Background Briefing: HIV in Queensland

28 February 2019

This paper has been developed to provide insight into the profile of HIV in Queensland. This paper is informed by the latest available research and epidemiological data on HIV in Queensland.

Queensland HIV Action Plan 2016-2021[1]

The Queensland Action Plan (the Action Plan) has been developed to work towards the virtual elimination of new HIV transmissions by 2020. The Queensland Government is committed 'to a comprehensive approach to prevention, testing and treatment focused on meeting the United Nations 90-90-90 targets' and 'supporting strong relationships between partner agencies in order to achieve the goal of the virtual elimination of HIV transmission'.

The goal of the Action Plan is '[w]orking with the community to minimise the personal and social impact of HIV and achieve the virtual elimination of new HIV transmissions in Queensland'. The goal is defined by five outcome areas with target populations, key settings, priority action and indicators for each.

Action Plan outcomes

1. Implement a comprehensive preventive approach
2. Increase voluntary testing for HIV
3. Increase treatment uptake by people with HIV
4. Increase awareness of HIV transmission and address stigma and discrimination
5. Improve surveillance, monitoring, research and evaluation

Key populations

The Action Plan has identified different populations to be targeted for each specific goal. The key populations for the outcomes focussed on prevention and treatment efforts are:

- gay men and other men who have sex with men, including sexually adventurous men
- Aboriginal and Torres Strait Islander people
- culturally and linguistically diverse people
- people who inject drugs
- sex workers
- young people
- people ineligible for Medicare
- people in custodial settings
- travellers and mobile workers
- people living with HIV
- women

[1] Queensland Health (2016), Queensland HIV Action Plan 2016-2021

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Epidemiology in Queensland[2]

HIV notifications

The rate of HIV notification in Queensland has fluctuated between 3.9 and 5.3 per 100,000 over the past 10 years and was 3.9 per 100,000 in 2017[3].

The latest data from Queensland Health shows that there were 185 new HIV diagnoses in Queensland in 2017. This was a 10% decrease compared to the previous four-year (2013-2016) average of 205.5 notifications per year. Notifications remain the highest among men, who accounted for 87.6% of notifications in 2017.

Gender	2017		2016	
	Number	Percent	Number	Percent
Male	162	87.6%	174	89.2%
Female	23	12.4%	21	10.8%
Total	185	100%	195	100%

In 2017, 65% of new HIV diagnoses were reported among men who have sex with men, 6% were attributed to men who have sex with men and injecting drug use, 27% to heterosexual sex, and 0.5% to injecting drug use.

Mode of Transmission	2017		2016	
	Number	Percent	Number	Percent
Men who have sex with men	121	65.4%	129	66.2%
MSM and injecting drug use	11	5.9%	8	4.1%
Male heterosexual	27	14.6%	24	12.3%
Female heterosexual	22	11.9%	20	10.3%
Injecting drug use	1	0.5%	2	1%
Maternal transmission	0	0%	3	1.5%
Other/unknown	3	1.6%	9	4.6%
Total	185	100%	195	100%

In 2017 there was a decrease in the number of Aboriginal and Torres Strait Islander diagnosed with HIV in Queensland (11 cases – 10 males, 1 female) compared with the previous year (20 cases – 19 males, 1 female) and compared with the previous four-year average (14 cases). Queensland notifications accounted for almost half (43.5%) of the notifications among Aboriginal and Torres Strait Islander people nationally (46 diagnoses). Notification rates among Aboriginal and Torres Strait Islander males in Queensland also trend at almost three times the rate of non-Indigenous males (18.3 v 6.8 per 100,000 population per year).

The absence of, or distance to a hospital and/or medical officer, for regional and remote Aboriginal and Torres Strait Islander communities can make it difficult to access HIV and sexual health services for this demographic.[4]

Aboriginality	2017		2016	
	Number	Percent	Number	Percent
Aboriginal	11	5.9%	20	10.3%
Non-Aboriginal	174	94.1%	175	89.7%
Total	185	100%	195	100%

[2] Epidemiological data has been taken from the Queensland Health report *HIV in Queensland 2017*.
[3] Kirby Institute (2018) HIV in Australia: Annual Surveillance Short Report 2018, Sydney.
[4] MacPhail, C & McKay K 2016, 'Social determinants in the sexual health of adolescent Aboriginal Australians: a systematic review', *Health and Social Care in the Community*, vol. 26, no. 2, pp. 131-146

People aged between 20-39 accounted for over half (55.2%) of notifications in 2017. Over the two reporting periods, the number of HIV notifications remained stable across most age groups.

Age Group (Years)	2017		2016	
	Number	Percent	Number	Percent
0 – 9	0	0%	3	1.5%
10 – 19	4	2.2%	0	0%
20 – 29	56	30.3%	58	29.7%
30 – 39	46	24.9%	47	24.1%
40 – 49	36	19.5%	36	18.5%
50 – 59	33	17.8%	34	17.4%
60 +	10	10%	17	8.7%
Total	185	100%	195	100%

Most people newly diagnosed with HIV in Queensland during the period 2013–2017 were born in Australia (70%). However, 6% were born in South-East Asia, 5% were born in North-West Europe, 4% were born in New Zealand and 3% were born in Sub-Saharan Africa.

In 2017, 28% of new diagnoses was recently acquired, which is lower than the 4-year average of 33%. This means that in 2017, 72% of people diagnosed had been living with HIV for more than 12 months. Between 2013 – 2017, 24.4% of MSM, 40.7% of heterosexual men and 41.3% of heterosexual women were diagnosed late in Queensland (with a CD4 cell count of less than 350 copies). These data may indicate infrequent testing among people at risk of acquiring HIV, such as gay and bisexual men, people from high prevalence countries and their partners.

In 2017, the largest number of notifications occurred in the Metro (North and South) Hospital and Health Services (HHS) (54%), followed by Gold Coast HHS (18%) and Cairns and Hinterland HHS (8%).

Knowledge and Use of PrEP

On 1 April 2018, HIV Pre-Exposure Prophylaxis (PrEP) was listed on the national Pharmaceutical Benefits Scheme (PBS) for people with a current Medicare card and a script from a General Practitioner (GP). The cost to a general patient under the PBS is $40.30 and $6.50 for concession card holders. Prior to this, most PrEP users in Queensland had been accessing the medication through the QPrEP'd implementation study (funded by the Queensland Government) which ended after PrEP became available on the PBS.

According to the Queensland Gay Community Periodic Survey, awareness of PrEP among gay and bisexual men has rapidly increased over the last 3 years, from 26.3% in 2014 to 74.0% in 2017[5].

The proportion of HIV-negative men in Queensland who reported PrEP use increased from 1.6% in 2013 to 16.1% in 2017[6]. The proportion of HIV-negative men who had condomless anal sex with partners and reported taking PrEP increased from 4.0% of men in 2013 to 42.4% in 2017[7]. Among the men who reported taking PrEP in 2017, the majority were accessing it through a trial or study (87%) or buying it from overseas (7.3%)[8]. However, these data were collected prior to PrEP being listed on the PBS and, as such, the current data would likely be different, with Medicare-eligible men in Queensland now able to access PrEP through the PBS.

[5] Lee, L. et al (2017) Gay Community Periodic Survey: Queensland 2017. Centre for Social Research in Health, UNSW, Sydney.
[6] Ibid
[7] Ibid
[8] Ibid

HIV Testing

The importance of testing

HIV testing is critical if Australia is to reach its target of virtually eliminating HIV transmissions by 2022, as set out in the Eighth National HIV Strategy[9]. Testing enables the individual to know their status, which builds the capacity of key populations and individuals to minimise the risk of transmission.

Testing supports healthcare workers or peer testers to engage an individual in a discussion about HIV risk. For an HIV negative person this can involve a discussion that reinforces the need to adopt risk reduction strategies such as condoms or PrEP to avoid exposure to HIV. For a person who returns a positive result, testing provides a critical opportunity to support the individual to access care and to start a conversation around commencing treatment.

In 2017, the majority of participants in the Queensland Gay Community Periodic Survey reported they had been tested for HIV in their lifetime (86.4%). In 2017, more than three-quarters (78%) of HIV negative men reported having a HIV test in the 12 months prior to the survey. This is the highest level of recent HIV testing recorded in the Queensland Periodic Survey in the last five years. The frequency of HIV testing has also increased over time, with 27.%% of HIV negative men reporting having three or more HIV tests in the last twelve months[10].

Community based and rapid HIV testing

In 2017, the most common places for gay men in Queensland to get tested were general practices (49%) and sexual health clinics/hospitals (40.8%). 7.8% of men surveyed in the Periodic Survey reported testing at a community-based service. This is a decrease of 13.3% in men accessing community-based services compared to the average between 2014-2016.

The RAPID clinics based in Brisbane and Townsville (run by Queensland Positive People) offer free community-based and peer-led rapid HIV testing. Clinic 30 in Brisbane (run by the Queensland AIDS Council) also offers community-based rapid HIV testing. In jurisdictions where community-based testing exists, gay men who had never previously been tested, or who had irregular patterns of testing, are more likely to get tested and then return for routine testing[11]. These men also report very high levels of satisfaction with these types of services.

Overall, gay and bisexual men have expressed a strong preference for rapid HIV testing over conventional HIV testing. These men report high levels of satisfaction in having HIV testing in a welcoming, culturally-appropriate environment delivered by peers[12]. Gay and bisexual men also report finding rapid HIV testing more convenient, more comfortable and less stressful than conventional HIV testing in clinical settings[13]. Services such as RAPID and Clinic 30 are therefore essential in maintaining the high levels of HIV testing among key populations such as gay, bisexual and other MSM.

HIV Treatment

HIV treatment is beneficial as it allows the individual to enjoy good health, and to look forward to a full life expectancy if treatment is started early and taken as prescribed[14]. As well as this, once on treatment, individuals who achieve an undetectable viral load cannot transmit HIV to another person[15].

[9] Australian Government Department of Health (2018) Eighth National HIV Strategy 2018-2022, Canberra.
[10] Lee, L. et al (2017) Gay Community Periodic Survey: Queensland 2017. Centre for Social Research in Health, UNSW, Sydney.
[11] Conway D. et al (2015) Rapid HIV Testing Is Highly Acceptable and Preferred among High-Risk Gay and Bisexual Men after Implementation in Sydney Sexual Health Clinics, accessible at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4405382/
[12] Ibid
[13] Ibid
[14] The InSIGHT START Study Group (2015) Initiation of Antiretroviral Therapy in Early Asymptomatic HIV Infection. New England Journal of Medicine. 373 (9): 795-807
[15] Cohen, M. et al (2011) Prevention of HIV-1 Infection with Early Antiretroviral Therapy. New England Journal of Medicine. 365 (6): 493-505

In the 2017 Queensland Gay Community Periodic Survey, 9.1% of men surveyed reported that they were HIV positive. Almost all the HIV positive men surveyed reported being on treatment at the time of the survey (96.3%). Of the men on treatment, nearly all had an undetectable viral load (98.1%). Around half of HIV-positive men (55.2%) reported attending at least three clinical appointments to manage their HIV in the year before the 2017 survey (unchanged since 2014 when the question was first asked).

In Summary

Queensland's HIV profile is similar to other jurisdictions in that gay and bisexual men continue to be over-represented in the HIV notification rate. However, it is notable that Queensland HIV diagnoses among Aboriginal and Torres Strait Islander communities account for almost half of all Australian notifications among this group.

More effort will need to be made to tailor programs and health promotion messaging to Aboriginal and Torres Strait Islander communities to encourage regular testing and treatment, if necessary. As well as this, reducing geographical, economic and social barriers to healthcare and testing services for these communities will be important going forward.

Heterosexuals accounted for around a quarter of new HIV notifications in Queensland in 2017. Identifying and addressing broader barriers to testing in Queensland, dispelling misinformation about HIV risk for some populations of heterosexuals, and challenging HIV stigma will continue to be critical.

Gay, bisexual and other MSM continue to be over-represented in the HIV notification data. Ensuring that targeted and relevant health promotion messaging and tailored services aimed at this population group continue is vital.

As with other jurisdictions, biomedical prevention methods such as PrEP and Treatment as Prevention (TasP), as well as condom use and regular testing, will continue to play an important role in the effort to virtually eliminate new HIV transmissions in Queensland.