



# Tools for Rapid Results Transmission with a Specific Focus on mHealth and its Potential Role in Resources Limited Settings

Implementing HIV & TB Diagnostics in Resource Limited Setting workshop,  
Cape Town, South Africa  
September, 22-23 , 2014

# The existing gaps in data management in the diagnostic landscape



1. At the facility/ laboratory level
  - Workload
  - Accurate and timely reports and results relay
  - Program indicators to improve service delivery
  - Sufficient commodities

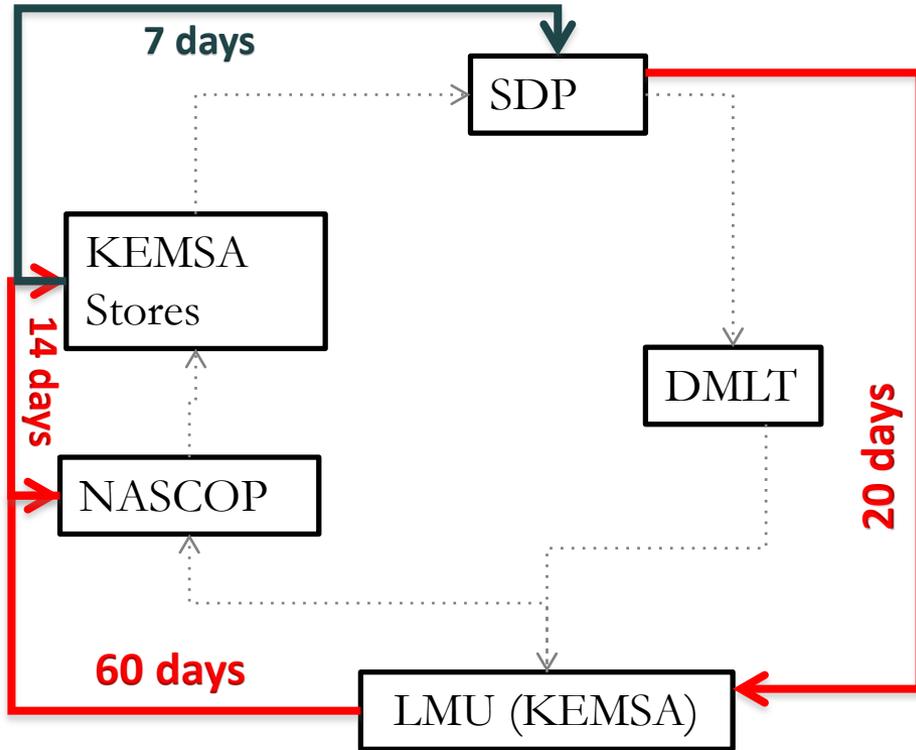
2. At National level
  - Gaps in service level/ programmatic data to make quick decisions
  - Inaccurate forecasting and quantification
  - Equipment status

3. Donor/ Partner level
  - Budgeting and procuring sufficient commodities
  - Review IP performance on KPI



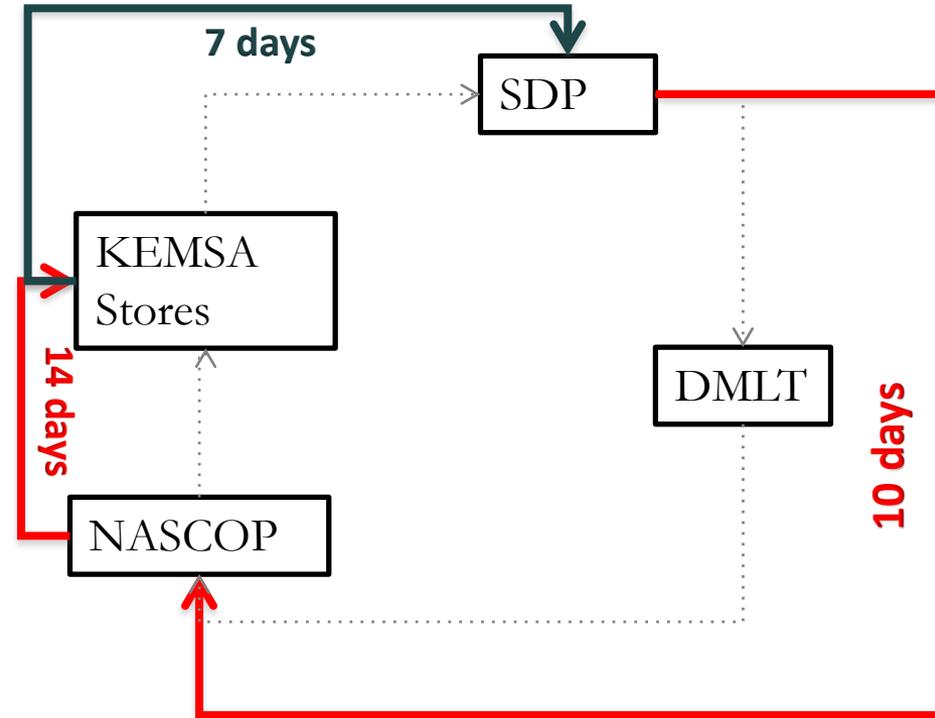
The challenge lies in accurate and timely reporting from service delivery points to the national level and allocation based on real time AMC

### Manual Reporting system



Total TAT= 2-3 Months

### Online Reporting System

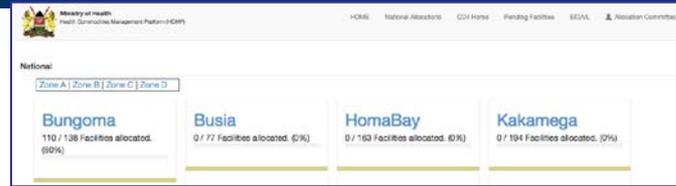


Total TAT=< 1 Month

# Leveraging on existing tools and systems to automate online commodity reporting, allocation and distribution of commodities to improve overall efficiencies:

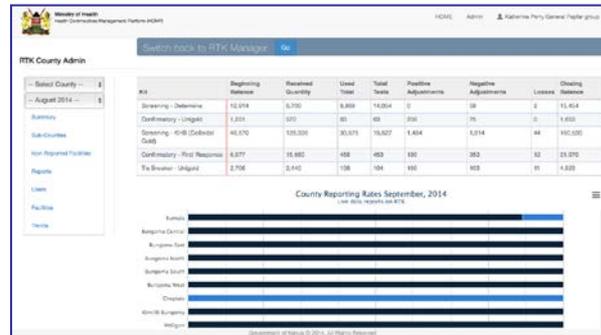
<http://41.89.6.212/HCMP>

*Allocation and distribution based on AMC*



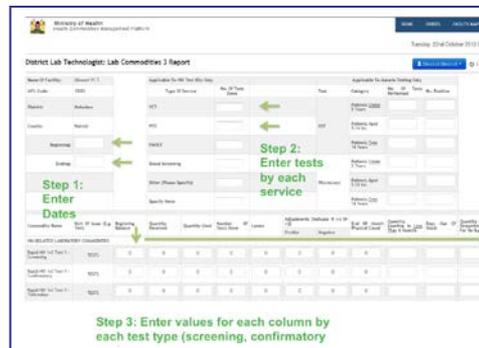
Level 4: National

*Rationalization, review and redistribution*



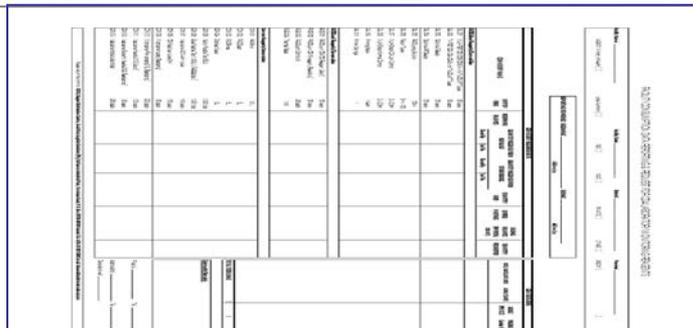
Level 3: CMLT

*Online reporting on HCMP by 15<sup>th</sup>*



Level 2: SCMLT

*Manual/ automated submission by 5<sup>th</sup>*



Level 1: SDP

# An efficient and effective way to manage data at the testing labs from lab requisition forms and equipment interface to LIMS

Saturday, 20 September 2014

Welcome : Kitale District Hospital



Ministry of Health  
Division of Leprosy, Tuberculosis and Lung Disease

Home

Samples

Dashboard

Facilities

Consumption Report

Reports

Log Out

Add Patient Details

View Worksheet

0

Change Password

User Manual

## Add New Patient

Testing Facility:

Kitale District Hospital

\*Referred From(Facility):

Lab No:

200914\_14947\_00002

Op No:

Op No

IP No:

IP No

Referring Site Reg No:

Referring Site Reg no

\*Patient Name:

Patient Name

\*Age:

Age

Year(s)

\*Gender:

Select Gender

Date of Visit:

Select Date

Physical Address:

Physical Address

\*Patient Mobile No:

Patient Mobile No

\*Type of Patient:

Type of Patient

\*Smear(+ve/-ve):

Select Type

\*Hiv Status:

Select Status

\*Examination Required:

Select Examination

DTLC Email :

DTLC Email

Clinician Name:

Clinician Name

Clinician Email:

Clinician Email

Clinician Mobile No:

2547

Save Details

Reset

[http://ntbrl.dltld.or.ke/dlt\\_login.php](http://ntbrl.dltld.or.ke/dlt_login.php)

# An efficient and effective way to manage data at the testing labs from lab requisition forms and equipment interface to LIMS

Monday, 22 September 2014

Welcome : Kitale District Hospital



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Division of Leprosy, Tuberculosis and Lung Disease

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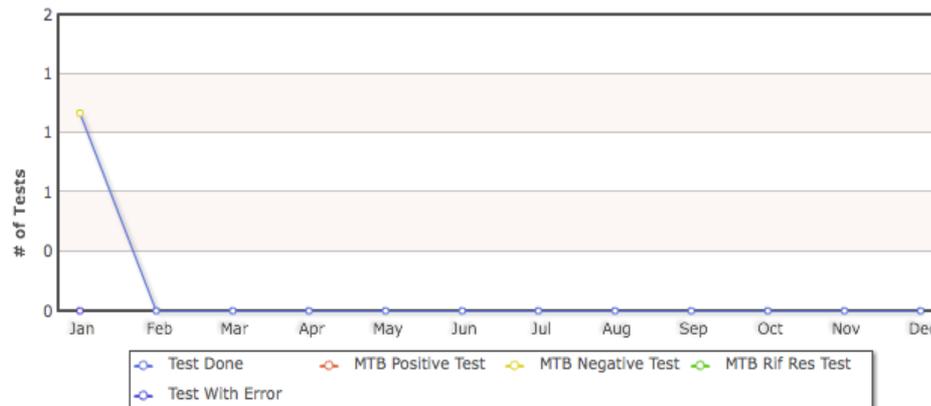
User Manual

**0**  
Tests Done  
this month.

**128**  
Remaining Cartridges  
so far from the inventory.

**0**  
Remaining Days  
to cartridges expiration.

Test Trends for Year:  
2014



### Today's worksheet-Monday, 22 September 2014

— There are [0] sample(s) that have been processed today.

### Updated Samples

— [1] sample(s) ha(s/ve) been updated. Click **HERE** to view.

### Samples with Errors

— [0] sample(s) ha(s/ve) been updated and Resulted with **ERRORS** Click **HERE** to view.

# Managing timely relay and access of results from testing hubs to SDP through email and sms alerts, SMS printers and access to webpage

Hello EDARP PROGRAM ,

Batch No 16054 with 7 samples that were received on 15-Feb-2013 have been processed and results have been dispatched.

Please confirm that this email address is correct by responding receipt of this email to the following email address: [eid-nairobi@googlegroups.com](mailto:eid-nairobi@googlegroups.com)

Click this link to access and download the results:

<http://www.nascop.org/eid/users/facilityresults.php?key=5270faf75b135243eb752149a2892bba&BatchNo=16054&LabID=1&fauto=6790>

The Viral Load Test is now available in all EID testing sites. Samples can be collected in DBS form and shipped using the A/C C00339. Call the official EID lines for more information.

This email was automatically generated. Please do not respond to this or it will be ignored.

Regards,

--

Paediatric Diagnosis for HIV (DNA-PCR)  
P3 Lab, Centre for Virus Research (CVR)  
Kenya Medical Research Institute (KEMRI) Mbagathi Way, NAIROBI  
Email: [eid-nairobi@googlegroups.com](mailto:eid-nairobi@googlegroups.com)



Hello Iguhu Health Centre,  
Your results have been  
dispatched to Bungoma  
G4S. Please turn on your  
SMS printer to receive your  
results



<http://www.nascop.org/eid/facilitylogon.php>

# Improving data aggregation at the national level to inform programmatic decision making in the national TB

Sunday, 21 September 2014

Welcome : **Tim**



## Ministry of Health Division of Leprosy, Tuberculosis and Lung Disease

- Home
- County View
- Facilities
- Allocation
- Inventory

Log Out

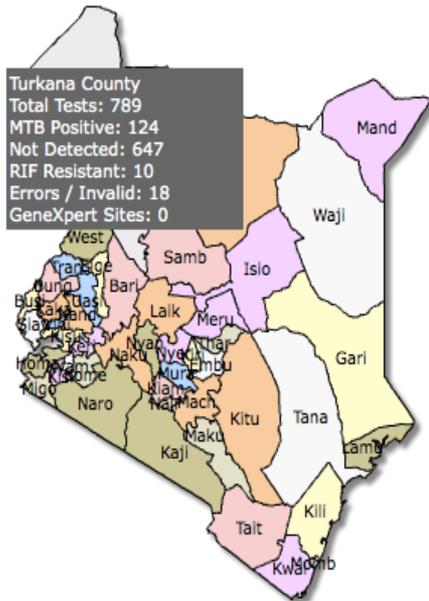
Date Range: **Last Upload : Sep - 2014** | Last 6 Months | Last 3 Months | Customize Dates

| All | 2014 | 2013 | 2012 |

Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | **Sept** | Oct | Nov | Dec

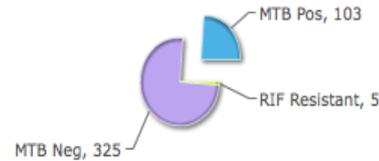
### National Outcome For:

2012 - 2014



### National Tests Outcome

Last Upload : Sep - 2014



### National Statistics From The Year:

2012 - 2014

Total Tests	MTB +ve	MTB -ve	RIF Resistant	Errors
14177	4161	9092	305	924

### Cumulative View : Last Upload : Sep - 2014

Total Tests	MTB +ve	MTB -ve	RIF Resistant	Errors
453	103	325	5	25

### Tests By Age

Last Upload : Sep - 2014

No data to display

### Summary By Age

Last Upload : Sep - 2014

#	<5 Yrs	Btwn 5-15 Yrs	>15 Yrs
# Tests	0	0	0
MTB +ve	0	0	0
Rif Resistant	0	0	0

### Testing Trends For:

2014

### Tests by Gender

Last Upload : Sep - 2014

### Summary By Gender

Last Upload : Sep - 2014

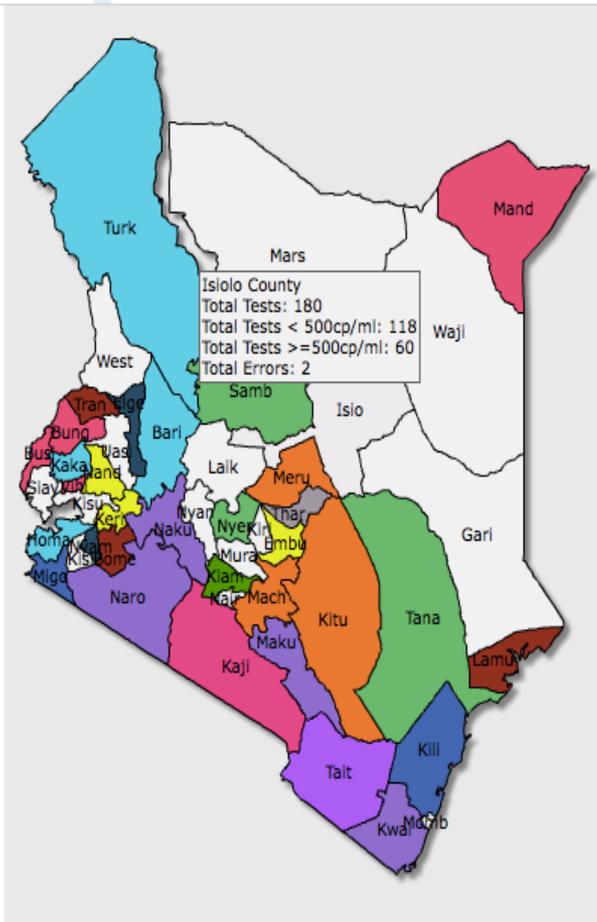
#	Male	Female	Not specified
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# ....And HIV/AIDS continuum of care: CD4 dashboard tracks all results of Pre-ART patients who are eligible for ART to enable the program to link all these patients to Tx

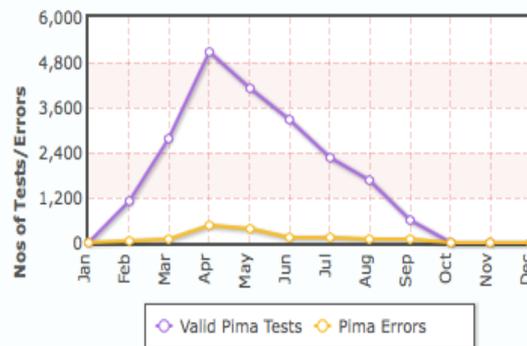


**National AIDS/STD Control Programme (NAS COP)**  
Ministry of Health Government of Kenya

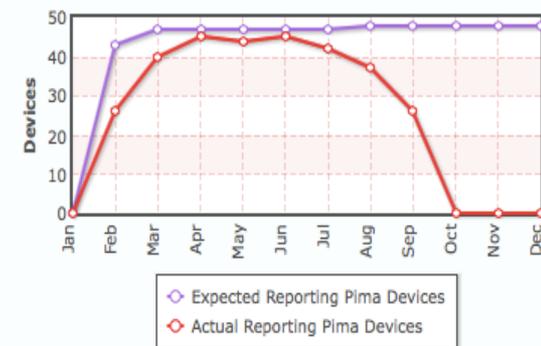
## National Overview



% CD4 Tests for Year 2014



Pima reporting trends for year 2014



Statistics for : this Year

# of CD4 Tests Performed	22296
# of CD4 Valid Tests Performed	20871
CD4 Tests < 500 cells/mm3	13041
CD4 Tests > 500 cells/mm3	7830
# of Failed/error Tests	1425

Device Errors For: this Year

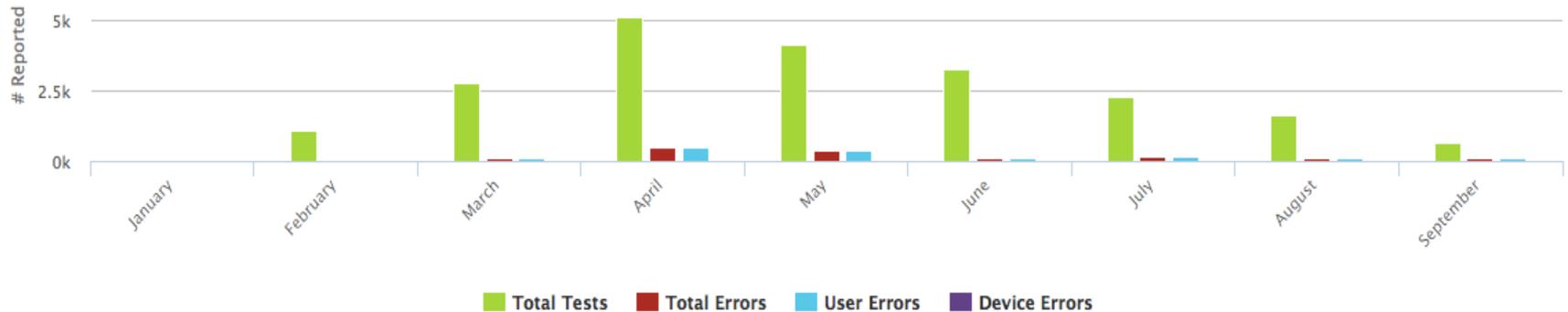


<http://www.nascop.org/cd4Poc/>

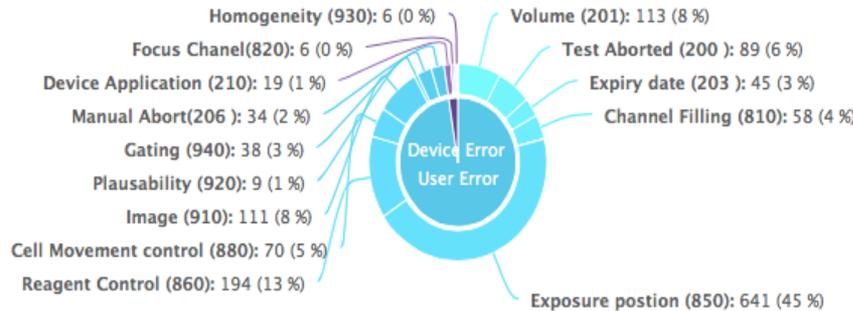
# Collaborating with National Quality Assurance Lab to address errors and improve quality of treatment



National AIDS/STD Control Programme (NAS COP)  
Ministry of Health Government of Kenya



## Errors Encountered



## Error Details

# Attempted Tests		22406	
# Successful tests	20962 (93.6%)	# Tests >=500 cells/mm3	7861 (35.1%)
		# Tests <500 cells/mm3	13101 (58.5%)
# Errors (unsuccessful tests)	1444 (6.4%)	# User Errors	1401 (6.3%)
		# Device Errors	36 (0.2%)

## PIMA Errors

# Flagging POCT sites that should be running daily controls to calibrate equipment against standard ranges



National AIDS/STD Control Programme (NAS COP)  
Ministry of Health Government of Kenya

## Facilities Running Control Tests - The Last 1 Calendar Month

Period: [All Time](#) | [Last 2 Months](#) | [Last 1 Month](#) | [Last Week](#) | [This Week](#) | [Customize dates](#)

Show  entries

Search:

Period		PIMA Device - Facility	Actual Control Tests Run	Working Days	Expected Controls To Be Run
From	To				
22nd August 2014	22nd September 2014	PIMA-D-002534 - Bumala B Health Centre	19	9	18
22nd August 2014	22nd September 2014	PIMA-D-003130 - Lunga Lunga Health Centre (Kwale)	2	11	22
22nd August 2014	22nd September 2014	PIMA-D-002629 - Baragoi District Hospital	14	5	10
22nd August 2014	22nd September 2014	PIMA-D-002538 - Cheptais Health Centre	21	12	24
22nd August 2014	22nd September 2014	PIMA-D-002975 - Samburu Health Centre	2	7	14
22nd August 2014	22nd September 2014	PIMA-D-002766 - Marigat Sub District Hospital	5	2	4
22nd August 2014	22nd September 2014	PIMA-D-002494 - Mpeketoni Sub District Hospital	6	-	-
22nd August 2014	22nd September 2014	PIMA-D-002769 - Tseikuru Sub District Hospital	6	3	6
22nd August 2014	22nd September 2014	PIMA-D-003142 - Kigumo Health Centre	11	5	10
22nd August 2014	22nd September 2014	PIMA-D-002620 - Mweiga Health Centre	2	6	12

Showing 1 to 10 of 33 entries



# Supporting programmatic implementation through access to accurate data on the national dashboard to improve service delivery in the country



National AIDS/STD Control Programme (NAS COP)  
Ministry of Health Government of Kenya

Welcome **Lusike Judi**

Saturday, 20 September 2014

<< Switch to Viral Load | Switch to CD4 >>

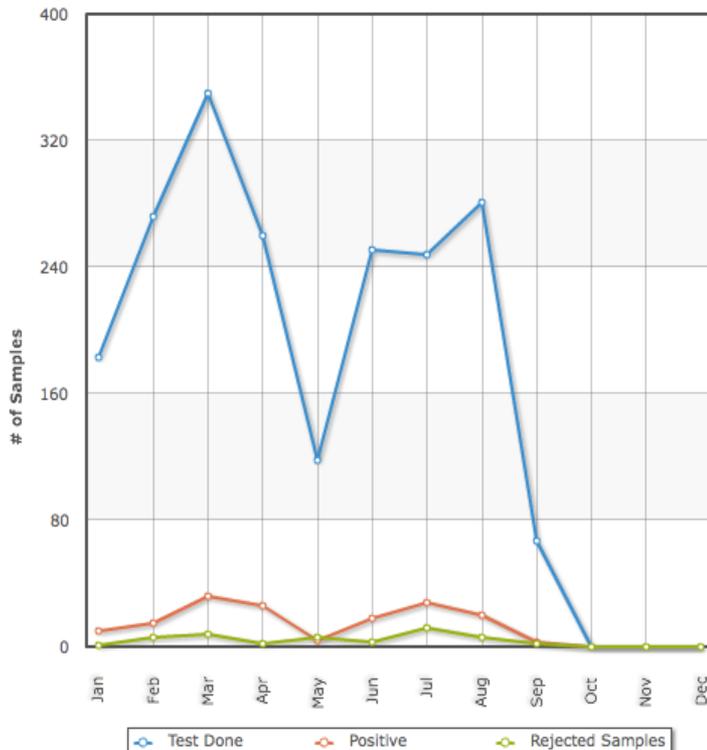
Overall | **NEW** [Countys View](#) | [Facilities](#) | **NEW** [Patient Follow Up](#) | [Other Stats](#) | **NEW** [Results/Reports](#) | **NEW** [Access Logs](#) | **NEW** [User Guide](#) | [Viral Load](#) | [CD4](#)  
| [Log Out](#)

Period: **2014** | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007

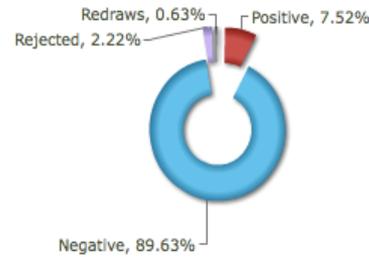
\* Refine your view by clicking on Year and/or Month

Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sept | Oct | Nov  
| Dec

## EID Testing Trend :: 2014



## EID Tests Outcomes :: 2014



\* To Download the Chart, Right Click on the Chart, then Select the Format You Want to Save it as.

**ALERT:: DOWNLOAD POSITIVES REPORT FOR 2014 FOR FOLLOW UP IN** >> << Or >> <<

**IN 2014: [30 Patients] 19.2 % UNKNOWN INITIATION STATUS**  
(Click here to Update Initiation Details)

## NOTIFICATIONS

- \* Update HEIs Follow Up Status on Patient Follow Up Link
- \* Download Results/Reports on Results/Reports Link
- \* View your County(s) Analytics on County View Link
- \* View Facilities Accessing Results online on Access Log Link

## Statistics :: 2014

No. of All Infants Tested	2030
No. of first DNA PCR test	1976
No of Confirmatory PCR Test @9M	46
Positive Outcomes (2014)	156 [7.7%]
Infants Initiated onto Treatment (2014)	72 [46.2%] * Click to View
Infants Lost to Follow Up (2014)	24 [15.4%] * Click to View
Infants Died (2014)	19 [12.2%] * Click to View
Infants who were Adult Samples (2014)	5 [3.2%] * Click to View
Infants Transferred Out (2014)	1 [0.6%] * Click to View
Infants with (Other Reasons) (2014)	5 [3.2%] * Click to View
No. of All Infants Tested ( < 2 months)	1068
No. of Rejected Samples	46
Average Age of Testing (Months)	4
Total Number of Sites Supported	252 * Click to View

# Addressing donor needs on accurate information on commodity consumption to inform accurate procurement

Submissions Tracking

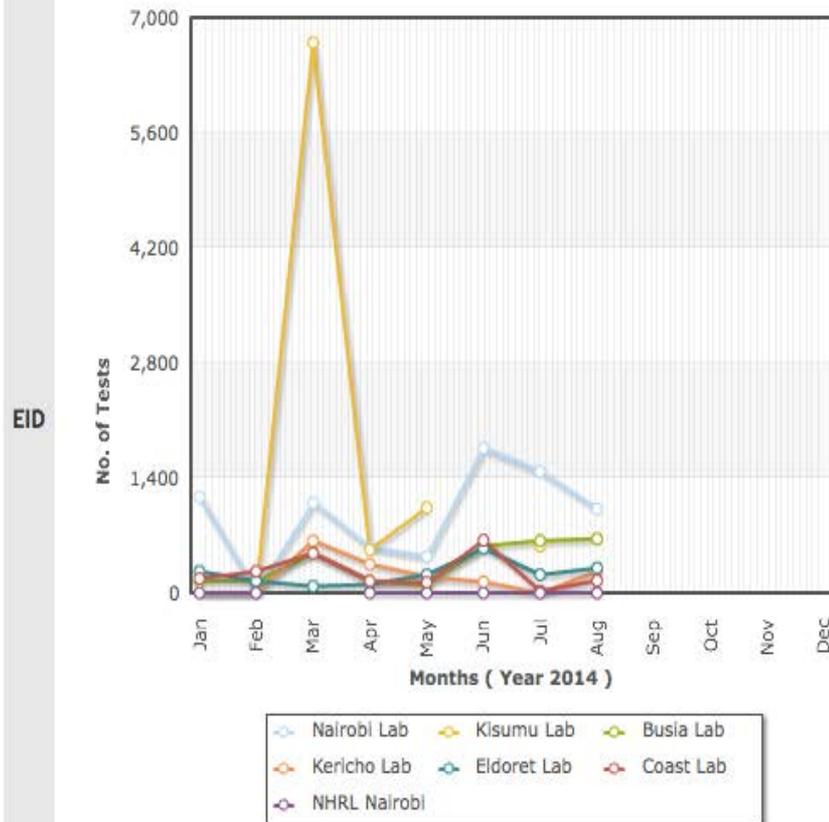
Kit Consumption Trend

Kit Forecasting & Quantification

Kit Submission Reports

The No. of Kits Used is based on the No. of Tests Done for that Month.

TAQMAN CONSUMPTION TREND



ABBOTT CONSUMPTION TREND

