NATIONAL GUIDELINE FOR COMMUNITY BASED HIV TESTING SERVICES

জাতীয় এইডস/এসটিডি কন্ট্রোল
স্বাস্থ্য অধিদপ্তর, স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়

National AIDS/STD Control
Directorate General of Health Services
Ministry of Health and Family Welfare

National Guideline For Community Based HIV Testing Services (HTS)

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National AIDS/STD Control (NASC)
Ministry of Health and Family Welfare
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FOREWORD

The prevention of HIV infection is continued to remain as one of the major focused area for the health sector response in Bangladesh. HIV Testing Services (HTS) is an entry point to HIV prevention, treatment, care and support. AIDS/STD Programme (ASP), the focal wing of the Ministry of Health & Family Welfare (MOH&FW) recognizes the need for expansion of HTS emphasizing adoption of comprehensive and standardized community based HIV testing services.

Bangladesh is one of the 66 signatories to achieve the global target "Ending AIDS by 2030. As first step of meeting the target, it is essential to increase HIV testing coverage. Starting in limited scale, facility based HIV testing services is being provided since the identification of first HIV case in 1989. Though facility based HTS has increased both in public, private and NGO facilities, but not sufficient in number. Additionally, current approaches are not suitable for all categories of sub-population either belonging to general or key populations. Because, all populations do not access health care facilities equally. Key populations do not feel comfortable visiting a healthcare facility because of many factors e.g. distance, denial, unfriendly health care providers, wide-spread stigma and discrimination etc. So, delivering community based HTS services in addition to facility based HTS will contribute for increasing the number of people who know their HIV status and linking them with appropriate care.

It is expected that when people know their HIV status they will make informed choice on HIV prevention or if positive, access other services. It is envisioned that everyone should have access to HTS and each person living with HIV must be on treatment and reach viral suppression, so that no-one is born with or dies because of HIV.

The guideline has been produced using knowledge and experience gained from community-based HTS services provided by selective Non-Governmental Organizations (NGOs) since 2017. All were funded through GFATM. A multidisciplinary team representing public health professionals, NGOs, physicians, and counsellors developed these guidelines. This team solicited guidance from a wide range of experts such as program planners, managers, program implementers, people living with HIV/AIDS (PLHIV), donors and many others with varied expertise. All the contributors have had direct experience in implementation at grassroots level and share practical lessons learned on the ground.

This guideline will provide practical perspective to implementing community-based HIV testing services. It contains information for those wishing to establish and maintain high quality HIV counseling and testing services. This guidance document is not prescriptive nor exhaustive. It aims to stimulate thinking and inspire the reader with practical and creative ways to address many of the challenges that exist when providing community-based HTS.

I am hereby recommending the National Guidelines for Community Based HIV Testing Services (2019) for use by all health professionals in both public and private sector facilities throughout Bangladesh and hope this will ensure implementation of quality community based HIV testing services and make a positive impact in decreasing HIV infections in Bangladesh.

Professor Dr. Abul Kalam Azad
Director General
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The AIDS/STD Programme wishes to express its gratitude to all stakeholders for their valuable input towards the development and finalization of the National Community Based HIV Testing Services Guideline. The ASP wishes to express special thanks and appreciation to the members of the Technical Working Group, who, from different organizations and in their personal capacity have generously given of their time, shared their practical knowledge, expertise and narratives over the last few months.

The ASP is honored to extend sincere appreciation with gratitude to the Advisory Committee from various organizations, such as, Infectious Disease Hospital, Bangabandhu Sheikh Mujib Medical University (BSMMU), Save the Children, ICDDR, B, UNAIDS, UNICEF, WHO, Light House and the Civil Society Organizations who provided technical input and helpful suggestions.

This guideline would not have been possible without strong administration and all hard work behind the scenes done by different level of professionals of ASP. The ASP wish to thank all team members for making the endeavor successful.

Finally, the ASP appreciate both technical and financial assistance provided by HIV/AIDS Programme of the Save the Children that led to the development of this time demanded important national document for making HTS accessible by all sub-populations including key populations in need for such services. Stakeholders will not only find this community based HTS guideline as a valuable resource tool. It provides specific recommendations and guidance to move HIV testing and counseling services to be closer to the community, to ensure the quality of services through monitoring, supervision as well as continuous quality improvement.

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ACRONYMS

ADR : Adverse Drug Reaction

AIDS : Acquired Immune Deficiency Syndrome

ASP : AIDS/STD Programme

BCC : Behavior Change Communication

BSMMU : Bangabandhu Sheikh Mujib Medical University

CITC : Client Initiated Testing and Counselling

CSTC : Care, Support and Treatment Center

DBS : Dried Blood Spot

DIC : Drop-in Centers

DGHS : Directorate General of Health Services

ELISA : Enzyme linked Immuno Sorbent Assay

EQA : External Quality Assessment

FHI : Family Health International

FSW : Female Sex Worker

GFATM : Global Fund to Fight AIDS, Tuberculosis, and Malaria

HCP : Health Care Provider

HCF : Health Care Facility

HIV : Human Immunodeficiency Virus

HIVST : HIV Self-testing

HTC : HIV Testing and Counseling

HTS : HIV Testing Services

ICDDR,B: International Centre for Diarrhoeal Disease Research, Bangladesh

IEC : Information Education Communication

IP : Infection Prevention

KP : Key Population

Lep : Leprosy

LIA : Line Immuno Assay

MSM : Male having sex with male

MSW : Male sex worker

NFM : New Funding Model

NGO : Non-Governmental Organization

MBDC : Mycobacterial Disease Control

PITC : Provider Initiated Testing and Counselling

PLHIV : People Living with HIV

PMTCT : Prevention of Mother-to-Child Transmission

PSM : Procurement and Supply Management

PWID : People Who Inject Drugs

RCC : Rolling Continuation Channel

RDT : Rapid Diagnostic Test

QA : Quality Assurance

QI : Quality Improvement

SOP : Standard Operating Procedures

SP : Service Provider

SR : Sub Recipient

SSR : Sub Sub Recipient

STD : Sexually Transmitted Disease

STI : Sexually Transmitted Infection

TB : Tuberculosis

TG : Transgender

UNAIDS: Joint United Nations Programme on HIV/AIDS

UNFPA : United Nations Population Fund

UNICEF: United Nations International Children's Emergency Fund

UP : Universal Precaution

VCT : Voluntary Counselling and Testing

WB : Western Blot

WHO : World Health Organization

OPERATIONAL DEFINITION

Acute infection: The period in which an individual becomes HIV-infected and before HIV antibodies can be detected by a serological assay.

Analyte: A substance or chemical constituent that is analyzed, generally referring to a component of blood or another body fluid. In the context of HIV, analytes include HIV p24 antigen and HIV-1/2.

Community-based HIV testing services: This is an important approach to reach first-time testers and people who seldom use clinical services, including people from key populations in all settings. It also facilitates early diagnosis. Services may be offered in community sites such as community-based organizations, schools, workplaces and religious institutions. Mobile services can be provided through mobile vans or tents and in places of entertainment such as clubs.

Community: A community is a small or large social unit that has something in common, such as norms, religion, values, or identity.

Confirmed: To issue an HIV status, initially reactive test results need to be confirmed according to the national validated testing algorithm.

External quality assessment (EQA): Inter-laboratory comparison to determine if the HIV testing service can provide correct test results and diagnosis.

HIV testing services (HTS): The full range of services that should be provided together with HIV testing- counseling (pre-test information and post-test counseling); linkage to appropriate HIV prevention, treatment and care services and other clinical and support services; and coordination with laboratory services to support quality assurance and the delivery of correct results. The WHO 5 Cs are principles that apply all models of HTS in all circumstances.

HIV Self-testing (HIVST): A process, in which an individual who wants to know his or her HIV status collects a specimen, performs a test and interprets the result by him- or herself, often in private. Reactive test results must be followed by additional HIV testing services.

Key populations: Defined groups who, due to specific higher-risk behaviors, are at increased risk for HIV irrespective of the epidemic type or local context. These guidelines refer to the following groups as key populations: men who have sex with men, people who inject drugs, people in prisons and other closed settings, sex workers and transgender people.

Lay provider: Any person who performs functions related to health-care delivery and has been trained to deliver specific services but has not received a formal professional or paraprofessional certificate or tertiary education degree.

Linkage: It is defined as a process of actions and activities that supports people testing for HIV and people diagnosed with HIV in engaging with prevention, treatment and care services as appropriate for their HIV status. For people with HIV, it refers to the period beginning with HIV diagnosis and ending with enrolment in care or treatment.

Non-reactive test result: A test result that does not show a reaction indicating the presence of analyte.

Outreach: Outreach is defined as performing HIV testing services in hot spots, workplaces, homestead, educational establishments, clubs, during mobile outreach campaigns and various national and cultural events.

Pre-test information: A dialogue and the provision of accurate information by a trained lay provider or health worker before an HIV test is performed.

Rapid diagnostic test (RDT): In vitro diagnostic of immunochromatographic or immune-filtration format for, in the case of HIV diagnosis, the detection of HIV-1/2 antibodies and /or HIV p24 antigen.

Repeat testing: Refers to a situation where additional testing is performed for an individual immediately following initial test results, within the same testing visit, using the same assays and, where possible, the same specimen.

Re-testing: There are certain situations in which individuals should be retested after a defined period of time: (1) HIV-negative people with recent or on-going risk of exposure, (2) people with an HIV-inconclusive status and (3) HIV-positive people before they enroll in care or initiate treatment. Reasons for retesting before initiation of care or treatment include ruling out laboratory or transcription error and either ruling in or ruling out seroconversion.

Seroconversion: When an individual first produces a quantity of HIV antibodies sufficient to be detectable on a given HIV serological assay.

Sero-discordant couple: A couple in which one partner is HIV-positive and one partner is HIV-negative.

Testing algorithm: The combination and sequence of specific assays used within HIV testing strategies.

Test for triage: A community-based HIV testing approach involving trained and supported lay providers conducting a single HIV RDT. The lay providers then promptly link individuals with reactive test results to a facility for further HIV testing and to an assessment for treatment. Individuals with non-reactive test results are informed of their results, referred and linked for appropriate HIV prevention services and recommended for retesting according to recent or on-going HIV risk and national guidelines (WHO consolidated guidelines, 2015).

Viral suppression: It refers to a viral load below the detection threshold using viral assays.

Window period: The period between HIV infection and the detection of HIV-1/2 antibodies using serological assays, which signals the end of the seroconversion period.

Section 1: Introduction

1.0 Rationale of the Guidelines

HIV testing services (HTS) are an essential gateway to HIV prevention, treatment, care and support services. The World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) endorse and encourage universal access to knowledge of HIV status. Increased access to and uptake of HIV testing is central to achieving the 90–90–90 targets that endorsed in the 2016 United Nations Political Declaration on Ending AIDS. Several 'fast track' approaches have been set in the fourth National Strategic Plan (2018-2022) to guide the national response to HIV and AIDS to achieve the global targets on 'Ending AIDS by 2030' and treatment target of '90-90-90' by 2020 focusing on prioritized districts based on proportion of key populations and HIV case detection[1].

World Health Organization (WHO) has released Consolidated Guidelines on HIV Testing Services in 2015. WHO has made a major shift while recommending HIV testing also by trained lay providers using rapid diagnostic tests (RDTs). Alongside WHO has started using new terminology ***"HIV testing service (HTS)"*** instead of ***"HIV testing and counseling (HTC)"*** encompassing a full range of services that should be provided together with HIV testing. Also, WHO has anticipated the potential of HIV self-testing (HIV ST) for scaling up HIV testing services. Guided by these new recommendations, Government of Bangladesh (GoB) has adopted WHO terminology "HTS" to replace "HTC" in order to incorporate all services aimed at ensuring delivery of high quality HTS. Also, GoB has planned to initiate HIV testing services by lay providers so that scarcity of health care professionals and paraprofessionals no longer remains an impediment for scaling up HTS in Bangladesh. But the guideline for HIV testing by lay providers for carrying forward this plan into action is yet to be developed in the country context.

On this backdrop, the first guideline on community based HTS approach has been developed in Bangladesh while contextualizing and encompassing pertinent aspects for the implementation and management of community based HIV testing services. Although it is predominantly based on experiences of facility based HIV counseling and testing services, many of the key principles can be applied across other types of HIV testing services that happen outside of health facilities.

2.0 Objective of the Guidelines

The Government of Bangladesh through AIDS/STD Programme (ASP) seeks to develop a standardized community-based HTS guideline to ensure high quality services and high coverage of different sub-populations including key populations (KPs).

This guideline recognizes that for communities and individuals to derive maximum benefit from HTS, sufficient information should be disseminated countrywide so that many people get an opportunity to know their HIV status. This document is meant to guide for reaching all intended beneficiaries and ensure overall efficiency of the community based HTS approach. The greatest determinant of efficiency and effectiveness in HTS is to mobilize as many people as possible, and to identify the most number of HIV-infected persons per unit cost.

The guidelines aim to:

- Guide for introducing evidence driven community based testing approach in alignment with recommendations of WHO.

[1] NASP. DGHS. MoHFW. 4th National Strategic Plan for HIV and AIDS Response (2018-2022). December 2016.

- Provide comprehensive guidance for the delivery of community based quality HIV testing services for different types of populations prioritizing most affected people but undiagnosed and underserved at present.
- Support testing by trained lay providers to increase access to HTS through community based approach.
- Provide guidance to ensure the accuracy of test results and support improvement of the quality of HTS.
- Provide guidance for strengthening linkage to care and treatment and other post-test services.
- Outline the data collection, reporting mechanisms and utilization.

3.0 Process for Development of Guidelines

The process of developing the first National Community Based HIV Testing Services was led by the AIDS/STD Program (ASP), Directorate General of Health Services (DGHS) starting in September 2018, with financial assistance from the Save the Children under GFATM. The technical aspect of this guideline was guided by a Core Technical Committee formed by ASP. ASP has developed the current guidelines using the following process:

- **Formation of core technical and advisory committee**: At the beginning national core technical committee and advisory committee (experts on HTS) were formed. The core group consists of representatives of ASP, Infectious Disease Hospital, program implementers, donors, HIV & STI program management agencies and relevant NGOs.

- **Review WHO, CDC and other regional guidelines:** The core technical committee intensively reviewed all available international guidelines on HTS including community based HTS for incorporating evidence based information in to the national guideline.

- **Draft formulation of the guideline:** All members of the core technical group including ASP actively engaged for draft formulation through interactive extensive discussion.

- **Circulation of the draft guideline to national experts:** The draft guideline was circulated for further review by selected experts in the field of HIV testing and counseling services.

- **Incorporation of the comments and suggestions:** All comments and suggestions of reviewers were discussed in detail to be incorporated.

- **Approval of the guidelines by Technical Committee, National AIDS Committee and the MoHFW:** TC, NAC and the MoHFW approved the guideline. The approved guideline was developed as the first *National Community Based HIV Testing Services 2018* for Bangladesh.

4.0 Users of the guidelines

Anyone can benefit from this guidance document, even though it is aimed at persons planning to implement community-based HIV-prevention services or wanting to carry out related community-based activities. There are many categories of personnel involved in the implementation of different aspects of community-based HIV-prevention programs and activities, including program managers or coordinators, nurses, HIV counselors, community mobilizers, monitoring and evaluation officers, regulatory officers, quality assurance personnel, community liaison officers, managers and personnel at NPOs, data managers, data developers, human resource managers and trainers. All of these categories of personnel should derive direct benefit from this guidance document.

Section 2: HIV Testing Services in Bangladesh: Evolution, Rationale and Approach

2.1 Background

HIV testing goals call for 90% of all people living with HIV to know their status by 2020, as described in the UNAIDS 90-90-90 Fast-Track Targets.[2] HIV testing marks the first step of the 'HIV treatment cascade' – that is, the route from testing and diagnosis, through to treatment access and viral suppression (when HIV levels in the body are very low). Until 2017, globally 75% of people living with HIV (PLHIV) know their HIV status, three out of five PLHIV are on antiretroviral therapy (ART) and only 47% of those who are on ART have undetectable level of virus in their body.[3] Hence, it is crucial to scale up HIV testing services worldwide to attain the Fast-Track targets.

If more individuals are not tested for HIV, case detection will be lower hindering treatment access and facilitating spread of HIV infection. However, for a number of reasons – from simply not understanding the risks, to fear of criminalisation or stigmatisation for belonging to a certain group – many people do not test. So, it is important to make HTS available to the groups who are most vulnerable to HIV and who are marginalized. These groups include sex workers, men who have sex with men, injecting drug users, transgenders and clients of sex workers. Making services available to vulnerable and marginalized populations can contribute to delaying the epidemic, as well as providing early access to HIV care and support services.

There is now a growing awareness that innovative approaches are needed to increase the number of people testing for HIV. Rapid tests, or point-of-care tests for HIV have revolutionised the response, by task-sharing and enabling HIV testing to be delivered by trained lay providers in more settings, ranging from routine testing in facilities to community-based outreach, to in the home. There are two main types of HTS; Client Initiated Testing and Counselling (CITC) and Provider Initiated Testing and Counselling (PITC). These can be provided in both clinical and community settings. Provision of HTS has evolved over time from CITC in the form of traditional Voluntary Counselling and Testing (VCT) to include other evidence-based approaches to increase access.

While drop-in and client-initiated programs were certainly the norm for testing in the past, and in the pre-antiretroviral treatment era, globally there is also a move towards more proactive, rights-based, PITC, in which people are offered an HIV test which they have to actively 'opt out' of or decline after being given information and counselling about it. Similarly, in the early era of HIV infection, designated as a low prevalent country, Bangladesh initiated CITC as HIV testing approach in the form of VCT. Later, HTS was largely scaled up mostly through PITC approach while gradually integrating with sexually transmitted infections (STIs) in 2005 for key populations (KPs), with Tuberculosis screening in 2009, with Prevention of Mother-to-Child (PMTCT) services in 2013, and lastly in ART centres mostly located in the tertiary level public hospitals in 2015 for all populations including KPs. Between 2005 to mid-2013, comprehensive HIV testing services were provided by only a limited number of tertiary level public/autonomous hospitals and ICDDR, B (Jagori) for all populations as well as by NGO facilities mostly supported by Family Health International 360 (FHI360) for KPs. Since 2013, facility based comprehensive HTS was introduced by Global Fund to Fight AIDS, Tuberculosis, and Malaria (GFATM) in NGO facilities in wider scale and government also scaled up in a few more public hospitals.

Currently Bangladesh is at latent stage of epidemic condition. Number reported cases are gradually

[2] UNAIDS. '90-90-90: An ambitious treatment target to help end the AIDS epidemic'. 2014
[3] ibid.

increasing since 2012.[4] Also, HIV infection is concentrated in both male (22%) and female (5%) PWIDs in Dhaka City as observed in recent surveillance.[5] Apparently, HIV case burden is not similar in all districts of Bangladesh. A total of 23 districts have been prioritized that demand more focused interventions including scaling up of HTS.[6] WHO also emphasizes adoption of mix HTS approaches based upon settings, context and diverse population group for preventing new HIV infection, promoting health and attaining the global goal.[7]

2.2 Current HIV situation

Bangladesh is low HIV prevalent (<0.01% among general population) country with high vulnerabilities. In 2018, reported number of cases of new HIV infection was 869, of them 85 were young people aged 15-24 years. Cumulatively 6,455 cases have been detected in Bangladesh until 2018.[8] The estimated number of PLHIV is 13,000 inclusive of 1143 young people.[9]

The last integrated behavioural and serological surveillance revealed concentrated HIV epidemic among both male (22%) and female (5%) PWIDs in Dhaka City. In certain districts apart from Dhaka, HIV prevalence is found 0.2% both in FSW and MSM, 0.6% in MSW, 1.4% in TG and 18.1% among PWID.[10] Every year new HIV case reporting presents significant number of KPs. In 2018, among the reported new infections, PWIDs were 294, FSWs were 9, MSMs were 26, MSWs were 16 and TGs were 8 (Figure:1).[11]

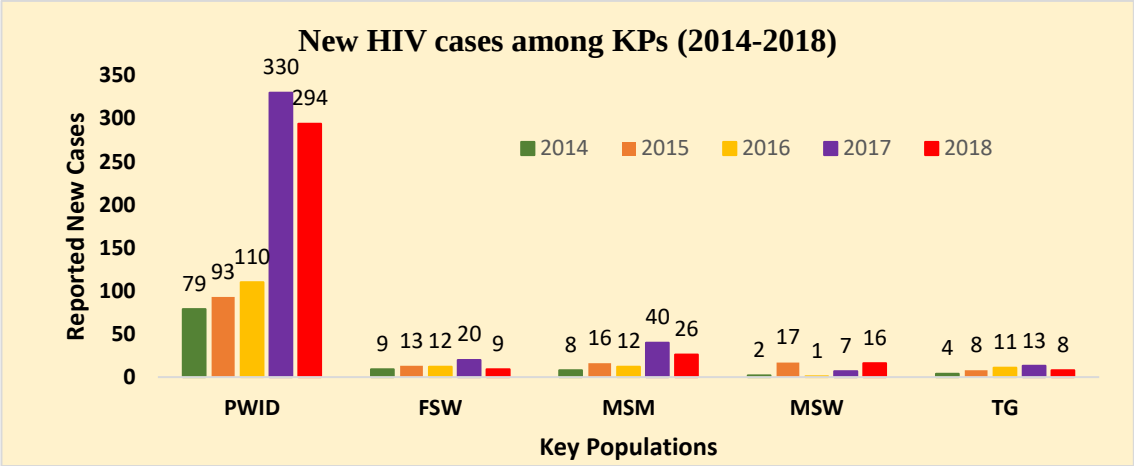


Figure 1: New cases of HIV among KPs (2014 to 2018)

[4] ASP. Key note presentations. WAD. 2012-2018.
[5] ASP, IEDCR, icddr, b. Behavioural and Serological Surveillance amongst Key Populations at Risk of HIV in Selected Areas of Bangladesh. 2016.
[6] ASP & UNAIDS. AIDS Epidemic Model Analysis. 2017.
[7] WHO. Consolidated Guidelines on HIV Testing Services. July 2015.
[8] ASP. WAD Key note presentation. 2018.
[9] ASP & UNAIDS. Regional Support Team (Asia & Pacific). National HIV estimates & projections using Spectrum. 2018
[10] ASP, IEDCR, icddr, b. Behavioural and Serological Surveillance amongst Key Populations at Risk of HIV in Selected Areas of Bangladesh. 2016.
[11] UNAIDS. Facts and figures on HIV: Bangladesh 2018.

Since 2013 to 2017, newly detected HIV cases of PWIDs showed almost a consistent rising trend (Figure:2). During this period overwhelming majority of the PWIDs identified with HIV infection were

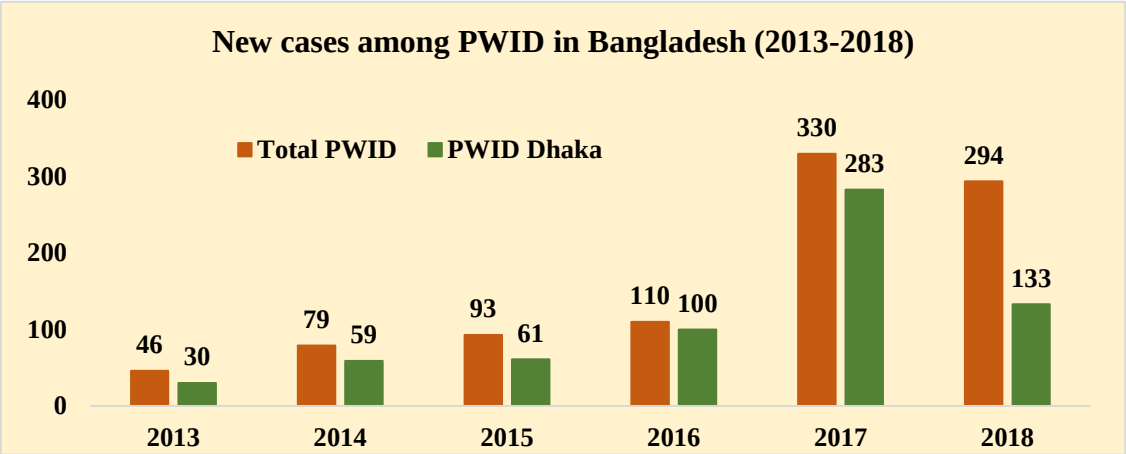


Figure 1: New cases of HIV among PWID in Dhaka City (2013 to 2018)

from Dhaka. However, in 2018, more than half of the new infections have been reported from other districts which signifies increasing vulnerabilities of other districts and calls attention for designing geographically targeted HIV testing interventions.

2.3 HIV testing situation in Bangladesh

About 50% (cumulatively reported 6,455 vs estimated 13,000) of PLHIV know their status by the end of 2018.[12] During the period of 2014 to 2018, number of HTS facilities and number of HIV tests have been increased (Table-1). Number of HTS facilities have been increased by 22 combinedly in governmental and non-governmental organizations. Performance of HIV test and number of newly identified HIV positive cases has increased by two and a half folds and by two folds respectively between 2014 and 2018.[13] In 2018, private facilities have reported conducting comprehensive HTS for the first time and performed 369,421 tests during same year. The following table gives a snapshot on HIV testing for the period of 2014 to 2018 in the country.

Table 1: HIV testing in Bangladesh (2014 -2018)

Year	Number of HIV testing facilities			Number of HIV test done	Number of HIV positive cases detected
	Public	NGOs	Total		
2014	3	98	101	45,220	433
2015	16	75	91	67,869	469
2016	18	110	128	84,209	578
2017	15	64	79	77,725	865
2018	13	110	123	116,552	869

[12] ASP, UNAIDS. Key note presentation. 2018.
[13] ASP, DGHS. Key note presentation. WAD. 2014-2018.

HTS implemented by NGO facilities mostly provide services for KPs. Generally, access to HTS by KPs and other marginalized groups is limited not only because of inadequate availability of HTS centres but also because of prevailing stigma and discrimination towards them make distance from utilizing the services. In Bangladesh, the proportion of various categories of KPs who had ever tested for HIV to know their HIV status ranges from 64.0% to 88.6% (Figure 3). But the young KPs are less likely to go for HIV testing as found in the study. [14]

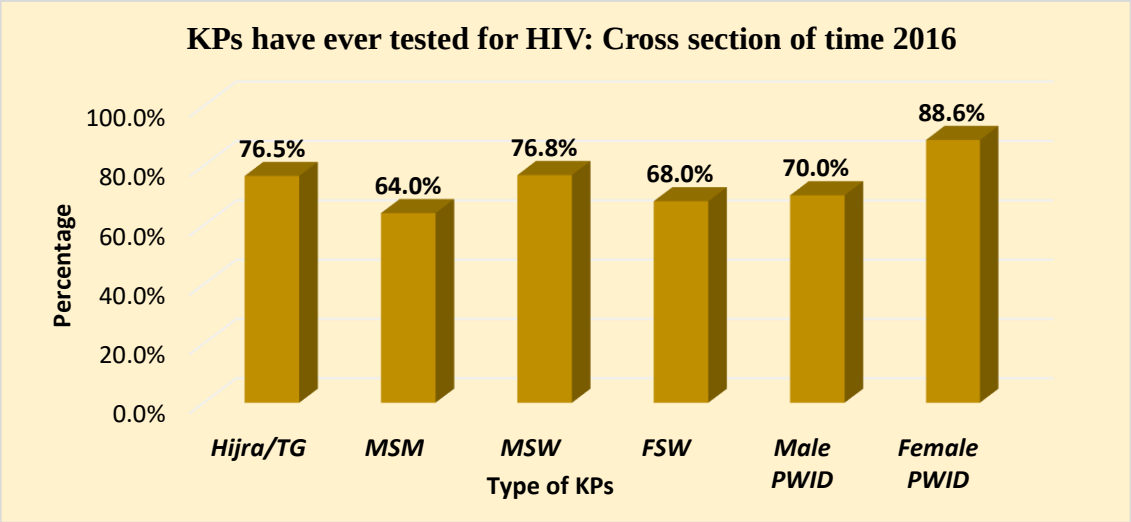


Figure 3: Proportional of KPs who have ever tested for HIV

Ranging from 13% to 36% KPs have not tested for HIV ever in their life-time. This evidence leads to conclude that proportion of regular HIV testing following risk exposure by KPs is much lower.

2.4 Testing approaches and settings

Testing approaches are adopted in a country informed by epidemiological information. Vulnerabilities and risk-taking behaviors by different sub-populations including KPs also provide hints for selection of HIV testing approaches. In Bangladesh, total number of new cases of HIV infection shows rising trend, concentrated epidemic is evident both in male and female PWIDs in Dhaka City, risk taking behaviours are still widely prevalent among KPs which necessitate regular HIV testing at certain interval.

More than half of PWIDs still share used needle/syringes and more than 60% of HIV positive male PWID borrow or lend needle. Only 28.7% PWID use condom in their most recent sexual intercourse. Though condom use is higher as found by both hotel based (81.7%) and street based (76.3%) female sex workers (FSWs) but lower among male sex workers (MSWs) (53.5%), male having sex with male (MSM) (54.0%) and transgender (TG) (50.7%).[15] Among general population, 14% of ever-married women report having had an STI and/or symptoms of an STI in the 12 months preceding the survey.[16] STIs such as herpes simplex virus (HSV) type 2 and syphilis can increase the risk of HIV acquisition.

[14] ASP, DGHS, MoHFW. Mapping Study and Size Estimation of Key Populations in Bangladesh for HIV Programs. Dhaka, Bangladesh. 2016.

[15] ASP, IEDCR, icddr, b. Behavioural and Serological Surveillance amongst Key Populations at Risk of HIV in Selected Areas of Bangladesh. 2016.

[16] National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ICF International. 2016. Bangladesh Demographic and Health Survey 2014. Dhaka, Bangladesh, and Rockville, Maryland, USA: NIPORT, Mitra and Associates, and ICF International.

Infection with chlamydia, gonorrhoea and syphilis can also increase a person's risk of being infected with HIV two- to three-fold.[17] In a study, prevalence was found almost four times higher among males.[18]

2.4.1 HIV testing approaches and settings in Bangladesh: Past, present and future

Until 2016, only facility based HIV testing services were available through limited number of GO-NGO facilities for both general population and KPs in Bangladesh. In 2017, under the new funding model (NFM) funded by GFATM, sub-recipients and sub-sub recipients of the Save the Children and International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR, B) have started community based HIV testing services in very small scale to get firsthand experience on community based HTS for increasing access to and coverage of key populations (KPs).

With this backdrop as well as perceiving the limitations for facility based testing alone for different sub-populations particularly KPs, the fourth National Strategic Plan (NSP) for HIV and AIDS Response (2018-2022) has given directives to expand HIV testing facilities while adopting community based and community led HIV testing approaches. Also, the fourth NSP has emphasized on geographical targeting while focusing on prioritized districts based upon size of KPs and HIV case detection.

Since increased access to and uptake of HIV testing is central to achieving the 90–90–90 targets, adoption of a mix of different HIV testing service delivery approaches is essential in the context of Bangladesh. Hence, in addition to facility based approach, Bangladesh has phased in community based approach for KPs either by lay providers or community health workers. Community Based HTS refers to HIV testing services provided within the community away from health facilities. Community-based HTS is an important approach for increasing early diagnosis, reaching first-time testers, people who seldom use clinical services particularly those who are asymptomatic, including men and adolescents in high prevalence settings and people from key populations in all settings. To improve access to and uptake of HIV testing, community-based HTS should be made available in locations and settings acceptable and convenient to people from KPs.

2.4.2 HIV testing in community: Adoption of "Test for Triage (T4T)" approach

Proposed by WHO, guided by the fourth NSP, informed by small scale initiatives implemented under GFATM since 2017, Bangladesh has introduced community based new approach for HIV testing "test for triage (T4T)". This approach is intended to expand the scope of community-based HTS. In T4T approach, a single rapid diagnostic test (RDT), referred to as A0 is offered in the community with linkage to further testing in a facility to confirm an HIV-positive diagnosis and start clinical care when needed. Bangladesh has decided to use Alere Determine™ HIV 1/2 rapid test kit as A0 in T4T.

2.4.3 Settings for community based HIV testing: Reaching the hard to reach

HTS in community are done through various ways including the following:

i) ***Testing during mobile and outreach:*** Outreach HTS services could be provided from health care facilities, DICs or standalone sites. Mobile teams can provide outreach testing services in premises including hot spots that meet the required quality HTS services. Target populations are key populations, any populations living in remote areas, vulnerable groups e.g. transport workers etc.

ii) ***Door-to-door/home-based testing:*** It facilitates access to hard-to-reach, rural and underserved populations. Known HIV positive or TB patients can act as index patients and consent to provision of HTS services in their homes.

[17] WHO. Key facts, Sexually Transmitted Infections. 3 August 2016.

[18] Ali CM et. Al; Pattern of Sexually Transmitted Diseases among Patients Attending Out-patient Department of Dermatology of Dhaka Medical College Hospital, Dhaka; J Dhaka Med. Coll. 2010; 19(1): 7-10.

iii) ***Testing in workplaces:*** Both men and women who are in formal and informal employment e.g. garment workers can be reached through their workplaces where services can be provided either as a static service or as an outreach from facilities providing HTS. People who do not want or do not have time to access public health facilities for HTS can benefit from this approach.

iv) ***Testing in places of educational establishments:*** Students in educational institutions can access HTS through services especially aimed at this group. Issues concerning informed and parental concern, confidentiality, peer pressure, linkages and follow up will need to be addressed before setting up such services.

Figure 4: Competency framework of lay service provider

v) ***Campaigns:*** HTS campaigns can take different forms including service provision through mobile or outreach services, creating awareness and directing clients to service provision sites, and as part of disease prevention campaigns e.g. cancer prevention campaigns. They can vary in duration and can target specific populations.

vi) ***HIV self-testing (HIVST):*** HIV self-testing (HIVST) can play an important role in making HIV testing facilities available for those who need it most and facilitate increasing case detection. HIV ST is a process in which a person collects his or her own specimen (oral fluid or blood) and then performs an HIV test and interprets the result, often in a private setting, either alone or with someone he or she trusts. Irrespective of epidemic situation, Bangladesh will follow ***supervised HIVST approach*** i.e. self-testing will always be facilitated by trained lay provider or health care provider. However, it is important that self-testers understand:

- HIV ST does not provide a definitive diagnosis
- How to correctly perform the test, interpret the result, as well as where and how to access stigma-free HIV testing, HIV prevention, treatment, care and support services
- A reactive self-test result is not an HIV-positive diagnosis and requires further testing and confirmation.
- A non-reactive self-test result is assumed negative. All self-testers with a non-reactive test result should be advised to retest if at high on-going HIV risk, or if potential exposure to HIV occurred in the preceding twelve weeks, and referred to a relevant HIV prevention service.

HIV ST is not recommended for people taking anti-retroviral drugs, as this may cause a false non-reactive result. Any person, who is uncertain about how to correctly perform the self-test, or interpret the self-test result, should be encouraged to access facility- or community-based HIV testing.

2.5 Guiding principles of community based HIV testing services

Community based HIV testing services will be guided by the following principles:

- HIV testing services in community settings shall be offered following a targeted approach especially for priority populations who are less likely to attend facility based HTS.
- Community based HIV testing services are placed well within the community and are ready to provide information on HIV testing, encourage people to get HIV screening test, and perform the test in a safe and secure place.
- Sites selection for community based HIV testing services will be based on the local contexts, the nature of HIV infection at that site, cost-effectiveness and available human and financial resources. The mix needs to facilitate diagnosing as many people living with HIV as early as possible, and guaranteeing those who are diagnosed with HIV to have immediate access to antiretroviral therapy.

- Community based HTS are required to comply with nationally accepted quality assurance benchmarks to continually build evidence on quality and effectiveness of HIV testing services provided by the lay providers.
- Members belonging to HIV key populations or any other sub-populations who are highly vulnerable to HIV infection are central to the implementation of community based HTS.
- Only trained and certified lay providers are eligible for conducting HIV T4T services following this guideline.
- Single RDT will be conducted by lay providers or community health care providers in community settings.
- Trained lay HIV T4T service providers are not allowed to provide written results of the test.

2.6 HIV testing services by lay providers: Evidence to Execution

The lay providers as defined by WHO, who are trained and supervised to use RDTs can independently conduct safe and effective HIV testing services.[19] Task-sharing through the use of trained and well supervised Lay providers is highly recommended to increase access to and reduce missed opportunities for HTS.

2.6.1 Evidences in support of HIV testing services by trained lay providers[20]

WHO has endorsed the provision of HTS by lay providers based upon following evidences:

- The uptake of HTS can increase when trained lay providers deliver services
- HIV testing conducted by trained lay providers is accurate - as accurate as testing by laboratory staff and health-care providers.
- Clients express greater satisfaction and support for services delivered by trained lay providers than by trained health professionals.
- Trained lay providers can deliver various other health services, beyond HTS and HIV prevention, care and treatment, such as vaccinations, screening and testing for tuberculosis and sexually transmitted infections, and distributing bed nets for malaria prevention.
- Task sharing with trained lay providers may cost less than using other health workers to perform the same tasks. Trained lay providers generally receive lower wages than health professionals.
- Trained lay providers may increase the likelihood that services will be sensitive to the culture of the community. They may reach more people because they often are culturally competent at talking with their peers, particularly people from key populations and adolescents.

2.6.2 Scope of work of lay providers in community based HTS

The Lay providers' scope of work in relation to HTS will include:

- Community mobilization
- Health Education
- Pre-test information giving
- Conducting single rapid HIV test in T4T
- Post-test information communication
- Linkage to Prevention, care, treatment and support services
- Follow-up of clients including tracing those lost to follow-up

Lay providers should be engaged at community or health facility level where task sharing is applied to complement the health workers.

2.6.3 Lay providers in Bangladesh: Competency framework

[19] WHO. Consolidated Guidelines on HIV Testing Services. July 2015.
[20] Ibid.

A competency framework (Figure 4) that identifies few attributes that are essential to ensure the quality of HIV screening by trained lay providers. However, it is often difficult but not unachievable to ensure quality work outside of a formal facility. Proper selection, training and mentoring of the lay providers, and periodically evaluating their performance can improve the quality of services. Each component of the competency framework has been elaborated below:

i. ***Selection of Lay providers***

It would be beneficial to select lay providers from existing peer volunteer, peer educator, field monitor, outreach supervisor, community organizer, spot leader, anybody belongs to a community or non-community who could be recruited and trained. Basic criteria of a lay HIV screening test lay provider are:

- Entrusted by the client by means of their professional conduct, knowledge, politeness.
- Ready to adept for dealing with sensitive issues and ability to listen.
- Experienced with peer education, and outreach work for at least 12 months. Duration of experience is flexible in case of peer educators other than KPs.
- Able to read the guidance and perform basic recording and reporting.
- Residing in the area of work for a reasonable amount of time.

For selection of lay provider, minimum level of education will widely vary depending upon the community characteristics from primary education to Masters degree. However, attainment of educational level will remain flexible for lay providers belonging to KPs.

ii. ***Remuneration***

Trained lay providers should be appropriately compensated for their work based upon existing policies of an organization and the volume of work. Otherwise, high turnover is likely. These workers should receive adequate wages and/or other appropriate incentives.

iii. Training

Lay providers will be trained following a standardized training package approved by ASP. They will receive 3 to 5 days basic training followed by 3 days refresher training and will be deployed and start HIV testing as per T4T approach in community.

The training should cover general knowledge on HIV, theoretical knowledge on national HIV testing algorithm and testing strategies, professional ethics, laboratory safety, role and responsibilities in T4T, approach to the client, pre- and post-test information to be provided to the client, theoretical and hands on practice on finger prick, blood collection, performing single RDT, reading, interpreting and communicating test result with client, referral linkage and procedures for positive diagnosis confirmation, infection prevention and post-exposure prophylaxis.

They will receive certificate on completion of training provided fulfilling the following requirements:

- Prove basic knowledge on HIV
- Demonstrate mastery on blood collection and performing single RDT
- Complete supervised practice in three consecutive outreach sessions
- Pass a final assessment

However, it is important to note that not all lay providers would be ready to independently perform the rapid diagnostic HIV screening test, from day one.

iv. On-site Mentoring

Designated health professional will provide direct supervision to assess the quality of information provided to the clients on HIV and HIV testing as well as actual performance of HIV testing. Newly trained lay providers will perform HIV screening test under supervision in three consecutive outreach sessions before trained lay providers are certified to perform HIV screening test independently. Any observation during supervision will be discussed with the lay providers and corrective measures will be undertaken accordingly.

v. Certification

Lay providers who perform HIV tests under supervision in three consecutive outreach sessions after training are certified as "Trained Lay HIV Test Provider for Triage" and are ready to perform HIV screening tests independently in a community setting. Such certifications are annual and will be renewed based on the performance. The organization offering T4T can certify a lay provider for HIV screening tests in close coordination with ASP. It is crucial to mention the following conditions in the certificate of trained lay HIV screening service provider for ensuring the quality of services and protecting the misuse of certificate:

1. The trained HIV screening test provider is only allowed to perform HIV screening tests for targeted populations including KPs in pre-selected place in the community setting.
2. The trained HIV screening test provider is not allowed to confirm HIV diagnosis, and issue any certification on HIV status and or result(s) of any other lab test.
3. The trained HIV screening test provider is required to refer for a confirmatory HIV diagnosis in linked HTS facility.
4. The certificate provided to trained HIV screening test provider is not an approval of any lab capacity except mentioned in condition no 1. This certificate cannot be used outside of community based HIV testing and cannot be used to obtain employment in laboratories.

vi. Ongoing mentoring support to the lay providers

A designated health care professional of the organization implementing HTS will provide on-going supportive supervision on periodic basis- initially monthly for the period of at least first six months. Once the lay provider is considered experienced for six months or more, ongoing mentoring can be scaled down to quarterly cycle.

The supervision includes test performance observation, training, on-site coaching and mentoring on client communication, client motivation techniques for HIV testing, quality HIV test performance, universal precautions and waste disposal, effective referral, quality indicators and discussion on unusual results if any.

vii. De-certification and retraining

To minimize potential harm to the clients, either both decertification and retraining or only decertification is recommended depending upon the interest of the previously trained lay provider:

- All trained lay providers who have not performed an HIV screening test in a period of 3 months must go through the same certification process as a new lay provider, or need to be replaced by a new lay provider.
- All trained lay providers who have not performed more than 50 tests in a 12-months period must go through the same certification process as a new lay provider.

Section 3: Delivery of HIV Testing Services: Principles and Procedures

Community based HTS can be integrated into outreach particularly for key populations. These services must have a direct linkage to a facility based HIV testing site that can provide a confirmatory diagnosis of HIV. All HIV prevention programs that provide community based services must have components or strong functional linkages to care, treatment and support services.

For setting up HTS at community level, the facilities will understand the needs of service users and acceptance of HTS amenities by them so that the services are well utilized and successfully implemented. This involves social mobilization, awareness raising, IEC campaigns leading to community acceptance and resulting to motivate key populations to access HTS and to know their HIV status.

3.1 Fundamental principles of HTS

HTS providers should adhere to the WHO 5Cs- Consent, Confidentiality, Counselling, Correct test results and Connection (linkage to prevention, treatment and care services) (Figure 5) while providing HTS either in the facility or in the community. Mandatory, compulsory or coercive HIV testing is never appropriate. HTS should always be provided in a respectful, non-discriminatory and ethical manner.

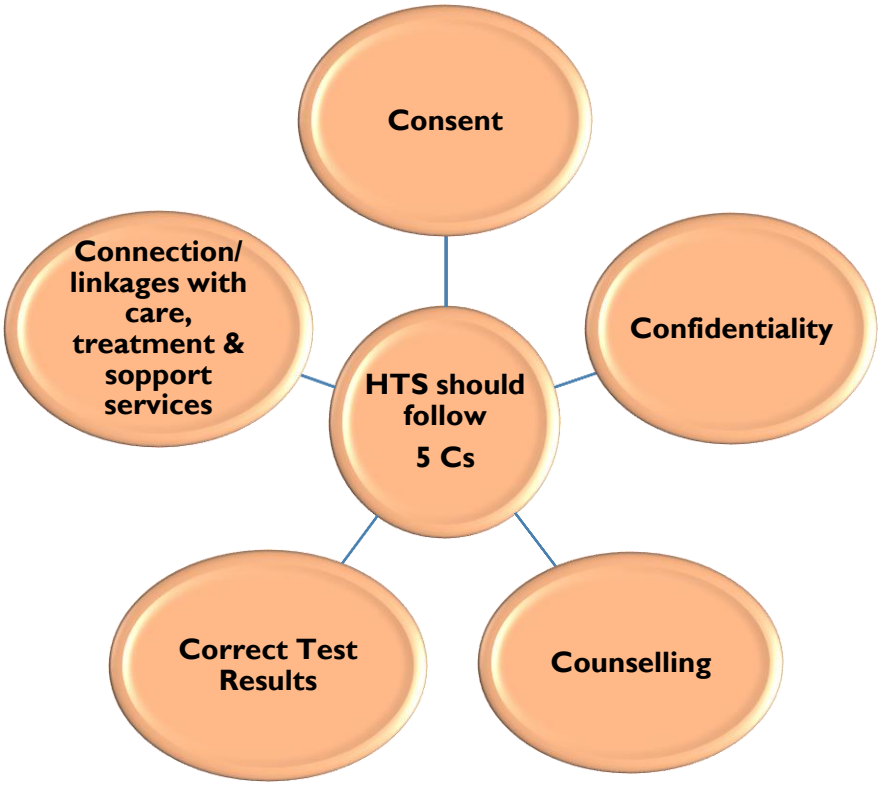


Figure 5: Fundamental principles of HIV testing Services

- ***Consent:*** People receiving HTS must give informed consent to be tested and counselled. Verbal consent is sufficient, written consent is optional depending upon the type of client. They should be informed of the process for HIV testing and counselling and of their right to decline testing. Bangladesh has defined the age of consent for HIV testing is 18 years.[21] However, according to government circular (Annex 1), adolescents less than 18 years of age and do not have any legal

[21] National counselling guidelines for CABA & MARA.

guardian can give consent if they are at risk of getting HIV infection. Parents or any other legal guardian will give informed consent for minors and who are differently able.

- ***Confidentiality:*** HTS must be confidential, meaning that the discussion between lay provider and the client will not be disclosed to anyone else without the expressed consent of the person being tested. Confidentiality should be respected. Lay providers must discuss, among other issues, whom the person may wish to inform and how they would like this to be done. Shared confidentiality with a partner or family members – trusted others – and healthcare providers is often highly beneficial. All concerned staff will sign the oath of confidentiality (Annex 2).

- ***Counselling:*** Extensive pre-test counseling may not be possible in a community setting. Pre-test information can be provided individually or in a group. But post-test information communication should be done individually in community settings. All clients should have the opportunity to ask questions in private if they request it. If a client tested reactive to screening test in the community, the lay provider has to provide adequate information before linking and accompanying the client to an HIV testing site for confirmation. In the facility, all HIV testing must be accompanied by appropriate and high-quality post-test counselling, based on the specific HIV test result and HIV status reported. Quality assurance (QA) mechanisms as well as supportive supervision and mentoring systems should be in place to ensure the provision of high-quality counselling both for lay providers in the community and professional HTS providers in the facility.

Maintaining confidentiality in HIV testing service delivery points

- All the members of the HTS delivery points have undertaken the oath of confidentiality, which should be maintained in staff personnel file and adhered all time.
- In case of shared confidentiality, the consent should be taken at the time to pre-test information and client is explained that sharing the information with care providers will facilitate the long-term treatment/care support and benefit the individual.
- HIV testing related all records should be kept under lock and key.
- Remember, **CONFIDENTIALITY** is for the best interest of the client, which should be respected.

- ***Correct:*** Quality of HIV screening by lay providers is proven to be comparable to the quality of HIV testing provided in sites with lab technicians. All people who receive a reactive HIV screening test need to be re-tested in the designated facility that with lab technicians who are trained to confirm the diagnosis. Any discrepancy must be recorded, reported, and used to improve quality of the community based HIV screening program. Quality assurance (QA) must be built into the HIV testing by lay providers to ensure that people receive good quality pre-test counselling and screening for HIV. QA needs to include both internal and external measures, and has to receive support from a quality assured HTS facility.

- ***Connection:*** Clients who are reactive in screening in the community should have accompanied referral to the linked HTS facility for confirmation of diagnosis. Client with confirmed diagnosis in the facility should have linkage to prevention, treatment and care services that include effective and appropriate follow-up, including long-term prevention and treatment support.

3.2 Minimum standards for HTS in community setting

For delivering HIV testing services in community setting, following minimum standards are to be followed:

i. ***Service users:*** HTS should be provided in community setting targeting the population who are not interested or feel insecure to visit any facility or hard to find out or be afraid of being stigmatized, discriminated and service denial and disclosure of identity.

ii. ***Service providers:*** Only trained and certified lay providers are eligible to provide HIV screening test in community settings apart from trained health professionals.

iii. ***Service arrangement:*** Community based HTS session will be arranged once in a week. Designated staff of HTS providing organization e.g. DIC coordinator/Manager, field monitor, outreach worker and peer educator will work in a team for selecting the spot within catchment area for KPs and arranging weekly HIV testing session. However, place and organizing team will be highly contextual depending upon the population of interest.

iv. ***Testing environment:*** HIV testing should be conducted in a private location where client confidentiality can be ensured and where a specimen can be collected safely and without risk of contamination. Some recommendations for establishing an ideal HIV testing environment include:

- Room/testing space: Providers should ensure that the testing space has enough room and seating for all clients to feel comfortable and confident in their HIV testing experience.
- Lighting: There should be enough light to allow providers to perform the test and read results accurately.
- Temperature: Rapid HIV test kits should be stored, transported, and conducted within specific temperature ranges specified by the manufacturer. HIV testing providers should check the package inserts to ensure they are adhering to these temperature specifications. In case of increase temperature (specially during summer) cool box should be used to carry HIV test kits to maintain quality of the test kits.
- Surface area: Rapid HIV tests must be performed on a clean and level surface. HIV testing supplies and controls should be well organized, and no food or drink should be consumed near the testing area.

v. ***Supplies:*** Staff should have all the supplies and materials for conducting HIV testing. Testing supplies and equipment, prevention and educational materials, referral form, client information record keeping form, clip board and relevant register etc. as necessary.

vi. ***Counseling:*** Minimum pre- and post-test information or counseling will be provided as described in pre- and post-test counseling format (Annex-3).

vii. ***HIV testing:*** In the community setting, only one HIV test, considered as A0 will be done using country approved RDT (Determine). This test will be performed with whole blood collecting from finger prick. In case of reactive test result, the client will have to be referred linked HTS site for confirmation of diagnosis. Also, sample has to be preserved on DBS card and sent to the designated HTS site for retesting. In case of non-availability of DBS card, serum will be collected in referral center for EQA.

viii. ***Documentation:*** Information about HIV testing of client e.g. client identification number, test result, pre- and post-test information, referral if any need to be recorded in HIV test service delivery form (Annex-4). Upon return, all information collected in the outreach will have to be transferred in appropriate register in HTS site. Record keeping and reporting should be done using standard form, formats and register.

ix. ***Waste disposal:*** In outreach, waste has to be collected in appropriate container and taken back to the designated HTS facility for ultimate disposal. Sharps e.g. lancet must be collected in specified sharp container.

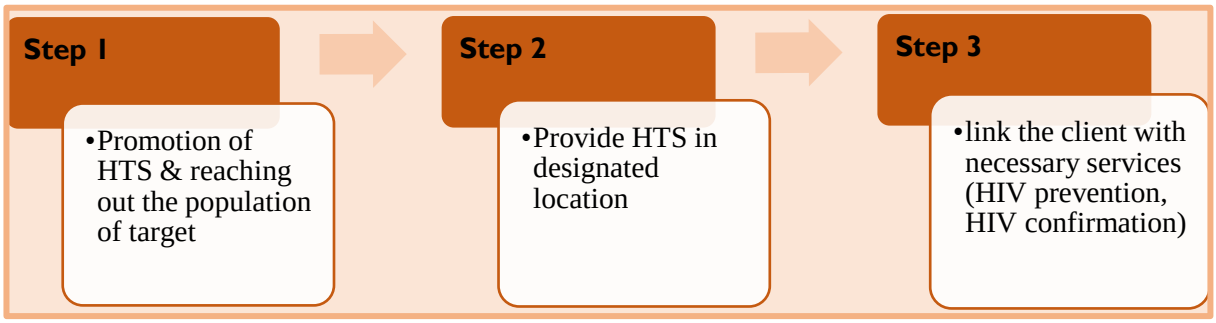
x. ***Service providers' occupational safety:*** If service providers sustain any occupational injury e.g. needle stick injury should immediately ensure taking first aid by himself/herself and report to the post-exposure prophylaxis custodian of the HTS site.

xi. ***Service providers' safety in gathering:*** Outreach session organizing team will be responsible for ensuring safety of HIV screening test providers. In case of any emergency, designated custodian at HTS site will be communicated for further assistance.

xii. ***Cost for conducting HIV test in outreach:*** The facility or entity providing HIV test in outreach will bear the organizing cost inclusive of round trip local travel expenses.

3.3 Delivery of HIV testing services in the community

HTS services are provided in the community in three steps (Flow chart 1). In the first step, targeted



Flow chart 1: Steps of HIV testing services in the community

populations are reached out in pre-mapped hot spots, new spot/area/place/residence of hijra guru selected in consultation with new index client. The organizing staff will be responsible for giving safety and go-ahead clearance to the outreach HTS team for conducting the testing session in the selected spot. Simultaneously promotion of HIV testing services can be done by the organizing staff/team in those locations. HIV testing services can also be promoted using social media e.g. Facebook, twitter, online anonymous chat rooms can also be used for reaching those who are not easily accessible.

The second step includes selection of outreach spot and conducting HIV testing following T4T approach. Key populations could be reached in hot spots, work place e.g. hotel and brothel. For those who do not necessarily have a place of work, HIV testing can be done at a place of gathering, office, educational institutes, clubs or even at home. Clients must be provided with adequate information about benefits and risks of HIV testing, and ensure their informed consent before being tested. HIV screening will be done using single RDT.

In the third step, client could be linked with appropriate HIV prevention services depending upon the expressed needs of the client in case of non-reactive result. However, for all reactive cases, it is crucial that the client is accompanied to the HTS site for confirmatory diagnosis. Client should be provided with information about accompanied referral needs and procedures during pre-test counseling as part of giving informed consent for testing.

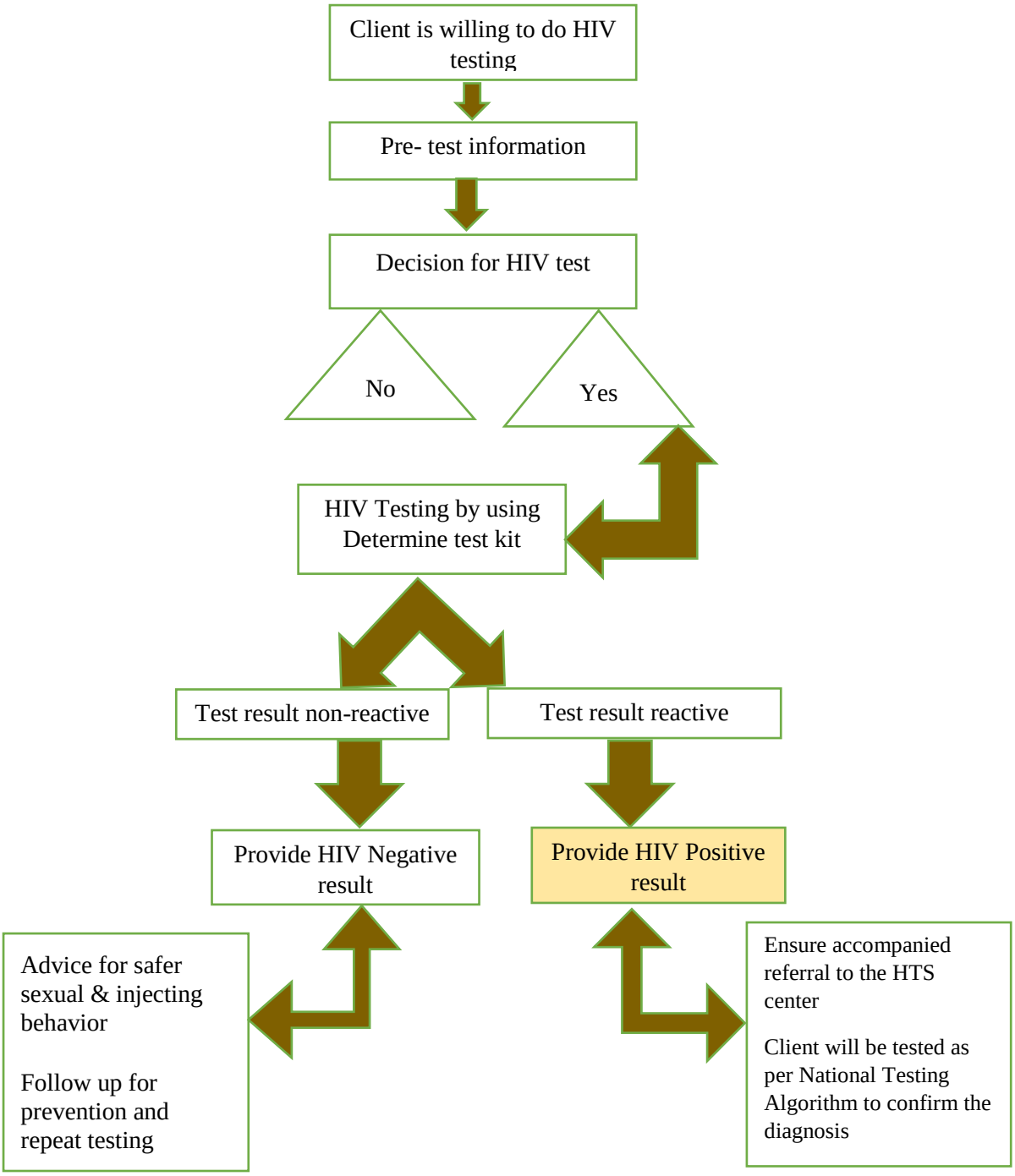
3.4 HIV testing process in the community

HIV testing process comprises of three key primary components -the pretest session, the HIV test, and the post-test session. Guidance starting from pretest session to accompanied referral to HTS site is sequentially captured in the flow chart 2. These three elements make up the minimum service package of HTS.

3.4.1 HIV Pre-test information or counseling:

For individual HIV testing in the community, HIV testing providers should conduct brief, information-based sessions tailored to their clients. HTS pre-test information helps prepare the client to test for HIV. The service provider also has an opportunity to address myths and misinformation about HIV and AIDS. Maintaining confidentiality and seeking informed consent is pre-requisite in pre-test information. Service provider must ensure that the client is given a conducive and safe environment to share and open-up without any hesitation. Rapport between service provider and client is crucial for developing a trusted relationship.
Client receiving HIV screening test should receive following information:

- Basic information on HIV transmission and prevention
- Window period related to last risk exposure
- Benefits of HIV testing including testing procedures
- Screening versus diagnostic/confirmation testing
- Meaning of preliminary HIV positive and HIV negative result
- Services available in case of preliminary positive result emphasizing accompanied referral to the designated HTS facility
- Brief descriptions of prevention options e.g. Prevention of Mother to Child Transmission (PMTCT), Opioid Substitution Therapy (OST) etc.
- Clients' right to refuse testing
- Opportunity to ask the provider additional questions
- Provision of voluntary and fully informed verbal consent for testing



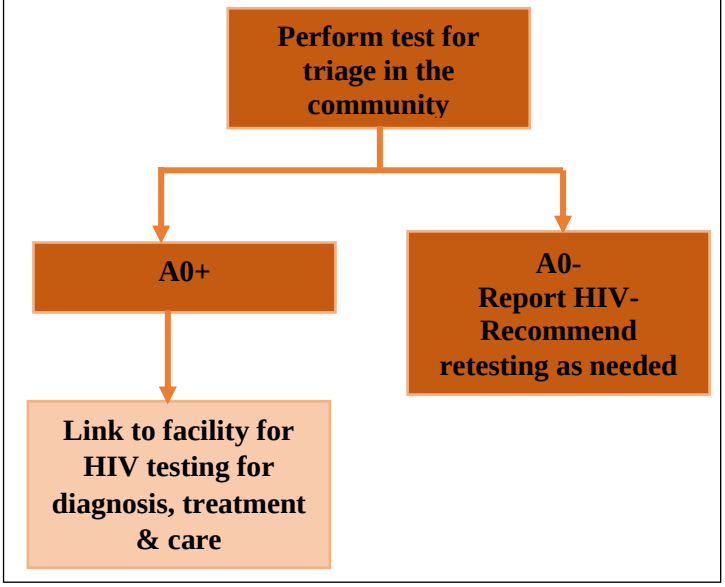
Flow chart 2: Process for conducting HIV testing for triage in community setting

3.4.2 HIV Testing:

Community-based HIV testing will be based on the WHO recommended 'test-for-triage (T4T)' approach (Figure 6). In this approach, trained health professional/lay providers conducting a single HIV rapid screening test, referred to as A0 i.e. Alere Determine™ HIV 1/2 test kit. Whole blood is collected from fingertip for conducting the test. In case of HIV self-testing, oral fluid (not saliva) can be collected and tested.

The rapid test is performed by trained health professional/lay workers in a preselected convenient place, after providing information on HIV basics and the HIV test, and taking verbal consent. Materials required for testing both by whole blood and oral fluid is in Annex 5A and 5B. Sample collection procedure and steps for conducting A0 by whole blood and oral fluid are in Annex 6A and 6B; 7A and 7B respectively. Test result of only HIV negative client will be given in prescribed form (Annex 8). The clients who are tested negative with known high-risk behavior within 3 months prior to the test would be asked for a follow-up test at the end of window period i.e. 3 months following the last risk exposure. Retesting will also be recommended for them to be taken every 6 monthly or at least every yearly. Rest of the clients who are tested negative will be linked with HIV prevention services based upon informed decision made by the client. All clients with a reactive test will be accompanied to the facility for confirmatory testing, on the same day.

Figure 6: Test for triage algorithm



At reference facility, confirmatory HIV testing, following the national testing algorithm is performed, beginning with A1 (Annex-9). If the (A1 +) is reactive, a positive HIV diagnosis is confirmed after two additional reactive tests (A2 + and A3 +), and the individual is thus diagnosed as HIV positive, and accompanied for clinical assessment and treatment. Individuals with a non-reactive test result are informed of their result, and linked to appropriate services to prevent HIV. But if they have had recent risk exposure will be recommended for retesting after 3 months of the last risk exposure. In case of clients having ongoing risk exposure will be asked for retesting every 6 monthly or at least every yearly.

3.4.3 HIV Post-test counseling:

Post-test information should be provided to all clients depending upon the test result (positive or negative). Post-test information for HIV negative test result is as important as for HIV positive test result.

- In case of a **negative** test result, HIV prevention/risk reduction information will be reinforced to support client to adopt behavior that reduces the client's risk of getting infected with HIV in future and to encourage repeat testing as per the risk and exposure.

- In case of a **positive** test result, clients should be counseled on requirement of further HIV testing for confirmation of the diagnosis in the linked facility. Accompanied referral to the service delivery point to be ensured.

<u>Issues to Discuss in Post-Test Session for HIV Negative Clients:</u>

Individuals with HIV negative test result should receive the following minimum information

- An explanation of the test result, including information about the window period for the appearance of HIV-antibodies and a recommendation to re-test in case of a recent exposure and continuous practicing of high risk behavior.
- Basic advice on methods to prevent HIV transmission.
- Provision of means for prevention e.g. condoms and guidance on their use
- Exploring necessity of treatment/referral (e.g.- STI, TB, etc.), if required.

Issues to Discuss in Post-Test Session for HIV Positive Clients:

Individuals with HIV positive test result should receive the following minimum information

- Do not disclose result.
- Do accompanied referral.
- Do subsequent tests as per national guideline in designated facility

3.4.3 Follow-up communication:

For HIV negative clients the follow-up communication encourages maintaining safe sexual practices / regular needle exchange and harm reduction, encourages for repeat testing in case of window period, emotional support and regular contact with the HTS services. For HIV positive clients, follow-up communication (through service provider/counselor/peer navigator) is continued for long-term to monitor adherence to treatment, partner testing and psychological support. Follow-up communication helps the service provider to know if the client is still part of treatment, care and support system or have dropped out. Follow-up helps to track the client and maintains continuum of treatment and care cycle.

3.5 Maintenance of quality of HIV test kits

- Alere Determine test kits are to be kept at temperature ranging from 2º to 30º C. Quality of kits will be hampered if environmental temperature exceeds the defined temperature condition. Kept in a cool & dry place in absence of refrigerator.
- Oraquick Advance is to be kept at temperature ranging from 15º to 37º C.
- Using kits outside of the operating temperature, use the Kit Controls to ensure performance of the test.
- Check kit before use. Use only kits that have not expired or been damaged.
- Bring out previously stored specimens to room temperature prior to use.
- In case of certain conditions e.g. any inconsistent result between community-based test and external quality assessment, invalid result etc. corrective measures have to be taken and actions will be noted down by designated staff.
- Always use universal safety precautions when handling specimens. Keep work areas clean and organized.

3.6 External quality assessment (EQA)

External quality assessment (EQA) is a way to evaluate the integrity of the entire laboratory testing process, and aims to educate and develop performance in quality assurance (QA) issues. There are 3 major EQA methods which include:

- Proficiency testing (PT) – Proficiency panel may be used during on-site visits
- On-site evaluation, which is sometimes referred to as on-site monitoring visits or audits
- Rechecking or retesting of specimens

Retesting method will be practiced for EQA in case of community based HIV testing. Ranging from 3% to 5% (depending upon the decision of a particular organization based upon HIV testing maturity) randomly selected negative samples on HIV screening test will be preserved for retesting in designated reference laboratory. Service provider in outreach site will collect the sample either on dried blood spot (DBS) card or in aliquot. Whole blood will be collected on specified area of DBS card from puncture site. The procedure of DBS card preparation is in Annex-10.

3- 5% of negative samples will be retested for EQA

For conducting EQA by serum, the blood will be collected from venipuncture only for the individual's sample is selected for EQA. The blood collected at testing sites will be centrifuged to separate serum from the clot by centrifugation for 10 minutes. Then serum will be gently drawn off from the clot using a sterile pipette. The collected serum will be stored in 0.5 ml aliquots in the testing sites.

If HIV testing is done with oral fluid in outreach site, either whole blood on DBS card or serum centrifuged from venipuncture blood will be preserved for EQA.

From outreach sites, preserved samples will be carried back to the facility. Periodically these samples will be sent to designated reference laboratory by the responsible facility. Any inconsistent result between outreach site and reference laboratory will be retrospectively reviewed and appropriate corrective measure will be undertaken.

3.7 Universal precautions for doing rapid test

Performing HIV tests poses a potential health hazard to the tester. Coming in contact with human blood or blood products is potentially hazardous. Safety involves taking precautions to protect service provider and the client against infection. All specimens should be treated as though potentially hazardous.

Each outreach testing site should follow all the procedures related to "universal precautions". All lay providers will be trained and informed that they should handle all biological samples as potentially infectious.

3.7.1 Preparation, practices & precautions: Before, during and after testing

Apply safety practices throughout the testing process. Before testing ensure prevention of contamination of service providers, clients, and environment. Safety rules are to be followed while performing finger prick and actual testing of the client's blood. After testing, cleaning up of working area and proper disposal of contaminated waste is crucial.

i. Before testing

- Wear long-sleeved lab coat or apron
- Clean testing area preferably table top with 70% alcohol
- Prepare disposable workstation
- Prepare and keep 0.5% chlorine solution in a beaker covered with aluminum foil
- Clean your hands with soap and water or disinfectant and allow to dry. Wash hands before and after testing each patient and test specimen. Steps of washing hands with soap and water is in Annex-11.
- Put on gloves. Steps of wearing single use examination gloves is in Annex-12. All service providers and others e.g. cleaner who comes in contact with blood and body fluids must wear appropriate gloves.

ii. During testing

- Do not eat, drink, smoke, apply cosmetics or handle contact lenses while handling specimens and performing a test
- Wear a fresh pair of protective gloves for each patient
- Clean puncture site with alcohol pad or alcohol soaked cotton ball
- Do not draw blood in capillary tube by mouth
- Leave alcohol pad or soaked cotton ball in a covered container specific for solid waste disposal
- Dispose lancet in sharp disposal
- Do not touch the tip of wash or diluent bottle, it might contaminate the bottle
- Leave test devices, capillary tube in a beaker containing 0.5% chlorine solution for decontamination
- Place hand in 0.5% chlorine solution before putting off the gloves. Steps of removing single use examination gloves is in Annex-13.

iii. After testing

- Dispose decontaminated used gloves and temporary workstation in the plastic bag inside the covered container specific for solid waste disposal. Also leave the test devices, capillary tube or sample pipette taking out of the beaker after decontamination
- Ensure incineration of plastic bag containing all decontaminated materials
- Clean test area with 70% alcohol after removing the temporary workstation
- Clean beaker and bucket with supply water and keep ready for use on the following day
- Clean up any spills thoroughly using 0.5% chlorine solution
- Wash hands before leaving the testing place.

iv. Waste disposal

Different categories of wastes are produced during HIV testing. Service provider either will carry or ensure appropriate container in the outreach site. Types of wastes produced along with final disposal procedure are mentioned below:

i. **Liquid Waste:** Used 0.5% chlorine solution from beaker and bucket will be poured into open drain or buried into particular pit. The solution can be emptied into bathroom but not in the toilet. Service provider should wear gloves and goggles before transporting and finally dispose into dumping site.

ii. **Solid Waste:** All solid waste that comes in contact with blood or body fluids must be collected in plastic bags and tied. This waste will be collected for incineration. In outreach site, cotton, used and chlorinated capillary tube, test devices and gloves, kitchen tissue used for making temporary work station will be dropped into a plastic bag. Service provider will bring back the bag to the facility for incineration.

iii. **Sharps:** Caution must be used when handling needles and other sharp objects. Needles should not be bent, broken or recapped. Needles with syringe must be placed in puncture resistant plastic container immediate after use. Also, the lancet will be dropped into the sharp container immediately after pricking the client. As soon as the container will be three-fourth part filled out, it has to be incinerated.

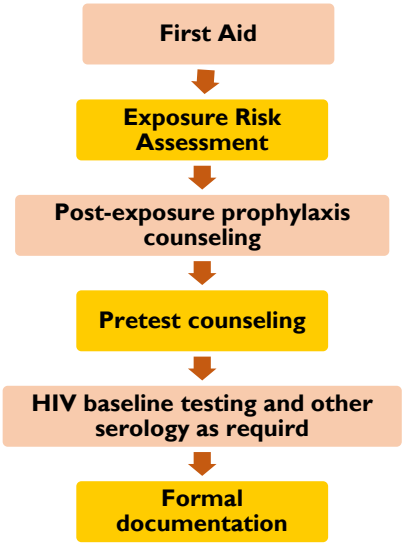
3.8 Professional exposure and post exposure prophylaxis

Following an accidental exposure to infected blood or body fluid, there is risk of transmission of blood-borne pathogens to the service provider. The most commonly found pathogens are HBV, HCV, HDV, HIV, Syphilis, malaria etc. Infections with a few of these microorganisms have chronicity, cause serious life-threatening complications, or have no cure. Hence, it is crucial to practice the first aid before reporting or technical consultation.

Any service provider accidentally exposed to blood or body fluids must take the following first aid as per requirement:

- Wash the wound and skin sites exposed to blood and body fluids with soap and water. Wash for at least 5 minutes using ample soap.
- For injuries that break the skin and where bleeding occurs, allow bleeding for a few seconds before washing with soap and water.
- Flush mucous membranes, such as eyes, exposed to blood and body fluids with water only. Topical use of antiseptics is optional. In case oral mucous membrane exposure, spit out immediately and rinse mouth several times with water or normal saline.
- Do not apply caustic agents, such as bleach, onto the wound or inject antiseptics or disinfectants into the wound.
- Immediately inform the supervisor, or person in charge, of the exposure type and the action taken.

The following flow chart shows the steps of management of accidental occupational exposure briefly. However, detail management is in Annex-14.



3.9 Monitoring and supervision

A monitoring and supportive supervision system should be established from the onset of the community based HIV testing services. Process of monitoring and supervision might vary based on community e.g. population (general or KPs) context and testing venues (satellite session at informal venues for instance: club, schools, home, drug shooting spots, hijra *Guru Dera* etc.).

The designated key responsible person to monitor and supervise the community based HTS should be the HTS focal person of implementing organization who will also coordinate, facilitate and evaluate the whole process of HTS. S/He will also be responsible for capacity building of the HTS service providers. Following the national community based HTS guideline, S/he will provide basic as well as refresher

training on HTS to relevant staff. HTS session of both trained medical assistant and lay providers will be monitored and supervised by HTS focal staff of the respective organization at bimonthly interval. However, more frequent visits will be done by assigned medical assistant for the newly trained lay providers e.g. outreach staff for on-site monitoring and mentoring support.

In all cases, the HTS focal person will visit the outreach testing site to observe HTS session and provide on-site mentoring support. During monitoring, supervisor should observe the preparation and process of testing e.g. settings, providing pretest information, consent taking, ensuring confidentiality, providing test result, documentation and referral service are followed as per guideline. In addition, visitor from ASP will visit as per their schedule. Apart from on-site monitoring and mentoring visit, the HTS focal person will also ensure regular communication with medical assistants/lay providers over phone to support them to ensure quality HTS. Focal person will also monitor the supply and quality of test kits.

Based on field monitoring visit findings, onsite feedback and/or orientation will be provided to respective medical assistant/lay providers. A formal report will be produced by visiting supervisors either HTS focal person which will be shared with both local and central office.

List of Annexure

Annex-1: Government Circular on Age of Consent

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়
(জনস্বাস্থ্য-৩ অধিশাখা)
বাংলাদেশ সচিবালয়, ঢাকা।

নং-৪৫.১৬২.০০১.০০.০০.০০১.২০১১-৫০ তারিখঃ ০২.০৩.২০১৫ খ্রিঃ

পরিপত্র

আঠার (১৮) বছরের কম বয়সি HIV এর সর্বোচ্চ ঝুঁকিতে অবস্থানরত কিশোর-কিশোরী (Most At Risk Adolescent-MARA),যাদের মাতা-পিতা/অভিভাবক নেই অথবা পিতা-মাতা/অভিভাবক হতে আলাদাভাবে এবং তাদের নিয়ন্ত্রণ বর্হিভূতভাবে বসবাস/অবস্থান করে তাদের HIV সংক্রমণ প্রতিরোধ এবং চিকিৎসার স্বার্থে পিতা-মাতা বা অভিভাবক এর সম্মতি ব্যতিরেকে সংক্রমণ প্রতিরোধ ব্যবস্থা গ্রহণ এবং চিকিৎসা সেবা প্রদান করা যাবে। তবে কোন কিশোর-কিশোরীর ইচ্ছার বিরুদ্ধে প্রতিরোধ ব্যবস্থা গ্রহণ এবং চিকিৎসা সেবা প্রদান করা যাবে না।

উপযুক্ত কর্তৃপক্ষের অনুমোদনক্রমে এ পরিপত্র জারি করা হলো।

০২.০৩.২০১৫

(মোহাম্মদ মাঈনউদ্দিন চৌধুরী)
উপসচিব
ফোনঃ-৯৫৪০৬৫৪

অনুলিপি সদয় অবগতির জন্যঃ

১। লাইন ডাইরেক্টর, জাতীয় এইডস/এসটিডি প্রোগ্রাম, বাড়ি-১১বি, রোড-১৩০, গুলশান-১, ঢাকা।
২। সচিব মহোদয়ের একান্ত সচিব, স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়।
৩। অতিরিক্ত সচিব (জনস্বাস্থ্য ও বিশ্বস্বাস্থ্য) মহোদয়ের ব্যক্তিগত কর্মকর্তা, স্বাস্থ্য ও পরিবারকল্যাণ মন্ত্রণালয়।

Annex-2: Oath of Confidentiality Format

সেবাপ্রদানের স্থান: ----------

গোপনীয়তা রক্ষার অঙ্গীকারনামা

(এই ফর্মটি সকল সেবাে◌ক কর্মীবৃন্দের পূরণ করে তাদের ব্যক্তিগত ফাইলে ও সংরক্ষণ করতে হবে এবং কঠোরভাবে সকলে এই গোপনীয়তা রক্ষার অঙ্গীকার মানতে বাধ্য থাকবে)

আমি অনুধাবন করি যে, ডিআইসি/সাবডিআইসিতে কর্মকালীন সময়ে আমি আমার ক্লায়েন্টের স্পর্শকাতর, ব্যক্তিগত তথ্যের সংস্পর্শে আসব। আমি আরও অনুধাবন করি যে, এই তথ্য গুলি অত্যন্ত্ম গোপনীয় এবং যে ক্লায়েন্ট এই সেবা গহণ করবেন আমি তার তথ্যের গোপনীয়তা রড়্গার্থে অঙ্গীকার বদ্ধ।

১. আমি ক্লায়েন্টের গোপনীয়তা রড়্গা করব- আমার কর্মস্থলে সহকর্মীর সাথে ক্লায়েন্ট আইডি, তার এইচআইভি স্টেটাস প্রকাশ বা আলোচনা না করার মাধ্যমে। ক্লায়েন্টের কেস/স্ট্যাটাস অবশ্যই একটি আনুষ্ঠানিক তত্ত্বাবধানে আলোচনা করতে হবে যেখানে ক্লায়েন্ট পরিচিত অবশ্যই গোপন থাকবে।

২. আমি আমার ক্লায়েন্টের গোপনীয়তা, তার ব্যক্তিগত তথ্য, সংশিস্নষ্ট তথ্যাদি যা তিনি এখানে সেবা গ্রহণের মাধ্যমে অবগত হয়েছেন তা অনুমোদিত কারও কাছে প্রকাশ না করে তা রড়্গা করবে। অনুমোদিত মানুষ বলতে আমার পরিবারের সদস্য, বন্ধু, সহকর্মী, সম্প্রদায়ের নেতা ও আরও অনেককে বোঝায়।

৩. যদি আমার কার্যবিবরনীতে এইচআইভি পরীড়্গার ফলাফলের সাথে সম্পৃক্ততা/সংশিস্নষ্টতা থাকে তাহলে ক্লায়েন্টের পরীড়্গার ফলাফল এর গোপনীয়তা রড়্গা করা আমার সর্বোচ্চ দায়িত্ব। আমি এও অনুধাবন করি যে, যদি তার পরীড়্গার ফলাফল কোনওভাবে অনঅনুমোদিত ব্যক্তির কাছে পকাশ পায় তাহলে সে কোন সামাজিক ড়্গতির শিকার হতে পারে।

৪. আমি অনুধাবন করি যে, ক্লায়েন্টের কোন তথ্য প্রকাশ আমার চাকুরিচ্যুত হবার বা আমার বিরম্নদ্ধে কঠোর ব্যবস্থা গ্রহণের একটি যুক্তিযুক্ত কারণ হতে পারে।

কর্মীর নাম, পদবী ও স্বাড়্গর

স্বাড়্গীর নাম ও স্বাড়্গর

তারিখ

Annex 3 Format for Pre & Post Test Information

এইচআইভি পরীক্ষা সেবা প্রদানের ফরম

(সেবা প্রদানকারী এই ফরমটি সেবাগ্রহীতার সাথে আলোচনার পরপরই পূরণ করবেন এবং সেবাগ্রহীতার ব্যক্তিগত ফাইলে সংরক্ষণ করবেন। উল্লেখ্য, তথ্য সংগ্রহের ক্ষেত্রে অবশ্যই গোপনয়তা রক্ষা করতে হবে)

সেবাপ্রদানের স্থান ---------- পরীক্ষাকারীঃ MA/FM/CO/CW তারিখ: ----------

সেবা-গ্রহীতার আইডিঃ | | | | | | | | | | Lab ID: /

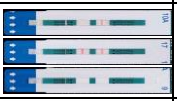
১. সেবা গ্রহীতার বয়সঃ বছর **২. সেবা গ্রহীতার লিঙ্গঃ** ☐ পুরুষ ☐ মহিলা ☐ ঐরলৎধ

৩. সেবা-গ্রহীতা যে ঝুঁকিপূর্ণ জনগোষ্ঠীর আওতাভুক্তঃ ☐ মাদক সেবনকারী ☐ যৌনকর্মী ☐ মাদক সেবনকারী/যৌনকর্মীর সঙ্গী ☐ MSM ☐ MSW ☐ Hijra ☐ Others

৬. সেবা-গ্রহীতা বিগত বছরগুলোতে এইচআইভি পরীক্ষা করিয়েছেন কিনা? ☐ হ্যাঁ ☐ না

হ্যাঁ হলে, সর্বশেষ ফলাফলঃ ☐ পজিটিভ ☐ নেগেটিভ ☐ অনির্ধারিত

৭. সঠিক স্থানে টিক (√) চিহ্ন দিন

ক্রম	আলোচনার বিষয়	হাঁ	না
১.	সেবা-গ্রহীতার সাথে কুশল বিনিময় করা হয়েছে 		
২.	সুঁই সিরিঞ্জ শেয়ারের ঝুকি ও তা প্রতিরোধের কৌশল নিয়ে আলোচনা করা হয়েছে 		
৩.	অনিরাপদ যৌনাচারণ-এর ঝুকি ও তা প্রতিরোধের কৌশল নিয়ে আলোচনা করা হয়েছে 		
৪.	রক্ত দেওয়া নেওয়ার ঝুকি ও তা প্রতিরোধের কৌশল নিয়ে আলোচনা করা হয়েছে 		
৫.	এইচআইভি পরীড়্গার পদ্ধতি সম্পর্কে জানানো হয়েছে 		
৬.	এইচআইভি পরীড়্গার সাম্ভাব্য ফলাফল সম্পর্কে জানানো হয়েছে 		
৭.	সেবা-গ্রহীতা এইচআইভি করার জন্য মৌখিক সম্মতি প্রদান করেছেন 		

৮. এইচআইভি প্রাথমিক **পরীক্ষার ফলাফলঃ** ☐ পজিটিভ ☐ নেগেটিভ

(প্রাথমিক **পরীক্ষার ফলাফল** পজিটিভ **১ম**, ২য় ও ৩য় পরীক্ষার জন্য ডিআইসিতে পাঠানো হয়)

৯. প্রাথমিক **পরীক্ষার ফলাফল** নেগেটিভ **[প্রযোজ্য অংশগুলোতে টিক (√) দিন]**

☐ পরীড়্গার ফলাফল ব্যাখ্যা করতে হবে এবং ক্লায়েন্ট তা বুঝতে পেরেছে কিনা তা যাচাই করে দেখতে হবে।

- উইন্ডো পিরিয়ড সম্পর্কে জানাতে হবে এবং যদি সম্প্রতি ঝুকিপূর্ন আচরণ বা নিয়মিত ঝুকিপূর্ন আচরণকরে থাকে তবে পুনরায় পরীড়্গা করার জন্য বলতে হবে ।
- রেফার করতে হবে যদি ক্লায়েন্টের কোন যৌন রোগ, টিবি, ঙঃযবৎং সমস্যা থেকে থাকে।

☐ পরবর্তী পরীক্ষার তারিখ (প্রযোজ্য ক্ষেত্রে) প্রদান করা হয়েছে। পরবর্তী এইচআইভি পরীক্ষার তারিখঃ _____ / _____ / _____

সেবা প্রদানকারীর নাম ও স্বাড়্গার

সেবা-গ্রহীতার স্বাড়্গার

Annex-4: HIV Testing Service Register

DIC Name: ______________________

Sl. no	Date (dd/mm/yy)	**Client's ID** (in case of partner-Add P with client ID)	Age (in year)	**Sex** (M/ F)*	**New test**	**Re-Test** (if 2nd/3rd time in the same year)	**Tested at** (DIC=1, Outreach=2)	**Tested by** (Paramedic/MA= 1, CO/FM/PV/CW=2)	Pretest Counseling (Y/N)	**HIV Test Results**							Post- test Counseling (Y/N)	Client received result (Y/N)	Signature of MA/Paramedic	Remarks
										Test 1: Determine (R/NR/INV)	**Test 2: Uni Gold** (R/NR/IN)	**Test 2: First Response** (R/NR/IN)	**Final Result** *(Positive / Negative / Indeterminate)*	Tick Mark, if send for EQA	DBS prepared on (dd/mm/yy)	Result from EQA/Retesting				

Annex-5A: Logistics & Consumables Required for HIV Testing by Whole Blood

i. Test Kit

- Alere Determine™ HIV-1/2 test kits with Buffer

ii. Consumables

- Timer/Stop watch
- Testing tray
- Sterile lancet
- Test kits, EDTA capillary tube, buffer
- Fine point cryomarker
- Single use gloves
- Cotton/Alcohol pad
- Chlorohexidine
- Liquid bleach/bleaching powder
- Sharp container (Puncture-resistant sharps container for disposing lancet)
- Solid waste container/biohazard bag for disposing used cotton ball and gloves
- Cool box
- Other required consumables if needed
- DBS card and dryer rack

iii. Documents/Guidelines/SOPs

- Printed pictorial flow chart on testing procedure
- Form/Formats
  - Pretest information (Checklist pictorial)
  - Test result
  - HTS register

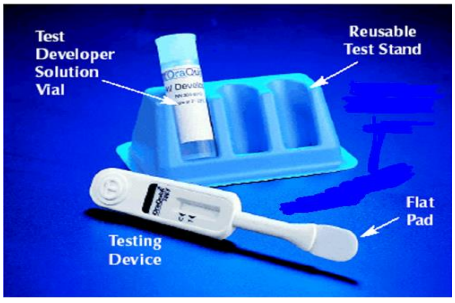
Annex-5B: Logistics & Consumables Required for HIV Testing by Oral Fluid

i. Test kit

- OraQuick ADVANCE (Including an absorbent packet)

ii. Consumables

- Developer Solution Vial (1ml)
- Timer
- Cool box
- Clean, disposable absorbent workspace cover
- Biohazard waste container



Annex 6A: Steps of Blood Collection from Finger Prick

Finger Prick

Always use universal safety precautions.

1. Collect supplies.

2. Position hand palm-side up. Choose whichever finger is least calloused.

3. Apply intermittent pressure to the finger to help the blood to flow.

4. Clean the fingertip with alcohol. Start in the middle and work outward to prevent contaminating the area. Allow the area to dry.

5. Hold the finger and firmly place a new sterile lancet off-center on the fingertip.

6. Firmly press the lancet to puncture the fingertip.

7. Wipe away the first drop of blood with a sterile gauze pad or cotton ball.

8. Collect the specimen. Blood may flow best if the finger is held lower than the elbow.

9. Apply a gauze pad or cotton ball to the puncture site until the bleeding stops.

10. Properly dispose of all contaminated supplies.

This job aid has been adapted from WHO/CDC developed HIV rapid testing training package

Annex 6B: Steps of Oral Fluid Collection

1. Ensure prior to test that the subject has not had anything to eat or drink at least 15 minutes before.

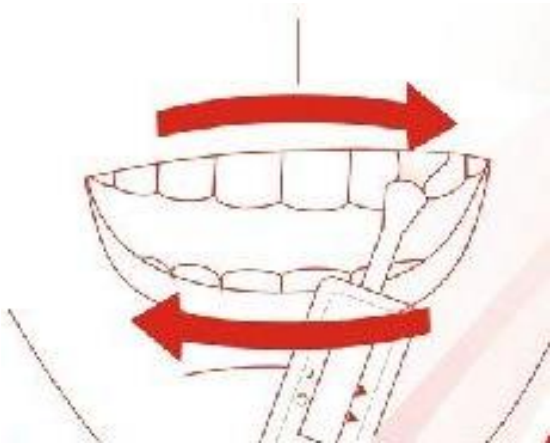
2. Subject have used any oral care product must be wait for 30 minutes prior to testing.

3. Do not allow the person to touch the flat pad.

4. Ensure that the descant is in the packet.

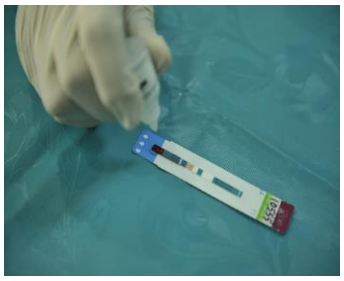
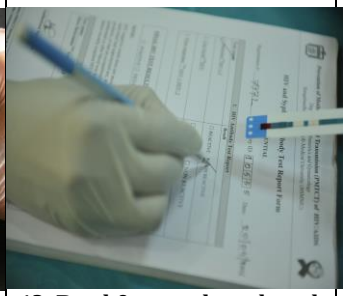
5. Direct the person to place the flat pad above the teeth against the outer gum.

6. Direct the person to gently swab completely around the outer gum (upper and lower)



Annex- 7A: Alere Determine™ 1/2 HIV Rapid Test

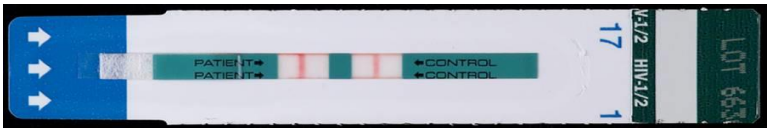
- **Check kit before use. Use only items that have not expired or been damaged.**
- **Bring kit to room temperature prior to use.**
- **Always use universal precautions during testing procedure. Keep work areas clean and organized.**

<table>
<tr>
<td> 
1. Use one strip per test & preserve lot number</td>
<td> 
2. Label test strip with lab client identification number</td>
<td> 
3. Pull off the protective foil cover</td>
<td> 
4. Tell patient to hold hands in downward position & rub both hands to make warm</td>
</tr>
<tr>
<td> 
5. Choose tip of ring/middle finger of left hand, clean the site with alcohol pad and dry the site</td>
<td> 
6. Hold the finger in an upward position, press the finger firmly and lance palm-side surface</td>
<td> 
7. Wipe out the first drop of blood</td>
<td> 
8. Collect blood into capillary tube up to black mark (50 µl)</td>
</tr>
<tr>
<td> 
9. Lightly touch the absorbent pad & apply blood on the strip</td>
<td> 
10. Add one drop of buffer solution one minute after pouring blood</td>
<td> 
11. Wait 15 minutes before reading the result</td>
<td> 
12. Read & record result and other pertinent info on lab result form & lab register</td>
</tr>
</table>

Interpretation of Alere Determine™ 1/2 HIV Rapid Test Results

Reactive

2 lines of any intensity appear in both the control and patient areas.



Non-reactive

1 line appears in the control area and no line in the patient area.

Invalid

No line appears in the control area but line appears in patient area. Do not report invalid results. Repeat test with a new test device.

Annex- 7B: OraQuick ADVANCE Rapid test kit procedure

1. Insert the flat pad of the device all the way into the vial
2. Make sure that the flat pad touched the bottom of the vial
3. The result window on the device should be facing toward you
4. Start timing the test (20 minutes).
5. Do not remove the device from the vial while the test is running
6. Pink fluid will appear and travel up the result window and will gradually disappear as the test develops
7. Read the result after 20 minutes but not more than 40 minutes

Develop Solution vial

Result window in test device

Annex-8: Test Report Format

এইচআইভি পরীক্ষার *প্রাথমিক* ফলাফল

ডিআইসির নাম: ----------

সেবা-গ্রহীতার আইডি :

Lab ID: /

পরীক্ষার তারিখ	

পরীক্ষার ফলাফল

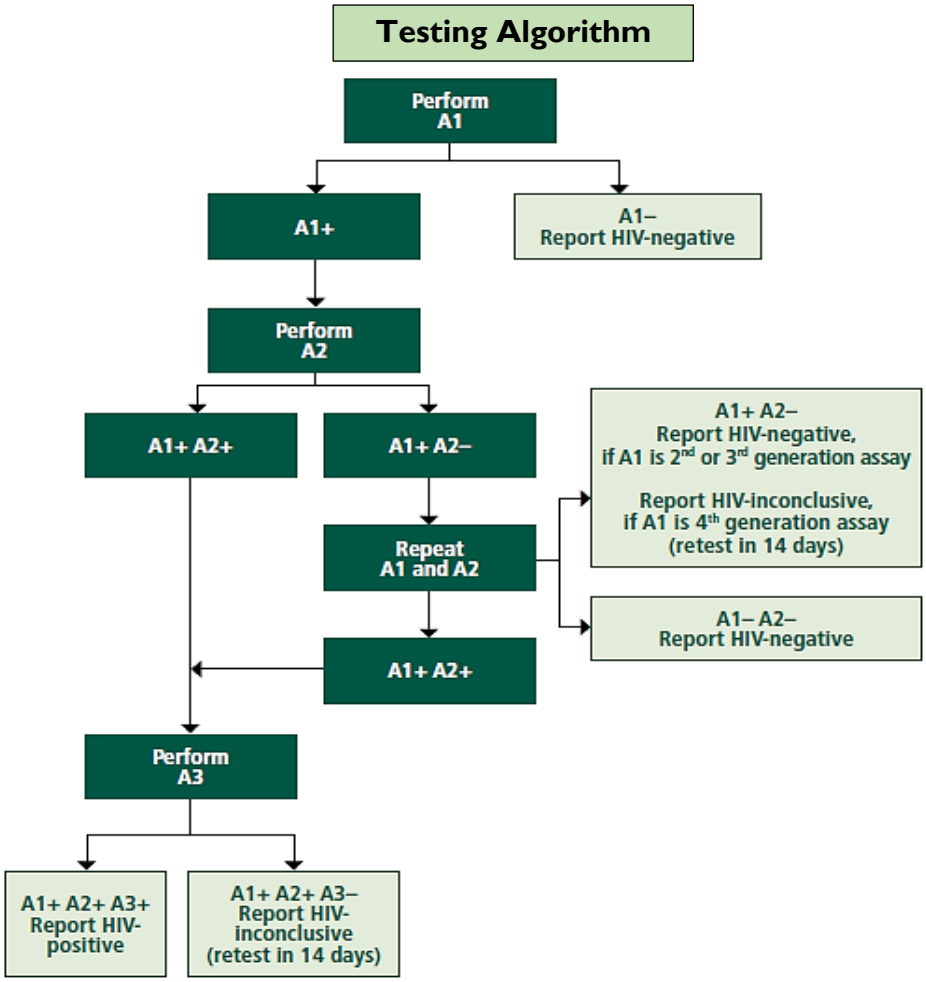
পরীক্ষার নাম	**ফলাফল (সঠিক শব্দে টিক দিন)**
ডিটারমিন এইচআইভি পরীক্ষা	নেগেটিভ/পজেটিভ

সেবা প্রদানকারীর নাম ও পদবী:	স্বাক্ষর	তারিখ

Note: A negative result does not necessarily indicate that the individual is not infected. If the individual had unprotected sex, shared injecting equipment, or received unscreened blood products, or had an occupational exposure in either the three-month period before the test was performed or after blood was drawn, they may be infected. The HIV antibody test may not detect recently acquired HIV infection.

Annex- 9: Testing Algorithm

The testing algorithm is currently being in use in Bangladesh is serial testing[22]. Three different rapid test kits are used. These are- Determine HIV-1/2, Uni-Gold TM Recombigen® HIV and First Response HIV -1-2-0 as denoted as A1, A2 and A3 respectively. Recommended serial testing algorithm is portrayed below: Comment: segregate the part and describe, include repeat after 3 months or confirm if facility available.



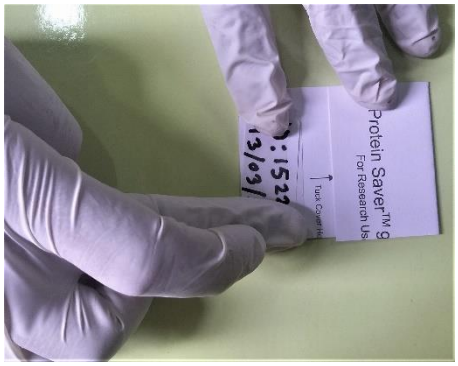
[22] NASP. HIV Counseling Manual. 2009

Annex-10: DBS Sample Preparation for EQA

1. Cut the DBS card keeping three holes in one side and two holes on the other side

2. Write down patient identification number and date of sample collection on the zip sticker

3. Paste the sticker on the cover leaf of DBS card



4. Put scotch tape over the sticker for fixing it.

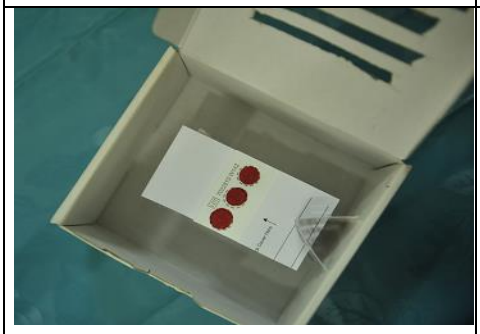
5. Clean the finger-tip of left hand (ring/middle) with alcohol pad & dry

6. Hold finger in an upward position, press finger firmly & lance palm-side surface

7. Wipe out the first drop of blood, first collect blood for Determine™ HIV rapid test, then collect blood onto DBS card

8. Allow blood drop to fall directly from pricked finger onto circle of DBS card. Ensure finger-tip does not touch circle.

9. Fill-out three holes with drops of whole blood. Ensure blood does not spread outside the circle



10. Keep the DBS card horizontally. Ensure one does not touch the other and allow air drying for at least 3 hours at room temperature.

11. Keep dessicant pack & dried DBS card inside ziplock bag

Then remove air by pressing ziplock bag and seal it.

12. Clearly label the contents on the bag.

Annex-11: Steps of Routine Handwashing[23]

[23] https://www.betterhealth.vic.gov.au/-/media/bhc/images/conditions-and-treatments/handwashingwhyitsimportant

Annex 12 Steps of Wearing Non-sterile Single Use Examination Gloves[24]

Step 1: Perform hand hygiene.

Step 2: Select the appropriate size of non-sterile gloves. Remove gloves one at a time out of the box, touching only the top of the cuff.

Step 3: Put hand through opening and pull up to the wrist. Apply the first glove.

Step 4: Repeat procedure with the second hand. Apply the second glove.

Step 5: Adjust gloves to cover wrists or gown as required. Prevents the contamination of the wrists. Complete care as required. Non-sterile gloved hands.

[24] https://opentextbc.ca/clinicalskills/chapter/1-6-hand-hygiene/

Annex 13 Steps of Removing Non-sterile Single Use Examination Gloves[25]

Step 1: Grasp glove on the outside about 1/2 inch below the cuff (edge of the glove opening). Do not touch the wrist with the other hand.

Step 2: Pull down glove, turning it inside out. Hold the inside-out glove in the gloved hand.

Step 3: Gather the inside-out glove in the gloved hand.

Step 4: Insert finger of the bare hand under the cuff of the gloved hand.

Step 5: Pull down the second glove until it is inside out, drawing it over the first glove.

Step 6: Discard used non-sterile gloves in a garbage container. Perform hand hygiene with 70% alcohol.

[25] https://opentextbc.ca/clinicalskills/chapter/1-6-hand-hygiene/

Annex-14: Management of Occupational Exposure