

RHRC CONSORTIUM MONITORING AND EVALUATION TOOLKIT

BIOMARKER SURVEY PROTOCOL

- Purpose** Biomarker surveys collect and analyze biological specimens from individuals in the study population. The purposes of biomarker testing might be
- the clinical purpose of diagnosing ill health in individuals,
 - the assessment of needs and the planning of interventions to improve health in the community,
 - the monitoring of changes in health status of the population,
 - the evaluation of interventions, or
 - the collection of information to inform advocacy for changes in policies to address population health needs.

A detailed protocol for biomarker surveys is not included in this *M&E Toolkit*. In the section on “Additional Resources” below, we describe some resources that should be utilized in making decisions about conducting a biomarker survey.

- Description** Depending on the conditions being studied, biomarker testing may use one or more specimens such as saliva, blood, vaginal secretions or other bodily fluids. Biomarker testing can be added to community-based knowledge, attitude and practices surveys. Examples include testing for anemia, malaria and HIV sero-status. Several considerations must be factored into decisions on whether and how to proceed with biomarker testing. Some of these are practical concerns and many of them are ethical questions. They include: specialized staff and logistics, infection precautions, quality control in specimen collection and testing and the availability of care for individuals diagnosed through the study.

Additional Resources

- **Biological and Clinical Data Collection in Population Surveys in Less Developed Countries**, Summary of a meeting held by MEASURE Evaluation and the National Academy of Sciences, Washington, D.C., January 24-25, 2000. <http://www.who.int/hiv/pub/surveillance/en/biomarkers.pdf>
This document summarizes discussions held at the National Academy of Sciences in Washington, D.C., in January 2000. Many diagnostic tests, which until recently required complex equipment, excellent infrastructure and highly trained personnel, can now be carried out in an urban slum or a desert settlement by field staff with a minimum of training. Costs of existing tests are falling, and “field-friendly” tests for many more conditions are expected to become available in the next few years. The availability of these new technologies begs a question: how might they best be used to improve the health of people in countries where the conditions they identify are most prevalent?

- **Second generation HIV surveillance**, UNAIDS/WHO working group on global HIV/AIDS and STI Surveillance, January 2000.
http://www.unaids.org/EN/resources/epidemiology/epi_recent_publications/secondgensurveillance2000.asp

This document reviews the achievements of the first decade of HIV surveillance. It outlines the basic principles of second generation surveillance systems—a better understanding of trends over time and of the behaviours driving a country's epidemic; a system more focused on sub-populations at the highest risk of infection, but still flexible enough to move with the needs and state of the epidemic; a better use of surveillance data to increase understanding and to plan prevention and care. The document also makes recommendations for meeting each country's surveillance needs in the various states of their HIV/AIDS epidemic.

- **Initiating second generation HIV surveillance systems: practical guidelines**, UNAIDS/WHO working group on global HIV/AIDS and STI Surveillance, August 2002.
http://www.unaids.org/EN/resources/epidemiology/epi_recent_publications/secondgenhivsurveillance2002.asp

The purpose of the guidelines is to assist National AIDS Programmes (NAPs) and Ministries of Health in implementing second generation HIV surveillance systems through a logical and standardized process. More specifically, the guidelines are primarily addressed to programme managers, epidemiologists, social scientists and other experts working in or with national programmes on surveillance issues. The practical steps and recommendations place particular emphasis on the initial steps involved in the implementation of second generation surveillance systems. They include the following: assessment, consensus, plan and protocol development, implementation and, finally, monitoring and evaluation.

- **Guidelines for conducting HIV sentinel serosurveys among pregnant women and other groups**, UNAIDS/WHO working group on global HIV/AIDS and STI Surveillance, December 2003.
<http://www.who.int/hiv/pub/surveillance/en/ancguidelines.pdf>

These guidelines are written for NACP managers and epidemiologists responsible for monitoring trends in HIV prevalence in resource-constrained countries. These guidelines focus primarily on conducting serosurveys among pregnant women attending antenatal clinics. They also describe how to use and/or collect serosurveillance data from other groups such as the military, occupational groups, and blood donors, which can help characterize the epidemic, as well as help plan for prevention activities, clinical services, and resources. They guidelines also touch upon the use of HIV seroprevalence data among patients with tuberculosis (TB) and hospital inpatients, an important source of information on the impact of HIV on health services and for program planning and service delivery.