The U.S.–Thai Partnership against HIV

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Key Data[3,4]

437,700 people living with HIV

6,400 new annual HIV infections

1.1 percent prevalence rate among adults 15–49 years old

16,000 annual AIDS-related deaths

95 percent of HIV+ pregnant women receive ART to prevent mother-to-child HIV transmission

69 percent of HIV+ adults and children receive ART

89 percent (391,484) of people living with HIV know their HIV status

70 percent (272,750) of those who know their status and are on treatment

82 percent (223,372) of those on treatment who are virally suppressed

Introduction

Thailand has earned international recognition as an HIV success story for its political leadership, self-financing, technical capacity, strong civil society, and innovative research. However, HIV remains a pressing problem in Thailand. Despite reaching control[2] of its HIV epidemic, the country struggles to put those diagnosed with HIV on antiretroviral treatment (ART), retain them on treatment, and achieve viral suppression. There also continue to be high HIV rates in several key population groups such as men who have sex with men (MSM) and people who inject drugs (PWIDs). The government's ability to address these concerns will be key to its long-term success against HIV.

The U.S. government has partnered with Thailand on its national HIV response for decades through technical assistance, service delivery support, and HIV-related research, and through its contributions to the Global Fund to Fight AIDS, Tuberculosis, and Malaria (Global Fund). Thailand graduated from bilateral development assistance in the 1990s but HIV technical and research collaboration continued. However, the future of that collaboration is unclear given the debate over U.S. foreign assistance funding in Washington, D.C. In January 2017, the authors traveled to Thailand to understand the U.S. government's HIV investment, how that investment supports Thailand's HIV response, and what challenges and opportunities lie ahead.

HIV and Thailand's Health System

Thailand became a constitutional monarchy in 1932, but has since bounced between military and civilian control. The country is currently under military control following a coup in 2014.[5] Despite political upheaval, Thailand underwent rapid social and economic development over the last 100 years, moving from a low-income to upper-middle-income country in the span of less than a generation.[6] The Royal Thai Government channeled the economic growth into social and economic development, including health infrastructure, which has enabled Thailand to become a global leader against HIV.

The government's "significant and sustained" commitment to health began in the 1970s.[7] Early domestic investment in primary health care facilities, referral hospitals, and health care workforce laid the groundwork for a robust health system. The World Health Organization (WHO) also credits Thailand's success to adoption and implementation of evidence-based policies and collaboration between civil society and policy entrepreneurs.[8]

Since 2002, Thai citizens have enjoyed universal health coverage. Three public financing schemes for civil servants, formal sector employees, and the remainder of the population, ensure financial coverage of all citizens.[9] The Ministry of Public Health previously provided annual budgets to health facilities; now, three public purchasers manage demand-led financing of facilities.[10] Universal access to health care was aided by incentives for rural health workers, which have precipitated geographically widespread health coverage. However, despite universal health coverage, Thai social services are imperfect and citizens rely heavily on extended family for support.

Thailand's robust health systems and coverage schemes are part and parcel of its HIV response. HIV services are integrated into the Thai health care system with

free testing and ART provided at clinics and hospitals as part of the universal health insurance scheme. While a few ART clinics are separate from hospitals, most are contained within them, allowing for integrated, comprehensive care and ease of service access for people living with HIV.[11] The WHO classifies Thailand as one of the 22 countries with the highest tuberculosis (TB) burden.[12] Of the 130,000 TB cases each year, approximately 16 percent are people living with HIV. Some but not all ART clinics offer TB services. The government also lacks effective mechanisms to reach key population groups outside of its universal health care scheme.

The Royal Thai Government provided approximately 90 percent of Thailand's HIV spending in 2016.[13] Funding for HIV treatment is integrated into the national health insurance system. Almost all of the government's expenditures on HIV (89 percent in 2016) go toward clinical care and treatment. HIV testing and counseling represented combined 3.6 percent of all domestic expenditures in 2016.

The government also has pioneered and championed effective HIV prevention and treatment programs. Early in its HIV epidemic, the government invested in systems that identified high rates of HIV in specific populations and subsequently enacted evidence-based policies, many of which became standard global practice.[14] In the early 1990s, at a time when 97 percent of all new HIV infections were linked to sex workers, Thailand implemented the then innovative 100 Percent Condom Use program. Under this program, national and provincial governments and police provided free condoms to brothels and massage parlors, threatening to close the sex shops if their owners and workers failed to comply with a "no condom, no sex" policy. The program ultimately increased condom use among sex workers from less than 25 percent to greater than 90 percent at its peak and contributed to a 90 percent incidence (new infection rate) reduction between 1991 and 2001: 143,000 new infections per year down to 14,000.[15] The current estimated rate of condom use among sex workers is 83.1 percent.[16] Universal health care for all Thai citizens and public information campaigns also contributed to this broad span reduction.

Technical Collaboration

U.S. Government Role

The U.S. government has partnered with the Royal Thai Government and civil society organizations for decades on HIV research and program implementation. The United States began providing development assistance to Thailand in 1950.[17] The 2006 and 2014 military coups strained relations with the United States, prompting the U.S. government to suspend military assistance and some development assistance.[18] However, global health assistance has continued throughout these periods without interruption. The U.S. government's investments in HIV programming, research, optimization, and evaluation in Thailand have proven useful on a global scale, demonstrating the efficacy and cost-effectiveness of programs that Thailand models.

The U.S. government has provided HIV service delivery and technical support in Thailand through the President's Emergency Plan for AIDS Relief (PEPFAR) since FY 2007—and the broader Asia Regional Program, which also includes China and Laos, since FY 2013. Planned funding for the regional program is $15.03 million for FY 2017, which is a small investment compared to PEPFAR's individual country programs in sub-Saharan Africa. In FY 2017, PEPFAR is expected to fund an estimated 5.3 percent of the total HIV/AIDS expenditure in Thailand.[19] PEPFAR's strategy in Thailand is to "catalyze broad, sustained epidemic control by demonstrating effective approaches to reach, test, treat, and retain MSM, transgender (TG) women, and other key populations in settings with the greatest burden."[20] Through PEPFAR and the Global Fund, the U.S. government is supporting virtually all key populations focused outreach through civil society organizations (CSOs).

The U.S. Agency for International Development (USAID) and the U.S. Centers for Disease Control and Prevention (CDC) implement PEPFAR in Thailand. Thailand graduated from bilateral development assistance in 1995 and the USAID mission closed in 1996. The USAID Regional Development Mission for Asia (RDMA) was established in 2003 in Bangkok and serves the Asia-Pacific Region.[21] RDMA works in partnership and collaboration with the government, implementers, and community-based groups to develop new solutions to combat HIV and fill gaps.

CDC began working with Thailand in 1980 with the establishment of the Field Epidemiology Training Program, which trains "disease detectives" to address emerging and persistent disease threats. Its efforts on HIV have been ongoing since the virus was first detected in the region in 1984. CDC has domestic and global HIV activities in Thailand and provides technical assistance in the form of scientific training, laboratory improvement, and data system development. Through its Asia Regional Office, managed out of the Center for Global Health, CDC aims to improve the efficacy, sustainability, and country ownership of Thailand's HIV response through technical assistance and collaboration with the Ministry of Public

Health. CDC focuses on building in-country capacity for HIV surveillance, laboratory, and clinical research and services, and evaluation and monitoring of programs.[22]

Beyond PEPFAR, CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention also conducts critical HIV research in Thailand, including the MTN 026 HIV microbicide and HPTN 083 Pre-Exposure Prophylaxis (PrEP) trials, in partnership with the government and other stakeholders, and operates the Silom Community Clinic (SCC), which provides clinical services primarily for MSM and TG women. In the mid-1990s, CDC conducted, in collaboration with many partners, the short-course Zidovudine trial, laying the basis for the successful elimination of mother-to-child transmission (MTCT) of HIV 20 years later.[23] CDC collaborated with the Bangkok Metropolitan Administration and Thailand Ministry of Public Health to complete the first study of PrEP use among PWIDs, called the Bangkok Tenofovir Study. Daily tenofovir was shown to reduce HIV infection by 49 percent among all trial participants and 74 percent among consistent users.

The Armed Forces Research Institute of Medical Sciences (AFRIMS), based at the Royal Thai Army Medical Center, began working in Thailand in 1958 to fight a cholera outbreak. AFRIMS's mission is to "conduct state of the art medical research and disease surveillance to develop and evaluate medical products, vaccines, and diagnostics to protect DOD [U.S. Department of Defense] personnel from infectious disease threats."[24] AFRIMS's research was instrumental in the RV144 Prime-Boost HIV vaccine trial in 2009, the first vaccine to show significant efficacy in preventing HIV.[25] The U.S. Military HIV Research Program (MHRP) funded 25 percent of the $119 million trial, which showed 60 percent efficacy 1 year after vaccination and 31.2 percent after 3.5 years.[26] This trial has informed and inspired more vaccine research. Most notably, the HVTN 702 trial that began in November 2016 is based off the RV144 vaccine but modified to address the HIV subtype in South Africa.[27]

The U.S. National Institutes of Health (NIH) and National Institute of Allergy and Infectious Diseases (NIAID) also fund research projects in Thailand. One of their supported sites is the CDC SCC, a clinical research site part of the HIV Prevention Trials Network.

Thai HIV Epidemic

Thailand's HIV epidemic is concentrated in key population groups, including among MSM, TG women, and sex workers. In 2016, prevalence among adults 15–49 years old was 1.1 percent, up from 0.80 percent in 2014,[28] which correlated with an increase in prevalence among MSM from 7.9 percent[29] in 2014 to 9.15 percent[30] in 2016. However, the prevalence rates among female sex workers decreased from nearly 2 percent to 1.0 percent and among PWID from 29.7 percent to 19.02 percent. The HIV rate among TG women remains high at 12 percent.[31] There was a 50 percent reduction in new HIV infections between 2010 and 2016 (an estimated 6400).[32] Approximately 437,700 people were living with HIV in 2016.

Thailand is doing quite well in testing and diagnosis; 89 percent of people living with HIV know their HIV status. However, progress is slower with the second and third of UNAIDS's 90-90-90 goals,[33] which are 90 percent of those diagnosed on treatment and 90 percent of those on treatment virally suppressed (this last goal is important because those with undetectable HIV viral loads are unable to pass on the virus). As of 2016, only 70 percent (272,750) of those who know their status are on treatment and only 82 percent (223,372) are virally suppressed despite an integrated health system and free antiretroviral drugs under universal health care.

Challenges to achieving the treatment and viral suppression goals include policy implementation delays and hindrances to reaching key population groups. For example, Thailand adopted test and treat (ART provision to people living with HIV immediately following diagnosis) in October 2014, becoming the first Asian country to do so.[34] However, as of our January 2017 visit, the policy was not being fully implemented and we heard anecdotally that some doctors still advise deferral of treatment.

Unlike its neighbor, Cambodia, Thailand is not ready to set its sights on virtual elimination[35] of HIV. Thailand is doing well against HIV, but persistent, surmountable challenges stand in the way of HIV virtual elimination. Reaching key population groups and funding of civil society to make that possible will be key to Thailand achieving and sustaining 90-90-90 success, a prerequisite to targeting virtual elimination.

Addressing Key Populations

The highest overall prevalence is among PWIDs, but Thailand has been taking policy and program steps in recent years to address the needs of this group, which is reflected in the decreased prevalence rates. Its drug harm reduction strategy, launched in 2014, has helped to reframe drug addiction as a health issue rather than crime.[36] In addition, by 2014, Thailand had exceeded its 2016 targets for sterile injections and knowledge of HIV status amongst PWIDs.

Unfortunately, Thailand is not doing as well with the increasing epidemic among MSM. The testing rate among MSM is lower than that in any other key population group, estimated at a mere 31 percent in 2015. Such low testing rates contribute to low treatment rates, which are compounded by only 45 percent of HIV positive MSM registering for care.[37] Additionally, spousal transmission is decreasing among the general population but expected to rise in MSM.[38] We were told by one male sex worker that he insists on condoms with his new or infrequent clients but not with boyfriends or consistent clients.

CSO Funding

The Royal Thai Government does not fund services for key populations outside the public health system. Targeted outreach and services are provided mostly by CSOs, many of which are supported by the U.S. government and/or the Global Fund, including Service Workers in Group (SWING) (see sidebar). There is wide acknowledgment, even among the government officials with whom we spoke, that community-led groups attract and are most adept at finding, testing, and marshaling members of key population groups through the treatment cascade. Despite free testing and services available under the universal health care schemes, key population groups tend to avoid public services. The challenge is finding effective mechanisms for the Royal Thai Government to support CSOs directly financially and integrate community members as health workers. Funding regulations and concerns about the quality of CSO services have significantly slowed this effort.

In 2016, the Royal Thai Government's National Health Security Office (NHSO) announced it would provide 200 million Thai Baht to support CSO outreach to key populations. But despite such commitment, the funds have not yet been efficiently allocated to reach those communities. NHSO regulations require that funding must be used by service providers such as hospitals. Under the current funding scheme, the NHSO provides the money to Thai hospitals, which then transfer it to CSOs. There are significant gaps in this process as hospitals struggle to determine which CSOs to engage. As of January 2017, approximately 100 million THB had been moved to hospitals but very little of that money had been moved to CSOs. Efforts are underway to modify regulations and allow the Royal Thai Government to fund CSOs directly, while developing mechanisms to ensure accountability for the use of funds.

SWING and other CSOs would like to assume more clinical responsibility for the care of their clients. SWING currently provides HIV counseling, referrals, and finger-prick HIV

SWING AND LINKAGES

The preeminent CSO working with sex workers is SWING, a nonprofit organization, which provides a multitude of HIV testing and care services along with other psychosocial support.[39] Surang Janyam, founder and director of SWING, told us that "When we get support from USAID and PEPFAR, they not only give us money, they give us skills to improve our quality of work . . . that is sustainability." SWING is supported by PEPFAR, USAID, FHI 360, and the Thai Red Cross Society. USAID trained SWING staff members to map the location and quantity of sex workers in Bangkok and Pattaya. With so many current and former sex workers on staff, SWING was uniquely qualified to identify sex worker hotspots and produced unprecedented epidemiological data identifying major sources of potential HIV spread. Notably, USAID granted SWING ownership of a data system and the data it collected, making SWING a self-sufficient and sustainable mapping operation.

In 2014, USAID enlisted the help of SWING with the Linkages Across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) project, implemented by FHI 360. LINKAGES aims to improve testing, treatment, follow through, and prevention among people most at risk of HIV. The project enlisted SWING's help with two of its major aims: enhanced peer mobilization and mobile data collection for tracking and quality improvement. Because traditional peer education and outreach attempts suffer from limited reach and inefficiencies, LINKAGES and SWING are pioneering a targeted, more professionalized model for reaching sex workers that they think will gain them better entry into the informal sex work network.

SWING also assists with eCascade, a mobile data collection system that monitors both clients and performance as part of the LINKAGES project. SWING encourages sex workers to download the eCascade app, which sends them reminders about referrals to HIV clinics. eCascade collects demographic and behavioral data from its users and tracks them over time. Data from the app go to SWING and LINKAGES and are ultimately linked with the national health system. This work helps to fill critical data gaps in the epidemiology of HIV in TG women and male sex workers.[40]

tests but SWING can only test clients for HIV in the presence of a medical technician, which significantly restricts its testing capacity. Granting community-based organizations more testing autonomy would not only increase testing of hard-to-reach groups but also allow community-based organizations to efficiently screen out negatives, obviating the need to send individuals for follow-up at potentially overburdened clinics. A Ministry of Public Health official acknowledged the need to help lay workers provide services but, along with other government officials, expressed concerns about maintaining high quality of services.

Efforts to develop accreditation standards for community-based organizations are underway in Thailand, and UNAIDS is working with CSOs to create a professional association of CSO service providers, which would allow organizations to negotiate with the government from a higher platform as well as hold each other accountable for high quality services. The U.S. PEPFAR team (CDC and USAID) plays an instrumental role in this accreditation effort, working with professional associations and the Royal Thai Government to amend current regulations that would allow lay counselor testing in Thailand.

U.S. and Global Fund CSO Support

Given the challenges in the Royal Thai Government funding CSOs, the vast majority of the key populations support (86 percent of funding for HIV prevention among sex workers, MSM, and PWID as of February 2016) has come from the Global Fund and PEPFAR. The Global Fund has provided more than $460 million in HIV, TB, and malaria grants to Thailand since 2002.[41] Much of Thailand's Global Fund most recent expired HIV grant covered HIV services for key populations, but the expectation was that it would be the last HIV-related grant for Thailand. In its 2014 TB/HIV concept note to the Global Fund, Thailand's Country Coordinating Mechanism (CCM) announced its plan to fully transition away from Global Fund money by December 2016 following heavy government lobbying in the CCM despite still being considered eligible for funding by the Global Fund. Some Thai CSOs feared the transition was premature for several reasons including that the proposed transition time was shorter than the fund's standard three-year grant cycle.[42]

PEPFAR's Asia regional strategy includes supporting establishment of domestic financing mechanisms, systematizing the role of NGOs, and strengthening the links between NGOs and the health system in PEPFAR-supported areas.[43] Recognizing the inherent vulnerabilities in the transition from Global Fund support, the PEPFAR Asia Regional Program in 2016 applied for and was awarded $20 million in PEPFAR incentive funding over a three-year period to serve as bridge funding to cover HIV services formerly covered by Global Fund and finance a community response to HIV.[44] By year three, the aim is for all community-based organizations to receive funding from the Royal Thai Government for key populations. Underlying goals for funding are facilitating systems and policies for domestic funding of CSOs, while at the same time improving the effectiveness and efficiency of those investments.

Stakeholders were surprised by the Global Fund's decision in late 2016 to make additional funding available for HIV in Thailand. The country is currently implementing the remaining $20 million in HIV support under a no-cost extension of its grant through the end of 2017.[45] Thailand remains eligible for future support, but it is unclear whether the country will pursue subsequent funding.

Treating Non-Thai Citizens

In addition to reaching Thai key populations, Thailand is challenged by a large number of non-Thai who are living with HIV. Thailand's economy attracts many foreigners, especially from the neighboring countries Myanmar, Cambodia, Vietnam, and Laos. A significant portion of key populations (90 percent of SWs in one province)[46] are non-Thai, which poses a significant challenge to Thailand's HIV response, as non-Thai citizens are not covered under Thailand's universal health care and are thus ineligible for the free HIV services offered Thai citizens. However, non-Thai citizens can purchase affordable insurance to cover basic services, such as HIV treatment. Still, difficulty testing and treating undocumented persons remains a critical barrier to addressing HIV among key populations in Thailand.

Next Steps

The U.S. government's partnership with Thailand on HIV has been fruitful, serving as a breeding ground for new ideas and collaboration at relatively low cost to the United States. With a proposal to cut HIV support to RDMA by 22 percent to $8.5 million in President Trump's FY 2018 State-Foreign Operations budget request for Global Health Programs (from the $10.913 million[47] appropriated for FY 2016), it is unclear how U.S. investment in the region will evolve.[48] There is no defined benchmark for success in Thailand nor a cogent plan for how the U.S. government's relationship with the country should evolve to reach that point. However, the potential benefits of its small investment in Thailand's HIV response far exceed the costs.

To continue to yield those benefits, the U.S. government should:

1. **Sustain ongoing HIV research collaboration.** Thailand's legacy of pioneering research has been made possible by Thailand's health infrastructure and the collaborative partnership with the U.S. government. For example, early successes with prevention of MTCT research were rapidly translated into program and national policy through the close working relationship of the U.S. government and the Royal Thai Government, resulting in elimination of MTCT in less than a generation. With ongoing research and trials supported by multiple U.S. government entities, future research outcomes could again inform more effective and efficient means of fighting HIV in Thailand and worldwide.

2. **Continue to support efforts to reach and provide services to key populations, including Thai and non-Thai MSM, TG women, and sex workers, while the Royal Thai Government increases its support to civil society groups.** Thailand's ability to target, achieve, and sustain virtual elimination of HIV in the future depends upon its ability to reach key population groups. Other governments have similar issues directly funding CSOs for this type of effort. PEPFAR can continue to learn from Thailand's experience in navigating regulatory and other challenges and apply those lessons to other countries.

3. **Draw on Thailand's transition experience to inform upcoming financial and programmatic transitions in other countries.** Thailand's transition from bilateral development assistance to a technical collaboration with the United States should serve as a model for other countries approaching financial and programmatic transition. The relationship has endured despite occasionally strained political and diplomatic relationships. The United States should strive to maintain similar technical collaborations with other countries as it pushes for country ownership and sustainability of the countries' HIV responses.

Further, PEPFAR and the Global Fund should each **develop a strategic five-year plan for their engagement in Thailand**. It is unclear whether Thailand will continue to access Global Fund resources for HIV and what the trajectory of PEPFAR's investment in the region will be in the future. While Thailand has the financial capacity to fund its national HIV response fully, PEPFAR and the Global Fund should avoid sharp decreases in money without a transparent, well-coordinated strategy that would potentially harm key population groups. If financial transition becomes an end goal, "plans should include mutually agreed-upon criteria for transition, clear benchmarks to assess progress, and accountability mechanisms to enforce implementation," as recommended in the companion paper, "Advancing Country Partnerships on HIV/AIDS."[49]

Notes

1. Sara M. Allinder is deputy director and senior fellow with the CSIS Global Health Policy Center. Lillian Dattilo is program coordinator and research assistant with the CSIS Global Health Policy Center. The authors are grateful to staff at the U.S. Embassy in Bangkok, including the Department of State (State), USAID, AFRIMS, CDC, and as well as staff at the Office of the U.S. Global AIDS Coordinator and Health Diplomacy and Office of Mainland Southeast Asia Affairs at State, the U.S. Department of Health and Human Services, and the Bill & Melinda Gates Foundation for their assistance in planning and executing the visit. In Bangkok, the authors are grateful to the Royal Thai Government's Bureau of AIDS, TB and STIs; the UNAIDS Country Office; SWING; and FHI 360.

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44. PEPFAR, "Asia Regional Program Incentive Fund Concept Note."

45. PEPFAR, "Regional Operational Plan 2017."

46. January 2017 meeting at SWING.

47. For FY 2016, Congress appropriated $5.0 million for USAID and $5.913 million for State (see foreignassistance.gov) for RDMA HIV activities. The FY 2017 country allocations will not be available until later in 2017.

48. It is unclear from the level of granularity in the President's FY 2018 budget proposals for CDC and the Department of Defense whether they include similar reductions to non-PEPFAR support in Thailand. However, in its FY 2018 Congressional Budget Justification, CDC requested $69,547,000 overall for Global HIV/AIDS, a reduction from the $128,421,000 approved for FY 2017.

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