Direct Assistance
Facility D

Viral Load Cascade component-
PATIENT MANAGEMENT

Team Members

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

Facility Background

- It is a high volume facility located in one of 5 high HIV burden counties targeted for ART saturation
- 260Beds, 20 Doctors, 300 Nurses, 20 Lab techs,
- 4400 ART patients on care, 130 ART patients a day.
- 1200 specimens collected for VL testing/month.
- Acts as a VL hub for other sites.
- Viral suppression rate 79.9% according to EID/VL dash board.

THE STORY OF OUR PROJECT

- In patient management , documentation is very important. It was realized that apart from copying patients results from NHRL website on the patient files, hard copies results on patient files is a key requirement for evidence and reduction of transcription errors. 2017 only 24 % of client had VI hard copy results in their file, in 2018 it was 0%
- Therefore the project was a result of lack of verified hard copy results in the patients files

Stakeholder Analysis

Name	Level of support					Key interests/ issues	Assessment Impact (H,M or L)	Action items/strategy to influence	Key communication points
	R	SK	N	SP	E				
Partners	√					Materials Suppliers	H	Provide material after an order is given	
Patients				√		Quality care	H	Keeping appointments	
Staff				√		Give quality care	H	Attending patients on a timely manner	

Stakeholder Analysis

NAME	Level of support					Key interests/ issues	Assessment Impact (H,M or L)	Action items/strategy to influence	Key communication points
	R	SK	N	SP	E				
CASC0				√		Give Quality care	H	Sensitization on the new VL Guidelines	
Medical Superintendent				√		Give Quality care	H	Administration	
Suppliers				√		Give Quality care	L	Deliver what is procured	
Referral sites			√			Give Quality care	L	Transmit results on time	
Government and regulatory bodies				√		Give Quality care	L	Provide policies and guidelines	
	R-Resistant, SK-Skeptical, N-Neutral, SP-supportive, E – Enthusiastic						H- High M-Moderate L-Low		

Stakeholder Analysis

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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?
Overarching Goal Improve patients documentation by having viral load results(hardcopy) in patient files leading to • Efficient client management hence viral load suppression. • Increased trust in the results by clients and clinicians	AIM Statement Increase % of files with hardcopy VL results in the patient file from 0 % to 90% BY march 2019. Numerator= Number of hard copy VL results filed Denominator= number of viral load results received from lab portal	Intervention • Redesigning the flow process to have the results printed by the lab. • Resources • And submit Hardcopy results to the data manager for filling in the patients files.

Elevator Speech

This project is about
Improving patients documentation by having patient VL hardcopy results in the patient files.
As a result of these efforts, we will have patient hardcopy results in their files ;

It's important because we are concerned about:

- Timely management of HIV patients.
- Reduction of transcription errors
- Increased trust in results by patients and clinicians
- Viral load suppression

Success will be measured by showing improvement in:

- Increased % of hard copy results in patient files

- **What we need from you** –

Administrative support & the spread of the change to other facilities within the county.

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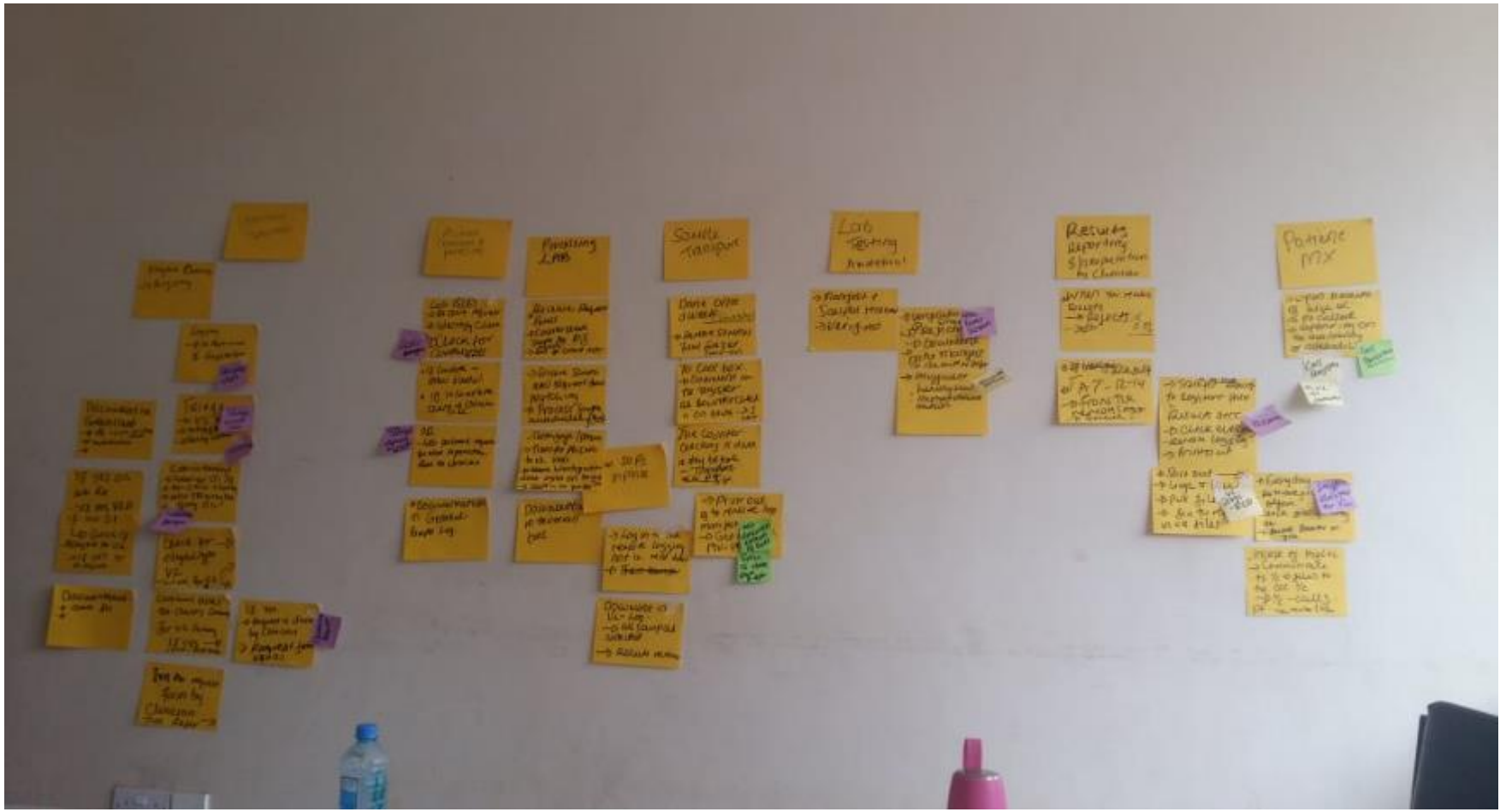
Process Mapping

The First Step Towards Improvement



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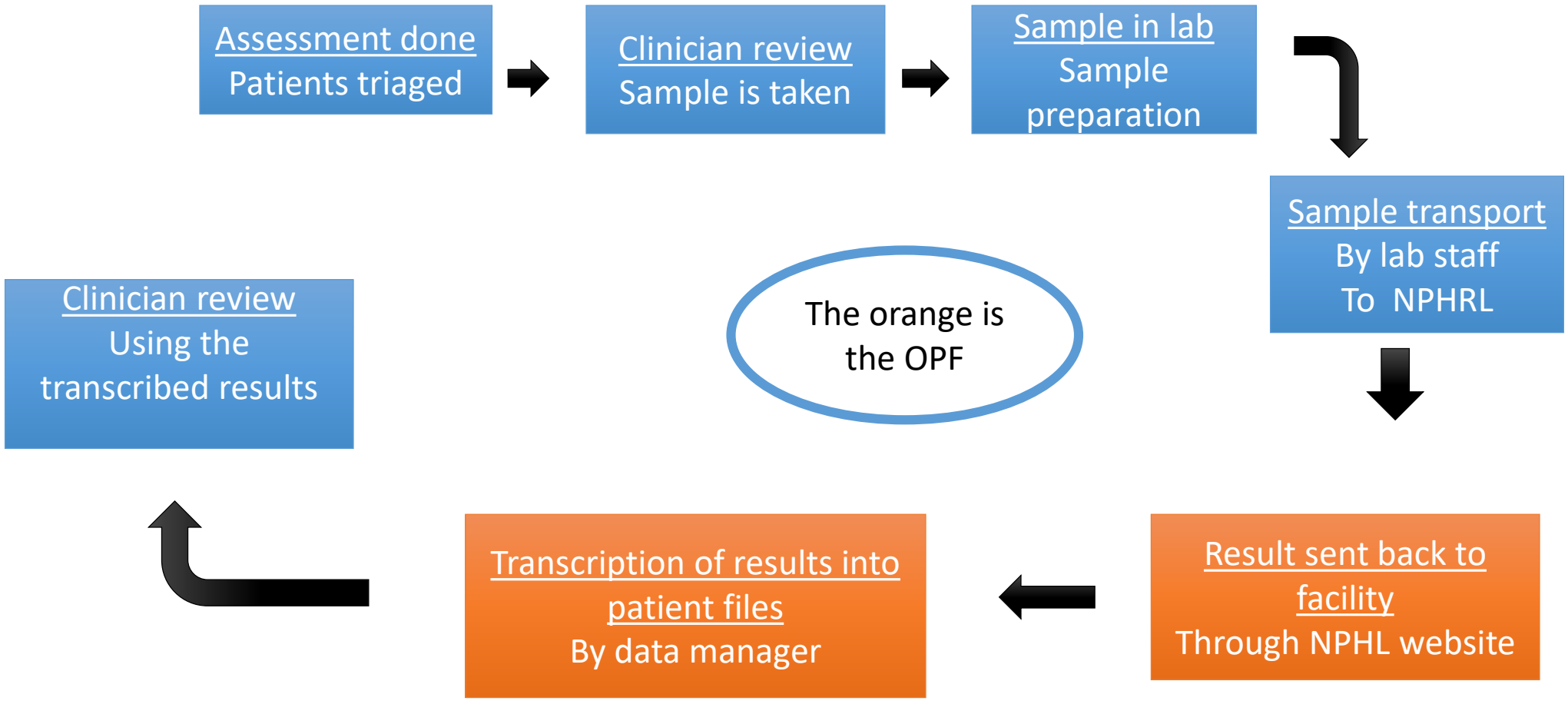
Old Process Mapping

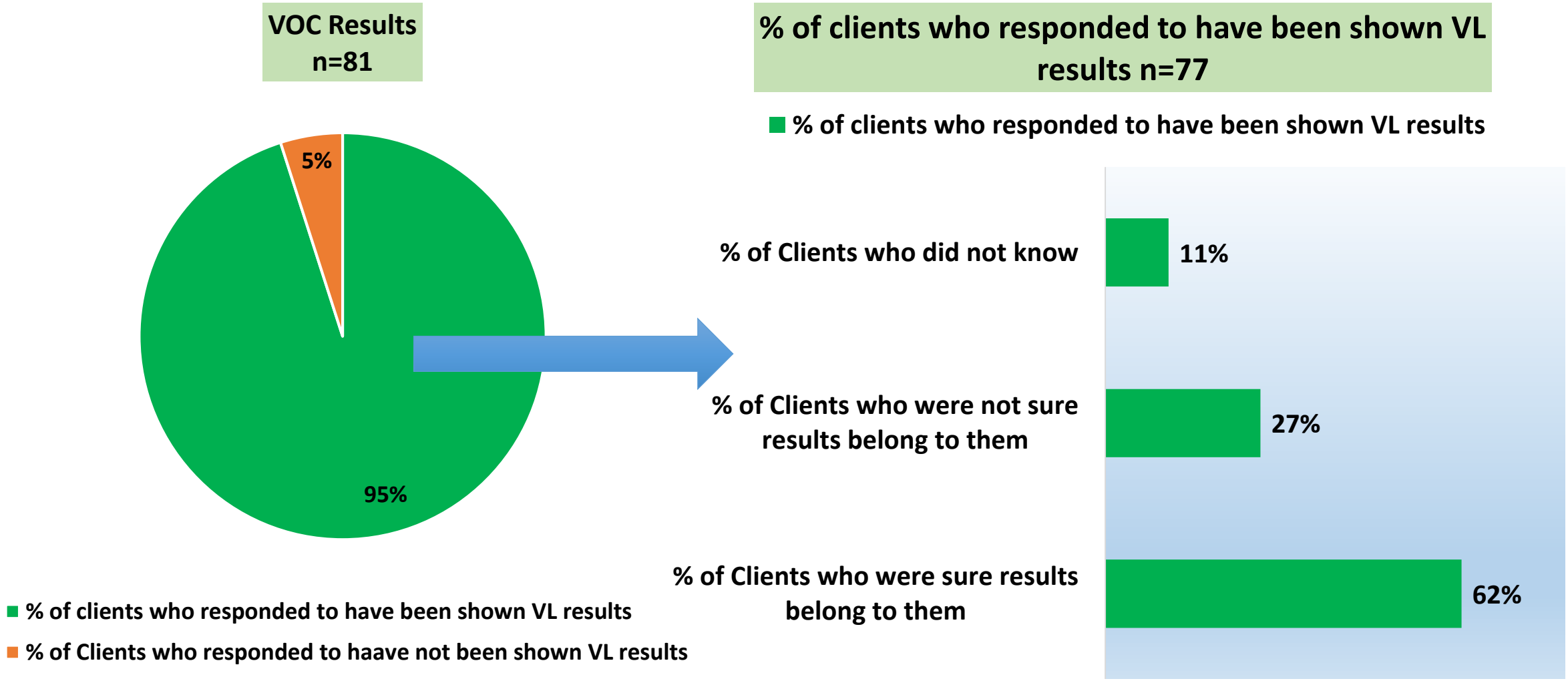


Gap

- Lack of printed hard copies of patient results leading to potential transcription errors hence leading to patients and clinicians doubting the results

- **Voice of Customer (VOC) -** (Initial)
  - ❑Our customers are patients
  - ❑Tool used to collect the VOC is customer survey questionnaire
  - ❑In the Process 81 customers were surveyed.

VOC Results Oct 2018



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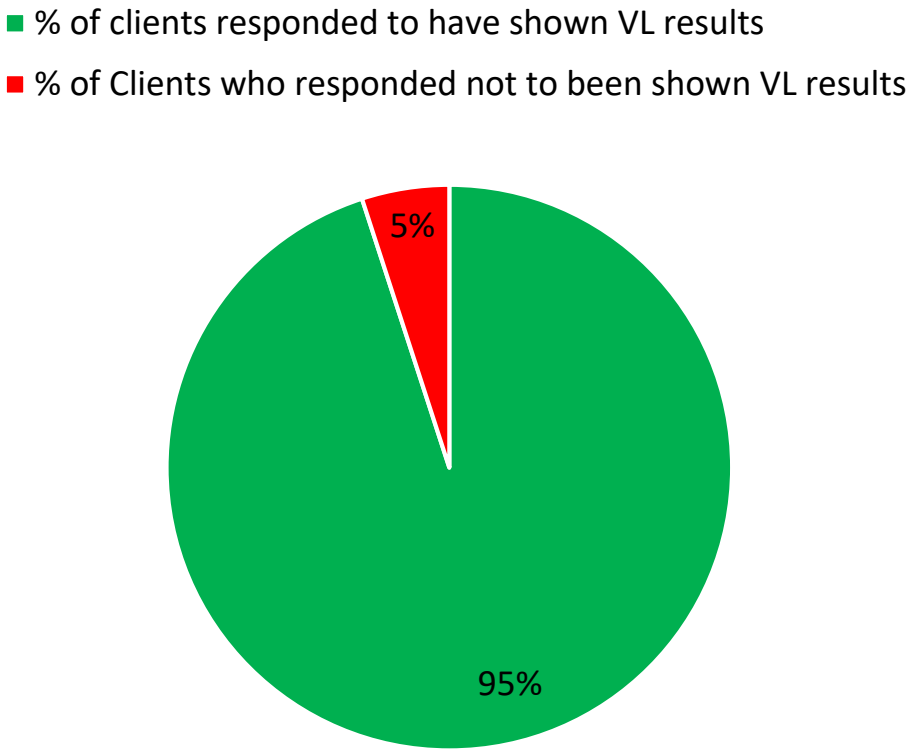
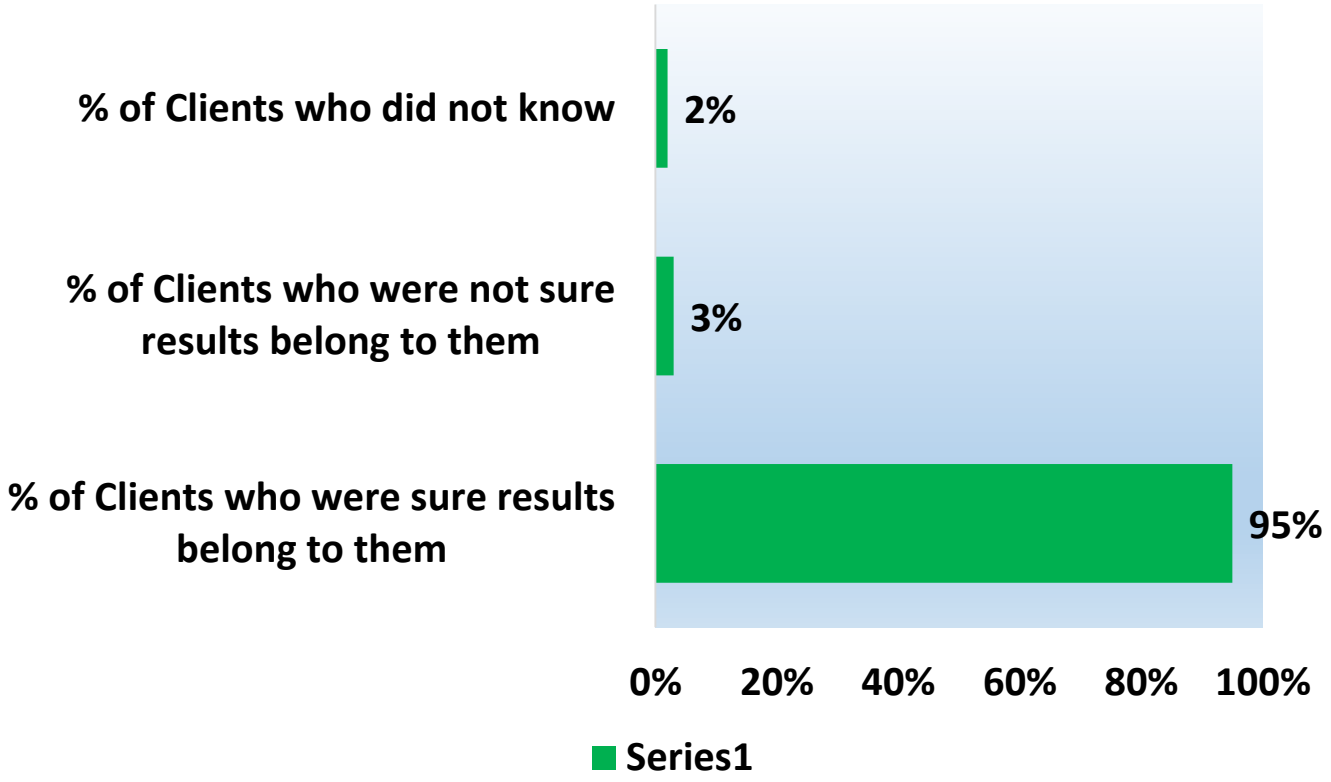
VOC Results Feb 2019

VOC 2 Feb 2019
n=81



% of clients who responded to have been shown VL Results n=77



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- **Metric Selected**

$$\frac{\#\ of\ Viral\ Load\ hard\ copy\ results\ filed}{\#\ of\ viral\ load\ results\ received\ from\ Lab\ portal} * 100$$

- **Baseline Data** - 0%

Data Collection tool

	CCC No.	Age	Date of sample collection	Date of viral load results	Hard copies in p
					(MOST RECENT)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

DATA collection plan

Data points-

- 3 baseline data points
- 6 data points post intervention

- Used sample size table that considered number of ART clients active on care
- 100% of the files were missing hard copy results

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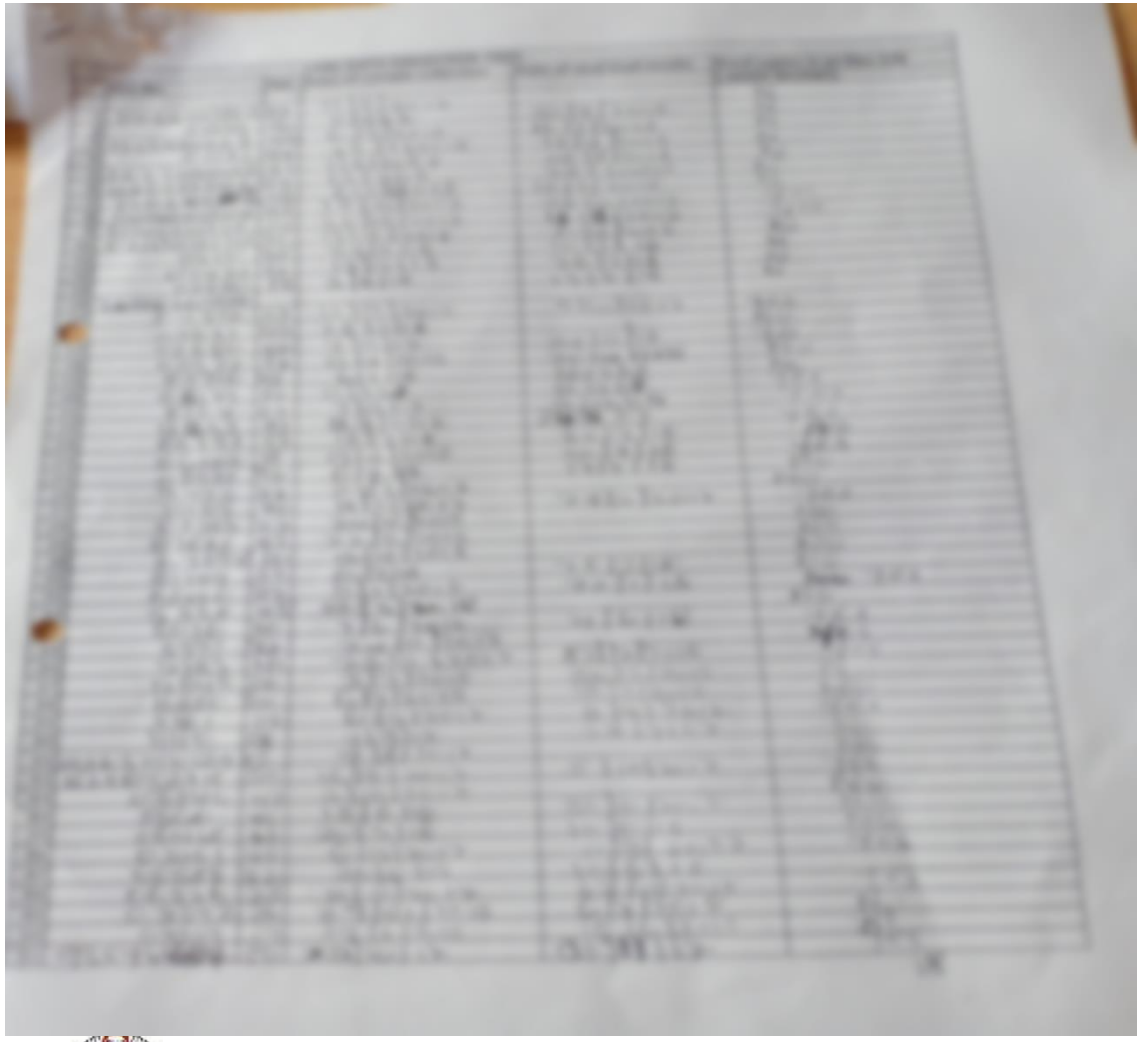
Data collected



Materials/ supplies
Lack of toners and printing papers
Why. Lack of partner support

Process
Lack of printing VL hardcopy results in the laboratory department leading
To Faulty flow of VL results

People
Underutilization of SOP leading to inadequate samples/rejected samples

Problem
Lack of VL hardcopy results in patient files

Policy/ procedures
Underutilization of procedures

Equipment
Lack of printer and toner

Define | Measure | Analyze | Improve | Control

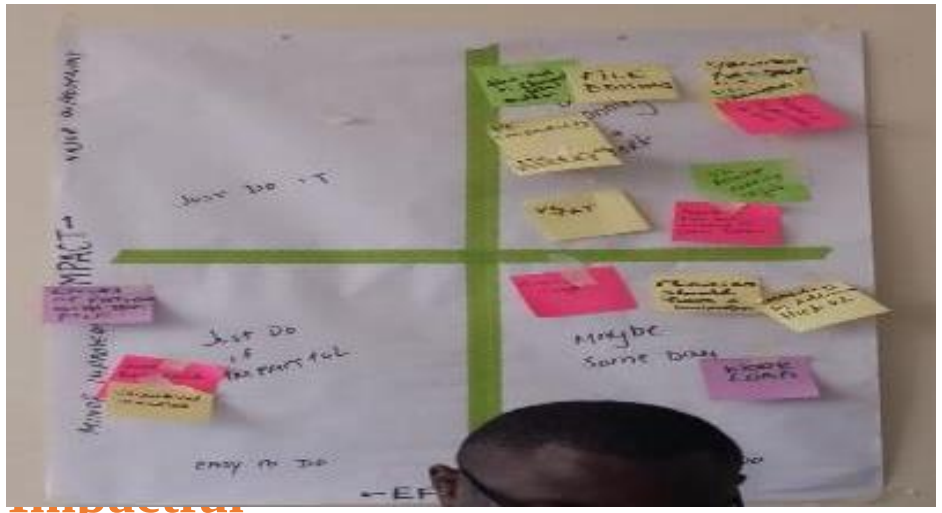
IMPACT / EFFORT GRID A Tool for Prioritizing Opportunities

IMPACT

Major Improvement

Minor Improvement

Projects -



Easy to Do

EFFORT

Difficult to Do

- Just Do It

Identified opportunity	Action	By who	When	Status
Viral load protocol not adhered to	Continuous Sensitize clinicians on viral load protocol for unsuppressed patients		24/8/2018	On going
No physical examination of all patients	Physical examination for all patients		24/8/2018	On going
Poor communication of rejected samples	Immediate communication of rejected samples		24/8/2018	On going
Lack of thermometer in triage area	Monitoring Vital signs(Temperature)		27/8/2018	Done

Define | Measure | Analyze | Improve | Control

5S - BEFORE

5S - AFTER

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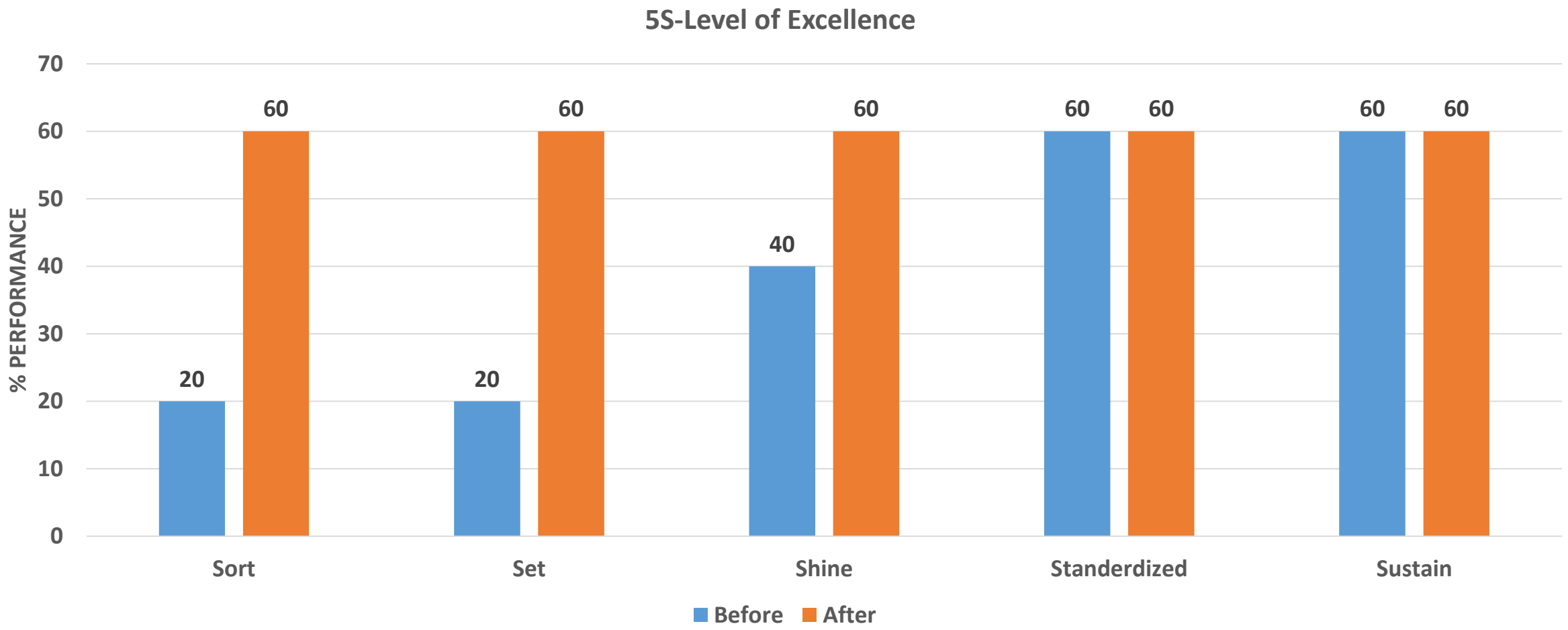
Define → Measure → Analyze → Improve → Control



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Define | Measure | Analyze | Improve | Control

Visual management

Satellite lab - CCC

Sample preparation

Sample storage

Define | Measure | Analyze | Improve | Control

- Small Test of Change (PDSA) 1st

- Adapted printing results in bulk and filing of hardcopy VL results.

- Implement printing of VL results by the lab manager and then communicate to the data manager to receive and file the results

- Improved from 0% to 12.8% between July to Sep 2018

- Printing and filing the result

Define | Measure | Analyze | Improve | Control

• Small Test of Change (PDSA) 2nd

- **Adapted printing of results**

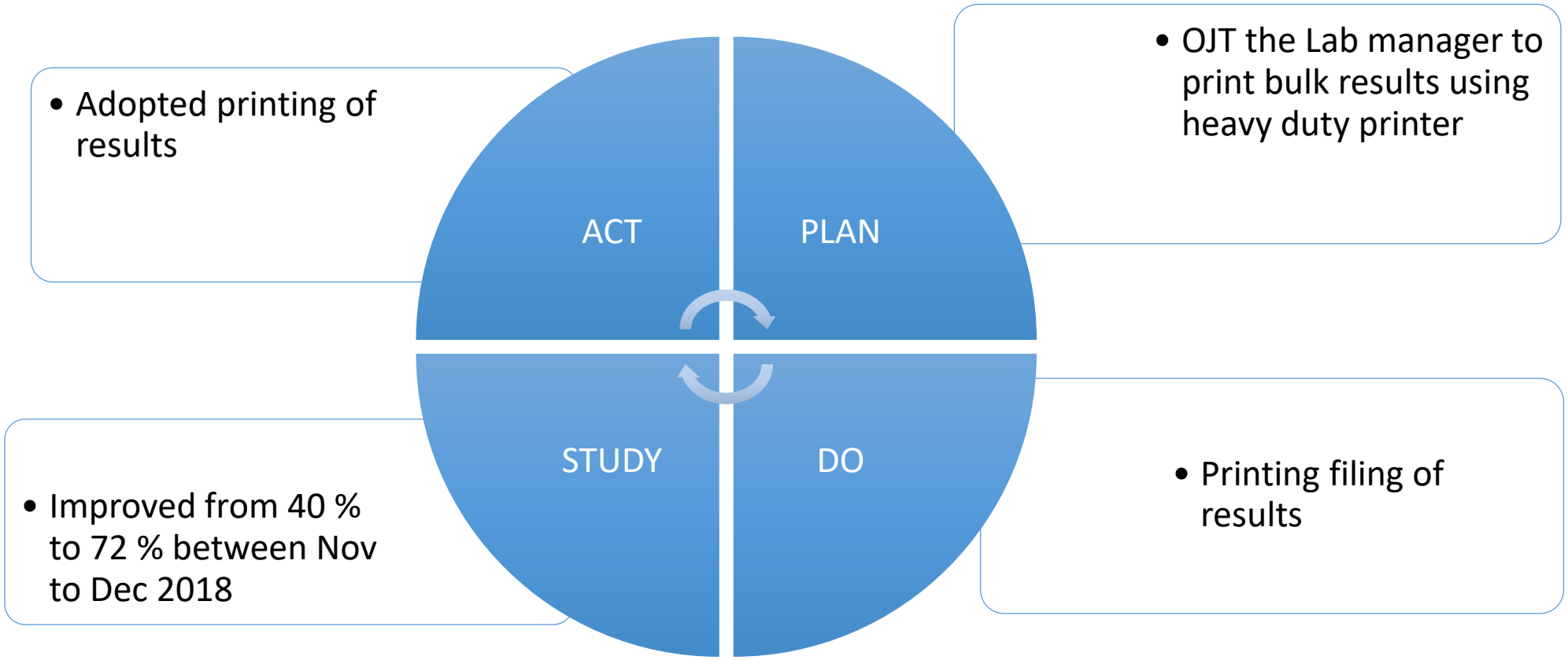
- OJT the Lab manager to print bulk results using heavy duty printer

- Improved from 12.8% to 40% between Oct to Dec 2018

- Printing and filing of results

Define | Measure | Analyze | Improve | Control

• Small Test of Change (PDSA) 3rd



New Process

Assessment done
Patients triaged

Clinician review
Sample is taken

Sample in lab
Sample preparation

Sample transport
By Rider
To NPHRL

Result sent back to facility
Through NPHL website

Printing of results
By Lab manager

Delivery of VL results to ccc
By lab staff

Receiving of Results By Data clerk

Filing of individual results
BY Data clerks

Clinician review
Using individual printed VL results

Transcription of results into patient files
By data manager

The green is the new process flow

The orange is the OPF

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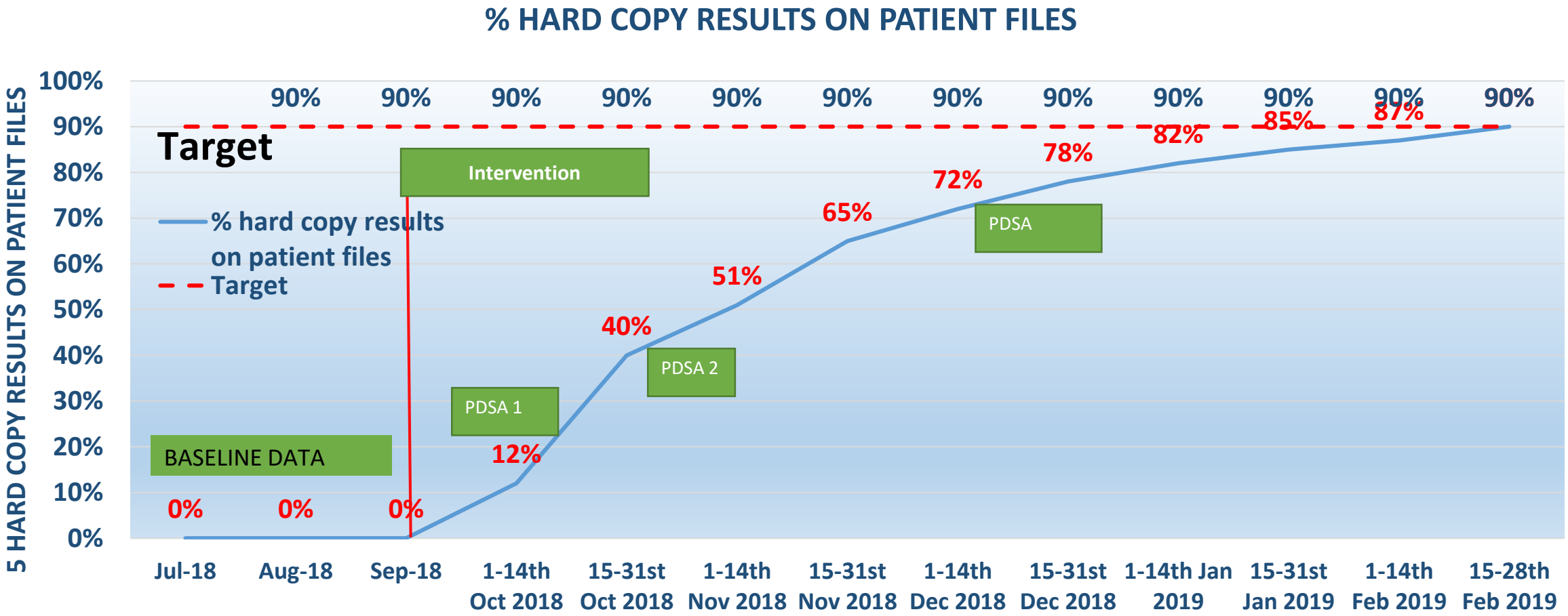
Define → Measure → Analyze → Improve → Control



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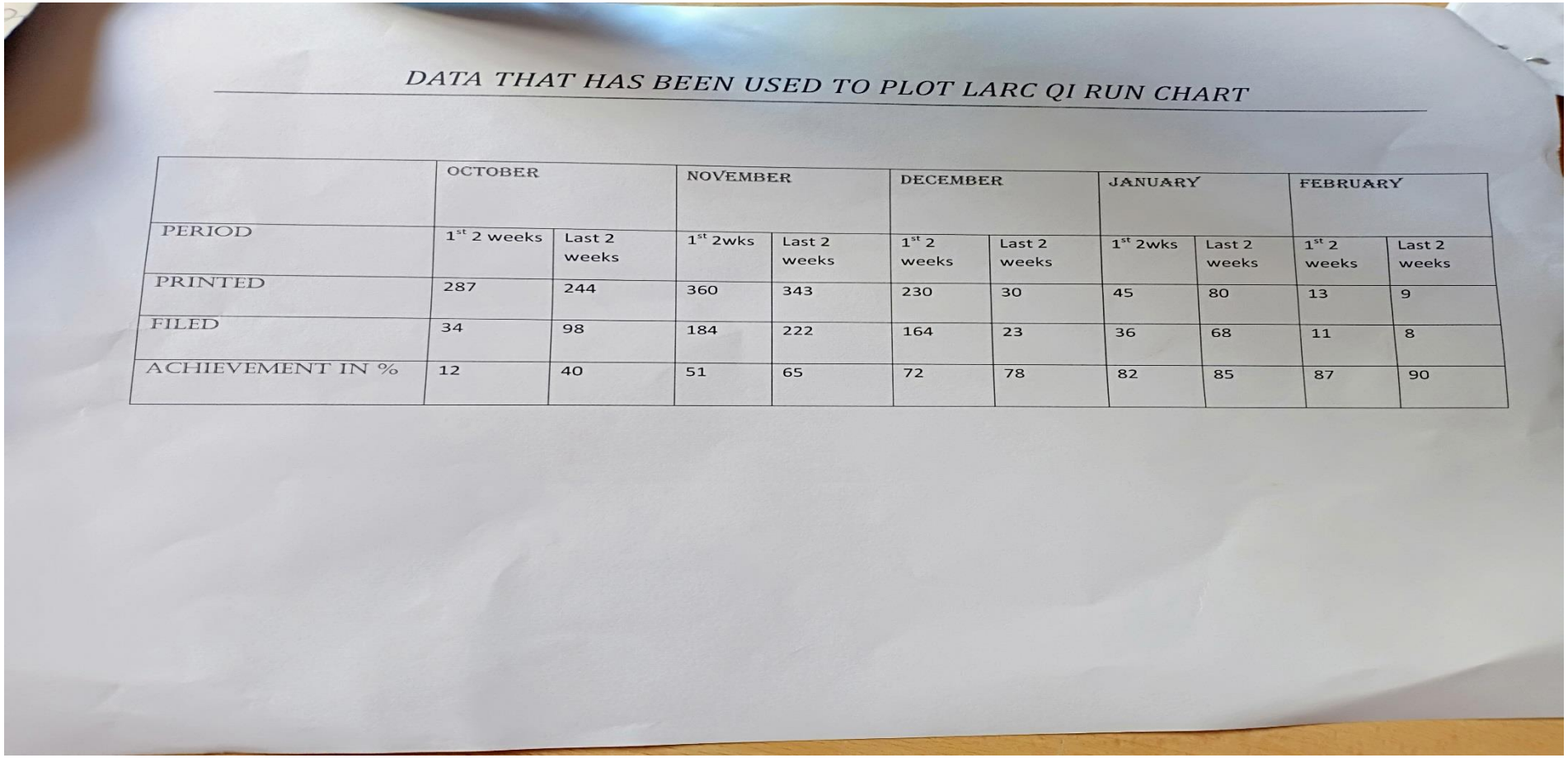
Data collected



DATA THAT HAS BEEN USED TO PLOT LARC QI RUN CHART

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY	
PERIOD	1st 2 weeks	Last 2 weeks	1st 2wks	Last 2 weeks	1st 2 weeks	Last 2 weeks	1st 2wks	Last 2 weeks	1st 2 weeks	Last 2 weeks
PRINTED	287	244	360	343	230	30	45	80	13	9
FILED	34	98	184	222	164	23	36	68	11	8
ACHIEVEMENT IN %	12	40	51	65	72	78	82	85	87	90

Challenges/possible solutions

- Lack of resources-
  - UMB has supported in supplying some of the resources required.
- Competing activities
  - The team has managed to create innovative ways of completing the task e.g. meeting during lunch hours, shortening the duration of the meeting and also ensuring the meeting has an agenda

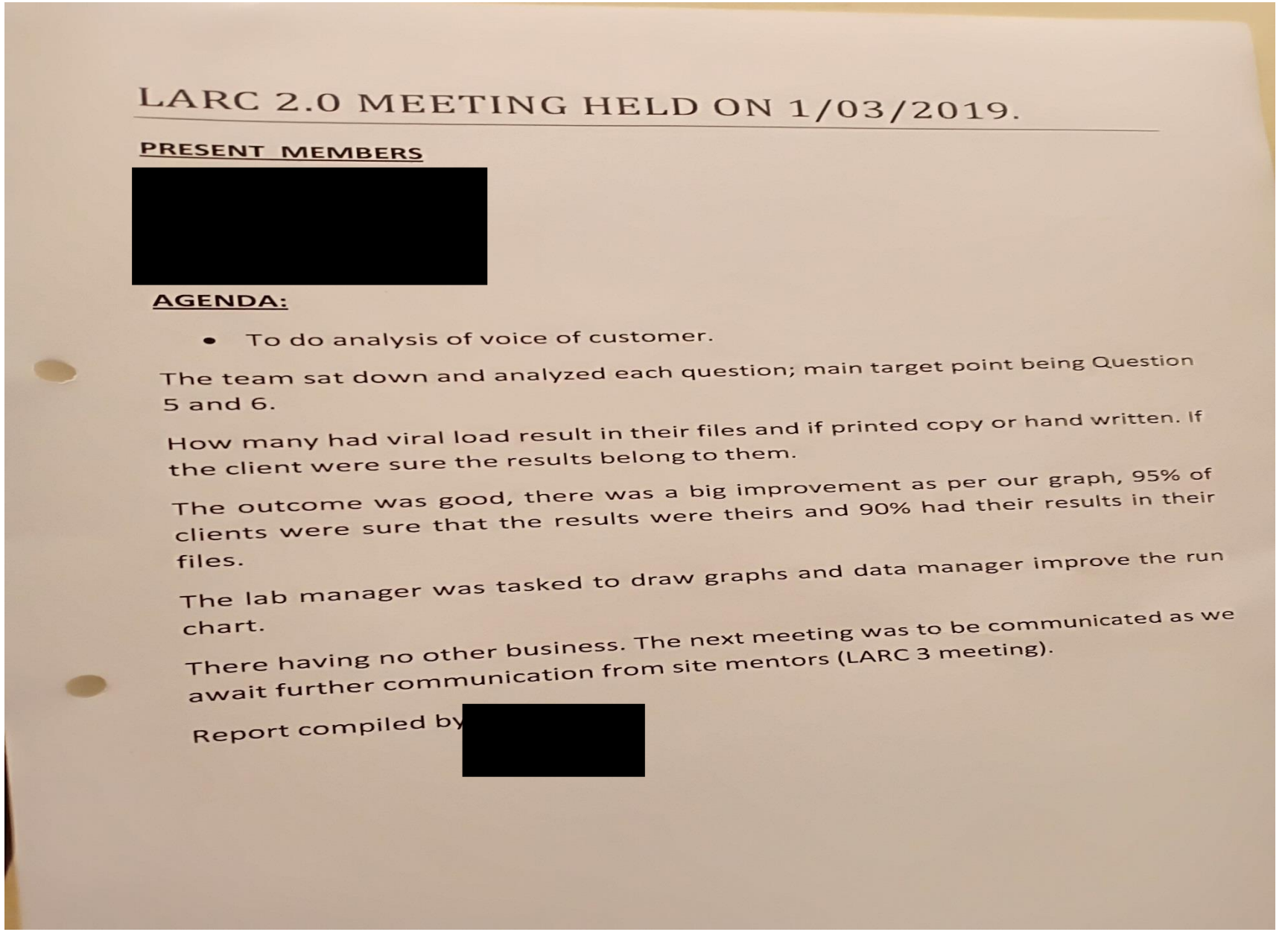
Lesions learned from VOC1 & 2

- All results are transcribed from the NHRL website
- 27% of the clients were not sure of the transcribed results
- Clinicians don't discuss VL results with clients

- All results are received and printed from the NHRL website
- 5% of the clients were not sure of their results
- 95% of the clients were sure of their results compared to 62% in the VOC 1
- There was improved utilization of v/l results by the clinicians.

Action plan

Identified opportunity	Action	By who	When	Status
Poorly drawn fishbone diagram	More structures added		29/11/2018	done
group photo	Passport photos with individual description		29/11/2018	done
Update run chart	Periodic updating		13/12/2018	ongoing
Identify & eliminate unneeded items	Apply 5s each dept at a time		3/12/2018	ongoing



LARC 2.0 MEETING HELD ON 1/03/2019.

PRESENT MEMBERS

[redacted]

AGENDA:

- To do analysis of voice of customer.

The team sat down and analyzed each question; main target point being Question 5 and 6.

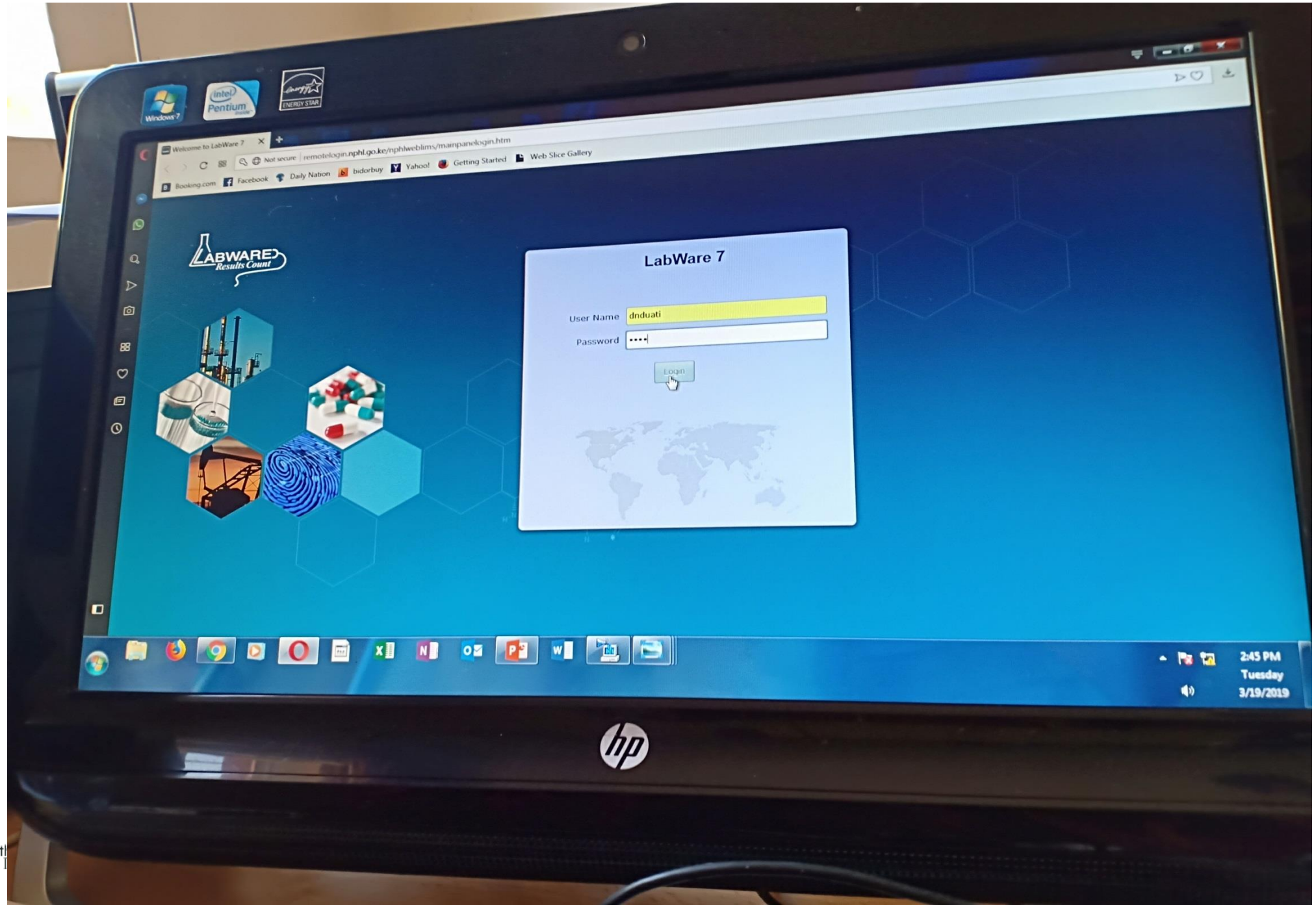
How many had viral load result in their files and if printed copy or hand written. If the client were sure the results belong to them.

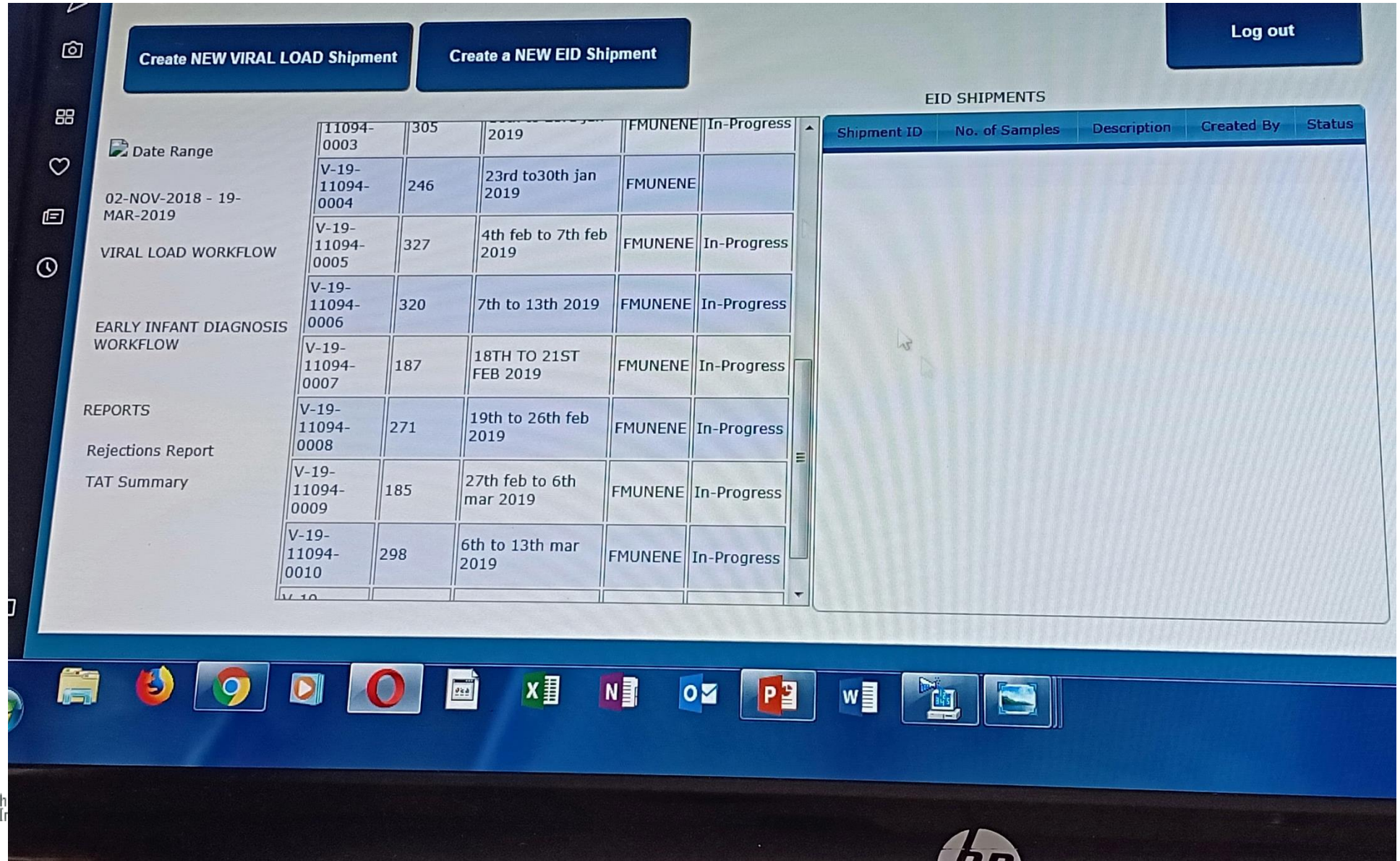
The outcome was good, there was a big improvement as per our graph, 95% of clients were sure that the results were theirs and 90% had their results in their files.

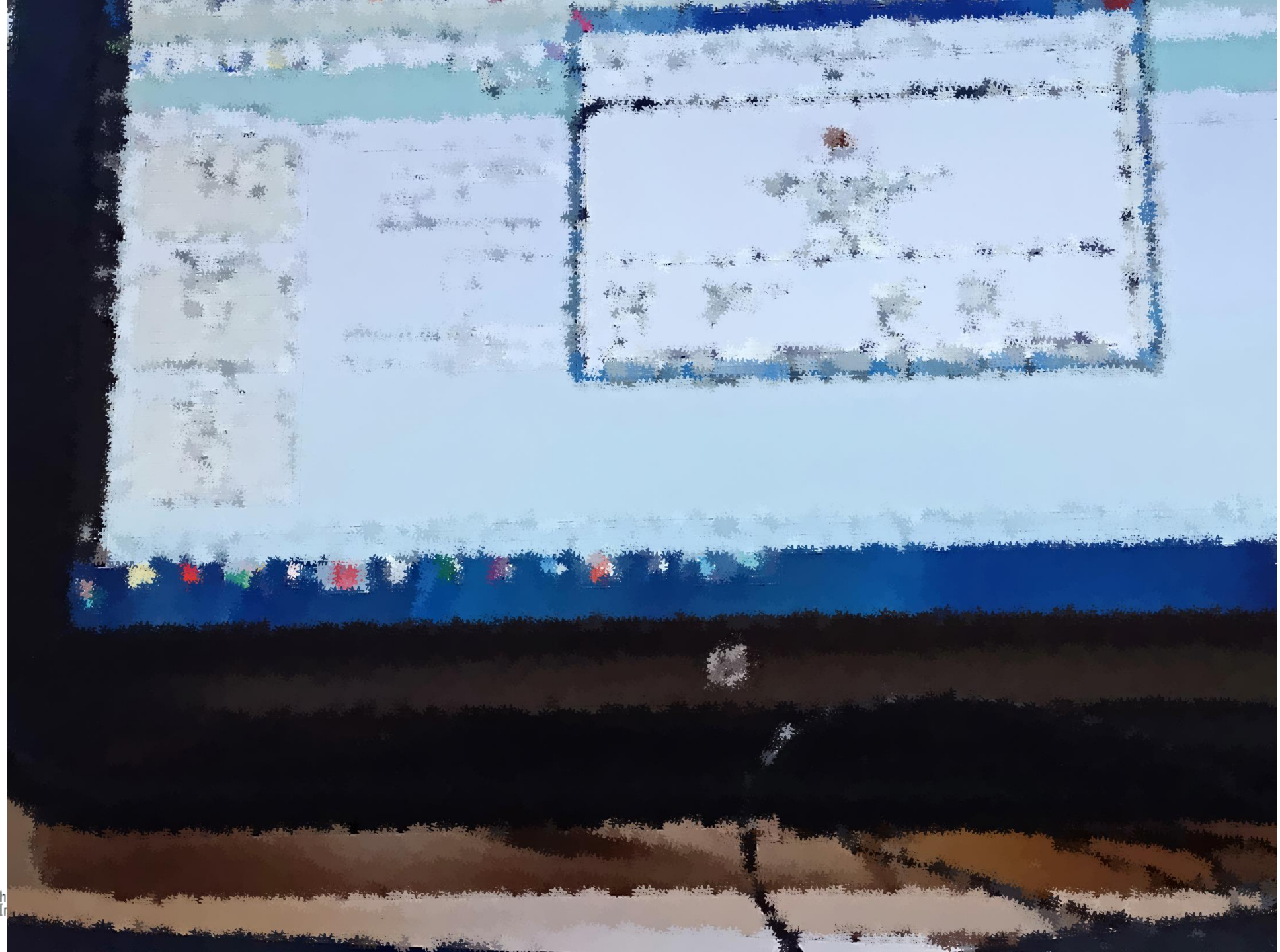
The lab manager was tasked to draw graphs and data manager improve the run chart.

There having no other business. The next meeting was to be communicated as we await further communication from site mentors (LARC 3 meeting).

Report compiled by [redacted]


Windows 7
intel Pentium
ENERGY STAR
Welcome to LabWare 7
Not secure
remotelogin.nphl.go.ke/nphlweblims/mainpanelogin.htm
Booking.com
Facebook
Daily Nation
bidorbuy
Yahoo!
Getting Started
Web Slice Gallery
LABWARE
Results Count
LabWare 7
User Name
dnduati
Password
Login
2:45 PM
Tuesday
3/19/2019
hp


Create NEW VIRAL LOAD Shipment
Create a NEW EID Shipment
Log out
EID SHIPMENTS
Shipment ID
No. of Samples
Description
Created By
Status
Date Range
02-NOV-2018 - 19-MAR-2019
VIRAL LOAD WORKFLOW
EARLY INFANT DIAGNOSIS WORKFLOW
REPORTS
Rejections Report
TAT Summary
11094-0003 305 2019 FMUNENE In-Progress
V-19-11094-0004 246 23rd to30th jan 2019 FMUNENE
V-19-11094-0005 327 4th feb to 7th feb 2019 FMUNENE In-Progress
V-19-11094-0006 320 7th to 13th 2019 FMUNENE In-Progress
V-19-11094-0007 187 18TH TO 21ST FEB 2019 FMUNENE In-Progress
V-19-11094-0008 271 19th to 26th feb 2019 FMUNENE In-Progress
V-19-11094-0009 185 27th feb to 6th mar 2019 FMUNENE In-Progress
V-19-11094-0010 298 6th to 13th mar 2019 FMUNENE In-Progress



Control Plan

Project Title Viral load cascade

Project Owner: Team Lead

Critical Elements for Quality

Process Step: Is there a critical step that is required for the desired outcome? Is there a vulnerable step that may revert to the "old way" over time? Printing(including resources for printing) and filling of Viral Load results –plan for orientation in case of staff turnover on the viral load cascade.

Output: What is critical to the desired outcome or vulnerable in the output? Filling of printed VL results

Monitoring over Time

Metric – $\frac{\#\ of\ Viral\ Load\ hard\ copy\ results\ filed}{\#\ of\ viral\ load\ results\ received\ from\ Lab\ portal} * 100$

Acceptable Range – Define Upper and Lower limits (Action Levels. 90-100

How measured – Data Collection Plan –Biweekly

Control or Reaction Plan

If the metric goes out of range, what will be done? What is the first step?

Analyze the data to get the root cause then redesign PDSA

Accountability

Who is responsible for measuring –Data Manager

Where is the measure reported – LARC Team

To whom is it reported –Team lead

Who is ultimately responsible – Medical Superintendent

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THANK YOU