

# LARC Uganda

## RESULT REPORTING, INTERPRETATION & PATIENT MANAGEMENT

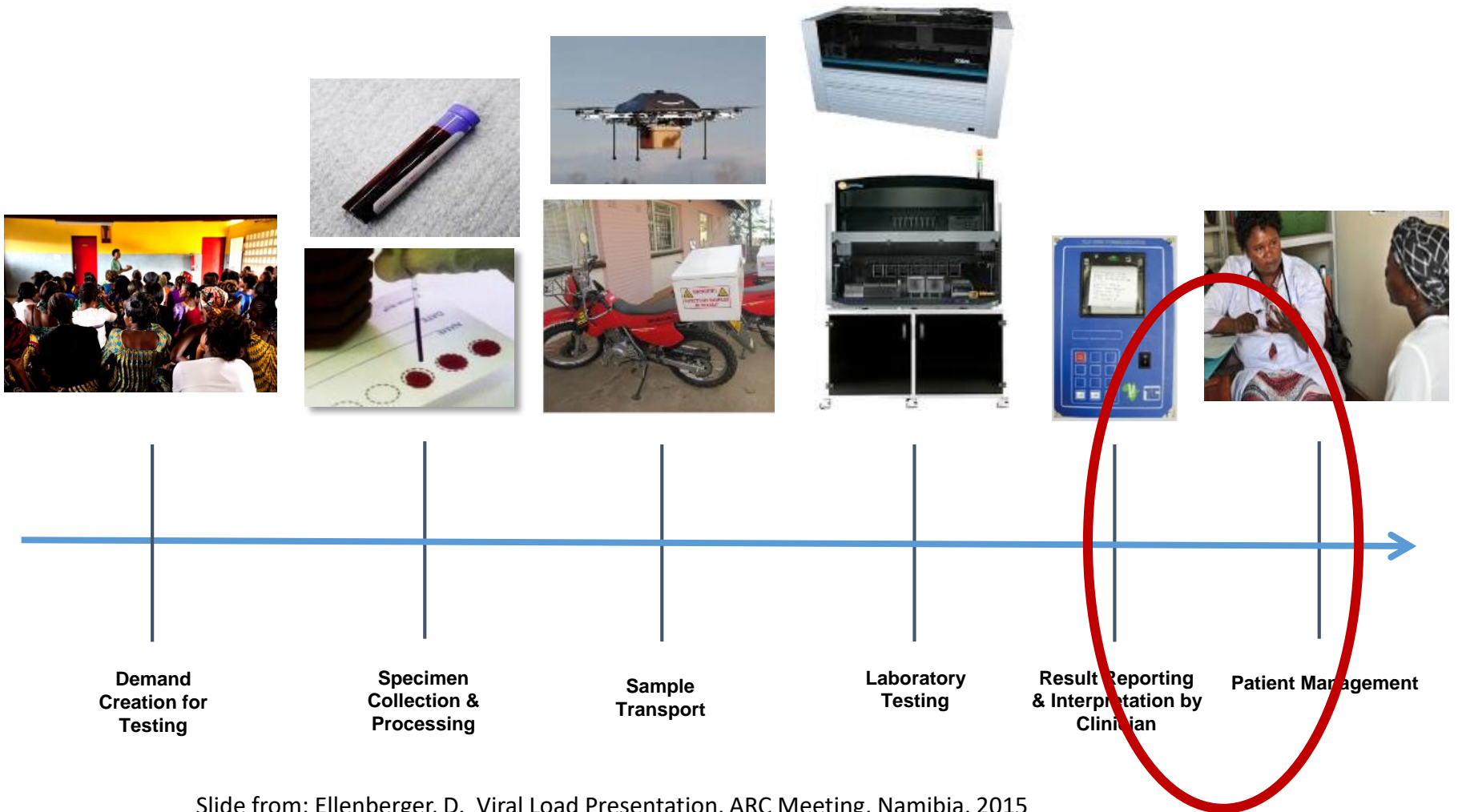
Speaker Names: **Dr Martin Zziwa & Jesca Kabango**

Titles: **National VL coordinator & Senior Nursing Officer**

Organisation: **MOH-CPHL & Kyanamukaka Health Centre IV**

Date: **11<sup>th</sup> May, 2017**

# Focus of The Viral Load Cascade in Uganda



# UGANDA COUNTRY TEAM

## **COUNTRY CORE TEAM**

1. DR. MARTIN ZZIWA
2. DR. FLORENCE  
TUGUMISIRIZE
3. KABANGO JESCA
4. HARRIET NAMBOZO

And Dave Cross

## **OTHER COUNTRY TEAM**

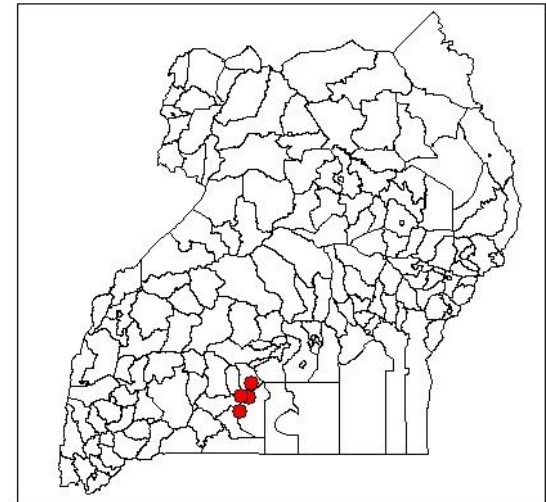
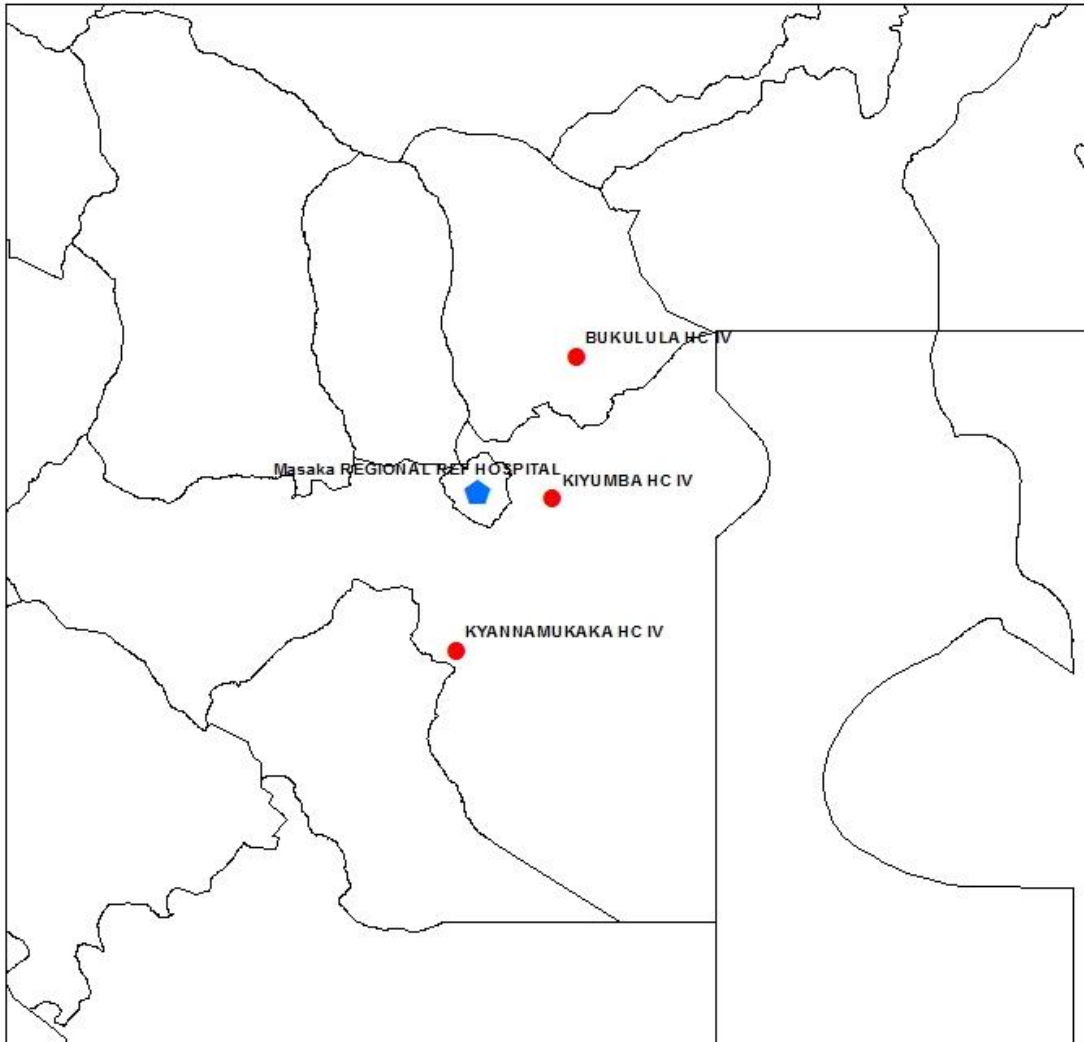
### **MEMBERS**

1. DR CURTHBERT  
AGOLOR(MILDMAY-UG)
2. OKIIRA CHRIS (MOH-UG)
3. DR JOSEPH KABANDA(CDC-  
UG)
4. SAMUEL WASIKE(CDC-UG)
5. JONATHAN NTALE(CDC-UG)

# FIELD TEAMS



# MAP OF THE FACILITIES IN LARC CQI PROJECT



# LARC CQI TEAMS AT THE THREE HEALTH FACILITIES

## Kyanamukaaka HC IV

PLHIV in care 1367

PLHIV on ART 1330

### LARC Team members

1. Kabango Jesca  
(Nurse)
2. Kasiime Olivia  
(Nurse)
3. Byaruhanga  
Valetine(Lab)
4. Nassanga Betty  
(Counsellor)
5. Expert client

## Bukulula HC IV

PLHIV in care

PLHIV on ART

### LARC Team members

1. Mary Namaganda  
(clinical officer)
2. Faith Nazziwa  
(Nurse)
3. Winfred Nakibeyu  
(Counsellor)
4. Phoebe  
Namaganda (Lab)
5. Expert Client

## Kiyumba HC IV

PLHIV in care

PLHIV on ART

### LARC Team members

1. Nazziwa Ruth Faith  
(Nurse)
2. Nakiberu Winfred  
(Nurse)
3. Nannono Jackie  
(Lab)
4. Mayanja Julian  
(Peer/expert client)



# Project Summary

What are we trying to accomplish?

Project Goal

To improve quality of life of PLHIV on ART through VL monitoring

How will we know if a change is an improvement?

Aims, Objectives & Metrics

To improve utilization of Non-suppressed VL results at 3 ART sites

1. To improve % of NS VL clients who are contacted within 1 week by HFs from 27% to 90%
2. To improve proportion of NS VL patients given 1<sup>st</sup> IAC within 1 Month from 6% to 90%

**(Numerators:** (1) # of NS VL with in 1 week and (2) # of NS VL who receive 1<sup>st</sup> IAC within 1 month of receipt of results at the HFs

**Denominator:** Total No of NS VL patients

What change will we make that will result in an improvement?

LARC interventions

Formation of HF LARC teams-clear roles  
Onsite mentorships/Supervision  
Active follow up of NS VL results  
Lab VL stamp date & sticker system  
Tools-NS VL register & standard IAC tools

# Elevator Speech

**THIS PROJECT IS ABOUT** utilization of VL results for management of NS Patients at 3 ART sites in Masaka Region.

The 3 sites were supported to effectively contact NS clients to return to HF s for Enhanced Adherence counselling as soon as possible.

**As a result of these efforts,**

- ❖ The NS poor adherers will be helped to suppress
- ❖ Also those failing treatment failures will be switched to alternative regimens thus achieving epidemic control.

**IT'S IMPORTANT BECAUSE WE ARE CONCERNED ABOUT:**

- ❖ The effects of continued Poor ART adherence on viral suppression
- ❖ The consequences of Delayed switching of ART regimens for failing patients

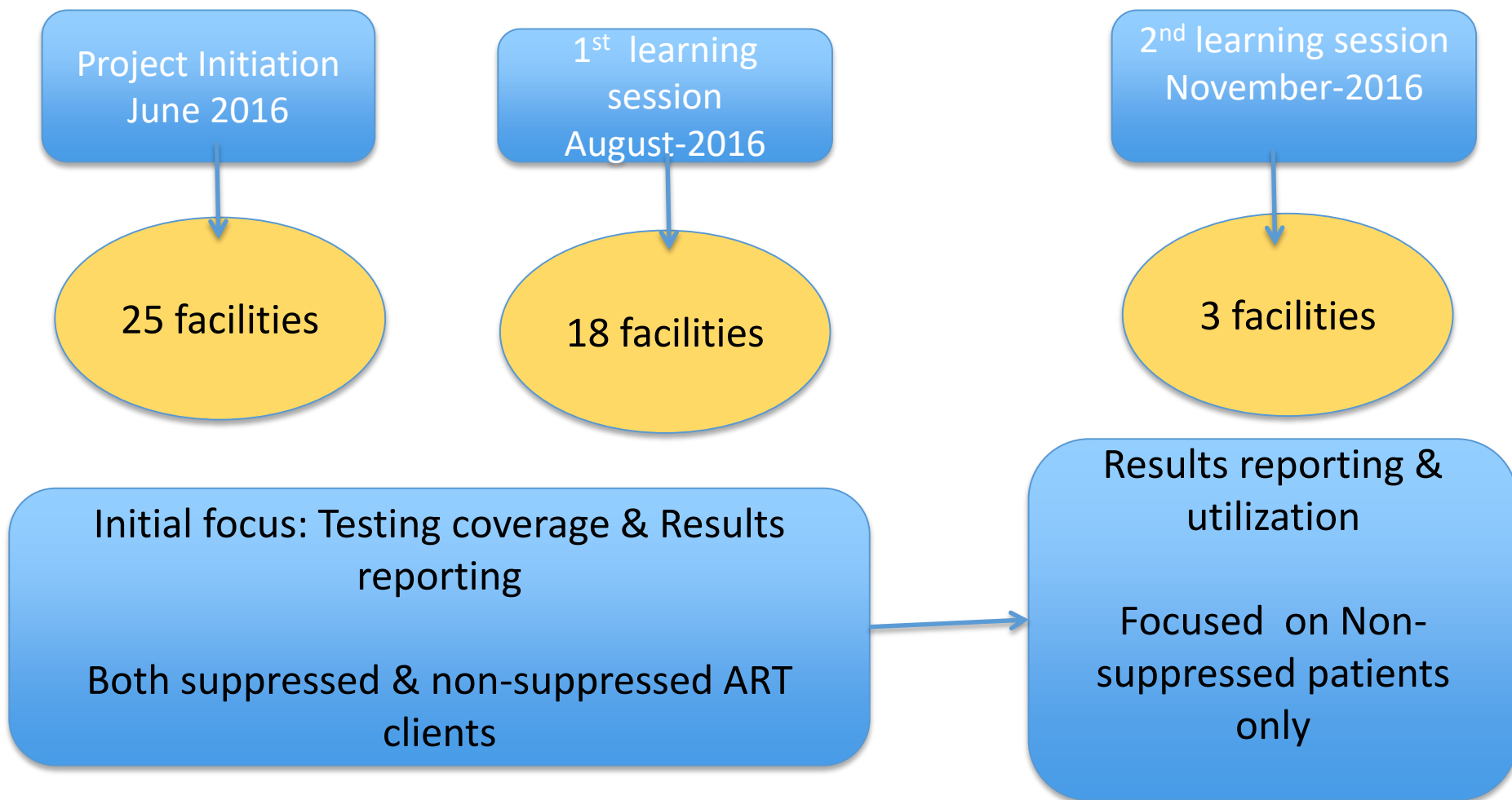
**Success will be measured by showing improvement in:**

- ❖ The percentage of non suppressing patients who are contacted within a week of receiving results at the Health Facility
- ❖ The percentage of non suppressing patients who are initiated onto 1<sup>st</sup> IAC within a month after receipt of VL results at the HF

**What we need from you** – facilitation to support patient follow-up and information management resources



# THE STORY OF OUR PROJECT



# Process Mapping

## The First Step Towards Improvement

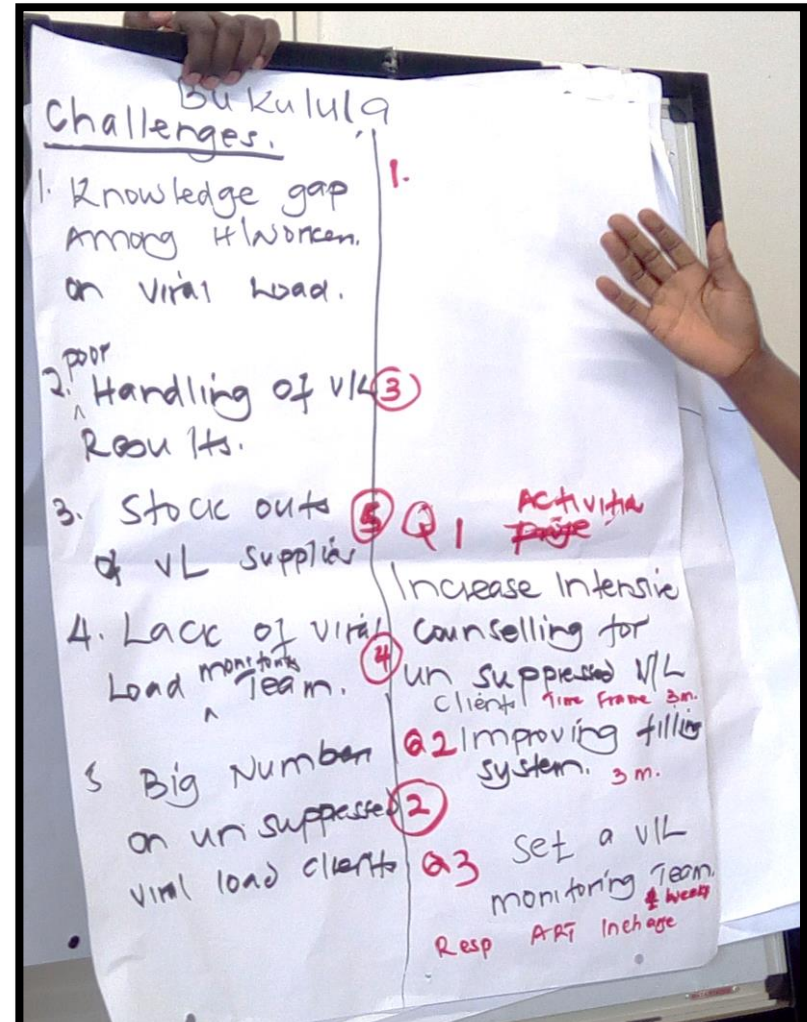
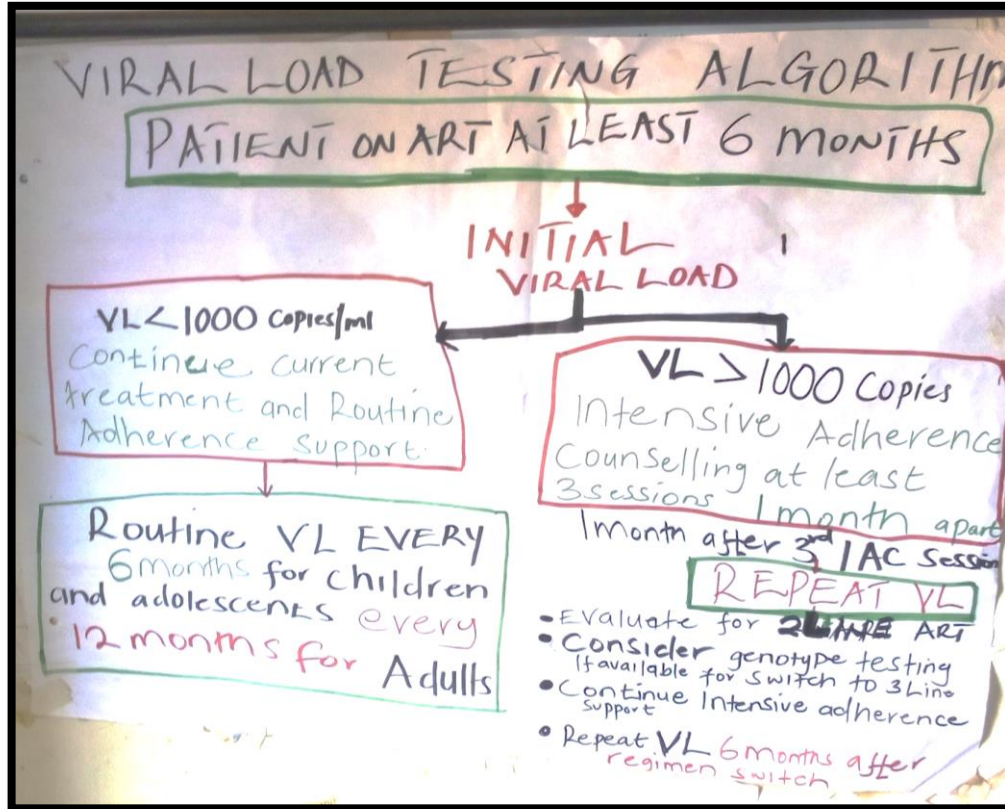
(Show your process map. Use any format that you have learned - chart, swim lanes, photo of sticky notes on paper.)

Process Step	What Happens?	Who is responsible?	Duration	Forms/logs	Opportunity for Improvement
Results reception	Receive patient VL results at the lab, stamp, record in register and relay to ART clinic	Lab staff	1 day	VL daily activity register (HMIS 095a), VL results form	Use of electronic results download system for shorter TAT
Results sorting	Results separated by suppression Results filed, NS patient files flagged with red stickers NS patient data entered into the non-suppression register,	VL focal person	1 day	Patient ART CARD, ART register (HMIS 081), facility EMR, Non-suppressed Register (HMIS 117), Red & green VL stickers	Engagement of data clerk in results sorting and flagging
Contacting non suppressed patients	NS patients called by phone or visited at home to invite the for 1 <sup>st</sup> IAC. Document appointment in register	CHEWS, clinic Staff on LARC CQI	1-7 days	Non-suppressed Register (HMIS 117), patient tracking log	Airtime for contacting NS patients, transport for physical visits to patient homes
1 <sup>st</sup> IAC session and psychosocial support	Client comes on appointed visit, results explained, adherence and psychosocial issues are discussed	Clinicians, Counsellors & clinic Staff on LARC CQI	1 week to 1month	IAC form, Patient ART CARD	Standard IAC training manual, IAC job aides

# Process Mapping

## The First Step Towards Improvement

(how gaps were identified)



Adopting the VL algorithm at facility level

Identifying gaps: Bukulula HC IV

# Process steps in Kyanamukaka: (sorting, recording & filing NS patient info)



Step Adherence Counselling for high viral load Record Sheet

Patient ART number: 381 Patients high Viral Load: 23,308 copies

Counselling Session 1

Pill count adherence %: 85%

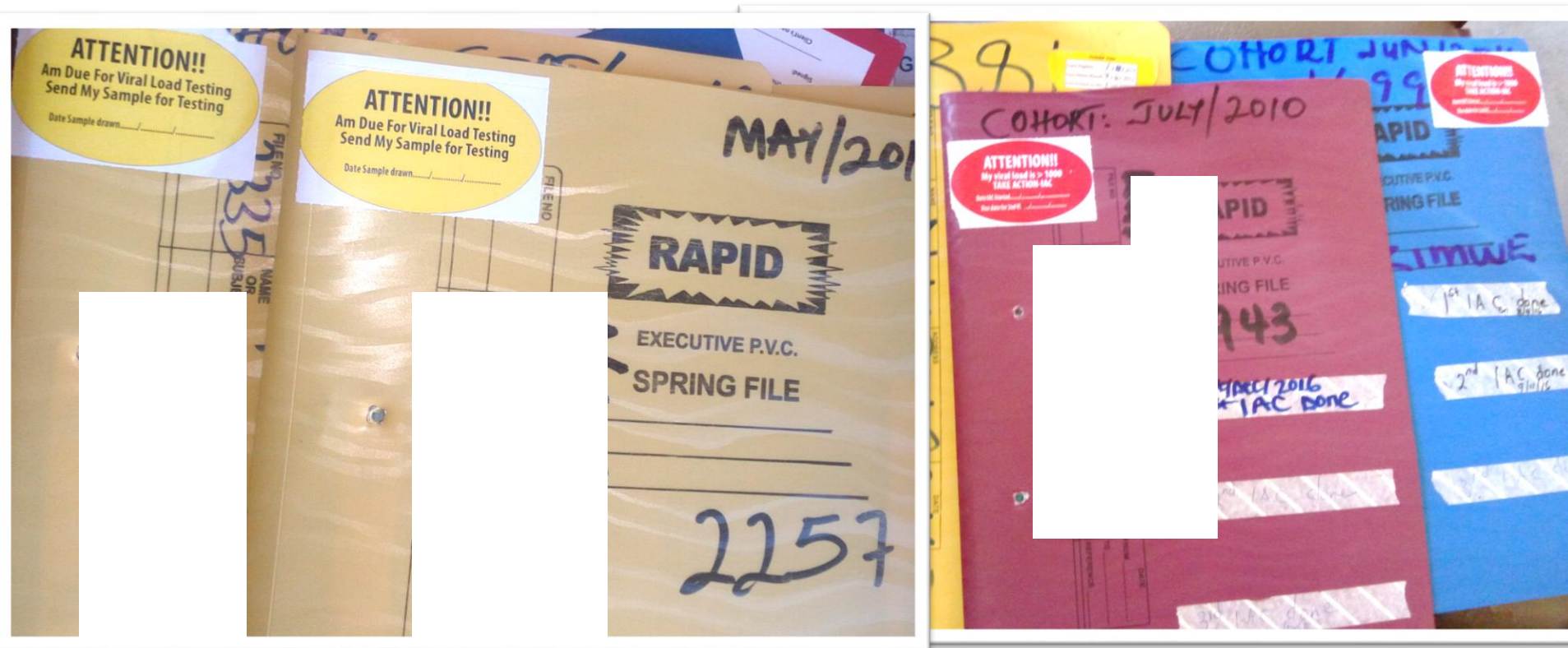
Date	Details of counselling session (Reasons for non-adherence)	Next visit date	Details of HCW doing counselling
7/3/17	1st IAC Findings - the girl didn't know why she was taking ARVs plan Counsellor promised to take her ARVs very well	6/4/17	Getca

Counselling Session 2

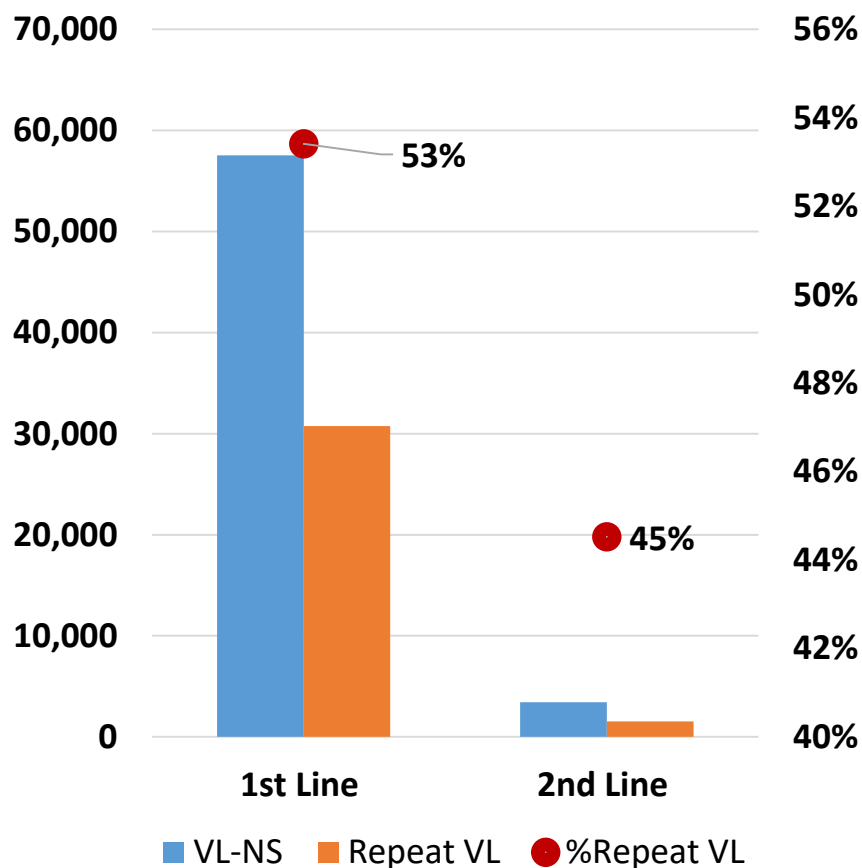
Pill count adherence %: 95%

Date	Details of counselling session (Reasons for non-adherence)	Next visit date	Details of HCW doing counselling
6/14/2017	2nd IAC - is taking well her ARVs - Promised to keep it up.	2/05/17	Olivia

# Example of flagging of files



## Non Suppressors who receive a repeat VL test nationally (2016)



## GAP: Poor results utilization

- *Uganda's VL coverage is steadily improving currently at 73% (Dec 2016)*
- *On VL dash board, 9% of samples are Virally Non suppressed*
- *However, Only 53% and 45% of Non-Suppressed clients on 1<sup>st</sup> and 2<sup>nd</sup> Line received respectively received a follow-up viral load (VL) test*
- *Also the national ART Report(Dec 2016) indicates only <5% of VL non suppressed clients are on 2nd or 3rd Line!*
- *LARC project baseline, only 6% of VL Non suppressed received IAC*
- *Process map gaps- Lack of VL register in Lab, no focal person for VL results, results not filed, clients not contacted in time, clients missed or took long to have IAC, inadequate follow up of clients, disconnect between lab and clinicians*

Define

Measure  
1

Analyze

Improve

Control

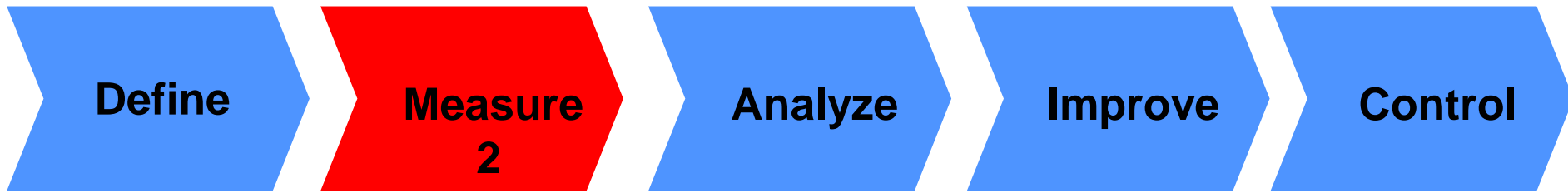
## Metrics

### INDICATOR 1:

- The proportion of NS VL clients who are contacted with in 1 week
- **Numerators:**
  - # of NS patients who are contacted by HF worker with in one week of results return at the HF
- **Denominator:**
  - # of NS patients in project period

### INDICATOR 2:

- The proportion of NS VL clients who receive their 1<sup>st</sup> IAC within 1 month
- **Numerators:**
  - # of NS patients who are given 1<sup>st</sup> IAC session by HF worker with in one month of results return at the HF
- **Denominator:**
  - # of NS patients in project period



- Baseline Data

LARC site	Baseline #NS (June-Aug16)	# of NS VL contacted in 1 week	%proportion contacted	# of NS VL given with 1st IAC	% Proportion-1st EAC
Bukulula	15	4	27%	1	7%
Kiyumba	19	5	26%	1	5%
Kyanamukaka	18	5	28%	1	6%
<b>Total</b>	<b>52</b>	<b>14</b>	<b>27%</b>	<b>3</b>	<b>6%</b>





	Biodata		results turn around time		Assessing LARC intervention for VL result management						
variables	Indicate Age in years on the VL result slip	Indicated Sex (M/F) on the result slip	Indicate date VL sample was requested	Indicate date VL results returned to Local Lab	Did VL result Receive VL Date stamp?(Y/N)	Indicate the stamp date seen on the Result	Registered in the Lab VL results register?(Y/N)	VL result relayed to the ART clinic?(Y/N)	VL result filed/affixed in the patients file or blue card?(Y/N)	Indicate unit where result was filed (ART clinic, Mother Baby pair point, ANC clinic, TB clinic, etc)	Patient's file flagged with a red sticker?(Y/N)
VL result 1											
VL result 2											
VL result 3											
VL result 4											
VL result 5											
VL result 6											
VL result 7											
VL result 8											
VL result 9											
VL result 10											
VL result 11											
VL result 12											

# Data collection

- HF LARC team supported by core LARC team
- Used Project designed tool
- Data collected & reviewed per 2 monthly basis

Define

Measure

Analyze

Improve

Control

**People:**

- 1. No staff designated to follow-up NS patients
- 2. Some NS patients have no contacts

**Process**

- 1. Results not relayed to ART clinic or sorted
- 2. NS results & files not flagged

**Materials / Supplies**

- No NS tracking log
- No lab stamp for receipt of results
- No stickers to flag NS files

**Problem:** Non-suppressed patients not contacted in time to start IAC

**Environment**

- 1-Inadequate workspace-lab, ART clinic
- 2-Communities not sensitized on VL issues

**Policy / Procedure**

- 1-No SOPs for results Management
- 2- No policy on results Filing and start if 1<sup>st</sup> IAC

**Equipment**

- 1- Very old computers
- 2- No facility based phone
- 3- No facility based means of transport for Follow up of NS

# LARC Strategies/Interventions that were chosen

The LARC interventions chosen were a mixture of **people**, **processes** and **materials**

## Intervention 1

Establishment of LARC teams at each of the 3 pilot sites

- HF or ART Clinic in-charges
- Records officer,
- Laboratory VL results focal person
- Nurse/midwife in the clinic responsible for VL results
- Clinical officer(if available)
- An expert client



# LARC Strategies/Interventions cont'd

## Intervention 2

- Technical Assistance to the 3 HFs
  - Onsite support supervision and mentorships
  - Development of tools e.g. SOPS for VL results documentation, SOPS for patient contacts, SOPs for switching patients
  - Availing the NS VL registers

## Intervention 3

- Use of VL stamps
- Use of Yellow and red stickers
- Pro-active tracking and follow up of non-suppressed clients
  - Use of Phone calls
  - Use of VHTs/Expert clients



# Key roles and responsibilities of members

## 1. Lab VL results focal person

- Receives VL results and Stamps on the results slips with the date of the receipt of the results
- Oversees recording of results in the VL lab register
- Immediately (ideally within 1 day) takes all the VL results to the ART clinic
- Actively alerts the ART clinic staff, about the non suppressed VL results

- Stamped results from the Lab

**SAMPLE TEST INFORMATION**

Sample Collection Date: 05-Apr-2017      Repeat Test: Yes  No

Reception Date: 18-Apr-2017      Sample Rejected: Yes  No

Test Date: 21-Apr-2017

If rejected Reason:

**VIRAL LOAD RESULTS**

Method Used: Abbott Real time HIV-1 PCR

Location ID: V1704-1679/12

Viral Load Testing #: 032604/0417

Result of Viral Load: 62,564 Copies / mL

**RECOMMENDATIONS**

Suggested Clinical Action based on National Guidelines:  
Above 1,000 copies/mL: Patient has elevated viral load.  
Please initiate intensive adherence counseling and conduct a repeat viral load test after six months.

Lab Technologist: [Signature]      Lab Manager: [Signature]

Facility Lab Stamp: **VL RESULTS**, 26 APR 2017, CD AT, 21719 HC IV

Reference Lab Stamp: 21 APR 2017, virology lab

# Key responsibilities cont'd

## 2. ART clinic nurse/midwife (supported by expert client)

- Reviews the sorted results and further confirms the VL non suppressed results
- Collaborates with the records officer to look up the Patient's files
- File the results in the patients file or affixes the results on the patients blue card
- Flags the file of NS patients with a red sticker
- Fills in the NS-register
- Before 7 days elapse, the nurse **CONTACTS** the VL non-suppressed Patient
  - Direct phone calls or expert client home visits.

- Appointment fixing for IAC sessions and follow up
- Initiate the first IAC preferably within 30 days & attends to patients
- Documents
  - Adherence issues on the standardized tool for IAC.
  - VL non suppressed register

## VL NS REGISTER ON SITE

Sl. No.	Name of Patient	Age	Sex	Group	VL Count (copies/ml)	VL Count Date	MAC	SEES	10
1	DRUGS	27	F	02155877	218202				
2	DRUGS	40	M	076288	9514		✓	✓	✓
3	DRUGS	16	M		6996		✓		
4	DRUGS	5	M		2820		✓	✓	✓
5	DRUGS		F		20425		✓	✓	
6	DRUGS	6	F		6348				
7	DRUGS	3	M		17				
8	DRUGS	3	F		13506				
9	DRUGS	59	F		1664				
10	DRUGS	4	F		96				
11	DRUGS	32	F		53532				
12	DRUGS	12	F		2309				
13	DRUGS	04	F		13.5				

**Non suppressed register**

**Innovated in LARC CQI**

# Key roles and responsibilities continued

## 3. Clinical officer or Medical Doctor ( & ART clinic nurse/midwife)

- Attends to patients
- Interprets the results and explains to the NS clients
- Organizes a switch meeting or case conference for the VL NS clients
- Eventually does regimen change
- Monitor compliance to the new treatment/OIs/Adverse reactions
- Group education and sensitization to clients

Group sensitization by expert client at the HF

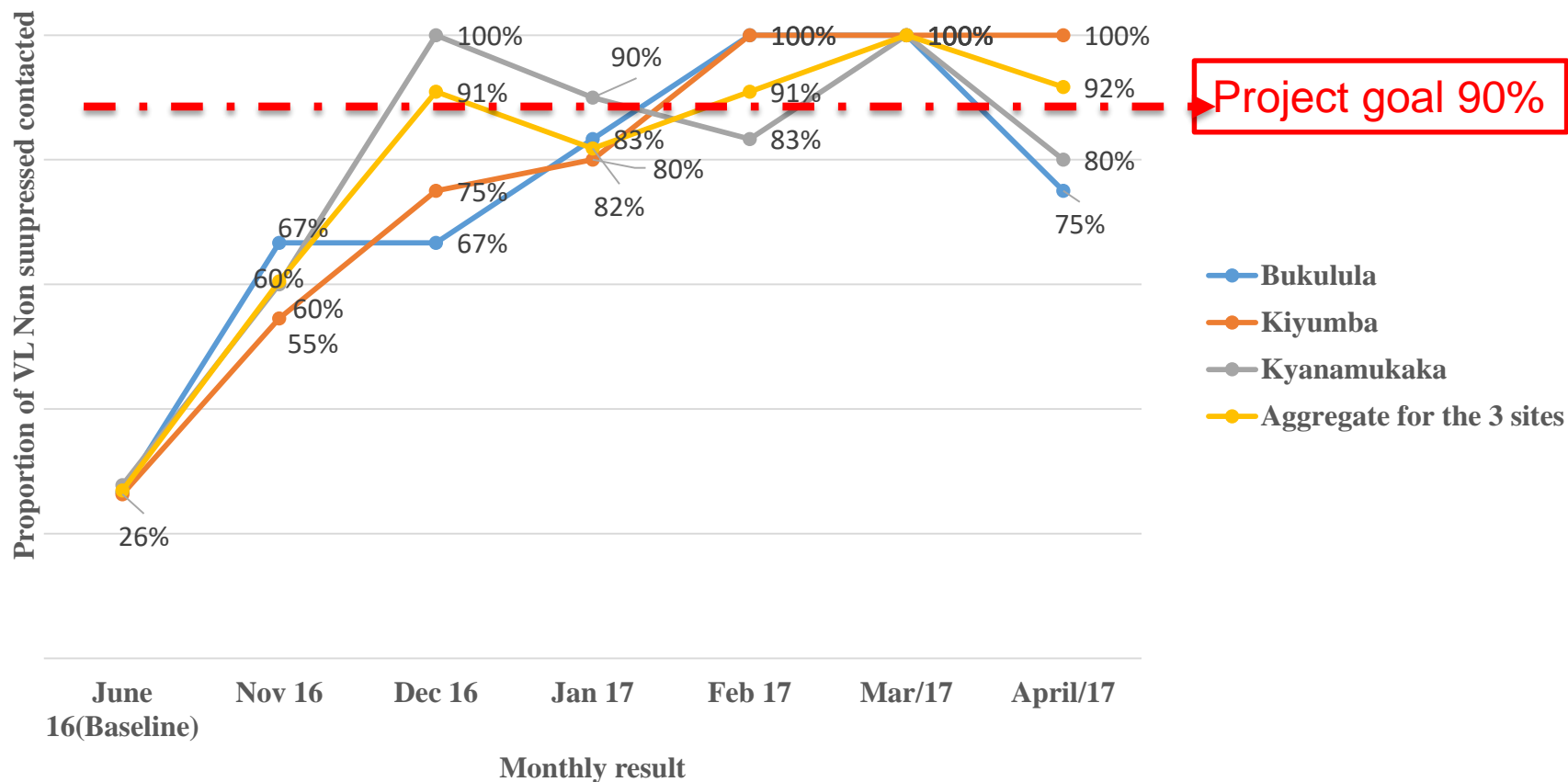




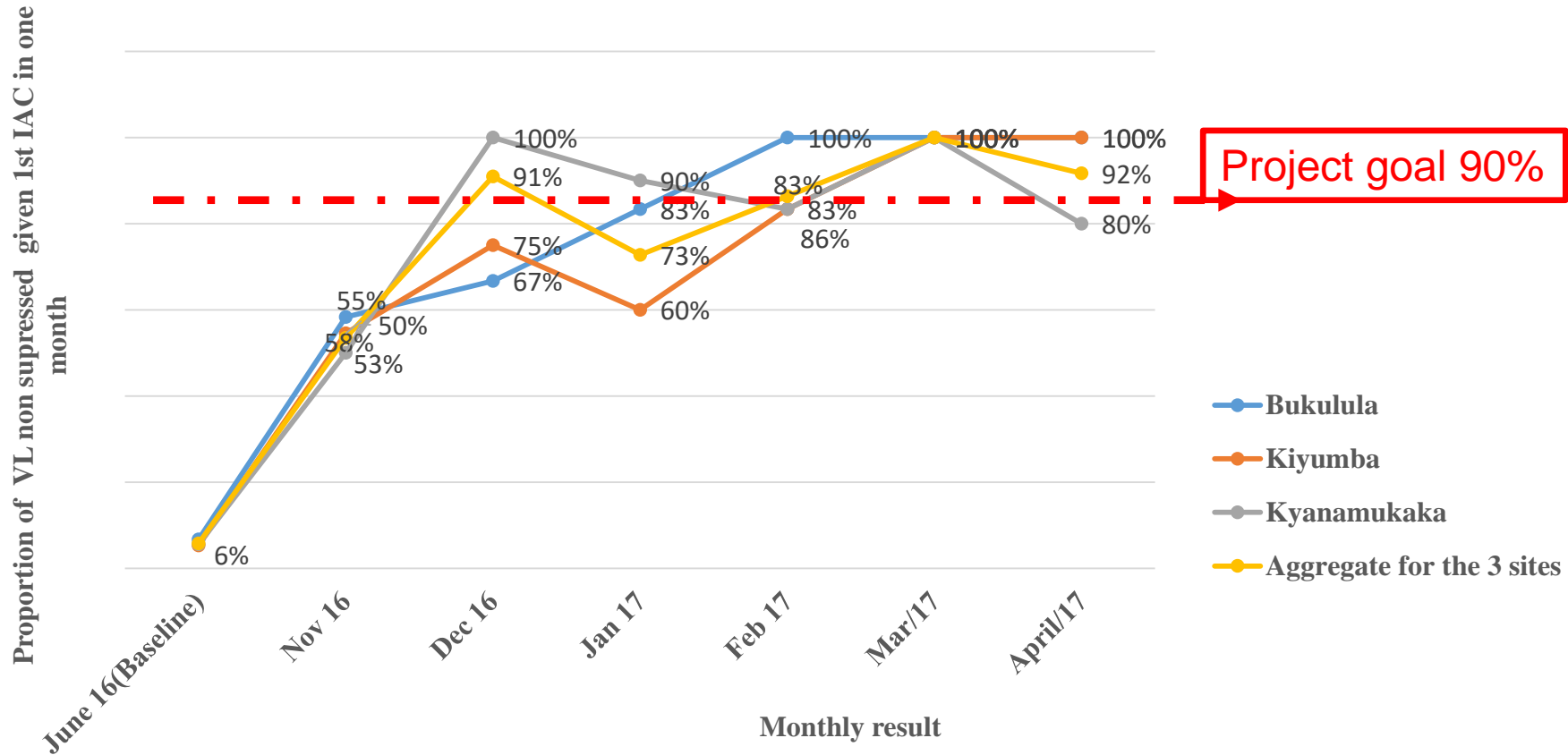
# NEXT

# RESULTS ANALYSIS

# Proportion of VL non suppressed who are **contacted** within one week of VL results receipt at HF

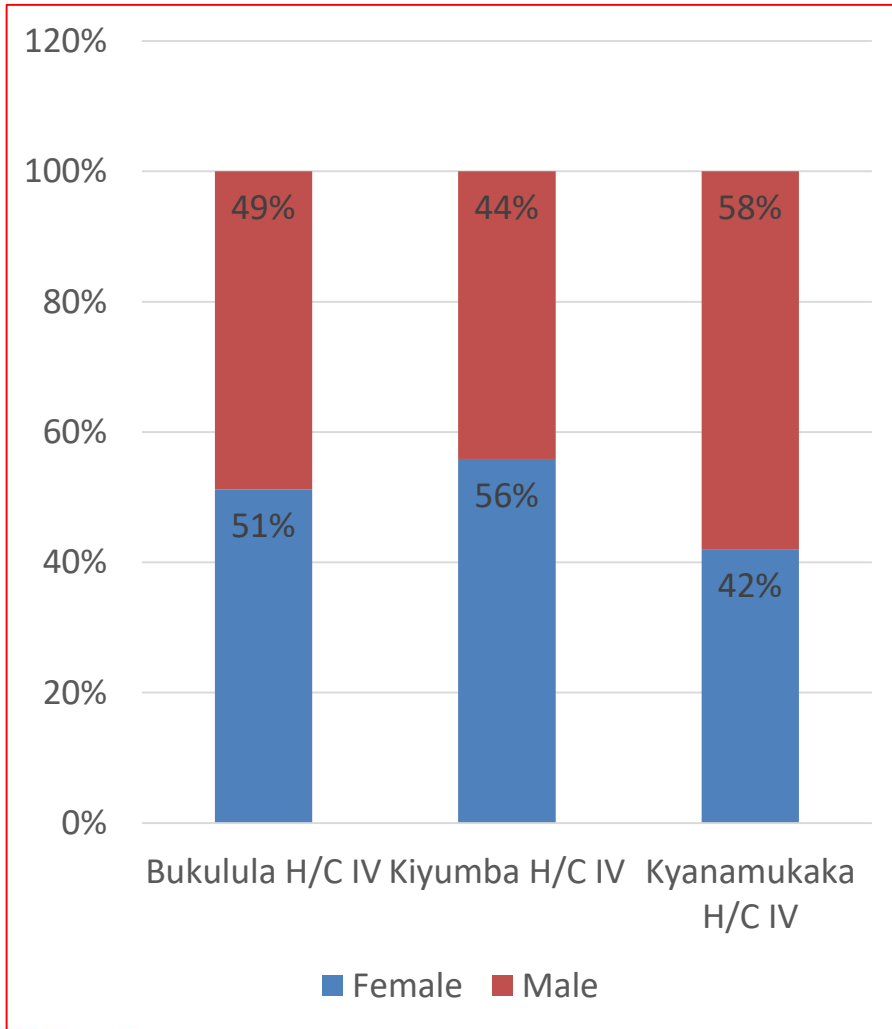


# Proportion of VL non suppressed given 1<sup>st</sup> IAC in 1 month

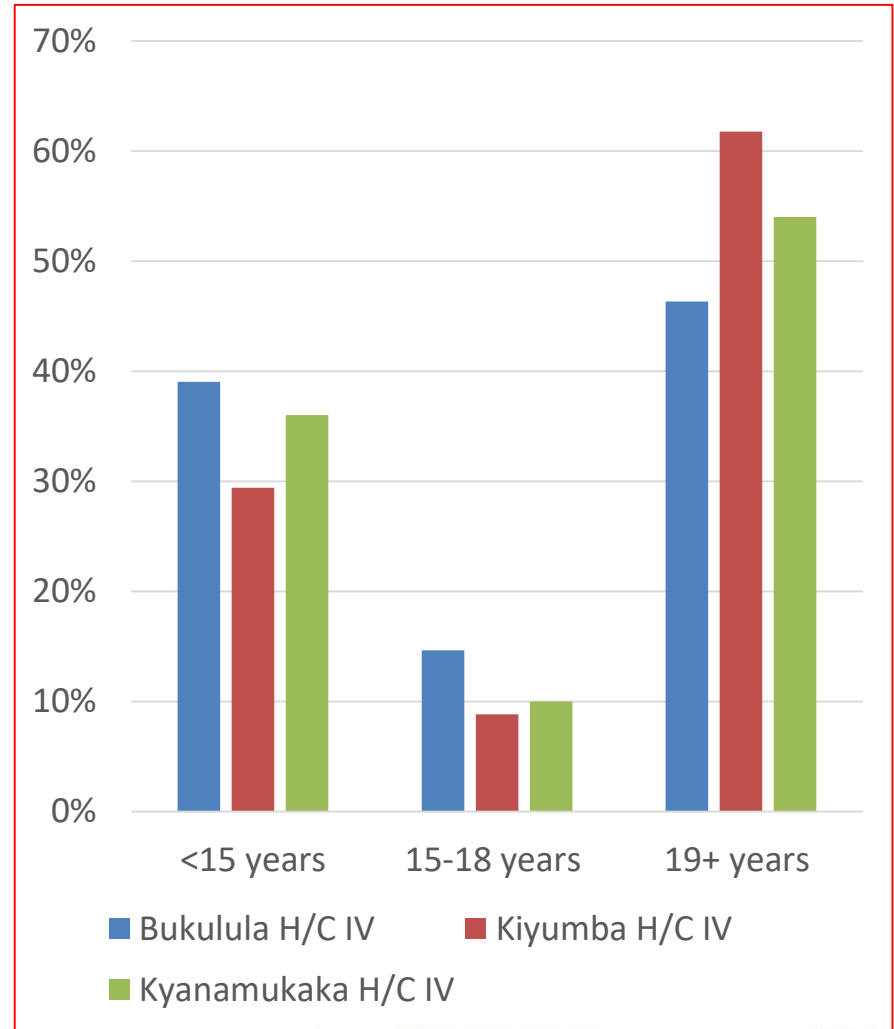


# Socio-demographics among NS clients in project period

## Male/Female in April 2017 ( 125 people)



## Age Bands per facility



Define

Measure

Analyze

Improve

Control

## What worked well

- VL focal teams at facility
- VL result documented in lab register
- NS VL result date stamp
- Results affixed to files
- Red sticker on NS VL files
- Health worker contacting patients in 7 days



## Onsite mentorships

### What never worked well

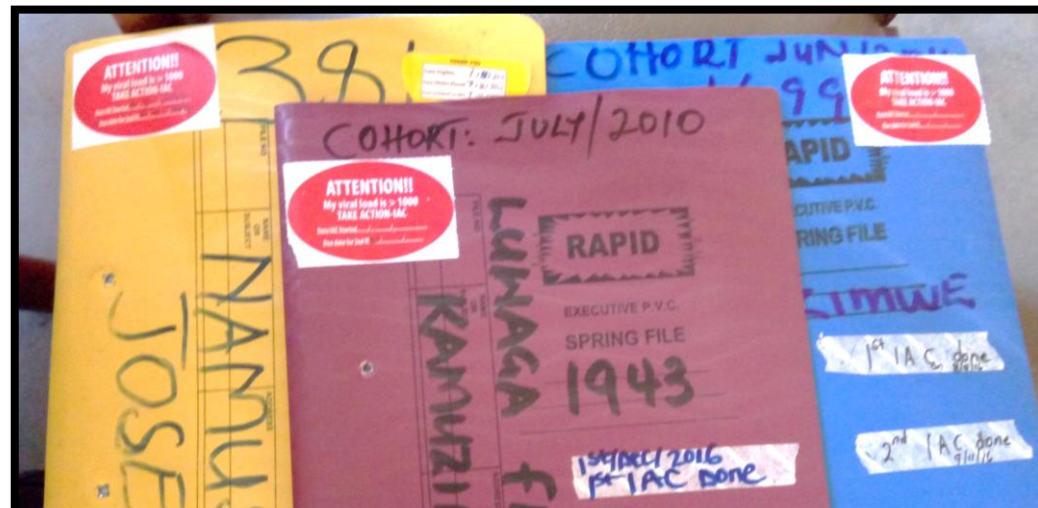
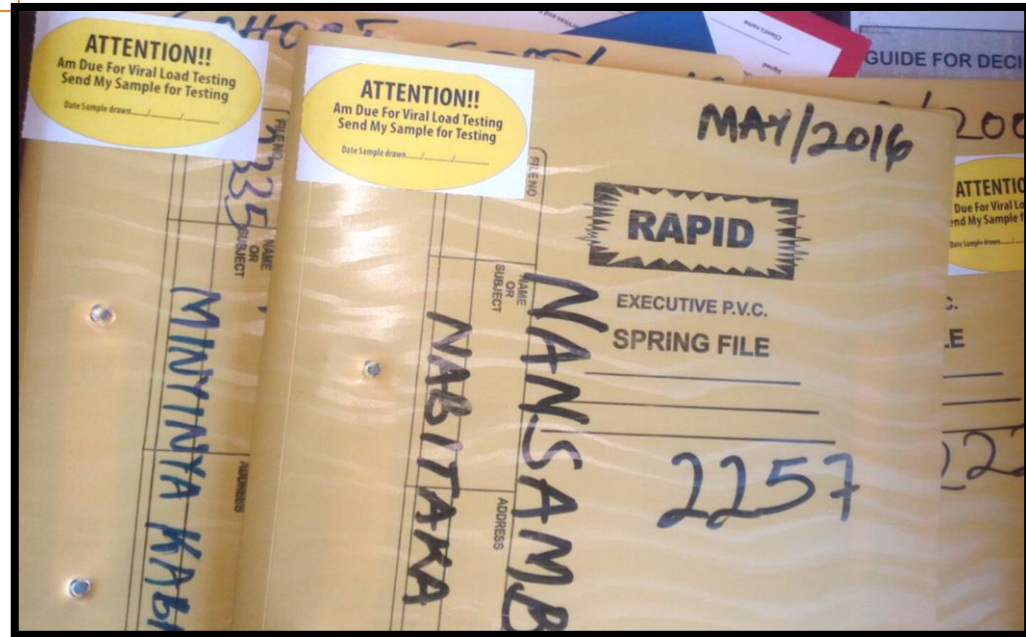
- Follow up for completion of 3 IAC sessions
- Switch meetings
- Community Involvement

# Visual management: How NS files were handled

Before LARC intervention



AFTER LARC intervention

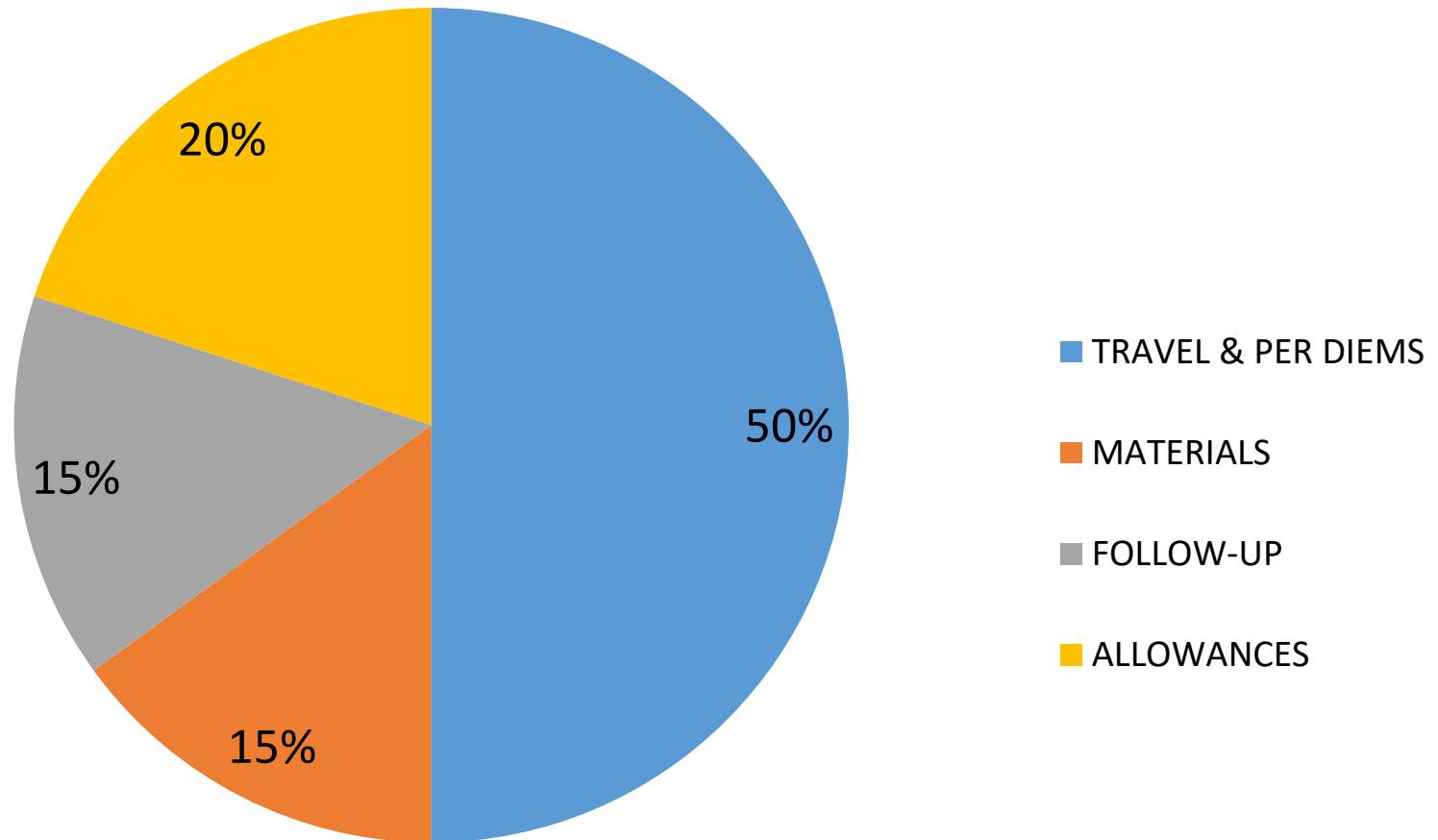


Control

# Sustainable activities for scaling up LARC CQI

Scale up strategy	Sustainable Activities	Process owner	Timeline
Engage and disseminate to district & MOH (CPHL & ACP)- owners	<ul style="list-style-type: none"><li>• Debrief meetings to MOH TWGs</li><li>• Dissemination to program managers</li><li>• Share final report &amp; best practices</li></ul>	Core LARC team	June '17
Engage CDC Agency and interagency teams	<ul style="list-style-type: none"><li>• Debrief TWGs and engage interagency teams</li></ul>	CDC LARC team	June '17
Incorporate in the national CQI framework	<ul style="list-style-type: none"><li>• Engage above site mechanism (METS) to incorporate the LARC CQI into the regional &amp; district CQI collaboratives</li><li>• Disseminate and involve districts</li></ul>	Core LARC team	June'17 To August '17
COP 17 planning	<ul style="list-style-type: none"><li>• Incorporate LARC CQI strategy into IPs budget &amp; Workplans.</li><li>• Leverage existing HIV care and support interventions e.g. community follow up activities</li></ul>	CDC LARC team	COP 16 & COP 17 periods

# Budget allocation estimate





# Uganda's Progress on the CMM

Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
<ul style="list-style-type: none"> <li><input type="checkbox"/> Viral load results are difficult to read and interpret and requires laboratory assistance</li> <li><input type="checkbox"/> Clinicians are not properly trained to interpret viral load results</li> <li><input type="checkbox"/> Clinicians are uncomfortable integrating viral load results into ART care</li> <li><input type="checkbox"/> Clients do not understand their viral load results</li> <li><input type="checkbox"/> Clinicians have no backup person to call to discuss difficult cases or clients who require 2<sup>nd</sup> line treatment</li> <li><input type="checkbox"/> No standard operating procedures for result interpretation and client management</li> </ul> <p><b>AUGUST 2016</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Viral load results are occasionally readable and interpretable and requires minimal laboratory assistance</li> <li><input type="checkbox"/> Increased awareness of result interpretation by clinicians</li> <li><input type="checkbox"/> Few clinicians are comfortable integrating viral load results into ART care</li> <li><input type="checkbox"/> Clients have a limited understanding of their viral load results</li> <li><input type="checkbox"/> Intermittent availability of consultation for 2<sup>nd</sup> line treatment</li> <li><input type="checkbox"/> Standard operating procedures for result interpretation and client management are in development</li> </ul> <p><b>AUGUST 2016</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Viral load results are consistently readable and interpretable by clinicians</li> <li><input type="checkbox"/> Clinicians are adequately trained in viral load result interpretation</li> <li><input type="checkbox"/> Clinicians regularly discuss VL results with clients</li> <li><input type="checkbox"/> Clients understand their viral load results and can repeat their understanding back to the clinician</li> <li><input type="checkbox"/> Standardized system in which all providers have a designated POC/referral system in place to consult for management of VL results and switch to 2<sup>nd</sup> line</li> <li><input type="checkbox"/> Result interpretation and client management standard operating procedures are established and implemented across the organization</li> </ul> <p><b>NOVEMBER 2016</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Organization reviews routinely collected program data to measure performance in relation to standard operating procedures and national guidelines for client management</li> <li><input type="checkbox"/> All stakeholders (e.g., clinicians, personnel, clients, etc.) play active role in client management and their viral load</li> <li><input type="checkbox"/> Clinic has ability to identify missed opportunities for ensuring VL results are integrated with client management</li> </ul> <p><b>APRI 2017</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Organization uses rigorous evaluation procedures and findings to demonstrate effectiveness and improve the process of client management</li> </ul>

# Challenges

- Barriers in tracking and follow up- lack of telephone numbers, non disclosure
- Non completion of the 3 IAC sessions on schedule
- Mobility of some patients- fishermen & herdsman
- **Insufficient counseling skills and documentation of counseling sessions**
- **No national level VL patient monitoring indicators in HMIS tools**

# Plan to deal with the challenges

- Leverage and incorporate into the existing VL CQI projects(METS for CDC)
- Leverage existing care and support program for follow up of clients
  - For patient tracking and follow up
  - Facilitation of Health workers
- District involvement
- Refresher training in counseling
- Indicators were developed & being piloted

# Lessons Learned and what we would do differently

## Lessons learned

- Low cost CQI initiatives can be very impactful
  - Flagging of patient files enabled proactive follow up for management
  - Community based follow-up
- It is important to focus CQI to manageable number of HFs

## What would be done differently

- More District involvement for adequate mentorships
- More community cadres involvement
- Strengthening of M&E skills of facility staff early at project initiation (indicators)

# Way Forward-Next projects

## Evaluations:

1. evaluation of the LARC CQI for improvement of VL monitoring
2. Transfer Non Suppression follow up from national-hub led model to district/hub-facility level with national level oversight
3. Develop cost-effective models of VL monitoring at community level under the differentiated models of care adopted in Uganda
  - How can results be safely relayed to PLHIV who will spend long periods without coming to facilities