

Maternal Syphilis M&E in Liberia - Description of the Overall Approach

Background

Monitoring and evaluation (M&E) is a critical component of Evidence Action's support to the Liberian government. M&E activities will: (a) monitor both the process of and the progress towards scaling the HIV/syphilis dual test nationally, and (b) estimate the coverage reached in syphilis screening and treatment over the course of the program. M&E activities will further generate insights and learnings which can be disseminated to our government partners for evidence-based decision making and ultimately used to understand the result of a product switch from HIV single testing to HIV/syphilis dual testing.

This document aims to provide an overview of the core M&E objectives and how those objectives will be reached. Further development of the M&E strategy will take place once program activities begin in Liberia and there is further understanding of the local context.

Objectives of Evidence Action's M&E Activities

The proposed objectives of Evidence Action's M&E activities are:

1. Estimate the fraction (and number) of ANC-going pregnant women who are tested for syphilis and the fraction (and number) of ANC-going, syphilis-positive pregnant women who receive appropriate treatment;
2. Assess the quality of health provider training, mentorship, supply chain management, and data recording and reporting to identify gaps in these areas and inform subsequent programmatic activities;
3. Review process indicators to determine if the dual test and maternal syphilis screening and treatment are integrated into ANC and HIV counseling and testing services.

Achieving the M&E Objectives

In determining how we would achieve our M&E objectives, a theory of change was created, key performance indicators (KPIs) were developed, and data collection components were identified and designed. Here, we present the broad approach to fulfilling each objective.

M&E Objective 1: Estimate the fraction (and number) of ANC-going pregnant women who are tested for syphilis and the fraction (and number) of ANC-going syphilis-positive pregnant women who receive appropriate treatment

Screening and treatment coverage (the output of Objective 1) is a function of two factors:

1. Supply availability: Without tests and BPG available at the facility, no pregnant women can be screened and/or treated.
2. Provider adherence: When products are present, providers must still elect to follow the clinical guidelines related to screening and treatment. Provider adherence is influenced by two components:
 - a. Provider knowledge: Providers are unlikely to administer the dual test or to give BPG when a patient's test comes back positive if they are not aware that these are the recommended courses of action.
 - b. Provider/patient behavior: Once knowledgeable, providers must choose to deliver the appropriate services. Patient consent is also required for any testing or treatment to take place.

Supply availability and provider knowledge will be estimated through the Comprehensive Facility Survey taking place on a roughly annual basis (every 12-18 months). Supply availability will be assessed by a mix of quantitative and qualitative data collection, which will include inventory counting of non-expired syphilis tests and BPG injections available at the facility, review of the facility's supply requests and delivery receipts, review of dispensing logs, and interviews with pharmacists to assess challenges in supply management. Provider knowledge will be estimated via clinical vignettes administered to a sample of providers in the course of the Comprehensive Facility Survey. Clinical vignettes are a form of a "knowledge test" in which providers are assessed on their awareness of clinical guidelines via a mock ANC visit.

Provider and patient behavior will be initially estimated via a triangulation approach on a roughly annual basis as well (every 12-18 months). The triangulation method itself will be developed once more learning takes place in-country on the quality and availability of all potential data components. However, it is likely we will rely on a combination of the following data components:

- Supply data related to stock on hand, dispensing, supply issues, and supply orders taken from the Comprehensive Facility Survey, LMIS, and SCMU/CMS records;
- Facility records reviewed during the Comprehensive Facility Survey, to include HIV counseling and testing registers, ANC registers, and patient charts;
- Administrative data, namely HMIS;
- Qualitative interviews with providers.

Should the triangulation approach prove infeasible or provider/patient behavior is found to be a large contributor to low coverage, we will explore an alternative approach of direct clinical observation.

Data for both supply availability and provider adherence will be collected on a roughly annual basis (every 12-18 months) from a representative sample of facilities where dual testing has been introduced. Estimates of provider The individual estimates of supply availability, provider knowledge, and provider/patient behavior will be used to calculate the screening and treatment metrics.

M&E Objective 2: Assess the quality of health provider training, mentorship, supply chain management, and data recording and reporting to identify gaps in these areas and inform subsequent programmatic activities

An assessment of provider training will be done via clinical vignettes and qualitative interviews administered to health providers in which we will directly measure knowledge retention following the training. The content and methodology of future trainings may then be modified in light of how well providers perform on the clinical vignettes and by a qualitative assessment of barriers providers face in the transition from HIV-single tests to HIV/syphilis dual tests.

An assessment of mentorship will be done by reviewing whether facilities demonstrate increased coverage of syphilis screening and treatment as determined by data in Liberia's HMIS, LMIS, and supply orders following the mentorship visits. The frequency and coverage of mentorship visits will be guided by HMIS data, LMIS data, supply orders/issues, and other programmatic data. The initial mentorship strategy will include targeted facilities that reported significant under-utilization of commodities relative to expected levels or reported over-use of commodities such that there are concerns of misallocation among patient populations. If all facilities report under-utilization and/or over-use, a universal approach to mentorship will be explored to replace the targeted approach.

An assessment of supply chain management will be conducted across multiple levels and identified gaps will be used to design further program activities. Facility-level availability, dispensing, and supply management will be rigorously assessed annually via the Comprehensive Facility Survey. This will be accompanied by reviews of consumption and availability data in LMIS, as well as supply orders and issues data and ongoing monitoring of stock-outs reported at the facility, county, and national level.

An assessment of facility reporting will be conducted annually by reviewing HMIS and LMIS records, comparing HMIS data to facility registers and patient charts among a sample of facilities, and comparing LMIS data to direct counts of inventory among a sample of facilities.

M&E Objective 3: Review process indicators to determine if the dual test and maternal syphilis screening and treatment are integrated into ANC and HIV counseling and testing services

Integration of the dual test and maternal syphilis screening and treatment into the country's ANC and HIV counseling and testing writ large is one of the main goals of Evidence Action's support in Liberia. Currently, we have identified 5 key steps to program integration.

1. Government financial commitment, including inclusion in donor proposals (e.g. Global Fund), to scaling the dual test in facilities offering ANC and HIV counseling and testing services;
2. Updated national HIV testing guidelines that recommend the dual test when screening pregnant women for HIV;
3. Inclusion of maternal syphilis in regularly occurring national coordination and planning meetings focused on HIV, PMTCT, and/or ANC with government and non-government stakeholders;
4. Sufficient availability of commodities (specifically dual test kits and BPG injections) at national-level; and,
5. Updated provider training curriculum, job aides, facility registers, and monitoring forms that include maternal syphilis screen and treat.

Most of these steps can be monitored through government, NACP, and Evidence Action records and guidelines. To monitor commodity availability at the national-level, we will use procurement records from Global Fund, government, and Evidence Action as well as records from the Central Medical Store. The indicators related to program integration will be tracked annually with timelines adjusted based on the timing of activities (procurement, program planning, etc.)