

# Viral Load Monitoring and the Last 90

## VL Snapshot

*An inventory of facility and laboratory capacity  
and needs for Viral Load monitoring*



**OPHID Snapshot Brief No.1**

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## VL Snapshot Background

### Viral Load Monitoring & the Last 90

It is well acknowledged that achieving the last 90 – ensuring 90% of all PLHIV on antiretroviral treatment (ART) are virally suppressed – will require a global push to build human resources and laboratory capacity to increase access to VL monitoring.

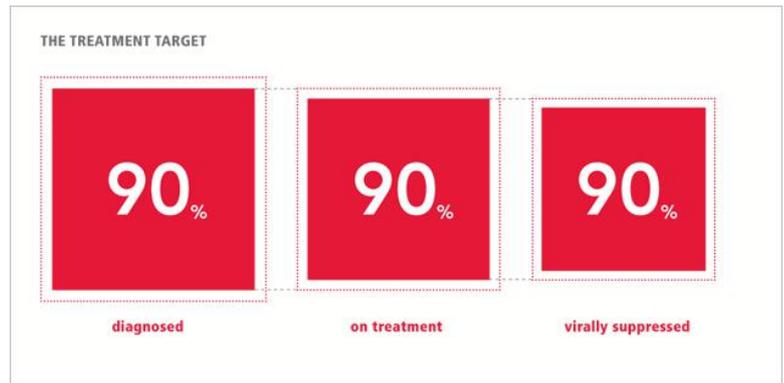


Image source: [www.unaids.org](http://www.unaids.org)

Targeted assessments at health facility, district and national level establishing existing bottlenecks in ability to provide Viral Load (VL) monitoring, will therefore be required to chart Zimbabwe’s progress in reaching the last 90s.

### FACE HIV - Responding to MOHCC Information Needs

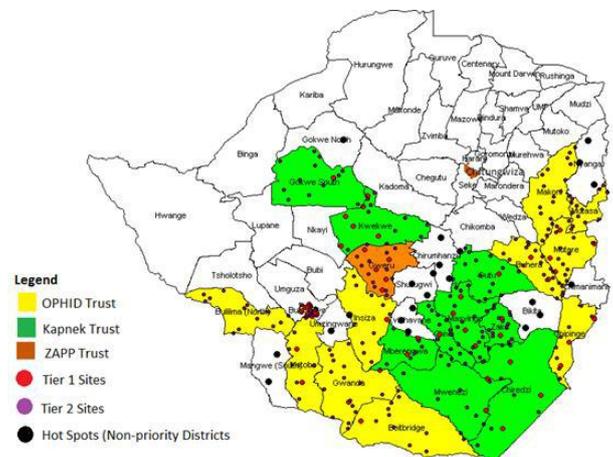
This snapshot inventory was conducted in response to Ministry of Health and Child Care (MOHCC) Viral Load (VL) Technical Working Group (TWG) calls for implementing partners to support MOHCC in providing an accurate picture of VL capacity and coverage ‘on the ground’. OPHID, together with Families and Communities for Elimination (FACE) HIV program partners JF Kapnek Trust and ZAPPT, acknowledged that effectively supporting the rapid scale up of Viral Load (VL) Monitoring among PLHIV will require establishing existing VL monitoring capacity in the Districts it is supporting MOHCC. In March 2016, a baseline assessment of VL monitoring capacity and ‘diagnosis’ of the key bottlenecks to effective VL scale up in each of the 22 Districts it operates in was conducted.

### Goals and Objectives of VL Monitoring and the Last 90 Snapshot

**Goal:** The goal of the Viral Load (VL) snapshot assessment was to establish existing capacity and functionality of VL monitoring in the 5 Provinces where OPHID and partners implement the Families and Communities for Elimination of HIV (FACE HIV) program.

#### Specific Objectives:

1. **COVERAGE & FUNCTIONALITY:** Describe the availability of VL monitoring in each District and the functionality of equipment.
2. **HUMAN RESOURCES:** Document the human resources trained and in-post for conducting VL monitoring.
3. **BOTTLENECKS AND BARRIERS:** Identify existing bottlenecks and barriers to effective and efficient use of VL monitoring, in line with existing Ministry of Health and Child Care (MOHCC) policies and targets.



FACE HIV Program Districts (N=22)

## Limitation of VL Snapshot – A Rapidly Changing Scenario

The strength of the VL Snapshot – its timely collection, analysis and feedback to MOHCC and partners - is also its primary limitation. As MOHCC and partners invest heavily in scaling up health care worker and logistical capacity to provide HIV testing, treatment and monitoring to all PLHIV, a rapidly evolving health system capacity context is at play. It is likely that since the VL snapshot assessment was conducted, existing capacity and bottlenecks have changed. However, VL Monitoring and the Last 90 Snapshot provides OPHID, MOHCC and partners a useful baseline from which to track future progress, while highlighting key programmatic ‘take home’ messages.

## Acknowledgements

The Organisation for Public Health Interventions and Development (OPHID) Trust expresses its gratitude and appreciation to the leadership of the Ministry of Health and Child Care and Families and Communities for Elimination of HIV (FACE HIV) in Zimbabwe program partners J.F. Kapnek and Zimbabwe AIDS Prevention Project Trust (ZAPPT) for their support and participation in the VL Snapshot Assessment in each of the 22 Districts where it operates.

We gratefully acknowledge the support of the President’s Emergency Plan for AIDS Relief (PEPFAR) through USAID for the FACE HIV Program in Zimbabwe (AID-613-A-12-00003). This support enables OPHID and FACE HIV consortium partners (J.F. Kapnek Trust and ZAPPT) to directly support over 330 high priority health facilities across the country within the Zimbabwe National HIV Care and Treatment Program of the Ministry of Health and Child Care.



*Families and Communities for Elimination of HIV - FACE HIV Program  
Together we will end the AIDS Epidemic in Zimbabwe by 2030*

# VL Snapshot Key Findings

**Who:** FACE HIV Consortium Program officers (OPHID, ZAPPT and Kapnek) and District Health Authorities

**When:** March 2016

**Where:** 22 Districts

## Sample Collection

### 50% Districts (11/22)

Not currently implementing any VL monitoring strategy, or taking samples for VL.

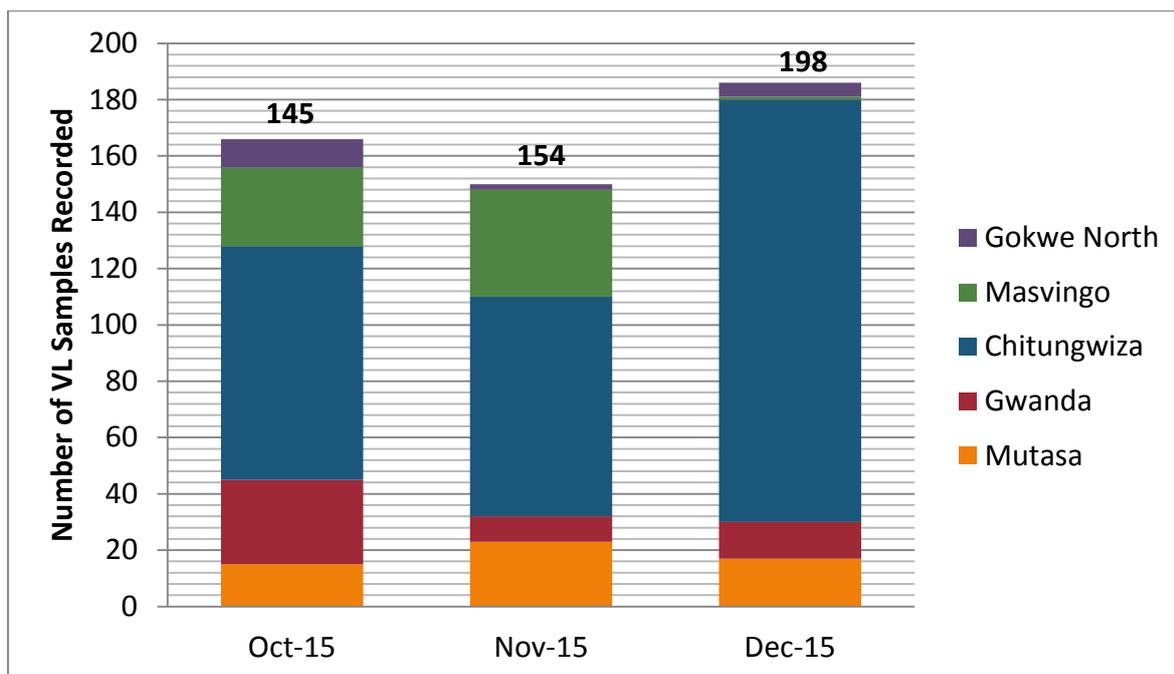
## Great variability

On all aspects surveyed – from number of sites performing VL monitoring in each district, the reported approach used (DBS or plasma), to the transportation and result notification systems.

## Documentation challenges

Indicated – while 11 Districts indicated they are conducting VL monitoring, only 5 Districts contribute reported VL samples from October – December 2015. We estimate that the true number of VL samples processed is greater than that reported, but that fragmented systems for managing and reporting VL monitoring result in incomplete documentation of monitoring activities in MOHCC health information systems.





VL Samples 22 Districts Surveyed Oct-Dec 2015

## Cost of VL monitoring

### In District: Free

All districts conducting VL monitoring reported the services were provided free of charge to clients.

### Referrals: \$\$\$

Districts where patients are referred out-of-district for VL monitoring services, the reported cost of these services ranged from R500 to \$100USD at private laboratories.

Cost at private laboratories would likely preclude access of VL monitoring for the majority of PLHIV.

## Training

Among 22 Districts surveyed, serving over 528 health facilities:

**Total of 36 health workers trained** to take plasma samples for VL monitoring.

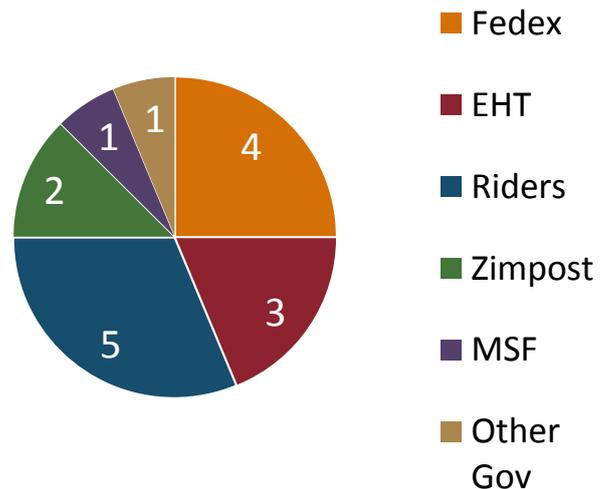
**Less than ½ of all Districts** had any health staff trained to take plasma samples for VL.

# Sample Transportation

**Complex** sample transportation systems at present - comprised of poorly coordinated networks involving multiple providers, systems and accountability measures.

## Implementing partner dependent

Sample transportation networks reported as partner-dependent by geographical region, with general District pattern. However, multiple Districts, reported multiple transportation systems, with variation due to site-level partner support. For example, Mutare District reported sample transport by both Riders for Health and EHTs, and Gokwe N and S reported samples transported by all (Fedex, EHT, Riders and Zimpost). Makoni District reported samples were currently transported by MSF and Mutasa District reported Government vehicles collecting any VL samples daily for transport to Mutare.



VL sample transport method by District (N=22)

## Frequency of sample collection

Varied by District. The most common frequency of sample collection reported was **weekly** (6 districts), followed by **daily** collection/collection on demand (4 districts), and monthly collection in one district. The variation in sample collection was noted as a concern in terms of procedural clarity and maintaining integrity of samples.

*'The courier only comes to the district hospital twice a week and we are not yet aware how long the specimens can be kept at room temperature before transportation to the lab.'*

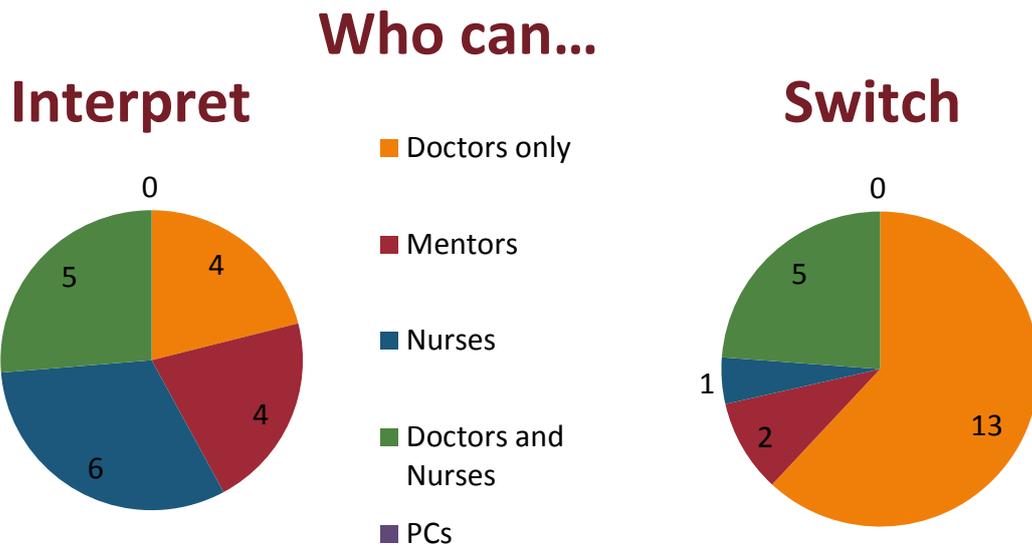
## VL result notification

Similar to sample transportation, the systems used to notify patients of their VL results varied greatly by District. Most commonly reported notification system was SMS to clients (n=5), followed by next scheduled appointment (n=2) and same-day collection from centres where samples are processed on-site (n=2).

# VL result interpretation and action

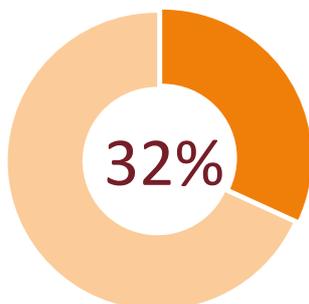
## Potential bottlenecks

Discrepancies in who is able to interpret and action (switch ART regimen if required) VL monitoring results underscores the need for **consistency in procedural approaches** to VL monitoring to be developed and clearly communicated as scale-up continues.



A **potential bottleneck between interpretation of results and ability to action results** is indicated with nurses able to interpret VL monitoring results in 6 districts but only able to initiate a regimen switch based on VL results in 1 district. Increasing access to VL monitoring services will require simultaneous decentralisation of skills required to interpret and act of VL results.

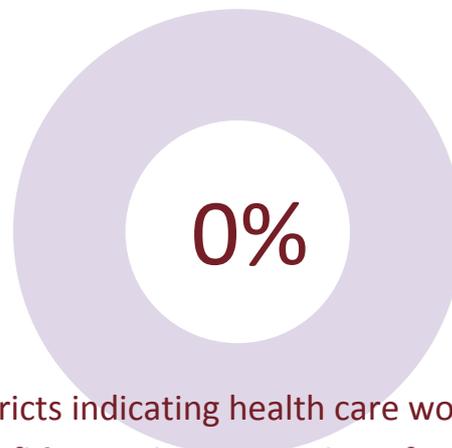
## Enhanced adherence counselling



Districts with Primary Counsellors (PCs) trained in enhanced adherence counselling

In addition to ensuring access to VL machines for all districts for scaling up VL coverage - human resources and healthcare worker capacity to sample, interpret and act on VL monitoring should be considered a programmatic priority.

FACE partner efforts to rapidly decentralise and train health care workers on-site in the collection, interpretation and action on VL samples will have a huge impact on health care workforce capacity to not only increase the coverage, but meaningful use of VL monitoring results to improve patient outcomes.



Districts indicating health care workers are **“confident at interpretation of VL results”**

## VL targets

**Only 18% aware of a VL target** for their District.

Among those who were aware of a target (Mutare, Mutasa, Insiza and Gokwe N), the nature and reason of targets also ranged from 50-100 for the year 2016 to all PLHIV in the district. This disconnect between national level 90-90-90 targets and awareness of those targets among implementers requires urgent action and site-level mentorship for a ‘bottom-up’ approach to target attainment and effectively addressing the key bottlenecks to achieving VL monitoring scale up.

## VL Laboratory Platforms

- **Labs Surveyed:** Bulawayo Mpilo, Chitungwiza, Mutare Provincial
- **3 labs collectively receive VL samples from over 85 health facilities** and referrals from others.
- **VL Platform:** Roche used in Bulawayo, Mutare; CAVIDI in Chitungwiza
- **Specimens processed:** plasma processed by all 3
- **Test method:** minipool (3/3)
- **Current VL processing capacity:** range 30 every 3 days to 126
- **Current functionality:** All machines currently functioning
- **Breakdowns:** 2/3 reported breakdowns in past year (one for 3 days; other for 2 months)
- **Reasons for breakdown:**
  - hardware problem
  - no lamp for machine

## Key barriers to optimal VL platform functionality

### From a laboratory perspective:

- Availability of samples from facilities
- Some sites not able to submit required sample amount of 5mls hence the lab staff end up sending to Harare for DBS thereby affecting TAT
- Time taken to complete one run
- Reagent and consumable supply
- Human resources
- No backup
- Bearing problem on transfer arm (wear and tear)

## Human resources for VL labs:

Of 3 major laboratories service population of 348 220 PLHIV on ART:

- Total of **6 full time and 2 part-time staff** trained to process VL specimens
- All met minimum staff required
- Sites indicated additional 31 staff in post capable of processing VL samples if trained
- Staff holiday or sick leave frequently noted reason for no VL specimens being processed.

## VL Results Notification (lab to site)

- All labs sending/providing **physical paper-based results back to sites**

**Barriers to timely TAT of results to sites:**

- Reliable and consistent transport
- No stationery and results printing consumables
- No frontline SMS for VL

## 2/3 labs did not know their VL target for 2016

# Snapshot Take-Homes

The VL snapshot assessment findings reported in this brief represent a rapidly evolving landscape of equipment, capacity and coverage for essential monitoring services for PLHIV in Zimbabwe. This assessment has established the following key findings for consideration by MOHCC in policy and programs:

**1. VL monitoring is a rapidly changing landscape, though coverage remains very low.** Our findings indicate in half of the Districts where OPHID and its partners in the FACE HIV Program operate, PLHIV do not have access to VL monitoring at their primary health care facilities. The findings presented in this brief will provide a useful baseline for tracking progress in increasing coverage.

**2. There is opportunity to improve efficiencies of existing VL monitoring processes and information systems.** Existing VL monitoring capacity is not currently being maximized due to documented inefficiencies in sample collection and transportation from sites; reliance on physical results systems; and underutilisation of existing human capital. At present, due to small numbers of qualified staff to process samples, staff illness, holidays or attrition have the potential to greatly interrupt processing of VL specimens. Greater coordination between implementing partners and MOHCC is required to optimise transportation and information networks and processes at District

and site level. Optimizing existing process has the potential to increase efficiencies and lead to increased access to VL monitoring services.

**3. Increasing access to VL monitoring machines will require corresponding increase in health care worker capacity.** Mixed findings regarding who is able to interpret VL results and switch ART regimens when necessary highlight need to decentralise skills in VL result interpretation to site-level. Increasing access to VL monitoring services will only yield positive impact upon the health of PLHIV if VL monitoring translated to improved clinical and adherence counselling actions to achieve viral suppression, and the 3<sup>rd</sup> 90.

**4. Achieving the Last 90 will require improved communication of policy goals and District and site targets.** The majority of Districts and laboratories were not aware of their VL target for 2016, despite MOHCC setting clear goals for scaling up VL monitoring over the next year. Achieving 90-90-90 will require the concerted and organised effort of multiple levels of the health system toward common objectives, that must begin with an appreciation of the ambitious targets set forth by MOHCC by all health system actors. Awareness of targets enables setting and tracking of performance goals at multiple health system levels. Target-driven performance management and quality improvement activities implemented by OPHID, Kapnek, ZAPPT and other partners of MOHCC should not only seek to track progress, but also efficiently identify key bottlenecks and context-driven program actions required to reach the Last 90 in Zimbabwe.



*Committed to doing what it takes to achieving the Last 90 – Viral Suppression Families and Communities for Elimination of HIV - FACE HIV Program*