



**Republic of Uganda**

**Ministry of Health**

**Public Health Response**

**A Guide for Using**

**HIV Recent Infection Surveillance Data in Uganda**

July 2024

**1<sup>st</sup> Edition**





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## Abbreviations

ACP	AIDS Control Program
AIDS	Acquired Immunodeficiency Syndrome
APN	Assisted HIV Partner Notification
ART	Anti-Retroviral Therapy
ARVs	Anti-Retroviral Drugs
ANC	Antenatal Care
CBS	HIV Case-Based Surveillance
CDC	Centers for Disease Control and Prevention
CITC	Client-Initiated Testing and Counseling
CPHL/UNHLS	Central Public Health Laboratories/ Uganda National Health Laboratory Services
DHI	Division of Health Information
DHIS2	District Health Information System 2
DOD	Department of Defense (US)
EMR	Electronic Medical Records
HTS	HIV Testing Services
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
KP	Key Population
LT	Long-Term
METS	Monitoring and Evaluation Technical Support Program
MOH	Ministry of Health
NIN	National Identification Number
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PHR	Public Health Response
PII	Personally Identifiable Information
PITC	Provider-Initiated Testing and Counseling
PLHIV	People Living with HIV
POC	Point of Care
PP	Priority Population
PWID	People Who Inject Drugs
QA	Quality Assurance
RITA	Recent Infection Testing Algorithm
RTRI	Rapid Test for Recent Infection
SITES	Strategic Information Technical Support

SOP	Standard Operating Procedures
TWG	Technical Working Group
UVRI	Uganda Virus Research Institute
UCSF	University of California, San Francisco
VL	Viral Load
WHO	World Health Organization

## Forward

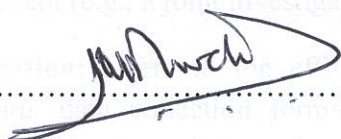
The Ministry of Health (MOH) is implementing HIV Recent Infection Surveillance as one of the complementary innovative approaches in Uganda that will contribute to accelerated progress towards the achievement of epidemic control by 2030. The main objectives of this program are (i) to Track "recent" HIV infections among newly diagnosed individuals to understand infection patterns, and (ii) to identify geographical location or subpopulations that may be experiencing higher rates of recent infections, indicating potential ongoing HIV transmission.

By integrating recent infection testing into HIV testing services (HTS), the initiative is implemented in both health facilities and community outreach sites. This approach will enable targeted HIV prevention, testing, and treatment interventions to effectively curb further HIV transmission. Through these efforts, the MOH hopes to enhance HIV prevention response and accelerated progress towards controlling the HIV epidemic in Uganda.

Since the launch of HIV Recent Infection Surveillance in October 2019, a substantial amount of data has been collected to enhance public health responses (PHR). The newly developed PHR Guide serves several key purposes (i) facilitate identification of potential HIV Recent infection hot spots in geographic areas and/or sub-populations with high potential of HIV acquisition, (ii) provide a framework for targeted public health response to interrupt further HIV acquisition. It will also guide in identifying and responding to gaps in HIV prevention, care and treatment service delivery.

The PHR Guide is designed to be practical and user-friendly, catering to health service providers at all levels—from national to subnational, including health facilities. It facilitates the identification of potential hot spots, characterizing and triangulating of hot spots, instituting data-driven action plans and reviewing progress on action plans. Threshold values have been provided to guide the identification of potential HIV hot spots or signals of HIV acquisition. Overall, this guide empowers health service providers to implement targeted, evidence-based interventions that can contribute to the reduce HIV transmission.

I urge all stakeholders at both national and subnational levels to actively utilize this guide to identify potential hot spots of HIV recent infections. It is essential to implement timely, tailored interventions for HIV prevention, testing, and care and treatment, in line with the consolidated guidelines for HIV prevention and treatment in Uganda. By working collaboratively and leveraging this guide, we can effectively address and reduce the incidence of HIV, ultimately advancing our goal of epidemic control. Your proactive engagement is crucial for the health and well-being of our communities.



.....  
**Dr. Henry Mwebesa**  
**Director General Health Services**

## Acknowledgment

The development of the PHR guide for the identification of HIV Recent infections in Uganda was conducted in a participatory and consultative manner with support from key stakeholders in HIV/AIDS response that include PEPFAR , The Ministry of Health through AIDS Control Program ACP, Uganda Virus Research Institute and Monitoring and Evaluation Technical Support (METS)). ACP thanks the organizations and individuals listed below for their participation in the process of developing of the PHR guide:

**Ministry of Health:** Joshua Musinguzi, Wilford Kirungi, Husdon Balidawa, Peter Mudyope, Lordwin Kasambula, Christine Katusiime, Geoffrey Taasi, Emmy Muramuzi. **UVRI:** Aminah Nalumansi Kigozi, Denis Olara. **CDC Uganda:** Hebert Kiyingi, Anthony Mubiru, Madina Apoloti, Nora Springstub. **USAID:** Darlson Kwarisiima, Willy Kafeero Bikokye. **Monitoring and Evaluation Technical Support (METS):** Alice Namale, Edgar Kansiime, Paul Katongole, Maureen Katusiime, Godfrey Timbihurira, Barbra Abindabyamu. **UCSF/Global Program:** Laura Buback, Rachel King, David Mugume, Stephene Musoke, Proscovia Nampijja, Samuel Okiror, Tifu Agaba, Jacob Ochola, Ronald Kiranda. **Makerere University Walter Reed Project (MUWRP):** Fred Magara. **SITES:** Norah Namuwenge, Immaculate Kiconco, David Katende. **Infectious Disease Institute (IDI):** Florence Namimbi, Rhoda Mwonda, Doreen Bakeiha, Daniel Kalema. **Raki Health Sciences Program (RHSP):** Oscar Andrew Sentongo. **CPHL/UNHLS:** Proscovia Nambuya, Mercy Nabunya.

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Special gratitude is extended to members of the technical working group for their invaluable input in adapting this guide from the Global TRACE program tools and developing of the final Public Health Response Guide for Uganda.

Lastly, I call upon key resource persons mentioned above to continue with their support and mentorship during the rollout and implementation of Public Health Response.



.....  
**Dr Robert Mutumba**

**Program Manager, STD/ACP**

## Definitions

**Public health surveillance:** This is an ongoing, systematic identification, collection, collation, analysis, and interpretation of disease occurrence and public health event data to take timely and robust action. It includes the timely dissemination of the resulting information to those who need to know for effective and appropriate action. Surveillance is also essential for planning, implementation, and monitoring and evaluation of public health practice.

**Passive surveillance:** a system by which a health institution receives routine reports submitted from health facilities and the community. This is the most common, and it includes the surveillance of diseases and other public health events through the Health Management Information System (HMIS).

**Active surveillance:** It involves actively looking for the cases in the community or health facilities through: (i) records reviewed by health workers at health facility level, (ii) screening for specific health conditions, e.g., at points of entry, health facilities etc., (iii) regular communication and keeping in touch with key reporting sources, and (iv) finding additional cases and contacts during outbreaks.

**Indicator-based surveillance (IBS):** This is a regular, systematic, identification, collection, monitoring, analysis, and interpretation of structured data, such as indicators produced by a number of well identified, mostly health-based, formal sources. Methods of indicator-based surveillance include: facility-based surveillance, case-based surveillance (CBS), sentinel surveillance, syndromic surveillance, laboratory-based surveillance, disease-specific surveillance and community-based surveillance (IDSR guidelines).

**Hot Spot:** A geographic area or subpopulation with numbers or proportion of HIV recent infections in a particular period time that have exceeded the pre-determined threshold. Hot spots are categorized new or old hotspots. A new hotspot is a newly identified with no targeted response measures while an old hotspot is one that was previously identified and is still active or was previously identified, closed and re-emerging.

**Health Management Information System (HMIS):** A monthly reporting system for diseases, conditions, and risks that is reported to the MOH from every healthcare facility electronically or on paper.

**Key Population (KP):** In Uganda, KP are defined as sex workers, men who have sex men, trans-genders, injecting drug users, and prisoners. They are more burdened by HIV, and are surrounded by stigma, discrimination, legal and socio-cultural dimensions that make it harder to access interventions.

**Multi-sectoral:** Participation of more than one sector working together on a joint program or response to an event (e.g., a joint investigation by public health and law enforcement).

**Integration:** refers to the efficient use of human resources and harmonizing different methods, software, data collection forms, standards, and case definitions in order to prevent inconsistent information and maximize efforts among all disease prevention and control programs and stakeholders. Where possible, the country uses a common reporting form, a single data entry system for multiple



diseases, and common communication channels. Training and supervision are integrated, a common feedback bulletin is used, and other resources such as computers and vehicles are shared.

**Recent HIV Infection:** Refers to the HIV infection acquired by an individual in the last twelve (12) months. An HIV infection acquired beyond the last twelve (12) months is referred to as long-term.

**Recent Infection Testing Algorithm (RITA):** Refers to a combination of one or more assays and clinical information (usually viral load) used to classify an HIV infection as being recent or long-term

**Priority Population (PP):** They include fisher folk, truckers, uniformed forces, immigrant workers among others. Though PP may be at high risk of HIV, they do not have legal, socio-cultural issues that affect them because of who they are, and are not stigmatized or discriminated, although they may have access issues that could arise from other environmental factors that surround them.

**Triangulation:** Examination of other available data on the potential hot spots. The purpose of this step is to understand aggregated HIV testing, treatment, and prevention outcomes, identify service delivery gaps and opportunities for quality improvement, and/or identify contextual factors (e.g., policy, economic, environmental, and social changes) that may be drivers of HIV acquisition. The information gathered will be used to inform further characterize the local epidemic and underlying population accessing HIV testing services, and response action plans

**Verification of data:** Checking for data quality (i.e., completeness, accuracy, reliability, precision, timeliness, integrity, and confidentiality) and testing quality (including reports of invalid/inconclusive results, quality control, and proficiency testing) to rule out artificial findings.

## 1. Background

Uganda has made significant progress in the fight against HIV and AIDS with progressive reduction of HIV prevalence among the adult population aged 15-49 years from 6.0% in 2017 (UPHIA 2016/17) to 5.5% in 2020 (UPHIA 2020/21). HIV incidence also has declined by 39% from 88,000 in 2010 to 54,000 in 2021.

The annual HIV incidence among people aged 15 years and above was 0.29%, being higher among females (0.38%) compared to males 0.20% in 2021. The country still experiences a high burden of new HIV infections estimated at 54,000 in 2022, with adolescent girls and young women (AGYW) aged 15-24 years being the most affected (36.0%). Additional groups with high burden of new HIV infections include: previously married uncircumcised men (19.7%), previously married female (12.2%) and Female Sex Workers (FSW) (9.8%) (Spectrum model 2023).

As Uganda works towards attaining epidemic control by 2030, it is important to have reliable and timely data to monitor trends of newly diagnosed individuals. Having timely data on recent HIV infection (occurring within the last 12 months) combined with other surveillance and programmatic data is critical in identifying populations and geographic locations with active HIV acquisition to inform targeted HIV prevention, and treatment interventions and public health response (PHR).

Uganda started implementing HIV recent infection surveillance in October 2019, by December 2023 over 1,098 ART-accredited health facilities with electronic Medical Records (EMR) systems were conducting HIV recency testing. HIV Recent infection testing has been integrated in routine HTS at health facility and community. Recent infection surveillance compliments other surveillance data; DHIS2 data, UPHIA and HIV prevention strategies including Index Partner Notification (APN) and same day ART in the country in identification of potential hotspots or signals of HIV acquisition.

Rapid tests for recent infection (RTRIs) are conducted following a new diagnosis of HIV among persons 15 years and above. The RTRI tests are antibody tests and when complemented with a viral load are a recent infection testing algorithm (RITA) to classify an HIV infection as recent (i.e., likely happening in the last 12 months). WHO recommends routine analysis of RITA data at population level for recent infection surveillance to inform prevention, testing, and care & treatment measures aimed at preventing ongoing HIV transmission and tracking and controlling the HIV epidemic.

The PHR guide underwent thorough field pilot testing, starting with a pilot in Wakiso HC IV and then at the regional level with implementing partners. The final draft was further pilot tested in Gomba, Kyotera, and Jinja Districts. Feedback from these pilot results was instrumental in revising and finalizing the guide.

The HIV Recent Infection Surveillance PHR guide offers practical steps and procedures for conducting a PHR upon identifying potential hotspots for HIV acquisition. It clearly outlines the roles of both national and sub-national teams, ensuring a well-coordinated approach to implementation.

## 2. The Public Health Response (PHR) for HIV Recent Infection surveillance guide

The PHR to HIV Recent infection surveillance is implemented following the national structure for health service delivery. At the national level, MOH takes lead in planning, coordination, implementation guidelines development, dissemination, and monitoring & evaluation. At the subnational level, PHR implementation is conducted at regional, district, facility and community level.

**Target audience:** This guide is intended to be used by officers responsible for implementing HIV response and PHR activities. These may include health care workers (HCWs), District Health teams (DHTs), program managers of HIV and other health programs, Health Development Partners, Implementing partners, Training institutions, researches and Civil Society Organizations. This guide is not intended to replace existing national response guidelines, procedures or plans.

**Process of developing the PHR guide:** Developing this PHR guide was conducted in a consultative manner involving multiple stakeholders in HIV response. It involved desk review of existing guidelines on HIV response, a series of writing workshops and peer reviews from internal experts from MOH and external stakeholders. The draft PHR guide was piloted in the field and revised based on feedback from pilot.

### **Alignment to other national guidelines:**

HIV recent infection surveillance is aligned to the following national and international guidelines on HIV response and surveillance. (i) National HIV and AIDS Strategic Plan 2020/21–2024/25, (ii) The Consolidated Guidelines for HIV Prevention and Treatment of HIV and AIDS in Uganda, (iii) The National HIV Testing Services Policy and Implementation Guidelines, (iv) The PEPFAR Public Health Response Strategy Using Recent Infection Surveillance Data, (v) The National Technical Guidelines for Integrated Disease Surveillance and Response (IDSR) 3<sup>rd</sup> edition, (vi) Using Recency Assays for HIV Surveillance: 2022 Technical Guidance. Joint United Nations Programme on HIV/AIDS and the World Health Organization; 2022.

## 2.1. Objectives

**Broad Objective:** To provide guidance on the implementation of Public Health Response at national and subnational levels.

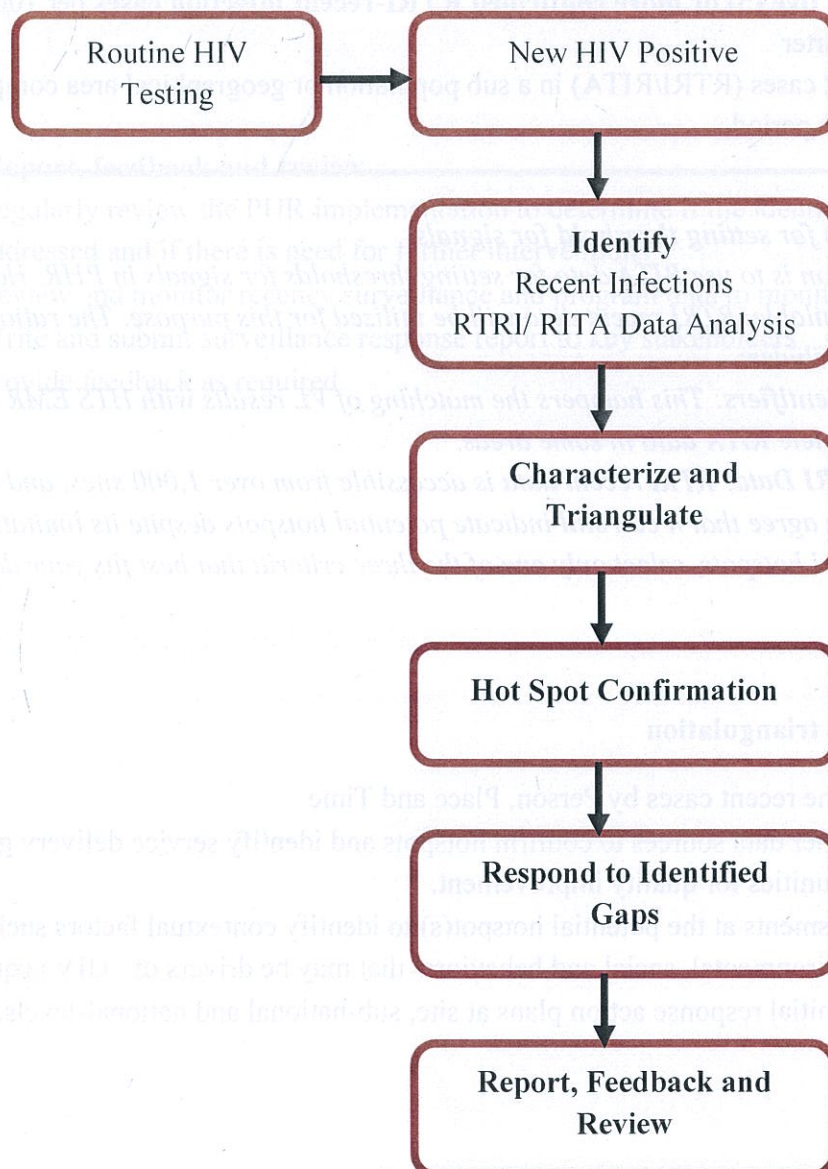
### Specific Objectives

- 1) To facilitate identification of potential HIV Recent infection hot spots in geographic areas and/or sub-populations with high potential of HIV acquisition.
- 2) To provide a framework for targeted public health response to interrupt further HIV acquisition.

### Summary PHR Flow chart:

The diagram below illustrates the stepwise process on how to conduct Public Health Response (PHR) using HIV recency surveillance data in Uganda and applicable at different levels of service delivery

**PHR Summary Flow Chart**



## 2.2. Steps for Implementing PHR

Implementation of PHR will involve four steps. Details of the four steps for each service delivery level are reflected in the corresponding flow charts /matrix.

### Step 1: Identify and verify unusual trends of HIV recent infections

- National, Regional and District task forces will meet quarterly to review Recent Infection Surveillance data
- Identify signals of potential hotspots that meet the threshold criteria. A **Hot Spot** is defined as a geographic area or subpopulation with numbers or proportion of HIV recent infections in a particular period time that have exceeded the pre-determined thresholds defined below.

#### Threshold criteria:

1. The occurrence of three (3) or more confirmed RITA-recent infection cases per 100,000 population in a quarter
2. The occurrence of five (5) or more confirmed RTRI-recent infection cases per 100,000 population in a quarter
3. **Doubling** of recent cases (RTRI/RITA) in a sub population or geographical area compared to the previous review period.

#### Note: Use of RTRI results for setting threshold for signals

The recommendation is to use RITA data for setting thresholds for signals in PHR. However, if RITA data is unavailable, RTRI recent data will be utilized for this purpose. The rationale for using RTRI data includes:

1. **Lack of Unique Identifiers:** This hampers the matching of VL results with HTS EMR data, resulting in incomplete RITA data in some areas.
2. **Availability of RTRI Data:** RTRI recent data is accessible from over 1,000 sites, and both the MOH and partners agree that it can still indicate potential hotspots despite its limitations. To identify potential hotspots, select only one of the three criteria that best fits your data set.

### Step 2: Characterize and triangulation

- Characterize the recent cases by Person, Place and Time
- Triangulate other data sources to confirm hotspots and identify service delivery gaps and missed opportunities for quality improvement.
- Conduct assessments at the potential hotspot(s) to identify contextual factors such as economic, environmental, social and behavioral that may be drivers of HIV acquisition
- Recommend initial response action plans at site, sub-national and national-levels.

### **Step 3: Respond to Identified Gaps**

- The response teams (at the national and sub-national levels) will convene meetings with local HIV implementers, partners and stakeholders (CBO, KP networks/communities, local authorities and funders) to review the preliminary findings and recommended initial corrective actions generated from **Step 2 above**.
- Develop and implement an action plan to address gaps identified in the hotspots.
- Mobilize and allocated additional resources to improve interventions

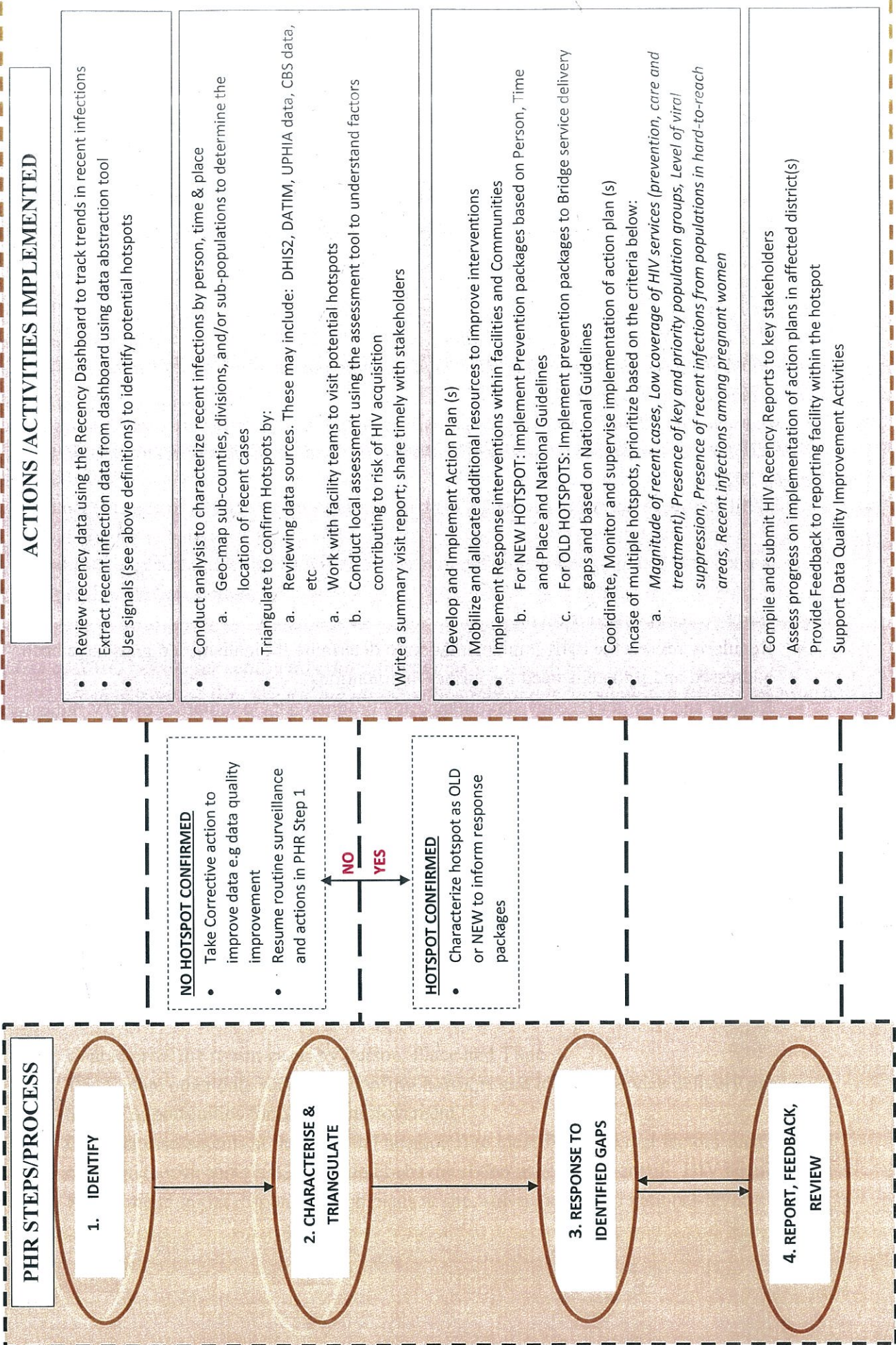
*Note: The response will be tailored to the nature of the local epidemic—whether it's a NEW or OLD hotspot—along with the magnitude of identified gaps and available resources. It may also involve consultations and coordination with donors, implementing partners, national focal persons, and international technical experts.*

*The response team will address the identified gaps using the HIV prevention services outlined in Chapter 3 of the **Consolidated Guidelines for Prevention and Treatment of HIV and AIDS in Uganda, 2022***

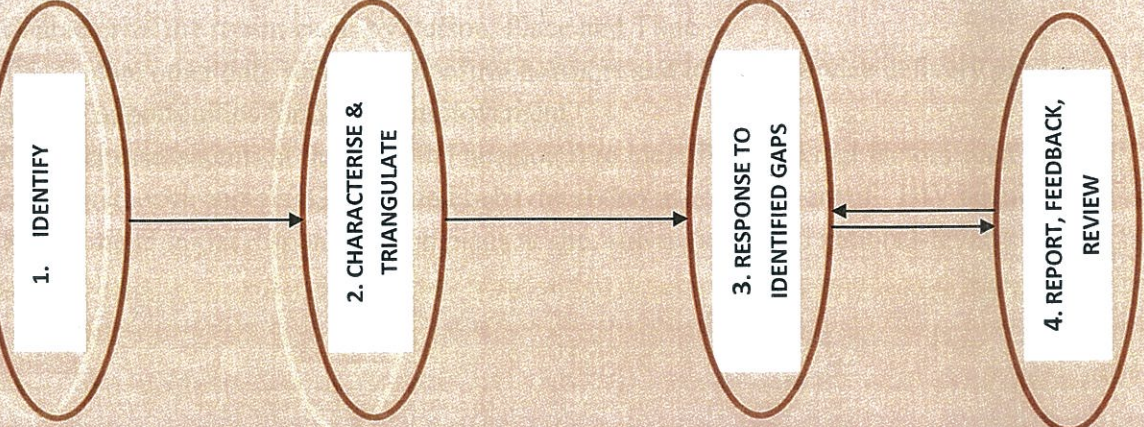
### **Step 4: Report, feedback and review**

- Regularly review the PHR implementation to determine if the identified gaps have been addressed and if there is need for further interventions
- Review and monitor recency surveillance and program data to monitor key HIV indicators
- Write and submit surveillance response report to key stakeholders
- Provide feedback as required

# Public Health Response Steps/Process Flow Diagram at Regional /District Level



## PHR STEPS/PROCESS



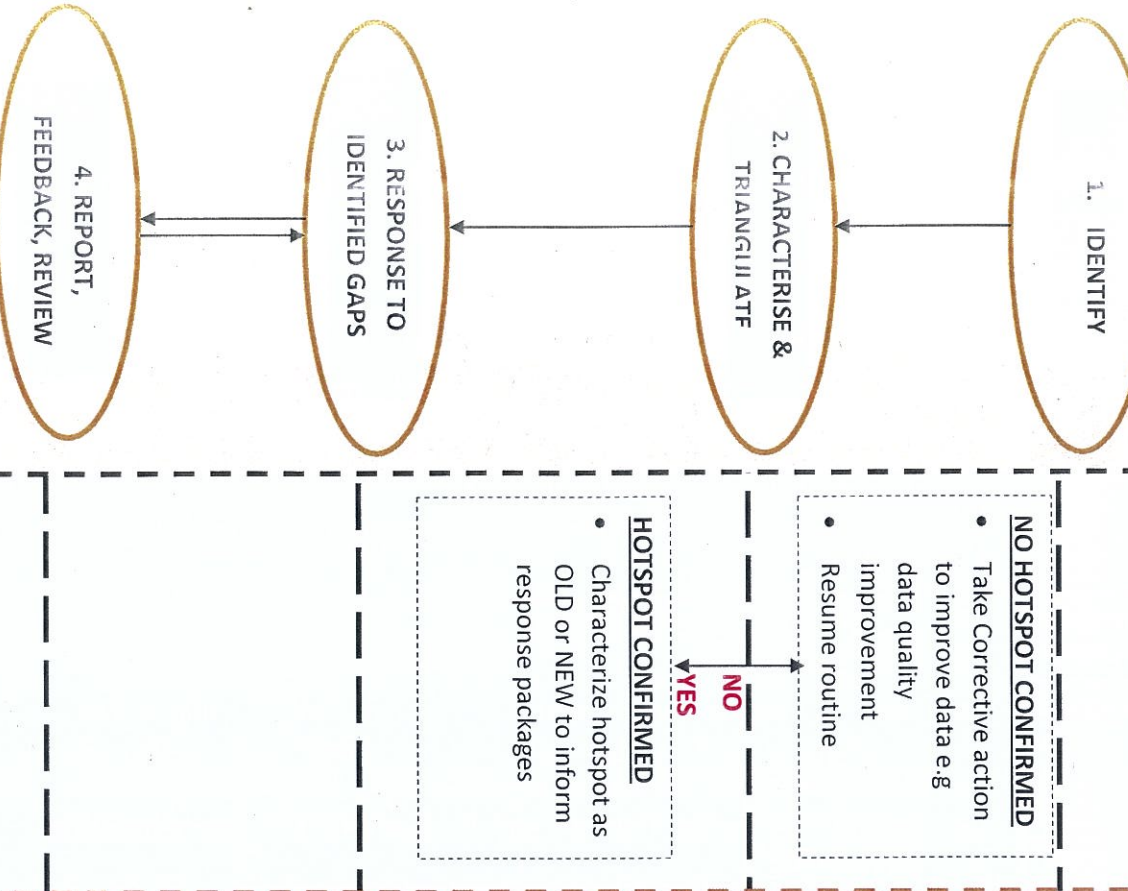
## ACTIONS /ACTIVITIES IMPLEMENTED

- Review recency data using the Recency Dashboard to track trends in recent infections
  - Extract recent infection data from dashboard using data abstraction tool
  - Use signals (see above definitions) to identify potential hotspots
- Conduct analysis to characterize recent infections by person, time & place
    - Geo-map sub-counties, divisions, and/or sub-populations to determine the location of recent cases
  - Triangulate to confirm Hotspots by:
    - Reviewing data sources. These may include: DHIS2, DATIM, UPHIA data, CBS data, etc
    - Work with facility teams to visit potential hotspots
    - Conduct local assessment using the assessment tool to understand factors contributing to risk of HIV acquisition

Write a summary visit report; share timely with stakeholders
- Develop and Implement Action Plan (s)
  - Mobilize and allocate additional resources to improve interventions
  - Implement Response interventions within facilities and Communities
    - For NEW HOTSPOT: Implement Prevention packages based on Person, Time and Place and National Guidelines
    - For OLD HOTSPOTS: Implement prevention packages to Bridge service delivery gaps and based on National Guidelines
  - Coordinate, Monitor and supervise implementation of action plan (s)
    - Incase of multiple hotspots, prioritize based on the criteria below:
      - Magnitude of recent cases, Low coverage of HIV services (prevention, care and treatment), Presence of key and priority population groups, Level of viral suppression, Presence of recent infections from populations in hard-to-reach areas, Recent infections among pregnant women
- Compile and submit HIV Recency Reports to key stakeholders
  - Assess progress on implementation of action plans in affected district(s)
  - Provide Feedback to reporting facility within the hotspot
  - Support Data Quality Improvement Activities

## Public Health Response Steps/Process Flow Diagram at National Level

### PHR STEPS/PROCESS



### ACTIONS /ACTIVITIES IMPLEMENTED

- Review the Recency data to identify regions/districts/sub counties/divisions and/or sub populations with high proportion of recent infections on quarterly basis
- Conduct analysis of data to characterize recent infections by person, place & time & and other risk characteristics
  - Geo-map regions/districts/counties/divisions and/or sub populations to determine the location and magnitude of recent cases
  - Triangulate recency results with other known data sources to confirm Hotspots
- Develop and implement national level action plans
- Provide Technical Support Supervision and mentorship to subnational level-staff to strengthen HIV prevention, care, and treatment Response interventions in affected Districts and facilities
- Monitor epidemiologic trends of recent infections
- Monitor indicators to ensure gaps are addressed
- Disseminate information on program status including potential hotspots
- Advocacy, resource mobilization and reallocation
- TWG provides feedback and requisite support needed to regional and District surveillance teams
- Evaluate recency implementation and public health response
- Disseminate HIV-1 recent infection surveillance data at national and regional levels.
- Coordinate training, and Support Data Quality Improvement Activities
- Conduct regular coordination meetings.
- Conduct annual review meetings



### 3. Roles and Responsibilities in Public Health Implementation

Public Health Response will be Implemented by multiple stakeholders at all service levels and their roles are stipulated below.

Level	Role in Public Health Response Implementation
Ministry of Health	<ul style="list-style-type: none"> <li>• Develop and update guidelines and SOPs for Public Health Response (PHR) implementation</li> <li>• Provide technical oversight and leadership for implementation of recent infection surveillance and PHR</li> <li>• Coordinate implementation of HIV recent infection surveillance program and PHR</li> <li>• Provide technical support in training and mentorship in implementation of HIV recent infection surveillance program and PHR at sub-national levels</li> <li>• Coordinate national level review meetings</li> <li>• Analyse, interpret and disseminate recent infection surveillance data</li> <li>• Develop and review tools used in HIV recent infection surveillance</li> <li>• Provide feedback and support to the reporting district(s)</li> <li>• Maintain the Central Database and dashboard for HIV recent infection surveillance</li> <li>• Evaluate the HIV recent Infection surveillance program and routinely conduct data reviews</li> <li>• Mobilization and allocation of resources</li> </ul>
RRH/DHTs	<ul style="list-style-type: none"> <li>• Dissemination and roll out of the guidelines</li> <li>• Training, mentorship, and supervision of health facility staff</li> <li>• Initiation Public Health Response at the subnational levels</li> <li>• Conduct regional/district level analysis of recency data analysis, triangulation and identification hot spots.</li> <li>• Development and implementation action plans</li> <li>• Support supervision and mentorships to health facilities</li> <li>• Participate in the stakeholder review meetings</li> <li>• Conduct Data Quality Assessment/Improvement activities</li> </ul>
Facility	<ul style="list-style-type: none"> <li>• Implement data management procedures (collection, entry in EMR, transmission, reporting and use) for HIV recent infection surveillance data</li> <li>• Identify potential hot spots for HIV recent infections</li> <li>• Implement public health response in collaboration with DHT</li> <li>• Submit quarterly recency PHR Reports</li> <li>• Implement CQI for HIV recent infection surveillance</li> </ul>
Implementing Partners	<ul style="list-style-type: none"> <li>• Provide technical support in training, implementation and monitoring of PHR</li> <li>• Provide technical support in data analysis, hot spot identification, characterization and triangulation, and development of action plans</li> <li>• Provide technical support for review meetings.</li> <li>• Participate in recency taskforce meeting</li> </ul>
Development Partners & Above site	<ul style="list-style-type: none"> <li>• Provide technical assistance and guidance in HIV recent infection surveillance, implementation and PHR.</li> <li>• Participate in recent task force meetings</li> </ul>

Implementing Partners	<ul style="list-style-type: none"> <li>• Support the development, dissemination and roll out of the PHR guide</li> <li>• Share best practices and facilitate exchange of expertise</li> </ul>
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#### 4. Monitoring indicators of the PHR

Implementation of PHR will be guided by a set of indicators derived from HIV Recent Infection Surveillance database shown below.

##### A) Recency indicator matrix

Indicator	Numerator	Denominator	Level of Disaggregation	Infographic/ Data visualization
Number of newly diagnosed HIV+ cases	Number of newly diagnosed HIV+ cases	None	Age, Sex, Geographic location, Special categories, and Pregnancy/ Breastfeeding	Dashboard
Number of newly diagnosed HIV+ cases $\geq 15$ years	Number of newly diagnosed HIV+ cases $\geq 15$ years	None	Age, Sex, Geographic location, Special categories	Dashboard
Number of Newly diagnosed HIV+ $\geq 15$ years tested for recent infection	Number of Newly diagnosed HIV+ $\geq 15$ years tested for recent infection	Non	Age, Sex, Geographic location, Special categories	Dashboard
Proportion of Newly diagnosed HIV+ $\geq 15$ years tested for recent infection	Number of Newly diagnosed HIV+ $\geq 15$ years tested for recent infection	Number of newly diagnosed HIV+ $\geq 15$ years	Age, Sex, Geographic location, Special categories	Bar chart, Dashboard
Proportion of HIV+ $\geq 15$ years clients with RTRI recent infection	Number of newly diagnosed HIV+ $\geq 15$ years clients who tested recent	Number of Newly diagnosed HIV+ $\geq 15$ years tested for recent infection	Age, Sex, Geographic location, Special categories	Dashboard Map, Bar chart, line graph
Proportion of HIV+ $\geq 15$ years clients with RITA recent infection	Number of newly diagnosed HIV+ $\geq 15$ years clients with RITA recent infection	Number of Newly diagnosed HIV+ $\geq 15$ years tested for recent infection	Age, Sex, Geographic location, Special categories	Dashboard Map, Bar chart, line graph

## B) Indicators to use during service delivery gap analysis

Once a potential hotspot is identified, response teams at the sub-national level can select relevant indicators to assess service delivery gaps. These selected indicators will be utilized during the triangulation process. Teams should choose indicators from the list below that best align with the specific program gaps and interventions being addressed:

1. **Testing Coverage:** Percentage of individuals tested for HIV +ve in the selected hotspot.
2. **Linkage to Care:** Proportion of those diagnosed with HIV who are linked to care.
3. **Viral Load Suppression:** Percentage of patients with suppressed viral loads.
4. **Prevention Service Utilization:** Uptake of prevention services (e.g., PrEP and PEP) within hotspots.
5. **Retention in Care:** Rate of patients retained in care over a specified period

Teams should ensure that the chosen indicators effectively reflect the specific needs and interventions in the identified hotspot.

## 5. References

1. National HIV and AIDS Strategic Plan 2020/21–2024/25
2. Health Sector HIV & AIDS Monitoring & Evaluation Plan 2018/19-2022/23
3. The Consolidated guidelines for Prevention and Treatment of HIV and AIDS in Uganda, 2022
4. The National HIV Testing Services Policy and Implementation Guidelines
5. National HIV and AIDS Priority Action Plan 2020/2021–2022/2023: Ending the HIV and AIDS epidemic: Communities at the forefront
6. The PEPFAR Public Health Response Strategy Using Recent Infection Surveillance Data
7. The national technical guidelines for Integrated Disease Surveillance and Response (IDSR) 3<sup>rd</sup> edition, September 2021
8. Using Recency Assays for HIV Surveillance: 2022 technical guidance. Joint United Nations Programme on HIV/AIDS and the World Health Organization; 2022.



## Appendix 2: Assessment tool/Guide

### Assessment tool/Guide

**Instructions:** Use this guide for local HIV stakeholders. Stakeholders should work or have worked in the community or population under investigation and may be community health workers/peer-volunteers, community focal persons or outreach workers with a strong knowledge of the community. Aim to consult 1 representative for each implementing partner working in the community.

Investigation Date: dd/mm/yyyy Investigator Name: \_\_\_\_\_ Investigator Phone #: \_\_\_\_\_

Key informant information:

Name: \_\_\_\_\_ Organization: \_\_\_\_\_ Job title: \_\_\_\_\_

#### Section A: Hot-spot information

1. Region: \_\_\_\_\_ 2. District: \_\_\_\_\_ 3. Subcounty: \_\_\_\_\_ 4. Village/LCI: \_\_\_\_\_

5. Months investigated: \_\_\_\_\_

6. a) RITA recent cases: \_\_\_\_\_ b) RTRI recent Cases: \_\_\_\_\_

7. Hot-spot based on population  
(Special categories)

8. Hot-spot based on location type:  Health facility  Community testing  Client place of residence

8. Is this location urban or rural?  Rural  Urban  Semi-urban  N/A

#### Section B: Population information

1. Are you aware of key population groups residing or socializing in this area? Please mention all that you are aware of. Key population groups include sex workers, men who have sex with men, transgender people, or people who inject drugs, prisoners.
2. Are you aware of other vulnerable or priority population groups that socialize or reside in this area? Please mention all you are aware of. Priority population groups may include vulnerable adolescent girls or young women, people in uniform, migrant workers, fisher folk, truckers, plantation workers, workers on construction site etc.

## Section C: Location information

1. Can you describe socio-economic activities that occur in this area? For example:
  - o Formal/informal: Bars/clubs, night markets/trading communities, transit hubs, sex dens/brothels/sex club, guest houses/lodges/hotels, factories, mines.
  - o Seasonal or temporary activities: seasonal farming, fishing communities, construction sites.
2. Can you describe any other locations that may be foci for communities vulnerable to HIV transmission? For example: low socioeconomic communities, informal settlements, migrant camps.
3. Are there places where sex work occurs? Can you describe the types of places and people engaging in sex work?
4. Are there specific types of places where injection drug use occurs? For example: shooting galleries, abandoned buildings, encampments, etc.
5. Are they in specific areas of town where these are located?
6. Do you know where PWIDs get their drugs? If so, where?
7. Do you know where PWIDs get their needles? If so, where?

## Section D: Services offered

### Approach

1. What kinds of services does your organization provide? Please describe approach and HIV/STI services offered. For example: PrEP, VMMC referral, condom distribution, MMT community ARV dispensing.
2. For the at-risk populations you mentioned earlier, what approaches do you or your organization take to provide HIV services to these groups?
3. Has there been any disruption in HIV services offered by your organization in recent months?

### Reach

1. For the at-risk populations you mention earlier, what kind of contact do you have with them?
2. What challenges and successes has your organization experienced in working with these groups?

3. Are there any populations groups in this area you do not provide services to? For example, people in prison, people in uniform, people who inject drugs?

### Acceptability

1. Based on your experience working with this community, what approaches are more acceptable by the populations you are trying to reach?
2. Which approaches do you find are less acceptable by the populations you are trying to reach?

### Section E: Service Gaps

1. What do you think are the biggest gaps in term of HIV preventive services offered in this community?
2. In your view why do clients on ART discontinue their treatment?
3. Why do some HIV positive clients delay to start or never start ART?



Appendix 3: Action Plan template

REGION \_\_\_\_\_ DISTRICT \_\_\_\_\_ DATE \_\_\_\_\_

Name of Team Lead \_\_\_\_\_ Designation/Cadre \_\_\_\_\_ Phone number \_\_\_\_\_

PROBLEM IDENTIFICATION <i>(provide as much detail as possible)</i>	ROOT CAUSE <i>(list of root causes)</i>	CORRECTIVE ACTION OR INTERVENTION	RESPONSIBLE PERSON	START DATE	EXPECTED DATE OF ACTION COMPLETION	PROGRESS AT REVIEW PERIOD <i>(Date and actual progress)</i>	DATE ACTION COMPLETED



**GENERAL COMMENTS**

Appendix B: Action Plan template

DISTRICT

DATE

Project Lead

Description/Scope

Phone Number

**Appendix 4: Report template**

**Instructions:** This report is to be completed by Assessment Team after analyzing the recency data, establishing the location of hotspot (s), doing an assessment, putting in place an action plan, and submitting it to DHO's Office within one week after completion of the visit.

**Threshold:** HIV Recent case assessments and reporting are triggered by the attainment of a threshold defined as the number of recent HIV infections in a defined geographic area/population over a given time period. It will serve as a signal for HIV surveillance teams to begin the assessments. This assessment may use RITA or RTRI results as follows:

1. The **occurrence of three (3) or more confirmed RITA-recent infection cases** per 100,000 population in a quarter
2. The **occurrence of five (5) or more confirmed RTRI-recent infection cases** per 100,000 population in a quarter
3. Doubling of recent cases (RTRI/RITA) in a sub population or geographical area compared to the previous review period.

**Assessment Team:**

Team Lead

Name \_\_\_\_\_ Designation \_\_\_\_\_

Phone # \_\_\_\_\_

Name	Designation/Cadre	Recency surveillance responsibility	Phone number

Assessment Start Date: *dd/mm/yyyy*

Assessment End Date: *dd/mm/yyyy*

**Section A: District information**

1. District	
2. Region	
3. District Catchment population	
4. # of sub-counties/Divisions	
5. Data Review period:	Start date: _____ End date: _____
6. # Recent cases:	RTRI _____ RITA _____
7. # of Health Facilities	Total _____ Recency implementing facilities _____

Based on the threshold provided, do the cases registered (No.6 Section A) warrant case assessment?  
 Yes  No. If yes, conduct case assessments and tease out sub-county(s) that meet threshold criteria.

Sub-counties/ Divisions which meet threshold criteria	Catchment Population	# Recent Infection Cases	Nearest health facility(s)
7. Data Source: Check all that apply:	<input type="checkbox"/> Recency Dashboard/Database <input type="checkbox"/> DHIS2 <input type="checkbox"/> Other, specify: _____		

**Section B. HIV Recent Infection by age group and sex (either  RTRI or  RITA) Tick where applicable**

Age group	Male	Female	Total
15-19			
20-24			
25-29			
30-34			
35-39			
40-44			
45-49			

50+			
Total			

**Section C. Hotspots of HIV recent infections in the districts**

Sub-counties/Divisions with hotspots	# Hot spots	Names of Hot spots	# recent infections	Nearest health facility (ies)

**Section D. Additional information from other sources** (get more information from identified hot spots in terms of prevention of interventions currently provided, gaps, or challenges). This information can be got from visiting hot spots, conducting Key Informant assessment (KI) and/or group discussion (GD), or review of available information.

Specify the method you have used (KI or GD) to collect this information	
Summarize the key information you have collected	



