Building Capacity for the Roll-out of PrEP and HIV Testing Innovations in Asia and Pacific

Bangkok, Thailand
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Hosted by Unitaid in partnership with UNAIDS and WHO

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Abbreviations

3TC	lamivudine
AIDS	acquired immune deficiency syndrome
ART	antiretroviral therapy
ARV	antiretroviral
CBO	community-based organization
DBS	dried blood spot
FTC	emtricitabine
INGO	International non-government organization
HTS	HIV testing services
HIV	human immunodeficiency virus
HIVST	HIV self-testing
M&E	monitoring and evaluation
NGO	nongovernmental organization
OPSI	Organisasi Perubahan Sosial Indonesia
PSI	Population Services International
PrEP	pre-exposure prophylaxis
SMS	short message service
STI	sexually transmissible infection
TDF/FTC	tenofovir disoproxil fumarate/emtricitabine
UNAIDS	Joint United Nations Programme on HIV/AIDS
VAAC	Vietnam Authority of HIV/AIDS Control
WHO	World Health Organization

Executive summary

HIV self-testing (HIVST) and pre-exposure prophylaxis (PrEP) are two new and innovative tools to increase the uptake of HIV testing and prevention and help countries to achieve the 90–90–90 targets to end the AIDS epidemic. In the Asia–Pacific region the HIV epidemic is concentrated in key populations: men who have sex with men, people who inject drugs, sex workers and transgender women, with young people in these populations especially vulnerable. Despite significant investments, existing services are not adequately reaching these populations, underscoring the importance of innovation and diversity in service delivery, as well as the importance of the meaningful involvement of these communities from the outset of planning.

The Workshop on Building Capacity for the Roll-out of PrEP and HIV Testing Innovations in Asia and Pacific, co-sponsored by the United Nations Programme on HIV/AIDS (UNAIDS), Unitaid and the World Health Organization (WHO) and supported by Population Services International (PSI), took place on 29–31 October 2018 in Bangkok, Thailand. Over 100 people from 13 countries participated. The meeting focused on sharing best practices and lessons learned from HIVST and PrEP pilot and implementation projects, identifying barriers and enablers to implementation and supporting countries to develop HIVST and PrEP road maps to overcome challenges and accelerate implementation.

HIVST: success factors, challenges

Meeting participants identified several factors contributing to successful HIVST implementation. These include embedding HIVST as an additional option within existing HIV testing services (HTS); diversifying service delivery and community mobilization approaches to best fit the needs and preferences of key populations, including using key population-led and community-based services, integrating monitoring and evaluation (M&E) frameworks into existing data collection systems; and generating demand in key and priority populations through community outreach. The available data suggest that HIVST is highly acceptable to key populations and poses little likelihood of harm.

At the same time, participants identified a range of challenges to HIVST scale-up. These include the cost, registration and availability of test kits; data collection, particularly regarding test results; ensuring linkage to confirmatory testing and treatment or to appropriate prevention services; integrating HIVST into other services including key population-led HIV testing; engaging the private sector; difficult political, legal and cultural contexts; and concern over pre- and post-test counselling and support and user competence.

PrEP: success factors, challenges

Similarly, PrEP implementation projects identified factors contributing to success were key populations' meaningful involvement in and ownership of programmes from inception to delivery; differentiated service delivery models for PrEP provision, including key population-led services that effectively promote acceptability and uptake; online outreach for demand

creation; and integration of PrEP with other health services that are prioritized and used by key populations.

Challenges identified for PrEP implementation include the cost, registration and availability of PrEP drugs; stakeholder buy-in to advance PrEP policy; difficult political environments and criminalization of key populations; generating demand in the community; authorizing and funding differentiated services for PrEP, including key population-led services, as part of a suite of service delivery options; concerns over sexually transmissible infections (STIs) and HIV drug resistance; and integrating effective M&E into routine data collection systems. Additional global guidance – for example, on event-driven PrEP and minimum PrEP care packages – would support country-level implementation.

Policies needed

Given the inevitable increase in use of both PrEP and HIVST across the region, both in the private sector and/or sourced informally, it is urgent that governments develop a regulatory framework for ensuring the quality of products, as well as policies supporting safe use while broader implementation under national AIDS programmes is considered. Service delivery approaches need to be diversified and optimized to maximize the reach and acceptability of these innovations, to ensure integration with other HIV services and the broader health-care system and to streamline data collection.

Countries develop road maps

Members of each country delegation (consisting of the ministry of health, civil society representatives and implementers) collaborated to prepare a detailed country-level road map for HIVST and PrEP implementation for the next 12–24 months. Road maps set key milestones for implementation, elucidated roles and responsibilities and identified the support required for implementation. Sharing among peer-countries helped identify additional barriers and enablers, thus strengthening the road maps, and opportunities for support between countries.

Interest in implementing PrEP and HIVST is high overall, but important challenges and concerns remain.

While there are important challenges at community, implementer and government levels, increasing numbers of new infections in key populations mean we cannot afford to further delay the scale-up of HIVST and PrEP. It is imperative that donors, governments, communities and implementers work together to integrate HIVST and PrEP into national HIV testing and prevention strategies, ensuring they achieve the greatest impact in ending the HIV epidemic.

Introduction

Reaching key populations and vulnerable groups is critical to achieving the UNAIDS Fast-Track Targets by 2030.[1] Two innovations are important new tools – HIV self-testing (HIVST), for diagnosing more people with HIV, and pre-exposure prophylaxis (PrEP), for preventing new HIV infections among people at substantial risk of infection. Following the release of WHO guidelines and implementation tools for HIVST and PrEP, some countries in the Asia-Pacific have made progress in implementation including developing policies, addressing regulatory barriers, beginning pilot projects and/or planning for or successfully scaling up programmes.

The Workshop on Building Capacity for the Roll-out of PrEP and HIV Testing Innovations in Asia and Pacific, held on 29–31 October 2018 in Bangkok, Thailand, focused on understanding barriers and enablers to implementation of HIVST and PrEP. Unitaid, the United Nations Programme on HIV/AIDS (UNAIDS) and the World Health Organization (WHO) co-sponsored the workshop. The main objectives of the workshop were to:

1. share lessons learned and experiences from HIVST and PrEP implementation from early adopter countries;
2. identify policy, regulatory and other barriers to HIVST and PrEP and develop strategies to address these at the country and regional levels;
3. support countries to develop HIVST and PrEP road maps and implementation plans, review implementation tools and discuss approaches, identify priority populations and settings and define strategies to facilitate linkages, discuss M&E tools and plans and define strategies for product

[1] http://www.unaids.org/en/resources/documents/2017/90-90-90

selection and procurement forecasting;

4. provide an update on WHO guidelines and implementation tools and distribution/service delivery approaches for HIVST and PrEP;
5. understand the costing and cost-effectiveness of HIVST and PrEP to inform their effective and strategic use; and
6. create a regional technical support group for HIVST and for PrEP (as part of the Global PrEP Coalition).

Over 100 participants, including representatives of national AIDS programmes/ministries of health, community-based organizations and implementers, attended from 13 countries: Bangladesh, Cambodia, China, Indonesia, India, Lao People's Democratic Republic, Malaysia, Myanmar, Pakistan, Papua New Guinea, Philippines, Thailand and Viet Nam. Representatives of regional civil society, donors and international agencies attended as well.

Opening

> *This is a meeting of key populations, those left behind. We need to make sure people have access to services wherever they are…. The challenges are not insurmountable. We can get there if we make pragmatic changes.*
>
> – Eamonn Murphy, UNAIDS

> *And as in so many things in the HIV epidemic, it's been the community who have been there nudging, pushing and getting the momentum going [on these interventions].*
>
> – Rachel Baggaley, WHO

> *HIV self-testing and PrEP are game-changing innovations for millions of people who do not know they are infected or at high risk of contracting HIV. Together we must advocate for their scale-up in Asia and the Pacific.*
>
> – Heather Ingold, Unitaid

Eamonn Murphy, UNAIDS Regional Director, opened the meeting, stating that, "The numbers say it all. We cannot stop new HIV infections in men who have sex with men and other key populations if we stick to business as usual." He noted the importance of the unique partnership between UNAIDS, WHO and Unitaid in advancing the HIV response in Asia and the Pacific, helping to champion two critical new tools: HIVST and PrEP. "PrEP and HIVST answer an unmet need and expand the prevention and testing options for people at substantial risk of HIV. We need to scale up these innovations as additional, effective strategies urgently."

Rachel Baggaley, from WHO headquarters, declared that it is time to start "working in a more integrated way, addressing HIV alongside broader health, emotional, social and structural issues, together under the universal health coverage agenda" rather than in silos. "HIV self-testing and PrEP are both innovations which, if they are to be safe, effective and have impact, need to be delivered in close collaboration with ministries of heath, communities and the private sector". She noted the importance and benefits of the partnership among three UN agencies – UNAIDS, Unitaid and WHO – as well as Population Services International (PSI), civil society and governments working together to increase access to these new products.

Heather Ingold, from Unitaid, emphasized finding practical approaches for the roll-out and scale-up of HIVST and PrEP. She noted that there are some very successful pilot projects in the region and sharing and learning from these experiences will be helpful to scaling up HIVST and PrEP. "People who are marginalized have different access to care and have different challenges," she pointed out. Therefore, to be cost-effective and achieve the desired impact, practical solutions such as HIVST and PrEP need to be tailored to the populations that most need to be reached.

WHO guidance on HIVST and PrEP

3.1 HIV self-testing guidance

> *The most successful [HIVST] programmes are those that have communities at the centre.*
>
> – Rachel Baggaley, WHO

Rachel Baggaley summarized the latest WHO HIVST guidance. HIVST is an important gateway to treatment and prevention services for individuals, couples, partners and families. It offers autonomy and privacy to individuals when learning about their HIV status and provides an opportunity to reach those who would not ordinarily come into facilities to get tested. Also, HIVST empowers people from key populations, decreasing barriers of stigma and discrimination that these communities often encounter when accessing testing in health services. As an innovative addition to the range of HIV testing services (HTS), which includes facility-based, community-based, workplace-based and assisted partner notification services, HIVST is poised to further increase uptake and frequency of testing among key populations and young people.

Several HIVST kits have now been quality-assured and/or WHO-pre-qualified.

HIVST is poised to further increase uptake and frequency of testing among key populations and young people.

There are many direct benefits of HIVST as an additional approach to HIV testing. These include the following:

1. providing an additional HIV testing option that is acceptable, confidential, empowering, safe and accurate;
2. reaching and increasing uptake among people at higher risk of HIV, including key populations, who are not currently using conventional testing services;
3. increasing the frequency of HIV testing among those at higher risk;
4. increasing demand for and linkage to prevention and treatment services;
5. reducing the burden on, and potentially the cost for, health services by screening those at risk for reactive results, making possible triage for confirmatory testing and treatment, while reducing time and costs for people who test negative;
6. increasing disclosure/shared knowledge of HIV status, especially within couples.

Despite significant concern from communities, clinicians and governments, there is little evidence for serious social harm such as suicides or other self-harm associated with HIVST use. However, as with any testing approach, monitoring and addressing harms as they occur remain important.

Considerable information about HIVST policies, projects, programmes and research in countries is available online, including at www.HIVST.org and via the WHO HTS Info app. The AIDSFree website provides a range of resources for demonstrating the use of HIVST kits, providing support via telephone hotline and short message service (SMS), supporting HIVST access, linking to further testing and care, and building awareness and demand.

Still, there exist in the region several challenges to moving beyond pilot projects and scaling up HIVST. These challenges include the following:

- absence of HIVST policies and guidelines in countries to permit this tool to be offered;
- limited product registration, leading to lack of affordable, quality HIVST kits in-country, while unregistered kits of unknown quality are informally available in several countries through private sales in pharmacies and online;
- the cost of HIVST kits (some countries could purchase low-cost WHO prequalified tests, but in many settings these are not available); and
- limited knowledge among communities and service providers about HIVST and the benefits of this additional testing approach.

WHO recommends that countries adopt a strategic approach to providing HTS. In the Asia–Pacific Region, this approach should focus on:

- reaching members of key populations and their partners, including young men who have sex with men, who remain at higher HIV risk and currently have little access to testing;
- offering a range of notification services for partners of people living with HIV;
- identifying sub-national locations with higher HIV prevalence and incidence to prioritize for HTS;
- training and authorizing lay providers from key populations to provide HTS;
- authorizing community-based testing;
- supporting outreach and
- introducing HIVST.

Taking all these steps at scale is necessary to reach the first 90 of the UN global 90–90–90 targets: 90% of people with HIV knowing their status.

3.2 PrEP guidance

WHO's PrEP recommendation is an enabling one for any person at risk of HIV
– Shona Dalal, WHO

Shona Dalal, WHO/Geneva, provided a global overview of oral PrEP, noting evidence from several major clinical trials that daily PrEP is highly efficacious in reducing HIV acquisition. In 2015 WHO recommended that daily oral PrEP containing tenofovir disoproxil fumarate (TDF) be offered as an additional prevention option as part of combination prevention for people at substantial HIV risk. Upcoming guidance will consider "event-driven", or on-demand dosing, in addition to daily oral PrEP. Coupled with the release of the guidance on PrEP, PrEP drugs have been included in WHO's Essential Medicines List.

WHO's recommendation on PrEP has been increasingly adopted around the world through national policies, and the number of people taking PrEP had grown rapidly. Yet progress has been slow in the Asia-Pacific with Australia, New Zealand, Pakistan, Thailand and Viet Nam having adopted WHO's oral PrEP recommendations by June 2018. Results from several high-income settings (London, San Francisco and New South Wales, Australia) have shown a decrease in new HIV diagnoses associated with PrEP scale-up.

To support PrEP implementation, WHO has developed a PrEP Implementation Tool with 12 modules for a range of stakeholders along with a mobile app.

It is important to ensure that those who seek PrEP are also offered other clinical services, such as screening and treatment for sexually transmissible infections (STIs) (if testing positive for HIV). In the context of PrEP, trends in STIs and condom use are being watched carefully. STI diagnoses are increasing globally, and there is

some evidence for increases in condomless sex among gay and bisexual men in places with PrEP programmes, such as San Francisco, France and Australia. While there is no evidence that STIs interfere with PrEP efficacy, these observations reinforce the importance of including STI testing and counselling in the package of services offered for PrEP.

Enabling laws, regulations and policies are important to the uptake of PrEP, particularly for key populations, who are often marginalized and criminalized. Also important is increasing awareness of PrEP and self-perceived risk for HIV as well as having age-appropriate, culturally competent counselling.

To scale up PrEP programming from demonstration and pilot projects, countries need to consider: the development of national policies and guidelines; registration of antiretroviral (ARV) drugs for PrEP; local HIV epidemiology to ensure PrEP availability for all people at substantial risk; lessons from pilot studies; creating demand in the community; and operational planning for services and linkages with other services, such as gender-affirming services for transgender persons and harm reduction services. A human rights and people-centred approach to support PrEP policy and implementation would enable the offer of other HIV prevention and harm reduction strategies as well as contraceptive and reproductive health services alongside PrEP.

Overview of the Asia–Pacific region

> *…What is worrying is that the [HIV] response for key populations is mostly dependent on external funding.*
>
> – Taoufik Bakkali, UNAIDS Regional Support Team

4.1 Epidemiology of HIV

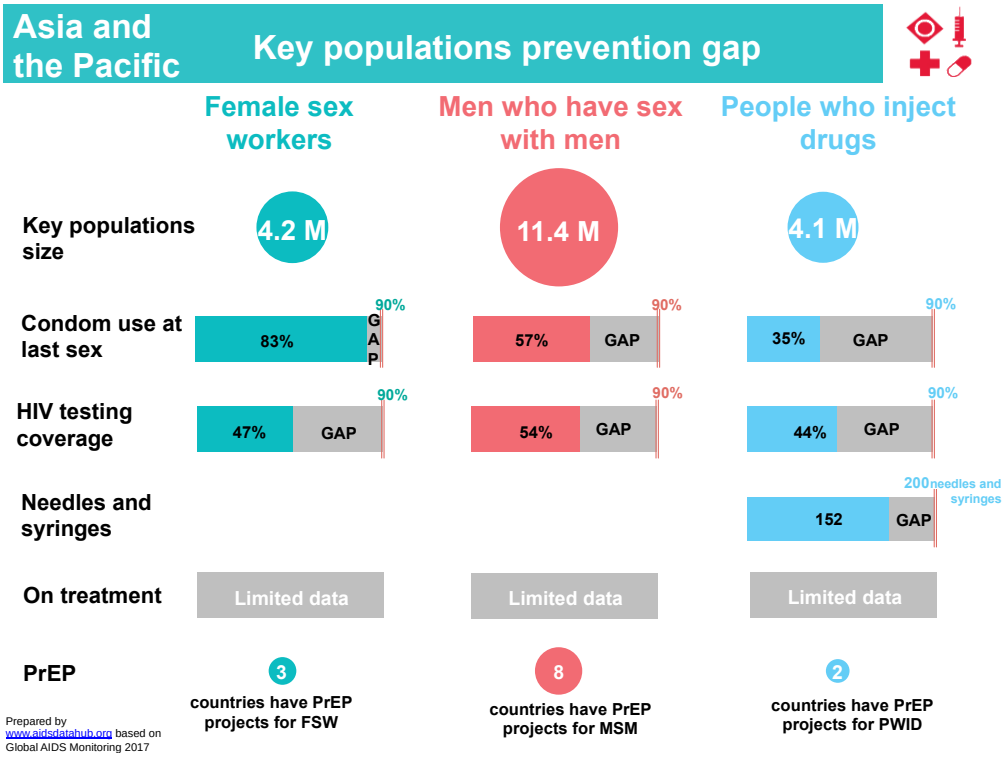
The HIV epidemic in the Asia–Pacific region is concentrated in members of key populations and their intimate partners; also, young people remain particularly vulnerable, according to **Taoufik Bakkali,** from UNAIDS. Progress on HIV had stalled in the region, and there is a risk, not only of missing the UNAIDS Fast-Track targets, but also of seeing a resurgence of HIV. In 2017 there were 5.2 million people living with HIV in Asia and the Pacific and 280,000 new HIV infections. Of these new infections, 84% were among key populations and their sexual partners: 29% among men who have sex with men, 14% in people who inject drugs, 4% in sex workers, 2% in transgender persons and 35% in the intimate partners of these key populations. Young people, ages 15–24 years, accounted for a substantial share of new infections, ranging from 15% in Viet Nam to 69% in the Philippines. Young people from key populations, especially young men who have sex with men and young transgender persons, are most vulnerable and potentially the most complex to reach with testing and prevention services.

In some countries the numbers of new HIV infections are growing – for example, a 147% increase in the Philippines between 2010 and 2017, 45% in Pakistan and 9% in Malaysia. The share of new HIV infections in the region that occurred in men who have sex with men increased from 7% in 2000 to 29% in 2017. This group is increasingly using new digital technologies to find sexual partners, creating additional challenges to reaching them through conventional outreach and intervention models that are location-based.

"Scaling up prevention and testing for key populations remains one of the main challenges in the region."

"Scaling up prevention and testing for key populations remains one of the main challenges in the region," noted Mr. Bakkali (Fig. 1). The few pilot and demonstration projects in the region have succeeded when they offered multiple options for accessing HIV testing and PrEP services. The uptake of HIV testing, and PrEP has been especially high when community-based organizations and lay providers offered the services. While peer-based (key population) services through community organizations have better linkages to their constituents, their funding support through international donors has declined. Domestic resources have already been covering the decline in donor funds for HIV treatment; now the costs and cost-effectiveness of different models of testing and prevention, including PrEP services, will need to be compared and the models, prioritized if the goal of ending AIDS by 2030 is to be met.

Figure 1| Prevention gap and testing coverage



Source: Prepared by www.aidsdatahub.org based on Global AIDS Monitoring 2017

Abbreviations: PrEP = pre-exposure prophylaxis; FSW = female sex workers; MSM = men who have sex with men; PWID = people who inject drugs

4.2 HIVST and PrEP in Asia–Pacific

Heather-Marie Schmidt, UNAIDS and WHO Regional Advisor for PrEP, provided an overview of HIVST and PrEP implementation in the region, recognizing the important work done by civil society organizations.

Scale-up of **HIVST** faces several challenges in the region, including regulatory barriers such as product registration, community awareness and knowledge, and policies that prohibit testing outside health-care facilities, as well as concerns about high costs and low awareness, knowledge and demand Only a handful of countries in the Asia–Pacific region have included HIVST in their national guidelines or strategic plans. While there have been pilot projects in countries such as Cambodia, Myanmar and Thailand, only Lao People's Democratic Republic and Viet Nam have made progress in implementing HIVST policies. Registration of HIVST kits remains a challenge even in these countries. In other countries, such as China, Indonesia and Malaysia, HIVST kits are available online. In China HIVST kits have also been sold through pharmacies. However, such informal access to HIVST is generally expensive to users and poses potential risks, including quality assurance for kits purchased online and the absence of pathways for linkage to care and psychosocial support for self-testers.

Only a handful of countries in the Asia–Pacific region have included HIVST in their national guidelines or strategic plans.

As with HIVST, progress implementing **PrEP** has been mixed**.** A variety of models have been used throughout the region to deliver PrEP, including free, mixed and self-pay models. In 2014 Thailand was one of the first

countries to include PrEP in its national guidelines. Subsequently, Thailand made PrEP available through a variety of schemes ranging from clinical trials to self-pay programmes at public facilities, private clinics and community-based services. As at October 2018, an estimated 40% of PrEP users in Thailand were accessing PrEP through private clinics on a paid basis. From late 2018, Thailand began rolling out PrEP nationally, using a phased approach that prioritizes higher risk groups in high burden provinces and moving toward eventual inclusion under the national health insurance scheme. Similarly, Viet Nam is moving towards national roll-out starting in 2019, based on the success of PrEP trials in Ho Chi Minh City and Hanoi. Several other countries have pilot projects exploring the implementation of PrEP.

For other countries scale-up and effective implementation remain a challenge. The barriers are similar to those for HIVST – absence of guidelines, need to register drugs for use in prevention, high costs, complexity of PrEP delivery and limited community awareness and demand. Thus far, of 15 countries surveyed, eight include PrEP in their national strategies, six others have developed guidelines, and three more are drafting guidelines.

Midnight Poonkasetwattana, APCOM Foundation, noted that the community of gay men and men who have sex with men did substantial groundwork early on to generate demand for both HIVST and PrEP. In 2015 APCOM organized "PrEPARING Asia" in Bangkok. This event gathered country-based organizations of men who have sex with men, service providers, national health programmers, governments and development agencies to increase PrEP awareness and acceptability and the feasibility of PrEP implementation in national programming. PrEPARING ASIA inspired several community-based organizations to organize PrEP community consultations in their countries (for example, Cambodia, Georgia, Lao People's Democratic Republic, Singapore, South Africa and Viet Nam), supported by APCOM. The consultations showed unequivocally that, when the community is made aware of these new innovations, there is a great willingness to use them.

APCOM's TestBKK, now in its fifth year, has demonstrated that, through social media, online advertising and event-based initiatives, demand for services can be generated. However, regulatory and costs barriers remain substantial and must be addressed if services are to expand and be accessible to all men who have sex with men. Rather than assigning blame and increasing stigma and discrimination against the community, it is necessary to support engagement of these men to provide services through different service delivery models. "Community plays an important role among the providers," commented a participant. "People should receive services without fear, stigma or discrimination."

"Community plays an important role among the providers."

Case studies from the region

5.1 Roll-out in Australia

Christine Selvey, NSW Health, Australia, shared the experience implementing PrEP and HIVST of the Australian state of New South Wales.

As for **PrEP**, in March 2016 the state launched the study Expanded PrEP Implementation in Communities in New South Wales (EPIC-NSW). EPIC-NSW was a PrEP implementation study and access programme designed to assess the population-level effect of rapid, targeted, high coverage PrEP roll-out. Through EPIC-NSW, PrEP was available to individuals at high and ongoing risk of HIV. Eligibility criteria included, in the last three months, condomless sex with casual partners, condomless sex with a regular partner who had a detectable viral load, rectal STI or syphilis, and methamphetamine use. The initial target enrolment of 3700 people, which had been based on population size and risk estimates, was uncapped in October 2016, allowing all eligible people to enrol. Between March 2016 and April 2018, approximately 9500 people enrolled in EPIC-NSW, 99% male and more than 99% gay/bisexual. EPIC-NSW contributed to a 32% drop in recent infections among men who have sex with men (comparing the 12 months prior to the study with the 12 months after recruitment of the first 3700 participants). The population impact was greatest among gay men living in the suburbs of Sydney, who showed a 52% drop in recent infections.

> In New South Wales the PrEP study EPIC-NSW contributed to a 32% drop in recent infections among men who have sex with men.

On 1 April 2018 the Australian Government began nationally subsidized PrEP through the Pharmaceutical Benefits Scheme (PBS), thus expanding PrEP access through general practitioners.

A number of factors contributed to the success of the study: a supportive government and enabling HIV strategic plan; ability to procure generic drug at low cost; ability for NSW Health to prioritize PrEP within clinic service delivery and to redesign services to accommodate PrEP; minimizing the burden of data collection on clinics; strong partnership among researchers, clinicians, community and government in the day-to-day management of the study; and significant community mobilization and demand created by civil society. The partnership with the community was essential for creating demand among gay and bisexual men, but reaching certain communities, such as non-gay identifying men who have sex with men, young gay men, those born overseas and persons living outside “gay Sydney” remained a challenge.

As for **HIV testing**, beginning in 2012, the NSW Government expanded the range and accessibility of testing options – for example, supporting general practitioners to deliver HIV testing as part of routine care, introducing rapid testing at community sites, adopting the new technology of dried blood spot (DBS) self-sampling, and strengthening efforts to notify the sexual and injecting partners of people who were newly diagnosed. “DBS self-sampling” is a testing innovation being pilot-tested in NSW. It involves collecting one’s own blood sample from a finger prick, using a kit ordered online, and mailing it to the laboratory for testing. Those whose tests are reactive are recalled for confirmatory testing and linkage to care. The pilot study also includes concurrent testing for hepatitis C virus. The study offers DBS self-sampling in drug and alcohol services, custodial services and wherever it is not feasible for health personnel to collect blood samples. The study will run through 2020.

As at October 2018, HIVST kits were not approved in Australia and there is no official policy on self-testing, given the high-performance requirements set by the Australian regulatory authority and concerns about such issues as linkage to care, access to support and monitoring and surveillance.

5.2 HIVST pilot and demonstration projects

We need champions to lead HIV testing for their communities.

– Vai Hoi San, Ministry of Health, Viet Nam

Representatives from Viet Nam shared their country's experience in developing national guidelines and scaling up HIVST. **Vo Hai Son**, Vietnam Authority of HIV/AIDS Control (VAAC), discussed the HIVST pilot project that was implemented in four provinces, with demand generated through social networks and face-to-face communication. In the pilot study clients either performed the test in their own homes (unassisted) and then informed peer educators of the results, or else they performed the test at a community-based testing site with support from peer educators (assisted). About 90% of those who had a reactive test result were confirmed as HIV-positive, and over 90% of those received antiretroviral therapy (ART). Under another study using online registration, a smaller proportion of participants who had reactive results linked with confirmatory testing within the follow-up period. The role of community was critical in reaching key populations, and passionate and committed peer educators were a key to success. **Phan Thi Thu Huong**, VAAC, noted that challenges in implementation related largely to the availability and costs of test kits, the sustainability of HIVST services delivered by community-based organizations and improving linkage to confirmatory testing.

Matt Avery, FHI 360, shared the experiences from Lao People's Democratic Republic and Thailand of

Passionate and committed peer educators were a key to success.

using different models to provide HIVST for men who have sex with men and transgender persons in urban centres. In both counties the OraQuick oral fluid-based test was widely accepted because it is quick, easy, painless and convenient. Also, the test produces its result quickly. Outreach workers and community health centres distributed test kits, and online social media promoted online ordering. Results from Laos showed that assisted self-testing contributed to a rapid increase in the uptake of testing and that the linkage of reactive clients to confirmatory tests and care increased over time. In Thailand linkage to confirmatory testing and treatment uptake was more of a challenge; the data are currently being analysed. The study reported problems ensuring a steady supply of test kits. Recommendations that emerged from the study include reducing misconceptions and increasing awareness of benefits in the community, offering several options for testing, training implementers for tasks beyond test delivery and introducing robust protocols to reduce loss to follow-up.

Yan Jiang, Chinese Centre for Disease Control and Prevention (CDC), reported on providing oral fluid-based HIVST kits in China through pharmacies and online. Clients purchased the kits for the equivalent of US$23 at any one of 40 participating pharmacies and received a refund if they reported to a face-to-face meeting at a health centre to discuss the results. While purchasing HIVST kits through pharmacies was popular – with 1150 kits sold in one year – the referral rate was very low; only three people with negative results returning for consultation and a refund. At four other pilot sites, 1000 HIVST kits were sold, and two HIV-positive persons came for referral. Online sale of HIVST kits (finger-prick, oral fluid and urine collection-based tests) through MSM community-based organizations showed more promising results. In the case of blood-based self-testing, 20.3% of purchasers reported their results; for the oral test, 88.3%; and for a self-collected urine test, 100%. (The urine tests had to be sent to CDC for testing and analysis.) In these pilot studies HIVST achieved broad coverage, increased accessibility and acceptability (because they protect privacy) and lowered staff costs. However, at October 2018, China had no HIVST policy and there are no nationally approved products.

HIVST is recognized in the literature as increasing HIV testing coverage for at-risk populations, providing greater privacy and confidentiality and reducing health system costs while increasing accessibility. Panellists at the meeting recommended that approaches to service delivery – for example, online, through CBOs or through pharmacies, as well as community mobilization – should be diversified to reach key populations and so achieve the greatest benefits, while maintaining integration of HTS services. But there is an urgent need to address the absence of policy on HIVST as well as regulatory barriers and to establish a quality assurance protocol for HIVST kits available informally. Also, the capacity and knowledge of community-based organizations, especially those led by key populations, needs to be strengthened to deliver accurate messages about HIVST and support linkage to prevention, treatment and care.

There is an urgent need to address the absence of policy on HIVST as well as regulatory barriers.

5.3 PrEP pilot and demonstrations projects

Sushena Reza-Paul, from the University of Manitoba, Canada, presented the lessons from two pilot studies providing PrEP for sex workers in India. The studies were implemented by the community-based organisations, Ashodaya (Dawn of Hope) in Mysore-Madya and Durbar Mahila Samanwaya Committee (DMSC) (The Unstoppable) in Kolkata. Taking a holistic approach, by community outreach workers, the majority of whom were also sex workers, incorporated PrEP into their prevention

"Community trust was a critical enabler."

programming, promoted the acceptability of PrEP to the community, tailored interventions to maximize adherence, and developed systems to minimize dropouts. “Community trust was a critical enabler, as were HIV-positive sex workers who led the process from the front,” resulting in high levels of retention, affirmed Dr Reza-Paul. Also, the study found no increase in STIs among participants and no change in condom use. Challenges included the wait for regulatory approval which delayed the initiation of the studies and dampened the demand for PrEP that had been created. However, this delay gave the studies a much-needed opportunity to prepare the community for the intervention and to work within community systems. The community preparation was an essential contributor to the success of the project in creating demand and acceptability of PrEP, enrolling and retaining participants, and achieving high levels of adherence. The studies affirmed that community-led processes can deliver a high-quality PrEP service. Pilot studies can create a groundswell for an innovation like PrEP, but they create unmet demand when places are limited in a time-bound trial.

Danvic Rosadino, from LoveYourself in Manila, The Philippines, shared results from Project PrEPPY (PrEP Pilipinas), a research and pilot study evaluating wider implementation of PrEP among Filipino gay and bisexual men and among transgender women. For this public–private partnership, the community-based organization LoveYourself collaborated closely with the Department of Health to procure PrEP drugs and enroll 250 participants. In addition to providing participants with PrEP, the project provided coaching on life skills and psychosocial support. The study reported high levels of PrEP adherence – over 90% of clients taking their pill daily. Community involvement was essential to successful uptake and adherence. As Mr Rosadino stated in closing, “CBOs are an innovative way forward. We know the market because we are the market.” Project PrEPPY found that most participants were willing to pay for PrEP and that social media could be used effectively to spread awareness. Moving forward, the Philippines government in partnership with CBOs is planning to formulate national guidelines and intends to implement PrEP in communities at high risk of HIV.

> CBOs: “We know the market because we are the market.”

Thailand is well on its way to meeting UNAIDS 90-90-90 targets in the general population, but one in every two new infections continues to occur among gay men and other men who have sex with men and among transgender women, noted **Reshmie Ramautarsing** from the Thai Red Cross AIDS Research Centre. To address this challenge, the Princess PrEP programme, a same-day PrEP service in which lay providers from key populations, in partnership with government health facilities, dispense PrEP, was launched in 2016. Since then more than 2600 people from key populations have accessed PrEP through the Princess PrEP programme. This amounts to about half of all Thais that have accessed PrEP. Data from the programme is making a critical contribution to the decision-making process for offering PrEP through Thailand's universal health care system. In 2018 the Thai government introduced the National PrEP Implementation Guide for providers to support national rollout of PrEP.

5.4 Discussion

Although HIVST and PrEP are not yet widely available in the Asia–Pacific region, pilot and implementation projects, and increasing awareness and informal access, suggest that they are acceptable. The participants noted several challenges and barriers to scaling up these interventions. These included cost and resource constraints and the need for cost-effectiveness analyses to support investment cases. Participants from Thailand reiterated the importance of data making both the public health case and the investment case, which

have encouraged Thailand to roll out PrEP broadly. If PrEP services can be focused on those at substantial HIV risk PrEP, it can be a cost-effective way to prevent new HIV infections.

Communities were important partners in reaching key populations, especially young men who have sex with men and transgender men and women. In Pakistan the HIV epidemic continues to be focused in people who inject drugs and their partners but with an increasing number of cases among men who have sex with men and transgender populations. The conservatism of Pakistani society had led the National AIDS Programme to partner with communities to offer services such as HIV testing. Similarly, participants from Viet Nam noted that community partnerships made it possible to reach hidden key populations.

Despite the successful uptake of PrEP reported by various pilot and demonstration projects in the region, considerable challenges to scale-up remain, including demand creation in the community, linkage from non-reactive, negative HIV test results to PrEP and lack of guidance on event-driven or seasonal use of PrEP. Several participants from the community noted that people were willing to pay for HIVST and PrEP. But the challenge was for the client to have enough information and support to link to health-care services. Furthermore, the communities that most need PrEP continue to be criminalized and face moral disapproval, which poses a challenge for implementing plans and policies.

PrEP: Generic products may be available for HIV treatment, but in most countries they are not licensed for prevention purposes.

A major challenge facing countries is the lack of registered products and, where there is only a single manufacturer with a registered product, difficulties in securing a supply chain and lack of competition which drives up costs. HIVST kits are not registered, and most countries did not have quality assurance systems in

place. As for PrEP, products such as generic tenofovir/emtricitabine (TDF/FTC) or tenofovir/lamivudine (TDF/3TC) may be available for HIV treatment, but in most countries, they are not licensed for prevention purposes.

Monitoring and evaluation framework

> *M&E information should be used to measure results, improve performance, identify trends and increase transparency and accountability. For both HIVST and PrEP, the information should be integrated into existing systems of data collection and analysis.*
>
> – Shona Dalal, WHO

6.1 M&E for HIVST

Karin Hatzold, Population Services International (PSI), discussed the importance of setting up an M&E framework for HIVST implementation. Dr Hatzold shared the findings of the evaluation of the Unitaid-supported HIV Self-Testing Africa (STAR) project, the largest evaluation of HIVST ever completed. This evaluation was used to inform the WHO strategic framework on HIVST, which recommends different M&E frameworks and indicators at the different stages of HIVST implementation: preparation, evaluation and mainstream/scale-up.

There are several key M&E considerations and challenges with HIVST, particularly that (1) because confirmative testing for people testing HIV positive with a HIVST is required, de-duplication of data may be required; (2) because HIVST is confidential, collecting usage and test results requires the user's disclosure of status; and (3) typical cascade reporting with outcome measures (linkage, treatment, prevention uptake) often is not feasible with HIVST.

The following indicators can be considered for routine monitoring and reporting on HIVST implementation:

1. number of HIVST kits distributed, disaggregated by age, sex and key population (if collected) of the recipient, approach, type of site and testing by self, sex partner or other;*
2. number of HIVST kits approved/registered by the authorized national body, disaggregated by oral fluid and blood self-tests, WHO prequalification;
3. number of sites distributing HIVST kits, disaggregated by location, private sector or public sector;
4. percentage of the population aware of HIVST, disaggregated by sex and age;
5. percentage of the population that has ever self-tested, disaggregated by age and sex;
6. percentage of the population willing to self-test (if available), disaggregated by age and sex;
7. percentage of people presenting at HIV testing sites who report self -testing in the preceding 12 months, disaggregated by age, sex, key population and self-test result;
8. percentage of those tested in the preceding 12 months who report self-test as their most recent test, disaggregated by age, sex and key population;
9. percentage of ART initiations among people diagnosed with HIV who report self-testing in the preceding 12 months, disaggregated by age, sex and key population;
10. percentage of voluntary medical male circumcisions (VMMC) among men who report self-testing in the preceding 12 months, disaggregated by age;
11. percentage of PrEP initiations among people who report self-testing in the preceding 12 months, disaggregated by age, sex and key population;**

12. percentage of self-testers who report having self-tested in the preceding 12 months with a sex worker prior to having sex, disaggregated by age, sex and key population.

* Only this first indicator is required; all others are optional.
**See also section 6.2, M&E for PrEP, below.

The STAR project used a variety of distribution models: community-based distribution, facility-based distribution, integration with conventional HTS; secondary distribution to enhance index testing; secondary distribution through pregnant and postpartum women to increase uptake of testing among their sexual partners; and HIVST to enhance uptake of prevention services (VMMC and PrEP). As HIVST was integrated with national HTS programmes, it was important to also integrate HIVST indicator(s) into existing HIV testing data collection and to modify and adapt forms and registries. Data systems, including both collection and reporting, had to be aligned.

Other means of collecting additional national indicators, especially outcome data, include population-based surveys such as the Demographic and Health Surveys (DHS) and Integrated Biological and Behavioural Surveillance (IBBS) Surveys. Indicators could include information on percentage of population aware of HIVST, percentage who had ever self-tested or were willing to self-test and percentage of PrEP users who reported self-testing in the preceding 12 months. Although social harm following HIVST has been a rare event in most studies, it should also be routinely monitored, especially during scale-up. This could be done through community-led reporting systems, telephone hotlines, user satisfaction surveys and social media platforms. Dr Hatzold also discussed the steps in post-market surveillance and systems for quality assurance.

Van Thi Thuy Nguyen, WHO Viet Nam, shared the experience of monitoring HIVST implementation in a pilot study and the minimum requirements for scale-up. Pilot studies, carried out in 2016 in Hanoi and Ho Chi Min City with PATH/USAID support and in Can Tho and Thai Nguyen provinces with WHO support, confirmed that implementing WHO recommendations was feasible in Viet Nam, accepted by key populations and partners, effective in reaching individuals in key populations with undiagnosed HIV infection, and successful in linking those testing positive to confirmatory tests and treatment.

Viet Nam developed its national guidelines in 2018 and determined that implementation of HIVST required, at a minimum, community engagement and champions, training and technical assistance for health staff and peer educators, an M&E framework that included forms for reporting and designated senders and receivers and a steady supply of test kits.

Viet Nam determined that the minimum requirements for scale-up of HIVST are:

- community engagement
- staff training and support
- M&E framework
- steady supply of test kits.

6.2 Monitoring and Evaluation for PrEP

Shona Dalal, WHO, presented WHO's new PrEP monitoring and evaluation module of the PrEP Implementation Tool. Monitoring and evaluation goals for programmes include increasing coverage of PrEP among priority populations, setting service delivery targets, monitoring the PrEP cascade, identifying clinical or

The challenge in measuring the performance of PrEP is the cyclical nature of its use.

structural areas for improvement of services and evaluating programmes and impact. The challenge in measuring the performance of PrEP is the cyclical nature of its use – individuals can go on and off PrEP during periods of differing HIV risk; PrEP is not to be used during periods of no or low risk. There is a distinction between PrEP programme effectiveness, which a routine monitoring system could assess based on the intended outcome of the programme, on one hand, and, on the other hand, PrEP efficacy, which is measured through randomized trials to determine how well drugs work, and which is already well established. For programme and supply chain management, routine monitoring is critical.

A monitoring and reporting strategy, Dr Dalal recommended, should maximize data quality, while minimizing the burden on health workers, by collecting and reporting only data and indicators at site, sub-national and national levels that are necessary for decision-making at each of those levels. She presented four core indicators suggested by WHO for routine monitoring of PrEP services:

1. **PrEP uptake**: Percentage of eligible people who initiated oral antiretroviral PrEP in the last 12 months.
2. **Continuation** on PrEP: Percentage of PrEP users who continued on oral PrEP for three consecutive months after having initiated PrEP in the last 12 months.
3. PrEP-associated **toxicity** prevalence: Percentage of people who received oral PrEP who have discontinued or interrupted PrEP due to a serious ARV-associated toxicity in the last 12 months.
4. **HIV positivity** among people who had been prescribed PrEP: Percentage of people who test HIV-positive among people who received PrEP at least once in the last 12 months and had at least one follow up HIV test.

All indicators should be disaggregated by age (in 5-year age bands: 15-19, 20-24, 25-29 years and so forth), gender, key population grouping and geographic/administrative areas of importance. The information being collected should be harmonized and integrated into existing systems of standardized data collection, reporting and analysis, including, where possible, tracking of linkages to related services. For example, people whose behavioural risks indicate that they may be candidates for PrEP are likely also to be at risk for other STIs and should be referred for STI screening. Similarly, those interested in contraception services or VMMC should be referred to these services.

Thus far, where PrEP had been introduced, the numbers of people starting PrEP has grown slowly at first but more quickly over time as awareness about PrEP has spread. Therefore, targets should be re-evaluated periodically, and drug procurement should consider both the numbers of people who continue PrEP, based on early experience, plus those expected to initiate PrEP in the future.

Assessing the impact of PrEP programmes on HIV incidence requires surveys, programme evaluations or modelling, but routine programme monitoring data can indicate trends in indicators such as the numbers of new HIV diagnoses that occur. Ideally, planning for programme evaluation should start in the formative period of programme planning and evolve throughout implementation and into impact measurement.

Kimberly Green, from PATH, shared Viet Nam's experience of PrEP roll-out from pilot study to programme. The "Prepped for PrEP (P4P)" pilot study, designed in 2016, has a three-phase implementation strategy – preparation, then implementation in 10 sites (eight in Ho Chi Minh City and two in Hanoi) and finally scale-up and expansion of services to 11 provinces by 2020. In the preparation phase the Vietnam Authority of HIV/AIDS Control (VAAC) carried out an assessment of key populations' needs, preferences and willingness to

pay for generic TDF/FTC and at the same time generated demand for PrEP both online and offline. A CBO-based approach offered different models of HIV testing. These included testing through lay persons, self-testing and index partner testing and testing at PrEP services. The pilot project was rolled out in June 2017 with a monitoring framework of four core indicators: (1) PrEP uptake, (2) early continuation on PrEP, (3) toxicity prevalence among people who had been prescribed PrEP, and (4) HIV positivity among people on PrEP. Information was captured through logbooks and a digital app (iPrEP) developed specifically for clinics offering PrEP. In addition, the VinaPrEP pilot project used an online monitoring system capturing data from 200 participating men who have sex with men. The lessons learned from Thailand's PrEP programme was hugely beneficial to the preparation of Vietnam's PrEP studies.

The P4P study found high retention rates at three months for men who have sex with men (78%) and transgender women (91%) and lower rates for sero-discordant couples (48%). Ninety-one per cent of men who have sex with men and transgender women self-reported substantial risk for HIV, and 89% said they would opt to use PrEP if available. Uptake of PrEP took time as information spread through the community. The preferred location of PrEP services was CBOs, including private sector clinics run by CBOs. Most people, 92%, were willing to pay for PrEP at a cost of 10,000 Vietnamese Dong (approximately US$0.43) per day and 76% at 20,000 Vietnamese Dong (U$S0.86) per day (exchange rates at October 2018).

The critical role of communities

> *If we are going to win, then we not only have to introduce HIV self-testing and PrEP but also need to redesign health services. We have to change how we do business!*
>
> – Participant from Cambodia

Community was, and continues to be, an integral part and partner in the HIV response. Because of their credibility with their constituencies, community organizations at national and regional levels are critical in the implementation and scale-up of HIVST and PrEP services.

Community and civil society engagement and participation are crucial to integrate HIVST into existing HIV testing strategies. Affected communities, particularly people living with HIV, will be critical partners for achieving policy goals and mobilizing investment by the global community. This engagement also will support the supply of and demand for HIVST, as communities will be integral to the design of marketing strategies and distribution models.

For example, the community of men who have sex with men has long been at the forefront of the response to the HIV epidemic, connecting its constituents to interventions. **Inad Rendon**, APCOM, observed that APCOM has been working on PrEP since 2015, using "sex-positive" images that celebrate gay men's sexuality as part of their lives. It has used online tools, including social media applications, for creating demand for testing, as more men who have sex with men are now using social media to make sexual connections.

Thityanun (Doy) Nakpor from Sisters Foundation, working with the transgender community in Pattaya, Thailand, noted that, "Transgender women have different needs and risks from the MSM community." Most transgender women there were not aware of PrEP. Sisters offers HIV testing services and PrEP in their prevention programme. Demand is enhanced by providing services of high value to their clients, including distribution of grooming items that appeal to their sex worker clients. Also, Sisters' services are tailored to accommodate the schedules of transgender sex workers in Pattaya, who require access to health services outside the usual hospital service hours.

"The transgender community has historically been left out of discussions on PrEP even though they have high HIV prevalence," stated **Raine Cortes**, of the Asia Pacific Transgender Network. She noted that transgender communities should be considered for PrEP and services linked to gender-affirming health-care services such as those offered by the Tangerine Clinic at the Thai Red Cross in Bangkok, Thailand.

"The transgender community has historically been left out of discussions on PrEP."

"There are three characteristics of messaging for community organization," said **Matt Vaughn** from ACON. "The message must be educational, entertaining and inspiring." Mr Vaughn noted that community-led implementation has worked because of trust and group affiliation and identity. **Danvic Rosadino**, LoveYourself, and **Liana Andriyani**, Organisasi Perubahan Sosial Indonesia (OPSI), reaffirmed that communities are integral to delivering effective HIV services and create safe spaces. CBOs needed stronger partnerships with government (ministries of health and national HIV/AIDS institutions) and international non-government organizations (INGOs)/NGOs because community capacities in counselling and guidance need to be developed. Investments in the community should increase if the AIDS epidemic is going to end by 2030.

Country road maps

Supported by UNAIDS, WHO, Unitaid and PSI, country delegations developed specific, action-oriented road maps for in-country HIVST and PrEP implementation over the next 12 to 24 months. They developed the road maps in two parts: (1) policy and regulatory barriers and (2) delivery and integration of HIVST and PrEP into existing programmes. Each road map detailed:

- key activities/strategies to be implemented
- timeline over the next 12 to 24 months
- main challenges
- technical assistance needs
- funding gaps and potential donors
- responsible party or parties for implementation of key activities.

Typical technical assistance needs included help with the following:

- development of HIVST and PrEP programmes, including baseline needs assessment, strategies and materials for demand creation, access to products and a guide on best practices from countries that have implemented pilot programmes (lessons learned on normative, regulatory and financial barriers);
- development of standard operating procedures and monitoring and evaluation frameworks;
- preparation of policies and guidelines;
- training, including materials and curricula development for staff and laypersons;
- enhancing CBO capacity in demand creation and scale-up;
- support with product registration and negotiating prices of HIVST and PrEP supplies; market and cost-effectiveness analysis.

Most country road maps identified a need for donor funding to be allocated to supporting PrEP and HIVST programmes as well as to supporting functions such as training and capacity building.

Conclusions

In Asia and the Pacific, the significant gap between need and services for HIV testing and prevention, particularly for key populations, their partners and young people, is jeopardizing the earlier success of the regional HIV response and contributing to increasing numbers of new HIV infections in some countries and in key populations. There is an urgent need to do things differently.

> The significant gap between need and services is jeopardizing earlier success. There is an urgent need to do things differently.

HIVST and PrEP are crucial new and innovative tools that have proved highly effective when targeted. Countries in the region now must move beyond limited pilot projects to sustainable implementation at a population scale. For PrEP, rapid achievement of high coverage among those eligible is required to attain the population benefit in interrupting HIV transmission. HIVST

Implementation and scale-up of HIVST and PrEP in Asia and the Pacific require prioritizing the following actions:

- **remove regulatory barriers and simplify registration processes** to ensure that quality products are available in the market; encourage multiple manufacturers to register: assure supply security;
- **reduce commodity prices** for both government programmes and private purchase, to ensure affordability and sustainability, by encouraging competition, increasing transparency and considering pooled procurement and negotiation options for the region;

- **create supportive policies and clear guidelines** that include these technologies as an integral component of the HIV response rather than as stand-alone services, that support user safety without unnecessary requirements, that support access to everyone at risk particularly for young people, and that avoid further stigmatizing and discriminating against members of key populations and their partners;
- **diversify approaches to community mobilization** to best fit key population's preferences (particularly young members of key populations) and to build awareness, knowledge and demand in the community;
- **strengthen** providers' knowledge, addressing biomedical and social concerns;
- **integrate** HIVST and PrEP with other HIV and STI testing, prevention and treatment services as well as boarder health services to ensure holistic care, prevent silos, support sustainability and retention in care, reduce implementation costs and expand access;
- **simplify and diversify access points and service delivery models,** including utilizing key population-led services and private-sector and other models, to reach those, such as young people and key populations, who can benefit most from these innovations and are not reached adequately by existing services;
- **streamline data collection systems** for monitoring and evaluation to capture informal access, even prior to formal access in the country;
- **maintain the active engagement** of all sectors of the HIV response (including ministries of health, communities and the private sector), assigning clear roles and responsibilities and setting timelines.

Annex 1 Agenda

DAY ONE – Monday, 29th October What do we know about PrEP and HIVST in Asia Pacific? Summary of WHO guidance and tools for the region How projects have managed to overcome barriers		
08:00 – 09:00	**Registration**	
09:00 – 09:30	**Welcome, Meeting Overview and Objectives**	Eamonn Murphy, UNAIDS Heather Ingold, Unitaid Rachel Baggaley, WHO
09:30 – 10:30	**Updates from WHO on HIV testing innovations and PrEP** - WHO Updates on HTS, HIVST and APN - WHO Updates on PrEP Q&A	- Rachel Baggaley, WHO - Shona Dalal, WHO
10:30 – 10:45	**BREAK**	
10:45 - 13:00	**Why do we need HIV Testing Innovations and PrEP in the Asia-Pacific (continued)?** - Epidemiology of HIV in the Asia-Pacific - Status of HIVST and PrEP in Asia - Community activities to progress PrEP and testing innovations in the region Q&A	- Taoufik Bakkali, UNAIDS - Heather-Marie Schmidt, UNAIDS & WHO - Midnight Poonkasetwattana, APCOM
12:00 – 13:00	**LUNCH**	
13:00 – 14:50	**Lessons from the field: HIVST pilots in the Asia-Pacific** *This panel will describe successful HIVST and key population led testing approaches in the region, highlighting the enablers contributing to success (partnerships, skills, resources,), the (next) steps for expansion or national adoption, and any barriers hindering expansion, followed by a discussion.* - Vietnam - Myanmar - China Discussion	Moderator: Janet Gare, PNG Institute of Medical Research, Papua New Guinea - Vo Hai Son, MoH Viet Nam - Thandar Lwin, MoH Myanmar - Jiang Yan, MoH China
13:50 – 14:40	**From pilot to program: PrEP in the Asia-Pacific** *This panel will describe successful PrEP pilots and programs, highlighting the enablers contributing to success (partnerships, skills, resources,), the (next) steps for expansion or national adoption, and any barriers hindering expansion, followed by a discussion.* - India	Moderator: Heather-Marie Schmidt, UNAIDS & WHO - Sushena Reza-Paul, India - Danvic Rosadino, Love Yourself Philippines - Reshmie Ramautarsing,

DAY ONE – Monday, 29th October What do we know about PrEP and HIVST in Asia Pacific? Summary of WHO guidance and tools for the region How projects have managed to overcome barriers		
	- Philippines - Thailand Discussion	Thai Red Cross
14:40 – 15:00	**BREAK**	
15:00 – 15:20	**Summary of key implementation considerations and integration for HIVST and PrEP**	Rachel Baggaley, WHO
15:20 – 16:20	**How to address key issues for implementation for HIVST** *This moderated panel discussion will explore the barriers to HIVST and propose solutions at the policy level followed by an open discussion. The following topics will be covered:* - *Policy* - *Regulation and registration of HIVST kits* - *Service delivery approaches, including key population led services* - *HIVST & PrEP integration* Discussion	Moderator: Salil Panakadan, UNAIDS - Shobini Rajan, NACO India - Endang Budi Hastuti, MoH Indonesia - Surang Janyam, Swing Thailand - Phan Thi Thu Huong, VAAC Viet Nam
16:20 – 17:20	**Nothing can stop us now! Overcoming key obstacles in PrEP Implementation** *This moderated panel discussion will explore the barriers to PrEP and propose solutions at the policy level followed by an open discussion. The following topics will be covered:* - *Policy issues* - *Regulation for PrEP* - *Innovation in service delivery and task sharing* - *Social contracting* Discussion	Moderator: Krittayawan (Tina) Boonto, UNAIDS Indonesia - Steve Wignall, FHI Cambodia - Quaid Saeed, MoH Pakistan - Sarayuth Uttamangkapong, MoPH,Thailand - Phan Thi Thu Huong, VAAC Vietnam
17:20 – 17:30	**Wrap Up Day 1**	Rachel Baggaley, WHO

DAY TWO – Tuesday, 30th October M&E considerations for HIVST and PrEP Community engagement Country road maps for HIVST and PrEP		
09:00 – 09:15	**Review of Day 1, Q&A and Overview of Day 2**	Heather Ingold, Unitaid
09:15 – 10:45	**M&E Considerations for HIVST** *HIVST M&E including how to use existing HTS and APN indicators for HIVST monitoring guidance and tools and how they can be applied in national settings.*	Van Nguyen, WHO Viet Nam Karin Hatzold, PSI
10:45 – 11:00	**BREAK**	
11:00 – 12:30	**M&E Considerations for PrEP** *Present on PrEP M&E guidance and tools and how they can be applied in national settings*	Shona Dalal, WHO Kim Green, PATH
12:30 – 13:30	**LUNCH**	
13:30 – 14:00	**Case study: PrEP, HIV self-testing and community-based testing in Australia** *This session will discuss how the New South Wales Government in Australia, in partnership with community, clinicians and researchers, overcame barriers to full implementation of PrEP and community-based testing, followed by time for a Q&A.*	Dr Christine Selvey, Medical Epidemiologist, Health Protection NSW, NSW Health
14:00 – 15:00	**Community engagement to facilitate HIVST and PrEP** *This moderated discussion will delve into the challenges and opportunities for communities, including MSM, transgender and sex workers, in creating demand for HIVST and PrEP.*	Moderators: Stuart Watson, UNAIDS & Edmund Settle, UNDP - Danvic Rosadino, Love Yourself Philippines - Liana Andriyani, Indonesia sex workers network (OPSI) - Matthew Vaughan, ACON Australia Midnight Poonkasetwattana, APCOM (Inad) - Phouthone Southalack, Director, MoH Centre for HIV, AIDS and STIs

DAY TWO – Tuesday, 30th October M&E considerations for HIVST and PrEP Community engagement Country road maps for HIVST and PrEP		
		- Raine Cortes, APTN - Thitiyanun Nakpor, Sister Center for TG in Thailand (Doi)
15:00 – 15:15	**BREAK**	
15:15 – 15:20	**Introduction to breakout session 1**	Shona Dalal, WHO
15:20 – 17:00	**Breakout Session 1: Policy and Regulatory Barriers** *Participants will break out into groups by country to develop concrete, action-oriented road maps for HIVST and/or PrEP with ranked priorities. This session will focus on defining outstanding policy / regulatory issues and an action plan for addressing each.* Peer Review (45 minutes)	Country discussions supported by the civil society networks, Unitaid, WHO and UNAIDS
17:00 – 17:15	**Wrap Up Day 2**	Eamonn Murphy, UNAIDS
18:30 – 20:00	**Reception and Networking**	

DAY THREE – Wednesday, 31st October Country road maps for HIVST and PrEP		
09:00 – 09:15	**Review of Day 2, Q&A and Overview of Day 3**	Heather Ingold, Unitaid
09:15 – 12:00 ***Break 10:30 – 10:45***	**Breakout Session 2: Service delivery approachs for each target population (with high level tartgets) and associated community engagement & demand creation activities** *Participants will break out into groups by country to develop concrete, action-oriented roadmaps for HIVST and/or PrEP with ranked priorities. This session will focus on service delivery approachs for each target population (with high level tartgets) and associated community engagement & demand creation activities; technical assistance needs; timelines and resources/funding.* Peer Review (60 minutes)	Country discussions supported by the civil society networks, Unitaid, WHO and UNAIDS
12:00 – 13:00	**LUNCH**	
13:00 – 15:00	**Breakout Session 2 (continued): Consolidation and revision of country road map** Peer Review (45 minutes)	Country discussions supported by the civil society networks, Unitaid, WHO and UNAIDS
15:00 – 15:15	**BREAK**	
15:15 – 16:30	**Regional planning: common themes, issues and barriers from the breakout sessions**	Stuart Watson, UNAIDS
16:30 – 17:00	**Closing**	Eamonn Murphy, UNAIDS Heather Ingold, Unitaid

Annex 2

List of Participants

Family name	First name	Country	Organization
Adhikary	Rajat	India	WHO country office
Aher	Abhina	India	HIV/AIDS Alliance
Ajose	Wale	Global	Unitaid
Altaf	Asim	Pakistan	Provincial AIDS Control Program
Andriyani	Liana	Indonesia	Indonesian Sex Workers Network OPSI
Aung Hsan	May Thu	Myanmar	WHO country office
Avery	Matt	Regional	FHI 360
Azwa	Iskandar	Malaysia	Department of Medicine, University of Malaysia
Baggaley	Rachel	Global	WHO HQ
Bakkali	Taoufik	Global	UNAIDS
Bannavong	Sihamano	Lao PDR	FHI sex work programme
Bansal	Yashika	India	CHAI India
Boas	Peniel	Papua New Guinea	National Department of Health
Borromeo	Maria Elena	Pakistan	UNAIDS country office
Budi Hastuti	Endang	Indonesia	Ministry of Health
Camara	Bilali	India	UNAIDS country office
Carrascal	Stanley	Philippines	DOH National Capital Region Infectious Diseases
Chachar	Younis	Pakistan	Provincial AIDS Control Program
Chen	Zhongdan	China	WHO country office
Choo	Martin	Malaysia	Kuala Lumpur AIDS Support Services Society (KLASS)
Coppens	Leila	Philippines	WHO country office
Cortes	Raine	Regional	Asia Pacific Transgender Network (APTN)
Dala	Nick	Papua New Guinea	National AIDS Council Secretariat
Dalal	Shona	Global	WHO HQ
Ditangco	Annie	Philippines	Group-Research Institute of Tropical Medicine
Emond	Marie-Odille	Viet Nam	UNAIDS country office

Figuracion Jr	Roberto	Philippines	Family Planning Organization of the Philippines, Iloilo chapter
Fleutelot	Eric	Regional	French Government
Gare	Janet	Papua New Guinea	PNG Institute of Medical Research
Green	Kim	Viet Nam	Path
Gustafson	Kiira	Myanmar	PSI
Hareffa	Sarikasih	Indonesia	Ministry of Health
Hatzold	Karin	Global	PSI
Hidayat	Agus Rahmat	Indonesia	Spirita
Hossain	Md Belal	Bangladesh	DGHS AIDS / STI programme
Htay	Tin Tin	Myanmar	National Health Laboratory
Huda	Fahmi Shohibun Nurul	Indonesia	GWL-INA
Ingold	Heather	Global	Unitaid
Islam	Mohammad Rofiqul	Bangladesh	Bandhu Social Welfare Society
Janyam	Surang	Thailand	Service Workers in Group Foundation - SWING
Jie	Yang	China	Tianjin Shenlan Public Health Consulting and Testing Service Centre
Kaoodumkoeng	Nutchanart	Thailand	Bureau of AIDS, TB and STIs, Ministry of Public Health
Khampang	Roongnapa	Thailand	Health Intervention and Technology Assessment Programme
Khan	Saima	Bangladesh	UNAIDS
Khawaja	Qasim Iqbal	Pakistan	NAZ Pakistan
Lin	Nay	Myanmar	Myanmar MSM Network
Linh	Doan Thi Thuy	Viet Nam	Care and Treatment Department (PrEP)
Linjongrat	Danai	Thailand	Rainbow Sky Association of Thailand
Liyala	Pamela	Global	The Global Fund
Lo	Wilson	Global	The Global Fund
Lwin	Thandar	Myanmar	Ministry of Health
Ly	Penh Sun	Cambodia	NCHADS
Manopaiboon	Chomnad	Thailand	US CDC
Mills	Steve	Regional	FHI 360
Montinee	Vasantiuppapokakorn	Thailand	Bureau of AIDS, TB and STIs, Ministry of Public Health
Morin	Mary Joy	Philippines	National HIV, AIDS and STI Prevention and Control Program (NASPCP)
Mosende	Zimmbodilion (Peter)	Philippines	UNAIDS country office
Murphy	Eamonn	Global	UNAIDS
Muttaqin	Husny	Indonesia	Linkages
Mwerinde	Ombeni	Global	Unitaid
Naibaho	Murni	Indonesia	Ministry of Health
Naing	Soe	Myanmar	Mahamate
Nakpor	Thitiyanun	Thailand	Sisters Centre for Transgender

Ngowsiri	Jakkrit	Thailand	National Health Security Office
Nguyen	Van	Viet Nam	WHO country office
Nguyen	Tuan	Viet Nam	PSI
Nishijima	Takeshi	Regional	WHO WPRO
Panakadan	Salil	Global	UNAIDS
Pasha	Muhammad Safdar Kamal	Pakistan	WHO country office
Phetsouvanh	Rattanaxay	Lao PDR	MoH communicable diseases department
Phong	Dang Quoc	Viet Nam	Can Tho CBO
Poonkasetwattana	Midnight	Regional	APCOM
Puri	A.K.	India	NACO
Rahman	MD Anisur	Bangladesh	Rajshahi Division
Rahman	Abdur	Bangladesh	Ashar Alo Society
Rajan	Shobhini	India	NACO
Ramautarsing	Reshmie	Thailand	Thai Red Cross AIDS Research Centre
Rawat	Shruta	India	Humsafar Trust
Rehman	Tanzil	Pakistan	Greenstar
Rendon	Inad	Regional	APCOM
Rewari	BB	Regional	WHO SEARO
Reza-Paul	Sushena	India	Community Health Sciences Division, University of Manitoba
Rosadino	Danvic	Philippines	Love Yourself
Saeed	Quaid	Pakistan	National AIDS Control Program
Saxena	Shri Alok	India	NACO
Schmidt	Heather-Marie	Global	UNAIDS
Selvey	Christine	Regional	Communicable Diseases Branch, Health Protection NSW
Seng	Por Srourn	Cambodia	KHANA
Settle	Edmund	Regional	UNDP
Silakoune	Thondeng	Lao PDR	UNAIDS country office
Sint	TinTin	Indonesia	WHO country office
Smarajit	Jana	India	Sonagachi Research and Training institute
Soan	Pyae	Myanmar	National AIDS Programme
Son	Vo Hai	Viet Nam	Ministry of Health, Division of Surveillance, M&E and Laboratory
Sopha	Nith	Cambodia	FHI 360 / Linkages
Southalack	Phouthone	Lao PDR	MoH Centre for HIV, AIDS, STIs
Soutthavong	Likhit	Lao PDR	CSO working for MSM and TG
Suleiman	Anita	Malaysia	Ministry of Health
Tai	Raymond	Malaysia	PTF Malaysia
Tawil	Oussama	Myanmar	UNAIDS country office
Teachatanawat	Nuttawut	Thailand	TRCARC Thailand
Termvanich	Krittaporn	Thailand	Thai Red Cross AIDS Research Centre
Thu Huong	Phan Thi	Viet Nam	VAAC

Tina Boonto	Krittayawan	Indonesia	UNAIDS country office
Tung	Tran Thanh	Viet Nam	VAAC
Ung	Polin	Cambodia	UNAIDS country office
Uttamangkapong	Sarayuth	Thailand	Bureau of AIDS, TB and STIs, Ministry of Public Health
van Griensven	Frits	Regional	Thai Red Cross AIDS Research Center and Department of Epidemiology and Biostatistics, UCSF
Vaughan	Matthew	Regional	ACON
Verma	Vinita	India	Ministry of Health
Verster	Annette	Global	WHO HQ
Vichet	Kem	Cambodia	Men's Health Cambodia (MHC)
Vohith	Khol	Cambodia	NCHADS
Wang	Xiaofang	China	National Health Commission, Intervention Division
Watson	Stuart	Global	UNAIDS
Wei	Guo	China	UNAIDS country office
Wignall	Steve	Regional	FHI 360 / Linkages
Wisnu Wardana	Hariadi	Indonesia	Ministry of Health
Yan	Jiang	China	National Reference Lab
Yusoff	Yusral Hakim	Malaysia	Malaysian Aids Council

Annex 3: Selected links for more information on PrEP and HIVST

HIVST:

1. HIVST.org: a global clearing house of information on HIVST hivst.org/
2. The HIVST Strategic Framework: a brief guide for countries and implementers that are planning, starting or scaling up HIVST implementation www.who.int/hiv/pub/self-testing/strategic-framework/en/

PrEP:

1. PrEP Watch: a global clearing house of information on PrEP (www.prepwatch.org/)
2. WHO PrEP Implementation Tool: a series of modules to support implementation of PrEP among a range of populations in different settings www.who.int/hiv/pub/prep/prep-implementation-tool/en/)
3. Global PrEP Coalition: a WHO-led forum designed to facilitate global dialogue and foster collaboration between stakeholders on pre-exposure prophylaxis (PrEP) as part of HIV combination prevention. www.who.int/hiv/prep/global-prep-coalition/en/
4. PrEP Map: a digital hub dedicated to improving demand, advocacy and access to PrEP throughout Asia and the Pacific developed by APCOM www.prepmap.org