

# Viral Load Result Utilization in Patient Management



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# UGANDA COUNTRY TEAM

## CORE COUNTRY TEAM

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## OTHER COUNTRY TEAM

### MEMBERS

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And Dave Cross

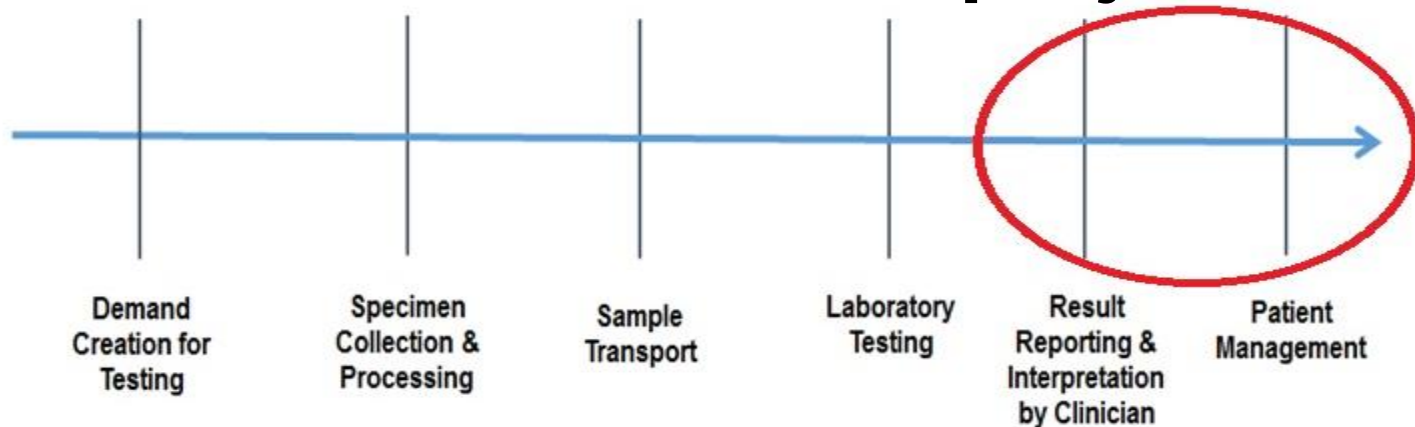
# Background of the Uganda VL program

- Uganda has about 1.2 million persons on ART by March 2016
- Uganda started routine viral load testing in August 2014 (2 years ago)
- Services cover all districts in the country that were initiated by training of at least 3 representatives per facility per district at the hubs
- The facilities collect samples and refer through a focal lab in the district (hub) on to CPHL using the national sample and results network
- All Viral Load samples in the country are tested centrally at MOH-Central Public Health Laboratory (CPHL) that does 50,000-60,000 tests per month
- Currently, over 400,000 tests have been done (about 40% national patient coverage) between October 2015-june 2016 (COP16 target is 800,000 tests by September)

# Problem Statement

- PEPFAR Site Improvement Monitoring System (SIMS) visits in the Masaka region between July and September 2015 by CDC – Uganda noted that 35% of the facilities in the Masaka region (7 districts ) performed poorly (between yellow-20% and red-15%) with insufficient documentation of monitoring parameters.
- Masaka district is a high volume area with high HIV prevalence and mature generalized epidemic
- Masaka regional referral hospital is a high volume site but a center of excellence in QI

## Focus of the LARC project



# Planning Process

- **When:** Following the February 2016 African LARC meeting in J'burg; a LARC project introductory meeting was held at the MOH-Central Public Health Laboratory (CPHL) March 2016
- **Who:** CPHL, CDC-UG, Uganda Nurses and Midwives Council & MoH-Department of Nursing and other implementing partners.
- **How:** A draft Uganda-LARC project proposal developed by CPHL/CDC was discussed physically with Uganda Nurses and Midwives council; MoH-Department of Nursing and Masaka regional hub.
- **Where:** Discussions were held in respective offices of the Council, MoH – Department of Nursing and Masaka Regional hub.

# Aims of the Uganda LARC VL project

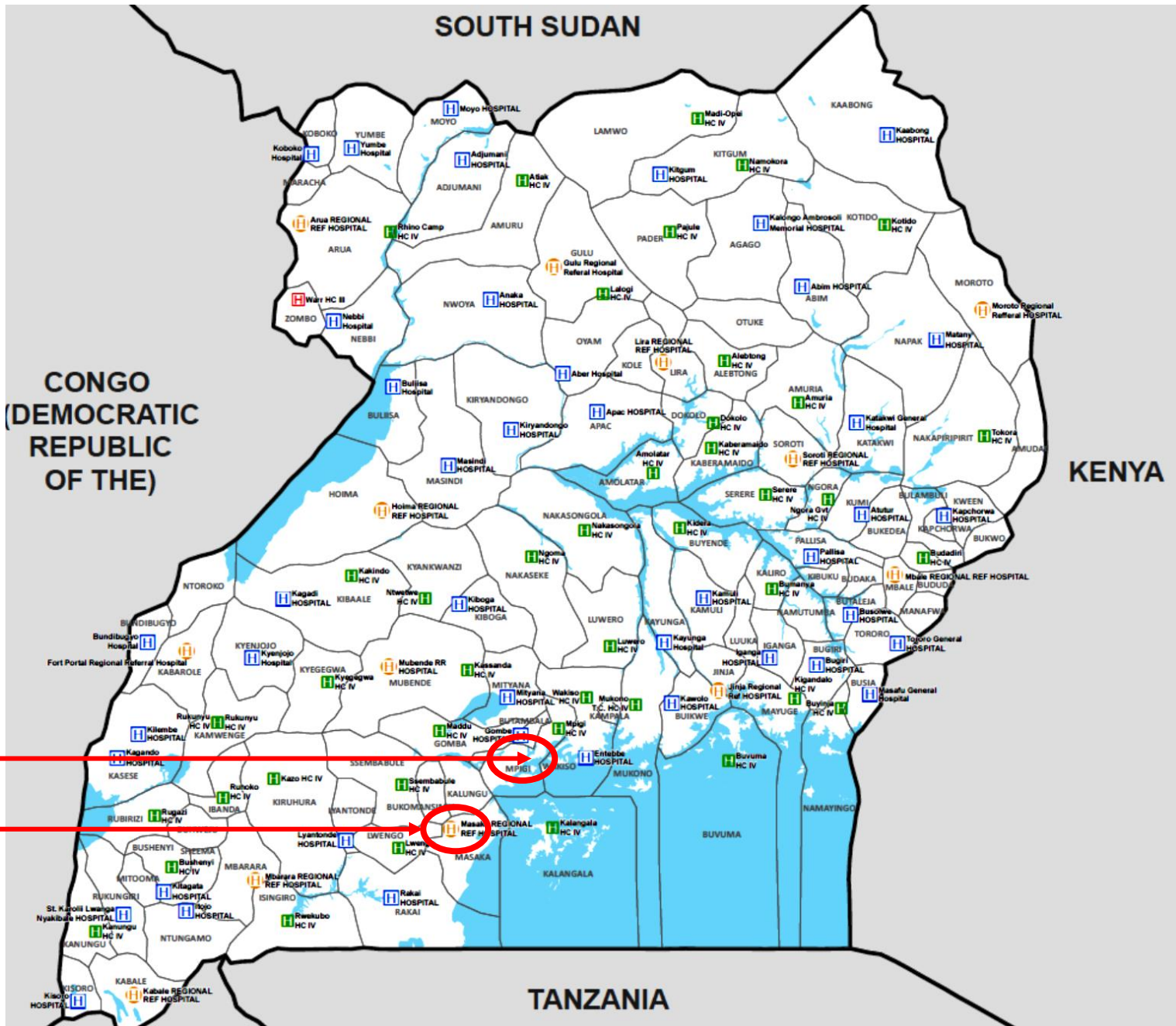
- **Main objective**

- Improve VL results utilization for patients on ART in Masaka hub area

- **Specific objectives**

1. To increase the proportion of patients managed according to national VL guidelines to 95%
2. To increase the proportion of promptly documented viral load results on patient ART cards among the 18 functional ART sites under Masaka RRH hub to 95%.
3. To compile guidelines and standards on facility based VL results flow, which can be later on scaled up country wide.

# Map of Uganda showing the 100 hubs



CPHL

Masaka

# Masaka Regional Referral Hospital – Hub area

HOSPITALS (3)	HEALTH CENTER IV (4)	HEALTH CENTER III (10)	SPECIAL CLINICS (3)
MASAKA RRH	BUKULULA H-CIV	KALUNGU H-III	TASO MASAKA
KITOVU HOSPITAL	KYANAMUKAKA H-CIV	BUTENDE H-CIII	LUKAYA CARE CENTER UGANDA CARES
VILLA MARIA HOSPITAL	KIYUMBA H-CIV	MPUGWE H-CIII	MASAKA POLICE CLINIC
	KYAMULIBWA H-CIV	BUKOTO H-CIII	
		BUKAKATA H-CIII	
		NKONI H-CIII	
		KIMWANYI H-CIII	
		BUWONGA H-CIII	
		BUKEERI H-CIII	
		KYAMULIBWA H-CIII	



# Process for Continuous Inter-Cadre Collaboration

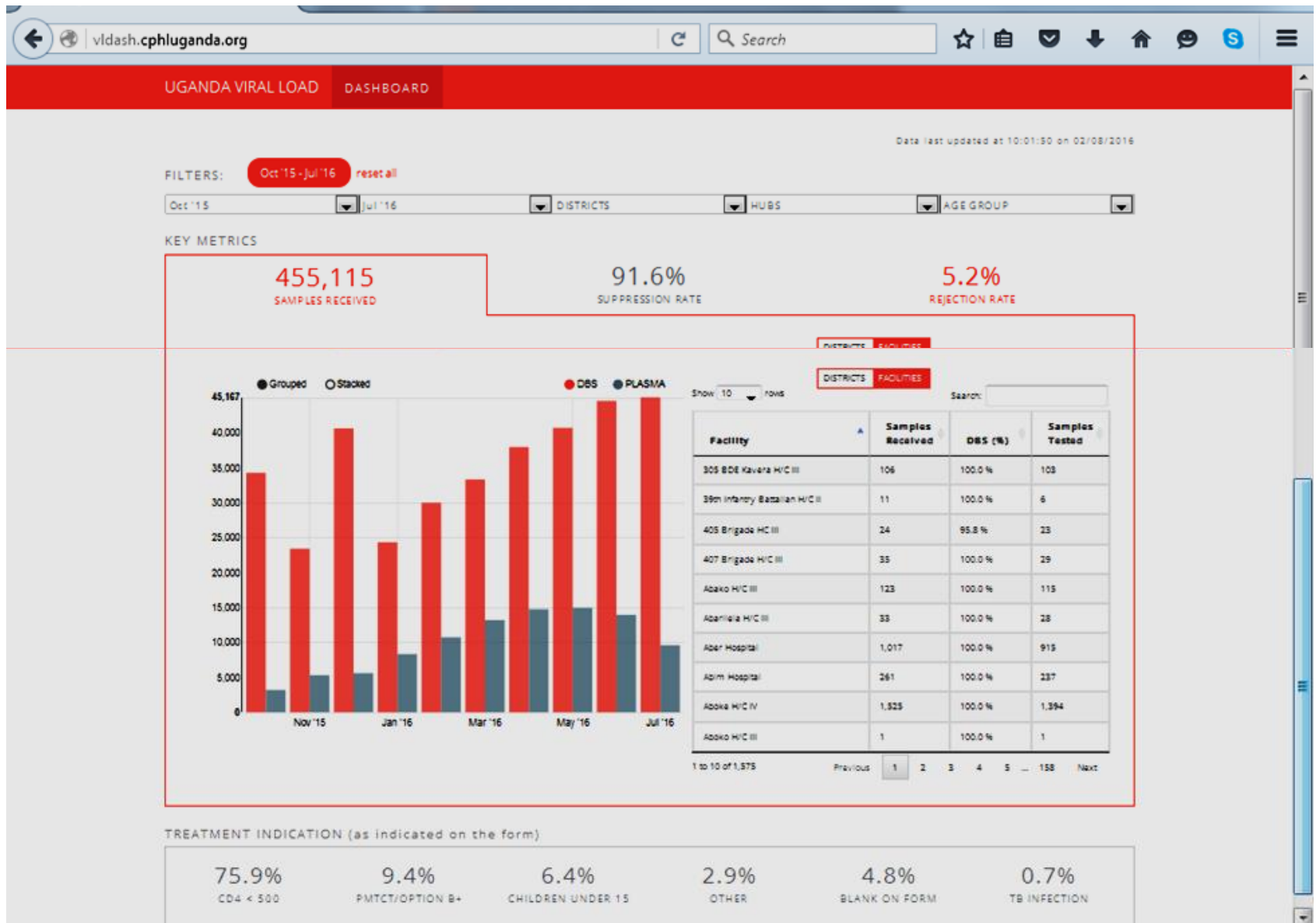
Doctors, Nurses & Midwives, and Lab Personnel participated in the:

- Development of the baseline assessment tool
- Pretesting of the tool
- Baseline assessment

## Project leverages on existing VL in-country initiatives

- National VL testing is available to 100% of districts in Uganda
- Facilities use MOH HMIS tools for lab and clinical monitoring of VL
- Electronic Medical Records (EMR) open MRS- flags patients due for VL
- Baseline data on VL testing used the National VL database and dashboard (test coverage & number of non-suppressed)

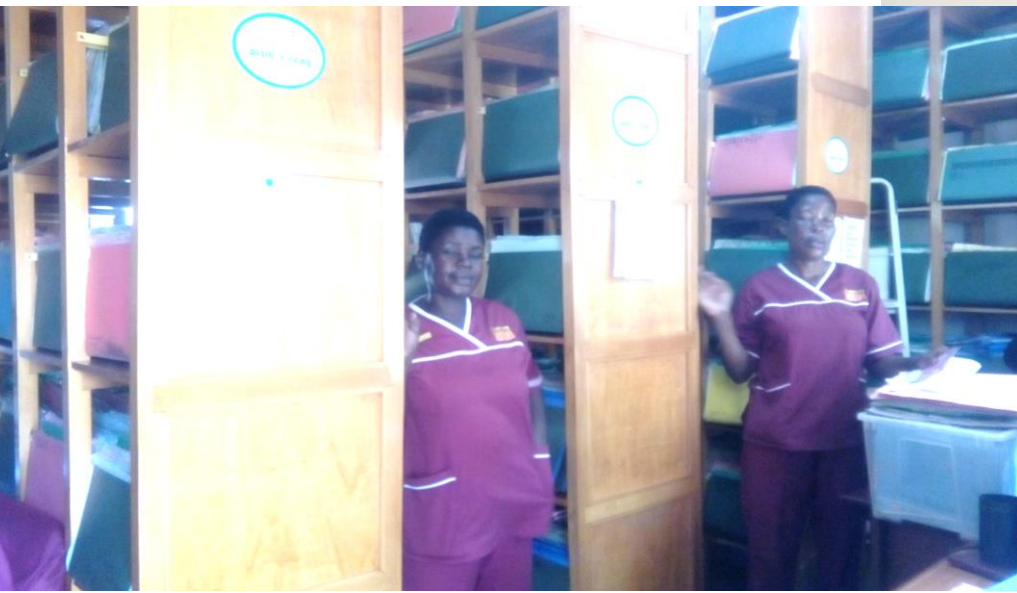
# The Uganda National Viral load dash board – Open public access: <http://vldash.cphluganda.org/>



# Methods – Data Collection Plan (cont'd)

<b>Who collected the data?</b>	Doctors, Nurses & Midwives, and Lab Personnel (CPHL, Mildmay, Nurses & Midwives council & Masaka Regional Referral hospital)
<b>How was it collected?</b>	Field visits In pairs/trios per facility (Clinician/Nurses & lab personnel)
<b>When was it collected?</b>	Four days (18 <sup>th</sup> – 21 <sup>st</sup> July 2016)
<b>What tools were used?</b>	Base line assessment questionnaire Sample patient chart review, Review of quarterly HMIS reports
<b>How often will the data be reviewed?</b>	Three times: Baseline, mid-term and end evaluation

# AN ORGANISED ART CLINIC AT MASAKA REGIONAL REFERRAL HOSPITAL



# Data elements that were collected in the assessment

Health facility level and staff capacity	Clinical knowledge and practices and performance	Clinical and Laboratory practices and ART clinic process flow
Facility type	# of ART clients enrolled, # active in care and # tested for VL	SOPs in place for VL testing Work flows in relation to ART/VL
staffing level	Who does the patient care at the facility (Clerking, case management, Adherence support	Viral load testing logistics and commodities management
Viral load Trainings	How returned VL testing results are utilized in patient management	transport network issues

# Methods - Intervention

Action Item	Responsible person(s)	Start Date	Status
Development of VL testing site assessment tool	CPHL, CDC-Uganda, UNMC, MoH-Department of Nursing	May 2016	Done
Pretesting of assessment tool	CPHL, Mildmay-Uganda, CDC-Uganda, UNMC	June 2016	Done
LARC Baseline assessment of 22 facilities Masaka and Kalungu districts	CPHL, Mildmay-Uganda, CDC-Uganda, UNMC Masaka RRH	July 11, 2016	Done
Data Analysis (Baseline assessment & VL out-puts per facility)	CPHL, Mildmay-Uganda, CDC-Uganda, UNMC	July 25-28, 2016	Partially Done

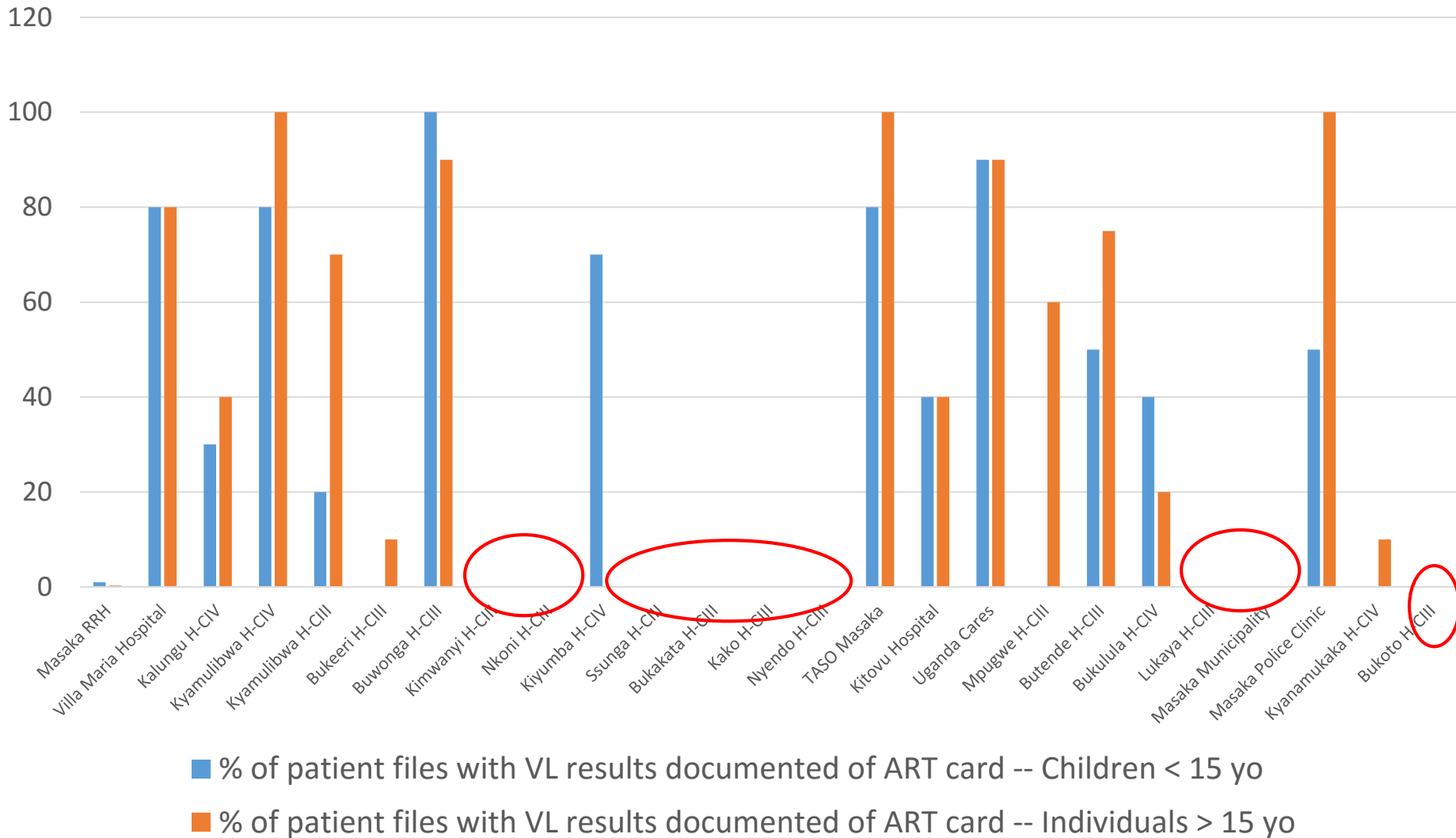
# Focus of Base line data analyzed

- How many patients are on ART currently in facility
- How many have accessed VL test
- How many have received their results
- How many have had an intervention based on the results
- How many facilities have SOPs for Viral load monitoring

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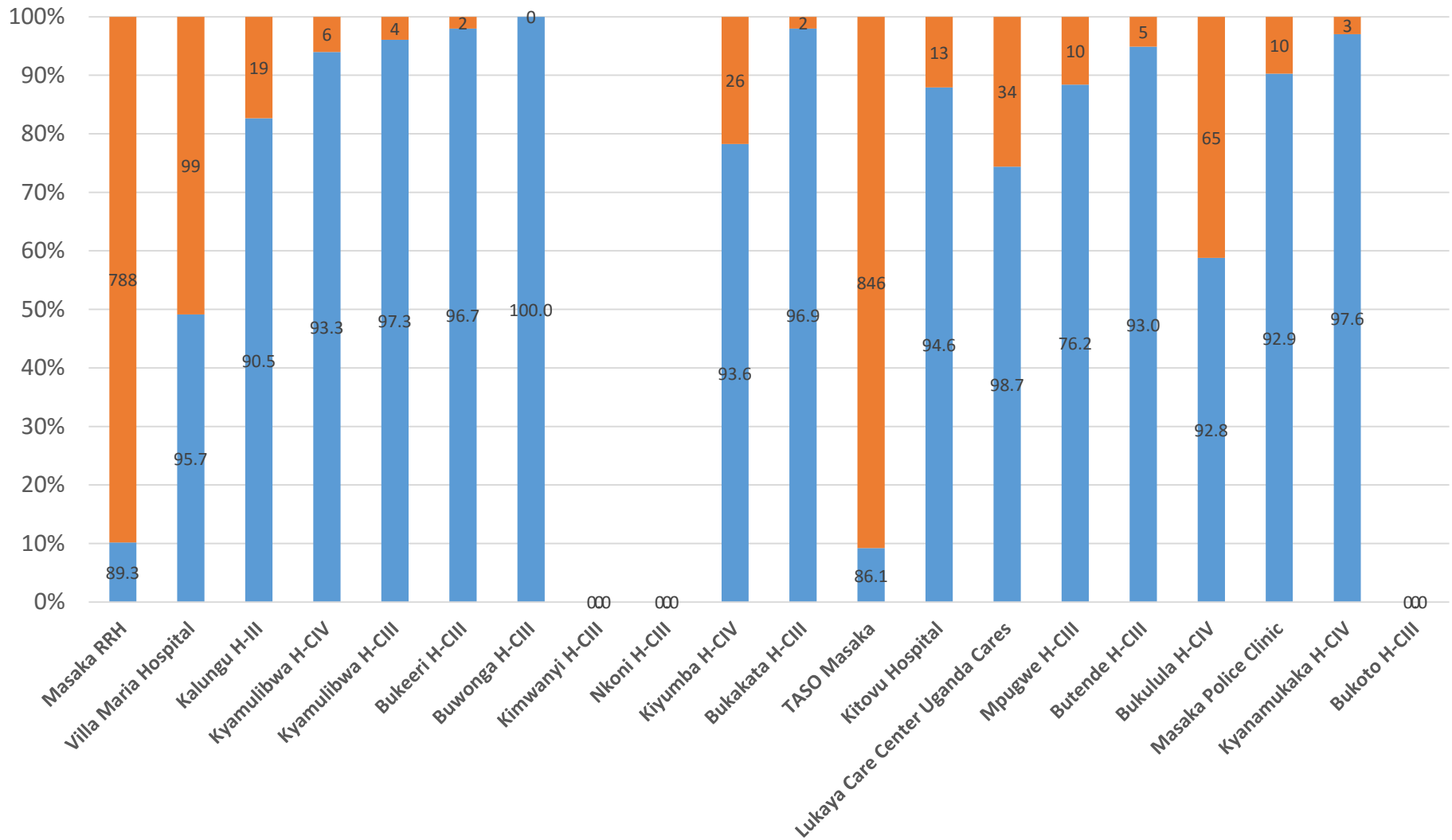
Analysis still in progress as follows..

# % Viral load results Documentation on patient files (Patient files sampled at facility level)



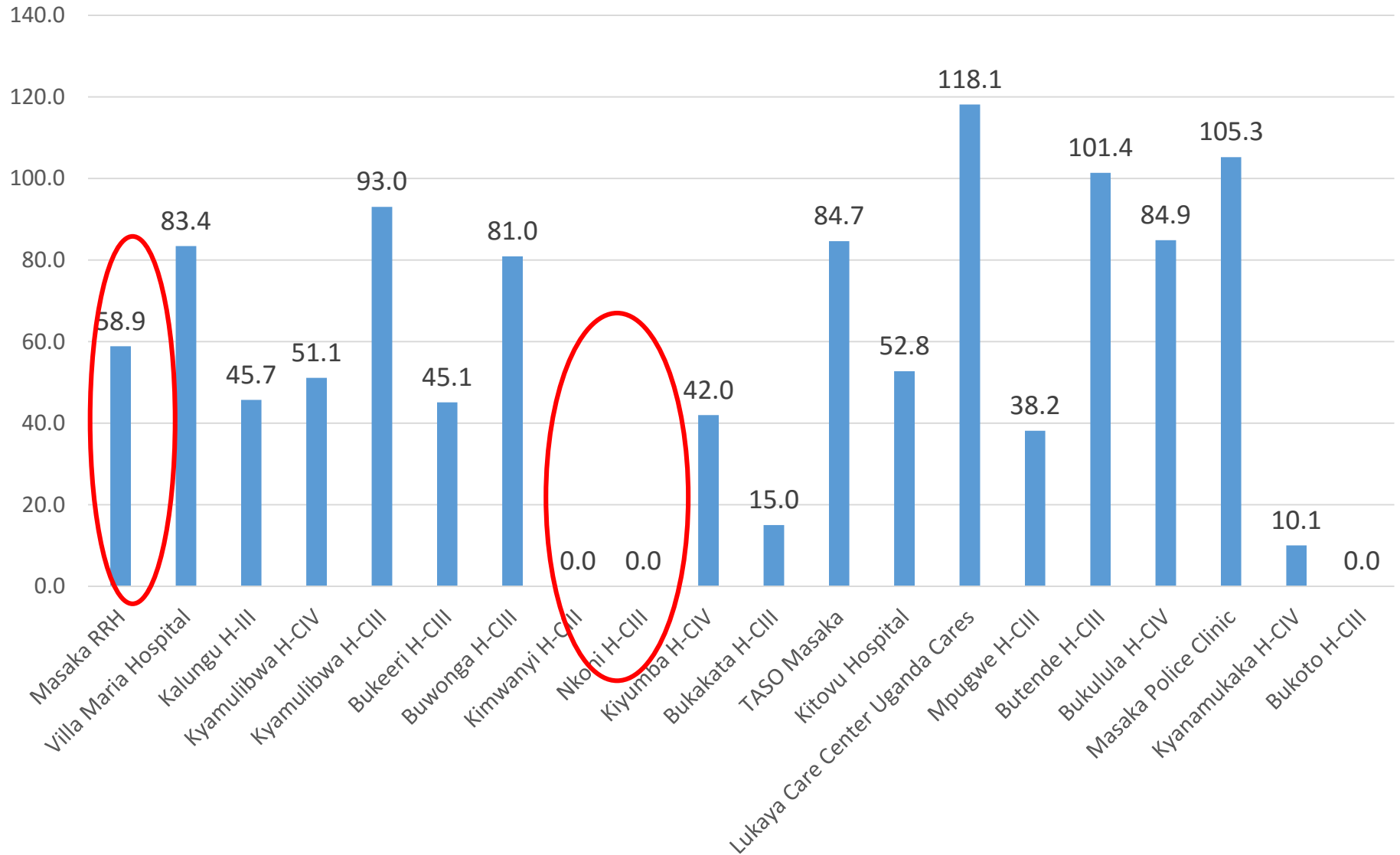


# Suppressed vs unsuppressed (CPHL data)



■ # of Patients with unsuppressed VL  
■ % of total patients who are suppressed

# % of eligible clients that access VL by facility (FACILITY & CPHL data)



# Other Findings

- All HF had no SOPs on VL monitoring and response to results in place
- In all Health Facilities VL Lab request forms are located in ART clinic
- Complete filling of the VL lab forms is majorly done by doctors (14/18) 77.8%, Nurses (9/18) 50%, Lab personnel (5/18)
- VL samples are collected and prepared by lab staff only (11/18), doctors/ clinical officers and lab staff (4/18) and Nurse/MW and lab staff (1/18)
- On average most of the HFs mentioned that VL samples spend on a drying rack before packaging

TIME	FREQ	%
1-3 hours	2	11.8
4-6 hours	2	11.8
7-10 hours	2	11.8
24-48 hours	9	53
>48 hours	2	11.8
Total	17	

# Methods – Intervention Continued

Action Item	Responsible person(s)	Start Date	Status
Dissemination of Baseline assessment & VL out-puts per facility (the facilities were represented by nurse, clinician & lab personnel)	CPHL, CDC-Uganda, UNMC, MoH-Department of Nursing	July 28 <sup>th</sup> , 2016	Done
Development of facility LARC teams to conduct CQI activities	All facilities supported by LARC core team	July 28 <sup>th</sup> , 2016	Done
Follow-up of the facilities to polish and implement QI activities	Masaka RRH, CPHL, UNMC, Mildmay	August 2016	TBD

# Development of facility LARC CQI activities

## Recommendations

- Train all facility staff in viral load monitoring
- Facilities should take the initiative to do viral load tests for all eligible clients to mop up the backlog by 31<sup>st</sup> September 2016
- Each facility should develop SOPs on viral load utilization for improved patient care.
- Each facility should ensure adherence monitoring is done for all patients on ART at each encounter.
- Improve on prompt filing and documentation of viral load results on patients ART cards respectively.
- Facilities should ensure timely requisition for viral load logites
- All facilities should have functional ART clinical monitoring team that discusses and takes decisions to switch ART for confirmed failures in a timely manner.

## LULUYA HC III

- ### CHALLENGES
- High numbers of rejected VL samples
  - Incomplete documentation
  - Lack of team work
  - Lack of skills when to order for VL
  - Pts miss their appointments
- | Facility level challenge              | Level of Priority |
|---------------------------------------|-------------------|
| - Incomplete documentation            | 1                 |
| - High numbers of rejected VL samples | 2                 |
| - Lack of team work                   | 3                 |
| - Pts miss their appointments         | 4                 |
| - Lack of skills                      | 5                 |
- ### QI Project/Activity
- Reduction in the number of rejected samples
  - Completeness of primary tools
  - Improving team work in all departments
- ### Priority Project
- Reduction in the number of rejected VL samples
- Responsible person: Immaculate

## MARAKA RRH

### Challenges in VL monitoring

- | Challenge  | Pratization | QI activities to address challenges  |
|--|-------------|--|
| ⇒ ANC - ignorance about VL monitoring<br>* Do not know how to fill the book  | 1           | * Offer trainings on how to request for VL<br>* Use number of big packing envelopes for timely DBS dispatch. |
| ⇒ Shortcuts of VL request books  | 2           |  |
| ⇒ Some clients are chronically represented by those in Sudan   | 3           | * Scale up viral load requisition in esp EMTC clinic<br>* Recording VL results on ART Card.                  |
| ⇒ Some viral load shortage of the packaging depth<br>+ mother baby care packet results never return<br>⇒ Shortage of packing envelopes 2 | 2           | * Empowering clients remind clinicians on VL monitoring  |

## KYAMULIBWA HC III TEAM

### LEVEL CHALLENGES

- | LEVEL CHALLENGES                                | LEVEL OF PRIORITY | CQI PROJECT  |
|---|-------------------|--|
| ① NO FUNCTIONAL CLINICAL TEAM TO REVIEW RESULTS | ②                 | - To improve documentation of patients results on the ART cards from 20% to 80% in children below 14yrs, 70% to 100% in adults and from 10% to 70% in pregnant mothers from July to September 2016<br>- Responsible person to be Selected. |
| ② SOME PATIENTS RESULTS NOT TEST IN FILES       | ⑤                 |  |
| ③ NO VIRAL LOAD LABORATORY REGISTER.            | ④                 |  |
| ④ NO FOCAL PERSON RESPONSIBLE FOR VIRAL LOAD    | ①                 |  |
| ⑤ NO SOPs FOR VIRAL LOAD MONITORING.            | ③                 |  |

# Challenges experienced while implementing the LARC project

1. Access and availability of required data during the assessment was not easy (some facilities did not have all quarterly reports on site)
2. Facility level stock out of DBS cards and request forms
3. QI teams at facilities are dormant and lack adequate skills
4. Low staffing rates with limited knowledge on viral load monitoring across cadres at health facilities especially for enhanced adherence counselling

## Strategies the team plans to use to address challenges

1. DHIS2 data shall be used besides the facility copies of their quarterly reports
2. CPHL to offer 3 months of VL commodity stock to all the Masaka hub area facilities
3. Masaka RRH to offer coaching as the center of excellence in QI and do monthly follow up
4. CPHL and Mildmay to do facility level training in viral load monitoring and provide counselling IEC materials

# **What would you do differently in the future?**

- Increase District Health Office engagement in the CQI project implementation
- Add more assessment questions on quality of adherence support offered to patients at facility level
- Provide dedicated training session (refresher on QI)

## **Lessons learnt**

- Multi-professional collaborations enable even professional learning and implementation in unity without differences
- Dissemination to multiple facilities provides a positive challenge towards change of attitude in service delivery

# Way Forward

## **How will we build on what we accomplished?**

- Finish data analysis
- Follow-up visits to each of the facilities to initiate the QI activities
- Provision of VL commodities to all the facilities surrounding the hub
- Support facilities to follow up non-suppressors

## **How will you carry it forward to the next level?**

- Dissemination of best practices to national ART committee and other national level stakeholders
- Possible drafting of in-service counselling training for nurses



**THANK YOU**