

Multi-disease integration of testing (HIV/HPV)

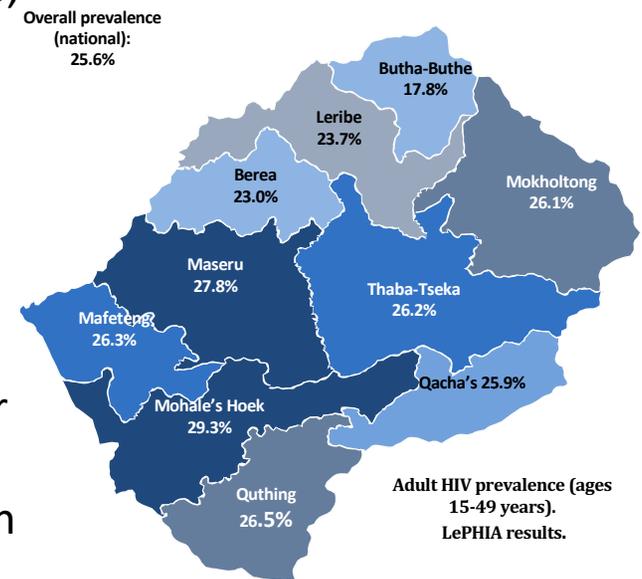
Presenter

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Background

- Lesotho population is approx. 1.8 million
- Lesotho has aligned itself with UNAIDS targets of reaching 90, 90, 90 (95/95/95)
- LEPHIA:
 - Lesotho currently at 82% , 91%, 88%
 - HIV Prevalence is 25.6%
 - Women disproportionately affected
 - 30.4% among women and 20.8% among men
 - 22.8 among pregnant women (hence high demand for EID)
 - Coverage for VL in Pregnant and breastfeeding women low
- POC EID introduced in 2015 with support from UNITAID



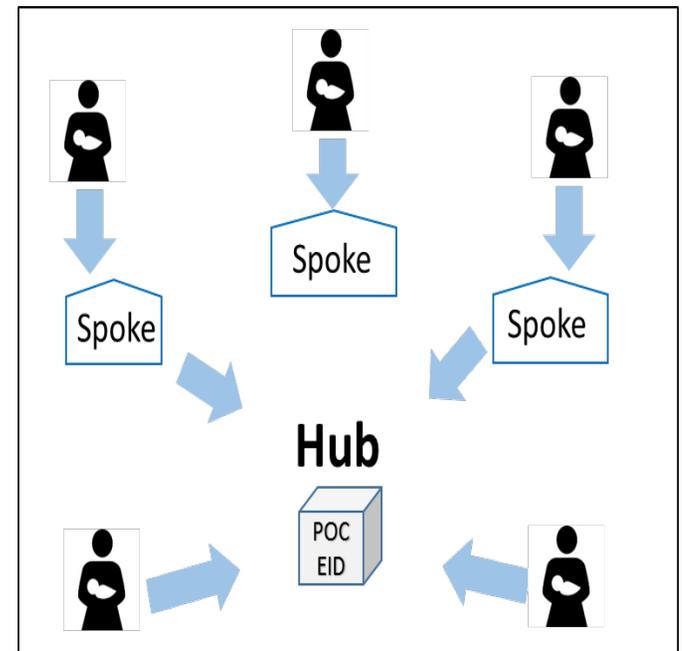
Background Continued

- Cervical cancer is the most common female cancer and most common cause of cancer death in Lesotho (incidence at 52.1 ASR and Mortality at 39.1 (ASR) (Globocan 2018)
- Most women have never had screening for Cervical Cancer and women presenting with cervical cancer often present in advanced disease.
- Current screening methods are Pap Smears and Visual Inspection with Acetic Acid (VIA) (have Limitations)
- Elimination of Cervical cancer as a Public Health problem requires the use of high precision screening Test
- With support of UNITAID HPV Nucleic Acid Testing was piloted at two sites in Lesotho leveraging on EID POC platforms (Gene Xpert 4)

POC EID: Moving to Elimination of Pediatric HIV

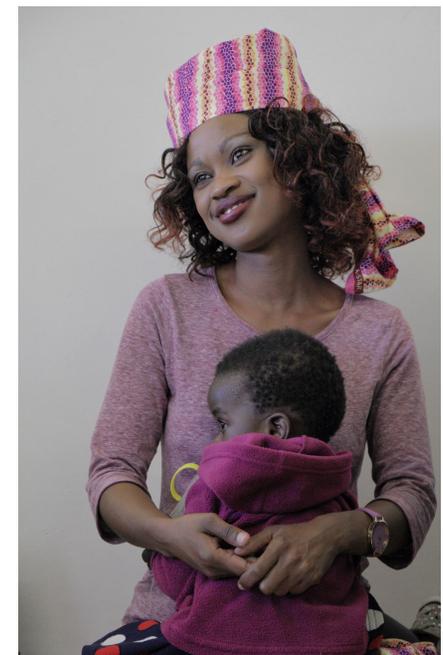
- Through Unitaid-supported project implemented by EGPAF, 13 GeneXpert IV and 15 mPimas were placed to run POC EID;
- POC EID was integrated on 1 additional GeneXpert already used for TB testing
- These 29 platforms currently support access to POC EID at 160 sites through a hub-and-spoke network (covering > 80% of EID demand)
- Sample processing done by nursing staff

Hub-and Spoke Model



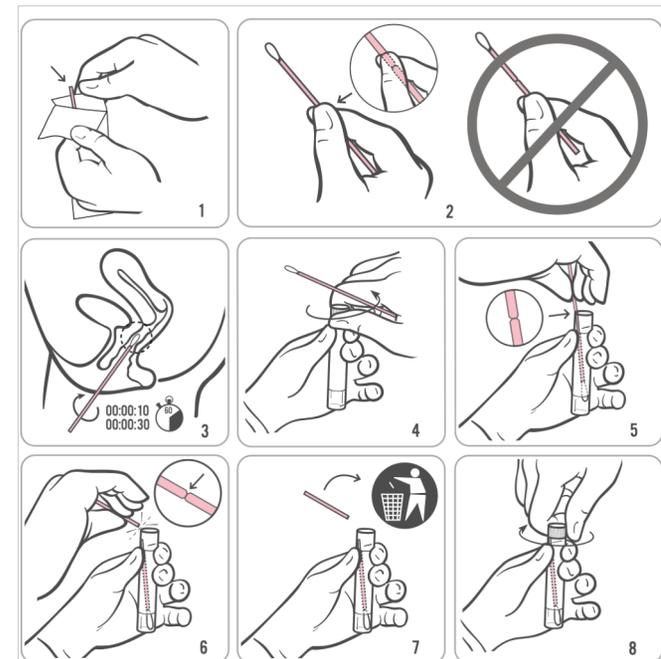
POC EID Results in Lesotho-2015-2019

| Indicator | Pre-intervention (referral lab EID) 9 sites, 270 tests | Post-intervention (POC EID) 160 sites, 19,596 tests |
|--|--|---|
| Percent of results returned to caregiver | 76% | 99.5% |
| Median turn-around-time from sample collect to caregiver (IQR) | 63 days (44-75 days) | 1 day (0-8 days) |
| Percent of HIV-infected infants started on ART within 60 days | 50% | 93% |
| Median turn-around-time from sample collection to HIV-infected infant ART initiation | 61 days (23-67) | 0 (0-3 days) |



Integration of HPV and EID Testing: Methods

- Multiplex EID and HPV POC testing using Gene Xpert IV platform
- Provider and self collection of HPV samples used
- Client who test positive are linked to treatment (Thermo-coagulation or Loop Electrosurgical excision of the transformation zone)



Integration of HPV and EID Testing: Methods

- Health care workers were trained through clinical meetings and onsite practicals on the benefits of diagnostic integration of POC (EID and HPV)
- Women were sensitized on multi-diagnostic opportunities of POC
 - Potential for same day EID and/or HPV diagnosis
 - Accuracy of testing
 - Ability to do a self-collected HPV sample to run on the POC test
- Reorganized clients flow so that those requiring multiple POC based test can have various specimen taken at same day.
 - HPV and EID taken together
 - HPV test and Viral load taken on same day
 - In the future, we will integrate POC VL and we will streamline patient flow to incorporate VL needs
- POC tests are performed by dedicated nurse assistants at high volume sites having Gene Expert 4, however at low volume sites with Pima machines operated by MCH nurses

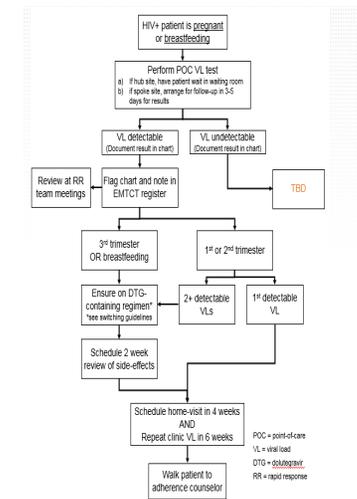
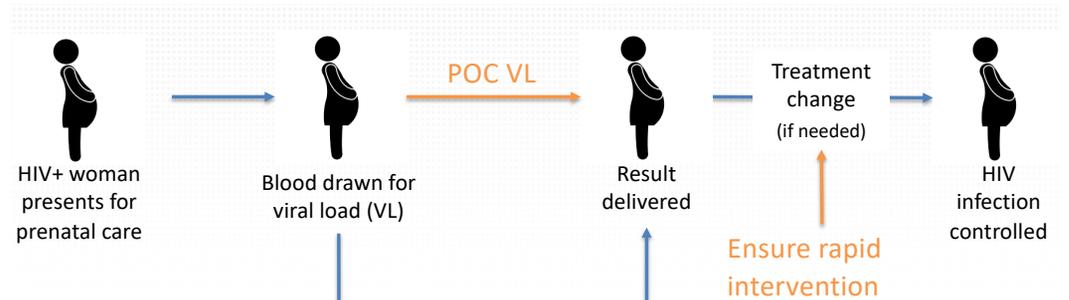
HPV pilot

- Multiplex EID and HPV POC testing using Gene Xpert IV platform
 - During HPV integration period, EID outcomes were unaffected by integration of HPV
 - 100% (225/225) of EID results were returned to caregiver
 - Median turn-around time 0 days
 - Plan to use lessons learnt in pilot to scale up to additional sites

| Total screened | 3001 | % |
|-------------------------|------|-------|
| HIV – women | 1317 | 43,89 |
| HIV + women | 1684 | 56,12 |
| Self-collected | 326 | 10,86 |
| Clinician collected | 2675 | 89,14 |
| HPV - | 2078 | 69,24 |
| HPV+ | 923 | 30,76 |
| HPV + among HIV - women | 285 | 21,64 |
| HPV + among HIV + women | 638 | 37,89 |

Planned rollout of POC VL

- Multiplex EID and VL testing using Gene Xpert IV platform
- Will ride on existing POC EID machines
 - Hub and spoke approach
- Focus is pregnant and breastfeeding women
- PEPFAR funding through CDC
- Existing staff in MNCH will be trained on POC VL sample processing
- Sample transport through MOH supported Riders 4 Health



Conclusion and way forward

- Multi-disease integration of point of care testing platform is feasible and acceptable to health care providers in Lesotho
- Improving diagnostics for women and their families: POC EID and HPV testing has turned around Early infant diagnosis and improved cervical cancer screening in Lesotho
- Lesotho plans to transition EID fully to POC platforms (and ease lab based machines for general population VL)
- Next steps for scaling up POC HPV testing: An additional 12 Cepheid platforms will be configured and used for integrated testing
- Integration of POC VL to existing POC EID machines will improve overall health outcomes for mother baby pairs

Thank you!

- As a healthcare provider, I am thrilled to be able to provide better, more integrated care to women and babies enrolled in our programs
- As a woman myself, I am extremely grateful to my government and all the support provided by external donors that enable this better quality of care
- On behalf of all Basotho, I would like to say **KEA LEBOHA!**

