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Research Report

Acceptability and feasibility of Oral-fluid rapid HIV antibody test among high risk groups in Sri Lanka

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ABBREVIATIONS

ADJ	Adjusted
AIDS	Acquired Immune Deficiency Syndrome
BB	Beach Boys
CCM	Country Coordinating Mechanism
CI	Confidence Interval
DU	Drug User
FPA	Family Planning Association
FPASL	TheFamily Planning Association of Sri Lanka
FSW	Female Sex Workers
GF	Global Fund
GFATM	Global Fund to fight AIDS, Tuberculosis and Malaria
GF-MSA	Multi-country South Asia Global Fund HIV programme
HCW	Healthcare Worker
HPP	HIV Prevention Package
HRG	High Risk Group
HTS	HIV Testing Services
IBBS	Integrated Biological and Behavioral Survey
IDI	In-Depth Interview
M&E	Monitoring and Evaluation
MARP	Most At Risk Population
MEIMS	Monitoring and Evaluation Information Management System
MSA	Multi-country South Asia HIV programme
MSM	Men who have Sex with Men
NSACP	National STD/AIDS Control Programme
PE	Peer Educator
PG	Peer Group
PLHIV	People Living with HIV
PWID	People Who Inject Drugs
RA	Research Assistant
RDT	Rapid Diagnostic Test
STD	Sexually Transmitted Diseases
UNAIDS	United Nations Joint Programme on AIDS
UNDP	United Nations Development Programme
WHO	World Health Organization

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EXECUTIVE SUMMARY

Sri Lanka iscategorized as a country with a low level of HIV epidemic because HIV prevalence has not consistently exceeded 5% in any of the high risk sub-populations such as female sex workers (FSW), men who have sex with men (MSM), and people who inject drugs (PWID) (UNAIDS/WHO, 2000). As of the end of 2015, a cumulative total of 2308 HIV positive persons were reported to National STD/AIDS Control Programme (NSACP) while the country estimates of people living with HIV (PLHIV) prevails between 4000-6000. During the year 2015, total of 235 HIV cases reported and it was the highest number recorded in a year. In general, an estimate of 10.5 new infections occurs per week out of which, only about 4.5 new cases reported to the NSACP. (NSACP/MoH, 2016)

Sri Lanka has completed a phase of HIV prevention project during 2013 to 2015 under the support of Global Fund. During this period, HIV prevention interventions were mainly targeted at most-at-risk populations (MARP). The intervention included a delivery of HIV prevention package (HPP) to men who have sex with men (MSM), female sex workers (FSW), beach boys (BB) and people who use drugs (DU). HPP includesthe provision of 1. STI knowledge, 2.HIV knowledge, 3. MARPs tailored leaflets, 4. Condom/dildo demonstration, 5.Provision of condoms, and 6.Clinic escort.Those who received all 1 to 5 services in the HPP are defined as “reached”. Once the reached are being escorted to STD clinics, they are defined as “escorted”.

This HPP was delivered to MARPs through peer educators (PE) of the project scattered in selected districtsin the country. Each PE has regular contact with another 6-15 peers forming a peer group (PG). Total of 1284 peer groups (PG) were operational at the end of 2015. MSM 382,BB 116, FSW 374, DU 412.

However, in this model, approximately 30% of MARPs do not take the escorting step of the HPP which is the HIV testing part of the package.In this background, a national steering committee was formed to introduce an oral-fluid rapid HIV antibody test as a community based testing model to Sri Lanka. The committee decided to test its acceptability and feasibility in a research model among those currently in the peer group model.

Acceptability of the oral-fluid rapid HIV antibody test (Ora Quick®) was checked among a purposive sample of MSM, BB, FSW and DUs with district representation. Trained and WHO certified community testers were used in the study. Community testers carried out the oral-fluid rapid HIV test and completed aninterviewer administered questionnaire and a self administered feedback form on satisfaction. Feasibility of the oral-fluid rapid HIV test was further tested through in-depth interviews with those who were involved as community testers and programme managers by the principal investigator.

Results of the study are summarizedbelow with regard to the acceptability and feasibility of oral-fluid rapid HIV test among high risk groups.

Acceptability of Oral fluid rapid HIV antibody test by type of peer group

Preferred method of access for an HIV test by type of peers

According to the responses given by study participants, there are differences in their preferenceto access for an HIV test as tabulated below

Preferred method of access	MSM (n=185)		BB (n=128)		FSW (n=155)		DU (n=146)		Total sample (ADJ)
	No.	%	No.	%	No.	%	No.	%	
Going to a STD clinic	18	**10%**	13	**10%**	13	**8%**	18	**12%**	**10.5%**
Outreach of the STD clinic staff	92	**50%**	58	**45%**	92	**59%**	63	**43%**	**49.0%**
Testing by an outreach healthcare worker	58	**31%**	29	**23%**	42	**27%**	40	**27%**	**27.8%**
HIV testing in a community friendly centre	34	**18%**	9	**7%**	19	**12%**	23	**16%**	**14.6%**
Testing by a community tester	63	**34%**	81	**63%**	68	**44%**	83	**57%**	**49.0%**
Others	11	**6%**	2	**2%**	1	**1%**	1	**1%**	**1.9%**
missing values	6	**3%**	1	**1%**	3	**2%**	2	**1%**	**1.8%**
Percentages are not mutually exclusive									

Interpretation: It seems that these groups prefer both community testing as well as outreach testing by STD healthcare worker (HCW). Testing by an outreach healthcare worker was also accepted by over one fourth of the respondents. Therefore, it can be deduced that in general, community testing, outreaching STD clinic staff and outreaching healthcare workers are preferred by HRGs over visiting an STD clinic or any other community centre.

Preferred biological sample for an HIV test

According to the responses given by study participants, most preferred biological sample was oral-fluid (88%) and about 10% preferred finger prick. Details of the preferred method of sampling are depicted in the table

Preferred method of sampling	MSM (n=185)		BB (n=128)		FSW (n=155)		DU (n=146)		Total sample (ADJ)
	No.	%	No.	%	No.	%	No.	%	
Testing by drawing a sample of blood	16	**9%**	2	**2%**	6	**4%**	12	**8%**	**6.6%**
Testing by finger prick	26	**14%**	17	**13%**	12	**8%**	13	**9%**	**10.2%**

Testing by using oral fluid	159	**86%**	108	**84%**	144	**93%**	127	**87%**	**88.0%**
Other (Specify)	1	**1%**	1	**1%**	0	**0%**	4	**3%**	**1.3%**
missing values	8	**4%**	2	**2%**	5	**3%**	2	**1%**	**2.5%**

Interpretation: Majority prefers non invasive oral-fluid testing across all peer types. Finger prick test is the next preferred method of sampling.

Preferred turnaround time for the HIV result

Details of the preferred turnaround time for the HIV test result shows thatmajority (88%) of respondents wanted the HIV test result just after the test.

		MSM		BB		FSW		DU		Total (ADJ)
		No.	%	No.	%	No.	%	No.	%	
When would you prefer to get the result of the test	Within 1 week	3	**2%**	4	**3%**	10	**7%**	5	**3%**	**3.9%**
	Within 2-3 days	13	**7%**	16	**13%**	12	**8%**	10	**7%**	**7.9%**
	Just after testing	159	**91%**	104	**84%**	128	**85%**	130	**90%**	**88.3%**
	Total	175	100%	124	100%	150	100%	145	100%	100.0%

Interpretation: Majority (>88%) across all peer types wants the test result just after the test. One week turnaround is expected only by less than 5% of the respondents. Therefore,HIV test that is offered should be able to produce rapid results.

Participant feedback on the HIV oral fluid rapid HIV test

The following table describes the responses of the study participants for different statements describing the level of satisfaction towards the oral fluid rapid HIV testing.

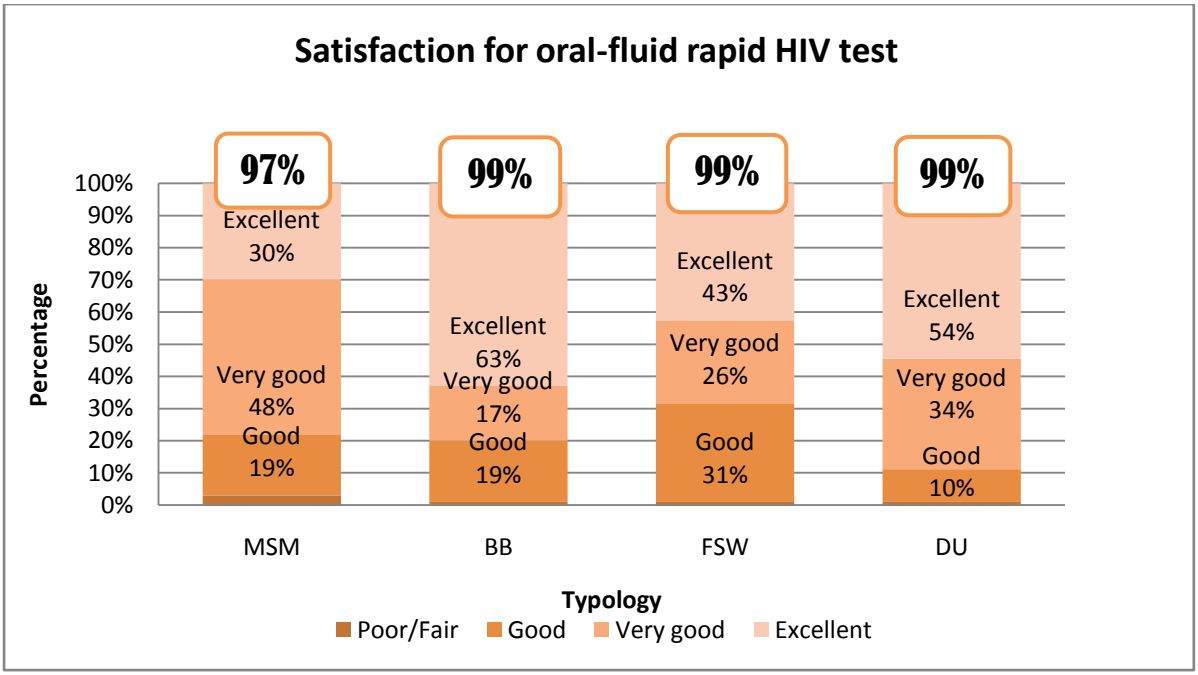
Statement	Agree/ Disagree	MSM (n=185)		BB (n=128)		FSW (n=155)		DU (n=146)		Total sample (ADJ)
		No.	%	No.	%	No.	%	No.	%	
I would recommend this test to others as a good test	Agree	183	**99%**	128	**100%**	153	**99%**	145	**99%**	**99.1%**
	Disagree	0	0%	0	0%	1	1%	0	0%	0.2%
I was satisfied with the test that I received today	Agree	183	**99%**	128	**100%**	152	**98%**	145	**99%**	**99.0%**
	Disagree	0	0%	0	0%	1	1%	1	1%	0.5%
I felt pressured into getting the HIV test today	Agree	58	**31%**	30	**23%**	26	**17%**	14	**10%**	**17.7%**
	Disagree	120	65%	98	77%	128	83%	131	90%	81.0%
I do not like this type of HIV test	Agree	30	**16%**	5	**4%**	6	**4%**	4	**3%**	**6.2%**

	Disagree	151	82%	122	95%	147	95%	140	96%	92.3%
I had to wait too long for my HIV test result	Agree	37	**20%**	12	**9%**	22	**14%**	13	**9%**	**12.8%**
	Disagree	147	79%	116	91%	131	85%	133	91%	86.7%
This HIV test is a barrier to receive other services from the STD clinic	Agree	51	**28%**	34	**27%**	14	**9%**	20	**14%**	**16.9%**
	Disagree	131	71%	94	73%	139	90%	124	85%	81.8%
Overall, I felt that the test done today was private and confidential	Agree	165	**89%**	122	**95%**	148	**95%**	133	**91%**	**92.2%**
	Disagree	18	10%	5	4%	6	4%	13	9%	7.3%
I felt that my HIV test result was told to me in a private way	Agree	179	**97%**	127	**99%**	152	**98%**	146	**100%**	**98.7%**
	Disagree	5	3%	1	1%	1	1%	0	0%	0.9%
I understand the meaning of my HIV test result	Agree	184	**99%**	128	**100%**	154	**99%**	146	**100%**	**99.7%**
	Disagree	0	0%	0	0%	0	0%	0	0%	0.0%
The information I was given about HIV testing was satisfactory	Agree	183	**99%**	127	**99%**	154	**99%**	146	**100%**	**99.5%**
	Disagree	1	1%	0	0%	0	0%	0	0%	0.1%

Interpretation: The feedback given to individual statements shows that participants are satisfied with the oral-fluid rapid HIV test that theyunderwent. However, some respondents had felt a pressure to get the test done (18%) and another 13% still complained that they had to wait too long even for the oral-fluid rapid HIV test. Furthermore, overall about 6% did not like the test. About one fourth of MSM (28%) and BB (27%) believed that this type of HIV test is a barrier to receive other services from STD clinics.

Overall satisfaction of the oral fluid rapid HIV test

As the final evaluation of the satisfaction of oral fluid rapid HIV test, respondents were asked to rate the overall satisfaction. Following graphs shows the ratings given bypeer type.



Results of the oral fluid rapid HIV test

All the study participants were offered the oral-fluid rapid HIV test and overall 98% accepted the test. The prevalence of reactive test results in the sample was 1.3% (7 cases or reactive tests). Individuals with reactive HIV test results were referred to the nearest STD clinic to undergo the series of HIV test in the national algorithm for HIV diagnosis. Out of the seven reactive test results only a few did not undergo the confirmatory algorithm.

Table D.19. Result of the oral fluid rapid HIV test

	Category	MSM		BB		FSW		DU		Total (ADJ)
		No.	%	No.	%	No.	%	No.	%	
Oraquick rapid HIV test result	Number tested	180	97% (n=185)	128	100% (n=128)	151	97% (n=155)	145	99% (N=146)	98.4%
	Reactive	3	2%	1	1%	0	0%	3	2%	1.3%
	Non-reactive	175	97%	127	99%	151	100%	142	98%	98.4%
	Invalid	2	1%	0	0%	0	0%	0	0%	0.3%
	Total	180	100%	128	100%	151	100%	145	100%	
	Number confirmed with HIV	0	0%	0	0%	0	0%	0	0%	0%

Interpretation: Oral-fluid rapid HIV test identified 7 reactive patients across all peer types (1.3%) as a test for triage and referred them to STD clinic for HIV confirmation. In general, 0-2% test positive individuals are found in the implementation of oral-fluid rapid HIV test. Therefore, these positive people should be linked to STD clinics for further testing and diagnosis.

Is community based HIV testing feasible in Sri Lanka? Findings of the qualitative research component

In-depth interviews conducted to explore the possibility of oral-fluid rapid HIV test among peer groups and different viewpoints expressed by the IDI participants as outlined below.

- *Overall impression is that, the planning and implementation of community based HIV testing is feasible among peer-led interventions in Sri Lanka.*

- *Community testers reaching communities is seemed to be the more accepted approach. However, community testers should be carefully selected. Outreach approach of healthcare workers (HCWs) is an option but they also need special training, commitment and passion to work with community groups.*

- *There are lots of challenges in the maintenance of uninterrupted supply of products and its quality. Better heat resistant products need to be introduced to countries like Sri Lanka. Initially, for the MARPs interventions, product should be available with funding support but later as the next step or as a parallel thing product should be made available through open market. All the challenges can be overcome by partnership approach with high commitment of the stakeholders. Initially the responsibility of maintenance of supply chain should be taken over the main stakeholders of the MARP interventions.*

- *Quality of the product and service need to be maintained at a higher level by providing necessary storage, transport facilities, proper instructions for procedures, assessment of product sensitivity and specificity and continuous training and capacity building of testers to maintain skills. Quality of the product and the service can be increased by deploying two community testers or community-non community combination in carrying out testing.*

- *In this type of community testing, data recording and reporting are minimal and that can be done without much of a trouble. However, data quality verification is challenging. Attention is needed for means of verifications at all levels. There should be a third party observation or verification to minimize false tests and false filling of documents. When the pressure of testing is created by performance based salary and targets, and then there would be more and more false claims as well as high performance. On the other hand, if there are no pressure on performance targets cannot be achieved*

A. TITLE OF THE RESEARCH

Acceptability and feasibility of Oral-fluid rapid HIV antibody test (OraQuick®) among most-at-risk peer groups receiving services under Global Fund HIV prevention project in Sri Lanka

B. INTRODUCTION

B.1. Background

Epidemic overview: In Sri Lanka, HIV has not spread to significant levels in any subpopulations, including key population group such as female sex workers (FSW), men who have sex with men (MSM), beach boys (BB) and people who inject drugs (PWID). Furthermore, HIV prevalence has not consistently exceeded 5% in any of the sub-populations.(UNAIDS/WHO, 2000)Therefore, Sri Lanka has been categorized as a country with low-level of HIV epidemic.(NSACP/MoH, 2016) However, a cumulative total of 2308 HIV positive persons have been reported up to end 2015. During 2015, total of 235 HIV cases reported to the National STD/AIDS Control Programme (NSACP) and it was the highest number reported in a year. In general, an estimate of 10.5 new infections occursper weekout of which, only about 4.5 new cases are being reported to the NSACP. However, the reported numbers represent only a fraction of HIV infected people in the country as many infected persons do not know their HIV status. (NSACP/MoH, 2016)

The probable modes of transmission of HIV in Sri Lanka: Number of cases reported to the National STD/AIDS Control Programme (NSACP) is tabulated below by year and the modes of transmission (table B.1.)

Table B.1. Number of cases reported by year and mode of transmission

Category	2011	2012	2013	2014	2015
	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
Male to Female sex	87 (74.4)	106 (70.7)	94 (58)	126 (65.6)	115 (54)
Male to Male sex	24 (20.5)	38 (25.3)	52 (32.1)	63 (32.8)	87 (41.2)
Mother-to-child	5 (3.4)	6 (4)	12 (7.4)	1 (0.5)	7 (3.3)
IDU	1 (0.1)	0 (0)	4 (2.5)	2 (1)	2 (0.9)
Total	117 (100)	150 (100)	162 (100)	192 (100)	211 (100)
Missing data	29	36	34	36	24
Grand total	146	186	196	228	235
Source: - NSACP Annual Reports (2011-2015)					

It is clear that heterosexual and homosexual behaviour have been the main mode of HIV transmission in the country while mother to child transmission remained between 3-7% over the last 5 years. Injecting drug use, as a mode of transmission accounts to less than 2.5%.However, transmission through, blood and blood products have not been identified as a method of transmission since 2004.(NSACP/MoH, 2016) Therefore, the most relevant risk behaviours and key

populations are those associated with the main routes of HIV transmission, such as unprotected vaginal sex, unprotected anal sex and use of non-sterile injections or materials.(UNAIDS, WHO Working Group, 2013)

Subpopulations with higher risk: According to the national strategic plan for 2013-2017 (NSP), Sri Lanka has identified different subpopulations for HIV prevention interventions in the country. Female sex workers (FSW), men who have sex with men (MSM), clients of sex workers and drug users (DU) as most-at-risk populations (MARPs) while, migrant workers, prisoners, tourist industry workers and armed forces including police personnel as vulnerable populations.(National STD/AIDS Control Programmes, 2013)

Estimated sizes of most at risk populations in Sri Lanka: Table B.2 shows the estimated sizes of accessible most at risk populations in Sri Lanka according to the mapping and size estimation study carried out in 2013. (National STD/AIDS Control Programme, November 2013)These populations are practicinghigher rate of HIV risk behaviours in the country (Rawstorne P, Worth H, 2007)(National STD/AIDS Control Program, 2014)

Table B.2. National size estimates for most at risk populations in Sri Lanka

Category	National estimate	Range (minimum to maximum)
Female sex workers	14,132	12,329-15,935
Men who have sex with men	7,551	6,547-8554
Beach Boys	1314	1,142-1,486
Drug users	17,459	15,338-19,542

HIV testing services (HTS):HIV infection is having a long latency therefore, the main case finding strategy is to test people more and more, especially through targeted interventions for MARPs. Therefore, provision of HIV testing services (HTS) with adequate coverage is pivotal to find cases. Sri Lanka is currently scaling up HTS with greater emphasis on MARPs and vulnerable populations. Provision of HTS in 2015 for different populations is tabulated below (table B.3).This shows higher positivity rate among STD clinic attendees and HIV screening among TB patients.

Table B.3: Number tested by HIV testing services in Sri Lanka in 2015

Types of blood samples screened for HIV	Number tested	Number positive	Positivity rate
Blood donor screening (State and Private)	399,500	20	0.01%
Private Hospitals andLaboratories	217,889	46	0.02%
Antenatal Mothers	279,196	11	0.004%
STD clinic samples	79,900	144	0.18%
Tri–forces	25,969	01	0.004%
Prison HTC programme	11,382	03	0.03%
TB screening	7,827	10	0.13%
Total	1,021,663	235	0.02%

HIV prevalence estimation among probability samples of most at risk populations in Sri Lanka was carried out in the integrated biological and behavioral survey (IBBS). HIV prevalence in different subpopulations is mentioned in the table B.4.

Table B.4: HIV prevalence among high risk groups in Sri Lanka

High risk groups	%	SE	95% CI
Female sex workers (all) (N=1,261)	0.8	-	-
Female sex workers in Galle and Colombo	1.03	0.0035	0.3 – 1.7
MSM (all) (N=1,217)	0.88	-	-
MSM in Colombo and Galle	1.03	0.0043	0.2 – 1.9
PWID (N=326)	0	-	-
Beach Boys (N=306)	0	-	-
SE = Standard error, 95% CI = 95% confidence interval			

HIV testing in most-at-risk populations (MARPs): Integrated biological and behavioural surveillance (IBBS) conducted in 2014,reports that most of the FSW (65%) and DUs (71%) knew where to obtain an HIV test. Same figure for MSM and BB was 48% and 38% respectively. Although a significant number of the MARPs know where to get an HIV test, low proportion had ever received an HIV test. Out of the FSW, MSM, BB and DUs populations, those who received an HIV test add up to 55%, 32% 9% and 17% respectively. Majority had received an HIV test from government STD clinics. Main reasons identified for not getting an HIV test were not knowingwhere to go, perceived low risk and having no time. (National STD/AIDS Control Program, 2014)

Global Fund supported HIV prevention project: The national STD/AIDS control programme of the ministry of health in partnership with non-governmental organizations provides HIV prevention interventions for most-at-risk populations, vulnerable populations and people living with HIV (PLHIV) in the country. The Grant provided by the Global Fund to fight AIDS, tuberculosis and malaria (GFATM) has been one of the major donors for HIV prevention interventions. The country coordinating mechanism (CCM) as the focal point, in partner with NSACP, ministry of health and other non-governmental organizations developedHIV prevention action plans and activity plans for the county. Recently, Sri Lanka has completed a 5 year HIV activity plan (GFATM Round 9) and is currently implementing another 3 year activity plan under GFATM new funding model (2016-2018).(NSACP/MoH, 2016)The Family Planning Association of Sri Lanka as the non-governmental principal recipient of the GFATM grant are carrying out HIV prevention interventions for most-at-risk populations. Peer group model is used as the main mechanism of these interventions. Under this model peer educators (identified persons with knowledge and leadership qualities) from different MARPs are trained and paid to maintain a peer group of about 15 peersunder field supervisors and coordinators for different types of MARPs and to provide the HIV prevention package which include 6 items as indicated in table B.5. Peers are referred as “Reached” if the first five services are delivered (reached peers) and Peers are referred as “Escorted” if the they are being scorted to an STD clinic for an HIV test (escorted peers).(Family Planning Association of Sri Lanka, August 2013)

Table B.5. HIV prevention package

	Items in the HIV prevention package	Service code	Categorization of service provision
1	Provision of HIV knowledge	H	Peers are referred as “**Reached**” when these all 5 services are delivered
2	Provision of STI knowledge	S	
3	Provision of leafletsfor knowledge	L	
4	Condom demonstration	CD	
5	Provision of Condoms	C	
6	Escorting peers to STD clinic for an HIV test	E	When reached peers are escorted to an STD clinic, they are referred as “**Escorted**”

Source: - Monitoring and Evaluation Plan, Non-Governmental PR, Global Fund Round 09 Project (Phase-02)

Under this project, there are four types of peer groups (PG types). They are female sex worker PGs, men who have sex with men PGs, beach boys PGs, and drug user PGs. Distribution of peer groups by peer group type and population is tabulated below (table B.6)

Table B.6. Distribution of peer groups by peer group type and population

Category	Peer Group Types			
	Female sex workers	Men who have sex with men	Beach boys	Drug users
Peer population	5392	4746	2047	8829
Number of peer groups	374	382	116	412
Number of peers in a PG: average (range)	14 (1-29)	12 (1-36)	18 (1-39)	21 (1-53)

B.2. Rationale of the study

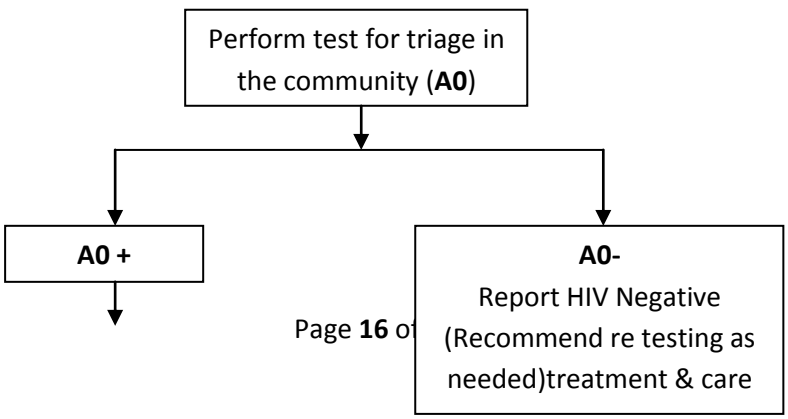
The web based monitoring and evaluation information management system (MEIMS) of the project maintained at the Family Planning Association of Sri Lanka (FPASL) shows that reached peers are not getting an HIV test from government STD clinics. The escorts from reached peers are approximately 40%. In other words, 60% of peers have not been able to be escorted or tested for HIV. Rate of reach by typology of peers are mentioned in the table B.6.

Table B.6. Rate of escorts for the HIV test

Most-at-risk peers	Population	No. reached	No. escorted	Percent escorted
Female sex workers	5392	4603	1717	31.84%
Men who have sex with men	4746	3638	1416	31.62%
Beach boys	2047	1727	622	30.38%
Drug users	8829	7679	2346	26.57%

Test for triage approach: In the recently releasedWHO consolidated Guidelines on HIV Testing Services introduces a strategy to support expanding community-based HIV testing services (HTS), particularly to reach higher risk populations who may not otherwise test for HIV and link to prevention, treatment and care.(World Health Organization, Guideline development group, 2015)**Test for triage** is an approach to support community-based HTS provided by lay community providers. In this approach trained and supported lay providers conduct a single HIV rapid diagnostic test (RDT). If this single RDT is reactive, the individual is promptly linked to a facility for further HIV testing where the validated national testing algorithm is performed.(World Health Organization, Guideline development group, 2015)

Fig B.1. The “test for triage” strategy



Link to facility for HIV testing for diagnosis, treatment & care

Test for triage can reduce the compexity of testing procedures in outreach or home setting and issue test reports. Additionally, the test for triage approach can enhance access to other health services. Key advantage of the “test for triage” is that it improves access to those at the highest risk and not currently testing for HIV. The potential chanllenges of the “Test for triage” approach are the false reactivity rate in low prevalent setting which could lead to mistrust of the services. Lay providers may not correctly communicate the mening of reactive “test for triage” result, and clients may then mistake a reactive test result for an HIV-positive diagnosis. And the linkage to additional testing to confirm the HIV diagnosis may be poor.

The rationale of this study is to introduce oral-fluid rapid HIV antibody test (OraQuick®) as a “test for triage” approach for most at risk populations and to ascertain the feasibility and acceptability of test among most-at-risk peers who have not been tested under the GFATM peer group HIV prevention intervention. The main reasons, for the introduction of this test for triage approach are to

- Increase the testing coverage of most-at-risk populations in Sri Lanka and detect more and more cases in the background of low rate of testing in high risk population groups.
- Avoid the barriers related to access for testing facilities in the public or private sector
- Reduce the stigma attached with the access for HIV testing by providing outreach HIV test by a person representing the community

OraQuick® test is an oral-fluid based rapid HIV test which detects HIV 1 and 2 antibodies in the oral fluid as a point of care (POC) testing and the results can be given in 20 minutes and the test has been planned to be conducted by outreach community testers.

The UNAIDS new global 90–90–90 targetsby 2020: This is an ambitious treatment target to help end the AIDS epidemic. In December 2013, the UNAIDS programme coordinating board called on UNAIDS to support country- and region-led efforts to establish new targets for HIV treatment scaling up beyond 2015 which resulted in the following three targets(UNAIDS, October 2014)

By 2020, 90% of all people living with HIV will know their HIV status.
By 2020, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy.
By 2020, 90% of all people receiving antiretroviral therapy will have viral suppression.

Therefore, by 2020 the countries should make an efforts to identify 90% of infected people by scaling up testing services in the country with special emphasis on most-at-risk populations. The “test for triage” strategy is one of the interventions to increase testing and identify more people living with HIV.(UNAIDS, October 2014)

Rolling out of the oral-fluid rapid HIV test: This pilot project is conducted among most at risk populations with the support of Multi-Country South Asia Global Fund (GF-MSA) HIVProgramme Bangkok Regional Hub-UNDP and UNAIDS, Sri Lanka.A National steering committee has been established with the chairmanship of Director of the National STD/AIDS Control Programme. The members include, The Family Planning Association of Sri Lanka, UNAIDS, Sri Lanka, WHO country office, and community organizations. UNDP procured 1,000 oral-fluid rapid HIV test kits (OraQuick test) and delivered them to Sri Lanka for the pilot project.

There are only few community based organizations in Sri Lanka servicing MSM, FSW, beach boys and drug users. They provide outreach and referral services for the prevention of sexually transmitted infections including HIV and advocate for the rights of the affected populations. Under the GFATM HIV prevention project, there are a number of community organizations working with MARPs in Sri Lanka for the HIV prevention. The Family Planning Association of Sri Lanka as a responsible partner of the GFATM country work plan, engaged in HIV prevention interventions by forming high risks peer groups. (Family Planning Association of Sri Lanka, August 2013) Targeted peer group sizefor FSW, MSM and BB was 15 and 20 for DU.

A community group and a non-community group (university students) were trained as community testers using a WHO certified curriculum, by a foreign consultant, throughout a 3 day training workshop. The training was conducted for a selected group of community testers from different types of peer groups. All the participants achieved the WHO certified status as a community testers after the training. These trained community, and non-community testers were deployed under the supervision of selected project staff for testing and data collection. Non-community group was used here as a control group to minimize false claims, and to maintain the recording formats.

Validity of the oral-fluid rapid HIV test (OraQuick)

WHO has evaluated OraQuick HIV 1/2 rapid diagnostic test (OraSure Technilogies Inc) on serum and plasma and sensitivity was 98.1 (94.5-99.6) specificity 100.0 (98.8-100), inter-reader variability is 2.4%. (Acceptable level $\leq$5%)(WHO, 2015)

B.3. Objectives of the study

B.3.1. General Objective

Study is to ascertain the feasibility and acceptability of Oral-fluid rapid HIV 1/2 antibody test (OraQuick) among most-at-risk peer groups receiving services under GFATM HIV prevention project in Sri Lanka

B.3.2. Specific objectives

1. To describe the socio-demography, HIV knowledge and behavioural characteristics of the sample
2. To study the barriers for HIV testing in the prevailing system
3. To assess the acceptability of oral-fluid rapid HIV test (OraQuick) among peers not tested for HIV

4. To ascertain the feasibility of implementation of oral-fluid rapid HIV test among the most at risk peer groups

C. METHODOLOGY

C.1. study design

The study has both quantitative and qualitative components. Quantitative component is a descriptive cross sectional study among most-at-risk peers receiving services under the Global FundHIV prevention project in Sri Lanka.

Qualitative component includes in-depth interviews (IDIs) with the implementation staff of the pilot project to study the feasibility of the introduction of oral-fluid rapid HIV test as a test for triage among community groups

C. 2. Studysetting

Sri Lanka has completed a phase of HIV prevention activity plan under the GlobalFund to Fight AIDS, Tuberculosis and Malaria (GFATM) during 2013 to 2015 period. This HIV prevention activity plan is now continued,with another 3-yearHIV prevention activity plan under the New Funding Model (2016–2018) of GFATM [2].

The Family Planning Association of Sri Lanka as thenon-governmental principal recipient of the GFATM grant iscurrently carrying out HIV prevention interventions for the most-at-riskpopulations (FSWs, MSM, BBs and DUs). The main interventionis through a peer-group model. Under this model, peer educators,who are persons identified as having knowledge and leadershipqualities, were trained and a monthly allowance was given to maintainan average of 8 peers (range, 1-26) forming a peer group under the guidance of fieldsupervisors and coordinators for different MARPs.

There were total of 1284 peer groups scattered in 13 districts in Sri Lanka covering a total peer population of 21,014. This acceptability and feasibility study was carried out among purposively selected sub set of different MARPs with district representation.

C. 3. Definition of population and sample

C. 3. 1. Population, inclusion and exclusion criteria

All the most-at-risk peers registeredunder the Global Fund HIV prevention project (2013-2015)and those received services were included as the population. Those who are below the age of 18 years were excluded.

C. 3. 2. Sampling technique and sample

A non-probability, purposive sampling method was used to take sub-set of peer population. Table C. 1. shows the different population sizes under each MARPs groups and the size of the purposive sample.

Table C.1. Distribution of population sizes and samples by most-at-risk populations

Category	Peer Group Types				Total
	MSM	BB	FSW	DU	
Peer population	4746	2047	5392	8829	21,014
Sample size (purposive)	**185**	**128**	**155**	**146**	**614**

C. 4. Data collection technique

Data collection for the quantitative and qualitative component of the study was done using diffident tools and data were collected from-10th August, 2016 to 28th October, 2016 by trained research assistants representing both community and non community groups (university students).

C. 4.1. Data collection tools

The following data collection tools were developed for the collection of necessary data to answer the queries under specific objectives of the study.

Data collection tools	Description
Interviewer administered questionnaire	Data for the quantitative component of the study were collected by using an interviewer administered questionnaire.
Oral-fluid rapid HIV antibody test (testing a biological sample for HIV)	Oral-fluid rapid HIV test was performed and the test results recorded as a part of the data collection.
Self administered feedback form	After the performance of the oral fluid rapid HIV test, a self administered feedback form was used to gather information about participants' satisfaction with the oral-fluid rapid HIV test
Interview recordings and transcripts	To test the feasibility of oral-fluid rapid HIV test, telephone interviews conducted with research participants similar to In-depth interviews using an interview guide (Annex III). All conversations recorded and transcribed for content analysis.

C. 4.1. Training of research assistants (community and non-community testers)

A Mixed group of individuals representing community and non-community groups were trained in a three day residential programme. All were trained to become WHO certified community testers. The training programme was conducted by an international consultant with the help of local consultants.

C. 4.2. Data collection process

First, the study information sheet was given to study participants to read and understand or was read to participants who were illiterate. Then, informed consent was taken for the questionnaire and the oral-fluid HIV test.Participants were interviewed in a private and a confidential setting to complete the questionnaire. Then oral-fluid rapid HIV test was performed by gently swiping the test

swab along upper and lower gums. Then the swab was inserted to a test tube provided with the test pack and results were read in20 minutes and recorded. Participants were given pre- and post HIV test counseling. After the HIV test, participants were given a self administered feedback form as the final step of the data collection process.

The feasibility of introduction of oral-fluid rapid HIV test for community groups were tested by using in-depth interviews (IDI). IDI sample included individuals who were involved in the pilot study and total of 16 subjects were interviewed over the phone and the conversations were recorded. Participants were purposively sampled on the basis of their knowledge, contextual understanding and level of engagement in the pilot study. Data were sought through open-ended questions using a rough guide (Annex III).Interview participants shared their perspectives and experiences in their own words. Only drawback in the telephone interview was the lack of observation of non-verbal communication. However, raw data (voice recordings) were emailed back to the participants to review the voice recording and add any further ideas.

C. 4.3. Data analysis

All the qualitative variables in the quantitative component of the study were analyzed for frequencies and percentages for individual peer type (FSW, MSM, BB, DU). Percentages for the whole sample (MARP) were adjusted by calculating weighted averages proportionate to the size of the population.

Quantitative variables were analyzed for central tendency (mean, mode or median based on the distribution of observations), measure of variability (Range or Standard Deviation). Multiple answer questions were analyzed for proportions that are not mutually exclusive.Answers for standard HIV Knowledge questions were analyzed for frequencies and proportions. Furthermore, HIV composite knowledge (proportion of subjects having identified all questions correctly) was calculated for each peer type.

The feasibility of implementation of the oral-fluid rapid HIV antibody test among the high risk groupswere studied using the in-depth interview (IDI) technique. People involved in the pilot study were interviewed by using a uniform guide (Annex III).Face-to-face interviews were plannedinitially with the relevant informants, however, due to study limitations, telephone interviews were conductedfor 12-20 minutes after initial discussion and preparation. Telephone recordings were transcribed and viewpoints were summarized according to the interview guide.

D. RESULTS

Study data collection was conducted by research assistants who received a training certified by WHO to perform oral-fluid rapid HIV test. Later, they were trained for the administering of research tools. These research assistants included community membersand non community members (university students).

D.1. Performance of research assistants

It can be deduced that community members are more passionate and enthusiastic to work and have easy access to community groups whereas most of the university students were unable to perform the agreed work due to difficulty in accessing different community groups and lack of experience in engaging with such groups. Table D.1 indicates the performance of the study by community and non community groups.

Table D.1. Performance of research assistants

Type of research assistants	Number trained	Number signed agreement	Number performed testing	Number of questionnaires completed
1. Community members	15	14	13	486
2. Non community university students	11	11	03	131
Total	26	24	16	617

D.2. Deployment of research assistants

Initially, research assistants (RA)were deployed in different models to reach the target population groups. However, their performance and effectiveness in reaching and testing community groups were variable. Models of deployment and their effectiveness are summarized in table D.2 based on the results of the in-depth interviews (IDI) conducted with research assistants.

Table D.2. Deployment of research assistants

Models of deployment	Result of the IDI content analysis
Community testers reaching their own community for testing	Most successful format, but community testers should be carefully selected considering knowledge attitudes and their skills.
Communitytesters reaching different community groups	Not a successful method. However, people with adequate experience with other community groups can perform outreach testing.
Non-community testers (University students) reaching community groups	Non community people without prior community engagements, are not capable of effectively accessing community groups
Community and non community pair reaching for testing	This has advantage when the community person is not competent, not literate or when testers are not reliable. This creates a controls over each other

D.3. Response rate of potential participants

All the negotiated potential participants completed the questionnaire and the oral-fluid rapid HIV test and no withdrawals reported during the phase of the completion of the study.

D.4. Specific objective 1: Description of the socio-demography, HIV knowledge and behavioural characteristics of the sample

D.4.1. Age distribution

***Description of findings**: Mean and median age of the samples are tabulated in table D.3.Samples of men who have sex with men (MSM) and beach boys (BB) were relatively younger then female sex workers (FSW) and drug users (DU). Lower value of the range of the age was 18 years because of the ethical limitation of the study.*

Table D.3. Mean and Median age by peer type

		MSM	BB	FSW	DU	Total (ADJ)
Age	Mean (SD)	29.78 (9.09)	30.88 (11.84)	36.36 (10.64)	36.41 (11.84)	34.36
	Median (Range)	28 (18-68)	28 (18-69)	35 (18-65)	35 (18-67)	32.74

***Interpretation:** MSM and BB are relatively younger in the sample. HIV testing servicers need to beprovided to the old as well as to the young. However, due to ethical reasons high risk groups (HRGs) less than 18 years were not included in the sample and cannot make any conclusions.*

D.4.2. Gender, sexual orientation and marital status of the sample.

***Description of findings**: Majority of them expressed gender as male (68%) or female (30%) and only a small proportion (0.5%) represented the transgender population. The distribution of sexual orientation of individualsin the total sample dominated by heterosexuals (66%) followed by bisexuals (18%) and homosexuals (15%). Some peers categorized under MSM had expressed their main sexual attractions to be towards the opposite sex (8%). See table D.4 for details.*

Table D.4. Gender, sexual orientation and marital status

Category	Category	MSM		BB		FSW		DU		Total (ADJ) (%)
		No	%	No	%	No	%	No	%	
Gender	Male	172	93%	127	99%	0	0%	127	88%	68.9%
	Female	1	1%	0	0%	152	98%	17	12%	30.6%
	Transgender	11	6%	1	1%	3	2%	1	1%	0.5%
	Total	184	100	128	100	155	100	145	100	100
Sexual Orientation	Heterosexual	14	8%	78	63%	143	96%	110	79%	65.8%
	Homosexual	97	54%	13	11%	0	0%	7	5%	15.4%
	Bisexual	67	37%	32	26%	5	3%	20	14%	17.9%
	Other	1	1%	0	0%	1	1%	2	1%	0.9%
	Total	179	100	123		149	100	139	100	100
Current marital status	Single	129	71%	60	48%	26	18%	53	37%	40.7%
	Living together	13	7%	19	15%	21	14%	17	12%	11.7%
	Married	27	15%	37	29%	68	46%	63	44%	36.5%

	D/S/W	13	7%	10	8%	33	22%	10	7%	11.0%
	Other	0	0%	0	0%	0	0%	0	0%	0.0%
	Total	182	100	126	100	148	100	143	100	100

Interpretation:*Depending on the level of social acceptance, most wanted to expresstheir gender to match their biological sex. Heterosexual attractions were prominent among BB (63%), FSW (96%) and DU (79%). Out of all MSM, 54% reported that they were homosexual and 37% were reported as bisexuals.Fifteen percent (15%) of MSM, 29% of BBs, 46% of FSW, 44% of DUs are engaged in heterosexual marriages. Therefore, these peers can act as bridging populations*

D.4.3. Level of education

Description of findings*: mean and median years of school education by peer type are tabulated in the table D.5. Years of education ranges from 0-13 years although the median years of education were 10 years.According to the categorical description of level of education in table D.6 approximately half of the sample (49.7%) had completed 6-10 years of education.*

Table D.5. Mean and median years of formal school education

	MSM	BB	FSW	DU	Total (ADJ)
Mean (SD)	10.14 (2.78)	9.35 (2.90)	8.68 (3.05)	8.74 (3.27)	9.07
Median (Range)	11 (0-13)	10 (0-13)	10 (0-13)	10 (0-13)	10.21

Table D.6. Level of education

Levels	MSM		BB		FSW		DU		Total (ADJ) (%)
	No	%	No	%	No	%	No	%	
Pre-school	3	2%	1	1%	3	2%	3	2%	1.8%
Primary 1-5	11	6%	13	10%	29	19%	15	11%	11.7%
Completed 6-10	77	42%	66	53%	72	47%	76	54%	49.3%
Passed OL	41	22%	23	18%	35	23%	33	23%	22.5%
Passed AL	42	23%	20	16%	11	7%	13	9%	12.4%
Diploma	5	3%	1	1%	1	1%	1	1%	1.2%
Degree	5	3%	0	0%	1	1%	0	0%	0.8%
Other	1	1%	1	1%	0	0%	0	0%	0.2%
Total	185	100%	125	100%	152	100%	141	100%	100%

Interpretation: *Although the average level of education is satisfactory to comprehend HIV prevention messages and interventions, about 14% across all groups had less than 5 years of school education which may need special tailboard prevention interventions.*

D.4.4. Employment status

***Description of findings**: Majority of the sample is either self-employed or employed (public or private sector). Unemployment rate varied from 16% to 54%. Details of employment status by peer type are tabulated in table D.6*

Table D.6. Employment status

Category	MSM		BB		FSW		DU		Total (ADJ)
	No	%	No	%	No	%	No	%	(%)
Student	11	6%	0	0%	0	0%	1	1%	1.7%
Not employed	29	16%	25	20%	78	52%	34	24%	28.7%
Self-employed	63	35%	31	25%	27	18%	61	42%	32.7%
Employed	63	35%	46	37%	38	25%	40	28%	29.6%
Retired	2	1%	24	19%	2	1%	2	1%	3.0%
Other	12	7%	0	0%	6	4%	6	4%	4.3%
Total	180	100%	126	100%	151	100%	144	100%	100%

***Interpretation:** Majority is (>62%) self employed or employed in private or public sectors.About one third of the sample did not have a stable income. Therefore, for some HIV prevention services to be accessed, they may need to be incentivized.*

D.4.5. District mostly lived during the previous year

***Description of findings**: The individuals in the total sample were from 11 districts. Majority of the sample represented Colombo, Gampaha, Galle and Anuradhapura districts. Details of the frequency distribution are tabulated in table D.7*

Table D.7. District mostly lived during the previous year

Levels	MSM		BB		FSW		DU		Total (ADJ)
	No	%	No	%	No	%	No	%	(%)
Anuradhapura	26	15%	0	0%	12	8%	13	9%	9.2%
Colombo	78	44%	24	19%	66	44%	69	49%	43.4%
Galle	34	19%	49	40%	5	3%	15	11%	13.4%
Gampaha	32	18%	22	18%	32	21%	35	25%	21.6%
Hambantota	1	1%	0	0%	0	0%	0	0%	0.1%
Kalutara	7	4%	20	16%	1	1%	0	0%	2.6%
Kandy	0	0%	1	1%	0	0%	0	0%	0.1%
Kurunegala	1	1%	0	0%	3	2%	0	0%	0.6%
Matara	0	0%	0	0%	1	1%	0	0%	0.2%
Puttulum	0	0%	8	6%	3	2%	0	0%	1.1%
Ratnapura	0	0%	0	0%	26	17%	10	7%	7.4%
Missing data	0	0%	0	0%	1	1%	0	0%	0.2%
Total	179	100%	124	100%	150	100%	142	100%	100%

Interpretation: *The district representation is not complete and proportionate, however, more populous and HIV burdened districts were included in the sample to show some degree of district representation to the purposive sample.*

D.4.6. HIV knowledge

Description of findings*: Knowledge about HIV was ascertained by using standard knowledge questions developed for most at risk populations by UNAIDS. Proportion of correct answers given to each question varied from 59% to 86% in the total sample. See table D.8 for frequency and percentage distribution by peer type*

Table D.8. HIV knowledge

Question		MSM		BB		FSW		DU		Total(ADJ)
		No	%	No	%	No	%	No	%	(%)
Can having sex with only one faithful, uninfected partner reduce the risk of HIV transmission?	Yes	165	89%	121	95%	125	82%	118	81%	84.6%
	No	12	6%	6	5%	8	5%	19	13%	8.8%
	DK	8	4%	1	1%	19	13%	8	6%	6.6%
	Total	185	100%	128	100%	152	100%	145	100%	100%
Can using condoms reduce the risk of HIV transmission?	Yes	170	92%	110	87%	122	80%	125	86%	86.1%
	No	10	5%	13	10%	11	7%	15	10%	8.4%
	DK	4	2%	3	2%	20	13%	5	3%	5.5%
	Total	184	100%	126	100%	153	100%	145	100%	100%
Can a healthy-looking person have HIV?	Yes	98	53%	85	66%	81	53%	92	63%	58.7%
	No	43	23%	30	23%	23	15%	36	25%	21.8%
	DK	43	23%	13	10%	49	32%	17	12%	19.4%
	Total	184	100%	128	100%	153	100%	145	100%	100%
Can a person get HIV from mosquito bites?	Yes	9	5%	9	7%	7	5%	14	10%	7.0%
	No	158	86%	115	90%	111	73%	124	86%	82.8%
	DK	17	9%	4	3%	34	22%	7	5%	10.2%
	Total	184	100%	128	100%	152	100%	145	100%	100%
Can a person get HIV by sharing a meal with someone who is infected?	Yes	25	14%	4	3%	14	9%	12	8%	9.2%
	No	138	75%	120	94%	105	69%	117	82%	78.1%
	DK	21	11%	4	3%	34	22%	14	10%	12.7%
	Total	184	100%	128	100%	153	100%	143	100%	100%

HIV composite knowledge was also calculated using the answers given to knowledge questions. Number and percentage of participants who were able to provide correct answers to all the five standard knowledge questions are mentioned in the table D.9. Overall 44% of the sample was able to answer all questions correctly. Beach boys are having a relatively higher knowledge (59%) whereas the MSM sample had a relatively low knowledge.

Table D.9. HIV composite knowledge

Category	MSM	BB	FSW	DU	Total(ADJ)
Number	69	75	64	67	44.34%
Percent	37.3%	58.6%	41.8%	46.2%	

Interpretation: *Proportion of composite knowledge was not satisfactory among all groups and it is considerably low among MSM. Proportion of incorrect answers and don't know (DK) answers affected mostly the composite knowledge. In addition, lack of knowledge on following two questions affected the composite knowledge.*

Can a healthy-looking person have HIV?
Can a person get HIV by sharing a meal with someone who is infected?

D.4.7. Behavioral characteristics (risk assessment)

D.4.7.1. Perception of own risk

***Description of findings**: Majority (58%) believed that they had some risk of acquiring HIV. Over one forth still perceived that there was no risk and 15% did not have any idea about the risk. See table D.10 for details. .*

Table D. 10. HIV risk perception

		MSM		BB		FSW		DU		Total
		No	%	No	%	No	%	No	%	(ADJ)
According to your understanding, Do you have a risk of acquiring HIV/AIDS?	No risk	46	25%	39	31%	26	17%	48	34%	27.3%
	Some risk	110	60%	73	58%	93	59%	77	54%	57.6%
	No idea	28	15%	14	11%	33	21%	17	12%	15.1%
	Total	184	100%	126	100%	157	100%	142	100%	100%

***Interpretation:** Generally nearly half of them (43%) thought that either there is no risk (28%) or no idea about the risk (15%). Still, some peers are not capable of self assessing their HIV risk. Therefore, this area should be strengthened in the HPP of peer interventions.*

D.4.7.2. Drug use history as a risk of HIV transmission

***Description of findings**: Over half of the total sample accepted that they have used drugs at least once in their life. History of injecting drug use was there in 22%percent of DUs.*

Table D.11. Drug use history as a risk of HIV transmission

		MSM		BB		FSW		DU		Total
		No.	%	No.	%	No.	%	No.	%	(ADJ)
Have you ever used drugs (abused drugs)	Yes	35	20%	36	29%	22	15%	136	96%	51.6%
	No	136	80%	86	70%	121	85%	7	5%	48.6%
	Total	171	100%	122	100%	143	100%	143	100%	100%
Have you ever shared syringe/needles with someone for drug injections?	Yes	8	4%	7	6%	2	1%	31	22%	11.1%
	No	162	95%	115	94%	137	99%	109	78%	88.7%
	Total	170	100%	122	100%	139	100%	140	100%	100%

***Interpretation:** Although a small proportion of MSM, BB and FSW, had ever shared injecting equipment, these figures need to be verified before any conclusions. A considerable proportion of DUs had the habit of sharing injecting equipment.*

D.4.7.3. Partner change rate by duration and peer type

***Description of findings**: Number of different sex partners during the previous week, month and 3 months are tabulated in table D.12. Male partner change rate among MSM and BB were 4.3 per month and 3.4per month. Male partner change rate among FSW was 6per month and same figure*

for DUs was 2per month. Female partner change rate among MSM and BB was 1.8per month and 3.3per month respectively. Female partner change rate among DUs was 1.8per month.

Table D.12. Partner change rate by duration and peer type

Category	Category	MSM Mean (SD)	BB Mean (SD)	FSW Mean (SD)	DU Mean (SD)	TotalMean (ADJ)
With how many different MALE PARTNERS you had sex?	Last 7 days	1.94 (4.11) (n=154)	1.33 (1.24) (n=60)	2.26 (3.12) (n=127)	1.13 (1.75) (n=68)	1.62
	Last 30 days	4.26 (8.21) (n=171)	3.36 (2.56) (n=67)	5.92 (8.62) (n=127)	2.16 (2.52) (n=76)	3.72
	Last 3 months	11.26 (63.11) (n=160)	6.11 (4.71) (n=71)	14.13 (21.43) (n=127)	3.43 (4.14) (n=75)	8.20
With how many different FEMALE PARTNERS you had sex?	Last 7 days	0.64 (0.97) (n=83)	1.59 (1.68) (n=54)	0.04 (0.19) (n=52)	0.80 (0.91) (n=64)	0.65
	Last 30 days	1.83 (4.15) (n=95)	3.32 (3.42) (n=62)	0.04 (0.19) (n=52)	1.84 (2.46) (n=85)	1.52
	Last 3 months	2.44 (7.21) (n=102)	6.63 (8.32) (n=67)	0.04 (0.19) (n=52)	3.44 (6.03) (n=95)	2.65

Interpretation: *The sample represents relatively a low rate of partner change. But this does not indicate the frequency of taking risk (frequency of penetrative sex or status of use of condoms)*

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D.4.7.4. Condom use at last sex

Description of findings*: "Condom use at last sex" is an important indicator in HIV prevention interventions. Condom use at last vaginal, anal and oral sex was asked from study units. Number and percentage of responses are detailed in the table D.13 by peer type.*

Table D.13. Condom use at last sex for the reduced sample

Variable		MSM		BB		FSW		DU		Total (ADJ)
		No.	%	No.	%	No.	%	No.	%	
Did you use a condom at last VAGINAL sex with your partner	Yes	47	48%	62	61%	106	71%	48	37%	49.84%
	No	50	52%	40	39%	43	29%	83	63%	50.16%
	Total *	97	100%	102	100%	149	100%	131	100%	100%
Did you use a condom at last ANAL SEX with your partner	Yes	123	70%	62	63%	77	73%	36	41%	56.79%
	No	53	30%	37	37%	29	27%	52	59%	43.21%
	Total*	176	100%	99	100%	106	100%	88	100%	100%
Did you use a condom at last ORAL SEX with your partner	Yes	64	35%	42	35%	63	41%	31	24%	31.83%
	No	117	65%	77	65%	90	59%	96	76%	68.17%
	Total*	181	100%	119	100%	153	100%	127	100%	100%

* this total indicates the number of persons who had the type of sex

Interpretation:*Approximately half of the HRGs had used a condom during their last vaginal or anal sexual intercourse. The same figure for oral sex was approximately 32%.Condom use among drug users was lower than the other three groups. Condom use at last anal sex among MSM and BB were 70% and 63% respectively. FSWs had over 70% of condom use at last vaginal or anal sex. Most important indicator is the rate of consistent condom use among those groups. Consistent condom use of over 60% is required to reverse the HIV epidemic in any group of interest.*

D.5. Specific objective 2: Barriers for HIV testing in the prevailing services

D.5.1. Factors related to personal attitudes

***Description of findings**: Respondents were asked about personal factors of not getting an HIV test in a question format where multiple answerswere possible. Around 50% had said that there was no barrier. A considerable number of respondents indicated that there was no any personal need of getting an HIV test. Details are tabulated in table D.14.*

Table D.14. Factors related to personal attitudes

	MSM (n=185)		BB (n=128)		FSW (n=155)		DU (n=146)		Total (ADJ)
	No	%	No	%	No	%	No	%	
I do not have any personal need for an HIV test	40	22%	76	59%	32	21%	47	32%	29.5%
No difficulty or barrier	81	44%	47	37%	88	57%	67	46%	47.3%
I don't care of getting HIV	27	15%	8	6%	16	10%	13	9%	10.3%
I have no risk of getting HIV (perceived low risk)	40	22%	7	5%	11	7%	33	23%	16.7%
I trust my partners	23	12%	6	5%	7	5%	15	10%	8.7%
My partners are not having HIV	9	5%	2	2%	0	0%	8	5%	3.6%
Our community not affected by HIV	0	0%	0	0%	2	1%	9	6%	2.9%
Sri Lanka has very low level of prevalence	9	5%	3	2%	3	2%	12	8%	5.3%
Not answered or missing values	4	2%	1	1%	3	2%	2	1%	1.6%
Percentages are not mutually exclusive									

***Interpretation:** The main personal barriers identified were not having the need to get an HIV test, not considering getting and HIV test important, perceived low risk and trusting their partners.*

D.5.2. Peer Educator related factors

***Description of findings**: Respondents were asked about the difficulties or barriers they had with regard to the peer educator. Majority (44%) had said that there were no barriers or difficulties. Responses are further detailed in the table D.15.*

Table D.15. Peer educator related factors

	MSM (n=185)		BB (n=128)		FSW (n=155)		DU (n=146)		Total (ADJ)
	No	%	No	%	No	%	No	%	
No difficulty or barrier	60	32%	82	64%	61	39%	71	49%	44.1%
He/ She is not cooperative	1	1%	5	4%	4	3%	0	0%	1.2%
Difficult to contact the Peer Educator	19	10%	7	5%	6	4%	9	6%	6.4%
I doubt about confidentiality	14	8%	5	4%	2	1%	0	0%	2.4%
Problems with paying transport allowance	6	3%	5	4%	4	3%	7	5%	3.8%
Other	3	2%	1	1%	0	0%	1	1%	0.7%
Not answered or missing values	91	49%	28	22%	81	52%	63	43%	44.7%
Percentages are not mutually exclusive									

Interpretation: *Half of the respondents said that there were no difficulties to work with peer educators. Small proportions of the sample indicated that peer educators are difficult to contact (6%), different problems with transport allowances (3.8%), and doubt about confidentiality (2.4%).*

D.5.3. Access related factors

Description of findings*: Respondents were asked about the difficulties or barriers to access an STD clinic. Majority had mentioned that there were no difficulties or barriers. Details of responses are tabulated in table D.16*

Table D.16. Access related factors

	MSM (n=185)		BB (n=128)		FSW (n=155)		DU (n=146)		Total (ADJ)
	No	%	No	%	No	%	No	%	
No difficulty or barrier	58	31%	66	52%	57	37%	56	38%	37.7%
Testing facility is far away	5	3%	6	5%	9	6%	14	10%	6.6%
Need to spend money for travelling	15	8%	12	9%	10	6%	10	7%	7.3%
Travelling support is not enough	1	1%	2	2%	0	0%	4	3%	1.4%
Need to take a leave from job	11	6%	8	6%	3	2%	15	10%	6.8%
Very busy; no time	37	20%	22	17%	10	6%	26	18%	15.3%
Other	1	1%	1	1%	0	0%	2	1%	0.8%
Not answered or missing values	85	46%	28	22%	78	50%	61	42%	42.9%
Percentages are not mutually exclusive									

Interpretation: *The barriers for access are not having time (15%), not being able to bear travelling expense (7%), not being able to get the required time from work (7%) and long distances involved in reaching a testing facility (7%).*

D.5.4. STD clinic related factors

Description of findings*: Respondents were asked about the difficultiesthat they have to face at STD clinics. Majority had mentioned that there were no difficulties. Details of responses are tabulated in table D.17*

Table D.17. STD clinic related factors

	MSM (n=185)		BB (n=128)		FSW (n=155)		DU (n=146)		Total (ADJ)
	No	%	No	%	No	%	No	%	
No difficulty or barrier	50	27%	70	55%	57	37%	57	39%	37.3%
There are known people in the clinic	31	17%	20	16%	15	10%	18	12%	13.0%
Stigma attached to STD clinics	7	4%	5	4%	0	0%	1	1%	1.5%
STD clinic staff is not cooperative	4	2%	2	2%	3	2%	1	1%	1.4%
I doubt about the confidentiality	14	8%	3	2%	6	4%	0	0%	2.9%
There is no priority for us	9	5%	3	2%	1	1%	2	1%	2.1%
Long waiting hours at the clinic	18	10%	10	8%	3	2%	11	8%	6.6%
I do not like the gender of the doctor	4	2%	3	2%	0	0%	1	1%	1.0%
Take long time for results	2	1%	4	3%	0	0%	4	3%	1.7%
Other	1	1%	0	0%	0	0%	3	2%	1.0%
Not answered or missing values	86	46%	27	21%	78	50%	61	42%	43.0%
Percentages are not mutually exclusive									

Interpretation: *The barriers at STD clinic were 1. Presence of known people (13%), and 2.Long waiting hours at the STD clinic (7%).*

D.5.5. Test related factors

Description of findings*: Respondents were asked about the difficulties or barriers related to the test procedure. Majority had mentioned that there were no difficulties or barriers. Details of responses are tabulated in table D.18*

Table D.18. Test related factors

	MSM (n=185)		BB (n=128)		FSW (n=155)		DU (n=146)		Total (ADJ)
	No	%	No	%	No	%	No	%	
No difficulty or barrier	63	34%	82	64%	68	44%	74	51%	46.5%
Blood drawing is painful	6	3%	2	2%	2	1%	4	3%	2.4%
I scared of blood	12	6%	1	1%	3	2%	1	1%	2.3%
I doubt about the sterility of equipments	2	1%	2	2%	0	0%	0	0%	0.4%
STD clinics do other painful procedures	11	6%	13	10%	5	3%	8	5%	5.5%
Other	5	3%	1	1%	0	0%	3	2%	1.5%
Not answered or missing values	90	49%	28	22%	78	50%	85	42%	43.5%
Percentages are not mutually exclusive									

Interpretation: *The main barriers related to the HIV test at STD clinic were 1. STD clinic perform other painful procedure (6%), 2. Painful blood drawing and 3.Personal fear of blood procedures.*

D.5.6. Results of the oral fluid rapid HIV test

Description of findings*: All the study participants were offered the oral-fluid rapid HIV test and overall 98.5% accepted the test. The prevalence of reactive test results in the sample was 1.4% (7 cases or reactive tests). Individuals with reactive HIV test resultswere referred to the nearest STD clinic to undergo the series of HIV test in the national algorithmfor HIV diagnosis. Out of the seven reactive test results only a few did not undergo the confirmatory algorithm.*

Table D.19. Result of the oral fluid rapid HIV test

	Category	MSM		BB		FSW		DU		Total (ADJ)
		No.	%	No.	%	No.	%	No.	%	
Oraquick rapid HIV test result	Number tested	180	97% (n=185)	128	100% (n=128)	151	97% (n=155)	145	99% (N=146)	98.4%
	Reactive	3	2%	1	1%	0	0%	3	2%	1.3%
	Non-reactive	175	97%	127	99%	151	100%	142	98%	98.4%
	Invalid	2	1%	0	0%	0	0%	0	0%	0.3%
	Total	180	100%	128	100%	151	100%	145	100%	
	Numberconfirmed with HIV	0	0%	0	0%	0	0%	0	0%	0%

Interpretation: *Oral-fluid rapid HIV test identified 7 reactive patients as a test for triage and sent them to STD clinic for HIV confirmation.*

D.6. Specific objective 3: Acceptability of oral-fluid rapid HIV test (OraQuick) among peers

D.6.1. Preferred method of access for an HIV test by type of peers

***Description of findings**: According to the responses given by study participants, there were differences in their preference to access for an HIV test as tabulated below*

Table D.20. Preferred method of access for an HIV test

Preferred Method of Access -	MSM (n=185)		BB (n=128)		FSW (n=155)		DU (n=146)		Total sample (ADJ)
	No	%	No	%	No	%	No	%	
Going to an STD clinic	18	10%	13	10%	13	8%	18	12%	10.5%
STD clinic staff visiting our place	92	50%	58	45%	92	59%	63	43%	49.0%
Testing by an outreach healthcare worker	58	31%	29	23%	42	27%	40	27%	27.8%
HIV testing in a community friendly centre	34	18%	9	7%	19	12%	23	16%	14.6%
Testing by the Peer Educator at your place	63	34%	81	63%	68	44%	83	57%	49.0%
Other (Specify)	11	6%	2	2%	1	1%	1	1%	1.9%
Not answered or missing values	6	3%	1	1%	3	2%	2	1%	1.8%

***Interpretation:** It seems that these groups prefer both community testing as well as STD outreach testing. Testing by an outreach healthcare worker was also accepted by over one fourth of the respondents. Therefore, in general, community testing, outreaching of STD clinic staff and outreaching healthcare workers are identified as means accepted by HRGs over visiting an STD clinic or any other community centre.*

D.6.2. Preferred biological sample for an HIV test

***Description of findings**: According to the responses given by study participants, preferred biological sample was oral-fluid (88%) and approximately 10% preferred finger prick. Details of the preferred method of sampling are depicted in the table*

Table D.21. Preferred method of sampling

Preferred Method of Sampling	MSM (n=185)		BB (n=128)		FSW (n=155)		DU (n=146)		Total sample (ADJ)
	No	%	No	%	No	%	No	%	
Testing by drawing a sample of blood	16	9%	2	2%	6	4%	12	8%	6.6%
Testing by finger prick	26	14%	17	13%	12	8%	13	9%	10.2%
Testing by using oral fluid	159	86%	108	84%	144	93%	127	87%	88.0%
Other (Specify)	1	1%	1	1%	0	0%	4	3%	1.3%
Not answered or missing values	8	4%	2	2%	5	3%	2	1%	2.5%

***Interpretation:** Majority prefers non invasive oral-fluid testing across all peer types. Finger prick test is the next preferred method of sampling.*

D.6.3. Preferred turnaround time forHIV results

***Description of findings**: Details of the preferred turnaround time for results of the HIV testshows that majority (88%) of respondents wanted the HIV test result just after the test.*

Table D.22. Preferred turnaround time for an HIV test

		MSM		BB		FSW		DU		Total sample (ADJ)
		No	%	No	%	No	%	No	%	
When would you prefer to get the result of the test	Within 1 week	3	2%	4	3%	10	7%	5	3%	3.9%
	Within 2-3 days	13	7%	16	13%	12	8%	10	7%	7.9%
	Just after testing	159	91%	104	84%	128	85%	130	90%	88.3%
	Total	175	100%	124	100%	150	100%	145	100%	100.0%

***Interpretation:** A clear majority (>88%) across all peer types wants the test result just after the test. One week turnaround is expected only by less than 5% of the respondents. Therefore, HIV test that we are going to offer should be able to produce a rapid result.*

D.6.4. Participant feedback on the HIV oral fluid rapid HIV test

Description of findings: The following table describes the study participants' feedback on the level of satisfaction towards the oral fluid rapid HIV testing process

Table D.23. Acceptability of oral fluid-rapid HIV test

Statement	Agree/ Disagree	MSM (n=185)		BB (n=128)		FSW (n=155)		DU (n=146)		Total sample (ADJ)
		No	%	No	%	No	%	No	%	
I would recommend this test to others as a good test	Agree	183	99%	128	100%	153	99%	145	99%	99.1%
	Disagree	0	0%	0	0%	1	1%	0	0%	0.2%
I was satisfied with the test that I received today	Agree	183	99%	128	100%	152	98%	145	99%	99.0%
	Disagree	0	0%	0	0%	1	1%	1	1%	0.5%
I felt pressured into getting the HIV test today	Agree	58	31%	30	23%	26	17%	14	10%	17.7%
	Disagree	120	65%	98	77%	128	83%	131	90%	81.0%
I do not like this type of HIV test	Agree	30	16%	5	4%	6	4%	4	3%	6.2%
	Disagree	151	82%	122	95%	147	95%	140	96%	92.3%
I had to wait too long for my HIV test result	Agree	37	20%	12	9%	22	14%	13	9%	12.8%
	Disagree	147	79%	116	91%	131	85%	133	91%	86.7%
This HIV test is a barrier to receive other services from the STD clinic	Agree	51	28%	34	27%	14	9%	20	14%	16.9%
	Disagree	131	71%	94	73%	139	90%	124	85%	81.8%
Overall, I felt that the test done today was private and confidential	Agree	165	89%	122	95%	148	95%	133	91%	92.2%
	Disagree	18	10%	5	4%	6	4%	13	9%	7.3%
I felt that my HIV test result was told to me in a private way	Agree	179	97%	127	99%	152	98%	146	100%	98.7%
	Disagree	5	3%	1	1%	1	1%	0	0%	0.9%
I understand the meaning of my HIV test result	Agree	184	99%	128	100%	154	99%	146	100%	99.7%
	Disagree	0	0%	0	0%	0	0%	0	0%	0.0%
The information I was given about HIV testing was satisfactory	Agree	183	99%	127	99%	154	99%	146	100%	99.5%
	Disagree	1	1%	0	0%	0	0%	0	0%	0.1%

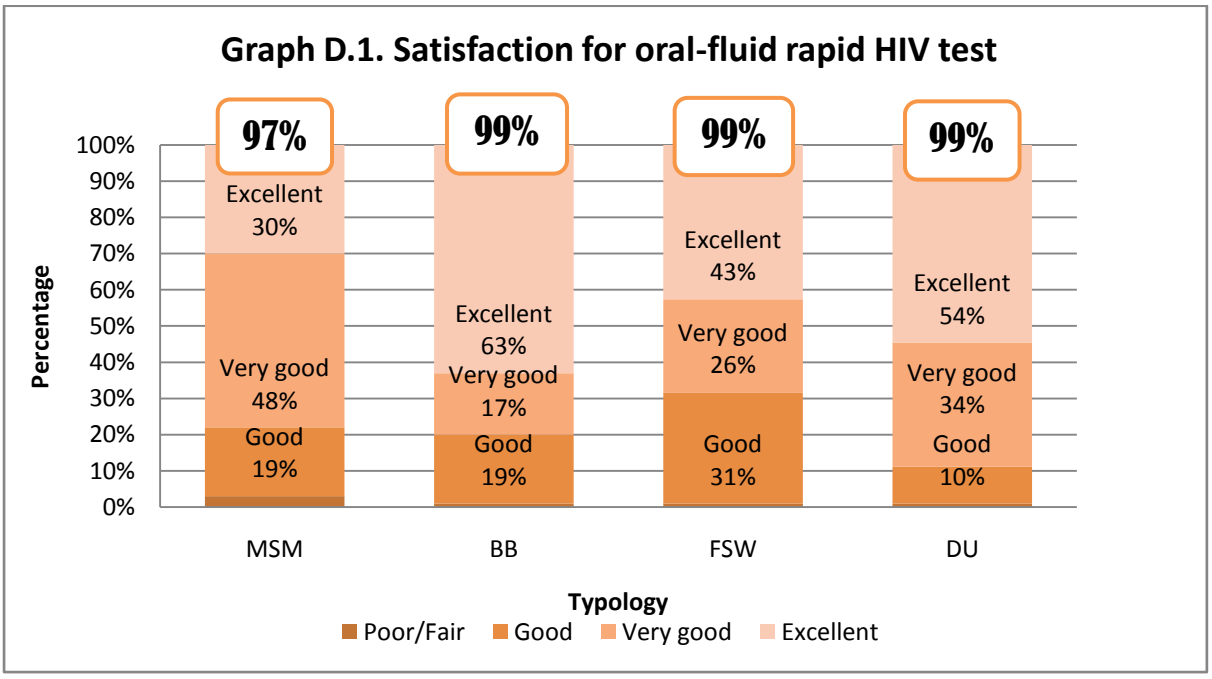
Interpretation: The feedback given to individual statements shows that participants were satisfied with the oral-fluid rapid test. However, some respondents had felt a pressure to get the test done (18%) and another 13% still complained that they had to wait too long even for the oral-fluid rapid test. Furthermore, about 6% did not like the test. About one fourth of MSM (28%) and BB (27%) believed that this type of HIV test is a barrier to receive other services from STD clinics.

D.6.5. Overall satisfaction of the oral fluid rapid HIV test

Description of findings: As the final evaluation on the level of satisfaction, respondents were asked to rate the overall satisfaction of the oral-fluid rapid HIV test. Following table and graphs shows the ratings given by peer type.

Table D.24. Satisfaction

	Levels	MSM		BB		FSW		DU		Total (ADJ)
		No	%	No	%	No	%	No	%	
Overall, how is your satisfaction about this oral fluid HIV test (OraQuick test)	Poor/Fair	5	3%	1	1%	1	1%	1	1%	1.2%
	Good	35	19%	24	19%	47	31%	15	10%	18.5%
	Very Good	88	48%	21	17%	39	26%	50	34%	33.6%
	Excellent	55	30%	80	63%	65	43%	79	54%	46.8%
	Total	183	100%	126	100%	152	100%	145	100%	100%



Interpretation: Overall satisfaction about the oral-fluid rapid HIV test had been rated “Good”, “Very good” or “Excellent” by over 97% of respondents.

D.7. Specific objective 4: feasibility of implementation of oral-fluid rapid HIV test among the most at risk peer groups

Feasibility of the oral-fluid rapid HIV test among community groups were tested by using a qualitative research method.

D.7.1. Objective of the qualitative component of the study

To ascertain the feasibility of implementation of oral-fluid rapid HIV test among the peer groups receiving servicers under GFATM project in Sri Lanka

D.7.2. Study design

In-depth interviews (IDI) were used to assess the feasibility of oral-fluid rapid HIV test among peer groups

D.7.3. Method

Sample: Sample included people involved in the pilot study of oral-fluid rapid HIV test. Total of 16 subjects were interviewed. Participants were purposively sampled on the basis of their knowledge, contextual understanding and level of engagement in the pilot study.

Data collection: Due to study limitations, telephone in-depth interviews (a modified version of IDI) were conducted over 12-20 minutes after initial discussions and preparations. Data were sought through open-ended questions using a rough interview guide (Annex III). Raw data was recorded with permission and emailed back to participants to review the voice recording to allow them to add further information. Interview participants shared their perspectives and experiences in their own words. Observation of non-verbal communication was the drawback in telephone conversations. However, its impact was minimal in finding relevant data.

Data analysis: Voice recordings were transcribed under the major headings and sub headings of the IDI guide by the principal investigator. Similar to scissor and sort technique, copy and paste was used to make the summary report. Then the findings were interpreted to make conclusions.

D.7.4. Findings of the qualitative part of the study

Is community based HIV testing feasible in Sri Lanka?

In-depth interviews conducted to explore the possibility of oral-fluid rapid HIV test among peer groups and different viewpoints expressed by the IDI participants as outlined below. Is community based HIV testing feasible in Sri Lanka?

IDI findings	Type of interviewee
"Yes, and most of people like this and self testing now, althoughsensitivity/specificity issues are questioned, this would be a feasible method for most people. People like to get this from pharmacy and get the test done"	*Director, National STD/AIDS Control Progamme, Sri Lanka.*
"I think it is going to be feasible with lot of obstacles that we need to surmount It won't be an easy run"	*Ms Thushara Agus, Executive Director, FPA of Sri Lanka.*
"Planning and implementation of a community based testing is feasible and I strongly believe, and I strongly believe that"	*Dr Dayanth Ranatunga, Country manager, UNAIDS, Sri Lanka*
"There are different areas in this. It is feasible if testers are well trained by qualified persons. It is an easy and a non invasive test. Therefore, recipients may like it and in that aspects, it is feasible than a blood test"	*Dr Darshani Wijayawickrama, Consultant Venereologist and President of Sri Lanka CoSHH*
"I think CBT is feasible. I personally think it was quite accepted by the people who took part in the pilot study"	*Ms Madu Dissanayake, Director, Public Affairs, Policy and Advocacy, FPASL*
"It depends on who is going to do the test. Implementation vise this may not be a problem" *"This community testing is feasible, but need an educated people"* *"If we want to go to 90-90-90 target and increase HIV testing, we need to go for community testing like this"*	*Mr Suchira Suranga, M&E specialist, FPASL*
I think community testing on peers is feasible, I saw how they responded	*Ms Devmi Dampella, programme coordinator, FPASL*
"Community based testing can definitely be implemented"	*Mr Saman, MSM community tester, representing MSM organization*
"Community testing can be done, not impossible"	*Mr Suresh, MSM community tester*
"Community testing can definitely be implemented in Sri Lanka"	*Mr Pubudu Pathirana, UNAIDS*
"Community testing is feasible, it is.. but more corporation is required from the community itself because we can't go alone and do it because they are not flexible in giving answers sometime"	*Ms Medhani Navodha, non community tester(University student)*
"Community based testing is a feasible, easy and a simple method because we had better access to community people"	*Mr Palitha Liyawadu, representative from an organization (Gemi pahana)*
"Community based testing is possible. Most of the community people like to get this test done without breaching their identity"	*MSM community tester, Anuradhapura*
"I guess planning and implementation of a community testing is feasible"	*Mr Roshan, representative from MSM support organization*
"Community testing is the best method and it is feasible, but there are areas to be developed"	*Mr Pansilu Vithanage, non-community tester for DU, FSW*

Interpretation of the findings: *Overall impression is that, the planning and implementation of community based HIV testing is feasible.*

What is the most feasible option for accessing community groups for HIV testing?

During the interviews, respondents expressed views about more effective way of accessing community groups as outlined below.

IDI findings / Quotes	Type of interviewee
"I think in Sri Lanka, HCW reaching to a person is very easy unlike in other countries. Within 2 Km radius a healthcare worker is available and they think HCWs keep the confidentiality than their community person. However, some other people may like to get the test done by a peer. Actually It will happen based on the test recipient's willingness. We need to adopt the approach based on the need"	*Director, National STD/AIDS Control Progamme, Sri Lanka*
"I think existing peer group model is a good platform to launch this. The reason is this if you go to an area so called virgin territory where peer educators, escorting nothing has taken place, it might be a bit of a culture shock for people to be directly tested by others for HIV"	*Ms Thushara Agus, Executive Director, FPA of Sri Lanka.*
"I personally doubted HCW outreach testing very much simply because, these communities are anyway being discriminated by the society at large based on stereotypical thinking of sexuality definitely discriminate and stigmatize these communities. Therefore, what I believe is that still stigma is highly prevailing even among the medical profession Therefore, I don't have much trust on using HCW to do this testing"	*Dr Dayanth Ranatunga, Country manager, UNAIDS, Sri Lanka*
"I think community people are more interested but their lack of knowledge or literacy level is a bit of a challenge. The students, their lack of engagement made everything bit of difficult whereas community interest was high in terms of implementing it although the lack of level of understanding and other issues were there"	*Ms Madu Dissanayake, Director, Public Affairs, Policy and Advocacy, FPASL*
"As far as access to community is concerned, community testers are better than HCWs but HCW may have better technical knowledge"	*Dr Darshani Wijayawickrama, Consultant Venereologist and President of Sri Lanka CoSHH*
"This can get done by community testers, Peer educators or supervisors" *"Some groups like MSM questions about confidentiality of testing if it is done by a PE (I heard it in some meetings). They prefer, if health care workers come to the community and do the HIV testing"*	*Mr Suchira Suranga, M&E specialist, FPASL*
"I think it's feasible for the community to test their peers. I think community reaching the community is the best option than HCW reaching community groups"	*Ms Devmi Dampella, programme coordinator, FPASL*
"HCWs can also be a good tester after adequate training and capacity building"	*Mr Pansilu Vithanage, non-community tester for DU, FSW*
"It looked bit of a problem, people don't want healthcare service provider. Community people always said the If it is available like condom, they can buy it and test"	*Mr Rohan, representative from MSM support organization*
"They preferred to get it done by community people. Even non-community people wanted to connect with community people for an HIV test"	*MSM community tester, Anuradhapura*

"Community contribution is must in this type of testing"	*Ms Pubudu Pathirana, UNAIDS*
"If there is good trust, with community people, anybody can perform the testing"	*Mr Saman, MSM community tester, representing MSM organization*

Interpretation of the findings: *Community reaching communities is seemed to be the more accepted approach. However, community testers should be carefully selected. Healthcare worker approach is an option but they also need special training to work with community groups.*

Is it feasible to manage the supply chain of products for the oral-fluid rapid HIV test?

IDIs focused on the possibility of management of supply chain in oral-fluid rapid test and participants were prompted on this and following are the findings

IDI findings / Quotes	Type of interviewee
"We procure all tests like HIV ELISA etc. In the government sector, we have experience in the procurement process, similarly we can maintain the supply chain without a difficulty. We have storage facilities at central as well as regional level. But for the private sector they need some capacity building for storage"	*Director, National STD/AIDS Control Progamme, Sri Lanka.*
I think that is something very challenging because We know from even very mature products line, maintaining a supply chain uninterrupted had been an issue for both government and non- government actors but I feel government has a big role to play for giving us the right type of product and naturally may be at the second stage maybe we should go commercial. Initially we will have to do it at the expense of service provider but I think it has come to a stage of over the counter product but still people go to a facility therefore, it will be a challenging task". *"We don't have sophisticate storage places. This is something need to be done with the participation of other stakeholders as well from what I foresee for the immediate future It will be stored at the relevant NGOs and CBOs but If you are planning it to roll out in mass scale this is an area to consider. Still no perfect solution"*	*Ms Thushara Agus, Executive Director, FPA of Sri Lanka.*
Actually this was a pilot test so most of the test kits were procured by the UNDP and they reached to Sri Lanka for no cost. Then actually, this process was little..I would say hectic, simply because, this product is not registered in the usual procurement process. Therefore, I had to face personally lots of issues to clear this up. I think with the great support of the National STD/AIDS Control Programme and the national procurement mechanisms, we managed to do it as kind of something related to pilot testing. Kind of argument that I brough here in clearing this unregistered medical equipment, actually my argument was that do not create a harm to people so on that basis only managed to clear this up but what I want to emphasis is this same model should not be applied in mass scale implementation this should be allowed to fluctuate in the open market. When this particular product is registered in Sri Lanka any vender just like pregnancy test can import this and should be available in all these outlets just like the pregnancy test. Therefore, this process should also be done in the same way. First of all number of private companies they are interested to import this test kits and make them freely available in pharmaceutical outlets, actually we should encourage them just like in the normal process. First of all, this product	*Dr Dayanth Ranatunga, Country manager, UNAIDS, Sri Lanka*

should be registered in the kind of medical suppliers' item list in Sri Lanka that is with the ministry of health. In that case they can easily import this thing and they will establish their own kind of market. But in this case, it should be subjected to a kind of availability of counseling service probably online at their cost. In that case, this can be done with the active partnership with the National STD/AIDS control Programme. They can appoint one or two doctors who can make them on call at least 16 hours per day. My opinion is that the private companies who are trying to import this product should take the responsibility and the cost should be bore up by the company. *Actually clear guideline should be made by the government or the college (SL CoSHH) and that should be adhered by the any private company or the government. The guideline adherence should be a pre-requisite to get the registration.*	
Procurement of items, the now the main item was not procured by us, so I don't know whether it is even available in Sri Lanka at the moment to procure the test kits. Although we were able to find similar or the required items, some were bit difficult to find. We do not have any information whether they really have kept them in refrigerators. *I think those kits can be made it available through pharmaceuticals, and lots of people in the past even asked for it whether there are any place where they could buy. It would be a good thing to make it available in Sri Lanka.*	*Ms Madu Dissanayake, Director, Public Affairs, Policy and Advocacy, FPASL*
Equipment to maintain temperature, need to be clarified before stating this community testing programmes	*Dr Darshani Wijayawickrama, Consultant Venereologist and President of Sri Lanka CoSHH*
If it is the FPA, FPA has storage facility. Peripheral SSR may not have that facility if special conditions need to be created. Sending to a community site is not a problem; we can send them as we send condoms. Proper storage conditions not available at community sites	*Mr Suchira Suranga, M&E specialist, FPASL*
I really don't have any clear idea of the procurement process. What I actually notice is that to maintain or store these test kits at a certain temperature, storage and transport is not that easy actually with the facilities that were available to us *Dispatch to testers; Well; with the community it was not difficult, the moment we spread the word they came and they collected their test kits but when it comes to the university students, they were actually not They were bit hesitant because they probably had second thought as to whether they are capable of conducting this thing because I don't think they had a different idea at the time they joined the project and when we were to actually implement it some of them had second thought about it so community it was not an issue but for the university students it was bit of a trouble to dispatch the items. Well; we gave them the cold storage boxes, apart from that I can't really say because I did not do a field visit and I didn't see it by myself.*	*Ms Devmi Dampella, programme coordinator, FPASL*
I kept them in the refrigerator of my boarding place. When I go away from Colombo, actually I could not use the rigifoam cool boxes provided. What I did was, I carried them in a plastic sealed bag with ice, but when I reached the locations temperature had come to normal temperature. Rigifoam cold box is a problem in transport when carrying in a crowded bus. Sealed type bag is better than a box	*Mr Pansilu Vithanage, non-community tester for DU, FSW*
Most of the community based organizations; they have separate space for counseling and other equipments as I know. Therefore, we can easily arrange	*Mr Roshan, representative from MSM support organization*

that. Then it is easy even the community access these sites and get the test done. Taking test kits to the community sites is really hard for us with other documents and all. If the GF is supporting for us for a drop-in sites, communities always coming there	
Since we have a refrigerator at home, we used it not much of a difficulty. The rigifoarm box is difficult to carry in a push bicycle. If the is a better carrier, it would be easier.	*MSM community tester, Anuradhapura*
We need to keep them near a place where hot spots are close then we can visit and come back during a small period of time. The box provided is not suitable to carry test kits. I used a different cool bottles to carry it and kept them at the room in the town and used from there. If there is a quality carries, then there would be a better impression. There are different cool boxes for these kinds of purposes. It looks cheap and community people also look at hose things.	*Mr Palitha Liyawadu, representative from an organization (Gemi pahana)*
Storage before going to the site, there was no problem with that	*Ms Medhani Navodha, non community tester(University student)*
Test kits were in the hand of different places, first stored at NSACP and FPA, therefore this was handled by number of institutions, and there were problems. I don't know how successful the storage of test kits at NSACP. *We have advised the community testers to maintain temperature, as I know they made maximum effort to maintain the temperature. I have seen some Colombo people using the figifoarm box to carry them*	*Ms Pubudu Pathirana, UNAIDS*
I did not thing even any difficulty about it. I kept it the fridge of my room	*Mr Suresh, MSM community tester*
I am at home alone and I kept them in the home fridge. I carried it in the rigifoam box. It was easy to me, I don't know about others.	*Mr Saman, MSM community tester, representing MSM organization*

Interpretation of the findings: *There are lots of challenges in the maintenance of uninterrupted supply of products and its quality. Better heat resistant products need to be introduced to countries like Sri Lanka. Initially, for the MARPs interventions, product should be available with funding support but later as the next step or as a parallel thing product should be made available through open market.All the challenges can be overcome by partnership approach with high commitment of the stakeholders. Initially the responsibility of maintenance of supply chain should be taken over the main stakeholders of the MARP interventions.*

Is it feasible to maintain the quality of the product (Oral-fluid rapid HIV test) and service (procedure)?

During the interviews, respondents were asked about the maintenance of the quality of the product and service

IDI findings / Quotes	Type of interviewee
Definitely we need to provide an information sheet in all three languages with the test. In addition, all the facilitators should be trained in all areas including pre-post test counseling what to do, If it will become, positive, negative or invalid how to get it confirmed etc"	*Director, National STD/AIDS Control Progamme, Sri Lanka.*
Quality of the product depend on the quality of the storage and storage instructions whether we have adhered to those so as to keep the product in good condition until such time it is used. And also during the testing act adherence to what is properly mentioned in order to get an accurate test. When it comes to the delivery of services, pre post test counseling and communication this is an area where lot of capacity building is needed and lots depend on the person who handles it.	*Ms Thushara Agus, Executive Director, FPA of Sri Lanka.*
When It comes to the product quality that is the responsibility of the government just like any other pharmaceutical items they should make sure the people who import these products are keeping all the standards properly. *When it comes to the service quality, actually my biggest worry is even pre-test counseling is out of this we can't do it actually most of the developed world now they are not very much concerning pre-test counseling just educating the particular person by a leaflet or something what they are trying to do what the results looks like and make user empower to understand the text, In that context, in case of doubt or psychological disturbance the counseling servicers should be freely available.*	*Dr Dayanth Ranatunga, Country manager, UNAIDS, Sri Lanka*
Whether the community was able to carry out the process as we have requested them to do so before the date of expiry and making sure that all those other things and whether they met all the other conditions I am not so sure. So there I feel, you know, the process at the service provision level, quality control needs to be further strengthened	*Ms Madu Dissanayake, Director, Public Affairs, Policy and Advocacy, FPASL*
its sensitivity and specificity should be assessed because it is important to compare it with the other HIV ELISA test *Community testers should be trained to provide HIV counseling but it should not be a big training, a primary training is enough I think, because pre-test counseling is not considered as a big issue now. In any issues testers can keep a link with nearest STD clinic to sort them out.*	*Dr Darshani Wijayawickrama, Consultant Venereologist and President of Sri Lanka CoSHH*
They will maintain the test quality and it can be done with procedure training. There will not be any quality issues. Only problem is that the quality of the counseling not sure about the post test counseling especially positive test counseling because that experience is not there very much. At the same time, Community Based HIV testing can be negatively affected to STI testing and treatment.	*Mr Suchira Suranga, M&E specialist, FPASL*
I think it is mainly the storing part apart from that, I don't think there is any issue	*Ms Devmi Dampella, programme coordinator, FPASL*

One of mine became positive, but he was negative in the clinic, then I tend to think that test kit was having some quality issues due to some storage or any other problems. I found some beetles chewing people, which can make issues in the procedure. Quality of the procedure sometimes compromised when people are under the influence of drugs. Sometimes tester wanted to maintain the confidentiality but not the person being tested especially in the DU component.	*Mr Pansilu Vithanage, non-community tester for DU, FSW*
I have a big issue with that because earlier on we were planning to send one community person with a non-community person to go together for testing. If it is with one person, we don't know whether it is happening really well, there should be a control mechanism.	*Mr Roshan, representative from MSM support organization*
Some are not corporative and not properly support the procedure, Some inquire about payment to support the test	*MSM community tester, Anuradhapura*
Some people do not like the test and they had nausea when trying to perform the test. I think with we must give HIV prevention messages as well in the procedure	*Mr Palitha Liyawadu, representative from an organization (Gemi pahana)*
The community was not actually supporting and they take it for granted. They are not comporting much. Even though they participated the test they were reluctant. They needed money and other benefits.	*Ms Medhani Navodha, non community tester(University student)*
In fact, I am very much satisfied with the test kit, I have tested myself ten times and all ten came as positive. At this moment my viral load is undetectable and CD4 is 600 cells/µl. When I tested well known negatives, It came as negative. Therefore, I am satisfied with the result. *If the way the procedure was taught was done with the community, It should definitely be successful*	*Representative from PLHIV, UNAIDS*
Quality is good, only thing is that we had to spend some time to fill the form they did not like it.	*Mr Saman, MSM community tester, representing MSM organization*

Interpretation of the findings: *Quality of the product and service need to be maintained at a higher level by providing necessary storage, transport facilities, proper instructions for procedures, assessment of product sensitivity and specificity and continuous training and capacity building of testers to maintain skills. Quality of the product and the service can be increased by deploying two community testers or community-non community combination.*

Is it feasible to record and report necessary data with regard to community testing?

During the interviews, respondents were asked about the feasibility of maintaining monitoring and evaluation work

IDI findings / Quotes	Type of interviewee
"Definitely they have the knowledge. Our literacy rate is 98%. I don't think that there would be any issue"	*Director, National STD/AIDS Control Progamme, Sri Lanka.*
Again I think, it is going to be a challenge	*Ms Thushara Agus, Executive Director, FPA of Sri Lanka.*
Actually sales data you can easily take from the particular persons who is going to market this, in that you can get geographical distribution on testing then you can approximately think that these are the number of tests done. You can even see online counseling service recipients. We can have a very simple format where you can collect data from these people that mean from testers. My imagination is that this so called community testers going to get vanished after one year then it is available in the free market.	*Dr Dayanth Ranatunga, Country manager, UNAIDS, Sri Lanka*
Commitment is also necessary for this, even people who wanted to commit could not record properly because of their lack of capacity. I feel all those things needs to be addressed If we are going to do this	*Ms Madu Dissanayake, Director, Public Affairs, Policy and Advocacy, FPASL*
If we do by using community testers alone, we can't do verification easily here we need to go and ask from a sample for verification there is no other verification mode. *If reports are sending through the usual peer model for example sending from peer eductor → supervisor → coordinator → SSR → SR channel, then confidentiality issues arise. If there is a method, directly send to the centre would be a better model.* *When the pressure of testing is created by performance based salary and targets, and then there would be more and more false claims as well as high performance. Overall data quality assurance is challenging.*	*Mr Suchira Suranga, M&E specialist, FPASL*
Some of them were not able even to fill the testing forms on their own so, when it comes to instances like that, there may be discrepancies with the information that we gather *There were blanks in the form and even the final test result in some of the testing forms were not clear. So, I think considering sort of the scale of the project, When we select testers we have to be careful about their education level as well I guess. We can't just be picking people randomly for this.*	*Ms Devmi Dampella, programme coordinator, FPASL*
As I feel, for example DU person can do the test to a DU without much	*Mr Pansilu Vithanage, non-community*

problem even without much knowledge	*tester for DU, FSW*
That is also again like we have to be very careful when we select members who are capable of doing this that is number one and the number two is it has to be under control somewhere like in a CBO.	*Mr Roshan, representative from MSM support organization*
Yes I can do data recording and reporting without any fear	*MSM community tester, Anuradhapura*
Yes, we can do it and it is definitely needed otherwise no result of doing such thing. I think all times a report is maintained properly is important. It is possible, there should be a vary good community engagement to do this.	*Mr Palitha Liyawadu, representative from an organization (Gemi pahana)*
Some people are capable of making recording format. In my opinion MSM community people are better in this regard than FSW community	*Ms Pubudu Pathirana, UNAIDS*
Possible, possible	*Mr Suresh, MSM community tester*
If an educated person is doing this, it is possible will not be a difficult thing	*Mr Saman, MSM community tester, representing MSM organization*

Interpretation of the findings: *In this type of community testing, data recording and reporting are minimal and that can be done without much of a trouble. However, attention is needed for means of verifications at all levels. There should be a third party observation or verification to minimize false tests and false filling of documents. When the pressure of testing is created by performance based salary and targets, and then there would be more and more false claims. On the other hand, if there are no pressure on performance targets cannot be achieved*

Concluding messages of the qualitative research component

- *Overall impression is that, the planning and implementation of community based HIV testing is feasible among peer-led interventions in Sri Lanka.*

- *Community testers reaching communities is seemed to be the more accepted approach. However, community testers should be carefully selected. Outreach approach of healthcare workers (HCWs) is an option but they also need special training, commitment and passion to work with community groups.*

- *There are lots of challenges in the maintenance of uninterrupted supply of products and its quality. Better heat resistant products need to be introduced to countries like Sri Lanka. Initially, for the MARPs interventions, product should be available with funding support but later as the next step or as a parallel thing product should be made available through open market. All the challenges can be overcome by partnership approach with high commitment of the stakeholders. Initially the responsibility of maintenance of supply chain should be taken over the main stakeholders of the MARP interventions.*

- *Quality of the product and service need to be maintained at a higher level by providing necessary storage, transport facilities, proper instructions for procedures, assessment of product sensitivity and specificity and continuous training and capacity building of testers to maintain skills. Quality of the product and the service can be increased by deploying two community testers or community-non community combination in carrying out testing.*

- *In this type of community testing, data recording and reporting are minimal and that can be done without much of a trouble. However, data quality verification is challenging. Attention is needed for means of verifications at all levels. There should be a third party observation or verification to minimize false tests and false filling of documents. When the pressure of testing is created by performance based salary and targets, and then there would be more and more false claims as well as high performance. On the other hand, if there are no pressure on performance targets cannot be achieved*

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F. ANNEXTURES

Annex I: Consent form
for the Study on acceptability and feasibility of oral-fluid rapid HIV test (OraQuick®) among most-at-risk peer groups receiving services under Global Fund HIV prevention project in Sri Lanka

I am Dr Ajith Karawita working in the National STD/AIDS Control Programme (NSACP), Ministry of Health as a Consultant Venereologists

I am doing a research on feasibility and acceptability of oral-fluid rapid HIV test among registered most-at-risk peer groups in Sri Lanka, under the guidance of national steering committee chaired by the Director, National STD/AIDS Control Programme of the Ministry of Health.

I am going to give you information and invite you to be part of this research. Before you decide, you can talk to anyone you feel comfortable with, about the research. There may be some words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask them from me or the study assistants.

PART I: INFORMATION SHEET:

Title of the research: Feasibility and acceptability of oral-fluid rapid HIV test (Ora-Quick®) among existing most-at-risk peer groups in Sri Lanka

Version Number: VER 2016/04/18

Date: 18.04.2016.

Purpose of the research: is to introduceoral-fluid rapid HIV test and check whether the test is feasible and acceptable to you.

Type of Research: This is one time cross sectional pilot study to understand the feasibility and acceptability of a saliva based HIV test. In this research, I am going to get a sample of peer groups operating under the Global Fund HIV prevention project in Sri Lanka and introduce the oral-fluid HIV test.

Participant selection: Your participation in this research is entirely voluntary. It is your choice whether to participate or not. Whether you choose to participate or not, all the services you receive in the peer group HIV prevention project will continue and nothing will change.You may change your mind later and stop participating even if you agreed earlier.

Procedures and Protocol: In this study, there is an interviewer administered questionnaire where you have to answer some questions. Then you will receive a HIV pre-test counselling. Then you will be offered an oral-fluid HIV test where I have to gently swipe the test swab alone your upper gums once and your lower gums once. Then the wsab is inserted to a test tube provided with the test pack and you can get results in 20 minutes. The test is followed by a post-test counselling session. And then you are given a feed back form to answer some questions about your acceptability of this test.

Duration: The research takes place over a one month period (approximately 30 days). During that time, an outreach community worker will come to you with the questionnaire, test pack and feedback form.

Side Effects: There are no side effects related to this oral-fluid rapid HIV test procedure.

Risks: You do not have any risk of getting this HIV test

Benefits: If you participate in this research, you will have the benefit of knowing your HIV status
Confidentiality: The information that we collect from this research project will be kept confidential. Information about you that will be collected during the research will be put away and no-one but the researchers will be able to see it. Any information about you will have a number on it instead of your name. Only the researchers will know what your number is and we will lock that information up with a lock and key. It will not be shared with or given to anyone except the principal investigator Dr Ajith Karawita

Right to Refuse or Withdraw: You do not have to take part in this research if you do not wish to do so and refusing to participate will not affect your involvement in the global fund HIV prevention project in any way. You will still have all the benefits that you would otherwise have at this project. You may stop participating in the research at any time that you wish without losing any of your rights as a peer in the project.
OR
You do not have to take part in this research if you do not wish to do so. You may also stop participating in the research at any time you choose. It is your choice and all of your rights will still be respected.

Who to Contact: If you have any questions you may ask them now or later, even after the study has started. If you wish to ask questions later, you may contact any of the following:

Principal Investigator
Name:- Dr Ajith Karawita
Address:- No 29, De Saram Place, Colombo 10.

Chairperson of the research steering committee
Name:- Dr Sisira Liyanage
Address:- No 29, De Saram Place, Colombo 10.

Telephone number:- 071-8103001
e-mail:- ajith.karawita@gmail.com

Telephone number:- 071-4783914
e-mail:- dnsacpmohsrilanka@gmail.com

PART II: CERTIFICATE OF CONSENT:

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions that I have asked have been answered to my satisfaction. I consent voluntarily to participate as a participant in this research.

Name of Participant_____

Signature of Participant _____

Date _____ Day/month/year

If illiterate:

A literate witness must sign (if possible, this person should be selected by the participant and should have no connection to the research team). Participants who are illiterate should include their thumb-print as well.

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Print name of witness_____ AND Thumb print of participant

Signature of witness _____

Date _____ Day/month/year

Annex II: Study Questionnaire

Sri Lanka HIV OraQuick Study (SL-HIVOQ Study)

ID1	Peer Group Type *(Identify this by asking under which category, the participant connected to the Global Fund project)*	FSW 1	MSM 2	BB 3	DU 4	
ID2	Peer Group (PG) code					
ID3	Peer Code					

SECTION A: BACKGROUND CHARACTERISTICS

A1	Have you been tested for HIV during the last three (03) years under GFATM HIV project?	Yes 1 No 2	
A2	Have you been tested for HIV during the last one (01) year other than the GFATM project? (private sector or other means)	Yes 1 No 2	
A3	How old were you at your last birthday? *(If participant is unsure, estimate best answer)*	Age .....Years	
A4	Biological sex at birth *(Anatomical sex at birth)*	Male 1 Female 2 Intersex 3	
A5	What is your Gender	Male 1 Female 2 Transgender 3	
A6	What is your sexual orientation *(sexual attractions)*	Heterosexual 1 Homosexual 2 Bisexual 3 Other 4	
A7	How many years of school education you completed	.....Years No school education 0	

A8	What is the highest level of education you completed? *(read out)*	Completed pre-school 1 completed primary(1-5 years) 2 completed years 6 to 10 3 Passed O-level 4 Passed A-level 5 Completed diploma 6 completed degree 7 Other…… 8	
A9	In which district you mostly lived during the preceding year?	_____	
A10	Are you currentemployment status?	Student 1 Not employed 2 Self-employed 3 Employed (state or private sector) 4 Retired from state or private sector job 5 _____Other 6	
A11	What is your current occupation?	Write occupation here _____ _	
A12	What is your current marital status? *(Here consider only legal heterosexual marriage)*	Single (never married) 1 Living together but not married 2 Married 3 Divorced / separated/Widowed 4 Other…… 5	

SECTION B: HIV KNOWLEDGE QUESTIONS

Now I am going to ask you some questions to assess your knowledge on HIV transmission			
B1	Can having sex with only one faithful, uninfected partner reduce the risk of HIV transmission?	Yes 1 No 2 Don't know 3	
B2	Can using condoms reduce the risk of HIV transmission?	Yes 1 No 2 Don't know 3	
B3	Can a healthy-looking person have HIV?	Yes 1 No 2 Don't know 3	
B4	Can a person get HIV from mosquito bites?	Yes 1 No 2 Don't know 3	
B5	Can a person get HIV by sharing a meal with someone who is infected?	Yes 1 No 2 Don't know 3	

SECTION C: HIV RISK BEHAVIOURS (RISK ASSESSMENT)

Now I am going to ask you some personal questions about your HIV risk behaviours			
C1	According to your understanding, Do you have a risk of acquiring HIV/AIDS?	No risk 1 Some risk 2 No idea about risk 3	
C2	Have you ever been transfused blood or blood products?	Yes 1 No 2	
C3	Have you ever had sex with someone other than your marital or regular sexual partner (RP) *(Regular partner may be heterosexual or homosexual partners)*	Yes 1 No 2	
C4	Have you ever used drugs (abused drugs) (consider Heroin, Tablets etc or injecting drugs as drugs here)	Yes 1 No 2	
C5	Have you ever shared syringe/needles with someone for drug injections?	Yes 1 No 2	
Now I am going to ask you some personal questions about your sexual behaviours			

C6	With how many different **MALE PARTNERS** you had sex? *(sex here refers to vaginal, anal or oral penetrative sex)* *(If no MALE partners mark as "0")*	During previous 7 days		
		During previous 30 days		
		During previous 3 months		
C7	With how many different **FEMALE PARTNERS** you had sex? *(sex here refers to vaginal, anal or oral penetrative sex)* *(If no FMALE partners mark as "0")*	During previous 7 days		
		During previous 30 days		
		During previous 3 months		
C8	Did you use a condom at last **VAGINAL** sex with your partner	Yes 1 No 2 No **VAGINAL** sex 3		
C9	Did you use a condom at last **ANAL SEX**with your partner	Yes 1 No 2 No **ANAL** sex 3		
C10	Did you use a condom at last **ORAL SEX** with your partner	Yes 1 No 2 No **ORAL** sex 3		

SECTION D: BARRIERS FOR HIV TEST

D1	**<u>Factors related to personal attitudes</u>** What are your personalfactors of not getting an HIV test	I do not have any personal need for an HIV test 1 No difficulty or barrier 2 I don't care of getting HIV 3 I have no risk of getting HIV (perceived low risk) 4 I trust my partners 5 My partners are not having HIV 6 Our community not affected by HIV 7 Sri Lanka has very low level of prevalence 8 Other.....9	
	If the answer for the above D1 is number 1, end the section D		
D2	**<u>Peer Educator related factors</u>** For you to get an HIV test, What difficulties and barriers you have with regard to the	No difficulty or barrier 1 He/ She is not cooperative 2 Difficult to contact the Peer Educator 3 I doubt about confidentiality 4 Problems with paying transport allowance 5	

	peer educator *(Multiple answers possible)*	Other.....6	
D3	**<u>Access related factors</u>** For you to get an HIV test, what are thedifficulties and barrier to access an STD clinic *(Multiple answers possible)*	No difficulty or barrier 1 Testing facility is far away 2 Need to spend money for travelling 3 Travelling support is not enough 4 Need to take a leave from job 5 Very busy; no time 6 Other..... 7	
D4	**<u>STD clinic related factors</u>** For you to get an HIV test, What are the difficulties and barriers exist at the STD clinic *(Multiple answers possible)*	No difficulty or barrier 1 There are known people in the clinic 2 Stigma attached to STD clinics 3 STD clinic staff is not cooperative 4 I doubt about the confidentiality at the clinic 5 There is no priority for us 6 Long waiting hours at the clinic 7 I do not like the gender of the doctor 8 Take long time for results 9 Other..... 10	
D5	**<u>Test related factors</u>** For you to get an HIV test, What are the difficulties and barriers related to the test procedure? *(Multiple answers possible)*	No difficulty or barrier 1 Blood drawing is painful 2 I scared of blood 3 I doubt about the sterility of equipments 4 STD clinics do other painful procedures 5 Other.....6	

Section E: HIV OraQuick pre and post test counseling form

I/We now introduce you an HIV oral fluid test (show the pack), as a selection test for proper HIV confirmatory algorithm (In this procedure, I gently swipe the test swab along your upper gums once and your lower gums once. Then the swab is inserted to a test tube provided with the test pack and you can get results in20 minutes

Pre-test counselling

Under the Global Fund HIV prevention interventions for peer groups, your Peer Educator has already given you information about sexually transmitted infections including HIV. However, you have not received an HIV test for some reason. Therefore, I offer you this OraQuick test to identify whether you need further HIV testing to confirm your HIV status.

As you know, this test result can be Reactive, Non-reactive or Invalid. This OraQuick test is used as a selection of persons for HIV testing (test for Triage) and not for the confirmation. If your oral fluid test becomes positive, you will be given a referral slip to attend an STD clinic to undergo voluntary and confidential test for HIV.

E1	Are you willing to take this test	Yes 1 No 2	
E2	If you do not willing to take this oral-fluid rapid HIV test, what are the reasons		

I will now perform the HIV oral-fluid test and your result will be available in 20-40 minutes. Once the test done, record test result in the following table. *(after the test indicate the test results in the following table)*

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Result of the oral-fluid rapid HIV test

E3	Rapid test result	Reactive 1 Non-reactive 2 Invalid 3	
E4	Name of the community tester		
E5	Remarks (If any)		

Post-test counselling

After the oral-fluid rapid HIV test, the tester needs to carry out a brief post test counselling based on the test result, counsel the peers as mentioned below for different test results

Counselling for Reactive test:

Your oral-fluid rapid HIV test is Reactive that means test is positive. This does not mean you are definitely having HIV. This means you are selected for further screening and confirmatory tests (HIV testing algorithm). You are given a referral slip to attend an STD clinic and undergo voluntary and confidential testing to identify whether you actually infected or not. During further testing, you may be identified as not having HIV or sometimes you may be identified as you are having HIV. If you are identified as having HIV, you are linked to HIV care services to have a positive and quality living with HIV.

Counselling for Non-reactive test:

Your oral-fluid rapid HIV test is non-reactive that means you are not selected for further HIV testing and consider as negative for HIV. However, the meaning of negative test is that currently you have no antibodies to HIV. Furthermore, negative test implies that you have not infected from any behaviours happened 3 months before. This negative test does not say about your risk of acquiring HIV from any risk behaviours happened during last three months. Based on you risk behaviours you may need further testing.

Counselling for Negative test:

Your oral-fluid HIV rapid test is invalid that means I cannot say that you are infected or not. Therefore, I need to repeat the test. If the repeat test also become invalid, you are referred to an STD clinic for further testing

Then advise them to take the feedback form and answer it. If they are illiterate, read out the questions and answers for them to select appropriate answers.

Finally, thank them for taking the survey.

SECTION F: ACCEPTABILITY OF ORAL-FLUID RAPID HIV TEST

Peer's Number: ……

F1	What method of access you prefer for HIV testing *(multiple answers possible)*	Going to a STD clinic 1 STD clinic staff visiting our place 2 Testing by an outreach healthcare worker 3 HIV testing in a community friendly centre 4 Testing by the Peer Educator at your place 5 Other.....6	
F2	What method of sampling you prefer for the detection of HIV	Testing by drawing a sample of blood 1 Testing by finger prick 2 Testing by using oral fluid 3 Other..... 4	
F3	When would you prefer to get the result of the test	Within 1 week 1 Within 2-3 days 2 Just after testing 3 Other..... 4	

Now you need to give a feed back on the test you just received

F4	I would recommend this test to others as a good test	Agree 1	Disagree 2	
F5	I was satisfied with the test that I received today	Agree 1	Disagree 2	
F6	I felt pressured into getting the HIV test today	Agree 1	Disagree 2	
F7	I do not like this type of HIV test	Agree 1	Disagree 2	
F8	I had to wait too long for my HIV test result	Agree 1	Disagree 2	
F9	This HIV test is a barrier to receive other services from the STD clinic	Agree 1	Disagree 2	
F10	Overall, I felt that the test done today was private and confidential	Agree 1	Disagree 2	
F11	I felt that my HIV test result was told to me in a private way	Agree 1	Disagree 2	
F12	I understand the meaning of my HIV test result	Agree 1	Disagree 2	
F13	The information I was given about HIV testing was satisfactory	Agree 1	Disagree 2	

Overall, satisfaction

F14	Overall, how is your satisfaction about this oral fluid HIV test (OraQuick test)	Poor 1	Fair 2	Good 3	Very Good 4	Excellent 5	

Annex III: IDI guide

To assess the feasibility of oral-fluid rapid HIV test among most-at-risk peer groups in Sri Lanka

IDI title	Feasibility of planning and implementation of the Oral-fluid rapid HIV test (OraQuick) among most-at-risk peer groups in Sri Lanka
IDI interviewer	Principal investigator
Transcription method	Interviews are recorded and responses are grouped according to the IDI guide

1. Do you think that planning a community based HIV testing among the target population is feasible
2. How feasible to maintain the Supply chain of products for the community oral-fluid HIV test among the target groups
    a. Procurement of items, transport to storage at centre
    b. Dispatch to community testers
    c. Storage at community sites
    d. Carrying test kits to final testing sites
3. In your opinion, what are the strengths and weaknesses of quality control of test kits (Product) and quality of testing procedure (service)
    a. Quality control of test kits: strengths and weaknesses
    b. Quality of testing procedure: strengths and weaknesses
4. In your opinion, what are the strengths and weaknesses on data recording and reporting, If we are going to implement this?