



## UTILIZING KENYA'S REMOTE LOGIN TO SUPPORT VIRAL LOAD SCALE-UP



*Remote Login is system functionality that enables facilities to log and register samples at the facility level onto the testing lab's LIMS, monitor testing progress, view results and retrieve historical results.*

The scale-up in viral load (VL) testing is critical for meeting UNAIDS and PEPFAR 90-90-90 goals. Data management and ability to transmit data back and forth electronically between remote locations and testing laboratories is key to reducing turn-around time and maintaining data accuracy. Kenya's remote login helps accomplish these goals.

## Background

In June 2014, the Kenya Ministry of Health's National AIDS & STI Control Program (NASCO) adopted new antiretroviral therapy (ART) guidelines, making HIV VL testing routine for monitoring of adherence to treatment, detection and reduction of treatment failure, and ensuring long-term viral suppression. In accordance with the national HIV VL testing algorithm, all HIV-infected children, adolescents and adults initiating ART (first-, second- or third-line ART regimens) must receive a VL test at six months and one year following ART initiation, and one annually thereafter.

### Laboratories Participating in Kenya's VL Scale Up

- Coast Provincial General Hospital Laboratory, Mombasa
- KEMRI CVR P3 Laboratory Nairobi
- KEMRI CIPD CR laboratory Alupe, Busia
- National HIV Reference laboratory (NHRL) Nairobi
- KEMRI HIV /R laboratory Kisumu
- Walter Reed /DOD laboratory, Kericho
- AMPATH CARE laboratory, Eldoret
- Kenyatta National Hospital CCC, Nairobi
- Nyumbani Diagnostic
- Eastern Deanery AIDS Relief Program

Since then, VL testing has increased from a monthly national average of 15,000 tests to 112,000 by August 2018. Ten laboratories, distributed throughout Kenya, perform HIV VL tests for the National Public Health Laboratory Network (NPHLN).

The VL network operates on a hub and spoke hierarchical system. Samples (dried blood spot and plasma) are sent from a "spoke" collection facility (laboratories and healthcare facilities) to a "hub" (a higher-tier laboratory serving several peripheral spokes), consolidated and sent to one of the ten NPHLN testing laboratories.

## Development of VL Remote Login

Previously, all samples from spoke and hub locations were delivered to testing laboratories with accompanying paper test request forms. Data clerks would enter data from these forms into the laboratory information management system (LIMS) while verifying acceptability of the sample. As volumes of samples increased, so did backlog – resulting in long turnaround times,

To address this challenge, the VL technical working group, together with donor agencies, conceived of having the requesting facilities log the specimen information themselves and transmit it to the testing laboratories.

Now, all the VL testing labs are networked to the NASCO website; results are uploaded by the testing laboratories and can immediately be downloaded and transferred to patient files at the peripheral facilities. See Figure 1 for more information.

## Objectives

- Improve quality of HIV VL data entry.
- Reduce results turnaround time (From sample collection, to results dispatch, back to the requesting facility).
- Make results available to clinicians in a timely manner, hence improving patient care.
- Reduce transcription and rejection errors.

## Stake Holders

### Central Testing Laboratory

- Data Management Team
- QA and Lab manager

### Requesting Facility

- Data Entry staff / Lab technicians

### Service Delivery at the Facility

### Lab partner at the facility

- Lab mentors implementing CQI
- Clinicians/CCC team

## Expected Benefits

- Reduced TAT From >14 Days to <7 Days
- Reduced transcription errors.
- Reduced rejection of samples due to incomplete information.
- Increased visibility of the testing stages
- Quick feedback especially on sample rejection
- Ease on Result access
- Ease on Historical result retrieval
- Reduced workload at the testing labs

## Minimum Requirements

### Computer

At least, 2GB RAM, 500GB HDD, Co i2 or equivalent and minimum of XVGA (1280 x 1024) resolution.

### Internet Connectivity

At least 30mbps on a fixed line. If a fixed line is not available, a reliable, regularly charged modem or internet modem with data bundles.

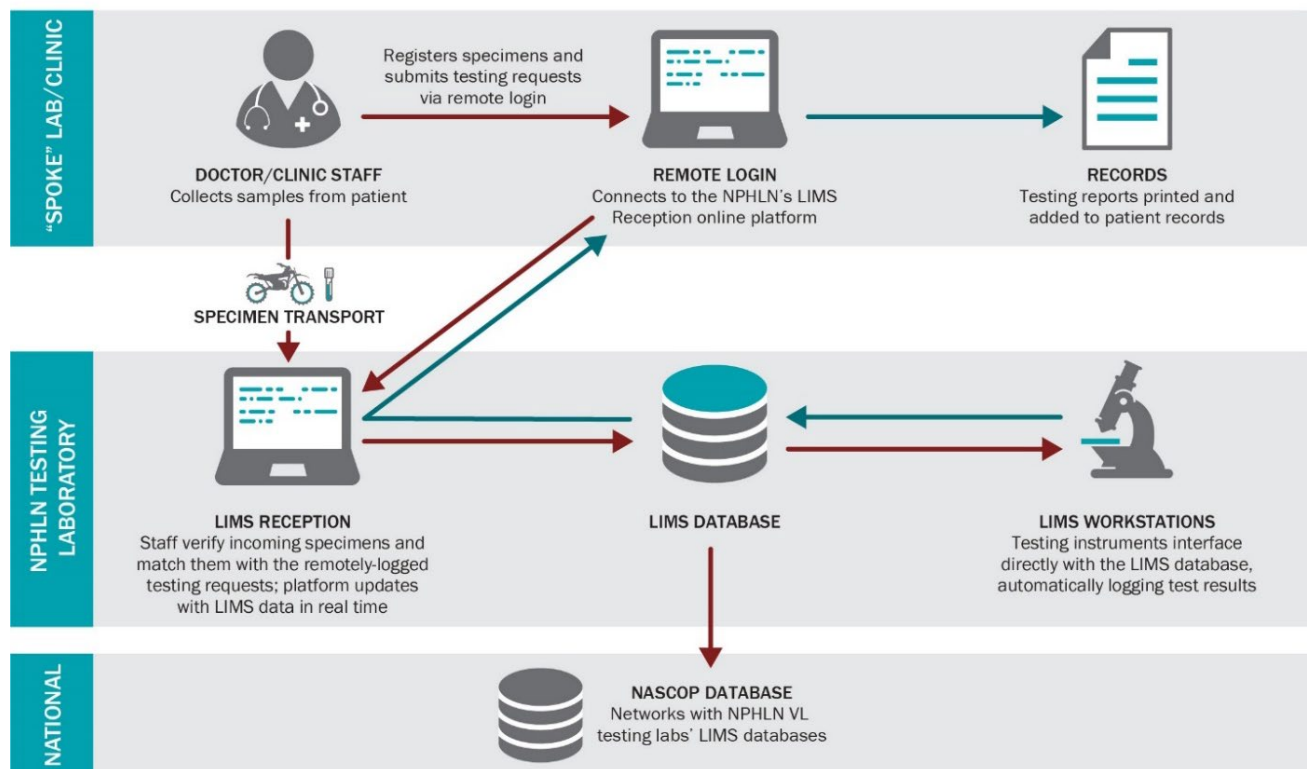
### Printer

Basic Laser Jet printer (lower maintenance costs than inkjet).

## Implementation Process

1. Site Selection
2. Site Assessment
3. Remote Login Team Selection
4. Infrastructure Modification
5. System Installation
6. User Training
7. Go Live!

## TRANSMISSION OF VL RESULTS FROM "SPOKE" FACILITIES



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This communication was 100% supported by Cooperative Agreement # U2GGH001097 from Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC or the Department of Health and Human Services.



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