Knowledge and Attitudes Regarding HIV Pre-Exposure Prophylaxis among MSM and Transgender in Jakarta, Indonesia

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Abbreviations and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
CSO	Civil Society Organization
DFAT	Department of Foreign Affairs and Trade (Australia)
DHO	District Health Office
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
IDI	In-depth Interview
IBBS	Integrated Biological and Behavioral Surveillance
IRB	Institutional Review Board
MSW	Male Sex Worker
MSM	Men who have sex with men
MoH	Ministry of Health
NGO	Non-governmental Organization
PHO	Provincial Health Office
PHSC	Protection of Human Subjects Committee
PrEP	Pre-exposure Prophylaxis
STI	Sexually Transmitted Infections
TG	Transgender
UNAIDS	Joint United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development
USCDC	United States Centers for Disease Control and Prevention
USFDA	United States Food and Drug Administration
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

EXECUTIVE SUMMARY

Title: Knowledge and Attitudes Regarding HIV Pre-Exposure Prophylaxis among MSM and Transgender in Jakarta, Indonesia

Design: Qualitative descriptive study using focus groups, key informant in-depth interviews and a brief, quantitative questionnaire exploring demographic data and characterizing willingness to pay for a new HIV prevention commodity. Participants were purposively sampled in "cruising venues" and online/social media platforms.

Participant/key informants:

(1) A number of 28 MSM and self-identified *transgender* (transgender women) between the ages of 18 and 49 who report anal sex (receptive or insertive) within the last month with more than one male partner, who report that they do not use condoms with every sexual partner and at every sexual encounter and who are not currently known to be HIV-positive.
(2) A number of 11 healthcare providers (doctors and/or nurses) ages 18 years or older currently employed in a government clinic (puskesmas) or private healthcare organization who regularly provide HIV services or sexual and reproductive health-related services to MSM/transgender clients as determined by provider self-report
(3) A number of 20 key stakeholders ages 18+ who have key decision-making or policy-making authority within government institutions, international organizations, or civil society organizations that fund, promote or provide HIV- and/or sexual and reproductive health-related healthcare services for MSM and *transgender* in Indonesia.

Study Duration: 4 months from IRB approval to primary data analysis

Primary Objective:

(1) Explore existing knowledge, attitudes and beliefs regarding the daily use of oral PrEP (specifically Emtricitabine and Tenofovir Disoproxil Fumarate [FTC-TDF]) as a prevention method among HIV-negative MSM and *transgender*.
(2) Generate recommendations for effective service delivery, including interest in accessing PrEP, preferred modes of delivery and willingness to pay.

Primary Endpoints/Outcomes:

(1) Description of existing knowledge, beliefs and misconceptions regarding the use of ARVs for HIV prevention among the members of an HIV-negative, treatment-naive client population.
(2) Beliefs regarding potential benefits and barriers of PrEP
(3) Potential barriers to service access and uptake, including difficulty adhering to regular screening requirements and treatment regimens as well as potential strategies for overcoming these barriers
(4) Expectations regarding the potential for risk compensation among MSM and *transgender* using PrEP
(5) Potential models of service delivery, including:

i. General willingness to access PrEP
ii. Preferred delivery models (VCT/STI center, CSO-based delivery etc.)
iii. Willingness-to-pay analysis

Study Sites: DKI Jakarta and Bodetabek, Indonesia

Results:

The knowledge possessed by the participants varies greatly, ranging from those who have never heard about PrEP to those with comprehensive knowledge. There were agreements and controversies regarding whether or not PrEP should be made available in Indonesia. Most of the NGO groups and MSM, MSW, and Transgender groups agrees as long as several considerations are taken into account: the readiness of services and healthcare providers, determining the criteria of clients who receive PrEP, providing in-depth information for both implementers and communities. The distribution model mostly preferred by almost all of the participant are primary healthcare centers, followed by hospitals. However, from the questions expressed by the community participants, it seemed that they were pretty accepting to the various alternatives for PrEP provisioning points as long as those places are able to fulfill the needs of the communities, such as: (1) service that are friendly to the community, especially to MSM and transgender. (2) easy to reach, and (3) does not apply a complicated procedure.

From this study it can be concluded that PrEP is often perceived as and be equated to ARV medication for HIV positive patients based on the observation in the field. This is why they also identified 4 potential challenges in accessing the service and consuming PrEP similar to the challenges faced by ARV, which are : (1) physical disturbances due to PrEP such as side effects, resistance, and adherence issues; (2) social impacts such as stigma towards the individuals who use PrEP, as well as concerns regarding patient risk compensation after PrEP usage such as the decrease in condom adherence, increasing the rate of sexual relations and sexual behavior; (3) the readiness of the health and policy system, such as human resources, drug availability and management as well as access to PrEP; (4) the issue of funding for PrEP.

A. INTRODUCTION

A.1. Background

The most recent Integrated Biological and Behavioral Surveillance (IBBS) survey in Indonesia shows high levels of HIV prevalence among men who have sex with men (MSM) and transgender women (TG or *transgender*) nationwide, but particularly in the national capital city of Jakarta (17.2% and 30.8%, respectively).[1] These are also the only populations among which the rate of new HIV infections has continued to grow since 2007,[2] and recent mathematic modeling has projected that, in the absence of effective interventions to prevent HIV transmission, MSM will be a very significant contributor of new HIV cases in Indonesia over the next decade.[3]

Despite widespread condom availability in Indonesia, the HIV epidemic among MSM and *transgender* continues to grow. Consistent condom use remains low and It is by now generally understood that ending the AIDS epidemic among these key populations will require a combination of HIV prevention strategies that expands beyond existing measures. Indeed, analysis in recent years suggests that even were behavior change interventions widely adopted and successful this would still be insufficient to curb the epidemic among these populations given the unique biological factors (including a high per-act transmission probability, sex role versatility and sexual network clustering) that drive HIV transmission.[4]

While condom programming is and will remain a cornerstone of HIV programming, it is at this point well accepted that this strategy must be paired with interventions at a community level to reduce the biological infectiousness of HIV. Pre-exposure prophylaxis (PrEP) for HIV prevention among MSM and *transgender* represents an important new tool with an efficacy as high as 92% among individuals who use the drug as directed.[5] PrEP has been approved by the US FDA[6] and endorsed as part of comprehensive HIV prevention programming for MSM by both the US CDC[7] and the World Health Organization.[8]

However, there are critical questions regarding how PrEP is to be best integrated into existing HIV programming – not the least of which is that evidence to date suggests PrEP's success hinges not only on access but also on uptake and consistent use.[9] Effective behavioral strategies around promotion and adherence support will therefore be crucial to any attempt to introduce PrEP into MSM populations.[10,11]

Additional anticipated complications include questions regarding policy support in settings where basic HIV services are difficult to obtain, healthcare provider readiness, and questions regarding side effects and community acceptability. To explore these questions, Atma Jaya HIV-AIDS Research Center funded by FHI360 has conducted a qualitative assessment of barriers and facilitators to uptake of PrEP among MSM and *transgender* in Jakarta.

A.2. Study Goals and Objectives

Goals

The aim of this assessment is to answer the following research question: what are the appropriate, locally grounded approaches to future rollout of oral PrEP for local MSM and *transgender* populations at high risk of HIV infection? Findings from this assessment may be used to inform future pilot programming of PrEP supported by the Ministry of Health of the Government of Indonesia and implemented by FHI 360 and/or other agencies.

Objectives

1. Explore existing knowledge, attitudes and beliefs regarding the daily use of oral PrEP (specifically Emtricitabine and Tenofovir Disoproxil Fumarate [FTC-TDF]) as a prevention method among HIV-negative MSM and *transgender*.
2. Generate recommendations for effective service delivery, including interest in accessing PrEP, preferred modes of delivery and willingness to pay.

A.3. Expected Outputs

The planned output for this assessment will be an assessment report including:

1) Description of existing knowledge, beliefs and misconceptions regarding the use of ARVs for HIV prevention among the members of an HIV-negative, treatment-naive client population
2) Beliefs regarding potential benefits and barriers of PrEP
3) Potential barriers to service access and uptake, including difficulty adhering to regular screening requirements and treatment regimens as well as potential strategies for overcoming these barriers
4) Expectations regarding the potential for risk compensation among MSM and *transgender* using PrEP
5) Potential models of service delivery, including:
    a. General willingness to access PrEP
    b. Preferred delivery models (VCT/STI center, CSO-based delivery etc.)
    c. Willingness-to-pay analysis

B. RESEARCH METHODOLOGY

We conducted a qualitative descriptive study using the following data collection methods: 1) focus group discussion with potential PrEP clients who comprise of MSM and *transgender*; 2) in-depth interviews with healthcare providers who are currently providing HIV or sexual/reproductive services to MSM/*transgender* clients and; 3) in-depth interviews with key stakeholders who work in decision making or policy making positions with government, international or civil society organizations on HIV or sexual/reproductive health issues for MSM/*transgender*. Eligibility, sampling strategies, data collection and management, and data analysis procedures are described below.

B.1. Study setting

This study conducted in DKI Jakarta, the capital city of Indonesia and home to a large population as MSM/transgender with increasing levels of HIV infection and reported high levels of HIV risk behavior. The participants were recruited through advertisements using flyers and posters distributed at "cruising" venues such as gay bars, public parks and sex-on-premise venues including saunas and bath houses, as well as gay-themed websites and social media platforms that specifically target MSM audiences.

B.2. Target Population

Potential client participants: MSM and self-identified transgender between the ages of 18 and 49 who report anal sex (receptive or insertive) within the last month with more than one male partner, who report that they do not use condoms with every sexual partner and at every sexual encounter and who are not currently known to be HIV-positive. Participants for this survey are not intended to reflect a representative sample of all MSM/*transgender* in Jakarta City but rather to reflect the perspectives of those highest-risk individuals most likely to be targeted clients of a PrEP intervention. Therefore, based on available data on risk behaviors, client populations for this survey were segmented to ensure adequate representation of (1) high-risk, non-commercial MSM; (2) male sex workers (MSW); and (3) participants who self-identify as male-to-female transgender, whether or not they have undergone gender affirmation surgery or are taking hormones.

Client participants were:

- NOT BE health educators/outreach workers
- NOT BE NGO/CSO staff or volunteer
- NOT BE healthcare workers
- NOT BE under the influence of drugs or alcohol at the time of data collection

Key Informants:

Healthcare providers (HCP): Doctors and/or nurses (male or female) ages 18 years or older currently employed in a government clinic (*puskesmas*) or private healthcare organization who regularly provide HIV services or sexual and reproductive health-related services to MSM/*transgender* clients as determined by provider self-report.

Key Stakeholders: Men or women ages 18+ who have key decision-making or policy-making authority within government institutions (MOH, NAC, PAC, Provincial Health Office and District Health Office), international organizations (including donor organizations) or civil society organizations that fund, promote or provide HIV- and/or sexual and reproductive health-related healthcare services for MSM and *transgender* populations in Indonesia.

Sampling Frame and Sampling Plan

This assessment aims to conduct semi-structured focus group discussions (FGDs) among potential client populations with approximately 6-8 participants per FGD and 12 FGDs conducted in total for a maximum of 96 members of the combined target populations reached. In-depth interviews will be conducted with healthcare providers with a maximum of 15 IDIs, based on research findings that data saturation within a purposive sample can frequently be reached within the first 12 interviews.[12] Up to 20 in-depth interviews will also be conducted with stakeholders. The number of anticipated key stakeholder interviews has been calculated based on the number of government, donor and civil society organizations that would need to support any programmatic PrEP roll out as well as the number of interviews needed to reach data saturation. [12] Thus max 20 IDIs are planned with key decision-making representatives of these organizations.

Table B.1. Participants of Data Collection

Type of data collection	Participant Category	Maximum Number of IDIs/FGDs	Maximum Number of Participants
Focus Group Discussions (FGDs)	**Potential Client Populations**	4 MSM FGDs	32 (8 per FGD)
		4 MSW FGDs	32 (8 per FGD)
		4 *transgender* FGDs	32 (8 per FGD)
In-depth Interviews (IDIs)	**Healthcare providers** (e.g. doctors/nurses at pre-selected, MSM/*transgender*-friendly	15 IDIs	15

Type of data collection	Participant Category	Maximum Number of IDIs/FGDs	Maximum Number of Participants
	public and private clinics who serve clients) **Key informants** (e.g. government policymakers, INGO and donor representatives and representatives from community based organizations who work with these populations)	20 IDIs Government agencies at the national, provincial and district level INGO/Donor agencies MSM/*transgender* CSOs	20
Total			131

B.3. Participant recruitment

Information gathered from participants in this assessment is intended only to inform future program design and is not intended to be generalized to a wider population; thus, a representative sample is not necessary. Participants were purposively selected, in collaboration with local partners and key informants (including the Indonesian network for gay, transgender and men who have sex with men or GWL-INA), to represent the key client segments as described above and so that information-rich participants will be selected. Information-rich participants are those who were able to provide the study with in-depth and relevant information on the research topic domains. Research participants were recruited as follows:

Potential PrEP clients were purposively recruited in collaboration with a local partner NGO and included participants recruited from among gay bathhouses, saunas and massage parlors and other cruising venues in Jakarta as well as those recruited via popular social networking apps (e.g. Grindr, Jack'd) and advertisements placed on Indonesian-language gay websites.

- Potential PrEP clients within cruising venues conducted on-site via intercept. Participants recruited at different locations and on different days during the week to ensure a good spread across locations. Recruitment conducted during the afternoon and evening –

MSM/W participants recruited by male recruiters and *transgender* participants by *transgender* recruiters. All partisipants screened for eligibility and a preferred name and phone number collected in order to confirm participants' attendance prior to the focus group and to deliver compensation following data collection.

- To recruit participants via social media platforms, a local partner NGO established a social media profile on these platforms (clearly labeled as being for research purposes) and using these platforms' pre-existing filtering tools messaged all eligible users within the catchment area (DKI Jakarta) and invited them to a discussion about the study. Any partisipants were engaged in an online chat to describe the study goals and procedures, and interested partisipants directed to an online platform where they can register to participate in a focus group discussion. (See Attachment I for a description of the contents of this website.) Similar procedures have been used elsewhere in conducting online research recruitment with MSM.[20-22]

All potential participants screened for eligibility either face-to-face or via telephone (online recruits) and if eligible were told the time and place for their focus group discussion. Recruiters also collected a telephone number to be used for providing study incentives and in order to contact recruits and re-confirm participation the day before data collection.

Healthcare providers purposively selected by researchers in collaboration with key informants and stakeholders (including a local partner NGO) and were drawn from existing healthcare organizations (public and private) that provide HIV counseling and testing and or other sexual and reproductive health services. This assessment included primarily clinics pre-identified by key informants as being preferred service providers for members of the MSM/*transgender* populations. Identified healthcare providers contacted either by telephone or in-person by a member of the research team to confirm willingness to participate in this assessment and scheduled for an interview.

Key stakeholders purposively selected by researchers in collaboration with key stakeholders and members of a local partner NGO with the goal of identifying individuals with decision-making authority within key government offices (MoH, National AIDS Commission, Provincial Health Office and District Health Offices), international NGOs (INGOs) and donor agencies (e.g. USAID, DfAT, UNAIDS etc.) and local civil society organizations (GWL-INA, Indonesia AIDS Coalition etc.) that are known to support interventions and healthcare services for MSM and *transgender*. Identified stakeholders contacted either by telephone or in-person by a member of the research team to confirm willingness to participate in this assessment and scheduled for an interview.

All participants provided monetary compensation for transportation to and from the data collection site, and all participants provided 100,000 IDR in compensation for time spent participating in data collection (equivalent to US$ 8). This is in line with compensation provided by ARC Unika Atma Jaya (and other organizations) for similar research activities conducted with key populations in Indonesia. Reimbursement provided via "*pulsa*" – cell phone credits that can be delivered. Cell phone ownership is essentially universal among members of the target population, and *pulsa* is a widely accepted means of transferring money in Indonesia.

B.4. Data Collection

This assessment used a mixed-methods approach to data collection, including qualitative data collection through focus group discussions and in-depth interviews with key informants as well as collection of basic demographic and willingness-to-pay data using a structured interview form. All data collection conducted by the core research team and locally recruited interviewers who have experience in qualitative and quantitative research techniques (and particularly who have previously conducted online focus group discussions) as well as experience working with the target populations. Data collection was conducted from the second week of August 2017 until the first week of October 2017

Focus Group Discussions: Semi-structured FGDs conducted with members of the MSM and *transgender* populations in Jakarta. Each FGD had approximately 2 – 6 participants. These discussions expected to last between 1.5 and 2 hours. A focus group guide (see Attachment A) were used to guide the FGD with key domains around:

- Existing awareness and understanding of ARVs and PrEP
    - Effectiveness of PrEP
    - Who should take PrEP
- Perceived Benefits and Barriers
    - Concerns about side effects
    - Stigma and discrimination from friends, family and healthcare providers
- Willingness to Access (and adhere to) PrEP
    - Barriers to daily use
    - Strategies for making PrEP a routine
- Impact on sexual behavior and risk compensation
- Models of Service Delivery
    - Preferred access points
    - Willingness to access regular HIV testing
    - Benefits and concerns about HIV self-testing
- Partisipant demographics and HIV risk behaviors
- Willingness to Pay

Some segments of the MSM/*transgender* populations are increasingly difficult to reach for face-to-face interaction; therefore, for participants recruited via online platforms this assessment were be pilot the use of online, synchronous (real-time) discussion forums using whats app.

There is an extensive literature on the use of computer-mediated (online) FGDs. Research experience suggests that online methods allow for greater disclosure than offline methods, possibly owing to the perception of increased anonymity; this is particularly important when collecting information about sensitive topics or from hard-to-reach populations.[13] Online FGDs have also been shown to produce greater equality of participation [14, 15] and greater numbers of unique ideas[16] while findings on the quantity and quality of information produced have been mixed. In an empirical comparison of the results produced through face-to-face and computer-mediated focus group

discussion methods, Underhill found that Internet-based FGDs produced similar levels of participation and similar numbers of unique ideas to face-to-face discussion, though online participants tended to use fewer words to describe their ideas.[17] It has been suggested that online groups might be better suited to examining participants' first impressions of new products or ideas (as opposed to deeper impressions of familiar products)[17] which use case fits well with the research aims of the present study.

Experience suggests that the appropriate number of participants in an online FGD is similar to that for a face-to-face discussion; Wilkerson suggests that with fewer than five participants it is difficult to maintain a lively discussion, whereas when participants exceed eight discussion can break down into overlapping "threads" which can be difficult to facilitate.[13] It is, however, also suggested that because of comparatively low participation rates when recruiting online, participants for online FGDs be over-recruited by as much as 100% to ensure an adequate final sample.[13, 14] It is also strongly recommended that moderators of online FGDs be not only skilled in qualitative data collection but also technically competent in the use of online discussion tools.[14]

Information and advertisement concerning the research were distributed through the official website of the research (www.studyprep.arc-atmajaya.org), through several social media such as Facebook, grindr, Twitter, etc. as well as from word of mouth through outreach workers from local NGO working on MSM and Transgender issues. Candidates interested in participating in the research registered online through the research website by giving their contact information, enabling the research team to contact them for the screening and FGD scheduling process, whether online through WhatsApp (WA) group or face-to-face FGD.

Discussions conducted in Bahasa Indonesia and face-to-face FGDs were audio-recorded. Facilitators were additionally took notes on each FGD session to supplement audio recordings. In the case of the online FGDs, a transcript of the conversation were saved. Recordings of each focus group discussion were transcribed for analysis. A brief survey was conducted prior to starting FGD on MSM, MSW, and Transgender groups with the purpose of obtaining an idea of participant interest in using/consuming PrEP as well as participant capabilities to purchase PrEP if PrEP is offered in Indonesia. The survey instrument (Attachment E) were included a brief series of yes/no questions on key demographic and risk indicators, a scaled question on interest in accessing PrEP as an HIV prevention strategy, and a series of willingness-to-pay questions benchmarked to the local wholesale price of the generic Truvada equivalent currently imported by the Government of Indonesia for use in the national ART program.

58 people registered from the online recruitment. After undergoing the screening process, 46 people fulfilled the criteria to participate in the FGD. Several FGD participant candidates who fulfilled the criteria withdrew due to FGD scheduling conflict or personal engagement, finally resulting in 30 people who successfully participated in the FGD whether online or face-to-face with the details listed in Table below.

Table B.2. Number of FGD Groups and Participants

No	Group	Number of Groups	Number of Participants
1	MSM	3	11
2	MSW	3	10
3	Transgender	2	9
	Total	**8**	**30**

In-depth interviews: IDIs were conducted with healthcare providers and key stakeholders. Key stakeholders may include government policy makers, representatives for international NGOs and donor agencies, and/or representatives of community-based and civil society organizations that provide HIV-related services for members of MSM and *transgender* populations. IDIs conducted using a semi-structured interview guide (see Attachments B and C). Key domains of these interviews were be as follows:

- Pre-existing knowledge about PrEP and its evidence base
- Beliefs and attitudes regarding PrEP as an HIV prevention tool
    - Should PrEP be offered and to whom?
- Potential clients
    - Medical and programmatic concerns
- PrEP and behavior
    - Adherence issues and strategies
    - Supportive services and programmatic strategies
    - Potential changes in sexual behavior and risk compensation as a result of taking PrEP
- Delivering PrEP
    - Service delivery models
    - Cost
    - HIV testing models

Interviews were expected to last between 1 and 1.5 hours and conducted in either Bahasa Indonesia or English. In-depth interviewswere audio recorded with supplemental notes taken by the interviewer. Recordings transcribed verbatim in the language in which the interview was conducted for analysis.

The research team initially planned to interview 44 interviewees consisting of NGO, healthcare provider (Community Health Centers, Hospitals, and private clinics), the government, and international organization groups with the numbers as listed in Table 1 below. Several interviewees were unwilling to be interviewed due to feeling not having sufficient knowledge to be interviewees;

therefore, the number of successfully interviewed interviewees was 32 organizations with the following details:

Table B.3. Participants of In-Depth Interterview

No	Organization	Count	
		Plan	Realization
1	NGOs	12	10
2	Service Providers	16	11
3	Government	6	5
4	International Organizations	7	5
	Total	**44**	**32**

B.5. Practice/Pilot Interviews

In-depth interviews with key stakeholders are conducted by external interviewers and the core research teams. Data collection training was conducted for all interviewers by providing basic knowledge of PrEP and understanding of all interview instruments. During the training of interviewers, members of the data collection team practiced using the interview guides. A trial to facilitate FGD Online also conducted among core research team themselves.

B.6. Data Management

All audio files, notes and transcripts were be stored securely without any personal identifiers at the ARC Unika Atma Jaya offices. Electronic files had password protected and stored on a secure password protected computer (e.g. electronic versions of expanded notes will be password protected) while hard copies of the stored in a locked file cabinet or drawer. Also, each focus group had a data storage envelope where hard copies of the short notes, expanded notes, and other notes taken during that interview or focus group were kept and stored in a locked file cabinet or drawer.

B.7. Data Analysis

Data from the FGDs and IDIs analyzed using qualitative content analysis methods through the following steps (modified from chapter 6 of Ulin, Robinson & Tolley, 2004)[18] by research team:

1) Coding the transcript data based on key questions by each participants and key informants categories. These codes were assigned thematically and a codebook were developed. The preliminary codebook developed based on the objectives of this study, the interview topic domains as well as emergent themes (as needed). New codes wereadded to the codebook as necessary during the ongoing analysis. The codebook wereused to code the expanded notes where codes were applied to identify passages of text related to the code. This coding

process allows for an organized system for the collection and quick retrieval of the data associated with the same theme so that they can be examined together.

2) Data display. After all expanded notes have been coded, textual coding reports (memos) were developed. A detailed coding report written which displayed all the information related to a code. This would also include, for example, the displaying of sub-themes that emerge, noting differences and similarities between types of partisipants and separating qualitative and quantitative aspects.
3) Data Interpretation. This last step involves bringing together and making sense of all the data that has been reduced in the previous step, finding relationships between key themes and to develop an organizational structure to present the data so as to respond to the objectives of the study.

The data from the quantitative questionnaire is presented in the percentage tables and/or diagrams for each variable. A frequency distribution of maximum price willing to pay were calculated among partisipants who indicate interest in accessing PrEP in order to establish relative demand at different prices. Because this survey does not anticipate recruiting a representative sample, no attempt will be made to extrapolate these findings to calculate absolute demand among the target populations.

B.8. Ethical Considerations

This assessment protocol has been reviewed by the Protection of Human Subjects Committee (PHSC) of FHI 360 and Ethics Committee of Unika Atmajaya.

Confidentiality

FGDs and IDIs conducted by trained interviewers in a secure location offering visual and auditory privacy. All FGD participants briefed prior to the discussions that all discussions held should not be discussed with others once the FGD is completed so as to protect confidentiality. The information collected during the IDIs and FGDs only used for this assessment and only the assessment team have access to the documents and audio recordings from the interview. The audio recording will not be shared with others outside the study. All documents and audio recordings kept in a locked cabinet in a locked room. Once the study is completed, the audio recording will be destroyed.

Participants may provide their first names to be used during the interviews and focus groups or pseudonyms or numbers may be used. However, these names will not be written on paper or entered electronically when the interview is transcribed. No names were collected and instead all participants will be assigned a participant ID number. The only unique identifying information to be collected during the course of this assessment is a cell phone number for delivery of monetary compensation (*pulsa*); numbers will be used only for payment transfer and records of these numbers will not be retained beyond the end of the assessment. Cell phone numbers collected will kept separately from the data in order to protect confidentiality.

Informed Consent

Oral informed consent obtained from IDI and FGD participants prior to the start of data collection. Oral consent was chosen over written consent so as to protect the identity of the study participants. All study participants alsoprovided with a copy of the relevant informed consent form. After that, study staff took each participant to a private corner to obtain consent individually and to answer any questions the participant may have. Study staff provided their own signature (not the signature of the participant), write the participant ID number and check the appropriate box on the consent form to confirm that oral consent was obtained and that the participant consented to be audio-recorded. Participants were given a copy of the consent form to keep.

Risks and Benefits

Male-male sexual behavior is not criminalized under national law in Indonesia (though it is in one Indonesian province - not Jakarta - subject to *sharia* law) but it is subject to significant social disapproval. There is therefore some risk to individual MSM or *transgender* participants should information be released regarding their individual sexual behavior as reported in the quantitative questionnaire. However, to minimize this risk no identifying information will be collected as part of this assessment.

Data collection alsoconducted in pre-selected venues that offer maximum visual and audio privacy so as to further protect participants' confidentiality. Online FGDs conducted over a closed, secure platform using participant aliases to further protect personal information.

The key risk of participation in this study is that some participants may feel embarrassment or discomfort discussing personal and sensitive issues such as HIV and sexual behavior. The study therefore recruited interviewers who have experiences working in these topic areas and with these populations, and who can facilitate the focus group discussion so as to provide a safe and respectful environment for participants. A taining provided for all members of the research team to ensure that study procedures are followed to protect study subjects and that interviewers have cultural competency to work with MSM/*transgender* populations. All members of the research team also required to have current training on research ethics either on FHI 360's ethics curriculum or other approved training.

In addition, interviewers informed participants that they do not have to share personal experiences but that they are welcome to share their experiences only if they are comfortable doing so. Specific questions regarding individual sexual behavior were not raised during group discussions and will only be asked during the follow-up one-on-one quantitative survey. Participants can also skip any question they do not want to answer and leave the focus group discussion or in-depth interview at any time.GD participants alsoasked to keep the group discussion confidential and not share what was discussed with others.

Participants received small monetary compensation for time spent and transportation costs incurred for participation in this survey. All participants provided IDR 100,000 (the equivalent of US$8), as well as reimbursement of real transportation costs – payment were transferred via cell phone credits (*pulsa*) which is a widely accepted form of reimbursement in Indonesia. Payment amounts are comparable to incentives offered for similar research previously conducted among key populations in this setting.

C. FINDINGS

C.1. Section 1: Demographic Summary of FGD Participants

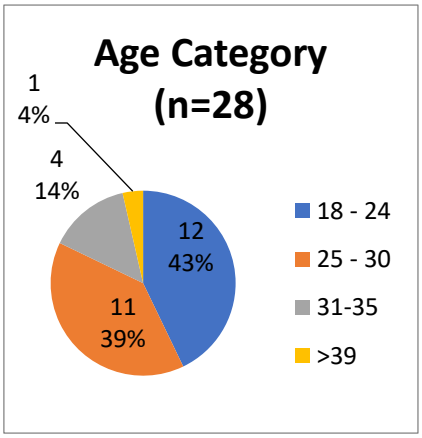


Figure C.1.1 Age of Participants

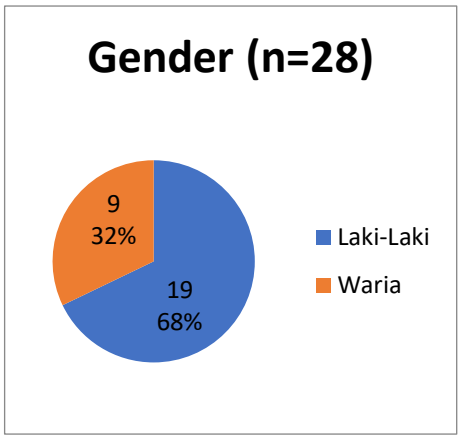


Figure C.1.2. Gender of Participants

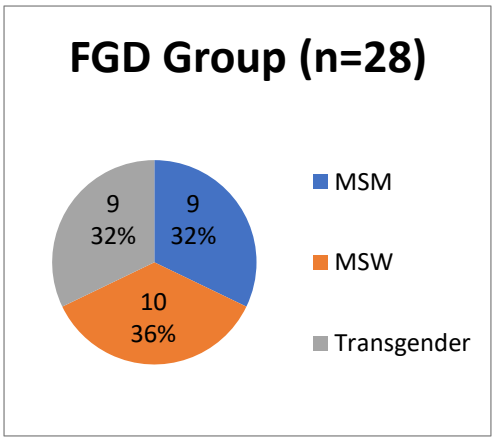


Figure C.1.3. Categories of FGD Groups

A brief survey was conducted prior to starting FGD on MSM, MSW, and Transgender groups with the purpose of obtaining an idea of participant interest in using/consuming PrEP as well as participant capabilities to purchase PrEP if PrEP is offered in Indonesia. Based on Figure C.1.1 and C.1.2, from 28 participants who completed the online questionnaire, most participants belong to the MSM community (67.86%) and in the productive age range of 18-24 years (43%). While from the FGD group categories, there was closely similar composition for each group (Figure C.1.3).

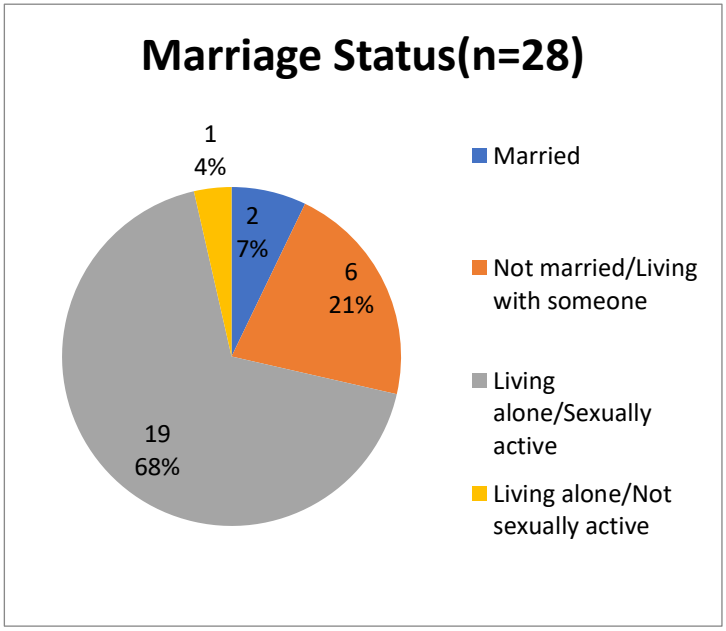


Figure C.1.4. shows that most of participants (67.86%) claimed to live by themselves and be sexually active, around 21.34% of participants were not married and did not live by themselves, and a small percentage were married or living by themselves but not sexually active.

Figure C.1.4. Marriage Status

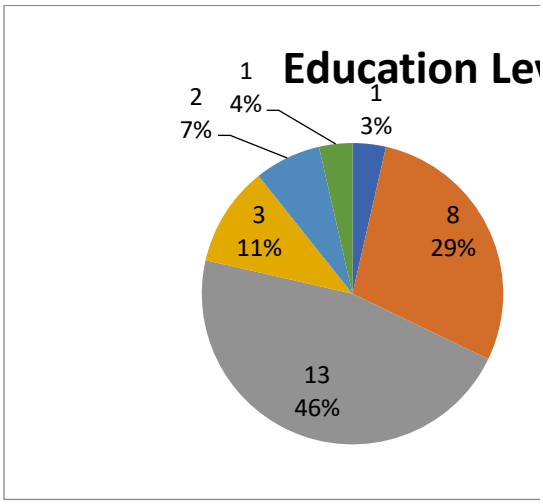


Figure C.1.5. Education Level

Table C.1.1. Education Level * Participant Categories Cross Tabulation

			Participant Category			Total
			MSM	MSW	Transgender	
Education Level	Elementary School	Count	0	0	1	1
		% within Participant Category	0.0%	0.0%	11.1%	3.6%
	Junior High School	Count	1	2	5	8
		% within Participant Category	7.7%	33.3%	55.6%	28.6%
	High School	Count	7	4	2	13
		% within Participant Category	53.8%	66.7%	22.2%	46.4%
	Associate Degree/Academy	Count	2	0	1	3
		% within Participant Category	15.4%	0.0%	11.1%	10.7%

	Bachelor's Degree/Graduate	Count	2	0	0	2
		% within Participant Category	15.4%	0.0%	0.0%	7.1%
	Master's Degree/Post graduate	Count	1	0	0	1
		% within Participant Category	7.7%	0.0%	0.0%	3.6%
Total		Count	13	6	9	28
		% within Participant Category	100.0%	100.0%	100.0%	100.0%

Through Figure C.1.5, it is shown that almost 50% of the total participants have a high school education level. However, for the participant group categories, more than half of the MSM (57.9%) and MSW (66.7%) groups have a high school education level, while for the Transgender group most (55.6%) have a junior high school education level. The level of education of the MSM group is also higher than other two groups as shown in Table C.1.1, that 26.3% of the MSM group have a higher education level, from academy, graduate, to postgraduate.

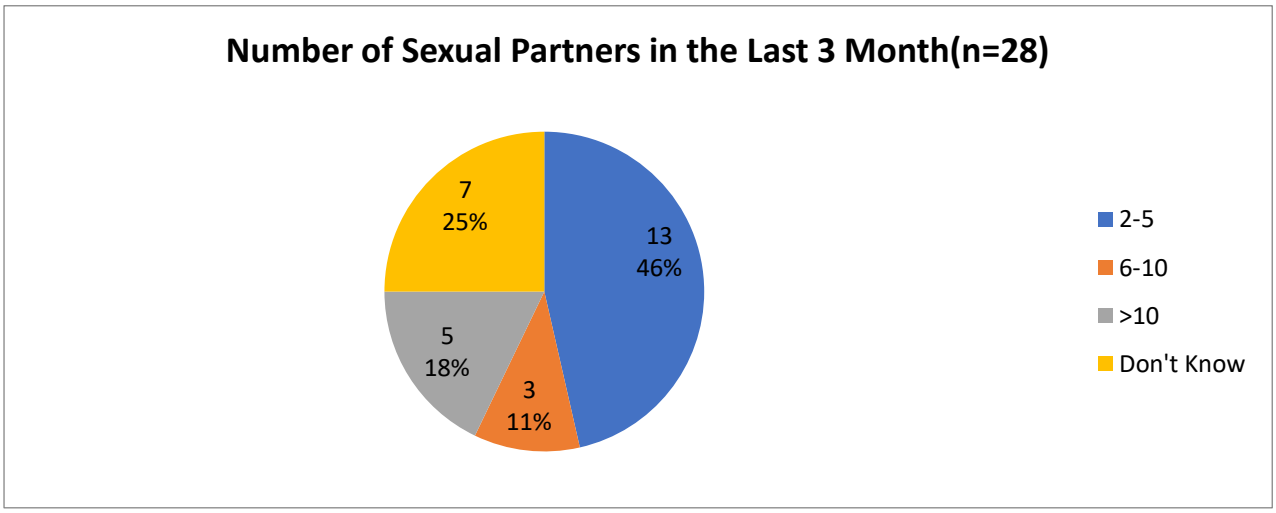


Figure C.1.6. Number of Sexual Partners in the Last Month

Almost half of the total participants reported having 2-5 sexual partners in the last three month as shown on Figure C.1.6. A considerable number (25%) said they did not know how many sexual partners they had in the last one month. However, if we observe Table C.1.2 below, the highest percentage (46%) who said having 2-5 sexual partners was contributed from the answer of the MSM group. From 13 MSM group participants who participated in the survey, 10 among them (76.9%) had 2-5 sexual partners. While for the Transgender group, 3 people out of 9 participants or about 33.3% admitted to having more than 10 sexual partners in the last three month, while the MSW group tended to answer don't know (66.7%). All participants from the MSW and Transgender group

admitted to exchanging sex for money, while for the MSM group, only 38.5% of participants exchanged sex for money (Table C.1.3).

Table C.1.2. Number of Sexual Partners* Participant Categories Cross Tabulation

			Participant Category			Total
			MSM	MSW	Transgender	
Number of Sexual Partners	2-5	Count	10	1	2	13
		% within Participant Category	76.9%	16.7%	22.2%	46.4%
	6-10	Count	1	0	1	2
		% within Participant Category	7.7%	0.0%	11.1%	7.1%
	>10	Count	2	1	3	6
		% within Participant Category	15.4%	16.7%	33.3%	21.4%
	Don't Know	Count	0	4	3	7
		% within Participant Category	0.0%	66.7%	33.3%	25.0%
Total		Count	13	6	9	28
		% within Participant Category	100.0%	100.0%	100.0%	100.0%

Table C.1.3. Exchange Sex for Money * Participant Categories Cross Tabulation

			Participant Category			Total
			MSM	MSW	Transgender	
Exchange Sex for Money	No	Count	8	0	0	8
		% within Participant Category	61.5%	0.0%	0.0%	28.6%

	Yes	Count	5	6	9	20
		% within Participant Category	38.5%	100.0%	100.0%	71.4%
Total		Count	13	6	9	28
		% within Participant Category	100.0%	100.0%	100.0%	100.0 %

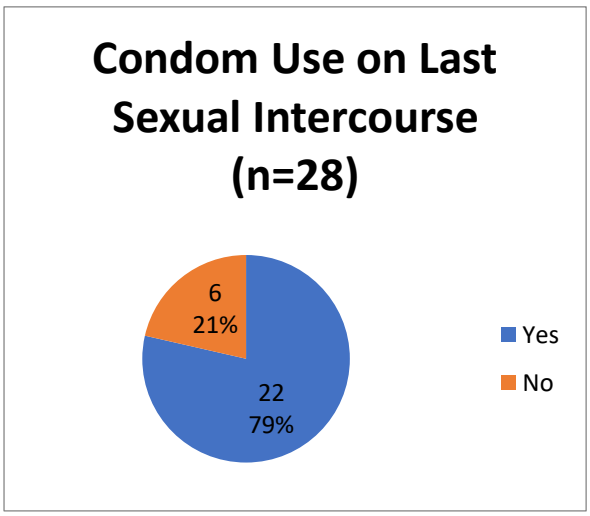


Figure C.1.7. Condom Use on Last Sexual Intercourse

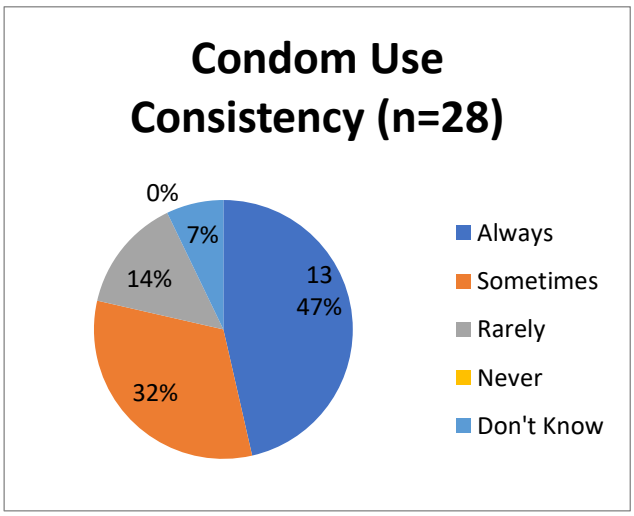


Figure C.1.8. Condom Use Consistency

Although from Figure C.1.7 it is shown that despite condom use on last sexual intercourse from the total participants was quite high (79%), the consistency of condom use in MSM and MSW is still low. This can be viewed in Table C.1.4 below, only 4 out of 13 MSM participants (30.8%) always(consistently) used a condom when having sex and none of the MSW group participants used condom during sexual intercourse consistently. Most participants from the MSM group (46.2%) and MSW (40%) said they sometimes used a condom when having sex. This differs from the Transgender group, whose all participants admitted to consistently use a condom when having sex.

Table C.1.4. Consistency of Condom Use * Participant Category Cross Tabulation

			Participant Category			Total
			MSM	MSW	Transgender	
Consistency of Condom Use	Always	Count	4	0	9	13
		% within Participant Category	30.8%	0.0%	100.0%	48.1%
	Sometimes	Count	6	2	0	8
		% within Participant Category	46.2%	40.0%	0.0%	29.6%
	Rarely	Count	3	1	0	4
		% within Participant Category	23.1%	20.0%	0.0%	14.8%
	Don't Know	Count	0	2	0	2
		% within Participant Category	0.0%	40.0%	0.0%	7.4%
Total		Count	13	5	9	27
		% within Participant Category	100.0%	100.0%	100.0%	100.0%

Table C.1.5. Last HIV Testing * Participant Category Cross Tabulation

			Participant Category			Total
			MSM	MSW	Transgender	
Last HIV Testing	In the last 12 months	Count	11	5	9	25
		% within Participant Category	84.6%	83.3%	100.0%	89.3%
	More than 12	Count	2	1	0	3

	months ago	% within Participant Category	15.4%	16.7%	0.0%	10.7%
Total		Count	13	6	9	28
		% within Participant Category	100.0%	100.0%	100.0%	100.0%

All participant groups had considerably high concern of their health, evidenced by the awareness to take HIV test. From Table C.1.5 above, more than 80% of the MSM and MSW participants took the HIV test in the last one year, all participants from the Transgender group even admitted to taking the HIV test in the last one year, and most participants (61%) took the HIV test at the Community Health Center (Figure C.1.9).

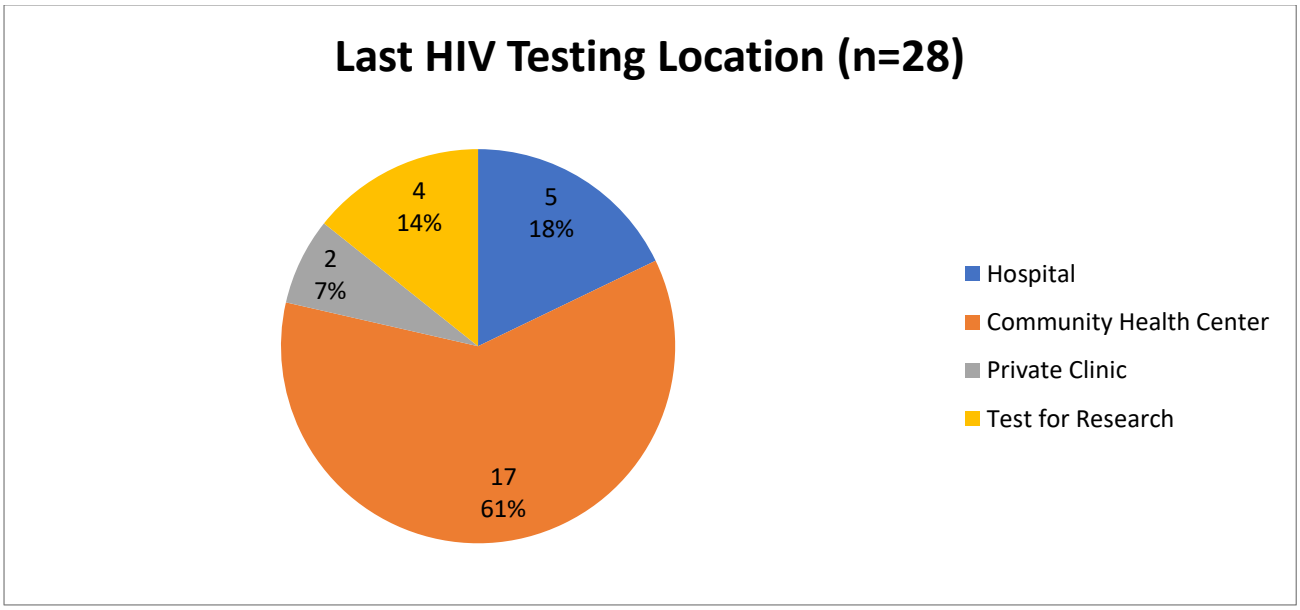


Figure C.1.9. Last HIV Testing Location

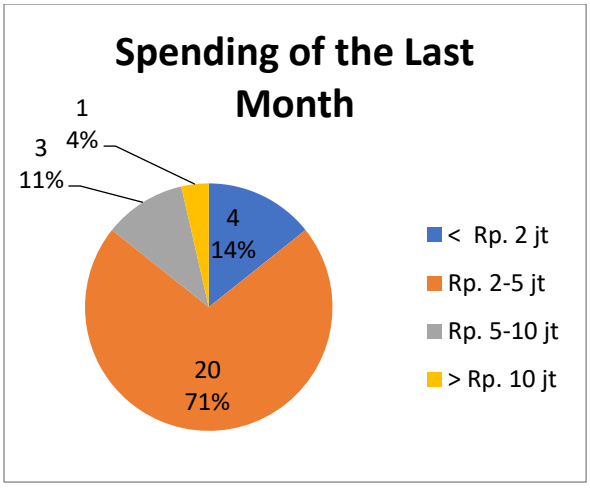


Figure C.1.10. Spending of the Last Month

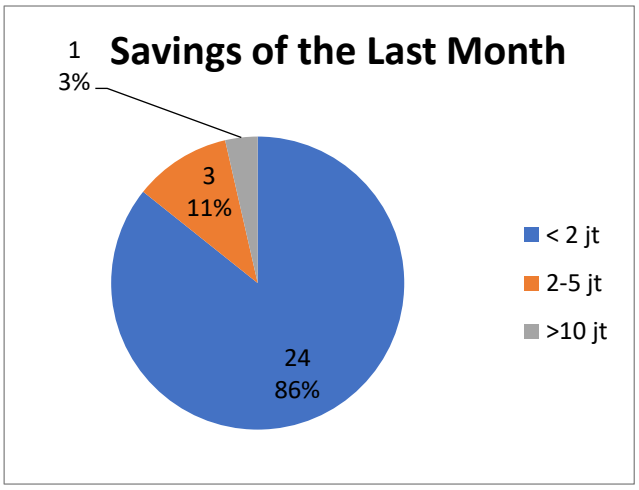


Figure C.1.11. Savings of the Last Month

The amount of participant spending and savings can depict participant income. Despite a participant having spent more than 10 million rupiah, most participants spent two to five million rupiah in the past month. This is reflected in Figure C.1.10. As for the amount of savings of the last month, 86% of the total participants set aside less than two million rupiah of their money to be saved (Figure C.1.11).

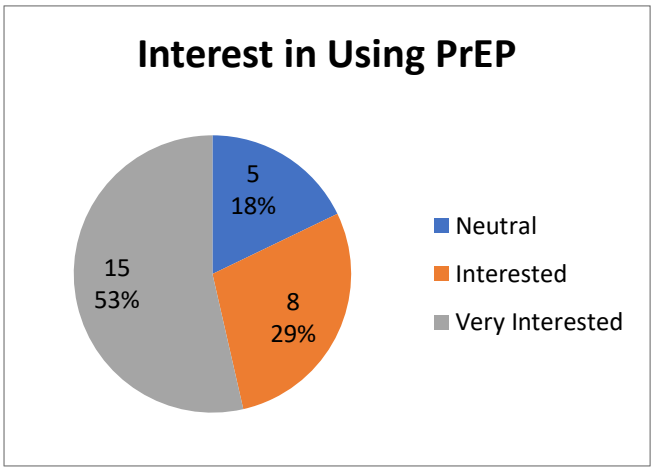


Figure C.1.12. Interest in Using PrEP

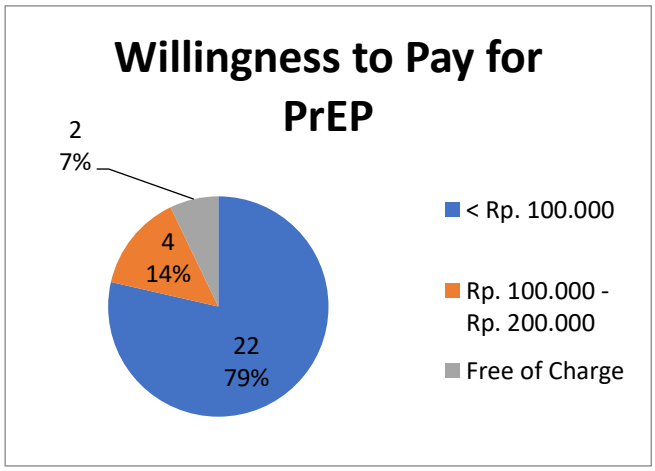


Figure C.1.13. Willingness to Pay for PrEP

In this brief survey, participants were also asked regarding their interest in consuming PrEP if it becomes available in Indonesia. Not one of them said not interested, only a small part (18%) said neutral, some (29%) said interested, 53% of them even said very interested (Figure C.1.12). Should access to PrEP require cost (paid), most participants (79%) stated willingness to expend funds under Rp 100,000 for the necessity as can be seen in Figure C.1.13. Most of the participants from the MSM group (83.3%) stated very interested and almost half of the participants for the Transgender group stated interested to consume PrEP (TableC.1.6).

Table C.1.6. Interest in consuming PrEP * Participant Category Cross Tabulation

			Participant Category			Total
			MSM	MSW	Transgender	
Interest in consuming PrEP	Neutral	Count	3	0	2	5
		% within Participant Category	23.1%	0.0%	22.2%	17.9%
	Interested	Count	3	1	4	8
		% within Participant Category	23.1%	16.7%	44.4%	28.6%
	Very Interested	Count	7	5	3	15
		% within Participant Category	53.8%	83.3%	33.3%	53.6%
Total		Count	13	6	9	28
		% within Participant Category	100.0%	100.0%	100.0%	100.0%

Table C.1.7. Willingness to Pay for PrEP * Participant Category Cross Tabulation

			Participant Category			Total
			MSM	MSW	Transgender	
Willingness to Pay	Free of Charge	Count	1	0	1	2

for PrEP		% within Participant Category	7.7%	0.0%	11.1%	7.1%
	< IDR 100.000	Count	9	5	8	22
		% within Participant Category	69.2%	83.3%	88.9%	78.6%
	IDR 100.000 - IDR 200.000	Count	3	1	0	4
		% within Participant Category	23.1%	16.7%	0.0%	14.3%
Total		Count	13	6	9	28
		% within Participant Category	100.0%	100.0%	100.0%	100.0%

From Table C.1.7 above, it is noticeable that most participants from all groups have the same tendency, that the maximum money they can afford to spend to purchase PrEP is under Rp 100,000.

C.2. Section 2: Description of existing knowledge, beliefs, and misconceptions of the use of PrEP

C.2.1. Knowledge of PrEP

The knowledge or information concerning PrEP is varied, it is ranged from not knowing at all or having misconceptions about PrEP to having considerable (comprehensive) knowledge of PrEP. Figure C.2.1. below gives the percentages of knowledge distribution from each participant group. Most NGOs (80%) had little knowledge regarding PrEP. While most participants from international organizations (60%) had comprehensive knowledge about PrEP, despite several (20%) having misconceptions or little knowledge about PrEP. It is unfortunate that in reality, healthcare providers and the governments still do not have comprehensive knowledge concerning PrEP. Only 3 out of 11 interviewed healthcare providers had adequate to comprehensive knowledge regarding PrEP, while the rest (72%) only had low knowledge level or no knowledge at all. Similarly with the healthcare providers, the Government's knowledge regarding PrEP was still few (60%) and not knowing at all about PrEP (40%).

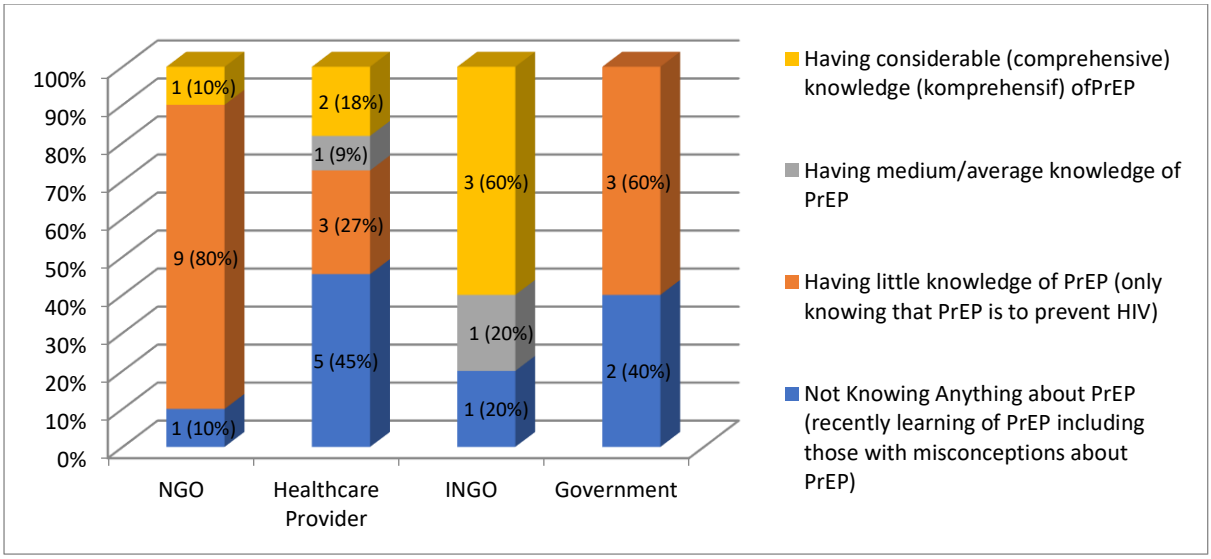


Figure C.2.1. Knowledge of PrEP

Table C.2.1: Understanding of PrEP and Misconceptions

Health Care Provider	Government	International Organization	Local NGO	Community
1. Used by members of key population who are still HIV negative (targeted)	1. Pre-exposure prevention before anal or vaginal sex for high risk population	1. Prevention of HIV transmission for high risk population	1. Medication to prevent HIV infection but there is still no policy in Indonesia	1. MSM: A means of prevention for HIV transmission
2. A tool to prevent HIV transmission	2. Have not heard about PrEP/not familiar with PrEP	2. If used correctly and consistently will reduce the HIV transmission significantly	2. Prevention for high risk population and serodiscordant partners	2. MSW: Drug to kill HIV virus with 99% efficacy
3. Avoid virus replication for 24 hours	3. Used by healthcare providers who are infected with HIV, injection for transgender, should be used 2 hours before sexual intercourse	3. Alternative new drug for HIV-infected people	3. Alternative means of prevention aside from condom but cannot prevent STI	3. Transgender: A pill for HIV prevention and already being used in other countries
4. For high risk population especially MSM and transgender	4. There is still no policy for the use of PrEP in Indonesia		4. Already being used in other countries	4. MSM: Take twice a day or once a month
			5. For lifelong consumption and very expensive	5. MSW: Used only before sexual intercourse

Knowledge of PrEP in International Organizations

All participants from international organizations have heard of PrEP and they knew the function of PrEP as one of the alternatives for the prevention of HIV infection although still partial and not yet complete. For method of PrEP use itself, some of them had initial knowledge, such as manner of consumption and period of use. There was still misconception that PrEP is similar to ARV to be taken on time daily for life.

What I know is that the medication must be taken similar to ARV, he-eh if it is taken at 8, then it must continue to be taken at 8. You cannot stop. Eh if for example we need it for 3 months then we stop, we can't use that medication anymore. Must change to another. (Local NGO)

When I joined NGO, several years later a friend said now there's prevention using PrEP, but they took the medication daily, like ARV. So from NGO friends, then when I participated in a workshop with Mr. Steve. I'm still vague about the time of consumption, whether it can be taken at any time, for an unspecified period taken daily, or in a particular period. I'm still vague on that. (Local NGO)

Knowledge of PrEP in healthcare providers

As seen on Table C.2.1., generally they knew that PrEP is used to prevent HIV although they did not know the details of efficacy. Healthcare providers usually directly appoint key populations as target of PrEP use. Based on their knowledge, there is a certainty that PrEP can cause resistance when used incorrectly and fear of PrEP misuse. Most healthcare providers said that PrEP is used daily but did not know the precise method of use. Some participants from healthcare providers said that PrEP is only used before and after intercourse.

I haven't studied it in-depth. But I heard that it uses Truvada, if I'm not mistaken. The use is not yet significant. In Indonesia, it has not been implemented because first, fear of misuse; second, the medication is within Government subsidy, the worry is that it may cause resistance while they are using, if it turns out they have HIV in the future, they've already used PrEP. That may cause stress. So that was the concern when learning of it. (Health Community Center)

Knowledge of PrEP in the Government

Most participants form Government sectors have heard about PrEP but the information they understood tended to be incorrect. Some even considered PrEP as post-exposure prevention for medical personnel. There were participants who did not know the method of PrEP use and believed that PrEP were only used prior to sexual intercourse. Moreover, there were several misconceptions about PrEP, among which was that PrEP is in the form of injection and specifically for transgender, PrEP is used by medical personnel who recently are infected with HIV (PEP), and PrEP is used the moment before having sexual intercourse.

Not yet. Not yet because the most dominant among them is outside of PrEP whether as pills or injections. Because they are specifically transgender and more dominant. But outside of PrEP. (Government)

What I know PrEP is meant for medical personnel who are recently infected. They have a risk of getting infected from their patients then they immediately use PrEP to prevent infection. That's it, I don't know much yet. (Government)

What I know is two hours prior to having sexual intercourse. (Government)

Knowledge of PrEP in International Organizations

Whether International Organizations or the Government sufficiently believed that PrEP is very effective in preventing HIV and have been proven by research agencies with excellent reputation and recognized by WHO. Although the Government believed that PrEP may prevent HIV up to 90% but they also realized that there are yet to be regulations/policies regarding PrEP use in Indonesia.

> *Regarding efficacy, as long as the medication is taken regularly as recommended, it will be very effective. There was a study I read, the risk may be 70% or 90% lower than people who engage in high-risk sexual intercourse without prior access to PrEP. So as long as the regulations are appropriate and the start is right, I think this is very effective. (International Organization)*

Different from other groups, participants in the I-NGO group had more comprehensive knowledge. Most participants were able to more comprehensively explain the method of PrEP use and the role of PrEP as an effective public health strategy, including anticipating the potential cost issue occurring due to PrEP. However, there was one participant with the misconception that PrEP is a new line of medication to treat HIV.

Knowledge of PrEP in MSM, MSW, and Transgender

From FGD results on MSM, there were participants who were yet to know about PrEP at all and some only knew that PrEP is used to prevent HIV and already available in other countries, such as Thailand. For method of use, most MSM already knew that PrEP is taken once daily. But some still thought that PrEP can be used once per month.

> *PrEP pills that I know are medication to prevent the entrance of HIV, aside from using condoms, we can also take the medication. The risk may be nonexistent but there may be side-effects like from ARV. (FGD MSM)*

> *What I heard, PrEP can prevent someone from being infected with HIV. I knew from NGO. (FGD MSM)*

There were participants who seemed to equate PrEP with PEP, so their understanding of PrEP was as medication taken after rape or condom breakage during sexual intercourse. Furthermore, there were a notion in the MSM group that PrEP is used after being infected with HIV and the consumption frequency is twice daily or once per month.

> *What I know is that medication is to prevent HIV. For example, after the occurrence of rape or condom breakage/not using a condom. Immediately take the medication. (FGD MSM)*

> *Twice daily. (FGD MSM)*

> *I don't know, maybe once a month, if taken daily that's the same as people with HIV/AIDS who take ARV. (FGD MSM)*

Meanwhile, similar with the MSM group, the MSW FGD results show that they have few knowledge regarding PrEP. Generally, they only knew that PrEP is used to prevent HIV but not comprehensive

knowledge about PrEP. Arising misconceptions about PrEP among MSW was that PrEP is used before having sexual intercourse with anyone without a condom.

> *PrEP is taken orally because it's in the capsule form, just once daily if actively engaging or prior to having sexual intercourse with a partner or anyone without a condom. (FGD MSW)*
>
> *What I know PrEP is only for prevention. (FGD MSW)*
>
> *PrEP is the medication to prevent/kill HIV in our bodies, from NGO, 99%. (FGD MSW)*

From FGD with transgender, it was known that they were still very unfamiliar with PrEP and only heard that PrEP has been used in outside of Indonesia. They do not have correct and accurate understanding about PrEP. There are beliefs and misconceptions found from this community. For example, by consuming PrEP, they remain safe despite not using a condom and they think that PrEP is already available in Indonesia although not everyone knows yet.

> *In Thailand or other countries, PrEP is said to be readily accessed. But for the method of use or the form of the pill, I don't know yet. Just heard that in other countries PrEP is already available. PrEP is for before we have free or risky sex. It's said that if we have consumed PrEP, it's safer. (FGD TG)*
>
> *What I know is what Kak K said the other day what PrEP is and when it is available in Indonesia. And Prep is not known to most people yet. (FGD TG)*
>
> *It's said that taking this PrEP medication is to prevent HIV infection. So what's the use of condom if they take the medication. It's just as safe to use or not use condom. (FGD TG)*

C.2.2 Source of Information Regarding PrEP

Participants reported received information from varied sources. However, as seen from Table C.2.2., participants from international organizations are more exposed to information sources compared to other groups.

Table C.2.2. Source of Information Regarding PrEP

Healthcare Providers	Government	International Organizations	Local NGOs	Communities
Training/Congress/Symposium/Workshop	Conference	Journal/ Research	Friends	**MSM**: local NGO, hospital/clinic, mass media
Internet	Journal/ Research	HIV-related News	Internet	**MSW**: local NGO, hospital/clinic
Friends		Internet	Conference/training/workshop	**TG**: no source
Client		Organization private network	Journal/research	

For evidence related to PrEP efficacy, participants from the Government sectors used research from other countries and they sufficiently believe the results. Their main information regarding PrEP comes from seminars/workshops concerning PrEP and also foreign research.

> *I read several journals, medical journals but not yet others. (Government)*

> *I participated in a conference in a European country, I think it was in London, England. Yes, I was in a session which presented several countries who have implemented PrEP. (Gov)*

The main sources of information accessed by healthcare providers are usually from trainings, seminars, and patients/clients. The Evidence for PrEP efficacy generally comes from patient/client experience, stu

dies regarding PrEP, or rumors.

> *Usually from the Internet or congress or symposium. (Healthcare Provider)*

> *Usually from web and information from friends. (Healthcare Provider)*

> *I tried searching independently because I heard from some social media and NGOs. (Healthcare Provider)*

> *Some friends from GWL participated in activities abroad and also from Youth Indonesia – there were clients or patients who mentioned PrEP, and some information I received from the client. (Healthcare Provider)*

Meanwhile, sources of information regarding PrEP itself are obtained by international organizations through the news, scientific journals, and their own organizational networks.

> *Yea. Well it is the other way around, from many studies are conducted and once the studies showed that it is effective, then WHO enrolled and gave recommendation. (International Organization)*

> *From the news, from HIV related news and our organization and the scientific journals. (International Organization)*

> *First, as an organization we have information loading concerning anything related to the HIV-AIDS issues, whether treatments of opportunistic infection, study results, including PrEP issues, so internally our organization has a routine… So the head office distributes relevant information. I also personally try to find information. When I don't find information I need in the organization, I usually search for the information whether through browsing or discussion with other friends who work on the same issue so I would have enough material for use. (International Organization)*

Information regarding PrEP is mostly received by local NGOs through seminars/ conferences/ trainings discussing PrEP. Frequently mentioned source of information is the experience of their friends who have used PrEP. Another information source mentioned is the Internet.

> *I was at a workshop in Melbourne and I met some users. There was a support group for PrEP users so we could discuss further about PrEP. Especially since I focus on youths and how they use PrEP. The rest I read on the Internet and my friend is a PrEP user, he's Indonesian. (Local NGO)*

> *From friends… PrEP socializations were often performed, and I also participated in a seminar about PrEP. (Local NGO)*

> *I got information about PrEP from journal articles, then I visited a clinic in Bangkok to discuss with doctors who administered PrEP. Then there were workshops conducted in Indonesia, if I'm not mistaken they invited from Singapore to come to Jakarta to show examples of people who have taken PrEP: this is the visibility, this is the progress, then this is the efficacy. Those were present at the workshop. (Local NGO)*

In MSM, the quite frequently mentioned information source was information from NGO which work for MSM and transgender communities. While other sources were obtained from hospitals/clinics and from mass media.

> *I knew from field officers in the foundation. (FGD MSM)*

> *From the hospital and NGO friends. (FGD MSM)*

> *I read in Advocate magazine the efficacy level is above 90%. (FGD MSM)*

C.3. Section 3: Beliefs regarding potential benefits and barriers of PrEP

C.3.1. The Benefits of PrEP

Offering PrEP to MSM and transgender communities are perceived to be beneficial whether for the clients or for general public health in Indonesia. Offering PrEP is considered by all parties, whether healthcare providers, the Government, INGO, NGO, and communities to be beneficial in preventing HIV transmission because it has been proven to have a very high prevention efficacy level (up to 92%).

The following table describes and compares perspectives from various parties mentioned above regarding the perception of benefits for clients in PrEP administering in Indonesia:

Table C.3.1. The Benefits of PrEP for Clients

Health Care Providers	Government	International Organizations	Local NGOs	Communities
1. Reduce the risk of HIV transmission especially for MSM and transgender	1. Avoid HIV transmission	1. PrEP would be most beneficial if used together with condom	1. Reduce the risk of HIV transmission especially for MSM and transgender	1. MSM: Protection from HIV transmission
2. More comfortable and clients feel protected	2. Double protection for MSM and transgender	2. MSM is a group where PrEP would be very beneficial because of their high-risk behavior		2. MSW: Protection from HIV transmission
3. Alternative means for HIV prevention (other than condom use and abstinence)		3. Faster reduce HIV prevalence and keep the HIV status negative for those with high-risk behavior		3. Transgender: Protection from HIV transmission

Generally, all participants of this research viewed PrEP to be beneficial for clients because it effectively reduces the risk of clients being infected by HIV, especially those with high-risk behavior. Whether healthcare providers, the Government, International Organizations, local NGOs, or communities have similar responses regarding PrEP benefits due to its high efficacy level, which is up to 92%.

> *The benefit is reducing the risk impact of HIV transmission. (Healthcare Provider)*
>
> *The definite benefit is the 92% prevention efficacy. (Healthcare Provider)*

Surely there is benefit for clients because this prevents them from being sick. If they cannot control their high-risk sexual behavior, at least they can take preventative measures for themselves. (Healthcare Provider)

If they are on PrEP, that means they prevent HIV infection before they are exposed. (Government)

The benefit is reducing new infection. And it has been proven effective. (International Organization)

The parties stated that the use of PrEP has added value, among which, as one of the new alternative tools of prevention and additional protection against HIV transmission aside from existing condom use. PrEP use is expected to effectively prevent HIV transmission. Furthermore, PrEP is considered to be more convenient for clients compared to condom use considering adherence to condom use is still very low.

Because condom succeeded in lowering transmission count, hopefully PrEP can. (Healthcare Provider)

All this time they didn't have an option, the only protection is condom. Abstinence is impossible. But with PrEP, there is a second choice which may not be ideal but worth considering. (Healthcare Provider)

Double protection, basically adding protection. (Local NGO)

Perhaps more to the comfort of the MSM because they're protected by PrEP. (Healthcare Provider)

Condom does help prevent, but if the method of use is incorrect plus, for example, expired, condom efficacy automatically lessens as HIV transmission prevention. Perhaps the efficacy can be increased by PrEP administering. (Healthcare Provider)

Although PrEP is considered beneficial to clients, it is highly critical to determine the appropriate criteria for clients to be administered PrEP. The criteria include whom PrEP is given, condom use behavior, type of sexual relations, and HIV status of sexual partner.

We should not be recommending PrEP to everyone. PrEP should only be recommended to a number of people meeting a number of criteria in WHO guidelines. (International Organization)

The majority of participants stated that PrEP should be offered to anyone with a high risk of HIV transmission, especially the MSM and transgender communities. MSM and transgender are considered as communities necessary to be the target of PrEP use because they are being contributors of considerably high new transmission number in Indonesia. Furthermore, HIV transmission number in those communities experienced significant increase in the last several years. Another reason is because anal sexual intercourse is considered more high-risk in transmitting HIV compared to vaginal sexual intercourse.

MSM for certain because their sex is very vulgar while others are not so. That and sex workers, whether female or male. But MSM is the most. (Healthcare Provider)

MSMs, as we all know anal sex is much more risky of HIV transmission than vaginal sex, so again MSM is a group where PrEP would be very beneficial. (International Organization)

The best example, the most beneficial group would be the people who are in a serodiscordant relationship. So one partner is positive and another partner is negative. That means the negative partner is going to be repeatedly exposed to HIV. In that sense, yes you should. The PrEP would be the most beneficial as a protective measure. If used together with a condom, this is one of the best situations where PrEP should be offered. (International Organization)

Aside from the benefits for clients, PrEP is also considered to provide benefits for general public health in Indonesia. The following table describes participant perception of PrEP benefits for general public health:

Table C.3.2. The Benefits of PrEP for Public Health

Health Care Provider	Government	International Organization	Local NGO	Community
1. Reduce the prevalence of HIV in Indonesia as long as the people living with HIV adhere to the treatment	1. Avoid HIV transmission	1. Reduce new infection → lower the public health burden → reduce the cost of HIV treatment (ARV) in the future	1. Reduce the number of new infection	1. Protection from HIV transmission
2. Prophylaxis is always beneficial and PrEP is a new innovation		2. 90% efficacy of PrEP is fantastic and would be the main benefit for reducing the chance of transmission	2. Increase the general population understanding	2. Reduce the number of new infection

PrEP is considered beneficial to clients due to preventing HIV transmission. Then it is expected that accurate and consistent PrEP use will ultimately lower the number of new HIV transmission in Indonesia. Appropriate use include adherence and correct information regarding PrEP whether to the clients or to the public. Therefore, public understanding regarding transmission risks and PrEP benefits can be widely increased.

For the public, if in the future this is effective, the HIV coverage number in the public will also be lower. (Healthcare Provider)

The big impact is the decline in the number of HIV-positive people. And more public understanding, not just people who engage in anal sex but any sexual activity I think need to be given this information. (International Organization)

Aside from reducing the number of general HIV transmission, PrEP use will ultimately beneficial from a financing perspective, which is lessening the cost for morbidity rate in Indonesia. This is due to the absence of new cases, so costs expended to ARV will automatically decrease, therefore suppressing Government burden for ARV budget.

> *If people are given PrEP, automatically their transmission risk is lower. When their HIV transmission risk is smaller, automatically costs for medical treatment are also lower, then their quality of life is better. This is tremendous impact. Then from the public health aspect, with people not being infected they will not infect. When they don't infect, automatically the number of HIV can be suppressed. Well, when HIV number can be suppressed, automatically costs also… By not finding new cases, costs borne by the patient if we implement the paid ARV system will be lower. It all comes down to a matter of priority and the angle of the cost and benefit. (International Organization)*

> *From a budgeting aspect, the state might experience benefits as well compared to having to provide ARV. Indonesia is the most expensive country in providing ARV. (International Organization)*

In general, communities and NGOs viewed PrEP as widely beneficial to the public health because it can reduce the number of HIV transmission in the public. However, it is important for the positive population to be reached and consistent in their medical treatment. If not, then prevention through PrEP will not be successful.

> *Transmission termination is a huge benefit. Provided the positive partner undergoes medical treatment. If the positive population is not medically reached, then treatment is a never-ending job. (Healthcare Provider)*

C.3.2. The Barriers of PrEP

Various perceptions of benefits emerging from PrEP use are also followed by concern of several matters which may cause losses or barriers in PrEP administering. PrEP is not only considered beneficial whether to clients or public health but also has disadvantages to the clients. Generally, the perception of disadvantages or barriers which may arise from PrEP administering according to research participants is described in the following table:

Table C.3.2. The Barriers of PrEP

Barriers	Health Care Provider	Government	International Organization	Local NGO	Community
1. Side Effects	Perceived the same as ARV or unclear information. (Allergies, gastrointestinal problem, dizziness)	Perceived the same as ARV or unclear information.	No worries related to side effects	Perceived the same as ARV or unclear information.	1. MSM: Price of PrEP, drug addiction, side effects, concerns of being blamed by others

2. Drug Adherence and Resistance	- Non-adherence leads to resistance of PrEP - People who are infected with HIV but still undetected	There is still possibility of drug resistance if client does not adhere	- Resistance is only built up when a person has the virus - Can be avoided if the program is well-managed (ex: criteria)	Still do not know because of no clear information	2. MSW: drug price, side effects, not effective to prevent HIV
3. Cost	Will be very expensive for the Government	Government will only provide ARV for now	- Need cost effectiveness study - Cost is not a problem, calculation needs to be done		3. TG: drug price, side effects, decrease in condom use
4. Logistics	Procurement and distribution	Hopefully will not affect ARV logistics	There will be budget implications and negotiating about the PrEP implementation	- Drug sustainability - Unequal access to drugs	Drug sustainability
Others:	Reducing the use of condoms	- No behavioral changes - Possible to get infected by STI - Lowering the use of condoms	- Psychological aspects (lifelong consumption) - Low acceptability from general population	- Low understanding of PrEP will lead to misuse of PrEP in the community - Drug company interest	Drug sustainability after the study is done

Based on the table above, it can be seen that several matters that became concerns in offering PrEP, especially for the MSM and transgender communities, among which are:

1. **Side effects from PrEP**

Side effects from PrEP use emerged as a concern conveyed whether by healthcare providers, the Government, or communities and NGOs. Only participants from International organizations with better knowledge of PrEP stated no concerns relevant to side effects caused by PrEP. Meagre understanding regarding PrEP and limited information caused most participants, including healthcare providers, the Government, local NGOs, and communities to perceive that PrEP side effects are similar to side effect of ARV medication, which are allergies, gastrointestinal issues, and dizziness.

> *Side effects perhaps if they have a previous history of drug allergies or digestion problems. For example, they have a history of gastritis or stomach ulcers. (Healthcare Provider)*

> *From experience, those who took a single dose experienced dizziness, some as far as disrupting work. Some said, I was well before starting the medication but after taking it I'm sick, some were like that. If we frequently remind them that it's just temporary, they will continue until now. (Healthcare Provider)*

However, the was a healthcare provider who knew one of the compositions of PrEP, Truvada, having no side effects and felt the safest.

> *Well obviously we explain the same way with other ARV drugs. Actually I almost heard about Truvada. Truvada seems like the safest. The reason being almost 80% of patient reported no side effects. But maybe it's epilepsi means there are already treatments for it. But if only for Truvada I don't think there exists one. (Healthcare Provider)*

> *We definitely explain just as other ARV medications. Actually, from what I heard about Truvada, it seems to be the safest. The reason is because almost 80% of patients had no side effects. (Healthcare Provider)*

2. Drug resistance and addiction

Inconsistent PrEP use and low adherence are feared to cause resistance to the medication. This is also stated by the healthcare providers and the participants from Government sectors.

> *Well in the case of resistance, if for example their adherence is bad, efficacy of the medication mechanism is also disrupted, making it ineffective for prevention. (Healthcare Provider)*

The lack of knowledge and information relevant to PrEP causes considerably varied perceptions regarding drug resistance. NGOs and communities felt not having sufficient information or knowledge relevant to PrEP, therefore they are unsure if PrEP can cause resistance or not. Healthcare providers was also reported having inadequate information to determine about resistance.

> *We don't know yet and I also want to know how far, whether tolerance can occur, then how is it when combined with condom. Compared to condom, how is PrEP for the non-adherence category. (Healthcare Provider)*

On the other hand, participants from International Organizations stated that resistance will not occur from PrEP use because resistance will only occur when the virus is already present in someone's body. While PrEP is meant to be used by people who have not been infected with HIV.

> *If the person is not HIV positive and we want to prevent HIV, I think it is less of an issue of resistance. Resistance is only built up when you have the virus. So the person who would be*

taking PrEP, is the person who is negative. There is no virus on that person so the person cannot build resistance. The only resistance that would be passed along is from the positive partner who is taking his drugs and if he is not taking his drugs, his HIV virus would have resistance. If he passes on the virus through the person taking PrEP, then the person taking PrEP will get a drug-resistant HIV virus. I mean, if you don't have HIV how can you build resistance? Just because some people still believe that if you take the medicine and you cannot maintain the adherence then there will be resistance to the drugs. (International Organization)

So resistance can occur if there is infection in our bodies. Or perhaps the infection is not active but present. So when the virus is exposed to Truvada, the effect is not killing as ARV 3 combination. (International Organization)

Drug resistance is built by the virus itself. If you have no virus, then no resistance. (International Organization)

Therefore, resistance to the medication can be avoided with correct understanding regarding the virus itself whether in healthcare providers or clients. Furthermore, appropriate criteria need to be established as to who will use PrEP. A well-managed program since the beginning can prevent this from happening.

If we want to administer PrEP, meagre understanding can create problems because you have to give information to the healthcare workers so that they understand. Drug resistance is built by the virus itself. If you have no virus, then no resistance. However, if that message is conveyed incorrectly to the person who is going to take PrEP, the person will say oh then it doesn't matter. I can take one day and not take the other day and then I can skip… you know. And there is going to be many problems. (International Organization)

If the program is good, it must be preventable. First, they must be HIV negative. There is a period of 7 days. 7 days after being declared HIV negative, they take PrEP. If more than 7 days they haven't taken PrEP, the test must be retaken. So resistance can be controlled if the program is good. The concern is whether people who take PrEP have undergone appropriate screening. Because if they take PrEP directly without knowing the status, that can cause resistance. No losses, just benefits. However, everyone must prevent such things from occurring. It will cause losses when the protocols are not well-conducted. Don't feel like PrEP is something easy, like a magic bullet just because the study is effective. There will be bad things if we don't use the correct protocol. (International Organization)

There is concern that drug resistance also emerges in people infected with HIV but not yet detected (whether the virus has not been detected or they have not taken the HIV test) who consume PrEP. Furthermore, aside from resistance to PrEP, within the MSM group FGD rose anxiety that PrEP might cause addiction. Aside from resistance and addiction, there is a concern from the community that PrEP is not sufficiently effective in preventing HIV.

There is a worry that when they are actually infected, the medication will not be effective anymore. (Healthcare Provider)

There might be drug dependency because they are comfortable with using PrEP and there is fear of misuse by irresponsible parties. (FGD MSM)

There is fear that despite consuming it… still diagnosed with HIV. (FGD MSW)

3. Funding

Healthcare providers, local NGOs, and communities stated that the costs could be one of the disadvantages of PrEP. The amount of costs to be incurred by the clients and government has yet to be determined. Such cost factor was estimated to be a burden for the clients if it is in significant amount. Similarly, MSM and transgender communities also have concerns related to the the amount of fund required to obtain PrEP. This, in their opinion, is the deciding factor whether they would use PrEP or not.

I hope the price is not expensive. (FGD MSW)

If the price is expensive, PrEP will not be effective in reducing HIV population in Indonesia. (FGD TG)

Aside from the cost impacts that burden the clients, PrEP is also perceived have an impacts on drugs financing and HIV treatment in the future. PrEP is considered to be costly by the government. Therefore, an agreement among relevant parties should conducted to discuss which parties are responsible for the PrEP procurement. As stated by the government, only treatment cost is borne by the Ministry of Health, so that the PrEP procurement should be further discussed.

I agree with the financing scheme as the cost is expensive. I hope in the long run we will receive help (borne by the government), especially for the people who are HIV-positive. If the healthcare officers do not indicate that it is a serious issue then it will be better if the key population is encouraged to use their personal funding. (Healthcare Provider)

If the program runs well, we need to have arrangements as currently, ARV can only be purchased by the Ministry of Health (government) for treatment cause. If it is not financed by the government, there should be other ways in providing it. It needs to be seriously discussed because we don't have available ARV drugs that could be purchased personally. A further discussion on the price itself will be expected. Both government and private sector will have varied prices where the latter may charge higher than the first. The discussion will in fact have long process, and the previous discussion on paid ARV scheme was a struggle despite their being aware of the provided ways. (Government)

As the current drug financing is utilizing the State Budget for ARV drugs, from which it flows from the people, we are held accountable for it to the people. (Government)

If it is assigned to the government, it is ideal for them to provide the budget. However, it depends on the stance towards PrEP whether it could be accepted or not. When the budget is accepted, the government will have its support readied, and the amount of fund will be more significant despite the low price of PrEP. With ARV drugs provision is almost 95% fully covered by the government, any expenses for new drugs will automatically increase the cost or budget to be incurred by the government. (International Organization)

On the other hand, participant from International Organization said that rather than considering costs as a main issue, calculation of PrEP is necessary. A study on budget effectivity is recommended if Indonesia plans to provide PrEP besides clinical trial.

Cost effectiveness should be included in the study, and cost analysis in clinical trial. Apart from the price, these can be calculated from the doctors' additional workload and additional

cost for HIV test. Other factors need to be considered are the cost of the whole protocol and responsible parties for logistics (if State Budget is insufficient, will private sector be available to help?). If private sector provides the fund and have it registered, how much will it cost? Where do patients can have access to the drugs? I believe PrEP is not subsidized by the Australian government, for example. (International Organization)

4. Logistics

Concerns on logistics or PrEP supply are related to PrEP purchase method, potential buyers, distribution, PrEP supply timeliness, PrEP overall availability, PrEP supply continuity for clients upon the completion of the study. Meanwhile, several participants stated PrEP supply would not impact the on-going ARV logistics, and negotiations could be performed to address this issue.

I think the provision should be on time and buffer needs to be prepared. It will be useful when the stock arrives late or the patients will go on a travel. Such situations may need us to have extra ready supply. (Healthcare Provider)

We hope there is no disruption with the stock we have, meaning stock arrangement on ARV drugs is compulsory. (Government)

I'm concern that we will not have equal provision, similar to what happened with our access to condom. (Local NGO)

It is only available in large cities, but not in smaller cities and disadvantaged areas. As for the drugs supply, we are not sure whether it will continue or abandoned halfway. (FGD MSM)

5. Others

a. Possibility of contracting Sexually Transmitted Infection (STI))

Despite the effective proof in preventing HIV transmission, PrEP cannot prevent the Sexually Transmitted Infections (STIs) as it could only be avoided by using condom. Hence, the use of PrEP without condom will not prevent the client from contracting or transmitting STIs.

The disadvantage is if the client does not use condom, he/she could contract STI, but if he/she takes the dosage regularly, he/she may be resistant to STI. (Government)

b. Psychological and Social Aspect

Other social aspects, such as stigma, discrimination, and public acceptance also viewed as barriers to the PrEP use in Indonesia. The psychological aspects related to the need of lifetime PrEP consumption or in the span of client's high-risk behavior should also be considered in implementing PrEP at a later time.

International organizations admitted its concerns against the possible disadvantages caused by the PrEP administering viewed from psychological aspects. Lifetime PrEP consumption will be a psychological burden for the clients. Nevertheless, this view has yet to be fully understood. There is still uncertainty among participants whether PrEP use could be directly discontinued without triggering other effects in the future if the clients are no longer performing high-risk behavior. In addition to the social aspect, public acceptance towards PrEP is still deemed as a challenge for clients in consuming PrEP.

Relating to psychologic aspect, this is what I meant, I will feel safe performing high-risk behavior when I consume PrEP with terms and conditions to be followed, it means I view my continuous high-risk behavior as normalcy as long as I consume PrEP for life. I'm uncertain

whether PrEP could be discontinued in certain period of time or condition. Should I continue consuming PrEP even if I may not be in a risky situation anymore? The disadvantage lies in the lifetime context because I have yet to fully understand it. The main disadvantage from the social aspect will emerge when public believes the possibility of consuming PrEP could be used as the basis to legalize the high-risk behavior. (International Organization)

If my partner consumes PrEP, I will have negative thoughts and be suspicious. (FGD MSM)

c. Lack of understanding will cause misuse

On the other hand, NGOs regarded that low understanding on PrEP and its use could lead to misunderstanding for clients and public which eventually causing PrEP misuse in wider community.

If the explanation is not align with PrEP itself, the concern is miscommunication. The appropriate way is to have experts perform the explanation in order to prevent miscommunication among people, for example whether they have contracted HIV or not prior consuming PrEP, and their need of being careful despite having smaller chance in contracting HIV, as well as how to ensure them keep using condom. (Local NGO)

In general, loss perception and barriers in PrEP administering for clients are related to knowledge and understanding of participants concerning PrEP.

Apart from the several stated concerns, the urgency of understanding HIV and PrEP itself should be conducted from initial stage, not only to clients, but also communities as well, in trainings or capacity building provided by healthcare providers. According to one of the INGO participants, the efforts are still severely lacking in trainings provided by Indonesia healthcare providers. If information dissemination on the virus itself is not appropriately given, misunderstanding in PrEP use will continue to persist. Therefore, healthcare providers should acquire the right and proper understanding prior to providing services.

I have been doing this training and capacity building and knowledge empowerment for HIV. Unfortunately, training materials, especially developed by the government, did not include information on HIV [20:00]. The document started with HIV bla bla as if the readers understand what HIV is. We need to be aware of the fact not all people understand HIV despite its 20-25 years of information dissemination. If healthcare providers dont have basic understanding on the difference of virus, bacteria, fungus, we will have problems in healthcare. We honestly have problems in healthcare. (International Organization)

Other concerns are human resources readiness and medication procurement management aspect, including purchasing, import/export, production, distribution, and storage (logistic). Indonesia is still considered not capable in creating policies to address this issue if PrEP to be provided in the country.

C.4. Section 4: Potential Barriers to Service and Uptake

C.4.1. Barriers in Accessing PrEP

Table C.4.1. Barriers in Accessing PrEP

Health Care Provider	Government	International Organization	Local NGO	Community
Stigma & discrimination	Government service workload	Policy, regulation, protocol	Stigma	MSM: stigma, side effects, dependency, price
Administration issues (ID, pay or free)	Administration issues (transgender specific)	Accessibillity, affordability	Location of PrEP access	**MSW**: stigma, side effects, dependency, long-term effects, price
Policy		PrEP supply, national guideline, unclear HIV testing method, separated room leading to stigma		**TG**: stigma, side effects, dependency, long-term effects, price

According to healthcare providers, clients' barriers in taking up PrEP regularly derive from stigma found in clients surrounding environment, such as family, social life, and healthcare providers themselves. Another issue that may become a barrier is the absence of regulation, policy, and national guideline on PrEP in Indonesia. If unclear understanding and regulation still persist, the PrEP implementation itself will possibly create new problems and miscommunication.

> *Because there are barriers called discrimination and stigma, how far the access to the medication surpass…I think it will not be hampered by stigma and discrimination. (Healthcare Provider)*

In addition to stigma, medical cost issue in health service could also be a barrier to clients in accessing PrEP. This also relates to owning personal insurance/BPJS for PrEP clients. According to healthcare providers, barriers will appear if PrEP is being given freely as required information and documentation will increase and stricter.

> *In my opinion, there will be no problem if it uses paid scheme. However, if it is free, automatically clear data is crucial. For example, ID, BPJS, and other information data owned. Especially transgender people. Such information should be clear. If they don't have*

one, we suggest them to have certificate of temporary residence created first. (Healthcare Provider)

Government believes its workload will increase and they fear it will disrupt the supply and access service itself. Moreover, identity and anonymity issues on users and potential users could also become barriers.

If it is also included in Government facilities, similar barriers will come up. Most likely it will be similar to ARV and its barriers, supply, as well as its access. Private sector will perform careful measures; they will only sell medicines with the most potential buyers. It will be not beneficial for them if the need to the medicine is minimal. (Government)

Barriers to access for International Organization are mainly in the obscurity of PrEP itself observed from regulation, policy, procurement, guideline/protocol, and its continuous supply.

It all depends on the accessibility and affordability, whether it will compete with the ARV supply for People with HIV/AIDS (ODHA) or not, and whether it will be freely provided or not. If the government of Indonesia approves the PrEP use, people must buy it. It cannot be freely provided because ODHA is more important, so they must buy it. These should be weighed in by the government. It's not all just merely whether PrEP can be used or not, but when PrEP is implemented in the country, they need to consider the related aspects as well. (International Organization)

Now in terms of availability, stock out will be a major issue. There is always stock out. (International Organization)

Even for ARV, the main issue is the testing. Prior giving PrEP to someone who is positive, HIV testing should be conducted. We are aware that the testing is not commonly available. Eventually, you need to get results and the algorithms are still unstandardized. Some provinces are still using this and that, you have all the issues. (International Organization)

"The problem with the public healthcare system is you have rooms for different things. When you start putting names on rooms this is for STI or HIV, problems start to appear preventing people from coming. If they were treated equally and no separated rooms, you would manage to solve something. This is highly important for these people because they don't have HIV. They come because they have a risk. If you treat them as HIV patient, do you think they will come? No! This basically an issue of when you are going to see them as a problem. I am unsure about Indonesia and how open the people are about their sexual orientation, whether I take notice of people seeing me as MSM or transgendered people or not. If that was the case, I would rather label the top of the rooms along the words of pregnant woman, transgendered people, so that you could provide them everything. What is the point of putting HIV on the rooms? They are going to be discriminated again. We need to find solution because these people don't have positive HIV. Where do they fit? What kind of registration they need? (International Organization)

Based on local NGOs perspective, what could potentially be the main barriers in accessing PrEP are stigma in taking up PrEP and locations at which PrEP can be accessed.

> *It is the same, stigmatization, this group has yet to have recognition. For example, if we agree I am gay, I will need PrEP. Meanwhile, the health service is …, that means there is no recognition then. I thought it would be a barrier. (Local NGO)*

> *In my opinion, if public has the ability to access PrEP, my biggest concern is that its availability may complicate the clients because possibly it could only be found in large cities. Smaller cities should also be provided with access. (Local NGO)*

> *Access refers to the ability to obtain PrEP of which it is provided. It all depends on the location that provides PrEP. By location, it may be easier for the people as they will not face barriers. It is similar to accessing condoms. It is easy, but it depends on whether people want to access it or not. Therefore, if people want to access PrEP and have the knowledge on locations with the provided access, they will access it. (Local NGO)*

C.4.2. Barriers in PrEP Adherence

PrEP could effectively prevent HIV contraction if consumed daily and consistently with the appropriate dosage. Table below describes factors that could inhibit clients from consuming PrEP daily:

Table C.4.2. Barriers in PrEP Adherence

Health Care Provider	Government	International Organization	Local NGO	Community
Personal business leading to missing the daily PrEP consumption	Assumption of not needing PrEP	Forget to take PrEP	Price	**MSM**: stigma, boredom from taking PrEP daily, forget to take PrEP, long-term effects, rarely having sex
Boredom from taking PrEP everyday	Patient will need to buy continuously	Boredom from taking PrEP everyday	Boredom from taking PrEP everyday	**MSW**: complicated, side effects, price, forget to take PrEP, lazy
Side effects	Laziness	Side effects	Stigma from taking up PrEP	**TG**: boredom from taking PrEP everyday, price, complicated,

			reaction with other medications
Stigma	Side effects	Forget to take PrEP	
Assumption of not needing PrEP	Incomplete information about PrEP		

All participants stated there are several factors that could inhibit clients in accessing or consuming PrEP every day that it affects the medication adherence. Such factors, among which are:

1. Stigma from public if they consume PrEP

Stigma from public on daily medication is viewed as a barrier for clients relating to the medication adherence. This was clearly stated by healthcare providers, NGOs, as well as communities which directly experience this stigma. Such stigma derives from closest relatives or public at large which directly and indirectly cause the clients not to comply with the medication.

> *I believe it's stigma. It is important as adherence is basically about trust. I have to ask how many it is left because I don't know where the other 28. (Healthcare Provider)*

> *It's about access, price, and also adherence. Among MSM, they shun you if you take medication. Taking up medication is not about stigma. (Local NGOs)*

2. Clients' activity may cause client to forget taking medication

Aside from stigma, other factors that could inhibit the medication adherence are tight activity and risk of forgetting. The first factor could cause clients to often forgetting taking their medication. The previous experience with the ARV implementation made the participants perceive that such factors could appear in PrEP administering.

> *Their tight activity perhaps related to their work. Sometimes they have to work overtime, and there are times they wake up late which will affect the adherence. (Healthcare Provider)*

> *I can take the medication every day, but I'm afraid I will forget about it if I'm ill or I get different medications from a doctor. (FGD MSM)*

Moreover, forgetting to take medication is often experienced by the clients. This is perceived as inhibiting medication adherence in PrEP clients especially when they do not experience any pain and feel not needing PrEP.

> *They forget because they still think they don't need it. (Healthcare Provider)*

3. Boredom from taking daily medication

Another barrier in consuming PrEP is boredom from continuous daily medication despite not being ill.

I believe it is because of boredom. Even those who are contracted they sometimes experience medication discontinuance let alone those who are not in pain. (Healthcare Provider)

If there is low adherence, one of the factors is the psychological factor. They undergo a period of boredom because they have to take it daily. Based on my experience in consuming ARV lies in its side effects. (International Organization)

Maybe its boredom. People who take ARV mostly remember the need of taking it every day and not to let it cut off. I think they need to repeat the cycle. The disadvantage is the boredom. (Local NGO)

4. Perception of not needing PrEP

Government stakeholders stated the perception of not needing PrEP itself becomes the barrier from consuming PrEP daily.

I'm afraid there is a perception of not being at risk if not exposed to free sex, or not needing to consume PrEP during the end of month as the free sex is conducted only during the early days. Therefore, they think they are not at risk. This is my estimation. (Government)

They have yet to realize the use of PrEP. Sometimes they are aware, but other times aren't. (Local NGO)

5. Access location

Aside from the factors above, PrEP access location is also regarded as one of the factors of adherence barriers to PrEP. Far locations from home, mode of transportation used, and transportation cost are among other things that inflict barriers for clients.

Apparently there are many people who live far from Community Health Center. Obtaining PrEP itself will be quick, but we will have difficulties in monitoring it. For those who consume ARV, they have monthly control, but when those who use PrEP don't come within a month, it will be difficult to monitor. (Healthcare Provider)

On accessibility, the issue lies in whether the client is mobile or not, willing to consume the medication daily, but apparently accessing PrEP is also not easy during my travel to places with no access to the medication. This will automatically make me missing the routine. (International Organization)

6. Fear of medication side effects

Fear of medication side effects which might be triggered by PrEP becomes a barrier for clients in accessing PrEP daily. Such side effects, among which are dizziness, kidney problems, nausea, and so forth. These side effects are believed could influence the adherence because the clients could feel not strong enough and easily give up from continuing the medication. Moreover, the lack of information on PrEP could lead to the fear of PrEP having similar side effects as ARV.

If we take too much medication, we will feel dizzy. (FGD TG)

When I know I'm at risk, I will be confused whether I should take it daily. I'm unsure whether it will disrupt my kidneys' condition. (FGD MSM)

Adherence with no direct correlation is side effects problem. When people experience uncomfortable effects, such as nausea, there is high possibility they will call it quit because of not being strong enough. (International Organization)

Factors that influence the adherence are firstly side effects, and secondly the incomplete knowledge. These two will affect clients in consuming PrEP. (Government)

Side effects and psychological aspect because people think they are still healthy; they feel they must consume the pill continuously. Will it affect their psychological state? (Local NGO)

7. Cost

Cost factor is also believed could inhibit clients from accessing PrEP. There is a concern in clients if PrEP is expensive, they will not be able to purchase if in a long term continuously.

I am afraid the medication will be expensive. (FGD TG)

If the medications are expensive and the amount of pills is few it will be a problem. It will deplete the content of wallet or may not be able to purchase the medication again. (FGD MSM MSW)

C.4.3. Strategies for Overcoming Barriers

Several identified methods can be strategies in overcoming barriers in accessing PrEP. The following table describes strategies to be used in overcoming barriers to access PrEP according to participants:

Table C.4.3. Strategies for Overcoming Barriers

Health Care Providers	MSM	MSW	TG
Education	Taking PrEP with other vitamin/medicine	Can be purchased at drugstore	Can be bought for a period of time (a month)
Counseling/motivation /accompaniment	Using alarm as reminder		Easy to access even at rural areas
Taking PrEP after lunch	Changing PrEP bottle or form		
Replacing PrEP bottle with vitamin bottle			

1. Socialization, PrEP education to patients, and PrEP promotion through community and social media

   Strategies used by healthcare providers so their clients would take medication daily is by educating regarding PrEP and HIV. Another method used is by giving counseling, motivation, or advocacy to their clients. Furthermore, the socialization also needs to be conducted with coordination with available outreach officers.

   > *The same as I do with HIV positive people, stating benefits and losses to them and the importance of checking kidney functions or seeing a doctor every 3 months so they remain monitored. So if anything happens, they immediately ask. (Healthcare Provider)*
   >
   > *Coordination and socialization with available outreach officers. (Healthcare Provider)*

   One participant also said that the service where he works has a promotion program onto social media which he considers effective in providing information.

   > *The clinic has social media. Facebook is no longer so we promote our services on YouTube, we also have Instagram. Then we make group WhatsApp for the community and our NGO also has a group. So if there are any promotions relevant to our services, we usually share there (Healthcare Provider)*

2. Located in several nearby settings easily accessed by the community. In the MSM and NGO group, they expect the availability of PrEP provision easily accessed by the community, not only limited to healthcare services, but minimarkets; and not just limited to Jakarta or big cities

   > *For prevention program, for me it needs to be easily accessed everywhere. The same as condoms being sold everywhere. So it's easily accessed and HIV prevention can take place. (FGD MSM)*
   >
   > *Well it is available everywhere but at hospitals, pharmacies… but I think the means of prevention needs to be accessible anywhere because not everyone can access hospitals, not everyone is comfortable about going to hospitals to get it. But if it's available at Indomaret, they can access that… (Local NGO)*
   >
   > *I think if PrEP is accessible to the public, I fear that it will only be available in big cities… (Local NGO)*

3. Extra time for service, one-stop service, and LGBT-friendly

   > *During work hours is possible, but a lot of MSM have jobs and they ask for outside work hours, which depends on the service. We already do a lot of extra time. This Friday we operate until late at night, tomorrow on Saturday we are also open (Healthcare Provider)*

Services are expected to be one-stop, so they are not referred to other places. (Healthcare Provider)

The main thing is friendly service for GWL friends, that's the main thing because some friends are not comfortable with the service because the officers are a certain way. Hopefully that will not happen again. (Healthcare Provider)

4. Giving affordable price or covered by government and private insurance
   Covered by BPJ, JKN, and other insurance (Local NGO)

5. Clear policies and governance as well as supporting PrEP availability
   The policies must be supportive, for example the Ministry of Health can give a guide to healthcare providers' procedures if community wants to access PrEP. Longer services, present policies, friendlier (Local NGO)

C.5. Section 5: Expectations regarding the potential for risk compensation among MSM and Transgender using PrEP

C.5.1. Condom Use

Table C.5.1. Potential Risk Compensation (Condom)

Health Care Provider	Government	International Organization	Local NGO	Community
Decline in condom use	Decline in condom use	Decline in condom use	Decline in condom use	**LSL**: decline in condom use, unaffected condom use
Unaffected condom use		Increase in condom use	Increase in condom use	**MSW**: decline in condom use, increase in condom use, unaffected condom use
				TG: decline in condom use, unaffected condom use

The majority of healthcare providers are concerned condom use will decline because they feel safe by taking PrEP. They think by the availability of PrEP, their clients are more likely to not use condoms at all while having sex. In some healthcare providers, condom use will not be affected by PrEP availability. According to their experience with their clients, it was feared that condom use in their clients would decrease, but it was not proven in practice.

> *Declining, definitely declining. (Healthcare Provider)*
>
> *There's the possibility they might 'come loose' because it's already protected if they know the research will lower transmission risk or prevent HIV. In couples where one is positive and one is not, most of them wish to be positive as well. That's for MSM, which are high in use, and their circles remain the same. Positive? Yes, but the other is negative. I want to be positive as well, some are like that. (Healthcare Provider)*
>
> *Yes, especially if they say, in the beginning we ask them to use condoms and it was incredibly difficult, with reasons of discomfort, less pleasure… if PrEP is available they will choose PrEP than wearing condoms. (Healthcare Provider)*
>
> *I fear it might change, that's my fear, because they feel protected they don't see the point in using condoms. (Healthcare Provider)*

With the medication, why should they wear condoms? Even the ones told to wear condoms are not guaranteed to do so. (Healthcare Provider)

Depends on perception… that's why I said there needs to be education. If they are too carried away with fear of HIV, there's neglect of STI. That's why transmitted diseases must be packaged together. (Healthcare Provider)

Initially I thought so, but it turned out differently. The ones on PrEP still used condoms, only few on PrEP didn't use condoms and it returns to whether the current generation is okay with having sex using condoms. Not using condoms is something that misses for them. Perhaps they're patterned that way, compared to the older generation who say, "ok PrEP that means I don't have to use condoms. (Healthcare Provider)

All Government stakeholders said that PrEP availability will cause condom use to drop drastically. According to them, this is due to PrEP making them feel safe and immune against HIV, so they will no longer use condoms when having sexual intercourse.

Except for condoms, the worry if that they take medication so abandon condoms. (Government)

I worry that it might decrease the number of condom use. (Government)

From International Organization stakeholders, condom use is also feared to decrease due to PrEP availability. They said that PrEP can give a sense of security which causes condom use to decline and according to one of the INGOs, the ones who will access PrEP are most probably the ones who do not want to use condoms.

The concern is also news, reports, studies, the use of PrEP, the availability of PrEP impacting condom use. There'll be a decline in condom use because they think it's 100% safe. If the introduction and implementation are not well managed, there's a risk of misinterpretation and wrong messages being promoted about HIV and prevention. So we still stress about comprehensive approach, we need to continue the condom use. (International Organization)

Condom use and consistency are already low, so actually the people on PrEP are people who don't want to use condoms, but whether or not the number of sexual partners increase, let's study together. I don't dare to speak because there's no data… it's better if we study, we'll see. (International Organization)

Perhaps. Because they think they're not a risk, which is also wrong. They think they're no longer at risk so they cannot use condoms, they can have many partners. That is included in the protocol that this is not a magic drug. (International Organization)

It will increase… condom use will definitely increase because that is one of the absolute requirement for someone taking PrEP. (International Organization)

In terms of use of condoms, maybe because they might understand, okay I am taking the drugs, I am no longer at risk, I am protected, and they might care less about gonorrhea, syphilis because they can get the treatment. But again, if you balance it for MSM, what is the most important thing you're trying to prevent? HIV right? So it is a good question but for me is the objective of PrEP. What is your objective of PrEP? What are you trying to do? That is the main question for me. (International Organization)

From the NGO stakeholders, majority says that the number of condom use will decrease due to the feeling of security from PrEP use. They consider the sense of being protected from HIV makes them more daring to not use condoms when having sex despite catching STI more often.

A friend of mine used PrEP, he kept catching STI because he didn't use a condom. So the information received was wrong. He felt free to have sex 50 times a day without a condom. If I were him, I'd be proud to be on PrEP as well. I have a magic drug here but he caught STI very often. If we talk about high-risk population, it's usually with different people so the number of sexual partners increase. (Local NGO)

Possibly. I mean, if they're on PrEP they might think they don't need to use condoms anymore. It's possible such thought occurs. Or possibly refusing PrEP use because of condom use. (Local NGO)

No, in fact I think people who adhere to condom use possibly consume PrEP, not PrEP influencing people to use condoms. People who consistently use condoms are automatically aware and they see PrEP as an opportunity, they'll be okay. But not because they consume PrEP then they use condoms. (Local NGO)

PrEP consumption will definitely lower or even eliminate condom use. If PrEP has become their choice. Because there's a choice. Except if at one time it is out, perhaps they will go back to using condoms. (Local NGO)

From MSM FGD results, most said they would more rarely wear condoms when having sexual intercourse because they feel more comfortable having sex without condoms.

Personally, rarely, I think. It feels better to not use it. (FGD MSM)
If PrEP is proven 100% to prevent HIV, perhaps condom use can decline a little. But I feel as long as it's not 100%, people will remain cautious and use condoms. (FGD MSM)
I think it will be rare because they want the sensation and they feel secure because there's an HIV preventer. (FGD MSM)
I'll bet people will more rarely use condoms. (FGD MSM)
Rarer. This is predictable. Because the ones who are concerned about PrEP are usually they who feel high-risk because they used to be or still inconsistent in condom use (like me). If they are given PrEP, they will be more loose. Even without PrEP they're loose, especially if on PrEP. (FGD MSM)
It depends. For me with the availability of PrEP, it's already very good. Still have to use condoms and take PrEP. So not dependent on PrEP, just because there's PrEP then unwilling to use condoms anymore. (FGD MSM)

From MSW FGD, their opinions were slightly more varied. Some said that with PrEP availability, condom use will increase, some say it will decrease, and some say condom use will be unaffected. Participants who said will use condoms more rarely had the same reason as stakeholders and Healthcare Providers, which is feeling secure if on PrEP. In participants who said their condom use will increase explained that it will be better if they use condoms more often. While participants who said that condom use will be unaffected by PrEP said that they will always use condoms while having sex.

> *Perhaps using condoms more rarely. (FGD MSW)*
> *Feeling secure using PrEP. (FGD MSW)*
> *Not using condom feels better. (FGD MSW)*
> *It's possible that if PrEP can be purchased, most Indonesian people won't wear condoms anymore. (FGD MSW)*
> *Using condoms more often, the better. (FGD MSW)*
> *Just the same because now I always use condoms. (FGD MSW)*
> *I would still use condoms. (FGD MSW)*
> *Still use condoms. (FGD MSW)*

In transgender, some had the opinion that PrEP will make their condom use decrease because of condom underestimation. In participants who said that their condom use will be unaffected said that because PrEP protection is not yet 100%, then they will still use condoms and also take PrEP because it cannot protect from STI.

> *Perhaps high-risk behavior because this is available so they underestimate. For example, now that there's PrEP it's okay that I keep getting anal sex because it's safe from HIV. (FGD TG)*
> *Like was said earlier, for the ones who already know, we don't get transmitted with HIV but catching STI, so condom use remains. (FGD TG)*
> *Well because automatically it's written 92% is very helpful but must still use condoms. (FGD TG)*

C.5.2. Number of Sexual Partners

Table C.5.2: Potential Risk Compensation (sex partner)

Health Care Provider	Government	International Organization	Local NGO	Community
Increase in sexual partner	Increase in sexual partner	Increase in sexual partner	Increase in sexual partner	**LSL**: **increase in sexual partner, unaffected number of sexual partner**
Unaffected number of sexual partner	Unaffected number of sexual partner	Unaffected number of sexual partner	Unaffected number of sexual partner	**MSW**: **increase in sexual partner, unaffected number of sexual**

	partner
	TG: unaffected number of sexual partner

Number of sexual partners will increase according to a majority of healthcare providers with the availability of PrEP. One healthcare provider said that PrEP availability will not affect number of partners.

> *Increasing. Because I think they won't change. More prevention, they will worsen. (Healthcare Provider)*
> *MSM and transgender. Not much, they will worsen. They will feel even happier, having more sexual partners. (Healthcare Provider)*
> *Increasing, because they have an antidote so it's safer for them to have sex with a lot of partners. That's how I think. (Healthcare Provider)*
> *Yes, I think, because they feel secure, they feel more free to be with others. Perhaps that's the negative impact, I don't know. Confidence. (Healthcare Provider)*
> *Probably increasing. (Healthcare Provider)*
> *If the behavior of adding sexual partners, I don't think so. The ones who usually have many will continue to have many, and the ones with few partners will remain that way(Healthcare Provider)*
> *The same... (Healthcare Provider)*
> *That depends, but from what I've asked, although they already have one partner, they still have other partners. So whether it would have an effect or not, that depends on themselves. We can't judge. But according to me, doesn't seem like it. Not too influenced. But different from sex workers. (Healthcare Provider)*

From the government stakeholders, most voiced similar opinion with healthcare providers that the availability of PrEP will increase the number of sexual partners.

> *They will do more high-risk behavior because they feel safe. Except if the setting of PrEP is as an additional HIV prevention element, so PrEP plus. (Government)*

> *That will possibly increase, possibly changing partners because they feel they're safe by taking PrEP, according to me. (Government)*

> *Yes, that's correct. Because purchasing sex is related to finances, if they have a lot of money perhaps they can 'buy' more people, when the finances are difficult perhaps the 'buying' frequency will lower. Except if there are more sex workers, and the price comes down perhaps the buying behavior remains the same. I feel there was too much connection between PrEP with number of partners but if with condom there might be perception misleading. (Government)*

Opinions regarding number of sexual partners in INGO was divided regarding the number of sexual partners of PrEP users. Some said that the number of sexual partners will definitely increase, while

some said that there is no relation between PrEP use and the increase of the number of sexual partners.

> *I can't predict this, but if you were me. I might have more sexual partners, hahaha... I mean psychologically if people say that MSM have the highest risk on HIV and suddenly they said 'oh you're on PrEP? The transmission would be lower because they feel protected. We need to work on that as well. I think that is the concern, like they don't want to use condoms anymore, they will have sex like crazy. But you need to protect them from sexual disease. (International Organization)*
> *Perhaps it will influence the number of their sexual partners because people on PrEP feel they're safe, they feel secure and they feel they will not be infected with HIV, so their desire in exploring their sexual proclivities with new and more partners than usual can happen. (International Organization)*
> *Perhaps. Because they think they're not a risk, which is also wrong. They think they're no longer at risk so they cannot use condoms, they can have many partners. That is included in the protocol that this is not a magic drug. (International Organization)*
>
> *Condom use and consistency are already low, so actually the people on PrEP are people who don't want to use condoms, but if the number of sexual partners increase or not, let's study together. I don't dare to speak because there's no data… it's better if we study, we'll see. (International Organization)*
>
> *Sexual partners increase? No. That question comes up every time there's HIV intervention. And repeatedly, research has shown that the number of sexual partner has nothing to do with prevention or treatment intervention. That has never changed. (International Organization)*

From the NGO stakeholders said that the number of sexual partners will not be affected by PrEP availability and even if affected, not by much.

> *If we talk about high-risk population, that's usually with different partners so the number of sexual partners will increase. (Local NGO)*
> *Increasing. Of course, because honestly when I participated in PrEP study, I wanted to participate because I thought it would be good. (Local NGO)*
> *No, should be no. Except, I don't know, if transgender or MSM sex workers then there's the law of markets. If they're on PrEP, it will increase. (Local NGO)*
> *I don't think so. The number of partners I think is just natural. (Local NGO)*
> *Multiple partners cause people will think er well this depends on the person we can just judge everyone with multiple partners. (Local NGO)*
> *No, there no correlation, nothing can guarantee whether people will reduce the number of their sexual partners. (Local NGO)*

From results of MSM FGD, the majority said that the number of their sexual partners perhaps will not be affected by PrEP availability. Only a few participants said that perhaps there will be an increase. According to them, the number of their sexual partners is more decided by mutual attraction with their sexual partner and not whether or not PrEP is available.

> *Possible, especially for gays who like changing partners. (FGD MSM)*

Not just gays, especially for those who like to sleep around. (FGD MSM)
Obviously with PrEP availability will be more open and more visits to the sauna. (FGD MSM)
I think it will increase. (FGD MSM)
People who have sexual intercourse will remain the same… with condoms… no condoms… medication… no medication. (FGD MSM)
For me, I engage in sexual intercourse if I'm attracted to the person. Not just anyone. (FGD MSM)
Although I take PrEP and have a condom, if I don't feel suitable with the person, I won't engage in sexual intercourse until I feel that it's a match. (FGD MSM)
Nothing changes from my profile (despite being mentioned as PrEP user) in finding a partner. Automatically the number of my sexual partners tend to be stable although maybe I would like more. (FGD MSM)

From the side of MSW, they also voiced the same thing. Some participants said that the number of their clients/partners are more determined by the number of incoming clients on that day and their luck.

Even without PrEP there's an increase. The availability of PrEP will just make me feel safer. (FGD MSW)
Just the same. (FGD MSM)
No impact... PrEP or no PrEP it's still difficult getting clients. (FGD MSM)
Sometimes low demand, sometimes high demand. (FGD MSM)

From transgender FGD, all participants said that PrEP availability will not affect the number of their sexual partners. Transgender participants voiced the same thing as MSW that the number of their clients/partners are more influenced by the number of their clients on that day and their luck.

Just natural, one or two once in a while. (FGD TG)
Depends. Depending on luck. (FGD TG)
Sex workers depend on the customers. If there are many, then. (FGD TG)
According to me, just the same even if PrEP is available, it depends on the client. (FGD TG)
No, sometimes they can be 50 clients in a day, sometimes none at all. (FGD TG)

C.6. Section 6: Potential Models of Service Delivery

C.6.1. Should PrEP be Offered in Indonesia?

Based on the knowledge and beliefs about PrEP and views about the advantages and obstacles that are caused by taking the PrEP, all of the participant were given proper knowledge about PrEP both in the interview and FGD processes. Most participants whether they are service providers, stakeholder and NGO stated that PrEP can be offered in Indonesia. The following Table and figure demonstrates the response of the participants about their agreement on PrEP being offered in Indonesia:

Table C.6.1.1. Should PrEP be Offered in Indonesia?

Agree/Disagree	NGO		Provider		INTERNATIONAL ORGANIZATION		Gov		Total	
	N	%	N	%	N	%	N	%	N	%
Agree that PrEP should be offered	9	90%	4	36%	2	40%	2	40%	17	55%
Disagree that PrEP should be offered	1	10%	3	27%	1	20%	2	40%	7	23%
AGREE but need to consider various conditions			4	36%	2	40%	1	20%	7	23%
Total	10	100%	11	100%	5	100%	5	100%	31	100%

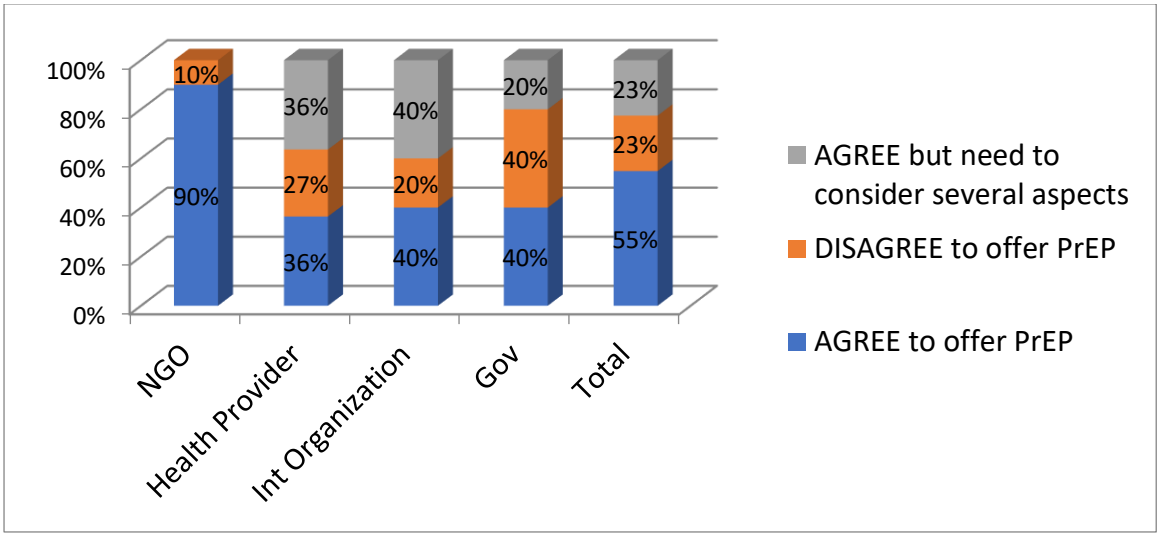


Figure C.6.1. Agreement of PrEP being offered

As we can see from the table and figure above, most participants, whether they are from NGO, healthcare provider, International Organization or the government agrees and states that PrEP may

be offered in Indonesia even though there are various considerations that need to be taken into account or need to be fulfilled beforehand. Almost all the NGOs (9 out of 10 participants) which are focused on counseling and advocating MSM and transgender agree that PrEP should be offered in Indonesia. While those from healthcare provider, government and International Organization had various consideration. On the other hand, of disagreement also came from 3 groups of interview participants at a visibly larger percentage of 40% from the government sector.

The table below illustrates the responses (agree and disagree or yes but) and their reason on why PrEP should be offered in Indonesia:

Table C.6.1.2. Should PrEP be Offered in Indonesia? Perception from key stakeholders

Health Care Provider	Government	International Organization	Local NGO	Community
1. YES because it is highly effective and a new innovation	N/A	**1. YES** because: it is highly effective to prevent HIV and worth to try to reduce new infection	**1. YES** because: it is highly effective to prevent HIV	**1. YES** because PrEP can prevent them from HIV transmission, double protection
2. YES BUT it is needed to be accompanied by condom adherence	**2. YES BUT** need to think about the cost, drug availability, and adherence	**2. YES BUT** need to be very clear about criteria, drug availability and delivery, adherence	**2. YES BUT** what about the drug's availability	
3. NO because condom is an effective tool and condom adherence is still very low therefore PrEP will not be needed	**3. NO** because there are still a lot of barriers in health system (logistic, policy, etc.) and the issue of adherence	**3. NO** because we need to think about social and psychological aspects of giving PrEP	**3. NO** because the use of condom is still low, so it is better to increase condom adherence instead use PrEP. PrEP also perceived to be expensive.	3. NO MSM: because it is not effective if we still have to use condoms

Reasons for agreeing with PrEP being offered in Indonesia is related to knowledge and the participant's perception of PrEP. Knowledge or information were obtained through international seminars, scientific journals, WHO guideline and stories or experiences from acquaintances/clients who have used PrEP. They agreed that PrEP has been proven to be highly effective in preventing HIV transmission (up to 92%). They said that if PrEP were introduced in Indonesia then the HIV transmission rate in MSM and transgender communities may be decreased and it can directly decrease the number of new HIV transmission in Indonesia.

From the International Organization and healthcare provider perspective, there is a perception that there are currently no prevention method which can prevent HIV with a 100% rate, therefore it requires various innovation and combination of prevention program in order to decrease the infection rate.

> *"Since there are limited prevention programs, it is worth to try to see if it's complemented with other technology like PrEP, because its not 100% anyway." (International Organization)*
>
> *"Since it is highly effective and we supposed to prevent an influx of new cases so it should still be introduced." (International Organization)*
>
> *"I think PREP will be a tool to support our effort to decrease the number of HIV transmission." (Healthcare provider)*

The low condom adherence among the MSM and transgender community, which causes the high risk of HIV transmission in the two communities serves as more reason for PrEP to be introduced in Indonesia.

> *"These people who don't use condoms are 16% which means there are around 84% who do not consistently use condoms, maybe once in a while, if these 84% not provided with PrEP they will have two risks, they will be at risk of getting infected with STI and also HIV, but if they receive PrEP and complemented with proper education it won't only reduce the risk of various STI, even if they get STI the risk is decreased to only one, just STI. This way we have decreased one issue and we only need to find a solution for another issue which is the STI, so if there are pros and cons well it's true that those will arise, but I think PrEP still needs to be offered since it will be one of the solution rather than dealing with two at a time let's just avoid one and think of the other. " (International Organization)*

Nevertheless, PrEP is still perceived as something that needs to be combined with other prevention tools such as condoms, since PrEP is unable to prevent STI transmission. Education and emphasis on the use of condoms is still deemed necessary to be done and ensured in order to prevent STI transmission. The PrEP adherence issue is also perceived as important to be considered.

> *"So, think of it as the real golden standard, PrEP should not be used alone. It should be used as a package with condoms so the condoms will prevent other STIs and unwanted pregnancies and PrEP will act as prevention towards HIV. So, if possible PrEP will be beneficial in all sides not only for HIV but also for STIs so it should be used with condoms." (International Organization)*

"For the prevention program, I agree that it should be introduced, but condom adherence also needs to be emphasized. Furthermore, they tend to discontinue taking other STI medications. Sometimes we need to consider the effectiveness or the compliance of our key population friends to consume the PrEP. The concern is when we have supplied and subsidize for PrEP but along the line they discontinued mid-way or were only committed for one or two months. It should be sustainable. PrEP is one of the choices for... " (Healthcare Provider)

On the other hand, the low level of compliance for condom adherence in MSM and Transgender community was the reason why participants disagree with the plan to introduce PrEP in Indonesia. According to the participants, it is better to increase condom adherence first than introducing a new prevention method (PrEP) which is perceived as ineffective since condom adherence is still so low.

"In my opinion for the current context, the rate for condom adherence is still low, if I'm not mistaken it is only 25%. Which is very far under the target, and the use of PrEP in itself will not be effective for the Indonesian context due to the very low awareness of our friends for condom adherence. I think that if they consume PrEP and still use condoms they will come up with questions such as… 'so what are we consuming PrEP for then?'" (NGO)

This view correlates with the perception of condoms as a more effective means for prevention since apart from preventing HIV transmission it also prevents STI. PrEP is perceived as unnecessary if the condom adherence can still be increased. Furthermore, there is also a perception that PrEP is too exclusive and identified as something for the middle class and above.

"I think that if we review the matter condoms are actually more effective than PrEP in the end, what we should do now is make sure condom adherence increases, not by introducing another tool, I honestly think that PrEP looks too upper class, too exclusive. " (NGO)

"Since PrEP is only for HIV and we still have to use condoms then why don't we just stick to condoms? Why do we have to add PrEP when condoms are able to prevent HIV transmission. HIV is actually an STI anyway. Sexually Transmitted Infection, that's it. That's the concept, if we still have to offer condoms and if they are already using condoms do they still need PrEP?" (Government)

"Based on my experience so far, condoms are adequately effective… so I think we don't need PrEP. Our patients here, their level of awareness for condom adherence is pretty high." (Healthcare Provider)

"I can conclude that it would be better to support condoms 100%." (Healthcare Provider)

Another reason that several participants disagree with introducing PrEP in Indonesia is lack of knowledge and very low ARV and condom adherence. The low level of ARV adherence has demonstrated that the community is not ready to prove that they can adhere with PrEP medication. The same goes with healthcare providers expressing their objections and concerns towards PrEP drug intake compliance.

"It would be hard for this to be followed by someone who really has HIV-AIDS, if they were declared as HIV positive it's already difficult for them to access ARV every day." (International Organization)

“As an illustration, in order to persuade HIV positive patients to take their medicine, especially those who are still in stadium 1 and still very fit, not to mention the general population who are not the key population, it’s already very hard." (Healthcare Provider)

"it’s not too digital, especially if their general knowledge about HIV transmission is still very low. If for instance, what’s their name, for people who have high education maybe they understand, but if they still don’t understand what HIV is then maybe this is not for them, especially if they still feel healthy but they have to take medicine regularly, if they feel healthy why would they feel like they have to take medicines. " (Healthcare Provider)

"In their point of view, ‘I feel healthy why should I take medicines?’, like that. People who are actually ill, HIV positive, in terms of medicine adherence, we already have to go through great lengths to persuade them for ARV medicine, it’s like that." (Healthcare Provider)

Table C.6.1.3. Reasons PrEP Need/Do Not Need To Be Offered in Indonesia

Agree	Disagree
• Based on empirical evidence, PrEP is proven to be effective in preventing HIV transmission with a very high effective rate.	• PrEP still needs to be combined with condoms since PrEP is unable to prevent STI transmission.
• The introduction of PrEP in Indonesia will decrease the number of HIV transmission within the MSM and transgender community as well as decrease the rate of new HIV transmission in Indonesia.	• Condom is perceived to be more effective as a prevention tool (HIV and ITS) so PrEP is perceived as unnecessary
• PrEP is an innovation to the HIV prevention program to decrease the transmission rate	• The perception that PrEP is too exclusive since it is associated as something for the upper class.
• The use of condom in the MSM and transgender is still very low which makes PrEP deemed necessary to be offered.	• It is better to increase the adherence of condom first before introducing a new prevention method (PrEP) which are viewed as ineffective compared to the low adherence of condoms.
	• The community is perceived as not yet ready to commit and adhere to PrEP use based on their level of condom adherence and experience with the very low medicine adherence.

Aside from the all the reasons for both agreeing and disagreeing presented above, there are various aspects that are deemed necessary to be reviewed and considered in preparation to introduce PrEP in Indonesia. The introduction of PrEP is viewed as an intervention which would be difficult to apply

with the current condition in Indonesia. The issues that need to be considered covers health aspects (side effects, resistance, etc.) social, psychology, ethics, and technical (logistics, policy, procurement, distribution, human resources, etc.).

> *"Which means if we are viewing in the general context the question I think is whether PrEP is applicable or not, I am no sure that it is applicable, I don't think it's applicable yet, by taking into context the other aspects around us, be it social aspects, the psychological aspect of everyone who will access or consume PrEP or even the aspect of support from people around them who knows or are in contact with the person…" (International Organization)*

> *"This is no simple intervention. There is a lot of screening in the early stage of PrEP. Then the protocol for a routine examination afterwards is quite rigorous, they have to get an HIV test every 3 months. And how are we going to give the medicine. What do we do with the risk? Then there's the adherence." (International Organization)*

C.6.2. General willingness to access PrEP

> *"For the prevention program, it must be accessible everywhere. The way condom is for sale everywhere. So it can be easily accessible and prevents HIV." (F, LSL)*

The following table explains the survey results concerning interest in consuming PrEP, when they are available in Indonesia. Not a single person is uninterested; only a small percentage (18%) is neutral. 29% of the survey participant are interested, while 53% are very interested. Based on the table, the MSW group has the most participants interested in consuming PrEP.

Table C.6.2. Interest towards PrEP * Participant Category Crosstabulation

			Partisipant Category			Total
			MSM	MSW	Transgender	
Interest towards PrEP	Neutral	Count	3	0	2	5
		% within Participant Category	23.1%	0.0%	22.2%	17.9%
	Interested	Count	3	1	4	8
		% within Participant Category	23.1%	16.7%	44.4%	28.6%
	Very Interested	Count	7	5	3	15
		% within Participant Category	53.8%	83.3%	33.3%	53.6%
Total		Count	13	6	9	28
		% within Participant Category	100.0%	100.0%	100.0%	100.0%

C.6.3. Preferred delivery model

In general, all the participants stated that health care services (whether it is a Primary Health Care, clinic, or hospital) are the most suitable places to distribute PreP. The following chart shows, based on the participants' preference, which places should distribute PrEP. The participants selected many different places, disabling the chart from being able to be presented in percentages, only numbers. In Figure C.6.3. most of the participants prefered the Primary health care followed by hospital. Distributing PrEP in NGO office and pharmacy was highly debated within the group. Aside from those two places, some NGO participants stated that they should able to purchase PrEP from a mini market, similar to purchasing condoms.

I believe PrEP should be available in mini market not just hospitals. People should be able to purchase PrEP in stores that they visit often. If PrEP are only sold in pharmaies, it will be harder to purchase since each pharmacy has their own rules and regulations." (NGO)

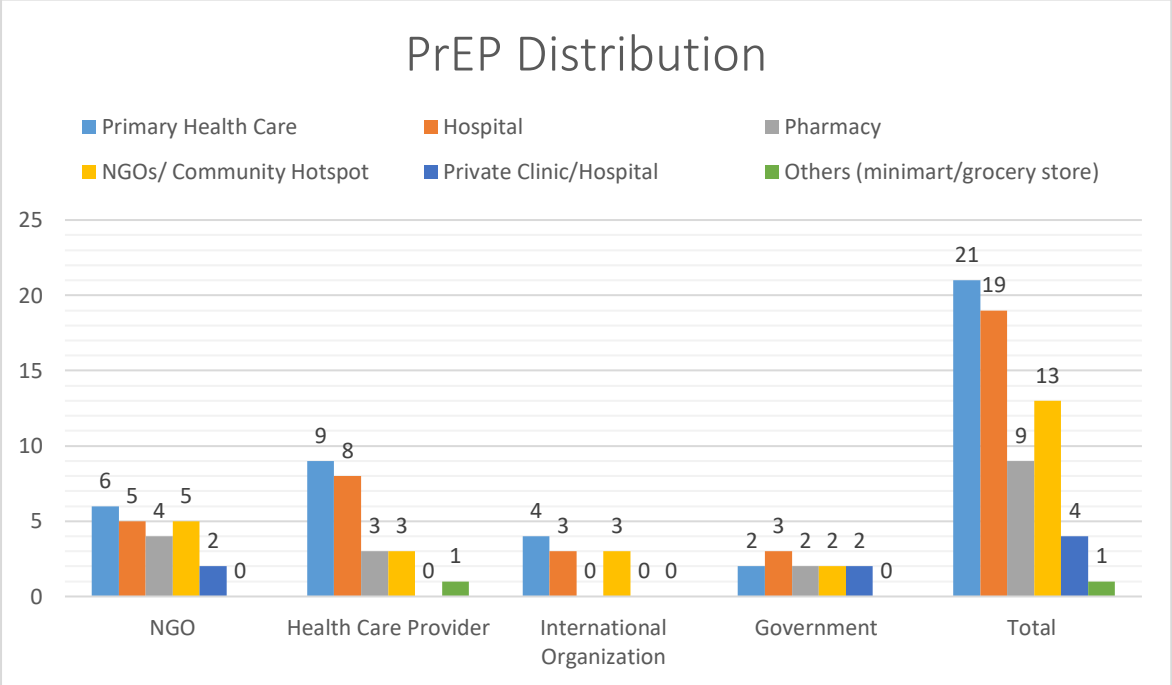


Figure C.6.3. PrEP Distribution

Looking at figure C.6.3. based on the MSM, MSW, and Transgender communities' perspectives, there were many variations regarding the distribution of PrEP. Similar to the selections of the previous four groups from the chart above, most participants selected primary health care as the most suitable place for PrEP service. The participants' main reasoning for choosing the Primary Health Care are: easily accessible and most people are familiar with their service.

Table C.6.3. Each group's preferences for places to distribute PrEP

MSM	MSW	Transgender

• **Primary Health Care and Hospital (in collaboration with LGBT hotspot)** • **Pharmacy and NGO are not preferable.** • **Pharmacy related to privacy** • **NGO is ideal only for distributing information and education of PrEP**	• Primary Health Care, Hospital, Gay hotspot, and pharmacy • NGO is perceived as inconvenient (concern of embarrassment and need of privacy)	• Primary Health Care, NGO are most preferable; some TGs perceive that hospital is more unfriendly compare to PHC • Some TGs perceive that pharmacy and 'local grocery' are also good for PrEP distribution as it offers more accessibility compare to the health services; but others feel embarrassment, hesitation, and fear of stigmatization from purchasing PrEP in Pharmacy.

1. The MSM group preferred Primary Health Care and hospitals that collaborates with LGBT-friendly places. In addition, the PrEP distribution at the Primary Health Care can be part of a health package. Interestingly enough, the participants considered the NGO office as an unsuitable place for PrEP distribution because they believe the NGOs do not trust the effectiveness of PrEP and the program. They also believe that there will be stigmatizations toward the users from the NGOs. Although, the participants believe NGO offices are a suitable place to receive information about PrEP.

> *At all community health services. Public Health Care or hospital is also fine. (FGD MSM)*
>
> *If possible, not at a pharmacy. I prefer at a community health service like Public Health Care. It has cooperated with many LGBT foundations so it is easier and there's no discrimination. (FGD MSM)*
>
> *For me, (NGO office) is not very effective. As a place to spread information is fine, but as a place to access the medicine is not suitable. There will be a sort of stigma as to who consumes and who does not. (FGD MSM)*
>
> *Nowadays, NGO only cares about reaching their target so people will "forced" to join by the NGOs. (FGD MSM)*

2. From the transgender group, they selected a variety of places for the distribution of PrEP. Most of them chose Primary Health Care and transgender-friendly NGO offices. They have also chosen hospital although there is a perspective that it will be harder to access from the hospital. There are some participants who agree on distribution of PrEP at many places (e.g. mini market, pharmacy), but there are also those who disagree. These participants do not agree a pharmacy should be a distribution place because they believe people will be too embarrassed to enter a pharmacy and there will be prejudices.

Hospitals in collaboration with NGOs which handles HIV cases (FGD TG)

But it depends on the primary health care center, some of them are not friendly (FGD TG)

In communities we won't feel too awkward (N2); yes it will be more pleasant (N6); no embarrassment(N3) (FGD TG)

The concern with pharmacies (N2); if it's at the pharmacy what might happen is (N4); we become embarrassed to make a purchase or something. Since pharmacy workers would know what PrEP is used for. Well at primary health care we can say that we've been familiar longer and it's more pleasant with communities (N6) (FGD TG)

For me personally if this should be legalized by the country well then how can we access it easier. Maybe making them available through pharmacies, nearest shops maybe (N2); small stalls (N1); Yes it's good to have them (at hot spots etc.l), it would be better so those who consume can also get them, and they can also be given briefing, socialization. If you want to have sex you need to use this so it's better, it's 92 percent (N2) (FGD TG)

3. From the MSW group, they not only selected health services like Primary Health Care and hospital, but also community hotspot and pharmacy. They selected hotspot and pharmacy based on their experiences from receiving condoms at many locations. They see pharmacy as a practical place because people will have easier access to PrEP. The MSW group has the same perception as the MSM group when it comes to the NGO office. They believe it is not a s

At every service point, Primary health care or hospitals, if possible make it free, in cooperation with LGBT-friendly places (FGD MSM)

Sell them at gay community places such as T1 (FGD MSM)

It's okay to sell them at pharmacies but at NGOs it might be complicated and embarrassing when we bump into other people there. (FGD MSM)

It's simpler to buy them at pharmacies (FGD MSM)

At gay-specific places… at Meli (discotheque) is also possible (D, MSM, FGD).

Maybe be make them available at every primary healthcare center so everyone who wants a VCT can be briefed that there is an HIV prevention drug and be given PrEP there so when they want more PrEP they will automatically have their health condition checked (R, MSW, FGD)

or the distribution of PrEP.

C.6.3.1. Primary Health Care as a PrEP distribution point

Primary Health Care is the most selected place by all three groups to distribute PrEP. There are similar reasons from the groups, which are: Primary Health Care is easily accessible; it has a good history of providing services to key groups therefore there will no stigmatization and discrimination; and, it can easily monitor the users of PrEP. The only concerns are Public Health Care's workload and its lack of experience in providing PrEP to patients.

The pros and cons of having Primary Health Care as a place to distribute PrEP from four different groups are presented in the following table:

Table C.6.3.1. Pros and Cons of Primary Health Care as Distribution Place

Group Category	PROs	CONs
Provider	- It is more effective because all services are in Public Health Care - Can reach to middle and lower classes - Can be combined with the ARV distribution service because it can make the access of the medicine and the monitoring of the user easier - Easier to control and document the usage - More comfortable for the community since they are LGBT friendly - Can be a first stop for prevention	- Increase workload - Concerns that the health staffs lack the sufficient knowledge about PrEP, which can be difficult to determine when is the proper time to give PrEP
NGO	- Can provide basic service - Communities outside of Java can visit Public Health Care easier because the locations are relatively close to where they live - In accordance with standard health service practice; primary service first before being referred to other services - Primary Health Care is used to providing services to key groups hence there is no need to expand with new services - In general, the cost of medicine is cheaper in Primary Health Care - Easy access can impact the compliance	- Reluctant to visit since it is too crowded - Too much workload - If it will be a paid service, it would be in a private clinic
Government	- Can reach key population	- Increase workload
I-NGO	- Should be added into Public Health Care service, especially when the service complies with LGBT friendly principles. There is relatively no stigmatization and discrimination in its health service	- Ensure that the health staffs understands well regarding the PrEP program and make the access easier for the communities

Box C.6.3.1

It is more suitable, at least the patient would not recklessly consume the drug, so there has to be guidance from the doctors or health care professionals, if outside of that then they will access it freely. (Healthcare Provider)

Actually if we're aiming for effectiveness we would like to go to primary health care services, all the service provider would surely help, it's just that our current knowledge is limited, we are worried that our comprehension did not cover this prophylaxis, and suddenly we examine someone on prophylaxis, how long do we determine, who knows that when we examine them if they are HIV negative or just in the window period, the window period can take up to 7 months. (Healthcare Provider)

Accessibility is easier that way. And it automatically affects pricing, since people won't have to go all the way. And this also affect places outside of Java probably with adherence, people won't run out since it will be within reach. (International Organization)

It can reach the key population (Government)

Health facilities don't have problem with stigma and discrimination, but we can make it less on the whole like if we have principles that would be more friendly places to MSM and transgender community. You just need to be careful if u're going roll out program like this. You need to make sure they know really well about the program. Make it easier for them to access the medicine (International Organization)

C.6.3.2. Hospitals as a PrEP distribution point

The four groups also selected hospitals many times. Their reasons are: hospitalscan easily monitor and control the usage of PrEP; and, it is a safer place since there are many doctors available to help with managing the risk and the side effects of the medicines. Their concerns are mainly with the complicated administrative process and procedures, which can hinder in obtaining the medicine. In the following table, there are more pros than cons by choosing hospital.

Table C.6.3.2. Pros and Cons of Hospital as Distribution Place

Group Category	Pros	Cons
Provider	- More control when it comes to regulating the usage, reporting, and evaluating. If it is not controlled, they can develop a resitance to the medicine. - It is safer since there are SOPs. Can become a 24-hour One Stop Service so that patient can visit whenever - Can receive opinions from doctors and nurses - Public Health Care is overburdened	- Administration fee is much more expensive than Public Health Care
NGO	- Can monitor the usage - Can prevent the side effects	- Harder to obtain due to complicated procedures

Group Category	Pros	Cons
Government	- Can provide a more complete service, starting from counselling to control - PrEP has side effect so the distribution must be from a health service that has many doctors - Patients will comply more because, in general, those who visit a hospital has a strong desire	- Increase workload, but can be handled by involving other parties
I-NGO	- There is no stigmatization and discrimination	- Access to HIV test in hospital is proven to be low

For hospitals, they are actually safer since they already know the SOP, how PrEP is for health care. It's actually better that way since we can monitor, and they are a one stop service with routine examination even primary health care won't always have 24-hour examination. Since PrEP outside of operational hours can just be reported any time. I agree with this more. (Healthcare Provider)

Like what I said before the primary health care centers are already over-burdened. Even if this program is for pay, I am sure the hospital can monitor better in terms of recording, they can also report every month how many distributed to how many people the same way with ARV (International Organization)

My suggestion is, if you want to offer PrEP don't do it over primary health care but in hospitals instead. Why? Cause in my opinion somebody who takes the trouble to go all the way to the hospital have a bigger will and this will affect their adherence. And I see that the current work load between hospitals and primary health cares, PHC has hundreds of patients, if we ask them to also run the adherence counselling for PrEP, they will be overworked, so it would be more flexible with hospitals. Although I won't deny that it will add to the hospital's workload that's already pretty high but with hospitals maybe we can involve more parties there, that's how I see it… (Government)

Access to testing is small at hospitals, the number of VCT is little at hospitals especially if we use the BPJS health coverage system, so this should be at the primary service level, if not at the community healthcare center then the PDP clinics. (International Organization)

C.6.3.3. Pharmacies as a PrEP Distribution Point

Whereas Primary Health Care and hospital are suitable places to distribute PrEP, the groups considered pharmacy unsuitable. There are more cons than pros for having pharmacyies as a distribution place, as presented in the table below. The advantages for choosing pharmacy is the accessibility without complicated procedures. However, the concerns are: the side effects of the medicine; the risk (e.g. more unprotected sex) due to the easiness of obtaining the medicine; and the lack of monitor and control of the usage. Some participants from the NGO group believe it will be easier to obtain PrEP in a pharmacy and they should not be ashamed. However, the others

believe there will be resistance in obtaining both condoms and PrEP in a pharmacy due to the feeling shamefulness and the fear of having their sex habit judged.

Table C.6.3.3. Pros and Cons of Pharmacy as Distribution Place

	Pros	Cons
Provider	- If the medicines are in stock, then it will make the procedure easier; the doctor will only need to prescribe the medicine and the patient can visit any pharmacy (at least Kimia Farma), not a small pharmacy	- Easier for people to choose "unprotected sex" because the medicine can be obtained easily - Side effects will not be handled properly because the patient will not consult with a doctor, which cause them to stop taking the medication
NGO	- Can obtain by themselves as long as they have consulted with a doctor; afterwards they just need a prescription and purchase it in a pharmacy - Easier, no complicated procedure needed - No need to feel ashamed because they do not need to visit the same place when they need PrEP	- unable control who purchased the medicine - Pharmacy regulations which can hinder the purchase compared to purchasing it through mini markets which has less regulations - Feeling of shame since there is connotation that they will only purchase PrEP when they plan to have sex - There are people who are still ashamed when purchasing condoms, let alone PrEP since the pharmacist knows what it is used for - There is no consultation with a doctor about the taking of PrEP and the side effects
Government	- It is preferable by the communities because it will be easier to obtain PrEP. However, this can only be done if there is a strict supervision	- Difficult to control the usage - Concerns of side effects and resistance to the medicine
I-NGO	- There is no issue as long there is a prescription	- Drug abuse and overdose - Dangerous if they develop resistance

If it is in stock and in production it will lighten our load, all we need to do is write a prescription so the patient can just buy it from any pharmacy, at least from kimia farma if you want to avoid engaging with smaller pharmacies (Healthcare Provider)

If for instance we already made policies for PrEP in Indonesia, if for instance like I said before, a private person, they might feel embarrassed to access from the primary health care center, but if they get them from pharmacies they will think, "it's not like they're going to recognize me in the future." So this is why I think when this program is applied it should not be limited for access through services but also from pharmacies. (Local NGO)

For the Pharmacy itself, like I said before since there are side effects to PrEP, if the treatment is not medical professional, where are they going to consult to if there are side effects? The concern is when side effects occur, they end up quitting PrEP. (Healthcare Provider)

Well I suggest the hospitals, if we do it over pharmacies then I have reservations. If strong controls were applied the way we treat psychotropic drugs then it might be possible. But there are leaks despite the control we applied, it would be more difficult. But if put them in pharmacies, with strong monitoring. This has to do with resistance and side effects, many things… (Government)

As long as there's a prescription, but there will always be misuse. The same way with Dumolit and other drugs. Even if prescribed it still won't be for 30-40 tablets, no doctor would prescribe that much. (International Organization)

C.6.3.4. PrEP distribution at NGOs

Similar with distributing PrEP in Pharmacies, alternative choices for PrEP provisioning at NGOs also show a variety of answers and generally require adequate consideration. In particular, one participant from an international organization group stated that PrEP is not intended for people with illness or people who are HIV positive, therefore it should be accessible everywhere. Certainly while considering the aspect that proper education still needs to be given to the people who will access it.

Meanwhile, NGO participants do not fully agree in setting NGOs for PrEP distribution. The benefit perceived by almost all groups is that NGO as the most familiar setting which are able to reach the groups being counselled. This way it will ease their access to PrEP. However, there are several mutual concerns expressed by all of the groups, among them: monitoring issue, security issue, and the issue of NGO resource potential who are not healthcare professionals.

As we can see from the table below, the concern that arises from choosing NGOs as a PrEP provisioning point outnumbers the benefits.

Table C.6.3.4. Pros and Cons of distribution through Communities

Group Category	Pros	Cons
Provider	- It is best to only give them to certain communities, such as sex workers.	- Hard to control usage - Not entirely safe, concern of medical issues such as side effects and being untreatable by doctors - Fear of misuse, based on experience from providing ARV - Less effective - Considered as potentially dangerous since it is easily accessible and traded freely.

Group Category	Pros	Cons
		- NGOs are not healthcare professionals so they will not understand PrEP side effects
NGO	- Closer to the target community so it would be easier to access. - More comfortable and there is risk of embarrassment - It is feasible but it needs further examination	- There needs to be counselling service by service officers. - The communities need to be guaranteed to understand PrEP program very thoroughly in order to increase access. - There needs to be staffs with medical capacity.
Government	- Can reach the key groups	- If it does not become a government program, then it will be difficult to monitor its usage and other issues. - There still needs to be monitoring by doctors to see if there are side effects. - The prevailing regulation for drug distribution is for hospitals, primary health care center and appointed pharmacies.
I-NGO	- Communities provide a comprehensive support - People who access are not those who are ill or HIV positive, therefore it is possible to do this through community as long as the in-depth information is provided before using PrEP	- NGOs are not formal channels for drug distribution - Difficult to monitor

Well it is pretty good, it's just that only certain NGOs can give them, … we cannot have all of them distributing, for female sex workers… it seems that it would be hard to just give without prior approach. NGOs do help but not for everyone…

If for instance they give counselling and motivation. But distribution still has to come from the 9PKM Koja service.

Yes, so they have a pot luck between them, like a medicine potluck. So they have some kind of group, every group for instance gather one medicine.

It is possible, but the monitoring needs to be more for medicine doesn't the rule state only hospitals, primary health care, appointed pharmacies may distribute them (Government)

For these people, they should be able to serve the community. Again, they are not positive, one contact with the health care facilities, to come and test for the HIV and screen for HIV testing and do

the other lab tests that they need to do. If they are negative and if the community person can assure that this person is indeed going to have a consistent exposure, then just give them the drugs in the community. Why do they need to go to the health facilities? They are not sick, they do not have anything. Take it at home, every three months also, if they have complains or side effect or HIV, so you need to give them three sets of information. One to PrEP and how to take it and what they need to do and not to do. Second, what are the side effects of PrEP, if they have side effect where they have to go. Third thing, what is the symptoms of HIV zero conversion. If they have this, where to go. Three distinct information given to them and let them take the drugs.

C.6.4. Willingness-to-pay

The willingness to pay for PrEP will be analyzed based on data of: participant expenses for the past month, funds that may be reserved, and the nominal of funds allocated to purchase PrEP if they are not provided for free.

From figure C.6.4.1., the number of expenses and savings of the participants may describe the participant's income. Even though there are participants with more than ten million Rupiah in expenditure, most of the participants have between two to five million rupiah in the past month, this is illustrated in figure C.6.4.2. for savings in the past month, 86% of the total participants reserved less than two million rupiah. It appears that the majority of the participants are able to set aside some funds as savings.

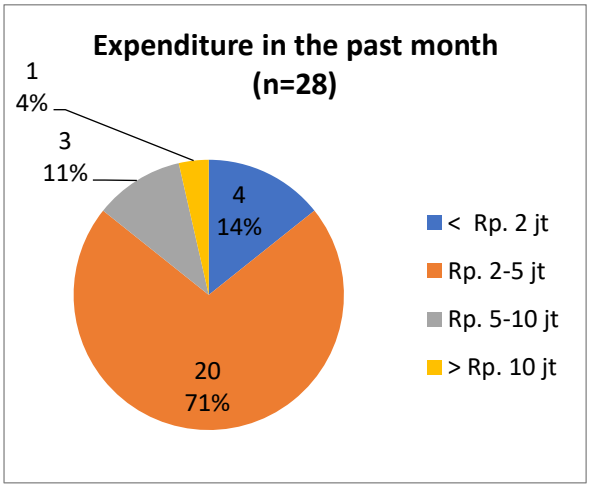


Figure C.6.4.1. Expenditure in the past month

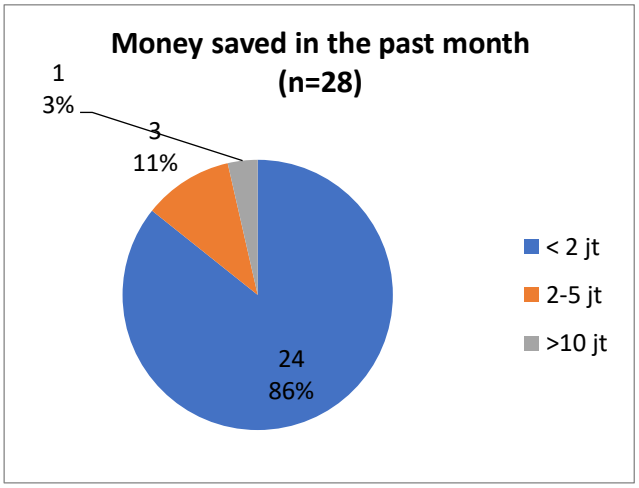


Figure C.6.4.2. Savings in the past Month

Based on the FGD with all of the groups in general they want PrEP to be provided for free. However, if they are required to pay then they expect the price to be affordable.

"If possible make it free, in cooperation with LGBT-friendly places" (FGD MSM)

"If possible keep it affordable or free like condoms. Accessible once a month" (FGD MSW)

"Please keep the price affordable or free if you can, it's okay to have them in bottles as long as it's not like the ARV bottles" (FGD MSM)

The following table shows the willingness of the community to pay for PrEP. Even though in the FGD they expressed their aspiration to access PrEP for free, it turns out from the questionnaire only around 7% of the participant (from MSM and Transgender) wishes them for free. The majority of the participants from the three groups states that they are willing to pay for PrEP at a price bellow Rp. 100,000. The Transgender group is unwilling to pay for PrEP with the price exceeds Rp.100,000; but 23% from the MSM group and 17% MSW were still willing to pay.

Tabel C.6.4.1. Willingness to Pay for PrEP * Participant Category Crosstabulation

			Participant Category			Total
			MSM	MSW	Transgender	
Willingness to Pay for PrEP	Free of Charge	Count	1	0	1	2
		% within Participant Category	7.7%	0.0%	11.1%	7.1%
	< IDR. 100.000	Count	9	5	8	22
		% within Participant Category	69.2%	83.3%	88.9%	78.6%
	IDR. 100.000 - Rp. 200.000	Count	3	1	0	4
		% within Participant Category	23.1%	16.7%	0.0%	14.3%
Total		Count	13	6	9	28
		% within Participant Category	100.0%	100.0%	100.0%	100.0%

Furthermore, as we can see from table C.6.4. the results from the interview with the four categories of key informants show that most (52%) of the participants said that it would be better for PrEP to be distributed through purchase rather than for free. In particular, all of the participants from the government and most from Healthcare Provider said that at this moment, PrEP can only be distributed by way of purchase only at a price that is affordable for the community. Several reasons that surfaced are: (1) the issue of funding for PrEP which is not currently possible for inclusion in the state budget; (2) the government is currently more focused at provisioning ARV and bringing optimized access to ARV for individuals with HIV positive; and (3) PrEP in itself is still a preventive measure and its nature is to protect from HIV transmission. On the contrary, from the International Organization and community side most (60%) are desiring and preferring for PrEP to be offered for free. In spite of this participants from these groups did not deny that providing PrEP for free will be a

burden to the country. Therefore, they suggest that PrEP be made available at a price that is affordable for the community.

Table C.6.4.2. PrEP Payment Types

Payment Type	NGO (n=10)		Healthcare Provider (n=11)		I-NGO (n=5)		Pemerintah (n=5)		Total N= 31	
	n	%	n	%	n	%	n	%	n	%
For pay	3	30%	6	54%	2	40%	5	100%	16	52%
For free	6	60%	4	36%	3	60%	0	0	13	42%
Don't know/neutral	1	10%	1	9%	0	0	0	0	2	6%
Total	10	100%	11	100%	5	100%	5	100%	31	100%

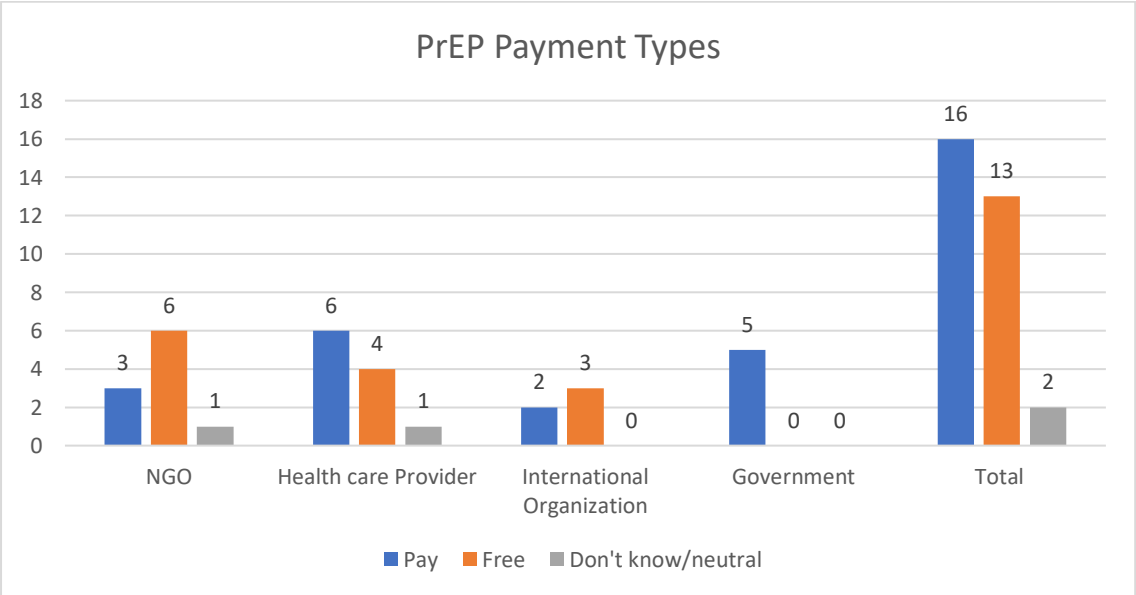


Figure C.6.4.3. PrEP Payment Types

More specifically, the following table presents the perspective of the four groups with regards to PrEP payment, be it for free or at a price.

Table C.6.4.3. Pros and Cons of providing PrEP at a price

	Pros	Cons
Provider	- To avoid burdening the state budget - Can encourage the community to contribute for themselves - Gives the responsibility to protect oneself	- Based on experience with ARV, providing for free does not guarantee medication adherence. The for pay method raises concerns that it will affect

		adherence.
NGO	- Giving responsibility to the community to maintain their health. - Gives a feeling of worth for being able to pay	- Becomes a burden for the community and decreases motivation to access PrEP - Can only reach the middle to upper class economy.
Government	- In order to have responsibility and attachment with the community - Balance between rights and obligation. ARV is already covered by the state, then it is the obligation of the society to contribute by not getting infected	- Does not reach communities from low economy
I-NGO	- Increases awareness for medical adherence since they feel that they have paid for it - Communities will have more commitment when they have to spend money for themselves, including preparing oneself with adequate information before deciding to purchase PrEP - The sense that what they are consuming is something valuable	- The possibility of people's unwillingness to access PrEP

For pay so they have the responsibility. Why many quit ARV was because it is for free. It should have only been free for youths since I work with youths. The characteristic is different, a mature adult has a settled life but for young people I'm not sure they will spend Rp. 500.000/month for PREP (Local NGO)

Okay if ARV is still subsidized by the state. But we hope that PrEP would not be subsidized. This is more to protect our friends; it is possible to offer them at price but it should not be too much of a burden for our friends. (Healthcare Provider)

Well the reason is to have some contribution from them since the society has rights but they also have obligations. The government has provided ARV as a right fulfillment for those who are infected. It is the obligation of the society to not get infected. This way so that there is participation from the society. (Government)

If we take into account the burden of the government for people HIV & AIDS, like I said it should be at an affordable price since anyway… we need to consider that the government's burden is not only HIV but also other diseases… they all demand attention, priority. Indonesia is being measured in SDG not only from HIV, there's the pregnancy mortality rate, maternal neonatal, TB… TB is more general population so I think we need to be balanced in determining the priority in the context of understanding the government's perspective, rather than face outright rejection, we can offer

them other ways to consider. (International Organization)

Table C.6.4.4. Pros and Cons of Providing PrEP for free

Group Category	Pros	Cons
Provider	- It does not burden the community - It can reach more groups. For transgender and sex workers to access PrEP	- Less appreciation - Risk of misuse (being sold instead)
NGO	- A form of appreciation for the needs of the society - Can accommodate community who are financially weak - Promotes the interest of the community towards prevention	- It is a burden to the government - There is less sense of responsibility. Our past experience with ARV shows that people who stopped taking ARV was due to its free nature.
Government	- Can reach more groups	- When given for free, then the community might make PrEP as their main prevention tool and forgo condoms, switching partners. - The ease of accessing PrEP will cause the community to feel safe and act recklessly in having sex intercourse.
I-NGO	- Both prevention and intervention should be provided by the government for free as a package. - This may cover many targets. From the perspective of public health, the expense for PrEP may help control high-risk groups and their partners.	- Based on past experience with ARV patients, providing free medication does not guarantee adherence. - Lack of appreciation and seriousness in utilizing the medication. - Difficult to determine an affordable price. A study needs to be conducted to demonstrate people's ability to pay. - A burden to the country.

People mostly like to have things for free, and even for free not everyone would like this… in general they prefer free drugs, so the budgeting should come from the top but the distribution would depend on the Department of Health. (Healthcare Provider)

Why free, like I said that the interest of the community towards PrEP is getting higher, so to decrease the prevalence since we are going for prevention. (Local NGO)

Ideally, Indonesia is not a poor country. It should be free of charge because if you look at long term cost benefit, it is going to benefit the country if these people dont get HIV. I am preaching to the converted. Right now Indonesia is still a key population epidemic. if we can control the epidemic within the key population and stop this transmission to general population it is going to be so much easier to stabilize this epidemic. But if you are not going to block this and you are going to start leaking to general population and become a generalized epidemic. This country is the fourth most populous country in the world. You are going to spend so much money in doing this. So why don't you use the money right now. You have the money to control it so that you keep it within these key population. Because the person who has HIV are maybe a pure MSM or trans but their partner might be heterosexual. That is why you have the bridge. If you really look from the public health point of view, spend the money right now to control it within the key population because these are the ones with the highest transmission rate, the highest risk and if you can control, the whole things will stop and you dont have transmission at all. (International Organization)

C.6.5. PrEP Packaging Preference

Members of the FGD were also asked about their choice of ideal packaging preference. Most FGD paticipant preferred the packaging of pills inside of a bottle since they perceive it as simpler and practical, easy to carry around. Strip packaging is also preferred by the MSM group for the same reason. PrEP in the form of syrup is not preferred with the reason: it is hard to measure the dose and it spills easily. The Transgender group suggested packaging in the form of sachet if it will be given in liquid form so that the usage dose may be controlled and easier to be carried. Aside from that, all groups hope that the packaging of PrEP would not be similar to ARV so as to avoid other people's suspicion of their HIV status.

"I want PrEP to be available as soon as possible. Please keep the PrEP packaging simple so that I can carry them around (FGD MSW)

"Strips are better" (FGD MSM)

"However you package them do not use brands or anything associated with HIV drugs"(FGD MSM)

"Something cute, simple, don't make them look like ARV please; people get scared from seeing ARV; yes a cute packaging will make people want to take them. haha" (FGD TG)

MSM	MSW	Transgender
Bottle and pill • Simple and practical • Easy to carry Strip • Easy to carry	Bottle and pill • Simple and practical • Easy to carry	Bottle and pill • 'fun', 'cute' and 'fancy' packaging so people won't be suspicious and won't connect it with the ARV; also encourages TG to be more discipline to uptake the pill because they couldn't 'stand' with the cuteness of the packaging
• Syrup is not preferable	• Syrup is not preferable	• Syrup in sachet (to make sure that the dosage is precise.

D. Discussion, Conclusion and Recommendation

D.1. Discussion

This research is the preliminary research to obtain an idea regarding knowledge and behavior towards PrEP from the MSM, MSW, and transgender groups as well as individuals from the health sector (health care provider), NGO, stakeholders be it from the government or international organization. Although PrEP itself has been introduced since 2012 and clinical trials have been performed in several countries, but in reality PrEP is still something new. Most respondent's associates PrEP with ARV so their understanding concerning issues such as side effects, resistance, adherence, high risk behavior, as well as social issues related to stigma which are in the end associated with experience in using or providing ARV.

The results of this research is in line with previous researches conducted in several countries (Kurth, et.al., 2012; White, et.al., 2012; Krakower, et.al., 2016) on how information about PrEP is still perceived as something new and only applies to certain groups which have been exposed to information about PrEP. This research demonstrates that knowledge about PrEP as an HIV prevention method still varies largely between participants. Most participants do know that PrEP is believed to be effective in decreasing the rate of HIV transmission, yet not many of them understands about the instruction or method to use it, side effects, and steps that need to be taken in order to use PrEP effectively to prevent HIV transmission. Result of the research shows that the participant group coming from International Organizations possesses a better understanding compared to other groups. While from the health care provider group there were still a large number of doctors at primary healthcare centers or hospitals who have never heard of PrEP and have misconceptions regarding PrEP. The same goes to several stakeholders from the government who appeared to have incomplete knowledge about PrEP. Meanwhile, only a very small number of NGO staff have comprehensive knowledge about PrEP. Yet interestingly compared to healthcare officers and stakeholders, more NGO staffs have become familiar with PrEP. Meanwhile in the MSM, MSW, and Transgender groups it is apparent that they still have limited knowledge about PrEP. Several misconceptions that occurred are about PrEP as an alternative tool aside from condoms, simple and easy, only to be consumed prior to sexual intercourse and enough with twice a day or once a month, as well as not requiring a routine test every 3 months. Information about PrEP did not come from their doctors but from other members of the communities instead.

The knowledge obtained from the participants are related to the source of information that they have heard, read, or been exposed to. From the research data, it is apparent that the number of information sources provided influences the number of knowledge they have. As an example, compared to other groups, all of the participants from International organizations have been exposed to information about PrEP from research journals, conferences, news or routine discussions conducted by one of the organizations. The same goes to NGO staffs who appeared to have been more exposed to information about PrEP compared to healthcare providers who received very limited information. In fact, several healthcare providers gathered information about PrEP from the clients who use them. It's unsurprising that in the end knowledge regarding PrEP among healthcare providers were still inadequate. Meanwhile from the government policy makers, only 2 participants admitted to have been exposed to information about PrEP through journals and conferences. Furthermore, despite being very limited, the MSM group have a tendency to hold more information

compared to the MSW group. In the transgender group most have yet to know information about P PrEP and they have only been exposed to it during the research.

In general, compared to the belief about the benefits and barriers related to PrEP, it can be concluded that the concerns about PrEP have been largely identified even though almost all of the participants have understood that PrEP empirical evidence from previous research as presented in the following table:

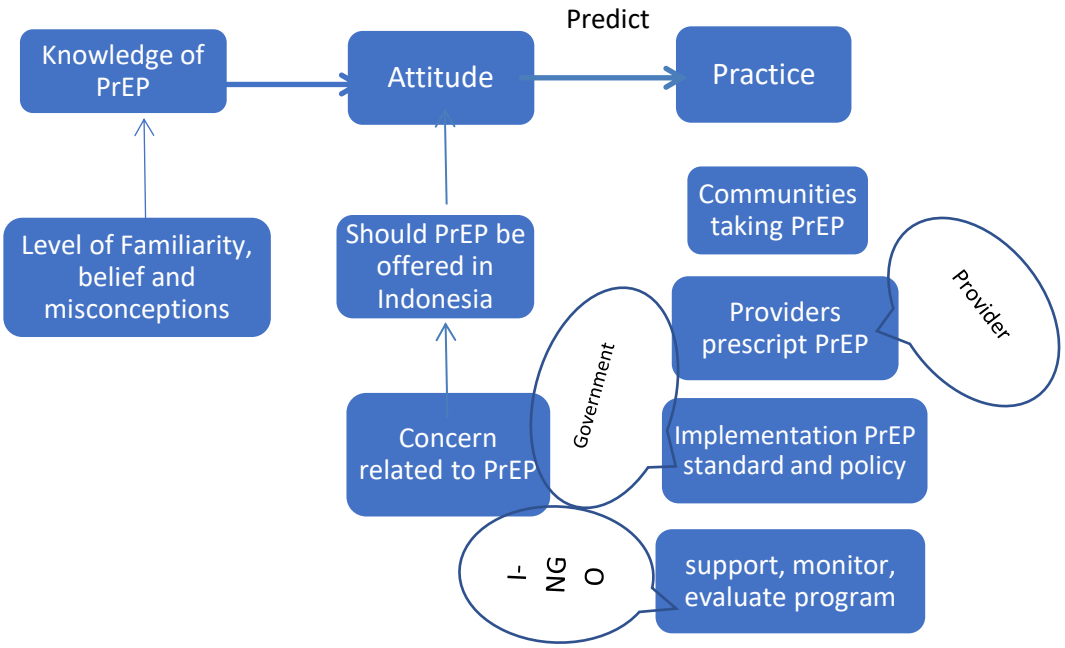
Benefits of PrEP	Barriers of PrEP
• Preventing HIV transmission because of its proven high efficacy, especially for those with high HIV infection. • Appropriate establishment of criteria must also accompany benefits from PrEP as a means of prevention for potential clients. • The MSM and transgender communities are considered groups to receive major benefits due to high-risk sexual behavior. • Added value of PrEP is as an alternative means of prevention aside from condom. • Accurate and consistent PrEP use can lower the number of new HIV transmission in Indonesia • Correct information regarding PrEP whether to clients and the public can increase public understanding concerning transmission risks and PrEP benefits. • PrEP can reduce costs for morbidity rate in Indonesia. This is due to the absence of new cases, so the costs expended to ARV will automatically decrease, thereby suppressing Government burden for ARV budget. • Aside from PrEP administering for prevention, treatment for the positive population still needs to be increased and consistently given.	• Lack of information about PrEP as well as misconceptions about PrEP usage both among Healthcare Provider or target groups. • The readiness of human resources in providing PrEP service as well as the potential of increasing he work load in healthcare services. • The drug provisioning management aspect which includes purchasing, import/export, production, distribution and storage (logistic). • Concerns about the side effects of PrEP and drug resistance. • Funding issues which will affect the state and regional budgeting. • The decreasing rate of condom adherence • The issue of medication adherence • Stigma concerning sexual behaviors and relations

According to the Knowledge-Attitude- and Behavior (KAB) analytical model, how someone obtains Knowledge will affect their Attitude and predict the resulting Behavior. From this research, which specifically only seeks reference about knowledge and attitude, initial knowledge about PrEP, about

their beliefs have been gathered about its benefits and barriers, its misconceptions, as well as concerns regarding PrEP which will determine: (1) whether or not PrEP should be introduced in Indonesia; (2) whether communities have the willingness to pay and access PrEP.

The Attitude to determine whether PrEP should be offered in Indonesia varies largely and almost in every group there is a controversy about agreeing and disagreeing. In general, the majority states that they agree (YES) or agree with considerations about several aspects. Such consideration may be related to concerns arising towards PrEP. Such as the healthcare provider group who appeared to have concerns especially rooting from the lack of knowledge regarding PrEP among healthcare providers and the lack of clarity in relation to the criteria for groups who can use PrEP. These concerns of the health care provider may in the end affect their beliefs in prescribing PrEP to their patients (Krakower, 2014; Blumenthal, 2015; Fleurs, 2016).

Furthermore, with regards to the agreement to introduce PrEP in Indonesia, the group who stated yes are groups from communities (MSM, MSW, dan Transgender) and the majority of NGO groups. Meanwhile, from the government policy makers it is fairly balanced between those who agree and disagree.



In relation to choosing the setting for PrEP services, NGO are perceived by the MSM and MSW as an uncomfortable place to access PrEP. Several reasons that surfaces are related to the issue of privacy and embarrassment should other people learne of PrEP consumption. On the other hand, the transgender group felt more comfortable if PrEP were distributed through communities. The provisioning of PrEP in pharmacies were responded with several views. Those who agree came from the MSM group since this would mean ease of access and they would not have to visit primary health care points. While the majority of MSM and Transgender felt less comfortable and are still embarrassed in gaining access to PrEP in pharmacies.

This research has several limitations, the first is the potential for social desirability bias to affect the answers provided by the participants. In addition, the method of FGD over WhatsApp poses its own

challenges. In the beginning, an online FGD conducted over WhatsApp group was chosen based on several considerations: saving the participants time, enabling the participants to discuss comfortably, since several questions are related to sensitive issues, to maintain the confidentiality of the participants' identity, the ability to attract more participants from various backgrounds due to its flexible nature, and the ease of chatting over WhatsApp for it is assumed that almost everyone has this application.

However, during implementation there were several problems and issues which were experienced by the research team and participants themselves: the difficulty to arrange/ match the schedule between participant candidates, the trouble with participants in maintaining focus on the discussion since they usually do it while performing other activities, lack of punctuality and prolonged discussion times, participants disappearing in the middle of discussions, which disturbed the discussion process. Therefore, for future researches or researches requiring FGD in their data intake process we do not recommend holding an online FGD over WhatsApp groups. If an online FGD is really required, it might be better to hold them over alternative media such as Skype, webinars or other video conference applications.

The result of this study does not represent the whole population of MSM, MSW, Transgender or the groups who are representatives of government policy makers, international organizations, healthcare providers nor NGO. Nonetheless, the results of this study will hopefully be beneficial in providing initial understanding about the knowledge and behavior regarding PrEP so it may serve as a recommendation reference for relevant individuals and organizations.

D.2. Conclusion

The knowledge possessed by the participants varies greatly, ranging from those who have never heard about PrEP to those with comprehensive knowledge, such as policy planning for HIV prevention in the public health perspective and the importance of conducting health cost analysis prior to program implementation.

There were agreements and controversies regarding whether or not PrEP should be made available in Indonesia. Most of the NGO groups and MSM, MSW, and Transgender groups agrees as long as several considerations are taken into account: the readiness of services and healthcare providers, determining the criteria of clients who receive PrEP, providing in-depth information for both implementers and communities. The distribution model mostly preferred by almost all of the participant are primary healthcare centers, followed by hospitals. However, from the questions expressed by the community participants, it seemed that they were pretty accepting to the various alternatives for PrEP provisioning points as long as those places are able to fulfill the needs of the communities, such as: (1) service that are friendly to the community, especially to MSM and transgender. (2) easy to reach, and (3) does not apply a complicated procedure.

From this study it can be concluded that PrEP is often perceived as and be equated to ARV medication for HIV positive patients based on the observation in the field. This is why they also identified 4 potential challenges in accessing the service and consuming PrEP similar to the challenges faced by ARV, which are : (1) physical disturbances due to PrEP such as side effects, resistance, and adherence issues; (2) social impacts such as stigma towards the individuals who use PrEP, as well as concerns regarding patient risk compensation after PrEP usage such as the decrease in condom adherence, increasing the rate of sexual relations and sexual behavior; (3) the readiness

of the health and policy system, such as human resources, drug availability and management as well as access to PrEP; (4) the issue of funding for PrEP.

D.3. Recommendation

1. PrEP is still a relatively new information in Indonesia, which is why a strong initiative is still required to increase awareness and perform information dissemination to communities, NGO, healthcare providers and policy makers through education and advocacy campaigns. Aside from that, an in-depth study about the individual, social, healthcare system and structural barriers should also be performed not only in Jakarta but also in other cities with high prevalence of MSM and TG groups.
2. In performing PrEP trials several key variables should be anticipated such accessing acceptance and readiness of healthcare providers to distribute PrEP; challenges in healthcare systems, challenges faced by users (benefit receivers).
3. Psychosocial services need to be offered as part of the trials.