

# HIV & MOBILITY IN AUSTRALIA: A SNAPSHOT OF OVERSEAS-ACQUIRED HIV COMMUNITY OF PRACTICE FOR ACTION ON HIV & MOBILITY NOVEMBER 2023

This document provides a brief snapshot of available epidemiological data and research updates (>2018) in relation to overseas-acquired HIV in Australia, informed by a desktop review. Data is presented relating to place of acquisition, and overseas travel and sexual practices. Overseas-acquired HIV notifications have decreased in recent years, potentially due to COVID-19 travel restrictions. Consequently, we have reported on both the 2021 and 2018 data where possible.

## OVERSEAS-ACQUIRED HIV: WHO ARE WE TALKING ABOUT?

Overseas-acquired HIV is used in reference to HIV that was acquired outside Australia but first diagnosed in Australia. This includes diagnoses amongst Australian-born people who may travel overseas, or people born overseas who acquired HIV pre- or post-migration, regardless of exposure type.

## WHAT DATA ARE AVAILABLE?

Data on HIV notifications by place of acquisition are available through [The Kirby Institute](#) and surveillance reports from some jurisdictions. Data from the Kirby Institute is split into two main groups by exposure type: male-to-male sex and heterosexual sex.

In addition, five community-based studies provide relevant data relating to population mobility:

- [HIV Futures](#) (a periodic biennial cross-sectional survey of people living with HIV)
- [Seroconversion Study](#) (a mixed method periodic study that ended in 2015)
- [The Gay Community Periodic Survey](#) (an annual, cross-sectional survey in metropolitan areas of seven jurisdictions)
- [Migrant Blood-borne Virus and Sexual Health Survey \(MiBSS\)](#) (a cross-sectional survey rolled out in 2021 in four states)
- [Gay Asian Men's Survey](#) (a periodic, cross-sectional survey in NSW).

## NATIONAL DATA: HIV AND PLACE OF ACQUISITION

The HIV Futures 8 2016 study<sup>1</sup> (n=895 participants; data not included in Futures 9 or 10) reported that 18% (n=156) of total notifications were acquired overseas. Overseas acquired HIV was higher among people born overseas (32%, n=70 compared to 13%, n=84 of those born in Australian). Women were more likely than men to acquire HIV overseas (34%, n=25 compared to 16.5%, n=129 of men). The most common place of acquisition was Southeast Asia (30%, n=45), followed by the United Kingdom and New Zealand (21.5%, n=32). Of overseas-acquired HIV diagnoses >2010, one quarter (25%, n=57) reported acquiring HIV whilst travelling, with the most common region being Southeast Asia.

**Male-to-male sex:** In 2021<sup>2</sup>, 15% of MSM notifications were acquired overseas – with a higher proportion amongst those born overseas (29%) compared to those born in Australia (3%). In 2018, a quarter (26%) of notifications were acquired overseas, again with a higher proportion among those born overseas (39%) compared to those born in Australia (14%). In the 2015 Seroconversion study<sup>3</sup>, 18.5% (n=108) of participants acquired HIV overseas, most commonly in Asia (25%, n=28) and Europe (21%, n=24). Reasons for being overseas included holidays (43%, n=49), living there (41%, n=47) and work (27%, n=31). Most had been overseas for less than a month before acquisition (34%, n=25), or longer than two years (32%, n=24).

Further analysis by Brown et al. (2018)<sup>4</sup> of the data showed that, of the 79 men born overseas who acquired HIV overseas, 28 were born in the country they acquired HIV in. Most men were diagnosed upon return to Australia.

**Heterosexual sex:** In 2021<sup>2</sup>, almost half (47%) of heterosexual notifications were acquired overseas. A higher proportion were recorded amongst those born overseas (54%) compared to those born in Australia (38%). In 2018, more than half (55%) of total notifications were overseas-acquired, and higher among those born overseas (63%) than in Australia (48%).

## THE NATIONAL PICTURE: TRAVEL AND SEXUAL PRACTICES

The 2021 Gay Asian Men’s Survey<sup>5</sup> found that 70% (n=533) of participants reported sex in a country other than Australia, 17% (n=130) since the COVID-19 pandemic started. Countries commonly reported were China (21%) and Thailand (19%). During their latest overseas sexual encounter, 8% of participants reported using recreational drugs, 34% reported condomless anal sex with a casual partner, 49% reported consistent condom use and 40% reported using pre-exposure prophylaxis (PrEP) or their partner using PrEP. In the 2021 MiBSS data<sup>6</sup>, 7% (n=107) of participants reported sex overseas since 2018; of those, less than half (43%, n=45) always wore a condom during sexual encounters.

## JURISDICTIONAL DIFFERENCES

Considerable differences exist in HIV epidemiology by jurisdiction. Data variables collected relating to travel (Table 1), and how they are reported, are inconsistent between jurisdictions.

Table 1. Jurisdictional data variables relating to travel and migration collected in notification forms

| Data variable                                   | Jurisdictions |     |    |     |    |      |     |    |
|---|---------------|-----|----|-----|----|------|-----|----|
|   | ACT           | NSW | NT | QLD | SA | TAS* | VIC | WA |
| Country of birth                                | ✓             | ✓   |    | ✓   | ✓  |      | ✓   | ✓  |
| Ethnic origin                                   |               |     |    | ✓   |    |      |     |    |
| Residency status                                |               |     |    |     |    |      |     | ✓  |
| Language spoken at home / Preferred language    |               | ✓   |    | ✓   | ✓  |      | ✓   | ✓  |
| Likely country of acquisition                   |               | ✓   | ✓  | ✓   | ✓  |      | ✓   | ✓  |
| Overseas travel                                 | ✓             |     |    |     |    |      |     |    |
| Reason for being overseas                       |               |     |    |     |    |      |     | ✓  |
| Sex with a person from another country          |               |     |    | ✓   | ✓  |      |     |    |
| Heterosexual sex with person not from Australia |               | ✓   |    |     |    |      | ✓   | ✓  |

\* Notification form for Tasmania unable to be retrieved

^ At the time of writing, data were not publicly available for the Australian Capital Territory (ACT) and Tasmania.

Four jurisdictions reported on HIV by overseas-acquisition (Northern Territory (NT), South Australia (SA), New South Wales (NSW), and Western Australia (WA)). Jurisdictional data relating to overseas travel is available within: [The Gay Community Periodic Survey](#) (excluding NT) and the [Migrant Blood-borne Virus and Sexual Health Survey](#) (SA, Victoria, Queensland and WA).

## THE RESEARCH PICTURE

Seven Australian-based articles reporting on sexual health and overseas travel have been published since 2018 (excluding those from the MiBSS study). Papers have been categorised below, related to people born overseas, people born in Australia and travel advice. There is a dearth of publications between 2019 and 2023, likely due to travel-related restrictions during COVID-19.

**People born overseas:** Mullens et al. (2018)<sup>7</sup> report on a forum with African Australians who described engaging in sex during return visits to country of birth/origin/family, with the reintroduction of cultural norms increasing the risk of HIV transmission. Doctors were central in providing education and strategies to reduce HIV transmission pre-travel, including discussion of PrEP, and in promoting testing on return to Australia. In a survey with migrants born in Southeast Asia or sub-Saharan Africa by Gray et al. (2018)<sup>8</sup>, 30 participants (14%) reported travelling to a high HIV prevalence country, five participants reported sex while overseas.

In another study of Victorian data analysed by Peach et al. (2018)<sup>9</sup>, just under half (49%) of migrants diagnosed were estimated to have acquired HIV before migration. It is unclear what percentage of migrants who acquired HIV post-migration did so overseas. King et al. (2023)<sup>10</sup> presents a new algorithm, which estimates a higher percentage (49%) of migrants were diagnosed post-migration compared to the standard algorithm (33%). It is unclear what proportion acquired HIV overseas post-migration.

**People born in Australia:** In analysis by Peach et al. (2018)<sup>9</sup> of Victorian data, 29% of Australian/New Zealand born people acquired HIV overseas. Most (84%) were men, who acquired HIV in Southeast Asia (84%) through heterosexual sex (93%). An analysis of an online forum for Australian expatriates, longer-term or frequent travellers (ELOFTs) to Southeast Asia by Crawford et al. (2018)<sup>12</sup> found sexual risk taking was perceived as part of the travel experience, with the forum providing peer-based social support and health information.

**Travel advice:** A commentary by Cornelisse et al. (2019)<sup>13</sup> provided strategies for clinicians to maximise travellers' sexual safety, including discussing condoms, PrEP, and PEP. Seroconversion Study data analysed by Brown et al. (2018)<sup>4</sup> described similar sexual risk-taking profiles among men who acquired HIV overseas and those who acquired HIV in Australia.

## SO WHAT?

HIV acquired overseas constitutes a considerable proportion of Australia's notifications. Recent decreases in notifications of overseas-acquired HIV are likely due to restrictions in travel during the COVID-19 pandemic. As restrictions ease and travel resumes, it is likely that overseas-acquired HIV notifications will return to pre-pandemic levels. Travel-related HIV prevention, and support for those who travel overseas to undertake HIV testing when returning to Australia, are crucial.

## WHAT'S NEXT?

Implications, based on described data and research and the HIV and Mobility: Road Map for Action and Priority Actions documents, are listed below:

1. Harmonise and enhance data collection and reporting of overseas-acquired HIV, including country of acquisition, residential status, ethnicity, and reason for travelling.
2. Develop and evaluate health promotion programs that utilise existing online traveller forums and/or social networks to provide specific support for safer sex and promote testing (including self-testing).
3. Identify mechanisms to support clinicians to provide pre-travel prevention advice and testing (including on-demand PrEP) and post-travel testing.
4. Collect periodic data on sexual health and travel-related knowledge, attitudes, and behaviours. This includes incorporating questions on travel-related practices in existing periodic surveys.
5. Undertake further research on contextual and social factors that affect the sexual health of travellers, including migrants who are travelling between Australia and their home countries or countries of birth.

For more details on HIV and mobility and to join the response:

<https://www.odysseyresearch.org/copahm>



## SUGGESTED CITATION

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*Curtin University would like to pay respect to the Aboriginal and Torres Strait Islander members of our community by acknowledging the traditional owners of the land on which the Perth campus is located, the Whadjuk people of the Nyungar Nation.*

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Table 1. Summary of Australian literature on travel and sexual health (2018 - July 2023)

| Author (Year), Title<br>doi<br>Country of origin<br>Country of destination  | Aim/Methods   | Main findings   | Author recommendations  |
|---|---|---|---|
| <p><b>Brown et al. (2018).</b> <i>Not so different? Comparison of risk profile of gay men who acquired HIV while travelling with those who acquired HIV in Australia.</i><br/>doi: <a href="https://doi.org/10.1002/hpja.16">10.1002/hpja.16</a></p> <p><b>Origin:</b> Australia<br/><b>Destination:</b> Overseas</p>                       | <p>Cross-sectional, online survey to describe geographical location of HIV acquisition. Gay men (n=446) recently diagnosed with HIV reported on the high-risk event resulting in acquisition. Those who acquired HIV while in their usual place of residence (308 men), those who were travelling within Australia (59 men), and those who were travelling overseas (79 men) were compared.</p> | <p>Those who acquired HIV while overseas had very similar risk profiles, sexual behaviour, and made similar assumptions about their partners and their own HIV status, as those who acquired HIV in Australia. Three quarters (75%) of the men who acquired HIV while overseas were not diagnosed until they returned to Australia. Findings show that there are similar behaviours and assumptions for HIV transmission, in Australia and overseas. However, men travelling may be in communities where HIV status is less commonly disclosed, and where HIV prevalence is higher.</p> | <p>A deeper understanding of contextual factors is required for HIV prevention and health promotion strategies targeting gay men travelling to locations with different cultural, HIV prevalence, and HIV testing considerations. This would also identify opportunities for new tools such as PrEP and self-testing.</p> |
| <p><b>Cornelisse et al. (2019).</b> <i>Sexual safety and HIV prevention in travel medicine: Practical considerations and new approaches.</i><br/>doi: <a href="https://doi.org/10.1016/j.tmaid.2018.12.006">10.1016/j.tmaid.2018.12.006</a></p> <p><b>Origin:</b> Australia<br/><b>Destination:</b> Overseas</p>                            | <p>Review of strategies available to clinicians to maximise travellers' sexual safety during travel.</p>  | <p>Travellers may be at increased risk of HIV and other STIs, but this risk can be reduced through pre-travel counselling.</p>  | <p>Clinicians can help travellers plan for safer sex. Strategies available include condoms and may include PrEP or PEP. Travellers who engage in condomless sex during travel should be advised to seek HIV and STI testing upon their return home.</p>   |
| <p><b>Crawford et al. (2018).</b> <i>Prevention of HIV and other transmissible infections in expatriates and traveler networks: Qualitative study of peer interaction in an online forum.</i><br/>doi: <a href="https://doi.org/10.2196/10787">10.2196/10787</a></p> <p><b>Origin:</b> Australia<br/><b>Destination:</b> Southeast Asia</p> | <p>Content analysis of online forums to obtain a deeper contextual understanding of culture, personal behaviours, socialisation process and pathways. Relevant posts were analysed and thematically coded (n=550).</p>  | <p>The forum provided social support and health information, including in relation to HIV and STIs, providing confirmation, reassurances and affirmation of beliefs and experiences. Risk perception and expectations varied. Sexual risk taking appeared to be a key expectation of travel or the experience of being an expatriate or traveller.</p>  | <p>Interventions could utilise existing forums and social networks to provide specific information and education in relation to travel. The development of a Web-based outreach intervention would also provide a space to develop, test, implement or evaluate safer sex messages online.</p>                            |
| <p><b>Gray et al. (2018).</b> <i>HIV knowledge and use of health services among people from South-East Asia and sub-Saharan Africa living in Western Australia.</i><br/>doi: <a href="https://doi.org/10.1002/hpja.168">10.1002/hpja.168</a></p> <p><b>Origin:</b> Australia<br/><b>Destination:</b> Overseas</p>                           | <p>Survey with people born in sub-Saharan Africa and Southeast Asia (n=209) on HIV knowledge and use of health services.</p>  | <p>A third of participants (35%) had travelled to another country while living in Australia, 30 participants (14%) had travelled to a high HIV prevalence country. Of those, five participants had had sex while overseas.</p>  | <p>Development of tailored, health promotion interventions that target return travel, promoting safe sexual behaviour and encouraging testing among return.</p>   |

| Author (Year), Title<br>doi<br>Country of origin<br>Country of destination  | Aim/Methods  | Main findings  | Author recommendations   |
|---|--|--|--|
| <p><b>King et al. (2023).</b> <i>A population-level application of a method for estimating the timing of HIV acquisition among migrants to Australia.</i><br/>doi: <a href="https://doi.org/10.1002/jia2.26127">10.1002/jia2.26127</a></p> <p><b>Origin:</b> Australia<br/><b>Destination:</b> Overseas</p>   | <p>Application of new algorithm to new HIV diagnoses among migrants to estimate whether HIV infection occurred before or after arrival in Australia.</p>   | <p>Using the enhanced algorithm, 932 (49%) migrants were estimated to have acquired HIV after arrival in Australia. Using the standard algorithm, 622 (33%) were estimated to have acquired HIV in Australia.</p>  | <p>Sustained efforts in HIV prevention are required, including culturally appropriate programmes to increase access to PrEP, timely testing and treatment for those living with HIV, and reducing stigma.</p>  |
| <p><b>Mullens et al. (2018).</b> <i>Exploring HIV risks, testing and prevention among sub-Saharan African community members in Australia.</i><br/>doi: <a href="https://doi.org/10.1186/s12939-018-0772-6">10.1186/s12939-018-0772-6</a></p> <p><b>Origin:</b> Australia<br/><b>Destination:</b> sub-Saharan Africa</p>   | <p>Community forum with 23 African community leaders to discuss concerns about the nature and level of HIV risk exposure and behaviour, including when travelling to Africa.</p>   | <p>Stigma, denial, social norms, tradition and culture permeated perceptions and beliefs regarding HIV testing, prevention and transmission, particularly regarding return travel to home countries.</p>   | <p>Further research needed on international travel as a risk factor for HIV acquisition and the role of clinicians in HIV testing. Further assessment of PrEP as an appropriate intervention for return travellers is needed.</p>  |
| <p><b>Peach et al. (2018).</b> <i>Aiming for 90-90-90 – the importance of understanding the risk factors for HIV exposure and advanced HIV infection in migrant populations and other groups who do not report male-to-male sex.</i><br/>doi: <a href="https://doi.org/10.1071/SH17192">10.1071/SH17192</a></p> <p><b>Origin:</b> Australia<br/><b>Destination:</b> Overseas</p>  | <p>An analysis of Victorian HIV surveillance data to describe the epidemiology of HIV in people who do not report male-to-male sex. For migrants, a CD4 cell count decline method to estimate whether HIV was acquired before or after migration. Place of exposure for Australian-born people was estimated based on self-report.</p> | <p>Between 1996 June 2014, 821 new non-MSM HIV diagnoses were recorded. Most (58%) were migrants, of which half (54%) were estimated to have acquired HIV before migration. Among Australian-born people, 27% reported exposure likely occurring overseas; the majority of these were men who reported exposure in Southeast Asia. Advanced infection was common in migrants (45%) and Australian-born people (35%).</p> | <p>Pre- and post-travel HIV and STI prevention information tailored to the context of travel and post-travel counselling and testing, if warranted.</p>  |
| <p><b>Vujcich et al. (2023).</b> <i>HIV-Related Knowledge and Practices among Asian and African Migrants Living in Australia: Results from a Cross-Sectional Survey and Qualitative Study.</i><br/>doi: <a href="https://doi.org/10.3390/ijerph20054347">10.3390/ijerph20054347</a></p> <p><b>Origin:</b> Australia<br/><b>Destination:</b> East Asia and sub-Saharan Africa.</p> | <p>Cross-sectional survey with adults born in Northeast Asia, Southeast Asia and sub-Saharan Africa (n=1,489) on sexual encounters, use of condoms and STI testing.</p>  | <p>Seven percent (n=107) of participants reported sex outside of Australia since 2018, less than half indicated that they always used condoms during encounters.</p>   | <p>Effort is needed to improve knowledge of PrEP, redress misconceptions around testing and encourage safer sex practices during casual sexual encounters and in the course of international travel. The intervention effectiveness of pre-travel health consultations on consistent condom use during travel is not understood.</p> |

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