

Technical Guidance Note for Global Fund HIV Proposals



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HIV surveillance

Rationale for including surveillance activities 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 subpopulations at highest risk of infection specific to the country. Information resulting from the analysis of surveillance data should be used to better understand the epidemic and to improve planning for prevention, care and treatment interventions. Surveillance should include the estimation of impact indicators, such as adult human immunodeficiency virus (HIV) prevalence, new HIV infections, mortality due to acquired immunodeficiency syndrome (AIDS), people in need of antiretroviral treatment and prevention of mother-to-child transmission (PMTCT) services, and 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 develop targets and to monitor progress towards those targets. Surveillance data should be used to provide evidence of impact.

Situation analysis

- ◆ HIV and sexually transmitted infection (STI) epidemiological situation (prevalence rates and behavioral data) and trends over time in different populations, and methods currently used to collect data and analyse results.
- ◆ Quality of data, and consistency of methods, tools and laboratory methods and studied populations.
- ◆ Key populations at increased risk of HIV, and methods to identify and estimate the size of those subpopulations.
- ◆ Estimates and projections of the number of adults and children living with HIV, and the methods used for estimates and projections.
- ◆ Estimates of new HIV infections by mode of transmission and studies of incidence.
- ◆ Current implementation of second-generation surveillance activities, partnership and management.
- ◆ Epidemiological synthesis of available data to evaluate the HIV response.
- ◆ Status of the national HIV surveillance system, its functioning and capacity to deliver information on trends, and so on.

Objectives for this area

- ◆ The main objective of this area is to assess the level of HIV prevalence and its trends among different populations, and to estimate the burden of disease. The criteria used by the Global Fund to Fight AIDS, Tuberculosis and Malaria for eligibility and prioritization require basic HIV epidemiological information to determine cut-off categories based on HIV prevalence levels and other indicators.
- ◆ HIV surveillance provides the main indicators for monitoring the impact of prevention and treatment interventions.

Focus Populations

Focus populations should be selected according to the type of epidemic (low-level, concentrated or generalized) and local characteristics. 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.

- ◆ Key populations at risk of HIV, such as sex workers, people who inject drugs, and men who have sex with men.
- ◆ Other populations at increased risk of HIV, such as clients of sex workers, partners of key populations, truckers, people in the uniformed services, people in prison, migrants, people with STIs and people with tuberculosis.

Key activities to be considered

- ◆ Sentinel surveillance among pregnant women (HIV serosurveillance) and among target populations (integrated biobehavioral surveillance).
- ◆ National survey collecting information on HIV prevalence, behaviours and service coverage among the general population (if adult HIV prevalence is 2% or higher).
- ◆ Integrated behavioural and biological surveys of key populations at increased risk of HIV.
- ◆ HIV case reporting, STI surveillance and advanced HIV reporting.
- ◆ Size estimation of key populations at increased risk of HIV.
- ◆ Modelling of incidence by mode of transmission.
- ◆ National workshops on surveillance, estimates, projections and target setting.
- ◆ Attendance at regional training courses on developing estimated projections.
- ◆ Operational research related to surveillance, such as:
 - ▶ comparison/validation of HIV prevalence estimates from routine PMTCT programme data versus sentinel surveillance among pregnant women;
 - ▶ socioepidemiological correlation between key populations at increased risk of HIV included in the size estimation and in sentinel surveillance surveys;
 - ▶ best local approaches for size estimation and sampling for HIV surveillance among key populations at increased risk of HIV.
- ◆ Assessment of HIV surveillance system to document the main gaps in information in data generation, analysis and use of data.
- ◆ Revision of national guidelines and workplans for HIV surveillance.
- ◆ Reinforcement of information management system to:
 - ▶ improve vertical and horizontal dataflow across different levels of the health system;
 - ▶ analyse and use data within the health system and in other sectors;
 - ▶ share results;
 - ▶ integrate HIV surveillance into existing health management information systems.

Linkages with other interventions

By its nature, HIV surveillance is a core activity that should be linked to all service delivery areas for the purpose of improving the functioning of HIV prevention, care and treatment programmes. Surveillance data must be used for assessing existing programmes and planning for future programmes. Programme-monitoring data should feed into HIV surveillance.

Indicators

Epidemiological surveillance contributes to the generation of outcome and impact indicators. Examples of these indicators include:

- ◆ use of established methodologies to collect surveillance data, including different methodologies for data collection, such as sentinel surveillance, facility-based surveillance, community-based surveillance, population-based surveys, time-location sampling, and respondent-driven sampling surveys (1–3);

- ◆ use of estimation tools to estimate national adult HIV prevalence, PMTCT and antiretroviral therapy coverage;
- ◆ estimated numbers and percentages of adults and children living with HIV, broken down by sex, with uncertainty ranges;
- ◆ estimated incidence and number of new HIV infections;
- ◆ HIV prevalence in the general population, by age and sex;
- ◆ HIV prevalence among pregnant women;
- ◆ HIV prevalence among key populations at increased risk of HIV and among other groups;
- ◆ behavioural indicators for the general population and key populations;
- ◆ percentage of key populations at increased risk of HIV reached with HIV prevention programmes in the past 12 months;
- ◆ percentage of people aged 15–49 years who know their HIV status;
- ◆ percentage of adults and children with advanced HIV infection receiving antiretroviral treatment;
- ◆ mortality rates for children under 5 years of age and adults with and without antiretroviral treatment.

The Global Fund has developed a monitoring and evaluation toolkit based on a common framework agreed to by the main international agencies. This toolkit compiles the top ten indicators for outcome and impact in HIV programmes (4).

Approach to costing

The costs of HIV and STI epidemiological surveys depend mainly on the sample size of the survey. Nationally representative population-based surveys with HIV testing can cost as much as US\$ 3–5 million. When additional biomarkers such as CD4 or STI testing are added, the cost increases. The cost also depends on the physical size of the country, with larger countries being more expensive.

Integrated biological and behavioural surveys among key populations at increased risk of HIV are often less expensive. Again, however, the cost is determined by the sample size, the biological tests included and the geographical area covered. These surveys cost about US\$ 100 000–300 000.

References

1. *HIV/AIDS surveillance publications*. Geneva, World Health Organization (<http://www.who.int/hiv/pub/surveillance/en/index.html>).
2. *Epidemiology publications: Results, guidelines, supplements*. Geneva, Joint United Nations Programme on HIV/AIDS (<http://www.unaids.org/en/dataanalysis/epidemiology/epidemiologypublications/#d.en.587821>).
3. *Workbook method*. Geneva, Joint United Nations Programme on HIV/AIDS (<http://www.unaids.org/en/KnowledgeCentre/HIVData/Methodology/default.asp>).
4. *Monitoring and evaluation toolkit: HIV, tuberculosis and malaria and health strengthening systems*, 3rd ed. Geneva, Global Fund to Fight AIDS, Tuberculosis and Malaria, 2009 (www.theglobalfund.org/documents/monitoring_evaluation/ME_MonitoringEvaluation_Toolkit_en/).

