

Annual report of trends in behaviour 2025: Viral hepatitis, HIV, STIs and sexual health in Australia

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Viral Hepatitis, HIV, STIs and Sexual Health in Australia

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GCPS-Executive Summary

Overview

The GBQ+ Community Periodic Surveys (GCPS) are the main data source on sexual, drug use, and testing and prevention practices related to the transmission of HIV and other STIs among gay and bisexual men (GBM) and non-binary people who have sex with GBM in Australia. Recruitment is conducted annually in Sydney, Melbourne and Queensland, and every two years in Adelaide, Canberra, Perth and Tasmania.

In response to community feedback, significant changes were made to the 2024 version of the questionnaire to make it more inclusive of the diversity of participants. Specifically, the 2024 questionnaire was redesigned to be more inclusive of a broader range of participant genders, sexualities, and sexual practices. This included changing the name of the survey (from Gay Community Periodic Survey to GBQ+ Community Periodic Survey) and including a fuller range of questions about sex and relationships with men, women, and non-binary partners.

The high levels of HIV treatment and viral suppression reported by gay and bisexual men living with HIV are one of the consistently positive stories reflected in the GCPS data. Nationally, there have been increases in both of these indicators over the past 10 years, with both now exceeding the UNAIDS targets of 95%. In 2024, we have seen increases in numbers of male sex partners, HIV and STI testing, and PrEP use, particularly over the past three years. The use of biomedical HIV prevention (i.e., PrEP or having an undetectable viral load) has increased significantly over the past 10 years, with the proportion of participants reporting casual sex with a risk of HIV acquisition continuing to decrease.

Sample characteristics

While the majority of GCPS participants in the last 10 years have been recruited through venues and events, online advertising and recruitment have played an increasingly important role, particularly during rounds most heavily affected by COVID-19 (between 2020-2022, Table 1). However, in 2024 72% of participants were recruited face-to-face and 28% online (Table 2).

The majority of GCPS participants continue to identify as gay, although this has fallen from 90% ten years ago to 77% in 2024, and the proportion of cisgender participants has decreased (from 99% to 91%, with a more notable decrease over the past three years). These changing demographic trends influenced the 2024 questionnaire alterations. Over the past 10 years, the proportion born overseas has increased (particularly over the past three years). Other notable changes in the demographic profile of participants include an increase in the average age of participants and a decrease in the proportion of participants living with HIV (Table 3).

Table 1: Recruitment summary by state or territory: GCPS, 2015-2024

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Total n (%)
Adelaide	-	9.5	-	10.7	-	8.4	-	10.3	-	8.3	4,002 (4.7)
Canberra	3.8	-	4.3	-	5.9	-	5.7	-	-	3.8	1,937 (2.3)
Melbourne	37.6	29.6	31.5	32.0	32.6	35.1	29.3	34.4	27.2	29.3	27,013 (31.9)
Perth	-	9.2	6.5	-	8.1	-	14.3	-	10.3	-	4,182 (4.9)
Queensland	23.0	18.7	22.2	21.3	19.1	14.7	18.2	25.7	20.6	20.3	17,271 (20.4)
Sydney	35.6	30.9	35.5	33.4	34.2	39.4	32.5	29.6	38.6	38.2	29,461 (34.7)
Tasmania	-	2.1	-	2.7	-	2.5	-	-	3.4	-	939 (1.1)
Total (n)	7,997	9,743	9,383	8,574	9,271	8,479	7,065	8,276	8,791	7,226	84,805

Table 2: Recruitment summary by type of venue or event: GCPS, 2015-2024

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Total n (%)
LGBTQ community events/festivals	35.4	40.5	38.8	38.6	39.0	37.6	4.0	32.4	32.7	28.1	28,404 (33.5)
LGBTQ social venues	29.0	25.3	33.5	23.7	23.1	16.3	6.4	11.4	27.2	31.6	19,568 (23.1)
Sex-on-premises venues	10.2	8.1	8.6	6.2	5.2	5.5	0.8	3.9	4.5	6.2	5,105 (6.0)
Clinics and general practices	4.8	4.5	7.0	6.2	8.2	3.9	0.8	1.8	5.1	6.1	4,197 (4.9)
Online	20.6	21.6	12.0	25.3	24.5	36.7	88.0	50.5	28.0	28.0	27,531 (32.4)
Total (n)	7,997	9,743	9,383	8,574	9,271	8,479	7,065	8,276	8,953	7,226	84,805

Table 3: Participant characteristics: GCPS, 2015-2024 (all states and territories)

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
Gay-identified	90.1	88.9	89.4	88.0	87.1	84.4	80.2	79.6	80.3	76.8	↓	↓
Cisgender	98.9	98.7	98.2	97.7	97.1	96.6	95.7	94.5	93.9	91.2	↓	↓
Overseas born	28.6	28.6	29.7	29.4	31.0	30.6	28.3	29.4	33.2	32.2	↑	↑
<25 years old	20.0	19.5	17.6	16.5	15.9	13.9	13.4	12.0	10.6	11.0	↓	↓
30-39 years old	27.3	28.3	29.6	28.8	29.3	30.8	27.2	31.9	33.7	34.2	↑	↑
>50 years old	15.0	14.8	15.9	18.1	19.4	20.8	27.8	22.7	23.0	21.6	↑	ns
Mean age (SD)	35.4 (12.5)	35.5 (12.4)	36.0 (12.6)	36.9 (12.9)	37.2 (13.2)	38.0 (13.7)	40.3 (14.5)	39.0 (13.8)	39.2 (13.5)	39.1 (13.4)	↑	ns
Living with HIV	8.6	7.9	8.8	8.7	8.2	7.4	9.2	6.6	6.6	6.8	↓	ns

People living with HIV

Since 2015, the proportion of participants living with HIV who reported taking antiretroviral treatment at the time of the survey has increased, reaching 98% in 2024 (Table 4). Similarly, the proportion of participants on HIV treatment who reported an undetectable viral load has increased over the last 10 years, exceeding 97% in 2024 (Table 5). These proportions both surpass the UNAIDS 2025 targets of 95%.

Table 4: Antiretroviral treatment among participants living with HIV: GCPS, 2015-2024

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
Melbourne	90.9	94.8	97.8	94.5	97.2	92.1	95.9	96.3	94.5	99.2	↑	ns
Queensland	94.0	95.0	96.5	96.1	93.3	97.9	91.1	90.4	95.0	94.7	ns	ns
Sydney	91.0	90.3	91.7	94.3	95.4	93.2	96.0	93.9	96.9	100	↑	↑
All states/territories	91.3	93.2	95.2	94.5	95.1	93.7	95.3	94.2	96.0	98.3	↑	↑

Table 5: Undetectable viral load among participants living with HIV: GCPS, 2015-2024

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
Melbourne	95.3	97.0	97.0	98.2	94.8	94.9	97.6	95.2	96.8	97.6	ns	ns
Queensland	90.8	92.4	96.4	96.6	95.1	96.7	94.3	90.3	97.9	97.1	ns	↑
Sydney	94.8	94.3	93.4	98.3	96.2	92.7	94.8	97.1	97.7	97.0	ns	ns
All states/territories	94.2	94.8	94.9	97.3	95.5	94.2	95.9	94.4	97.4	97.4	↑	↑

This table includes all participants living with HIV who reported being on antiretroviral treatment at the time of the survey

Over the past 10 years, almost 95% of participants living with HIV reported attending at least one HIV-related clinical appointment in the 12 months prior to the survey. However, the proportion reporting three or more clinical appointments per year has decreased, while the proportion reporting one or two appointments has increased (Table 6). This reflects HIV management guidelines that recommend appointments every six months (as opposed to previous guidelines that recommended more frequent appointments).

Table 6: Number of HIV-related clinical visits in the previous 12 months among participants living with HIV: GCPS, 2015-2024 (all states and territories)

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
None	8.2	5.2	7.2	5.8	6.5	6.6	11.5	8.5	6.3	7.2	ns	ns
One or two	22.6	24.3	27.6	26.4	35.8	34.1	46.5	51.9	48.1	50.0	↑	ns
Three or four	42.3	45.0	40.2	46.2	41.6	43.9	32.3	32.3	35.0	31.4	↓	ns
Five or more	26.8	25.5	25.0	21.6	16.1	15.4	9.8	7.3	11.4	11.4	↓	↑
Total (n)	645	711	767	704	632	590	635	532	555	474		

This table includes all participants living with HIV irrespective of treatment status.

Sexual practices and risk reduction strategies

Over the last 10 years, the proportion of all GCPS participants reporting more than 10 male sex partners in the six months prior to the survey has fluctuated. While the overall trend over this time shows a decrease in the proportion of participants reporting more than 10 male sex partners, this proportion has increased significantly over the last three years and is higher in 2024 than pre-pandemic levels (Table 7).

Table 7: Participants who reported more than 10 male sex partners in the six months prior to the survey: GCPS, 2015-2024

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
Adelaide	-	15.1	-	14.9	-	14.6	-	18.0	-	19.3	↑	ns
Canberra	16.2	-	16.8	-	20.9	-	10.2	-	-	20.1	ns	-
Melbourne	22.7	24.2	27.3	24.7	24.5	23.3	20.0	18.4	25.6	23.8	↓	↑
Perth	-	16.0	16.1	-	16.9	-	14.0	-	14.4	-	ns	-
Queensland	17.6	18.3	20.0	19.6	20.9	9.8	12.7	14.6	18.3	18.4	↓	↑
Sydney	20.8	22.0	23.7	25.0	22.2	21.9	17.1	14.7	23.3	28.1	ns	↑
Tasmania	-	9.0	-	9.5	-	5.4	-	-	11.5	-	ns	-
All states/territories	20.6	20.5	23.2	22.2	22.2	19.5	16.3	16.3	21.6	23.8	↓	↑

Using national prescribing criteria for PrEP suitability, we constructed a cascade assessing PrEP uptake among GCPS participants. The proportion of non-HIV- positive participants who were classified as suitable for PrEP increased from 33% in 2015 to 54% in 2024. Awareness of PrEP among suitable participants increased significantly between 2015 and 2024, with the proportion of non-HIV-positive participants who were both suitable for and aware of PrEP increasing from 13% to 52%. PrEP use among participants who were both suitable and aware has increased significantly since 2015, from 0.7% of non-HIV-positive participants in 2015 to 37% in 2024 – the highest level recorded among GCPS participants to date (Table 8). Expressed as a proportion of those suitable for PrEP, PrEP use or coverage has increased from 2% in 2015 to 65.8% in 2024.

The GCPS measures several strategies to reduce the risk of HIV transmission. Data from participants who reported any condomless sex with casual partners in the six months prior to the survey show that biomedical prevention methods have become increasingly common.

Among participants living with HIV who reported condomless sex with casual partners, the proportion who reported using their own undetectable viral load as a specific strategy to prevent HIV transmission remained stable over time (and was 78% in 2024). The proportion reporting frequent PrEP sorting (i.e., knowing their partner was on PrEP prior to sex) increased from 34% in 2017 to 50% in 2021, before decreasing to 37% in 2024. These biomedical strategies are more common than serosorting, which has decreased from 54% in 2015 to 25% in 2024 (Table 9).

Among HIV-negative participants who reported condomless sex with casual partners, the proportion who reported taking PrEP in the six months prior to the survey as a specific strategy to prevent HIV increased from 5% in 2015 to 67% in 2024. The proportions who reported frequently ensuring that their casual partners were using biomedical prevention methods (i.e., HIV-negative partners on PrEP or HIV-positive partners with an undetectable viral load) have also increased over time. Conversely, the proportion who reported frequent serosorting has decreased over the past 10 years (from 55% to 49%; Table 9).

In the last 10 years, we have modified our reporting of prevention strategies used by GCPS participants with casual partners to capture the range of prevention strategies that can be used by gay and bisexual men and their partners, the overall level of protection achieved, and the proportion of participants who remain at risk of HIV acquisition. Among all participants with casual partners in the previous six months, the proportions reporting no anal intercourse or consistent condom use have decreased over the past 10 years. The proportion of participants with casual partners who were living with HIV, had an undetectable viral load and reported condomless sex has generally decreased over the past 10 years, however, it has increased over the last three years. The proportion who were HIV-negative, on PrEP and reported condomless sex has significantly increased over that time. Overall, 79% of participants with casual partners in 2024 reported safe sex (i.e., no anal sex, consistent condom use, PrEP, or undetectable viral load), which is an increase in HIV prevention coverage from 68% in 2015. The proportion of participants reporting the highest risk practice for HIV acquisition (HIV-negative and untested participants not on PrEP engaging in condomless sex with casual partners) decreased from 31% in 2015 to 21% in 2024 (Table 10).

Table 8: PrEP cascade for non-HIV-positive participants in the GCPS, 2015-2024 (all states and territories)

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
Suitable for PrEP ^a	32.8	34.1	40.9	42.8	45.6	43.8	41.0	41.6	49.1	54.1	↑	↑
Suitable and aware of PrEP ^b	13.2	18.0	32.8	37.1	42.2	40.4	39.6	40.1	47.1	51.8	↑	↑
Suitable, aware and used PrEP in the previous 6 months ^b	0.7	2.7	11.4	15.9	23.1	25.4	22.5	26.4	32.9	36.8	↑	↑
Total non-HIV-positive participants (n)	7,328	9,001	8,592	7,846	8,508	7,860	6,413	7,734	8,218	6,740		

^a PrEP clinical guidelines/suitability has changed over time. For this comparison, the suitability criteria were operationalised as follows:

Any receptive condomless anal intercourse (CLAI) with casual male partners in the previous six months

Any CLAI with an HIV-positive regular male partner who did not have an undetectable viral load in the previous six months

Tested and diagnosed with any sexually transmissible infection (STI) other than HIV in the previous 12 months

Any use of crystal methamphetamine in the previous six months

^b The questions for PrEP awareness and use were modified during the reporting period

Table 9: Participants who engaged in any CLAIC – frequent use of risk reduction strategies in the six months prior to the survey: GCPS, 2015-2024 (all states and territories)

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
Participants living with HIV												
Ensured partners were seroconcordant before CLAIC (serosorting)	54.1	46.5	43.2	34.4	27.3	25.9	28.5	24.2	22.9	25.3	↓	ns
Participant had an undetectable viral load	74.3	72.6	78.9	83.5	77.3	76.0	-	-	-	78.2	-	-
Knew partner was on PrEP before sex	-	-	33.8	43.5	36.4	41.6	50.0	44.9	38.7	36.5	ns	↓
Total (n; not mutually exclusive)	342	383	435	407	428	317	316	256	279	285		
HIV-negative participants												
Ensured partners were seroconcordant before CLAIC (serosorting)	54.8	51.7	49.5	49.7	49.7	46.1	47.5	45.1	41.2	48.5	↓	↑
Ensured HIV-positive partner had an undetectable viral load before sex	13.2	15.6	21.1	22.9	20.2	19.6	25.8	26.5	24.5	25.6	↑	ns
Participant was taking PrEP	4.9	15.3	40.6	50.0	57.3	59.9	-	-	-	67.4	↑	-
Knew partner was on PrEP before sex	-	-	35.7	47.8	52.8	54.4	53.0	52.7	51.7	52.0	↑	ns
Total (n; not mutually exclusive)	1,384	1,919	2,430	2,449	2,983	2,579	2,130	2,637	3,337	3,031		

Note: Missing data due to questions not being asked in a given year are represented by a dash.

Table 10: Participants with casual partners – HIV prevention in the six months prior to the survey: GCPS 2015-2024 (all states and territories)

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
No sex	19.4	17.8	17.3	17.4	14.8	16.9	17.6	18.3	16.5	11.5	↓	↓
Consistent condom use	42.0	39.9	30.2	26.3	23.2	22.0	16.9	14.8	13.7	11.9	↓	↓
Any condomless sex by participants living with HIV on ART with an undetectable viral load	5.8	5.6	6.7	6.8	5.8	5.4	6.9	4.9	4.8	5.9	↓	↑
Any condomless sex by HIV-negative participants on prescribed PrEP	1.2	4.5	15.5	21.1	31.1	34.6	33.7	40.6	45.6	49.4	↑	↑
Net prevention coverage (% subtotal)	68.4	67.9	69.8	71.6	75.0	78.8	75.2	78.6	80.6	78.7	↑	ns
Any condomless sex by HIV-positive participants not on ART or with a detectable viral load	1.1	0.7	0.5	0.6	0.6	0.7	1.0	0.6	0.3	0.2	↓	↓
HIV-negative or unknown status participants not on prescribed PrEP	30.5	31.4	29.6	27.8	24.5	20.5	23.8	20.8	19.1	21.1	↓	ns
Total (n)	4,858	5,861	5,862	5,341	5,671	5,024	3,998	4,569	5,408	4,579		

HIV and STI testing

Over the past 10 years, the proportion of GCPS participants who reported having ever been tested for HIV has increased (to 90% nationally in 2024; Table 11). Among all non-HIV-positive participants, the proportion who had been tested for HIV in the 12 months before the survey increased from 68% in 2015 to 71% in 2019 before decreasing after the onset of COVID-19. Annual HIV testing currently remains lower than in 2019, however, it has increased from 57% in 2022 to 67% in 2024 (Table 12).

Among non-HIV-positive participants who were tested for HIV in the year prior to the survey, the proportion reporting three or more annual tests has increased over the past 10 years. Following a decrease in the proportion reporting three or more tests in 2021, this proportion has increased, reaching 55% in 2024, which is the highest proportion recorded in the GCPS (Table 13).

Table 11: Participants who had ever tested for HIV: GCPS, 2015-2024

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
Adelaide	-	82.3	-	86.7	-	83.1	-	89.4	-	89.7	↑	ns
Canberra	85.5	-	90.3	-	92.7	-	85.9	-	-	87.4	ns	-
Melbourne	88.1	89.7	90.2	89.9	91.3	92.1	91.4	91.2	93.6	91.5	↑	ns
Perth	-	85.0	89.1	-	89.1	-	86.8	-	84.3	-	ns	-
Queensland	87.5	87.3	86.5	90.5	92.2	84.9	84.7	84.4	89.6	81.8	↓	ns
Sydney	89.9	87.3	87.3	91.3	91.6	90.2	85.8	88.8	93.0	94.3	↑	↑
Tasmania	-	81.0	-	79.3	-	67.5	-	-	81.4	-	ns	-
All states/territories	88.5	87.2	88.3	89.9	91.5	88.9	87.4	88.6	91.2	90.3	↑	↑

Table 12: Non-HIV-positive participants – tested for HIV in the 12 months prior to the survey: GCPS, 2015-2024

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
Adelaide	-	58.0	-	61.9	-	51.8	-	62.8	-	62.2	ns	ns
Canberra	59.3	-	66.3	-	69.4	-	51.6	-	-	52.0	↓	-
Melbourne	66.1	68.6	70.4	70.9	71.3	70.6	64.3	61.2	72.3	68.0	ns	↑
Perth	-	62.7	66.1	-	64.9	-	59.1	-	60.2	-	↓	-
Queensland	68.8	69.7	70.9	70.9	71.6	52.6	51.4	53.0	62.2	57.7	↓	↑
Sydney	68.9	71.4	72.1	71.7	71.9	70.0	56.0	54.4	67.9	74.7	↓	↑
Tasmania	-	47.5	-	50.7	-	54.2	-	-	44.5	-	ns	-
All states/territories	67.5	67.6	70.6	69.6	70.9	65.5	57.8	57.2	66.3	67.4	↓	↑

This table includes all HIV-negative and untested/unknown status participants

Table 13: Non-HIV-positive participants tested for HIV in the 12 months prior to the survey – at least three HIV tests: GCPS 2015-2024

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
Adelaide	-	24.8	-	36.3	-	38.4	-	46.3	-	48.8	↑	ns
Canberra	26.9	-	39.9	-	53.9	-	38.7	-	-	61.2	↑	-
Melbourne	28.3	34.6	43.6	47.5	51.3	56.4	44.9	48.5	54.9	58.0	↑	↑
Perth	-	28.2	30.2	-	45.7	-	40.2	-	45.7	-	↑	-
Queensland	28.2	34.8	41.4	48.3	47.5	38.3	39.5	43.2	45.0	48.7	↑	↑
Sydney	29.3	33.4	42.2	47.4	47.4	50.3	44.9	41.6	50.6	56.1	↑	↑
Tasmania	-	19.8	-	43.2	-	28.0	-	-	36.4	-	ns	-
All states/territories	28.6	32.6	41.6	46.4	49.0	50.0	43.0	45.0	50.0	55.0	↑	↑

This table includes HIV-negative and untested/unknown status participants who had been tested for HIV in the past 12 months

Reflective of trends in HIV testing, the proportion of GCPS participants who reported any STI test in the 12 months before the survey had been increasing (from 67% in 2015 to 72% in 2019), before decreasing after the onset of COVID-19. STI testing rates remained lower than pre-pandemic levels in 2024 (70% of all GCPS participants), however there has been an increase in STI testing over the past three years. Among those who reported any STI test within the past 12 months, the proportion who reported comprehensive STI testing increased from 62% in 2015 to 75% in 2024 (Table 14). Similar trends were evident in relation to STI diagnoses in the 12 months prior to the survey. The proportion of HIV-negative participants reporting any past-year STI diagnosis increased from 14% in 2015 to 27% in 2019, before decreasing to 18% in 2021 and increasing again to 29% in 2024. The proportion of participants living with HIV reporting any past-year STI diagnosis increased from 33% in 2015 to 41% in 2020, before decreasing in 2021 and increasing again to 33% in 2024 (Table 15).

Table 14: Participants tested for STIs in the 12 months prior to the survey – comprehensive STI testing: GCPS, 2015-2024

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
Adelaide	-	55.9	-	66.1	-	57.4	-	69.1	-	72.0	↑	ns
Canberra	68.1	-	78.8	-	80.7	-	67.3	-	-	73.9	ns	-
Melbourne	60.9	65.2	72.3	73.0	74.4	78.4	68.6	74.5	80.1	78.8	↑	↑
Perth	-	60.6	63.5	-	71.0	-	72.7	-	73.8	-	↑	-
Queensland	57.7	60.2	65.4	67.9	74.6	57.9	64.2	65.7	70.9	64.7	↑	ns
Sydney	66.0	71.5	71.4	73.7	77.6	79.3	68.6	75.8	80.5	76.6	↑	ns
Tasmania	-	44.7	-	58.4	-	51.0	-	-	58.8	-	ns	-
All states/territories	62.2	64.8	70.2	71.2	75.6	74.2	68.4	72.2	77.3	74.6	↑	↑

Comprehensive STI testing is defined as self-reporting at least one anal swab, throat swab, urine sample, and blood test for syphilis in the last 12 months

Table 15: Any STI diagnosis in the 12 months prior to the survey: GCPS, 2015-2024 (all states and territories)

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
HIV- negative participants	13.8	15.9	22.7	24.3	26.6	25.4	18.3	19.7	26.3	29.2	↑	↑
Total (n)	6,191	7,509	6,993	6,518	7,284	6,308	4,840	6,078	6,800	5,243		
Participants living with HIV	33.2	30.8	39.5	39.5	39.8	40.8	26.8	25.8	29.0	32.7	↓	↑
Total (n)	654	728	747	679	723	566	564	488	511	431		

Recreational drug use

Over the past 10 years, there have been increases in the proportions of GCPS participants reporting the use of amyl nitrite (poppers), cannabis, cocaine and erectile dysfunction medication, while there has been a decrease in the proportion reporting the use of crystal methamphetamine. The proportion reporting any injecting drug use has also decreased over the past 10 years. Over the past three years, most types of drug use have increased, with increases in the proportions reporting the use of all listed drugs apart from crystal methamphetamine (Table 16).

Table 16: Participants who reported any use of selected recreational drugs in the six months prior to the survey: GCPS, 2015-2024 (all states and territories)

	2015 %	2016 %	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	2023 %	2024 %	Overall trend	Trend in last 3 years
Amyl nitrite	37.5	37.5	40.6	40.9	43.8	42.8	38.4	38.6	45.1	45.9	↑	↑
Cannabis	29.9	30.7	32.3	31.5	31.1	32.3	26.8	30.1	33.4	34.7	↑	↑
Ecstasy	20.0	19.0	20.8	19.4	20.4	20.1	12.1	14.9	19.4	24.8	ns	↑
Cocaine	16.1	15.5	18.2	18.9	21.2	22.9	15.3	19.5	22.2	23.7	↑	↑
Crystal methamphetamine	10.6	9.7	9.5	8.7	7.4	7.5	7.8	5.9	6.6	6.6	↓	ns
GHB	7.3	7.1	9.1	8.2	8.0	9.1	6.9	6.3	8.0	9.0	ns	↑
Erectile dysfunction medication (e.g., Viagra, Cialis)	17.5	18.7	19.6	21.1	21.9	22.6	24.5	21.6	25.5	26.1	↑	↑
Any injecting	4.4	4.2	3.9	3.7	3.6	3.6	4.2	3.8	3.5	3.4	↓	ns

Spotlight HIV 1 National Gay Asian Men+ Community Survey

From October to December 2023, a total of 1,132 valid survey responses were collected and further analysed, with about 81% recruited from paid Instagram (44%) or Facebook (36%) ads.

At the time of survey, about 47% were living in NSW, about 29% in Victoria, around 11% in Queensland, and approximately 4% each in ACT, South Australia and Western Australia. Less than 1% each were living in Tasmania and Northern Territory.

The average age of the participants in the 2023 round was 34 years old (range 16-80 years), with 42% of the participants being in the 30-39 years age group (the most common). This age profile is slightly older than that in the previous rounds (median age at 30 to 31 years old).

In 2023, as onshore immigration returned to the pre-pandemic level, our sample also consisted of a higher number of overseas born participants than the 2021 round. In total, 80% were themselves overseas born and 97% reported either both or one of their parents were also born overseas. About 54% reported speaking a language other than English at home, with 39% either speaking Mandarin (26%) or Cantonese (14%).

Of the overseas born participants (n=905), about 21% had been living in Australia up to four years, 27% between five to nine years and a further 52% ten or more years (living in Australia for more than five years: 43% in 2023; 55% in 2018; 58% in 2015-6). About 79% of the participants had Medicare. Among those who were Medicare ineligible, the majority had Overseas Student Health Cover.

A majority (95%) self-identified as cis-gender men and sex assigned at birth being male. A further 5% reported as non-binary in 202. Consistent with previous rounds, a majority (88%) self-identified as gay or homosexual, 11% either as bisexual or straight or heterosexual (gay or homosexual self-identification: 88% in 2021; 85% in 2018; 88% in 2015-6). About 93% of the 2023 participants indicated sexual attraction to men only and about 7% were further attracted to women or all genders.

Rather than using statistical trend analysis, we briefly describe noticeable patterns of change.

As shown in Table S1, the 2023 key behavioural indicators showed to a bounce back to the pre-pandemic level. The proportion of gay Asian male participants reporting having more than ten male sex partners in the previous six months rose to above 20% from below 10% in 2021.

There are also notable increases in the uptake of biomedical protection, that is, HIV-positive people on antiretroviral treatment to maintain sustained viral suppression whereas HIV-negative people taking PrEP before sex. Among non-HIV-positive men specifically, any PrEP use (daily, most of the days, around the time of a sexual encounter) in the previous six months has steadily increased to 38% in 2023 (an obvious upward trend). In the six months prior to survey, any condomless anal intercourse with casual partners (CLAIC) with no risk of HIV transmission through biomedical protection reached to a record high of 27%. The proportion of men reporting consistent condom use during anal intercourse with casual partners remains low (23% in 2018, 11% in 2021 and 13% in 2023). There is a slight increase in the proportion of men reporting potentially HIV-risky CLAIC, despite a dip during the pandemic (from 17% in 2018 to 10% in 2021), which was up to 14% in 2023.

For gay Asian male participants, the recoveries in engaging in frequent HIV screening (ever in lifetime, any or at least three tests in the previous 12 months) and those in having comprehensive annual STI screen are rather slow, with neither yet reaching the pre-pandemic levels. Importantly, the proportion of men self-reporting any STI annual screening with a confirmed STI diagnosis has reached to 19% in 2023,

almost back to the pre-pandemic level.

The most noteworthy progress is the record-high proportion of HIV-positive gay Asian male participants (n=55 in 2023) all reporting being on HIV treatment at the time of survey, a steady increase from 68% in 2015-6. This further demonstrated by the highest proportion of these men self-reporting as having an undetectable viral load at the time of the survey reaching 98%, from 77% in 2015-6. The outstanding high levels of almost universal HIV treatment coverage and viral suppression as a result show the effectiveness of the Australian government's nationwide, five-year scheme to provide free HIV treatments to Medicare ineligible migrants from 2022 onwards ([People ineligible for Medicare - NAPWHA](#)). See Table S1

Table S1: Gay Asian Men Community Surveys: key HIV & STI behavioural surveillance indicators, 2015–2023

	2015-6 %	2018 %	2021 %	2023 %
More than ten male sex partners in the previous six months	23	20	9	21
Having a regular male partner at the time of survey	50	52	51	57
Anal intercourse with casual male partners in the previous six months				
No partner/no anal sex		41	62	46
Consistent condom use		23	11	13
Biomedically protected CLAIC: (HIV-positive men on treatment/having an undetectable viral load or HIV-negative men on any PrEP)		19	17	27
Any potentially HIV-risky CLAIC		17	10	14
Ever tested for HIV	93	93	83	86
Comprehensive STI testing in the previous 12 months*	50	54	34	39
Any STI diagnosis in the previous 12 months	19	23	14	19
Total N	604	875	970	1,132

	2015-6 %	2018 %	2021 %	2023 %
Non-HIV-positive men				
Using any PrEP in the previous six months	5	26	35	38
HIV testing within the previous 12 months	80	78	64	64
Subtotal n	566	823	922	1,077
Non-HIV-positive men tested for HIV within the previous 12 months				
At least three HIV tests	32	49	33	40
Subtotal n	451	643	590	690
HIV-positive men				
On HIV antiretroviral treatment at the time of survey	68	83	92	100
Having an undetectable viral load at the time of survey	77	75	73	98
Subtotal n	37	52	48	55

*Comprehensive STI testing defined as self-reported as having been tested at more than three different anatomic sites, including blood test.

HIV-publication summaries

1. Chan, C., Holt, M., Smith, A. K. J., Broady, T. R., MacGibbon, J., Mao, L., Wilcock, B., Rule, J., & Bavinton, B. R. (2024). Increasing event-driven HIV pre-exposure prophylaxis use among gay, bisexual and other men who have sex with men in Australia: results from behavioural surveillance 2019–2023. *Journal of the International AIDS Society*, 27(11), e26398. <https://doi.org/https://doi.org/10.1002/jia2.26398>

HIV pre-exposure prophylaxis (PrEP) has been publicly available since 2018 in Australia as a daily regimen. In 2019, clinical guidelines were updated to support guidance on event-driven PrEP (ED-PrEP) use. We assessed trends in the PrEP dosing regimen by comparing daily PrEP use to ED-PrEP among cisgender gay, bisexual and other men who have sex with men (GBMSM). Data from repeated, cross-sectional, national behavioural surveillance surveys were analysed from 2019 to 2023 among participants not living with HIV. Logistic regression models were conducted to assess trends and compared ED-PrEP users to non-PrEP users and daily PrEP. Among 38,880 participants, overall PrEP use with any regimen increased from 27.6% in 2019 to 42.7% in 2023. Among 12,922 participants who reported PrEP use in the last 6 months, the proportion reporting ED-PrEP use increased from 7.6% in 2019 to 27.8% in 2023 with those who reported daily PrEP decreasing from 92.4% to 63.3%. In a cross-sectional sub-sample in 2022–2023 (n = 8840), compared to ED-PrEP users, non-PrEP users were less likely to have received three or more HIV tests in the last 12 months, have 2–10 male sexual partners in the last 6 months or 11 or more compared to none, or to report condomless anal intercourse with casual partners. Compared to ED-PrEP users, daily PrEP users were more likely to have received three or more HIV tests in the last year and less likely to be born overseas and lived in Australia for less than 5 years compared to being born in Australia. Monitoring of PrEP use should continue to adapt to new dosing methods and future PrEP options. As ED-PrEP use increases, further work is needed to ensure those taking ED-PrEP are taking it effectively to prevent HIV.

2. MacGibbon, J., Yu, S., Broady, T.R., Bavinton, B.R., Calabrese, S.K., Murphy, D., Kolstee, J., Clackett, S., Gordon, T., Heath-Paynter, D., Molyneux, A., Ellard, J., Heslop, A., de Wit, J., and Holt, M. (2024). Evolving attitudes to biomedical HIV prevention among gay, bisexual and queer men and non-binary people: Key findings from the PrEPARE Project 2023. Sydney: Centre for Social Research in Health, UNSW Sydney. DOI: 10.26190/bptf-jj64

The PrEPARE Project is a repeated, cross-sectional study of Australian gay, bisexual and queer men and nonbinary people's (GBQ+) attitudes to biomedical HIV prevention, particularly pre-exposure prophylaxis (PrEP) and HIV treatment as prevention (TasP). In this national online survey of GBQ+ people, the proportion of survey participants who reported they had ever used PrEP increased to 58% in 2023 from 49% in 2021, with 50% of HIV-negative and untested/unknown status participants taking PrEP at the time of the 2023 survey (up from 40% in 2021). Most current PrEP users were taking daily pills (65%), but the use of event-based PrEP dosing has increased substantially over time (from 5% in 2019 to 31% in 2023). For PrEP users, the most preferred ways to take PrEP (assuming all were available) were monthly pills (29%) and long-acting injections (26%). Among non-users, the most preferred ways to take PrEP were event-based dosing (31%) and monthly pills (28%). Belief that HIV treatment prevents

transmission was 56% in 2023 and this belief remained higher among participants living with HIV (83%), compared to PrEP users (70%), HIV-negative participants not taking PrEP (43%), and untested participants (23%). Most participants (83%) said they were familiar with the ‘Undetectable = Untransmittable’ (U=U) message, of whom 66% agreed the message was accurate. Assuming that all methods were available and equally effective, participants living with HIV indicated that their most preferred way of taking HIV treatment would be long-acting, removable implants (33%) or long-acting injections (23%). The PrEPARE Project continues to highlight evolving attitudes to HIV and STI prevention in Australia. There has been a noticeable shift toward the use of more flexible PrEP dosing strategies, such as on-demand PrEP, and a growing interest in long-acting PrEP (and HIV treatment) options. Our findings highlight diverse sexual health needs among gay, bisexual and queer men and non-binary people, underscoring the continued importance of programs that support equitable, affordable access to HIV prevention, treatment and sexual health services in Australia.

3. MacPhail, C., Manlik, K., Dews, H., Mao, L., & Rutherford, A. (2024). Ending HIV transmission in Australia: Expanding PrEP to cisgender women: A scoping review. *AIDS & Behavior*, 28, 3038–3050. <https://doi.org/10.1007/s10461-024-04386-z>

Pre-exposure prophylaxis (PrEP) availability through the Pharmaceutical Benefits Scheme provides real potential for the elimination of HIV transmission in Australia, as evidenced by a rapid decline in HIV incidence among gay and bisexual men (GBM). However, HIV elimination will not be possible without also extending PrEP to other populations, including cisgender women. We conducted a scoping review to examine the extent to which PrEP access for cisgender women has been considered in Australia. A comprehensive search across five databases, grey literature, and hand search of references was conducted. Nineteen documents were included in the final review and included both peer-reviewed journal articles and guidelines and strategies. Focused discussion of cisgender women’s use of PrEP was largely missing from the literature and, although their use of PrEP is supported in some relevant guidelines, little has been done to actively develop strategies to inform cisgender women about PrEP as a precursor to prescribing for HIV prevention. Healthcare providers’ narrow view of PrEP as being the domain of GBM further limits cisgender women’s potential access. If HIV elimination in Australia is to be a reality, we need to develop mechanisms to specifically engage with cisgender women about PrEP.

4. Saliba, B., Kang, M., Wells, N., Mao, L., Prestage, G., & Hammoud, M.A. (2024) Hiding in plain sight: Highlighting the research gap on access to HIV and other sexual health services for underrepresented gay men in developed Western countries – insights from a scoping review with a focus on Arab men. *Sexual Health* 21, SH23131.

Strategies pertaining to HIV and sexual health for gay, bisexual, and other men who have sex with men (GBMSM) have shifted focus towards underrepresented subgroups within some developed Western countries. Although emerging research exists on some subgroups, limited attention has been given to the needs of Arab GBMSM in these contexts. This paper focuses on Arab GBMSM as a case study within a scoping review, highlighting their hidden status within the broader landscape of HIV and sexual health research for GBMSM in the West. A multi-method search strategy was employed, including searching four electronic databases using several

terms within each of the following search topics: Arab, GBMSM, HIV and other sexual health services, and developed Western countries. Of the 384 articles found, only one addressed the research question and met the inclusion criteria, revealing a stark scarcity of research on access to HIV and sexual health services for this population. This review highlights a paucity of research on access to HIV and sexual health services for underrepresented GBMSM populations in developed Western countries. The literature indicates that, for Arab men, this may be due to a difficulty in participant recruitment and poor data collection efforts. By focusing on one hidden population, we aim to advocate for inclusive policies and interventions that promote equitable sexual health access for all. Addressing this research gap aligns with broader local and global HIV strategies to reduce disparities among underrepresented GBMSM populations.

5. Tieosapjaroen, W., Mao, L., Wong, H., Prankumar, S.K., Chow, E.P.F., Fairley, C.K., Phillips, T.R., Zhang, L., & Ong, J.J. (2024). Factors associated with HIV pre-exposure prophylaxis use among Asian men who have sex with men in Sydney and Melbourne, Australia: A cross-sectional study. *Lancet Regional Health Western Pacific*, 46:101071. doi: 10.1016/j.lanwpc.2024.101071.

Asian-born MSM are a priority population as Australia aims to end HIV transmission, but they report barriers to accessing PrEP and other HIV prevention methods. This study investigated factors associated with PrEP use among Asian MSM in Sydney and Melbourne, Australia, to inform strategies to improve PrEP uptake in this population. This was a sub-analysis of a community-based cross-sectional survey conducted from March to June 2021. Univariable and multivariable logistic regression analyses were performed to identify the factors associated with PrEP use in the last six months and lifetime. Latent class analyses were used to identify subgroups of Asian MSM sharing similar characteristics related to their risk practices for HIV. Overall, 870 Asian MSM were included and three latent classes were identified: 1) Asian-born MSM who recently arrived in Australia with limited English, were less likely to use PrEP and at higher risk of HIV infection (e.g., had condomless anal sex with a casual sex partner in the last six months) (4.6%); 2) Asian MSM who were at lower risk of HIV infection and less likely to use PrEP (69.3%) and; 3) Asian MSM who were at substantial risk of HIV infection and more likely to use PrEP (26.1%). Compared to Oceanian-born Asian MSM, those who were born in Southeast Asia and South Asia were less likely to ever use PrEP. Compared to Oceanian-born Asian MSM, those who were born in Southeast, Northeast Asia and South Asia were less likely to use PrEP in the last six months. To end HIV transmission in Australia, it will be necessary to develop strategies to improve PrEP access for the significant minority of Asian-born MSM who are at substantial risk of HIV infection.

6. Yu, S., Bavinton, B. R., Chan, C., MacGibbon, J., Mao, L., Vujcich, D., Broady, T. R., & Holt, M. (2024). Assessing HIV risk and the social and behavioural characteristics of gay and bisexual men who have recently migrated to Australia: An analysis of national, behavioural surveillance data 2019–2021. *Journal of the International AIDS Society*, 27(1), e26204. <https://doi.org/https://doi.org/10.1002/jia2.26204>

Overseas-born gay and bisexual men (GBM) are overrepresented in HIV diagnoses in Australia. We assessed social and sexual behaviours, and the use of HIV prevention and testing, by region

of birth and length of residence in Australia. Data were collected in national repeated, behavioural surveillance surveys conducted across Australia during 2019–2021. Logistic regression was used to identify factors that differentiated between recently arrived (<2 years) and non-recently arrived (≥ 2 years in Australia) GBM from non-English-speaking countries. Among 24,707 participants in 2019–21, 2811 (11.4%) were from high-income English-speaking countries, 714 (2.9%) were recently arrived overseas-born GBM and 3833 (15.5%) were non-recently arrived migrants. Recently arrived GBM were most likely to be born in Asia (36.1%) and Europe (21.1%). Compared with non-recently arrived GBM, recently arrived GBM from non-English-speaking countries were younger, more likely to be students, less likely to be in full-time employment, more likely to report consistent condom use, but had lower awareness and use of pre-exposure prophylaxis (PrEP), and similar levels of casual sex with a risk of HIV acquisition or transmission. Recently arrived GBM reported similar levels of lifetime HIV testing and recent HIV testing, but were much less likely to have tested at general practitioners and more likely to report testing at hospitals, at home, or community-based services. Recently arrived GBM from non-English-speaking countries reported similar levels of risk of HIV acquisition to longer-term residents in Australia, but lower levels of PrEP awareness and use, and more reliance on HIV testing services which are free or low cost. It is necessary to enhance access to HIV testing and prevention among recently arrived GBM in Australia.

Sexually transmissible infections-Executive Summary

Technologies and medications are quickly advancing in the STI prevention, treatment and care continuum. The first interview-based paper, led by Lise Lafferty, explored the acceptability of MyCheck, an online e-testing service in NSW, from client and staff perspectives. The second survey-based paper, led by Martin Holt, assessed the acceptability of doxycycline as an STI biomedical prevention drug ('doxy-PEP') in the context of antibiotic use history of concerns for antimicrobial resistance (AMR) among Australian gay and bisexual men and nonbinary people. The third interview-based paper presents a more nuanced concept of "resistance as a site of emerging and co-constitutive moral, temporal, and economic dilemmas" in STI prevention and treatment in the context of increasing concerns about AMR.

Sexually transmissible infections-publication summaries

1. Lafferty L, Rautenbach C, McNulty A, Ryder N, Slattery C, Houghton R, Kenigsberg A, Murray C, Carrington N, Patel P. (2024) Client and staff perceptions of acceptability of MyCheck: a direct-to-pathology telehealth and e-testing service for comprehensive bloodborne virus and sexually transmissible infection screening. Sex Health. doi: 10.1071/SH23194

Background Sydney Sexual Health Centre (SSHC) is the largest sexual health clinic in New South Wales (NSW), servicing clients at high risk of sexually transmissible infections and bloodborne viruses. SSHC piloted a direct-to-pathology pathway that facilitated bloodborne virus/sexually transmissible infection testing at one of the ~500 participating pathology collection centres located across NSW. This qualitative study sought to understand SSHC client and provider perspectives of acceptability of the MyCheck intervention. **Methods** Semi-structured in-depth interviews were conducted with 11 clients who underwent testing via the MyCheck pathway and eight staff members involved in implementing MyCheck. The seven components of Sekhon's Theoretical Framework of Acceptability informed this analysis. **Results** Participants broadly conveyed 'affective attitude' toward the MyCheck pathway. The telehealth intervention reduced client 'burden' and 'opportunity cost' through enabling greater testing convenience at a location suitable to them and provided timely results. Issues of 'ethicality' were raised by clients and staff as pathology centre staff were, on a few occasions, regarded as being judgmental of SSHC clients. 'Intervention coherence' issues were largely attributed to pathology centre personnel being unfamiliar with the intervention, with billing issues being a recurrent concern. Participants perceived MyCheck as an 'effective' testing pathway. SSHC staff were able to offer the intervention with ease through seamless IT integration ('self-efficacy'). **Conclusion** The MyCheck intervention was perceived by both SSHC clients and staff as an acceptable bloodborne virus/sexually transmissible infection testing pathway. However, further work is required to address stigma experienced by some clients when attending pathology collection centres.

2. Holt M, Bavinton BR, Calabrese SK, Broady TR, Clackett S, Cornelisse VJ, Yu S, Gordon T, Heath-Paynter D, de Wit JBF, MacGibbon J. (2025) Acceptability of Doxycycline Prophylaxis, Prior Antibiotic Use, and Knowledge of Antimicrobial Resistance Among Australian Gay and Bisexual Men and Nonbinary People. Sex Transm Dis. 52 (2):73-80. doi: 10.1097/OLQ.0000000000002079

Background: There is growing interest in novel sexually transmissible infection (STI) prevention strategies, including doxycycline postexposure prophylaxis (doxy-PEP). We assessed interest in

doxy-PEP and other STI prevention strategies among gay and bisexual men and nonbinary people in Australia, as well as prior antibiotic use for STI prevention, and knowledge of antimicrobial resistance (AMR).

Methods: We conducted a national, online survey in June to July 2023. Multivariable logistic regression was used to identify factors associated with the acceptability of doxy-PEP.

Results: Of 2046 participants, 26.9% had been diagnosed with an STI in the previous year.

Condoms were rated as an acceptable STI prevention strategy by 45.1% of the sample, STI preexposure prophylaxis by 54.0%, and doxy-PEP by 75.8%. Previous antibiotic use for STI prevention was reported by 7.5% of the sample, and 2.6% were currently using antibiotics for STI prevention. Over half the sample (62.1%) had some knowledge of AMR. Of those who knew something about AMR, 76.2% were concerned about it. Interest in using doxy-PEP was independently associated with previous use of antibiotics for STI prevention (adjusted odds ratio, 3.09; 95% confidence interval, 1.78-5.35; $P < 0.001$), whereas those who were concerned about AMR were less interested in it (adjusted odds ratio, 0.51; 95% confidence interval, 0.36-0.72; $P < 0.001$).

Conclusions: Doxycycline postexposure prophylaxis was highly acceptable to gay and bisexual men and nonbinary people in Australia, and few factors distinguished between interest in using it or not. We recommend community and professional discussion and education about the effective use of doxy-PEP, AMR, and who would most benefit from doxy-PEP.

3. Chandra S, Broom A, Peterie M, Ridge D, Kenny K, Lafferty L, Treloar C, Applegate T, Broom J. (2024) Emerging Dilemmas in the Age of Resistance: The Case of Sexually Transmitted Infections. *Qual Health Res.* doi: 10.1177/10497323241302668

The stage is set for a new era of precariousness in modern medicine, driven by the increasing failure of a key pharmaceutical pillar-antimicrobials. In the context of sexually transmitted infections (STIs), the rise of antimicrobial resistance is introducing urgent questions around what might constitute "best practice" in a rapidly evolving scene, including the value of asymptomatic screening (test and treat), and the consequent downstream collateral damage emerging from over-use of our diminishingly effective antimicrobial resources. Drawing on interviews with clinicians, experts, and industry representatives, we examine resistance as a site of emerging and co-constitutive moral, temporal, and economic dilemmas. Such dilemmas, as illustrated in participants' accounts, involve complexities regarding prioritization between competing health demands; doing good work while meeting business requirements; considering trade-offs between visibility and amplifying the problem; difficulties balancing presents and futures; reconciling divergent clinical opinions and expertise; and managing patient subjectivities, while considering the implications of clinical practices for resistance. Importantly, centering dilemmas in context of antibiotic-resistant STIs open greater theoretical scope to consider the challenging spaces that key actors such as clinicians and decision-makers occupy, as they attempt to curb resistance while caring for individuals and the community.

4. Storer, D., Holt, M., Paparini, S., Haire, B., Cornelisse, V.J., MacGibbon, J., Broady, T.R., Lockwood, T., Delpech, V., McNulty, A. & Smith, A.K.J. (2024). Informed, but uncertain: Managing transmission risk and isolation in the 2022 mpox outbreak among gay and bisexual men in Australia. *Culture, Health & Sexuality*, 27(1), 16–31. DOI: 10.1080/13691058.2024.2346540

In 2022, a global outbreak of mpox emerged in non-endemic countries, including Australia, predominantly affecting gay, bisexual and other men who have sex with men. Public health advice on transmission and isolation emerged rapidly from different sources, sometimes conflicting and producing uncertainty. Using the concept of ‘counterpublic health’, which acknowledges the incorporation of official science and experiences of affected communities into embodied practice, this paper investigates how people affected by mpox in Australia managed risk of transmission and navigated self-isolation. In-depth interviews were conducted with 16 people: 13 people diagnosed with mpox and three close contacts. All participants were cisgender gay and bisexual men living in Australia. Participants thought critically about public health advice, often finding it restrictive and unresponsive to the needs of people with mpox. Participants’ decisions about reducing mpox risk and isolating often drew on experiences with other infections (i.e. HIV; COVID-19) and were made collaboratively with the people closest to them (e.g. partners, friends, family) to sustain relationships. Future public health responses to infectious disease outbreaks would benefit from identifying more opportunities to formalise and embed mechanisms to obtain feedback from affected communities so as to inform responses.

Sexual Health-Executive Summary

This section begins with two important youth sexual health focused reports from Debrief Survey. The first summarised key findings in NSW (N=761 young people aged 18-29) from the 2023 round. The second reported trend analysis of key STI indicators before (the 2017-18 round, N=1,190), during (the 2021 round, N=2,054) and after the COVID pandemic (the 2023 round, N=2,338) across the whole nation. Both reports highlighted sexually active young people's engagement in both sexual practices and routine STI/HIV screening has yet to fully recover from the pre-pandemic level.

Next two interview-based papers, led by Kerryn Drysdale, focused on other sexual health topics: the roles of inclusive language in promoting cervical screening in Australia and the expansion of genomic testing in prenatal care.

Publications focused on a range of key priority populations were included in this section. One scoping review paper reported main barriers among sexually diverse Muslim men in adequately accessing HIV and STI services. Next survey-based paper focused on transgender and gender diverse people ("trans") participated in the 2018 First Australian Trans and Gender Diverse Sexual Health Survey (N=1,448). It highlighted "Sexual coercion was prevalent among participants, but help-seeking behavior was low."

A key policy advocacy paper, using a mixed methods approach to engage a range of key stakeholders who conduct health and medical research in Australia about "defining, collecting, analysing, and reporting data on sex and gender". It found that among the 20 participating organisations out of the total of 65 entities identified through desktop search, most had policies to integrate sex and gender data in health and medical research.

The final group of papers focused adopted an intersectional lens among a number of key priority groups: adolescent young students with intellectual disability and/or Autism in NSW about human papilloma virus (HPV) pro- or anti-vaccine uptake (focus groups and interviews with 40 key stakeholders); Aboriginal and Torres Strait Islander young people in regional NSW accessing sexual and reproductive health (SRH) services (interviews with 65 first nation young people); sexuality and gender diverse aboriginal young people's sexual healthcare needs assessment in NSW (interviews with 10 LGBTQ+ Aboriginal young people aged 16-24 years in NSW); the intersecting of reproductive and digital technologies in the emerging social form of identify and family (a survey of sperm/egg donor conceived people N=91 and interviews with 28 sperm donor-conceived people).

Sexual Health-publication summaries

1. Adam, P. C. G., Avasalu, R., Basheer, E, Ketsuwan, I., & de Wit, J. B. F. (2024). Sexual health-related knowledge, attitudes and behaviours among young people aged 18–29 in New South Wales, Australia. Results from the 2023 Debrief survey. Centre for Social Research in Health, UNSW Sydney, Sydney, Australia.
<https://doi.org/10.26190/unsworks/30990>

Background: Debrief is a national repeat cross-sectional study initiated in December 2017 that examines the sexuality, relationships, and sexual health of young people in Australia. This report focuses on New South Wales (NSW) findings from the third survey, conducted in August–September 2023. It explores sexual activity, knowledge of STIs and HIV, condom use, STI/HIV testing behaviours, and exposure to sexual health promotion during the 12 months following the lifting of pandemic restrictions. Findings from the third survey were compared with data from the first survey to determine whether behaviours had returned to pre-COVID-19 levels. **Methods:** The 2023 survey recruited 761 participants aged 18–29 from NSW via a Qualtrics panel. Participants provided data on their sexual activity, partner types and numbers, sexual health-related knowledge and attitudes, condom use, STI/HIV testing behaviours, and exposure to sexual health promotion. Weighting procedures were applied to enhance data representativeness and comparability. Logistic regression analyses were conducted to compare the 2023 findings with those from the first survey. **Results:** Sexual activity remained below pre-pandemic levels, with 79.8% of participants reporting any sexual partners in the past 12 months and 31.9% reporting casual partners. Condomless intercourse was reported by 45.8% of participants with regular partners and 18.6% with casual partners in the past 12 months, both estimates significantly lower than pre-pandemic levels. Nevertheless, condomless sex remained common among participants with regular partners (62.7%) and casual partners (58.5%). Testing rates remained notably low, with only 19.8% of participants tested in the past 12 months, a substantial decline from 35.1% compared to the first Debrief survey. This deficit persisted even after accounting for reductions in sexual activity and risk-taking behaviours. **Conclusion:** The survey highlights the enduring impact of the pandemic on sexual health behaviours among young adults in NSW. While population-level sexual risk has decreased, those engaging in sexual activity—including casual sex—remain at significant risk. Testing rates are low and cannot be solely attributed to reduced sexual activity. Targeted interventions are essential to address the testing deficit and re-establish pre-pandemic sexual health routines.

2. Adam, P. C. G., Ketsuwan, I., & de Wit, J. B. F. (2024). Trends in sexual health-related behaviours among young adults in Australia: results from the repeat Debrief Survey on the short-term and longer-term effects of COVID-19. Centre for Social Research in Health, UNSW Sydney, Sydney, Australia.
<https://doi.org/10.26190/unsworks/30989>

Background: Debrief is a repeat cross-sectional study investigating the sexuality, relationships, and sexual health of young people in Australia. Conducted in three editions—2017–2018 (S1), 2021 (S2), and 2023 (S3)—the study captures data from before, during, and after the COVID-19 pandemic, which significantly impacted young people's sexual and sexual health-related behaviours. This report examines the short- and long-term effects of COVID-19 on these behaviours by comparing sexual activity, STI/HIV risk, and STI/HIV testing behaviours at S1, S2, and S3. The objective was to assess the extent to which various behaviours returned to pre-

pandemic levels. Methods: Data were collected online from participants aged 18–29 across three survey waves (S1: 1,190 participants; S2: 2,054 participants; S3: 2,338 participants). Respondents reported their sexual activity, partner types and numbers, condom use, testing for STIs or HIV, and exposure to sexual health promotion. Weighting procedures were applied to enhance data comparability and representativeness. Logistic regression analyses compared behaviours between pairs of surveys and assessed whether the decline in STI/HIV testing observed in S3 persisted after accounting for reductions in sexual activity and risk-taking. Results: Sexual behaviours and testing were less frequent during the pandemic (S2) compared to pre-pandemic levels (S1), with partial recovery by 2023 (S3). However, in S3, a range of behaviours remained significantly lower than in S1, including lifetime number of sex partners, number of sex partners in the past 12 months, condomless sexual intercourse with regular partners, sex with casual partners, and condomless sexual intercourse with casual partners, and STI/HIV testing. The deficit in testing persisted after controlling for reductions in sexual activity and risk-taking. Conclusion: By September 2023, the sexual behaviours and STI/HIV testing rates of young Australians had not fully reverted to pre-pandemic levels. The deficit in testing over time persisted independently of the observed reductions in sexual activity and risk-taking. Renewed efforts are needed to (re-)engage young people in sexual health and STI/HIV testing.

3. Drysdale K, Creagh NS, Nightingale C, Whop LJ, Kelly-Hanku A. (2024) Inclusive language in health policy - a timely case (study) of cervical screening in Australia. *Health Sociol Rev.* 33 (3):325-341. doi: 10.1080/14461242.2024.2356868

Language is important in health policy development. Policy changes in Australia to increase cervical screening offers a timely case example to explore the function of inclusive language in health policy. Gender and sexuality diverse people with a cervix have been largely invisible within health promotion programs, which has led to reduced awareness of, and access to, cervical screening. Twenty-eight semi-structured interviews were conducted with 29 key informants between April and October 2022 about the role of inclusive language in cervical screening policy, promotion, and delivery in the context of a national program to promote cervical screening. Three themes were identified from what key informants believed to be the role of inclusive language: (1) the common goal of inclusive language as policy advocacy for broader inclusivity; (2) the inevitable partiality of inclusive language in policy as an opportunity to start conversation; and (3) policy as a bridge between essential but diffuse components of the health sector with multidirectional influences. Inclusive language was seen to operationalise equity in health policy within the broader aim of eliminating cervical cancer among under-screened populations.

4. Drysdale, K., Scully, J. L., Kint, L., Laginha, K. J., Hodgson, J., Holmes, I., ... Newson, A. J. (2024). The salience of genomic information to reproductive autonomy: Australian healthcare professionals' views on a changing prenatal testing landscape. *New Genetics and Society*, 43 (1). <https://doi.org/10.1080/14636778.2024.2332310>

Genomic testing in prenatal care is rapidly advancing and it is now possible to obtain an entire fetal genome via a blood test administered in early pregnancy. In the pursuit of reproductive autonomy, more tests are being offered to more people, for an ever-increasing range of indications. Health professionals who provide pregnancy care are at the vanguard of prenatal testing, yet their views on the impact of technology advancements remain under-explored. Qualitative interviews with Australian healthcare professionals revealed that they value

prenatal testing for its information-giving potential. However, the rationale underpinning testing reveals a tension between professionals' desire for certainty and patients' expectation that they will be reassured. Coupled with the greater salience of genomic information over other forms of knowledge in prenatal care, we suggest that the unchecked pursuit of information by way of genomic technologies in prenatal testing may paradoxically constrain reproductive autonomy in practice.

5. Noor MN, Shaw S, Linton J, Lorway R. (2024) Barriers to sexual health care for sexually diverse Muslim men: a scoping review. *Sex Health*. doi: 10.1071/SH24022

Sexually diverse Muslim men (SDMM) are seen to present later and with more advanced symptoms of HIV and other sexually transmitted infections (STIs). The limited access to sexual healthcare services is attributed to the stigma associated with their multiple intersecting identities. We conducted a scoping review to synthesise research on barriers impeding SDMM's access to sexual health care. We used Arksey and O'Malley's five-stage framework as the methodology for the review. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses' extension for scoping reviews, was used as a guide for the presentation of the results. Searches conducted in EBSCOhost, Scopus, MEDLINE, Embase, CINAHL, Global Health, and Google Scholar yielded 1382 results, of which 18 studies were deemed eligible for this review. Bronfenbrenner's socioecological model was employed as a framework to analyse the studies. Through analysing the eligible studies, we identified factors operating at three different levels that can impede SDMM's access to sexual health care. Limited awareness and low-perceived risk of HIV/STIs, coupled with the fear of sexual identity disclosure might act as individual-level barriers to sexually diverse Muslim men's access to sexual health care. The experiences of discrimination within clinical settings were presented as a healthcare system-related issue discouraging SDMM from revisiting those services. Heteronormative and religious ideologies, homophobic government programs, and poverty might manifest in the more intimate domains of healthcare delivery, creating hostile spaces for SDMM. Intensive research and advocacy efforts are required to improve SDMM's access to sexual health care, which can reduce their risk of HIV/STIs.

6. Simpson PL, Callander D, Haire B, Pony M, Rosenberg S, Duck-Chong L, Holt M, Cook T. (2024) Factors Associated with Transgender and Gender Diverse People's Experience of Sexual Coercion, and Help-Seeking and Wellbeing Among Victims/Survivors: Results of the First Australian Trans and Gender Diverse Sexual Health Survey. *LGBT Health*. 11 (5):370-381. doi: 10.1089/lgbt.2023.0146

Purpose: Our study examined factors associated with transgender and gender diverse ("trans") people's experience of sexual coercion, as well as the factors associated with help-seeking and wellbeing among victims/survivors. Methods: We analyzed cross-sectional data from the first Australian Trans and Gender Diverse Sexual Health Survey, conducted in 2018. Logistic regressions were undertaken to identify factors associated with sexual coercion, help-seeking, and wellbeing. Results: Of the sample of 1448 participants, 53.4% had been sexually coerced, which was associated with older age, Aboriginal or Torres Strait Islander descent, nonbinary gender, being presumed female gender at birth, currently living publicly some or all the time as their affirmed gender, having regular sex, and use of drugs to enhance or alter sexual experiences. Protective factors included having a higher income and access to gender affirming care. Help-seeking was reported among 49.5% of victims/survivors and was associated with having more trans friends. Wellbeing among victims/survivors was associated with being older, residing in regional/remote areas, having higher levels of education and annual income, being

presumed female gender at birth, having stronger satisfaction with one's sex life, and good health care access. Wellbeing was not associated with help-seeking. Conclusion: Sexual coercion was prevalent among participants, but help-seeking behavior was low. Protective factors identified underscore the importance of socioeconomic supports, access to health and gender affirming care, and peers. Accessible peer-led and culturally safe preventive and trauma-focused supports should also be considered for trans people who experience sexual coercion.

7. Carcel, C., Vassallo, A., Hallam, L., Shanthosh, J., Thompson, K., Halliday, L., Anderst, J., Smith, A.K., McKenzie, B.L., Newman, C.E., Bennett-Brook, K., Wainer, Z., Woodward, M., Norton, R. and Chappell, L. (2024), Policies on the collection, analysis, and reporting of sex and gender in Australian health and medical research: a mixed methods study. *Med J Aust*, 221: 374-380.
<https://doi.org/10.5694/mja2.52435>

Objective To explore the policies of key organisations in Australian health and medical research on defining, collecting, analysing, and reporting data on sex and gender, and to identify barriers to and facilitators of developing and implementing such policies.

Study design Mixed methods study: online planning forum; survey of organisations in Australian health and medical research, and internet search for policies defining, collecting, analysing, and reporting data by sex and gender in health and medical research.

Setting, participants Australia, 19 May 2021 (planning forum) to 12 December 2022 (final internet search).

Main outcome measures Relevant webpages and documents classified as dedicated organisation-specific sex and gender policies; policies, guidelines, or statements with broader aims, but including content that met the definition of a sex and gender policy; and references to external policies.

Results The online planning forum identified 65 relevant organisations in Australian health and medical research: twenty participated in the policy survey. Seven organisations reported at least one relevant policy, and six had plans to develop or implement such policies during the following two years. Barriers to and facilitators of policy development and implementation were identified in the areas of leadership, language and definitions, and knowledge skills and training. The internet search found that 57 of the 65 organisations had some form of sex and gender policy, including all ten peer-reviewed journals and five of ten research funders; twelve organisations, including eight peak body organisations, had published dedicated sex and gender policies on their websites.

Conclusion Most of the organisations included in our study had policies regarding the integration of sex and gender in health and medical research. The implementation and evaluation of these policies is necessary to ensure that consideration of sex and gender is adequate during all stages of the research process.

8. Carter A, Klinner C, Young A, Strnadová I, Wong H, Vujovich-Dunn C, Newman CE, Davies C, Skinner SR, Danchin M, Hynes S, Guy R. (2024) "I Thought It Was Better to Be Safe Than Sorry": Factors Influencing Parental Decisions on HPV and Other Adolescent Vaccinations for Students with Intellectual Disability and/or Autism in New South Wales, Australia. *Vaccines* 12 (8):922. doi: 10.3390/vaccines12080922

The uptake of human papilloma virus (HPV) and other adolescent vaccinations in special schools for young people with disability is significantly lower than in mainstream settings. This study explored the factors believed to influence parental decision making regarding vaccine uptake for students with intellectual disability and/or on the autism spectrum attending special

schools in New South Wales, Australia, from the perspective of all stakeholders involved in the program. Focus groups and interviews were conducted with 40 participants, including parents, school staff, and immunisation providers. The thematic analysis identified two themes: (1) appreciating diverse parental attitudes towards vaccination and (2) educating parents and managing vaccination questions and concerns. While most parents were described as pro-vaccination, others were anti-vaccination or vaccination-hesitant, articulating a marked protectiveness regarding their child's health. Reasons for vaccine hesitancy included beliefs that vaccines cause autism, concerns that the vaccination may be traumatic for the child, vaccination fatigue following COVID-19, and assumptions that children with disability will not be sexually active. Special school staff regarded the vaccination information pack as inadequate for families, and nurses described limited educational impact resulting from minimal direct communication with parents. More effective communication strategies are needed to address vaccine hesitancy among parents with children with disability.

9. Whitford K, Whybrow B, Haire B, Nikitas A, Williams S, Monaghan R, Lafferty L. (2024) Sexual and Reproductive Health Service Access among Aboriginal and Torres Strait Islander Young People in Regional NSW, Australia, *Health & Social Care in the Community*, <https://doi.org/10.1155/2024/1845971>

Owing to the historical and ongoing impacts of colonisation, there is a large health equity gap in sexual and reproductive health (SRH) outcomes between Aboriginal and Torres Strait Islander peoples and non-Indigenous populations. Whilst qualitative research has identified the barriers and enablers to sexual healthcare engagement among young Aboriginal and Torres Strait Islander people in remote settings, little is known about the ways in which young people navigate sexual healthcare in a regional setting. This study aims to address this gap. Sixty-five young (aged 15–29) Aboriginal and Torres Strait Islander people participated in semi-structured interviews across three regional communities in New South Wales, Australia. The candidacy framework informed this analysis. A large proportion of participants expressed having agency and resources to attend health services for SRH needs (primarily STI testing and contraception). Women in particular described being supported by social networks to access SRH services. Male participants were less likely to identify their own candidacy for healthcare. Services that were culturally safe and had trustworthy, nonjudgemental staff and a feeling of community were easier to access (more permeable). Factors that decreased accessibility were confidentiality concerns, difficulty making appointments, and lack of visibility of services, or what they offer. Using the candidacy framework, this study identified the importance of culturally safe service provision, reducing barriers to accessing appointments and the provision of nonjudgemental care in engaging young Aboriginal and Torres Strait Islander people in SRH care. This study also highlighted the various strategies and actions that young Aboriginal and Torres Strait Islander people are already taking to protect their sexual health and that of their partners.

10. McCormack H, Dickson M, Harrington T, Garay M, Whybrow R, Mooney-Somers J, Aggleton P, Lafferty L, Mitchell E, Morris J, Haire B. (2024) Sexual healthcare to meet the needs of sexuality and gender diverse aboriginal young people: imagined possibilities. *Cult Health Sex.* 24:1-16. doi: 10.1080/13691058.2024.2394649

In Australia, Aboriginal young people who are lesbian, gay, bisexual, trans, queer or otherwise sexuality and gender diverse (LGBTQ+) are recognised within several overlapping priority

populations in state and federal sexually transmissible infection and HIV strategies. However, limited research has documented their unique sexual health experiences, needs and preferences. In this qualitative study, semi-structured interviews were conducted with 10 LGBTQ+ Aboriginal young people aged 16-24 years in New South Wales. Interviews incorporated questions about service access, positive and negative experiences and self-determined healthcare priorities. We conducted a strengths-based thematic analysis to understand the issues of greatest importance in sexual healthcare for participants. Using the framework of 'imaginaries', we explored how participants imagined sexual healthcare that would meet their individual and cultural needs. The dominant imaginary centred on respect, representation and the as-yet-unrealised possibility of sexual healthcare designed by and for people who shared the intersection of Aboriginal and LGBTQ+ experience. We identified individual-level, service-level and societal-level factors influencing this imaginary, including relationships, accessibility and experiences of racism. Analysing the imaginaries constructed by LGBTQ+ Aboriginal young people of empowering, culturally safe sexual healthcare that is 'for them' provides insight into potential service design to improve sexual health outcomes for this population.

11. Newton G, Drysdale K, Newman CE. (2024) Embodied sociotechnical imaginaries: how donor-conceived people imagine identity, family and reprodigital futures beyond regulation. *Front Glob Womens Health*. 11(4):1221913. doi: 10.3389/fgwh.2023.1221913

Sociological scholarship has begun to explore imaginaries of family and reproduction, yet less work has focused on the emerging social form of the donor family. In this article, we consider the embodied sociotechnical imaginaries of donor-conceived people, exploring their reflections, judgements, hopes, and predictions regarding donor conception. Combining reflexive thematic analysis of free-text survey responses from sperm donor-conceived (n = 90) and egg donor-conceived (n = 1) and data from semi-structured interviews with sperm donor-conceived people (n = 28), conceived in both clinical and non-clinical contexts in Australia, we analyse donor-conceived people's imaginings of family, identity, and the practice of donor conception in the digital age. Our analysis centres the donor-conceived body that imagines, and in doing so, highlights the entanglements of reproductive and digital technologies, and the humans and institutions that drive their uptake. We argue that leveraging the imaginative and political capacities of donor-conceived people is a productive approach that illuminates possible (re)directions of the assisted reproduction industry as well as illustrating potential policy futures.

Stigma indicators-Executive Summary

Stigma acts as a significant barrier to health care, including testing, treatment, and broader health care access, particularly for marginalised communities. The Australian BBV and STI strategies each contain objectives to “eliminate the negative impact of stigma, discrimination, and legal and human rights issues on people’s health”. Since 2016, the Stigma Research Stream at CSRH has periodically monitored experiences and the expression of stigma and discrimination towards population groups affected by BBVs and STIs. This research stream also includes a focus on informing the development, implementation, and evaluation of interventions to address stigma and discrimination (especially within health care contexts), with the goal of improving quality of care and reducing barriers to accessing appropriate health care services.

Priority population groups for this research include culturally and linguistically diverse people, men who have sex with men, people who inject drugs, people living with HIV, people living with hepatitis B, people living with hepatitis C, people who engage in sex work, and people with STIs. This Stigma Indicators Monitoring Project has also periodically measured the expression of stigma towards these priority groups by the general public and health care workers. A single Stigma Indicator item has been routinely embedded in surveys, with each priority group surveyed every 2-3 years. Recruitment and methodological procedures have been refined over time, with consistent methods now being utilised with each wave of data collection among each participant group.

Over time, the proportion of men who have sex with men reporting any past-year experience of stigma in relation to their sexual orientation has fluctuated, with a generally decreasing trend (particularly since 2018; see Table 1). Similarly, the proportion of people living with HIV reporting any experience of stigma in the past year has decreased over time (Stigma Table 1).

Conversely, reported experiences of stigma have not significantly changed among people who inject drugs or people diagnosed with hepatitis C. The proportion of surveyed sex workers who reported any past-year experience of stigma or discrimination increased from 96% in 2020 to over 98% in 2024 (Stigma Table 1).

Stigma Table 1. Past-year experiences of stigma or discrimination among priority population groups

%	2016 ¹	2018	2020	2021	2022	2023	2024	Trend
Sexual orientation	64.3	82.1	73.9	51.6	-	56.2	-	↓
Injecting drug use	58.1	81.1	-	80.1	-	76.8	-	ns
HIV	73.5	56.5	-	-	36.6	-	-	↓
Hepatitis C	42.3	52.0	-	51.8	-	52.4	-	ns
Sex work	-	-	95.6	-	96.7	-	98.3	↑

¹ Participants were able to answer “Not applicable” to the Stigma Indicator item in 2016. This response option was removed in subsequent rounds of data collection. Therefore, comparisons from 2016 should be interpreted cautiously.

Compared with overall experiences of stigma and discrimination, survey participants have consistently reported less frequent negative treatment by health care workers over time. However, these negative experiences in health care settings remain prevalent. The proportions of men who have sex with men, people living with HIV, and people diagnosed with hepatitis C

who reported being treated negatively by health care workers in the previous year have all decreased over time, however, the proportion of people who inject drugs reporting negative treatment by health care workers has not significantly changed over time (Stigma Table 2). Similarly, the proportion of sex workers who reported being treated negatively remained stable between 2020 and 2024, with over 90% indicating this had occurred within the previous year.

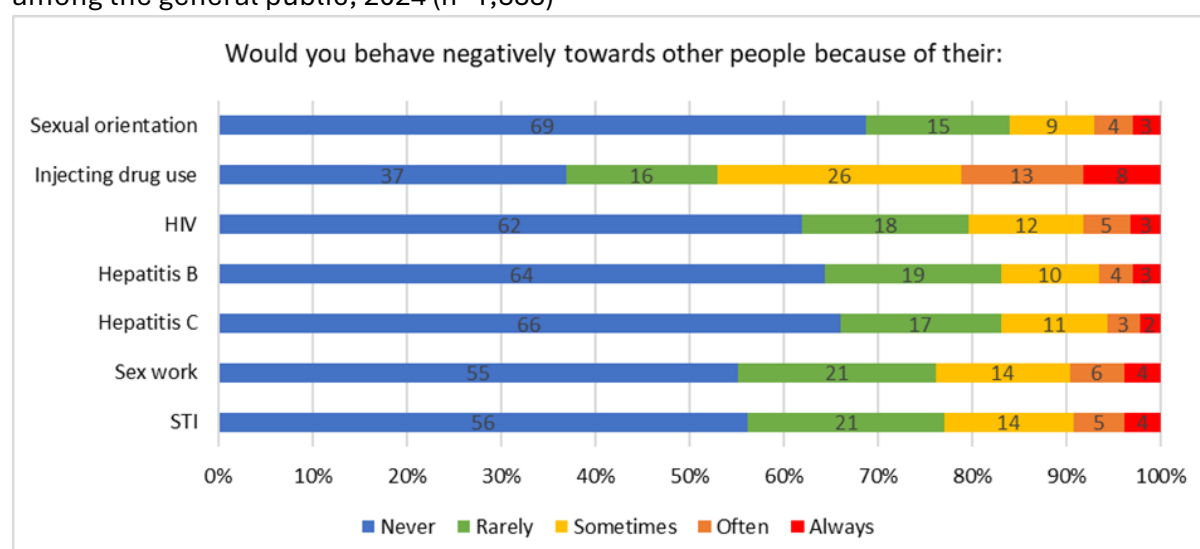
Stigma Table 2. Past-year experiences of negative treatment by health care workers among priority population groups

%	2016 ¹	2018	2020	2021	2022	2023	2024	Trend
Sexual orientation	23.4	32.7	30.3	26.8	-	24.9	-	↓
Injecting drug use	66.4	70.9	-	72.2	-	68.9	-	ns
HIV	51.4	33.1	-	-	29.8	-	-	↓
Hepatitis C	64.5	-	-	55.6	-	48.5	-	↓
Sex work	-	-	91.5	-	88.0	-	90.6	ns

¹ Participants were able to answer “Not applicable” to this survey item in 2016. This response option was removed in subsequent rounds of data collection. Therefore, comparisons from 2016 should be interpreted cautiously.

The continued prevalence of stigma and discrimination towards population groups affected by BBVs and STIs is further reflected in data collected in surveys of the general public and health care workers. The most recent findings from the general public show that 63% indicated they would behave negatively towards other people because of their injecting drug use (including 21% who would ‘often’ or ‘always’ do so), while a smaller proportion (31%) would behave negatively towards others because of their sexual orientation. Between 34-45% of participants reported that they would behave negatively towards other people because of their HIV, hepatitis B, hepatitis C, sex work, or STIs (Stigma Figure 1). Between 2017 and 2024, the proportions of participants who reported that they would behave negatively towards other people because of their injecting drug use, HIV, hepatitis B, hepatitis C, sex work, or STI all decreased, while the proportion who would behave negatively towards other people because of their sexual orientation was stable over time (Stigma Table 3). It should be noted that different recruitment strategies were utilised for each survey of the general public, resulting in different demographic profiles. Differences in self-reported likelihood of behaving negatively towards other people over time should therefore be interpreted cautiously. Despite this limitation in assessing trends over time, the proportions of participants who self-report that they would behave negatively towards population groups affected by BBVs and STIs highlight the continued need to address stigma and discrimination in the community.

Stigma Figure 1. Self-reported likelihood of behaving negatively towards other people among the general public, 2024 (n=1,555)



Broady, T., Brener, L., Cama, E., Xie, Y., & Treloar, C. (2024). Stigma snapshot: General public 2024. Sydney: Centre for Social Research in Health, UNSW Sydney. <https://doi.org/10.26190/unsworks/30441>

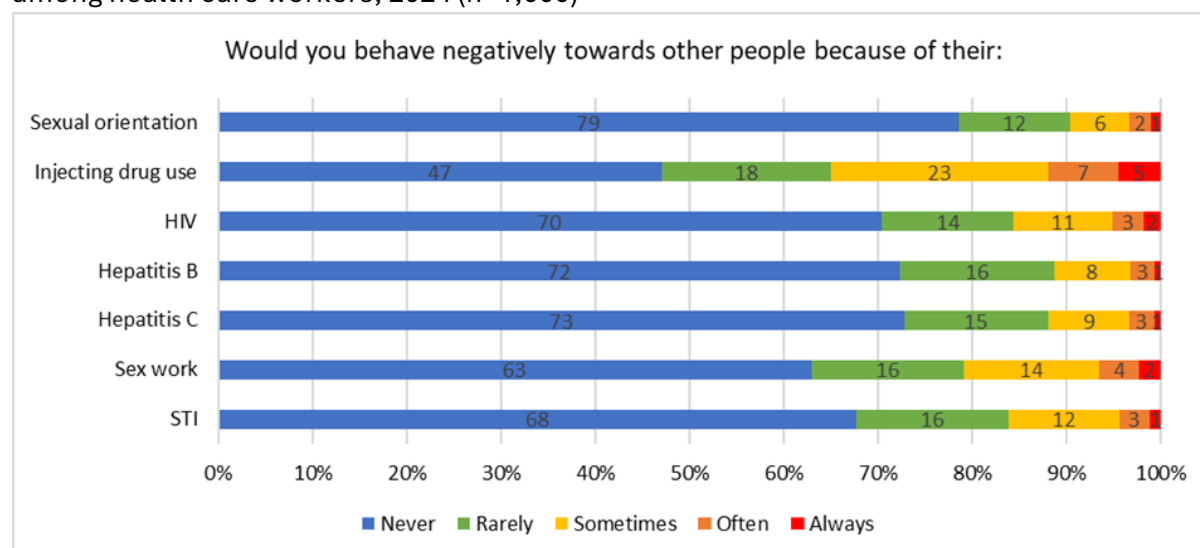
Stigma Table 3. Proportions of the general public who self-report that they would behave negatively towards others

%	2017	2020	2021	2024	Trend
Sexual orientation	37.8	17.4	39.9	31.3	ns
Injecting drug use	85.7	72.5	78.5	63.1	↓
HIV	52.3	29.6	50.4	38.1	↓
Hepatitis B	49.8	28.7	48.6	35.6	↓
Hepatitis C	50.5	30.0	50.2	34.0	↓
Sex work	64.4	39.0	53.7	44.8	↓
STI	58.3	42.3	61.0	43.8	↓

In 2024, health care workers were less likely than the general public to report that they would behave negatively towards other people because of each of the listed identities, behaviours, or health conditions. However, the results shown in Stigma Figure 2 remain cause for concern, particularly given the context of health care provision. About two-thirds of surveyed health care workers indicated that they would behave negatively towards people because of their injecting drug use, with more than 1 in 10 (12%) stating that they would ‘often’ or ‘always’ do so. The proportions who would behave negatively towards other people because of their HIV, hepatitis B, hepatitis C, sex work, or STIs ranged from 32-37%, and 21% of participants would behave negatively towards others because of their sexual orientation. Between 2016 and 2024, the proportions of health care workers reporting that they would behave negatively towards people from each of the listed priority population groups all increased, with the exception of people who inject drugs (for whom the trend over time was not statistically significant; Stigma Table 4). However, it must be noted that recruitment approaches differed across the surveys. For example, participants in 2016 were recruited through professional networks of health care workers employed in the BBV field, while the 2018 sample was recruited through social media advertising. Since 2021, the samples have been recruited via market research panels (coordinated by Qualtrics) and therefore represent the most generalised samples of health care

workers recruited for this study. Since these standardised recruitment methods have been implemented, the proportion of health care workers self-reporting that they would behave negatively towards others because of their sexual orientation has remained stable, while the proportions who would behave negatively to all of the other priority population groups have decreased (Stigma Table 4). The differing profiles and professional backgrounds of participants in each sample are likely to have influenced their survey responses, and this should be taken into account when interpreting trends over time.

Stigma Figure 2. Self-reported likelihood of behaving negatively towards other people among health care workers, 2024 (n=1,000)



Broady, T., Brener, L., Cama, E., Xie, Y., & Treloar, C. (2024). Stigma snapshot: Health care workers 2024. Sydney: Centre for Social Research in Health, UNSW Sydney. <https://doi.org/10.26190/unsworks/30442>

Stigma Table 4. Proportions of health care workers who self-report that they would behave negatively towards others

%	2016 ¹	2018	2021	2022	2024	Trend since 2021	Trend over time
Sexual orientation	12.2	11.0	23.3	18.5	21.4	ns	↑
Injecting drug use	35.7	56.3	69.1	69.9	53.0	↓	ns
HIV	6.2	22.3	37.2	32.2	29.6	↓	↑
Hepatitis B	8.2	19.0	34.0	28.3	27.7	↓	↑
Hepatitis C	10.2	20.1	36.3	29.7	27.2	↓	↑
Sex work	14.4	30.7	45.6	46.6	37.1	↓	↑
STI	-	24.7	42.7	39.8	32.3	↓	↑

¹Participants were able to answer “Not applicable” to this survey item in 2016. This response option was removed in subsequent rounds of data collection. Therefore, comparisons from 2016 should be interpreted cautiously.

Results from the Stigma Indicators Monitoring Project show that stigma directed towards population groups affected by BBVs and STIs persists throughout the Australian community and in health care settings. While there are some positive indications of stigma being experienced less frequently by some groups in certain contexts, there are others for whom these

experiences have not changed (or have even become more prevalent) over time. There remains an urgent need to develop and foster inclusive approaches to health care, including addressing stigma at structural levels as well as challenging stigmatising attitudes held by individuals. As outlined in the following Snapshot sections, recent developments such as the Tackling Stigma Conference, a new international network to tackle stigma in health care, and the Combating Stigma short course have created new opportunities for collaboration with communities and across sectors to share learnings, build capacity, and develop new and innovative approaches to addressing stigma towards all affected communities.

Spotlight Stigma 1: Tackling Stigma Conference 2024

The Centre for Social Research in Health hosted the inaugural Tackling Stigma Conference at UNSW Sydney, 21-22 November 2024. The conference focused on cross-cutting and novel approaches to overcoming stigma as a barrier to health care and promoted conversations regarding systemic and structural issues that contribute to experiences of stigma. It was attended by approximately 280 people each day, and involved 112 presentations, five workshops, four keynote speeches, two living/lived experience panel discussions, and speed geek and networking events.

Presentations on stigma in health care settings covered topics related to:

- HIV, other blood borne viruses, and sexually transmitted infections
- substance use, including foetal alcohol spectrum disorder
- mental health, suicide, and self-stigma
- sexual practices, including sex work
- reproductive health, including abortion
- chronic illness, including diabetes and smoking-related respiratory diseases
- culturally and linguistically diverse communities, Indigenous peoples, and LGBTIQ+ communities
- other personal characteristics, including older age, weight, disability, public housing, and incarceration
- intersectional stigma

Discussions of stigma canvassed a range of issues, including language, power, the media, policy, laws, health service delivery, health care practices, stigma interventions, peer workers, and promoting the leadership of people with living/lived experiences in creating change. The breadth and depth of the conference content was well received, as reflected in the feedback received below (from two scholarship recipients):

“The sessions were the perfect duration, and the topics were wonderfully diverse. Weeks later, I am still invigorated to keep learning about the impact of stigma and continue increasing my skills to support people, including myself.”

“The unique framing of this conference brought together so many different disciplines, highlighting stigma's insidious and structural nature and devastating extent of impact. While the content sometimes left my heart heavy, there was something very special about seeing so many passionate and empathetic people fighting this very important battle.”

Staff from the Centre for Social Research in Health, the Social Policy Research Centre, and the Kirby Institute met over 15 months to plan the conference. A community advisory committee, comprised of lived experience representatives of community organisations, provided guidance particularly with respect to the event program, scholarships, and developing the conference care protocol. Twenty-five scholarships were awarded to people with living/lived experiences, which included travel and accommodation for nine interstate/rural recipients. Sponsorship from Gilead Sciences and ViiV Healthcare assisted in covering expenses related to scholarships, keynote speakers, panel members, Auslan interpreters, and community advisory committee participation. Additional funding from UNSW Ageing Futures Institute, Kirby Institute, and ASHM assisted in providing the conference workshops and symposia. Planning

for the next conference (to be held in 2026) is underway, and we are excited to build on our achievements in leading and collaborating with communities to reduce stigma in health care.

Tackling Stigma Conference website: <https://www.unsw.edu.au/research/csrh/tackling-stigma>

Conference highlights video: <https://www.youtube.com/watch?v=b5alpVFt4nw>

Spotlight Stigma 2 A new international network to Tackle Stigma in Health Care

Many health conditions, identities and practices are stigmatised, and many people are wary about how they might be judged in health care. However, efforts to reduce stigma are typically silo-ed and approach stigma reduction on a condition-by-condition basis. There is opportunity to build coalitions across areas of expertise and amplify calls for greater research and action to reduce stigma in health care.

In 2025 a new network will be launched to build on the momentum of the 2024 CSRH Tackling Stigma conference. Presentations at the conference covered a broad range of issues, but there was a commonality in our mission: that stigma of all forms should be eradicated in health care.

The aim of this initiative is to create a global network of people dedicated to combating stigma in healthcare. With an international reach, this network will provide a platform for researchers, people with lived experience, health workers, policy makers, and advocates to learn from one another and create a larger advocacy base for change.

The network will operate a dedicated website, profile stigma reduction champions, deliver regular newsletters that share information about publications and events, and provide a means for people to connect and learn from each other. Preferred content formats and platforms for connection.

Spotlight Stigma 3: Combating Stigma: Strategies for Inclusive Health Services Short Course

The Centre for Social Research in Health (CSRH), in partnership with the ADA Short Courses team, launched its inaugural short course, Combating Stigma: Strategies for Inclusive Health Services, this year following extensive development in 2022/23. Designed to translate evidence-based research and lived experience case studies into accessible learning, the course extends the reach and impact of key findings, reinforcing CSRH as a leader in social and behavioural health.

Short courses serve as an essential bridge between research and practice, making complex insights accessible to professionals, policymakers, and advocates. This course guides participants through the theoretical foundations of stigma, its effects on healthcare, and strategies to identify and address stigmatising language, practices, and policies. By the end of the course, they are equipped to implement workplace initiatives that support inclusive service delivery and improved healthcare equity.

The sold-out first iteration reflects a growing demand for education on stigma and health inequities. To ensure equal opportunity for participation, a tiered pricing model was implemented, making the course accessible to professionals across different sectors. Additionally, discounted rates were offered to further support inclusion, ensuring financial barriers did not prevent engagement with the content.

By focusing on reducing health inequities, the course aligns with the ADA 2051 Foundational strategy goal to lead by example in advancing equity and well-being. It also speaks to the UN Sustainable Development Goals (SDGs), specifically Goal 3: Good Health and Well-being and Goal 10: Reduced Inequalities, by equipping participants with practical tools to reduce stigma in healthcare environments.

With cutting-edge knowledge and a strong social impact focus, the course marks a significant step toward reducing stigma in healthcare settings and improving equitable access to high-quality care. As it expands, it will continue to shape policy, practice, and systemic change, strengthening CSRH's commitment to health equity.

Stigma-publication summaries

1. Brener, L., Cama, E., Broady, T., Harrod, M. E., Holly, C., Caruana, T., Beadman, K., & Treloar, C. (2024). Experiences of stigma and subsequent reduced access to health care among women who inject drugs. *Drug and Alcohol Review*, 43(5), 1071–1079. <https://doi.org/10.1111/dar.13806>

Research into stigma and injecting drug use has primarily focused on male and there is little research focused on the unique experience of women who inject drugs. As part of a sub-analysis of a broader national sample on people who inject drugs, this study focused on 232 women within that sample who inject drugs. This study used survey methods to assess reduced access to health care due to stigma among a sample of women who inject drugs. Women (n = 232) completed a survey as part of a broader national study of people who inject drugs. Only 46 (19.9%) women reported that they had not experienced any injecting drug use-related stigma in the past year and most commonly noted 'sometimes' experiencing injecting-related stigma (36.8%) with more than 75% of women reporting that health workers had treated them negatively because of their injecting drug use. Most women undertook strategies to prevent experiencing stigma, such as not disclosing drug use to a health worker (81.3%), not attending follow-up appointments (76.7%) and delaying accessing health care (76.8%). Women with lower levels of personal wellbeing, who had experienced poorer treatment by health workers, had engaged in greater past month injecting, were employed and identified as lesbian, gay, bisexual, transgender or queer (LGBTQ) reported more reduced access to health care. Stigma has particular concerns for women who inject drugs. This research highlights the importance of understanding the impact of stigma in impeding and preventing health care access for this particular group. Public health interventions should focus on addressing the systemic factors that reduce health care access for women who inject and take account of the impact of stigma in diminishing the quality and accessibility of health care for this group.

2. Brener, L., Caruana, T., Cama, E., Gilford, C., Crawford, S., Capell-Hattam, T., & von Hippel, C. (2024). Stigma by association among alcohol and other drug and harm reduction workers: Implications for workplace outcomes. *Drug and Alcohol Review*, 43(7), 2035–2044. <https://doi.org/10.1111/dar.13861>

Stigma by association refers to circumstances where people experience discrimination or prejudice due to their connection or association with other people who are stigmatised. Research has found that health workers may experience stigma because they provide care to people. Stigma by association experienced by health workers could lead to poorer workplace wellbeing, lower job satisfaction and sense of a job devaluation. The impact of this stigma by association in the AOD and harm reduction sector is particularly significant because workers may have lived experience of AOD use and identify strongly with their client group. This study aimed to examine how stigma by association among health workers in the AOD/harm reduction sector relates to workplace outcomes. A secondary aim was to explore how lived experience influences experiences of stigma by association. The research used a cross-sectional survey design and data collection occurred in 2023. Participants were recruited through Australian non-government AOD sector peak organisations, with invitations also sent to state and national non-government harm reduction peer work organisations. Australian AOD/harm reduction workers (n = 228) completed an online survey assessing stigma by association as well as various workplace outcomes measures. Participants who reported experiencing more stigma by association experienced poorer workplace wellbeing, higher burnout and greater intentions

to leave the AOD/harm reduction field. Experiences of stigma by association were unrelated to job satisfaction. Additional analyses revealed that participants with lived experience reported higher levels of job satisfaction and lowered intentions to leave the sector, but findings of stigma by association and its impacts on workplace outcomes did not differ from those without lived experience. Identifying staff experiences of stigma by association and developing support and advocacy mechanisms to address this is likely to be key to reducing these experiences and ultimately to increasing positive workplace outcomes for AOD and harm reduction staff. Future research should look to identify factors that promote retention of AOD/harm reduction employees, which would be important for establishing ways in which continuity of care can be provided to clients.

3. Broady, T. R., Valerio, H., Alavi, M., Wheeler, A., Silk, D., Martinello, M., Conway, A., Milat, A., Dunlop, A., Murray, C., Henderson, C., Amin, J., Read, P., Marks, P., Degenhardt, L., Stevens, A., Prain, B., Hayllar, J., Reid, D., Montebello, M., ... ETHOS Engage Study Group (2024). Factors associated with experiencing stigma, discrimination, and negative health care treatment among people who inject drugs. *The International Journal on Drug Policy*, 128, 104468. <https://doi.org/10.1016/j.drugpo.2024.104468>

Stigma has negative consequences for the health of people who inject drugs and people living with hepatitis C (HCV). This study evaluated factors associated with stigma related to injecting drug use (IDU) or HCV and those associated with being treated negatively by health workers. Using a cross-sectional sample from ETHOS Engage (an observational cohort study of people who inject drugs attending drug treatment clinics and needle and syringe programs in Australia), logistic regression was used to identify factors associated with experiencing stigma and negative treatment. Of 1,211 participants, 31% were women, 64% had injected drugs in the previous month, and 65% had been diagnosed with HCV. IDU-related stigma was reported by 57% of participants and was associated with being a woman, higher than Year 10 education, homelessness, opioid agonist treatment, recent injecting, overdose history, hospitalisation for drug use, and unknown HCV status. HCV-related stigma was reported by 34% of participants diagnosed with HCV and was associated with being a woman, homelessness, receptive needle/syringe sharing, arrest for drug use/possession, and recent HCV testing. Negative treatment from health workers was reported by 45% of participants and was associated with being a woman, receptive needle/syringe sharing, hospitalisation for drug use, and arrest for drug use/possession. Results highlight important intersections and disparities in stigmatising experiences among people who inject drugs. Considering these intersections can assist health services provide more inclusive care.

4. Cama, E., & Treloar, C. (2024). Identifying strategies to address institutional or structural stigma in health care settings. Centre for Social Research in Health, UNSW Sydney.

There are multiple levels at which stigma occurs – individual, interpersonal, and institutional or structural. While individual and interpersonal forms of stigma have received significant scholarly attention, institutional or structural stigma has received much less attention in the academic literature. This project sought to identify policies, practices, and strategies that could usefully reduce this type of stigma experienced by people affected by blood-borne viruses (BBVs) and sexually transmissible infections (STIs) in health care settings. Key informants from the BBV/STI sector (n=24) interviewed as part of the project identified a range of ways structural stigma could be addressed, including by addressing power imbalances through greater

organisational diversity and inclusion of people with lived experience to dilute power structures over time, addressing negative attitudes and beliefs of health workers towards stigmatised groups, through greater allocation and more equitable distribution of resources across sectors, by establishing and improving mechanisms to monitor stigma such as through complaints mechanisms and accreditation processes, and through involvement of people with lived experience in all aspects of health care design, delivery, and evaluation. This report concluded with recommendations for potential strategies and interventions to address structural stigma in health care settings in New South Wales.

5. Caruana T. (2024). Medication safety, privacy, and stigma: A qualitative study of pharmacy opioid agonist treatment disruptions and adaptations in the 2022 Northern Rivers floods, Australia. *International Journal of Disaster Risk Reduction*, 101, 104244. <https://doi.org/10.1016/j.ijdrr.2024.104244>

Opioid agonist treatment (OAT) involves the daily consumption of long-acting opioid medications to assist in managing health and wellbeing issues related to illicit or high-strength opioid drug use. This study describes the experiences of OAT consumers and pharmacists during flooding events in the Northern Rivers region of NSW. Interview transcripts from eleven pharmacists and thirteen consumers were collated and thematically analysed. Pharmacists and consumers experienced extreme challenges, including a lack of flood warning (which delayed or prevented evacuation for some), uncontactable health clinicians, loss of paper health records or inability to access electronic records, staff shortages, medication shortages, power and internet outages, and overwhelming health service demand. Many pharmacists went to extraordinary lengths to provide essential services to their community during the floods, including keeping pharmacies open without power or reopening quickly after inundation. OAT consumers experienced disruptions when their prescribing and pharmacy treatment sites were destroyed by flood or where roads were cut off, and faced long delays if they attended the primary public clinic for emergency dosing or prescription re-issuing. OAT consumers faced transport, time, and sheltering constraints in relation to attending the public clinic or alternate pharmacies and in being limited to daily doses, and some experienced missed doses and uncomfortable withdrawal symptoms. Absent prescriptions were the main barrier to enabling emergency dosing but emergency dosing was also constrained by stigma, and stigma was found to intensify risks related to medication safety and privacy. Needing to have scripts reissued or waiting in long lines for dosing each day meant that people were hindered in contributing to or receiving disaster recovery assistance at a time of immense community need. On the other hand, treatment access was enabled when pharmacists operated outside of the restrictive medication safety protocols that opioid agonist treatment is uniquely subject to, informed by structural stigma. Pharmacists' efforts in providing advance takeaways or discretionary doses reduced consumer hardships and distress. Future emergency planning should aim to protect and transmit OAT dose authorisation records more effectively, while striving to minimise adverse impacts including decreased privacy and accessibility.

6. Caruana, T. (2024). Reducing stigma within pharmacy opioid agonist treatment encounters. *Stigma and Health*. Advance online publication. <https://doi.org/10.1037/sah0000552>

Opioid agonist treatment (OAT) is a medication program that helps people who have developed a tolerance to opioid drugs to maintain their health and well-being. OAT consumers can feel that they are treated poorly when accessing their medication, which is experienced as stigma. This study interviewed New South Wales pharmacists who deliver OAT (n=10) and people who

access OAT (n=15) to investigate their experiences of this treatment service. Applying reflexive thematic analysis, it found that OAT consumers were subject to pervasive stigma in their lives, and OAT stigma had harmful impacts on their perceptions, behaviours, and sense of self. Within the pharmacy, consumers aligned dismissive or discriminatory practices with negative perceptions of the treatment and poor relationships with pharmacists. OAT consumers experienced less stigma when their pharmacist was understanding and sensitive to their life circumstances, communicated in supportive ways, upheld their privacy, and did not treat them differently to other pharmacy customers. Pharmacists were compassionate to the difficulties that OAT consumers faced and felt gratification in being able to provide a non-judgmental, essential service to a group that struggles with social exclusion. Pharmacists were aware of possible stigma impacts in OAT dispensing and spoke of making efforts to better understand the hardships that consumers face, uphold privacy, and demonstrate a caring approach—characteristics identified by consumers as being very helpful. However, many OAT consumers had experiences of being treated poorly within the pharmacy which indicates that more efforts are needed to reduce stigma and its impacts. Consumer interactions with pharmacists were shown to either strengthen or mitigate self-stigmatising thoughts, perceptions of social exclusion, and feelings of disempowerment, and pharmacist behaviours related to fairness, kindness, and privacy were described as being important in this. Developing a stronger awareness of these factors may assist pharmacists in making the pharmacy environment and their service processes more welcoming and inclusive for OAT consumers. Through investigating the service relationship from both consumer and pharmacy perspectives, characteristics that aligned with more supportive and successful treatment experiences were identified, which can inform future policy and practice.

7. Caruana, T. (2024). Quantifying stigma effects: The influence of stigma and pharmacist implicit attitudes on opioid agonist treatment consumer well-being. *Stigma and Health*. Advance online publication. <https://doi.org/10.1037/sah0000556>

Opioid agonist treatment (OAT) improves the quality of life for people with opioid overuse or illicit drug use problems, but the stigma associated with it can worsen social exclusion and disadvantage. Feelings of stigmatisation can arise from subtle or blatant discriminatory behaviours by health service providers. This study utilised an innovative study design, measuring and statistically modelling dispensing pharmacists' implicit and explicit attitudes toward OAT consumers (using an implicit attitude test and explicit attitude scale), alongside consumer experiences of stigma and of wellbeing over time. From 2021 to 2023, data were collected from pharmacists (n = 48) and from one to three OAT consumers they dispensed to (n = 121), with consumer participants completing follow up surveys six months later (n = 92). Pharmacist explicit attitudes towards OAT consumers were hypothesised to show less stigma than their implicit attitudes and not be related to changes in the wellbeing outcomes of their OAT customers. It was theorised that if pharmacists' implicit attitudes towards opioid agonist treatment consumers predicted poorer wellbeing over time, this would demonstrate interpersonal stigma effects. An additional aim was to test if consumer self-reported stigma experiences aligned with less improvement or a decline in wellbeing over time, which would further demonstrate that perceived or felt stigma has negative impacts on wellbeing. Predictors and covariates were evaluated using linear mixed-effects models that controlled for random effects at consumer and pharmacy levels. The best fitting model contained only the pharmacist implicit attitude and consumer stigma predictors, indicating that more negative implicit attitudes from pharmacists and greater experiences of stigma were associated with poorer

consumer wellbeing over time. That a significant relationship was found between these points to the need to understand more about the impacts of stigma, and supports efforts aiming to combat the stigmatising perceptions of people with drug use histories that occur within health service settings. These findings highlight the importance of considering the impact of health practitioner attitudes, and demonstrate a way to quantify these, but more research and theory-building is needed to understand how and why pharmacist implicit attitudes may have this influence.

8. Caruana, T., Brener, L., Calabrese, S. K., Cama, E., Treloar, C., & Broady, T. (2024). Differences in stigma reduction related to injection drug use between people expressing conservative, moderate and progressive values following an online intervention. *Drug and Alcohol Review*, 43(4), 853–860. <https://doi.org/10.1111/dar.13815>

Contact interventions have shown short-term effectiveness in reducing stigmatising attitudes and behaviours of the public towards marginalised population groups, including people who inject drugs. We theorised that the effectiveness of a stigma intervention differs according to peoples' underlying social and political values and undertook a study to test this. Higher conservatism (i.e., preferring traditional or conventional systems and behaviour) has previously been found to predict more stigmatising attitudes towards people who inject drugs. Because conservatism involves the tendency to resist change and to prioritise intrapersonal safety, it was also theorised to predict attitude persistence in the context of a stigma reduction intervention. We recruited participants from the Australian public by social media and measured their attitudes, desire to maintain personal distance, and support for structural stigma towards people who inject drugs before and after a brief online intervention (n = 314). We divided participants into tertile groups according to their responses to a conservatism scale (as conservative, moderate, and progressive) and compared group differences in post-intervention stigma scores (n = 242–244), controlling for pre-intervention scores and demographic variables. Adjusting for baseline levels, the post-intervention scores in all measures showed significant improvement but scores of the moderate group were consistently most improved. People who held more conservative values expressed the highest levels of stigma towards people who inject drugs in all measures, and people who held the most progressive values expressed the least stigma and therefore had the least room to improve. Stigmatising attitudes in the moderate group were significantly reduced when compared with the conservative and progressive groups, but reductions in desire for personal distance and support for structural stigma did not significantly differ by conservatism group. As people with moderate values were more amenable to changing their attitude, it may be more effective to focus efforts on convincing this portion of the population, especially as they could theoretically be persuaded in either direction. More research is needed to understand how to influence people with more conservative values, and how to increase public support for policies and practices that reduce stigma.

9. Healey, L. M., Markham, S. R., Templeton, D. J., Rabie, L., & Smith, A. K. J. (2024). Stigma, support, and messaging for people recently diagnosed with HIV: a qualitative study. *Sexual Health*, 21, SH24045. <https://doi.org/10.1071/SH24045>

Despite advances in antiretroviral treatment and the message of undetectable equals untransmittable (U=U), there remain challenges related to stigma and quality of life for people living with HIV. It is particularly important to consider how people who are recently diagnosed are adjusting to living with HIV in the context of changes to understandings of HIV and U=U. This

study aimed to understand the experiences of people recently diagnosed with HIV at RPA Sexual Health Service (a sexual health clinic in Sydney, Australia), to guide insights into how to improve care and support in the contemporary treatment era. This qualitative study involved semi-structured interviews with individuals diagnosed with HIV between 2016 and 2021 at RPA Sexual Health service, or who were referred to the clinic directly after diagnosis. Participants were recruited through a short survey questionnaire between May 2022 and May 2023, and interviews were transcribed and analysed thematically. Fourteen participants were interviewed for the study, eight of whom were born outside of Australian or Aotearoa New Zealand. The study found that diagnosis was still a shocking event requiring careful support; that there was ongoing stigma, shame, and reduced sexual confidence following diagnosis; and that beyond initial diagnosis, some people would benefit from ongoing support and education about key concepts regarding HIV treatment. The study suggests that despite progress with treatment and U=U, HIV diagnosis remains a disruptive and shocking event requiring support, and that sexual stigma is a key issue negatively impacting quality of life. Health providers can mitigate these issues by supporting the ongoing psychosocial needs of people with HIV in the early period of adjusting to HIV diagnosis, and referring to peer-based and other services. Initiating conversations about sex and dating and checking understandings of key health messages over time may promote improved care. As a result of these findings, RPA Sexual Health Service has implemented more regular check-in questions about sex and dating with people living with HIV to prompt brief interventions and opportunities for referral.

10. Hill, B., de la Piedad Garcia, X., Rathbone, J. A., Malik, Z., Holmes-Truscott, E., Lawrence, B. J., Kite, J., Cooper, K., Broady, T. R., & Dixon, J. B. (2024). Supporting healthcare professionals to reduce weight stigma. *Australian journal of general practice*, 53(9), 682–685. <https://doi.org/10.31128/AJGP-07-23-6906>

A group of stigma researchers were invited to participate in an online workshop alongside community members, healthcare professionals and policymakers to codesign guidance for reducing weight stigma in healthcare. This workshop prompted us to reflect on why and how weight stigma should be addressed in healthcare, and to provide recommendations for healthcare professionals and policymakers. Recommendations include targeting individual healthcare professionals and involving clear, practical guidelines and training that leverage the notions of ‘do no harm’, improving practice and recognising biases. Importantly, such strategies must be couched in broader structural approaches to weight stigma reduction.

11. Maher, L., Leece, B., Sheaves, F., Wilson, A., Brown, J., O'Connell, L., Carnegie-Brown, M., Stanbury, L., Turalic, U., Mooney, D., Hoyling, L., Cama, E., & Treloar, C. (2024). Moving from 'stigma reduction' to 'inclusion': development of the inclusion collaborative at Nepean Blue Mountains Local Health District, New South Wales. *Harm Reduction Journal*, 21(1), 158. <https://doi.org/10.1186/s12954-024-01080-0>

This paper is a commentary outlining the establishment of an Inclusion Collaborative in a large health district in Sydney, New South Wales. The Inclusion Collaborative is a working group that grew out of ongoing efforts to reduce stigma towards a range of different conditions, identities, and practices, while moving towards a more positive framing around ‘inclusion’. The development of the Collaborative involved drawing in health workers from eleven services, including clinical units, consumer engagement, and supported by the workforce unit. Inclusion of consumer representatives in the working group was core. The group considered ways to address stigma within their services. The Collaborative designed and carried out a range of activities including a Festival of Inclusion, a series of seeding grants for staff and consumer-

focused initiatives, promotion of diversity days and an audit of compliance with strategic priorities. The Inclusion Collaborative is an example of a structured approach for efforts to reducing stigma that draws on the ambitions of many parts of a large, complex public health service to deliver better outcomes for its staff and consumers.

12. Okeke, S., Horwitz, R., Brener, L., Vu, H.M.K., WU, K.O.E., Jin, D., Yu, S., Treloar, C., & Cama, E. (2024). Engaging Culturally and Linguistically Diverse Communities with BBVs/STIs Health Services in Australia. Centre for Social Research in Health, UNSW Sydney. <http://dx.doi.org/10.26190/unsworks/30821>

People from CALD communities in Australia are disproportionately impacted by adverse health outcomes for both infectious and non-infectious diseases. CALD communities' vulnerabilities to adverse health outcomes may reflect or could be attributed to low levels of access to preventive and therapeutic health care services. Compared to general healthcare, access to BBVs/STIs health service may even be more constrained among CALD communities because of multiple layers of stigma linked to these infections and to factors such as culture, race and gender. To address low access to BBVs/STIs among these communities, we examined perspectives of key stakeholders on intersectional stigma (e.g., BBVs/STIs stigma, racism), how it shapes BBVs/STIs health care experience for CALD communities in Australia and how to better engage these communities with BBVs/STIs services. We generated data through semi-structured in-depth interviews conducted with nationally recruited key stakeholders providing health service and or advocacy/support for CALD communities between June and December 2023. Specifically, participants included people with previous or current clinical experience in BBVs/STIs care, cultural workers from community organisations related to BBVs/STIs, people working within organisations that support migrants and refugees, and academics with field expertise and some of them have living experience. Twenty-six interviews were conducted lasting between 60 to 90 minutes in length. We analysed generated data using reflexive thematic analysis. Our results showed various barriers affecting CALD communities' engagement with health care in general and BBVs/STIs in particular. We developed four themes representing key strategies participants believe could engage CALD communities in Australia with BBVs/STIs services. These strategies include adopting a cross-cultural approach that aligns health care with the cultural orientation of CALD communities; addressing stigma at community and health service levels; removing language barriers beyond translation and interpretation and building cultural partnership with CALD communities to enhance cultural competence of health service personnel. The results of this underscore the need for health systems to be adaptable and flexible to the needs of diverse populations, including by developing better understandings of different cultural perspectives around health care, addressing stigma and discrimination, and providing culturally appropriate and safe care.

13. Marshall, A. D., Rance, J., Dore, G. J., Grebely, J., & Treloar, C. (2024). Applying a stigma and time framework to facilitate equitable access to hepatitis C care among women who inject drugs: The ETHOS Engage Study. *The International Journal on Drug Policy*, 129, 104477. <https://doi.org/10.1016/j.drugpo.2024.104477>

Women who inject drugs are significantly less likely to initiate hepatitis C virus (HCV) treatment than men. Concerted efforts are needed to minimise gender-based inequalities in care. The study aim was to use a stigma and time framework to investigate how women who inject drugs experienced HCV care in healthcare settings. Semi-structured, in-depth interviews were conducted with 34 participants from the ETHOS Engage Cohort (n = 1,443) in Australia. Inclusion criteria were aged ≥18 years, history of injection drug use, and persons who injected

in the prior six months or were currently receiving opioid agonist treatment. Drawing on the original qualitative dataset (n = 34), we conducted a secondary analysis focused on women participants' experiences of receiving HCV related care (n = 21/34). Utilising thematic analysis, we applied Earnshaw's theoretical framework, which incorporates time into stigma and health research via three "timescales" – historical context, human development, and status course. Among the 21 women interviewed (mean age 42 years, 5 are Aboriginal, 11 received HCV treatment), the majority were currently receiving opioid agonist treatment and over half injected drugs in the past month. For historical context, most participants were diagnosed with HCV during the interferon era (1990s-2014). Participants had to navigate a sociomedical landscape not only largely bereft of adequate HCV medical knowledge, appropriate support, and adequate treatments, but were also generally assessed as "unsuitable" for treatment based on their perceived personhood as people who inject drugs. For human development, many participants reported encountering overlapping stigmatizing experiences (layered stigma) while receiving their HCV diagnosis in prenatal care and early postpartum. Under status course, participants acutely recognised the intersection of HCV infection, injection drug use, and gender, and reported concerns about being judged more harshly from healthcare providers as a result. A stigma and time framework illuminated multiple overlapping stigmatizing experiences for women who inject drugs in HCV care and in turn, can help to inform tools and interventions to counter their impact.

14. Smith, A. K. J., Storer, D., Lancaster, K., Haire, B., Newman, C. E., Paparini, S., MacGibbon, J., Cornelisse, V. J., Broady, T. R., Lockwood, T., McNulty, A., Delpech, V., & Holt, M. (2024). Mpox Illness Narratives: Stigmatising Care and Recovery During and After an Emergency Outbreak. *Qualitative Health Research*, 34(12), 1161–1174. <https://doi.org/10.1177/10497323241234482>

In May 2022, a global outbreak of mpox (formerly monkeypox virus) affected thousands of mainly gay and bisexual men. Mpox is usually a time-limited illness that can involve fever, pain, and skin lesions, but may require hospitalisation. There is scant research into the firsthand experiences of people affected by mpox, including experiences of symptoms, healthcare, and recovery. This study aimed to understand the experiences of people directly affected by mpox in Australia in 2022 to inform patient care and support. Participants were recruited through a national mpox survey of gay and bisexual men in Australia (MacGibbon et al., 2023, Sexual Health), supplemented by snowball sampling. In-depth interviews and 6-month follow-up interviews were conducted with 16 people, including 13 people diagnosed with mpox and three close contacts. All participants were cisgender gay or bisexual men living in Australia. The analysis considered the different illness narratives that participants described in their talk. Participants' accounts described minor to severe periods of sickness, negative and stigmatising experiences engaging with healthcare, and some participants experienced long-term effects on their sexual well-being and complications from mpox. The emergency outbreak context meant that mpox was highly distressing, making it difficult to manage and producing varying forms of disruption to everyday life. Mpox was narrated as disruptive in different ways: as a minor interruption to holiday plans, a prolonged period of poor health, or a biographically disruptive event prompting a re-evaluation of sexual values and health. This study was one of the first international studies (another published at the same time) to investigate in-depth experiences of mpox diagnosis. The study demonstrates that an unfamiliar emergent disease outbreak related to sexual practices and sociality can reconfigure personal life and sexual well-being, suggesting a need to focus on providing quality patient care in outbreaks of mpox and other infectious diseases. Future public health responses to outbreaks need to better

emphasise quality care, address both acute and potential long-term symptoms, and consider in more detail how stigma related to sex and sexuality may produce specific challenges for the experience of illness and care.

15. Sutherland, R., King, C., Karlsson, A., Treloar, C., Broady, T., Chandrasena, U., Salom, C., Dietze, P., & Peacock, A. (2024). Stigma, and factors associated with experiencing stigma, while visiting health-care services among samples of people who use illegal drugs in Australia. *Drug and Alcohol Review*, 43(5), 1264–1279. <https://doi.org/10.1111/dar.13846>

This paper examines experiences of, and factors associated with, stigma when visiting both specialised alcohol and other drug (AOD) and general healthcare services among two samples of people who use illegal drugs. Australians who regularly inject drugs (illicit drug reporting system; IDRS) or use ecstasy and/or other illegal stimulants (ecstasy and related drugs reporting system; EDRS) were surveyed about past 6-month experience of stigma in the above services. Multi-variable regression analyses were performed to determine the socio-demographic, drugs use and health factors associated with stigma. Experiences of stigma were more common among IDRS (40%) than EDRS (24%) participants, however, experiences were comparable in specialist AOD healthcare settings (22% and 20%, respectively). Gender identify and experiencing high psychological distress were associated with experiencing stigma across both samples. Past-year overdose was associated with experiencing stigma among the IDRS sample, while unstable housing and incomplete high school education were associated with experiencing stigma in the EDRS sample. Our findings highlight the multiple and intersection dimensions of stigma and provide further support for recent calls for a universal precautions approach to stigma in health care.

Hepatitis B and Hepatitis D- Executive Summary

Hepatitis B

Hepatitis B is a major public health issue, with more than 250 million people estimated to have chronic hepatitis B infection globally (Polaris Observatory Collaborators, 2023). Hepatitis B is one of the leading causes of liver-related disease, liver cancer and liver transplant. As of 2023, there were an estimated 219,800 people living with chronic hepatitis B in Australia, representing 0.82% of the population (MacLachlan et al., 2025). Australia has committed to WHO targets to eliminate hepatitis B as a public health issue by 2030. However, currently only 68.8% of people living with chronic hepatitis B in Australia are estimated to have been diagnosed and 24.5% are engaged in care (MacLachlan et al., 2025).

In Australia, hepatitis B is particularly prevalent among culturally and linguistically diverse communities. Approximately 72.6% of Australians living with hepatitis B were born overseas, with Northeast Asia and Southeast Asia being the most commonly reported regions of birth (MacLachlan et al., 2025). Therefore, a better understanding of social and cultural attitudes and knowledge around hepatitis B is needed to promote testing and linkage to care among culturally and linguistically diverse communities. This includes a need for further research on different cultural understandings of health and viral hepatitis, barriers to health care within Australia, alternative approaches to health care and treatment, and on stigma and discrimination and their impacts on affected communities. Given the limited research in this field, and the growing burden of hepatitis B on affected individuals and on the Australian health system, the Centre's recent research focus on understanding hepatitis B is crucial.

This section of the Annual Report of Trends in Behaviour (ARTB) focuses on hepatitis B and provides an opportunity to highlight our contributions to social research on hepatitis B in Australia. Our research contributes in important ways, by providing insight into activities around testing, prevention, diagnosis, and access to care, and by assessing attitudes towards hepatitis B among the general community and priority populations where hepatitis B prevalence is high. In 2024, we continued to expand our research to assess the impacts of stigma on communities affected by hepatitis B. The main aim of our stigma program of research is to explore the knowledge, attitudes, and understanding of hepatitis B among culturally and linguistically diverse populations, health workers, and the general community living in Australia. During 2024, the Filipino, Korean, Middle Eastern, North African and Sub Sahara African communities were the focus of our research on hepatitis B-related stigma, as well as a sample of Chinese people living with hepatitis B.

Hepatitis D

Hepatitis D, also known as delta virus, is a viral infection that can only be present among people who are living with hepatitis B. Estimates suggest that as many as 60 million people may be living with hepatitis D globally (Miao et al., 2020). In Australia, 120 people were diagnosed with hepatitis D in 2024 according to the National Notifiable Disease Surveillance System. Chronic hepatitis D infection is considered to be one of the most severe forms of viral hepatitis, and is associated with accelerated progression to cirrhosis, as well as increased risk of hepatocellular carcinoma and liver-related death. It is therefore extremely important for health providers to screen for hepatitis D among people who are living with hepatitis B (WHO, 2025).

While little is known about hepatitis D, research on hepatitis B has shown that migrants from high-prevalence regions often face a range of barriers to health care including racism, language barriers, unfamiliarity with the Australian health system, and financial constraints, all of which contribute to reduced engagement with health services (Guirgis et al., 2012; Smith-Palmer et al., 2020). Addressing these multifaceted barriers requires a deeper understanding of cultural beliefs, behaviours, and experiences. Such insight is critical to the development of culturally informed, community-led models of care that reduce the burden on patients to navigate complex systems and promote equitable access to testing, treatment, and ongoing care for those living with or at risk of hepatitis D. It is evident that further research on is urgently needed to better understand hepatitis D.

Spotlight 1 Hepatitis B attitudes and knowledge among people of Chinese and Vietnamese ethnicity living with hepatitis B

By Horwitz, R., Cama, E., Wu, E.O.K., Vu, K., Yu, S., Broady, T., Treloar C., & Brener, L.

Over 70% of people living with hepatitis B in Australia were born overseas, with North East and South East Asia being the most reported regions of birth (MacLachlan et al., 2025). People living with hepatitis B remain an understudied group, in part due to the challenges of recruiting people living with the virus to participate in research. This research therefore sought to, in part, fill this gap by recruiting a sample of people of Chinese and Vietnamese ethnicity living with hepatitis B in Australia. The main aim of this project was to explore hepatitis B knowledge, attitudes, and health care engagement. among this sample.

A sample of 105 people living with hepatitis B of Chinese (n=65) and Vietnamese (n=40) ethnicity were recruited to take part in a survey about their knowledge and attitudes towards hepatitis B, and their engagement in health care for their hepatitis B. Recruitment was supported by the Ethnic Communities Council of Queensland (ECCQ), and thus this sample are people who live in Queensland. Data was collected using hard copy surveys. Participants had the choice of completing the survey in Chinese (traditional or simplified), Vietnamese, or English. More than half the total sample reported being female (n=59, 56.2%), heterosexual (n=62, 59.0%) and 98.1% of participants reported being born outside of Australia. Over two-third of the sample reported living in Australia for ten years or more (n=72, 68.6%) with 66 participants (62.9%) reporting being Australian citizens.

Over three-quarters of the Chinese sample (n=65) reported that they had been diagnosed with hepatitis B fifteen years ago or more. Only 9 participants (13.8%) were diagnosed in Australia. The main reason people reported for testing for hepatitis B is that their doctors advised them to get tested (n=40, 61.5%). Almost half the sample reported that they see their medical doctor or specialist for a hepatitis B check up every one to six months (n=31, 47.7%), and a further 23 participants (35.4%) reported they go every 7-12 months. Knowledge among the sample appeared to be good. When asked if in the last 12 months, they had experienced any stigma or discrimination in relation to your hepatitis B status, 48 participants (73.8%) responded 'never'.

Half of the Vietnamese sample (n=20, 50.0%) reported that they had been diagnosed with hepatitis B fifteen years ago or more with 20 participants (60.0%) being diagnosed in Australia. The main reasons people reported for testing for hepatitis B is that the testing was part of regular health check (n=21, 52.5%) and that their doctors had told them to test (n=20, 50.0%). Three-quarters of the sample reported that they see their medical doctor or specialist for a hepatitis B check up every one to six months (n=30, 75.0%), a further 3 participants (7.5%) reported they go every few months and an additional 7 participants (12.5%) have a check-up every 7-12 months. Knowledge among the Vietnamese sample also appeared to be good. When asked if in the last 12 months, they had experienced any stigma or discrimination in relation to your hepatitis B status, 37 participants (92.5%) responded 'never'.

This research provides a rare opportunity for in-depth analysis on diagnosis, treatment, knowledge, and stigma among people living with hepatitis B in Australia. A comprehensive report of the findings will be published in 2025.

Spotlight 2 Monitoring hepatitis B stigma, attitudes, and knowledge in Middle Eastern, North African, and Sub-Saharan African communities in Australia

By Wu, K.O.E., Horwitz, R., Cama, E., Solaqua, F., Adu, C., Binti Raslie, H., Okeke, S., Ado, I., Broady, T., Treloar, C., & Brener, L.

The primary objective of this study was to explore stigma, attitudes, and knowledge related to hepatitis B among Middle Eastern and North African (MENA) and Sub-Saharan African (SSA) communities in Australia. This research is part of a broader project examining experiences of stigma among priority populations affected by blood-borne viruses and sexually transmissible infections, funded by the Australian Government Department of Health.

Our previous studies have focused on other migrant communities in Australia among which there is a high prevalence of hepatitis B. These have included the Chinese, Vietnamese, Korean, and Filipino communities. To our knowledge, this is the first Australian study to specifically examine hepatitis B-related stigma and knowledge within MENA and SSA communities.

Data collection occurred between August 2024 and May 2025, with participant recruitment supported by state and territory viral hepatitis organisations, multicultural health services, and community volunteers. Eligible participants were aged 18 years or older, currently residing in Australia, and either born in the MENA or SSA regions or with parents or grandparents originating from those areas. Surveys were available in hard copy and online formats, and participants could choose to complete them in Arabic, French, Swahili, or English.

The final sample included approximately 400 participants. The survey covered a range of topics, including knowledge of hepatitis B transmission and prevention, health-seeking behaviours, attitudes towards the condition, trust in Western medicine, and experiences of racial discrimination in healthcare settings.

Recruiting participants from culturally and linguistically diverse backgrounds for hepatitis B research presents well-documented challenges. Nonetheless, the successful recruitment of 400 participants underscores the effectiveness of our engagement strategies and the commitment of our research team to better understanding hepatitis B among diverse communities. A comprehensive report detailing the findings will be published following completion of the data analysis in 2025.

HBV-publication summaries

1. Brener, L., Horwitz, R., Cama, E., Vu, H. M. K., Jin, D., Wu, K. O. E., Rance, J., Broady, T., Treloar, C., Mao, L., Okeke, S., & Bryant, J. (2024). Understanding stigma and attitudes towards hepatitis B among university students in Australia of Chinese and Vietnamese background. *BMC Public Health*, 24(1), 2801.
<https://doi.org/10.1186/s12889-024-20226-0>

Hepatitis B is a significant public health concern and a leading cause of liver cancer across the world. In Australia, the burden of hepatitis B disease is largely among our migrant communities, particularly amongst the Chinese and Vietnamese communities because of the size of these two communities in Australia. Negative attitudes towards hepatitis B can be a major barrier to testing and treatment for hepatitis B and to linkage to care. This study used qualitative interviews as well as survey data to the attitudes and beliefs, including stigma, about hepatitis B among students of Vietnamese and Chinese background in Australia. Students were chosen as participants as there is little research examining hepatitis B among university students in Australia and they provide a point of entry to communities with high prevalence of hepatitis B, that otherwise may be hard to access. Methods: Online surveys were distributed in Chinese, Vietnamese, and English via social media and completed by 112 students of Chinese and 95 students of Vietnamese backgrounds. In-depth interviews were also conducted with 13 Vietnamese and 10 Chinese participants to further explore the survey results. The findings of the survey indicate that students have inconsistent and sometimes negative attitudes towards people living with hepatitis B. Around half of the participants reported they would behave negatively towards other people with hepatitis B and that they would expect to experience stigma or discrimination if they had hepatitis B. While over 70% in both samples reported that people who have hepatitis B should not be isolated by family and friends, 47.6% of the Chinese sample and 28.3% of the Vietnamese sample reported they would avoid close contact with someone with hepatitis B. The qualitative data expands on the quantitative data. Four key themes were identified: (1) Caution not discrimination (2) Hepatitis B as a sign of immoral behaviour (3) Discriminatory behaviour based on perceived effects of hepatitis B and (4) Shifting attitudes. Conclusion: This research provides insights that could inform targeted and culturally sensitive health promotion programs primarily aimed to address negative attitudes towards hepatitis B amongst both the student and the broader Chinese and Vietnamese communities living in Australia.

2. Brener, L., Vu, H. M. K., Horwitz, R., Cama, E., Martin, K., Rance, J., Okeke, S., & Bryant, J. (2024). 'People Like Us Would Have No Clue If the Information Is Online': Exploring Understanding and Sources of Hepatitis B Information Among Vietnamese Australians. *Journal of Racial and Ethnic Health Disparities*, Advance online publication. <https://doi.org/10.1007/s40615-024-02055-4>

Although people of Vietnamese background are disproportionately impacted by hepatitis B, very often socio-cultural norms and behavioural factors are often not adequately considered in designing health promotion programs for culturally and linguistically diverse communities in Australia. This research aimed to better understand these factors to inform hepatitis B health promotion messages designed specifically for the Vietnamese community. Twenty participants, of whom four were living with hepatitis B were invited to participate in an in-depth interview. Options were provided for them to be interviewed in Vietnamese or English by a Vietnamese-speaking researcher. The interview sessions explored beliefs about health, the

body and liver; knowledge and attitudes about hepatitis B vaccines, testing, clinical management and stigma; and sources of health information and value given to information on social media. Participants had a range of understandings of health and hepatitis B which informed their responses to health education and intervention. Findings indicate that participants appeared to have limited knowledge and misconceptions about transmission, prevention, treatment, and management of hepatitis B. In addition there was evident stigma surrounding hepatitis B was and over half the participants reporting that they distanced themselves from people living with hepatitis B. In terms of sources of information, younger participants preferred online information resources, while older people preferred traditional media resources in Vietnamese language. By understanding what Vietnamese people know about hepatitis B and how they access health information, these findings can be used to inform health promotion campaigns using print, media, and radio to ensure wide reach. Knowledge of community specific information is key to reducing the burden of hepatitis B among culturally and linguistically diverse communities and ensuring they are able to access healthcare services for testing, monitoring, and care.

3. Cama, E., Brener, L., Broady, T., Horwitz, R., Jin, D., Vu, H. M. K., Wu, K. O. E., & Treloar, C. (2024). Hepatitis B screening and knowledge among Chinese and Vietnamese students in Australia. *PloS One*, 19(3), e0299224. <https://doi.org/10.1371/journal.pone.0299224>

Migrant communities, particularly those from Northeast and Southeast Asia, are disproportionately affected by hepatitis B. Research has shown that significant gaps may exist in knowledge of hepatitis B among these communities. Many students studying in Australia come from countries which have high hepatitis B prevalence, however, there is very little understanding of hepatitis B knowledge, screening, or vaccination among these students. The aim of this study was therefore to examine screening hepatitis B knowledge among Chinese and Vietnamese students in Australia. Online surveys among 112 Chinese and 95 Vietnamese identifying students in Australia revealed that engagement in screening and vaccination for hepatitis B was high. However, there were some gaps in knowledge around transmission of hepatitis B. Students born in Australia were more likely to have ever been screened for hepatitis B compared to those born in Mainland China, Hong Kong, or Vietnam. Chinese students who were born in Australia had lower levels of knowledge compared to those born in Mainland China or Hong Kong. Knowing someone living with hepatitis B was associated with higher levels of knowledge among Chinese and Vietnamese students. Findings highlight the need for interventions focusing on improving education of hepatitis B, particularly the development of culturally appropriate health promotion resources translated into a range of languages.

4. Cama, E., Brener, L., Horwitz, R., Broady, T. R., Khoi Vu, H. M., Jin, D., Wu, K. O. E., & Treloar, C. (2024). Factors associated with hepatitis B knowledge among people of Vietnamese ethnicity in Australia. *Psychology, Health & Medicine*, 29(8), 1536–1547. <https://doi.org/10.1080/13548506.2024.2350703>

There is a high prevalence of hepatitis B among people of Vietnamese ethnicity in Australia. However, there is limited understanding of the extent of hepatitis B knowledge among this community in Australia. The aim of this study was therefore to examine hepatitis B knowledge and whether there are associated demographic and attitudinal factors among people of Vietnamese ethnicity in Australia. Surveys among 966 people of Vietnamese ethnicity in Australia revealed that levels of knowledge were mixed. There were some gaps in knowledge around transmission and treatment of hepatitis B. Participants who had better hepatitis B

knowledge tended to be older, have higher levels of formal education, have been tested for hepatitis B, and know someone living with hepatitis B. Participants with poorer knowledge tended to have more negative attitudes towards people living with the virus and greater levels of mistrust in Western medicine. Our paper recommends a need for the development of health promotion resources translated into Vietnamese, and developed in consultation with the Vietnamese community in Australia, to improve knowledge and awareness of hepatitis B.

5. Freeland, C., Adjei, C., Wallace, J., Wang, S., Hicks, J., Adda, D., James, C., & Cohen, C. (2024). Survey of lived experiences and challenges in hepatitis B management and treatment. *BMC Public Health*, 24(1) 10.1186/s12889-024-18425-w

Almost 300 million people are living with chronic hepatitis B infection worldwide with the vast majority being undiagnosed and at risk for developing liver disease including liver cancer. In 2015 the World Health Organization (WHO) developed guidelines for the prevention, care, and treatment of people with chronic hepatitis B and in early 2023 began work on updating these guidelines. In March 2023, to inform the development of the updated guidelines, a self-administered, anonymous online global survey was launched, aiming to identify patient preferences related to the clinical management of hepatitis B including current management, treatment, and care experiences, preferences regarding engagement with providers, and preferences for simplifying hepatitis B care access. A sample of 560 people living with hepatitis B (self-identified as HBsAg positive) from 76 countries completed the survey. Key findings demonstrated that less than half (49%, N = 268) of respondents regularly visited a doctor to check the health of their liver (every 6–12 months), with 37% of participants prescribed antiviral medication by a specialist (82%, N = 167) or general practitioner (13%, N = 26). Participants reported not being actively involved in care decision making with their providers (42%, N = 217), with an overwhelming majority wanting to participate in hepatitis B management and treatment choices (85%, N = 435). Overall findings demonstrated key gaps in care, management, and treatment access related to hepatitis B: identifying these gaps can be used to identify areas for improvement along the care continuum for viral hepatitis. The survey found a need for the comprehensive simplification of clinical management and health care services related to hepatitis B. A thematic analysis of the open-ended survey responses highlighted major overarching themes including the cost and access burdens associated with hepatitis B management and treatment, and challenges in finding knowledgeable providers. Public health strategies are needed to identify and address the barriers and enablers to hepatitis B testing, care, and treatment—aiming to enhance awareness and improve access, quality of care, and treatment outcomes for both patients and healthcare providers. At a global level it is rare for people with hepatitis B to be diagnosed and access treatment. Updated WHO treatment guidelines in 2025 provided the rationale for a global survey of people with hepatitis B to determine patient preferences in relation to hepatitis B treatment. The comprehensive simplification of care, active decision making by patients and cheaper and more accessible treatment services were identified by participants as a priority.

6. Freeland, C., Qureshi, A., Wallace, J., Kabagambe, K., Desalegn, H., Munoz, C., Lee, D., Owusu-Ansah, T., Adda, D., Ndow, G., Yousif, S., Abdalla, H., Kheir, O., Tu, T., & Cohen, C. (2024). Hepatitis B discrimination: global responses requiring global data. *BMC Public Health*, 24(1), 1575. <https://doi.org/10.1186/s12889-024-18918-8>

Over 250 million people live with chronic hepatitis B infection worldwide, with a significant proportion often facing discrimination as a result of their hepatitis B status. This study sought to

describe the lived experience of discrimination at a global level, document its impact, and shed light on its consequences with a hepatitis B discrimination registry launched to record self-reported discrimination associated with hepatitis B. The registry, operated by Hepatitis B Foundation (USA) included brief demographic questions (age, gender, country of origin), discrimination-specific questions (where, when, and how discrimination occurred), and open-ended questions to detail specific experiences. Registry promotion occurred through information sent to hepatitis B patient/community-focused listservs, social media networks, and community-based organizations around the globe. Descriptive data were analysed including a comparative analysis by country and type of discrimination occurring, with open-ended responses analysed using a thematic analysis. A total of 569 individuals responded to the survey between May 2021 and December 2023 from the Philippines (34%; N = 194), Nigeria (11%; N = 60), Pakistan (8%; N = 45), India (6%, N = 34), Uganda (5%; N = 31), the United States of America (4%, N = 26), Ghana (3%; N = 15), Ethiopia (2%; N = 14), with a total of 65 countries reported discrimination at least by at least one respondent. Of these, 461 respondents shared details of their experience of discrimination with most relating to restrictions on access to work visas, followed by in-country hepatitis B-related employment restrictions, educational-based discrimination, discrimination within the community and health facilities, and the emotional impact of hepatitis B discrimination. This is the largest primary collection of hepatitis B-associated discrimination events at a global level and highlights the breadth of hepatitis B discrimination having a significant impact on individuals' lives and limits to economic opportunities regardless of physical symptoms. Such impacts likely act as barriers to diagnosis and engagement in care and need to be addressed to achieve the global hepatitis B elimination goals. The data highlight a need for global, national responses and more systematic responses to discrimination experienced by people with hepatitis B. Hepatitis B is a global health issue with discrimination affecting many people living with hepatitis B. The aim of the research was to identify the global reach and national characteristics of hepatitis B discrimination. Hepatitis B discrimination has a global impact with the need for systematic responses required at global and national levels.

7. Freeland, C., Wallace, J., Wang, S., Okinedo, P., Kabagambe, K., Owusu-Ansah, T., Lee, D., Adjei, C. A., Tu, T., & Cohen, C. (2025). The urgent need to end hepatitis B stigma and discrimination. *The Lancet. Gastroenterology & Hepatology*, 10(2), 105–107. [https://doi.org/10.1016/S2468-1253\(24\)00389-3](https://doi.org/10.1016/S2468-1253(24)00389-3)

This comment piece in the *Lancet Gastroenterology and Hepatology* highlighted the need for governments at all levels to institute and enforce anti-discrimination protections for people with hepatitis B. More than 250 million people live with chronic hepatitis B, making it the most common chronic infection worldwide. Despite effective tools to prevent transmission, diagnosis, and treatment, hepatitis B is the leading cause of liver cancer globally, with two people dying every minute as a result of the infection. Stigma and discrimination are substantial barriers to eliminating hepatitis B as a public health threat by 2030, as sought by WHO, with much of the stigma and discrimination resulting from poor knowledge and misunderstanding about transmission and disease progression. While most hepatitis B transmission occurs during childbirth, community assumptions focus on other behaviour-related transmission routes that are often seen as shameful in many cultures, such as sex or drug use. Such stigma and discrimination manifests in many forms, such as unfair treatment at work, school, or home or limited ability to emigrate to specific countries or serve in the military or police. In some countries, employers conduct health screening that include testing for hepatitis B. If a person is diagnosed through this process, their employment is often rejected, regardless of transmission

risk. People with hepatitis B have shared experiences of rejection when seeking work visas; educational opportunities have been denied to people with hepatitis B with pre-marital screening for hepatitis B occurring in many countries where a positive test can result in the loss of relationships or marriages and cause family disputes. Stigma and discrimination play a key role in reducing willingness to seek testing and access health services and can be seen as a violation of human rights. We need to ensure that countries seeking WHO validation for viral hepatitis have human-rights protections in place to prevent discrimination with robust policies and protections against hepatitis B-related discrimination available.

8. Horwitz, R., Brener, L., Broady, T., Cama, E., Wu, E., & Treloar, C. (2024). Stigma Indicators: hepatitis B attitudes and knowledge among people living with hepatitis B from the Chinese community. Centre for Social Research in Health, UNSW Sydney. <http://dx.doi.org/10.26190/unsworks/30168>

The main aim of this project was to explore the knowledge, attitudes, health seeking behaviour and understanding of hepatitis B virus (HBV) among Chinese people living with HBV. The Chinese migrant communities were chosen for this study because HBV prevalence is high among this group. The Chinese- community in Australia are a key at-risk group, comprising 2.2% of the total population with over 27% of the group currently living with HBV (MacLachlan & Cowie, 2018). Data was collected using hard copy surveys. Recruitment was conducted through the Ethnic Communities Council of QLD, assisted by their researcher of Chinese background. Participants had the choice of completing the survey in traditional or simplified Chinese or English. The sample consisted of 69 participants of Chinese background who reported living with HBV, with the majority being female and all being born outside Australia. Three-quarters of the sample reported they saw their GP/specialist at least once a year for monitoring of their HBV. 23.2% of participants were advised by their doctors to take medication for their HBV, and in almost all of these cases it was a pharmaceutical type of medicine. Results show that in the previous 12 months, over half the participants never experienced stigma or discrimination in relation to their HBV. Trust in western healthcare appeared to be high, with no participants reporting to be suspicious of information about HBV from Western-trained doctors and/or healthcare workers and only one participant reporting to be unwilling to speak with Western-trained doctors and healthcare workers in detail on their health and disease treatment. Knowledge among the sample was mixed. While most were aware of HBV being a blood borne virus, many thought that HBV was caused by or could be transmitted through poor hygiene, exercise, alcohol and contaminated food, water or utensils. Knowledge regarding treatment of HBV was low. Almost two-thirds of the sample were unaware that there are effective medicines available for the treatment of HBV. Considering this a sample of people living with hepatitis B, the lack of knowledge regarding treatment is concerning. This research highlights that health promotion needs to focus on increasing HBV knowledge so that there is clarity about transmission and prevention of the virus, as well as increased information on health seeking and treatment options. With regular testing, monitoring and treatment if required the damage of chronic HBV can be minimised enabling people with chronic HBV to live well with the virus.

9. Horwitz, R. Brener, L., Cama, E., Wu, K. O. E., Vu, E., de Romas, E; Baek, Y., Lee, H.W., Broady, T., & Treloar, C. (2024). Informing hepatitis B prevention, testing, and linkage to care in four migrant communities: Filipino, Korean, Chinese and Vietnamese communities in Australia. Centre for Social Research in Health, UNSW Sydney. <http://dx.doi.org/10.26190/unsworks/30264>

The main aim of this project was to explore the knowledge, attitudes, and understandings of hepatitis B (HBV) among migrant populations living in Australia. The Chinese, Vietnamese, Filipino, and Korean migrant communities were chosen because HBV prevalence is high among these four migrant groups and there is limited research among these communities on HBV in Australia. Data was collected using both hard copy and online surveys. The surveys were distributed via targeted social media sites and were completed by Chinese community (n= 997), Vietnamese community (n= 966), Filipino community (n= 579) and Korean community (n= 599). Almost the entire Korean sample (98.8%), most of the Chinese sample (89.1%) and 77% of the Vietnamese sample were born outside Australia; on the other hand, just less than half the Filipino sample (48.1%) were born outside Australia. Testing for HBV was highest among the Chinese community (72.5%) and the Filipino sample reported the highest levels of vaccination for HBV (72.6%). Findings were mixed among the different samples regarding trust in Western medicine and attitudes towards HBV. Data in relation to HBV knowledge showed that knowledge among all four samples was inconsistent. The Vietnamese sample seemed to have better knowledge about HBV in general, with the Filipino sample having the least knowledge of the four groups. All samples appeared to have lower levels of knowledge when it came to understanding the causes of HBV. Findings from this report highlight the importance of understanding the differences among these migrant communities so that health promotion and stigma reduction interventions can be appropriately tailored to the relevant community. Because of elevated prevalence and burden of disease of HBV among these four migrant populations, it is important to increase HBV knowledge and raise awareness of the different routes of transmission. Increased HBV knowledge among these communities with higher rates of HBV, can assist in increasing testing and engagement with care.

Hepatitis C and people who use drugs-Executive Summary

This Viral Hepatitis C (HCV) section showcases research under three interrelated subsections: Treatment, Elimination and Cure; Harm Reduction and the Alcohol & Other Drugs sector; and The Prison Setting.

The Treatment, Elimination and Cure subsection includes six publications, spanning both testing and treatment models, and critically examining gendered differences, the notion of ‘reinfection’, and the ‘endgame’ of HCV ‘elimination’ as a numbers-driven goal. The critical role of gender in HCV treatment uptake and the provision of HCV care within culturally safe healthcare services both featured in 2024 CSRH scholarship. One study evaluated gender differences in HCV infection and care engagement, including testing and treatment uptake. While testing history and current infection were comparable amongst both men and women, women previously diagnosed with chronic HCV were found to be less likely to have received treatment than men (64% vs 71%). Women younger than 45 years were less likely to have engaged in HCV care (as measured via testing and treatment numbers) and yet were more likely to be living with chronic HCV infection. A qualitative sub-study of the SCALE-C study (Strategies for hepatitis C testing and treatment in Aboriginal communities that Lead to Elimination) explored levels of acceptability among patients and providers of an HCV ‘test and treat’ model of care using fingerstick point-of-care (POC) testing within Aboriginal Community Controlled Health Services. This innovative care model was found to have broad acceptability among both stakeholder groups. A qualitative exploration of the regulatory and policy environment governing the potential scale-up of infectious diseases POC testing found that while national strategies and advocacy efforts were conducive to scale-up, the more stringent regulatory environment impeded timely momentum for market access and scale-up. Two papers in this subsection challenge us to (re)consider the ‘endgame’ of HCV elimination, exploring the changing estimates of HCV prevalence within Australia, and drawing attention to who ‘the missing’ are as Australia strives towards HCV testing and treatment elimination targets. The final paper examines HCV reinfection through the lens of ‘time’. Drawing on qualitative data from a study examining treatment outcomes and reinfection, the authors conclude that our understanding of reinfection needs to move beyond its current, narrow biomedical conception and organising temporal logic to honour and incorporate the lived complexities of post-cure life among people who inject drugs.

The Harm Reduction and Alcohol & Other Drugs (AOD) sub-section includes five publications. Across these studies, the delivery of care that is both trusting and inclusive is crucial to AOD service engagement, regardless of service type and patient identity. In a study assessing OAT in community pharmacies from both pharmacist and consumer perspectives, inclusive settings were found to reduce service problems and enhance engagement for both consumers and pharmacists. People who access needle and syringe programs similarly highlighted the importance of trusting service environments as an enabler for service access. In keeping with this notion of inclusion, another study identified a gap in cultural inclusion among existing AOD services, recommending the implementation of a cultural inclusion audit process to enhance service provision. Among young people, holistic care connected with community services and support structures was found to better enable AOD ‘continuing care’ that is person-centred. A qualitative examination of the implementation of extended-release buprenorphine depot (BUP-XR) further underscored the nuances and importance of responsive care.

Moving to the Prison Setting sub-section, two papers provide a detailed account of primary prevention service accessibility for people who inject drugs in prison, with two further publications exploring HCV knowledge among people who are incarcerated, including the development of HCV education for key stakeholders in prison. Canada-based research exploring perceived barriers and enablers to prison needle exchange program uptake presented competing challenges for program enrolment, including fear of being targeted by correctional officers. Across prison personnel, including officers and healthcare workers, and among people who are incarcerated, education was regarded as one of the key mechanisms required to influence change and improve program accessibility. Australian-based research identified varying levels of HCV health literacy among key stakeholders in prison, with prison healthcare workers considered to have better HCV health literacy compared with officers and people who are incarcerated. Again, education was identified as an important strategy for increasing HCV health literacy, with peer-to-peer educators regarded as facilitators to engagement with education among both correctional officers and people who are incarcerated. Lastly, qualitative research assessing HCV health literacy and educational needs among people in prison identified knowledge gaps, particularly around HCV reinfection and retreatment, and a general desire for increased HCV-focused education.

Hepatitis C and people who use drugs Spotlight 1: The ‘missing’ in the ‘endgame’ of hepatitis C elimination: A qualitative study in New South Wales, Australia

By Treloar C, Lancaster K, Rhodes T, Lafferty L, Bryant J, Rance J. *Drug and Alcohol Review*. 2024; 43(5).

After a promising start in Australia, elimination efforts for hepatitis C are not on track. Following the global campaign to ‘find the missing’ in hepatitis C response, this qualitative study explores stakeholder perspectives on the ‘missing’ in the ‘endgame’ of hepatitis elimination in the state of New South Wales, Australia. Method Twenty-eight key informants working in New South Wales, elsewhere in Australia, and internationally in high income countries participated in a semi-structured qualitative interview. Analysis examined key informant accounts of the ‘missing’ in efforts to eliminate hepatitis C.

Participants' accounts framed the missing in relation to epidemiological knowledge, making-up four population categories ‘missing’ or ‘missed’ in the hepatitis C response. In turn, accounts situated the missing in relation to where and how individuals were presumed to connect, or not, with existing health-care infrastructures. This gave rise to concerns about the capacity of health services to be made available for those at risk or in need, with systems said to create opportunities for people to ‘miss out’ on hepatitis C services.

The ‘missing’ in the ‘endgame’ of hepatitis C elimination effort is not simply a function of who—populations missed—but of where and how, that is, situation and context. Our findings encourage a focus on how services, systems and contexts may create situations in which people become missed or are ‘made missing’ from care. We therefore advocate for a systemic, and not only population-based, approach in the final push towards hepatitis C's elimination.

Hepatitis C testing, treatment, cure and elimination - Summaries

1. Valerio H, Marshall AD, Conway A, Treloar C, Carter L, Martinello M, Henderson C, Amin J, Read P, Silk D, Degenhardt L, Prain B, Alavi M, Dore GJ, Grebely J. Factors associated with hepatitis C testing, treatment, and current hepatitis C infection among men and women who inject drugs: The ETHOS engage study. *International Journal of Drug Policy*. 10.1016/j.drugpo.2024.104394

Background: Evaluating gender-specific trends in hepatitis C virus (HCV) treatment uptake among men and women who inject drugs is crucial for ensuring equitable progress towards HCV elimination. This study aimed to quantify differences in testing, treatment, and current HCV infection between men and women who inject drugs.

Method: ETHOS Engage is an observational cohort study of people who inject drugs attending drug treatment clinics and needle and syringe programs in Australia recruited from May 2018-September 2019 (wave 1) and November 2019-April 2021 (wave 2). Participants completed a questionnaire including self-reported HCV testing and treatment history and underwent point-of-care HCV RNA testing (Xpert(R) HCV Viral Load Fingerstick). Logistic regression was used to compare the factors associated with self-reported HCV testing and treatment and current HCV infection for men and women who inject drugs.

Results: Among 2,395 participants enrolled in ETHOS Engage, 66% (n = 1,591) were men, 33% (n = 786) women, and <1% (n = 18) did not identify as a man or woman. HCV testing history and current infection were similar among men and women. Among men or women ever eligible for HCV treatment (ever chronic HCV) (n = 1,242), women were less likely to report a history of HCV treatment compared to men (227/352, 64% vs. 631/890, 71%; p = 0.03). Among women, those aged <45 were less likely to report HCV testing (aOR: 0.57, 95%CI: 0.36, 0.90), treatment (aOR: 0.47, 95%CI: 0.29, 0.77), and more likely to have HCV infection (aOR: 1.48, 95%CI: 1.00, 2.20)

Conclusion: Among women, those of childbearing age (<45) were less likely to report testing and treatment and were more likely to have current HCV infection. Women <45 years old should be a priority population for HCV care. Services that interface with these women should be optimised to enhance HCV testing and treatment.

2. Lafferty L, Beadman M, Ward J, Flynn E, Hosseini-Hooshyar S, Martinello M, Treloar C. Patient and healthcare provider perceptions of acceptability of fingerstick point-of-care hepatitis C testing at Aboriginal Community Controlled Health Services in Australia. *International Journal of Drug Policy*. 2024; 125. <https://doi.org/10.1016/j.drugpo.2024.104335>

Background Hepatitis C (HCV) is highly prevalent in First Nations communities globally. Barriers in the uptake of testing and treatment create challenges to realise elimination of HCV in these communities. In efforts to reduce barriers to testing and treatment, the SCALE-C study implemented an HCV test-and-treat intervention integrating point-of-care HCV testing and FibroScan®. SCALE-C was carried out at four Aboriginal Community Controlled Health Services (ACCHS; renowned for providing culturally safe care) in four regional towns in Australia. This qualitative analysis sought to understand healthcare provider and patient perceptions of acceptability of a community-based HCV test-and-treat intervention within ACCHS.

Methods Semi-structured interviews were undertaken with 23 patient participants and 14 healthcare personnel (including Aboriginal Health Workers/Practitioners, nurses, general

practitioners, and practice managers) from across the four ACCHS involved in SCALE-C. A coding framework was developed among study authors and informed by Sekhon's Theoretical Framework of Acceptability.

Results The SCALE-C intervention enabled opportunities for healthcare providers to listen to patients, and for patients to feel heard (affective attitude). HCV testing was opportunistic and often occurred outside of the allocated SCALE-C clinical hours (burden). For patients, HCV testing within SCALE-C was viewed as a moral responsibility and ensured protection of self and others (ethicality). For personnel, SCALE-C (including following up visits) was regarded as an opportunity to engage with patients especially those with complex health needs which may be unrelated to HCV risk factors (ethicality). Patients and personnel widely regarded the SCALE-C intervention to be effective, and the test-and-treat model was preferable for both patients and personnel.

Conclusion The SCALE-C intervention was broadly perceived to be acceptable among both healthcare providers and patients within ACCHS. Whilst the prioritisation of HCV was viewed as increasing patient engagement, it was also regarded as an opportunity for addressing other healthcare needs within Aboriginal communities. HCV test-and-treat models of care delivered by ACCHS simplify the HCV care pathway and ensure all HCV care is provided in a culturally safe setting (e.g., patients did not need to attend external services such as pathology).

3. Lafferty L, Applegate TL, Lewis S, Drysdale K, Monaghan R, Kelly-Hanku A, Guy R, Treloar C. Pre-market health systems barriers and enablers to infectious diseases point-of-care diagnostics in Australia: qualitative interviews with key informants. *BMC Infectious Diseases*.2024; 24(1). <https://doi.org/10.1186/s12879-024-10214-5>

Background There exist multiple regulatory layers for point-of-care (POC) testing to be implemented within Australia. This qualitative analysis sought to understand the pre-market barriers and facilitators to scale-up infectious diseases POC testing in primary care settings at the national level.

Methods Key informant interviews were undertaken with people (n = 30) working in high- level positions relevant to infectious diseases POC testing in Australia. Participants were recruited from federal and state health departments, industry, and nongovernment national peak bodies. The Unitaidd scalability framework informed this analysis to understand barriers and enablers to creating access conditions and establishing country readiness for market access of POC tests.

Results Participants identified regulatory frameworks as significant barriers to market access. National strategies and advocacy were viewed as potential enablers to establishing country readiness. It was recommended that the national system for universal health care should fund infectious disease POC tests to ensure financial sustainability, though the existing pathology infrastructure was regarded as a likely inhibitor.

Conclusions Current regulatory frameworks inhibit market access for infectious disease POC testing devices for use in the primary care setting. National advocacy is urgently needed to gain government support and align national policies with regulatory frameworks.

4. Rhodes T, Lancaster K, Adams S. In search of a 'good number': knowledge controversy and population estimates in the endgame of hepatitis C elimination. *BMJ Global Health*. 2024; 9(2). 10.1136/bmjgh-2023-014659

We explore the contentious life of a metric used to assess a country's progress in relation to global disease elimination targets. Our topic is hepatitis C elimination, and our context is Australia. A fundamental metric in the calculation of progress toward hepatitis C elimination targets, as set by the WHO, is the population prevalence of people living with hepatitis C. In Australia, this modelled estimate has generated some controversy, largely through its repeated downsizing as an effect of calculus. The 2015 baseline population estimate in Australia, from which measures of current elimination progress are assessed, has reduced, over time, by around 30%. Informed by a social study of science approach, we used qualitative interviews with 32 experts to explore the knowledge controversy. The controversy is narrated through the core concerns of 'scale' and 'care', with narratives aligning differently to imaginaries of 'science' and 'community'. We trace how constitutions of 'estimate' and 'number' circulate in relation to 'population' and 'people', and as affective values. We show how enactments of estimates and numbers materialise hepatitis elimination in different ways, with policy implications. The event of the knowledge controversy opens up the social and political life of enumerations—for science and community—inviting deliberation on how to make 'good numbers' in the race to eliminate hepatitis C.

5. Rance J, Grebely J, Treloar C. The time of cure: hepatitis C treatment and the matter of reinfection among people who inject drugs. *Health Sociology Review*. 2024; 33(1). 10.1080/14461242.2024.2315031

Australia has made considerable progress towards the public-health 'elimination' of the hepatitis C virus. Nonetheless, reinfection remains a key challenge, with little understanding regarding the lived complexities of post-cure life among people who inject drugs. Our analysis examines reinfection through the lens of 'time', a largely overlooked and under-utilised analytical concept within the field of hepatitis C. Drawing on qualitative data from a study examining treatment outcomes and reinfection, our analysis concentrates on three participant accounts or 'cases'. Working within a new materialist framework, we combine recent social science scholarship which, firstly, posits cure as a socio-material 'gathering', and secondly, proposes a 'futurology' of hepatitis C and its treatment. We found participant accounts troubled the neat binary of pre- and post-treatment life, instead detailing the challenges of remaining virologically safe while navigating complex, local life-worlds. Rather than a singular, post-treatment future instantiated by cure, participants described the fluid, emergent nature of what we might describe as 'lived' or 'embodied' time, including multiplicities of becoming in a perpetual present. We conclude that our understanding of reinfection needs to move beyond its current, narrow biomedical conception and organising temporal logic to honour and incorporate complexity in practice.

Alcohol and other drugs: harm reduction-publication summaries

1. Caruana T. Opioid agonist treatment and trust in the community pharmacy setting: a qualitative study of perceptions and experiences. *Drugs: Education, Prevention and Policy*. 2025; 32(1). <https://doi.org/10.1080/09687637.2024.2309982>

Background: Opioid agonist treatment (OAT) in New South Wales Australia involves prescribed consumption of methadone or buprenorphine formulations and is commonly accessed through community pharmacies. People with a history of drug use often feel mistrusted and this can deter them from starting or staying in treatment. This study sought pharmacist and consumer perspectives to understand how treatment engagement can be best supported.

Objective: To explore consumer and pharmacist experiences of OAT services, identifying the social and structural elements that enhance or impair treatment and professional satisfaction and analyzing how these are influenced by trust.

Methods: Semi-structured interviews were conducted in 2021–2022 with 10 pharmacists and 15 consumers. Transcripts were analyzed using a realist thematic approach.

Results: Burdensome fees, pharmacy service problems, and system opportunities were generated as themes of subjection, and socially inclusive care and person-centered approaches as themes of connection. OAT consumers felt more inclusion when pharmacy practices did not differentiate or demean them and when pharmacists communicated in a personable and caring manner, and pharmacists recognized these aspects as contributing to greater professional fulfillment and less service problems.

Conclusion: OAT delivery in community pharmacies provides opportunities for greater social inclusion, particularly when trust and fairness are demonstrated.

2. Broady T, Cama E, Brener L, Harrod M, Treloar C. Characteristics of people who inject drugs and do not access NSPs: Implications for improving linkage into health care. Sydney: UNSW Centre for Social Research in Health. <https://doi.org/10.26190/unsworks/30819>

Access to sterile injecting equipment is a key strategy to reduce blood borne virus transmission among people who inject drugs. Needle and syringe programs (NSPs) and similar harm reduction initiatives have shown substantial effectiveness in ensuring people who inject drugs are able to do so as safely as possible. Despite the widespread availability of NSPs throughout NSW and Australia, not all people who inject drugs use these services to access sterile injecting equipment. This project aimed to identify demographic and behavioural characteristics of people who inject drugs and do not access NSP services. People who inject drugs and do not access NSPs represented a relatively small, but significant proportion of participants in this study. Findings suggest that they injected drugs less frequently than those who accessed NSPs but were also less likely than participants attending fixed site NSPs to be able to access the equipment they needed. Demographic differences in NSP utilisation should be considered in developing models of care, particularly to account for the preferences of young people and women who inject drugs. Stigma remains a constant threat to the effectiveness of any harm reduction initiative. Utilising existing trusted relationships with health care workers and within communities of people who inject drugs may be a particularly useful approach to broader options for sterile equipment distribution, increase trust in harm reduction services, and increase fixed site NSP service utilisation.

3. Hopwood M, Bryant J, Neale J, Caluzzi G, Skattebol J, MacLean S. Alcohol and other drug continuing care for young people: identifying helpful program mechanisms. *International Journal of Adolescence and Youth*. 2024; 29(1). 10.1080/02673843.2024.2353202

‘Continuing care’ refers to the provision of co-ordinated care and support overtime. Currently, little is known about continuing care programs for young people who complete alcohol and other drug treatment. This paper analyses data from an interview-based study that aimed to identify the generative mechanisms underpinning an innovative continuing care program for young people. Researchers recruited 11 current and former program clients aged 17 to 25 years and nine program staff. Analysis identified five generative mechanisms of the program that supported participants to manage their substance use over the long term, namely person-centred counselling; relationship stability; safety and inclusion; situated mode of ordering continuing care; and organizational memory. Participants reported that the best continuing care for young people is holistic, includes regular and sustained contact, employs an innovative approach to intervention, establishes links with community services and other support structures, and provides care within a safe, person-centred, and situated framework.

4. Horwitz R, Brener L, Prankumar SK, de Jesus T, Jaworski A, Jadran A, Bryant J. Understanding cultural inclusion in alcohol and other drug services in New South Wales, Australia and assessing the acceptability of a cultural inclusion audit. *Drug and Alcohol Review*. 2024; 43(7). <https://doi.org/10.1111/dar.13883>

Introduction: Cultural inclusion and competence are understood at the most basic level to be the practice of considering culture so as to provide effective services to people of different cultural backgrounds. In order to work better with clients from diverse backgrounds, alcohol and other drug (AOD) services need to offer a service that is designed to be accessible to all people, where systems in place operate in a way that considers different cultural needs. This research aimed to assess the extent to which non-government AOD services in New South Wales are positioned to support cultural inclusion as well as to evaluate the acceptability of a cultural inclusion audit across four AOD sites.

Methods: The research adopted a mixed methods approach comprising of a pre-audit online survey (n = 85) designed to assess AOD services’ attitudes and practices towards cultural inclusion, and in-depth interviews that were conducted with nine AOD service staff and four cultural auditors to explore the acceptability of a cultural inclusion audit process.

Results: Findings from the survey indicate cultural inclusion practices are limited. Interview data highlight that while staff are not fully aware of what appropriate cultural inclusions entails, they are receptive to and want a cultural inclusion program.

Discussion and Conclusions: The study illustrates the benefits of implementing a cultural inclusion audit process aimed at raising awareness of what cultural inclusion entails. Including a cultural inclusion service audit is likely to enhance AOD service provision to culturally and linguistically diverse groups and thereby improve treatment outcomes.

5. Lancaster K, Gendera S, Treloar C, Rhodes T, Shahbazi J, Byrne M, Nielsen S, Degenhardt L, Farrell M. Tinkering with care: Implementing extended-release buprenorphine depot treatment for opioid dependence. *International Journal of Drug Policy*. 2024; 126. <https://doi.org/10.1016/j.drugpo.2024.104359>

We examine how extended-release buprenorphine depot (BUP-XR) is put to use and made to work in implementation practices, attending to how care practices are challenged and adapted as a long-acting technology is introduced into service in opioid agonist treatment (OAT) in

Australia. Our approach is informed by ideas in science and technology studies (STS) emphasising the irreducible entanglement of care practices and technology, and in particular the concept of 'tinkering' as a practice of adaptation. To make our analysis, we draw on qualitative interview accounts (n = 19) of service providers involved in BUP-XR implementation across five sites. Our analysis considers the disruptive novelty of BUP-XR. Tinkering to make a novel technology work in practice slows down the expectation of implementation in relation to transformative innovation, despite the promise of dramatic or rapid change. Tinkering allowed for more open relations, for new care practices that departed from the routine and familiar, opening potential for how BUP-XR could be put to use and made to work in its new situation, and as its situation evolved along-with its implementation. Flexibility and openness of altering relations was, however, at times, held in tension with inflexibility and closure. This analysis identifies a concern for what is made present and what is made absent in the altered care network affected by BUP-XR, with the multiple effects of supervised daily dosing practices thrown into relief as they become absented. Tinkering to implement BUP-XR locally connects with a broader assemblage of trial and movement in the constitution of treatment. The introduction of long-acting technologies prompts new questions about embedded implementation practices, including supervised dosing, urinalysis, the time and place of psychosocial support, and how other social aspects of care might be recalibrated in drug treatment.

The prison settings-publication summaries

1. Lafferty L, Altice FL, Leone F, Stoové M, Lloyd AR, Hajarizadeh B, Kronfli N. Using nominal group technique with people who are incarcerated in Canadian federal prisons to identify barriers and solutions to improving Prison Needle Exchange Program uptake. *International Journal of Drug Policy*. 2024; 131. <https://doi.org/10.1016/j.drugpo.2024.104549>

Background Prison needle exchange programs (PNEPs) are a critical component for harm reduction in prisons. Little is known about the PNEP access barriers for people who are incarcerated, but the low uptake in the Canadian program highlights these constraints. We aimed to identify the barriers and potential solutions for increasing PNEP coverage in the nine Canadian federal prisons where they operate.

Methods Eighteen focus groups were conducted in nine prisons using nominal group technique (NGT) with two stakeholders: peer advocates and people who use or identified as potential users of the PNEP. NGT uses a round-robin technique followed by generating a list of barriers to PNEP enrolment within their prison. Participants then allocated votes to rank the highest priority barriers, followed by an identical process to generate solutions to address the top three barriers. Interview transcripts describing participant narratives during this process were de-identified and coded to generated themes. Barriers and solutions receiving >10 % of votes within respective participant groups, alongside associated narratives, are discussed more fully.

Results Fear of repercussions due to drug use, lack of confidentiality, and fear of being targeted and sanctioned by correctional authorities were perceived by both stakeholder groups as the top barriers inhibiting PNEP enrolment. Stigma (peer advocates) and the application process for the program (PNEP users) were also ranked as a priority. Proposed solutions included education and external oversight of PNEP (i.e., not via correctional officers) by both groups. Peer advocates regarded improving participant confidentiality and a supervised/safe injection site as potential enablers for program participation, while PNEP users identified wrap-around services as likely to improve access.

Conclusion Barriers to increasing PNEP coverage in Canadian federal prisons proposed by participants highlight the importance of trust and perceived repercussions surrounding program participation. These barriers and proposed solutions highlight a need for changes in implementation to PNEP delivery if the potential health benefits of PNEPs are to be realised.

2. Kronfli N, Lafferty L, Leone F, Stoové M, Hajarizadeh B, Lloyd AR, Altice FL. Using nominal group technique to identify perceived barriers and facilitators to improving uptake of the Prison Needle Exchange Program in Canadian federal prisons by correctional officers and healthcare workers. *International Journal of Drug Policy*. 2024; 130. <https://doi.org/10.1016/j.drugpo.2024.104540>

Background Elimination of bloodborne viruses including HIV and hepatitis C virus from prisons requires high coverage of evidence-based interventions that prevent bloodborne virus transmission, including needle and syringe programs. Canada launched a Prison Needle Exchange Program (PNEP) in nine federal prisons in 2018; however, uptake among people who inject drugs in prison remains low. We aimed to explore barriers and facilitators to improving PNEP uptake identified by correctional officers and healthcare workers.

Methods Participants from nine federal prisons with PNEP completed focus groups using nominal group technique, a rapid mixed-method consensus strategy. Responses were generated, rank-ordered, and prioritized by each stakeholder group. We identified the highest-ranking responses ($\geq 10\%$ of the overall votes) to questions about barriers and facilitators to PNEP uptake.

Results Between September 2023 and February 2024, 16 focus groups were conducted with 118 participants ($n = 51$ correctional officers; $n = 67$ healthcare workers). Among correctional officers, the top perceived barriers were bullying from peers (22 %), fear of being targeted by correctional officers (14 %), and fear of repercussions due to drug use (13 %). The top facilitators were safe injection sites (30 %), provision of wrap-around services (16 %), and education of correctional officers (10 %). Among healthcare workers, the top perceived barriers were lack of confidentiality (16 %), fear of being targeted by correctional officers (12 %), and a long and complex application process (11 %). The top facilitators were education of correctional officers (29 %), delivery of PNEP by an external provider (15 %), automatic approval for participation in the PNEP (13 %), and safe injection sites (12 %).

Conclusion Multiple modifiable barriers and solutions to improving PNEP uptake in Canadian federal prisons were identified by correctional employees. Both participant groups identified the potential for safe injection sites and education to correctional officers as enabling PNEP uptake. These data will inform Canadian efforts to improve engagement and to expand PNEP coverage.

3. Sheehan Y, Cochrane A, Treloar C, Grebely J, Tedla N, Lloyd AR, Lafferty L. Understanding hepatitis C virus (HCV) health literacy and educational needs among people in prison to enhance HCV care in prisons. *International Journal of Drug Policy*. 2024; 130. 10.1016/j.drugpo.2024.104516

Background: Hepatitis C virus (HCV) is a significant concern within prison populations. Provision of HCV testing and treatment for people in prison is expanding and a key component of global elimination efforts. Despite growing service availability, several challenges remain in HCV testing and treatment engagement during incarceration. The PIVOT study demonstrated that a ‘one-stop-shop’ intervention (point-of-care HCV RNA testing, Fibroscan®, nurse-led clinical assessment, and fast-tracked direct-acting antiviral prescription) enhanced HCV testing and treatment at a reception prison in Australia. Utilising Squier et al’s Health Literacy Skills Framework, this analysis aimed to understand HCV health literacy and educational needs among people at a reception prison in Australia.

Methods: Semi-structured interviews were conducted with twenty-four male PIVOT study participants. Purposive sampling ensured comparable representation of those with: 1) prior HCV testing history (standard pathology / no prior testing), and 2) injecting drug use history (IDU; ever / never).

Results: Varied HCV health literacy levels and educational needs were evident amongst people in prison. Whilst those with multiple incarceration episodes and IDU history (prior knowledge) appeared to have stronger HCV health literacy than those without, substantial gaps in HCV health literacy were evident. Knowledge of HCV transmission risks in prison was high, and most understood the importance of HCV testing and treatment in prison (comprehension), but ability to engage with HCV testing and treatment services, participation in safe injecting behaviours (health-related behaviours), and knowledge of re-infection and re-treatment, within the context

of the prison environment, were suboptimal. There was a general desire for increased HCV education in prison.

Conclusion: Gaps in HCV health literacy among people in prison were evident, indicating opportunities for improvement. A targeted HCV education program for people in prison, addressing the gaps identified in this analysis, may enhance HCV testing, treatment, and prevention by fostering stronger HCV health literacy among people in prison.

4. Sheehan Y, Lafferty L, Tedla N, Byrne M, Dawson O, Stewart S, Leber B, Habraken N, Lloyd AR. Development of an evidence-based hepatitis C education program to enhance public health literacy in the Australian prison sector: The Hepatitis in Prisons Education program (HepPEd). *International Journal of Drug Policy*. 2024; 129. 10.1016/j.drugpo.2024.104461

Background Australia's prisons have a high chronic hepatitis C (HCV) prevalence (8 %). Antiviral therapies and prison-based hepatitis services are available, but only a minority of those eligible are being treated. Improving the HCV public health literacy of the prison sector via targeted education may overcome key barriers to scale-up treatment. This paper describes the: i) HCV public health literacy of the prison setting; ii) barriers and solutions for HCV education and service engagement; iii) HCV education program co-design and development processes; and iv) HepPEd resources.

Methods A national needs assessment was conducted to analyse the HCV public health literacy of the target audience groups in the prisons (healthcare providers; custodial officers; people in prison) to inform development of a prison-specific HCV education program (HepPEd). Structured interviews were conducted with key informants (n = 40). Three National Steering Committees, one for each target group, were convened to co-design and develop HepPEd.

Results Only healthcare providers involved with hepatitis care were considered to have 'good' to 'very good' HCV health literacy (including knowledge, attitudes, and capabilities), with all other groups considered less favourably. Key barriers identified included being time poor (healthcare providers), poor motivation (custodial officers) and stigma (people in prison). Peer education delivery was considered a key facilitator for custodial officers and people in prison. A suite of multi-modal resources addressing the perceived gaps in HCV health literacy was developed, with a broad theme of 'Let's talk about hep C'. Delivery of HepPEd was designed to overcome key barriers and utilise facilitators for each group.

Conclusions Significant gaps in HCV health literacy were perceived amongst the target audience groups. The comprehensive co-design and development processes utilised in HepPEd suggest the program will be well-placed to improve the HCV public health literacy of the prison sector and thereby enhance HCV testing and treatment rates amongst people in prison.

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