## HIV and AIDS in Asia & the Pacific regional overview



Asia & the Pacific (2018) 5.9 people living with HIV 0.2% adult HIV prevalence (ages 15-49) 310,000 new HIV infections 200,000 AIDS-related deaths 54% adults on antiretroviral treatment\* 78% children on antiretroviral treatment\* \*All adults/children living with HIV Source: UNAIDS Data 2019

#### **KEY POINTS**

- There is huge variation in the scale of the Asia and Pacific region's HIV epidemics as well as countries' responses.
- Prevention programmes have succeeded in reducing new infections by 14% since 2010 but late diagnosis remains a key area of concern.
- Sustained and focused efforts to reach key populations have led to major reductions in HIV infections in Cambodia, India, Myanmar, Thailand and Vietnam since 2010.
- Many countries in the region have punitive and stigmatising laws which prevent key affected populations from accessing services, as well as reinforcing HIV stigma.
- HIV risk among young people within key populations is of particular concern: since 2010, new infections increased by 170% in Philippines and 29% in Pakistan among young people (aged 15-24).

Explore this page to read more about populations most affected by HIV, testing and counselling, prevention programmes, antiretroviral treatment availability, civil society's role, HIV and tuberculosis, barriers to the response, funding and the future of HIV in Asia and the Pacific.

The Asia and Pacific region was home to an estimated 5.9 million people living with HIV in 2018.1 China, India and Indonesia account for almost three-quarters of the total number of people living with HIV in the region.2

It is increasingly clear that the Asia and Pacific region is falling behind Africa in its HIV response. In 2018, 69% of people living with HIV in this region were aware of their status. Among those diagnosed with HIV, 78% were on treatment of which 91% were virally suppressed.3 In terms of treatment coverage this equates to 54% of all people living with HIV being on treatment and just 49% being

virally suppressed.

The epidemic is largely characterised by concentrated and growing epidemics in key populations in a variety of countries, particularly clients of sex workers and other sexual partners of key populations, and men who have sex with men (sometimes referred to as MSM). Low national prevalence masks much higher prevalence among these groups and in specific locations, particularly urban areas.4

In 2018, 310,000 people became infected with HIV in the region.5 Although new infections declined by 14% between 2010 and 2017, progress has slowed in recent years and new infections are on the rise in some countries.6 In particular, Philippines and Pakistan are facing rapidly expanding HIV epidemics. Philippines is experiencing the steepest rise, with new infections up by 170% on 2010 levels, and Pakistan 29%.7 The political turmoil in the country under President Duterte, where extrajudicial killings for people who use drugs have been sanctioned and condom use discouraged, suggests this worrying trend is likely to continue.8

#### ASIA AND THE PACIFIC Progress towards 90 90 90 targets (all adults)



Avert) www.avert.org

### Key affected populations in Asia and the Pacific

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

The HIV epidemic among men who have sex with men (sometimes referred to as MSM) is growing. In 2017, prevalence among this group – particularly young men - was higher than 5% in 10 countries and new infections are increasing.9 Sexual activity between men remains illegal in a number of countries and is widely stigmatised.10

HIV prevalence among men who have sex with men is particularly high in urban areas.11 Cities such as Bangkok in Thailand, Yangon in Myanmar and Yogyakarta in Indonesia have estimated HIV prevalence rates of between 20% and 29%.12

Across the region it has been found that men who have sex with men are becoming infected by HIV at a young age.13 One study carried out in Bangkok found HIV incidence among those aged 18 to 21 was more than double the incidence among men over 30.14 Around half of all men who have sex with men in the region are under 25. However, HIV prevention and testing services were reaching fewer young men who have sex with men and they reported lower condom use than their older counterparts.15

A further example of the HIV epidemic among men who have sex with men in a high-income country within the region is in Australia. While prevalence here has declined overall, it rose among men who have sex with men,16 with 16.5% of men who have sex with men living with HIV.17 This rise is despite an increase in access to antiretroviral treatment.18

### People who inject drugs (PWID)

One third of all people who inject drugs (sometimes referred to as PWID) live in Asia and the Pacific.19

In 2015, between 20 and 65% of all new adult infections in Afghanistan, Myanmar, Pakistan and Vietnam were among people who inject drugs.20 Yet half of the people who inject drugs who are HIV positive are unaware of their status and only 18% are accessing antiretroviral treatment.21

Although the need for harm reduction is increasingly accepted across the region, a largely punitive policy and legal environment continues to fuel the HIV epidemic among drug users. Eleven countries in the region still operate compulsory detention centres, and incarcerated over 455,000 people who use drugs in 2014.22 China, Singapore, Malaysia, Indonesia and Vietnam continue to execute people who use drugs in high numbers.23. While the Philippines abolished the death penalty for all crimes in 2006, an estimated 7,000 extrajudicial killings of alleged 'drug suspects' by police and armed vigilante groups were carried out between June 2016 and January 2017 alone.24

### Transgender people

HIV remains a critical concern for many transgender populations across Asia. There is particularly high prevalence among transgender people in Delhi (49%) and Mumbai (42%) in India, and Phnom Penh (37%) in Cambodia for example. In many of these cities, prevalence is much higher among transgender people in comparison to men who have sex with men.25

Transgender people in many Asian and Pacific countries are very often isolated. This has serious knock on effects for obtaining both health-related information and developing health policies and programmes that effectively support this key affected population.26 This social exclusion, coupled with a lack of employment opportunities, means that many transgender people in the region engage in sex work. One study estimated that the proportion of transgender people who sell sex to be 90% in India, 84% in Malaysia and 81% in Indonesia.27

Stigma, discrimination and legal barriers remain a major obstacle for providing and accessing services for transgender people in Asia.28 It also means that data on transgender access to HIV treatment and testing services is scarce.

#### Sex workers

When the HIV epidemic began in Asia and the Pacific, it was heavily concentrated among sex workers and their clients. Significant progress in reducing new infections among female sex workers across

the region has been made since then, particularly in Cambodia, India, Myanmar and Thailand. This is linked to the broad implementation of '100% Condom Use' programmes in Thailand, Cambodia, Philippines, Vietnam, China, Myanmar, Mongolia and Laos, aimed at sex workers and their clients.29

Despite this, HIV prevalence among sex workers is over 5% in several countries and female sex workers are 29 times to be living with HIV compared to other women of reproductive age in the region.30 Clients of sex workers remain the largest population at risk of HIV infection in the region, with data suggesting the proportion of men buying sex in the previous year ranges from 0.5% to 15%, depending on the country.31

The highest reported national prevalence among female sex workers is in Papua New Guinea where 17.8% are living with HIV.32 Prevalence is even higher in some cities, even when national trends have declined. For example, in Yangon, Myanmar, 24.6% of female sex workers were estimated to be living with HIV in 2015.33

Data on male and transgender sex workers is scarce, but where available shows high prevalence. For example, 18% of surveyed male sex workers in Indonesia and Thailand tested positive, as did 31% of transgender (waria) sex workers in Jakarta, Indonesia. This underscores both the need for better data regarding male and transgender sex workers, and for HIV programming that addresses the needs of female, male and transgender sex workers.34

#### Migrant workers

Economic upheaval in the region over several decades has resulted in increased population mobility, encouraging people to move to cities in search of employment. Sexual transmission of HIV is exacerbated by this, with people spending long periods of time away from home and engaging in high-risk behaviours. Throughout the region, new HIV infections continue to be concentrated along trucking routes, among sailors, fishermen and other migrant workers.35

# HIV testing and counselling (HTC) in Asia and the Pacific

Late diagnosis is a serious barrier to tackling HIV resulting in many people starting treatment with very low CD4 counts. Although 74% of people living with HIV in the region were aware of their status at the end of 2017, up from 70% in 2016, around 1.47 million people did not know they were HIV positive.36 37

Progress on testing varies greatly between countries. In Malaysia, 83% of people living with HIV were aware of their status in 2017, as were >95% of people living with HIV in Thailand – and in India, 79% of people living with HIV were diagnosed. At the other end of the spectrum, in 2017, only 35% of people living with HIV in Bangladesh were aware of their status.38

Stigma, discrimination and punitive legal environments remain barriers to individuals accessing testing services. Around half of the sex workers, gay men and other men who have sex with men, people who use drugs and transgender people in the region had been tested for HIV within the previous 12 months and were aware of their HIV status.39

Fifteen countries are piloting community-based HIV testing for key populations.40 Many schemes are using rapid finger-prick testing technologies to replace traditional tests that require laboratory analysis. These pilots are proving successful. For instance in Cambodia, more than 36,000 people

from key populations tested in 2016, 80% more than in 2014.41

Self-testing kits, which enable people to carry out tests in private and so help overcome the barrier of stigma, are slowly becoming available in the region. As of 2016, Australia, China, Lao, Kiribati and Vietnam had supportive HIV self-testing policies in place, while Cambodia, the Cook Islands, Fiji, Indonesia, Myanmar, Philippines, Nieu and Singapore were all in the process of developing such policies.42 However, supportive policies do not always lead to broad implementation. For instance, although HIV self-testing kits have been legal in Australia since 2014, as of 2018 no self-testing kit has been approved for sale.43

China is the country in the region that has most keenly adopted HIV self-testing with impressive results. By 2017, approximately one-third of men who have sex with men in China were estimated to be using HIV self-testing kits, with many of these self-tests representing the first time the men had ever tested.44

### HIV prevention programmes in Asia and the Pacific

In 2017, there were an estimated 280,000 new HIV infections in the region. Overall, the region is making progress in reducing new infections with a 14% decline between 2010 and 2017.45

Some countries have seen a much steeper decrease over this period such as Thailand (50% decrease) Vietnam (34% decrease) and Myanmar (26% decrease) but in Philippines infections have increased by 170% and by 29% in Pakistan.46 47

There were 10,000 new HIV infections among children in the region in 2017, a 33% decline since 2010. 48 HIV prevention programmes have played an important role in reducing HIV incidence, some of which are outlined below.

#### Condom availability and use

Condom programmes have been the cornerstone of prevention in Asia and the Pacific since its HIV response began. Condom use varies greatly across different areas and populations. In 2017, condom use among men who have sex with men is reported to be 95% in Nepal, 82% in India and Thailand, and 81% in Indonesia - and among sex workers 91% in India, 93% in Sri Lanka and 81% in Thailand. However, condom promotion programmes for people who use drugs are not as developed: India reports the highest rates for the region at 77%.49

Overall, two-thirds of men who have sex with men report using condoms the last time they had anal sex, but this figure is lower for men who have sex with men in cities and urbanised areas, where under half of men who have sex with men reported doing so.50

#### HIV education and approach to sex education

Major barriers exist to the implementation of effective HIV and comprehensive sexuality education in schools in Asia and the Pacific. In 2012, UNESCO found 20 countries in the region had national HIV laws or policies, of which 13 explicitly mentioned the role of education. However, only Cambodia, China, Indonesia, Nepal, Papua New Guinea and Vietnam included a detailed description of sexuality education in their policy frameworks.51 As a result, less than half of young people in most countries in the region are thought to have comprehensive knowledge of HIV.52

### Prevention of mother-to-child transmission (PMTCT)

Prevention of mother to child transmission (PMTCT) has been significantly scaled-up across Asia and the Pacific.53 The period between 2009 and 2015 saw a decline of 30% in new HIV infections among children.54

In 2015, among pregnant women who attended an antenatal appointment or had a facility-based delivery, 100% were tested for HIV in Thailand, 85% in Myanmar and 41% in India. As a result, more than 55% of HIV-positive pregnant women were unaware of their status in all countries except Thailand in 2015. Bangladesh, Indonesia, Nepal, Sri Lanka and East Timor have now prioritised HIV testing for pregnant women in high prevalence areas. 55

In June 2016, Thailand became the first country in the region to eliminate mother-to-child transmission of HIV and syphilis after reducing transmission rates to less than 2%, and providing antiretroviral treatment (ART) to more than 95% of pregnant women. ART coverage has also greatly increased in Myanmar, and stood at 77% in 2015, compared to 39% in 2010. PMTCT ART coverage remains low in other countries and has shown some improvement only in Nepal. Indonesia lags far behind, at less than 10% in 2015.56 Overall, 48% of pregnant women in the region are receiving ART through PMTCT services.57 In October 2018, Malaysia was certified by the World Health Organization (WHO) Western Pacific Region as having eliminated mother-to-child transmission of HIV (and syphilis). The country started antenatal HIV screening in 1998 which is provided free of charge, and nearly all women have access to health services.58

### Harm reduction

The number of harm reduction programmes is increasing across Asia and the Pacific as result of the HIV epidemic. Most countries provide both needle and syringe programmes (NSP) and opioid substitution therapy (OST), which have been found to be highly effective in reducing prevalence among people who inject drugs, although the provision of these services varies greatly across the region.59,

Harm reduction has become more integrated into HIV prevention programmes in India, Vietnam and Pakistan.60 This highlights the importance of promoting harm reduction programmes for people who inject drugs.

Malaysia massively increased the number of NSP sites from 297 in 2012 to 729 sites in 2013. In 2017, 80% of people who inject drugs (sometimes referred to as PWID) were reported to use safe injecting practices.61 Other countries have experienced a reduction in NSP services. For example, Afghanistan, has services available in just nine provinces across the country and no NSP sites are operating in Bhutan, Brunei-Darussalam, Hong Kong, Japan, Republic of Korea, Maldives, Singapore or Sri Lanka.62

In Vietnam, OST has been expanded, and more than 27,200 people were thought to be accessing methadone in 2015.63

China has an expansive harm reduction programme. There are currently 767 OST sites operating in 28 provinces, with 184,000 people receiving methadone maintenance therapy in 2015. However, those delivering services operate in a difficult policy environment. China continues to support severe, punitive policies on drugs, with estimates of at least 600 people being executed for drug-related offences in 2015.64

In Thailand, detoxification and long-term maintenance with methadone has been provided free since 2014, as it is included in the universal health insurance scheme as well as the social security scheme.65

### Pre-exposure prophylaxis (PrEP)

Awareness and use of pre-exposure prophylaxis (PrEP), a daily course of HIV drugs taken by HIVnegative people to reduce their risk of HIV infection, is relatively low in the region. Clinical trials and demonstration projects have been carried out in Vietnam, Taiwan, New Zealand and China, while Thailand and Australia are conducting larger-scale implementation studies. Most projects tend to focus on men who have sex with men and transgender women.66 Almost no PrEP-related data exists about other population groups although there are significant efforts underway to study and implement PrEP programmes for female sex workers in the region.67

# Antiretroviral treatment availability in Asia and the Pacific

Around 2.7 million people living with HIV in the region were accessing antiretroviral treatment (ART) in 2017, up from 900,000 in 2010. 68 69

Most countries have expanded HIV treatment guidelines to include all those living with HIV regardless of CD4 count, which indicates the level of HIV in someone's body. This move is partly driven by the notion of 'treatment as prevention' because individuals who are virally suppressed – the result of effective, continual treatment and monitoring – are unable to transmit HIV to others.70

As the total number of people living with HIV in the region has increased, so there is an increase in treatment coverage from 19% in 2010 to an estimated 53% in 2017. 71 Similar growth over the next period would likely fall short of the UNAIDS target of 81% of all people living with HIV on treatment by 2020.72

Children and younger adolescents (0-14 years) who are living with HIV are considerably less likely to be receiving treatment than adults, with treatment coverage among this age group at 40%.73

Some countries in the region are struggling to provide antiretroviral treatment. In 2017, only 8% of people needing treatment in Pakistan were receiving it.74 India also has very low treatment coverage: approximately 16% among men who have sex with men and 18% among people who inject drugs were estimated to be on ART in 2012/2013. Myanmar reports that approximately 29% of female sex workers living with HIV were accessing HIV treatment, as were 47% of gay men and other men who have sex with men living with HIV.75 However, in Thailand, at the end of 2017, 72% of people needing treatment were receiving it.76 The stark contrast across the region highlights the differences in national responses and funding for HIV treatment.

There are high retention rates for treatment, with 95% of people still accessing treatment after 12 months in Singapore, and 90% Afghanistan, Cambodia and Sri Lanka. Lower levels of retention, ranging from 63% to 84%, were reported by New Zealand, Bangladesh, Mongolia, Philippines, Malaysia and Myanmar. 77

Adherence rates among adolescents and young people (12-24 years) are also high, estimated at 84%, significantly higher than in the higher-income areas of North America and Central Europe, where adherence among this age group ranges between 50 and 60%.78

In 2016, just over half (52%) of people accessing ART in the region also had access to routine viral load testing. The estimated percentage of people living with HIV who achieved viral suppression increased from 34% in 2015 to 45% in 2017.

The emergence of HIV drug resistance is of deep concern when scaling up ART. However, routine HIV drug resistance testing is not recommended for people starting ART in the region, leading to limited data on this issue. A systematic review of studies in the region published between 2000 and 2011 found that most reported relatively low levels of drug resistance.79 However, a separate review of a range of low- and middle-income countries reported an annual increase in the odds of pre-treatment HIV drug resistance of 11% in Asia.80

# Civil society's role in Asia and the Pacific

Civil society varies widely in Asia and the Pacific. Even in countries where a strong civil society has been established, political changes have seen some such as mainland China and the Philippines experience severe restrictions in recent years.81

The establishment of community networks representing people living with HIV, sex workers, people who use drugs, men who have sex with men and transgender people as formalised organisations at the regional, sub-national and national has led to a vibrant, community-led HIV-movement across the region. As a result, in many countries there is widespread participation of people living with HIV and other key populations in the HIV response including within policy development, and the planning and delivery of HIV services.82

Empowered, highly-skilled HIV activists have also been successful in demanding greater transparency and accountability from governments and pharmaceutical companies. For example, in India and Thailand, networks of people living with HIV have been instrumental in challenging medicine patents and treatment access.83

# HIV and tuberculosis (TB) in Asia and the Pacific

Nine out of the world's 22 'high burden' tuberculosis (TB) countries are in the Asia and Pacific region which is home to more than half of all people living with TB globally. Many countries are also facing alarming epidemics of multi-drug resistant TB.84

TB and HIV control programmes have improved, but joined-up programmes still need to be strengthened in countries with a high TB burden. Routine testing of people with TB for HIV is not universally implemented, compromising people's health and hampering accurate data collection. In 2013, less than half of all TB cases were tested for HIV, although testing rates vary greatly between countries.85

However, the region has responded well to treating TB - TB-related deaths fell by around 40% between 1990 and 201486 In 2016, there were 42,000 TB-related deaths among people living with HIV as compared with 62,000 in 2014.

### Barriers to the HIV response in Asia and the Pacific

### Legal, cultural and socio-economic barriers

Scaling-up prevention, treatment and care services for key affected populations is crucial. However, many punitive laws are preventing services reaching and being accessed by these population groups.

HIV restrictions on entry, stay and residence are still very prominent across the region, with 11 countries including Malaysia and Papua New Guinea still enforcing HIV restriction laws.87 China and Mongolia lifted travel bans on people living with HIV in 2012, an important steps towards reducing stigma and discrimination.88

Numerous other punitive laws are hindering the HIV response in the region. For example, although the need for harm reduction is increasingly accepted, a largely punitive policy and legal environment continues to fuel the HIV epidemic among drug users.

Same-sex activities are criminalised in 18 countries including Bangladesh, Pakistan and Malaysia.89 Ultimately, this means that many men who have sex with men and people who are lesbian, gay, bisexual or trans (LGBT) in these countries find accessing prevention and treatment services very difficult.

In 2013, New Zealand became the first country in the region to legalise same-sex marriage.90 Transgender identity and transgender rights have been increasingly accepted at a national level in Pakistan and India, where in 2009 and 2010 respectively, a third gender was formally recognised.91

Nepal is an example of a country that has enhanced and strengthened the rights of many key populations, amending discriminatory laws and creating a more favourable environment for people to access HIV services and treatment.92

### Stigma and discrimination

Stigma and discrimination still poses a major barrier in places like Fiji, where more than half (59%) of female sex workers reported avoiding health-care services due to stigma and discrimination. In Lao People's Democratic Republic and Thailand, by contrast, only 2% and 11% of female sex workers, respectively, reported similar trepidation. Three quarters (75%) of gay men and other men who have sex with the men in Lao People's Democratic Republic and about one third (36%) of their peers in Fiji said that stigma and discrimination deterred them from visiting healthcare facilities.93

Although they have put in place a lot of testing sites people don't go and get tested. People don't trust the healthcare workers to keep their results confidential.

- Respondent in Pacific PLHIV Stigma Index survey.[fn]The Fiji Network for People Living with HIV (FJN+) (2018) 'Overview Report of the People Living with HIV Stigma Index Study in Seven Countries in the Pacific' [pdf]

In 2018, the People Living with HIV Stigma Index Study, conducted by the Fiji Network of People Living

with HIV (FJN+), conducted surveys in Micronesia, Kiribati, Palau, the Marshall Islands, Samoa, Tonga and Vanuatu. More than 70% of respondents reported feelings of shame, guilt, self-blame and/or low self-esteem in the previous 12 months due to their positive status and 22% had felt suicidal.94

Stigma and discrimination have a huge impact on key affected populations, especially transgender communities who face daily prejudice and discrimination. In 2016, in-depth interviews with 30 transgender people and members of the hijra community in India found all had experienced traumatic experiences in relation to their gender identity. Very few received any family support, and due to family rejection at an early age many had either migrated to different states or lived away from their family. A large number faced gender-based violence. Some could not complete their education due to stigma in the educational system. Participants also reported two types of stigma within healthcare settings: firstly from healthcare providers, and secondly from self-stigma associated with their appearance and gender expression.95

# Funding in Asia and the Pacific

In total, an estimated US\$ 3.7 billion was available in 2017 for the AIDS response in Asia and the Pacific. Financial resource availability in Asia and the Pacific has increased by 76% since 2006. While domestic resources have doubled over the last decade, a global shift in donor priorities towards countries with large disease burdens has contributed to a 30% decline in international funding for HIV programmes in the region. 96

A 25% overall increase in resources is needed by 2020 to reach the region's Fast-Track resource target of US\$ 4.9 billion. Domestic resources comprised 78.4% of total HIV investments. The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and the United States President's Emergency Plan for AIDS Relief (PEPFAR) contributed 7.3% and 4.1%, respectively.97

Of particular concern is the impact that withdrawal of funding by the Global Fund to Fight AIDS, Malaria and Tuberculosis may have. Traditionally, the Global Fund has provided funding for many key population programmes in the region and the Global Fund's withdrawal, as many countries in the region transition from middle-income to upper middle-income or high-income status, will leave a funding gap. For instance, in Thailand, key populations account for more than 50% of new infections but are allocated only 22% of HIV prevention programming. In the Philippines, the proportions are 95% and 18% respectively.98

# The future of HIV in Asia and the Pacific

The HIV epidemic in Asia and the Pacific is complex, with each country epidemic significantly different. However, there are some commonalities that highlight areas of critical concern, namely the rising epidemic among men who have sex with men and people who are transgender, and low treatment coverage.

If risk behaviours among men who have sex with men and transgender people, such as multiple sex partners and low rates of condom use, are not challenged, the rising epidemic among these groups will continue. By 2020, almost 50% of all new infections in Asia could be among men who have sex with men, according to the UN Commission on AIDS in Asia.99

Without supportive national policy environments, which protect rights and facilitate access to services, many people living with, and most affected by HIV, will continue to experience stigma and

discrimination that prevents them accessing prevention and treatment. Challenging laws and addressing harmful social, sexual and gender norms that increase the vulnerability of key populations to HIV are vital for effective HIV responses across the region.

As international donors continue to withdraw funding from many Asian countries, more governments need to increase their domestic spending on HIV in ways that ensure that their national responses are sustainable. This includes allocating more funds to prevention services, effectively targeting populations most at risk and continuing to push for affordable ARVs, particularly those that can better address HIV drug resistance.

- 1. UNAIDS (2019) AIDSinfo
- 2. UNAIDS (2018) Data Book [pdf]
- 3. UNAIDS (2019) AIDSinfo
- 4. UNAIDS (2016) The Prevention Gap Report [pdf]
- 5. UNAIDS (2019) AIDSinfo
- 6. UNAIDS (2017) 'Ending AIDS: Progress towards the 90-90-90 Targets' [pdf]
- 7. UNAIDS (2018) Data Book [pdf]
- 8. Human Rights Watch 'Philippines' (Accessed 03/07/2018)
- 9. UNAIDS (2018) Data Book [pdf]
- 10. amFAR 'Why Has Asia Fallen Behind on HIV/AIDS?' [pdf]

11. van Griensven (2010) 'A review of the epidemiology of HIV infection and prevention responses among MSM in Asia', AIDS Journal, Vol 24, Supplement 3, Pages 30-40

- 12. UNAIDS (2016) The Prevention Gap Report [pdf]
- 13. UNAIDS (2013) 'HIV in Asia and the Pacific' [pdf]
- 14. UNAIDS (2016) The Prevention Gap Report [pdf]
- 15. UNAIDS (2016) The Prevention Gap Report [pdf]

16. Beyrer, C., (2012) 'Global epidemiology of HIV infection in men who have sex with men', The Lancet, Vol 380, Number 9839, Pages 367-377

17. UNAIDS (2017) Data Book [pdf]

18. Beyrer, C., (2012) 'Global epidemiology of HIV infection in men who have sex with men', The Lancet, Vol 380, Number 9839, Pages 367-377

19. UNAIDS (2016) The Prevention Gap Report[pdf][/fn Prevalence among this population varies greatly across the region but is estimated at 17% overall.Harm Reduction International 'The Global State of Harm Reduction 2016' [pdf]

- 20. UNAIDS (2016) The Prevention Gap Report[pdf]
- 21. UNAIDS (2017) 'Ending AIDS: Progress towards the 90-90-90 Targets [pdf]
- 22. Harm Reduction International 'The Global State of Harm Reduction 2016'[pdf]
- 23. Harm Reduction International 'The Global State of Harm Reduction 2016' [pdf]
- 24. Human Rights Watch 'Philippines' (Accessed 03/07/2018)
- 25. APCOM (2013) 'Policy Brief: Overlooked, Ignored, Forgotten: HIV and Basic Rights of

Transgender People in Asia and the Pacific' [pdf]

26. UNAIDS (2014) 'An agenda in transition: raising the profile of transgender and HIV issues in Asia and the Pacific'

27. UNAIDS (2014) 'The Gap Report' [pdf>

28. UNDP (2012) 'Lost In Transition: Transgender People, Rights and HIV Vulnerability in the Asia-Pacific Region' [pdf]

- 29. amFAR 'Why Has Asia Fallen Behind on HIV/AIDS?' [pdf]
- 30. amFAR 'Why Has Asia Fallen Behind on HIV/AIDS?' [pdf]
- 31. UNAIDS (2013) 'HIV in Asia and the Pacific' [pdf]
- 32. UNAIDS (2018) Data Book [pdf]
- 33. UNAIDS (2013) 'HIV in Asia and the Pacific' [pdf]

34. ibid

- 35. amFAR 'Why Has Asia Fallen Behind on HIV/AIDS?' [pdf]
- 36. UNAIDS (2018) Data Book [pdf]
- 37. UNAIDS (2017) 'Ending AIDS: Progress towards 90-90-90 targets' [pdf]
- 38. UNAIDS (2018) Data Book [pdf]
- 39. UNAIDS (2017) 'Ending AIDS: Progress towards the 90-90-90 targets' [pdf]
- 40. UNAIDS (2017) 'Ending AIDS: Progress towards the 90-90-90 targets' [pdf]

41. UNAIDS (15 November, 2016) 'Bringing HIV testing to communities in Cambodia' (Accessed 2/07/2018)

42. Unitaid/WHO/PSI (2017) 'Market and technology landscape: HIV rapid diagnostic tests for self-testing: 3<sup>rd</sup> edition'[pdf[

43. AFAO 'Preparing for HIV Self-Testing in Australia' (Accessed 02/07/2018)

44. Tucker, JD. et al (2017) 'Scaling up HIV self-testing in China and Africa' J Virus Erad, Jul; 3(3): 167.

- 45. UNAIDS (2018) Data Book [pdf]
- 46. UNAIDS (2017) 'Ending AIDS: Progress towards the 90-90-90 targets' [pdf]
- 47. UNAIDS (2018) Data Book [pdf]
- 48. UNAIDS (2018) Data Book [pdf]

49. Pendse, R. et al (2016) 'HIV/AIDS in the South-East Asia region: progress and challenges' J Virus Erad. 2016 Nov; 2(Suppl 4): 1-6

50. UNAIDS (2013) 'HIV in Asia and the Pacific' [pdf]

51. UNSECO (2012) 'Review of Policies and Strategies to Implement and Scale Up Sexuality Education in Asia and the Pacific'[pdf]

52. Iyer, P et al (2014) 'Barriers to HIV and sexuality education in Asia' Health Education, 114 (2). pp. 118-132

- 53. UNAIDS (2013) 'HIV in Asia and the Pacific' [pdf]
- 54. UNAIDS (2016) The Prevention Gap Report [pdf]

55. Pendse, R. et al (2016) 'HIV/AIDS in the South-East Asia region: progress and challenges' J Virus Erad. 2016 Nov; 2(Suppl 4): 1–6

56. Pendse, R. et al (2016) 'HIV/AIDS in the South-East Asia region: progress and challenges' J Virus Erad. 2016 Nov; 2(Suppl 4): 1-6

57. amFAR 'Why Has Asia Fallen Behind on HIV/AIDS?'[pdf]

58. WHO (2018) 'Malaysia eliminates mother-to-child transmission of HIV and syphilis'

59. Harm Reduction International 'The Global State of Harm Reduction 2016' [pdf]

60. UNAIDS (2016) The Prevention Gap Report[pdf][/fn Evidence clearly highlights the link between using clean needles and injecting equipment, and low HIV prevalence. In Katmandu, Nepal, increases in the use of safe needles led to a dramatic reduction in HIV prevalence - from 68% in 2002 to 6.4% in 2016. UNAIDS (2017) Data Book [pdf]

- 61. UNAIDS (2018) Data Book [pdf]
- 62. Harm Reduction International 'The Global State of Harm Reduction 2016' [pdf]
- 63. Harm Reduction International 'The Global State of Harm Reduction 2016'[pdf]

64. ibid

- 65. Harm Reduction International 'The Global State of Harm Reduction 2016' [pdf]
- 66. PrEPwatch.org 'Asia' (Accessed 02/07/2018)
- 67. amFAR 'Why Has Asia Fallen Behind on HIV/AIDS?' [pdf]
- 68. UNAIDS (2018) Data Book [pdf]
- 69. UNAIDS (2017) 'Ending AIDS: Progress towards the 90-90-90 targets' [pdf]

70. van Griensven F. et al (2017)'Challenges and emerging opportunities for the HIV prevention, treatment and care cascade in men who have sex with men in Asia Pacific' Sex Transm Infect, Aug; 93(5):356-362

- 71. UNAIDS (2018) Data Book [pdf]
- 72. UNAIDS (2017) 'Ending AIDS: Progress towards the 90-90-90 targets' [pdf]
- 73. amFAR 'Why Has Asia Fallen Behind on HIV/AIDS?' [pdf]
- 74. UNAIDS (2018) Data Book [pdf]
- 75. UNAIDS (2017) Data Book [pdf]
- 76. UNAIDS (2018) Data Book [pdf]
- 77. UNAIDS (2018) Data Book [pdf]

78. Sung-Hee, K et al (2014) 'Adherence to antiretroviral therapy in adolescents living with HIV: systematic review and meta-analysis', AIDS 28(13)

79. WHO 'HIV drug resistance report 2017[pdf]

80. amFAR (23 May, 2018) 'Perspectives: Are integrase inhibitors the solution to HIV drug resistance in the Asia-Pacific region?' (Accessed 03/07/2018)

81. Human Rights Watch 'China: events in 2017' and 'Philippines: events in 2017' (Accessed 03/07/2018)

82. UNDP (2017) 'A Post-2015 Development Agenda: Lessons from Governance of HIV responses in Asia and the Pacific'

83. Asia Pacific Network of People Living with HIV/AIDS (2017) 'Our health, our right: The roles and experiences of PLHIV networks in securing access to generic ARV medicines in Asia' [pdf]

84. WHO (2017) 'World Tuberculosis Report 2017' [pdf]

85. Trinh, QM et al (2015) 'Tuberculosis and HIV co-infection—focus on the Asia-Pacific region' International Journal of Infectious Diseases

86. Harm Reduction International 'The Global State of Harm Reduction 2016' [pdf]

87. UNAIDS (2013) 'HIV in Asia and the Pacific' [pdf]

88. HIV Law Commission (2014) 'Punitive Laws Hindering the HIV response in Asia and the Pacific'

89. HIV Law Commission (2014) 'Punitive Laws Hindering the HIV response in Asia and the Pacific'

90. BBC News(17 April 2013) 'New Zealand legalises same-sex marriage' (Accessed 012/09/2018)

91. HIV Law Commission (2014) 'Punitive Laws Hindering the HIV response in Asia and the Pacific'

92. HIV Law Commission (2014) 'Punitive Laws Hindering the HIV response in Asia and the Pacific'

93. UNAIDS (2018) Data Book [pdf]

94. The Fiji Network for People Living with HIV (FJN+) (2018) 'Overview Report of the People Living with HIV Stigma Index Study in Seven Countries in the Pacific' [pdf]

95. Asia Pacific Transgender Network (2016) 'Views of transgender persons and hijras associated with the Global Fund Program, Pechan in India' [pdf]

96. UNAIDS Miles to go: Closing gaps, Breaking barriers Righting injustices Global AIDS Update (2018) [pdf]

97. UNAIDS (2018) Data Book [pdf] The level of resources for national HIV responses is estimated to be 37% below what is needed to reach the UNAIDS' Fast-Track Targets by 2020.UNAIDS (2017) 'Ending AIDS: Progress towards the 90–90–90 targets' [pdf]

98. AIDSpan (7 March, 2018) 'A Global Fund multi-country program in Southeast Asia helps countries SHIFT towards sustainable HIV financing' (Accessed 03/07/2018)

99. amFAR 'Why Has Asia Fallen Behind on HIV/AIDS?' [pdf]

Last full review: 22 August 2018 Next full review: 22 August 2021