Breaking the Barriers to ART Monitoring: Uganda's Strategy for Public Sector Viral Loading Monitoring Implementation

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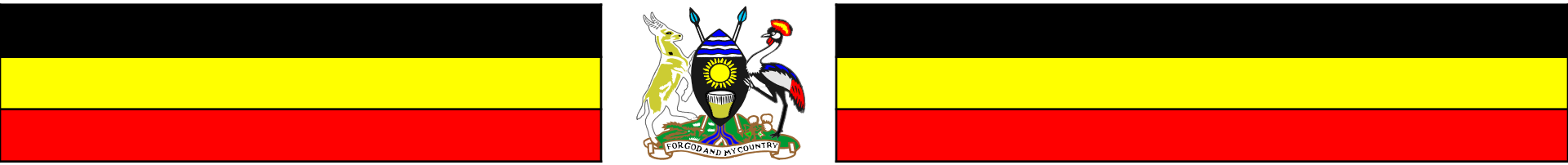
ASLM 2nd INTERNATIONAL CONFERENCE

Cape Town

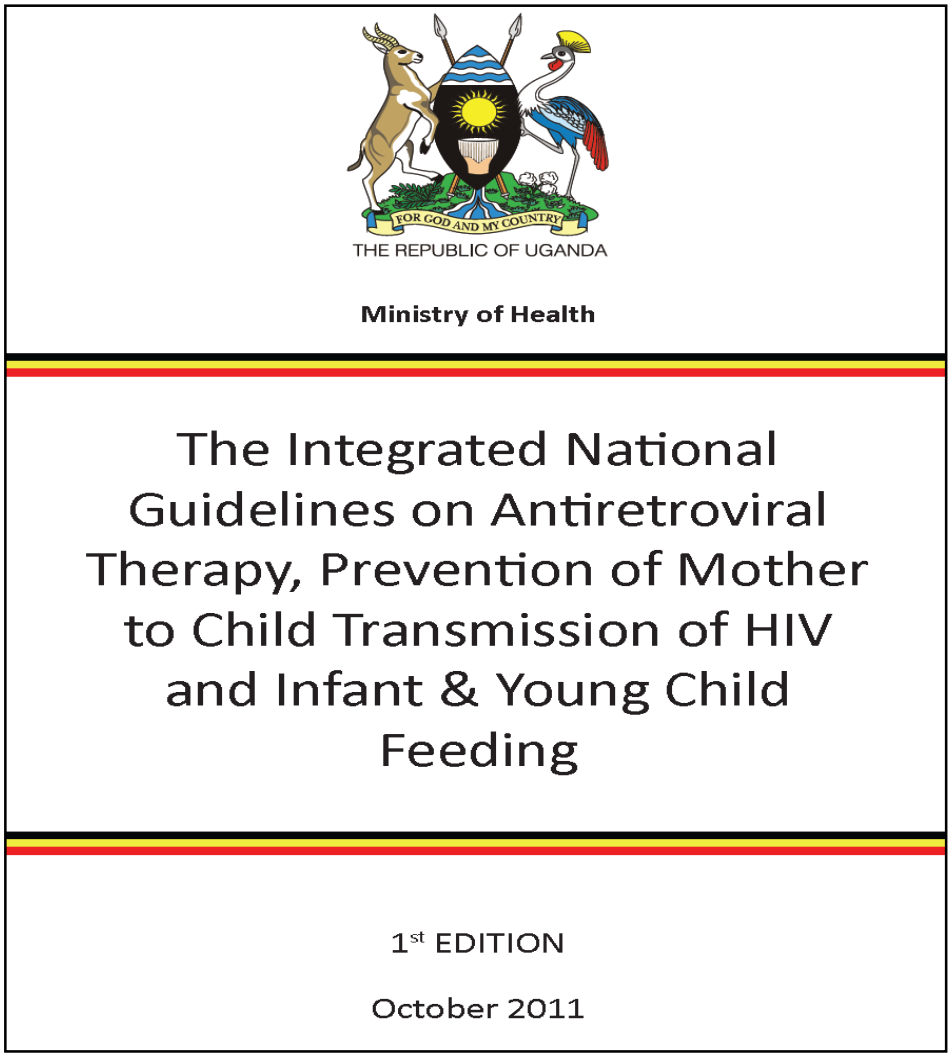


Background to Viral Load In Uganda

Normative Guidance:

- Uganda adopted the 2010 WHO guidelines in October 2011

- Owing to cost limitations, Viral Load Testing, **where available and affordable**, was maintained as an optional test largely for patients suspected to be failing ART



Background Continued

VL Testing Capacity:

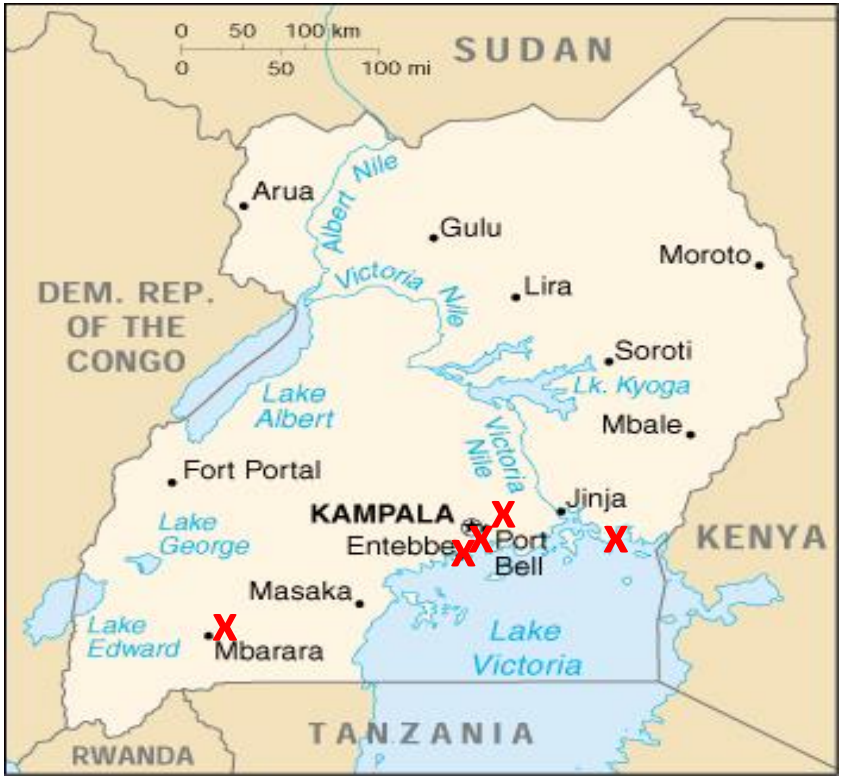
- 7+ platforms as of 2011
- At 5 partner labs
- Mainly in Central Uganda

Access to VL:

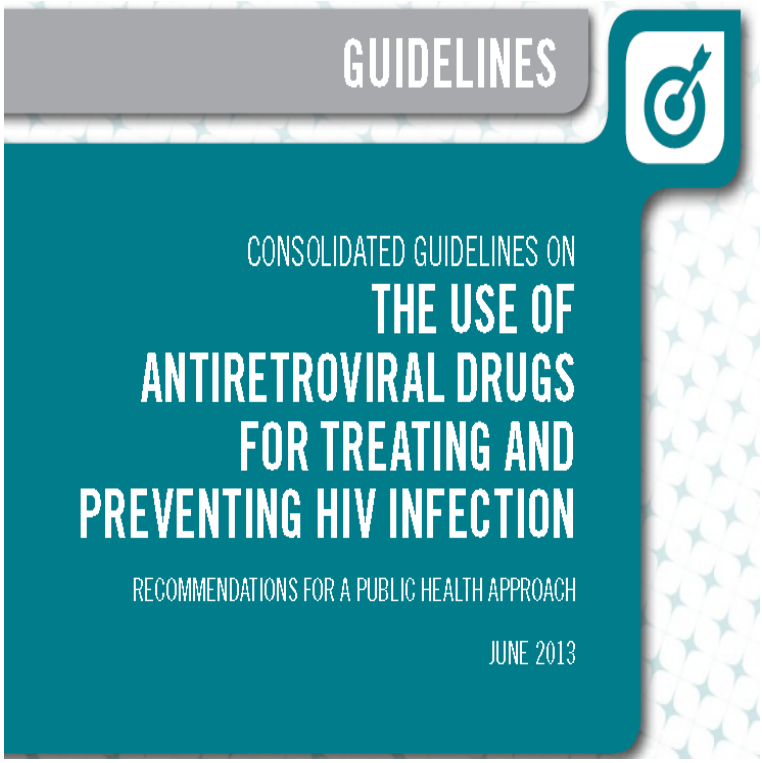
- Suboptimal utilisation(<13%)
- Access: <10% of those in need
- Largely confined to research

Equipment Capacity at Select Partner Labs

Testing facility	Equipment	Location	Capacity /year	Total Number of Tests 2011
JCRC-Mengo	1 Roche & 1 Abbott automated platform	Kampala	79,560	14,465
JCRC-Kakira	1 Abbott automated platform	Kakira	48,360	
Mildmay Uganda	1 Roche automated platform and 1 Abbott Platform (not in use)	Kampala	31,200	14,470 (combined)
MUJHU	2 Roche automated platforms	Kampala	62,400	
Total	7 platforms		**221,520**	**28,935**



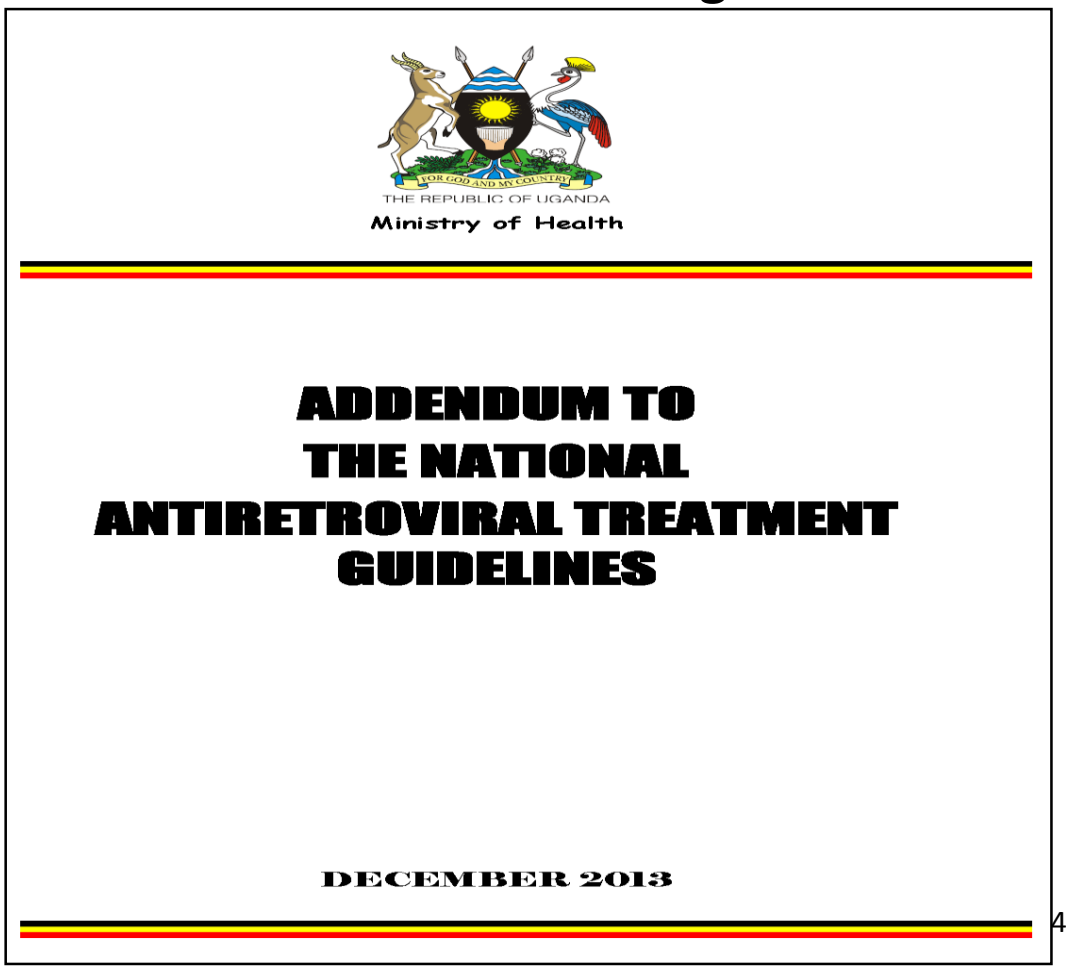
June 2013 WHO Guidelines: How prepared was Uganda to take on the Routine VL recommendation?



However, there was no MOH-owned capacity for public sector VL testing

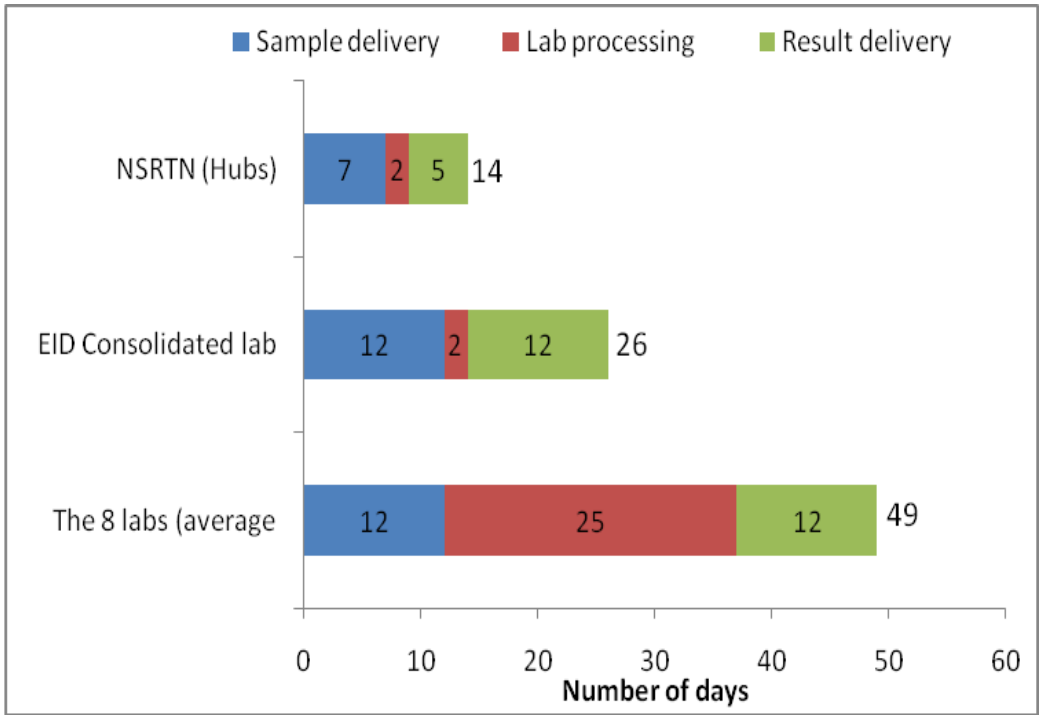
But, there were good lessons learned from the EID program

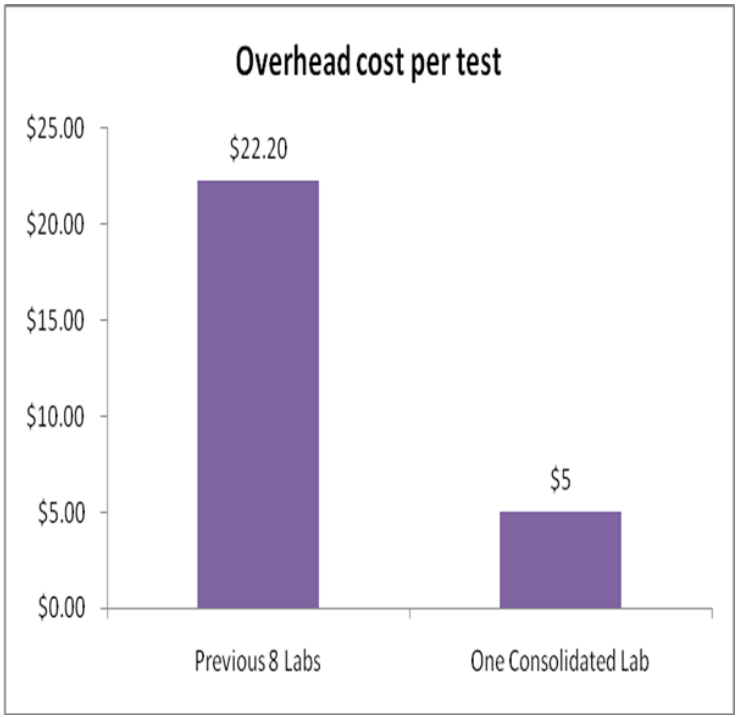
Uganda was among the first countries to adopt the 2013 ART Guidelines including VL for routine ART monitoring



Experience gained from the EID Program

Marked reduction in result turn-around-time and overhead costs

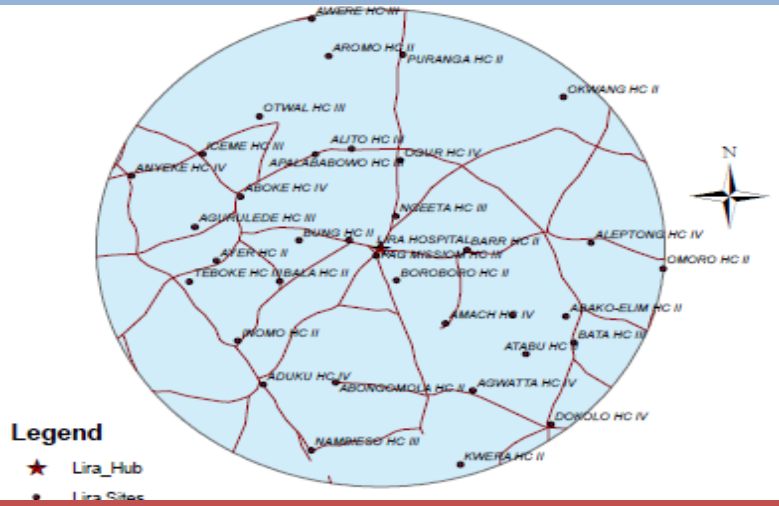




In addition, the EID program could also avail efficient and cost-effective infrastructure such as IT systems, GSM Printers and the Hub-based National Specimens and Result Transportation Network which would come in handy for VL scale-up

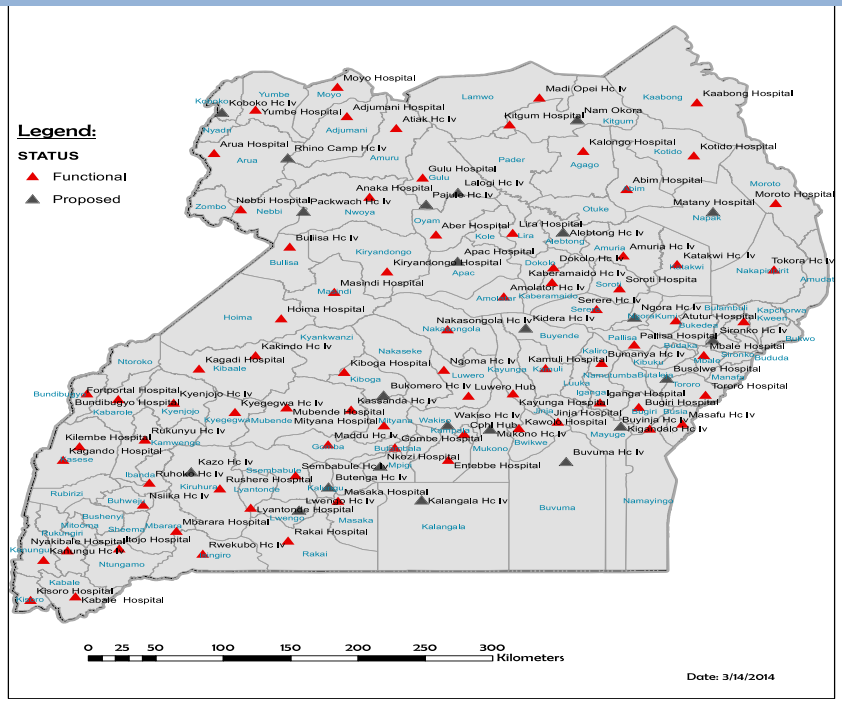
The Hub-based National Specimens and Result Transportation Network

Structure of the hub network



The bike and rider given to each hub

Map showing current Hub Distribution



- **82 hubs reaching 2400 health facilities with viable laboratories conducting most of the tests for the 30 or so lower facilities in its catchment**
- **Strategy is to have 100 hubs and strengthen lab services such that lower sites access them through the NSRTN**

Rationale for Public Sector VL implementation

"In **2011**, a reported **28,935** tests were performed, representing **13%** of the total estimated testing capacity. Updated figures from PEPFAR for **2012** show little change, with an estimated **25,000** tests performed over the course of the U.S. Government 2012 fiscal year. The **underutilization of existing platforms** and **low testing numbers result** from **a confluence of factors**, including **access challenges**, **high test costs** and **long TAT**. Partner labs also only target those patients suspected of failing treatment for testing and largely **confine programs to research**. In light of these challenges, **Uganda must develop an efficient and cost-effective government-driven viral load test delivery system accessible to all patients on ART**"

There was strong evidence to justify the case for the establishment of a government-owned and run VL testing program. The experience from EID centralization laid the foundation for VL

What were the next steps?

1. Importantly, MOH needed to put its decisions in writing: A **VL Monitoring Concept Note** spelling out the specifics: ***centralization of testing, use of DBS samples for rapid scale-up and the required support from health development partners***
2. A **Costing Model** to inform the funding implications for the transition from CD4 to VL
3. Developing the **VL testing algorithm (s)**

4. **Consultations with local Stakeholders** to align plans and obtain consensus
5. **Negotiations** with equipment vendors for **free placements** and **lowered test prices**
6. **Requesting** for **Technical Assistance** from Partners

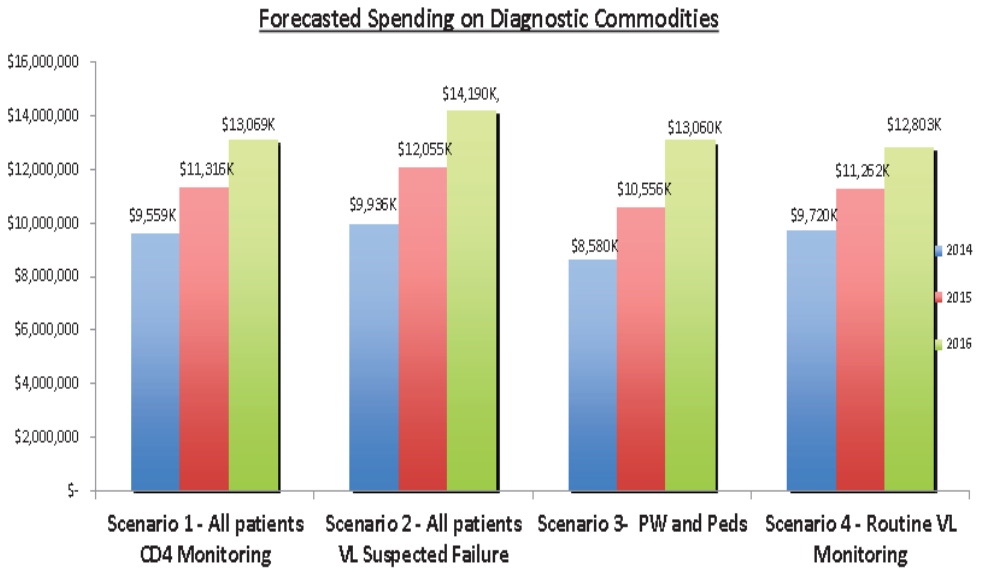
The Viral Load Costing Model

The model projected the cost of implementing VL between 2014-2016 using various **scale-up scenarios**, a number of **agreed assumptions** & a negotiated **cost per test** compared to CD4 testing

Scenario 1 – CD4 Monitoring	2 CD4 tests/year
Scenario 2 – Suspected Failure	VL testing for patients with suspected treatment failure
Scenario 3 – Pregnant Women and Peds	VL testing for adults with suspected failure , plus routine monitoring for all pregnant women and children
Scenario 4 – Routine Monitoring	Routine monitoring testing for all ART patients

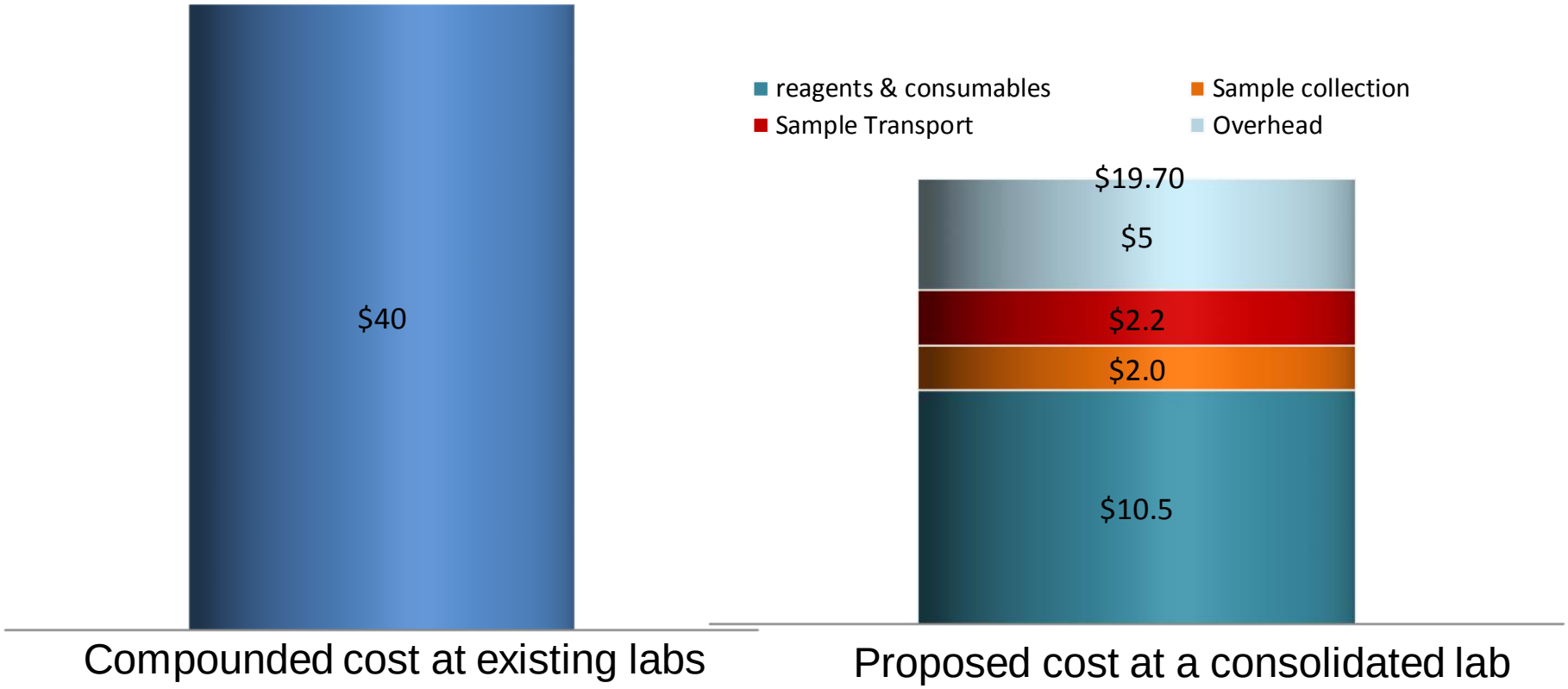
- The model draws upon the following source data:

- Uganda MOH ACP National Targets, June 2013
- Uganda MOH Master ART Site List, June 2013
- Uganda MOH Lab Commodities Quantification, July 2013
- Scientific studies (specific sources contained with relevant assumptions)
- CHAI Viral Load Costing Model



Viral load is comparable in cost to CD4 and offers the potential for long-term cost savings. But resources will need to be shifted to allow for rapid scale up and start up costs.

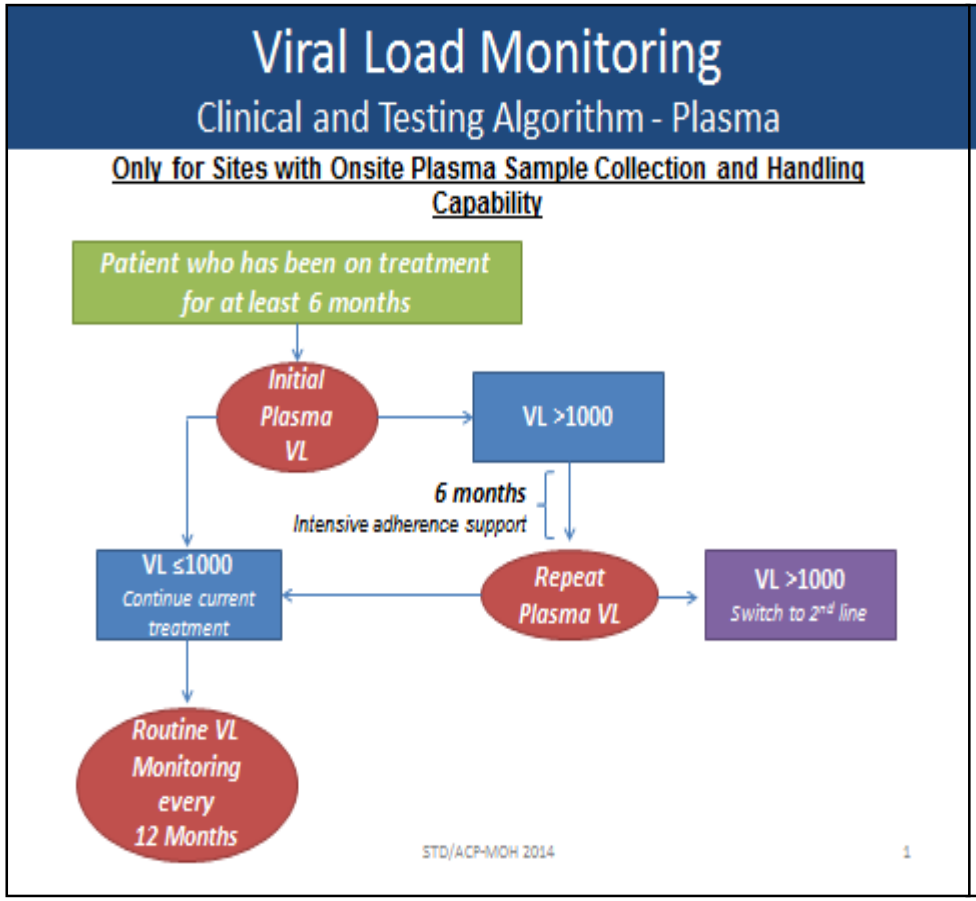
Comparison of existing and proposed VL cost

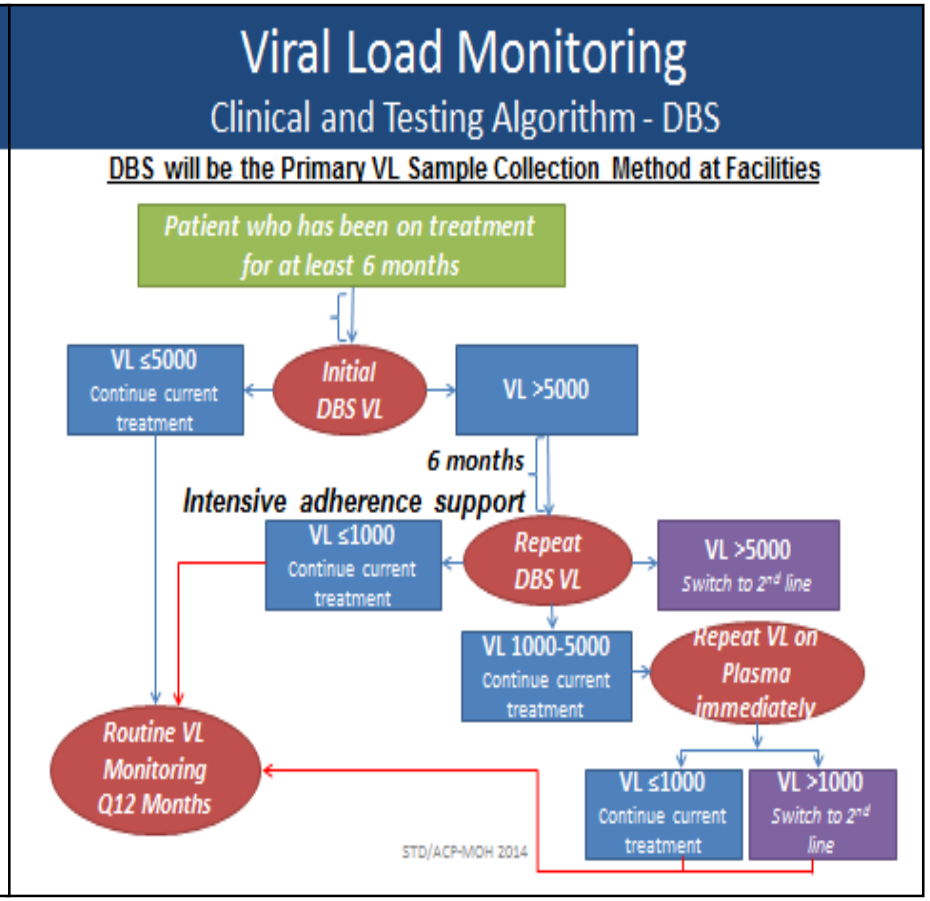


- **Centralization of VL testing would reduce the cost of VL testing by 60% (from $40 to $15.50 overheads & reagents inclusive)**
- **Adding sample collection and transport costs goes to $19.70 (which is still half the cost at existing labs)**

The Viral Load Testing Algorithm(s)

WHO guidance was contextualised to meet the needs, capabilities and expectations of Uganda's HIV program as per the algorithms below





Consultations: PEPFAR support was critical

PEPFAR Technical Consultation on Viral Load Scale-up in Uganda

December 2-10, 2013

With technical assistance from PEPFAR, a **National Viral Load Monitoring Implementation Plan** was developed.

MINISTRY OF HEALTH

UGANDA

VIRAL LOAD MONITORING IMPLEMENTATION PLAN

January 2014

Subsequently:

1. **Key monitoring indicators,**
2. **HMIS tools and**
3. **Training materials** have been developed

What has this effort resulted in?

Vendors

- Commitment to a negotiated price of $10.5/test
- Support to renovate existing space
- Placement of testing equipment with starter kits

Partners

- Reagents and consumables for both Abbott and Roche for GF and PEPFAR arrived
- Procurement of 3rd party equipment already installed
- Viral Load LIMS already up and running

MOH

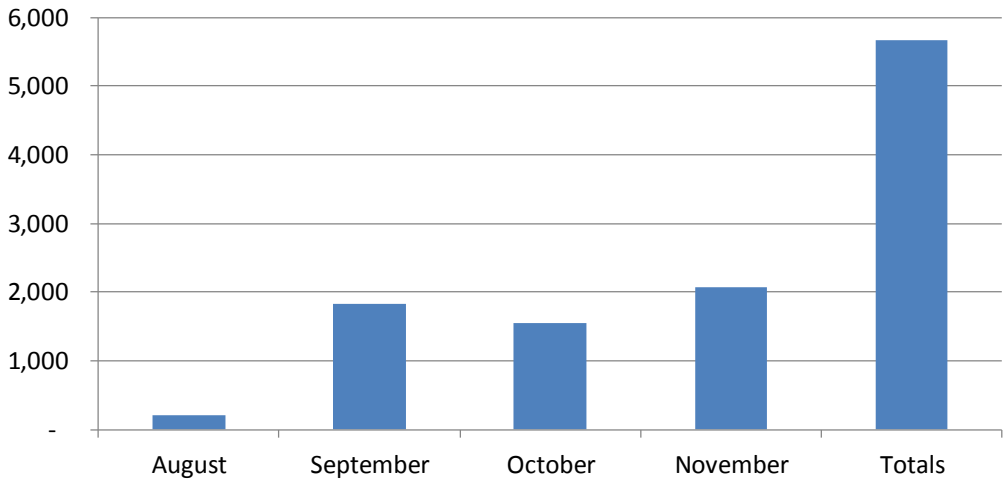
- Availed human resource (currently using part of the EID lab staff)
- Stakeholder engagement and appointment of VL Implementation Steering Committee
- Communicating the National VL policy to all stakeholders through a circular
- Rollout of Viral Load Monitoring Program

Progress to date

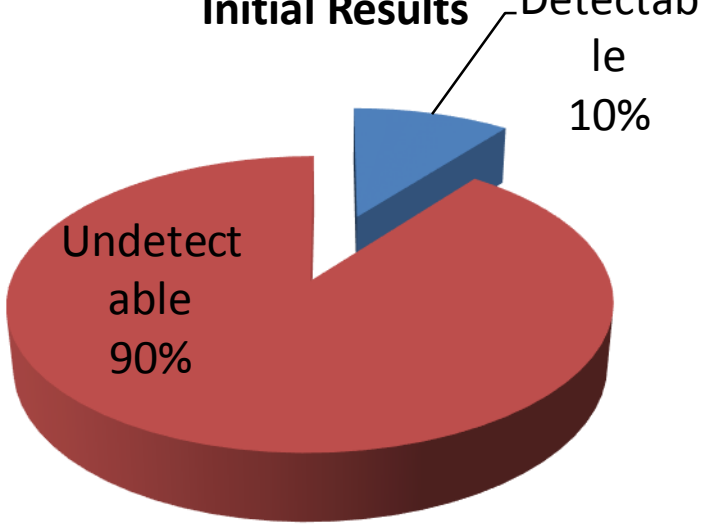
Trainings

- **Trainings for VL Scale-Up have already been conducted at 50 facilities supported by 7 PEPFAR Implementing partners.**
- **The plan is to reach 80 facilities by end of year.**
- **Volume target: 100,000 tests by June 2015**

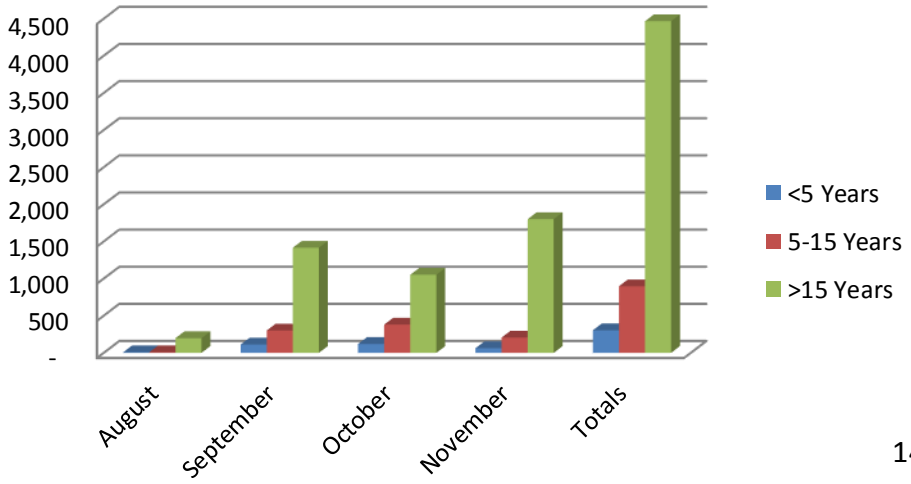
Initial Test Volumes



Initial Results



Access by age group



Current and anticipated Program challenges

Key Challenge	Specific Issues:
Funding	• There is insufficient HR capacity, largely borrowed from the EID lab and supported by interns. • Grave risk of destabilising the performance of the EID program • No funds for training new sites and associated scale-up overheads • The delicate task to shift CD4 resources to VL
Commodities	• Significant delays in VL reagent delivery led to the delayed start. • If such delays reoccur, they will affect operations
Managing Partner lab expectations	• While MOH proposed centralised testing to ensure a well-coordinated national program, managing expectations of partner institutions with VL equipment is still a challenge on MOH side

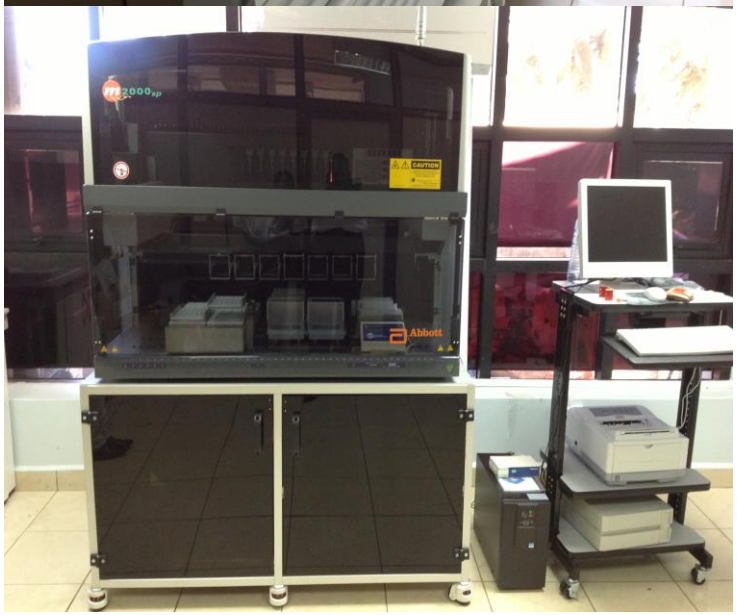
Regardless, Uganda is doing its best with the hope that further partner support will enable a sustained scale up o f this program

Acknowledgements

THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

CLINTON
HEALTH ACCESS INITIATIVE

The Global Fund
To Fight AIDS, Tuberculosis and Malaria



UNITED STATES PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF
UGANDANS AND AMERICANS
IN PARTNERSHIP TO FIGHT HIV/AIDS