

Ending AIDS in the Asia–Pacific region by 2030: are we on track? Policy, epidemiological and intervention insights

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Abstract. The Asia–Pacific region is home to nearly 6 million people living with HIV. Across the region, key populations – men who have sex with men, transgender women, people who inject drugs, sex workers, prisoners – and their sexual partners make up the majority of those living with HIV. While significant progress has been made in the past 5 years towards UNAIDS's 90–90–90 goals (90% of people with HIV diagnosed, 90% on antiretroviral therapy, 90% virologically suppressed), significant gaps remain. The papers in this Special Issue address important questions: are we on track to end the AIDS epidemic in the Asia–Pacific region? And can countries in this region reach the new UNAIDS targets for 2030?

Keywords: Asia, Asia–Pacific region, community-led health services, epidemic, HIV/AIDS, key populations, prevention intervention, vulnerable populations.

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Introduction

This Special Issue of *Sexual Health* focuses on key strategies for ending AIDS in the Asia–Pacific region. This region is home to nearly 6 million people living with HIV, with ~300 000 new infections reported in 2019.¹ Across the region, key populations – men who have sex with men (MSM), transgender women, people who inject drugs, sex workers, prisoners – and their sexual partners make up the majority of those living with HIV. While significant progress has been made in the past 5 years towards the Joint United Nations Programme on HIV/AIDS (UNAIDS) 90–90–90 goals by 2020 (90% of people with HIV diagnosed, 90% on antiretroviral therapy, 90% virologically suppressed), there remain significant gaps. Only three countries in the

Asia–Pacific region have achieved 90–90–90 goals (Australia, Cambodia and Thailand). Overall, it's estimated that only 60% of all those living with HIV are on treatment and only 55% of those on treatment are virally suppressed. In terms of HIV prevention coverage, only one-quarter of MSM and people who inject drugs, and less than half of transgender people and female sex workers, in the Asia–Pacific region were covered by prevention interventions.¹

There are, of course, significant variations in progress towards these goals within and across countries in the Asia–Pacific region. COVID-19 has further hindered access to essential HIV services in the region, hitting countries with sustained community transmission of SARS-CoV-2 – such as the Philippines, Indonesia and India – the hardest.² While new

HIV infections have declined significantly in the past decade, the rate of decline has slowed and in some countries the rate is increasing, particularly among populations experiencing criminalisation, as well as young key populations, MSM and transgender individuals. The Philippines, Pakistan, Malaysia, Papua New Guinea, Afghanistan and Bangladesh have all experienced increases in new HIV infections.¹

So, are we on track to end the AIDS epidemic in the Asia–Pacific region? Can countries in this region reach the new person-centred UNAIDS targets that aim for 95% coverage with prevention tools alongside 95–95–95 for testing, treatment and viral suppression by 2025² and reduce new annual HIV infections by 90% by 2030 as compared with 2010?

There have been tremendous advances in new tools, technologies and approaches in the past 5 years that offer promise to the region in advancing towards the 2030 goal. Namely, pre-exposure prophylaxis (PrEP) treatment as prevention (U = U), HIV self-testing (HIVST) and innovative differentiated health service delivery (DSD) models.³ There are exemplar responses in the region that have paved the way for introduction and scale up of these interventions, such as key population-led services seen in Thailand and Vietnam.^{4,5} This is critical given that 98% of new HIV infections in this region among those aged 15–49 years are from key populations and their sexual partners, with 27% of new infections among young people aged 15–24 years.¹

Yet there are several gaps in the Asia–Pacific response that hamper progress towards ending AIDS. Though PrEP, HIVST and DSD have been recommended as service options since 2015 and 2016, few countries in the region have moved beyond pilots. There have also been significant delays in adoption of more efficacious and less toxic treatment regimens, like those containing dolutegravir. Criminalisation of drug use, sex work, and being transgender or gay, and a lack of political commitment to tackle the specific needs of key populations and young people persists in many settings. The typically medicalised models of service delivery in the region prioritise treatment but do not sufficiently focus on effective prevention services or structural interventions, especially among key populations. There is a need for more granular and real-time local data to better understand the heterogeneous HIV epidemics in the Asia–Pacific region, as well as within each country, to guide evidence-informed interventions that are responsive to subpopulation needs and preferences.⁶

There are opportunities for better reaching key populations using social media and other digital networks to improve the dissemination of health information and interventions, increase access to rapid diagnostics (e.g. HIV self-testing, point-of-care HIV viral load testing, self-sample collection for sexually transmitted infections), and advance new models of prevention and care (e.g. virtual clinics or telemedicine). These strategies must account for local preferences and guarantee meaningful engagement of and leadership from the community at all levels, and from inception to implementation. As the COVID-19 response reminds us, political will can drive change very quickly – and we need better advocacy and political commitment to create an

enabling environment for meeting the 2030 goal, and dramatically reducing new HIV infections in the region. Learning from COVID-19 adaptations to service delivery provides an opportunity to re-energise and transform the HIV response, leapfrogging over previous challenges.⁷

Among the main threats to ending AIDS in the Asia–Pacific region is inadequate domestic financing to fund and scale up programs that work, especially for key populations. There is a large gap between the estimated US\$5.98 billion needed for the regional HIV response and the actual US\$2.9 billion available in 2020.¹ We must also address the ongoing formidable, but not insurmountable, challenge of discriminatory laws, human rights violations and enduring stigma that perpetuate inequitable access to health care. To do this, we must actively create safe and supportive environments and continue to strengthen universal access to health care to overcome ongoing health inequities.

Policy insights

Banerjee and Chan⁸ discuss the process behind the development of the Community Blueprint for ending AIDS in Singapore by 2030, sharing their roadmap to reach this goal. Similar blueprints may be useful for other countries to bring stakeholders together for a shared vision and commitment. Murphy *et al.*⁹ outline a regional strategy to get back on track to end AIDS as a public health threat by 2030. In particular, they stress the importance of reaching key populations, investing in community-centred responses, and creating an enabling sociopolitical environment.

Epidemiological insights

van Griensven *et al.*¹⁰ review HIV prevalence and incidence among MSM and transgender women living in South-east Asian cities, providing valuable insights into the varied HIV epidemics in this region. Blondell *et al.*¹¹ highlight the preferences for HIV testing among Vietnamese-born migrants in Australia – an emerging subpopulation at risk for HIV – reporting the preference for testing with a doctor rather than HIVST. This underscores the importance of measuring local preferences to tailor HIV programs. Whitford *et al.*¹² use strengths-based analysis to provide a rich understanding of the social influences that enhance HIV testing among female sex workers (FSW) in Indonesia. The practical implications for the development of effective strategies to engage FSW in HIV testing are discussed. O'Connor *et al.*¹³ bring our attention to the HIV epidemic in The Philippines – one of the fastest growing epidemics, especially among MSM. Their research focuses on exploring treatment fatigue among 426 people living with HIV in whom 21% reported <95% adherence to antiretroviral therapy in the past month and 44% skipped doses because of perceived stigma, i.e. they did not want to be seen taking their medicine.

Liang *et al.*'s¹⁴ research on young people is timely given the rising HIV epidemic among students in China. Their study of 41 336 young women attending 222 colleges and universities in China reveal the preferences of young women for HIV testing. To complement this, Ye *et al.*¹⁵ examine the barriers and facilitators for HIV testing among

MSM attending a university in Beijing, and Ruan *et al.*'s¹⁶ study of students in China uncovers the poor level of knowledge about HIV but shows the changing attitudes towards same-sex marriage (48% supported).

Intervention insights

Janamnuaysook *et al.*¹⁷ provide three frameworks to demedicalise, differentiate and maximise HIV intervention uptake among key populations. Demedicalisation shifts the focus from disease to a people-centred approach where key populations are part of and lead service delivery within their communities. Srinivas *et al.*¹⁸ demonstrate how social innovation – a bottom-up, community-engaged process that links social change to health improvement – can provide potential approaches to improve HIV prevention and treatment services. Their paper provides a helpful example of how microfinance, social entrepreneurship and social enterprises have been used. Haldar *et al.*¹⁹ provide a useful overview of the extant research regarding PrEP roll out in nine countries that contributed >90% of new cases in the Asia-Pacific region. They assess barriers and facilitators related to PrEP implementation, cost-effectiveness and policies, underscoring the need for better integration into existing HIV programs and the need for national policies for PrEP (including an enabling regulatory environment and sustainable finances). Addressing the social determinants of health is critical for ending AIDS. This includes transforming negative sociocultural and political environments. Newland *et al.*²⁰ evaluate a community-controlled art gallery co-located with a mobile sexual health clinic in Indonesia to engage communities to destigmatise and normalise conversations around sexual health, and improving awareness for HIV prevention, testing, treatment and care. This case example is a clever means of creating a safe space for dialogue, and also facilitating access to the mobile clinic. Green *et al.*²¹ showcase Vietnam's successful implementation of a community-led same-day PrEP program (Prepped for PrEP, P4P) from 2017, which led to a national PrEP scale up reaching more than 13 000 people in 2020. Though key populations clinics make up 25% of the total ($n = 111$), nearly half of those seeking PrEP (49%) opted to enrol in these clinics. They add to the growing body of evidence for the effectiveness of key population-led services.⁴

To accelerate our progress towards the 2030 goal of ending the AIDS pandemic, we must continue to learn from one another and sufficiently invest in implementation research and rapidly scaling up programs that work. To this end, this Special Issue is a collation of the latest research from the Asia-Pacific region. Science combined with community partnerships and strong leadership and investment from governments to create rights-based, people-centred health systems will be critical to drive progress towards ending AIDS as a public health threat. We can do better. We must do better.

Conflicts of interest

J. J. Ong is the Special Issue Editor of *Sexual Health*. L. Zhang is a Joint Editor of *Sexual Health*. K. Green, H.-M. A. Schmidt,

A. J. Valley, A. Kelly-Hanku and R. Janamnuaysook are all guest editors of *Sexual Health*.

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References

- 1 Joint United Nations Programme on HIV/AIDS (UNAIDS). UNAIDS data 2020. 2020. Available online at: https://www.unaids.org/sites/default/files/media_asset/2020_aids-data-book_en.pdf [verified 22 November 2020].
- 2 Joint United Nations Programme on HIV/AIDS. Prevailing against pandemics by putting people at the centre. 2020. Available online at: https://www.unaids.org/sites/default/files/media_asset/prevailing-against-pandemics_en.pdf [verified 17 December 2020].
- 3 Zablotska IB, Baeten JM, Phanuphak N, McCormack S, Ong J. Getting pre-exposure prophylaxis (PrEP) to the people: opportunities, challenges and examples of successful health service models of PrEP implementation. *Sex Health* 2018; 15: 481–4. doi:10.1071/SH18182
- 4 Phanuphak N, Sungsing T, Jantarapakde J, Pengnonyang S, Trachunthong D, Mingkwanrungruang P, *et al.* Princess PrEP program: the first key population-led model to deliver pre-exposure prophylaxis to key populations by key populations in Thailand. *Sex Health* 2018; 15: 542–55. doi:10.1071/SH18065
- 5 Green KE, Vu BN, Phan HTT, Tran MH, Ngo HV, Vo SH, *et al.* From conventional to disruptive: upturning the HIV testing status quo among men who have sex with men in Vietnam. *J Int AIDS Soc* 2018; 21: e25127. doi:10.1002/jia2.25127
- 6 De Abreu Lourenço R, Devlin N, Howard K, Ong JJ, Ratcliffe J, Watson J, *et al.* Giving a voice to marginalised groups for health care decision making. *Patient* 2021; 14: 5–10. doi:10.1007/s40271-020-00456-1
- 7 McMahan JH, Hoy JF, Kamarulzaman A, Bekker LG, Beyrer C, Lewin SR. Leveraging the advances in HIV for COVID-19. *Lancet* 2020; 396: 943–4. doi:10.1016/S0140-6736(20)32012-2
- 8 Banerjee S, Chan R. Crafting a Community Blueprint towards ending HIV transmission and AIDS in Singapore by 2030. *Sex Health* 2021; 18: 116–18.
- 9 Murphy E, Shwe YY, Bhatia R, Bakkali T, Vannakit R. What will it take to end AIDS in Asia and the Pacific region by 2030? *Sex Health* 2021; 18: 41–9.
- 10 van Griensven F, de Lind van Wijngaarden JW, Eustaquio PC, Wignall S, Azwa I, Veronese V, *et al.* The continuing HIV epidemic among men who have sex with men and transgender women in the ASEAN region: implications for HIV policy and service programming. *Sex Health* 2021; 18: 21–30.
- 11 Blondell SJ, Debattista J, Griffin MP, Durham J. 'I think they might just go to the doctor': qualitatively examining the (un)acceptability of newer HIV testing approaches among Vietnamese-born migrants in greater-Brisbane, Queensland, Australia. *Sex Health* 2021; 18: 50–7.
- 12 Whitford K, Mitchell E, Lazuardi E, Rowe E, Tasya IA, Wirawan DN, *et al.* A strengths-based analysis of social influences that enhance HIV testing among female sex workers in urban Indonesia. *Sex Health* 2021; 18: 77–83.
- 13 O'Connor C, Leyritana K, Calica K, Gill R, Doyle AM, Lewis JJ, *et al.* Risk factors affecting adherence to antiretroviral therapy among HIV patients Manila, Philippines: a baseline cross-sectional analysis of the Philippines Connect for Life Study. *Sex Health* 2021; 18: 95–103.

- 14 Liang H, Tang K, Cao W, Guo Y, Jiao Y, Zhu W, *et al.* Factors influencing the acceptability of HIV/AIDS voluntary counselling and testing: a quantitative study of 41 336 female university students in China. *Sex Health* 2021; 18: 119–21.
- 15 Ye R, Liu C, Tan S, Li J, Simoni JM, Turner D, *et al.* Factors associated with past HIV testing among men who have sex with men attending university in China: a cross-sectional study. *Sex Health* 2021; 18: 58–63.
- 16 Ruan L, Zhao R, Ong JJ, Fu X, Xiong Y, Chen Y, *et al.* A national survey of HIV knowledge, sexual practices and attitude towards homosexuality for HIV elimination among young people in China. *Sex Health* 2021; 18: 64–76.
- 17 Janamnuaysook R, Green KE, Seekaew P, Vu BN, Ngo HV, Doan HA, Pengnonyang S, *et al.* Demedicalisation of HIV interventions to end HIV in the Asia-Pacific. *Sex Health* 2021; 18: 13–20.
- 18 Srinivas ML, Ritchwood TD, Zhang TP, Li J, Tucker JD. Social innovation in sexual health: a scoping review towards ending the HIV epidemic. *Sex Health* 2021; 18: 5–12.
- 19 Haldar P, Reza-Paul S, Daniel RA, Lazarus L, Rewari BB, Lorway R, *et al.* A rapid review of pre-exposure prophylaxis for HIV in the Asia-Pacific region: recommendations for scale up and future directions. *Sex Health* 2021; 18: 31–40.
- 20 Newland J, Lestari D, Poedjanadi MN, Kelly-Hanku A. Co-locating art and health: engaging civil society to create an enabling environment to respond to HIV in Indonesia. *Sex Health* 2021; 18: 84–94.
- 21 Green KE, Nguyen LH, Phan HTT, Vu BN, Tran MH, Ngo HV, *et al.* Prepped for PrEP? Acceptability, continuation and adherence among men who have sex with men and transgender women enrolled as part of Vietnam's first pre-exposure prophylaxis program. *Sex Health* 2021; 18: 104–15.