

HIV SENTINEL SURVEILLANCE - 2014-15

Training of ANC Site Personnel Trainee's Manual



National AIDS Control Organisation

India's voice against AIDS

Ministry of Health & Family Welfare, Government of India
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ACRONYMS

AIDS	Acquired Immuno-Deficiency Syndrome
AIIMS	All India Institute of Medical Sciences, New Delhi
ANC	Antenatal Clinic
ANM	Auxiliary Nurse Mid-wife
ART	Anti-Retroviral Treatment
ASHA	Accredited Social Health Activist
CMO	Chief Medical Officer
CHC	Community Health Center
DAPCU	District AIDS Prevention and Control Unit
DBS	Dried Blood Spot
DFTS	Data Form Transportation Sheet
FSW	Female Sex Worker
HIV	Human Immuno-deficiency Virus
HR	Human Resource
HRG	High Risk Groups
HSS	HIV Sentinel Surveillance
ICTC	Integrated Counseling and Testing Centre
IDU	Injecting Drug User
LT	Laboratory Technician
MSM	Men having Sex with Men
NACO	National AIDS Control Organisation
NARI	National AIDS Research Institute, Pune
NGO	Non-Governmental Organisation
NICED	National Institute for Cholera and Enteric Diseases, Kolkata
NIE	National Institute of Epidemiology, Chennai
NIHFW	National Institute of Health and Family Welfare, New Delhi
NIMS	National Institute of Medical Sciences, New Delhi

OBG	Obstetrics & Gynaecology
OPD	Out-patient Department
PEP	Post-Exposure Prophylaxis
PGIMER	Post Graduate Institute of Medical Education and Research, Chandigarh
PHC	Primary Healthcare Center
PPTCT	Prevention of Parent to Child Transmission
RI	Regional Institute
RIMS	Regional Institute of Medical Sciences, Imphal
RPM	Rotations per minute
RPR	Rapid Plasma Reagin
SACS	State AIDS Control Society
SOP	Standard Operating Procedure
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
STS	Sample Transportation Sheet
TG	Transgender
UAT	Unlinked Anonymous Testing
VDRL	Venereal Disease Research Laboratory

INTRODUCTION

The Trainee's Manual for the personnel of ANC sentinel sites is a comprehensive document encompassing all aspects of conducting HIV Sentinel Surveillance 2012-13 at ANC sites. This manual is intended to be used by ANC site personnel during their training. This is a compilation of the presentation slides used in the training of ANC Site Personnel and is based on the guidelines mentioned in the 'HSS 2014-15: Operational Manual for ANC Sentinel Sites'. The material is laid out in the order of sessions in the two day training. Participants are encouraged to refer to them during the training and subsequently, whenever required.

Session 1 is the introductory session. First few slides in session provide overview to training, session plan for two day training as well as ground rules to conduct training. Remaining slides describes objective and application of HIV sentinel surveillance as well as roles and responsibilities of various stakeholders involved in surveillance.

Session 2 is a group work titled “Know your Sentinel Site”. This session aims at understanding the routine functioning of OPD and ANC clinic at the sentinel site facility, and identifying site-specific issues that may affect implementation of HSS. Format for group work and instructions to fill the same are provided here.

Session 3 describes the methodology of HSS 2014-15 at ANC sites stressing on eligibility criteria, consecutive sampling and unlinked anonymous testing strategy with many case discussions. An exercise is given at the end of the session to identify potential issues at each sentinel site pertaining to implementation of HSS. It aims at providing site-specific recommendations and guidance to the sentinel site personnel during the training to ensure proper implementation of HSS at every site.

Session 4 describes the guidelines for data form management highlighting the precautions to be taken to ensure high quality of data forms and documentation. It also explains instructions to answer each question in the data form. Session 5 elaborates the laboratory procedures to be followed at the sentinel site for collection of blood specimen, serum processing, aliquoting and transportation. Session 6 describes the tiers of supervision under HSS, documentation involved in supervision, DO's and DON'Ts for high quality surveillance and points of contact for different issues at the site level.

This manual must be read in conjunction with the Operational manual. It is intended to provide clarifications to all the key issues and doubts that sentinel site personnel may have with respect to HSS. It will also enable site personnel to relate to their discussions and learnings acquired during the training programme.



SESSION - I

Introduction to HIV Sentinel Surveillance

Overview of Training & Session Plan

Session Plan

Session	Key Topics
Session 1: Introduction to HIV Sentinel Surveillance	What is HIV Surveillance? Objectives and uses of HIV Sentinel Surveillance; Roles and Responsibilities of personnel involved in surveillance;
Session 2: Know your Sentinel Site - Group Work and discussion	Group work to understand the functioning of the health facility at the sentinel site
Session 3: Methodology of HIV Sentinel Surveillance at ANC sites	Eligibility criteria; sampling methodology; Testing strategy;
Session 4: Managing Data Forms	General principles of completing and managing data forms & other documentation
Session 5: Laboratory Procedures	Specimen collection, processing, packaging and transportation
Session 6: Monitoring & Supervision	Tiers of Supervision; Instructions;

Key Objectives of Training

- Understand your role, as well as other site personnel's role clearly in the surveillance process
- Understand thoroughly the guidelines and instructions for implementing HIV Sentinel Surveillance at your site
- Familiarize yourself with the data forms, transportation sheets and other documentation at the sentinel site
- Understand the standard operating procedures for sample collection, storage and transportation

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Ground Rules

- Pay close attention and actively participate in the discussions
- Do not hesitate to ask questions, but do wait for your turn and allow others to complete their questions/ comments
- Keep phones on silent mode

Introduction of Participants...

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Introduction to HIV Sentinel Surveillance

Session Objectives

At the end of this session, participants should be able to understand:

- The concept of Surveillance
- Definitions, Objectives & Application of HIV Sentinel Surveillance
- Roles and Responsibilities of personnel involved in surveillance

Definition

- Surveillance is defined as “an ongoing, systematic collection, analysis, interpretation and dissemination of data regarding a health related event for use in public health action to reduce morbidity and mortality and to improve health.”

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Second Generation HIV Surveillance – Key Features

- Tailoring the HIV surveillance system to the pattern of the epidemic in a country
- Behavioural surveillance for collection of information on risk factors and practices, STIs, etc.
- Making best use of other sources of information to increase understanding of the HIV epidemic and the behaviours that spread it
- Better use of surveillance data to plan prevention and care interventions, improve national response and to measure impact

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What is HIV “Sentinel” Surveillance

- **HIV Sentinel Surveillance** is defined as “a system of monitoring HIV epidemic among specified population groups by collecting information on HIV from designated sites (sentinel sites) over years, through a uniform and consistent methodology that allows comparison of findings across place and time, to guide programme response.”
- **Sentinel Site** is defined as “a designated service point/facility where blood specimens & relevant information are collected from a fixed number of eligible individuals from a specified population group over a fixed period of time, periodically, for the purpose of monitoring the HIV epidemic.”

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Objectives of HIV Sentinel Surveillance (HSS)

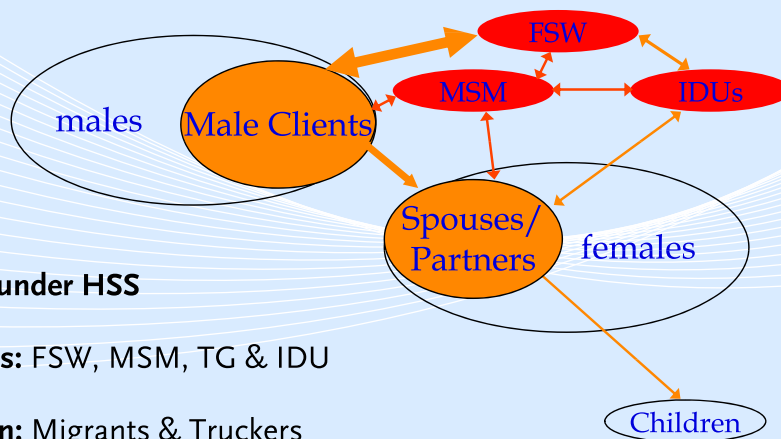
- To monitor trends in prevalence of HIV infection over time
- To monitor the distribution and spread of HIV prevalence in different population subgroups and in different geographical areas
- To identify emerging pockets of HIV epidemic in the country

Important applications of HSS:

- To estimate and project burden of HIV at state & national levels
- To support programme prioritization and resource allocation
- To assist evaluation of programme impact
- Advocacy

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Epidemiological Basis of HIV Surveillance



Groups covered under HSS

High Risk Groups: FSW, MSM, TG & IDU

Bridge Population: Migrants & Truckers

Low Risk Population: Pregnant

women attending ANC Clinics

(Adapted from Dr. Tim Brown)

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Why surveillance among ANC clinic attendees?

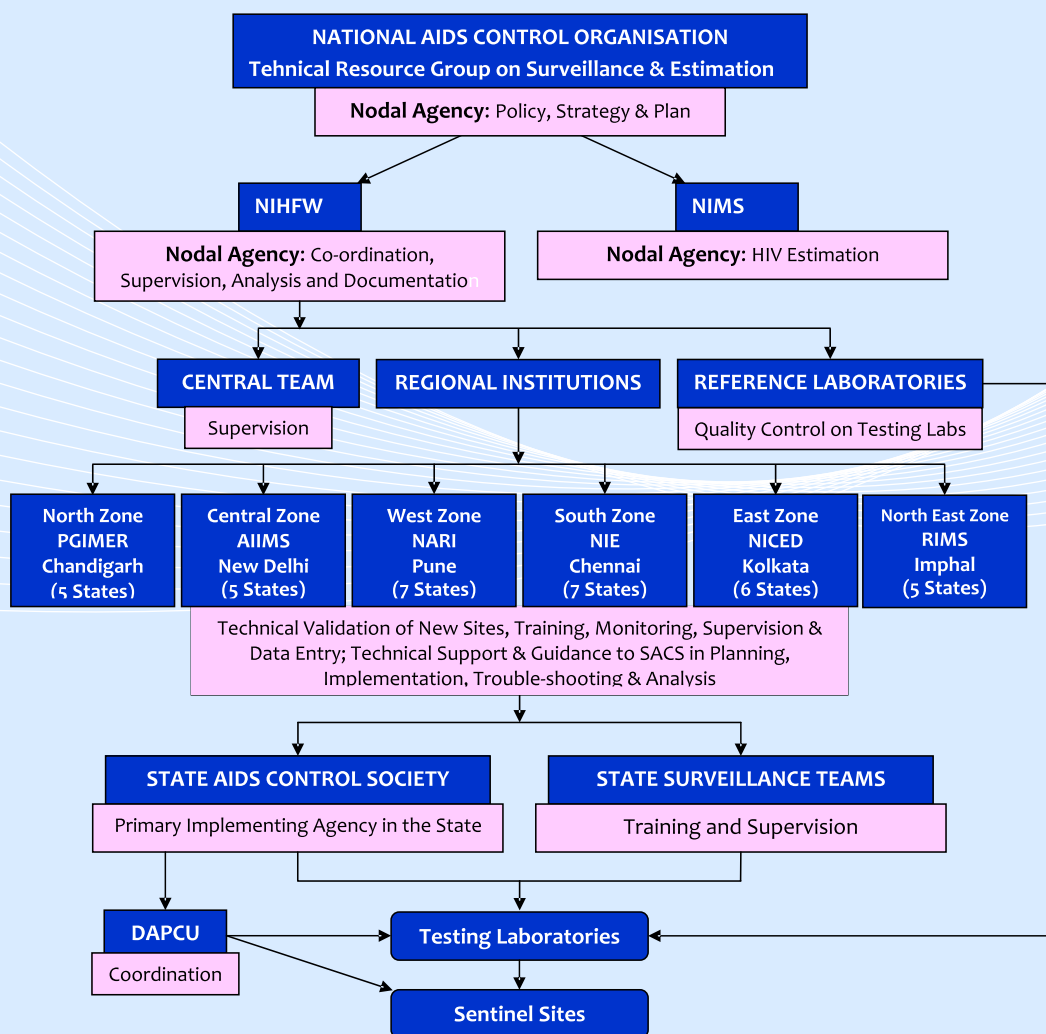
- Pregnant women represent the sexually active segment of general population, and hence taken as proxy for monitoring HIV among general population
- Unlinked Anonymous Testing strategy is possible only at those clinics where testing and blood specimen collection is done routinely. At ANC clinics, routine blood specimen collection is done for Syphilis and Hemoglobin testing, a part of which can be used for HIV testing
- Pregnant women represent a more homogeneous group than persons attending any other clinic/ OPD
- Pregnancy, being physiological, does not introduce any bias in HIV prevalence which other illnesses/ diseases may introduce due to underlying factors common to HIV
- Facilities for antenatal care are available across the country at different levels of health care system and hence are feasible for implementation

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Roles and Responsibilities of Sentinel Site Personnel

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Implementation Structure for HSS



Roles and Responsibilities State AIDS Control Societies (SACS)

- Ensures the supply of all consumables and release of funds required for surveillance to the sentinel sites
- Provides site code, sub-site numbers to all sites along with allocation of sample size in case of composite sites
- Ensures availability of operational manuals, wall charts, data forms, stamps/pre-printed stickers, etc.
- Ensures training of the personnel involved at all the sentinel sites and testing labs in the state
- Ensures sensitisation of NRHM officials/ CMOs/ Supdts. of hospitals from general health system about HSS
- Ensures adequate HR and infrastructure at sentinel sites
- Monitors surveillance through supervision visits and regular coordination

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Roles and Responsibilities Sentinel Site In-charge

- Responsible for all arrangements and activities for HIV surveillance at the site.
- Attends trainings conducted for surveillance by the SACS
- Conducts a pre-surveillance on-site training for all staff
- Correctly identifies the eligible respondents as per the inclusion criteria and ensures consecutive sampling
- Ensures that sample number is not linked with individual's identity thus maintaining unlinked anonymous testing
- Ensures adherence to standard operating procedures (SOP) by the site staff while collecting, processing & storing blood specimens

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Roles and Responsibilities (contd.) Sentinel site in-charge

- Monitors progress in sample collection on daily basis
- Checks filled forms every day for completeness, discuss issues, if any, with concerned staff, guide them and sign the filled forms
- Arranges for transport of blood specimens under proper cold chain along with sample transportation sheet (STS) to HSS Testing Laboratory
- Ensures that results of routine tests are provided to the respondent subsequently
- Contacts nodal person at SACS for any clarification/ problem regarding staff, availability of the listed consumables, user manuals, flow charts, data forms and stamps/ pre-printed stickers or any other methodological issues

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Roles and Responsibilities Nurse / Counselor

- Assists the site in-charge in identifying the eligible respondents
- Fills the data form for the eligible respondents as per the instructions given
- Ensures unlinked anonymity by seeing to it that data form does not carry any personal identifiers
- Ensures that the filled data form and the respondent reach laboratory technician for blood collection
- Ensures proper storage of data forms and weekly transport of data forms to RI
- Assists the site in-charge in the overall implementation of surveillance at the site

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Roles and Responsibilities Laboratory Technician

- Verifies the completeness of data form before taking blood specimen; refers back to nurse/counselor immediately if any field is missing or illegible
- Collects blood specimen following universal safety precautions
- Separates sera from blood specimens, labels and store them as per SOP
- Takes care and precautions to avoid damage to specimens (haemolysis, contamination, leakage etc.)
- Takes the **lead** in storage, packing and transportation of blood specimens every week and in their documentation, **under the supervision of the site in-charge**
- Strictly follows instructions for labeling and ensures appropriate labeling of specimens for routine testing and surveillance
- Strictly adheres to all the prescribed bio-safety measures

SESSION - II

Group Work: Know Your Sentinel Site

SESSION II: GROUP WORK: KNOW YOUR SENTINEL SITE

Objectives of the Group Work

1. To understand the routine functioning of OPD and ANC clinic at the sentinel site facility
2. To document and review the patient flow of the pregnant woman on a normal OPD day when HSS is not being implemented, including the distance between the steps and documentation involved at each step
3. To identify site-specific issues that may affect implementation of consecutive sampling and UAT under HSS
4. To provide site-specific recommendations and guidance to the sentinel site personnel during the training to ensure proper implementation of HSS at every site
5. To identify sentinel sites that need to be prioritized for supervisory visit during the first 15 days

Instructions to ANC Sentinel Site Personnel for filling format of Group Work – Know Your Sentinel Site

1. Please refer to the format for group work given to you.
2. This format has to be filled with information related to your hospital/ facility.
3. The format has four sections.
4. Section-I documents the site identification information.
5. Section-II has some questions related to the functioning of the OPD & ANC clinic in your hospital. Please answer them in the space provided for each question or tick the appropriate one from suggested responses.
6. Section-III is to record the patient flow of a pregnant woman in your hospital.
 - a. Left table is for a new case and right table is for an old case.
 - b. It gives a list of usual steps that a pregnant woman goes through in a hospital when she visits for ANC check-up, such as ANC registration, doctor's consultation, laboratory etc. Against each suggested contact point, there is an empty box.
 - c. Think of the normal steps that a pregnant woman goes through when she visits your hospital for ANC check up. **The order of steps in your hospital may be different from the order mentioned here.**
 - d. Review the list and identify which is the first step for a pregnant woman after entering your hospital. Mention number '1' in the box against that point.
 - e. Then, identify where the pregnant woman goes next. Mention number '2' in the box against the second step.

- f. Go on numbering each step in serial order till you reach the stage 'Exit from hospital'.
 - g. If any specific contact point in your hospital is not mentioned in the suggested list, please add the same in the blanks given at the bottom and number them accordingly.
 - h. If any step is not applicable to your hospital, leave it blank.
 - i. Repeat the process of numbering the steps for an old case who is already registered with the hospital in the past.
7. Section-IV is to record the distance between successive steps in the patient flow and documentation maintained at each step.
- a. Under the first column 'Steps', mention the steps as per the order recorded in Section-III.
 - b. For each step, mention the distance from the previous point, documents maintained at that point & who fills the document in the remaining columns.
 - c. Examples of documents are ANC register, OPD/ANC card given to the pregnant woman, Requisition for routine tests, PPTCT register, Lab register, Routine test results/report, HIV test report, etc.
8. The resource persons will come to you to help you in filling the format correctly. If you need any assistance, call any one of the resource persons.
9. After all sentinel sites fill their respective formats, we will randomly select a few sites to come and present what they have filled in the format, so that all of us are aware of different practices at different hospitals.

FORMAT FOR GROUP WORK

I. SITE IDENTIFICATION INFORMATION

1. State: 2. District:
3. Type of Hospital:
 - A) Medical College B) Tertiary Hospital C) District Hospital
 - D) Sub-district Hospital E) CHC F) PHC
 - G) Private nursing home H) Other Specify
4. Nature of Site:
 - A) Single site B) Sub-site (Part of composite site))
5. Site Code (8-digits): 6. Sub-site Number (1-digit):
7. Name of Sentinel Site/Sub-site:
8. Name of Composite Site: (Not applicable for single site)

II. DETAILS OF ANC OPD FUNCTIONING

1. Number of days in a week that ANC clinic is functional in your hospital:
2. ANC OPD timings
Mention the timings on each day; If they are different for new and old cases, mention the same.
If there is no difference, mention it under all cases

	New Cases		Old Cases		All Cases	
	From	To	From	To	From	To
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						

3. Average daily ANC clinic attendance:
4. Who conducts the ANC clinic?
 - A) Gynaecologist B) Other Doctor C) Nurse D) ANM E) Other:
5. How many different doctors conduct ANC clinic in a week?:
6. What are the routine blood tests done for ANC attendees in your hospital?
 - A) Syphilis: (Yes/ No) B) Haemoglobin/HB: (Yes/ No)
 - C) Malaria: (Yes/ No) D) Any Other tests done (Specify:)

7. Are these tests done routinely for every pregnant woman or only for those prescribed by the doctor?
A) All B) Only for those prescribed by Doctor
8. When are routine test results returned to the pregnant woman?
A) Same day B) After day(s) C) During next visit
9. How are routine test results issued?
A) Written on ANC card B) Separate Report/ Both
10. Is there a PPTCT centre functioning in your hospital?
A) Yes B) No

[If yes, answer the following questions. If no, go to section III.]

11. How is it ensured that every pregnant woman attending the ANC clinic for check-up reaches PPTCT centre and gets tested for HIV? (Tick one or more options below. If any other, describe it in the blank)
 A) Every pregnant woman is referred to PPTCT centre by doctor in ANC clinic, and the doctor verifies and ensures if HIV test results are available during next visit
 B) PPTCT Counselor sits in/close to ANC clinic and ensures that every pregnant woman comes for HIV counseling after ANC check-up
 C) Every pregnant woman is brought to PPTCT centre from ANC clinic by nurse/ out-reach worker/ hospital attendant (accompanied referral)
 D) Every pregnant woman first comes to the PPTCT centre and goes to ANC clinic for check-up only after registration at PPTCT centre
 E) ANC clinic & PPTCT centre work independently. Pregnant women come to PPTCT centre on their own. No specific procedures are employed.
 F) Any other mechanism:

12. How is blood collection for routine tests & HIV done?
 A) Collected twice separately for HIV & routine tests
 B) Collected only once and shared between PPTCT centre for HIV & general lab for routine tests
 C) Collected only once for HIV, no other tests are done
 D) Any other:
13. When are HIV test results returned to the pregnant woman?
 A) Same day B) After day(s) C) During next visit
14. How are HIV test results issued?
 A) Written on ANC card B) Separate Report C) Both

III. PATIENT FLOW OF A PREGNANT WOMAN ON A NORMAL ANC OPD DAY

- Think of the normal steps that a pregnant woman goes through when she visits your hospital for ANC check up.

- The common steps are listed below. But, the order of steps in your hospital may be different from the order mentioned here.
- Mention numbers starting with '1' in the empty boxes in the serial order of steps for new and old ANC case as followed in your hospital.
- If any step is not applicable to your hospital, leave it blank.)

Steps of Patient Flow for a NEW ANC case	Step No.
Entry into the hospital	o
OPD/ANC registration counter/ Point where OPD/ANC card is issued	
ANC Clinic/ Point where doctor conducts antenatal check-up	
PPTCT centre/ Point where HIV counseling is done	
PPTCT centre/ Point where blood is collected for HIV testing	
General testing lab/ Point where blood is collected for routine tests	
PPTCT centre/ Point where HIV test results are issued	
General testing lab/ Point where routine test results are issued	
Any Other:	
Any Other:	
Any Other:	
Exit from the Hospital	

Steps of Patient Flow for a NEW ANC case	Step No.
Entry into the hospital	o
OPD/ANC registration counter/ Point where OPD/ANC card is issued	
ANC Clinic/ Point where doctor conducts antenatal check-up	
PPTCT centre/ Point where HIV counseling is done	
PPTCT centre/ Point where blood is collected for HIV testing	
General testing lab/ Point where blood is collected for routine tests	
PPTCT centre/ Point where HIV test results are issued	
General testing lab/ Point where routine test results are issued	
Any Other:	
Any Other:	
Any Other:	
Exit from the Hospital	

IV. DISTANCE & DOCUMENTATION

- Mention the steps in the order of number you have given in table above.
- For each step, mention the distance from the previous point, documents maintained at that point & who fills the document.
- Examples of documents are ANC register, OPD/ANC card given to the pregnant woman, Requisition for routine tests, PPTCT register, Lab register, Routine test results/report, HIV test report, etc.)

Steps	Distance from previous point	Documentation at this step	Who fills the document?
Step 1:	Not Applicable	a. b.	a. b.
Step 8:	a. Same room b. Adjacent room c. 3-4 rooms away in same corridor d. Other part of same building e. Other building f.	a. b.	a. b.
Step 8:	a. Same room b. Adjacent room c. 3-4 rooms away in same corridor d. Other part of same building e. Other building f.	a. b.	a. b.
Step 8:	a. Same room b. Adjacent room c. 3-4 rooms away in same corridor d. Other part of same building e. Other building f.	a. b.	a. b.
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Step 8:	a. Same room b. Adjacent room c. 3-4 rooms away in same corridor d. Other part of same building e. Other building f.	a. b.	a. b.

SESSION - III

Methodology of HIV Sentinel Surveillance at ANC sites

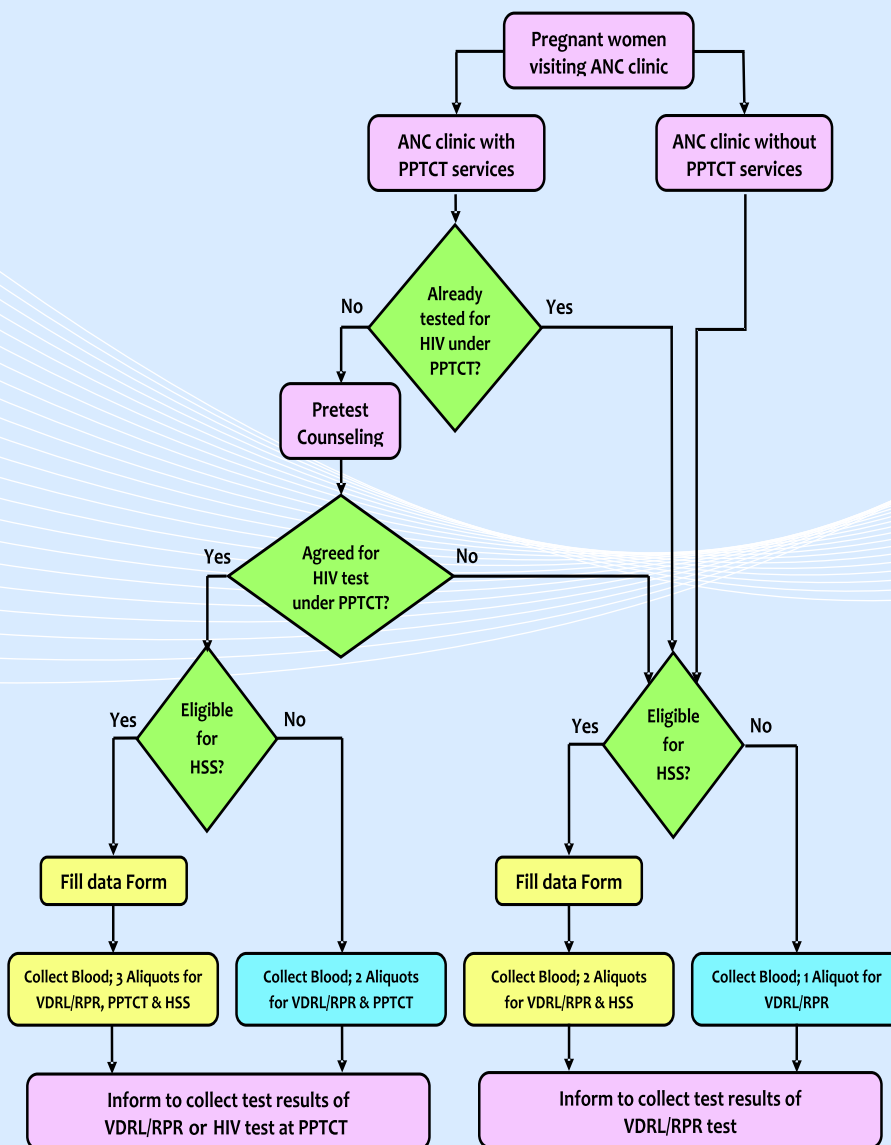
Methodology of HIV Sentinel Surveillance at ANC sites

Session Objectives

At the end of this session, participants should be able to:

- Define the eligibility criteria for ANC surveillance
- **Explain** the method of sampling for ANC surveillance (Consecutive sampling) – how, why
- List the factors that may affect consecutive sampling and their implications
- **Describe** the testing strategy for ANC surveillance (Unlinked Anonymous Testing Strategy) - how, why

Recruitment Process at ANC Sentinel Site

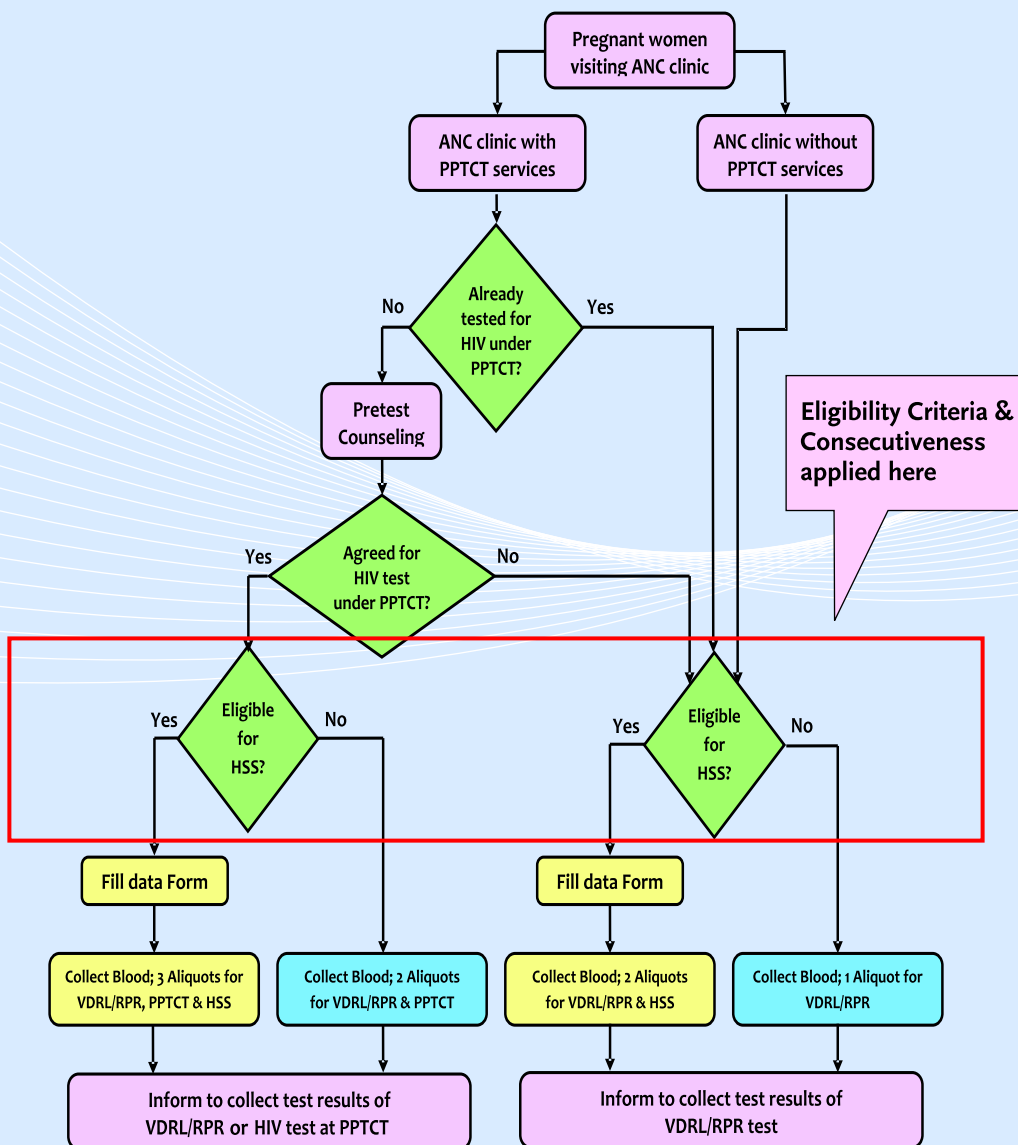




Eligibility Criteria

4

Recruitment Process at ANC Sentinel Site



Eligibility Criteria

Inclusion Criteria for ANC sentinel surveillance:

- Age group 15-49 years
- Pregnant women attending the antenatal clinic for the first time during the current round of surveillance

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Remember:

- If the pregnant women becomes eligible by the above criteria, she should be included in surveillance,
irrespective of:
 - Date of antenatal registration
 - HIV positivity status, (if known to counselor or treating doctor)
 - Participation in previous rounds of surveillance
 - Whether she is being tested for HIV under PPTCT (or not)
- A pregnant woman should be recruited only once during a round of surveillance. To ensure this, verify the date of her previous visit to ANC clinic. If the date of her previous visit to ANC clinic falls during the current round of surveillance, she should be excluded from the sample.

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Case Discussion 1

- 21 year old Geeta is studying in 2nd year BA. She is 7 months pregnant and has come to the ANC OPD on 12th March 2015. This is her second visit and she had earlier come to the ANC clinic on 19th December 2014. Surveillance at your ANC clinic started from 1st January 2015. Her husband is a clerk in a local bank and they live in the same town.
Is this woman eligible for surveillance?



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Case Discussion 2

- A 17 year old woman in her 8th month of pregnancy presents to the ANC on 12th January 2015 for the first time. She had a spontaneous abortion in the second month of pregnancy last year, but this time she says she had no problems/complaints. Her husband is a farmer and she is a house wife. The hospital has as an ongoing PPTCT program. Surveillance at this site has started from 1st January 2015.
Is this woman eligible for surveillance?



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Case Discussion 3

- A 14 year old girl is brought to the ANC OPD on 15th January 2015 by her mother with 5 months amenorrhea. She is unmarried, does not go to school and helps her mother in the house. This is her first pregnancy. This is her first visit to the clinic.

Is this woman eligible for surveillance?



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Sampling Method

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Components of Sampling Methodology

For each sentinel site, the same approach must be applied during every round of surveillance:

- Sample size – the number of people to be recruited for HSS
- Sampling method - the approach adopted at the sentinel site for recruiting eligible individuals in HSS
- Duration of sampling - how long to recruit for HSS

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Sample Size

- The recommended sample size for ANC surveillance per site is 400
- This sample size is feasible to be achieved in a period of three months
- This sample size is adequate for monitoring HIV trends

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Sample Size at Composite Sites

- In certain cases where 400 samples cannot be collected from a single ANC clinic due to low OPD utilization rates, composite sites are constituted by identifying 2-5 ANC clinics in a district that contribute towards achieving the target of 400
- In such cases, each sub-site in a composite site will have a pre-determined sample size which will be less than 400. This sample size will be provided by SACS

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Consecutive Sampling (1)

- From the start of surveillance, all individuals attending the sentinel site facility who are eligible for inclusion in surveillance as per the defined criteria, should be recruited in the order they attend the clinic
- Every successive individual should be recruited in HSS till designated sample size of 400 is achieved or the designated period of three months is over, whichever is earlier
- This sampling method removes all chances of selection or exclusion based on individual preferences and other reasons, and hence reduces selection bias
- It is convenient and easy to follow

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Consecutive Sampling (2)

- In clinics with large daily attendance, it is recommended that not more than 20 consecutive eligible attendees be recruited per day (to ensure quality of surveillance data collection)
- In such cases, the first 20 eligible attendees on a given day should be recruited
- However, there may be site-specific exceptions to this recommendation. In such cases, decision about number of consecutive samples to be collected per day should be taken in consultation with RI/SACS
- However, the exception should not compromise the principles of consecutive sampling, desired sample size, high quality patient care and surveillance

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Consecutive Sampling (3)

- Sample collection should be stopped once the target of 400 has been achieved or at the end of three month period, even if the target of 400 is not achieved
- In order to reach the target, sentinel sites **SHOULD NOT** recruit pregnant women admitted in the hospital/labor ward or through special campaigns to increase OPD attendance or by holding special camps or by any other means. Data from sentinel sites are much more useful and reliable when the strategy of consecutive sampling is strictly adhered to.

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Implications of not doing Consecutive Sampling

- There may be chances of selection bias in enrolling the women by sentinel site staff
- There may be a chance of including or excluding individuals with a specific characteristic that may affect HIV prevalence. (E.g. If women with known HIV status get preferentially enrolled or eliminated, the HIV prevalence in the women sampled may be over-estimated or under-estimated)

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Scenarios that may affect Consecutive Sampling

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1. Distance between point of assessing eligibility, filling data form & sample collection

- A pregnant woman visits a facility where the point of filling data form and/or point of specimen collection is situated far away from the ANC clinic
- There is a possibility that the pregnant woman may drop out after being assessed as eligible by the attending doctor. In this case, the principle of consecutiveness may not be followed
- Therefore the recommendation is to make arrangements for filling data form and blood specimen collection at the ANC clinic itself or have someone accompany every eligible pregnant woman to point of data form filling or point of specimen collection

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2. Self-exclusion at ANC Sentinel Site with PPTCT Services

- A pregnant woman who knows her HIV status visits a maternity hospital which also offers PPTCT services. If the attending doctor finds her eligible for surveillance and refers her to PPTCT centre for filling of data form, the pregnant woman may decide not to go to the PPTCT as she already knows her status. This will violate consecutiveness.
- Therefore the recommendation is to make arrangements for filling data form and blood specimen collection at the ANC clinic itself or have someone accompany every eligible pregnant woman to the PPTCT centre and subsequently to the laboratory

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3. Patient flow at sentinel site with PPTCT services

- In a hospital where a pregnant woman visits ICTC/PPTCT centre first and then proceeds to the ANC clinic, and if assessment of eligibility and filling of data form are done in PPTCT centre, the following possibilities may arise:
- Confirmation of pregnancy needs doctor's consultation. Hence, eligibility criteria may not be followed.
- Those women who were already registered at PPTCT centre may not visit the centre during their subsequent visits, and thereby consecutiveness may be affected.
- No. of aliquots to be prepared from the blood specimen will be determined only after doctor's consultation. Hence, filling form and collecting blood at PPTCT centre may subject her to multiple punctures.
- Hence, it is recommended that in such a scenario, the patient flow should be in such a way that the pregnant woman first visits the doctor for eligibility and then the data form is filled by the nurse/counselor, if eligible.

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4. Recruitment from Maternity Ward or Labor Room

- A pregnant woman is admitted to the maternity ward due to pregnancy complications or admitted for delivery in the labor room. She meets the eligibility criteria of HSS, and is enrolled for surveillance by the nurse/counselor.
- This clearly violates the principle of consecutiveness because this woman is not a ANC clinic attendee.
- Therefore, only pregnant women who visit antenatal clinic should be assessed for their eligibility and recruited for surveillance.

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Case Discussion 4: Sample Size and Duration

- An ANC surveillance site has not managed to get the requisite sample size at the end of three months of surveillance period. The site in-charge decides to continue recruiting till they achieve the target sample size of 400. Is this the right approach?



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Case Discussion 5: Sample Size & Duration

- After completion of the requisite sample collection at the end of 3 months, the site in-charge is informed by the testing lab that 30 of the last few samples sent in previous week are rendered unusable due to haemolysis. The site collects 30 samples beyond 400. Is that acceptable? What else could the site in-charge do?



25

Case Discussion 6: Sampling Method

- As soon as the nurse in CHC Sitapur (which is a surveillance site) discovers that there is a pregnant woman who has come direct-in-labor, she notifies the site-in-charge, does pre-test counseling and asks the laboratory technician to draw blood for HSS in the labor room itself. Is this the correct protocol?



26

Case Discussion 7: Sampling Method

- The site-in-charge at Jambhi CHC which is a sentinel surveillance site, asks the hospitals close to his facility to refer pregnant women to the CHC as sentinel surveillance is on-going. Are these instructions correct?



27

Case Discussion 8: Sampling Method

- In a district hospital with an average daily OPD of 40 pregnant women at the ANC clinic, surveillance was not initiated from the designated date as doctor was on leave. Towards the end of surveillance, when the doctor joins duty, he asks the nurse to start collecting samples from all pregnant women who come to the clinic and completes the target in 10 days, within the three month period. Is this the right approach?

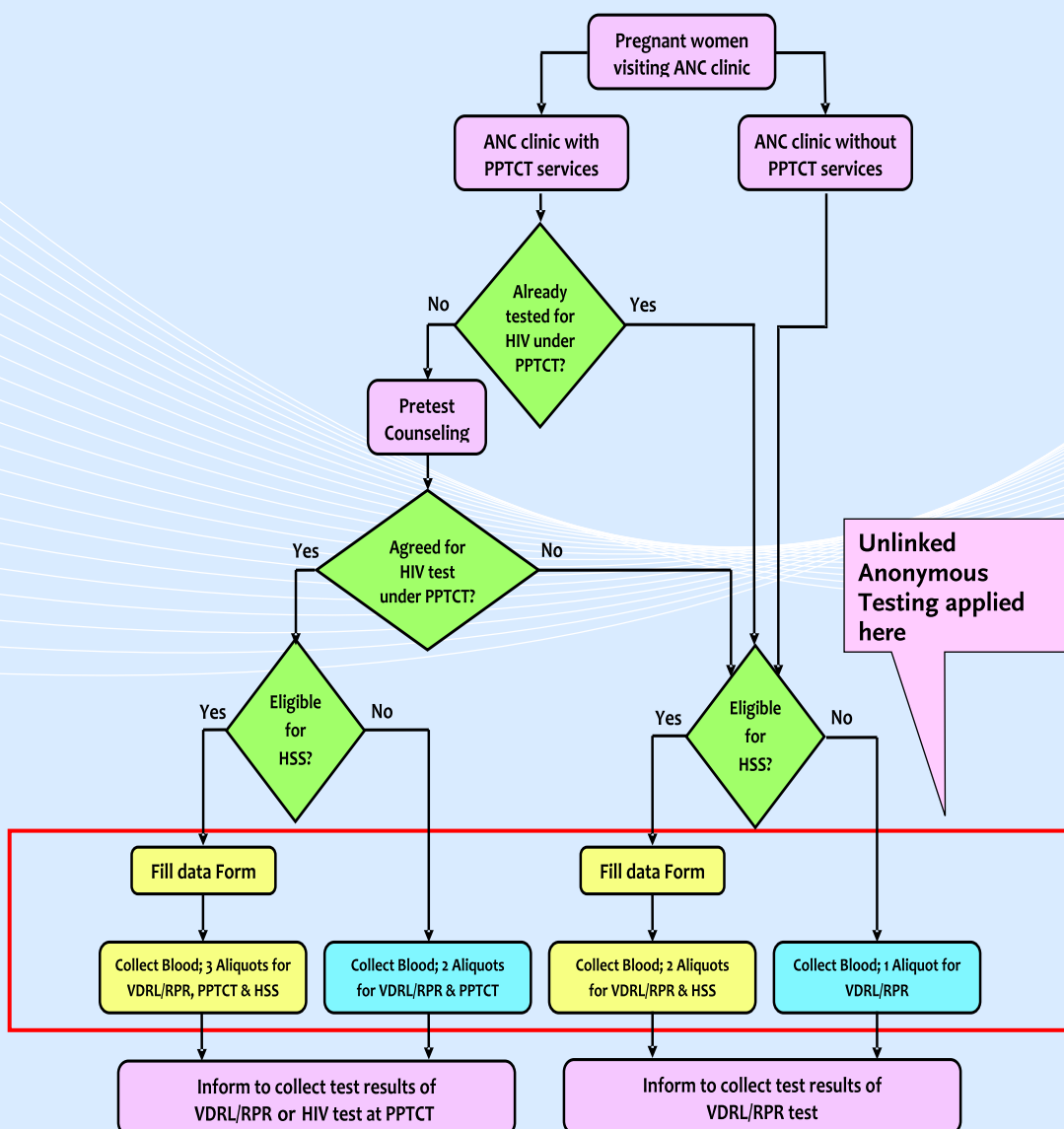


28

Testing Strategy

29

Recruitment Process at ANC Sentinel Site



Testing strategy for ANC sentinel sites

Unlinked Anonymous Testing

- HIV Testing is done on a portion of blood specimen collected for routine diagnostic purposes (such as Syphilis, Hb) after removing all personal identifiers
- The information collected in the data form, or the HIV test result from the blood specimen should NEVER be linked to the individual from, whom information/specimen is collected
- Neither the staff collecting the blood specimen nor the staff testing the blood specimen is able to track the results back to the individual

31

Testing strategy for ANC sentinel sites

Unlinked Anonymous Testing

- Therefore personal identifiers such as name, address, OPD registration number etc. should NOT be mentioned anywhere on the data form, blood specimen, data form transportation sheet or sample transportation sheet
- Similarly, HSS sample number or any mark indicating inclusion in HSS should not be mentioned in the ANC register or ANC patient card/ OPD card
- Part of the blood specimen with identifiers is used on site for conducting routine test for which it has been collected. Part of the blood specimen without identifiers is sent for HIV testing under HSS
- Report of the prescribed diagnostic test (e.g. syphilis test) MUST be communicated to the participant

32

Case Discussion 9: Testing Strategy

- The laboratory technician after separating the serum for syphilis testing and HSS, labels both aliquots with the patient name and ANC registration No./OPD No. and tests required. He then sends the HSS samples to the HSS testing lab and retains the other for syphilis testing at the local lab. Is this the correct procedure?



33

Case Discussion 10: Testing Strategy

- The laboratory technician draws blood specimens from eligible pregnant women during the first week of surveillance. He sends the samples as per protocol to the HSS testing lab. He makes a note of the HSS sample number on the ANC/lab register and calls up the HSS testing lab to know which samples were positive. He calls the positive women to let them know so they can seek immediate medical help. Is this the correct procedure?



34

Case Discussion 11

- In an ANC clinic, the counselor marks “ **SS** ”, in the ANC registration card for all eligible attendees to make a note for ANC attendees who have been included for HSS, to avoid duplication. As attendees come in, he first checks for this mark on the registration card and includes only those that do not have the “**SS**” mark, and who meet the eligibility criteria. Is this approach violating any principles of HSS that you have learnt so far? Is so, which ones?



35

Exercise on Methodology

- In view of the discussions on eligibility, consecutiveness & UAT, review the formats filled by you in the Session II group work and answer the questions given in the exercise
- Discuss with resource persons while writing the actions to be taken to avoid the problems
- Submit the filled formats to the resource persons after finishing the exercise



36

FORMAT FOR SESSION III: EXERCISE ON METHODOLOGY OF HSS

(In view of the discussions on eligibility, consecutiveness & UAT in session-3, review the formats filled by you in session-2 group work and answer the following questions. Discuss with the resource persons while writing the actions to be taken to avoid the problems.)

1. If there are separate OPD timings for new and old ANC cases, when will you recruit pregnant women into surveillance?
 A) Only from new ANC cases B) Only from old ANC cases C) Both

2. At what step of patient flow will you assess eligibility for HSS?

3. Based on the steps of patient flow and point of assessing eligibility for HSS, is there a possibility of missing any new case or old case from including in HSS, thereby affecting consecutiveness?
 A) Yes B) No
 a. If yes, elaborate.

 b. What should be done to avoid this problem?

4. At what step of patient flow will the HSS data form be filled?

5. Who will fill the HSS data form?

6. Based on the steps of patient flow and point of filling HSS data form, is there a possibility of missing any new case or old case from including in HSS, thereby affecting consecutiveness?
 A) Yes B) No
 a. If yes, elaborate.

 b. What should be done to avoid this problem?

7. At what step of patient flow will the blood specimen will be collected?
.....
8. Based on the steps of patient flow and point of collecting blood specimen, is there a possibility of missing any new case or old case from including in HSS, thereby affecting consecutiveness?
A) Yes B) No
a. If yes, elaborate.
.....
.....
b. What should be done to avoid this problem?
.....
.....
9. Based on distance between the steps of patient flow, is there a possibility of missing any new case or old case from including in HSS, thereby affecting consecutiveness?
A) Yes B) No
a. If yes, between which steps?
.....
.....
b. What should be done to avoid this problem?
.....
.....
10. Based on the documentation maintained at different steps of patient flow, is there a possibility of linking the pregnant woman with HSS blood specimen, thereby violating UAT?
A) Yes B) No
a. If yes, elaborate.
.....
.....
b. What should be done to avoid this problem?
.....
.....
11. Based on the way routine tests are prescribed for pregnant women, is there a possibility of missing any new case or old case from including in HSS, thereby affecting consecutiveness?
A) Yes B) No
a. If yes, elaborate?
.....
.....
b. What should be done to avoid this problem?
.....
.....

12. Based on the way pregnant women visit ANC clinic and PPTCT centre and the point of assessing eligibility/filling HSS data form, is there a possibility of missing any new case or old case from including in HSS, thereby affecting consecutiveness?

A) Yes B) No

a. If yes, elaborate?

.....
.....

b. What should be done to avoid this problem?

.....
.....

13. Based on the way HIV test results are issued, is there a possibility of selectively including or excluding known HIV positive cases in HSS, thereby creating selection bias?

A) Yes B) No

a. If yes, elaborate?

.....
.....

b. What should be done to avoid this problem?

.....
.....

14. Based on the average daily ANC clinic attendance, what should be the optimal number of pregnant women to be recruited into HSS every day (not exceeding 20 per day) so that the procedures of assessing eligibility, consecutiveness, filling data form and UAT are strictly followed?
(Decide in consultation with resource persons)

.....

15. Does the HSS sentinel site in-charge who is attending this training conduct ANC clinic on all ANC OPD days?

A) Yes B) No

a. If no, what action will you take after going back to your hospital?

.....
.....

SESSION - IV

Managing Data Forms

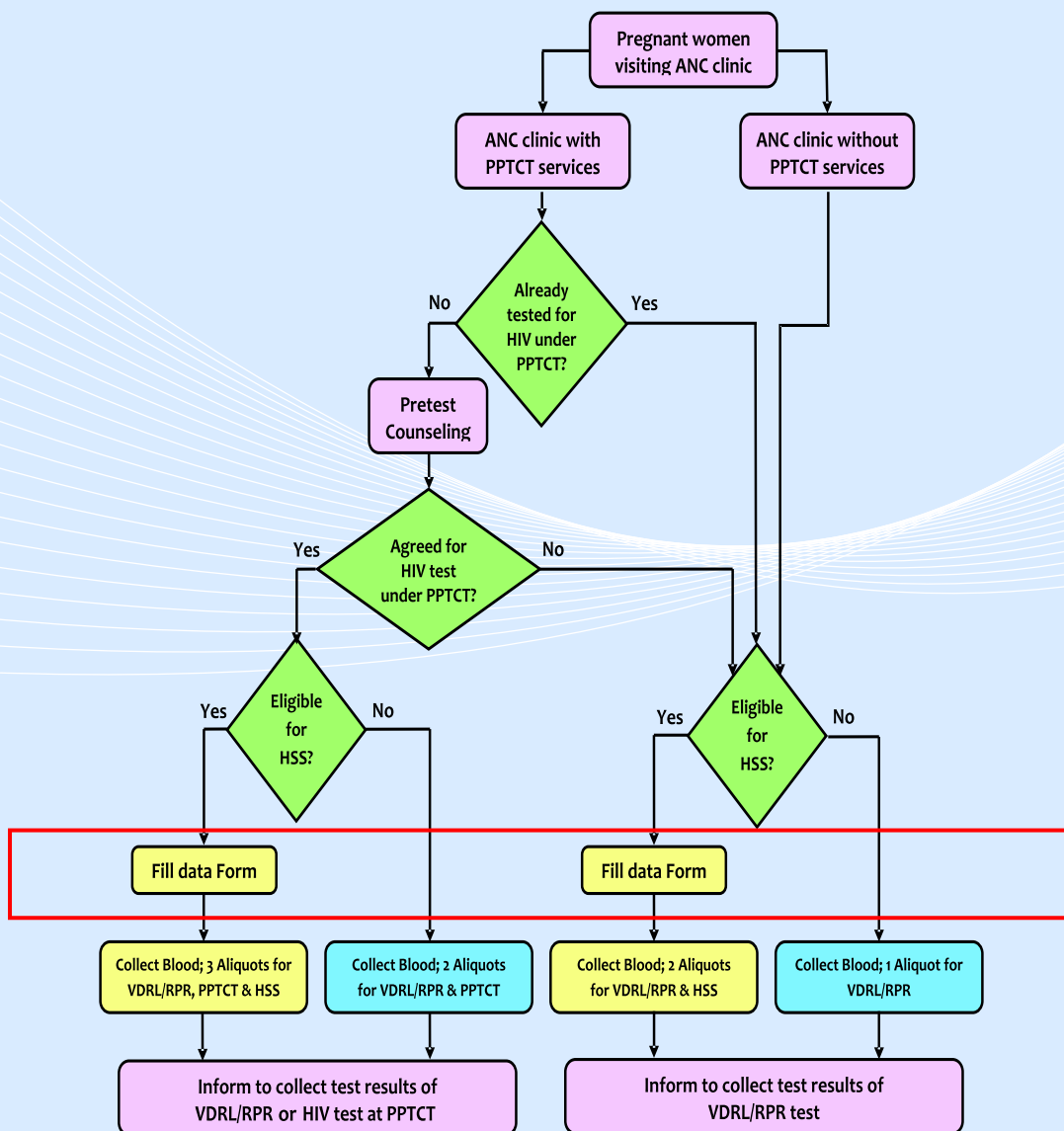
Managing Data Forms

Session Objectives

At the end of this session, participants should be able to:

- Understand the general principles of completing data forms
- Understand good practices and quality issues in the filling of data forms
- Familiarize themselves with each variable in the ANC data form
- Learn to avoid common errors
- Familiarize themselves with documentation involved while transporting data forms

Recruitment Process at ANC Sentinel Site



Completing Data Forms

4

Data Form

- **WHAT:** A data form is a tool to capture information related to the socio-demographic characteristics and vulnerabilities of the eligible individual
- **WHO:**
 1. Nurse/ Counselor: Should complete the data form for each eligible respondent
 2. Laboratory Technician: Should ensure that the form is complete and correctly filled, before taking the blood specimen. If incomplete, the nurse/counselor should be immediately notified so that information may be collected
 3. Site in-charge: Should verify completed data forms every day, sign with date. Blank data forms should NEVER be signed in advance. If mistakes are found in filling forms, site in-charge should discuss with concerned staff and guide them

5

Data Form

- **WHEN:**
 1. After assessing eligibility
 2. Before collecting blood specimen
- **HOW:** The following slides provide guidance on how to fill the forms and practices to be followed to ensure that data captured is of high quality

6

General Instructions for Data Forms

- Only one data form should be completed per individual
- Data form should be filled only after eligibility is confirmed by site in-charge
- Data form should be completed before blood specimen collection
- Utmost care should be taken to ensure that the data entered is legible, complete and correct
- The completed data forms should be stored securely at the sentinel site
- Under no circumstances should the form be handed over to the attendees
- The data forms should be transported on a weekly basis to the Regional Institute for data entry, along with the Data Form Transportation Sheet (DFTS)
- In case of composite sites, the data forms from all the sub-sites should be compiled at the main site and sent together to the RI

7

Ensuring Quality of Data on Data Form

- Use a hard ball point pen to complete the data form. Ink pens may leak and make entries illegible
- Data forms should be filled neatly and legibly, without any overwriting and strike marks
- Record responses by circling one appropriate option, (except for 'Age' & 'Duration of stay at current residence' where the appropriate number of years/months should be written)
- Complete all questions, without leaving any blanks. Person completing must check for completeness, put his/her name, sign and date
- Circle only one appropriate option. Circling more than one option will be considered invalid
- Ensure that responses are internally consistent

Examples of wrong practices provided in the following slides...

8

Form filled with ink pen & Smudged

HSS 2010: Data Form for Antenatal Clinic Attendees (ANC)

Please fill the data in the box below. Fill the box with the details. Stamp the data in the box below.

State: Nagaland District: Mokokchung

Age (in completed years): 30

Educational Status: ☒ Literate and up to 5th standard ☐ 6th to 10th standard ☐ 11th to Graduation ☐ Post Graduation

Order of Current Pregnancy: ☐ First ☐ Second ☐ Third ☒ Fourth or more

Source of Referral to the ANC Clinic: ☒ Family / Relatives / Neighbors / Friends ☐ NGO ☐ Private (Doctor / Nurse) ☐ ICPC / ART Centre

Current place of residence: ☒ Urban (Municipal Corporation / Council / Cantonment) ☐ Rural

Duration stay at current place of residence: 10 years, 0 months

Use of ink pen has smudged the data

9

Form untidy due to use of whitener

1. Age (in completed years) 24

2. Literacy Status
 1. Illiterate 2. Literate and till 5th standard 3. 6th to 10th standard 4. Above 10th standard 5. Post Graduation

3. Order of Current Pregnancy
 1. First 2. Second 3. Third 4. Fourth or more

4. Source of Referral to the ANC clinic
 1. Self Referral 2. Family/ Relatives/ Neighbors/ Friends 3. NGO
 4. Private (Doctor/ Nurses) 5. Govt (including ASHA/ ANM) 6. ICTC / ART Centre

5. Current place of residence
 1. Urban (Municipal Corporation / Council / Cantonment) 2. Rural

6. Duration stay at current place of residence: 5 years 1 month

7. Current Occupation of the Respondent
 1. Agricultural Labourer 2. Non-Agricultural Labourer 3. Domestic Servant
 4. Skilled / Semiskilled worker 5. Petty business / small shop 6. Large Business/Self employed
 7. Service (Govt./Pvt.) 8. Student 9. Truck Driver/helper
 10. Local transport worker (auto/ taxi driver, handcart pullers, rickshaw pullers etc) 11. Hotel Staff 12. Agricultural cultivator/ landholder
 13. Housewife

Use of whitener has hidden the option number

In case of overwriting/ strikemarks while filling the data form, use a fresh data form

10

Options not encircled properly

1. Age (in completed years) 24

2. Literacy Status
 1. Illiterate 2. Literate and till 5th standard 3. 6th to 10th standard 4. Above 10th standard 5. Post Graduation

3. Order of Current Pregnancy
 1. First 2. Second 3. Third 4. Fourth or more

4. Source of Referral to the ANC clinic
 1. Self Referral 2. Family/ Relatives/ Neighbors/ Friends 3. NGO
 4. Private (Doctor/ Nurses) 5. Govt (including ASHA/ ANM) 6. ICTC / ART Centre

5. Current place of residence
 1. Urban (Municipal Corporation / Council / Cantonment) 2. Rural

6. Duration stay at current place of residence: 3 years 1 months

7. Current Occupation of the Respondent
 1. Agricultural Labourer 2. Non-Agricultural Labourer 3. Domestic Servant
 4. Skilled / Semiskilled worker 5. Petty business / small shop 6. Large Business/Self employed
 7. Service (Govt./Pvt.) 8. Student 9. Truck Driver/helper
 10. Local transport worker (auto/ taxi driver, handcart pullers, rickshaw pullers etc) 11. Hotel Staff 12. Agricultural cultivator/ landholder
 13. Housewife

Improper circling of options has hidden the option number

11

Options not encircled properly

2. Literacy Status
 1. Illiterate 2. Literate and till 5th standard 3. Up to 10th standard 4. 11th

Order of Current Pregnancy
 1. First 2. Second 3. Third

Source of Referral to the ANC clinic
 1. Self Referral 2. Family / Relatives / Neighbours / Friends 3. NGO
 4. Private (Doctor / Nurse) 5. Govt (including ASHA / ANM) 6. VCTC / ART Centre

5. Current place of residence
 1. Urban (Municipal Corporation / Council / Cantonment) 2. Rural

6. Duration stay at current place of residence: 1 years 2 months

7. Current Occupation of the Respondent
 1. Agricultural Labourer 2. Non-Agricultural Labourer 3. Domestic Servant
 4. Skilled / Semiskilled worker 5. Petty business / small shop 6. Large business/self employed
 7. Service (Govt./Pvt.) 8. Student 9. Truck Driver/helper
 10. Local transport worker (auto/ taxi driver, handcart pullers, rickshaw pullers etc) 11. Hotel Staff 12. Agricultural cultivator/ landholder
 13. Unemployed

8. Current Occupation of the Spouse
 1. Agricultural Labourer 2. Non-Agricultural Labourer 3. Domestic Servant
 4. Skilled / Semiskilled worker 5. Petty business / small shop 6. Large Business/self employed
 7. Service (Govt./Pvt.) 8. Student 9. Truck Driver/helper
 10. Local transport worker (auto/ taxi driver, handcart pullers, rickshaw pullers etc) 11. Hotel Staff 12. Agricultural cultivator/ landholder
 13. Unemployed 99. Not Applicable (For Never married/ Widows)

Improper circling of options.
 The options need to be circled and NOT the values

12

Field left blank

5. Source of referral to STD clinic
 1. Self Referral 2. VCTC 3. NGO 4. Private doctors
 5. ART Centre 6. Other OPDs 7. Referred by spouse having STD

6. Current place of residence
 1. Urban (Municipal Corporation / Council / Cantonment) 2. Rural

7. Duration of stay at current place of residence: years months

8. Current Occupation of the Respondent
 1. Agricultural Labourer 2. Non-Agricultural Labourer 3. Domestic Servant
 4. Skilled / Semiskilled worker 5. Petty business / small shop 6. Large Business/self employed
 7. Service (Govt./Pvt.) 8. Student 9. Truck Driver/helper
 10. Local transport worker (auto/ taxi driver, handcart pullers, rickshaw pullers etc) 11. Hotel Staff 12. Agricultural cultivator/ landholder

Duration of stay
 not mentioned

13

Field left blank

Data Form for Antenatal Clinic Attendees (ANC)
(Fill the box below OR Paste the sticker with site details/ Stamp the site details in the empty box.)

State : _____ District : _____

Site Name : _____

(Site Code) (Sub-site No.) (Sample No.) (Date - DDMMYY)

1. Age (in completed years) 22 **Enter the sub-site number here.**

2. Literacy Status

1. Illiterate 2. Literate and till 5th standard 3. 6th to 10th standard 4. 11th to Graduation 5. Post Graduation

3. Order of Current Pregnancy

1. First 2. Second 3. Third 4. Fourth or more

14

Field left blank

HSS 2010: Data Form for Antenatal Clinic Attendees
(Please fill the site details in the box below OR Paste the sticker with site details/ Stamp the site details in the empty box.)

State: Nagaland District: Mon

Site Name: ANC civil hospital Mon

(Site Code) (Sub-site No.) (Sample No.) (Date - DDMMYY)

No mention of date

1. Age (in completed years) 25

2. Literacy Status

1. Illiterate 2. Literate and till 5th standard 3. 6th to 10th standard 4. 11th to Graduation 5. Post Graduation

3. Order of Current Pregnancy

1. First 2. Second 3. Third 4. Fourth or more

15

Field left blank

HSS 2010: Data Form for Antenatal Clinic Attendance
(Please fill the site details in the box below OR Paste the sticker with site details/ Stamp)

State: NAGALAND District: MON Sub-District: MON
Site Name: A.N.C. CIVIL HOSPITAL
Site Code: 13403011 Sub-site No.: 0 Sample No.: 002 Date: 10/11/11
Type: ANC CH Man: 1 13403011

1. Age (in completed years) Age not mentioned

2. Literacy Status
☒ 1. Illiterate ☐ 2. Literate and till 5th standard ☐ 3. 6th to 10th standard ☐ 4. 11th to Graduation ☐ 5. Post Graduation

3. Order of Current Pregnancy
☐ 1. First ☐ 2. Second ☒ 3. Third ☐ 4. Fourth or more

4. Source of Referral to the ANC clinic
☐ 1. Self Referral ☐ 2. Family/ Relatives/ Neighbors/ Friends ☐ 3. NGO
☐ 4. Private (Doctor/ Nurses) ☐ 5. Govt (including ASHA/ ANM) ☐ 6. ICTC / ART Centre

5. Current place of residence
☐ 1. Urban (Municipal Corporation / Council / Cantonment) ☒ 2. Rural

Age of respondent is not mentioned

16

Field left blank

8. Current Occupation of the Spouse

1. Self-employed	2. Non-Agricultural Labourer	3. Domestic Servant
4. Petty business / small shop	5. Student	6. Large Business/Self employed
7. Local transport driver (auto/ taxi driver, handcart pullers, rickshaw pullers etc)	8. Hotel Staff	9. Truck Driver/helper
10. Unemployed	11. Agricultural cultivator/ landholder	12. Not Applicable (For Never married/ Widows)

9. Does spouse reside alone in another place/ town away from wife for work for longer than 6 months?
☐ 1. Yes ☒ 2. No ☐ 3. Not Applicable (For widows /unmarried women)

Signature [Signature] **Signature** No signature of site in charge

Name L. Shaoang **Name** [Signature]
 (Person filling the form) (In charge of the Surveillance Site)

Signature of site-in-charge is missing

17

Circled more than one option: invalid entry

8. Current Occupation of the Spouse

1. Agricultural Labourer	2. Non-Agricultural Labourer
4. Skilled / Semiskilled worker	5. Petty business / small business
7. Service (Govt./Pvt.)	8. Student
10. Local transport worker (auto/ taxi driver, handcart pullers, rickshaw pullers etc)	11. Hotel/Restaurant
13. Unemployed	12. Agricultural cultivator/ Landholder
	99. Not applicable (For Never married)

9. Does spouse reside alone in another place / town away from wife for work for longer than 6 months?

1. Yes ☒ 2. No ☐ 99. Not Applicable (For widows /unmarried women) ☒

Signature _____ Name Dr. Toymun Datta
(Person filling the form) (In charge of the Surveillance Site)

Only one option should be circled. Circling more than one option will be considered invalid.

18

Inconsistent responses

1. Age (in completed years) / आयु (संपूर्ण वर्षों में)

2. Literacy Status / साक्षरता स्थिति

1. Illiterate / निरक्षर 2. Literate and till 5th standard / साक्षर और पाँचवी तक

4. 11th to Graduation / ग्यारहवीं से स्नातक 5. Post Graduation / स्नातकोत्तर

3. Order of Current Pregnancy / वर्तमान गर्भ का क्रम

1. First / पहली बार 2. Second / दूसरी बार 3. Third / तीसरी बार 4. Fourth or more / चौथी या उससे ज्यादा

4. Source of Referral to the ANC clinic / प्रसवपूर्व जाँच केन्द्र में रेफरल का स्रोत

1. Self Referral / स्वतः रेफरल 2. Family/Relatives/ Neighbors/ Friends / परिवार/ रिश्तेदार/ पड़ोसी

3. NGO / एन.जी.ओ. 4. Private Hospital (Doctor/ Nurses) / निजी अस्पताल (डॉक्टर/ नर्स)

5. Govt. Hospital (including, ASHA/ANM) / सरकारी अस्पताल (आशा/ए.एन.एम.) 6. ICTC / ART Centre / आई.टी.सी./ ए.आर.टी. केन्द्र

5. Current Place of Residence / वर्तमान निवास स्थान

1. Urban (Municipal Corporation / Council / Cantonment) / शहरी (नगरपालिका/निगम/छावनी) 2. Rural / ग्रामीण

6. Duration of Stay at Current Place of Residence / वर्तमान निवास स्थान में ठहरने की अवधि 30 years / वर्ष 2 months

The age is stated as 24 years and duration of stay as 30 years

19

Inconsistent response

8. Current Occupation of the Spouse / प्रतिवादी के पति का वर्तमान व्यवसाय

1. Agricultural Labourer / कृषि श्रमिक	2. Non-Agricultural Labourer / गैर कृषि श्रमिक
4. Skilled / Semiskilled worker / कुशल / अर्धकुशल श्रमिक	5. Petty business / small shop / लघु उद्योग / छोटी
7. Service (Govt./Pvt.) / कर्मचारी (सरकारी / निजी)	8. Student / विद्यार्थी
10. Local transport worker (auto/ taxi driver, handcart pullers, rickshaw pullers etc. / स्थानीय परिवहन कार्य (ऑटो/ टैक्सी ड्राइवर, ठेलवाले, रिक्शावाले)	
11. Hotel Staff / होटल कर्मचारी	12. Agricultural cultivator / landholder / जमींदार
13. Unemployed / बेरोजगार	99. Not Applicable (For Never married/Widows) / लागू नहीं होता (अविवाहित / विधवा महिलाओं के लिए)

9. Does spouse reside alone in another place/ town away from wife for work for longer than 6 months? / क्या प्रतिवादी के पति उनसे दूर काम लिए 6 महीनों से ज्यादा किसी दूसरे स्थान पर रहते हैं?

1. Yes / हाँ	2. No / नहीं	99. Not Applicable (For widows/unmarried women) / लागू नहीं होता (अविवाहित / विधवा महिलाओं के लिए)
--------------	--------------	--

If current occupation of spouse is applicable and recorded (i.e the woman is currently married), migrant status of spouse is also applicable.

20

Ensuring Quality of Data Form

- Person completing the data form should check for completeness, write his/her name, sign and put date
- Lab Technician must check that all questions in data form are completed or not, before collecting blood specimen. If response is not recorded for any question, it should be sent back to the nurse/counselor so that information may be collected when the individual is still in the facility
- Site in-charge should verify the completed data forms every day and then sign and put date. **Blank data forms should NEVER be signed in advance**
- If there are any issues or mistakes in filling the data forms, site in-charge should discuss with concerned staff and guide them

21

Important

Ensuring Unlinked Anonymous Testing

- To ensure Unlinked Anonymous Testing, personal identifiers should not be mentioned on the data form, namely :
 - Name
 - Address
 - OPD/ANC registration number
- These could potentially link the data form to the individual
- Similarly, HSS sample no. or any mark indicating inclusion in HSS should not be mentioned in the ANC Register or ANC patient/OPD card
- No separate register should be maintained for HSS
- Data forms should not be retained or photocopied for retention at the sentinel site

22

Question-wise Instructions

23

Site and Sample Details

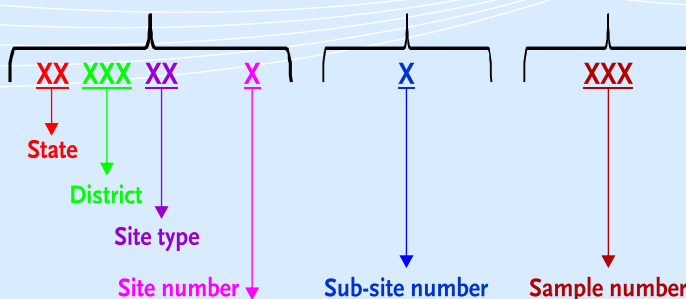
State/राज्य:..... District/जिला:.....		<div style="border: 1px solid black; height: 100px; width: 100%;"></div>
<div style="text-align: center; color: red; font-weight: bold;">OR Write the details on the left</div>		
Site Name/साइट का नाम:.....		
<div style="border: 1px solid black; width: 40px; height: 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 40px; height: 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px;"></div>
(Site Code)	(Sub-site No.)	(Sample No.) (Date-DD/MM/YY)

- Stamp or place the sticker with details of State, District, Name of the sentinel site, site code and sub-site number in the empty box.
- Write the following 2 items manually
 - Sample number stating with 001
 - Date of sample collection in DD/MM/YY format
- If stamp or sticker is not provided by SACS, manually enter all the details in the box on the left

24

Site Code and Sample Code

- Site code is an eight digit unique number given to each sentinel site comprising: state (2 digits), district (3 digits) site type (2 digits) followed by site number (1 digit).
- This is followed by the sub-site number (1 digit) and the sample number (3 digits)
- Sample Code (12) = Site code(8) + Sub-site No.(1) + Sample No.(3)



25

Sub-site Number and Sample Number

Sub-site Number: In case of composite sites, sub-site number allotted by SACS can be from 1 - 5. In case of a single site, it is a one-digit number, i.e. '0'

Sample Number: The three-digit sample number at each site and sub-site should begin from '001'

- If the site is asked to collect additional samples (in case of invalid/rejected samples), the additional samples should be given fresh numbering in continuation to the last sample number, i.e. 400/x (where x is the sample size allotted to a sub-site)
- The sample number of the invalid samples SHOULD NOT be given to these additional samples

26

Sub-site Number and Sample Number

Examples:

- A sub-site has been allotted the sub-site number '2' and sample size of 50. Here, the sub-site number should be mentioned as '2' and sample numbers should be assigned from 001 to 050
- If, at the same sub-site, sample numbers 020, 034 & 042 are found to be invalid at the HSS testing lab, three additional samples need to be collected. The three additional samples should be given sample numbers 051, 052 & 053

27

Sub-site Number and Sample Number

Examples:

- At a “single” ANC site, (i.e. an ANC site that is not a composite site) the sub-site number should be mentioned as 'o' and sample numbers should be assigned from 001 to 400
- If, at the same site, four samples are found to be invalid, four additional samples may be collected and given sample numbers 401, 402, 403 & 404

28

Age

1. Age (in completed years) / आयु (संपूर्ण वर्षों में)

Instructions

- Write the age of the respondent in completed years.
- E.g.:
 - If the respondent is 24 years and 10 months old, the age entered should be 24
 - If the respondent is 32 years and 2 months old, the age entered should be 32
 - If the respondent is 42 years and 6 months old, the age entered should be 42

29

Literacy Status

2. Literacy Status / साक्षरता स्थिति

- | | | |
|---|---|--|
| 1. Illiterate / निरक्षर | 2. Literate and till 5th standard / साक्षर और पाँचवी तक | 3. 6th to 10th standard / छठी से दसवी तक |
| 4. 11th to Graduation / ग्यारहवीं से स्नातक | 5. Post Graduation / स्नातकोत्तर | |

Instructions

- Circle the appropriate literacy status using the explanation given below:
 - Illiterate:** Without any formal or non-formal education
 - Literate and till 5th standard:** Those with non-formal education or those who joined school but did not study beyond 5th standard
 - 6th to 10th standard:** Those who studied beyond 5th standard but not beyond 10th standard
 - 11th to Graduation:** Those who studied beyond 10th standard but not beyond graduation. Includes those with technical education/ diplomas
 - Post Graduation:** Those who studied beyond graduation

30

Order of Pregnancy

3. Order of Current Pregnancy / साक्षरता स्थिति

- | | | | |
|---------------------|-----------------------|----------------------|--|
| 1. First / पहली बार | 2. Second / दूसरी बार | 3. Third / तीसरी बार | 4. Fourth or more/ चौथी या उससे ज्यादा |
|---------------------|-----------------------|----------------------|--|

Instructions

- The order of pregnancy denotes the number of times a woman has become pregnant. It includes the number of live births, still births and abortions. Enquire about each of the above and add them to arrive at the order of pregnancy
- Circle the appropriate number

31

Source of Referral to ANC

4. Source of Referral to the ANC clinic / प्रसवपूर्व जाँच केन्द्र में रेफरल का स्रोत

- | | |
|--|---|
| 1. Self Referral / स्वतः रेफरल | 2. Family/Relatives/Neighbour/Friends / परिवार/रिश्तेदार/पड़ोसी/दोस्त |
| 3. NGO / एन.जी.ओ. | 4. Private Hospital (Doctor/Nurses) / निजी अस्पताल (डॉक्टर/नर्स) |
| 5. Govt. Hospital (Including, ASHA/ANM) सरकारी अस्पताल (आशा/ए.एन.एम) | 5. ICTC/ART Centre / आई.सी.टी.सी./ए.आर.टी. केन्द्र |

Instructions

- Enquire about who referred the woman for ANC visit. Government health care providers include ANM, ASHA, doctors/nurses at PHC, CHC.etc.
- Circle the appropriate option

32

Current Place of Residence

5. Current Place of Residence / वर्तमान निवास स्थान

- | | |
|--|--------------------|
| 1. Urban (Municipal Corporation/Council/Cantonment / शहरी (नगरपालिका/निगम/छावनी) | 2. Rural / ग्रामीण |
|--|--------------------|

Instructions

- Enquire if the current place of residence of the respondent (the place she lives with her husband) falls under Municipal Corporation or Municipal Council or Cantonment Area
- If yes, circle the first option (Urban)
- If no, circle the second option (Rural)
- Don't write the name of the place

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Duration of Stay at Current Place of Residence

6. Duration of Stay at Current Place of Residence / वर्तमान निवास स्थान में ठहरने की अवधि.....years/वर्ष.....months/महीने

Instructions

- Enquire about the duration of stay at the current place of residence (the place where she is living with her husband) and write the response in years and months
- If the duration is less than one year, write 'o' years and the number of months as reported by the respondent
- If the duration is less than one month, write 'o' years '1' month

34

Current Occupation of the Respondent

7. Current Occupation of the Respondent / प्रतिवादी का वर्तमान व्यवसाय

- | | | |
|--|--|--|
| 1. Agricultural Labourer / कृषि श्रमिक | 2. Non-Agricultural Labourer / गैर कृषि श्रमिक | 3. Domestic Servant / घरेलू नौकर |
| 4. Skilled / Semiskilled worker / कुशल / अर्धकुशल श्रमिक | 5. Petty business / small shop / लघु उद्योग / छोटी दुकान | 6. Large Business/Self employed/विस्तृत उद्योग / स्वरोजगार |
| 7. Service (Govt./Pvt.) / कर्मचारी (सरकारी / निजी) | 8. Student / विद्यार्थी | 9. Truck Driver/helper / ट्रक चालक / सहायक |
| 10. Local transport worker (auto/ taxi driver, handcart pullers, rickshaw pullers etc./ स्थानीय परिवहन कर्मचारी (ऑटो/टैक्सी ड्राइवर, ठेलेवाले, रिक्शावाले) | | |
| 11. Hotel Staff / होटल कर्मचारी | 12. Agricultural cultivator /landholder / कृषक / जमींदार | |
| | 14. Housewife / गृहणी | |

Instructions on next slide...

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Current Occupation of the Respondent

Instructions:

Circle the appropriate current occupation of the respondent using the explanations given below. Only the categories which need some elaboration are explained below

2. **Non-Agricultural Labourer:** includes workers at construction sites, quarries, stone crushers, road or canal works, brick- kilns, etc.
4. **Skilled/ Semi-skilled worker:** includes workers in small-scale or cottage industries; industrial/ factory workers; technicians such as electricians, masons, plumbers, carpenters, goldsmiths, iron-smiths, those involved in automobile repair works etc.; artisans such as weavers, potters, painters, cobblers, shoe-makers, tailors etc.
5. **Petty business/small shop:** Includes vendors selling vegetables, fruits, milk, newspapers, etc. or running a pan shop
6. **Large business/ self-employed:** Includes professionals and businessmen
7. **Service:** Those working on salary basis in government, private or institutional sector excluding drivers, hotel staff

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Occupation of the Spouse

8. Current Occupation of the Spouse / प्रतिवादी के पति का वर्तमान व्यवसाय

- | | | |
|--|--|--|
| 1. Agricultural Labourer / कृषि श्रमिक | 2. Non-Agricultural Labourer / गैर कृषि श्रमिक | 3. Domestic Servant / घरेलू नौकर |
| 4. Skilled / Semiskilled worker / कुशल / अर्धकुशल श्रमिक | 5. Petty business / small shop / लघु उद्योग / छोटी दुकान | 6. Large Business/Self employed/विस्तृत उद्योग / स्वरोजगार |
| 7. Service (Govt./Pvt.) / कर्मचारी (सरकारी / निजी) | 8. Student / विद्यार्थी | 9. Truck Driver/helper / ट्रक चालक / सहायक |
| 10. Local transport worker (auto/ taxi/ personal driver, handcart pullers, rickshaw pullers etc./स्थानीय परिवहन कर्मचारी (ऑटो / टैक्सी / व्यक्तिगत ड्राइवर, ठेलेवाले रिक्शेवाले) | | |
| 11. Hotel Staff / होटल कर्मचारी | 12. Agricultural cultivator /landholder / कृषक / जमींदार | 13. Unemployed / बेरोजगार |
| 99. Not Applicable (For Never married/Widows/Divorced/Separated) / लागू नहीं होता (अविवाहिता / विधवा / तलाकशुदा / अलग महिलाओं के लिये) | | |

Instructions

- Same as instructions for Occupation of Respondent
- If the woman is never married or a widow, circle option '99' (Not Applicable)

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Spouse Migration Status

9. Does spouse reside alone in another place/ town away from wife for work for longer than 6 months? / क्या प्रतिवादी के पति उनसे दूर काम के लिए 6 महीनों से ज्यादा किसी दूसरे स्थान पर रहते हैं?

1. Yes / हाँ 2. No / नहीं 99. Not Applicable (For Never married/Widows/Divorced/Separated) / लागू नहीं होता (अविवाहिता/विधवा/तलाकशुदा/अलग महिलाओं के लिए)

Instructions:

- This question is asked to understand migration status of the spouse. If the spouse lives away from the wife for more than 6 months in a year, then circle 'Yes' otherwise, circle 'No'. If the woman is widowed or never married, circle the option '99' (Not Applicable)

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Signature of Site Personnel

Signature / हस्ताक्षर : _____

Name / नाम : _____

(Person who filled the form/
व्यक्ति जिसके द्वारा फॉर्म भरा गया)

Signature / हस्ताक्षर : _____

Name / नाम : _____

(Sentinel site in-charge/
सेन्टिनेल साइट के प्रभारी)

Instructions:

- The person completing the data forms should check for completeness, write his/her name and sign with date.
- The Site in-charge should verify the completed data forms every day and then sign with date.

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Example of Properly filled Data Form

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HSS 2010: Data Form for Antenatal Clinic Attendees (ANC)

এইচ এস এস ২০১০ - প্রসূতি ক্লিনিকে উপস্থিতির ফর্ম

(Please fill the site details in the box below OR Paste the sticker with site details/ Stamp the site details in the empty box)

নিম্নে বাক্সে কল্লিপটিক স্টিকার (যদি) সন্নিবেশ দাখিল করুন অথবা খালি বাক্সে ক্লিনিক ডেটামার স্ট্যাম্প লাগান

State (রাজ্য) W.D. District (জেলা) D/Dinajpur

Site Name (স্থানের নাম) Deungachanpur S.H.

Site Code (সাইট কোড) 19328011 Sub Site Code (সব সাইট কোড) 007 Sample No. (নমুনা নং) 030211 Date (DD/MM/YY) (তারিখ দিন/মাস/বছর)

1. Age (in completed years) বয়স (পূর্ণ বছরের হিসাবে) 18

2. Literacy Status লিটারেসি স্টাস

1. Illiterate অসাক্ষর ☐ 2. Literate and till 5th standard লিটারেট এবং পঞ্চম স্ট্যান্ডার্ড পর্যন্ত ☐ 3. 6th to 10th standard 6ষ্ঠ থেকে দশম স্ট্যান্ডার্ড পর্যন্ত ☒ 4. 11th to Graduation একাদশ থেকে স্নাতক ☐ 5. Post Graduation অন্তর্গত ☐

3. Order of Current Pregnancy সর্ব বর্তমান গর্ভাবস্থা ক্রম

1. First birth ☒ 2. Second ☐ 3. Third ☐ 4. Fourth or more ☐

4. Source of Referral to the ANC clinic প্রসূতি ক্লিনিকে পরিচিতি সূত্র

1. Self Referral স্ব-পরিচিতি ☐ 2. Family/ Relatives/ Neighbors/ Friends পরিবার/স্বজন/স্বজন/স্বজন/স্বজন ☐ 3. NGO এর মাধ্যমে ☐

4. Private (Doctor/Nurses) প্রাইভেট (ডাক্তার/নurses) ☐ 5. Govt. (including, ASHA/ ANM) সরকারী - অসহ/এ.এন.এম. ইত্যাদি ☒ 6. ICTC/ART Centre আইসিটিসি/এ.আর.টি. সেন্টার ☐

5. Current place of residence বর্তমান বাসস্থান

1. Urban (Municipal Corporation / Council / Cantonment) শহর (মিউনিসিপাল কর্পোরেশন/কন্সিল/ক্যান্টনমেন্ট) ☒ 2. Rural ☐

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7. Current Occupation of the Respondent: <small>আপনার বর্তমান পেশা</small>		
1. Agricultural Labourer <small>কৃষি শ্রমিক</small>	2. Non-Agricultural Labourer <small>অকৃষি শ্রমিক</small>	3. Domestic Servant <small>গৃহিণী/শ্রমিক</small>
4. Skilled / Semiskilled worker <small>সক্ষম/অর্ধক্ষম শ্রমিক</small>	5. Petty business/small shop <small>ছোট ব্যবসা/ছোট দোকান</small>	6. Large Business/Self employed <small>বড় ব্যবসা/স্ব-নিযুক্ত</small>
7. Service (Govt./Pvt.) <small>সেবা (সরকারি/বেসরকারি)</small>	8. Student <small>ছাত্র</small>	9. Truck Driver/helper <small>ট্রাক চালক / সহায়ক</small>
10. Local transport worker (auto/ taxi driver, handcart pullers, rickshaw pullers etc.) <small>স্থানীয় পরিবহন কর্মী (অটো, ট্যাক্সি, রিক্সা, হ্যান্ডকার্ট চালক)</small>	11. Hotel Staff <small>হোটেল কর্মী</small>	12. Agricultural cultivator/ landholder <small>কৃষক/ভূমির মালিক</small>
	13. Unemployed <small>বেকার</small>	99. Not Applicable (For Never married/ Widows) <small>প্রযোজ্য নয় (যদি বিবাহিত/বিধবা নন)</small>

8. Current Occupation of the Spouse <small>স্বামীর বর্তমান পেশা</small>		
1. Agricultural Labourer <small>কৃষি শ্রমিক</small>	2. Non-Agricultural Labourer <small>অকৃষি শ্রমিক</small>	3. Domestic Servant <small>গৃহিণী/শ্রমিক</small>
4. Skilled / Semiskilled worker <small>সক্ষম/অর্ধক্ষম শ্রমিক</small>	5. Petty business/small shop <small>ছোট ব্যবসা/ছোট দোকান</small>	6. Large Business/Self employed <small>বড় ব্যবসা/স্ব-নিযুক্ত</small>
7. Service (Govt./Pvt.) <small>সেবা (সরকারি/বেসরকারি)</small>	8. Student <small>ছাত্র</small>	9. Truck Driver/helper <small>ট্রাক চালক / সহায়ক</small>
10. Local transport worker (auto/ taxi driver, handcart pullers, rickshaw pullers etc.) <small>স্থানীয় পরিবহন কর্মী (অটো, ট্যাক্সি, রিক্সা, হ্যান্ডকার্ট চালক)</small>	11. Hotel Staff <small>হোটেল কর্মী</small>	12. Agricultural cultivator/ landholder <small>কৃষক/ভূমির মালিক</small>
13. Unemployed <small>বেকার</small>		99. Not Applicable (For Never married/ Widows) <small>প্রযোজ্য নয় (যদি বিবাহিত/বিধবা নন)</small>

9. Does spouse reside alone in another place/ town away from wife for work for longer than 6 months?		
<p>1. Yes <small>হ্যাঁ</small> 2. No <small>না</small> 99. Not Applicable (For widows /unmarried women) <small>প্রযোজ্য নয় (যদি বিবাহিত/বিধবা নন)</small></p>		

<p>Signature <small>স্বাক্ষর</small></p> <p>Name <small>নাম</small> <i>Dr. Surip Das</i></p> <p>(Person filling the form) <small>(কর্মী/কর্মী)</small></p>	<p>Signature <small>স্বাক্ষর</small></p> <p>Name <small>নাম</small> <i>Dr. Surip Das</i></p> <p>(In charge of the Surveillance Site) <small>(যদি বিবাহিত, স্বাক্ষর করুন)</small></p>
--	--

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Practical Exercise

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Practical Exercise – Case 1

26 year old Bhavani is a graduate who gives tuitions in her house to children from classes 2-3. She is 4 months pregnant and has come to the ANC OPD on January 16, 2015. This is her second pregnancy and first pregnancy ended in an abortion. Surveillance at this site began on January 15, 2015. This is her second visit and she had earlier registered at the ANC on 21st October 2014. Her husband works as a plumber in the local primary school. They have been married for 1 year and she has been living with her husband since then at Rampur village.

- Is this woman eligible for surveillance?
- How will you proceed for this women in your survey?
- Please complete a data form for this women.
- What information is missing in this case?

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Practical Exercise – Case 2

- A 17 year old woman in her 8th month of pregnancy presents to the ANC OPD in MG Hospital in Bareilly on 2nd February 2015 for the first time. Surveillance at this site began on 1st January, 2015. She had a spontaneous abortion in the second month of her 1st pregnancy last year, but this time she says she had no problems/complaints. Her husband is a farmer but she is a house wife. Bareilly hospital has as an ongoing PPTCT program.
- Is this woman eligible for surveillance?
- How will you proceed for this women in your survey?
- Please complete a data form for this women.
- What information is missing in this case?

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Practical Exercise – Case 3

- A 15 year old girl is brought to the ANC OPD on 15th March 2015 by her mother with 5 months amenorrhea. She is unmarried, does not go to school and helps her mother in the house in her village. She also sells berries on the highway. This is her first pregnancy and has lived in the same area all her life. This is her first visit to the clinic. **This site does not offer PPTCT services and surveillance started at this site on January 01, 2015**
- Is this woman eligible for surveillance?
- How will you proceed to include this woman in your survey?
- Please complete a form for this woman, if eligible
- What information is missing in this case?

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Practical Exercise – Case 4

- 21 year old Geeta is studying in 2nd year BA. She is 7 months pregnant and has come to the ANC OPD on 12th March 2015. This is her second visit and she had earlier registered at the ANC on 11th January 2015. Surveillance at this site began on 1st January, 2015. Her husband is a clerk in SBI and they live in the same town. **This site offer PPTCT services.**
- Is this woman eligible for surveillance?
- How will you proceed to include this woman in your survey?
- Please complete a data form for this woman, if eligible
- What information is missing in this case?

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Transportation of Data Forms

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General Instructions

- The responsibility of sending the data forms along with Data Form Transportation Sheets (DFTS) is primarily that of the nurse/ Counselor
- Completed Data Forms should be sent to the respective Regional Institute every week, accompanied by duly filled DFTS in duplicate and one more copy should be retained at sentinel site
- An acknowledgement of receipt from the RI will be returned to the site within two weeks, which should be stored at site for future reference
- Contact the RI for receipt of DFTS , if not received within 2 weeks of dispatch

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Instructions for Filling Data Form Transportation Sheet (1)

1. Name and Complete Address of the Sentinel Site: _____
 _____ District: _____ State: _____
2. A) Type of Site: B) Site Code: C) Sub-site No.
3. Period of Sample Collection: _____ (dd/mm/yy) to _____ (dd/mm/yy)

Instructions

- Clearly write the name and complete address of the sentinel site/sub-site, including district and state
- Mention the type of sentinel site, i.e. ANC. Write the site code and sub-site number
- The period of sample collection i.e. the period for which data forms are being sent, should be written in dd/mm/yy format

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Instructions for Filling Data Form Transportation Sheet (2)

4. Total No. of Data Forms: _____
5. Total Number of Envelopes: _____
6. Details of Sample Numbers whose data forms are being sent:

S. No.	Date of Collection	Sample No.	S. No.	Date of Collection	Sample No.	S. No.	Date of Collection	Sample No.	S. No.	Date of Collection	Sample No.
1			26			51			76		
2			27			52			77		
3			28			53			78		
4			29			54			79		
5			30			55			80		
6			31			56			81		

Instructions

- Write the total number of data forms and the number of envelopes (containing the data forms) being sent
- In the table, write the date of collection and sample number of each sample, whose data forms are being sent
- If the space provided in the table is not sufficient, please attach another sheet

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Instructions for Filling Data Form Transportation Sheet (3)

Data Forms Sent by: _____
(Name) (Signature) (Tel/Mobile No.)

Date of Sending Data Form: _____

Data Forms Received by: _____
(Name) (Signature)

Date of Receipt of Data Forms: _____

Instructions

- The sender should write legibly his / her name and telephone number and sign at the designated place before sending the data forms
- Also write the date of dispatch of the data forms
- The name, signature of the person receiving the data forms and date of receiving the data forms at the RI will be written by the recipient and one of the two sheets will be returned to sentinel site
- The signed copy of data form transportation sheet received from the RI should be securely stored at site for any future reference

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Example of Incorrectly filled Data Form Transportation Sheet

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Example 1

National AIDS Control Organisation
Department of AIDS Control
Ministry of Health and Family Welfare, Government of India

HIV SENTINEL SURVEILLANCE 2010
DATA FORM TRANSPORTATION SHEET
(To be sent in duplicate along with the samples)

1. Name and Complete Address of the Sentinel Site: BARPETA CH HOSPITAL

District: BARPETA State: ASSAM

2. A) Type of Site: ANC B) Site Code: 184420011

3. Period of Sample Collection: 20/11/10 (dd/mm/yy) to 26/12/10 (dd/mm/yy)

4. Total No. of Data Forms: 18

5. Total Number of Envelopes: 18

6. Details of Sample Numbers whose data forms are being sent:

S. No	Date of Collection	Sample No.	S. No	Date of Collection	Sample No.	S. No	Date of Collection	Sample No.
1	22/11/10	601	26			51		76
2	24/11/10	602	27			52		77
3	24/11/10	603	28			53		78
4	24/11/10	604	29			54		79
5	24/11/10	605	30			55		80
6	24/11/10	606	31			56		81
7	25/11/10	607	32			57		82
8	25/11/10	608	33			58		83
9	25/11/10	609	34			59		84
10	26/11/10	610	35			60		85
			36			61		86
			37			62		87

Number of envelopes
not indicated

Number of data forms
not correct

54

Example 2

20		45		70		95
21		46		71		96
22		47		72		97
23		48		73		98
24		49		74		99
25		50		75		100

If space provided above is not sufficient, please attach another sheet.

Data Forms Sent by: [Redacted] (Name) [Signature] (Signature) 985431749 (Tel/ Mobile No.)

Date of Sending Data Forms: 26/12/10

Data Forms Received by: Ramesh Ranechandan (Name) [Signature] (Signature)

Date of Receipt of Data Forms: 27/12/10

Number of person
sending form is
missing

55

SESSION - V

Laboratory Procedures



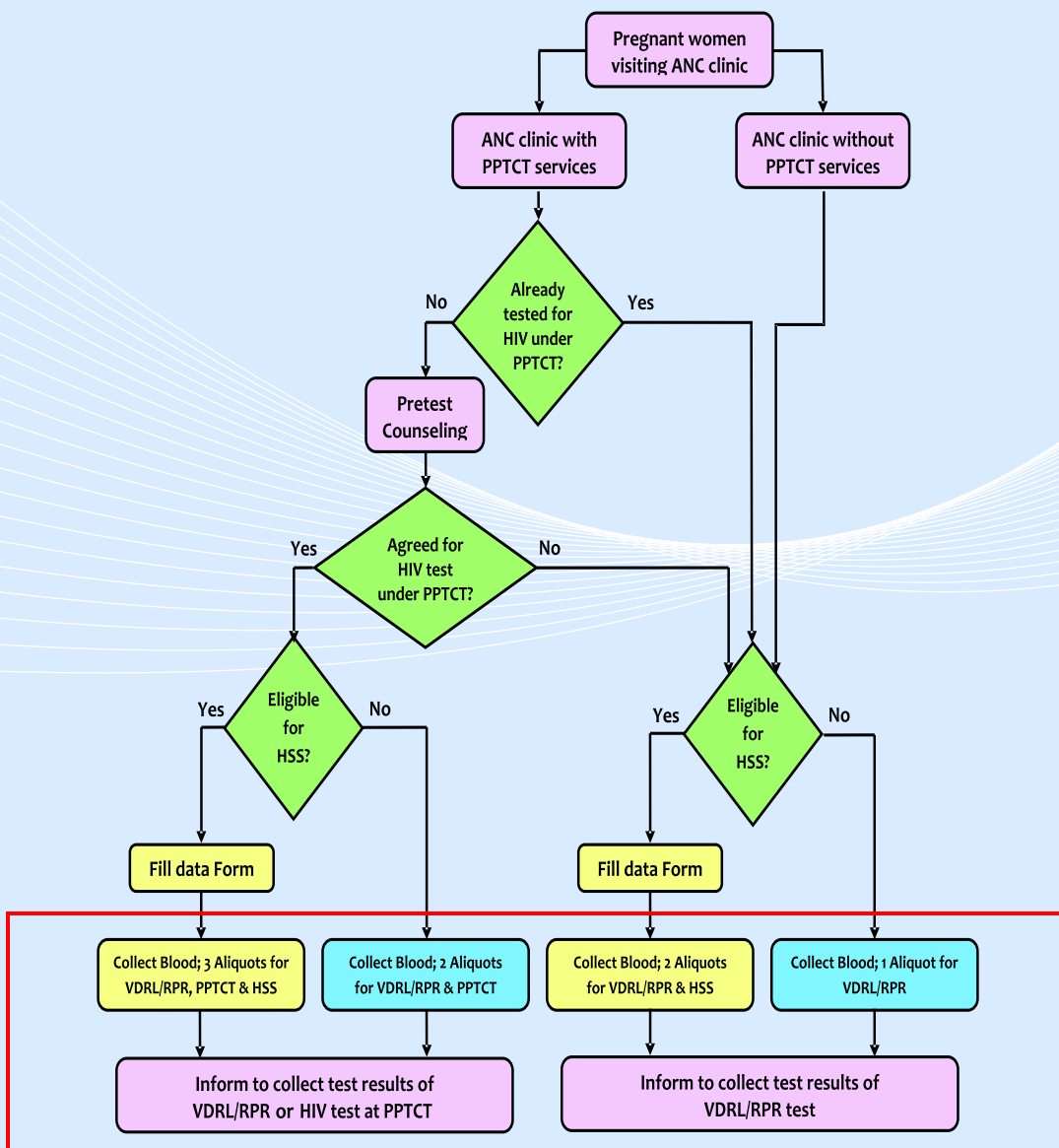
Laboratory Procedures

Session Objectives

At the end of this session, participants should be able to understand:

- The basic requirements for blood collection and processing
- The process of blood collection, serum separation, aliquoting and labeling
- The procedures involved at site in preparing for transportation of specimens
- The documentation involved with transportation of specimens
- The basics of bio-waste management and management of needle stick injuries

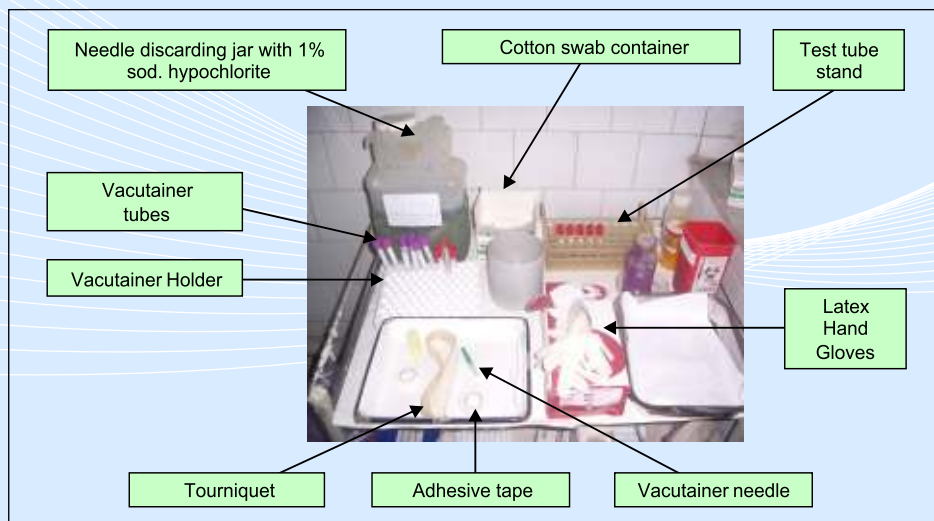
Recruitment Process at ANC Sentinel Site



Blood Specimen Collection

4

Consumables Required for Blood Collection



Consumables required for blood collection

5

Blood Specimen Collection (1)

- Observe all universal precautions at all times by wearing gloves, apron & safety glasses
- Collect 5 ml blood by venipuncture in prelabeled vacutainer/centrifuge tubes
- Prepare and label the tube for blood collection with Name, Age, ANC/PPTCT reg. no., Date and HSS sample number
- Keep this single labeled tube in the test tube rack to avoid picking up the wrong tube for specimen collection



Red Top Vacutainer Tube

6

Blood Specimen Collection (2)

Step 2:

- Remove the rear protective cover (white) of the needle.
- Fix the rear end of the needle to the holder.
- Remove the forward / front protective cover of the needle (green).
- If blood is collected using needle & syringe, take a sterile disposable syringe & needle.



Assembling the vacutainer system

7

Blood Specimen Collection (3)

Step 3 :

- The respondent made to sit on the chair and asked to incline the arm in a downward position.
- Ask the respondent to clench and unclench the fist.
- Lightly tap the vein.
- Apply tourniquet.



Suggested position of the arm for blood specimen collection

8

Blood Specimen Collection (4)

Step 4 :

- Disinfect the puncture site carefully and thoroughly.
- Wipe the skin surface with a cotton swab containing spirit or alcohol solution.
- Wipe in an outward moving circular motion. When dry, collect blood specimen.



Disinfecting the puncture site for blood specimen collection

9

Blood Specimen Collection (5)

Step 5 :

- Slowly insert the needle with the holder/syringe into the lumen of the vein.
- Hold the puncture device/syringe firmly to avoid any jerking movement with the needle in place to avoid unnecessary pain for the patient.



Inserting needle into the vein

10

Blood Specimen Collection (6)

Step 6 :

- Hold the needle holder firmly and gently insert the vacutainer tube into the holder.
- Press the tube gently into the rear end of the needle in the holder so that the rear end of the needle penetrates the rubber top of the tube.
- Now the blood will flow into the tube.
- Holding the puncture device firmly gently remove the tube from the holder.
- If needle & syringe are used, gently pull the piston of the syringe to draw 5 ml blood into the syringe barrel.
- Placing cotton on the punctured site, gently remove the needle from the vein.
- Holding the puncture device/syringe in one hand, release the tourniquet completely.



Inserting vacutainer tube into needle holder



Removing vacutainer tube from needle holder

11

Blood Specimen Collection (7)

Step 7 :

- Place the vacutainer tube with blood specimen in the test tube rack .
- If needle & syringe are used, remove the needle and transfer the blood into the pre-labeled centrifuge tube from the syringe. Place the centrifuge tube with blood specimen in the test tube rack .



Place vacutainer/centrifuge tube with blood specimen in the rack

12

Blood Specimen Collection (8)

Step 8 :

- Cover the puncture site with a sterile adhesive bandage. (Fig 16)
- Destroy the needle using the needle-cutter and discard it into the puncture proof discarding jar/sharps disposal container having 1% sodium hypochlorite solution. (Fig 17)
- Discard the gloves, cotton swab and gauze piece into the waste bucket with the yellow bag. (Fig 18)



Apply adhesive tape over puncture site



Discard needle in puncture proof container



Use appropriate waste basket

13

Sample Processing: Serum Separation, Labeling, Aliquoting & Storage

14

Sample Processing (1)

Step 1 :

- The blood specimen is allowed to stand for at least 20-30 minutes until the formation of clot before centrifugation.
- The blood specimen is centrifuged to separate the serum. Care must be taken to balance the vacutainer/ centrifuge tubes in the centrifuge, in order to prevent agitation and there by hemolysis.



Blood specimen is allowed to stand before centrifugation

15

Sample Processing (2)

Step 2 :

- The specimen should be centrifuged at 1,200 to 1,500 RPM for 10 minutes.
- Meanwhile, label the cryovials/serum vials into which serum will be transferred after centrifugation and keep them ready.
- Do not use glass tubes for storing specimens. Use only plastic vials.
- Determine the number of aliquots to be prepared from each blood specimen and prepare the labels accordingly.



Centrifugation of blood specimens



Blood specimen after centrifugation

Flow chart for activities at ANC sentinel site for blood Specimen Collection



Determining Number of Aliquots to be Prepared

- If pregnant woman is not tested earlier under PPTCT but agrees to HIV testing during pre-test counseling and eligible for HSS, 3 aliquots (PPTCT, HSS, Routine) will be prepared
- If pregnant woman is not tested earlier under PPTCT but refuses to HIV testing during pre-test counseling and eligible for HSS, 2 aliquots (HSS, Routine) will be prepared
- If pregnant woman is tested earlier under PPTCT and eligible for HSS, 2 aliquots (HSS, Routine) will be prepared
- In a hospital where there are no PPTCT services, if pregnant woman is eligible for HSS, 2 aliquots (HSS, Routine) will be prepared
- In all other cases where pregnant woman is not eligible for HSS, follow the procedures for routine testing & PPTCT

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Determining Number of Aliquots to be Prepared

Scenario	PPTCT Services Available	Already tested for HIV under PPTCT	Agreed for HIV test under PPTCT Now	Eligible for HSS	Carries Prescription/ Requisition form for lab tests	No. of Aliquots to be prepared
1	No	NA	NA	No	Routine tests	1
2	No	NA	NA	Yes	Routine tests & HSS data form	2
3	Yes	Yes	NA	No	Routine tests	1
4	Yes	Yes	NA	Yes	Routine tests & HSS data form	2
5	Yes	No	No	No	Routine tests	1
6	Yes	No	No	Yes	Routine tests & HSS data form	2
7	Yes	No	Yes	No	Routine tests & PPTCT	2
8	Yes	No	Yes	Yes	Routine tests, PPTCT & HSS	3

19

Sample Processing (3)

Step 3 : (Refer Flow Charts 2 & 3)

- Aliquot for routine testing (VDRL/RPR) and aliquot for HIV test under PPTCT should be labelled with personal identifiers (Name, Reg.No., Age, Sex, Date etc.) as per the routine practice.
- ALIQUOT FOR HSS SHOULD BE LABELED WITH HSS SITE CODE, SUB-SITE NUMBER SAMPLE NUMBER, AND DATE OF COLLECTION. No personal identifiers should be mentioned on HSS specimen, to ensure Unlinked Anonymous Testing.
- Make sure that the label is placed on the side of the tube, not on the cap.
- Only water resistant markers or lead pencil only should be used for labeling. Avoid use of ink or gel pens.
- Ensure that the HSS sample number is written only on the designated vial and the data collection form. It should not be recorded in the logbook or in any other place where it could be traced back to the patient.

20

Sample Processing (4)

Step 4 :

- After the specimen is centrifuged, transfer 0.5 ml of serum to the required number of sterile labeled serum vials (plastic, not glass) or cryovial (2.0 ml with screw cap) using a clean pipette (disposable plastic pipettes or micropipette with disposable tips).
- DO NOT POUR the serum from one tube to another. USE a pipette.
- Use separate pipette tips for each specimen.
- Make sure that the screw cap is tightly closed on the labeled cryovial or serum vial.
- After serum separation, the centrifuge tube with the clot should be decontaminated by autoclaving. Subsequently, tubes can be washed, cleaned & re-used.



Aliquoting the serum

21

Sample Processing (5)

Step 5 :

- Send the vial for routine testing to the concerned testing lab at the facility and return test results to the respondent subsequently.
- Send the vial for PPTCT to ICTC laboratory and return the test result subsequently.
- Store the vial for HSS at 4C° in the refrigerator UPTO A MAXIMUM OF SEVEN DAYS.
- Do not freeze. Do not de-frost the refrigerator when specimens are stored.



Storage of HSS serum specimens

22

Wrong Practices in Sample Processing (1)

- Wrong practice of recapping the needle; Wrong practice of allowing blood to clot in the syringe itself. After collection, blood should immediately be transferred to the centrifuge tube and the tube should be allowed to stand for 20-30 minutes for clot formation, before centrifugation.



Varying Quality fo Sera at the Sentinel Site

23

Packaging of specimens and preparation for transportation

24

Packaging and Transportation of Specimens (1)

Step 1 :

- Check that each vial is tightly closed and sealed.
- Seal each vial with 'parafilm', just before transportation.
- The surface should be dried to ensure proper sticking of the film.
- Tightly wrap the parafilm on the junction of the cap & vial.



Fig 25 & 26 : Securing serum vials

25

Packaging and Transportation of Specimens (2)

Step 2 :

- Sealed vials are packed in a proper sample transportation box with a numbered lid so that the serum specimens remain upright during transportation.
- Do not transport any other material in this box.
- This container should be placed in a double plastic bag and sealed well.



Fig 27 : Proper Sample Transportation Box

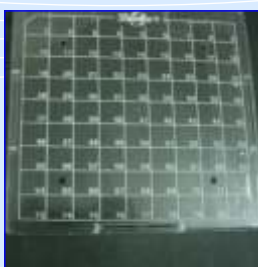
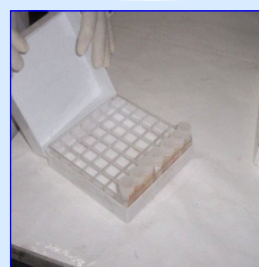


Fig 28 : Numbered Lid of Sample Transportation Box



Fig 29 & 30 : Proper way of transporting serum specimens



26

Packaging and Transportation of Specimens (3)

Step 3 :

- Place the sample transportation box in a vaccine carrier/ice box containing adequate number of pre-chilled cold packs to produce an ambient temperature of 4°C within the box for the duration of the journey.



Fig 31 : Placing sample containers in bigger box

27

Packaging and Transportation of Specimens (4)

Step 4 :

- The serum specimens are transported to the testing laboratory on a weekly basis.
- Ensure that the specimens are delivered to the testing laboratory during working hours only (Ensure that it is not a holiday before you leave).
- The samples should be accompanied by a duly completed and signed sample transportation sheet in duplicate.
- Once packed, the samples should reach the testing laboratory directly and there should be no deviation en route.
- The samples should remain in the fridge until the last moment and should not be taken home or elsewhere.

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Packaging and Transportation of Specimens (5)

Step 5 :

- On reaching the HSS testing lab, the specimens along with the STS should be handed over to the testing lab in-charge or lab technician.
- Please wait while the samples are verified.
- Take back with you a signed copy of sample transport sheet and verification checklist.
- This should be handed over to the sentinel site in-charge on return and kept in a file for future reference.

29

Wrong Practices in Sample Transportation

Do not use rubber bands for packing



Fig 35 : Wrong practice of packing serum vials using rubber bands leads to chances of cross-contamination

Do not use normal plastic Boxes for transporting Samples. Use Sample Transportation Box



Fig 36: Sample Transportation Box or Tiffin Box for School Kids? Use appropriate sample transportation box with numbered lid to avoid leakage of specimens during transport

30

Sample Transportation Sheet

31

General Instructions

- The responsibility of sending the blood specimens and the Sample Transportation Sheet (STS) is primarily that of the laboratory technician
- A properly filled STS, in duplicate, should accompany each set of blood specimens sent to the HSS testing lab. One more copy should be retained at sentinel site
- An acknowledgement of receipt from the HSS Testing Lab will be returned to the site, which should be stored at site for future reference

32

Instructions for Filling Sample Transportation Sheet (1)

HIV SENTINEL SURVEILLANCE 2012-13 SAMPLE TRANSPORTATION SHEET

(To be sent in duplicate along with Data Forms)

1. Name and Complete Address of the Sentinel Site/Sub-site (Tick whichever is applicable) _____
 _____ District: _____ State: _____
2. A) Type of Site: _____ B) Site Code:

--	--	--	--	--	--

 C) Sub-site No.

--
3. Period of Sample Collection: _____ (dd/mm/yy) to _____ (dd/mm/yy)

Instructions

- Clearly write the name and complete address of the sentinel site/sub-site, including district and state
- Mention the type of sentinel site i.e. ANC. Write the site code and sub-site number
- The period of sample collection i.e the period for which data forms are being sent, should be written in dd/mm/yy format

33

Instructions for Filling Sample Transportation Sheet (2)

4. Total Number of Samples: _____

5. Total Number of Boxes: _____

6. Details of Sample Numbers:

S. No	Date of Collection	Sample No.	S. No	Date of Collection	Sample No.	S. No	Date of Collection	Sample No.	S. No	Date of Collection	Sample No.
1			26			51			76		
2			27			52			77		
3			28			53			78		
4			29			54			79		
5			30			55			80		
6			31			56			81		
7			32			57			82		
8			33			58			83		
9			34			59			84		
10			35			60			85		

Instructions

- Write the total number of serum samples and the number of boxes (containing the serum samples) being sent
- In the table, write the date of collection and sample number of each sample being sent
- If the space provided in the table is not sufficient, please attach another sheet 34

Instructions for Filling Sample Transportation Sheet (3)

Samples Sent by: _____

(Name)

(Signature)

(Tel/ Mobile No.)

Date of Sending Samples: _____

Samples Received by: _____

(Name)

(Signature)

Date of Receipt of Samples: _____

Instructions

- The sender should write legibly his / her name and telephone number and sign at the designated place before sending the of blood specimen
- Also write the date of dispatch of the of blood specimen
- The name, signature of the person receiving the of blood specimen and date of receiving the of blood specimen at the HSS Testing Lab will be written by the recipient and one of the two sheets will be returned to sentinel site
- The signed copy of STS received from the HSS Testing Lab should be securely stored at site for any future reference

35

Example of Incorrectly filled Sample Transportation Sheet

36

Example 1

National AIDS Control Organisation
Department of AIDS Control
Ministry of Health and Family Welfare, Government of India

HIV SENTINEL SURVEILLANCE 2010
SAMPLE TRANSPORTATION SHEET
(To be sent in duplicate along with the samples)

1. Complete Address of the Sentinel Site: General Hospital, Naharlagun
District: Papumpare State: Arunachal Pradesh
2. A) Type of Site: ANC B) Site Code: 1234567
3. Period of Sample Collection: ? (dd/mm/yy) to ? (dd/mm/yy)
4. Total Number of Samples: 1
5. Total Number of Boxes: 1
6. Details of Sample Numbers:

Period of sample collection is missing

Total number of samples not matching with the sample numbers

Erroneous Site Code

Period of sample collection is missing

37

Example 2

5. Total Number of Boxes: 1

6. Details of Sample Numbers:

S. No.	Date of Collection	Sample No.	S. No.	Date of Collection	Sample No.	S. No.	Date of Collection	Sample No.	S. No.	Date of Collection	Sample No.
1	15-10-10	001	26		51						
2	15-10-10	002	27		52						
3	15-10-10	003	28		53						
4	16-10-10	004	29		54						
5	16-10-10	005	30		55						
6	1-11-10	006	31		56						
7	1-11-10	007	32		57						
8	2-11-10	008	33		58						
9	2-11-10	009	34		59						
10	2-11-10	010	35		60						
11	1-11-10	011	36		61						
12	15-11-10	012	37		62						
13	15-11-10	013	38		63						
14	15-11-10	014	39		64						
15	16-11-10	015	40		65						
16	21-11-10	016	41		66						
17	21-11-10	017	42		67						
18	21-11-10	018	43		68						
19	21-11-10	019	44		69						
20	21-11-10	020	45		70						
21			46		71						
22			47		72						
23			48		73						
24			49		74						
25			50		75						

If space provided above is not sufficient, please attach another sheet.

Samples Sent by: Ma. Rapi (Name) [Signature] (Signature) 94-350-590 (Tel/ Mobile No.)

Date of Sending Samples:

Samples Received by: (Name) [Signature] (Signature)

Date of Receipt of Samples:

Two sample numbers are the same-not possible

Date of sending samples is missing

Date of receiving samples is missing

38

Biowaste Management

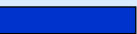
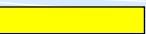
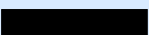
39

General Principles

- Follow universal safety precautions during sample collection, storage, testing, transportation and disposal of bio-hazardous waste disposal
- Laboratory technician responsible for implementing safe bio waste management procedures under supervision of sentinel site-in charge
- Colour-coded bags to be used for disposal of waste materials and contaminated sharps
- Any spillage of potentially dangerous material should be properly cleaned and decontaminated following standard procedures

40

Disposal of waste material and contaminated sharps

- Used needles and syringes should be disposed off by using a needle cutter. After crushing hub of needles, put in a puncture-proof container containing freshly prepared 1% hypochlorite solution. At the end of the day, contents should be put in a bio-waste bag (blue colour) 
- Alcohol swabs, gloves, gauze pieces should be discarded into a biohazard bio-waste bag (yellow colour) 
- General waste such as wrapper of gloves, paper, should be discarded in bio-waste bags (black colour) 
- All bags should be finally disposed as per standard procedures at the site

Sometimes there are state-specific variations in the color specification of waste bags for different types of waste. Please comply with regulations of your state.

41

Management of Needle Stick Injury

- Needle stick, puncture wounds, cuts, open skin contaminated by spills or splashes should be washed thoroughly with soap and water
- Report injury to the laboratory in-charge or site in-charge as the case
- Assess individual for Post Exposure Prophylaxis (PEP). PEP, preferably should be started within 2 hours and no later than 72 hours of the accidental exposure
- Appropriate medical evaluation, treatment and counseling should be provided
- For details on PEP, please refer to NACO Guidelines for Post Exposure Prophylaxis on www.naco.gov.in

SESSION - VI

Monitoring & Supervision

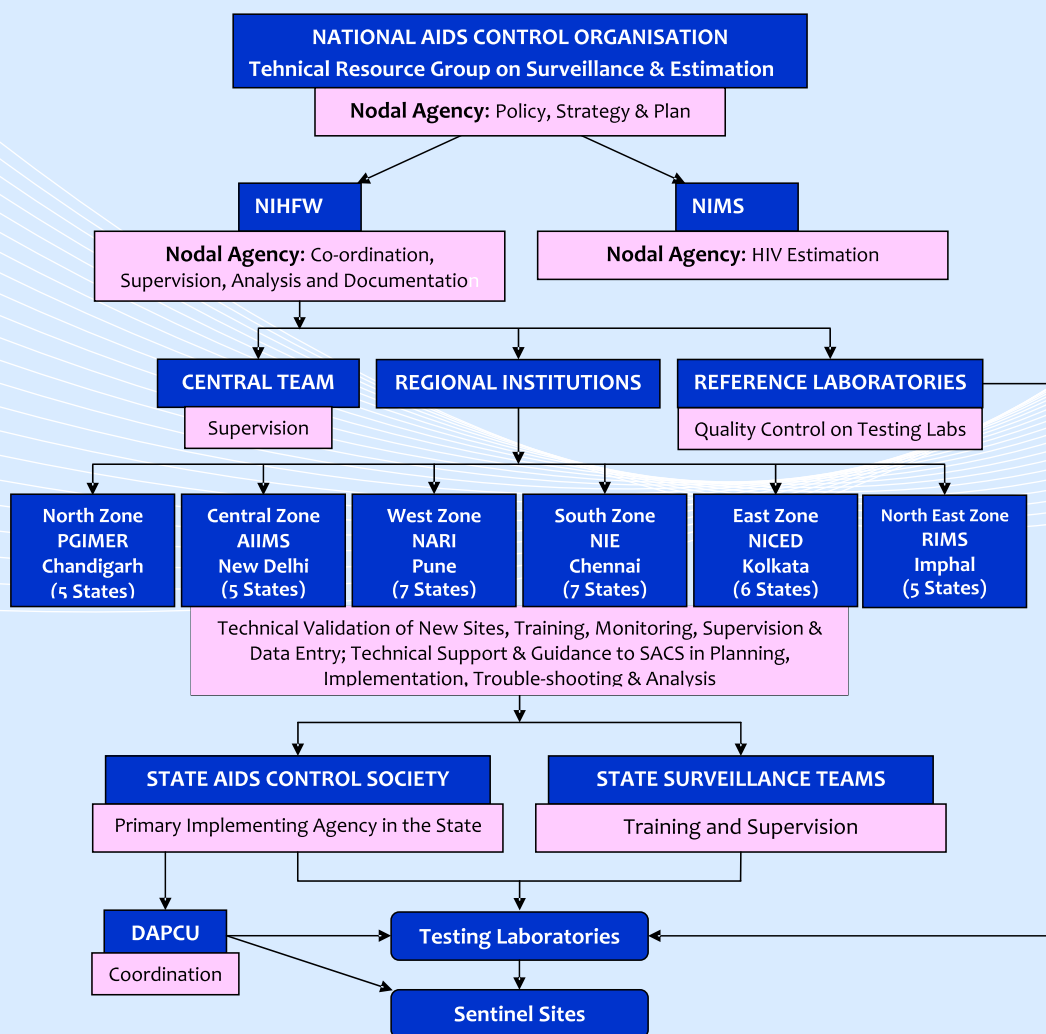


Monitoring & Supervision;

Session Objectives

- At the end of this session, participants should be able to understand:
- Monitoring and Supervision Structure and Objectives under HSS
- The documentation involved with monitoring and supervision
- Coordination with different institutions
- DO's and DON'Ts for high quality Surveillance

Implementation Structure for HSS



Levels of Supervision

- National: NACO, NIHFW & Central Team Members
- Regional: Regional Institute Teams
- State Surveillance Teams
- SACS Core Teams

4

Principles

- Action-oriented supervision
- Real Time Monitoring & Feedback
- Accountability for providing feedback & taking action
- Integrated system to enhance reach & effectiveness of supervision

Objective: 100% sites to be visited in first 15 days

5

3 Components of Supervision

- Field Supervision – Officers who visit the sentinel sites – Quality of Recruitment of Samples into HSS
- Data Supervision at RI– Data Managers at Regional Institutes – Quality of Data Form Filling and Data and Sample Transportation sheets
- Lab Supervision – Microbiologists & Lab Technicians at Testing Labs – Quality of Blood Specimens and Processing

All Integrated into SIMS Supervisory Module

6

Supervisory Visits Register

Managed By	Verified By	Norms for Submission
Nurse/Counselor	Site In-Charge	Send to SACS at the end of HSS

- Every site & sub-site should maintain one register where supervisors who visit the site/sub-site can record their observations and recommendations
- The site/sub-site personnel should take corrective action as recommended in the register
- This will also enable supervisors, who visit the site/sub-site subsequently, to know previous observations and verify if action has been taken or not

7

Queries and Contact Persons

S No	Issues	Contact Persons
1	Consumables Supply/Logistics/Budget	SACS focal Person for Surveillance
2	Issues on Methodology including query on recruitment, data forms etc	SACS focal Person for Surveillance, SST Member
3	Query on whether data forms have reached RIs	RI focal person for HSS
4	Query on sample collection, processing, transportation etc	SRL In-charge
5	Query on Human Resources like vacancy, training, retraining, sensitization etc	SACS focal Person for Surveillance
6	Query on whether duration of HSS may be increased	SACS and RI focal Person for Surveillance
8		

Check Items in your Training Kits

- HSS 2014-15 : Operational Manual for ANC Sentinel Sites
- Trainee's Manual
- Data Forms
- Data form Transportation Sheet
- Sample Transportation Sheet
- Wall Charts
- Site details (State, District, Site Name, Site Code, Sub-site number and sample size)
- Contact details of SACS, SST members, RI (with complete postal address) and NACO
- Lab details (including contact details of lab in-charge and Lab Technician)

DO's and Don't for High Quality Surveillance

10

DO's

- Ensure availability of all material required for documentation & blood specimen processing, well in advance
- Strictly follow the inclusion criteria for selection of eligible individuals at the sentinel site
- Ensure consecutiveness in recruiting individuals into HSS. Arrange to draw blood close to the OPD where doctor examines for eligibility
- Ensure that the site code and sample number are correctly written on the data form and blood specimen
- Fill the data forms completely, neatly and legibly

11

DO's (Contd...)

- Follow universal precautions and good laboratory practice for collection and processing of blood specimens
- Label the centrifuge tubes/vacutainer tubes and serum vials appropriately
- Store the sera samples at +4°C for not more than 7 days and send them to the HSS testing lab every week
- Send the data forms every week to Regional Institute
- Send two copies of sample transportation sheet along with samples and two copies of data form transportation sheets along with data forms

12

DON'Ts

- Do not selectively include or exclude an individual from HSS due to his/her HIV positivity status or whether he/she has participated in previous rounds of surveillance or whether she has been tested under PPTCT
- Do not include an individual who has already visited the clinic during current round of surveillance.
- Do not mention any personal identifiers on the data form and blood specimens to maintain Unlinked Anonymous Testing.
- Do not make any marks or notes that can link the individual to the data form or the blood specimen.
- Do not sign blank data forms in advance.

13

DON'Ts (Contd...)

- Do not keep long distance between the OPD clinic and the point of blood collection
- Do not use same pipette/ tips for separation of different sera
- Do not leave sera in the refrigerator for more than a week. Do not freeze & thaw sera repeatedly.
- Do not wait to send the data forms and samples to the testing centres till the end of the survey
- Do not include individuals from any other source or mobilized through any other means in order to reach the target sample size