

EID and VL Site and Product Selection Tool – Summary and Guidance Document

Overview

Historically, in the diagnostics sector, decision-makers have lacked sufficient information to make informed product selection decisions. Although suppliers generally provide Ministries of Health (MOHs) with extensive marketing materials, MOHs often lack comprehensive and unbiased information to select products that are most appropriate for their countries. In addition, in order to adhere to public procurement principles, MOHs have an obligation to demonstrate that a rational and transparent process has been followed to select products for procurement. To address this gap, CHAI has developed the EID and VL Product and Site Selection Tool, a decision-making tool designed to support broader POC product and site selection discussions amongst national stakeholders and assist countries with selecting the most appropriate point of care (POC) VL and EID products and sites for their country contexts.

Highly adaptive to country context and national diagnostic priorities, the EID and VL Product and Site Selection Tool helps countries identify the optimal mix and placement of POC technologies at the health facility level to maximize patient impact and efficiency. Importantly, the tool is also iterative and exploratory in nature allowing countries to improve on their decision-making processes over time.

While this tool can be used to analyze any POC product, the tool currently includes the following product selection options:

- mPima (Abbott)
- GeneXpert (Cepheid)
- Omni (Cepheid)
- Samba II (Diagnostics for the Real World)

How it Works

This Excel-based tool analyzes country-level data to assess the best type of POC technology for use in specific health facilities based on cost, geographic location, and throughput, in order to best meet the country's diagnostic needs.

It contains seven key tabs (steps) as well as an Appendix, which includes product and device information.

1. Step 1: Key Inputs

- a. Countries enter existing information related to their testing algorithms, laboratory infrastructure and operations, costs, coverage levels, testing needs, and desired targets.
- b. Countries choose their most important testing priorities, such as minimizing cost, reducing distance from testing facilities, or maximizing patient coverage.

2. Step 2: Facility Profiles

- a. Countries enter facility-level information such as ART patient volumes, PMTCT patient volumes or past EID test volumes, distance/time to the nearest testing location, turnaround time, and types of VL/EID machines currently present in facilities.

3. Step 3: Gap Analysis

- a. Countries enter their desired percentage of facilities that have POC testing vs. conventional testing and estimate their desired balance between increasing the number of patients covered and decreasing the distance to a lab. This information helps identify the optimal balance between centralized and decentralized testing over time.

- b. Countries view a detailed cost analysis of their current laboratory system, including the gaps in the numbers of needed tests, differences in device/reagent/overhead costs, and the total cost per POC vs conventional test. This information enables users to better understand their overall coverage levels and assess tradeoffs between cost and patient outcomes by experimenting with changing the balance between conventional and POC testing in their country.

4. Step 4: Product Selection

- a. Countries assign weights to different performance criteria for diagnostic testing in their country, such as throughput, need for electricity or refrigeration, cost of device or reagents, price of service & maintenance, or other key factors relevant to the country.
- b. Countries refer to the Product Information Guide in the Appendix to score each of the available POC products based on their earlier selected criteria.

5. Step 5: Site Selection

- a. Countries view ranked recommended sites in their country for POC rollout based on their choices in Step 1b, and can select individual sites for POC deployment.

6. Step 6: Product Assignment

- a. Countries select eligible POC devices to be deployed at individual facilities based on suggested POC product recommendations. The suggested POC device minimizes cost while meeting the country's inputted performance criteria requirements.

7. Step 7: Final Output

- a. Countries view their updated coverage testing levels based on POC product selections and site selections, their final budget, and their final selections.

Data and Programmatic Inputs

First, the tool relies on site-level data on patient volumes, current availability of EID and HIV VL testing, conventional result turnaround times (TATs), and physical infrastructure. Completing the tool will require access to accurate site-level data. Gathering and validating this information, if it is not already collected as part of a routine national M&E exercise, can be time and resource-intensive. Prior to completing the tool it is recommended that the government and relevant stakeholders assess the availability of site-level data and make provisions to ensure that accurate information is available for the completion of the POC EID and HIV VL Product and Site Selection Tool.

Second, in order to estimate the testing need national-level program information will be required in the following areas:

- Country Guidelines
- Lab Infrastructure and Operations
- Sample transport costs
- Cost of running centralized lab
- Cost of running POC
- Health impact

While global data can be used to populate some of these figures, the outputs will only be as accurate as the inputs, so accurate national data is preferred. Some of these indicators may be available as part of routine reporting. It is recommended that the government and partners review the required inputs and make the necessary provisions to gather the required information.

Finally, the tool ask for several assessments of program priorities, which are used to determine the relative suitability of all available POC products. While these do not require program data, it is important that the key stakeholders are aligned around the selected priorities. It is recommended that a POC Taskforce or similar body comprised of relevant stakeholders be convened to agree upon the programmatic priorities, which will be entered into the POC EID and HIV VL Product and Site Selection Tool. The body can subsequently assist in overseeing the implementation of POC testing, including the development of an implementation plans and subsequent deployment of technologies.

This tool can provide powerful insights about the optimal placement and distribution of POC devices within a particular country context, and should be used as a key component of broader POC product and site selection discussions with national stakeholders.