



THE REPUBLIC OF UGANDA  
MINISTRY OF HEALTH



# HIV VL MONITORING & EVALUATION IN UGANDA

22<sup>ND</sup>/04/2021

BY UGANDA NATIONAL HEALTH  
LABORATORY SERVICES (UNHLS)

PRESENTERS:  
DR.ZZIWA MARTIN & NABUKENYA  
MIRIAM

## Presentation outline

Background of the Uganda VL program

Progress towards HIV epidemic Control

Viral Load (VL) coverage

Closing gaps in the third 95 by sub population, FY20Q4

Uganda M&E strategy

The VL data flow from health facilities to results dispatch

Distribution of hubs

Data tools used at different levels

The VL dashboard

Challenges

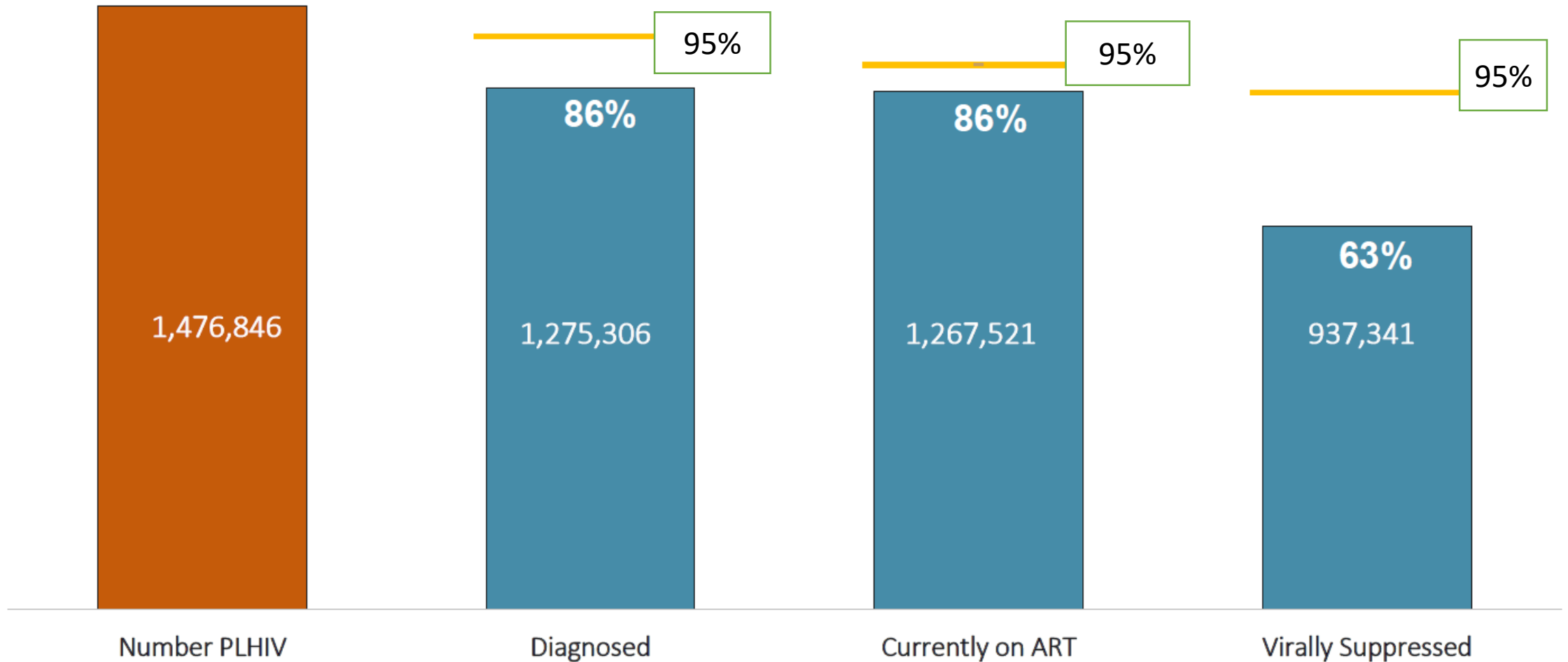
## Background of Uganda VL program

- Uganda has a total of 1.47 million people living with HIV and out of these, 1.2 million are on ART.
- VL testing program was initiated in August 2014 after ART guidelines review had adopted WHO recommendations (2013)

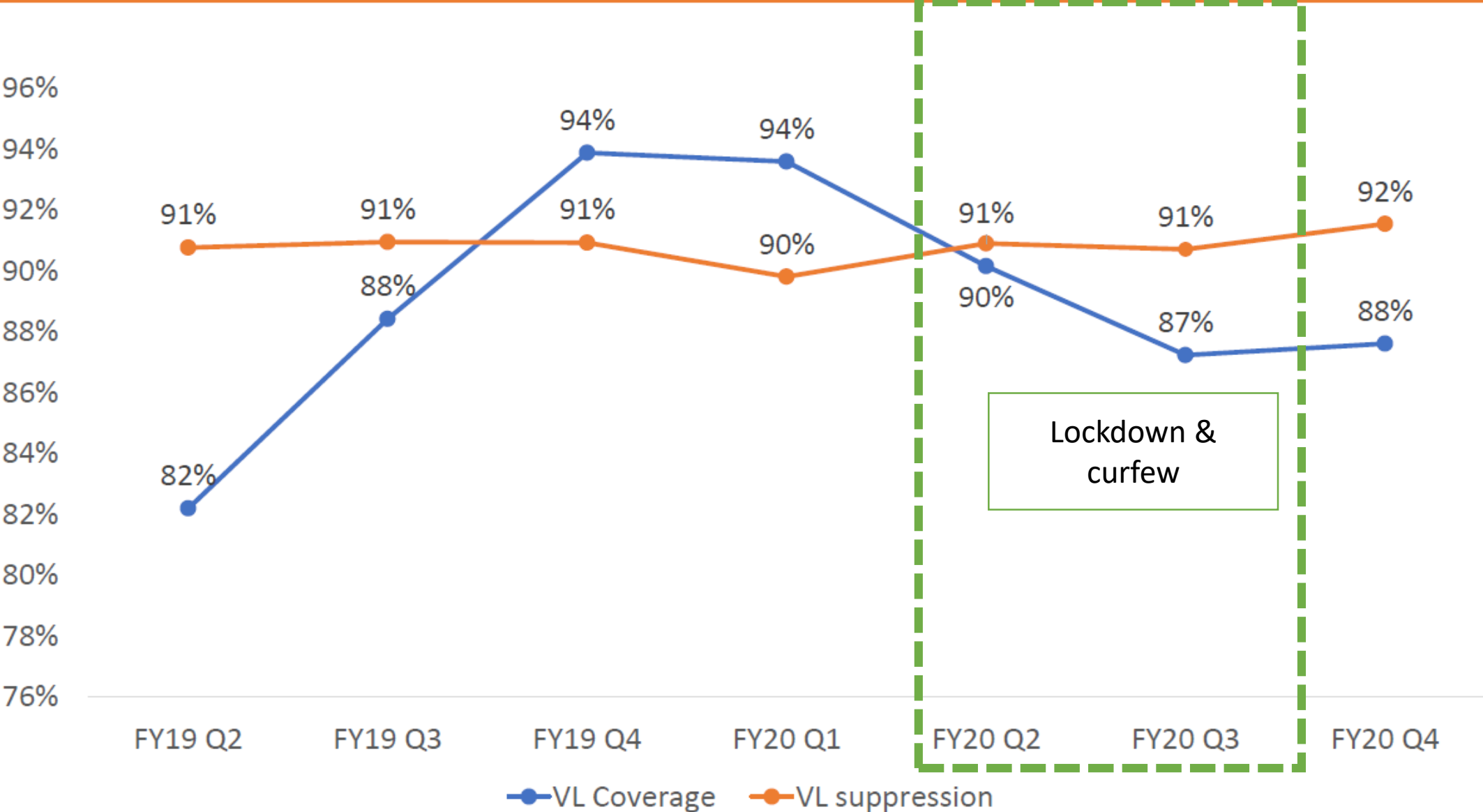
## Count' .....

- A centralized testing approach was used building on EID program
- The program currently have 100 hubs across the country
- Each hub serves averagely 23 peripheral facilities (>1700 ART sites in the country).

# Progress towards HIV epidemic control: Uganda national 95-95-95 community cascade, FY20Q4(Sept 2020)



# VL coverage fluctuated in 2019-2020 due to COVID interruptions but suppression was quite stable



# Closing gaps in the third 95 by sub-population, FY20Q4

## VL Coverage (FY20Q4)

Region	Female							Male						
	<01	01-09	10-14	15-19	20-24	25-49	50+	<01	01-09	10-14	15-19	20-24	25-49	50+
Central 1	14%	100%	100%	91%	96%	91%	90%	7%	100%	100%	92%	73%	83%	88%
Central 2	19%	100%	100%	95%	93%	93%	97%	20%	100%	100%	100%	90%	88%	96%
East Central	25%	100%	100%	66%	76%	87%	100%	19%	100%	100%	85%	51%	78%	100%
Kampala	14%	100%	100%	100%	100%	92%	94%	7%	100%	100%	100%	91%	88%	90%
Mid Eastern	11%	84%	100%	85%	77%	82%	89%	12%	86%	100%	99%	78%	75%	89%
Mid Northern	16%	80%	100%	85%	76%	81%	97%	12%	84%	100%	92%	54%	72%	92%
Mid Western	18%	99%	100%	88%	89%	88%	96%	16%	100%	100%	100%	79%	80%	91%
North East	4%	79%	100%	79%	74%	82%	95%	4%	76%	100%	100%	59%	72%	93%
South Western	6%	100%	100%	81%	75%	87%	100%	6%	99%	100%	100%	71%	82%	98%
West Nile	42%	89%	100%	73%	69%	77%	88%	6%	81%	100%	86%	53%	68%	86%
_Military Uganda	22%	100%	100%	73%	58%	83%	100%	50%	100%	100%	89%	81%	60%	92%

Coverage issues: females: (15-49yrs)  
males (20-49yrs)

<75% 75%-85% >85%

## VL Suppression (FY20Q4)

Region	Female							Male						
	<01	01-09	10-14	15-19	20-24	25-49	50+	<01	01-09	10-14	15-19	20-24	25-49	50+
Central 1	83%	83%	86%	87%	91%	94%	96%	80%	80%	85%	85%	92%	93%	95%
Central 2	67%	77%	81%	82%	91%	93%	95%	70%	76%	79%	82%	88%	91%	93%
East Central	75%	69%	72%	78%	85%	91%	93%	75%	63%	73%	78%	86%	89%	91%
Kampala	83%	86%	90%	86%	91%	96%	98%	67%	85%	90%	88%	92%	96%	97%
Mid Eastern	100%	70%	76%	81%	84%	91%	94%	100%	67%	76%	81%	81%	90%	92%
Mid Northern	82%	67%	66%	74%	87%	91%	92%	71%	62%	63%	72%	85%	89%	90%
Mid Western	73%	76%	79%	85%	90%	93%	94%	86%	74%	78%	83%	88%	92%	93%
North East	0%	69%	68%	72%	86%	91%	93%	0%	69%	67%	73%	83%	89%	90%
South Western	100%	83%	87%	87%	92%	95%	97%	75%	79%	85%	86%	91%	93%	96%
West Nile	80%	65%	68%	77%	82%	88%	92%	100%	61%	64%	73%	84%	86%	89%
_Military Uganda	100%	77%	79%	84%	90%	91%	94%	100%	80%	76%	86%	91%	89%	93%

suppression issues: females: (0-19yrs)  
males (0-24yrs)

<75% 75%-85% >85%

# Uganda M&E strategy

## STAKE HOLDERS

- AIDS Control program
- Central Public Health Laboratories
- Development partners like CDC, DFID, USAID, DOD, MSH, WHO etc.
- Districts
- Implementing Partners

## ROLES / TASKS

Identification of persons to be trained as TOTs for respective IPs and regions (lab, clinical & counseling) = ALL IPs/DHO's office

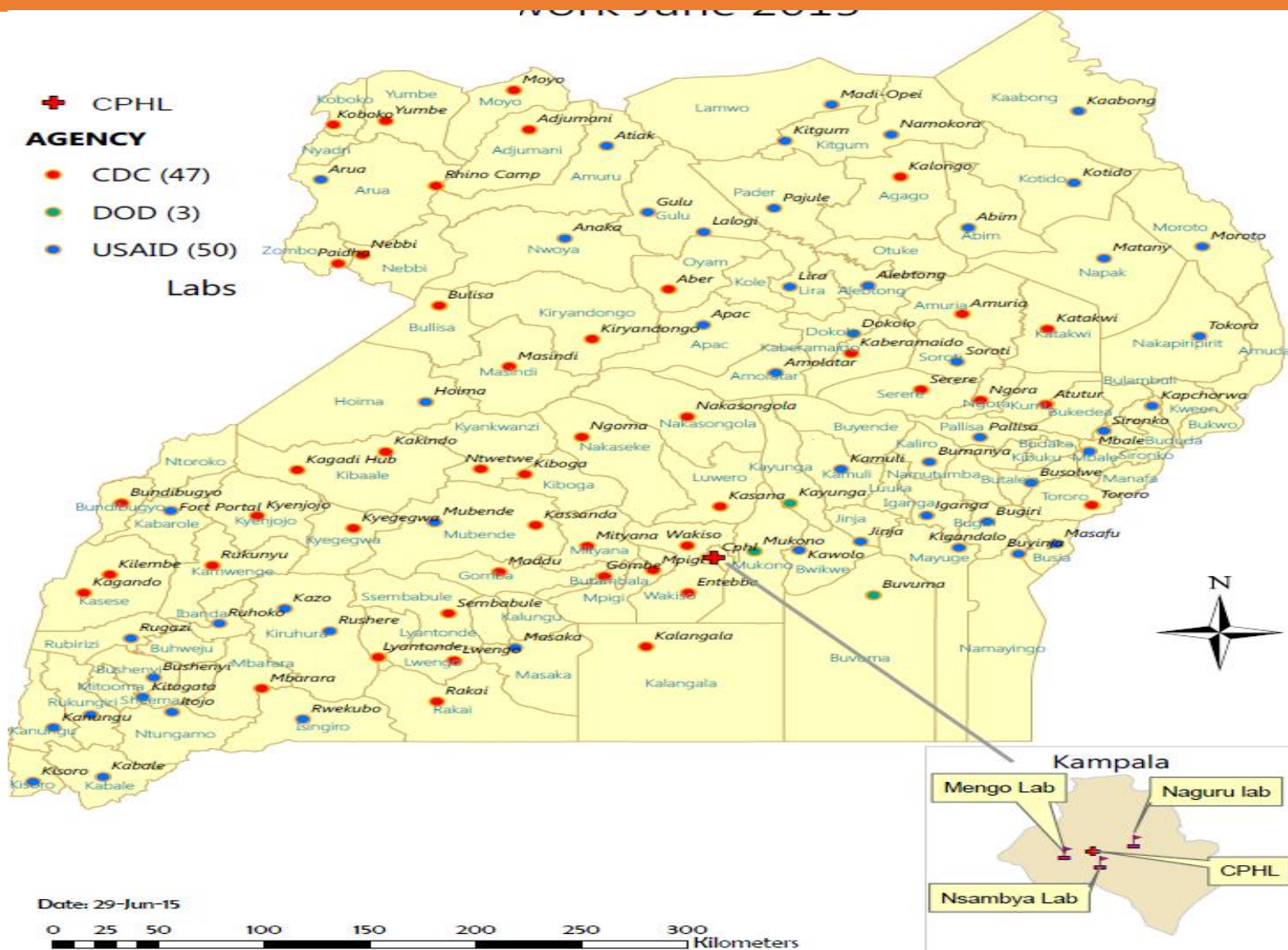
Designing and production of IEC materials (CHC, ACP, CPHL, METS)

Scheduling of training dates for respective hubs/districts and tracking progress of facilities trained (ACP, CPHL, METS)

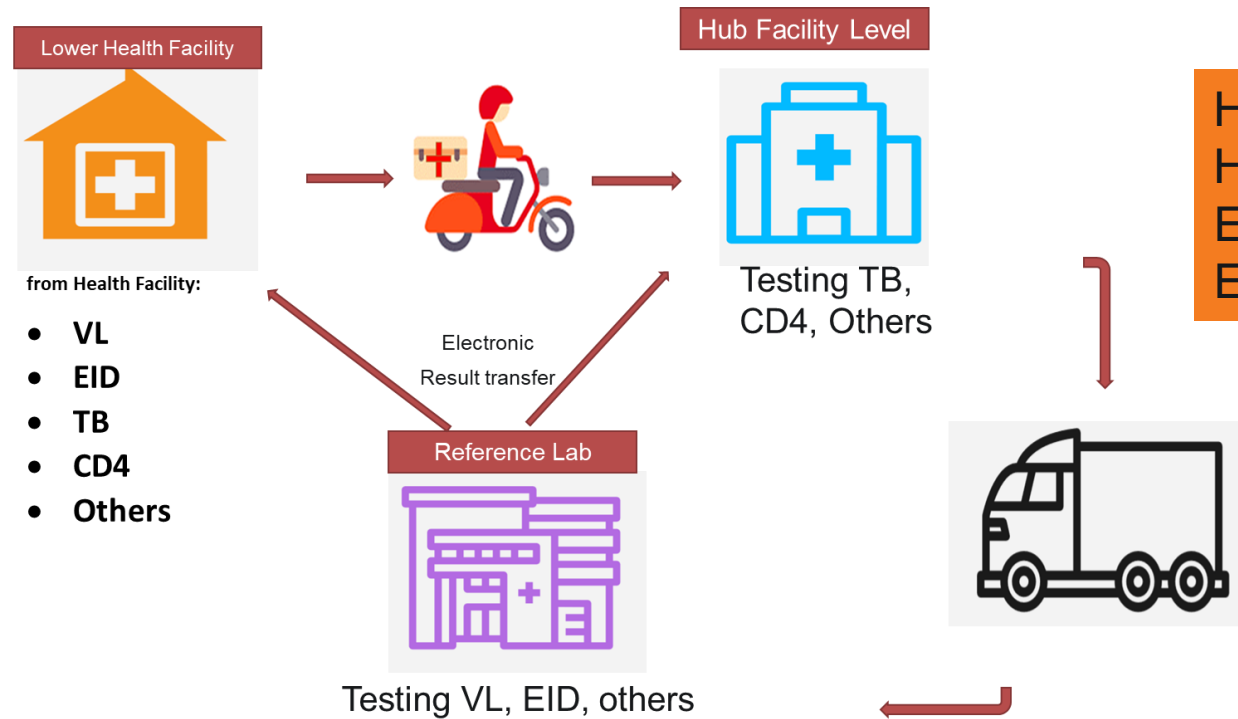
Monitoring of test outputs per district on monthly basis (ACP, CPHL, METS)



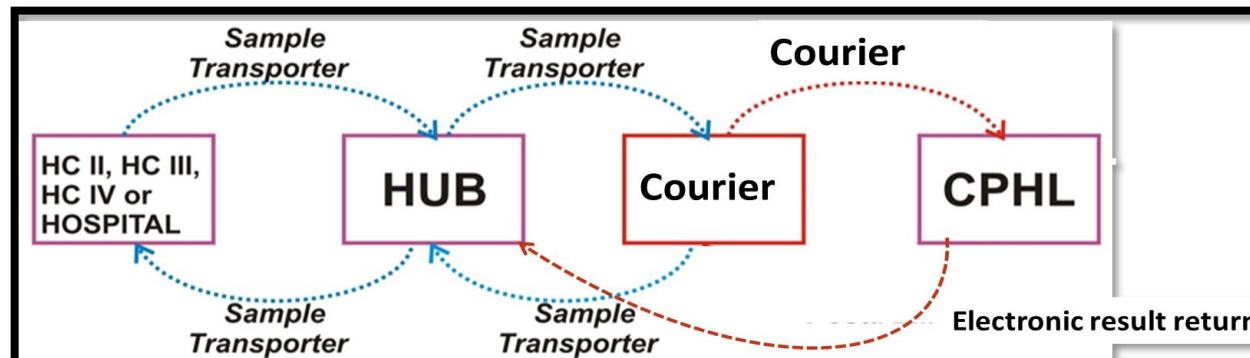
# Distribution of hubs by Support Agency



# The VL data flow from health facilities to results dispatch

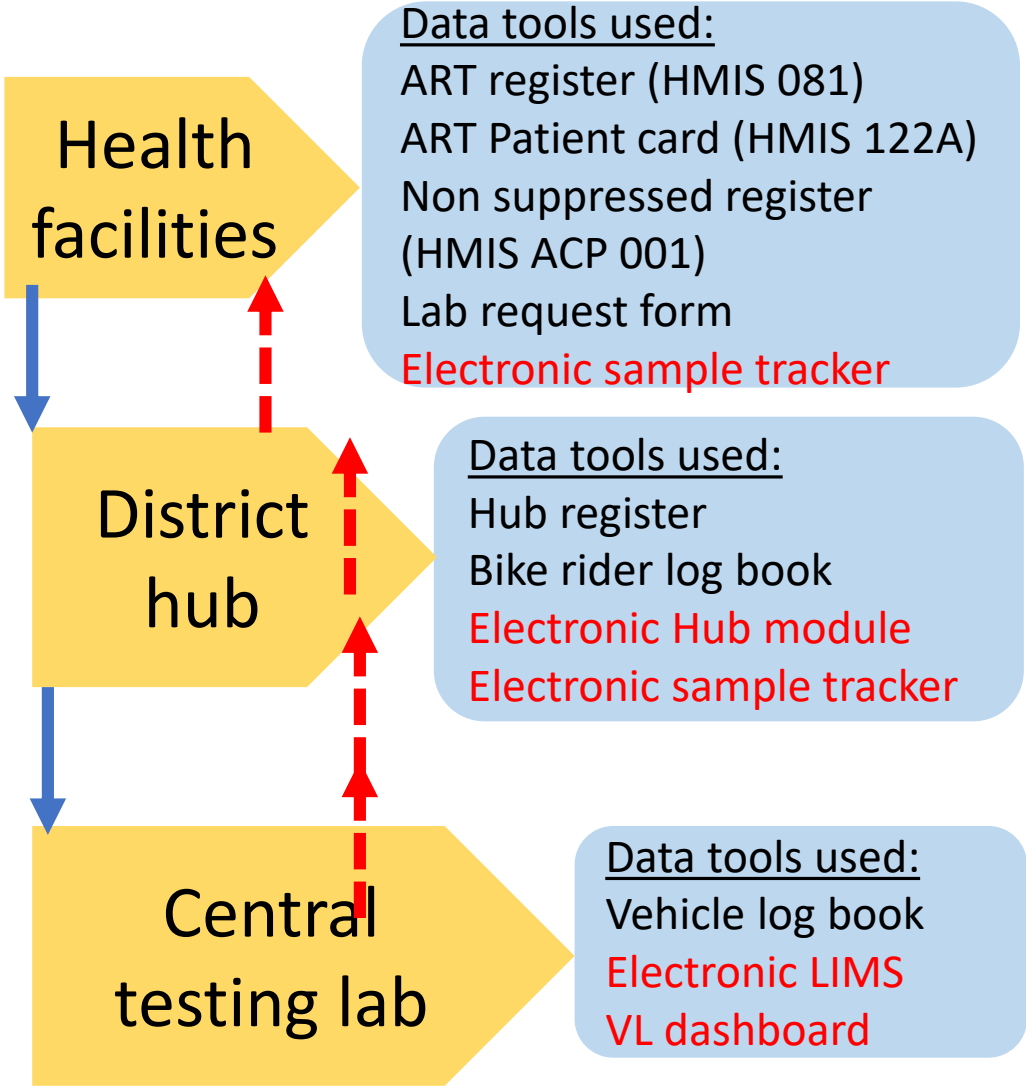


HMIS REGISTERS  
 HUB REGISTER  
 ELECTRONIC SAMPLE TRACKER  
 ELECTRONIC RESULTS DOWNLOAD



VL DASHBOARD  
 ELECTRONIC SAMPLE TRACKER

# Data tools used at different levels



# The Viral Load dashboard

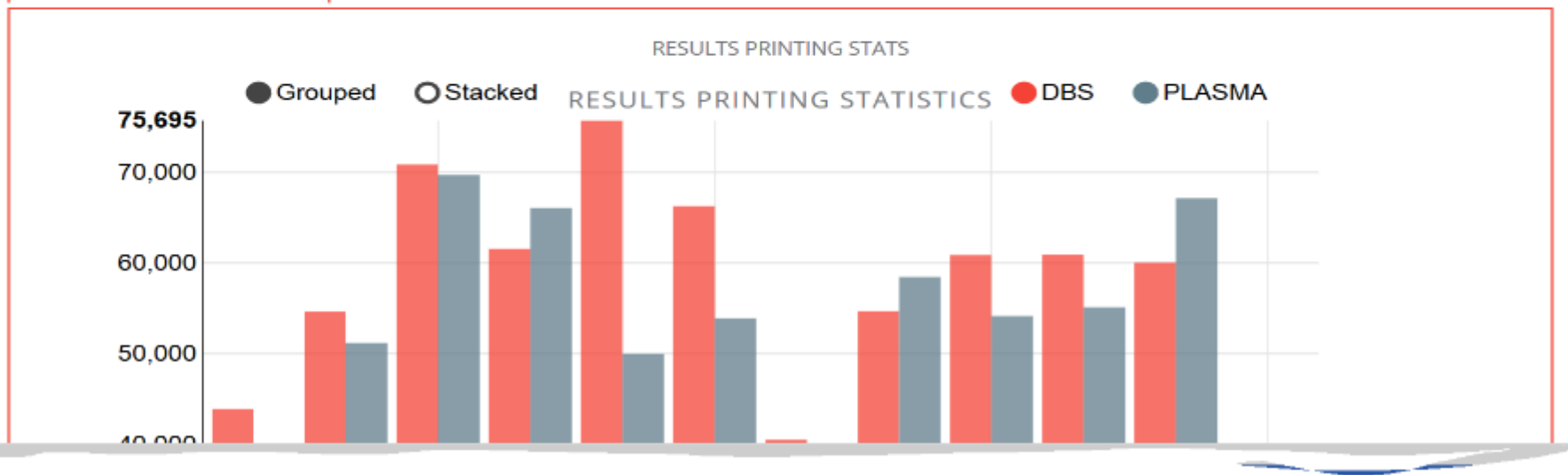
<https://vldash.cphluganda.org/>

UGANDA VIRAL LOAD DASHBOARD LOGIN

FROM D. TO DATE DISTRICT HUBS From Age To Age SEX REGIMEN LINE eMTCT TB STAT

## KEY METRICS

1,269,290 91.6% 0.3% 88.1% ON 1ST LINE REG ALL  
SAMPLES RECEIVED SUPPRESSION RATE REJECTION RATE CURRENT REGIMEN ALL REGIMENS



Number of ART sites with accounts to download results = 560

Number downloading results = 290 (52%)

Logistics issues

Health information exchange (HIE)  
49 facilities  
(LIMS to EMR)

# Functions of the VL dashboard

<https://vldash.cphluganda.org/>

FILTERS: May '20 - Apr '21

FROM DATE  TO DATE

Suppression Trend

Action Pane

Retest-NotSuppressing

Retest-Suppressing

Rejections

Valid Patients' Results

All Patients' Results

Previous Test	Most Recent Test	#	%
Not Suppressed	Not Suppressed	0	0.0
	Suppressed	13	100.0
Suppressed	Suppressed	0	
	Not Suppressed	0	

Previously Not Suppressing, Not Suppressing Recently

Show 10 rows

Search:

Patient ID	Facility	ART Number	Previous Date of Collection	Previous Date of Arrival at CPHL	Previous Results	Recent Date of Collection	Recent Date of Arrival at CPHL	Date Tested	Recent Results	Contact
No data available in table										

0 to 0 of 0

Previous Next

Previously Suppressing, Not Suppressing Recently

Show 10 rows

Search:

Patient ID	Facility	ART Number	Previous Date of Collection	Previous Date of Arrival at CPHL	Previous Results	Recent Date of Collection	Recent Date of Arrival at CPHL	Date Tested	Recent Results	Contact
No data available in table										

DATA ANALYSIS BY ART  
REGIMEN

DATA ANALYSIS BY  
GEOGRAPHIC REGION

RESULTS  
DOWNLOAD/PRINTING  
AT HUB/SITE

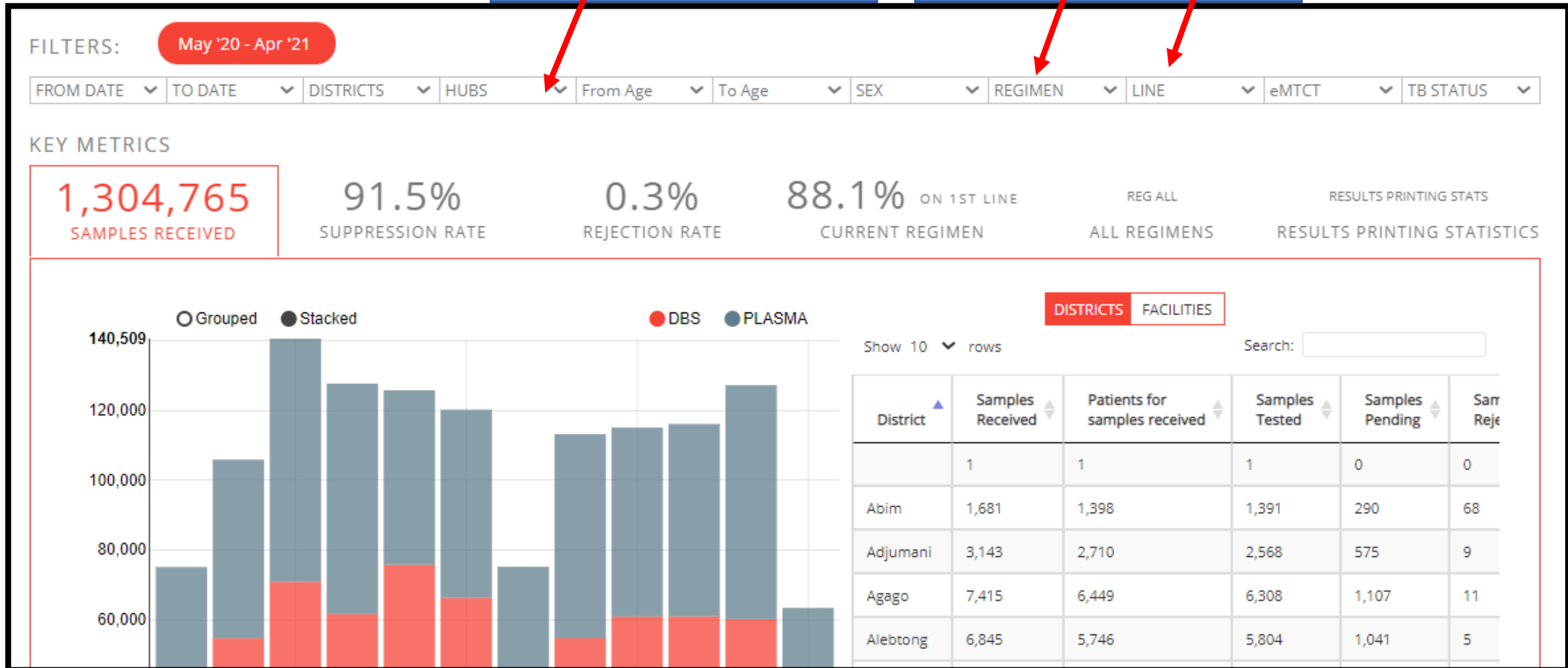
LISTING OF NON  
SUPPRESSED PATIENTS PER  
SITE

# Count' .....

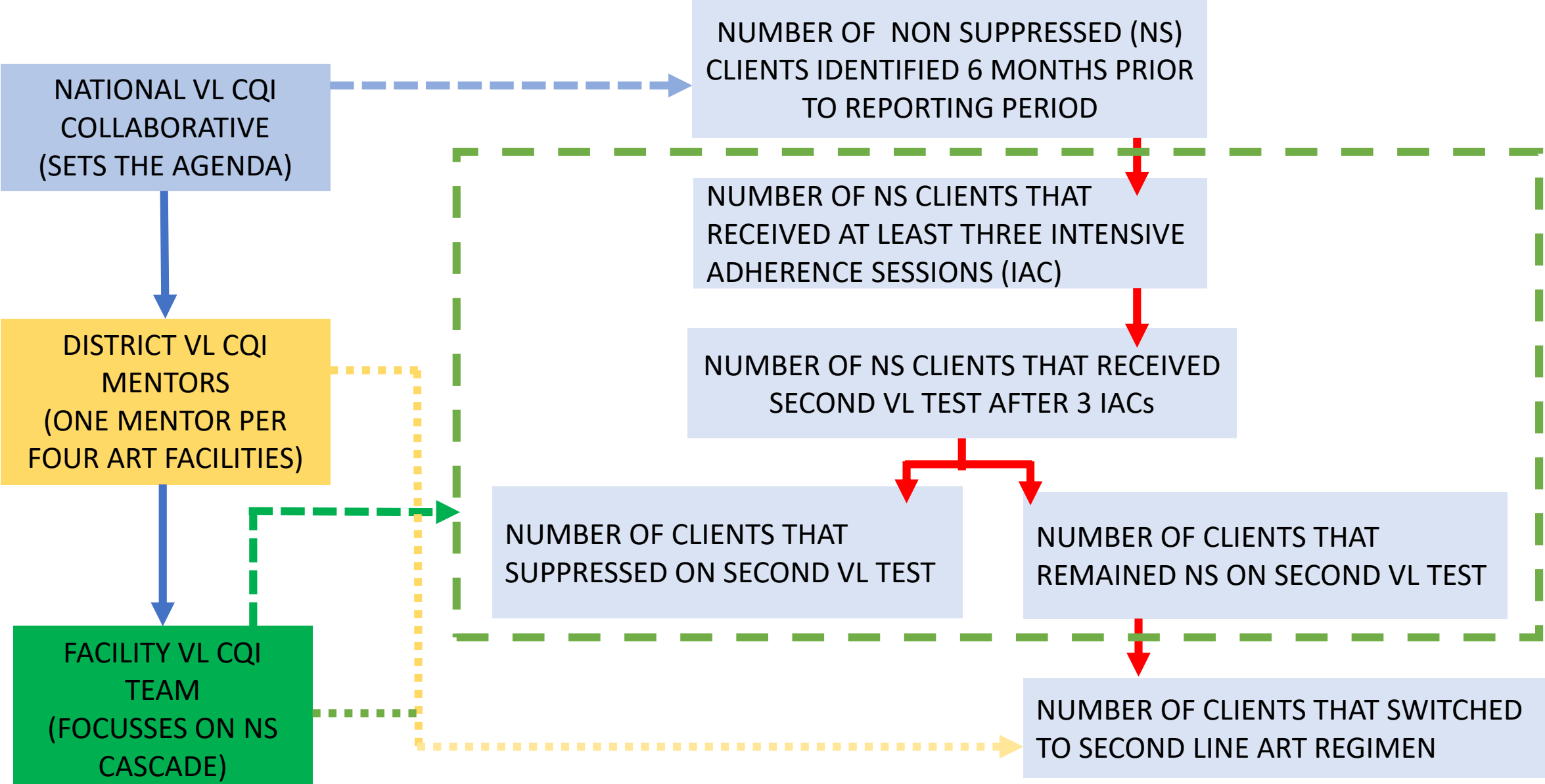
<https://vldash.cphlugand>

DATA ANALYSIS BY  
GEOGRAPHIC REGION

DATA ANALYSIS BY ART  
REGIMEN



# REPORT ON CASCADE ANALYSIS FOR VL NON SUPPRESSION (CQI MODEL)





# An example of the IP report on cascade analysis for VL non suppression

Table 46: Cascade of management of virally non-suppressed children 0-9 years in Q1

District	# non-suppressed Clients identified (6 months prior to reporting period)	# non-suppressed clients that received the 3 IAC sessions.	% of non-suppressors that received at least 3 IAC sessions	# clients 2nd VL sample collected	% of non-suppressors who received a 2nd VL test after 3 IACs	# clients 2nd VL results returned	# clients VL suppressed after IAC	% suppressed on 2 <sup>nd</sup> VL	# Non-suppressed clients after IAC	% of clients whose VL remained non-suppressed after IAC	# VL non-suppressed clients switched to 2nd line	% of failing clients (non-suppressors after IAC) who were switched to 2nd line
	3	3	100%	1	33%	0	0	-	0	-	0	-
	11	11	100%	10	91%	9	8	89%	1	11%	0	0%
	22	21	95%	16	76%	13	9	69%	4	31%	1	25%
	9	8	89%	5	63%	2	2	100%	0	0%	0	-
	13	12	92%	11	92%	6	6	100%	0	0%	0	-
	6	4	67%	3	75%	3	1	33%	2	67%	0	0%
	16	16	100%	15	94%	10	6	60%	4	40%	0	0%
	45	39	87%	35	90%	24	20	83%	4	17%	1	25%
	7	6	86%	6	100%	2	1	50%	1	50%	1	100%
<b>Total</b>	<b>132</b>	<b>120</b>	<b>91%</b>	<b>102</b>	<b>85%</b>	<b>69</b>	<b>53</b>	<b>77%</b>	<b>16</b>	<b>23%</b>	<b>3</b>	<b>19%</b>

Data source: [redacted], 21st January 2021

Color code	<70%	70%-<80%	80%-<90%	90%+
------------	------	----------	----------	------

NATIONAL VL CQI COLLABORATIVE (SETS THE AGENDA)



DISTRICT VL CQI MENTORS (ONE MENTOR PER FOUR ART FACILITIES)



FACILITY VL CQI TEAM (FOCUSSES ON NS CASCADE)



## Challenges with M&E

1. Poor infrastructure especially lack of power and internet connectivity in several health facilities.
2. Stock out of data tools (request forms and bar codes)
3. Accurate unique patient identification (UIDs)
4. Data quality e.g. Inaccurate ART regimen reporting
5. Tracking of non suppressed patients (reporting on cascade)
6. Stakeholder Performance review challenges (COVID travel restrictions)

## Lessons learnt on good M&E practices

1. Effective monitoring begins with identification of stakeholder needs (leave no one behind)
2. Continuous quality improvement is key for piloting/testing and adoption of tools prior standardization into HMIS
3. Regional & district Performance review meetings encourage poor performers to improve
4. Need for interoperability of electronic systems for effective Health information exchange (HIE)
5. It is essential to have periodic data quality assessment for valid and accurate data

## Acknowledgement

- 1. PEPFAR Uganda**
- 2. MOH ACP team**
- 3. METS**
- 4. CPHL colleagues; Dr. Charles Kiyaga, Dr. Zziwa Martin, Dr. Victor Bikira, Dr. Nicholus Nanyenya, Dr. Isaac Ssewanyana, Mbabazi Prossy, Batamwita Richard, Ntale Jonathan**
- 5. MOH Department of lab services**