Viral Load and EID Data Quality

Ministry of Health, Kenya
M/E Sub committee
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Outline of Presentation

Country background

Scale up of viral load testing

VL data quality improvement activities/strategy

VL data management system/Best practice

Experience of implementing data quality activities in context of COVID-19

Summary
2020 HIV in Kenya Impact Indicator

**Estimated PHLIV**

- **HIV Prevalence** 4.5%
  - Adults (15+ yrs.) 5.7%
  - Children (0-14 yrs.) 3.1%

**PLHIV (all ages) =** 1.5M

**Adults living with HIV (15+ yrs.)**
1,401,498

**Children living with HIV (0-14 yrs.)**
106,807

**New Infections**

- All ages = 41,416
  - Adults (15+) = 34,610
  - Children (0-14) = 6,806

SOURCE: HIV Estimates
Overall Cascade -90 90 90 Coverage

Ministries of Health

Source KHIS December 2020 Estimates 2020
Key Milestones Towards Release of the current VL/EID Dashboard

<table>
<thead>
<tr>
<th>Year</th>
<th>Milestone</th>
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<tr>
<td>2010</td>
<td>Development of initial EID dashboard Supporting majorly logistics and TAT</td>
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<td>2011</td>
<td>Revision of the VL and EID dashboard to indicate programmatic indicators (VL suppression)</td>
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<td>2012</td>
<td>Addition of the remote logging aspects of the VL/EID system</td>
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<td>2013</td>
<td>Integration with KHIS &amp; EMR</td>
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<td>2014</td>
<td>Creation of facility patient registry</td>
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<td>2015</td>
<td>Implementation of alert of return of results to clinician and pilot SMS to client/caregivers</td>
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<tr>
<td>2016</td>
<td>Development of initial VL dashboard Supporting majorly logistics and TAT</td>
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<td>2017</td>
<td>Revision of EID component of the dashboard to indicate HEI validation and other PMTCT indicators</td>
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<td>2018</td>
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<td>2019</td>
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<td>2020</td>
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Viral Load Testing Uptake 2012-2020

- 2012: 12,010
- 2013: 51,933
- 2014: 237,326
- 2015: 634,484
- 2016: 1,114,107
- 2017: 1,114,107
- 2018: 1,222,248
- 2019: 1,594,709
- 2020: 1,354,630

Source: VL/EID system
Facility highlights

- Kenya has about 3500 ART sites being served by 10 testing labs.
- Total EMR sites 1422 with a patient load of 75%
- Data management tools in use:
  - Clinical encounter form
  - **Viral Load request form**
  - Facility Sample tracking log book
  - Hub VL samples and results tracking log book
  - VL/EID rejection form
  - High Viral registers (Partner supported)
National System functionality

- Patient historical data retrieval
- Sample tracking and Storage (Pre and post analytical) – Specimen Archival.
- Inventory management for all the entire lab’s stock
- Workload management
- External system Interoperability (Interface with other systems)
Milestone with the current system

• The national Viral load database is Integration with SMS platform
• The national viral load database Integration to other EMR
• The national viral load database integration with national reporting system KHIS / DHIS2
Best Practices

• Lab- clinical interphase initiatives
  – Result interpretation
  – Follow up on rejections and redraws
  – Utilization of right tools for data completeness

• Weekly review of sample workload
  – Labs with backlog refer samples to designated backup lab to reduce TAT

• Different platforms for results access
  – Online access from respective lab URLs
  – National dashboard
  – Facility emails
  – SMS on facility phone and staff with rights of access
Best practices

• Remote log-in
  – Improve data quality
  – Improve sample and results tracking by clinicians
    improving TAT leading prompt interventions
• Active Committee of Experts
**Highlights**

- Annual DQA conducted at facility level
- Data abstraction done on sampled patient files at facility level during DQA
  - Care and Treatment
    - Number of clients having a VL test
    - Number of clients Suppressed
  - Laboratory
    - Number of Viral load tests sent to testing labs
    - Number of viral load results received from lab
Data Quality Improvement activities

• Data Alignment meetings
  – County level done after a DQA or a desktop review to make corrective action
• Conduct technical assistance at sub national level
• Client notification on result status through SMS (Ampath sites)
  – The country planning on scale up on return of results to clients
• Email and SMS notification to clinical staff on clients' results at facility level
Challenges and innovations, lessons learnt

- **Challenges**
  - Lack of UPI

- **Innovation**
  - SMS communication to the clients reduces the TAT for action both for the client and clinicians

- **Lesson Learnt**
  - Frequent Data quality check improves the quality of data over time
Data Quality Gaps

Data incompleteness

Data validity
Covid-19 Effects on VL testing

The graph shows the numbers of VL tests conducted over different months in 2019 and 2020. The y-axis represents the numbers of tests, ranging from 0 to 180,000, while the x-axis represents the months from January to December. The 2020 data is represented by a blue line, and the 2019 data by a red line. The graph highlights the impact of Covid-19 on VL testing, with notable fluctuations in test numbers throughout the year.
Country Strategies for Continuity of HIV & STI Services in Kenya During COVID-19 Restrictions

The Ministry of Health NASCOP issued 2 circulars during COVID-19 period providing guidance to ensure continuity of HIV, STI and VH services in the midst of COVID-19 period;

1st : Dated, 24 March 2020

2nd: Dated, 24 August 2020

• Viral Load Testing prioritized for new patients, PMTCT and those with suspected treatment failure
• Reporting of all HIV related data should be done as per the timelines
Country Strategies for Continuity of HIV & STI Services in Kenya During COVID-19 Restrictions Ct’

- Virtual Technical Working Groups (TWGs) and Committee of Expert (CoE) meetings
- Follow ups through phone calls and SMS
Summary

- Data Quality guidelines are available and have a VL component
- There are data quality corrective measures in place to ensure improvement in the quality of data collected.
  - Desktop reviews
  - County based data alignment meetings
- During the Covid 19 pandemic period measures have been put in place to ensure quality of data is maintained
- Technology has been embraced to support data quality aspects ensuring timeliness, accuracy and reliability

- Ministry of Health-HQs
- NASCOP
- NACC
- County Governments
- Global fund
- PEPFAR
- All Development partners
- Implementing partners
- Networks of PLHIV