Priorities for preventing a concentrated HIV epidemic among Aboriginal and Torres Strait Islander Australians

An accelerated HIV prevention and control strategy is necessary to ensure that Aboriginal and Torres Strait Islander people meet local and global suppression targets

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Greater efforts are required to prevent human immunodeficiency virus infection (HIV) escalating among Aboriginal and Torres Strait Islander Australians. Recently released national data highlight a 33% increase in new HIV diagnosis rates among Aboriginal and Torres Strait Islander people, from 4.8 per 100 000 population in 2012 to 6.4 per 100 000 population in 2016.[1] In the same period, newly diagnosed HIV rates among Australian-born non-Indigenous people decreased by 22% (from 3.7 per 100 000 population in 2012 to 2.9 per 100 000 population in 2016).[1]

This recent divergence is important because:

- the rate of diagnosis is, for the first time since 1992 (when data were first collected for Aboriginal and Torres Strait Islander status), more than double the rate for non-Indigenous people;[1]
- HIV in Australia is currently considered to be a low-level epidemic, but there is general consensus that it could rapidly transition to a concentrated epidemic among Aboriginal and Torres Strait Islander people,[2] as has occurred among First Nations people in some provinces of Canada;[3,4] and
- Australia's target of the virtual elimination of HIV transmission by 2020[5] is at risk if rates of diagnosis continue to increase among Aboriginal and Torres Strait Islander Australians.

Several factors are likely to be driving this new gap in health outcomes. First, poorer outcomes for many of the socio-cultural determinants of health, particularly education, income, unemployment, racism and access to health services among Aboriginal and Torres Strait Islander people are likely to be contributing to new rates of infection. Although not directly measurable, these have been identified as HIV risk factors in populations globally.

Second, there has been an inadequate response to and uptake of biomedical HIV prevention interventions, such as treatment as prevention (TasP) and pre-exposure prophylaxis (PrEP), among Aboriginal and Torres Strait Islander people. TasP is an individual and community prevention strategy that involves regular HIV testing for early detection of HIV and, following diagnosis, immediate initiation of antiretroviral treatment (ART), retention in care and adherence to ART, with a goal of individuals achieving an undetectable viral load (UVL).[6] Sustained UVL reduces the risk of onward HIV transmission to zero at an individual and community level. To measure the impact of TasP, an HIV diagnosis and care cascade is used to track progress both locally and globally towards the UNAIDS global 90—90—90 target to end HIV transmission by 2020: 90% of people living with HIV will know their status, 90% of people with HIV will have received sustained ART and, of these, 90% will have achieved a UVL.[7] In 2016, Australia's cascade was on track overall, achieving 89%, 86% and 94% respectively.[1,7] However, this is not the case for Aboriginal and Torres Strait Islander people, with significant gaps in the first and third steps of the cascade — 80%, 90% and 76%, respectively. This means that a higher proportion of Aboriginal and Torres Strait Islander people living with HIV remain undiagnosed and do not achieve a UVL even when on ART.[1,8]

The low uptake of PrEP among Aboriginal and Torres Strait Islander people is also likely to be driving this divergence. PrEP is a highly effective prevention strategy that involves people who are HIV negative taking ART daily to prevent them acquiring HIV; it is currently available in Australia through several jurisdictional clinical trials.[9] Of the almost 17 000 people enrolled in PrEP trials in Australia, about 200 are Aboriginal and Torres Strait Islander people, thus leaving a gaping hole in evaluation of this new prevention strategy for this population. Three factors are likely to be influencing these low enrolment numbers: clinical trials have historically had low participation rates among Aboriginal and Torres Strait Islander people; treatment adherence for other health conditions is lower among Aboriginal and Torres Strait Islander people; and to date there has been limited health promotion of PrEP to this population, probably due to an expectation that mainstream messages on PrEP will have sufficient impact.

Finally, the epidemiological factors of HIV acquisition differ between the two populations. Since 2012, the proportion of cases diagnosed in priority populations has differed between Aboriginal and Torres Strait Islander Australians and non-Indigenous Australians. Compared with non-Indigenous people, a lower proportion of HIV diagnoses have occurred among men who have sex with men for Aboriginal and Torres Strait Islander people (51% *v* 74%), while a higher proportion of diagnoses are attributable to injecting drug use (14% *v* 3%) and heterosexual acquisition (20% *v* 15%).[1] The rate of diagnosis among Aboriginal and Torres Strait Islander women is also three times higher than the rate for non-Indigenous women (albeit numbers being small). Australia has readily available diagnostics and treatments and well established prevention programs in place, but it is clear that the approach requires strengthening and modifying in terms of reach, potency and sustainability to connect with different priority population groups within the Aboriginal and Torres Strait Islander population.

To ensure that HIV does not eventuate into a concentrated epidemic among Aboriginal and Torres Strait Islander people, several issues warrant urgent attention. A triple prevention and control strategy for HIV among Aboriginal and Torres Strait Islander people will need to be accelerated if we are to meet global and local 90—90—90 targets by 2020. This strategy comprises:

- *Greater recognition that the intersectionality of the social and cultural determinants of health drives differentials in HIV*. This needs to be acknowledged and understood if we are to move forward. The current refresh of the Close the Gap national campaign to reduce gaps in health and social outcomes is timely. Improved outcomes in these areas will assist in meeting the 90—90—90 targets.
- *Implementation of biomedical interventions such as TasP and PrEP at scale for Aboriginal and Torres Strait Islander people.* Gaps in the treatment cascade, including diagnosis of HIV and the number of people achieving a UVL, must be improved. Approaches that make use of every opportunity to offer HIV testing, as well as improving engagement and retention in care for people living with HIV, are desperately required. Additionally, increasing the number of at-risk Aboriginal and Torres Strait Islander people using PrEP will assist in reversing the trends in HIV diagnosis in this population.
- *Additional efforts to reduce HIV acquired in priority population groups such as people who inject drugs, women and heterosexual people, along with continued efforts to reduce rates of diagnosis among men who have sex with men.* Sustained efforts to reduce the high rates of other sexually transmissible infections prevalent in many communities is required, given that co-infection is an independent risk factor for HIV acquisition.

Acting now to avoid HIV becoming a concentrated epidemic among Aboriginal and Torres Strait Islander people should be a national priority. Immediate changes are necessary to ensure that the elimination of HIV in Australia includes Aboriginal and Torres Strait Islander people.

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