HIV and AIDS in Thailand

Thailand (2017)

440,000 people living with HIV
1.1% adult HIV prevalence
6,400 new HIV infections*
15,000 AIDS-related deaths
72% adults on antiretroviral treatment**
84% children on antiretroviral treatment**

**All adults/children living with HIV

Source: UNAIDS Data 2018; *UNAIDS Data 2017

KEY POINTS

- Thailand has one of the highest HIV prevalences in Asia and the Pacific, accounting for 9% of the region’s total population of people living with HIV.
- Although the epidemic is in decline, prevalence remain high among key affected groups.
- Thailand is the first country to effectively eliminate mother to child transmissions, with a transmission rate of less than 2%.
- Thailand hopes to be one of the first countries to end AIDS by 2030. However, to achieve this significantly more young people and key affected populations need to be reached.

Explore this page to read more about populations most affected by HIV, HIV testing and counselling programmes, HIV prevention programmes, antiretroviral treatment availability, civil society’s role, HIV and tuberculosis (TB), barriers to prevention, funding for HIV and the way forward for Thailand.

Of Thailand’s population of more than of nearly 70 million, it was estimated that 450,000 people were living with HIV in 2016 and that 16,000 people died of AIDS-related illnesses.1 After sub-Saharan Africa, Asia and the Pacific is the region with the largest number of people living with HIV, with Thailand home to approximately 9% of the region’s HIV positive people.2

Thanks to successful HIV testing programmes, Thailand has reached the first 90 of UNAIDS’ 90-90-90 targets as 91% of people living with HIV in 2016 were aware of their status. Of those people who know they are HIV positive, 75% were on treatment, 79% of whom were virally suppressed. Overall, this equates to 69% of all people living with HIV being on treatment and 54% being virally suppressed.3

Thailand’s HIV epidemic is concentrated among certain key populations. Those most affected are men who have sex with men, sex workers, transgender people and people who inject drugs. Spouses of these populations, migrants and prisoners are also more vulnerable to HIV than others.4
HIV prevalence is declining in Thailand due to successful HIV prevention programmes. A study has shown that nearly 10 million people avoided HIV transmission because of early intervention programmes with key affected populations between 1990 and 2010. Between 2005 and 2016, AIDS-related deaths declined by almost two thirds.

There were 6,400 new HIV infections in Thailand in 2016. Most will have occurred through unprotected sex, which is estimated to account for 90% of all new HIV infections. Unsafe injecting drug use is the second biggest transmission route.

Increased access to prevention services has resulted in new infections decreasing among some groups but they are rising among others. For example, while the rate of new infections through injecting drug use steadily decreased between 1995 and 2015, the rate of new infections through male-to-male sex dramatically increased over the same period.

Of all new infections in 2016, around 44% occurred among men who have sex with men, 10% among sex workers and their clients, and 11% among people who inject drugs, making these population groups a priority for prevention work.

Key affected populations in Thailand

Men who have sex with men (MSM) and HIV

In Thailand 9.15% of men who have sex with men are living with HIV, although prevalence varies greatly depending on location. For example, in Bangkok prevalence is estimated at 28.6%.

Condom use among men who have sex with men is high, estimated at more than 82.1%. But, although the availability of prevention services has improved, new infections have not declined as much as intended.

A 2015 study estimated there were 185,000 men who have sex with men living in metropolitan Bangkok, 60,000 of whom were at high risk of HIV infection. It found that, while there are enough
clinics and health personnel in Bangkok to support testing and treatment for all men who have sex with men at risk of HIV, there was limited take up of these services. Of those 60,000 considered high-risk, only 14,000 tested for HIV in the course of a year, of whom 4,000 were diagnosed HIV-positive. Yet fewer than 1,000 of these men started taking antiretroviral treatment despite it being available for free.16

Prevention programmes haven’t reached enough young men who have sex with men, meaning they are less likely to know where to get an HIV test, or understand their risk.17 This, alongside a perception of low risk and multi-partner sex fuelled by performance enhancing drugs, can result in low condom use.18

A 2013 study of men who have sex with men in Bangkok found HIV incidence to be much higher in younger men (8.8 per 100 person-years among those aged 18 to 21, compared to 3.7 per 100 person-years among men over 30).19

Sex workers and HIV

In Thailand, HIV prevalence is far greater among male sex workers than female. In 2014, of the estimated 147,000 sex workers in the country, HIV prevalence was approximately 12% among male sex workers and 1% among female sex workers.20 However, urban settings have shown to yield exceptionally high HIV prevalences among female sex workers, as high as 20% in Bangkok, for example.21

Data from 2013 suggests female sex workers account for 10% of all new HIV infections in Thailand.22 This may be the result of a lack of information about HIV or a lack of access to services. For example, a 2015 UNICEF study of young key populations in Thailand found only 31% of young female sex workers in Bangkok and 50% in Chiang Mai had received any HIV-related information or services in the past 12 months, compared to 80% of the other key populations surveyed such as men who have sex with men and people who inject drugs.23 The same study found that, of the young female sex workers surveyed, only 12% in Chiang Mai and 18% in Bangkok had tested for HIV in the past 12 months.

Globally, transgender people are the most at-risk group of sex workers, with HIV prevalence estimated to be on average nine times higher than for female sex workers and three times higher than for male sex workers.24

Transgender people and HIV

There are more than 75,600 transgender people living in Thailand. In Bangkok, Chonburi, Chiang Mai, Chonburi and Phuket, the median HIV prevalence among this group was estimated at 12.7% in 2014, making transgender people a particularly at-risk population.25

A large proportion of transgender people also sell sex making them increasingly vulnerable to HIV.26 For example, a 2015 study by UNICEF found 39% of young transgender people had sold sex.27

In 2014, data from the five areas above found condom use among transgender people to be at 84%. Around 59% of transgender people in these areas were accessing prevention services and 34% were testing for HIV. Chiang Mai was the only city where testing had increased over time, from 22% in 2005 to 43% in 2014.28

There are a number of reasons transgender men and women are being left behind in prevention and treatment work. Discriminatory health systems, transphobia, family rejection and a lack of access to education and employment all discourage transgender people from seeking HIV services.29 Indeed, the 2015 UNICEF study mentioned above found only 32% of young transgender
people had correct HIV knowledge.\textsuperscript{30}

**People who inject drugs (PWID) and HIV**

Within the first few years of Thailand’s epidemic, HIV prevalence among people who inject drugs (sometimes referred to as PWID) rose from 0 to 40%. By 2011, prevalence had halved to 22%.\textsuperscript{31} However, prevalence began to rise again after 2011, and stood at 19% in 2016, the most recent data available.\textsuperscript{32}

Although the need for harm reduction is increasingly accepted in Thailand, a largely punitive policy and legal environment focused on drug control continues to undermine access. Thailand still operates compulsory detention centres for people who use drugs, which deters many from seeking essential health services.\textsuperscript{33}

Despite this, there has been an increase in the proportion of people who report using sterile injecting equipment the last time they injected (from 42% in 2009 to 84.88% in 2016).\textsuperscript{34}

Condom use among people who inject drugs was less than 50% in 2016.\textsuperscript{35} However, Thailand’s National AIDS Committee (NAC) reported an increase in the proportion of people testing for HIV, from 40% in 2009 to 61.2% in 2014, but warns that its data is limited as it is based on research from just three areas.\textsuperscript{36}

**Migrants and HIV**

Migration can put people in situations that heighten vulnerability to HIV, due to factors such as social exclusion and a lack of access to healthcare services or social protection. In South-East Asia, HIV prevalence among migrants to Thailand from neighbouring countries is up to four times higher than among the general population.\textsuperscript{37}

The highest prevalence among migrants in Thailand was found in the fishing industry, with rates of 2% among fishermen and 2.3% among fishery workers, compared to HIV prevalence of 1.1% and 0.74% among factory workers and farm workers, respectively.\textsuperscript{38}

In a behavioural survey conducted in 24 provinces among migrant workers aged 15-49, 21.6% of male workers had sex with more than one partner in the previous year compared with 4.6% female workers. Fishermen and those working in the sea-food processing industry were particularly likely to pay for sex.\textsuperscript{39} A 2016 study of more than 2,000 migrant workers from Myanmar found more than half did not know or were not certain where to test for HIV.\textsuperscript{40}

In Thailand, the vast majority of sex workers are migrants from villages, who use the income from sex work to support families in their home communities.\textsuperscript{41} Migrant sex workers in low-income places appear to be at particularly high risk of HIV.\textsuperscript{42}

In 2013, Thailand’s Ministry of Public Health announced a policy to provide health insurance (with antiretroviral treatment coverage included) for cross-border migrant workers who are not covered by social security, including both registered and unregistered migrants. As of September 30, 2014, the number of migrants who registered with the migrant health insurance stood at 1.4 million, an increase from previous years.\textsuperscript{43} However, national debates have occurred in recent years as to whether the Thai government should fund health services for migrant workers, with some in government opposed to this idea.\textsuperscript{44}
HIV testing and counselling (HTC) in Thailand

Thanks to successful HIV testing and counselling (HTC) programmes, Thailand has reached the first 90 of the UNAIDS 90-90-90 targets as 91% of people living with HIV in 2016 were aware of their status.

However, only 31% of men who have sex with men are estimated to have had an HIV test and received their result in the past year – a testing rate that is lower than for any other key population.

HIV-related stigma and experiences of stigma and discrimination in healthcare are recurring barriers that prevent people from testing for HIV. Criminalisation is also an issue, especially for people who use drugs who fear arrest or detention. Ethnicity or migrant nationality, sexual orientation, mental health issues or being co-infected with tuberculosis, are additional layers of stigma that prevent people from testing.

Age has also been a barrier to HIV testing, although a ban on people aged 18 and under testing for HIV without parental consent was lifted in 2012.

New approaches have been introduced to increase access to, and demand for, HIV testing among key affected populations, including the following:

- implementing community-based HTC to expand outreach work
- ensuring HTC outlets provide same-day results.

One such programme is the USAID and PEPFAR-funded LINKAGES programme. This is a five-year project that started in 2015 and is being implemented in Thailand by FHI 360 and local community-based organisations. LINKAGES sees members from key populations (known as ‘peer mobilisers’) reach out to their peers in order to link them to HTC services. Those who test positive for HIV are then supported by their peers to access treatment and care. First year results found HTC had significantly increased among key populations in areas where LINKAGES is being implemented.

As of 2016, HIV self-testing kits (oral or blood-based) have not been granted a clinical licence.
However, a self-testing pilot study among men who have sex with men and transgender women was being conducted with a view to wider implementation if proven effective.49

HIV prevention programmes in Thailand

In 2016, 6,400 people in Thailand became infected with HIV. Roughly two-thirds of whom were identified as male (4,300 infections among those classified as men, compared to 2,100 infections among those classified as women). There were less than 100 new infections among children (0-14 years).50

Overall, new infections are declining significantly though the rate has slowed in recent years, dropping by 50% between 2010 and 2016, the steepest decline for any country in the Asia and the Pacific region.51

In 2016, PEPFAR estimated that around 44% of new infections occurred among men who have sex with men (a term which PEPFAR uses to include transgender women), 10% among sex workers and their clients, and 11% among people who inject drugs. Around 29% of new infections are estimated to occur from spousal transmission, 21% of these from husbands to wives.52

Thailand’s 2017–2030 National AIDS Strategy aims to cut annual new infections to less than 1,000 by supporting combination prevention programmes for key populations and working in partnership with community-led organisations to reach people at higher risk in the locations where they live and work.53

Condom availability and use

Thailand’s 100% Condom Program, which began in 1991 to offer condoms free of charge nationwide, particularly to sex workers and brothels, is widely credited with averting a generalised HIV epidemic in the country. Subsequent condom distribution and awareness campaigns have since run and often target young people. Despite this, condom use among this age group is low. For instance, Thailand has the second highest rates of teenage pregnancy in South East Asia.

In 2016, health authorities launched a new, three-year condom campaign aimed at young people, distributing about 40 million free condoms per year.54

HIV education and approach to sex education

Nearly all general secondary and vocational institutions provide comprehensive sexuality education (CSE), either as an integrated or standalone subject or both. It is not available for children of younger ages.

Diverse topics are covered in the CSE curriculum including the prevention of teenage pregnancy, sexually transmitted infections and HIV, and sexual anatomy and development. However, topics that relate to gender, sexual rights, sexual and gender diversity, gender inequality, safe abortion and safer sex for same-sex couples are less often taught.55

Surveys show that people in Thailand under the age of 25 have lower levels of HIV knowledge and HIV testing and counselling than those over age 25.56 New HIV and sexually transmitted infections (STI) are rising among this age group, suggesting HIV testing and prevention programmes need to be better prioritised.57

Preventing mother-to-child transmission (PMTCT)

Thailand has made great strides in reducing its mother-to-child-transmission (MTCT) rate. In 2015
rate of MTCT of HIV stood at 1.9%. This equates to 86 children becoming infected with HIV through this route, a decline of more than 90% over the past 15 years.

A transmission rate of 2% or below is considered by the World Health Organization (WHO) as effectively eliminating mother-to-child transmission of HIV.58 Thailand is the first country in the Asia Pacific region to reach this important milestone.59

In 2016, 95% of Thai and non-Thai pregnant women living with HIV received antiretroviral drugs to reduce the risk of MTCT.60 80% of infants born to HIV-positive women were tested for HIV within two months of birth.61

Despite these successes, areas for improvement include:

- coverage of couples testing for HIV in antenatal care (ANC) increased from 38% in 2013 to 41% in 2014, but remained significantly below the 2016 target of 60%
- a number of pregnant women still have not registered for ANC, so the full picture is not known
- access to PMTCT services for foreign pregnant women who are living with HIV is not universal with many having to pay.62

Harm reduction

Harm reduction services for people who inject drugs, such as needle and syringe programmes (NSPs), are available in Thailand, although they are limited. On average, a person who injects drugs in Thailand received just 14 clean needles and syringes per year in 2016.63 High coverage is defined as more than 200 needles per person who injects drugs.64 Despite this, there has been an increase in the proportion of people who report using sterile injecting equipment the last time they injected (from 42% in 2009 to 84.88% in 2016).65

A reduction in the number of NSPs in Thailand began in 2014; two years later 24 out of 38 sites had shut. This was due to a sudden termination of a partnership with local pharmacists due to reduced funding.66

In Thailand, detoxification and opioid substitution therapy using methadone has been provided free since 2014, as they are included in the country’s universal health insurance scheme as well as in its social security scheme. However, methadone treatment is currently available only in district- and province-level hospitals, and a few remote drug treatment centres, reaching no more than 10% of all people who require it.67

In order to increase access, O-zone, a Thai non-governmental organisation, has been implementing a peer-led, community-based methadone delivery service in the mountain village of Santikhiri in Chiang Rai province, where peer outreach workers operate methadone delivery at a drop-in centre with supervision from Mae Chan Hospital. Initiated in 2013, the initiative attracted media attention and support from government agencies and has since been replicated in Huay Pung in Chiang Rai province.68

Pre-exposure prophylaxis (PrEP)

Pre-exposure prophylaxis (PrEP) is antiretroviral treatment taken by HIV-negative people before potential exposure to HIV in order to stop transmission. It began to be piloted in Thailand in 2014. By 2016, PrEP pilots were operating at five sites for men who have sex with men and transgender women.69

Between 4,000 and 4,500 people in Thailand were using PrEP as of 2016, with this number
expected to rise to between 7,000 and 7,500 by the end of 2018.70

Antiretroviral treatment (ART) in Thailand

Thailand provides antiretroviral treatment (ART) for free as part of the country’s universal health insurance scheme.71. It is one of only three countries in Southeast Asia that has more than 70% of people living with HIV on ART at 72%, the others being Cambodia (87%) and Singapore (77%).72 In 2016, 68% of adults who are eligible for treatment were receiving it, alongside more than 86% of children.73

Women are more likely than men to be on treatment, with 72% of women living with HIV on treatment compared to 65% of men.74 This is partly due to the fact that men who have sex with men are less likely than other groups to access treatment. In 2016, only 45% of men who sex with men who were newly diagnosed with HIV registered for care, a registration rate that is lower than people who inject drugs and female sex workers.75

Overall, 52% of people living with HIV have suppressed viral loads, meaning HIV has been suppressed to such an extent in their body that they are likely to be in good health and, if maintained, will not pass the virus onto others.76

In October 2014, Thailand extended ART to all those living with HIV, regardless of their CD4 count (which indicates the health of the immune system), in line with the most recent WHO treatment guidelines. Since then, more thorough identification of new cases has been introduced to ensure people start receiving treatment as soon as possible after diagnosis (known as ‘test and treat’).77

There are high retention rates for treatment, with 90% of adults accessing treatment after 12 months.78 However, young people are less likely to access and adhere to treatment. This is due to a number of factors including tense relationships with parents and caregivers, forgetfulness due to busy schedules and fear of disclosing HIV status to boy/girlfriends and others.79

As use of antiretroviral treatment in Thailand increases, so does the potential for transmission of drug-resistant HIV. In a study of 120 people, mainly men who have sex with men, an overall HIV drug resistance prevalence of 9.2% was found, higher than previous reports of transmitted drug resistance in Thailand.80 A 2016 study of 265 people living with HIV (62% of whom were male) who had not previously been on treatment found 8% had drug-resistant HIV, suggesting they had contracted a drug resistant strain of HIV when first infected.81

Civil society’s role in Thailand

Dozens of human rights defenders, pro-democracy activists and others have been investigated and prosecuted by Thailand’s military government since it took power in 2014. A decree issued by Prime Minister Prayuth Chan-o-cha in 2015, bans ‘political gatherings’ of five or more persons. Authorities have frequently used this order to detain and charge peaceful protesters.82

The Thai authorities have created a fearful environment where people cannot speak or assemble peacefully without risking arrest and prosecution.

- Champa Patel, Southeast Asia and Pacific Director of Amnesty International.83 There are
numerous civil society organisations (CSOs) that represent the interests of people most affected by HIV in Thailand. These are co-ordinated by the Thai Network for People Living with HIV/AIDS (TNP). Particularly crucial has been their support for the production of generic antiretrovirals (ARVs) and their representation of particularly marginalised key population groups. For instance, CSO-driven projects have made up almost the entire response to HIV among people who use and inject drugs and provided critical leadership in moving the advocacy agenda forward.84

HIV and tuberculosis (TB) in Thailand

The World Health Organization (WHO) classifies Thailand within the top 30 high burden countries for tuberculosis (TB).85 In 2016, just over 72,000 cases of TB were diagnosed, and 81% of these people had a known HIV status. Of these, 8% were HIV-positive, of whom 59% were on antiretroviral treatment.86 In the same year there were 3,900 TB-related deaths among people with HIV.

Thailand’s 2017–2030 National AIDS Strategy outlines plans to increase the integration of HIV health services with services for TB in order to close this gap. 87

Barriers to the HIV response in Thailand

Legal and cultural barriers

Law enforcement can act as an obstacle to HIV treatment and prevention; Thailand is one of several Asian countries that have programmes in place to prevent this.88 This includes protective legislation that guarantees the right to basic healthcare for migrants.89

HIV stigma and discrimination

Despite improved laws and policies to protect people living with HIV, research shows that undocumented migrants face stigma and discrimination from healthcare workers and employers. This is one of the main barriers they face when accessing treatment.90

Factors preventing people who inject drugs from accessing services include misconceptions such as the distribution of needles promoting drug addiction. People who inject drugs also experience prejudice and stigma from public health service providers and law enforcement, and tackling this has been highlighted as a priority in Thailand’s HIV strategy.91

Despite same sex activity long being legal in Thailand, and the passing of the Gender Equality Act in 2015 to quell discrimination against lesbian, gay, bisexual, transgender people and men who have sex with men,92, homophobia can still prevent people from accessing HIV services.93

A 2016 study of men who have sex with men and transgender women aged 18-30 found HIV-related stigma acted as a barrier to accessing testing, prevention and treatment services.94 In its 2017–2030 National AIDS Strategy, the Ministry of Public Health of Thailand has set a target of reducing HIV-related discrimination in healthcare settings by 90% by 2030.95

Reducing stigma and discrimination among healthcare workers in Thailand

In 2014, the Thai Ministry of Public Health, in collaboration with civil society and international partners, developed initiatives to sensitise healthcare workers in both clinical and non-clinical settings. These initiatives followed research showing that HIV stigma was a major barrier to service uptake.
Early results indicated that improving the attitude of healthcare workers doesn’t just improve care for people living with HIV but has wider societal benefits as they are seen as role models.

As of 2017, Thailand had collected data from 22 provinces. The Thai Ministry of Public Health is rolling out an accelerated system-wide stigma reduction programme, in collaboration with civil society and concerned communities.

The community-led approach goes a long way to reduce stigma. “People most at risk of becoming infected with HIV are reached by sympathetic peers, often MSM or transgender people within the community who often prefer not to visit traditional medical facilities for fear of discrimination,” says Beth Paige, director of USAID’s Regional Development Mission for Asia.

Structural and resource barriers

Although an upper-middle income country, Thailand’s economic growth has slowed in recent years compared to other developing South-East Asian countries. Poverty continues to be a huge challenge, particularly among the half of the population (of a total of 68.9 million in 2016) that live in rural areas, as it can increase vulnerability to HIV. However, Thailand’s basic health system infrastructure is good and universal health coverage means most people are within reach of health services.96

Funding for HIV in Thailand

In 2014, 92% of Thailand’s HIV response was funded domestically.97. Funding from international donors continues to fall. Particularly important in this regard is funding from the Global Fund to Fight AIDS, Malaria and Tuberculosis, which dropped from US $39 million in 2014 to about US $14 million in 2015-2016, and was entirely phased out in 2017.98

According to Thailand’s 2013 National AIDS Spending Assessment, 89% of all funding for HIV that year went to treatment, support and clinical care. In contrast, only 3.6% of all expenditures were devoted to key population prevention and to HIV testing and counselling, combined. While funding for HIV care and treatment were supported almost entirely with domestic public resources, expenditures on key population prevention were dependent predominantly on external resources, with domestic public resources comprising only 14% of total spending in this area.99

Analysis suggests the Thai government could broker the funding gap left by the Global Fund’s withdrawal by calling on national pooled financing mechanisms from various sources. Although the general political consensus appears to be that the Thai government will honour its responsibility to fully support key populations, debates within government ministries are occurring as to whether or not the domestic budget should be used to support key populations from migrant communities.100

The future of HIV in Thailand

Although Thailand made enormous progress with HIV prevention in the 1990s, the rate of decline in HIV prevalence has slowed down in recent years. Access to prevention services and behaviour change communication has not been enough to significantly reduce the rate of new infections, particularly among men who have sex with men.101

Thailand’s 2017–2030 National AIDS Strategy provides a roadmap for ending the AIDS epidemic as a public health threat by 2030.102 Indeed, from 2015 the Ministry of Public Health increased its
budget to prepare for implementing its strategy to end AIDS. Its spending commitments must remain if real progress is to be made.

But to be in with a real chance of ending AIDS by 2030, Thailand will also need to give significant focus to new and innovative intersectional strategies to reach both young people and key affected populations, particularly men who have sex with men and those from migrant communities.

- 17. UNESCO Bangkok (2013) ‘Young People and the Law in Asia and the Pacific: A review of laws and policies affecting young people’s access to sexual and reproductive health and HIV services’
• 32. UNAIDS (2017) Data Book [pdf]
• 34. UNAIDS (2017) Data Book [pdf]
• 35. UNAIDS (2017) Data Book [pdf]
• 45. PEPFAR (2016) ‘Asia Regional Program Regional Operational Plan 2016: FY17 Strategic Direction Summary’[pdf]
• 51. UNAIDS (15 September 2017) ‘Update: Thailand launches new national strategy to end the AIDS epidemic by 2030’ (Accessed 02/05/2018)
• 52. PEPFAR (2016) ‘Asia Regional Program Regional Operational Plan 2016: FY17 Strategic Direction Summary’[pdf]
• 53. UNAIDS (15 September 2017) ‘Update: Thailand launches new national strategy to end
the AIDS epidemic by 2030’ (Accessed 02/05/2018)

54. Reuters (4 February, 2016) ‘Don't shy away from condoms, Thailand says ahead of Valentine's Day’ (Accessed 02/05/2018)


58. UNAIDS (27 October, 2016) ‘Feature story: Thailand is the first country in Asia to achieve elimination of HIV transmission and syphilis from mothers to their children’ (Accessed 30/05/2018)

59. ibid

60. UNAIDS (2017) Data Book [pdf]


70. PrEPWatch.org ‘Thailand’ (Accessed 02/05/2018)


72. UNAIDS ‘AIDSInfo’ (accessed November 2018)

73. UNAIDS (2017) Data Book [pdf]


75. PEPFAR (2016) ‘Asia Regional Program Regional Operational Plan 2016: FY17 Strategic Direction Summary’ [pdf]


10.1097/QAI.0000000000000502.


- 83. ibid

- 84. Middle East Institute (10 February, 2015) ‘Civil Society and Harm Reduction in Thailand - Lessons Not Learned’ (Accessed 02/05/2018)


- 86. ibid

- 87. UNAIDS (15 September 2017) ‘Update: Thailand launches new national strategy to end the AIDS epidemic by 2030’ (Accessed 02/05/2018)


- 93. UNESCO Bangkok (2013) ‘Young People and the Law in Asia and the Pacific: a review of laws and policies affecting young people’s access to sexual and reproductive health and HIV services’


- 95. UNAIDS (15 September 2017) ‘Update: Thailand launches new national strategy to end the AIDS epidemic by 2030’ (Accessed 02/05/2018)

- 96. PEPFAR (2016) ‘Asia Regional Program Regional Operational Plan 2016: FY17 Strategic Direction Summary’[pdf]


- 102. UNAIDS (15 September 2017) ‘Update: Thailand launches new national strategy to end the AIDS epidemic by 2030’ (Accessed 02/05/2018)


Last full review: 08 June 2018