

# Epidemiological analysis of HIV among CALD communities



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## Key points of consideration for the sector

- The risk of HIV in Australia for migrants, temporary residents, and communities from high-prevalence countries (as well as the risk for migrants while travelling in the period after arriving in Australia), is an area of the national epidemic that needs increased focus and attention.
- For all culturally and linguistically diverse (CALD) groups, a more transnational perspective on HIV prevention and sexual health promotion is needed, including a focus on the connectedness (including travel to) countries of origin.
- For established communities, such as sub-Saharan African communities, interventions should focus on a 'strengths-based', or a 'resilience' approach. Such an approach seeks to build on, or enhance, the strengths, competencies, and abilities of individuals to improve their health by identifying and promoting existing personal, family, community and cultural resources, rather than focusing on deficits or barriers.<sup>1</sup>
- Given HIV notifications are decreasing among Australian-born men who have sex with men (MSM), but not other MSM, there is an opportunity to promote:
  - the availability of free, anonymous HIV (and sexual health) testing through sexual-health clinics;
  - point-of-care testing sites to overseas-born MSM (including both migrants and temporary residents), and
  - access to HIV pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP).
- Greater research is needed to help identify other areas of disadvantage and marginalisation experienced by Asian-born MSM, in particular, language, culture, social connectedness, and the ability to negotiate successful risk reduction strategies.<sup>2</sup>
- Given that up to half of diagnoses among people born overseas are late diagnoses, more work is needed to promote HIV testing among migrant communities.

## Epidemiological analysis

### Background

HIV is a notifiable disease in Australia, and doctors and laboratories are required to report all new HIV diagnoses to state and territory health authorities, as part of the National Notifiable Diseases Surveillance System (NNDSS). Data collected as part of this notification process contribute to a database called the National HIV Registry, managed by the Kirby Institute at UNSW.

At both a national and state/territory level, these data are used to report on trends in HIV acquisition, including number of people diagnosed, demographics, whether the infection was newly acquired, and clinical markers at

diagnosis. Data collected that relate to cultural and linguistic diversity include: country of birth; year of arrival (and month in some states); and language spoken (or mostly spoken) at home. Other information collected includes: exposure category (e.g. male-to-male sex, injecting); previous diagnosis of HIV (in another state or country); and the place where the infection was most likely acquired (including other state or country). It is also important to note that different studies and analyses report on different groups, and although there is a great deal of overlap between these categories, they are not exactly the same.<sup>i</sup>

## Overview

The overall prevalence of HIV in Australia is around 0.1%.<sup>3</sup> Among people diagnosed with HIV in 2018, 46% were born outside Australia.<sup>4</sup> In 2017, approximately 75% of new HIV infections occurred in men who have sex with men (MSM)<sup>3</sup>, although this proportion now seems to be decreasing.<sup>4</sup>

Patterns in HIV notifications in Australia in the ten-year period (2008–2017) show an overall 7% decline in new HIV notifications.<sup>3</sup> Data from 2018 (838 notifications) suggest this decrease has continued, with approximately 13% fewer notifications compared with 2017 (962 notifications).<sup>4</sup> However, trends in HIV diagnoses have *differed across jurisdictions*. According to the 2018 annual surveillance report, which analysed trends over the ten-year period to 2017, only New South Wales had observed an overall *long-term* decline in its HIV notification rate, however declines have subsequently been observed in other jurisdictions in recent years. Data available for 2018 show that in all jurisdictions except the Northern Territory, there was a lower number of HIV notifications compared to the previous year.<sup>4</sup> In Queensland the number of notifications in 2018, was 13% less than the previous four-year average.<sup>5</sup> However, more recent data (for 2019) in Western Australia show a 78% *increase* compared to the previous 12-month period.<sup>6</sup> Interestingly, in that state, MSM comprised only one third (34%) of notifications in 2018, down from one half (52%) in the previous year. In South Australia, there were 39 HIV notifications in 2018 compared to 61 cases in 2017, and in that state also, MSM comprised a lower proportion of notifications than the previous year (63% of all male HIV notifications, compared to 74 in 2017).<sup>7</sup>

Regarding *overseas-born* residents and citizens, data from 2018 indicate that 46% of all diagnoses were in people born outside Australia.<sup>4</sup> <sup>ii</sup> Also, a higher number of HIV notifications were reported in this group than in the previous year (378, compared to 388), in contrast to a notable decrease in the number of notifications among people born in Australia (from 529 to 427)<sup>4</sup>. <sup>iii</sup> There is also variation across the country with some jurisdictions, for example, Queensland generally reporting a lower proportion of people diagnosed with HIV being born outside Australia.<sup>5</sup> According to 10-year analyses, overall rates of HIV notifications for different regions of birth fluctuated over the period 2008 to 2017. The most notable trends were sharp increases among people born in South-East Asia at various points over the decade, an overall steady increase among those born in Northeast Asia (although both these groups actually decreased in 2017), as well as significant fluctuations between years for people born in the Americas<sup>3</sup>, and a 53% decline from 2008 among those born in sub-Saharan Africa.

An interesting trend over recent years is (for example, in Victoria) an increase in the proportion of people born overseas being diagnosed with HIV more than five years after their arrival.<sup>9</sup> This trend suggests there are factors that

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<sup>i</sup> Some studies, for example, examine differences between Australian-born versus overseas-born (or foreign-born) residents (sometimes also distinguishing between those newly arrived and those who have been resident for a longer period), whereas others report on migrant populations, or those excluded from Medicare coverage. Still others consider specific groups such as Asian-born (including sub-categories within this group) and sub-Saharan African populations. Another category that crosscuts all the others is temporary residents, which includes people on student and work visas. It's therefore important to note that although there is a great deal of overlap between these categories, they are not exactly the same. Also, it is important to add that while these research studies and analyses of data act to reify, or naturalise these categories, they are not necessarily meaningful categories or identities for the individuals or groups that they describe.

<sup>ii</sup> Note: there is a high proportion of missing data for country of birth, thereby limiting migrant status categorisation.

<sup>iii</sup> In 2017, there was an unusual number of notifications for which country of birth was not reported, which may affect year-to-year comparisons.

increase risk for HIV among migrant populations, and these factors persist over time, rather than being a temporary effect. Another national analysis found there is also a difference between population groups in terms of times since arrival. For foreign-born MSM, the median time to HIV diagnosis since arrival was three years; and for heterosexual men and women the median time since arrival was six years and five years, respectively.<sup>10</sup>

### **Migrant populations**

Among non-MSM populations, migrants have always featured more prominently in Australian epidemiology. For example, a 20-year analysis (to 2014) found over half (58%) of new non-MSM HIV diagnoses were migrants, and of these, half (54%) were estimated to have acquired HIV before migration.<sup>11</sup> People born in sub-Saharan Africa (SSA) or South-East Asia (SEA) have had the highest HIV diagnosis rates in Australia for any region of birth, although in some jurisdictions HIV notifications among heterosexuals from high-prevalence countries are decreasing (13% of notifications attributed to heterosexual transmission in 2018).<sup>9</sup> Also, HIV notifications among migrant populations are much more likely to occur via late or advanced HIV diagnosis (almost half of diagnoses in some studies).<sup>11-14</sup>

In addition, there are larger gaps in the HIV diagnosis and care cascade estimates among migrants (85-85-93), compared with non-migrants (94-90-96).<sup>8</sup> Lower cascade estimates were found particularly among migrants from South-East Asia (72-87-93). For people from sub-Saharan Africa it was 89-93-91. Migrants from countries not covered by reciprocal health-care agreements (RHCA) had lower cascade estimates (83-85-92) than RHCA-eligible migrants (96-86-95). Interestingly, however, another study found there was no difference in risk for developing HIV-related disease if a person was born in Australia, in another high-income country, or in a low/middle-income country.<sup>15</sup> This finding suggests that once engaged in HIV care people born in low/middle-income countries achieve successful outcomes despite often being diagnosed later.

International research on HIV and migration suggests risk for infection can be exacerbated in destination countries. And as mentioned above, this risk can persist, rather than being a temporary effect associated with having recently arrived in the country. Although there are no specific studies from Australia, research from other high-income countries has analysed risk associated with migration. A study of migrants in nine European countries found that for almost two-thirds (63%), HIV acquisition had occurred in their destination countries, and this proportion was even higher (72%) among MSM.<sup>16</sup> Post-migration HIV acquisition was 71% for Latin America and Caribbean migrants and 45% for people from sub-Saharan Africa. Another risk factor for sub-Saharan African migrants in Europe is mobility (and sexual risk behaviours) post-migration, with a study in two European cities finding 68% of participants had travelled post-migration, and about half of the travellers reported concurrency of sexual partners (i.e. in their destination country as well as elsewhere).<sup>17</sup> Stigma and limited access to care among migrants in high-income countries are also drivers of poor HIV outcomes for people who become infected, however there is a dearth of evidence regarding appropriate interventions for migrants living with HIV.<sup>18</sup>

### **Men who have sex with men (MSM)**

National data, as well as studies in specific jurisdictions, show that historically male-to-male sexual contact has been the most common route of HIV acquisition for people born in Australia, as well as people born in other high-income countries.<sup>15</sup> In contrast, only half of people born in low/middle income countries acquired HIV in this way.<sup>15</sup> However, the proportion of diagnoses attributed to male-to-male sex among Australian-born men has actually been decreasing (from 72.5% in the 2006–2010 period compared to 66.5% between 2011–2015).<sup>19</sup>

In New South Wales in 2019 59% MSM newly diagnosed with HIV were born overseas.<sup>20</sup> In that state there was an overall decrease of 33% in HIV notifications for Australian-born MSM, compared to a 2% *increase* for those born overseas, compared with the five year average.<sup>20</sup> (This divergence of epidemics in Australian and overseas-born MSM is largely attributed to late diagnoses.) In Victoria, the proportion of diagnoses among MSM among people born overseas increased slightly over recent years (representing 48% in 2018).<sup>9</sup> In South Australia, 50% of MSM diagnoses were among men born overseas, and men born in South East-Asia comprised 20% of MSM diagnoses.<sup>7</sup> Ten-year

analyses suggest that HIV diagnoses attributable to male-to-male sex are increasing in men born in South-East Asia, North-East Asia, and the Americas.<sup>10</sup>

Nationally, among *MSM*, there was an 11% decline in notifications over the five years prior to 2017.<sup>3</sup> Since then, further declines have been evident, and it is highly plausible that the introduction of HIV Pre-Exposure Prophylaxis (PrEP) (originally through implementation projects) has contributed to this decline. As an example, the PrEP study, which commenced in 2016 in New South Wales, reported a 31.5% relative risk reduction (RRR) in incident HIV infections in *MSM* and a 18.5% RRR in other HIV diagnoses.<sup>21</sup>

Similar to other migrants, those reporting male-to-male HIV exposure had lower HIV treatment cascade estimates (84-83-93) compared with non-migrants reporting male-to-male HIV exposure (96-92-96). In fact, the difference between migrant and non-migrant *MSM* was greater than migrants and non-migrants overall.<sup>8</sup> A study in a Melbourne sexual-health clinic found newly arrived Asian-born *MSM* were more than twice as likely as other *MSM* to be diagnosed HIV positive or with incident HIV infection, despite an average shorter interval between HIV tests.<sup>2</sup>

### **Testing and prevention initiatives**

Analyses of HIV testing and prevention initiatives among migrant communities suggest a number of barriers, but also some opportunities. Focus-group research exploring HIV testing and knowledge (including access to health services and barriers to testing) in sub-Saharan African and South-East Asian communities found that participants perceived the visibility of HIV in Australia was low. For some people fears about a positive diagnosis is a significant barrier to HIV testing.<sup>12</sup> Potential initiatives that facilitate an increase in HIV testing include encouragement by peers and the availability of multiple testing options (such as rapid testing, and self-collection kits). Survey-based research online found participants from these communities had moderate knowledge of HIV transmission overall, however, two-thirds (65%) of participants reported a barrier to accessing health services in Australia, and although most (92%) believed HIV testing was important, only around one third (34%) of participants had ever been tested.<sup>13</sup> The same author group also looked at experiences of general practitioners (GPs) in offering HIV testing, and found ability (or rather inability) to deal with patients' cultural differences may present a challenge in this regard.<sup>22</sup> Most testing was initiated by GPs, with few participants requesting it, however providing patients with information on HIV and treatment options contributed to gaining consent to testing. Another study, specifically among African Australians, found that attitudes towards HIV testing, prevention, and transmission, particularly regarding return travel to home countries, were infused with stigma, denial, social norms, tradition and culture.<sup>23</sup>

A review of HIV prevention interventions from around the world found that the dominant models were culturally adapted outreach approaches and peer-delivered group sessions.<sup>24</sup> Effects included improvement in knowledge, attitudes, and risk perception, however, effects on testing and sexual risk behaviour were mixed. The authors found existing research is dominated by studies from the US that are predominantly behavioural interventions targeting Asian and Hispanic migrants, and that there is a notable absence of studies incorporating sexual and reproductive-health needs. Another study among migrants in Germany found participants were almost twice as likely to have been tested if HIV is discussed in their community.<sup>25</sup>

In a systematic review, Aung et al. evaluated interventions that aimed to increase HIV testing uptake in migrant populations.<sup>26</sup> Of the ten final papers reviewed, the types of interventions included exposure to HIV prevention messages, HIV education programs and direct offer of testing. All interventions – whether targeting migrants or general practitioners – were based on individual models of behaviour change. The authors argue that interventions that address health system and structural factors are also needed to encourage HIV testing uptake among migrant populations.

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