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MINISTRY OF HEALTH

Standard Operating Procedures Same-Day HIV PrEP Delivery by Community Based Organizations for Key Populations in Cambodia

January 2022



NATIONAL CENTER FOR HIV/AIDS, DERMATOLOGY AND STD (NCHADS)

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Abbreviations

3TC Lamivudine (antiretroviral drug)

CAB Community Advisory Board

CBO Community-Based Organization

CrCl Creatinine Clearance

ED Event-Driven

FEW Female Entertainment Worker

HBsAg Hepatitis B surface Antigen

HCV Hepatitis C Virus

HIV Human Immunodeficiency Virus

KP Key Populations

MHC Men's Health Cambodia

MSM Men who have Sex with Men

NCHADS National Center for HIV/AIDS, Dermatology and STD

PEP Post-exposure Prophylaxis

PrEP Pre-Exposure Prophylaxis

PWID Person who Injects Drugs

PWUD People who Use Drugs

HIVST HIV Self-testing

STI Sexually Transmitted Infection

TDF Tenofovir Disoproxil Fumarate (antiretroviral drug)

TGW Transgender Women

TPHA Treponema Pallidum Hemagglutination Assay

US-CDC US Centers for Disease Control and Prevention

WHO World Health Organization

Foreword

The standard operating procedures (SOP) on Same-Day HIV PrEP Delivery by Community-Based Organizations for Key Populations in Cambodia is an initiative to provide PrEP in communities. This approach complements the strategy of HIV/AIDS prevention and to increased HIV case detection, aiming at achieving the goal of elimination of new HIV infections by 2025.

The National Centre for HIV/AIDS, Dermatology and STD and development partners has developed this SOP to guide the implementation of this innovative approach to facilitate the access to PrEP services by key populations.

The Ministry of Health agreed and officially approved these standard operating procedures (SOP) on Same-Day HIV PrEP Delivery by Community Based Organizations for Key Populations in Cambodia and expects that NCHADS and all development partners will implement this SOP with more effectively and efficiency.

Phnom Penh, 14 / 6 1 / 2022

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Prof. ENG HUOT SECRETARY OF STATE

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Phnom Penh, C. G. .../...../2022 Director of National Center for HIV/AIDS,

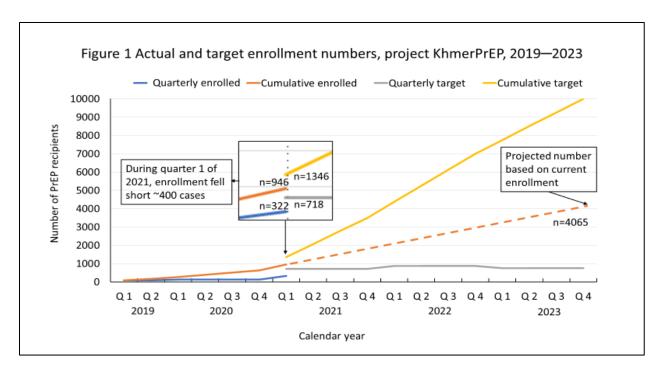
Dermatology and STD

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1 Background

Cambodia has achieved its UNAIDS 90-90-90 goals and is moving toward reaching elimination of HIV new infections by 2025. However, challenges remain in reaching certain sub-sections of key-populations (KP) at risk for HIV and in finding undiagnosed cases of HIV infection. According to the integrated behavioral and biological survey (IBBS) in 2017, HIV prevalence was 3.2% among female entertainment workers (FEW)¹; 15.2% among persons who inject drugs (PWID) in 2017²; 4.0% among men who have sex with men (MSM) and 9.6% among transgender women (TGW) in 2019². While the HIV prevalence has been decreasing among FEW and has remained stable among PWID, it has been rapidly increasing among MSM and TGW, particularly in more urbanized areas of the country (i.e., in and around Phnom Penh and Siem Reap, Banteay Meanchey and Battambang Provinces).³ To prevent the further spread of HIV infection among KP members the Government of Cambodia introduced HIV Pre-exposure Prophylaxis (PrEP) as a part of combination HIV prevention (also including early or immediate antiretroviral therapy [ART], or 'treatment for prevention'). The "KhmerPrEP" program was first introduced in Phnom Penh and Siem Reap, with plans to scale up around the country's HIV high-burden provinces through 2023.

The high HIV rates and population sizes of MSM and TGW at risk for HIV infection (44,000 and 6,300, respectively⁴), make them a main focus of the PrEP program. PrEP implementation began in July 2019 and September 2021, 1,364 individuals have been enrolled in PrEP. The number of PrEP sites increased from two in 2019 to ten by early 2021. Under the 2021-2023 Global Fund grant, the National Center for HIV, AIDS, Dermatology and STD (NCHADS) will be expanded up to 15 provinces/city and has set a target of 3,500 PrEP recipients by the end of 2021; 7,000 by the end of 2022; and 10,000 by the end of 2023. However, at the current rate of enrollment, these numbers are unlikely to be reached. During Quarter 1 of 2021, enrollment fell short by approximately 400 cases. If this trend continues only 4,065 will be enrolled by the end of 2023 (see Figure 1). To improve retention of existing clients and to reach future enrollment targets, additional HIV PrEP delivery methods and demand creation activities are therefore necessary.



Knowledge and understanding of HIV infection status is important to succesful delivery of HIV prevention services for key populations, including PrEP and ART for prevention. However, according to 2019 IBBS, 35.1% of MSM and 22.6% of TGW in Cambodia had never been tested for HIV infection before, and of those who did test, 34.7% of MSM and 31.0% of TGW had not been tested during the past 6 months.³ Increasing uptake and frequency of HIV testing may therefore be a promising avenue for reaching and enrolling additional HIV PrEP beneficiaries and realizing KhmerPrEP enrollment targets. The availability of PrEP for prevention may, in turn, attract some for testing who might otherwise not be interested. As a result, testing offers opportunities to promote PrEP and PrEP availability encourages others to get tested. In **Table 1** several data-sources are combined to estimate the number of at-risk MSM and TGW in Cambodia who have not recently been HIV tested. This "back-of-the-envelope" calculation indicates that there are currently more than 26.000 MSM and TGW who are in need of HIV testing, and who may benefit from HIV PrEP if found HIV negative.

Table 1 Estimated number of not recently tested HIV PrEP candidates among MSM						
and TGW in Cambodia, 2021						
HIV		Estimated at	HIV	Already on	Estimated	
	prevalence in	risk	negative	PrEP (n)	number of PrEP	
	IBBS ³ (%)	population	segment (n)	(estimated	candidates (n)	
		size ⁴ (n)		from		
Population				monitoring) ⁵		
Men who have	4	44,000	42,250	1,073	41,177	
sex with men	4	44,000	42,230	1,073	41,177	
Transgender	9.6	6,300	5,695	237	5,458	
women	5.0	0,300	3,033	237		
Female						
entertainment	3.2	51,213	49,574	117	49,457	
workers						
People who inject	15.2	3,202	2,715	_	2,715	
drugs	13.2	3,202	2,713	-	2,713	
Total		104,715	100,234	1,427	98,807	

Strategies to increase HIV testing include friendlier and more efficient services; same-day access to HIV PrEP and ART; HIV self-testing; and provider initiated opt-out testing and HIV Self-Testing (HIVST). While some of these strategies have been successful in attracting certain subsections of MSM and TGW, they have not been able to reach internationally accepted HIV testing targets. World Health Organization (WHO) and US Centers for Disease Control and Prevention (US-CDC) guidelines recommend that in high-risk situations, key-population members (including those who are on HIV PrEP) are screened for HIV infection every 3 to 6 months.^{6,7}

In recent years, KP-assisted same-day HIV PrEP service-delivery models have been proposed to help increase the number of PrEP recipients in a variety of settings. These models have been successfully implemented in neighboring countries, such as Vietnam and Thailand.^{5, 8, 9} In both situations, KP-assisted service delivery was effective in increasing uptake of HIV testing, especially of MSM and TGW not recently tested or untested. Essential in the delivery of KP-assisted services are the presence of a destigmatized, non-judgmental, and accepting environment and pivotal roles and responsibility for peer staff and community members in the design, marketing and daily running of the program. Peer-staff perform online and offline screening and recruitment, conduct counseling, collect specimens, perform rapid on-site testing and dispense antiretroviral drugs. Peer-staff assure clients understand HIV PrEP, take informed consent, and collect monitoring and evaluation data. They are also available to answer client questions

and responsible for regular messaging to maximize HIV PrEP adherence and retention in the program. The provision of same-day delivery is essential to avoid unnecessary loss-to-follow-up during the enrollment process. For the KhmerPrEP program to reach its enrolment targets, increase the number of HIV PrEP beneficiaries and decrease the number of new HIV infections, KP-assisted service delivery may be an essential next step for Cambodia as part of its efforts to eradicate HIV from the country by 2025.

2 Standard operational procedures

2.1 Objectives

These standard operational procedures (SOP) will serve as a detailed guide for the implementation of KP-assisted, medically supervised, same-day HIV PrEP service delivery for MSM, TGW, FEW and PWID in Cambodia. This document describes procedures, tasks, and responsibilities at every step of KP-assisted service delivery. This SOP should be considered a supplement to the existing PrEP SOP implemented as part of Project **KhmerPrEP** guided by the Ministry of Health's approved PrEP Concept Note¹⁰. The visit schedule of activities and all data record forms will remain the same, with the exception of some data collected at the clinic level.

2.2 Target population

The target population of KP-assisted same-day HIV PrEP service delivery are healthy HIV-negative MSM. TGW, Female Entertainment Workers (FEW) and People Who Use or Inject Drugs (PWID/PWUD), age older than 15 years-old who want or need to protect their sexual health or that of their sexual partners.

2.3 Venue and implementing partners

The venue of implementation of KP-assisted same-day HIV PrEP service delivery are the online-, offline and physical premises of the CBO Drop-In-Centers (DIC). Local non-profit Community-Based Organizations (CBO) conducting HIV prevention work and promoting the health of MSM, TGW, FEW and PWID/PWUD across Cambodia are ideal, friendly settings attractive to KPs. Most have a long history and a wealth of experience in HIV prevention activities among KP communities and have been robust NCHADS partners in range of locally and internationally funded programs in HIV/AIDS. They have a large base of motivated volunteers of different backgrounds.

For the implementation of KP-assisted medical supervised services, CBOs will closely collaborate with the nearest existing PrEP or ART site experienced in providing medical services to persons at risk for or are HIV infected. They should have experience including HIV and Sexually Transmitted Infection (STI) testing services, prevention of sexual, parenteral and mother-to-child transmission, HIV PrEP, HIV Post-Exposure Prophylaxis (PEP) and ART. The supervising physicians will provide medical oversight to the CBO, including supervision of HIV, STI and creatinine clearance diagnostic services and prescription and dispensing of HIV prophylactics drugs on location at the CBO.

2.4 Recruitment

Recruitment of MSM, TGW, FEW and PWID for HIV PrEP eligibility evaluation will be conducted by trained CBO staff on location (walk-in), virtually via social media, during HIV prevention outreach at venues and following HIVST. All MSM and TGW evaluated for HIV PrEP will have their sexual health behavior history taken by a trained CBO counselor to determine eligibility type (see section 2.5.1). Counselors will also provide education about HIV PrEP (risks and benefits, visit schedule, collection of specimens, stopping and starting rules, daily and intermittent dosing, importance of adherence, etc.). All PrEP candidates will need to provide oral informed consent prior to receiving HIV PrEP services, including HIV and other laboratory testing.

2.5 Eligibility for HIV PrEP

2.5.1 Eligibility type

Healthy and HIV-uninfected MSM, TGW, FEW and PWID ≥ 15 years of age who:

- 1) come forward to take HIV PrEP based on self-evaluation and education and wish to protect their sexual health and that of their partners without sexual health behavior evaluation (PrEPdirect or Type 1)
- 2) decide to "opt-in" to take HIV PrEP after evaluation of their sexual health behavior by an CBO counselor and (opt-in PrEP or Type 2)
- 3) are prescribed HIV PrEP based on evaluation of their sexual risk behavior by an CBO counselor unless they "opt-out" of this service (opt-out PrEP or Type 3) are eligible for PrEP².

2.5.2 Eligibility type indicators

2.5.2.1 PrEP-direct

MSM, TGW, FEW and PWID eligible for PrEP-direct services are those who want to take HIV PrEP based on self-evaluation and -education and who wish to protect their sexual health and that of their partners (if none of the ineligibility criteria applies). In these cases, there is no need for sexual behavior history taking to determine opt-in- or opt-out PrEP eligibility type. PrEP-direct candidates will proceed straight to project procedures and will have a visit schedule of activities similar to that of all other PrEP clients. PrEP-direct candidates can walk-in, may make an appointment through social media, during prevention outreach activities or via the HIVST website (khmertest.org).

2.5.2.2 Opt-in PrEP

Opt-in PrEP eligibility is suitable for MSM, TGW, FEW and PWID who may consider taking HIV PrEP now or later based on evaluation and discussion of their sexual behavior with an CBO counselor. This option is also available for MSM who are currently not at-risk for HIV-infection but may become at-risk any times in the future. Opt-in PrEP is particularly indicated for MSM and TGW who wish to take control of their sexual health in situations where safer-sex options are difficult or impossible to negotiate or when they are unsure of the sexual health behavior or HIV-status of their sexual partner(s).

2.5.2.3 Opt-out PrEP

Opt-out PrEP eligibility applies to MSM, TGW, FEW and PWID who are in need HIV PrEP based on evaluation and discussion of their sexual health behavior with an CBO counselor. These men and women are at high-risk for HIV infection and will be prescribed HIV PrEP unless they choose not to participate in the HIV PrEP program.

2.5.3 Ineligibility

Ineligible criteria are similar to those used in project Khmer PrEP. Ineligibilities are MSM and TGW who:

- 1) < 15 years of age
- 2) are HIV infected (reactive 4th Gen HIV ab/ag rapid test)
- 3) present symptoms of acute antiretroviral syndrome
- 4) have poor renal function (creatinine clearance (< 50 mL/min)

- 5) do not understand HIV PrEP or are unable or unwilling to take PrEP as instructed
- 6) cannot or do not want to comply with the HIV PrEP visit schedule and collection of specimens
- 7) do not provide oral informed consent to take HIV PrEP
- 8) have exclusionary medical or other conditions (at the discretion of the project physician).

Note: gender-affirming hormone therapy is not a contra-indication for HIV PrEP. PrEP clients with chronic or acute hepatitis B infection may take PrEP under guidance of a physician.¹¹

2.6 HIV PrEP regimens

PrEP clients will have a choice between taking a daily or event-driven HIV PrEP regimen. The pros and cons and suitability of the different PrEP regimens will be discussed with the client by the CBO counselor prior to enrollment. Clients may also decide to shift between regimens, depending on their sexual lifestyle, relationship status and changes therein. Oral co-formulated tenofovir+lamivudine (TDF/3TC) is the preferred PrEP regimen in Cambodia and can be used safely and effectively for considerable time. PrEP can be taken daily (by all KP types) or intermittently (by MSM or TGW not on feminizing hormones) for short periods of time or around single events of possible HIV exposure. Daily continuous PrEP use has been shown to facilitate adherence because of its routine character and the unpredictability of HIV risk in many situations and persons. For MSM who can plan or predict possible exposure and have limited numbers of partners or high-risk sexual encounters, Event-Driven (ED) PrEP may be the preferred regimen. Dosing, starting and stopping rules and adherence to PrEP recommendations are summarized below.

2.6.1 PrEP daily dosing

This regimen is recommended for individuals who are at continuous risk or who cannot predict possible exposure to HIV infection. To be effective (98% protection against HIV infection), PrEP clients must initially take one pill daily for seven days to be considered protected and then continue one pill every day thereafter. If clients opt for daily dosing and will have sexual intercourse during those first seven days, they should protect themselves by using condoms appropriately and consistently. MSM clients initiating ED dosing may elect to continue as daily PrEP by initiating with the two-pill loading dose and daily dosing thereafter. Daily dosing is recommended for TGW, and women may not be protected until they have taken PrEP on seven consecutive days. PrEP issue levels in the neo-vagina and rectum of TGW who are on hormone therapy have been found lower lower, ¹⁴ and ED PrEP may therefore be less protective and is thus not recommended for use this population.

2.6.2 Event Driven dosing

For the cisgender men, transgender women NOT taking gender-affirming hormones and non-binary individual assigned male at birth NOT taking gender-affirming hormones who may have only occasional exposure to HIV infection (such as those in eligibility Types 1 and 2), the ED dosing may be the regimen of choice. ED PrEP is taken in a 2+1+1 dose scheme and has the same efficacy as daily dosing. The 2+1+1 means that two PrEP pills (same PrEP drug as daily dose) are taken at least two hours but not over 24 hours before having sex and is continued as one pill per day for while sexual exposure is continuing and then 2 additional days after it has ended (e.g. two consecutive days after a 'one night' stand. The same individual series and the same efficacy as daily dose and is continued as one pill per day for while sexual exposure is continuing and then 2 additional days after it has ended (e.g. two consecutive days after a 'one night' stand.

2.6.3 Stopping rules

TGW, FEW and PWID who want to stop taking PrEP due to changes in behavior or relationship status, will need to continue taking daily PrEP for seven days after their last exposure. The same applies to MSM, but for this group one pill per day for two days after the most recent exposure is sufficient.

2.7 Visit schedule and activities

The visit schedule and activities of KP-assisted same-day HIV PrEP service delivery will be similar to those used in project KhmerPrEP (see Table 2). Following enrollment (M0), follow-up will occur at month 1 (M1), month 3 (M3) and every 3 months thereafter. CBO staff will be responsible for record taking and the completion of data forms (see **Table 2**). The eligibility checklist in the previous Form 2 can be used by CBO counselors for evaluation and discussion of sexual behavior with potential PrEP clients.

Note: Some of the data collected and procedures conducted at a CBO DIC will be different from those performed at local government and NGO clinics. Due to limited medical capacity, baseline and follow-up clinical exam will be limited to taking of vital signs (heart rate and blood-pressure), evaluation of symptoms of acute retroviral syndrome (acute HIV infection), presence of anogenital discharge (STI) and PrEP side effects (follow-up only). In case vital signs are abnormal, symptoms, discharge or side-effects are present, the client will be referred to the project physician at the supervising medical clinic. This will also be the procedure in case of other medical health issues or emergencies.

,	Table 2 Key-population a	ssisted	HIV PrE	P service d	elivery: visit schedule and activities
				Every 3	
Form	Activities/month	M0	M1	months	Comments
0	Instructions				
1	Client intake	Х			Contact information
2	Eligibility evaluation	Х			Determine eligibility type and discussion
2					of dosing regimens
	Baseline clinical exam	Х	Х	Х	Blood pressure, heart rate, acute
3					retroviral syndrome, anogenital
3					discharge, medical problems, refer to
					physician if indicated
	Laboratory testing				
	4th Gen HIV Ab/Ag	Х	Х	Х	If HIV + refer to physician
	TPHA (syphilis)	Х		Х	If TPHA+ refer to physician
	Creatinine				Clients aged <30 years with no kidney-
					related comorbidities require no
					creatinine clearance (CrCl) testing to
					monitor renal function; clients 30-49
					should have CrCl check 1-3 months after
4					initiating PrEP and if <90ml/min checked
4					every 6-12 months; anyone with history
					of renal disease or > 50 years of age
					should have CrCl 1-3 months after
					initiating and every 6-12 months
					thereafter. Please see the WHO
					recommendations for renal function
					monitoring for oral PrEP Table 1 in the
					Annex 1.
	HCVAb, HbsAg	Х			If reactive refer to physician
5	M1 visit record		Х		

6	Intimate partner violence	Х		Х	Questionnaire
7	Behavioral and adherence questionnaire	Х		Х	Questionnaire
8	Follow-up clinical exam			X	Blood pressure, heart rate, acute retroviral syndrome, anogenital discharge, side-effects, medical problems, refer to physician if indicated
9	Discontinuation				If applicable
10	Transfer out				If applicable
11	Restart				If applicable
12	Pill counting and dispensing	Х	Х	Х	

2.8 Project flow, tasks, and responsibilities

2.8.1 Community-Based Organization

Figure 2 below describes the flow, tasks, and responsibilities of KP assisted same-day HIV PrEP service delivery. From left-to-right, clients walk-in or are reached and recruited by CBO outreach and online-teams or from HIVST. The several activities will be performed by CBO lay counselors including:

- Sexual behavior history is not discussed with PrEP-direct clients unless the client desires to discuss or has questions. However, a sexual history is taken and discussed with all other clients to determine whether they should be further evaluated as opt-in or opt-out PrEP clients.
- CBO counselor will explain and discuss the two dosing regimens (daily and ED) with all PrEP candidates before they proceed to collection of blood and urine. ED will <u>not</u> be discussed with Type 3 clients. They should take daily PrEP.
- Rapid testing of blood and urine will be performed on-site immediately after collection. Scan or photograph the results and send to the physician at Hub site of clinic or hospital for evaluation.

- Meanwhile, other procedures are conducted, such as clinical exam and completion of
 questionnaires. If clients test HIV Ab/Ag negative and have not more than one protein present on
 the creatinine urine dipstick test or creatinine clearance > 50ml/mn, the physician at Hub site
 will notify the on-site pharmacy that HIV PrEP can be dispensed.
- CBO staff will be responsible for record taking using the data entry forms listed in table 2.
- CBO staff will be responsible for request monthly supply of drug and test kits and send to Hub site.

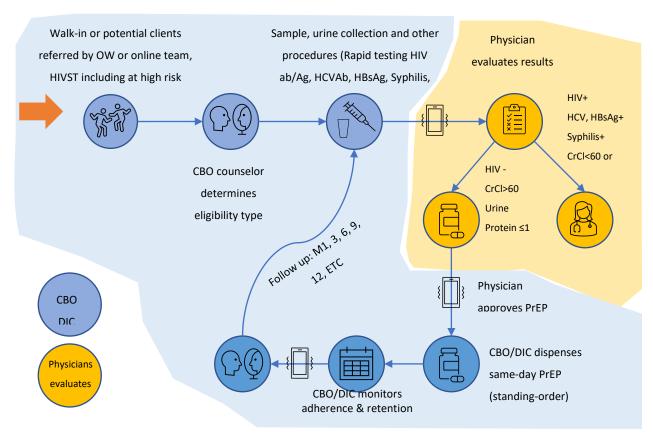


Figure 2: Key Population-assisted same-day HIV PrEP service delivery

2.8.2 Supervising Medical Clinic (Hub site)

- Physicians will review the scan documents (as reference and upload to DHIS2)-clinical criteria
 (Form 3) and lab test result (Form 4) and then, immediately inform or approve to CBO through
 PrEP real time database
- Physicians at Hub site will prescribe PrEP drug to PrEP client after approval by clicking "yes" on prescription box in DHIS2 tracker

- If clients test HIV Ag/Ab positive, they will be referred to the project physician for further evaluation and management:
 - All those who test hepatitis C virus (HCV-Ab) or hepatitis B surface antigen (HBsAg)
 reactive or who have a reactive *Treponema pallidum* hemagglutination assay (TPHA),
 will be referred to the Hub site for further evaluation and management.
 - Any client with more than 1+ protein present in urine, will be referred to a commercial lab for creatinine clearance testing. If <50ml/min, they will be referred to Hub site. If >50ml/min, the results will be sent to Hub site for confirmation by the Hub physician that PrEP can be initiated or stopped.
- The pharmacist and stock manager of Hub site will compile the quantities of ARV PrEP drugs and test kits which request by CBO before submission to NCHADS for the quarterly supply.

2.8.3 NCHADS and technical advisory staff

- Technical team of NCHADS including ACU, BCC and STI units: Will oversee the PrEP implementation at all stages of implementation including demand creation. NCHADS technical team will provide training to CBO before starting PrEP delivery.
- **Data Management Unit:** CBO, CBO PrEP implementation procedure, data management and reporting using DHIS 2 tracker are under the management of data management unit of NCHADS.

2.9 Adherence and retention

Importance of PrEP adherence will be addressed at enrollment and every follow-up visit by an CBO counselor. During follow-up, counseling will be supported by client pill taking and exposure self-report and left-over pill-count. Those who are poorly adherent but are willing and eligible to continue PrEP should be given additional adherence counseling or referred to peer-based adherence support services. Those with persistent insufficient adherence (<4 pills per week for daily use and repeated unprotected exposures for intermittent use) after counseling may compromise both PrEP efficacy and individual safety, which may lead to HIV drug resistant and should therefore be taken off PrEP (to be decided after consultation of the Hub physician).

Apart from PrEP adherence, project retention is of significance. Retention will be maximized by arranging fixed visit dates and times, appointment cards for participants, SMS, social media or email reminders and direct contact by an CBO counselor by phone call or social media application in case of no-show. Clients

will be considered lost-to-follow-up if two consecutive visits are missed. Since HIV exposure may not be continuous, clients may decide to discontinue PrEP and restart later. In this case, discontinuation, and restart forms (Forms 9 and 11) will need to be completed. If a client is referred to a clinic or hospital for medical or other reasons, a transfer out form is available (Form 10). This may be followed by completion of a restart form should the client return and reinitiate PrEP.

2.10 On-site pharmacy

Good pharmacy practices are essential for successful implementation of HIV PrEP service delivery. This includes proper storage, stock management, and record-taking of dispensed, returned and disposed HIV PrEP drugs. Drugs need to be stored in a locked cabinet with controlled access by designated persons only. Records need to be taken of whom unlocked the cabinet on what day and time, and how many bottles of drugs were taken out. Room temperature should be monitored to assure that the drug will not be damaged by excess heat. A dedicated CBO staff member should be tasked with management of the onsite pharmacy and timely ordering of sufficient drugs to serve new and returning HIV PrEP clients. The onsite pharmacy manager will also oversee the ordering, storage and stock management of blood and urine collection materials, labelling, rapid tests (HIV, TPHA, HCV, HBsAg, urine protein and safe disposal of used materials and laboratory waste.

3 Coordination and monitoring

3.1 Coordination and technical support

Monthly coordination meetings will be arranged to review implementation as well as to address any challenges that may arise during this time. CBO staff will set up the date and time schedule of meetings, prepare the agenda and take minutes. Attendees will be from CBO, NCHADS, FHI360 EpiC and other partners. Technical support will be provided as needed by NCHADS and FHI360 EpiC staff.

3.2 Monitoring and evaluation

The standard tool for PrEP monitoring and evaluation will be used to track progress of KP-assisted HIV PrEP service delivery. CBO staff will be responsible for data recording and entry using real-time PrEP data tracker using DHIS2 system that is part of the national prevention database (NPD) (link here: https://npd.nchads.org). The real-time PrEP data tracker in DHIS2 will automate aggregate data from every

PrEP site into the national prevention database and make data available for users at site level for both community and health facility, provincial level and the national level so that key stakeholders involved in the PrEP implementation, technical support and management will be able to access PrEP data (PrEP dashboard in DHIS2) and use data to improve program performance. Data management unit (DMU) of NCHADS will review data in DHIS2 system frequently (biweekly basis) to ensure consistency, accuracy and completeness of reported data in the systema and will communicate with PrEP sites and CBOs to ensure data quality.

Key indicators of KP-assisted same-day HIV PrEP service delivery for MSM and TGW are:

- Number of clients who were offered HIV PrEP (by client types)
- Number and percent of clients who underwent eligibility screening
- Number and percent of clients by type of eligibility or reasons for ineligibility
- Number and percent of clients who initiated PrEP (same-day or otherwise and by regimen, daily or ED)
- Number and percent of clients retained by visit number (M1, M3, M6, M9, M12 and so on)
- Number and percent of clients with PrEP interruption (by discontinuation, transfer out, restart and lost-to-follow-up).
- Number and percent of HIV seroconverted clients
- Number and percent of HIV seroconverted clients who were successfully referred for ART

It is very important to have a frequently meeting, can be monthly and quarterly, among PrEP implementers under the leadership of NCHADS to review data of core indicators to see the progress of the implementation, identify challenges, and define possible solution to overcome challenges.

4 Training

Before KP-assisted same-day HIV PrEP delivery can be implemented, appropriate training of community members who will serve as lay providers is crucial. The following training schedule (see table 3) aims to educate CBO staff members, counselors, and other volunteers about the essentials of KP-assisted PrEP delivery and all activities, roles and responsibilities that are part of this process.

Table 3 Key-population assisted HIV PrEP service delivery: training schedule				
Subjects	Training methods	Time		
1 PrEP		2 hours		
What is PrEP, why do we need it and for who is it?	Lecture, PowerPoint			
KP-assisted same-day HIV PrEP service delivery,	presentation			
why do we need it?	• Q and A			
 How to take PrEP? different regimens? 				
2 Project flow, visit schedule, and activities		2 hours		
PrEP education	Lecture, PowerPoint			
Eligibility screening	presentation			
Discussion of PrEP regimens	• Q and A			
Enrollment and follow-up visits				
Record taking				
Clinical exam	Lecture, PowerPoint	2 x 2		
Specimen collection	presentation	hours		
Rapid testing	Practice collection and			
Scanning, communicating and storage of results	testing of specimens			
Disposal of medical waste	Practice questionnaire taking			
Behavioral, adherence, and intimate partner	Q and A			
violence questionnaires				
Motivational counseling	Lecture, PowerPoint	2 hours		
Adherence counseling	presentation			
 Appointment scheduling and retention 	Role-play and practice in			
Discontinuation, transfer-out and restart	pairs			
	Q and A			
3 Good on-site pharmacy practices	Lecture, PowerPoint	2 hours		
Receiving, storing and controlled access of drugs	presentation			
and test kits	• Q and A			
Stock management and ordering				
Receiving results of HIV and Cr testing				
Drug dispensing and disposal of returned drugs				
Record keeping				

Table 3 Key-population assisted HIV PrEP service delivery: training schedule				
Subjects	Training methods	Time		
4 Summary and post-training knowledge assessment	 Lecture, PowerPoint presentation Self-completed questionnaire Q and A 	2 hours		
Duration of training	•	14 hours		
		=2.5 days		

Annex 1: Renal function monitoring for oral PrEP in Cambodia

Population		Initiation	Follow-up
Kidney-related comorbidities	Age		
No	<30	No	No
No	30-49	No	At M3 after initiation, If M3 (CrCl<90ml/min), Follow up every 6 months
No	≥50	Yes	Every 6 months from M0
Yes	Any age	Yes	At M3 and every 6 months after M3

^{*}Note: at any time, if PrEP clients suspected of Kidney-related comorbidities develop, then the CrCL should immediately done.

References

- 1. Phalkun M. Integrated Biological and Behavioral Survey among Female Entertainment Workers (IBBS 2016).

 Available at: https://www.nchads.org/Publication/SSS/EW%20IBBS%202017 170417 eng.pdf (Verified July 2021).
- 2. Mburu G, Chhoun P, Chann N, Tuot S, Mun P, Yi S. Prevalence and risk factors of HIV infection among people who inject drugs in Cambodia: findings from a national survey. Subst Abuse Treat Prevent Pol. 2019;14(1):42.
- 3. Phalkun M. Integrated Biological and Behavioral Survey among Men Who Have Sex with Men and Transgender Women in Cambodia 2019. Available at:

https://www.nchads.org/Publication/SSS/IBBS MSM n TW 2019 eng.pdf (Verified July 2021).

- 4. National Center for HIV/AIDS, Dermatology and STD. Key populations size estimates Spectrum/Asian Epidemic Model. Phnom Penh: Ministry of Health; 2021.
- 5. van Griensven, F. Assess effective HIV PrEP service delivery models and demand creation activities for key-populations in Cambodia. Phnom Penh: UNAIDS; 2021.
- 6. Zablotska IB, Selvey C, Guy R, Price K, Holden J, Schmidt HM, et al. Expanded HIV pre-exposure prophylaxis (PrEP) implementation in communities in New South Wales, Australia (EPIC-NSW): design of an open label, single arm implementation trial. BMC Public Health. 2018;18(1):210.
- 7. US Centers for Disease Control and Prevention. Recommendations for HIV Screening of Gay, Bisexual, and Other Men Who Have Sex with Men United States, 2017. MMWR Morb Mort Wkly Rep. 2017;66:830-32.
- 8. UNAIDS, Unitaid, WHO. PrEP Innovation and Implementation in Asia and the Pacific: Virtual Regional Discussion (Webinar), Dec 15-16, 2020. Available at: https://www.facebook.com/unaids.asiapacific/ (Verified July 2021).
- 9. Diversifying PrEP delivery models—what about differentiated service delivery for PrEP? Available at: https://www.avac.org/blog/diversifying-prep-delivery-models (Verified July 2021). .
- 10. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV. Recommendations for a public health approach. Second edition. Geneva: World Health Organization; 2016. Available at: https://www.who.int/hiv/pub/arv/arv-2016/en/ (Verified July 2021).
- 11. Concept-note on HIV pre-exposure prophylaxis (PrEP) implementation in Cambodia. Phnom Penh: Ministry of Health; 2019. Available online at: https://niph.org.kh/niph/uploads/library/pdf/GL199_PrEP_concept_note-EN.pdf (Verified July 2021).
- 12. Technical update on treatment optimization: pharmacological equivalence and clinical interchangeability of lamivudine and emtricitabine: a review of current literature. Geneva: World Health Organization; 2012. Available at: https://www.who.int/hiv/pub/treatment2/lamivudine emtricibatine/en/ (Verified July 2021).
- 13. Wu HJ, Wen-Wei Ku S, Chang HH, Li CW, Ko NY, Strong C. Imperfect adherence in real life: a prevention-effective perspective on adherence to daily and event-driven HIV pre-exposure prophylaxis among men who have sex with men–a prospective cohort study in Taiwan. J Int AIDS Soc. 2021;24(5):e25733.

- 14. Shieh E, Marzinke MA, Fuchs EJ, Hamlin A, Bakshi R, Aung W, et al. Transgender women on oral HIV preexposure prophylaxis have significantly lower tenofovir and emtricitabine concentrations when also taking oestrogen when compared to cisgender men. J Int AIDS Soc. 2019;22(11):e25405.
- 15. World Health Organization (WHO). Technical brief: What's what's the 2+1+1? Event-driven oral pre-exposure prophylaxis to prevent HIV for men who have sex with men: update to WHO's recommendation on oral PrEP. Geneva: WHO; 2019. Available online at: https://apps.who.int/iris/bitstream/handle/10665/325955/WHO-CDS-

HIV-19.8-eng.pdf (Verified July 2021).