Remote Assistance Facility B

Viral Load Results Reporting and Interpretation Cascade

Team Members

Responsibility	Team member
Champion/sponsor	
Team leader	
QI expert/coach	
Data Manager	
Frontline Members	
Other team members	

Background

- The CCC services were started in 20XX. There has been a total of 11,556 ever enrolled, with 3,565 currently on care. Out of these, over **93%** are virally suppressed. There are approximately 100 clients seen daily.

Stakeholder Analysis
(Stakeholder analysis Grid)

SATISFY -County Government -MCAs - Reference Lab	**ENGAGE** -APHIA Plus -AMPATH-Plus -MEDSUP -SCASCO -CASCO -Colleagues -GIS
MONITOR -Peripheral Health Facilities	**INFORM** - Clients

THE STORY OF OUR PROJECT

Project Summary

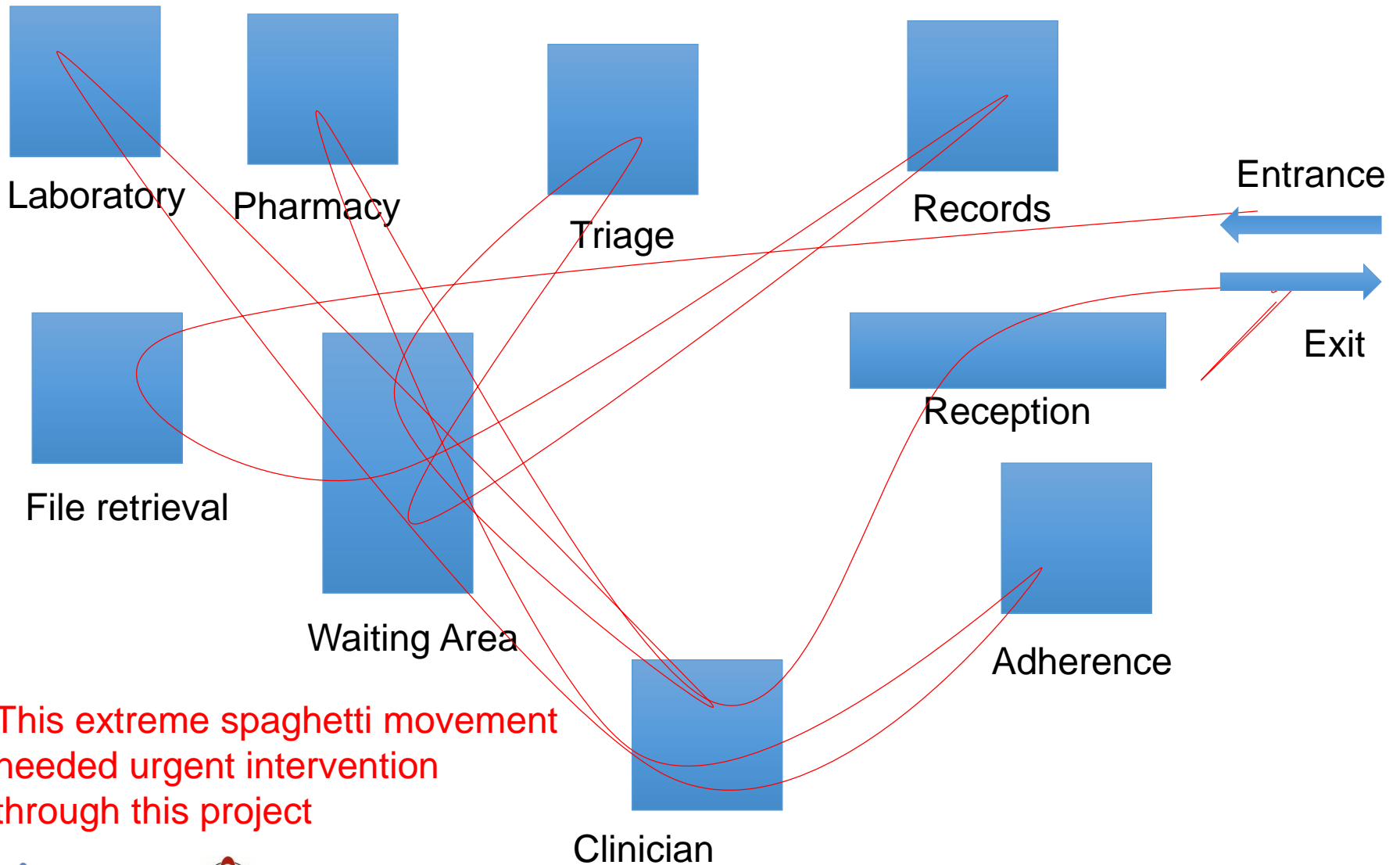| What are we trying to accomplish?	How will we know if a change is an improvement?	What change will we make that will result in an improvement?
Ensure better management of our CCC clients	**AIM Statement** To increase the percentage of hard copy viral load results in the patient's files from 42% in September, 2018 to 90% by March, 2019. **Metric:** Numerator: Number of hard copy VL CCC patient results in the files. Denominator: Number of Viral Loads results received.	**Intervention** -Daily printing of VL results. -Students routinely assigned to file the hard copy VL results under supervision.

Elevator Speech

This project is about ensuring that hard copies of the viral load results are availed in the patient's files. As a result of these efforts, monitoring of clients' viral load suppression will be achievable.

It's important because we are concerned about timely clinician interpretation of results and clients overall health.

Success will be measured by showing improvement in the percentage of hard copy viral load results available in the files. What we need from you is a viral load result printing machine dedicated to the CCC laboratory.

Old Process Map- Movement
The First Step Towards Improvement

Laboratory

Pharmacy

Triage

Records

Entrance

Exit

File retrieval

Reception

Waiting Area

Adherence

This extreme spaghetti movement needed urgent intervention through this project

Clinician

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Process Mapping
The First Step Towards Improvement

Process Step	What Happens?	Who is responsible?	Duration	Forms/logs	Opportunity for Improvement
HTS Room	• Testing for identification • Rapid test done if positive a confirmative test • Client then referred to the ccc for care.	HTS counselor	45mins to 1hr	• MOH 362 register • Referral forms • Linkage registers • Locator forms	Avail registers at the room
Adherence Room	• Retest done by a different person for confirmation • Counseling on ARTs • Health education on the advantages of the clinic • File opening for registration	Nurse ASC	1hr -1.5 hours	• File • Treatment register • Confirmatory register	Avail job-aids
Booking Office	• Clients pick numbers • File retrieval • Clients triage	Peer educator	5-10mins	• Diary • Cards • DAR • Pens/Cards	Update the next VL dates
Nurses Desk	• Arrangement of files • Triaging • Refer to clinician	Nurse	5mins	• Files • Pens	Take all vital signs

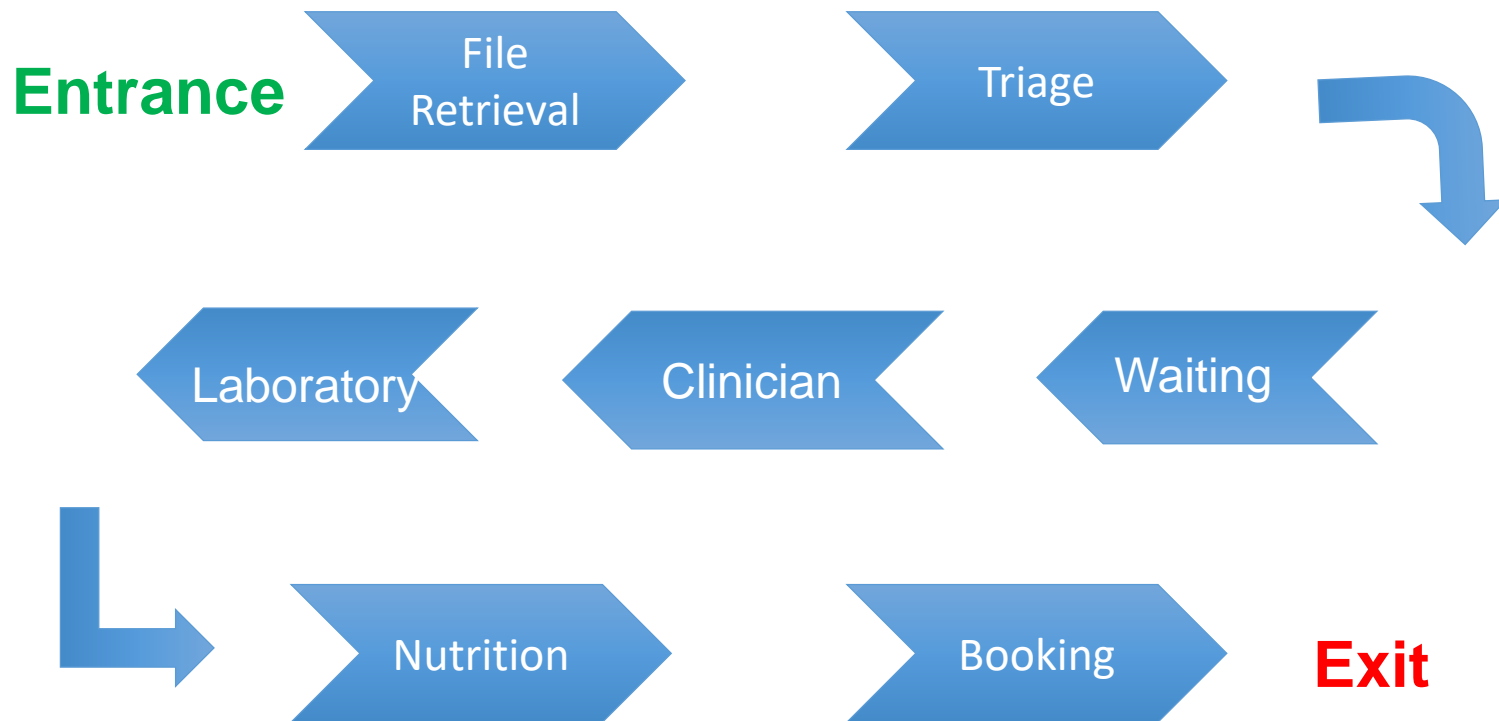Public Health Informatics Institute

Process Mapping
The First Step Towards Improvement...*cont*

Process Step	What Happens?	Who is responsible?	Duration	Forms/logs	Opportunity for Improvement
Clinician Room	• Counseling on ARVs and clinic revisits • WHO staging • Booking appointment for clients next visit • Drug prescription • Lab request is written by the clinician and client is referred to the lab	Clinicians	20-45mins	• File • EMR • Green cards • Pens	Improve on confidentiality
Laboratory	Viral load Sample collection Sample packing for transportation to the testing lab Remote login Download and printing of results Documentation of vl results in the vl register	Lab tech	10-15mins	• Lab request form • Lab register • Tracking log	Develop SOPs Avail printer
Records	Booking Giving TCAs Filing of VL results	HRIOs	5-10mins	• Appointment diary • DAR	Avail all registers File results promptly
Pharmacy	• Dispensing drugs • Counseling for those who are mal and obese	Pharmacist	10-15mins	• EMR • Request form	Report the VL flags from NASCOP

The Problem area identified

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New Process Map- Movement
The First Step Towards Improvement

Entrance → File Retrieval → Triage →

Laboratory ← Clinician ← Waiting ←

→ Nutrition → Booking → **Exit**

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Define | **Measure** | **Analyze** | **Improve** | **Control**

- **Gap (Problem Statement):**

Following our baseline investigation, we found that only 42 % of files had VL hard copy results which negatively affects our quality of service.

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Voice of Customer (VOC)

- VOC 1 Survey was done on Sept. 2018 on 15th and 16th on patients to gauge the magnitude of the problem in regards to service provision.

- A follow up VOC 2 was carried out on 22nd March, 2019 to assess the impact of the project

- Random convenient sampling was utilized to target the 26 willing respondents in VOC 1 and 19 in VOC 2.

- A simple questionnaire with 5 questions, Two in Likert scale, Two closed-ended while one was open-ended.

- The questionnaires were in two versions, Swahili and English to negate any language barriers.

- Respondents were allowed to fill the questionnaires within 30 minutes which was an adequate time.

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Voice of Customer (VOC)
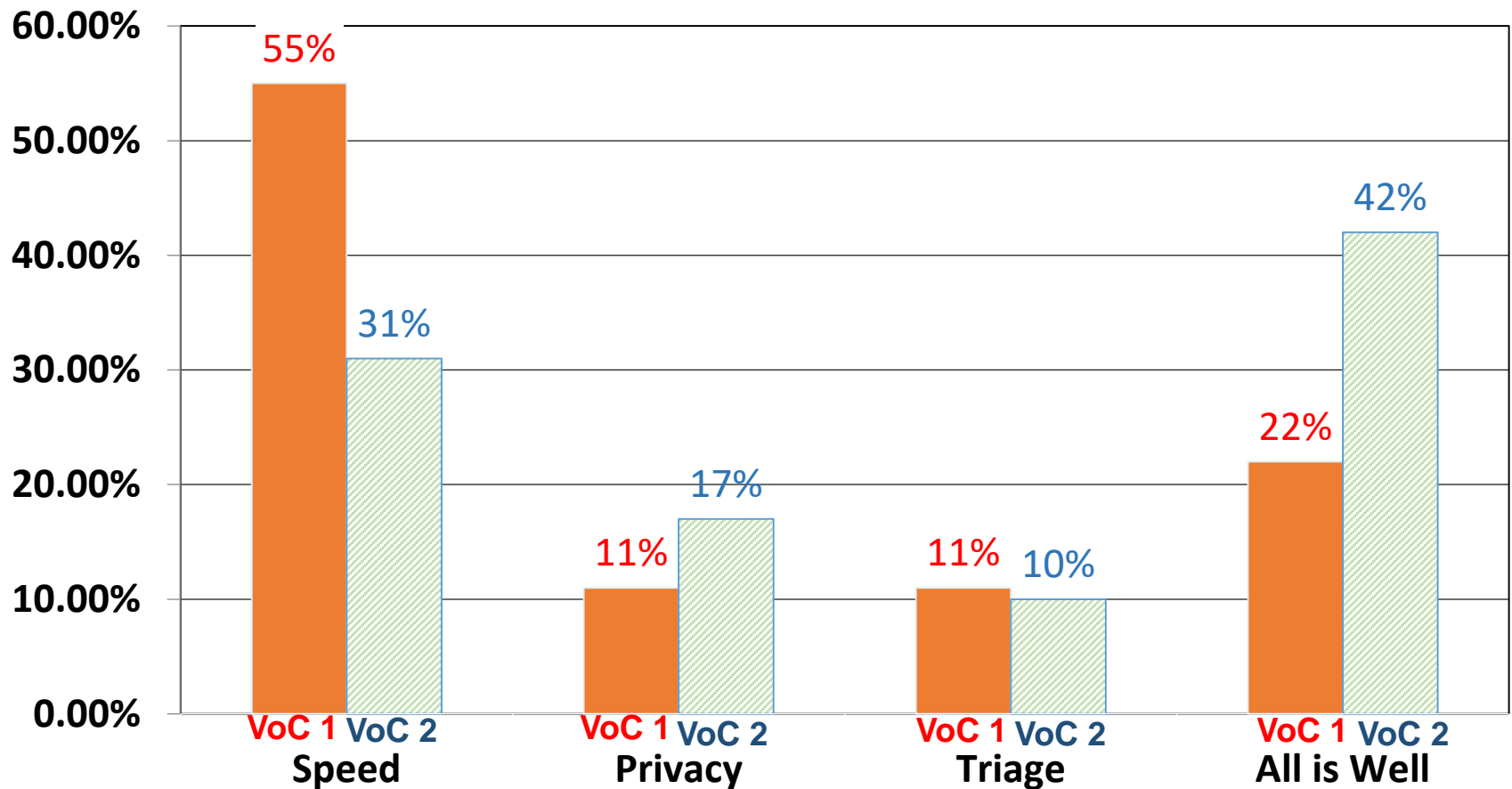## Questionnaire Sample

Voice of Customer
## Question 1: Service Rating Generally
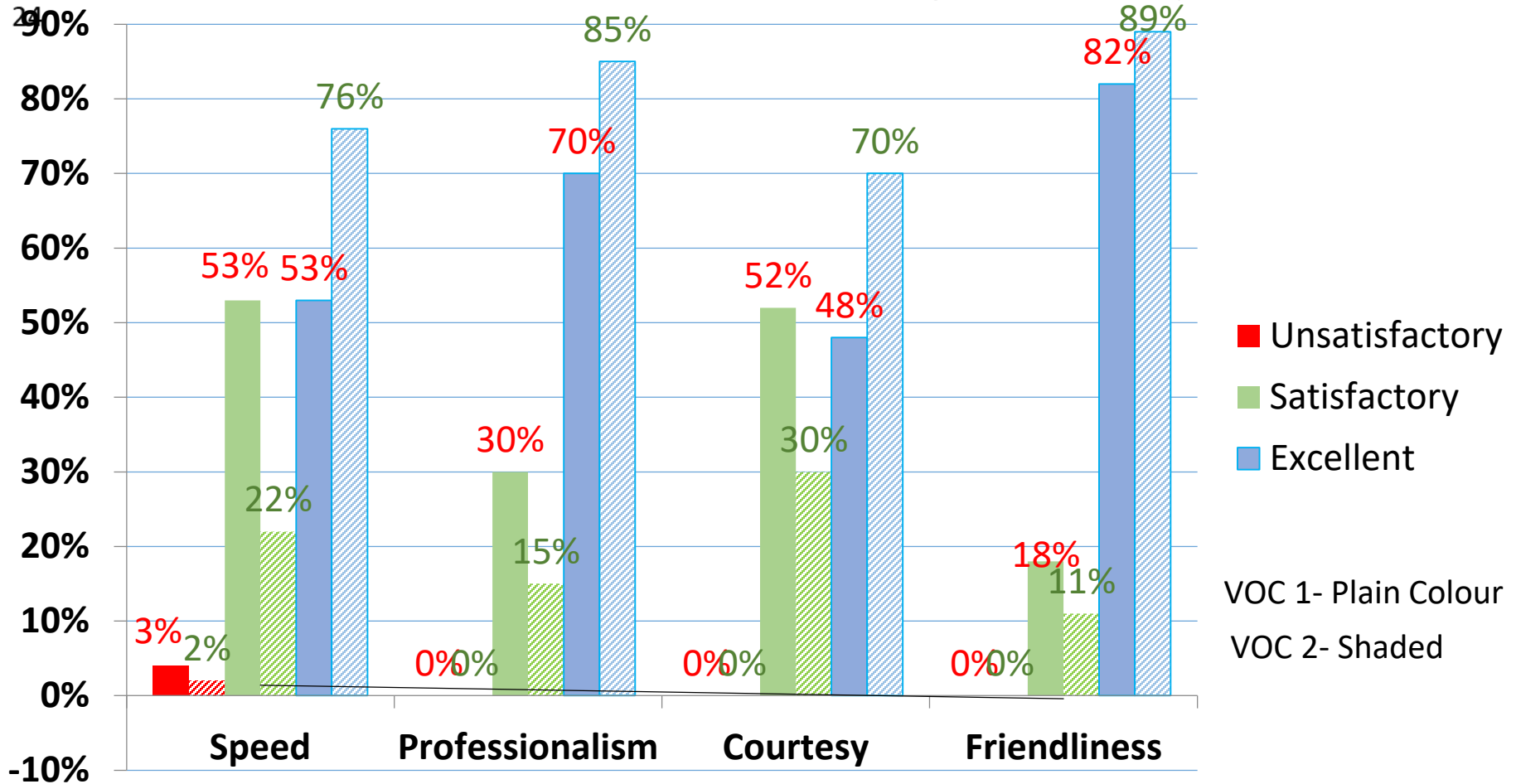
Voice of Customer (VOC) cont…
Question 2: Areas to Improve

Lessons from the VOC

- Questions 3 and 4 (not projected) showed high approval for the site as preferred and also recommended site in both VOCs.

- There was fair performance in speed, average performance in courtesy and good performance in friendliness.

- Question 5 (not projected): Rating of the services on the day of the survey showed an average of 50% in VOC 1 but slightly better in VOC 2 at 64%.

- Generally, more clients expressed more satisfaction with services in VOC 2 compared to VOC 1.
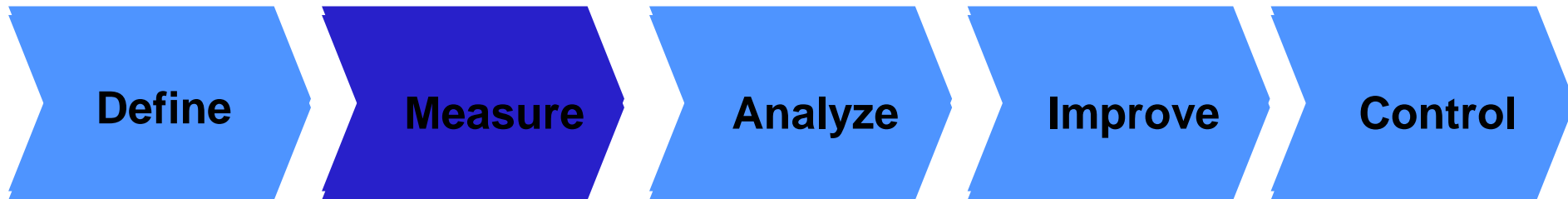
- **Metric Selected**

  Numerator: Number of hard copy VL results in the files.

  Denominator: Number of Viral Load results received.

- **Baseline Data**

 42% of files have VL hard copy results

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| Define | Measure | Analyze | Improve | Control |

• Data Collection Process

Data Collection Tool

Date of Review				
CCC No.	VL result received		Hard copy VL present	
	Yes	No	Yes	No

Data Collection Plan

What	Who	How	Frequency
Baseline data	HRIO	File abstraction	Once
Project data review	LARC team	Collection and analysis	Monthly/ Every 3 days

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| Define | **Measure** | Analyze | Improve | Control |
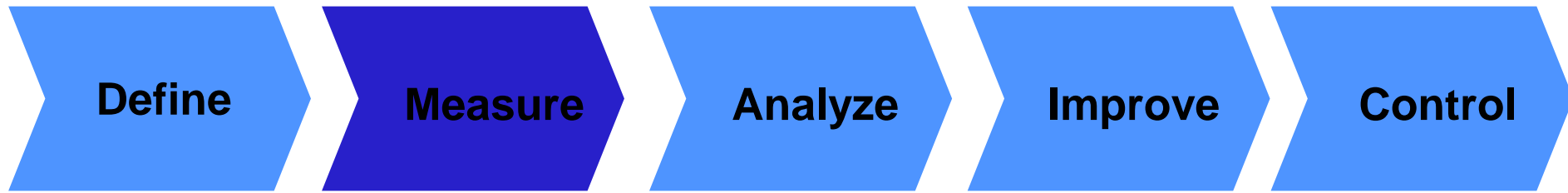
- **Data Collection Process**

The data was initially collected monthly and analyzed but the frequency was increased to twice per week cover for the lost collection points in order to achieve a minimum of 25 collection points in the project.

- **Data Analysis**

The data collected was then fed into the spreadsheet which was then commanded to develop graphical presentations. The projections were presented to the LARC team biweekly for interpretations and adjustments to course.
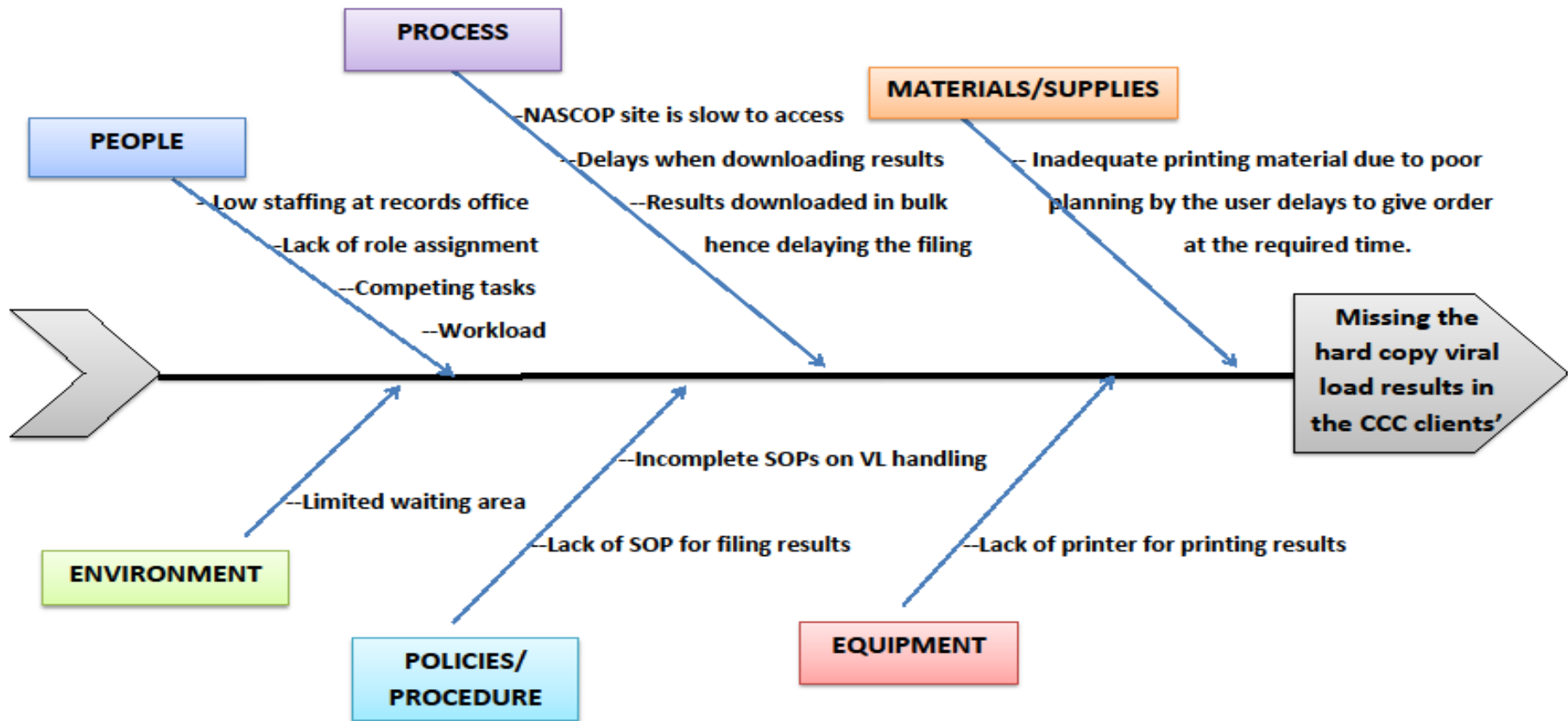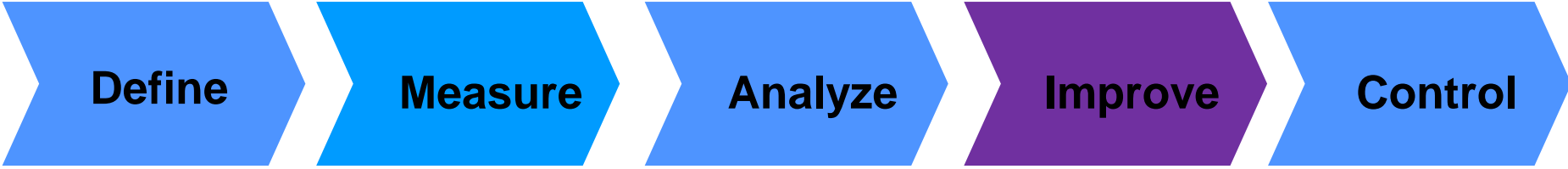
Define → **Measure** → **Analyze** → **Improve** → **Control**

ROOT CAUSE ANALYSIS OF THE MISSING HARD COPY VLs IN THE FILES

PROCESS

PEOPLE

MATERIALS/SUPPLIES

--NASCOP site is slow to access

--Delays when downloading results

--Results downloaded in bulk hence delaying the filing

--Low staffing at records office

--Lack of role assignment

--Competing tasks

--Workload

-- Inadequate printing material due to poor planning by the user delays to give order at the required time.

Missing the hard copy viral load results in the CCC clients'

--Incomplete SOPs on VL handling

--Limited waiting area

--Lack of SOP for filing results

--Lack of printer for printing results

ENVIRONMENT

POLICIES/PROCEDURE

EQUIPMENT

- **Just Do Its**

1. Avail all required registers at the identification stage **√**
2. To avail and mount job aids at the enrolment stage for efficient service **√**
3. To ensure that all vital signs are taken at the triaging stage **√**
4. To develop and print viral load SOPs by the lab tech **√**
5. To ensure a steady supply of nutritional supplements **√**
6. To improve on confidentiality during the clinicians review by partitioning the rooms *In progress*
7. The pharmacy to ensure that delayed NASCOP VL flags are notified to the clinicians **√**

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Define → **Measure** → **Analyze** → **Improve** → **Control**

5s Before

SOPs on the table

VLs filed once in a while by the HRIOs

5s After

SOPs mounted on the walls

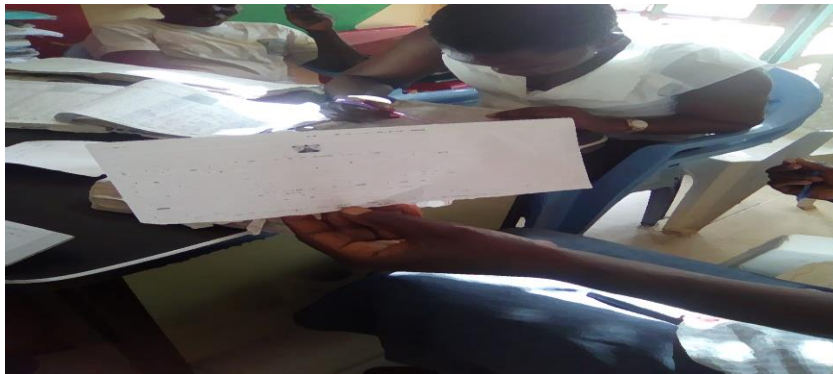Students now assigned to update files routinely

5s Before

5s After...*cont*

VLs at the HRIO waiting for collection

Now all hard copy results are routinely filed.
This has made the clinican's job easier
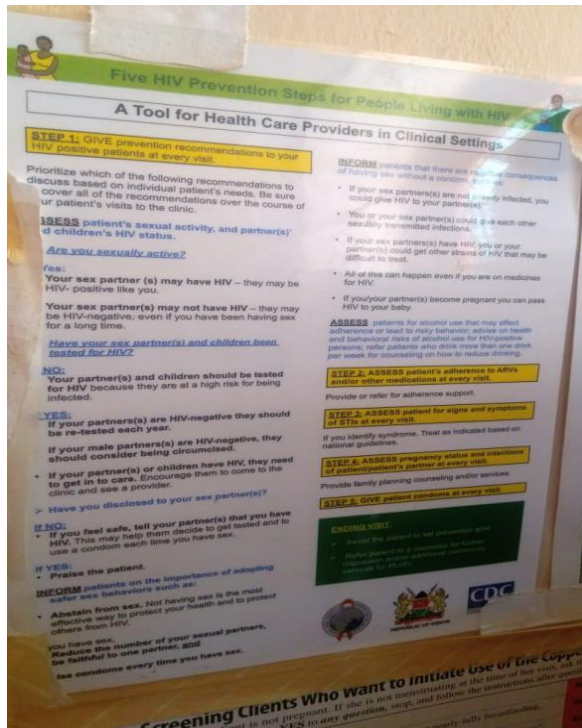
Loose results awaiting filing

Define | Measure | Analyze | Improve | Control
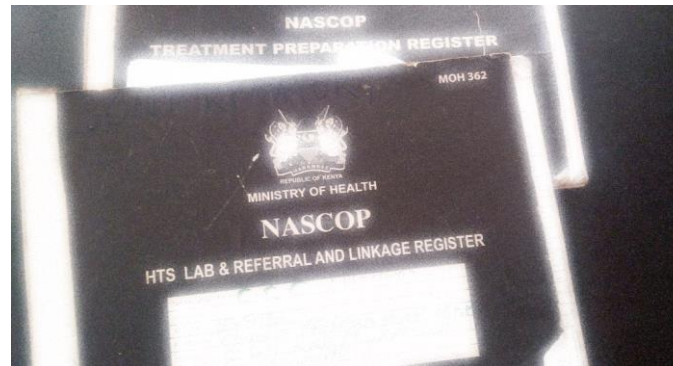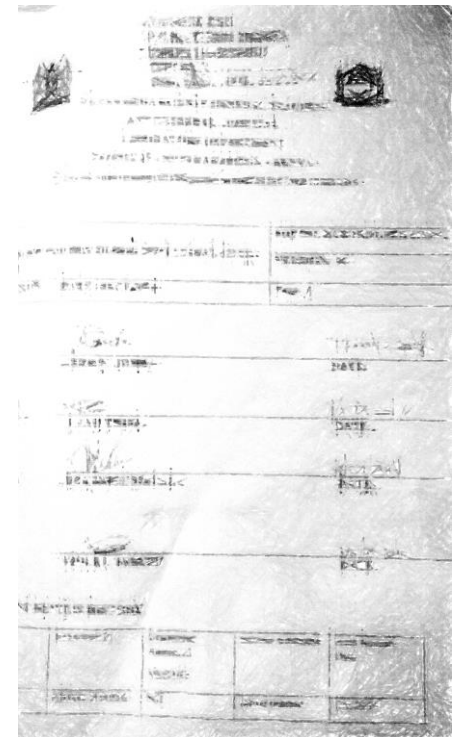
Visual Management Changes

Job Aids

Job aids at enrolment

Registers at Testing

VL SOP at Lab

Define	Measure	Analyze	Improve	Control

Small Test of Change 1 (PDSA)- November

ACT
- Not Yet

PLAN
- To download VL results
- To print the results
- To file the results
- To do PDSA

STUDY
- Data was analyzed biweekly and presented monthly.
- VLs hard copy results hard risen from baseline of 42% to 75% by end of Nov.

DO
- Results accessed and downloaded daily.
- Daily filing by Students and HRIOs
- Data presentation and analysis

Small Test of Change 2 (PDSA)- March

- Standardize the DOs

ACT

PLAN

- To download VL results
- To print the results
- To file the results

STUDY

DO

- Data analyzed 2 times weekly.
- VLs in files had risen from baseline of 42% to 81% by end of February
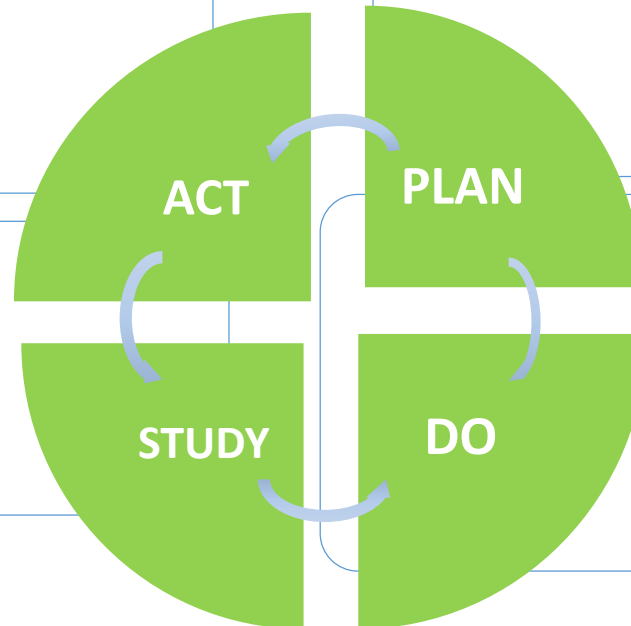
- Accessing the VL portal daily and downloading results
- Daily filing by HRIOs
- Data presentation and analysis

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Project Baseline Data
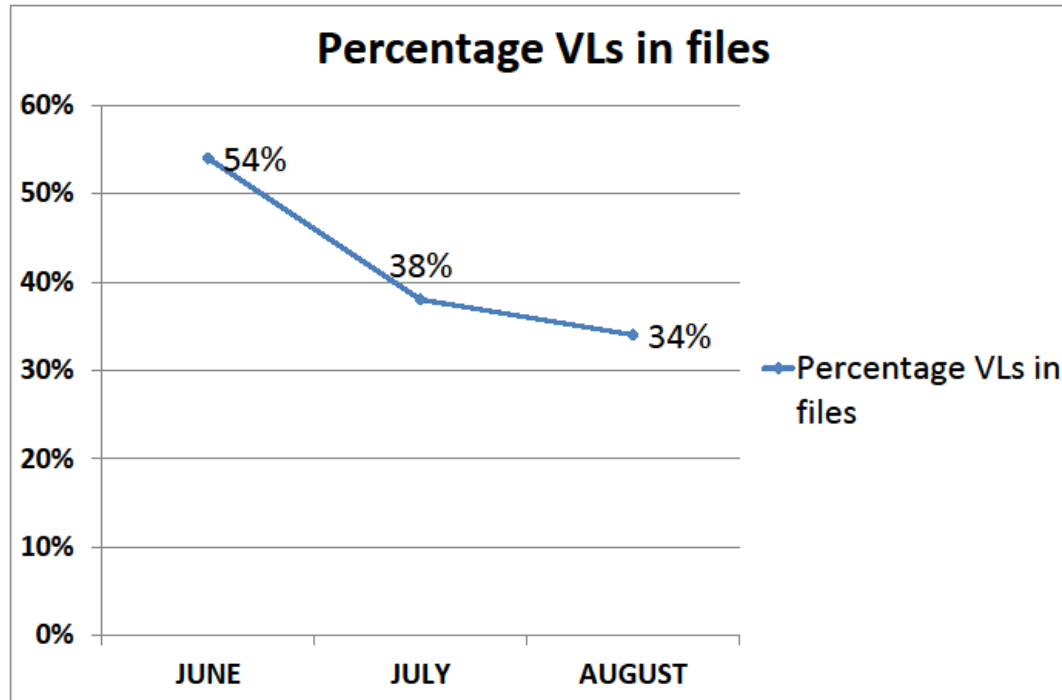
Baseline data was derived from 150 files abstracted from June, July and August which showed that only 42% of files had the VL hard copy results filed.

Project Raw Data from Sept., 2018 to Mar., 2019

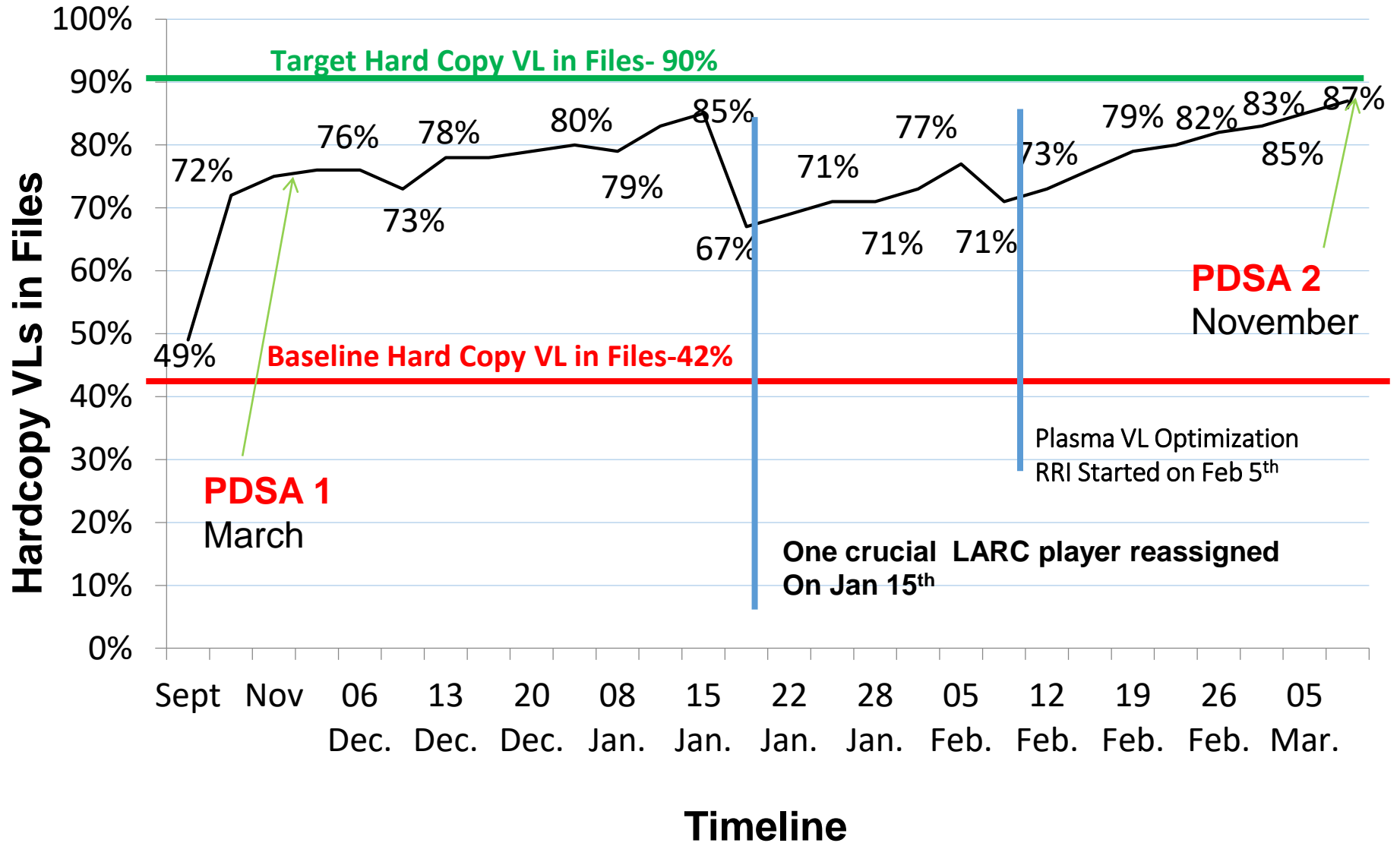|		
Sept		49%
Oct		72%
Nov		75%
	Dec-04	76%
	Dec-06	76%
	Dec-10	73%
	Dec-13	78%
	Dec-18	78%
	Dec-20	79%
	Jan-03	80%
	Jan-08	79%
	Jan-10	83%
	Jan-15	85%
	Jan-17	67%
	Jan-22	69%
	Jan-24	71%
	Jan-28	71%
	Jan-31	73%
	Feb-05	77%
	Feb-07	71%
	Feb-12	73%
	Feb-14	76%
	Feb-19	79%
	Feb-21	80%
	Feb-26	82%
	Feb-28	83%
	Mar-05	85%
	Mar-07	87%

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Project Data Display

Control Plan

Project Title: **Filing of the Viral Load hard copy results in patient's files.**

Project Owner:

Critical Elements for Quality:

Process Step: The health records officers and the students to be assigned routinely to file VL results.

Output:

Monitoring over Time:

Metric: Number of hard copy viral load results in the files/ Number of VL results received

Acceptable Range: 60%-95%

How Measured: Monthly

Control or Reaction Plan:

Repeat of data collection within 2 weeks and reassess. Hold consultative meeting if data still lying outside acceptable range.

Accountability:

Who is responsible for measuring:

Where is the measure reported: In the QIT meeting

To whom is it reported:

Who is ultimately responsible

Related Documentation:

Process Map and Run Chart in the presentation.

Challenges

Challenges

- Bureaucratic channels delay printer and cartridge purchase and room partitioning which hamper quality service

- One Labtech previously dedicated to CCC now reassigned to other areas without replacement.

- Client optimization based on plasma VL increased the workload especially to the remaining labtech.

Address Challenges

- Room partitioning forwarded to the incoming NGO (AMPATH Plus) for follow up.

- Plans underway to recruit a replacement.

- Rapid Response Iniative ending in a month's time then hopefully thing will go back to normal.

Lessons Learned

- Through filling hard copies in the patients files we have reduced the number of patients who go home with wrong results.

- Minimal time is spent in spaghetti movement since we just check the VL results at the back of the file.

- With registers and job aids placed at the work stations, the time for new clients is quality and they are more confident with the services provided.

- The new VL SOPs allow for professional service provision.

- It has been easy for the Clinicians to quickly optimize clients, to start STF interventions and to promptly switch regimes without unnecessary delays.

- Simple job reassignments can greatly improve work output.

Action Plan
LARC 2.0 and beyond

Goal	Action Item	By Whom	By When	Outcome
To attain and maintain the percentage of hard copy viral load results in the patient's files above 95%	1. To give feedback of LARC 2.0 end of project and beyond. To CCC, Hospital and AMPATH Plus		15th April, 2019	
	1. To print VL results		Everyday	Ongoing
	2. To file the hard copy results daily		Everyday	Ongoing
	4. Meet Monthly to assess LARC 2.0 impact and progress		Monthly	Ongoing

Thank you!

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