

PrEP Product Awareness, Preferences, and Past Experiences among Transgender Women and Men Who Have Sex with Men in Asia and Australia: The PrEP APPEAL Study

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Executive Summary

PrEP Product Awareness, Preferences, and Past Experiences among Transgender Women and Men Who Have Sex with Men (PrEP APPEAL) was a cross-sectional survey of transgender women (TGW) in 11 countries and men who have sex with men (MSM) in 16 countries and territories. Participants were recruited between May 2022 and November 2022. The survey examined preferences for various aspects of existing and potential future types of PrEP, and used a discrete choice experiment including cost, type of PrEP, and service delivery models.

This report focuses on



1,260 TGW and 17,032 MSM who completed the survey.

Of the MSM

10,689 were from Asian Low- and Middle-Income Countries (Asian LMIC)

4,656 were from Asian High-Income Countries and Territories (Asian HIC)

1,687 were from Australia.

Both the TGW and MSM survey were conducted in these Asian low- and middle-income countries:

Cambodia | China (excl. Hong Kong and Taiwan) | India | Indonesia | Lao People's Democratic Republic | Malaysia | Myanmar | Nepal | The Philippines | Thailand | Viet Nam

The MSM survey only was conducted in these high-income countries and territories:

Australia | Hong Kong SAR, China | Japan | Singapore | Taiwan, China

The main findings of the study include:



PrEP awareness was high with 81% of TGW, 80% of MSM in Asian LMIC, 91% of MSM in HIC and 97% of MSM in Australia having heard of PrEP.



Among participants who had heard of PrEP, 48% of TGW, 25% of MSM in Asian LMIC, 19% of MSM in Asian HIC, and 47% of MSM in Australia were current PrEP users. Additionally, 13% of TGW, 10% of MSM in Asian LMIC, 10% of MSM in Asian HIC, and 20% of MSM in Australia were former PrEP users.

- Of those who had never taken PrEP, 57% of TGW, 72% of MSM in Asian LMIC, 70% of MSM in Asian HIC, and 65% of MSM in Australia stated that they would like to take PrEP.

When asked to select existing and hypothetical forms of PrEP they would be interested in using and which they would most prefer, there was substantial variation between groups.

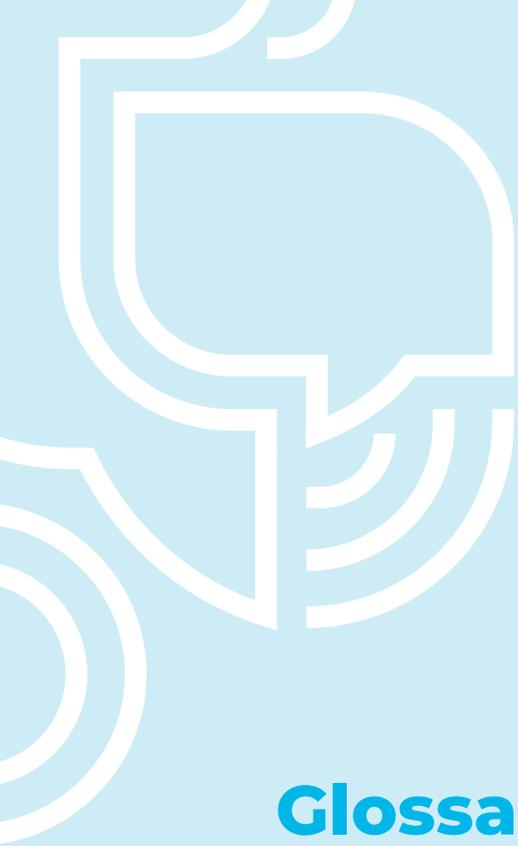


- TGW preferred daily oral PrEP (32.2%) and a six-monthly injection (20.6%)
- MSM in Asian LMIC had comparable preference between daily oral PrEP (21.5%), event-driven oral PrEP (23.0%), monthly pill (23.3%), and six-monthly injection (19.5%).
- MSM in Asian HIC preferred event-driven oral PrEP (29.4%) and monthly pill (27.6%).
- MSM in Australia preferred monthly pill (28.2%) and six-monthly injection (24.6%).

The discrete choice experiment examined the preferences for PrEP services.



- Across all populations, cost was the most important driver of choice to use PrEP
- The type of PrEP was the next most important driver of choice to use PrEP for TGW, MSM in Asian LMIC, and MSM in Australia.
- Side effects were the second most important driver of choice to use PrEP for MSM in Asian HIC, and the third most important for MSM in Asian LMIC and Australia. Side effects were not as important to TGW participants.
- The relative importance of extra services, visit frequency, and location was generally lower than other factors, and varied between countries.



Glossary

CAB-LA	Long Acting Injectable Cabotegravir
DCE	Discrete Choice Experiment
ED-PrEP	Event-driven PrEP
HIC	High-Income Countries
LMIC	Low- and Middle-Income Countries
MSM	Men who have sex with men
PrEP	Pre-exposure prophylaxis
TGW	Transgender women

Background

Epidemiology of HIV in Asia

The estimated number of new HIV infections in Asia and the Pacific has declined 21% since 2010 [1] but second-wave epidemics have recently emerged in the region, slowing progress towards the achievement of 2030 targets for ending HIV transmission. In 2021, there were an estimated 260,000 new HIV infections in the region [1]. New infections are concentrated among key populations and their sexual partners (96% of new adult HIV infections) [1]. Increases in new infections among gay and other men who have sex with men (MSM) and transgender women (TCW), accounting for 46% and 3% of new adult infections respectively, are a particular concern [1]. Criminalisation of same-sex relationships and lack of legal gender recognition in many countries, with resultant stigma and discrimination, contribute to prevention programs continuing to be under prioritised and under-resourced, of insufficient scale, and leave these key populations behind in the HIV response.

Pre-exposure prophylaxis (PrEP)

Pre-exposure prophylaxis (PrEP) is a highly effective HIV prevention option and is initiated before a potential exposure to HIV. Oral PrEP offers up to 99% protection against HIV infection [2]. In 2015, based on evidence of efficacy from clinical trials, the World Health Organization (WHO) recommended that oral PrEP containing tenofovir disoproxil and emtricitabine be offered to individuals at substantial risk of HIV infection as part of combination HIV prevention approaches [3].

Clinical trials initially focused on daily dosing, and this remains the most common regimen for taking oral PrEP. However, a simplified, event-driven dosing regimen for PrEP (also called ED-PrEP, on-demand PrEP or '2+1+1') has also been shown to be effective for MSM [4, 5]. WHO released guidance on ED-PrEP as an additional dosing regimen for MSM in 2019 [6]. ED-PrEP can offer increased flexibility, choice and convenience to individuals who may benefit from PrEP. WHO expanded eligibility for ED-PrEP and simplified dosing regimen guidance in July 2022 [7]¹.

Over and above the individual benefits, PrEP can also interrupt HIV transmission resulting in substantial reductions of new infections at a population level [8-11]. This makes it a powerful prevention tool when it is implemented on a large scale.

¹ After the launch of the survey in 2022, WHO updated the guidance on ED-PrEP to simplify dosing and expand eligibility to all cisgender men with sexual exposure to HIV and trans and gender diverse individuals assigned male at birth not exposed to exogenous estradiol-based hormones.

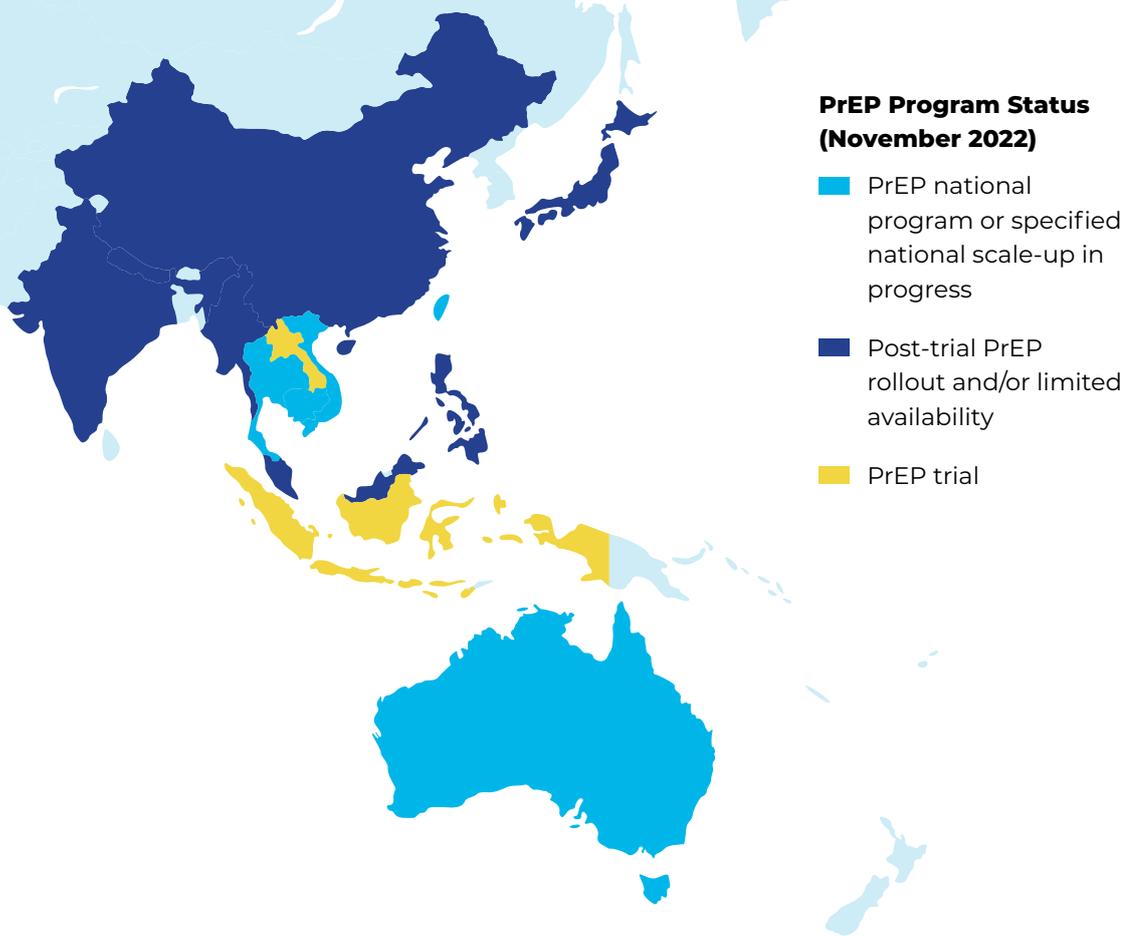
Oral PrEP availability and uptake in Asia

Across the Asia-Pacific region, access to and uptake of PrEP has been slow with an estimated 100,000 people using PrEP at least once in 2021 and far below the 4 million person target in the Asia-Pacific region by 2025 [1].

While uptake has begun to accelerate in recent years [12], barriers to PrEP uptake exist at multiple levels [13]. In 2021, only about two-thirds of countries reported that they had adopted the WHO policy on PrEP [12, 14]. Large-scale programs have been reported in only a handful of countries including Australia, Thailand and Viet Nam, with rapid scale-up occurring in some additional countries including The Philippines, Nepal and Cambodia [WHO, unpublished data 2021][15].

Reported barriers to PrEP have included cost, low PrEP awareness, service capacity and clinical services that do not meet the needs of key populations [13, 16, 17]. There are also policy barriers that limit people-centred PrEP service delivery models through regulation as well as barriers to including PrEP products as a part of HIV prevention guidelines and reimbursement systems. However, the barriers have not been assessed systematically across the Asia-Pacific region. Understanding and addressing the population and country-specific barriers is likely to increase access to and uptake of PrEP.

Figure 1. PrEP program status in Asia and Australia.



² “Long-acting” in this context is taken to mean a product that is effective for a month or more with a single “dose”

New PrEP products, including long-acting injectable cabotegravir

Long-acting products may help to address some of the challenges of oral PrEP. These new products could be influential in improving PrEP acceptability, uptake, and effective use (continuation of PrEP during periods of substantial risk), by providing more choices to users and potential users.

In 2022, WHO recommended long acting injectable cabotegravir (CAB-LA) as an additional PrEP option [18]. The recommendation was based on the results from two phase III clinical trials of CAB-LA (HPTN 083 and HPTN 084) that demonstrated high efficacy (and statistical superiority to oral PrEP) and good safety, among other factors, in cisgender men and TGW, and cisgender women [19, 20].

In Asia, HPTN 083 included study sites in both Thailand and Viet Nam. However, to July 2023, CAB-LA was not available in the region outside the open label extension study for HPTN 083. Applications for registration of CAB-LA have been submitted for several Asian countries in 2022 (China, Malaysia, Myanmar, the Philippines, Thailand and Viet Nam [21]) following registration in the United States of America, Australia, South Africa and Zimbabwe.

Several other long-acting PrEP products are in various stages of clinical trial and pre-clinical development, including long-acting oral PrEP, long-acting PrEP implants, and a 6-monthly long-acting injectable [22, 23]. Understanding awareness of and preferences for different PrEP products will help countries and programs better plan to provide the appropriate mix of options.

Evidence of PrEP preferences

A recent systematic review found that injectable PrEP was associated with an overall interest and preference, though few studies were conducted in Asia, and there was notable variation within and across groups and regions [24]. Injectable PrEP products may overcome several challenges associated with oral PrEP, such as adherence to dosing regimens, and be preferred for individuals requiring higher levels of discretion or infrequent dosing [24].

Information at the regional and country level on values and preferences for PrEP, including daily oral and event driven PrEP as well as pipeline products, is important to strengthen advocacy efforts with manufacturers, donors and national AIDS programs to expand PrEP access.

Differentiated service delivery for PrEP

By adapting to the needs and preferences of individuals and communities, differentiated approaches may make PrEP services more acceptable and accessible and support PrEP uptake, persistence and effective use. Differentiated PrEP services utilise four building blocks: where (service location), who (service provider), when (service frequency), and what (service package) [7].

Different PrEP products (including oral PrEP and CAB-LA) will be associated with different service requirements resulting in a differing range of service models. The values and preferences for differentiated service delivery have not previously been assessed widely in Asia and the Pacific, although recent assessments have been conducted in Viet Nam and Thailand [25].

It is timely to assess the values and preferences of current and potential users of PrEP to improve PrEP access and prioritise the introduction of products and service models that are most acceptable to gay and other men who have sex with men, and transgender men and women.

Aims and objectives:

The overall goal of this study was to identify values and preferences about PrEP, as well as barriers and facilitators to PrEP uptake, among MSM and TGW in Asia and Australia.

The specific aims were to:



1. To determine awareness and use of each PrEP product among MSM and TGW in Asia and Australia



2. To determine whether offering additional PrEP products would increase the total number of MSM and TGW who use PrEP in Asia and Australia



3. To determine which PrEP products should be prioritised for which populations in Asia and Australia



4. To ascertain the willingness of MSM and TGW in Asia and Australia to pay for PrEP

Methods

Study Design

This study involved two online cross-sectional surveys completed anonymously by MSM and TGW in participating countries and territories in Asia and Australia.

Eligibility Criteria

Participants were eligible if they met the following criteria:

- Aged 18 or older
- Reside in a participating country or territory
- Able to complete the survey in one of the available languages
- Believe themselves to be HIV-negative at the time of the survey
- MSM survey: Self-identify as a gay man, bisexual man, or man who has sex with men (inclusive of trans men) OR be a man who has had sex with another man in the previous 12 months
- TGW survey: Self-identify as a trans woman

Recruitment

The online survey was promoted using paid and unpaid advertising. Paid advertising was conducted through gay dating and “hook-up” apps and paid promotions through social media platforms. Platforms were chosen according to their popularity within each country and included Grindr, Jack’d, Scruff, Hornet, 9Monsters, WeChat and Facebook (see Appendix A for platforms). Advertising material was tailored to specific countries by APCOM. In addition to paid advertising on Grindr, the survey was also promoted using the #Grindr4Equality initiative. In some countries, social media influencers were also paid to promote the survey to their followers. Unpaid community-based advertising was largely conducted by community organisations including APCOM and Asia Pacific Transgender Network who promoted the survey on their social media channels and mailing lists through their networks and community outreach.

Participants were invited to enter an optional prize draw by providing their email after completing the survey. To protect the anonymity of survey responses, emails entered into the prize draw were collected and stored in a separate database so that survey responses were not linked to emails. The amount of the prize draw was determined as a percentage of the median income of each country. A winner was randomly selected for the MSM survey in each country, and for the TGW survey in each country that it was conducted. Winners were sent an online voucher by email.



Only the MSM survey was conducted in these Asian high-income countries and territories:

Hong Kong SAR, China | Japan | Singapore | Taiwan, China

Both the TGW and MSM survey were conducted in these Asian low- and middle-income countries:

Cambodia | China (excl. Hong Kong and Taiwan) | India | Indonesia | Lao People's Democratic Republic | Malaysia | Myanmar | Nepal | The Philippines | Thailand | Viet Nam

Only the MSM survey was conducted in Australia.

Study Materials

Survey questions were developed in several rounds by the research team in consultation with community members and representatives. Study materials were professionally translated and then validated with native speakers (list of languages available in each country in Appendix B). Pilot testing was conducted in each country and population by target populations. Translations were then adjusted on feedback from pilot testing.

Data Collection

The survey collected responses from 10 May 2022 to 30 November 2022. The survey was hosted by the survey platform Qualtrics using their Conjoint analysis package.

Measures

This survey explored:

- Demographics
- PrEP awareness, use, and preferences
- PrEP and service delivery preferences
- Attitudes towards PrEP
- Sexual behaviour, drug use, and sexual health

Discrete Choice Experiment (DCE)

A Discrete Choice Experiment (DCE) method was used to explore preferences for different service delivery models for PrEP and determine the relative importance of attributes (i.e., drivers of choice for using PrEP). Participants were presented with a series of six choice sets containing two hypothetical options or an opt-out option and were asked to select their preferred choice (see Figure 1). The attributes and levels were determined by a literature search and survey with 35 potential users of PrEP from the target countries. A D-efficient experimental design was created in Ngen software (ChoiceMetrics). Final attributes included: 1) Type of PrEP (daily oral, event-driven oral, injectable, monthly oral, implant); 2) Location to access PrEP (hospital, sexually transmitted infection clinic, general practice, community clinic run by MSM, telehealth, pharmacy); 3) cost (free, three additional levels depending on the country); 4) side effects (none, interactions with other medications, mild, rare chance of kidney problems, mild pain from injection); 5) visit frequency (every two months, three months, six months, and 12 months); and 6) extra services (testing for sexually transmitted infections (STI), mental health counselling, gender-affirming care (for TGW survey only)).

The choice data were analysed using random parameters logit (RPL) models, assuming an underlying normal distribution for each attribute level. We predicted PrEP uptake for different program configurations (i.e., best-worst scenarios). The results are presented as coefficients: an attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. We also calculated the relative importance of each attribute using the coefficient range of each attribute divided by the sum of ranges from all attributes. NLOGIT (version 6, Econometric Software Inc, USA) was used for all model estimations.

Figure 2. Discrete Choice Experiment example.

	Option 1	Option 2	None
 Type of PrEP	One oral pill every month	Long-acting PrEP injections	None of these options
 Location to access PrEP	Private community clinic (including general practitioner)	Pharmacy	
 Out of pocket cost per month (includes drug cost, investigations, consultation)	Free	\$100	
 Side effects	Could interact with other medications	Rare chance of kidney problems	
 PrEP visit frequency	Every 2 months	Every 6 months	
 Extra services available	Comprehensive STI testing (syphilis/ chlamydia/ gonorrhoea)	Mental health counseling	
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Results

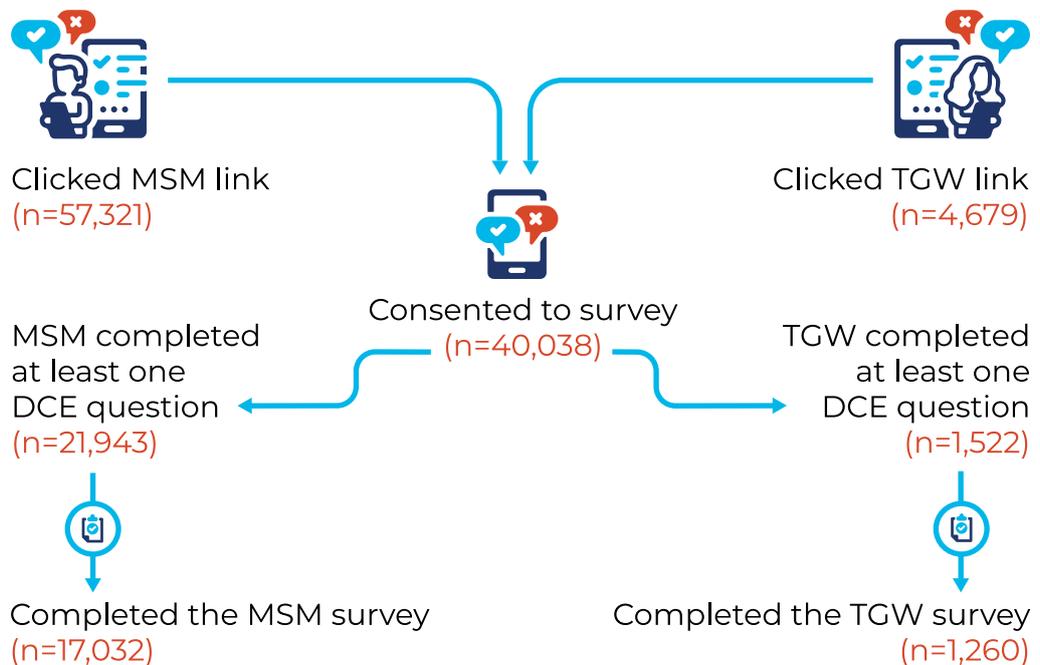
A total of 57,321 and 4,679 people accessed a survey link intended for MSM and TGW, respectively. Of these 62,000 people, 40,038 consented to the survey. As MSM participants could have accessed the survey using a link intended for TGW and vice versa, participants were redirected to the appropriate DCE depending on their answers to the questions on gender and sexuality regardless of which link they accessed. Of the 40,038 participants who consented and completed at least one DCE question, 21,943 were MSM and 1,522 were TGW and were retained for DCE analyses.

This report will focus on the final sample which consisted of

17,032 MSM & **1,260 TGW** who reached the last page of the survey and were considered to have completed the survey (Figure 1).

Total number of participants

Figure 3. Total number of participants.



Participants by country and territory, sexual identity, and gender identity

There were 1,260 TGW participants from Asian low- and middle-income countries (LMIC). Of the 17,032 MSM who completed the survey, 10,869 came from Asian LMICs (62.8%), 4,656 from Asian high-income countries and territories (HIC; 27.3%), and 1687 from Australia (9.9%).

Table 1. Number (and proportion) of participants.

Country	TGW	MSM
Low- and Middle-Income Countries		
Cambodia	86 (6.8)	600 (3.5)
China (excluding Hong Kong and Taiwan)	24 (1.9)	1604 (9.4)
India	111 (8.8)	1431 (8.4)
Indonesia	69 (5.5)	1139 (6.7)
Lao People's Democratic Republic	31 (2.5)	277 (1.6)
Malaysia	11 (0.9)	783 (4.6)
Myanmar	124 (9.8)	490 (2.9)
Nepal	286 (22.7)	386 (2.3)
The Philippines	68 (5.4)	1594 (9.4)
Thailand	222 (17.6)	1223 (7.2)
Viet Nam	228 (18.1)	1162 (6.8)
High Income Asian Countries and Territories		
Hong Kong SAR, China	-	538 (3.2)
Japan	-	1364 (8.0)
Singapore	-	649 (3.8)
Taiwan, China	-	2105 (12.4)
Australia	-	1687 (9.9)
Total	1260	17032

Demographics

The mean age was 28.3 years in TGW, 29.5 years in MSM from Asian LMIC, 35.0 years in MSM from Asian HIC, and 40.2 years in Australia. Among MSM, most identified as gay (66.8% in Asian LMIC, 80.6% in Asian HIC, and 76.7% in Australia) or bisexual (21.9% in Asian LMIC, 16.7% in Asian HIC, and 17.5% in Australia).

Table 2. Age and sexual identity.

	TCW	MSM		
		Asian LMIC	Asian HIC	Australia
Age (M/SD)	28.3 (7.1)	29.5 (7.7)	35.0 (10.1)	40.2 (12.7)
Sexual identity				
Gay	-	7142 (66.8)	3754 (80.6)	1294 (76.7)
Bisexual	-	2340 (21.9)	776 (16.7)	296 (17.5)
Other	-	1207 (11.3)	126 (2.7)	97 (5.7)
Total	1260	10689	4656	1687

Among TGW, there were 59.3% whose highest level of education was high school and 30.5% had a university degree. Less than half of TGW participants (41.8%) were in full-time employment. Among MSM, 35.5% in Asian LMIC, 25.4% in Asian HIC, and 44.7% had a high school level education. There were higher proportions who reported having a university degree (62.2% in Asian LMIC, 74.5% in Asian HIC, and 55.1% in Australia). Most MSM were in full-time employment (60.1% in Asian LMIC, 75.4% in Asian HIC, and 68.3% in Australia).

Table 3. Highest level of education attained and current employment status.

	TCW	MSM		
		Asian LMIC	Asian HIC	Australia
Education				
No high school	129 (10.3)	236 (2.2)	7 (0.2)	2 (0.1)
High school	743 (59.3)	3778 (35.5)	1177 (25.4)	754 (44.7)
University degree	382 (30.5)	6618 (62.2)	3454 (74.5)	929 (55.1)
Missing	6	57	18	2
Employment				
Student	142 (11.5)	1584 (14.9)	388 (8.4)	92 (5.5)
Part-time	238 (19.3)	1198 (11.3)	412 (8.9)	207 (12.3)
Full-time	515 (41.8)	6379 (60.1)	3503 (75.4)	1149 (68.3)
Other	338 (27.4)	1450 (13.7)	340 (7.3)	235 (14.0)
Missing	27	78	13	4
Total	1260	10689	4656	1687

Most TGW were in a relationship (60.8%). Among MSM, 43.7% in Asian LMIC, 36.2% in Asian HIC, and 42.9% in Australia were in a relationship.

Table 4. Current relationship status.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Currently in relationship				
Yes	752 (60.8)	4626 (43.7)	1680 (36.2)	723 (42.9)
No	485 (39.2)	5962 (56.3)	2956 (63.8)	962 (57.1)
Missing	23	101	20	2
Total	1260	10689	4656	1687

There were high levels of social engagement with LGBTQ+ people in both TGW and MSM. Among TGW, 70.7% reported having at least some LGBTQ+ friends and 69.9% spent at least some free time with LGBTQ+ friends. Among MSM, 59.3% in Asian LMIC, 62.8% in Asian HIC, and 67.2% in Australia reported having at least some LGBTQ+ friends, and 53.0% in Asian LMIC, 60.1% in Asian HIC, and 62.0% in Australia spent at least some free time with LGBTQ+ friends.

Table 5. Social engagement with LGBTQ+ people.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
How many friends are LGBTQ+				
None	59 (4.7)	691 (6.5)	206 (4.4)	81 (4.8)
A few	306 (24.5)	3654 (34.2)	1528 (32.8)	472 (28)
Some	308 (24.7)	3837 (36.0)	1808 (38.8)	554 (32.8)
Most	521 (41.7)	2286 (21.4)	1053 (22.6)	554 (32.8)
All	54 (4.3)	201 (1.9)	60 (1.3)	26 (1.5)
Missing	12	20	1	0
How much free time is spent with LGBTQ+ people				
None	71 (5.7)	952 (8.9)	351 (7.5)	139 (8.2)
A bit	305 (24.4)	4052 (38.0)	1507 (32.4)	502 (29.8)
Some	363 (29.1)	3510 (33.0)	1911 (41.1)	569 (33.7)
Most	465 (37.2)	1945 (18.3)	811 (17.4)	451 (26.7)
All	45 (3.6)	193 (1.8)	74 (1.6)	26 (1.5)
Missing	11	37	2	0
Total	1260	10689	4656	1687

Among TGW, 470 (37.6%) had received money, gifts, or favours in exchange for sex in the last 6 months and among those 470, 239 (52.3%) reported sex work as their primary form of income. This was less common among MSM in all regions.

Table 6. Sex work in last six months.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Received money, gifts, or favours in exchange for sex in last 6 months	470 (37.6)	1356 (12.7)	248 (5.3)	103 (6.1)
<i>Missing</i>	77	34	7	2
Being paid money in exchange for sex is primary income	239 (10.2)	433 (4.1)	10 (0.2)	4 (0.2)
<i>Missing</i>	13	26	0	0
Total	1260	10689	4656	1687

Sexual behaviour, drug use, and sexual health

Across both MSM and TGW participants, most participants reported having sex with men in the previous six months. Among TGW, sex with other TGW were the next most frequent type of sexual partner (11.8%). Across MSM from all regions, women was the next most frequent type of sexual partner.

Table 7. Gender identity of sexual partners in the previous six months.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Women	67 (5.3)	936 (8.8)	179 (3.8)	189 (11.2)
Men	1030 (81.7)	9692 (90.7)	4453 (95.6)	1607 (95.3)
Transgender women	149 (11.8)	209 (2.0)	14 (0.3)	61 (3.6)
Transgender men	66 (5.2)	271 (2.5)	29 (0.6)	53 (3.1)
People who identify as non-binary or gender queer	61 (4.8)	418 (3.9)	26 (0.6)	132 (7.8)
Total	1260	10689	4656	1687

Most of the sample reported having at least one sex partner in the previous six months, with many reporting between 2 and 5 partners.

Table 8. Number of sexual partners in the previous six months.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
None	165 (13.2)	1275 (11.9)	496 (10.7)	88 (5.2)
1	221 (17.6)	2253 (21.1)	822 (17.7)	253 (15.0)
2-5	418 (33.3)	4698 (44.0)	2137 (45.9)	606 (35.9)
6-10	218 (17.4)	1434 (13.4)	660 (14.2)	295 (17.5)
11-20	111 (8.9)	585 (5.5)	333 (7.2)	228 (13.5)
21-50	64 (5.1)	250 (2.3)	138 (3)	140 (8.3)
More than 50	57 (4.5)	178 (1.7)	66 (1.4)	77 (4.6)
Missing	6	16	4	0
Total	1260	10689	4656	1687

Among TGW, inconsistent condom use (never, occasionally, or often used condoms) was reported by 682 (54.7%) participants during anal sex and 532 (44.0%) during vaginal sex. Among MSM, 5211 (49.1%) in Asian LMIC, 2746 (59.2%) in Asian HIC, and 1211 (71.9%) in Australia reported inconsistent condom use during anal sex. Among MSM, inconsistent condom use during vaginal sex was lower than anal sex (26.9% in Asian LMIC, 21.1% in Asian HIC, and 14.4% in Australia)

Table 9. Condom use in the previous six month with casual partners.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Anal sex				
I did not have anal sex with any casual partners	191 (15.3)	1889 (17.8)	872 (18.8)	335 (19.9)
Never used condoms	113 (9.1)	858 (8.1)	592 (12.8)	639 (37.9)
Occasionally used condoms	278 (22.3)	2332 (22.0)	1185 (25.5)	434 (25.8)
Often used condoms	291 (23.4)	2021 (19.0)	969 (20.9)	138 (8.2)
Always used condoms	373 (29.9)	3510 (33.1)	1021 (22)	138 (8.2)
Missing	14	79	17	3
Vaginal sex				
I did not have vaginal sex with any casual partners	361 (29.9)	5635 (53.9)	3143 (68.3)	1376 (82)

Never used condoms	101 (8.4)	641 (6.1)	262 (5.7)	144 (8.6)
Occasionally used condoms	235 (19.5)	1236 (11.8)	403 (8.8)	62 (3.7)
Often used condoms	196 (16.2)	939 (9)	305 (6.6)	35 (2.1)
Always used condoms	315 (26.1)	2013 (19.2)	486 (10.6)	62 (3.7)
<i>Missing</i>	52	225	57	8
Total	1260	10689	4656	1687

Nearly a fifth (18.5%) of TGW reported having had an STI diagnosis in the last six months. Among MSM in Asian LMIC and Asian HIC, this was lower at 9.5% and 6.0% respectively. Among MSM in Australia, 16.4% had an STI diagnosis in the last six months.

Table 10. STI diagnosis (other than HIV) in the last six months.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Diagnosed with an STI				
Yes	231 (18.5)	1013 (9.5)	281 (6.0)	277 (16.4)
No	1017 (81.5)	9645 (90.5)	4371 (94.0)	1408 (83.6)
<i>Missing</i>	12	31	4	2
Total	1260	10689	4656	1687

Most TGW (83.3%) reported having an HIV test in the last year, with few reporting never having tested for HIV (6.5%). There were higher proportions of MSM participants who never had an HIV test in Asian LMIC (18.0%) and Asian HIC (13.7%). Among MSM in Asian LMIC, 66.2% reported having an HIV test in the last year, and this was 63.8% in MSM from Asian HIC. Among MSM in Australia, 8.0% reported never having an HIV test, and 76.3% reported having an HIV test in the last year.

Table 11. Timing of last HIV test.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
I have never had an HIV test	81 (6.5)	1914 (18.0)	638 (13.7)	135 (8.0)
In the last month	309 (24.7)	2528 (23.8)	953 (20.5)	430 (25.5)
1-6 months ago	612 (48.8)	3578 (33.6)	1517 (32.6)	714 (42.4)
7-12 months ago	123 (9.8)	941 (8.8)	500 (10.7)	142 (8.4)
1-2 years ago	78 (6.2)	914 (8.6)	509 (10.9)	146 (8.7)

3-5 years ago	31 (2.5)	470 (4.4)	306 (6.6)	81 (4.8)
More than 5 years ago	19 (1.5)	297 (2.8)	229 (4.9)	37 (2.2)
<i>Missing</i>	7	47	4	2
Total	1260	10689	4656	1687

About a third (31.1%) of TGW reported using drugs for the purposes of sex and 17.9% reported injecting drug use (excluding hormones) in the last 6 months. Of those who reported injecting drug use (n=221), nearly a quarter (23.8%) reported sharing injecting equipment. Among MSM, 20.6% in Asian LMIC, 11.7% in Asian HIC, and 21.2% in Australia reported drug use for sex the last 6 months. There were 7.8% of participants in Asian LMIC who reported injecting drug use and among that sample (n=825), 16.7% reported sharing injecting equipment. There were overall low levels of injecting drug use in Asian HIC and Australia.

Table 12. Drug use in the last six months.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Used drugs for the purposes of sex ('chemsex')				
Never	853 (69.0)	8425 (79.4)	4099 (88.3)	1330 (78.8)
Occasionally	289 (23.4)	1755 (16.5)	448 (9.7)	271 (16.1)
Often	95 (7.7)	432 (4.1)	95 (2.0)	86 (5.1)
<i>Missing</i>	23	77	14	0
Total	1260	10689	4656	1687
Injecting drug use (excluding hormones)				
Injecting drug use (excluding hormones)	221 (17.9)	825 (7.8)	197 (4.2)	103 (6.1)
<i>Missing</i>	23	72	10	3
Total	1260	10689	4656	1687
Shared injecting equipment				
Shared injecting equipment	51 (23.8)	136 (16.7)	9 (4.6)	6 (5.8)
<i>Missing</i>	7	11	0	0
Total	221	825	197	103

PrEP awareness, use, and preference

Across TGW and MSM participants, most participants had heard of PrEP. Awareness was similar among TGW (80.6%) and MSM in Asian LMIC (79.8%). Awareness was higher among MSM in Asian HIC (91.0%) and Australia (96.6%).

Table 13. Heard of PrEP prior to the survey.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Yes	980 (80.6)	8155 (79.8)	4120 (91.0)	1617 (96.6)
No	165 (13.6)	1419 (13.9)	204 (4.5)	39 (2.3)
I am not sure	71 (5.8)	648 (6.3)	203 (4.5)	18 (1.1)
Missing	44	467	129	13
Total	1260	10689	4656	1687

Most had heard of daily oral PrEP, with fewer knowing of event-driven oral PrEP, and fewer still knowing about CAB-LA.

Table 14. Heard of PrEP dosing regimens and modalities.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Daily oral	945 (75.0)	6673 (62.4)	3011 (64.7)	1489 (88.3)
Event-driven oral	660 (52.4)	5204 (48.7)	2997 (64.4)	1230 (72.9)
CAB-LA	335 (26.6)	2099 (19.6)	645 (13.9)	359 (21.3)
Total	1260	10689	4656	1687

Over three-quarters of TGW (76.6%) and MSM from Australia (79.7%) knew how and where to get PrEP, compared to about half of the MSM in Asian LMIC (52.2%) and Asian HIC (51.1%). Over two-thirds of TGW (66.9%) and MSM in Australia (67.3%) had spoken to a doctor or healthcare worker about PrEP. This was lower among MSM in Asian LMIC (38.8%) and Asian HIC (25.2%).

Table 15. Knowledge of how to access PrEP.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Knows how and where to get PrEP	963 (76.6)	5553 (52.2)	2376 (51.1)	1343 (79.7)
Missing	3	54	5	2
Spoken to doctor or healthcare worker about PrEP	841 (66.9)	4130 (38.8)	1173 (25.2)	1134 (67.3)
Missing	2	42	3	3
Total	1260	10689	4656	1687

Among participants who had heard of PrEP, about half of the TGW (47.7%) and MSM in Australia (46.5%) were current PrEP users, while a further 13.4% of TGW and 19.7% of MSM in Australia had previously taken PrEP but were no longer taking it. There were fewer current PrEP users among MSM in Asian LMIC (24.8%) and Asian HIC (19.2%), with a higher proportion having never taken PrEP (65.2% and 71.2%, respectively).

Among current PrEP users, daily oral PrEP was the most common dosing regimen in TGW, MSM in Asian LMIC, and Australia. A larger proportion of MSM in Asian HIC were taking event-driven oral PrEP.

Table 16. PrEP use history and current dosing regimen.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
PrEP history among PrEP aware participants				
Current PrEP user	461 (47.7)	2015 (24.8)	790 (19.2)	751 (46.5)
Former PrEP user	129 (13.4)	805 (9.9)	392 (9.5)	318 (19.7)
Never taken PrEP	376 (38.9)	5300 (65.2)	2933 (71.2)	547 (33.8)
<i>Missing</i>	14	35	5	1
Total	980	8155	4120	1617
Current PrEP dosing among current PrEP users				
Daily oral	397 (88.4)	1457 (73.7)	330 (42.0)	564 (75.4)
Event-driven oral	51 (11.4)	498 (25.2)	450 (57.3)	178 (23.8)
Other	1 (0.2)	21 (1.1)	6 (0.8)	6 (0.8)
<i>Missing</i>	12	39	4	3
Total	461	2015	790	751

Among PrEP naïve participants, more than two-thirds of MSM and over half of TGW (57.4%) reported wanting to take PrEP but had not yet taken it.

Table 17. Would like to take PrEP among those who have never taken PrEP.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Yes	202 (57.4)	3742 (72.0)	2037 (70.0)	351 (64.6)
No	150 (42.6)	1454 (28.0)	872 (30.0)	192 (35.4)
<i>Missing</i>	24	104	24	4
Total	376	5300	2933	547

Among PrEP naïve participants who wanted to take PrEP, the most common reasons for not taking it included: not knowing where or how to get it, being worried about side effects, not having much sex, and PrEP not being available where they live. Among former PrEP users, the most common reasons for stopping PrEP were not having much sex and being worried about side effects. In MSM from Asian HIC, nearly half (45.4%) reported that they stopped because it was too expensive.

Table 18. Reasons why participants are not taking PrEP among those who have never taken PrEP and would like to, and among former PrEP users who have stopped.

	TGW		MSM					
	Never used	Former PrEP user	Asian LMIC		Asian HIC		Australia	
			Never used	Former PrEP user	Never used	Former PrEP user	Never used	Former PrEP user
PrEP is not available where I live	56 (27.7)	16 (12.4)	842 (22.5)	90 (11.2)	177 (8.7)	48 (12.2)	6 (1.7)	4 (1.3)
I don't know where or how to get it	69 (34.2)	1 (0.8)	2195 (58.7)	67 (8.3)	1090 (53.5)	67 (17.1)	123 (35.0)	9 (2.8)
It is too expensive	31 (15.3)	6 (4.7)	1075 (28.7)	149 (18.5)	1173 (57.6)	178 (45.4)	83 (23.6)	53 (16.7)
I have not been able to get a prescription	27 (13.4)	6 (4.7)	707 (18.9)	28 (3.5)	337 (16.5)	67 (17.1)	43 (12.3)	16 (5.0)
I'm worried about side effects	86 (42.6)	34 (26.4)	1376 (36.8)	252 (31.3)	590 (29.0)	58 (14.8)	111 (31.6)	61 (19.2)
I'm concerned about what my friends and family would think of me	38 (18.8)	12 (9.3)	543 (14.5)	47 (5.8)	172 (8.4)	8 (2)	61 (17.4)	8 (2.5)
I don't like taking pills on a regular basis	50 (24.8)	33 (25.6)	595 (15.9)	176 (21.9)	284 (13.9)	64 (16.3)	79 (22.5)	45 (14.2)
I am in a monogamous relationship	13 (6.4)	24 (18.6)	206 (5.5)	97 (12.0)	83 (4.1)	42 (10.7)	28 (8.0)	97 (30.5)
I prefer to use condoms	37 (18.3)	27 (20.9)	687 (18.4)	162 (20.1)	231 (11.3)	44 (11.2)	45 (12.8)	16 (5)
I am not having much sex	49 (24.3)	38 (29.5)	971 (25.9)	333 (41.4)	528 (25.9)	163 (41.6)	137 (39.0)	145 (45.6)
I don't feel comfortable discussing my sexual risks with healthcare providers	20 (9.9)	3 (2.3)	366 (9.8)	17 (2.1)	158 (7.8)	16 (4.1)	67 (19.1)	7 (2.2)
I was denied access to PrEP by a healthcare provider	4 (2.0)	0 (0)	48 (1.3)	7 (0.9)	15 (0.7)	4 (1.0)	7 (2.0)	2 (0.6)
I am not at high risk of HIV	17 (8.4)	17 (13.2)	272 (7.3)	94 (11.7)	134 (6.6)	37 (9.4)	36 (10.3)	41 (12.9)
COVID-19 made it too hard to get	15 (7.4)	10 (7.8)	151 (4)	51 (6.3)	69 (3.4)	29 (7.4)	10 (2.8)	10 (3.1)
Too inconvenient	10 (5.0)	11 (8.5)	281 (7.5)	67 (8.3)	151 (7.4)	30 (7.7)	24 (6.8)	20 (6.3)
My sexual partner(s) would not like me taking PrEP	5 (2.5)	8 (6.2)	19 (0.5)	10 (1.2)	5 (0.2)	2 (0.5)	7 (2.0)	6 (1.9)
Total	202	129	3742	805	2037	392	351	318

Among current and former PrEP users, where they last received PrEP pills varied greatly depending on region. Among TGW, the most common places to get PrEP were from a STI/sexual health clinic, a community clinic run by TGW, or from an HIV clinic. Among MSM from Asian LMIC, the most common places were a community clinic run by MSM, a STI/sexual health clinic, or a hospital. Among MSM from Asian HIC, the most common places were a hospital, from a friend or sex partner, or from overseas. Among MSM from Australia, most got PrEP from a general practitioner/private doctor or a STI/sexual health clinic.

Table 19. Where participants got their last PrEP pills or prescription from among current and former PrEP users.

	TCW	MSM		
		Asian LMIC	Asian HIC	Australia
General practitioner / private doctor	30 (5.0)	204 (8.7)	96 (8.3)	616 (60.2)
Hospital (either private or public)	52 (8.7)	471 (20.0)	380 (33.0)	22 (2.1)
STI / Sexual health clinic	164 (27.6)	484 (20.6)	121 (10.5)	314 (30.7)
HIV clinic	146 (24.5)	324 (13.8)	33 (2.9)	9 (0.9)
Community clinic run by transgender women	162 (27.2)	-	-	-
Community clinic run by men who have sex with men	-	490 (20.8)	19 (1.7)	12 (1.2)
By telehealth or online	2 (0.3)	184 (7.8)	138 (12.0)	32 (3.1)
From a friend or sex partner	12 (2.0)	77 (3.3)	179 (15.6)	4 (0.4)
I used PEP as PrEP	4 (0.7)	18 (0.8)	4 (0.3)	3 (0.3)
Another country	0 (0)	26 (1.1)	159 (13.8)	7 (0.7)
Other	23 (3.9)	75 (3.2)	22 (1.9)	5 (0.5)
<i>Missing</i>	3	10	1	4
Total	598	2363	1152	1028

Among TGW, the PrEP modalities of the most interest where participants could select multiple options were daily oral PrEP, 6-monthly injections, and a monthly pill, while the most preferred option when only allowing to select one option was daily oral PrEP. Among MSM in Asian LMIC, a monthly pill was of most interest, followed by event-driven oral PrEP and daily oral PrEP, with the monthly pill being the most preferred. Among MSM in Asian HIC, interest was greatest in the monthly oral pill, event-driven oral PrEP, and 6-monthly injections, with event-driven oral PrEP being the most preferred option. Among MSM in Australia, the highest interest was in the monthly oral pill, then 6-monthly injections followed by daily oral PrEP, with the monthly oral pill being the most preferred.

Table 20. Interest to use (non-mutually exclusive) and top preference (mutually exclusive) for different PrEP modalities.

	TGW		MSM					
	Interest	Preferred	Asian LMIC		Asian HIC		Australia	
			Interest	Preferred	Interest	Preferred	Interest	Preferred
Daily oral	526 (41.7)	383 (32.2)	3651 (34.2)	2060 (21.5)	1455 (31.3)	543 (12.5)	702 (41.6)	225 (14.0)
Event-driven oral	307 (24.4)	186 (15.6)	3970 (37.1)	2213 (23.0)	2357 (50.6)	1275 (29.4)	603 (35.7)	215 (13.4)
Monthly pill	321 (25.5)	192 (16.1)	4210 (39.4)	2240 (23.3)	2402 (51.6)	1195 (27.6)	1039 (61.6)	453 (28.2)
CAB-LA (2-monthly injection)	196 (15.6)	74 (6.2)	1548 (14.5)	366 (3.8)	771 (16.6)	126 (2.9)	423 (25.1)	62 (3.9)
6-monthly injection	400 (31.7)	245 (20.6)	3509 (32.8)	1870 (19.5)	1692 (36.3)	745 (17.2)	854 (50.6)	395 (24.6)
Removable implant	149 (11.8)	69 (5.8)	1756 (16.4)	765 (8.0)	1020 (21.9)	433 (10.0)	568 (33.7)	249 (15.5)
None	31 (2.4)	-	801 (7.5)	-	248 (5.3)	-	64 (3.8)	-
Missing	-	80	-	374	-	91	-	24
Total	1260	1229	10689	9888	4656	4408	1687	1623

Discrete Choice Experiment – PrEP and service delivery preferences

Among TGW who completed at least one DCE question (n=1,522), the most preferred combination of attributes for a program were injectable PrEP, at peer-led community clinics, with no cost, no side effects, either 6 or 12 monthly visits, and with STI testing. The least preferred program was using PrEP implant, at a hospital, high cost, with a rare chance of kidney problems, two monthly visits, and had no extra services.

Among MSM in Asian LMIC who completed at least one DCE question (n=14,535), the most preferred combination of attributes for a program were event-driven PrEP, at peer-led community clinics, with no cost, no side effects, 12 monthly visits, and with STI testing. The least preferred program was using PrEP implant, at hospital, at high cost, rare chance of kidney problems, two monthly visits, and mental health counselling.

Among MSM in Asian HIC who completed at least one DCE question (n=5,521), the most preferred combination of attributes for a program were event-driven oral PrEP, at peer-led community clinics, no cost, no side effects, 12 monthly visits, and with STI testing. The least preferred program was implant, at an STI clinic, high cost, with a rare chance of kidney problems, two monthly visits, and mental health counselling.

Among MSM in Australia who completed at least one DCE question (n=1,894), the most preferred combination of attributes for a program were monthly oral PrEP, at a pharmacy, no cost, no side effects, 12 monthly visits, with STI testing. The least preferred combination of PrEP program attributes was using PrEP implant, at a hospital, high cost, with a rare chance of kidney problem, two monthly visits and no extra services.

Cost was the most important driver of choice for PrEP use among TGW and all MSM country groups. Among TGW, the most important driver of choice besides cost were type of PrEP, location, extra services, and visit frequency, with the least important being side effects. Among MSM in Asian LMIC, the most important driver of choice besides cost were type of PrEP, side effects, extra services, and visit frequency, with the least important being location. Among MSM in Asian HIC, the most important driver of choice besides cost were side effects, type of PrEP, extra services and visit frequency with the least important being location. Among MSM in Australia, the most important driver of choice besides cost were type of PrEP, side effects, extra services and locations with the least important being visit frequency.

Table 21 summarises the preferences for the use of PrEP among MSM and TGW. Each coefficient reflects the magnitude of preference for the attribute level. A positive coefficient indicates that the attribute level is preferred whereas a negative coefficient indicates it is not preferred. The p-value for each attribute level indicates whether the coefficient is statistically different from 0 (i.e., what is the probability this observation occurred by chance).

Table 21. Preferences for the use of PrEP among MSM and TGW.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
 Type of PrEP				
Daily oral	-0.08	-0.03	-0.01	-0.01
Event-driven	0.05	0.25***	0.43***	-0.29***
Injectable	0.13**	0.14***	-0.12***	0.26***
Monthly oral	0.10**	0.14***	0.34***	0.56***
Implant	-0.20***	-0.50***	-0.64***	-0.52***
 Location				
Hospital	-0.13**	-0.05**	-0.05	-0.33***
STI clinic	0.03	-0.04**	-0.16***	-0.11*
Private community clinic (incl. GP)	-0.08	0.02	0.00	0.08
Community clinic run by MSM/TGW	0.19***	0.13***	0.15***	0.20***
Telehealth	0.04	-0.04**	0.01	-0.10
Pharmacy	-0.05	-0.02	0.05*	0.26***
 Cost				
Free	1.11***	1.15***	1.66***	1.28***
Low	0.10**	0.15***	0.37***	0.45***
Medium	-0.30***	-0.31***	-0.41***	-0.36***
High	-0.91***	-0.99***	-1.62***	-1.37***
 Side effects				
None	0.05	0.31***	0.55***	0.48***
Interactions with other medications	0.02	-0.10***	-0.11***	-0.24***
Mild	0.00	0.03	-0.09***	-0.07
Rare chance of kidney problems	-0.10**	-0.23***	-0.55***	-0.35***
Mild pain at injection	0.03	-0.01	0.20***	0.18**

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
 Visit frequency				
Every 2 months	-0.16***	-0.10***	-0.20***	-0.32***
Every 3 months	0.00	-0.02**	-0.04**	-0.01
Every 6 months	0.08**	0.05**	0.10***	0.12***
12 months	0.08**	0.07***	0.14***	0.21***
 Extra services				
STI testing	0.12***	0.20***	0.26***	0.38***
Mental health counselling	0.01	-0.11***	-0.19***	-0.17***
Gender-affirming hormones prescribed	0.00	-	-	-
None	-0.13***	-0.09***	-0.07***	-0.21***
Opt out	-1.62***	-2.04***	-2.34***	-2.30***

*Significant at p<0.10 level **Significant at p<0.05 level ***Significant at p<0.01 level

Table 22. Relative importance of attributes (%).

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Cost	62.0	52.3	50.1	42.3
Type of PrEP	10.1	18.3	16.3	17.2
Side effects	4.6	13.2	16.8	13.2
Extra services	7.7	7.6	6.9	9.4
Visit frequency	7.4	4.2	5.2	8.5
Location	8.3	4.4	4.7	9.4

Attitudes towards PrEP

Among TGW, 825 (65.7%) believed at least a few or their friends of sex partners were currently on PrEP, compared to 5543 (52.1%) in MSM in Asian LMIC, 3006 (64.7%) in Asian HIC and 1349 (80.1%) in Australia. A majority of MSM in Australia (80.6%) believed that in general, people they know have a positive attitude towards PrEP. This was lower among TGW (59.8%), Asian LMIC (51.7%) and Asian HIC (47.2%)

Table 23. Belief about other peoples' attitudes towards PrEP and use of PrEP.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Proportion of friends and sex partners believed to be currently taking PrEP				
I don't know	204 (16.2)	2867 (26.9)	912 (19.6)	224 (13.3)
None	227 (18.1)	2229 (21.0)	726 (15.6)	112 (6.6)
A few	303 (24.1)	2759 (25.9)	1682 (36.2)	326 (19.3)
Some	251 (20.0)	1802 (16.9)	895 (19.3)	231 (13.7)
About half	90 (7.2)	404 (3.8)	260 (5.6)	173 (10.3)
Most	145 (11.5)	419 (3.9)	141 (3.0)	411 (24.4)
Almost all	28 (2.2)	97 (0.9)	24 (0.5)	191 (11.3)
All	8 (0.6)	62 (0.6)	4 (0.1)	17 (1.0)
<i>Missing</i>	4	50	12	2
In general, do people you know have a positive attitude toward PrEP?				
Yes	708 (59.8)	5376 (51.7)	2176 (47.2)	1354 (80.6)
No	145 (12.3)	1207 (11.6)	357 (7.7)	35 (2.1)
I don't know	330 (27.9)	3821 (36.7)	2078 (45.1)	291 (17.3)
<i>Missing</i>	77	285	45	7
Total	1260	10689	4656	1687

Participants were asked a series of attitudinal questions about PrEP, disclosure of their sexual/gender identities, and experiences of discrimination. There was a high willingness to take PrEP across the whole sample, with side effects being a significant concern among TGW and among MSM in Asian LMIC and Asian HIC. Among TGW, more than half (52.1%) were concerned about PrEP interacting with hormones. At least half of all participants in each group were willing to talk to a healthcare worker about PrEP, with MSM in Asian HIC being the least comfortable (52.8%). Approximately two-thirds of TGW, MSM in Asian LMIC and MSM in HIC preferred to discuss PrEP with a healthcare worker who is also a TGW or MSM. Half of MSM in Asian LMIC (50.5%) and a third of MSM in Asian HIC (37.3%) reported that doctors or healthcare workers are aware that they are MSM. This was higher among MSM in Australia (72.5%). Two-thirds (67.3%) of TGW reported doctors or healthcare workers knew they were transgender. Experiences of discrimination based on being an MSM or TGW was most frequent among TGW (37.7%), followed by MSM in Asian LMIC (24.9%), MSM in Australia (20.3%), and MSM in Asian HIC (11.7%).

Table 24. Agreement to statements about general attitudes towards PrEP and the healthcare system among MSM.³

	MSM		
	Asian LMIC	Asian HIC	Australia
I am willing to take PrEP to prevent getting HIV.	7898 (74.2)	3337 (71.7)	1399 (83.1)
I am worried about the side effects of PrEP drugs.	5991 (57.5)	2817 (61.1)	686 (40.8)
I would feel comfortable talking to a healthcare worker about PrEP.	6909 (66.8)	2433 (52.8)	1266 (75.4)
I would prefer to discuss PrEP with a healthcare worker who is a man who has sex with men.	7095 (69.5)	3017 (65.6)	921 (54.8)
My doctors or healthcare workers know that I am a man who has sex with man.	5186 (50.5)	1718 (37.3)	1219 (72.5)
I have experienced discrimination from healthcare workers because of being a man who has sex with men.	2554 (24.9)	540 (11.7)	341 (20.3)
Total	10689	4656	1687

³ Missing values not included in denominator when calculating percentages

Table 25. Agreement to statements about general attitudes towards PrEP and the healthcare system among TGW.⁴

	TGW
I am willing to take PrEP to prevent getting HIV.	7898 (74.2)
I am worried about the side effects of PrEP drugs.	5991 (57.5)
I'm concerned about PrEP interacting with my hormones.	6909 (66.8)
I would feel comfortable talking to a healthcare worker about PrEP.	7095 (69.5)
I would prefer to discuss PrEP with a healthcare worker who is transgender.	5186 (50.5)
My doctors or healthcare workers know that I am transgender.	2554 (24.9)
I have experienced discrimination from healthcare workers because of being transgender.	440 (37.7)
Total	1260

Participants were asked about reasons they might like CAB-LA and potential concerns. The most common reasons included that it could protect against HIV, they would not have to remember to take pills, and that it offered longer-term protection compared to other methods.

Table 26. Potential reasons they would like CAB-LA.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
Protection against HIV	576 (45.7)	5654 (52.9)	2679 (57.5)	1076 (63.8)
Don't have to remember to take pills	350 (27.8)	3877 (36.3)	1861 (40.0)	1097 (65.0)
Easier than condoms	253 (20.1)	2174 (20.3)	1245 (26.7)	492 (29.2)
Longer-term protection compared to other methods	266 (21.1)	3406 (31.9)	1779 (38.2)	791 (46.9)
Can be used discreetly, without other people knowing	222 (17.6)	2436 (22.8)	1091 (23.4)	436 (25.8)
Is administered by a healthcare provider	182 (14.4)	2010 (18.8)	1160 (24.9)	428 (25.4)

⁴ Missing values not included in denominator when calculating percentages

Does not interrupt sex	178 (14.1)	1555 (14.5)	745 (16.0)	389 (23.1)
Don't have to take oral pills	257 (20.4)	2529 (23.7)	957 (20.6)	695 (41.2)
Injections work better than oral pills	169 (13.4)	1553 (14.5)	563 (12.1)	136 (8.1)
Can replace condoms	135 (10.7)	1539 (14.4)	875 (18.8)	226 (13.4)
Nothing	274 (21.7)	1686 (15.8)	856 (18.4)	184 (10.9)
Total	1260	10689	4656	1687

The most common concerns about CAB-LA included not knowing enough about it yet, that cost may be unaffordable, and the potential for harmful side effects.

Table 27. Potential concerns about CAB-LA.

	TGW	MSM		
		Asian LMIC	Asian HIC	Australia
I don't like injections	252 (20.0)	2508 (23.5)	1182 (25.4)	463 (27.4)
May not protect against HIV	147 (11.7)	1571 (14.7)	768 (16.5)	283 (16.8)
May be painful	302 (24.0)	2201 (20.6)	890 (19.1)	321 (19.0)
May cause harmful side effects	260 (20.6)	3341 (31.3)	1898 (40.8)	547 (32.4)
Once injected, it cannot be reversed immediately	111 (8.8)	1166 (10.9)	595 (12.8)	208 (12.3)
Must be administered by a healthcare provider	152 (12.1)	1722 (16.1)	917 (19.7)	362 (21.5)
Cost may be unaffordable	251 (19.9)	3473 (32.5)	1963 (42.2)	752 (44.6)
Injections don't work as well as oral pills	50 (4.0)	524 (4.9)	316 (6.8)	53 (3.1)
I don't know enough about it yet	264 (21)	3163 (29.6)	1584 (34.0)	788 (46.7)
Nothing	298 (23.7)	1938 (18.1)	681 (14.6)	206 (12.2)
Total	1260	10689	4656	1687

Conclusion

This large-scale study using online cross-sectional surveys of TGW across 11 countries and MSM across 16 countries and territories in Asia and Australia demonstrated that there is a range of preferences in PrEP options and service delivery models across the region. A significant proportion of participants had never taken PrEP, and of those participants nearly all would like to take PrEP. Specific drivers of choice differed across countries and populations, but cost of PrEP and side effects were consistently identified as barriers to PrEP uptake. While many would like to take oral PrEP which is well established, many participants chose novel forms of PrEP as their most preferred option.

There are limitations to this study. As an online survey, participants required access to the internet and a device to complete the survey which may limit the generalisability of our results to those without access to the internet, particularly in low- and middle-income countries. As we utilised community-based recruitment strategies, our sample may have recruited participants who are more connected to MSM and TGW communities, and HIV prevention services, which may influence their knowledge, attitudes and use of PrEP. This is likely to be particularly true for TGW who were exclusively recruited through community-based recruitment strategies. Questions on interest in and preference for PrEP products included options that are already established (oral PrEP and CAB-LA) alongside those currently under development and not yet available (long-acting oral PrEP, six-month injection, and implants). Our results may therefore underestimate overall and comparative interest in and preference for existing PrEP options and overestimate this for PrEP options not yet available. This is because hypothetical options may be more attractive due to not having prior assumptions or knowledge about other factors that may influence its appeal (e.g. cost, side effects, efficacy, etc) whereas these factors are known for existing options.

There are several recommendations that can be made from these findings. Providing PrEP in settings outside of hospitals or general practices may be preferable and facilitate a greater reach to those who would prefer receiving PrEP at community clinics run by peers or through a pharmacy. Preferences of PrEP service delivery must be used to guide the establishment of country-tailored PrEP service delivery guidelines, along with policy advocacy efforts to support demedicalisation and simplification of certain elements of services. As new PrEP options emerge, developing decision aids will be needed to guide those wanting to initiate PrEP to choose the option that best suits their lifestyle and HIV prevention needs. As CAB-LA becomes available, policy and clinical infrastructure should prepare to adapt to implementing other PrEP options besides oral PrEP,

and document changes to current systems to facilitate CAB-LA and prepare to apply those to other potential PrEP options in the future, such as the monthly pill, six-monthly injection, or removable implant. Further PrEP advocacy is needed to improve access to PrEP and address the unmet need for PrEP across Asia.

PrEP implementation is a rapidly evolving field and is likely to be greatly impacted by the development of new PrEP options. As these options emerge, there are opportunities across Asia to control the growing HIV epidemics in the region. Progress towards HIV elimination require PrEP programs to adapt and look to the future while maintaining the successes that have already been achieved. This study shows that key populations want PrEP which demonstrates the importance of further work to meet their needs.

Appendices

Appendix A

Recruitment sources by country

Country	Unpaid promotion	Dating apps/ social media	Paid social media influencers
Australia	619 (36.7)	1064 (63.1)	4 (0.2)
Cambodia	416 (60.6)	150 (21.9)	120 (17.5)
China (excluding Hong Kong and Taiwan)	335 (20.6)	1290 (79.2)	3 (0.2)
Hong Kong SAR, China	43 (8.0)	494 (91.8)	1 (0.2)
India	192 (12.5)	1348 (87.4)	2 (0.1)
Indonesia	404 (33.4)	659 (54.6)	145 (12.0)
Japan	2 (0.2)	1361 (99.8)	1 (0.1)
Lao People's Democratic Republic	278 (90.3)	30 (9.7)	0 (0)
Malaysia	123 (15.5)	649 (81.7)	22 (2.8)
Myanmar	151 (24.6)	119 (19.4)	344 (56.0)
Nepal	671 (99.9)	1 (0.2)	0 (0)
The Philippines	191 (11.5)	1468 (88.3)	3 (0.2)
Singapore	12 (1.9)	546 (84.1)	91 (14.0)
Taiwan, China	1 (0.1)	2103 (99.9)	1 (0.1)
Thailand	391 (27.1)	995 (68.9)	59 (4.1)
Viet Nam	821 (59.1)	567 (40.8)	2 (0.1)
All countries and territories	4650 (25.4)	12844 (70.2)	798 (4.4)

Appendix B

Languages available by country

Country	Languages available
Australia	English, Simplified Chinese, Thai, Vietnamese
Cambodia	Khmer
China (excluding Hong Kong and Taiwan)	Simplified Chinese
Hong Kong SAR, China	English, Traditional Chinese
India	Bengali, English, Gujarati, Hindi, Marathi
Indonesia	Bahasa Indonesia
Japan	Japanese
Lao People's Democratic Republic	Lao
Malaysia	Bahasa Malay, English, Simplified Chinese
Myanmar	Burmese
Nepal	Nepalese
The Philippines	English
Singapore	Bahasa Malay, English, Simplified Chinese
Taiwan, China	Traditional Chinese
Thailand	Thai
Viet Nam	Vietnamese

Appendix C – Country Specific Data



Australia

There were 1687 MSM participants from Australia. The mean age was 40.2 years. Three-quarters (76.7%) identified as gay with another 17.5% identifying as bisexual. Half (55.1%) had a university degree and two-thirds (68.3%) were in full-time employment (Table C.1.1)

Nearly all participants (96.6%) had heard of PrEP, with most having heard of daily (88.8%) or event-driven (74.1%). Fewer participants had heard of CAB-LA (21.7%). Among those who had heard of PrEP, less than half (45.1%) were current PrEP users and a fifth (19.7%) were former PrEP users. A third (33.8%) had never taken PrEP. Among current PrEP users, the most common dosing regimen was daily (75.4%) followed by event-driven (23.8%; Table C.1.2).

Among those who were aware of PrEP but had never taken PrEP, two thirds (64.6%) wanted to take it. The most common reasons for not starting PrEP were not having much sex (39.0%), not knowing where or how to get it (35.0%), and worry about side effects (31.6%). Regarding willingness to pay for PrEP, 69.5% were willing to pay between \$1 to \$50 AUD a month for PrEP, while 8.5% of participants were not willing to pay anything (Table C.1.3)

Participants' interest in different PrEP options where they could select multiple options was highest for the monthly pill (61.6%), six month injection (50.6%) and daily (41.6%). When asked for their top preference with only one choice, the most common choices were monthly pill (28.2%), 6-month injection (24.6%) and implant (15.5%; Table C.1.4).

When asked about potential reasons they would like CAB-LA, the most common reasons were not having to remember to take pills (65.0%), protection against HIV (63.8%) and longer-term protection compared to other methods (46.9%). The most common concerns were not knowing enough about it (46.7%), cost may be unaffordable (44.6%), and may cause harmful side effects (32.4%; Table C.1.5)

From the results of the discrete choice experiment, the most preferred combination of attributes for a program were monthly oral PrEP, at a pharmacy, at no cost, no side effects, 12-monthly visit, and with STI testing. The least preferred combination of PrEP program attributes was an implant at a hospital, costing \$100AUD a month, with a rare chance of kidney problems, two monthly visits, and no extra services (Table C.1.6). The most important driver of choice to use PrEP was cost and the least important was visit frequency (Table C.1.7)

Table C.1.1. Demographics

	MSM
Age (Mean/SD)	40.2 (12.7)
Sexual Identity	
Gay	1294 (76.7)
Bisexual/Pansexual	296 (17.5)
Other	97 (5.7)
Education	
No high school	2 (0.1)
High School	754 (44.7)
University degree	929 (55.1)
<i>Missing</i>	2
Employment	
Full time	1149 (68.3)
Part time	207 (12.3)
Student	92 (5.5)
Other	235 (14.0)
<i>Missing</i>	4
Total	1687

Table C.1.2. PrEP awareness and use

MSM	
PrEP awareness among all participants	
Heard of PrEP prior to the survey	
Yes	1617 (96.6)
No	39 (2.3)
I don't know	18 (1.1)
<i>Missing</i>	13
Heard of these types of PrEP	
Daily	1489 (88.8)
Event-driven	1230 (74.1)
CAB-LA	359 (21.7)
Total	1687
PrEP use history among participants who had heard of PrEP	
Current PrEP user	751 (46.5)
Former PrEP user	318 (19.7)
Never taken PrEP	547 (33.8)
<i>Missing</i>	1
Total	1617
PrEP dosing among current users	
Daily	564 (75.4)
Event-driven	178 (23.8)
Other	6 (0.8)
<i>Missing</i>	3
Total	751

Table C.1.3. Reasons for not starting PrEP and willingness to pay

MSM	
Would like to take PrEP among those who have never taken PrEP	
Yes	351 (64.6)
No	192 (35.4)
Missing	4
Total	547
Why not taken PrEP	
PrEP is not available where I live	6 (1.7)
I don't know where or how to get it	123 (35.0)
It is too expensive	83 (23.6)
I have not been able to get a prescription	43 (12.3)
I'm worried about side effects	111 (31.6)
I'm concerned about what my friends and family would think of me	61 (17.4)
I don't like taking pills on a regular basis	79 (22.5)
I am in a monogamous relationship	28 (8.0)
I prefer to use condoms	45 (12.8)
I am not having much sex	137 (39.0)
I don't feel comfortable discussing my sexual risks with healthcare providers	67 (19.1)
I was denied access to PrEP by a healthcare provider	7 (2.0)
I am not at high risk of HIV	36 (10.3)
COVID-19 made it too hard to get	10 (2.8)
Too inconvenient	24 (6.8)
My sexual partner(s) would not like me taking PrEP	7 (2.0)
Total	351

		MSM
How much they would be willing to spend a month on PrEP		
Nothing		143 (8.5)
\$1 to \$10 AUD		153 (9.1)
\$11 to \$20 AUD		206 (12.2)
\$21 to \$30 AUD		246 (14.6)
\$31 to \$40 AUD		244 (14.5)
\$41 to \$50 AUD		322 (19.1)
\$51 to \$60 AUD		85 (5.0)
\$61 to \$70 AUD		18 (1.1)
\$71 to \$80 AUD		31 (1.8)
\$81 to \$90 AUD		14 (0.8)
\$91 to \$100 AUD		74 (4.4)
More than \$100 AUD		56 (3.3)
<i>Missing</i>		95
Total		1687

Table C.1.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM	
	Interest	Preference
Daily	702 (41.6)	225 (14.0)
Event-driven	603 (35.7)	215 (13.4)
Monthly pill	1039 (61.6)	453 (28.2)
CAB-LA	423 (25.1)	62 (3.9)
Six-month injection	854 (50.6)	395 (24.6)
Implant	568 (33.7)	249 (15.5)
None (mutually exclusive)	64 (3.8)	-
<i>Missing</i>	-	24
Total	1687	1623

Table C.1.5. Potential reasons to like CAB-LA and potential concerns

	MSM
Potential reasons to like CAB-LA	
Protection against HIV	1076 (63.8)
Don't have to remember to take pills	1097 (65.0)
Easier than condoms	492 (29.2)
Longer-term protection compared to other methods	791 (46.9)
Can be used discreetly, without other people knowing	436 (25.8)
Is administered by a healthcare provider	428 (25.4)
Does not interrupt sex	389 (23.1)
Don't have to take oral pills	695 (41.2)
Injections work better than oral pills	136 (8.1)
Can replace condoms	226 (13.4)
Nothing (mutually exclusive)	184 (10.9)
Potential concerns about CAB-LA	
I don't like injections	463 (27.4)
May not protect against HIV	283 (16.8)
May be painful	321 (19.0)
May cause harmful side effects	547 (32.4)
Once injected, it cannot be reversed immediately	208 (12.3)
Must be administered by a healthcare provider	362 (21.5)
Cost may be unaffordable	752 (44.6)
Injections don't work as well as oral pills	53 (3.1)
I don't know enough about it yet	788 (46.7)
None (mutually exclusive)	206 (12.2)
Total	1687

Table C.1.6. DCE results for the preferences of men who have sex with men in Australia (N=1,892)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	-0.01	2.05***
	Event-driven	-0.29***	1.06***
	Injectable	0.26***	1.04***
	Monthly oral	0.56***	0.49***
	Implant	-0.52***	1.32***
Location	Hospital	-0.33***	0.99
	STI clinic	-0.11*	0.55***
	Private community clinic (incl. GP)	0.08	0.19
	Community clinic run by MSM/TG	0.20***	0.00
	Telehealth	-0.10	0.70***
	Pharmacy	0.26***	0.38**
Cost	Free	1.28***	1.11***
	\$25	0.45***	0.01
	\$50	-0.36***	0.46***
	\$100	-1.37***	1.01***
Side effects	No	0.48***	0.75**
	Interactions with other medications	-0.24***	0.31**
	Mild	-0.07	0.13
	Rare chance of kidney problems	-0.35***	0.67***
	Mild pain at injection	0.18**	0.06
Visit frequency	Every 2 months	-0.32***	0.43**
	3 months	-0.01	0.02
	6 months	0.12***	0.28**
	12 months	0.21***	0.33**

Attribute	Level	Coefficient	SD
Extra services	STI testing	0.38***	0.56***
	Mental health counselling	-0.17***	0.37***
	None	-0.21***	0.42***
Neither		-2.30***	0.35**

*Significant at $p < 0.10$ level **Significant at $p < 0.05$ level ***Significant at $p < 0.01$ level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.1.7. Relative Importance of preference attributes of men who have sex with men in Australia (N=1,892)

Attribute	Relative importance (%)
Cost	42.3
Type of PrEP	17.2
Side effects	13.2
Extra services	9.4
Location	9.4
Visit frequency	8.5



Cambodia

There were 600 MSM and 86 TGW participants from Cambodia. The mean age of participants was 27.5 years in MSM and 27.6 years in TGW. Over half of MSM participants (55.3%) identified as gay, with a fifth (22.2%) of MSM participants identifying as bisexual. A third of MSM participants (33.3%) had a university degree compared to 9.4% of TGW participants. Half of MSM participants (52.1%) and 42.4% of TGW participants were in full time employment (Table C.2.1)

PrEP awareness was high in both MSM (81.4%) and TGW (77.8%), with most having heard of daily PrEP, followed by event-driven PrEP. Fewer participants had heard of CAB-LA. Among those who have heard of PrEP, a third of MSM (34.0%) and a quarter of TGW (27.4%) were current PrEP users, with around a fifth of MSM (20.5%) and TGW (19.4%) being former PrEP users. Approximately half of MSM participants (45.5%) and TGW (53.2%) who were aware of PrEP had never taken PrEP. Among current PrEP users, the most common dosing regimen was daily in both MSM (n=109, 78.4%) and TGW (n=13, 76.5%), following by event-driven PrEP in MSM (n=27, 19.4%) and TGW (n=4, 23.5%; Table C.2.2)

Among those who were aware of PrEP but had never taken PrEP, 69.1% of MSM and 60.0% of TGW wanted to take it. The most common reasons for not starting PrEP were that they did not know where or how to get it, concern about side effects, and it is not available where they live. Regarding willingness to pay for PrEP 23.9% of MSM and 16.7% of TGW would be willing to pay 1-50,000 riel per month for PrEP, while two thirds of MSM (66.1%) and three quarters of TGW (75.0%) would not be willing to pay for PrEP (Table C.2.3)

Among MSM, participants' interest in different PrEP options where they could select multiple options was highest for daily (43.0%), event-driven (27.2%) and six-month injection (20.5%). When asked to pick their most preferred option with only one choice, 40.9% chose daily, followed by event-driven (21.3%) and six-month injection (16.3%). Among TGW, participants' interest in different PrEP options where they could select multiple options was highest for in daily (48.8%), event-driven (32.6%) and a monthly pill (16.3%). Their top preferences were daily (36.1%), event-driven (26.5%) and monthly pill (12.0%; Table C.2.4).

⁵ Results concerning TGW should be interpreted with caution due to low sample size. DCE analyses were only conducted on MSM data due to low sample size of TGW.

When asked about potential reasons they would like CAB-LA, the top reasons among MSM were that they don't have to remember to take pills (26.3%), protection against HIV (24.2%) and that it would be easier than condoms (20.7%). The most common potential concerns include not knowing enough about it yet (23.2%), not liking injections (22.5%), and side effects (15.0%). Among TGW, the most common reasons they would like CAB-LA were protection against HIV (17.4%), easier than condoms (17.4%), longer-term protection compared to other methods (16.3%) and can replace condoms (16.3%). The most common concerns were not liking injections (19.8%), not knowing enough about it yet (15.1%) and side effects (11.6%; Table C.2.5)

From the results of the discrete choice experiment among MSM, the most preferred combination of attributes for a program was event-driven oral PrEP, at general practice clinics, no cost, no side effects, three monthly visits and with STI testing. The least preferred combination of PrEP program attributes were an implant, at a pharmacy, 30,000 riel per month, with a rare chance of kidney problems, two monthly visits and with mental health counselling (Table C.2.6). The most important driver of choice to use PrEP was cost and the least important was visit frequency (Table C.2.7)

Table C.2.1. Demographics

	MSM	TGW
Age (Mean/SD)	27.5 (6.1)	27.6 (5.8)
Sexual Identity		
Gay	332 (55.3)	-
Bisexual/Pansexual	133 (22.2)	-
Other	135 (22.5)	-
Education		
No high school	37 (6.2)	9 (10.6)
High School	359 (60.4)	68 (80.0)
University degree	198 (33.3)	8 (9.4)
<i>Missing</i>	6	1
Employment		
Full time	303 (52.1)	36 (42.4)
Part time	134 (23.0)	26 (30.6)
Student	60 (10.3)	10 (11.8)
Other	85 (14.6)	13 (15.3)
<i>Missing</i>	18	1
Total	600	86

Table C.2.2. PrEP awareness and use

	MSM	TGW
PrEP awareness among all participants		
Heard of PrEP prior to the survey		
Yes	428 (81.4)	63 (77.8)
No	66 (12.5)	12 (14.8)
I don't know	32 (6.1)	6 (7.4)
<i>Missing</i>	78	6
Heard of these types of PrEP		
Daily	404 (77.4)	61 (76.3)
Event-driven	332 (66.7)	50 (63.3)
CAB-LA	139 (29.1)	18 (23.7)
Total	600	86
PrEP use history among participants who had heard of PrEP		
Current PrEP user	143 (34.0)	17 (27.4)
Former PrEP user	86 (20.5)	12 (19.4)
Never taken PrEP	191 (45.5)	33 (53.2)
<i>Missing</i>	8	1
Total	428	63
PrEP dosing among current users		
Daily	109 (78.4)	13 (76.5)
Event-driven	27 (19.4)	4 (23.5)
Other	3 (2.2)	0 (0)
<i>Missing</i>	4	0
Total	143	17

Table C.2.3. Reasons for not starting PrEP and willingness to pay

	MSM	TGW
Would like to take PrEP among those who have never taken PrEP		
Yes	123 (69.1)	18 (60.0)
No	55 (30.9)	12 (40.0)
Missing	13	3
Total	191	33
Why not taken PrEP		
PrEP is not available where I live	39 (31.7)	7 (38.9)
I don't know where or how to get it	49 (39.8)	7 (38.9)
It is too expensive	12 (9.8)	1 (5.6)
I have not been able to get a prescription	8 (6.5)	2 (11.1)
I'm worried about side effects	48 (39.0)	5 (27.8)
I'm concerned about what my friends and family would think of me	17 (13.8)	3 (16.7)
I don't like taking pills on a regular basis	20 (16.3)	4 (22.2)
I am in a monogamous relationship	9 (7.3)	4 (22.2)
I prefer to use condoms	27 (22.0)	4 (22.2)
I am not having much sex	29 (23.6)	3 (16.7)
I don't feel comfortable discussing my sexual risks with healthcare providers	15 (12.2)	0 (0)
I was denied access to PrEP by a healthcare provider	3 (2.4)	0 (0)
I am not at high risk of HIV	7 (5.7)	0 (0)
COVID-19 made it too hard to get	4 (3.3)	1 (5.6)
Too inconvenient	23 (18.7)	3 (16.7)
My sexual partner(s) would not like me taking PrEP	5 (4.1)	0 (0)
Total	123	18

	MSM	TGW
How much they would be willing to spend a month on PrEP		
1 to 50000 riel	96 (23.9)	10 (16.7)
51000 to 100000 riel	19 (4.7)	2 (3.3)
101000 to 150000 riel	5 (1.2)	2 (3.3)
151000 to 200000 riel	6 (1.5)	0 (0)
201000 to 250000 riel	5 (1.2)	1 (1.7)
251000 to 300000 riel	2 (0.5)	0 (0)
351000 to 400000 riel	1 (0.2)	0 (0)
More than 400000 riel	2 (0.4)	0 (0)
<i>Missing</i>	199	26
Total	600	86

Table C.2.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM		TGW	
	Interest	Preference	Interest	Preference
Daily	258 (43.0)	221 (40.9)	42 (48.8)	30 (36.1)
Event-driven	163 (27.2)	115 (21.3)	28 (32.6)	22 (26.5)
Monthly pill	115 (19.2)	73 (13.5)	14 (16.3)	10 (12.0)
CAB-LA	32 (5.3)	15 (2.8)	10 (11.6)	4 (4.8)
Six-month injection	123 (20.5)	88 (16.3)	11 (12.8)	6 (7.2)
Implant	38 (6.3)	20 (3.7)	6 (7)	4 (4.8)
None (mutually exclusive)	40 (6.7)	-	0 (0)	-
<i>Missing</i>	-	28	-	10
Total	600	560	86	86

Table C.2.5. Potential reasons they would like CAB-LA and potential concerns

	MSM	TGW
Potential reasons they would like CAB-LA		
Protection against HIV	145 (24.2)	15 (17.4)
Don't have to remember to take pills	158 (26.3)	11 (12.8)
Easier than condoms	124 (20.7)	15 (17.4)
Longer-term protection compared to other methods	97 (16.2)	14 (16.3)
Can be used discreetly, without other people knowing	118 (19.7)	12 (14.0)
Is administered by a healthcare provider	50 (8.3)	5 (5.8)
Does not interrupt sex	67 (11.2)	6 (7)
Don't have to take oral pills	69 (11.5)	5 (5.8)
Injections work better than oral pills	60 (10.0)	5 (5.8)
Can replace condoms	105 (17.5)	14 (16.3)
Nothing (mutually exclusive)	187 (31.2)	46 (53.5)
Potential concerns they have about CAB-LA		
I don't like injections	135 (22.5)	17 (19.8)
May not protect against HIV	82 (13.7)	3 (3.5)
May be painful	55 (9.2)	6 (7.0)
May cause harmful side effects	90 (15.0)	10 (11.6)
Once injected, it cannot be reversed immediately	43 (7.2)	3 (3.5)
Must be administered by a healthcare provider	33 (5.5)	3 (3.5)
Cost may be unaffordable	71 (11.8)	4 (4.7)
Injections don't work as well as oral pills	32 (5.3)	3 (3.5)
I don't know enough about it yet	139 (23.2)	13 (15.1)
None (mutually exclusive)	192 (32.0)	43 (50.0)
Total	600	86

Table C.2.6. DCE results for the preferences of men who have sex with men in Cambodia (N=821)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	0.08	0.88***
	Event-driven	0.27***	0.41***
	Injectable	0.14*	0.45***
	Monthly oral	-0.05	0.46***
	Implant	-0.44***	0.44***
Location	Hospital	0.09	0.84**
	STI clinic	-0.06	0.50***
	Private community clinic (incl. GP)	0.10	0.11
	Community clinic run by MSM/TG	0.00	0.66***
	Telehealth	-0.02	0.04
	Pharmacy	-0.11	0.03
Cost	Free	0.53***	0.66***
	10,000 riel	0.01	0.35***
	20,000 riel	-0.15***	0.09
	30,000 riel	-0.39***	0.55***
Side effects	No	0.41***	0.67**
	Interactions with other medications	-0.10	0.41***
	Mild	0.00	0.09
	Rare chance of kidney problems	-0.17**	0.35**
	Mild pain at injection	-0.14	0.39**
Visit frequency	Every 2 months	-0.06	0.35
	3 months	0.07	0.12
	6 months	-0.03	0.31**
	12 months	0.02	0.12

Attribute	Level	Coefficient	SD
Extra services	STI testing	0.28***	0.47***
	Mental health counselling	-0.15***	0.40***
	None	-0.13***	0.24**
Neither		-1.34***	5.52***

*Significant at $p < 0.10$ level **Significant at $p < 0.05$ level ***Significant at $p < 0.01$ level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.2.7. Relative Importance of preferences attributes of men who have sex with men in Cambodia (N=821)

Attribute	Relative importance (%)
Cost	31.0
Type of PrEP	23.9
Side effects	19.5
Extra services	14.5
Location	6.7
Visit frequency	4.4



China (excluding Hong Kong and Taiwan)

There were 1604 MSM participants and 24 TGW participants from China (excluding Hong Kong and Taiwan). The mean age of MSM was 28.4 years in MSM and 32.4 years in TGW. Most MSM participants (81.4%) identified as gay, with 14.3% of MSM identifying as bisexual. Most MSM participants (81.9%) and half of TGW participants (52.2%) had a university degree. Two-thirds of MSM participants (67.0%) and TGW participants (62.5%) were in full time employment (Table C.3.1).

PrEP awareness was high in both MSM (92.3%) and TGW (87.5%) with most having heard of daily or event-driven PrEP. Fewer participants had heard of CAB-LA. Among those who have heard of PrEP, a fifth of MSM (19.7%) and a tenth of TGW (9.5%) were current PrEP users, with a tenth of MSM (11.5%) and TGW (9.5%) being former PrEP users. Around two thirds of MSM (68.8%) and 81.0% of TGW who had heard of PrEP had never taken PrEP. Among current PrEP users, half of MSM (53.5%) were taking daily PrEP and half (46.2%) taking event-driven PrEP (Table C.3.2).

Among those who were aware of PrEP but had never taken PrEP, half of MSM (53.8%) and TGW (47.1%) wanted to take it. The most common reasons for not starting PrEP was that it was too expensive, worry about side effects, not knowing where or how to get it, and not having much sex. Regarding willingness to pay for PrEP, the range of how much participants were willing to pay varied significantly while there were 15.8% of MSM who were not willing to pay for PrEP. (Table C.3.3).

Among MSM, participants' interest in different PrEP options where they could select multiple options was highest for event-driven (55.7%), monthly pill (47.3%) and 6-monthly injection (40.9%). When asked to pick their most preferred option with only one choice, 31.7% chose event-driven, followed by monthly pill (22.6%) and 6-monthly injection (18.5%). Among TGW, participants' interest in different PrEP options where they could select multiple options was highest for monthly pill (62.5%), event-driven (50.0%) and 6-monthly injection (45.8%). Their top preference were daily pill (25.0%), monthly pill (20.8%), event-driven (16.7%) and CAB-LA (16.7%; Table C.3.4).

When asked about potential reasons they would like CAB-LA, the top reasons among MSM were protection from HIV (57.2%), not having to remember to take pills (48.0%) and longer term protection compared to other methods (42.8%). The most common concerns include concerns about side effects (43.0%), cost may be unaffordable (39.2%), not liking injections (29.8%) and not knowing enough about it (29.8%). Among TGW, the most common reasons they would like CAB-LA were protection against HIV (50.0%), it would be easier than condoms (33.3%), longer term protection compared to other methods (25.0%) and not having to take oral pills (25.0%). The most common concerns were not liking injections (37.5%), side effects (37.5%), and not knowing enough about it yet (25.0%; Table C.3.5).

⁶ Results concerning TGW should be interpreted with caution due to low sample size. DCE analyses were only conducted on MSM data due to low sample size of TGW.

From the results of the discrete choice experiment among MSM, the most preferred combination of attributes for a program were event-driven oral PrEP, at general practice clinics, no cost, no side effects, 12 monthly visits, and with STI testing. The least preferred combination of PrEP program attributes were implant, at a STI clinic, ¥1000 a month, with a rare chance of kidney problems, two monthly visits and mental health counselling (Table C.3.6). The most important driver of choice to use PrEP was cost and the least important was location (Table C.3.7)

Table C.3.1. Demographics

	MSM	TGW
Age (Mean/SD)	28.4 (7.0)	32.4 (9.2)
Sexual identity		
Gay	1305 (81.4)	-
Bisexual/Pansexual	230 (14.3)	-
Other	69 (4.3)	-
Education		
No high school	4 (0.2)	1 (4.3)
High School	286 (17.9)	10 (43.5)
University degree	1311 (81.9)	12 (52.2)
<i>Missing</i>	3	1
Employment		
Full time	1072 (67.0)	15 (62.5)
Part time	91 (5.7)	3 (12.5)
Student	316 (19.8)	2 (8.3)
Other	121 (7.6)	4 (16.7)
<i>Missing</i>	4	0
Total	1604	24

Table C.3.2. PrEP awareness and use

	MSM	TGW
PrEP awareness among all participants		
Heard of PrEP prior to the survey		
Yes	1470 (92.3)	21 (87.5)
No	62 (3.9)	2 (8.3)
I don't know	61 (3.8)	1 (4.2)
<i>Missing</i>	11	0
Heard of these types of PrEP		
Daily	1206 (75.4)	18 (75.0)
Event-driven	1187 (75.7)	17 (73.9)
CAB-LA	458 (29.5)	11 (52.4)
Total	1604	24
PrEP use history among participants who had heard of PrEP		
Current PrEP user	289 (19.7)	2 (9.5)
Former PrEP user	169 (11.5)	2 (9.5)
Never taken PrEP	1010 (68.8)	17 (81.0)
<i>Missing</i>	2	0
Total	1470	21
PrEP dosing among current users		
Daily	154 (53.5)	1 (50)
Event-driven	133 (46.2)	1 (50)
Other	1 (0.3)	0 (0)
<i>Missing</i>	1	0
Total	289	2

Table C.3.3. Reasons for not starting PrEP and willingness to pay

	MSM	TGW
Would like to take PrEP among those who have never taken PrEP		
Yes	540 (53.8)	8 (47.1)
No	464 (46.2)	9 (52.9)
Missing	6	0
Total	1010	17
Why not taken PrEP		
PrEP is not available where I live	98 (18.1)	4 (50.0)
I don't know where or how to get it	260 (48.1)	7 (87.5)
It is too expensive	309 (57.2)	2 (25)
I have not been able to get a prescription	111 (20.6)	1 (12.5)
I'm worried about side effects	273 (50.6)	3 (37.5)
I'm concerned about what my friends and family would think of me	29 (5.4)	3 (37.5)
I don't like taking pills on a regular basis	109 (20.2)	3 (37.5)
I am in a monogamous relationship	52 (9.6)	1 (12.5)
I prefer to use condoms	113 (20.9)	1 (12.5)
I am not having much sex	161 (29.8)	3 (37.5)
I don't feel comfortable discussing my sexual risks with healthcare providers	28 (5.2)	1 (12.5)
I was denied access to PrEP by a healthcare provider	4 (0.7)	0 (0)
I am not at high risk of HIV	67 (12.4)	2 (25)
COVID-19 made it too hard to get	23 (4.3)	1 (12.5)
Too inconvenient	45 (8.3)	0 (0)
My sexual partner(s) would not like me taking PrEP	5 (0.9)	0 (0)
Total	540	8

	MSM	TGW
How much they would be willing to spend a month on PrEP		
Nothing	228 (15.8)	0 (0)
¥1-50	138 (9.6)	0 (0)
¥51-100	210 (14.6)	1 (6.7)
¥101-150	124 (8.6)	0 (0)
¥151-200	158 (11.0)	3 (20.0)
¥201-250	73 (5.1)	0 (0)
¥251-300	141 (9.8)	3 (20)
¥301-350	88 (6.1)	0 (0)
¥351-400	24 (1.7)	1 (6.7)
More than ¥400	255 (17.8)	7 (46.8)
<i>Missing</i>	165	9
Total	1604	24

Table C.3.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM		TGW	
	Interest	Preference	Interest	Preference
Daily	553 (34.5)	193 (12.7)	10 (41.7)	6 (25.0)
Event-driven	893 (55.7)	482 (31.7)	12 (50.0)	4 (16.7)
Monthly pill	759 (47.3)	344 (22.6)	15 (62.5)	5 (20.8)
CAB-LA	337 (21.0)	55 (3.6)	9 (37.5)	4 (16.7)
Six-month injection	656 (40.9)	281 (18.5)	11 (45.8)	3 (12.5)
Implant	411 (25.6)	161 (10.6)	5 (20.8)	2 (8.3)
None (mutually exclusive)	71 (4.4)	-	0 (0)	-
<i>Missing</i>	-	17	-	0
Total	1604	1532	24	24

Table C.3.5. Potential reasons they would like CAB-LA and potential concerns

	MSM	TGW
Potential reasons they would like CAB-LA		
Protection against HIV	918 (57.2)	12 (50.0)
Don't have to remember to take pills	770 (48.0)	5 (20.8)
Easier than condoms	382 (23.8)	8 (33.3)
Longer-term protection compared to other methods	686 (42.8)	6 (25.0)
Can be used discreetly, without other people knowing	314 (19.6)	5 (20.8)
Is administered by a healthcare provider	282 (17.6)	3 (12.5)
Does not interrupt sex	181 (11.3)	4 (16.7)
Don't have to take oral pills	338 (21.1)	6 (25.0)
Injections work better than oral pills	259 (16.1)	5 (20.8)
Can replace condoms	223 (13.9)	3 (12.5)
Nothing (mutually exclusive)	225 (14.0)	3 (12.5)
Potential concerns they have about CAB-LA		
I don't like injections	478 (29.8)	9 (37.5)
May not protect against HIV	328 (20.4)	5 (20.8)
May be painful	345 (21.5)	5 (20.8)
May cause harmful side effects	690 (43.0)	9 (37.5)
Once injected, it cannot be reversed immediately	211 (13.2)	5 (20.8)
Must be administered by a healthcare provider	315 (19.6)	4 (16.7)
Cost may be unaffordable	628 (39.2)	5 (20.8)
Injections don't work as well as oral pills	136 (8.5)	4 (16.7)
I don't know enough about it yet	478 (29.8)	6 (25.0)
None (mutually exclusive)	190 (11.8)	1 (4.2)
Total	1604	24

Table C.3.6. DCE results for the preferences of men who have sex with men in China (N=1,850)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	-0.21***	1.67***
	Event-driven	0.57***	0.65***
	Injectable	0.01	1.11***
	Monthly oral	0.29***	0.33*
	Implant	-0.66***	1.02***
Location	Hospital	0.03	0.98***
	STI clinic	-0.13**	0.53***
	Private community clinic (incl. GP)	0.07	0.11
	Community clinic run by MSM/TG	0.02	0.60***
	Telehealth	0.01	0.47**
	Pharmacy	0.00	0.31*
Cost	Free	1.97***	1.85***
	¥200	0.46***	0.58***
	¥500	-0.56***	0.72***
	¥1000	-1.87***	1.60***
Side effects	No	0.49***	0.78*
	Interactions with other medications	-0.10*	0.43***
	Mild	-0.23***	0.50***
	Rare chance of kidney problems	-0.36***	0.29
	Mild pain at injection	0.20*	0.30
Visit frequency	Every 2 months	-0.15**	0.63***
	3 months	-0.04	0.21
	6 months	0.09*	0.40***
	12 months	0.10**	0.44***

Attribute	Level	Coefficient	SD
Extra services	STI testing	0.20***	0.56***
	Mental health counselling	-0.14***	0.45***
	None	-0.06	0.34***
Neither		-2.37***	5.14***

*Significant at $p < 0.10$ level **Significant at $p < 0.05$ level ***Significant at $p < 0.01$ level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.3.7. Relative importance of preference attributes of men who have sex with men in China (N=1,850)

Attribute	Relative importance (%)
Cost	57.2
Type of PrEP	18.3
Side effects	12.7
Extra services	5.1
Location	3.7
Visit frequency	3.0



Hong Kong SAR, China

There were 538 MSM participants from Hong Kong. The mean age was 34.7 years. Most participants identified as gay (83.8) or bisexual (14.1%). Two thirds (65.5%) had a university degree and three quarters (75.8%) were in full time employment (Table C.4.1).

PrEP awareness was high (93.1%) with most participants having heard of daily PrEP (74.7%) or event-driven (65.1%). Fewer participants had heard of CAB-LA (9.8%). Among those who had heard of PrEP, 19.3% were current PrEP users, with another 8.7% being former PrEP users. Most participants who had heard of PrEP had never taken it (72.0%). Among current PrEP users, the most common dosing regimen was daily (63.2%) followed by event-driven (34.7%; Table C.4.2).

Among participants who had never taken PrEP, 61.4% wanted to take it. The most common reasons for not starting PrEP were no knowing where or how to get it (61.6%), it is too expensive (53.7%) and worry about side effects (36.6%). Regarding willingness to pay for PrEP, less than half of participants (42.0%) would be willing to pay between \$1 to \$300 HKD a month for PrEP, with another 23.1% who would be willing to pay between \$301 and \$500HKD, while an eighth of participants (13.3%) would not be willing to pay anything (Table C.4.3)

Participants' interest in different PrEP options where they could select multiple options was highest for monthly pill (53.2%), event-driven (48.1%) and daily (39.6%). When asked to pick their top preference, the most chosen were monthly pill (30.0%), event-driven (24.6%), and daily (18.3%; Table C.4.4).

When asked about potential reasons they would like CAB-LA, the top reasons were protection against HIV (49.8%), not having to remember to take pills (40.7%), and longer-term protection compared to other methods (38.1%). The top concerns were that it may cause harmful side effects (40.1%), not liking injections (34.6%), cost may be unaffordable (32.3%), and not knowing enough about it yet (32.3%; Table C.4.5).

From the results of the discrete choice experiment, the most preferred combination of attributes for a program were monthly oral PrEP, via telehealth, no cost, mild pain at the injection site, 12-monthly visit and with STI testing. The least preferred combination of PrEP program attributes were implant, STI clinic, 600HKD a month, with rare chance of kidney problems, two monthly visits and with mental health counselling (Table C.4.6). The most important driver of choice to use PrEP was cost and the least important was visit frequency (Table C.4.7).

Table C.4.1. Demographics

	MSM
Age (Mean/SD)	34.7 (9.5)
Sexual identity	
Gay	451 (83.8)
Bisexual/Pansexual	76 (14.1)
Other	11 (2)
Education	
No high school	0 (0)
High School	185 (34.5)
University degree	352 (65.5)
<i>Missing</i>	1
Employment	
Full time	407 (75.8)
Part time	42 (7.8)
Student	51 (9.5)
Other	37 (6.9)
<i>Missing</i>	1
Total	538

Table C.4.2. PrEP awareness and use

MSM	
PrEP awareness among all participants	
Heard of PrEP prior to the survey	
Yes	498 (93.1)
No	20 (3.7)
I don't know	17 (3.2)
<i>Missing</i>	3
Heard of these types of PrEP	
Daily	399 (74.7)
Event-driven	345 (65.1)
CAB-LA	52 (9.8)
Total	538
PrEP use history among participants who had heard of PrEP	
Current PrEP user	96 (19.3)
Former PrEP user	43 (8.7)
Never taken PrEP	358 (72.0)
<i>Missing</i>	1
Total	498
PrEP dosing among current users	
Daily	60 (63.2)
Event-driven	33 (34.7)
Other	2 (2.1)
<i>Missing</i>	1
Total	96

Table C.4.3. Reasons for not starting PrEP and willingness to pay

MSM	
Would like to take PrEP among those who have never taken PrEP	
Yes	216 (61.4)
No	136 (38.6)
Missing	6
Total	358
Why not taken PrEP	
PrEP is not available where I live	34 (15.7)
I don't know where or how to get it	133 (61.6)
It is too expensive	116 (53.7)
I have not been able to get a prescription	55 (25.5)
I'm worried about side effects	79 (36.6)
I'm concerned about what my friends and family would think of me	4 (1.9)
I don't like taking pills on a regular basis	39 (18.1)
I am in a monogamous relationship	10 (4.6)
I prefer to use condoms	22 (10.2)
I am not having much sex	49 (22.7)
I don't feel comfortable discussing my sexual risks with healthcare providers	11 (5.1)
I was denied access to PrEP by a healthcare provider	2 (0.9)
I am not at high risk of HIV	14 (6.5)
COVID-19 made it too hard to get	9 (4.2)
Too inconvenient	19 (8.8)
My sexual partner(s) would not like me taking PrEP	1 (0.5)
Total	216

MSM	
How much they would be willing to spend a month on PrEP	
Nothing	61 (13.3)
\$1 to \$100 HKD	69 (15.0)
\$101 to \$200 HKD	57 (12.4)
\$201 to \$300 HKD	67 (14.6)
\$301 to \$400 HKD	32 (7.0)
\$401 to \$500 HKD	74 (16.1)
\$501 to \$600 HKD	31 (6.8)
\$601 to \$700 HKD	3 (0.7)
\$701 to \$800 HKD	10 (2.2)
More than \$800	55 (11.9)
<i>Missing</i>	79
Total	538

Table C.4.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM	
	Interest	Preference
Daily	213 (39.6)	91 (18.3)
Event-driven	259 (48.1)	122 (24.6)
Monthly pill	286 (53.2)	149 (30.0)
CAB-LA	83 (15.4)	14 (2.8)
Six-month injection	194 (36.1)	83 (16.7)
Implant	98 (18.2)	36 (7.3)
None (mutually exclusive)	34 (6.3)	-
<i>Missing</i>	-	9
Total	538	504

Table C.4.5. Potential reasons they would like CAB-LA and potential concerns

	MSM
Potential reasons they would like CAB-LA	
Protection against HIV	268 (49.8)
Don't have to remember to take pills	219 (40.7)
Easier than condoms	116 (21.6)
Longer-term protection compared to other methods	205 (38.1)
Can be used discreetly, without other people knowing	114 (21.2)
Is administered by a healthcare provider	122 (22.7)
Does not interrupt sex	61 (11.3)
Don't have to take oral pills	115 (21.4)
Injections work better than oral pills	58 (10.8)
Can replace condoms	68 (12.6)
Nothing (mutually exclusive)	134 (24.9)
Potential concerns they have about CAB-LA	
I don't like injections	186 (34.6)
May not protect against HIV	77 (14.3)
May be painful	109 (20.3)
May cause harmful side effects	216 (40.1)
Once injected, it cannot be reversed immediately	83 (15.4)
Must be administered by a healthcare provider	99 (18.4)
Cost may be unaffordable	174 (32.3)
Injections don't work as well as oral pills	41 (7.6)
I don't know enough about it yet	174 (32.3)
None (mutually exclusive)	82 (15.2)
Total	538

Table C.4.6. DCE results for the preferences of men who have sex with men in Hong Kong (N=645)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	0.21	1.33***
	Event-driven	0.28**	1.03***
	Injectable	-0.25*	0.41*
	Monthly oral	0.63***	0.33
	Implant	-0.87***	0.65***
Location	Hospital	-0.24	0.62
	STI clinic	-0.26**	0.35
	Private community clinic (incl. GP)	0.18	0.03
	Community clinic run by MSM/TG	0.10	0.50**
	Telehealth	0.24**	0.06
	Pharmacy	-0.02	0.11
Cost	Free	1.32***	0.90**
	150 HKD	0.29***	0.23
	300 HKD	-0.09	0.22
	600 HKD	-1.52***	0.84***
Side effects	No	0.35***	0.57
	Interactions with other medications	-0.05	0.29
	Mild	-0.11	0.19
	Rare chance of kidney problems	-0.63***	0.43**
	Mild pain at injection	0.44**	0.14
Visit frequency	Every 2 months	-0.19*	0.18
	3 months	-0.12	0.02
	6 months	0.10	0.17
	12 months	0.21**	0.04

Attribute	Level	Coefficient	SD
Extra services	STI testing	0.30***	0.46*
	Mental health counselling	-0.26***	0.39*
	None	-0.04	0.25
Neither		-2.52***	5.05***

*Significant at $p < 0.10$ level **Significant at $p < 0.05$ level ***Significant at $p < 0.01$ level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.4.7. Relative importance of preference attributes of men who have sex with men in Hong Kong (N=645)

Attribute	Relative importance (%)
Cost	41.3
Type of PrEP	21.8
Side effects	15.6
Extra services	8.2
Location	7.3
Visit frequency	5.8



India

There were 1431 MSM participants and 111 TGW participants from India. The mean age was 29.7 years in MSM and 29.8 years in TGW. Half of MSM participants (51.4%) identified as gay, with 29.9% of MSM. Three quarters of MSM (77.5%) and 40.9% of TGW had a university degree and 57.3% of MSM and 35.2% of TGW were in full time employment (Table C.5.1).

Half of MSM (55.0%) and TGW (50.0%) had heard of PrEP. A higher proportion of participants had heard of daily PrEP (40.8% in MSM and 46.8% in TGW) or event-driven PrEP (25.9% in MSM and 32.0% in TGW) compared to CAB-LA (13.2% in MSM and 23.3% in TGW). Among those who have heard of PrEP, most had never taken PrEP (88.0% in MSM and 83.3% in TGW), with 6.6% of MSM and 3.7% of TGW being current PrEP users, and another 5.3% of MSM and 13.0% of TGW being former PrEP users. Among current PrEP users, the most common dosing regimen in MSM was daily (65.3%) followed by event-driven (30.6%; Table C.5.2).

Among those who were aware of PrEP but had never taken PrEP, three quarters (75.4%) of MSM and 39.5% of TGW wanted to take it. The most common reasons for not starting PrEP were not knowing where or how to get it, concerns about side effects, and being too expensive. Regarding willingness to pay for PrEP, 56.9% of MSM and 33.3% of TGW would be willing to pay between ₹ 1 and ₹ 2000 a month for PrEP, while a third (35.8%) of MSM participants and two thirds (63.0%) of TGW participants would not be willing to pay anything. (Table C.5.3).

Among MSM, participants' interest in different PrEP options where they could select multiple options was highest for the monthly pill (38.8%), 6-monthly injection (28.1%) and event-driven (26.8%). When asked to select their top preference, the most common choices were monthly pill (32.8%), 6-monthly injection (20.7%) and event-driven (20.0%). Among TGW, participants' interest in different PrEP options where they could select multiple options was highest for the monthly pill (31.5%), the 6-monthly injection (26.1%) and daily (23.4%). The top preferences were monthly pill (31.3%), daily (21.7%) and 6-monthly injection (18.1%; Table C.5.4).

When asked about potential reasons they would like CAB-LA, the most common reasons among MSM were protection against HIV (40.0%), longer-term protection compared to other methods (24.3%), and not having to remember to pills (23.5%). The most common concerns were no knowing enough about it yet (29.1%), may cause harmful side effects (24.5%), and the cost may be unaffordable (23.5%). Among TGW, the most common reasons they would like CAB-LA were protection against

⁷ DCE analyses were only conducted on MSM data due to low sample size of TGW.

HIV (44.1%), it is easier than condoms (16.2%), does not interrupt sex (9.9%) and injections work better than oral pills (9.9%; Table C.5.5).

From the results of the discrete choice experiment among MSM, the most preferred combination of attributes for a program were monthly oral PrEP, at a community clinic run by MSM, no cost, no side effects, 12-monthly visits, and with STI testing. The least preferred combination of PrEP program attributes were implant, via telehealth, ₹ 1000 a month, with a rare chance of kidney problems, two-monthly visits and no extra services (Table C.5.6). The most important attribute was cost and the least important was location (Table C.5.7).

Table C.5.1. Demographics

	MSM	TGW
Age (Mean/SD)	29.7 (7.7)	29.8 (6.9)
Sexual identity		
Gay	735 (51.4)	-
Bisexual/Pansexual	428 (29.9)	-
Other	268 (18.7)	-
Education		
No high school	25 (1.8)	10 (9.1)
High School	296 (20.8)	55 (50)
University degree	1104 (77.5)	45 (40.9)
<i>Missing</i>	6	1
Employment		
Full time	814 (57.3)	38 (35.2)
Part time	92 (6.5)	15 (13.9)
Student	266 (18.7)	9 (8.3)
Other	249 (17.5)	46 (42.6)
<i>Missing</i>	10	3
Total	1431	111

Table C.5.2. PrEP awareness and use

	MSM	TGW
PrEP awareness among all participants		
Heard of PrEP prior to the survey		
Yes	772 (55.0)	54 (50.0)
No	418 (29.8)	37 (34.3)
I don't know	213 (15.2)	17 (15.7)
<i>Missing</i>	28	3
Heard of these types of PrEP		
Daily	574 (40.8)	52 (46.8)
Event-driven	352 (25.9)	33 (32.0)
CAB-LA	175 (13.2)	24 (23.3)
Total	1431	111
PrEP use history among participants who had heard of PrEP		
Current PrEP user	51 (6.6)	2 (3.7)
Former PrEP user	41 (5.3)	7 (13.0)
Never taken PrEP	676 (88.0)	45 (83.3)
<i>Missing</i>	4	0
Total	772	54
PrEP dosing among current users		
Daily	32 (65.3)	0 (0)
Event-driven	15 (30.6)	2
Other	2 (4.1)	0 (0)
<i>Missing</i>	2	0
Total	51	2

Table C.5.3. Reasons for not starting PrEP and willingness to pay

	MSM	TGW
Would like to take PrEP among those who have never taken PrEP		
Yes	496 (75.4)	17 (39.5)
No	162 (24.6)	26 (60.5)
Missing	18	2
Total	676	45
Why not taken PrEP		
PrEP is not available where I live	99 (20.0)	1 (5.9)
I don't know where or how to get it	368 (74.2)	7 (41.2)
It is too expensive	164 (33.1)	4 (23.5)
I have not been able to get a prescription	115 (23.2)	1 (5.9)
I'm worried about side effects	188 (37.9)	3 (17.6)
I'm concerned about what my friends and family would think of me	90 (18.1)	1 (5.9)
I don't like taking pills on a regular basis	82 (16.5)	0 (0)
I am in a monogamous relationship	22 (4.4)	1 (5.9)
I prefer to use condoms	126 (25.4)	6 (35.3)
I am not having much sex	129 (26.0)	5 (29.4)
I don't feel comfortable discussing my sexual risks with healthcare providers	54 (10.9)	0 (0)
I was denied access to PrEP by a healthcare provider	5 (1.0)	0 (0)
I am not at high risk of HIV	36 (7.3)	2 (11.8)
COVID-19 made it too hard to get	8 (1.6)	0 (0)
Too inconvenient	35 (7.1)	1 (5.9)
My sexual partner(s) would not like me taking PrEP	3 (0.6)	0 (0)
Total	496	17

	MSM	TGW
How much they would be willing to spend a month on PrEP		
Nothing	387 (35.8)	51 (63.0)
₹ 1 - ₹ 1000	489 (45.2)	23 (28.4)
₹ 1001 - ₹ 2000	127 (11.7)	4 (4.9)
₹ 2001 - ₹ 3000	38 (3.5)	2 (2.5)
₹ 3001 - ₹ 4000	10 (0.9)	0 (0)
₹ 4001 - ₹ 5000	16 (1.5)	1 (1.2)
₹ 5001 - ₹ 6000	5 (0.5)	0 (0)
₹ 6001 - ₹ 7000	3 (0.3)	0 (0)
More than ₹ 7000	6 (0.6)	0 (0)
<i>Missing</i>	350	30
Total	1431	111

Table C.5.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM		TGW	
	Interest	Preference	Interest	Preference
Daily	297 (20.8)	163 (15.0)	26 (23.4)	18 (21.7)
Event-driven	384 (26.8)	217 (20.0)	12 (10.8)	7 (8.4)
Monthly pill	555 (38.8)	356 (32.8)	35 (31.5)	26 (31.3)
CAB-LA	148 (10.3)	35 (3.2)	16 (14.4)	12 (14.5)
Six-month injection	402 (28.1)	225 (20.7)	29 (26.1)	15 (18.1)
Implant	145 (10.1)	63 (5.8)	4 (3.6)	2 (2.4)
None (mutually exclusive)	272 (19.0)	-	22 (19.8)	-
<i>Missing</i>	-	100	-	9
Total	1431	1159	111	89

Table C.5.5. Potential reasons they would like CAB-LA and potential concerns

	MSM	TGW
Potential reasons they would like CAB-LA		
Protection against HIV	572 (40.0)	49 (44.1)
Don't have to remember to take pills	337 (23.5)	9 (8.1)
Easier than condoms	260 (18.2)	18 (16.2)
Longer-term protection compared to other methods	348 (24.3)	10 (9.0)
Can be used discreetly, without other people knowing	262 (18.3)	6 (5.4)
Is administered by a healthcare provider	206 (14.4)	10 (9.0)
Does not interrupt sex	216 (15.1)	11 (9.9)
Don't have to take oral pills	228 (15.9)	7 (6.3)
Injections work better than oral pills	196 (13.7)	11 (9.9)
Can replace condoms	216 (15.1)	10 (9.0)
Nothing (mutually exclusive)	377 (26.3)	39 (35.1)
Potential concerns they have about CAB-LA		
I don't like injections	285 (19.9)	36 (32.4)
May not protect against HIV	135 (9.4)	8 (7.2)
May be painful	223 (15.6)	19 (17.1)
May cause harmful side effects	351 (24.5)	10 (9)
Once injected, it cannot be reversed immediately	102 (7.1)	2 (1.8)
Must be administered by a healthcare provider	220 (15.4)	9 (8.1)
Cost may be unaffordable	336 (23.5)	16 (14.4)
Injections don't work as well as oral pills	37 (2.6)	3 (2.7)
I don't know enough about it yet	416 (29.1)	15 (13.5)
None (mutually exclusive)	399 (27.9)	30 (27)
Total	1431	111

Table C.5.6. DCE results for the preferences of men who have sex with men in India (N=2,765)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	0.03	0.96***
	Event-driven	0.11***	0.48***
	Injectable	0.00	0.41***
	Monthly oral	0.22***	0.33***
	Implant	-0.36***	0.65***
Location	Hospital	-0.04	0.62**
	STI clinic	-0.06	0.35***
	Private community clinic (incl. GP)	0.03	0.03
	Community clinic run by MSM/TG	0.09**	0.50***
	Telehealth	-0.09**	0.06
	Pharmacy	0.07*	0.11
Cost	Free	0.65***	0.90***
	₹ 300	0.07**	0.23*
	₹ 500	-0.10***	0.22
	₹ 1000	-0.62***	0.84***
Side effects	No	0.27***	0.57**
	Interactions with other medications	-0.11***	0.29***
	Mild	0.16***	0.19
	Rare chance of kidney problems	-0.25***	0.43***
	Mild pain at injection	-0.07	0.14
Visit frequency	Every 2 months	-0.09**	0.18
	3 months	-0.06**	0.02
	6 months	-0.01	0.17*
	12 months	0.16***	0.04

Attribute	Level	Coefficient	SD
Extra services	STI testing	0.18***	0.46***
	Mental health counselling	-0.09***	0.39***
	None	-0.09***	0.25***
Neither		-0.71***	5.05***

*Significant at $p < 0.10$ level **Significant at $p < 0.05$ level ***Significant at $p < 0.01$ level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.5.7. Relative importance of preference attributes of men who have sex with men in India (N=2,765)

Attribute	Relative importance (%)
Cost	41.4
Type of PrEP	18.9
Side effects	16.9
Extra services	8.8
Location	8.1
Visit frequency	5.9



Indonesia

There were 1139 MSM participants and 69 TGW participants from Indonesia. The mean age was 30.6 years in MSM and 35.6 years in TGW. 59.4% of MSM, with 31.5% of MSM identifying as bisexual. Half of MSM (46.9%) and 17.4% of TGW had a university degree. Two thirds (62.0%) of MSM and half (55.9%) of TGW were in full time employment (Table C.6.1).

Three quarters (75.0%) of MSM and two thirds (68.7%) of TGW had heard of PrEP with daily and event-driven PrEP being the most commonly known forms of PrEP. Fewer participants had heard of CAB-LA (19.3% in MSM and 12.7% in TGW). Among those who had heard of PrEP, most had never taken PrEP (86.8% in MSM and 93.3% in TGW). Among MSM who are current PrEP users, the most common regimen was daily (57.5%) followed by event-driven (42.5%; Table C.6.2).

Among those who were aware of PrEP but had never taken PrEP, 77.8% of MSM and 65.9% of TGW wanted to take it. The most common reasons for not starting PrEP were not knowing where or how to get it, PrEP not being available where they live, and concerns about side effects. Regarding willingness to pay for PrEP, 45.5% of MSM and 38.5% of TGW would be willing to pay between RP1 – RP300,000 a month, while 40.4% of MSM and half (50.0%) of TGW were not willing to pay anything (Table C.6.3).

Among MSM, participants' interest in different PrEP options where they could select multiple options was highest for event-driven (41.1%), monthly pill (38.6%) and 6-monthly injection (35.0%). When asked to select their top preference, the most preferred options were event-driven (28.6%), monthly pill (23.2%) and 6-monthly injection (21.8%). Among TGW, participants' interest in different PrEP options where they could select multiple options was highest for 6-monthly injection (34.8%), event-driven (31.9%) and monthly pill (24.6%). The top preferences were 6-monthly injection (26.1%), event-driven (24.6%) and monthly pill (15.9%; Table C.6.4).

When asked about potential reasons they would like CAB-LA, the top reasons among MSM were protection from HIV (57.3%), longer-term protection compared to other methods (35.2%), and not having to remember to take pills (35.1%). The most common potential concerns include cost may be unaffordable (36.2%), not knowing enough about it yet (32.5%), and may cause harmful side effects (28.6%). Among TGW, the most common reasons they would like CAB-LA is protection against HIV (49.3%), not having to remember to take pills (33.3%), longer-term protection compared to other methods (21.7%) and not having to take oral pills (21.7%). The most common concerns were not knowing enough about it (37.7%), may cause harmful side effects (27.5%) and cost may be unaffordable (26.1%; Table C.6.5).

⁸ Results concerning TGW should be interpreted with caution due to low sample size. DCE analyses were only conducted on MSM data due to low sample size of TGW.

From the results of the discrete choice experiment among MSM, the most preferred program event-driven oral PrEP, at a community clinic run by MSM, no cost, no side effects, 6 monthly visits, and with STI testing. The least preferred combination of PrEP program attributes were daily oral PrEP, at a hospital, RP 300,000 a month, with a rare chance of kidney problems, 2-monthly visits with mental health counselling (Table C.6.6). The most important driver of choice to use PrEP was cost and the least important was visit frequency (Table C.6.7).

Table C.6.1. Demographics

	MSM	TGW
Age (Mean/SD)	30.6 (7.5)	35.6 (10.9)
Sexual identity		
Gay	676 (59.4)	-
Bisexual/Pansexual	359 (31.5)	-
Other	104 (9.1)	-
Education		
No high school	13 (1.1)	6 (8.7)
High School	592 (52.0)	51 (73.9)
University degree	534 (46.9)	12 (17.4)
<i>Missing</i>	0	0
Employment		
Full time	704 (62.0)	38 (55.9)
Part time	203 (17.9)	18 (26.5)
Student	93 (8.2)	1 (1.5)
Other	136 (12.0)	11 (16.2)
<i>Missing</i>	3	1
Total	1139	69

Table C.6.2. PrEP awareness and use

	MSM	TGW
PrEP awareness among all participants		
Heard of PrEP prior to the survey		
Yes	829 (75.0)	46 (68.7)
No	202 (18.3)	15 (22.4)
I don't know	75 (6.8)	6 (9.0)
<i>Missing</i>	33	2
Heard of these types of PrEP		
Daily	534 (48.5)	34 (51.5)
Event-driven	442 (40.7)	25 (38.5)
CAB-LA	207 (19.3)	8 (12.7)
Total	1139	69
PrEP use history among participants who had heard of PrEP		
Current PrEP user	87 (10.5)	2 (4.4)
Former PrEP user	22 (2.7)	1 (2.2)
Never taken PrEP	718 (86.8)	42 (93.3)
<i>Missing</i>	2	1
Total	829	46
PrEP dosing among current users		
Daily	50 (57.5)	2
Event-driven	37 (42.5)	0 (0)
Other	0 (0)	0 (0)
<i>Missing</i>	0	0
Total	87	2

Table C.6.3. Reasons for not starting PrEP and willingness to pay

	MSM	TGW
Would like to take PrEP among those who have never taken PrEP		
Yes	551 (77.8)	27 (65.9)
No	157 (22.2)	14 (34.1)
Missing	10	1
Total	718	42
Why not taken PrEP		
PrEP is not available where I live	202 (36.7)	15 (55.6)
I don't know where or how to get it	379 (68.8)	12 (44.4)
It is too expensive	123 (22.3)	3 (11.1)
I have not been able to get a prescription	103 (18.7)	6 (22.2)
I'm worried about side effects	159 (28.9)	12 (44.4)
I'm concerned about what my friends and family would think of me	82 (14.9)	2 (7.4)
I don't like taking pills on a regular basis	62 (11.3)	2 (7.4)
I am in a monogamous relationship	34 (6.2)	0 (0)
I prefer to use condoms	93 (16.9)	6 (22.2)
I am not having much sex	102 (18.5)	7 (25.9)
I don't feel comfortable discussing my sexual risks with healthcare providers	69 (12.5)	2 (7.4)
I was denied access to PrEP by a healthcare provider	12 (2.2)	0 (0)
I am not at high risk of HIV	21 (3.8)	1 (3.7)
COVID-19 made it too hard to get	19 (3.4)	0 (0)
Too inconvenient	13 (2.4)	0 (0)
My sexual partner(s) would not like me taking PrEP	2 (0.4)	0 (0)
Total	551	27

	MSM	TGW
How much they would be willing to spend a month on PrEP		
Nothing	391 (40.4)	26 (50.0)
RP1 - RP150000	318 (32.8)	13 (25.0)
RP150001 - RP300000	123 (12.7)	7 (13.5)
RP300001 - RP450000	51 (5.3)	1 (1.9)
RP450001 - RP600000	38 (3.9)	1 (1.9)
RP600001 - RP750000	4 (0.4)	1 (1.9)
RP750001 - RP900000	8 (0.8)	3 (5.8)
RP900001 - RP1050000	11 (1.1)	0 (0)
RP1050001 - RP1200000	7 (0.7)	0 (0)
More than RP1200000	18 (1.8)	0 (0)
<i>Missing</i>	170	17
Total	1139	69

Table C.6.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM		TGW	
	Interest	Preference	Interest	Preference
Daily	283 (24.8)	142 (13.7)	11 (15.9)	6 (8.7)
Event-driven	468 (41.1)	296 (28.6)	22 (31.9)	17 (24.6)
Monthly pill	440 (38.6)	240 (23.2)	17 (24.6)	11 (15.9)
CAB-LA	159 (14.0)	39 (3.8)	7 (10.1)	3 (4.3)
Six-month injection	399 (35.0)	226 (21.8)	24 (34.8)	18 (26.1)
Implant	175 (15.4)	84 (8.1)	11 (15.9)	6 (8.7)
None (mutually exclusive)	86 (7.6)	-	0 (0)	-
<i>Missing</i>	-	26	-	8
Total	1139	1053	69	69

Table C.6.5. Potential reasons they would like CAB-LA and potential concerns

	MSM	TGW
Potential reasons they would like CAB-LA		
Protection against HIV	653 (57.3)	34 (49.3)
Don't have to remember to take pills	400 (35.1)	23 (33.3)
Easier than condoms	240 (21.1)	11 (15.9)
Longer-term protection compared to other methods	401 (35.2)	15 (21.7)
Can be used discreetly, without other people knowing	275 (24.1)	10 (14.5)
Is administered by a healthcare provider	221 (19.4)	12 (17.4)
Does not interrupt sex	211 (18.5)	9 (13.0)
Don't have to take oral pills	273 (24.0)	15 (21.7)
Injections work better than oral pills	179 (15.7)	13 (18.8)
Can replace condoms	205 (18.0)	12 (17.4)
Nothing (mutually exclusive)	163 (14.3)	11 (15.9)
Potential concerns they have about CAB-LA		
I don't like injections	245 (21.5)	6 (8.7)
May not protect against HIV	181 (15.9)	11 (15.9)
May be painful	304 (26.7)	15 (21.7)
May cause harmful side effects	326 (28.6)	19 (27.5)
Once injected, it cannot be reversed immediately	88 (7.7)	4 (5.8)
Must be administered by a healthcare provider	233 (20.5)	7 (10.1)
Cost may be unaffordable	412 (36.2)	18 (26.1)
Injections don't work as well as oral pills	63 (5.5)	2 (2.9)
I don't know enough about it yet	370 (32.5)	26 (37.7)
None (mutually exclusive)	162 (14.2)	17 (24.6)
Total	1139	69

Table C.6.6. DCE results for the preferences of men who have sex with men in Indonesia (N=1,427)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	-0.16**	1.23***
	Event-driven	0.46***	0.45***
	Injectable	0.18**	0.57***
	Monthly oral	0.12**	0.46***
	Implant	-0.6***	0.88***
Location	Hospital	-0.15**	0.85**
	STI clinic	0.06	0.42***
	Private community clinic (incl. GP)	0.1	0.03
	Community clinic run by MSM/TG	0.24***	0.61***
	Telehealth	-0.05	0.17
	Pharmacy	-0.2***	0.37
Cost	Free	1.36***	1.48***
	RP 100,000	0.22***	0.64***
	RP 200,000	-0.34***	0.67***
	RP 300,000	-1.24***	1.16***
Side effects	No	0.37	0.90***
	Interactions with other medications	0.12	0.25*
	Mild	0.1*	0.19*
	Rare chance of kidney problems	-0.54***	0.66***
	Mild pain at injection	-0.05	0.52***
Visit frequency	Every 2 months	-0.09	0.49**
	3 months	-0.03	0.14
	6 months	0.07	0.47***
	12 months	0.05	0.02

Attribute	Level	Coefficient	SD
Extra services	STI testing	0.23***	0.48***
	Mental health counselling	-0.13***	0.11
	None	-0.1**	0.47***
Neither		-2.53***	4.82***

*Significant at $p < 0.10$ level **Significant at $p < 0.05$ level ***Significant at $p < 0.01$ level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.6.7. Relative importance of preference attributes of men who have sex with men in Indonesia (N=1,427)

Attribute	Relative importance (%)
Cost	51.6
Type of PrEP	18.1
Side effects	12.3
Extra services	7.7
Location	7.1
Visit frequency	3.2

Japan

There were 1364 MSM participants from Japan. The mean age was 39.4 years, with three quarters (78.4%) identifying as gay and a fifth (19.6%) identifying as bisexual. 61.0% had a university degree and 73.5% were in full time employment (Table C.7.1)



PrEP awareness was high (80.7%) with most participants having heard of daily (60.5%) or event-driven (59.1%). Fewer participants had heard of CAB-LA (14.0%). Among those who had heard of PrEP, a fifth (18.1%) were current PrEP users, 4.8% former PrEP users, and 77.1% had never taken PrEP. Among current PrEP users, the most common dosing regimen was event-driven (57.3%) followed by daily (42.7%; Table C.7.2)

Among those who were aware of PrEP but had never taken PrEP, three quarters (75.4%) said they wanted to take it. The most common reasons for not starting PrEP were that it was too expensive (55.6%), they don't know where or how to get it (49.0%), and worry about side effects (30.5%). Regarding willingness to pay for PrEP, 68.2% were willing to spend between ¥1 - ¥5000 a month while 9.7% were not willing to pay anything (Table C.7.3).

Participants' interest in different PrEP options where they could select multiple options was highest for monthly pill (43.1%), event-driven (40.2%), six month injection (26.5%). When asked to select their top preference, the most common choices were monthly pill (32.2%), event-driven (29.8%), and six month injection (16.5%; Table C.7.4)

When asked about potential reasons why they would like CAB-LA, the most common reasons were protection against HIV (52.9%), longer-term protection compared to other methods (35.8%) and not having to remember to take pills (32.6%). The most common concerns were that it may cause harmful side effects (44.2%), cost may be unaffordable (43.8%), and not knowing enough about it yet (25.0%; Table C.7.5).

From the results of the discrete choice experiment, the most preferred combination of attributes for a program were monthly oral PrEP, at a community clinic run by MSM, no cost, no side effects, 6-monthly visits, and with STI testing. The least preferred combination of PrEP program attributes were implant, at an STI clinic, ¥8,000 a month, with a rare chance of kidney problems, every two month and mental health counselling (Table C.7.6). The most important driver of choice to use PrEP was cost and the least important was visit frequency (Table C.7.7).

Table C.7.1. Demographics

	MSM
Age (Mean/SD)	39.4 (11.1)
Sexual Identity	
Gay	1070 (78.4)
Bisexual/Pansexual	268 (19.6)
Other	26 (1.9)
Education	
No high school	2 (0.1)
High School	528 (38.8)
University degree	830 (61.0)
Missing	4
Employment	
Full time	999 (73.5)
Part time	184 (13.5)
Student	66 (4.9)
Other	110 (8.1)
Missing	5
Total	1364

Table C.7.2. PrEP awareness and use

	MSM
PrEP awareness among all participants	
Heard of PrEP prior to the survey	
Yes	1021 (80.7)
No	121 (9.6)
I don't know	123 (9.7)
Missing	99
Heard of these types of PrEP	
Daily	763 (60.5)
Event-driven	740 (59.1)
CAB-LA	174 (14.0)
Total	1364

MSM	
PrEP use history among participants who had heard of PrEP	
Current PrEP user	185 (18.1)
Former PrEP user	49 (4.8)
Never taken PrEP	787 (77.1)
<i>Missing</i>	0
Total	1021
PrEP dosing among current users	
Daily	79 (42.7)
Event-driven	106 (57.3)
Other	0 (0)
<i>Missing</i>	0
Total	185

Table C.7.3. Reasons for not starting PrEP and willingness to pay

MSM	
Would like to take PrEP among those who have never taken PrEP	
Yes	590 (75.4)
No	193 (24.6)
<i>Missing</i>	4
Total	787
Why not taken PrEP	
PrEP is not available where I live	74 (12.5)
I don't know where or how to get it	289 (49.0)
It is too expensive	328 (55.6)
I have not been able to get a prescription	77 (13.1)
I'm worried about side effects	180 (30.5)
I'm concerned about what my friends and family would think of me	84 (14.2)
I don't like taking pills on a regular basis	60 (10.2)
I am in a monogamous relationship	27 (4.6)
I prefer to use condoms	40 (6.8)
I am not having much sex	174 (29.5)

		MSM
I don't feel comfortable discussing my sexual risks with healthcare providers		60 (10.2)
I was denied access to PrEP by a healthcare provider		3 (0.5)
I am not at high risk of HIV		21 (3.6)
COVID-19 made it too hard to get		10 (1.7)
Too inconvenient		19 (3.2)
My sexual partner(s) would not like me taking PrEP		1 (0.2)
Total		590
How much they would be willing to spend a month on PrEP		
Nothing		122 (9.7)
¥1 - ¥1000		122 (9.7)
¥1001 - ¥2000		148 (11.8)
¥2001 - ¥3000		235 (18.7)
¥3001 - ¥4000		89 (7.1)
¥4001 - ¥5000		263 (20.9)
¥5001 - ¥6000		84 (6.7)
¥6001 - ¥7000		21 (1.7)
¥7001 - ¥8000		18 (1.4)
¥8001 - ¥9000		3 (0.2)
¥10001 - ¥11000		88 (7)
More than ¥11000		26 (2.3)
<i>Missing</i>		107
Total		1364

Table C.7.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM	
	Interest	Preference
Daily	268 (19.6)	149 (12.0)
Event-driven	549 (40.2)	371 (29.8)
Monthly pill	588 (43.1)	401 (32.2)
CAB-LA	119 (8.7)	23 (1.8)
Six-month injection	361 (26.5)	205 (16.5)

Implant	182 (13.3)	95 (7.6)
None (mutually exclusive)	101 (7.4)	-
Missing	-	19
Total	1364	1263

Table C.7.5. Potential reasons they would like CAB-LA and potential concerns

MSM	
Potential reasons they would like CAB-LA	
Protection against HIV	721 (52.9)
Don't have to remember to take pills	445 (32.6)
Easier than condoms	386 (28.3)
Longer-term protection compared to other methods	488 (35.8)
Can be used discreetly, without other people knowing	240 (17.6)
Is administered by a healthcare provider	242 (17.7)
Does not interrupt sex	253 (18.5)
Don't have to take oral pills	208 (15.2)
Injections work better than oral pills	167 (12.2)
Can replace condoms	327 (24.0)
Nothing (mutually exclusive)	246 (18.0)
Potential concerns they have about CAB-LA	
I don't like injections	275 (20.2)
May not protect against HIV	270 (19.8)
May be painful	270 (19.8)
May cause harmful side effects	603 (44.2)
Once injected, it cannot be reversed immediately	144 (10.6)
Must be administered by a healthcare provider	242 (17.7)
Cost may be unaffordable	598 (43.8)
Injections don't work as well as oral pills	59 (4.3)
I don't know enough about it yet	341 (25.0)
None (mutually exclusive)	235 (17.2)
Total	1364

Table C.7.6. DCE results for the preferences of men who have sex with men in Japan (N=1,540)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	-0.05	1.73***
	Event-driven	0.36***	0.83***
	Injectable	-0.12*	0.87***
	Monthly oral	0.40***	0.76***
	Implant	-0.59***	0.99***
Location	Hospital	-0.09	1.09***
	STI clinic	-0.21***	0.54***
	Private community clinic (incl. GP)	-0.13*	0.26
	Community clinic run by MSM/TC	0.21***	0.52***
	Telehealth	0.06	0.73***
	Pharmacy	0.16**	0.17
Cost	Free	1.52***	1.23***
	¥100,000	0.41***	0.10
	¥300,000	-0.24***	0.69***
	¥500,000	-1.69***	1.01***
Side effects	No	0.78***	1.05***
	Interactions with other medications	-0.04	0.21
	Mild	-0.17***	0.64***
	Rare chance of kidney problems	-0.76***	0.77***
	Mild pain at injection	0.19*	0.23
Visit frequency	Every 2 months	-0.26***	0.28
	3 months	0.01	0.10
	6 months	0.14***	0.26*
	12 months	0.11**	0.06
Extra services	STI testing	0.26***	0.55***
	Mental health counselling	-0.20***	0.42***
	None	-0.06	0.35***
Neither		-2.91***	4.83***

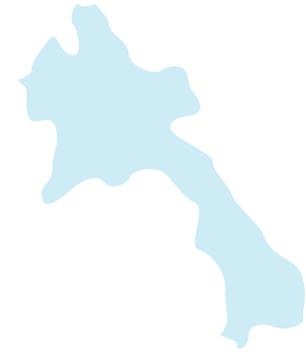
*Significant at $p < 0.10$ level ** Significant at $p < 0.05$ level *** Significant at $p < 0.01$ level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.7.7. Relative importance of preference attributes of men who have sex with men in Japan (N=1,540)

Attribute	Relative importance (%)
Cost	45.7
Side effects	21.9
Type of PrEP	14.1
Extra services	6.6
Location	6.0
Visit frequency	5.7

Lao People's Democratic Republic



There were 277 MSM participants and 31 TGW participants⁹ from Lao People's Democratic Republic. The mean age was 27.6 years in MSM and 27.2 years in TGW. Two thirds (66.8%) of MSM participants, with 17.7% of MSM identified as bisexual. A third (35.3%) of MSM and 16.1% in TGW had a university degree, and 39.7% of MSM and 29.0% of TGW were in full time employment (Table C.8.1).

Half of MSM (52.8%) and TGW (55.6%) had heard of PrEP. A higher proportion of participants were had heard of daily PrEP (51.4% in MSM and 53.6% in TGW) and event-driven PrEP (48.6% in MSM and 37.0% in TGW) compared to CAB-LA (9.0% in MSM and 3.8% in TGW). Among those who had heard of PrEP, a fifth (18.5%) of MSM and 6.7% of TGW were current PrEP users, with another quarter (23.1%) of MSM and fifth (20.0%) of TGW being former PrEP users. More than half of MSM (58.5%) and three quarters (73.3%) of TGW who had heard of PrEP had never taken it. Among MSM who were current PrEP users, 26.1% were taking daily and three quarters (73.9%) were taking event-driven.

Among those who were aware of PrEP but had never taken PrEP, a third (35.7%) of MSM and TGW (33.3%) wanted to take it. The most common reasons for not starting PrEP include worrying about side effects, not knowing where or how to get it, and not having much sex. Regarding willingness to pay for PrEP, 41.7% of MSM and 35.3% of TGW were willing to pay between 1 to 100,000 kip per month while 43.7% of MSM and 64.7% of TGW were not willing to pay anything (Table C.8.3)

Among MSM, participants' interest in different PrEP options where they could select multiple options was highest for event-driven (44.0%), daily (27.8%), and monthly pill (23.8%). When asked to pick their most preferred option with only one choice, 35.2% chose event-driven, followed by daily (20.9%) and six month injection (15.7%). Among TGW, participants' interest in different PrEP options where they could select multiple options was highest for the monthly pill (35.5%), event-driven (32.3%), daily (19.4%) and six month injection (19.4%). Their top preferences were event-driven (28.6%), monthly pill (21.4%) and daily (17.9%; Table C.8.4).

When asked about potential reasons they would like CAB-LA, the top reasons among MSM were protection against HIV (49.5%), easier than condoms (24.5%), and not having to remember to take pills (18.4%). The most common potential concerns were not liking injections (30.7%), not knowing enough about it (20.6%), and may be painful (14.8%). Among TGW, the most common reasons why they might like CAB-LA was protection against HIV (35.5%), not having to remember to take pills (16.1%) and longer-term protection compared to other methods (16.1%). The most common concerns were that it may not protect against HIV (12.9%), may be painful (12.9%), and not knowing enough about it (12.9%; Table C.8.5).

⁹ Results concerning TGW should be interpreted with caution due to low sample size. DCE analyses were only conducted on MSM data due to low sample size of TGW.

From the results of the discrete choice experiment among MSM, the most preferred combination of attributes for a program were event-driven oral PrEP, at general practice clinics, no cost, mild pain at the injection site, 3-monthly visits, and with STI testing. The least preferred combination of PrEP program attributes were implant, at a pharmacy, 200,00 kip a month, mild side effects, 12-monthly visits and no extra services (Table C.8.6). The most important driver of choice to use PrEP was cost and the least important was side effects (Table C.8.7).

Table C.8.1. Demographics

	MSM	TGW
Age (Mean/SD)	27.6 (6.6)	27.2 (5.4)
Sexual Identity		
Gay	185 (66.8)	-
Bisexual/Pansexual	49 (17.7)	-
Other	43 (15.5)	-
Education		
No high school	16 (5.9)	2 (6.5)
High School	160 (58.8)	24 (77.4)
University degree	96 (35.3)	5 (16.1)
Missing	5	0
Employment		
Full time	106 (39.7)	9 (29.0)
Part time	26 (9.7)	6 (19.4)
Student	55 (20.6)	4 (12.9)
Other	80 (30.0)	12 (38.7)
Missing	10	0
Total	277	31

Table C.8.2. PrEP awareness and use

	MSM	TGW
PrEP awareness among all participants		
Heard of PrEP prior to the survey		
Yes	133 (52.8)	15 (55.6)
No	81 (32.1)	6 (22.2)
I don't know	38 (15.1)	6 (22.2)
Missing	25	4

	MSM	TGW
Heard of these types of PrEP		
Daily	131 (51.4)	15 (53.6)
Event-driven	118 (48.6)	10 (37.0)
CAB-LA	21 (9.0)	1 (3.8)
Total	277	31
PrEP use history among participants who had heard of PrEP		
Current PrEP user	24 (18.5)	1 (6.7)
Former PrEP user	30 (23.1)	3 (20.0)
Never taken PrEP	76 (58.5)	11 (73.3)
<i>Missing</i>	3	0 (0)
Total	133	15
PrEP dosing among current users		
Daily	6 (26.1)	0 (0)
Event-driven	17 (73.9)	1
Other	0 (0)	0 (0)
<i>Missing</i>	1	0
Total	24	1

Table C.8.3. Reasons for not starting PrEP and willingness to pay

	MSM	TGW
Would like to take PrEP among those who have never taken PrEP		
Yes	25 (35.7)	3 (33.3)
No	45 (64.3)	6 (66.7)
<i>Missing</i>	6	2
Total	76	11
Why not taken PrEP		
PrEP is not available where I live	6 (24.0)	1 (33.3)
I don't know where or how to get it	11 (44.0)	1 (33.3)
It is too expensive	3 (12.0)	0 (0)
I have not been able to get a prescription	2 (8.0)	0 (0)

	MSM	TGW
I'm worried about side effects	14 (56.0)	3
I'm concerned about what my friends and family would think of me	3 (12.0)	0 (0)
I don't like taking pills on a regular basis	6 (24.0)	2 (66.7)
I am in a monogamous relationship	0 (0)	0 (0)
I prefer to use condoms	7 (28.0)	2 (66.7)
I am not having much sex	9 (36.0)	0 (0)
I don't feel comfortable discussing my sexual risks with healthcare providers	1 (4.0)	0 (0)
I was denied access to PrEP by a healthcare provider	0 (0)	0 (0)
I am not at high risk of HIV	2 (8.0)	0 (0)
COVID-19 made it too hard to get	2 (8.0)	0 (0)
Too inconvenient	3 (12.0)	1 (33.3)
My sexual partner(s) would not like me taking PrEP	0 (0)	0 (0)
Total	25	3

How much they would be willing to spend a month on PrEP

Nothing	66 (43.7)	11 (64.7)
1 to 100000 kip	50 (33.1)	5 (29.4)
100001 to 200000 kip	13 (8.6)	1 (5.9)
200001 to 300000 kip	3 (2)	0 (0)
300001 to 400000 kip	1 (0.7)	0 (0)
400001 to 500000 kip	4 (2.6)	0 (0)
500001 to 600000 kip	1 (0.7)	0 (0)
600001 to 700000 kip	2 (1.3)	0 (0)
700001 to 800000 kip	3 (2.0)	0 (0)
More than 800000 kip	8 (5.4)	0 (0)
Missing	126	14
Total	277	31

Table C.8.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM		TGW	
	Interest	Preference	Interest	Preference
Daily	77 (27.8)	48 (20.9)	6 (19.4)	5 (17.9)
Event-driven	122 (44.0)	81 (35.2)	10 (32.3)	8 (28.6)
Monthly pill	66 (23.8)	34 (14.8)	11 (35.5)	6 (21.4)
CAB-LA	30 (10.8)	14 (6.1)	5 (16.1)	2 (7.1)
Six-month injection	63 (22.7)	36 (15.7)	6 (19.4)	2 (7.1)
Implant	26 (9.4)	15 (6.5)	5 (16.1)	3 (10.7)
None (mutually exclusive)	25 (9.0)	-	0 (0)	-
Missing	-	24	-	5
Total	277	252	31	31

Table C.8.5. Potential reasons they would like CAB-LA and potential concerns

	MSM	TGW
Potential reasons they would like CAB-LA		
Protection against HIV	137 (49.5)	11 (35.5)
Don't have to remember to take pills	51 (18.4)	5 (16.1)
Easier than condoms	68 (24.5)	4 (12.9)
Longer-term protection compared to other methods	45 (16.2)	5 (16.1)
Can be used discreetly, without other people knowing	42 (15.2)	1 (3.2)
Is administered by a healthcare provider	22 (7.9)	2 (6.5)
Does not interrupt sex	27 (9.7)	1 (3.2)
Don't have to take oral pills	32 (11.6)	3 (9.7)
Injections work better than oral pills	36 (13.0)	1 (3.2)
Can replace condoms	46 (16.6)	2 (6.5)
Nothing (mutually exclusive)	44 (15.9)	11 (35.5)
Potential concerns they have about CAB-LA		
I don't like injections	85 (30.7)	3 (9.7)
May not protect against HIV	38 (13.7)	4 (12.9)
May be painful	41 (14.8)	4 (12.9)
May cause harmful side effects	40 (14.4)	2 (6.5)
Once injected, it cannot be reversed immediately	10 (3.6)	0 (0)

	MSM	TGW
Must be administered by a healthcare provider	14 (5.1)	3 (9.7)
Cost may be unaffordable	32 (11.6)	2 (6.5)
Injections don't work as well as oral pills	7 (2.5)	2 (6.5)
I don't know enough about it yet	57 (20.6)	4 (12.9)
None (mutually exclusive)	58 (20.9)	16 (51.6)
Total	277	31

Table C.8.6. DCE results for the preferences of men who have sex with men in Lao People's Democratic Republic (N=312)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	-0.19	1.17*
	Event-driven	0.39***	0.10
	Injectable	0.32**	0.67***
	Monthly oral	-0.04	0.41
	Implant	-0.48***	0.86***
Location	Hospital	0.13	1.17
	STI clinic	-0.09	0.81***
	Private community clinic (incl. GP)	0.19	0.07
	Community clinic run by MSM/TG	-0.11	0.82***
	Telehealth	0.09	0.05
	Pharmacy	-0.21	0.15
Cost	Free	1.15***	1.09**
	₫100,000	0.14	0.04
	₫300,000	-0.40***	0.49**
	₫500,000	-0.89***	0.97***
Side effects	No	-0.05	0.97*
	Interactions with other medications	0.00	0.37
	Mild	-0.08	0.51**
	Rare chance of kidney problems	-0.01	0.57***
	Mild pain at injection	0.14	0.46
Visit frequency	Every 2 months	-0.06	0.44
	3 months	0.11	0.09
	6 months	0.08	0.43*
	12 months	-0.13	0.01
Extra services	STI testing	0.21**	0.74***
	Mental health counselling	0.00	0.55***
	None	-0.21***	0.49***
Neither		-3.69***	5.07***

*Significant at p<0.10 level ** Significant at p<0.05 level *** Significant at p<0.01 level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.8.7. Relative importance of preference attributes of men who have sex with men in Lao People's Democratic Republic (N=312)

Attribute	Relative importance (%)
Cost	48.7
Type of PrEP	20.8
Extra services	10.0
Location	9.6
Visit frequency	5.7
Side effects	5.3



Malaysia

There were 783 MSM participants and 11 TGW participants¹⁰ from Malaysia. The mean age of participants was 32.4 years in MSM and 38.1 years in TGW. Three quarters (74.5%) of MSM identified as gay, with a fifth (19.3%) of MSM identifying as bisexual. Two thirds (63.6%) of MSM and a fifth (18.2%) of TGW had a university degree. Under three quarters (72.9%) and 81.8% of TGW were in full time employment (Table C.9.1).

PrEP awareness was high in MSM (87.6%) and TGW (70.0%) with most having heard of daily (64.9% in MSM and 70.0% in TGW) or event-driven (50.8% in MSM and 50.0%) in TGW. Fewer participants had heard of CAB-LA (18.0% in MSM) with no TGW having heard of it. Among those who had heard of PrEP, 14.5% of MSM were current PrEP users and 8.1% of MSM and 14.3% of TGW being former PrEP users. Over three quarters of MSM (77.4%) and TGW (85.7%) who had heard of PrEP had never taken it. Among current PrEP users, the most common dosing regimen was daily (66.7%) and event-driven (32.3; Table C.9.2)

Among those who were aware of PrEP but had never taken PrEP, 81.0% of MSM and 50.0% of TGW wanted to take it. The most common reasons for not starting PrEP were not knowing how or where to get it, being too expensive, and worry about side effects. Regarding willingness to pay for PrEP, 75.8% of MSM and 70.0% of TGW would be willing to pay between 1 to 150 ringgit per month while a tenth (11.6%) of MSM would not be willing to pay for anything (Table C.9.3).

Among MSM, participants' interest in different PrEP options where they could select multiple options was highest for monthly pill (49.9%), event-driven (42.7%), and six month injection (41.9%). When asked to pick their most preferred option with only one choice, 26.8% chose monthly pill followed by event-driven (22.6%) and six month injection (22.0%). Among TGW, participants' interest in different PrEP options where they could select multiple options was highest for monthly pill (54.5%), six month injection (54.5%), daily (27.3%) and event-driven (27.3%). The top preference were six month injection (54.5%), monthly pill (27.3%) and daily (18.2%; Table C.9.4).

When asked about potential reasons they would like CAB-LA, the most common reasons among MSM were protection against HIV (60.5%), not having to remember to take pill (46.5%) and longer-term protection compared to other methods (36.1%). The most common concerns were cost may be unaffordable (49.9%) may cause harmful side effects (42.4%), and not knowing enough about it yet (36.9%). Among TGW, the most common reasons they would like CAB-LA were protection against HIV (63.6%), longer-term protection compared to other methods (45.5%), and not having to take oral pills (36.4%). The most common concerns were it may be painful (27.3%), const may be unaffordable (27.3%), must be administered by a healthcare provider (18.2%) and not knowing enough about it yet (18.2%; Table C.9.5).

¹⁰ Results concerning TGW should be interpreted with caution due to low sample size. DCE analyses were only conducted on MSM data due to low sample size of TGW.

From the results of the discrete choice experiment among MSM, the most preferred combination of attributes for a program were event-driven oral PrEP, community clinic run by MSM, no cost, no side effects, 12-monthly visits, and with STI testing. The least preferred combination of PrEP program attributes were implant, at general practice clinics, RM150 a month, with a rare chance of kidney problems, 2-monthly visits and mental health counselling (Table C.9.6). The most important driver of choice to use PrEP was cost and the least important was location (Table C.9.7)

Table C.9.1. Demographics

	MSM	TGW
Age (Mean/SD)	32.4 (8.4)	38.1 (6.7)
Sexual Identity		
Gay	583 (74.5)	-
Bisexual/Pansexual	151 (19.3)	-
Other	49 (6.3)	-
Education		
No high school	8 (1)	0 (0)
High School	276 (35.3)	9 (81.8)
University degree	497 (63.6)	2 (18.2)
<i>Missing</i>	2	0
Employment		
Full time	569 (72.9)	9 (81.8)
Part time	46 (5.9)	1 (9.1)
Student	92 (11.8)	0 (0)
Other	74 (9.5)	1 (9.1)
<i>Missing</i>	2	0
Total	783	11

Table C.9.2. PrEP awareness and use

	MSM	TGW
PrEP awareness among all participants		
Heard of PrEP prior to the survey		
Yes	642 (87.6)	7 (70.0)
No	48 (6.5)	2 (20.0)
I don't know	43 (5.9)	1 (10.0)
<i>Missing</i>	50	1

	MSM	TGW
Heard of these types of PrEP		
Daily	478 (64.9)	7 (70.0)
Event-driven	370 (50.8)	5 (50.0)
CAB-LA	129 (18.0)	0 (0)
Total	1760	23
PrEP use history among participants who had heard of PrEP		
Current PrEP user	93 (14.5)	0 (0)
Former PrEP user	52 (8.1)	1 (14.3)
Never taken PrEP	497 (77.4)	6 (85.7)
<i>Missing</i>	0	0
Total	642	7
PrEP dosing among current users		
Daily	62 (66.7)	-
Event-driven	30 (32.3)	-
Other	1 (1.1)	-
<i>Missing</i>	0	-
Total	93	-

Table C.9.3. Reasons for not starting PrEP and willingness to pay

	MSM	TGW
Would like to take PrEP among those who have never taken PrEP		
Yes	400 (81.0)	3 (50.0)
No	94 (19.0)	3 (50.0)
<i>Missing</i>	3	0
Total	497	6
Why not taken PrEP		
PrEP is not available where I live	61 (15.3)	0 (0)
I don't know where or how to get it	260 (65.0)	2 (66.7)
It is too expensive	170 (42.5)	0 (0)

	MSM	TGW
I have not been able to get a prescription	85 (21.3)	1 (33.3)
I'm worried about side effects	146 (36.5)	1 (33.3)
I'm concerned about what my friends and family would think of me	57 (14.2)	0 (0)
I don't like taking pills on a regular basis	56 (14.0)	0 (0)
I am in a monogamous relationship	17 (4.3)	0 (0)
I prefer to use condoms	68 (17)	1 (33.3)
I am not having much sex	125 (31.3)	0 (0)
I don't feel comfortable discussing my sexual risks with healthcare providers	57 (14.2)	2 (66.7)
I was denied access to PrEP by a healthcare provider	6 (1.5)	0 (0)
I am not at high risk of HIV	26 (6.5)	0 (0)
COVID-19 made it too hard to get	5 (1.3)	0 (0)
Too inconvenient	36 (9.0)	0 (0)
My sexual partner(s) would not like me taking PrEP	1 (0.3)	0 (0)
Total	400	3

How much they would be willing to spend a month on PrEP

Nothing	82 (11.6)	0 (0)
1 to 50 ringgit	255 (36.0)	2 (20.0)
51 to 100 ringgit	209 (29.5)	4 (40.0)
101 to 150 ringgit	73 (10.3)	1 (10.0)
151 to 200 ringgit	42 (5.9)	2 (20.0)
201 to 250 ringgit	18 (2.5)	0 (0)
251 to 300 ringgit	14 (2)	0 (0)
301 to 350 ringgit	4 (0.6)	0 (0)
351 to 400 ringgit	3 (0.4)	0 (0)
More than 400 ringgit	8 (0.9)	1 (10.0)
<i>Missing</i>	<i>75</i>	<i>7</i>
Total	783	11

Table C.9.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM		TGW	
	Interest	Preference	Interest	Preference
Daily	237 (30.3)	94 (13.3)	3 (27.3)	2 (18.2)
Event-driven	334 (42.7)	160 (22.6)	3 (27.3)	0 (0)
Monthly pill	391 (49.9)	190 (26.8)	6 (54.5)	3 (27.3)
CAB-LA	122 (15.6)	17 (2.4)	2 (18.2)	0 (0)
Six-month injection	328 (41.9)	156 (22.0)	6 (54.5)	6 (54.5)
Implant	192 (24.5)	86 (12.1)	2 (18.2)	0 (0)
None (mutually exclusive)	58 (7.4)	-	0 (0)	-
Missing	-	22	-	0
Total	783	725	11	11

Table C.9.5. Potential reasons they would like CAB-LA and potential concerns

	MSM	TGW
Potential reasons they would like CAB-LA		
Protection against HIV	474 (60.5)	7 (63.6)
Don't have to remember to take pills	364 (46.5)	2 (18.2)
Easier than condoms	179 (22.9)	1 (9.1)
Longer-term protection compared to other methods	283 (36.1)	5 (45.5)
Can be used discreetly, without other people knowing	264 (33.7)	3 (27.3)
Is administered by a healthcare provider	191 (24.4)	0 (0)
Does not interrupt sex	144 (18.4)	2 (18.2)
Don't have to take oral pills	238 (30.4)	4 (36.4)
Injections work better than oral pills	131 (16.7)	0 (0)
Can replace condoms	146 (18.6)	0 (0)
Nothing (mutually exclusive)	101 (12.9)	3 (27.3)
Potential concerns they have about CAB-LA		
I don't like injections	173 (22.1)	1 (9.1)
May not protect against HIV	141 (18.0)	1 (9.1)
May be painful	216 (27.6)	3 (27.3)
May cause harmful side effects	332 (42.4)	1 (9.1)

	MSM	TGW
Once injected, it cannot be reversed immediately	130 (16.6)	0 (0)
Must be administered by a healthcare provider	189 (24.1)	2 (18.2)
Cost may be unaffordable	391 (49.9)	3 (27.3)
Injections don't work as well as oral pills	47 (6.0)	0 (0)
I don't know enough about it yet	289 (36.9)	2 (18.2)
None (mutually exclusive)	89 (11.4)	3 (27.3)
Total	783	11

Table C.9.6. DCE results for the preferences of men who have sex with men in Malaysia (N=1,034)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	-0.12	1.54***
	Event-driven	0.28***	0.77***
	Injectable	0.09	0.93***
	Monthly oral	0.21***	0.48***
	Implant	-0.46***	0.83***
Location	Hospital	-0.10	0.93
	STI clinic	0.04	0.18
	Private community clinic (incl. GP)	-0.13	0.05
	Community clinic run by MSM/TG	0.19**	0.45**
	Telehealth	-0.09	0.38**
	Pharmacy	0.09	0.69***
Cost	Free	1.17***	1.31***
	≤100,000	0.19***	0.23
	≤300,000	-0.30***	0.55***
	≤500,000	-1.06***	1.17***
Side effects	No	0.58***	0.83**
	Interactions with other medications	-0.11	0.14
	Mild	-0.01	0.27*
	Rare chance of kidney problems	-0.38***	0.65***
	Mild pain at injection	-0.08	0.41
Visit frequency	Every 2 months	-0.17**	0.46
	3 months	-0.08	0.09
	6 months	0.04	0.39***
	12 months	0.21***	0.23

Extra services	STI testing	0.29***	0.52***
	Mental health counselling	-0.18***	0.29*
	None	-0.11**	0.43***
Neither		-2.96***	4.41***

*Significant at $p < 0.10$ level ** Significant at $p < 0.05$ level *** Significant at $p < 0.01$ level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.9.7. Relative importance of preference attributes of men who have sex with men in Malaysia (N=1,034)

Attribute	Relative importance (%)
Cost	43.7
Side effects	18.8
Type of PrEP	14.5
Extra services	9.2
Visit frequency	7.5
Location	6.3



Myanmar

There were 490 MSM participants and 124 TGW participants¹¹ from Myanmar. The mean age of participants was 27.8 years in MSM and 26.3 years in TGW. Two thirds of MSM (72.7%) identified as gay, with approximately an eighth (12.9%) of MSM identifying as bisexual. Less than half of MSM (43.8%) and a fifth (19.4%) of TGW participants had a university degree, and half of MSM (50.0%) and TGW (51.2%) were in full time employment (Table C.10.1)

PrEP awareness was high in both MSM (93.3%) and TGW (86.2%) with most having heard of daily (85.1% in MSM and 81.1% in TGW) or event-driven (63.6% in MSM and 59.1% in TGW). Fewer participants had heard of CAB-LA (32.7% in MSM and 32.1% in TGW). Among those who had heard of PrEP, a quarter of MSM (24.6%) and TGW (26.9%) were current PrEP users, and 7.9% of MSM and 12.5% of TGW being former PrEP users. Two thirds of MSM (67.5%) and 60.6% of TGW who had heard of PrEP had never taken it. Among current PrEP users, nearly all were taking it daily (94.1% in MSM and 89.3% in TGW; Table C.10.2).

Among those who were aware of PrEP but had never taken PrEP, 74.2% of MSM and 84.2% of TGW wanted to take it. The most common reasons for not starting PrEP were worry about side effects, not knowing where or how to get it, and PrEP not being available where they live. Regarding willingness to pay for PrEP, 35.6% of MSM and 30.5% of TGW would be willing to pay between MMK 1 to MMK 20,000 per month while half of MSM (51.4%) and TGW (52.4%) would not be willing to pay anything (Table C.10.3).

Among MSM, participants' interest in different PrEP options where they could select multiple options was highest for daily (33.9%), event-driven (30.6%) and monthly pill (28.8%). When asked to pick their top preference, 29.7% chose daily, followed by event-driven (23.8%), and monthly pill (18.0%). Among TGW, participants' interest in different PrEP options where they could select multiple options was highest for daily (41.9%), six month injection (34.7%), and event-driven (30.6%). The top preferences were daily (30.5%), six monthly injection (20.3%) and monthly pill (16.9%; Table C.10.4).

When asked about potential reasons why they would like CAB-LA, the most common reasons among MSM was protection against HIV (49.0%), not having to take oral pills (25.5%) and can be used discreet without other people knowing (23.9%). The most common concerns were not knowing enough about it yet (28.8%), may be painful (20.4%), not liking injections (20.0%), and must be administered by a healthcare provider (20.0%). Among TGW, the most common reasons they would like CAB-LA were protection against HIV (57.3%), can be used discreet without other

¹¹ Results concerning TGW should be interpreted with caution due to low sample size. DCE analyses were only conducted on MSM data due to low sample size of TGW.

people knowing (30.6%), and not having to remember to take pills (25.8%). The most common concerns were that it may be painful (36.3%), must be administered by a healthcare provider (36.3%) and not liking injections (27.4%; Table C.10.5).

From the results of the discrete choice experiment among MSM, the most preferred combination of attributes for a program were event-driven oral PrEP, at a community clinic run by MSM, no cost, no side effects, 6-monthly visits and with STI testing. The least preferred combination of PrEP program attributes were implant, at a hospital, MMK 30,000 a month, with a rare chance of kidney problems, 2-monthly visits and no extra services (Table C.10.6). The most important driver of choice to use PrEP was cost and the least important was side effects (Table C.10.7).

Table C.10.1. Demographics

	MSM	TGW
Age (Mean/SD)	27.8 (7.5)	26.3 (6.2)
Sexual Identity		
Gay	356 (72.7)	-
Bisexual/Pansexual	63 (12.9)	-
Other	71 (14.5)	-
Education		
No high school	23 (4.8)	15 (12.1)
High School	248 (51.5)	85 (68.5)
University degree	211 (43.8)	24 (19.4)
Missing	8	0
Employment		
Full time	239 (50.0)	62 (51.2)
Part time	107 (22.4)	29 (24)
Student	27 (5.6)	5 (4.1)
Other	105 (22)	25 (20.7)
Missing	12	3
Total	490	124

Table C.10.2. PrEP awareness and use

	MSM	TGW
PrEP awareness among all participants		
Heard of PrEP prior to the survey		
Yes	447 (93.3)	106 (86.2)
No	22 (4.6)	16 (13)

	MSM	TGW
I don't know	10 (2.1)	1 (0.8)
<i>Missing</i>	77	7
Heard of these types of PrEP		
Daily	407 (85.1)	99 (81.1)
Event-driven	290 (63.6)	68 (59.1)
CAB-LA	144 (32.7)	36 (32.1)
Total	490	124
PrEP use history among participants who had heard of PrEP		
Current PrEP user	109 (24.6)	28 (26.9)
Former PrEP user	35 (7.9)	13 (12.5)
Never taken PrEP	299 (67.5)	63 (60.6)
<i>Missing</i>	4	2
Total	447	106
PrEP dosing among current users		
Daily	95 (94.1)	25 (89.3)
Event-driven	2 (2)	2 (7.1)
Other	4 (4)	1 (3.6)
<i>Missing</i>	8	0
Total	109	28

Table C.10.3. Reasons for not starting PrEP and willingness to pay

	MSM	TGW
Would like to take PrEP among those who have never taken PrEP		
Yes	213 (74.2)	48 (84.2)
No	74 (25.8)	9 (15.8)
<i>Missing</i>	12	6
Total	299	63
Why not taken PrEP		
PrEP is not available where I live	63 (29.6)	16 (33.3)
I don't know where or how to get it	68 (31.9)	14 (29.2)
It is too expensive	13 (6.1)	12 (25.0)

	MSM	TGW
I have not been able to get a prescription	13 (6.1)	10 (20.8)
I'm worried about side effects	51 (23.9)	26 (54.2)
I'm concerned about what my friends and family would think of me	27 (12.7)	18 (37.5)
I don't like taking pills on a regular basis	44 (20.7)	16 (33.3)
I am in a monogamous relationship	22 (10.3)	2 (4.2)
I prefer to use condoms	22 (10.3)	5 (10.4)
I am not having much sex	43 (20.2)	8 (16.7)
I don't feel comfortable discussing my sexual risks with healthcare providers	7 (3.3)	10 (20.8)
I was denied access to PrEP by a healthcare provider	3 (1.4)	3 (6.3)
I am not at high risk of HIV	11 (5.2)	6 (12.5)
COVID-19 made it too hard to get	4 (1.9)	11 (22.9)
Too inconvenient	1 (0.5)	0 (0)
My sexual partner(s) would not like me taking PrEP	0 (0)	4 (8.3)
Total	213	48

How much they would be willing to spend a month on PrEP

Nothing	147 (51.4)	43 (52.4)
MMK 1 - MMK 20000	77 (26.9)	22 (26.8)
MMK 20001 - MMK 40000	25 (8.7)	3 (3.7)
MMK 40001 - MMK 60000	18 (6.3)	1 (1.2)
MMK 60001 - MMK 80000	10 (3.5)	8 (9.8)
MMK 80001 - MMK 100000	7 (2.4)	4 (4.9)
MMK 100001 - MMK 120000	0 (0)	1 (1.2)
MMK 120001 - MMK 140000	1 (0.3)	0 (0)
More than MMK 140000	1 (0.3)	0 (0)
<i>Missing</i>	204	42
Total	490	124

Table C.10.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM		TGW	
	Interest	Preference	Interest	Preference
Daily	166 (33.9)	132 (29.7)	52 (41.9)	36 (30.5)
Event-driven	150 (30.6)	106 (23.8)	38 (30.6)	16 (13.6)
Monthly pill	141 (28.8)	80 (18.0)	34 (27.4)	20 (16.9)
CAB-LA	47 (9.6)	10 (2.2)	19 (15.3)	5 (4.2)
Six-month injection	126 (25.7)	69 (15.5)	43 (34.7)	24 (20.3)
Implant	74 (15.1)	42 (9.4)	22 (17.7)	13 (11.0)
None (mutually exclusive)	27 (5.5)	-	1 (0.8)	-
Missing	-	24	-	9
Total	490	463	124	123

Table C.10.5. Potential reasons they would like CAB-LA and potential concerns

	MSM	TGW
Potential reasons they would like CAB-LA		
Protection against HIV	240 (49.0)	71 (57.3)
Don't have to remember to take pills	105 (21.4)	32 (25.8)
Easier than condoms	83 (16.9)	22 (17.7)
Longer-term protection compared to other methods	84 (17.1)	30 (24.2)
Can be used discreetly, without other people knowing	117 (23.9)	38 (30.6)
Is administered by a healthcare provider	98 (20.0)	29 (23.4)
Does not interrupt sex	72 (14.7)	25 (20.2)
Don't have to take oral pills	125 (25.5)	28 (22.6)
Injections work better than oral pills	61 (12.4)	27 (21.8)
Can replace condoms	59 (12.0)	12 (9.7)
Nothing (mutually exclusive)	28 (5.7)	10 (8.1)
Potential concerns they have about CAB-LA		
I don't like injections	98 (20.0)	34 (27.4)
May not protect against HIV	27 (5.5)	8 (6.5)
May be painful	100 (20.4)	45 (36.3)
May cause harmful side effects	59 (12.0)	25 (20.2)
Once injected, it cannot be reversed immediately	56 (11.4)	19 (15.3)

	MSM	TGW
Must be administered by a healthcare provider	98 (20.0)	45 (36.3)
Cost may be unaffordable	97 (19.8)	33 (26.6)
Injections don't work as well as oral pills	9 (1.8)	3 (2.4)
I don't know enough about it yet	141 (28.8)	30 (24.2)
None (mutually exclusive)	38 (7.8)	7 (5.6)
Total	490	124

Table C.10.6. DCE results for the preferences of men who have sex with men in Myanmar (N=561)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	0.01	1.49***
	Event-driven	0.13	0.85***
	Injectable	0.21	0.67***
	Monthly oral	0.09	0.86***
	Implant	-0.44***	0.56**
Location	Hospital	0.02	1.36**
	STI clinic	0.10	0.73***
	Private community clinic (incl. GP)	-0.43***	0.12
	Community clinic run by MSM/TG	0.33**	1.14***
	Telehealth	-0.03	0.01
	Pharmacy	0.01	0.00
Cost	Free	1.39***	1.43***
	≤100,000	-0.14	0.86***
	≤300,000	-0.43***	0.70***
	≤500,000	-0.82***	0.90***
Side effects	No	0.23	1.31***
	Interactions with other medications	-0.09	0.58***
	Mild	0.07	0.64***
	Rare chance of kidney problems	-0.19	0.58***
	Mild pain at injection	-0.02	0.80**
Visit frequency	Every 2 months	-0.04	0.85*
	3 months	-0.04	0.06
	6 months	0.15	0.84***
	12 months	-0.07	0.13
Extra services	STI testing	-0.09	1.00***
	Mental health counselling	0.03	0.67***
	None	0.06	0.74***
Neither		-2.17***	5.04***

*Significant at p<0.10 level ** Significant at p<0.05 level *** Significant at p<0.01 level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.10.7. Relative importance of preference attributes of men who have sex with men in Myanmar (N=561)

Attribute	Relative importance (%)
Cost	28.9
Type of PrEP	25.0
Visit frequency	16.2
Extra services	14.0
Location	10.2
Side effects	5.8

Nepal



There were 386 MSM participants and 286 TGW participants¹² from Nepal. The mean age of participants was 27.8 years in MSM and 27.1 years in TGW. Two thirds (68.1%) of MSM identified as gay with 6.5% of MSM identifying as bisexual. 15.2% of MSM and 7.8% of TGW had a university degree and a fifth (20.8%) of MSM and 14.4% of TGW were in full time employment (Table C.11.1).

PrEP awareness was high in both MSM (84.6%) and TGW (88.1%), with most having heard of daily (88.9% in MSM and 86.5% in TGW). Fewer participants had heard of event-driven (49.1% in MSM and 44.9% in TGW) with fewer still having heard of CAB-LA (26.0% in MSM and 26.2% in TGW). Among those who have heard of PrEP, more than half of MSM (59.3%) and two thirds (65.7%) of TGW were current PrEP users, with another 12.5% of MSM and 14.2% being former PrEP users. 28.2% of MSM and 20.1% of TGW who had heard of PrEP had never taken it. Nearly all current PrEP users were taking it daily (94.6% in MSM and 96.6% in TGW; Table C.11.2).

Among those who were aware of PrEP but had never taken PrEP, 37.5% of MSM and 56.1% of TGW said they wanted to take it. The most common reasons for not starting PrEP were worry about side effects, not liking taking pills on regular basis, preferring to use condoms, and not having much sex. Regarding willingness to pay for PrEP, 24.6% of MSM and 20.1% of TGW being willing to pay between ₹ 1 to ₹ 2000 a month while Three quarters of MSM (73.4%) and TGW (74.7%) would not be willing to pay anything (Table C.11.3).

Among MSM, participants' interest in different PrEP options where they could select multiple options was highest for daily (42.2%), six month injection (28.8%) and monthly pill (23.1%). When asked to pick their top preference, 39.3% chose daily followed by six month injection (20.6%) and monthly pill (18.6%). Among TGW, participants' interest in different PrEP options where they could select multiple options was highest for the six month injection (43.0%), daily (36.0%) and monthly pill (21.7%). The top preferences were six month injection (32.2%), daily (32.6%) and monthly pill (12.7%; Table C.11.4)

When asked about potential reasons why they would like CAB-LA, the most common reasons among MSM were protection against HIV (42.2%), not having to remember to take pills (29.8%), and easier than condoms (24.6%). The most common concerns were not liking injections (28.0%), not knowing enough about it yet (20.5%), and side effects (16.6%). Among TGW, the most common reasons they would like CAB-LA is not having to remember to take pills (38.1%), easier than condoms (31.5%) and protection against HIV (30.1%). The most common concerns were not knowing enough about it yet (25.2%), may be painful (23.1%), and the cost may be unaffordable (19.9%; Table C.11.5)

¹² DCE analyses were only conducted on MSM data due to low sample size of TGW.

From the results of the discrete choice experiment among MSM, the most preferred combination of attributes for a program were PrEP injection, at a community clinic run by MSM, no cost, no side effects, 6-monthly visits and no extra services. The least preferred combination of PrEP program attributes were implant, at general practice clinics, 3000 a month, with a rare chance of kidney problems, 12-monthly visits with STI testing (Table C.11.6). The most important driver of choice to use PrEP was cost and the least important was extra services (Table C.11.7).

Table C.11.1. Demographics

	MSM	TGW
Age (Mean/SD)	27.8 (6.3)	27.1 (6.3)
Sexual Identity		
Gay	263 (68.1)	-
Bisexual/Pansexual	25 (6.5)	-
Other	98 (25.4)	-
Education		
No high school	82 (21.9)	75 (26.5)
High School	236 (62.9)	186 (65.7)
University degree	57 (15.2)	22 (7.8)
<i>Missing</i>	11	3
Employment		
Full time	78 (20.8)	39 (14.4)
Part time	61 (16.3)	41 (15.1)
Student	57 (15.2)	35 (12.9)
Other	179 (47.7)	156 (57.6)
<i>Missing</i>	11	15
Total	386	286

Table C.11.2. PrEP awareness and use

	MSM	TGW
PrEP awareness among all participants		
Heard of PrEP prior to the survey		
Yes	319 (84.6)	245 (88.1)
No	21 (5.6)	11 (4)
I don't know	37 (9.8)	22 (7.9)
<i>Missing</i>	9	8

	MSM	TGW
Heard of these types of PrEP		
Daily	330 (88.9)	238 (86.5)
Event-driven	168 (49.1)	115 (44.9)
CAB-LA	82 (26.0)	65 (26.2)
Total	386	286
PrEP use history among participants who had heard of PrEP		
Current PrEP user	185 (59.3)	157 (65.7)
Former PrEP user	39 (12.5)	34 (14.2)
Never taken PrEP	88 (28.2)	48 (20.1)
<i>Missing</i>	7	6
Total	319	245
PrEP dosing among current users		
Daily	157 (94.6)	144 (96.6)
Event-driven	9 (5.4)	5 (3.4)
Other	0 (0)	0 (0)
<i>Missing</i>	79	8
Total	185	157

Table C.11.3. Reasons for not starting PrEP and willingness to pay

	MSM	TGW
Would like to take PrEP among those who have never taken PrEP		
Yes	27 (37.5)	23 (56.1)
No	45 (62.5)	18 (43.9)
<i>Missing</i>	16	7
Total	88	48
Why not taken PrEP		
PrEP is not available where I live	5 (18.5)	3 (13.0)
I don't know where or how to get it	2 (7.4)	1 (4.3)
It is too expensive	0 (0)	0 (0)
I have not been able to get a prescription	3 (11.1)	0 (0)

	MSM	TGW
I'm worried about side effects	17 (63.0)	14 (60.9)
I'm concerned about what my friends and family would think of me	9 (33.3)	6 (26.1)
I don't like taking pills on a regular basis	10 (37.0)	16 (69.6)
I am in a monogamous relationship	1 (3.7)	2 (8.7)
I prefer to use condoms	7 (25.9)	2 (8.7)
I am not having much sex	5 (18.5)	4 (17.4)
I don't feel comfortable discussing my sexual risks with healthcare providers	1 (3.7)	1 (4.3)
I was denied access to PrEP by a healthcare provider	0 (0)	0 (0)
I am not at high risk of HIV	6 (22.2)	0 (0)
COVID-19 made it too hard to get	1 (3.7)	1 (4.3)
Too inconvenient	2 (7.4)	1 (4.3)
My sexual partner(s) would not like me taking PrEP	0 (0)	1 (4.3)
Total	27	23 (100)

How much they would be willing to spend a month on PrEP

Nothing	149 (73.4)	130 (74.7)
NPR 1 - NPR 1000	42 (20.7)	28 (16.1)
NPR 1001 - NPR 2000	8 (3.9)	7 (4.0)
NPR 2001 - NPR 3000	1 (0.5)	5 (2.9)
NPR 3001 - NPR 4000	0 (0)	1 (0.6)
NPR 4001 - NPR 5000	1 (0.5)	1 (0.6)
NPR 5001 - NPR 6000	0 (0)	2 (1.1)
More than NPR 6001	2 (1.0)	0 (0)
<i>Missing</i>	<i>183</i>	<i>112</i>
Total	386	286

Table C.11.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM		TGW	
	Interest	Preference	Interest	Preference
Daily	163 (42.2)	137 (39.3)	103 (36.0)	90 (32.6)
Event-driven	86 (22.3)	40 (11.5)	48 (16.8)	27 (9.8)
Monthly pill	89 (23.1)	65 (18.6)	62 (21.7)	35 (12.7)
CAB-LA	32 (8.3)	11 (3.2)	38 (13.3)	18 (6.5)
Six-month injection	111 (28.8)	72 (20.6)	123 (43.0)	89 (32.2)
Implant	33 (8.5)	21 (6.0)	29 (10.1)	11 (4)
None (mutually exclusive)	9 (2.3)	-	0 (0)	-
<i>Missing</i>	-	31	-	16
Total	386	377	286	286

Table C.11.5. Potential reasons they would like CAB-LA and potential concerns

	MSM	TGW
Potential reasons they would like CAB-LA		
Protection against HIV	163 (42.2)	86 (30.1)
Don't have to remember to take pills	115 (29.8)	109 (38.1)
Easier than condoms	95 (24.6)	90 (31.5)
Longer-term protection compared to other methods	46 (11.9)	43 (15.0)
Can be used discreetly, without other people knowing	70 (18.1)	72 (25.2)
Is administered by a healthcare provider	28 (7.3)	30 (10.5)
Does not interrupt sex	55 (14.2)	56 (19.6)
Don't have to take oral pills	57 (14.8)	80 (28.0)
Injections work better than oral pills	52 (13.5)	45 (15.7)
Can replace condoms	39 (10.1)	31 (10.8)
Nothing (mutually exclusive)	40 (10.4)	25 (8.7)
Potential concerns they have about CAB-LA		
I don't like injections	108 (28.0)	50 (17.5)
May not protect against HIV	51 (13.2)	49 (17.1)
May be painful	56 (14.5)	66 (23.1)
May cause harmful side effects	64 (16.6)	56 (19.6)
Once injected, it cannot be reversed immediately	24 (6.2)	28 (9.8)
Must be administered by a healthcare provider	32 (8.3)	28 (9.8)

	MSM	TGW
Cost may be unaffordable	59 (15.3)	57 (19.9)
Injections don't work as well as oral pills	16 (4.1)	15 (5.2)
I don't know enough about it yet	79 (20.5)	72 (25.2)
None (mutually exclusive)	71 (18.4)	39 (13.6)
Total	386	286

Table C.11.6. DCE results for the preferences of men who have sex with men in Nepal (N=459)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	0.01	1.49***
	Event-driven	0.13	0.85***
	Injectable	0.21	0.67***
	Monthly oral	0.09	0.86***
	Implant	-0.44***	0.56**
Location	Hospital	0.02	1.36**
	STI clinic	0.10	0.73***
	Private community clinic (incl. GP)	-0.43***	0.12
	Community clinic run by MSM/TG	0.33**	1.14***
	Telehealth	-0.03	0.01
	Pharmacy	0.01	0.00
Cost	Free	1.39***	1.43***
	₹100,000	-0.14	0.86***
	₹300,000	-0.43***	0.70***
	₹500,000	-0.82***	0.90***
Side effects	No	0.23	1.31***
	Interactions with other medications	-0.09	0.58***
	Mild	0.07	0.64***
	Rare chance of kidney problems	-0.19	0.58***
	Mild pain at injection	-0.02	0.80**
Visit frequency	Every 2 months	-0.04	0.85*
	3 months	-0.04	0.06
	6 months	0.15	0.84***
	12 months	-0.07	0.13
Extra services	STI testing	-0.09	1.00***
	Mental health counselling	0.03	0.67***
	None	0.06	0.74***
Neither		-2.17***	5.04***

*Significant at p<0.10 level ** Significant at p<0.05 level *** Significant at p<0.01 level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.11.7. Relative importance of preference attributes of men who have sex with men in Nepal (N=459)

Attribute	Relative importance (%)
Cost	50.1
Location	17.2
Type of PrEP	14.7
Side effects	9.5
Visit frequency	5.0
Extra services	3.4



The Philippines

There were 1594 MSM participants¹³ and 68 TGW participants from The Philippines. The mean age of participants was 29.2 years in MSM and 30.5 years in TGW. Half of MSM (49.2%) identified as gay, and 40.2% of MSM identified as bisexual. Two thirds of MSM (65.8%) and over half of TGW (55.9%) had a university degree. 61.3% of MSM and 51.5% of TGW were in full time employment (Table C.12.1).

Three quarters of MSM (77.2%) and TGW (71.2%) had heard of PrEP, with more awareness of daily PrEP (55.3% in MSM and 49.3% in TGW) and event-driven (41.2% of MSM and 40.0% in TGW) compared to CAB-LA (14.9% in MSM and 23.1% in TGW). Among those who have heard of PrEP, a fifth (19.8%) of MSM and 2.2% of TGW were current PrEP users, and 5.0% of MSM and 8.7% of TGW were former PrEP users. Most MSM (75.2%) and TGW (89.1%) who had heard of PrEP had never taken it. Among MSM who are current PrEP users, 70.7% were taking it daily and 28.9% were taking it event-driven (Table C.12.2).

Among those who were aware of PrEP but had never taken PrEP, 87.1% of MSM and 64.1% of TGW wanted to take it. The most common reasons for not starting PrEP were not knowing where or how to get it, side effects, and not been able to get a prescription. Regarding willingness to pay for PrEP, 49.8% of MSM and 36.6% of TGW were willing to pay between 1 and 1000 pesos a month while 35.9% of MSM and 46.7% of TGW would not be willing to pay anything (Table C.12.3).

Among MSM, participants' interest in different PrEP options where they could select multiple options was highest for monthly pill (45.3%), daily (41.4%), and event-driven (35.4%). When asked to pick their most preferred option with only one choice, 25.7% chose monthly pill, followed up daily (24.4%), and event-driven (19.9%). Among TGW, participants' interest in different PrEP options where they could select multiple options was highest for daily (45.6%), event-driven (32.4%), and monthly pill (26.5%). The top preferences were daily (34.5%), event-driven (22.4%), and monthly pill (17.2%); Table C.12.4)

When asked about potential reasons they would like CAB-LA, the top reasons among MSM were protection against HIV (68.3%), longer-term protection compared to other methods (38.8%), not having to remember to take pills (35.0%). The most common concerns were cost may be unaffordable (41.3%), may cause harmful side effects (37.2%), and not knowing enough about it yet (26.4%). Among TGW, the most common reasons they would like CAB-LA is protection against HIV (64.7%), longer-term protection compared to other methods (26.5%), not having to remember to take pills (23.5%), can be used discreetly without other people knowing (23.5%), and

¹³ DCE analyses were only conducted on MSM data due to low sample size of TGW.

not having to take oral pills (23.5%). The most common concerns were may cause harmful side effects (30.9%), cost may be unaffordable (26.5%), and may be painful (25.0%; Table C.12.5).

From the results of the discrete choice experiment among MSM, the most preferred combination of attributes for a program were event-driven oral PrEP, at a community clinic run by MSM, no cost, no side effects, 12-monthly visits with STI testing. The least preferred combination of PrEP program attributes were implant), via telehealth, 3000 pesos a month, with a rare chance of kidney problems, 6-monthly visits and mental health counselling (Table C.12.6). The most important driver of choice to use PrEP was cost and the least important was visit frequency (Table C.12.7).

Table C.12.1. Demographics

	MSM	TGW
Age (Mean/SD)	29.2 (8.0)	30.5 (8.0)
Sexual Identity		
Gay	785 (49.2)	-
Bisexual/Pansexual	641 (40.2)	-
Other	168 (10.5)	-
Education		
No high school	3 (0.2)	0 (0)
High School	540 (34.0)	30 (44.1)
University degree	1043 (65.8)	38 (55.9)
<i>Missing</i>	8	0
Employment		
Full time	976 (61.3)	35 (51.5)
Part time	115 (7.2)	6 (8.8)
Student	290 (18.2)	10 (14.7)
Other	211 (13.3)	17 (25)
<i>Missing</i>	2	0
Total	1594	68

Table C.12.2. PrEP awareness and use

	MSM	TGW
PrEP awareness among all participants		
Heard of PrEP prior to the survey		
Yes	1174 (77.2)	47 (71.2)
No	241 (15.9)	14 (21.2)
I don't know	105 (6.9)	5 (7.6)
Missing	74	2
Heard of these types of PrEP		
Daily	842 (55.3)	33 (49.3)
Event-driven	620 (41.2)	26 (40.0)
CAB-LA	222 (14.9)	15 (23.1)
Total	1594	68
PrEP use history among participants who had heard of PrEP		
Current PrEP user	232 (19.8)	1 (2.2)
Former PrEP user	59 (5.0)	4 (8.7)
Never taken PrEP	883 (75.2)	41 (89.1)
Missing	0	1
Total	1174	47
PrEP dosing among current users		
Daily	164 (70.7)	0
Event-driven	67 (28.9)	0
Other	1 (0.4)	0
Missing	0	1
Total	232	1

Table C.12.3. Reasons for not starting PrEP and willingness to pay

	MSM	TGW
Would like to take PrEP among those who have never taken PrEP		
Yes	762 (87.1)	25 (64.1)
No	113 (12.9)	14 (35.9)
Missing	8	2
Total	883	41

	MSM	TGW
Why not taken PrEP		
PrEP is not available where I live	146 (19.2)	4 (16.0)
I don't know where or how to get it	470 (61.7)	16 (64.0)
It is too expensive	182 (23.9)	7 (28.0)
I have not been able to get a prescription	220 (28.9)	5 (20.0)
I'm worried about side effects	230 (30.2)	7 (28.0)
I'm concerned about what my friends and family would think of me	125 (16.4)	1 (4.0)
I don't like taking pills on a regular basis	86 (11.3)	2 (8.0)
I am in a monogamous relationship	24 (3.1)	0 (0)
I prefer to use condoms	120 (15.7)	2 (8.0)
I am not having much sex	181 (23.8)	6 (24.0)
I don't feel comfortable discussing my sexual risks with healthcare providers	62 (8.1)	2 (8.0)
I was denied access to PrEP by a healthcare provider	10 (1.3)	1 (4.0)
I am not at high risk of HIV	48 (6.3)	2 (8.0)
COVID-19 made it too hard to get	57 (7.5)	0 (0)
Too inconvenient	49 (6.4)	2 (8.0)
My sexual partner(s) would not like me taking PrEP	2 (0.3)	0 (0)
Total	762	25
How much they would be willing to spend a month on PrEP		
Nothing	491 (35.9)	28 (46.7)
1 to 500 pesos	442 (32.3)	14 (23.3)
501 to 1000 pesos	240 (17.5)	8 (13.3)
1001 to 1500 pesos	86 (6.3)	6 (10)
1501 to 2000 pesos	45 (3.3)	2 (3.3)
2001 to 2500 pesos	24 (1.8)	1 (1.7)
2501 to 3000 pesos	13 (1)	0 (0)
3001 to 3500 pesos	7 (0.5)	0 (0)

	MSM	TGW
3501 to 4000 pesos	1 (0.1)	0 (0)
More than 4000 pesos	19 (1.4)	1 (1.7)
<i>Missing</i>	226	8
Total	1594	68

Table C.12.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM		TGW	
	Interest	Preference	Interest	Preference
Daily	660 (41.4)	346 (24.4)	31 (45.6)	20 (34.5)
Event-driven	564 (35.4)	283 (19.9)	22 (32.4)	13 (22.4)
Monthly pill	722 (45.3)	365 (25.7)	18 (26.5)	10 (17.2)
CAB-LA	257 (16.1)	65 (4.6)	10 (14.7)	4 (6.9)
Six-month injection	502 (31.5)	252 (17.7)	12 (17.6)	6 (10.3)
Implant	232 (14.6)	90 (6.3)	5 (7.4)	4 (6.9)
None (mutually exclusive)	145 (9.1)	-	8 (11.8)	-
<i>Missing</i>	-	48	-	3
Total	1594	1449	68	60

Table C.12.5. Potential reasons they would like CAB-LA and potential concerns

	MSM	TGW
Potential reasons they would like CAB-LA		
Protection against HIV	1088 (68.3)	44 (64.7)
Don't have to remember to take pills	558 (35.0)	16 (23.5)
Easier than condoms	317 (19.9)	14 (20.6)
Longer-term protection compared to other methods	618 (38.8)	18 (26.5)
Can be used discreetly, without other people knowing	459 (28.8)	16 (23.5)
Is administered by a healthcare provider	444 (27.9)	11 (16.2)
Does not interrupt sex	231 (14.5)	11 (16.2)
Don't have to take oral pills	435 (27.3)	16 (23.5)
Injections work better than oral pills	196 (12.3)	5 (7.4)
Can replace condoms	222 (13.9)	13 (19.1)
Nothing (mutually exclusive)	239 (15.0)	13 (19.1)

	MSM	TGW
Potential concerns they have about CAB-LA		
I don't like injections	360 (22.6)	13 (19.1)
May not protect against HIV	195 (12.2)	5 (7.4)
May be painful	355 (22.3)	17 (25.0)
May cause harmful side effects	593 (37.2)	21 (30.9)
Once injected, it cannot be reversed immediately	233 (14.6)	9 (13.2)
Must be administered by a healthcare provider	250 (15.7)	12 (17.6)
Cost may be unaffordable	658 (41.3)	18 (26.5)
Injections don't work as well as oral pills	28 (1.8)	0 (0)
I don't know enough about it yet	421 (26.4)	15 (22.1)
None (mutually exclusive)	334 (21.0)	18 (26.5)
Total	1594	68

Table C.12.6. DCE results for the preferences of men who have sex with men in The Philippines (N=2,285)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	0.09	1.27***
	Event-driven	0.25***	0.58***
	Injectable	0.15**	0.52***
	Monthly oral	0.10**	0.45***
	Implant	-0.59***	0.89***
Location	Hospital	0.07	0.95***
	STI clinic	-0.03	0.76***
	Private community clinic (incl. GP)	-0.03	0.05
	Community clinic run by MSM/TG	0.12**	0.53***
	Telehealth	-0.13**	0.20
	Pharmacy	0.00	0.08
Cost	Free	1.76***	1.76***
	≤100,000	0.12**	0.64***
	≤300,000	-0.55***	0.74***
	≤500,000	-1.33***	1.46***
Side effects	No	0.36***	0.90***
	Interactions with other medications	-0.20***	0.54***
	Mild	0.11**	0.15
	Rare chance of kidney problems	-0.26***	0.60***
	Mild pain at injection	-0.01	0.37**

Attribute	Level	Coefficient	SD
Visit frequency	Every 2 months	-0.06	0.35*
	3 months	-0.01	0.11
	6 months	-0.08**	0.33***
	12 months	0.15***	0.01
Extra services	STI testing	0.22***	0.72***
	Mental health counselling	-0.15***	0.53***
	None	-0.07**	0.49***
Neither		-1.76***	4.76***

*Significant at $p < 0.10$ level ** Significant at $p < 0.05$ level *** Significant at $p < 0.01$ level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.12.7. Relative importance of preference attributes of men who have sex with men in The Philippines (N=2,285)

Attribute	Relative importance (%)
Cost	57.2
Type of PrEP	15.6
Side effects	11.5
Extra services	6.9
Location	4.6
Visit frequency	4.3

Singapore

There 649 MSM participants in Singapore. The mean age was 36.4 years, three quarters (76.6%) of participants identified as gay with another fifth (19.0%) identifying as bisexual. More than two thirds (69.2%) had a university degree and most (80.5%) were in full time employment (Table C.13.1).



PrEP awareness was high (93.0%) with most having heard of daily (78.0%) or event-driven (66.6%). Fewer participants had heard of CAB-LA (17.4%). Among those who had heard of PrEP, a quarter (25.0%) were current PrEP users, with another tenth (10.1%) being former PrEP users. Two-thirds (65.0%) who had heard of PrEP had never taken it. Among current PrEP users, most common dosing regimen was daily (57.5%) followed by event-driven (39.7%; Table C.13.2).

Among those who were aware of PrEP but had never taken PrEP, 69.1% wanted to take it. The most common reasons for not starting PrEP were not knowing where or how to get it (59.2%), too expensive (50.8%), worry about side effects (40.8%). Regarding willingness to pay for PrEP, there was a wide range of costs participants were willing to pay per month while a small minority (7.2%) were not willing to pay anything (Table C.13.3).

Participants' interest in different PrEP options where they could select multiple options was highest for monthly pill (57.5%), event-driven (46.4%), and six month injection (42.4%). When asked to pick their most preferred option with only one choice, 30.5% chose the monthly pill followed by event-driven (23.2%) and six month injection (22.4%; Table C.13.4).

When asked about potential reasons they would like CAB-LA, the most common reasons were protection from HIV (62.4%), not having to remember to take pills (56.2%), and longer-term protection compared to other methods (43.5%). The most common concerns were cost may be unaffordable (49.5%), may cause harmful side effects (42.2%) and not knowing enough about it yet (41.6%; Table C.13.5)

From the results of the discrete choice experiment among MSM, the most preferred combination of attributes for a program were monthly oral PrEP, at a community clinic run by MSM, no cost, no side effects, 12-monthly visits with STI testing. The least preferred combination of PrEP program attributes were implant, at an STI clinics, \$100 SGD a month, interactions with other medications, 2-monthly visits and mental health counselling (Table C.13.6). The most important driver of choice to use PrEP was cost and the least important was location (Table C.13.7).

Table C.13.1. Demographics

	MSM
Age (Mean/SD)	36.4 (11.2)
Sexual Identity	
Gay	497 (76.6)
Bisexual/Pansexual	123 (19.0)
Other	29 (4.5)
Education	
No high school	2 (0.3)
High School	198 (30.5)
University degree	449 (69.2)
Missing	0
Employment	
Full time	520 (80.5)
Part time	40 (6.2)
Student	55 (8.5)
Other	31 (4.8)
Missing	3
Total	649

Table C.13.2. PrEP awareness and use

	MSM
PrEP awareness among all participants	
Heard of PrEP prior to the survey	
Yes	586 (93.0)
No	30 (4.8)
I don't know	14 (2.2)
Missing	19
Heard of these types of PrEP	
Daily	495 (78.0)
Event-driven	417 (66.6)
CAB-LA	109 (17.4)

	MSM
Total	649
PrEP use history among participants who had heard of PrEP	
Current PrEP user	146 (25.0)
Former PrEP user	59 (10.1)
Never taken PrEP	380 (65.0)
<i>Missing</i>	1
Total	586
PrEP dosing among current users	
Daily	84 (57.5)
Event-driven	58 (39.7)
Other	4 (2.7)
<i>Missing</i>	0
Total	146

Table C.13.3. Reasons for not starting PrEP and willingness to pay

	MSM
Would like to take PrEP among those who have never taken PrEP	
Yes	262 (69.1)
No	117 (30.9)
<i>Missing</i>	1
Total	380
Why not taken PrEP	
PrEP is not available where I live	21 (8.0)
I don't know where or how to get it	155 (59.2)
It is too expensive	133 (50.8)
I have not been able to get a prescription	55 (21.0)
I'm worried about side effects	107 (40.8)
I'm concerned about what my friends and family would think of me	34 (13.0)
I don't like taking pills on a regular basis	49 (18.7)
I am in a monogamous relationship	19 (7.3)

	MSM
I prefer to use condoms	48 (18.3)
I am not having much sex	75 (28.6)
I don't feel comfortable discussing my sexual risks with healthcare providers	40 (15.3)
I was denied access to PrEP by a healthcare provider	5 (1.9)
I am not at high risk of HIV	19 (7.3)
COVID-19 made it too hard to get	8 (3.1)
Too inconvenient	33 (12.6)
My sexual partner(s) would not like me taking PrEP	1 (0.4)
Total	262

How much they would be willing to spend a month on PrEP

Nothing	42 (7.2)
\$1 to \$10	45 (7.7)
\$11 to \$20	56 (9.5)
\$21 to \$30	80 (13.6)
\$31 to \$40	40 (6.8)
\$41 to \$50	107 (18.2)
\$51 to \$60	56 (9.5)
\$61 to \$70	18 (3.1)
\$71 to \$80	13 (2.2)
\$81 to \$90	4 (0.7)
\$91 to \$100	66 (11.2)
More than \$100	60 (10.4)
<i>Missing</i>	62
Total	649

Table C.13.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM	
	Interest	Preference
Daily	221 (34.1)	71 (11.7)
Event-driven	301 (46.4)	141 (23.2)
Monthly pill	373 (57.5)	185 (30.5)
CAB-LA	108 (16.6)	18 (3)
Six-month injection	275 (42.4)	136 (22.4)
Implant	150 (23.1)	50 (8.2)
None (mutually exclusive)	27 (4.2)	-
<i>Missing</i>	-	21
Total	649	622

Table C.13.5. Potential reasons they would like CAB-LA and potential concerns

MSM	
Potential reasons they would like CAB-LA	
Protection against HIV	405 (62.4)
Don't have to remember to take pills	365 (56.2)
Easier than condoms	139 (21.4)
Longer-term protection compared to other methods	282 (43.5)
Can be used discreetly, without other people knowing	233 (35.9)
Is administered by a healthcare provider	180 (27.7)
Does not interrupt sex	130 (20.0)
Don't have to take oral pills	215 (33.1)
Injections work better than oral pills	82 (12.6)
Can replace condoms	116 (17.9)
Nothing (mutually exclusive)	79 (12.2)
Potential concerns they have about CAB-LA	
I don't like injections	176 (27.1)
May not protect against HIV	109 (16.8)
May be painful	163 (25.1)
May cause harmful side effects	274 (42.2)

Once injected, it cannot be reversed immediately	104 (16.0)
Must be administered by a healthcare provider	169 (26.0)
Cost may be unaffordable	321 (49.5)
Injections don't work as well as oral pills	36 (5.5)
I don't know enough about it yet	270 (41.6)
None (mutually exclusive)	57 (8.8)
Total	649

Table C.13.6. DCE results for the preferences of men who have sex with men in Singapore (N=769)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	-0.02	1.83***
	Event-driven	0.25***	0.84***
	Injectable	0.06	1.19***
	Monthly oral	0.38***	0.39**
	Implant	-0.67***	1.04***
Location	Hospital	-0.09	0.62
	STI clinic	-0.15*	0.00
	Private community clinic (incl. GP)	0.02	0.07
	Community clinic run by MSM/TG	0.30***	0.57***
	Telehealth	-0.15*	0.13
Cost	Free	1.05***	1.02***
	≤100,000	0.22***	0.28
	≤300,000	-0.17***	0.37**
	≤500,000	-1.10***	0.91***
Side effects	No	0.42***	0.76*
	Interactions with other medications	-0.29***	0.31*
	Mild	0.11	0.02
	Rare chance of kidney problems	-0.28***	0.69***
	Mild pain at injection	0.04	0.04

Attribute	Level	Coefficient	SD
Visit frequency	Every 2 months	-0.20***	0.22
	3 months	0.01	0.07
	6 months	0.05	0.20
	12 months	0.14**	0.04
Extra services	STI testing	0.21***	0.48***
	Mental health counselling	-0.13***	0.34***
	None	-0.08	0.34***
Neither		-3.00***	4.27***

*Significant at $p < 0.10$ level ** Significant at $p < 0.05$ level *** Significant at $p < 0.01$ level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.13.7. Relative importance of preference attributes of men who have sex with men in Singapore (N=769)

Attribute	Relative importance (%)
Cost	42.7
Type of PrEP	20.8
Side effects	14.1
Location	8.9
Extra services	6.8
Visit frequency	6.8

Taiwan, China

There were 2105 MSM participants from Taiwan. The mean age was 31.8 years, 82.5% identified as gay, and 14.7% identified as bisexual. Most (87.1%) participants had a university degree and three quarters (75.1%) were in full time employment (Table C.14.1).



PrEP awareness was high (96.1%) with most having heard of event-driven (72.6%) or daily (64.9%). Fewer participants had heard of CAB-LA (15.3%). Among those who had heard of PrEP, under a fifth (18.0%) were current PrEP users, and 12.0% were former PrEP users. Most (70.0%) who had heard of PrEP had never taken it. Among current PrEP users, the most common dosing regimens were event-driven (70.3%) followed by daily (29.7%; Table C.14.2).

Among those who were aware of PrEP but had never taken PrEP, 69.5% wanted to take it. The most common reasons for not starting PrEP was that it was too expensive (61.5%), not knowing where or how to get it (52.9%) and not having much sex (23.7%). Regarding willingness to pay for PrEP, there was a wide range of costs participants were willing to pay per month while a small minority (6.8%) were not willing to pay for PrEP and for PrEP (Table C.14.3)

Participants' interest in different PrEP options where they could select multiple options was highest for event-driven (59.3%), monthly pill (54.9%) and six month injection (41.0%). When asked to pick their most preferred option with only one choice, 32.3% chose event-driven followed by monthly pill (23.2%) and six month injection (16.2%; Table C.14.4).

When asked about potential reasons they would like CAB-LA, the most common reasons were protection against HIV (61.0%), not having to remember to take pills (39.5%), and longer-term protection compared to other methods (38.2%). The most common concerns were that the cost may be unaffordable (41.3%), may cause harmful side effects (38.2%), and not knowing enough about it yet (38.0%; Table C.14.5).

From the results of the discrete choice experiment, the most preferred combination of attributes for a program were event-driven oral PrEP, at a community clinic run by MSM, no cost, no side effects, 12-monthly visits with STI testing. The least preferred combination of PrEP program attributes were implant PrEP, at a STI clinic, 4500 TWD a month, with a rare chance of kidney problems, 2-monthly visits and mental health counselling (Table C.14.6). The most important driver of choice to use PrEP was cost and the least important was location (Table C.14.7).

Table C.14.1. Demographics

MSM	
Age (Mean/SD)	31.8 (7.6)
Sexual Identity	
Gay	1736 (82.5)
Bisexual/Pansexual	309 (14.7)
Other	60 (2.9)
Education	
No high school	3 (0.1)
High School	266 (12.7)
University degree	1823 (87.1)
<i>Missing</i>	13
Employment	
Full time	1577 (75.1)
Part time	146 (6.9)
Student	216 (10.3)
Other	162 (7.7)
<i>Missing</i>	4
Total	2105

Table C.14.2. PrEP awareness and use

MSM	
PrEP awareness among all participants	
Heard of PrEP prior to the survey	
Yes	2015 (96.1)
No	33 (1.6)
I don't know	49 (2.3)
<i>Missing</i>	8
Heard of these types of PrEP	
Daily	1354 (64.9)
Event-driven	1495 (72.6)
CAB-LA	310 (15.3)
Total	2105

MSM	
PrEP use history among participants who had heard of PrEP	
Current PrEP user	363 (18.0)
Former PrEP user	241 (12.0)
Never taken PrEP	1408 (70.0)
<i>Missing</i>	3
Total	2015
PrEP dosing among current users	
Daily	107 (29.7)
Event-driven	253 (70.3)
Other	0 (0)
<i>Missing</i>	3
Total	363

Table C.14.3. Reasons for not starting PrEP and willingness to pay

MSM	
Would like to take PrEP among those who have never taken PrEP	
Yes	969 (69.5)
No	426 (30.5)
<i>Missing</i>	13
Total	1408
Why not taken PrEP	
PrEP is not available where I live	48 (5.0)
I don't know where or how to get it	513 (52.9)
It is too expensive	596 (61.5)
I have not been able to get a prescription	150 (15.5)
I'm worried about side effects	224 (23.1)
I'm concerned about what my friends and family would think of me	50 (5.2)
I don't like taking pills on a regular basis	136 (14.0)
I am in a monogamous relationship	27 (2.8)
I prefer to use condoms	121 (12.5)
I am not having much sex	230 (23.7)

		MSM
I don't feel comfortable discussing my sexual risks with healthcare providers		47 (4.9)
I was denied access to PrEP by a healthcare provider		5 (0.5)
I am not at high risk of HIV		80 (8.3)
COVID-19 made it too hard to get		42 (4.3)
Too inconvenient		80 (8.3)
My sexual partner(s) would not like me taking PrEP		2 (0.2)
Total		969
How much they would be willing to spend a month on PrEP		
Nothing		129 (6.8)
1 - 300 TWD		308 (16.3)
301 - 600 TWD		320 (16.9)
601 - 900 TWD		256 (13.5)
901 - 1200 TWD		361 (19.1)
1201 - 1500 TWD		190 (10.1)
1501 - 1800 TWD		61 (3.2)
1801 - 2100 TWD		76 (4)
2101 - 2400 TWD		33 (1.7)
2401 - 2700 TWD		15 (0.8)
2701 - 3000 TWD		55 (2.9)
More than 3000 TWD		57 (3.3)
<i>Missing</i>		215
Total		2105

Table C.14.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM	
	Interest	Preference
Daily	753 (35.8)	232 (11.7)
Event-driven	1248 (59.3)	641 (32.3)
Monthly pill	1155 (54.9)	460 (23.2)
CAB-LA	461 (21.9)	71 (3.6)
Six-month injection	862 (41.0)	321 (16.2)

Implant	590 (28.0)	252 (12.7)
None (mutually exclusive)	86 (4.1)	-
Missing	-	42
Total	2105	2019

Table C.14.5. Potential reasons they would like CAB-LA and potential concerns

MSM	
Potential reasons they would like CAB-LA	
Protection against HIV	1285 (61.0)
Don't have to remember to take pills	832 (39.5)
Easier than condoms	604 (28.7)
Longer-term protection compared to other methods	804 (38.2)
Can be used discreetly, without other people knowing	504 (23.9)
Is administered by a healthcare provider	616 (29.3)
Does not interrupt sex	301 (14.3)
Don't have to take oral pills	419 (19.9)
Injections work better than oral pills	256 (12.2)
Can replace condoms	364 (17.3)
Nothing (mutually exclusive)	397 (18.9)
Potential concerns they have about CAB-LA	
I don't like injections	545 (25.9)
May not protect against HIV	312 (14.8)
May be painful	348 (16.5)
May cause harmful side effects	805 (38.2)
Once injected, it cannot be reversed immediately	264 (12.5)
Must be administered by a healthcare provider	407 (19.3)
Cost may be unaffordable	870 (41.3)
Injections don't work as well as oral pills	180 (8.6)
I don't know enough about it yet	799 (38.0)
None (mutually exclusive)	307 (14.6)
Total	2105

Table C.14.6 Preferences of men who have sex with men in Taiwan (N=2,506)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	-0.05	1.55***
	Event-driven	0.71***	0.73***
	Injectable	-0.19***	0.90***
	Monthly oral	0.26***	0.59***
	Implant	-0.73***	0.84***
Location	Hospital	0.01	0.79*
	STI clinic	-0.14***	0.02
	Private community clinic (incl. GP)	0.04	0.06
	Community clinic run by MSM/TG	0.10***	0.52***
	Telehealth	-0.07	0.58***
	Pharmacy	0.06	0.14
Cost	Free	2.41***	1.87***
	≤100,000	0.49***	0.42***
	≤300,000	-0.82***	1.07***
	≤500,000	-2.08***	1.48***
Side effects	No	0.62***	0.85***
	Interactions with other medications	-0.12**	0.43***
	Mild	-0.14***	0.25*
	Rare chance of kidney problems	-0.57***	0.68***
	Mild pain at injection	0.21**	0.08
Visit frequency	Every 2 months	-0.23***	0.67***
	3 months	-0.06	0.20
	6 months	0.10**	0.48***
	12 months	0.19***	0.43***
Extra services	STI testing	0.32***	0.71***
	Mental health counselling	-0.23***	0.64***
	None	-0.09***	0.30***
Neither		-1.88***	4.46***

*Significant at $p < 0.10$ level ** Significant at $p < 0.05$ level *** Significant at $p < 0.01$ level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.14.7. Relative importance of preference attributes of men who have sex with men in Taiwan (N=2,506)

Attribute	Relative importance (%)
Cost	53.9
Type of PrEP	17.3
Side effects	14.3
Extra services	6.6
Visit frequency	5.0
Location	2.9



Thailand

There were 1223 MSM participants and 222 TGW participants¹⁴ from Thailand. The mean age was 33.2 years in MSM and 29.3 years in TGW. 81.7% of MSM identified as gay, 12.8% of MSM identified as bisexual. Three quarters of MSM (75.5%) and TGW (71.2%) had a university degree with 70.3% of MSM and 62.0% of TGW being in full time employment (Table C.15.1).

Most participants had heard of PrEP (78.6% in MSM and 85.1% in TGW) with most having heard of daily PrEP (67.5% in MSM and 82.9% in TGW) or event-driven (41.5% in MSM and 54.4% in TGW). Fewer participants had heard of CAB-LA (11.4% of MSM and 16.8% of TGW). Among those who had heard of PrEP, a quarter of MSM (25.0%) and half of TGW (51.7%) were current PrEP users, with 15.2% of MSM and 17.0% of TGW being former PrEP users. 59.8% of MSM and 31.3% of TGW who had heard of PrEP had never taken PrEP. Among current users most were taking it daily (85.7% in MSM and 92.3% in TGW; Table C.15.2).

Among those who have never taken PrEP, 67.6% of MSM and 40.0% of TGW wanted to take it. The most common reasons for not starting PrEP were not knowing where or how to get it, worry about side effects, and PrEP not being available where they live. Regarding willingness to pay for PrEP, 42.4% of MSM and 34.6% of TGW were willing to pay between 1 to 1200 baht per month while half of MSM (47.2%) and 61.1% of TGW were not willing to pay anything (Table C.15.3).

Among MSM, participants' interest in different PrEP options where they could select multiple options was highest for monthly pill (46.9%), daily (36.9%) and event-driven (34.8%). When asked to pick their most preferred option with only one choice, 26.9% chose the monthly pill, followed by daily (21.4%), and six month injection (20.1%). Among TGW, participants' interest in different PrEP options where they could select multiple options was highest for daily (48.2%), six month injection (35.1%) and monthly pill (32.4%). The top preferences were daily (30.1%), six month injection (21.8%), and monthly pill (19.0%; Table C.15.4).

When asked about potential reasons they would like CAB-LA, the most common reasons among MSM were protection against HIV (52.8%), not having to remember to take pills (39.2%), and longer-term protection compared to other methods (37.2%). The most common concerns were that it may cause harmful side effects (32.3%), not knowing enough about it yet (30.4%) and cost may be unaffordable (29.0%). Among TGW, the most common reasons they would like CAB-LA is protection against HIV (48.6%), longer term protection compared to other methods (36.9%) and not having to remember to take pills (36.9%). The most common concerns were that it may be painful (27.5%), may cause harmful side effects (24.3%), cost may be unaffordable (20.7%) and not knowing enough about it yet (20.7%; Table C.15.5).

¹⁴ Results concerning TGW should be interpreted with caution due to low sample size. DCE analyses were only conducted on MSM data due to low sample size of TGW.

From the results of the discrete choice experiment among MSM, the most preferred combination of attributes for a program were monthly oral PrEP, at a community clinic run by MSM, no cost, no side effects, 6-monthly visits, and with STI testing. The least preferred combination of PrEP program attributes were implant, at an STI clinic, 1000 baht a month, interactions with other medications, 2-monthly visits and mental health counselling (Table C.15.6). The most important driver of choice to use PrEP was cost and the least important was location (Table C.15.7).

Table C.15.1. Demographics

	MSM	TGW
Age (Mean/SD)	33.2 (8.8)	29.3 (6.4)
Sexual Identity		
Gay	999 (81.7)	-
Bisexual/Pansexual	156 (12.8)	-
Other	68 (5.6)	-
Education		
No high school	7 (0.6)	2 (0.9)
High School	292 (24)	62 (27.9)
University degree	919 (75.5)	158 (71.2)
<i>Missing</i>	5	0
Employment		
Full time	858 (70.3)	137 (62.0)
Part time	135 (11.1)	34 (15.4)
Student	108 (8.9)	23 (10.4)
Other	119 (9.8)	27 (12.2)
<i>Missing</i>	3	1
Total	1223	222

Table C.15.2. PrEP awareness and use

	MSM	TGW
PrEP awareness among all participants		
Heard of PrEP prior to the survey		
Yes	868 (78.6)	177 (85.1)
No	221 (20.0)	28 (13.5)
I don't know	16 (1.4)	3 (1.4)
<i>Missing</i>	118	14

	MSM	TGW
Heard of these types of PrEP		
Daily	753 (67.5)	174 (82.9)
Event-driven	461 (41.5)	111 (54.4)
CAB-LA	126 (11.4)	34 (16.8)
Total	1223	222
PrEP use history among participants who had heard of PrEP		
Current PrEP user	217 (25.0)	91 (51.7)
Former PrEP user	132 (15.2)	30 (17.0)
Never taken PrEP	519 (59.8)	55 (31.3)
<i>Missing</i>	0	1
Total	868	177
PrEP dosing among current users		
Daily	186 (85.7)	84 (92.3)
Event-driven	27 (12.4)	7 (7.7)
Other	4 (1.8)	0 (0)
<i>Missing</i>	0	0
Total	217	91

Table C.15.3. Reasons for not starting PrEP and willingness to pay

	MSM	TGW
Would like to take PrEP among those who have never taken PrEP		
Yes	347 (67.6)	22 (40.0)
No	166 (32.4)	33 (60.0)
<i>Missing</i>	6	0
Total	519	55
Why not taken PrEP		
PrEP is not available where I live	95 (27.4)	4 (18.2)
I don't know where or how to get it	190 (54.8)	2 (9.1)
It is too expensive	70 (20.2)	2 (9.1)
I have not been able to get a prescription	37 (10.7)	1 (4.5)

	MSM	TGW
I'm worried about side effects	128 (36.9)	9 (40.9)
I'm concerned about what my friends and family would think of me	58 (16.7)	0 (0)
I don't like taking pills on a regular basis	46 (13.3)	2 (9.1)
I am in a monogamous relationship	13 (3.7)	3 (13.6)
I prefer to use condoms	59 (17)	6 (27.3)
I am not having much sex	90 (25.9)	11 (50)
I don't feel comfortable discussing my sexual risks with healthcare providers	39 (11.2)	0 (0)
I was denied access to PrEP by a healthcare provider	5 (1.4)	0 (0)
I am not at high risk of HIV	21 (6.1)	3 (13.6)
COVID-19 made it too hard to get	24 (6.9)	1 (4.5)
Too inconvenient	47 (13.5)	1 (4.5)
My sexual partner(s) would not like me taking PrEP	1 (0.3)	0 (0)
Total	347	22

How much they would be willing to spend a month on PrEP

Nothing	501 (47.2)	118 (61.1)
1 to 400 baht	238 (22.4)	39 (20.2)
401 to 800 baht	127 (12.0)	19 (9.8)
801 to 1200 baht	85 (8.0)	9 (4.7)
1201 to 1600 baht	33 (3.1)	0 (0)
1601 to 2000 baht	26 (2.5)	3 (1.6)
2001 to 2400 baht	7 (0.7)	2 (1.0)
2401 to 2800 baht	4 (0.4)	0 (0)
2801 to 3200 baht	9 (0.8)	2 (1.0)
More than 3200 baht	31 (3.1)	1 (0.5)
Missing	162	29
Total	1223	222

Table C.15.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM		TGW	
	Interest	Preference	Interest	Preference
Daily	451 (36.9)	245 (21.4)	107 (48.2)	65 (30.1)
Event-driven	425 (34.8)	206 (18.0)	42 (18.9)	23 (10.6)
Monthly pill	573 (46.9)	307 (26.9)	72 (32.4)	41 (19.0)
CAB-LA	172 (14.1)	36 (3.1)	42 (18.9)	13 (6.0)
Six-month injection	423 (34.6)	230 (20.1)	78 (35.1)	47 (21.8)
Implant	247 (20.2)	117 (10.2)	33 (14.9)	19 (8.8)
None (mutually exclusive)	50 (4.1)	-	0 (0)	-
Missing	-	32	-	14
Total	1223	1173	222	222

Table C.15.5. Potential reasons they would like CAB-LA and potential concerns

	MSM	TGW
Potential reasons they would like CAB-LA		
Protection against HIV	646 (52.8)	108 (48.6)
Don't have to remember to take pills	480 (39.2)	82 (36.9)
Easier than condoms	210 (17.2)	38 (17.1)
Longer-term protection compared to other methods	455 (37.2)	84 (37.8)
Can be used discreetly, without other people knowing	172 (14.1)	28 (12.6)
Is administered by a healthcare provider	278 (22.7)	59 (26.6)
Does not interrupt sex	137 (11.2)	22 (9.9)
Don't have to take oral pills	356 (29.1)	63 (28.4)
Injections work better than oral pills	206 (16.8)	35 (15.8)
Can replace condoms	151 (12.3)	23 (10.4)
Nothing (mutually exclusive)	141 (11.5)	65 (29.3)
Potential concerns they have about CAB-LA		
I don't like injections	255 (20.9)	44 (19.8)
May not protect against HIV	206 (16.8)	24 (10.8)
May be painful	236 (19.3)	61 (27.5)
May cause harmful side effects	395 (32.3)	54 (24.3)
Once injected, it cannot be reversed immediately	93 (7.6)	17 (7.7)
Must be administered by a healthcare provider	172 (14.1)	24 (10.8)

	MSM	TGW
Cost may be unaffordable	355 (29.0)	46 (20.7)
Injections don't work as well as oral pills	57 (4.7)	6 (2.7)
I don't know enough about it yet	372 (30.4)	46 (20.7)
None (mutually exclusive)	239 (19.5)	67 (30.2)
Total	1223	222

Table C.15.6. DCE results for the preferences of men who have sex with men in Thailand (N=1,551)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	0.03	1.74***
	Event-driven	0.15**	0.77***
	Injectable	0.10	0.98***
	Monthly oral	0.26***	0.64***
	Implant	-0.54***	1.04***
Location	Hospital	-0.15*	1.07***
	STI clinic	-0.09	0.67***
	Private community clinic (incl. GP)	0.11	0.20
	Community clinic run by MSM/TG	0.12*	0.51***
	Telehealth	0.08	0.62***
	Pharmacy	-0.07	0.11
Cost	Free	1.38***	1.45***
	฿100,000	0.20***	0.24
	฿300,000	-0.28***	0.53***
	฿500,000	-1.30***	1.33***
Side effects	No	0.34***	0.87**
	Interactions with other medications	-0.44***	0.55***
	Mild	0.17***	0.04
	Rare chance of kidney problems	-0.12**	0.48***
	Mild pain at injection	0.05	0.47**
Visit frequency	Every 2 months	-0.14**	0.55**
	3 months	-0.04	0.20
	6 months	0.23***	0.46***
	12 months	-0.05	0.22
Extra services	STI testing	0.32***	0.57***
	Mental health counselling	-0.19***	0.46***
	None	-0.13***	0.34***
Neither		-1.80***	5.15***

*Significant at p<0.10 level ** Significant at p<0.05 level *** Significant at p<0.01 level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.15.7. Relative importance of preference attributes of men who have sex with men in Thailand (N=1,551)

Attribute	Relative importance (%)
Cost	49.5
Type of PrEP	14.8
Side effects	14.4
Extra services	9.4
Visit frequency	6.8
Location	5.0



Viet Nam

There were 1162 MSM and 228 TGW participants¹⁵ from Viet Nam. The mean age was 27.2 years in MSM and 25.6 years in TGW. Most MSM participants (79.4%) identified as gay, with a tenth of MSM (9.2%) identifying as bisexual. Half of MSM participants (55.9%) and a quarter of TGW participants (24.6%) had a university degree. Over half of MSM (56.9%) and under half of TGW (43.1%) were in full time employment (Table C.16.1).

PrEP awareness was high in MSM (95.1%) and TGW (88.8%), with most having heard of daily PrEP (90.2% in MSM and 94.7% in TGW), followed by event-driven (77.9% in MSM and 89.7% in TGW). Fewer participants had heard of CAB-LA (36.0% in MSM and 56.2% in TGW). Among those who heard of PrEP, half of MSM participants (54.8%) and 81.2% of TGW participants were current PrEP users, with 13.1% of MSM and 11.2% of TGW being former PrEP users. A third of MSM (32.1%) and 7.6% of TGW who had heard of PrEP had never taken PrEP. Among current PrEP users, the most common dosing regimen was daily in both MSM (76.1%) and TGW (81.5%), followed by event-driven in MSM (23.1%) and TGW (18.5%; Table C.16.2).

Among those who were aware of PrEP but had never taken PrEP, 76.6% of MSM and 57.1% of TGW wanted to take it. The most common reasons for not starting PrEP were that they didn't know how or where to get it, concerns about side effects, and not having much sex. Regarding willingness to pay for PrEP, most MSM participants (56.5%) and TGW (51.6%) were willing to pay between $\text{đ}1$ and $\text{đ}600000$ a month while 31.9% of MSM participants and 40.4% of TGW were not willing to pay anything (Table C.16.3).

Among MSM, participants' interest in different PrEP options where they could select multiple options was highest for daily (43.5%) followed by event-driven (32.8%) and six month injection (32.4%). When asked to pick their most preferred option with only one choice, 30.1% chose daily, following by six-month injection (20.9%) and event-driven (20.1%). Among TGW, participants' interest in different PrEP options where they could select multiple options was highest for daily (59.2%), event-driven (30.7%) and six month injection (25.0%). The top preference were daily (46.9%) followed by event-driven (21.9%), and six month injection (12.9%; Table C.16.4)

When asked about potential reasons they would like CAB-LA, the top reasons among MSM were protection against HIV (53.2%), not having to remember to take pills (46.4%) and not having to take oral pills (32.5%). The most common potential concerns were that the cost may be unaffordable (37.3%), may cause harmful side effects (34.5%), and not knowing enough about it yet (34.5%). Among TGW, the most common potential reasons they would like to take CAB-LA were protection against HIV (61.0%), not having to remember to take pills (24.6%) and longer term protection compared to other methods (15.8%). The most common concerns were that it may be painful (26.8%), may cause harmful side effects (23.2%) and the cost may be unaffordable (21.5%; Table C.16.5).

¹⁵ DCE analyses were only conducted on MSM data due to low sample size of TGW.

From the results of the discrete choice experiment among MSM, the most preferred combination of attributes for a program were daily oral PrEP, at a community clinic run by MSM, no cost, no side effects, every three months and no extra services. The least preferred combination of PrEP program attributes were implant, via telehealth, \$500,000 a month, with mild side effects, 2-monthly visits, and mental health counselling (Table C.16.6). The most important driver of choice to use PrEP was cost and the least important was visit frequency (Table C.16.7).

Table C.16.1. Demographics

	MSM	TGW
Age (Mean/SD)	27.2 (5.9)	25.6 (4.7)
Sexual Identity		
Gay	923 (79.4)	-
Bisexual/Pansexual	105 (9.0)	-
Other	134 (11.5)	-
Education		
No high school	18 (1.6)	9 (3.9)
High School	493 (42.5)	163 (71.5)
University degree	648 (55.9)	56 (24.6)
Missing	3	0
Employment		
Full time	660 (56.9)	97 (43.1)
Part time	188 (16.2)	59 (26.2)
Student	220 (19)	43 (19.1)
Other	91 (7.9)	26 (11.6)
Missing	3	3
Total	1162	228

Table C.16.2. PrEP awareness and use

	MSM	TGW
PrEP awareness among all participants		
Heard of PrEP prior to the survey		
Yes	1073 (95.1)	199 (88.8)
No	37 (3.3)	22 (9.8)
I don't know	18 (1.6)	3 (1.3)
Missing	34	4

	MSM	TGW
Heard of these types of PrEP		
Daily	1014 (90.2)	214 (94.7)
Event-driven	864 (77.9)	200 (89.7)
CAB-LA	396 (36.0)	123 (56.2)
Total	1162	228
PrEP use history among participants who had heard of PrEP		
Current PrEP user	585 (54.8)	160 (81.2)
Former PrEP user	140 (13.1)	22 (11.2)
Never taken PrEP	343 (32.1)	15 (7.6)
<i>Missing</i>	5	2
Total	1073	199
PrEP dosing among current users		
Daily	442 (76.1)	128 (81.5)
Event-driven	134 (23.1)	29 (18.5)
Other	5 (0.9)	0 (0)
<i>Missing</i>	4	3
Total	585	160

Table C.16.3. Reasons for not starting PrEP and willingness to pay

	MSM	TGW
Would like to take PrEP among those who have never taken PrEP		
Yes	258 (76.6)	8 (57.1)
No	79 (23.4)	6 (42.9)
<i>Missing</i>	6	1
Total	343	15
Why not taken PrEP		
PrEP is not available where I live	28 (10.9)	1 (12.5)
I don't know where or how to get it	138 (53.5)	0 (0)
It is too expensive	29 (11.2)	0 (0)
I have not been able to get a prescription	10 (3.9)	0 (0)

	MSM	TGW
I'm worried about side effects	122 (47.3)	3 (37.5)
I'm concerned about what my friends and family would think of me	46 (17.8)	4 (50)
I don't like taking pills on a regular basis	74 (28.7)	3 (37.5)
I am in a monogamous relationship	12 (4.7)	0 (0)
I prefer to use condoms	45 (17.4)	2 (25.0)
I am not having much sex	97 (37.6)	2 (25.0)
I don't feel comfortable discussing my sexual risks with healthcare providers	33 (12.8)	2 (25.0)
I was denied access to PrEP by a healthcare provider	0 (0)	0 (0)
I am not at high risk of HIV	27 (10.5)	1 (12.5)
COVID-19 made it too hard to get	4 (1.6)	0 (0)
Too inconvenient	27 (10.5)	1 (12.5)
My sexual partner(s) would not like me taking PrEP	0 (0)	0 (0)
Total	258	8

How much they would be willing to spend a month on PrEP

Nothing	289 (31.9)	61 (40.4)
₫1 - ₫200000	218 (24.0)	37 (24.5)
₫200001 - ₫400000	191 (21.1)	29 (19.2)
₫400001 - ₫600000	103 (11.4)	12 (7.9)
₫600001 - ₫800000	25 (2.8)	3 (2.0)
₫800001 - ₫1000000	45 (5)	4 (2.6)
₫1000001 - ₫1200000	21 (2.3)	1 (0.7)
₫1200001 - ₫1400000	3 (0.3)	1 (0.7)
₫1400001 - ₫1600000	1 (0.1)	0 (0)
More than ₫1600000	11 (1.1)	2 (1.3)
Missing	255	77
Total	1162	228

Table C.16.4. Interest (non-mutually exclusive) and preference (mutually exclusive) for PrEP modalities

	MSM		TGW	
	Interest	Preference	Interest	Preference
Daily	506 (43.5)	339 (30.1)	135 (59.2)	105 (46.9)
Event-driven	381 (32.8)	227 (20.1)	70 (30.7)	49 (21.9)
Monthly pill	359 (30.9)	186 (16.5)	37 (16.2)	25 (11.2)
CAB-LA	212 (18.2)	69 (6.1)	38 (16.7)	9 (4.0)
Six-month injection	376 (32.4)	235 (20.9)	57 (25.0)	29 (12.9)
Implant	183 (15.7)	66 (5.9)	27 (11.8)	5 (2.2)
None (mutually exclusive)	18 (1.5)	-	0 (0)	0
<i>Missing</i>	-	22	-	6
Total	1162	1144	228	228

Table C.16.5. Potential reasons they would like CAB-LA and potential concerns

	MSM	TGW
Potential reasons they would like CAB-LA		
Protection against HIV	618 (53.2)	139 (61.0)
Don't have to remember to take pills	539 (46.4)	56 (24.6)
Easier than condoms	216 (18.6)	32 (14.0)
Longer-term protection compared to other methods	343 (29.5)	36 (15.8)
Can be used discreetly, without other people knowing	343 (29.5)	31 (13.6)
Is administered by a healthcare provider	190 (16.4)	21 (9.2)
Does not interrupt sex	214 (18.4)	31 (13.6)
Don't have to take oral pills	378 (32.5)	30 (13.2)
Injections work better than oral pills	177 (15.2)	22 (9.6)
Can replace condoms	127 (10.9)	15 (6.6)
Nothing (mutually exclusive)	141 (12.1)	48 (21.1)
Potential concerns they have about CAB-LA		
I don't like injections	286 (24.6)	39 (17.1)
May not protect against HIV	187 (16.1)	29 (12.7)
May be painful	270 (23.2)	61 (26.8)
May cause harmful side effects	401 (34.5)	53 (23.2)

	MSM	TGW
Once injected, it cannot be reversed immediately	176 (15.1)	24 (10.5)
Must be administered by a healthcare provider	166 (14.3)	15 (6.6)
Cost may be unaffordable	434 (37.3)	49 (21.5)
Injections don't work as well as oral pills	92 (7.9)	12 (5.3)
I don't know enough about it yet	401 (34.5)	35 (15.4)
None (mutually exclusive)	166 (14.3)	57 (25.0)
Total	1162	228

Table C.16.6. DCE results for the preferences of men who have sex with men in Viet Nam (N=1,451)

Attribute	Level	Coefficient	SD
Type of PrEP	Daily oral	0.31***	1.87***
	Event-driven	0.12*	1.07***
	Injectable	0.23***	0.84****
	Monthly oral	0.04	0.74***
	Implant	-0.70***	1.04***
Location	Hospital	-0.03	1.03***
	STI clinic	-0.07	0.83***
	Private community clinic (incl. GP)	0.05	0.07
	Community clinic run by MSM/TG	0.18***	0.51***
	Telehealth	-0.14***	0.28*
	Pharmacy	0.01	0.15
Cost	Free	1.16***	1.34***
	₫100,000	0.20***	0.09
	₫300,000	-0.38***	0.66***
	₫500,000	-0.98***	1.16***
Side effects	No	0.14***	0.77**
	Interactions with other medications	-0.07	0.62***
	Mild	-0.07	0.34*
	Rare chance of kidney problems	0.01	0.30*
	Mild pain at injection	-0.01	0.00
Visit frequency	Every 2 months	-0.08	0.41
	3 months	0.07	0.02
	6 months	0.00	0.38***
	12 months	0.01	0.15

Extra services	STI testing	0.05	0.64***
	Mental health counselling	-0.11***	0.56***
	None	0.06	0.30***
Neither		-0.78***	4.53

*Significant at $p < 0.10$ level ** Significant at $p < 0.05$ level *** Significant at $p < 0.01$ level

An attribute level with a positive coefficient is interpreted as a level that is desired, and a negative coefficient is interpreted as a level that is disliked. Significant SD indicates heterogeneity in preference across the participants.

Table C.16.7. Relative importance of preference attributes of men who have sex with men in Viet Nam (N=1,451)

Attribute	Relative importance (%)
Cost	53.5
Type of PrEP	25.3
Location	8.0
Side effects	5.3
Extra services	4.3
Visit frequency	3.8

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