0)	16 (100.0)	19 (100.0)	29 (100.0)
Positive COVID-19 result	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

Social connectedness

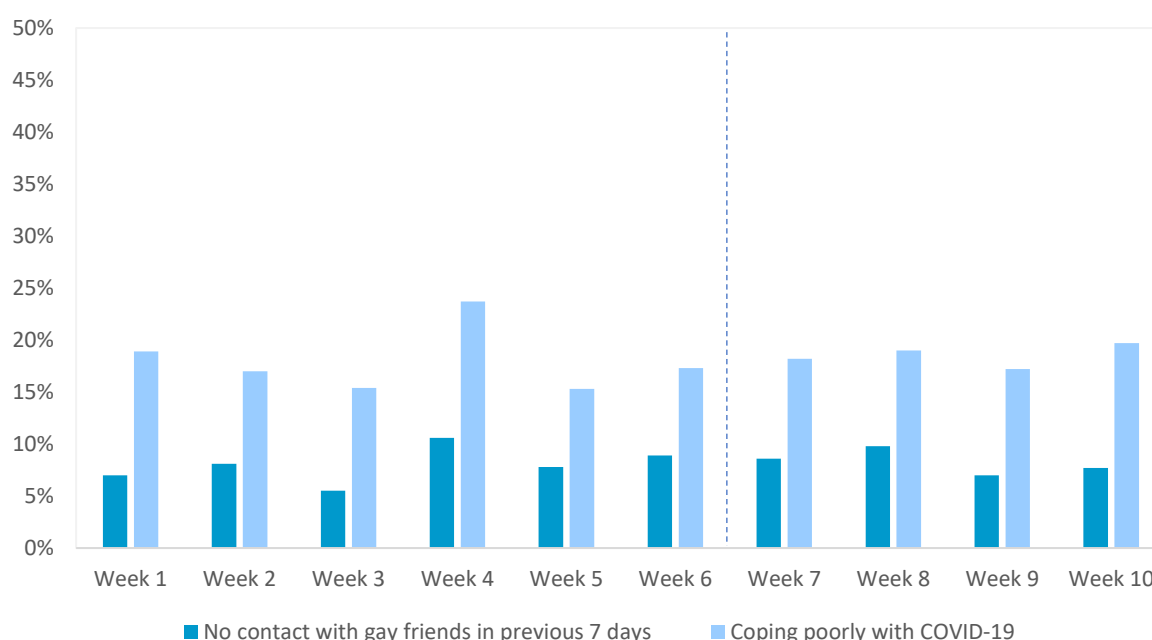
Despite some fluctuations, contact with gay male friends remained fairly steady, with fewer than one in ten reporting no contact. The majority of men had some contact with family or other friends at Week 8, with less than four percent reporting no contact. Most men reported coping with COVID-19 concerns and restrictions fairly well, with little change over time. Coping was measured on a six-point scale from 'Very well' to 'Very poorly'.

Table 10. Proportion of men having no contact with friends and family and coping poorly (for all study weeks see Table 10 in Appendix C)

	Week 7	Week 8	Week 9	Week 10
No contact with gay friends in the past 7 days	31 (8.6)	49 (9.8)	34 (7.0)	39 (7.7)
No contact with other friends and family in the past 7 days	18 (3.6)			
Coping poorly	66 (18.2)	95 (19.0)	84 (17.2)	100 (19.7)

Approximately one in five respondents indicated that they were coping poorly, and this reached a peak in Week 8 with little change over time.

Figure 9. Proportion of men with no contact with gay male friends and coping poorly with COVID-19



Time spent communicating with gay male friends

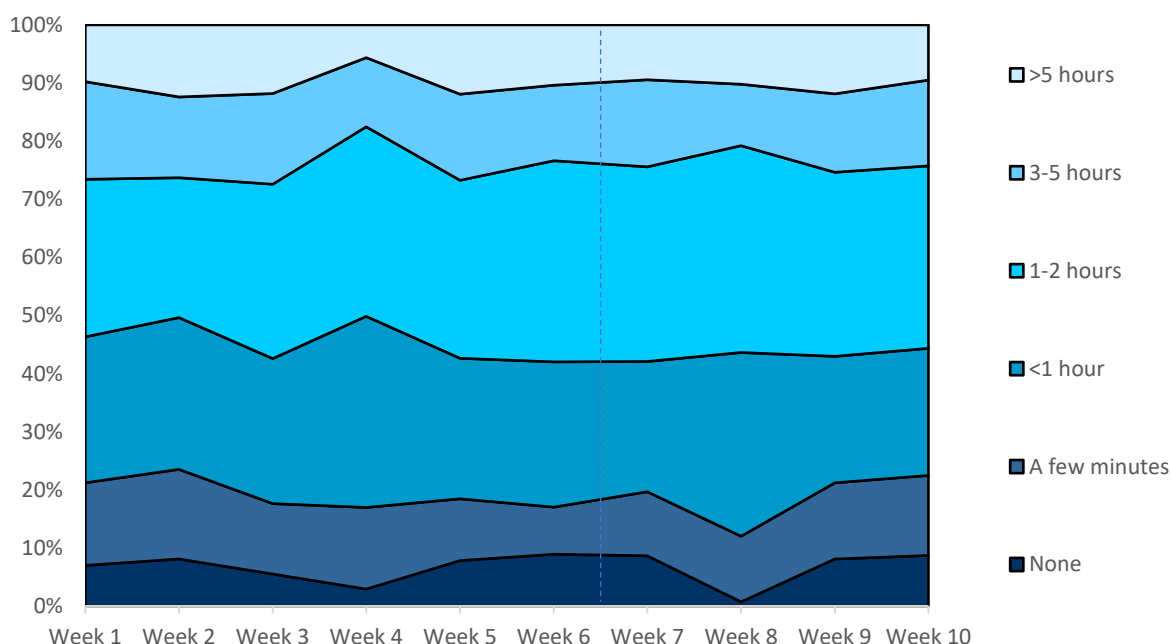
Communication, in person, by phone or online, with gay male friends by participants has been consistent during Weeks 7-10. During this period, over half the sample consistently spent an hour or more each day communicating with gay male friends.

Table 11. Time spent communicating with gay male friends among all respondents (for all study weeks see Table 10 in Appendix C)

	Week 7	Week 8	Week 9	Week 10
None	31 (8.6)	3 (0.7)	40 (8.1)	44 (8.7)
A few minutes	40 (11.0)	51 (11.3)	65 (13.1)	70 (13.8)
<1 hour	81 (22.4)	143 (31.6)	108 (21.8)	111 (21.9)
1-2 hours	121 (33.4)	161 (35.6)	157 (31.7)	159 (31.4)
3-5 hours	54 (15.0)	48 (10.6)	67 (13.5)	75 (14.8)
>5 hours	34 (9.4)	46 (10.2)	59 (11.9)	48 (9.5)

The proportion of men not engaging in daily communication with gay male friends remained low over the four-week period, at less than one in ten men. The majority of men spent up to two hours communicating with gay friends each day.

Figure 10. Time spent communicating with gay friends



Health-seeking behaviour

Influenza vaccine uptake

At Week 8 there was little change in the proportion of men that had received the 2020 seasonal influenza vaccine compared to Report 01. About three quarters of men indicated they had received the 2020 seasonal influenza vaccine.

STI/HIV testing

About one in seven men indicated they had been tested for STIs or HIV at some time between Weeks 7 and 10 of the study. During this period positive STI results were low. About 1.5 percent of men indicated they tested positive for chlamydia and gonorrhoea respectively, and fewer than one percent indicated they tested positive for syphilis.

At Week 8 there was little change in reported HIV status compared to Report 01. About 90 percent of men reported being HIV negative at that time, around seven percent HIV positive and three percent reported an unknown HIV status. About three quarters of men who were HIV positive reported an undetectable viral load.

Appendix A – Methods

Data collection

The Flux Study COVID-19 Diary leverages the existing Flux cohort study infrastructure to investigate the experiences of the coronavirus (COVID-19) and its impact on pre-existing epidemics among GBM. Individual follow occurs systematically among consenting GBM every week for an initial three-month period, to be revisited at the end of each three-month period for up to a maximum of one year to collect specific information about sexual and other risk behaviours and direct impacts of COVID-19.

Baseline questionnaires are completed by newly enrolling participants to establish the characteristics, behaviours, and beliefs required to assess changes over time, during the COVID-19 pandemic. Additional information collected includes associated harms, health-seeking, social connectedness, COVID-19 physical distancing behaviours, mental health, and relevant personal characteristics.

Weekly diary questionnaires collect specific limited information on sexual behaviour, PrEP use, and COVID-19 health-seeking practices, to enable measurement of changes in behaviours against the rapid changes in physical distancing regulations as they are enforced, or relaxed. Every four weeks, a slightly expanded questionnaire will also collect specific information on physical distancing and social connections, drug use, and access to services.

Six-monthly follow-up questionnaires monitor changes in characteristics, behaviours, and beliefs over time, throughout the COVID-19 pandemic, required to assess changes over time as specified in the study aims.

Data analysis

SPSSTM, Version 26 (IBM Corporation) was used to analyse data. Percentage values exclude the proportion of respondents who did not answer the question and may not add to 100 because of rounding. Data may change slightly over time due to minor error checking.

Ethical approval for data collection was obtained from UNSW Human Research Ethic

Appendix B – Glossary

CLAI – condomless anal intercourse

COVID-19 – the disease caused by the novel coronavirus SARS-CoV-2

Fuckbuddy/Friend with benefits – a regular sexual partner with whom ongoing sexual contact occurs, generally in the absence of romantic attachment

GBM – gay and bisexual men

HIV – human immunodeficiency virus

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

Non-relationship partner – a sexual partner that is not a boyfriend or husband with whom participants are in an ongoing romantic relationship, but characterised as a fuckbuddy, friend with benefits or casual partner

PEP – post-exposure prophylaxis; for the purpose of this report, it refers to the use of antiretroviral drugs by HIV-negative people to reduce the risk of HIV infection after a potential exposure has occurred

PrEP – pre-exposure prophylaxis; for the purpose of this report, it refers to the use of antiretroviral drugs by HIV-negative

Appendix C – Complete data tables

Table 1. Responses

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
NSW only	176	183	183	185	182	176	164	230	229	222
Total sample	387	395	397	397	385	382	362	501	487	508
Initial enrolment	387	47	5	2	0	0	0	127	45	68
Previous enrolment		348	392	395	385	382	362	374	442	440
Non-response		39	42	44	56	59	79	67	126	173
Cumulative total	387	434	439	441	441	441	441	468	513	534

Table 4. Number of sexual partners

Mean (SD)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
NSW	1.12 (2.39)	0.83 (1.44)	0.97 (1.61)	1.05 (1.93)	0.98 (1.51)	1.36 (3.36)	1.00 (1.61)	1.24 (2.09)	1.10 (1.77)	1.23 (2.17)
Other jurisdictions	0.58 (0.87)	0.68 (1.21)	0.68 (1.21)	0.80 (1.40)	0.90 (1.78)	0.78 (1.44)	0.71 (1.30)	0.71 (1.21)	0.64 (1.35)	0.88 (2.64)
Total sample	0.83 (1.77)	0.75 (1.30)	0.81 (1.42)	0.92 (1.67)	0.94 (1.66)	1.04 (2.53)	0.85 (1.45)	0.97 (1.68)	0.86 (1.58)	1.08 (2.43)
Median	0	0	0	0	1	0	0	1	0	1

Table 5. Sex by partner type and CLAI

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Any sex	181 (46.8)	172 (43.5)	179 (45.1)	197 (49.6)	195 (50.6)	182 (47.6)	171 (47.2)	255 (50.9)	227 (46.6)	246 (48.4)
Sex with 1 partner only	129 (33.3)	122 (30.9)	122 (30.7)	135 (34.0)	127 (33.0)	117 (30.6)	115 (31.8)	167 (33.3)	150 (30.0)	169 (33.3)
Any sex with FB/CP	83 (21.4)	82 (20.8)	94 (23.7)	116 (29.2)	111 (28.8)	106 (27.7)	84 (23.2)	107 (21.4)	117 (23.4)	134 (26.4)
Any sex with >1 FB/CP	33 (8.5)	58 (14.7)	68 (17.1)	64 (16.1)	89 (23.1)	80 (20.9)	72 (19.9)	97 (19.4)	92 (18.9)	105 (20.7)
Any receptive CLAI*	18 (54.5)	28 (48.3)	39 (57.4)	16 (25.0)	35 (39.3)	34 (42.5)	31 (43.1)	42 (43.3)	42 (45.7)	44 (41.9)
Used PrEP or TasP**	12 (66.7)	15 (53.6)	20 (51.3)	15 (93.8)	22 (62.9)	28 (82.4)	26 (83.8)	34 (81.0)	33 (78.6)	36 (81.8)
Any insertive CLAI*	22 (66.7)	30 (51.7)	37 (54.4)	19 (29.7)	41 (46.1)	35 (43.8)	40 (55.6)	54 (55.7)	53 (57.6)	52 (49.5)
Used PrEP or TasP**	15 (68.2)	14 (46.7)	18 (48.6)	15 (78.9)	23 (56.1)	28 (80.0)	31 (77.5)	36 (66.7)	38 (71.7)	37 (71.2)

*Note: CLAI is reported specifically among men who had sex with >1 FB/CP.

**Note: PrEP/TasP coverage is reported specifically among men who reported CLAI and had sex with >1 FB/CP. This may be an underestimate of PrEP coverage in Week 2 due to variation in the questions asked in that week.

Table 6. Sex within the household and characterisation as FBs/FWBs

	Week 1 N=46*	Week 2 N=48*	Week 3 N=52*	Week 4 N=48*	Week 5 N=67*	Week 6 N=64*	Week 7 N=55*	Week 8 N=61*	Week 9 N=75*	Week 10 N=72*
Live with all sexual partners	1 (1.2)	2 (2.4)	2 (2.1)	8 (6.9)	1 (0.9)	0 (0.0)	2 (2.4)	13 (12.1)	3 (2.6)	3 (2.2)
All partners described as regular FB/FWB	3 (3.6)	9 (11.0)	9 (9.6)	8 (6.9)	12 (10.8)	7 (6.6)	11 (13.1)	15 (14.0)	7 (6.0)	18 (13.4)

Table 7. PrEP and PEP use among non HIV-positive men

	Week 1	Week 2*	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
No use	267 (74.6)	277 (77.4)	269 (75.1)	247 (67.3)	272 (76.0)	250 (69.8)	216 (65.7)	304 (67.3)	294 (67.6)	299 (66.0)

PrEP use	91 (25.4)	81 (22.6)	89 (24.9)	119 (32.4)	86 (24.0)	108 (30.2)	113 (34.3)	148 (32.7)	141 (32.4)	154 (34.0)
PEP use				1 (0.3)				11		
Mean PrEP pills remaining				41.2 (32.3)	38.4 (32.5)	38.2 (28.6)	38.8 (31.0)	38.1 (28.3)	37.2 (29.9)	36.3 (31.5)
Any sex with >1 FB/CP	33	58	68	64	89	80	72	97	92	105
PrEP use among men reporting any sex with >1 FB/CP	21 (63.6)	27 (46.6)	35 (51.5)	44 (68.8)	45 (50.6)	50 (62.5)	48 (66.7)	62 (63.9)	60 (65.2)	63 (60.0)
Any CLAI with >1 FB/CP	28	45	52	24	55	47	49	55	72	78
PrEP use among men reporting any CLAI with >1 FB/CP	18 (64.3)	24 (53.3)	27 (51.9)	19 (79.2)	34 (61.8)	37 (78.7)	40 (81.6)	49 (89.1)	51 (70.8)	52 (66.7)
4+ days/week PrEP use among men reporting sex with >1 FB/CP	17 (60.7)	22 (48.9)	22 (42.3)	13 (54.2)	29 (52.7)	30 (63.8)	35 (71.4)	45 (81.8)	47 (65.3)	48 (61.5)

Note: HIV-positive men excluded.

*Note: May be an underestimate of PrEP coverage in Week 2 due to variation in the questions asked in that week.

Table 8. COVID-19 testing

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Tested in previous week	10 (2.6)	16 (4.1)	16 (4.0)	12 (3.0)	8 (2.1)	9 (2.4)	4 (1.1)	16 (3.2)	19 (3.9)	29 (5.7)

Table 9. COVID-19 test type

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Blood test	1 (10.0)	0 (0.0)	1 (6.3)	0 (0.0)	1 (12.5)	1 (11.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Nose and throat swab	9 (90.0)	16 (100.0)	15 (93.7)	12 (100.0)	7 (87.5)	8 (88.9)	4 (100.0)	16 (100.0)	19 (100.0)	29 (100.0)
Positive COVID-19 result	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

Table 10. Proportion of men having no contact with friends and family and coping poorly

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
No contact with gay friends in the past 7 days	27 (7.0)	32 (8.1)	22 (5.5)	42 (10.6)	30 (7.8)	34 (8.9)	31 (8.6)	49 (9.8)	34 (7.0)	39 (7.7)
No contact with other friends and family in the past 7 days				18 (4.6)				18 (3.6)		
Coping poorly	73 (18.9)	67 (17.0)	61 (15.4)	94 (23.7)	59 (15.3)	66 (17.3)	66 (18.2)	95 (19.0)	84 (17.2)	100 (19.7)

Table 11. Time spent communicating with gay male friends among all respondents

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
None	27 (7.0)	32 (8.1)	22 (5.5)	1 (0.3)	30 (7.8)	34 (8.9)	31 (8.6)	3 (0.7)	40 (8.1)	44 (8.7)
A few minutes	55 (14.2)	61 (15.4)	48 (12.1)	52 (14.4)	41 (10.6)	31 (8.1)	40 (11.0)	51 (11.3)	65 (13.1)	70 (13.8)
<1 hour	97 (25.1)	103 (26.1)	99 (24.9)	122 (33.8)	93 (24.2)	96 (25.0)	81 (22.4)	143 (31.6)	108 (21.8)	111 (21.9)
1-2 hours	105 (27.1)	95 (24.1)	119 (30.0)	121 (33.5)	118 (30.6)	133 (34.6)	121 (33.4)	161 (35.6)	157 (31.7)	159 (31.4)
3-5 hours	65 (16.8)	55 (13.9)	62 (15.6)	44 (12.2)	57 (14.8)	50 (13.0)	54 (15.0)	48 (10.6)	67 (13.5)	75 (14.8)
>5 hours	38 (9.8)	49 (12.4)	47 (11.8)	21 (5.8)	46 (11.9)	40 (10.4)	34 (9.4)	46 (10.2)	59 (11.9)	48 (9.5)

Appendix D – Relevant research outputs from the Flux Study

Publications

M A Hammoud, A Grulich, L Maher, M Holt, L Degenhardt, F Jin, D Murphy, B Bavinton, T Lea, B Haire, A Bourne, P Saxton, S Vaccher, J Ellard, B Mackie, C Batrouney, N Bath, G Prestage. Physical distancing due to COVID-19 disrupts sexual behaviours among gay and bisexual men in Australia: Implications for trends in HIV and other sexually transmissible infections. 2020. Journal of Acquired Immune Deficiency Syndromes.

Presentations

G Prestage, M A Hammoud, S Philpot, D Storer. [Impacts of COVID-19 on gay and bisexual men in Australia: Changes in sexual behaviour, PrEP and mental health](#). July 2020. ACON Research Snapshot Forum.

M A Hammoud, A Grulich, L Maher, M Holt, L Degenhardt, F Jin, D Murphy, B Bavinton, T Lea, B Haire, A Bourne, P Saxton, S Vaccher, J Ellard, B Mackie, C Batrouney, N Bath, G Prestage. [Impact of social distancing due to COVID-19 on sexual behaviour among gay and bisexual men in Australia: Implications for trends in HIV and other sexually transmissible infections](#). July 2020. International AIDS Conference 2020, Virtual.

G Prestage, M A Hammoud, S Philpot. [Impacts of COVID-19 on gay and bisexual men in Australia: Changes in sexual behaviour, PrEP and mental health](#). May 2020. Kirby Institute Seminar Series.

Reports

D Storer on behalf of the Flux Study BRISE Reference Group. [Flux Study COVID-19 Diary: Monthly Report. Report 01: Reporting week ending 14 June](#). 2020. Kirby Institute, UNSW Sydney.