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Rapid Formative Assessment on PrEP Implementation among People who Inject Drugs



Myitkyina and Waimaw Townships, Kachin State
January, 2020



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Contents

Acknowledgements	1
Acronyms and Abbreviations	2
Executive Summary	3
1. Background	5
1.1. PWID and HIV in Myanmar	5
1.2. Study Rationale and Objectives	6
2. Methodology	7
2.1. Study Design, Population, and Sites	7
2.2. Sampling and Sample Size	7
2.3. Data Collection Tools and Procedures	7
2.4. Data Management and Analysis	8
3. Results	9
3.1. Study Population	9
3.2. Providers' Perspectives	13
4. Discussion	18
4.1. Study Limitations	19
5. Conclusion and Recommendations	20
5.1. National Level	20
5.2. Operational Level	21
Annex I: FGD Guide for Key Populations	22
Annex II: KII Guide for Service Providers	25
Annex III: PrEP Background Information Provided for FGD Participants	28
References	32

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Acronyms and Abbreviations

AHRN	Asian Harm Reduction Network
ART	Antiretroviral Therapy
DIC	Drop-in centre
FGD	Focus group discussion
HTS	HIV testing services
KII	Key informant interview
KP	Key population
MSM	Men who have sex with men
NGO	Non-governmental organisation
NSP	Needle and syringe program
OST	Opioid substitution treatment
PrEP	Pre-exposure prophylaxis
PWID	People who inject drugs
SOP	Standard operating procedure
TG	Transgender

Executive Summary

Myanmar is one of the countries with a fast-track commitment to end AIDS by 2030. In 2012 the World Health Organisation first recommended pre-exposure prophylaxis (PrEP) as an essential tool for controlling worldwide HIV epidemics. Myanmar's National Strategic Plan on HIV and AIDS, 2016-2020 identifies PrEP as a priority intervention for reducing new HIV infections and recommends developing model PrEP programs for key populations. Prior to these demonstration projects, the acceptability of PrEP among target populations was assessed to understand individual, interpersonal, and structural factors that may influence PrEP acceptability and uptake. This assessment aimed to explore awareness, acceptability, and preferences for PrEP utilisation among people who inject drugs (PWID), as well as perspectives of current HIV prevention service providers.

While nearly all PWID included in the assessment had knowledge regarding the risk of HIV transmission from sharing needles, none had heard of PrEP prior to participation in the study. Most FGD participants receive harm reduction services, including needle and syringe programs and HIV testing, through drop-in centres such as those where the study took place. Nearly all PWID expressed willingness to take PrEP if it became available after learning about it as an additional HIV prevention method.

Willingness to take PrEP would increase if it is provided through NGOs with existing PWID-friendly services. Factors decreasing willingness to use PrEP included associated costs, possible stigma and discrimination from the community, the need for daily dosing, total duration of PrEP usage, and cost sharing. The requirement for laboratory investigations every three months did not seem to affect participants' perceived willingness to use PrEP.

Participants reported that they would like to receive detailed PrEP information such as dose, duration, and frequency; HIV prevention effectiveness; side effects; and requirements for further investigations. They shared that they would prefer to receive information from medical doctors or outreach workers associated with NGOs and at weekly drop-in centre meetings. Additional recommendations included travel allowances to attend clinic appointments and that the waiting time be reduced.

Many participants said their HIV preventive behaviours such as avoid sharing needles and syringes and using condoms may not change if they take PrEP, although service providers interviewed as key informants expressed concerns about risk compensation.

Providers perceived that PWID would be interested in PrEP but predicted decreased interest with the need for daily dosing and cost sharing. They also recognised the need for comprehensive information. Respondents' general perception of PrEP was positive, and they reported that they would encourage PWID to take PrEP

with appropriate support. Support needs they identified included capacity building, treatment guidelines, a separate PrEP team, a laboratory facility in the service centre, and community advocacy.

Several possible challenges at the clinic and administrative levels were identified by interview respondents. Clinic-level challenges include loss-to-follow-up and the corresponding burden for providers to monitor these cases, as well as service interruptions due to anti-drug group activities and armed conflict. At the administrative level, challenges included careful planning for continuation after pilot project, and the cost burden of PrEP, which could potentially reduce the budget for other services.

Based on the finding of the assessment, several recommendations can be made. Some key recommendations include comprehensive and standardised treatment guidelines, trainings, and a communication strategy developed at the national level. With strong inputs on capacity building, field level activities should be based on the national strategy to ensure consistency across implementing partners, including outreach, counselling, follow up activities, and integration with other harm reduction services.

1. Background

Myanmar is one of the countries with a fast-track commitment to end AIDS, with ‘zero new infections, zero discrimination, and zero AIDS-related deaths’, by 2030 (1). The country’s HIV epidemic is concentrated among key populations (KPs), including people who inject drugs (PWID), female sex workers (FSW), men who have sex with men (MSM), and transgender (TG) persons, who are at higher risk for HIV due to the prevalence among these groups and high-risk behaviours (1). In 2012 the World Health Organisation (WHO) first recommended pre-exposure prophylaxis (PrEP) as an essential tool for controlling HIV epidemics worldwide (2). The recommendation was expanded in 2015 to people who are at substantial risk of HIV infection, stating that they should be offered PrEP as part of a comprehensive combination package of prevention initiatives that includes consistent condom use, risk-reduction counselling, and HIV testing services (HTS) (2).

Myanmar’s National Strategic Plan on HIV and AIDS, 2016-2020 identifies PrEP as a priority intervention under Strategic Direction 1 for reducing new HIV infections and recommends developing model PrEP programs for KPs (1). Following a series of consultations and a core HIV Technical and Strategy Group meeting between 2018 and 2019, the National AIDS Program approved implementation of PrEP demonstration projects. In collaboration with key implementing partners, these projects will target MSM and TG persons in Yangon and PWID in Myitkyina and Waimaw, Kachin State. The projects will inform the country’s policy for adoption and scale-up of PrEP implementation in the national HIV response.

1.1. PWID and HIV in Myanmar

More than 11 million people inject drugs globally, approximately one in eight of whom are living with HIV (3). Injection drug use accounts for approximately 10% of HIV infections globally and about 30% of those outside sub-Saharan Africa. In Myanmar, HIV prevalence among PWID is about 35%, with the highest prevalence in Kachin State (4). PWID in the country are primarily males between the ages of 20 and 40 living in Kachin and Shan States and Sagaing, Mandalay, and Yangon Regions.

WHO recommend harm reduction as an evidence-informed approach to HIV prevention, treatment, and care for PWID (2). Comprehensive harm reduction service packages are recommended to include needle and syringe programs (NSPs); opioid substitution therapy (OST); HTS; antiretroviral therapy (ART); condom distribution; and prevention and treatment of sexually transmitted infections, tuberculosis, and viral hepatitis, among other services. Accessibility to harm reduction services are restricted or limited in many settings due to the criminalisation of drug use, stigma, and discrimination against PWID. These factors may also affect PWID’s access to other treatment options, such as PrEP.

1.2. Study Rationale and Objectives

Prior to the demonstration projects, the acceptability of PrEP among target populations was assessed to understand individual, interpersonal, and structural factors that may influence PrEP acceptability and uptake. This formative work not only assessed the potential utility of PrEP as part of the current HIV prevention package but also will support future implementation strategies to promote PrEP uptake and adherence. This assessment aimed to explore awareness, acceptability, and preferences for PrEP utilisation among PWID, as well as the perspectives of current HIV prevention service providers.

The assessment's specific objectives are as follows:

1. To assess HIV awareness, risk perception, and prevention strategies among KPs
2. To assess PrEP awareness and acceptability as an additional HIV prevention method among KPs
3. To identify KPs' needs and preferences for PrEP communication, utilisation, and program delivery
4. To explore service providers' perspectives on PrEP programming for KPs
5. To explore potential facilitators and barriers to the uptake and effectiveness of PrEP among KPs

2. Methodology

2.1. Study Design, Population, and Sites

A community-based, cross-sectional, exploratory study was conducted using focus group discussions (FGDs) and key informant interviews (KIIs). FGDs were carried out among PWID and KIIs among service providers. The study took place in a drop-in centre (DIC) operated by the non-governmental organisation (NGO) Asian Harm Reduction Network (AHRN) in Waimaw Township, and in the community with support from a local PWID group in Myitkyina Township, Kachin State. DICs offer a range of health and counselling services for PWID and their partners. The PWID who participated in this study were clients of the centres, recruited with support from local NGO staff and PWID peers.

Inclusion Criteria:

- PWID over 18 years old, able and willing to provide informed consent
- Relevant service providers from the study sites

2.2. Sampling and Sample Size

Potential FGD participants were recruited through peer educators or NGO staff affiliated with AHRN. After an initial discussion with community service providers, a purposive sample of 33 participants aimed to capture a broad representation of the community were invited to participate.

A program coordinator, a clinician, and an outreach worker from the study sites were also purposively recruited.

2.3. Data Collection Tools and Procedures

Data collection was done during the first week of January 2020. The FGD and KII guides in Annex I and II, respectively, were used as data collection tools. Both guides were revised and adapted to fit the local context as much as possible.

Focus Group Discussions (FGDs)

Four FGDs explored participants' general HIV risk perceptions, existing risk management strategies, awareness and acceptability of PrEP among PWID, and factors that participants would consider important to PrEP uptake. Study participants were provided information on the purpose of the FGD and the study background. Their

confidentiality was assured during and after the FGDs. Participation was voluntary, and they were informed that they could withdraw at any point. Each participant gave informed consent prior to participating in the study.

FGDs were conducted in Myanmar language with one moderator and two note takers. The number of participants in each FGD ranged from 8 to 10, and the average time was 90 minutes. A tape recorder was used in each session with the permission of participants. Participants and the moderator sat in a circle to encourage communication and interaction within the group. The moderator remained neutral and encouraged a balance of contributions to the discussion from all participants and ensured that all relevant topics were covered. Operational problems were discussed directly after each FGD, and issues were taken into consideration for the next group.

Key Informant Interviews (KIIs)

KIIs explored providers' perception of the questions addressed in the FGDs, their perception and knowledge of PrEP, and potential facilitators and barriers to implementation. All KIIs were conducted in Myanmar language, with the semi-structured KII guide used to reflect the research questions and provide consistency and coherence.

2.4. Data Management and Analysis

Transcription of FGDs and KIIs were done in Myanmar language with the aid of audio recordings and detailed field notes. Code numbers were used in the transcriptions to mask participants' identities. Thematic analysis was used to analyse the data. Participants' sociodemographic information was entered into Microsoft Excel 13, and simple descriptive analysis was done in Stata 16.

Several efforts were made to ensure data security. The recorded audio files were immediately transferred after each interview to a password-protected laptop. Only the researcher and partners involved in the study had access to the data. After research completion, the data files related with this study reside only with UNAIDS and implementing partners executing the study.

3. Results

3.1. Study Population

3.1.1. Participant Characteristics

Table 1 describes the demographic background of the 33 PWID who participated in the four FGDs. All but 3 of the participants (91%) were male, and more than one-third (36%) were in the age range of 20 to 24 years. Over half (58%) were single, and most (61%) had attained high school level education or higher. Nearly half the participants (45%) were unemployed or worked odd jobs, with the remainder nearly evenly split between farmers (15%), drivers (18%), and skilled labourers (21%).

Table 1: Sociodemographic characteristics of FGD participants (N=33)

Characteristics	Number	Percentage (%)
Sex		
Male	30	90.9
Female	3	9.1
Age group (Years)		
<20	1	3.0
20-24	12	36.4
25-29	9	27.3
30-34	4	12.1
>35	7	21.2
Marital status		
Single	19	57.6
Married	12	36.4
Divorce/Widow	2	6.0
Level of education		
Primary school	2	6.1
Middle school	11	33.3
High school	16	48.5
University	4	12.1

Occupation		
Unemployed	9	27.2
Odd job	6	18.2
Farmer	5	15.2
Skill labour	7	21.2
Driver	6	18.2

3.1.2. HIV Awareness and Risk Perception

All participants recognised that injection drug use increased their risk of contracting HIV, as well as hepatitis B and C, and most participants stated that needle sharing was the main factor in transmitting these infections. However, a few participants were not informed about HIV transmission and had misconceptions about how it could be transmitted. For example, one participant thought that HIV infection was a result of a long history of injection drug use, regardless of sharing contaminated needle and syringes (see Table 2).

Participants utilised harm reduction services such as those offered at DICs to mitigate their HIV risk. Of the services provided, NSPs were the most used, as some participants expressed difficulty obtaining new needles and syringes due to fear of arrest. Hepatitis B and C screening and HTS were also commonly accessed services, and a few also shared that they had received the hepatitis B vaccine.

They expressed satisfaction with the harm reduction services they currently received from NGOs, especially the healthcare services and access to OST. Table 2 illustrates participants' perceptions of HIV and harm reduction services.

Table 2: Participants' perceptions of HIV risk and harm reduction services

<p>HIV risk perception</p> <p><i>"People who inject drugs can get HIV, Hepatitis B and C infection...from sharing needles."</i></p> <p><i>"After long duration of injecting drug use, one will get HIV infection. Don't know how it's transmitted."</i></p>
<p>Risk behaviours</p> <p><i>"Sometimes, we dare not take needles and syringes as we would be arrested. That's why we clean the old one and use them again."</i></p>
<p>Perception of services</p> <p><i>"Here at DIC, we usually take painkillers, and we can also get treatment for minor illnesses."</i></p>

3.1.3. PrEP Awareness and Willingness to Take

None of the FGD participants had heard of PrEP prior to recruitment for this formative assessment. After learning the basics of PrEP*, nearly all participants expressed a willingness to take it. After learning the need for daily dosing and the importance of consistent adherence, half (n=16) were still willing to take PrEP.

The requirement for three-monthly HIV testing was not found to affect participants' willingness to use PrEP, but several participants raised concerns related with the necessary duration, preferring it to be a short-term regimen (see Table 3). A facilitating factor for acceptability was if it were provided through NGOs where harm reduction and other PWID-friendly services were already provided.

When exploring characteristics of PWID who would be more interested in PrEP, participants reported that PWID who engage in unsafe sex, use additional stimulants, and practice other high-risk behaviours would be more likely to have an interest in using PrEP. Age and sex were not considered to be relevant factors in determining willingness to take PrEP. The possibility of changes in risk behaviours or risk compensation after initiating PrEP was also discussed. Many participants said that their current preventative behaviours, such as avoiding needle sharing and using condoms, would not change if they used PrEP. This was not, however, necessarily found to be related with PrEP, as the choice to share or use discarded needles depended primarily on the availability and accessibility of new needles and syringes at any time.

Participants also addressed possible barriers to accessing PrEP, which could be categorised into personal and interpersonal levels. Table 3 describes examples of these barriers and other factors affecting PrEP acceptability among PWID.

Adherence, travel, and cost requirements were at the top of the personal-level barriers identified by participants. Cost was identified as a major barrier, as most participants did not have regular income and may not have enough money left over after purchasing drugs. Willingness to take PrEP was further reduced among these participants if they would have to share the cost, but those with a regular income stated that they would be willing to pay up to 10,000 kyats (about 7 USD) per month for PrEP. Other related costs, such as for travel and additional investigations further reduced participants' willingness to use PrEP if it were made available.

Table 3: Factors affecting participants' willingness to take PrEP

Preferred access point
<i>"This place (DIC) would be the best to receive the drugs (PrEP). Selecting NGO clinics and offices where many people who use drugs come would be OK."</i>
Stigma
<i>"Some may not take these drugs for prevention as they are afraid that they would be regarded as having HIV infection."</i>

* See Annex II for the background information on PrEP provided to participants

Risk behaviours

“Sometimes, people who inject drugs shared syringes and needles. It’s better to take such prevention.”

Duration

“It’s possible if it is for short duration; let’s say six months like TB treatment.”

At the interpersonal level, stigma was the primary concern raised. Participants were concerned that taking PrEP might suggest to others that they were receiving treatment for HIV. They also raised concerns about experiencing stigma if PrEP were offered from public hospitals and clinics, where services are not necessarily harm-reduction-informed or PWID-friendly.

3.1.4. Perceived Information Needs and Preferred Channels

Several informational needs were identified in the FGDs. These included daily dosage, the total needed duration, frequency of follow-up appointments, side effects, and need for further investigations. The preferred communication channels for disseminating the required information were medical doctors and community outreach workers associated with NGO clinics. Weekly meetings at DICs were also identified as useful and suitable ways to spread information.

3.1.5. Respondents’ Recommendations

To address the factors affecting PrEP uptake among PWID and information needs, participants had some recommendations for the implementation of PrEP programs. These factors and recommendations can be separated into three levels: individual, interpersonal, and structural.

Individual Barriers

Dosage and duration were major areas of concern. Participants recommended monthly or three-monthly prescriptions and follow-up requirements, as PrEP users would be unlikely to want to attend clinics daily. They also suggested that the program would be more successful if PrEP were only to be taken for a short time.

As cost was another concern, participants recommended a travel allowance for attending health education sessions and PrEP appointments. This was in addition to free or heavily subsidised PrEP provision.

Interpersonal Barriers

Due to low PrEP awareness and mistrust stemming from stigma and discrimination, participants recommended disseminating information through staff such as medical doctors and outreach workers associated with DICs and NGO clinics and through weekly DIC meetings.

Structural Barriers

The strongest suggestion heard from participants was the preference for DICs or other NGO clinics as PrEP access points. Participants recommended against distribution at government health facilities. This was due in large part to the stigma PWID experience at these facilities. As one participant noted, “We don’t want to go to public hospitals or clinics for PrEP because all the staffs there are always busy, so they can’t spare their time for us, I think, and sometimes we are treated badly”.

3.2. Providers’ Perspectives

3.2.1. PWID’s Awareness, Willingness, and Readiness to Use PrEP

KII respondents recognised that there was no awareness or knowledge about PrEP among PWID, as demand-creation activities were not yet initiated. Once awareness was raised, they anticipated considerable interest. This was evidenced by interest shown by PWID in other harm reduction and prevention services, including NSPs and recently begun hepatitis B and C screenings. In particular, they expected PWID who were stable with OST or with high-risk sexual behaviours would be interested in accessing PrEP.

Table 4: KII respondents' perspectives on PrEP provision for PWID

Willingness to take PrEP
<i>“I think they will be interested in taking PrEP because we experienced that they all were interested in Hepatitis B/C screening a few months ago.”</i>
<i>“Of course, they will surely be interested in PrEP...because they are willing to prevent HIV transmission and take needles from us.”</i>

PrEP providers
<i>“We already established trust building with our clients since we’ve been working for them for many years. If we initiate PrEP, acceptance would be high, I think.”</i>

Barriers to uptake and adherence
<i>“Provision of PrEP is OK, but if we ask for regular follow-up, then transportation allowance would be a problem. We need to make follow-up if they don’t come regularly. They would stop taking the drugs by themselves since they are HIV negative.”</i>

Risk compensation
<i>“They would do needle sharing again since they would consider that they’ve already taken drugs for prevention. And they may not use condoms as well.”</i>

Perceived factors affecting acceptability and willingness to use PrEP included cost, access, and dosing. Respondents believed providing PrEP through NGOs already working with PWID providing harm reduction services would be a facilitator to acceptability as rapport and trust have already been built among the organisations and their clients. High costs and daily dosing were both identified as possible barriers, however, potentially decreasing willingness to use PrEP. Table 4 illustrates some provider perspectives on PrEP acceptability among PWID.

Harm Reduction Services

PWID's interest in currently existing harm reduction services was cited by respondents as evidence for their expectations of high acceptability of PrEP among PWID. Harm reduction services currently available in the study townships include NSPs, condom distribution, OST, HTS and other testing services, overdose prevention and management education, and a range of other targeted information and education. NSPs are the most accessed service, followed by DIC services, OST referral, primary health care, and condom distributions. Respondents noted the difficulty in implementing NSPs at injection sites and reported that they would like to distribute needles and syringes at drug-selling sites and other locations more accessible to PWID, which they perceived would likely further reduce needle sharing.

ART expansion was identified as a high priority, as HIV prevalence is high among PWID in the study area. Decentralised sites are present in the public sector, but respondents noted that PWID tend to be reluctant to seek care in public sector facilities due to the illegality of their activities and possible negative attitudes from providers who are not as familiar with the population as those working at DICs and other PWID-friendly sites.

3.2.2. Perceived Information Needs

As PWID are generally unaware of PrEP, KII respondents indicated that comprehensive information would need to be provided to create demand and increase readiness for PrEP uptake. The following information needs were identified:

- Effectiveness for HIV prevention
- Full instructions (including dose and frequency)
- Duration
- Risk of HIV transmission after taking PrEP
- PrEP appropriateness for their sexual partners
- Drug source or origin

3.2.3. Barriers to PrEP Use

Service providers identified potential barriers to PrEP uptake and usage by PWID at the individual, interpersonal, and structural levels. These barriers, along with recommendations for addressing them, are summarised in Table 5.

Individual-level Barriers

Poor adherence and loss-to-follow-up were identified as potential barriers at the individual level. Respondents hypothesised that PrEP users may not continue taking PrEP without regular follow-up appointments. However, they would likely require a transportation allowance to attend appointments, as many PWID do not have regular income. A further potential challenge that was identified was risk compensation. Some providers thought needle sharing might increase and condom usage decrease following PrEP initiation.

Interpersonal-level Barriers

Stigma was the primary interpersonal-level barrier identified. This included potential stigma from healthcare providers if PrEP were to be provided at public healthcare facilities and from the community if PrEP users were misidentified as living with HIV.

Table 5: Potential barriers to PrEP access and adherence, with recommended solutions

Potential barriers	Recommended solutions
<p>Individual level</p> <ul style="list-style-type: none"> • Adherence and loss-to-follow-up • Risk compensation • PrEP and other associated costs 	<ul style="list-style-type: none"> • Easy access to services ('one-stop') integrated with existing harm reduction services • Positive healthcare environment (from NGO, not public hospital) • Education campaign • Travel allowance
<p>Interpersonal level</p> <ul style="list-style-type: none"> • Stigma 	<ul style="list-style-type: none"> • Community-wide education and advocacy campaign • Distribution from NGOs already familiar with the target population

Structural level	
<ul style="list-style-type: none"> • Service interruption due to anti-drug group activities and armed conflict • Financial burden on healthcare sector • Lack of human resources • Lack of awareness among service providers 	<ul style="list-style-type: none"> • Community-wide advocacy campaign • Careful planning for continuation after the pilot phase • PrEP-specific team and clinic • Capacity building and education

Structural-level Barriers

Several barriers to PrEP implementation were identified at the structural level, primarily around the additional burden put on the healthcare sector. The cost on both the public and private sectors might increase medical costs and reduce program budgets for current prevention activities. In addition to the capacity building required to provide PrEP services, service providers would also gain the potential barrier of monitoring and tracking loss-to-follow-up cases, which respondents expected would be plentiful.

Uncontrollable conditions that might arise in the community, namely the activities of anti-drug vigilantes, were identified as additional structural-level barriers to PrEP program implementation. Previous forced detox activities by such groups resulted in ART and tuberculosis treatment interruption. Furthermore, ongoing armed conflict in the region could also lead to service interruption.

3.2.4. Providers' Views on PrEP

All respondents indicated that they would encourage PWID to take PrEP, as even sharing a single needle and syringe carries a risk of HIV transmission. They also all expressed a favourable opinion towards harm reduction and considered PrEP an additional preventative measure alongside NSPs and other services.

Prior to initiating PrEP programs, however, respondents identified several needs, including capacity building, standard operating procedures (SOPs), and standardised treatment guidelines. They also noted that the community may not be favourable to PrEP, so advocacy would be necessary as well.

3.2.5. Providers' Recommendations

Based on their perceptions of PWID's and service providers' needs, KII respondents had recommendations to consider prior to PrEP initiation. Primarily, they stated that PrEP must be carefully planned within the cascade of harm reduction services. Recommendations can be categorised into three major themes: user eligibility, communication strategy and capacity building, and infrastructure and site readiness.

User Eligibility

Providers recommended strong consideration be given to identifying whom to provide PrEP to, as this may affect uptake and adherence. They recommended prioritising PWID who are stable on OST and to consider providing PrEP for the sexual partners of PWID, who are also at risk for HIV.

Communication Strategy and Capacity Building

PrEP awareness is low in the community, including among service providers. Community advocacy was recommended as a priority prior to implementation, as well as capacity building for service providers. Alongside capacity building is the need for SOPs and standardised treatment guidelines.

Infrastructure and Site Readiness

Respondents worried that PrEP programs would put an additional burden on service providers and recommended extra human resources, such as a separate team dedicated to PrEP programming. They specifically recommended a medical officer, a nurse, and a treatment facilitator, as well as a laboratory facility and staff. This would be done with the purpose of creating a “one-stop service” for PrEP provision that is a friendly and enabling environment for PWID and is integrated with existing harm reduction services. A positive environment would also require that PrEP not be dispensed in government healthcare facilities but by NGOs who already have experience with the population.

Finally, providers recommended careful planning for the continuation phase following the pilot project and to consider the possibility of harmful effects after PrEP roll-out. The potential harmful effects specified included the additional cost to government and the healthcare sector, service interruption due to conflict, and loss-to-follow-up.

4. Discussion

This qualitative assessment aimed to explore the awareness, readiness, and acceptability of PrEP among PWID and the perspectives of service providers on future PrEP implementation.

While nearly all PWID included in the assessment had knowledge regarding the risk of HIV transmission from sharing needles, none had heard of PrEP prior to participation in the study. This demonstrates that NGOs' harm reduction and health outreach activities in the study areas have been educational, which may provide a channel for disseminating PrEP information and dispensing PrEP when it is available. Participants expressed their satisfaction with harm reduction services they received, further reflecting the success of these organisations, and most expressed willingness to take PrEP if it became available as an additional HIV prevention service.

After learning the need to take PrEP daily, about half of the participants were still willing to take it. Previous studies have documented similar willingness and barriers to PrEP utilisation among PWID (5; 6; 7). In one study in Canada, about one-third of PWID recruited were willing to use PrEP if it were made available in the future. Several characteristics stood out in the study as being positively associated with willingness to take PrEP, including lower age, lack of steady employment, requiring assistance injecting, multiple recent sex partners, and sex work (5).

Personal and inter-personal level barriers identified by PWID from the current assessment included travel distance and cost, other associated costs, and possible stigma in their immediate environment. Cost and discrimination were also identified as barriers to access in one study from the US, along with low PrEP awareness, which is seen in the current population, and limited HIV risk perception. The costs associated with PrEP and stigma in healthcare facilities were the most cited barriers from the current assessment, in line with reviews from other populations (5; 6; 7). Low PrEP awareness, which is seen in the current population, and limited HIV risk perception were additional barriers to access noted in one study from the US (6). Concerns about safety and side effects were two other major barriers described in a systematic review to identify values and preferences regarding PrEP across a variety of populations (7), which were not presented as major factors in this assessment. However, the same review indicated that among PWID specifically, cost and daily dosing were the two leading concerns, as paralleled by the current assessment.

Possible risk compensation or change in risk behaviours after initiating PrEP was not a concern for most PWID but was a concern raised by service providers. A study from Guatemala also found that risk compensation was a concern for the providers, along with cost, the development of drug resistance, and no government-issued PrEP SOPs (9). As in the current assessment, providers in that study recommended more awareness-raising programs in the country prior to PrEP implementation.

Providers' foremost concern regarding successfully implementing PrEP programming was the need for additional human resources and expanded capacity building, which should be planned well in advance. Long-term consequences, such as the financial and human resources burden on the public and private sectors should be carefully managed to avoid reducing the budget for other HIV services. Planning of the continuation phase after the pilot project was also identified as an essential part in PrEP programming.

The assessment highlighted that the acceptability of PrEP among PWID would be high if there was an enabling environment and certain conditions were maintained. Participants recommended that PrEP should be provided through NGOs, as most were familiar with these clinics and already have an established rapport with the service providers. The participants stated that they would be very reluctant to obtain PrEP from other healthcare facilities.

4.1. Study Limitations

This qualitative study had several limitations. As a rapid, qualitative assessment with limited samples recruited purposively, it may fail to reach the required data saturation level and is limited in its generalisability. Therefore, the results of this assessment are more likely to be transferrable to PWID residing in Kachin State or similar rural and remote areas with long-standing HIV prevention interventions.

Additionally, as the study participants were primarily recruited through AHRN, PrEP acceptability and preferences may differ for PWID who are unaffiliated with NGOs providing harm reduction and other PWID-friendly services.

5. Conclusion and Recommendations

Although none of the PWID included in the current assessment had ever heard of PrEP prior to recruitment, the majority were interested in taking it after awareness was raised. Factors affecting their willingness included daily dosing, cost, access points, and information needs. Some information needs they identified were dose, duration, effectiveness, side effects, and requisite clinical investigations.

Providers expressed that they would encourage PWID to take PrEP as a HIV preventive measure alongside harm reduction services. However, providers mentioned the need for additional human resources, capacity building of providers, SOPs and standardised treatment guidelines, and community advocacy.

Based on the findings from the assessment, several recommendations can be made for successful PrEP programming implementation.

5.1. National Level

At the national level, PrEP is already included in the national strategic plan as a part of a combination prevention package to become available. Inclusion in the plan allows standardisation across program implementers as PrEP is scaled up, especially for those with the highest risk.

National recommendations include the following:

- Mitigation of the cost of long-term PrEP implementation, which would compete with the budget for other harm reduction services, and concerns over the human resources necessary for PrEP provision and monitoring
- Creation and dissemination of a standardised and comprehensive communication strategy to raise awareness and create demand among PWID and to support advocacy efforts among communities. Necessary information to be provided for PWID includes dose, duration, side effects, and that PrEP does not replace NSP or condom use
- Development and distribution of SOPs and standardised treatment guidelines
- Development and provision of trainings to provide capacity building for service providers
- Planning for continuation of PrEP following the pilot project

5.2. Operational Level

Operational activities should be based on the national plan to ensure consistency across implementing partners. The following recommendations are based on the findings from this assessment:

- Investment in capacity building for outreach workers to deliver peer-led health services
- Provision of PrEP through existing clinics or DICs run by NGOs with technical support from professionals or trained lay providers
- Assign separate staff and space for PrEP provision within the DIC
- Provision of individual counselling sessions to support PWID in the PrEP initiation decision-making process
- Provision of enhanced case management services and appointment reminders to improve retention in care, with tracking and tracing for those lost-to-follow-up, including interviews regarding reasons for missed appointments to develop a plan for addressing common barriers
- Development of a platform for community adherence support, such as buddy support, local community peer support groups, and mobile or online support systems
- Development and distribution of brochures, fliers, and other educational materials with short, precise messages based on the national communication strategy that can be distributed amid services provided by medical doctors and outreach workers and at weekly DIC meetings

Annex I: FGD Guide for Key Populations

FGD ID:	Key population:
No. of participants:	Date of interview:
Interviewer:	Start time:
Note-taker:	End time:

I. Background information of the participants

Instructions: Please fill out the form before the interview. Remember that this information will remain confidential and will not be linked to or shared with anyone outside the research team.	
Completed Age	
Type of KPs	Type of MSM/TG as identified themselves
Education attainment	
Marital status	
Occupation	
Township where participant resides	

II. General questions on drug use/sexual behaviour and HIV:

experience with /proximity to HIV and use of existing risk management strategies in sexual health and/or drug use.

1. Let me know your drug use behaviors. How often are you injecting drugs?
2. Is injecting drug use a risk for transmission of some diseases? If so, what are they?
3. Is HIV a risk for you? Why/ why not?
4. Is HIV something that you talk with your sexual partner? If no, why? If yes, how often?
5. Do you use any sexual health services/harm reduction services to help you manage your risk of HIV?
(prompt) If yes, how have you used them? What made you use them?
6. What else do you use to prevent HIV infection?

7. How do you feel about using them?
8. If you stop using them, is there a reason why?

III. Awareness on PrEP and willingness to use PrEP among key population

1. Have you ever heard about PrEP? What is it for?

(prompt, if yes) Can you tell us about PrEP? Where do you get your information on PrEP from? / From whom?

(prompt, if no one knows, brief about PrEP)

“PrEP stands for Pre-Exposure Prophylaxis. PrEP is a medication that, when taken daily by people who do not have HIV, can prevent HIV infection. PrEP is safe and contains some of the same medicines used to treat HIV. The World Health Organization (WHO) recommends PrEP for persons at risk of HIV.”

2. What do you think of PrEP as a prevention method?
3. Are you interested in taking PrEP? (prompt) Why?
4. How about other people you know, do you think they [PWID or MSM] might be interested in taking this pill? Why/why not?
5. Are you willing to share the cost of PrEP? Why or why not? If yes, how much would you like to share per month? How about other PWID or MSM?

IV. Acceptability of PrEP among key population

1. How would you feel about using PrEP as a prevention method?
2. Will you use PrEP if your sexual/injecting partner suggested using this as an HIV prevention method?

(prompt) To what extent do discussions with your friends/partners influence your own decision whether or not to use PrEP?

3. If PrEP programs were to be launched in your place, how would such a program influence your decision to go for PrEP? Are you ready to go for this new HIV prevention service?

(prompt) PrEP must be taken every day around the same time of day and there will be regular follow-up for HIV test and other blood tests to check your HIV status and PrEP side effects. How might you use these pills? What would it be like for you to do this? Why?

4. What types of PWID or MSM do you think will be most likely to use PrEP (For example: would certain ages be more interested, if someone is in a committed relationship or multiple relationships)

5. Can you think about the possible barriers among PWID/MSM for acceptability of PrEP program? What are these?
6. In general, do you think people will accept this additional service and use PrEP as one of prevention methods for HIV?

(prompt) How do you think other HIV negative people feel about using ARVs as a prevention method?

V. Participants' perceived informational needs, information sources, preferences, and factors that participants would consider important towards PrEP

1. Considering that you are thinking about getting PrEP for prevention of HIV, What are some of the things you would like to know more about with regards to PrEP? [For example: possible side effects of PrEP, cost of PrEP]
2. If you want to know more about PrEP, who or what would be your preferred source of information on PrEP?
3. Again, if PrEP programs were to be launched in your place, how do you think such a program be carried out? What are your preferences for PrEP utilization?
4. Where might the best locations in your community to offer PrEP so that it will be easy for you [PWID/MSM] to get it? (For example: clinics, mobile sites)
5. Do you have any concerns about PrEP as a prevention method?

(prompt) Are you concerned about the use of pills as a form of HIV prevention?

(personal perceived drug efficacy; social factors including stigma from partners, family, and friends, and social norms; interactions with providers and service delivery mechanisms; adherence difficulties and helpful reminder systems; and coping with side effects)

6. Would these pills change the way people currently manage HIV such as condom usage, sharing needle practise among PWID? What do you think about this?

(prompt) change in risk behaviour after taking PrEP in future (increase, decrease, no change)

VI. Opinion and suggestion

Do you have any other comments or thoughts on successful implementation of PrEP among MSM/TG/PWID?

Annex II: KII Guide for Service Providers

Participant ID:	Date of interview:
Interviewer:	Start time:
Note-taker:	End time:

I. Background information of the participants

Instructions: Please fill out the form before the interview. Remember that this information will remain confidential and will not be linked to or shared with anyone outside the research team.	
Gender	
Completed Age	
Highest level of Education	
Designation	
Primary role in current organization	
Service years in current organization	
Total service years	
Years of experience with key populations	

II. General questions and risk perception among key populations

1. What services do you/your organization offer for KP?

(prompt) Is your work mostly focused on HIV prevention and treatment, or both? What other services do you also provide?

2. [For clinician/outreach worker] What types of clients do you see?

[For program manager] What are the prevention priorities for this organization?

3. What types of services and programs are used by KPs in the community?

[For clinician/outreach workers] What are the reasons why they come to see you?

4. What do you perceive are the service needs of the community, in general?

5. What do you think of general HIV risk perception among key populations?
(prompt) How concerned do you think MSM/PWID are about getting HIV?
6. What kinds of prevention methods do they use to prevent HIV?

III. Awareness, willingness to use and acceptability of PrEP among key population

1. According to your experience, are key populations aware of PrEP?
2. Do you think they are aware of taking a PrEP pill every day and testing HIV regularly?
3. Do you think they will be interested in taking PrEP among MSM/PWID population? If yes/no, why?
4. If a PrEP project were to be introduced in your centre, how likely will they use PrEP service?
(prompt) Will they accept PrEP program? Why?
5. How about their intention to use PrEP among KPs, in general?
6. Do you think they would be willing to share the cost of PrEP?
7. What types of PWID or MSM do you think will be most likely to use PrEP (For example: would certain ages be more interested, if someone is in a committed relationship or multiple relationships)
8. Can you think about the possible barriers among PWID/MSM for acceptability of PrEP program? What are these?

IV. Perceived information needs about PrEP among key population

1. According to your experience, what do you think where is the knowledge gap for PrEP among MSM/PWID populations?
(prompt) What questions do you think they will have about PrEP?
2. What kind of information do you think they need? Why?
3. Who or what would be their preferred sources of information on PrEP?

V. Perspectives of service providers regarding PrEP programme among key populations

1. How do you personally feel about PrEP for key populations (MSM/TG and PWID)?
(prompt) Would you encourage them to use PrEP? Why or why not?
(prompt) What concerns do you have about this topic?

2. Do you think PrEP should be available to all KPs or to specific groups?
3. What types of MSM/TG/PWID do you think will be most likely to use PrEP services? Why?
4. What help do you need if you were going to prescribe PrEP comfortably to KPs? (prompt) Do you prefer to have specific information/guidelines/training?
5. What do you think are the possible benefits and challenges of implementing such a programme? What would make them want/not want to use PrEP? What suggestions do you have for them?
(prompt) individual level: awareness, risk perception, fear of disclosure of HIV status and stigma
(prompt) interpersonal level: e.g. Interaction with health care staff, stigma within social network
(prompt) clinical and structural level: clinical challenges, infrastructure
6. What do you think are some of the factors that might encourage KPs to adopt PrEP?
7. What kind of concerns would you have if KPs were given PrEP at your service centre?
(prompt) Taking the pill every day/Regular follow-up and testing?
(prompt) Do you foresee potential changes in sexual behaviour/injecting practise under PrEP?
8. What suggestions do you have for how to make it easier for them to use PrEP?

VI. Opinions and suggestions

1. What factors would be important for PrEP implementation programme among MSM/PWID population? Why?
2. Do you have any other comments or thoughts on the topic of PrEP?

Annex III: PrEP Background Information Provided for FGD Participants

Introduction

- Pre= Before
- Exposure= Coming into contact with HIV
- Prophylaxis= Prevention

Talk to your partner and friends about PrEP. PrEP is an HIV prevention option that works by taking one pill every day. When taken daily, it can greatly reduce your risk of getting HIV. You can protect yourself even more if you use condoms and other prevention tools. As of September 2015, WHO recommends that people at substantial risk of HIV infection should be offered PrEP as an additional choice as part of comprehensive prevention.

Who Needs PrEP?

Although PrEP is not the right fit for everyone, it may be useful for men, women, and transwomen who are at risk for HIV infection through sex and injection drug use and okay with the idea of taking a daily pill to prevent HIV. People at substantial risk of HIV infection need to take PrEP.

People who had any of the following risk factors in the past six months are at risk of HIV infection:

- Inconsistent use of condom, or
- Recently diagnosed STI, or
- People who use and/or inject drugs, or
- Has used PEP for sexual exposure in the past six months.

Why PrEP Is Needed

According to recent HIV epidemiological research, new infections are happening amongst key populations, and they account for 20-65% of new infection in PWID group annually. Therefore, additional prevention measures are becoming critical to put for the future to wait out the current crisis.

PrEP reduces the risk of getting HIV from sex by more than 90% and also reduces the risk by more than 70% in people who inject drugs. The absolute risk of getting HIV can be even lower when people combine PrEP with condoms and other prevention measures.

It is not meant to replace or substitute for existing prevention interventions.

(Sources: <https://www.hiv.gov/>; <https://www.hiv.gov/hiv-basics/hiv-prevention/using-hiv-medication-to-reduce-risk/pre-exposure-prophylaxis>; <https://www.avert.org/professionals/hiv-around-world/asia-pacific/myanmar>)

Effectiveness

- For people who take 7 PrEP pills per week, estimated level of protection is 99%.
- For people who take 4 PrEP pills per week, estimated level of protection is 96%.
- For people who take 2 PrEP pills per week, estimated level of protection is 76%.

(Source: <https://prepfacts.org/prep/the-basics/>)

Does PrEP Protect People While They Are Adopting Safer Behaviour?

Unprotected sexual behaviour and the sharing of injecting equipment cause most HIV infections worldwide. Since these kinds of behaviours typically do not occur in public, it can be difficult to motivate protection when potential transmission occurs.

Many studies show that there is still unchangeable risky behaviour among key populations to acquire HIV.

Changing behaviour is very difficult for people, even when the stakes are high. Millions of people continue to smoke despite knowing the dangers of tobacco. People also know that they should exercise and eat well, yet obesity is on the rise. The same struggles occur when it comes to HIV prevention.

Adopting safer behaviours like condom use and disposable needles have been the available options for people who wished to protect themselves from becoming infected. PrEP is a new HIV prevention strategy that puts the power of prevention in the hands of HIV-negative people.

Combination prevention is essential since HIV prevention is not simple. Reductions in HIV transmission need widespread and sustained efforts and a mix of communication channels to disseminate messages to motivate people to engage in a range of options to reduce risk.

Why Would People Who Don't Have HIV Decide to Take A Pill Every Day?

Taking a pill every day to prevent something from happening to your body is not a new or foreign concept. Currently, millions of women in the world take a pill every day to prevent pregnancy. Think of PrEP like the birth control pill, except instead of preventing pregnancy, it reduces the risk for HIV.

Does Daily PrEP Protect MSM from HIV?

A PrEP research study called iPrEx, which studied nearly 2,500 MSM in six countries, shows that people who are taking regular PrEP have lower HIV infection rates compared to people who do not take PrEP. Further analysis on this study also indicates that daily PrEP can be 99% effective against infection.

(Source: <https://www.nejm.org/doi/full/10.1056/NEJMoa1011205>)

PrEP and PWID

PrEP is one step that you can take to start living like you want and deserve.

Another study done in Bangkok with 2,400 people who inject drugs also shows a nearly-49% overall reduction in risk of HIV infection. Protection increased to 74% among those who took PrEP under directly observed therapy.

Common PREP Misconceptions

- **Is PrEP a vaccine?**
 - No. PrEP does not work the same way as a vaccine. A vaccine trains the body's immune system to fight off infection for years. PrEP requires taking a pill during periods of risk for the medication to protect against infection. Unlike a vaccine, PrEP does not work after you stop taking it.
- **Will drug resistance occur with the use of oral PrEP?**
 - People taking PrEP are HIV-negative. Therefore, drug resistance is not a problem because there is no HIV to make copies of itself in the body. Studies show no resistance in people who test negative and take PrEP correctly and consistently. To avoid HIV resistance, regular HIV testing while on PrEP is a key component of the PrEP package.
- **Do I need to take PrEP for the rest of my life?**
 - No. People go in and out of "seasons of risk", where there are certain times it makes sense to take PrEP and other times when it does not make sense to take PrEP. For instance, an individual might use PrEP at a time when they feel they are at higher risk and then stop taking it and choose another prevention option better suited to their changing needs.

- If I take PrEP, can I stop using condoms when I have sex?
 - o You should not stop using condoms because you are taking PrEP. PrEP, however, is most beneficial when targeted to those not using condoms. It's important to note that PrEP medications don't give any protection from other infections you can get during sex like condoms do. This is why people taking PrEP are recommended to regularly get screened and treated for STIs.

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