EGPAF Efforts to Optimize Early Infant HIV Diagnosis and ART Initiation for HIV-exposed Infants in Lesotho

Esther Tumbare, MD MPH
Technical Director
EGPAF Lesotho

AIDSFree EID Webinar
January 18, 2018
### Lesotho epidemiological summary

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>2,008,801</td>
</tr>
<tr>
<td>Adults LWHIV (ages 15-59)</td>
<td>306,000</td>
</tr>
<tr>
<td>Children LWHIV (ages 0-14)</td>
<td>13,000</td>
</tr>
<tr>
<td>Adult HIV prevalence</td>
<td>25.6%</td>
</tr>
<tr>
<td>Pediatric HIV prevalence</td>
<td>2.1%</td>
</tr>
<tr>
<td>UNAIDS 90-90-90</td>
<td>77.2%, 90.2%, 88.3%</td>
</tr>
<tr>
<td>Women receiving PMTCT</td>
<td>8,061</td>
</tr>
<tr>
<td>MTCT at 6 weeks</td>
<td>4%</td>
</tr>
</tbody>
</table>

Overall prevalence (national): 25.6%

Adult HIV prevalence (ages 15-49 years). LePHIA results.
EGPAF Support to Lesotho’s MOH

- EGPAF is a key clinical partner to Lesotho’s MOH
- Support began in 2004 and office established in 2006
- Current focus is in all 10 districts for comprehensive TB and HIV prevention, care, and treatment services
- Support comprised of direct service delivery (DSD) - through placement of clinical staff - and TA at all levels of the health system
- Funding is through: USAID, CDC, and Unitaid
- Support for EID includes:
  - Tracking of infants who default on appointments
  - Collection and submission of EID samples for processing through centralised conventional lab machines and POC
  - Return of results and ART initiation of HIV-positive infants
DNA PCR TAT by District in Lesotho (Range: 30-94 days) - CHAI data 2014-2016

Map and chart represent projections for total EID TAT (TAT = DBS collection to result arrival at facility).

Slide courtesy of CHAI Lesotho. Sample size: 18,733.
Goal: to increase the number of HIV-positive infants whose HIV status is known and facilitate early ART initiation.

Purpose: ensure that at-risk infants have timely access to HIV testing through scale-up of POC EID in the context of optimizing existing national EID networks

Working in 9 countries including Lesotho / 2015 – 2019
Description of EGPAF POC EID Project

• Site selection criteria:
  – Sites located in all 10 districts
  – Sites with ART access, consideration of access to conventional EID, platform placement at sites with EID demand >0.5/day
  – Hub-and-spoke model adopted or planned for
  – Platform (either AlereQ or Cepheid Xpert) matched to site

• Phased and monitored implementation: initial 6-month pilot phase

• Evaluation of key clinical and service delivery outcomes comparing routine POC EID to conventional EID

• Presenting POC EID data for 10 months (Jan-October 2017)
POC EID Sites in Lesotho

- Ultimately 29 testing centers (reaching 155 sites through hub and spoke approach)
- 5 pilot sites: (reaching 21 sites)
  - Mafeteng Hospital
  - Maputsoe SDA
  - Likotsi Clinic
  - Maluti SDA Clinic
  - Seboche Hospital
- 14 of 29 machines are operational to date

Key goals for pilot sites:
- Increase access and volume in a decentralized area
- Increase number of exposed infants tested
- Increase proportion of results received
- Decrease TAT for results
POC EID Placement Models

**Stand-Alone Model**
- **Stand-alone testing sites (without spokes):** Receive samples directly from clients and perform POC EID tests on site

**Hub-and-Spoke Model**
- **Hub testing sites:** provide testing for patients at that site and for spoke sites
- **Spoke sites:** regularly send samples to the hub sites for POC EID testing
Baseline: Conventional Laboratory EID Results for Primary Evaluation Outcomes

<table>
<thead>
<tr>
<th>Country (number of conventional tests)</th>
<th>% Results received by infant caregiver</th>
<th>Median number of days [range] from blood collection to return of results to caregiver *</th>
<th># of HIV-infected infants initiated on ART</th>
<th>Median number of days [range] between receipt of results by caregiver and initiation on treatment of HIV-infected infant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesotho (n= 269)</td>
<td>82%</td>
<td>63 days [13-161]</td>
<td>7/8</td>
<td>0 days [0-0]</td>
</tr>
</tbody>
</table>

*Tests for which no date for caregiver result return was recorded were censored and not included in calculation of turn-around-time.
POC EID Results Primary Outcomes (Jan-Oct 2017)

Total Tests performed by Gender

- Males: 52%
- Females: 48%

Unique health facilities: 31

Total Tests Performed: 1843 (5 tests had no gender assigned)

Number of infants: 1548

Number of POC EID results Reaching caregiver: 1836

Country (number of POC EID tests) | % Results received by Infant Caregiver | Median number of days [range] between blood sample collection and return of results to caregiver | # of HIV-infected infants initiated on ART | Median number of days [range] between receipt of results by caregiver and initiation on treatment of HIV-infected infant
--- | --- | --- | --- | ---
Lesotho (n= 1843 infants) | 99.9% | 0 days [0 – 38] | 31/33 | 0 days [0 -30]

*Tests for which no date for caregiver result return was recorded were censored and not included in calculation of turn-around-time.
TAT to Result to Caregiver (n=1823) (Jan-Oct 2017)

- All 36% not given results on same day are from spoke sites.
- For January-October, TAT for samples collected to initiation on treatment for HIV-positive children is 0 days.
The Lesotho Network of AIDS Services Organizations (LENASO) is a civil society organisation

Sub-partner under two PEPFAR awards (PUSH, STAR-L)

Also supported by AIDSFree for technical and organizational capacity building

Mandated to focus on community linkages under these awards

Routinely tracks HIV-exposed infants who miss appointments for HIV testing and brings them back to care
### EID Testing: FY17 Achievement against FY17 Annual Targets in 5 PEPFAR Scale-Up Districts

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HEI who had a virologic HIV test done within 12 months of birth</td>
<td>8053</td>
<td>1817</td>
<td>1900</td>
<td>2028</td>
<td>1632</td>
<td>7377</td>
<td>92%</td>
</tr>
<tr>
<td>By results: Positives (% of tested)</td>
<td>125 (1.6%)</td>
<td>30</td>
<td>36</td>
<td>25</td>
<td>21</td>
<td>112 (1.5%)</td>
<td>90%</td>
</tr>
</tbody>
</table>
Remaining Challenges

- POC machines not able to service all facilities (limitations of funding)
- EID TAT still long in some facilities
  - Centralized processing of samples at NRL
  - Collection of samples and results by transport mechanism suboptimal
- When LENASO tracks defaulters, some infants still do not present
  - Transport challenges
  - Unavailability of legal caregiver
- Some parents still decline ART for HIV-positive infants
- Sustainability and government ownership post-UNITAID grant (working on sustainability plan with GF)
- Population level PMTCT coverage is still estimated at 70% in Lesotho
Conclusions

• POC EID shows improvement over conventional centralized testing on service delivery outcomes, such as:
  ▪ A greater proportion of infants obtained their results
  ▪ Infants receive their results on the same day, rather than waiting more than 2 months at times
  ▪ A higher proportion of HIV-positive infants get started on ART
  ▪ Same day ART initiation still observed (no delay)

• Cost per test result received by caregiver similar with conventional EID ($21.32 vs. 21.34)

• Use of CSOs, working in collaboration with other community health workers, is effective in increasing EID uptake for HIV exposed infants
Thank you