Rationale for including in the proposal

- HIV surveillance requires a standardized but flexible system that is periodically updated and strengthened for a better understanding of trends over time and behaviours driving the epidemic [1,2]. The system should focus on the sub-populations at highest risk of infection. Information resulting from the analysis of surveillance data should be used for a better understanding of the epidemic and for improved planning for prevention, care and treatment interventions, including through the estimation of key indicators, e.g. prevalence, new infections, mortality due to AIDS, people in need of ART and PMTCT services, orphanhood due to AIDS [3].

- When planning for Universal Access for prevention, care and treatment, countries must attempt to incorporate targets for key strategies and interventions. The surveillance system should produce data that can be used to set up targets, as well as monitor progress towards those targets.

Situation analysis

- HIV and STI epidemiological situation (prevalence rates and behavioral data) and trends over time in different populations; methods currently used to collect data and analyze results,
- Quality of data, consistency of methods and studied populations
- Most at risk sub-populations; methods to identify and estimate the size of those subpopulations,
- Estimates and projections of the number of adults and children living with HIV; methods used for estimates and projections,
- Estimates of new HIV infections by modes of transmission and of incidence,
- Current implementation of Second Generation Surveillance (SGS) activities, partnership and management.
- Epidemiological synthesis rand reconstruction of the epidemic curve
- Status of the national HIV surveillance system, its functioning and capacity to deliver information on trends etc…

Populations to target

Target populations should be selected according to the state (low-level, concentrated or generalised) and local characteristics of the HIV epidemic. The capacity to conduct HIV
surveillance needs to be taken into consideration when planning for multiple surveys among various target populations.

- General population in urban and rural areas (national population based surveys when prevalence is above 2% in the general population)
- Pregnant women attending antenatal care services
- Most-at-risk populations (MARPs): sex workers, injecting drug users, men having sex with men,
- Other high risk and vulnerable populations: clients of sex workers, partners of MARPs, truckers, uniformed services, prisoners, migrants STI patients, TB patients, …

Key activities to consider

- **Assessment of the HIV surveillance system** to document the main gaps in information in data generation, analysis and use of data,
- **Reinforcement of information management system** with vertical and horizontal data flow across the different levels of the data provision, analysis and use in the health system and in other sectors, to allow for optimal data analysis and the sharing of information,
- **Revision of national guidelines** and work plans for HIV surveillance,
- **Training** in methods for HIV surveillance and estimations,
- **Sentinel surveillance** among pregnant women (HIV sero-surveillance) and among target populations (integrated bio-behavioral surveillance) striving for representatives,
- **National survey** collecting information on HIV prevalence, behaviors, service coverage,
- **Size estimation** of groups with high risk behavior,
- **HIV case-reporting**, STI surveillance, advanced HIV reporting,
- **Modeling of incidence** by mode of transmission,
- National workshop on surveillance, estimations and **target setting**
- **Operational research** related to 2GS - e.g.:
  - comparison/validation of HIV prevalence estimates from routine PMTCT programme
  - data versus sentinel surveillance among pregnant women,
  - socio-epidemiological correspondence between the MARP included in the size estimation and in sentinel surveillance surveys, and
  - best local approaches for size estimation and sampling for HIV surveillance among MARPs,…
- Reinforcement of the Health Management Information System (**HMIS**) for integrating HIV surveillance.

Linkages to other interventions

By its nature, HIV surveillance is a core intervention area Service Delivery Area that should improve the functioning of HIV prevention, care and treatment programmes. Surveillance data are part of assessing and planning programmes. On the other hand, programme monitoring feeds HIV surveillance in order to better understand and project the dynamic of the epidemic in view of the interventions that improve quality of life.
Indicators

Epidemiological surveillance contributes to generate outcome and impact indicators. An examples of these indicators are:

- Use of established methodology to collect surveillance data, including sentinel surveillance, facility-based surveillance, community-based surveillance; households, time-location, snowball, respondent driven sampling surveys (see UNAIDS/WHO guidelines)
- Use of estimations tools to estimate HIV prevalence and antiretroviral therapy (ART) coverage
- Estimated numbers and percentages of adults and children living with HIV, broken down by gender, with uncertainty ranges
- Estimated Incidence and new infections
- HIV prevalence in the general population, by age and sex
- HIV prevalence among pregnant women
- HIV prevalence among MARP and other groups at high risk or vulnerable
- Behavioral indicators for the general population and MARPs (see UNGASS indicator guidance)
- Percentage of MARPs reached with HIV prevention programmes in the past 12 months
- Percentage of people 15-49 years who know their HIV status
- Percentage of adults and children with advanced HIV infection receiving ART
- Mortality with and without ART

Additional resources


