

# Optimizing Testing and Treatment of HIV-Exposed Infants: Creating Sustainable Markets for Point-of-Care Technologies within National Diagnostic Networks



*ICASA SATELLITE SYMPOSIUM*

*Tuesday, 1 December*

*18:30 – 20:30*

*Prof. Soudre Room*

*Rainbow Towers Conference Centre*

Organized by:



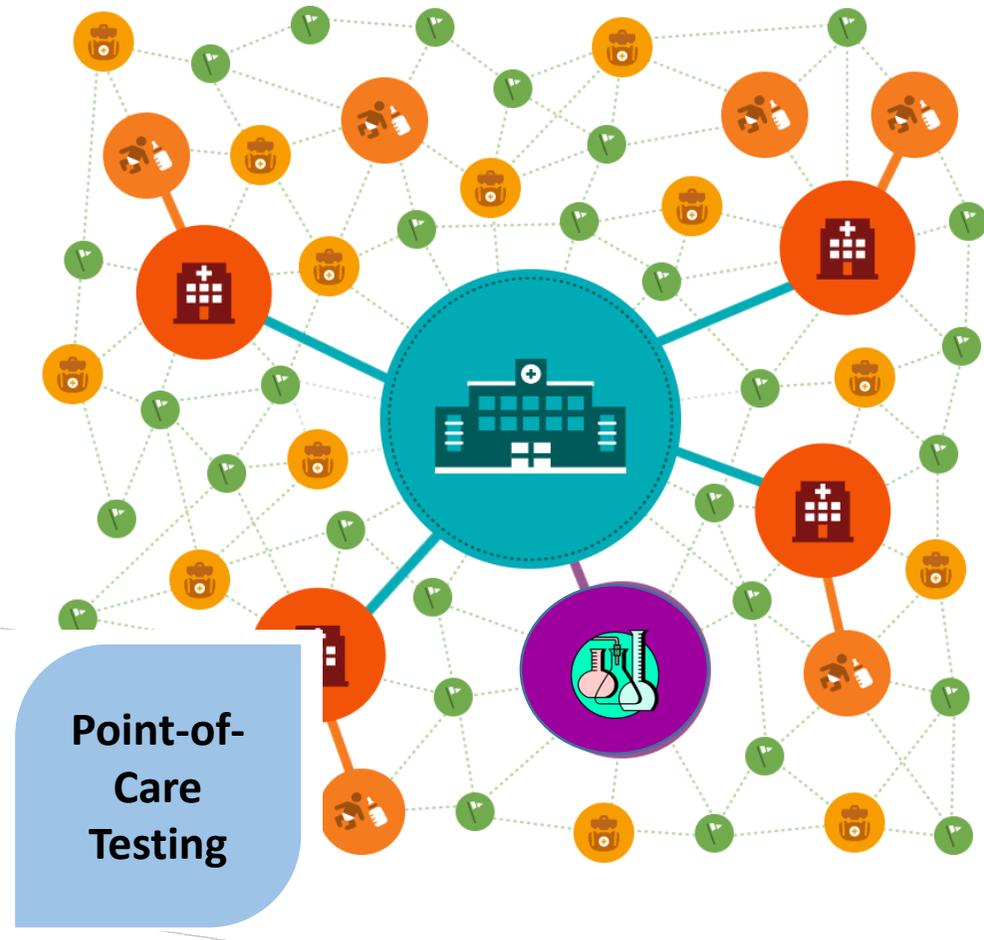
Elizabeth Glaser  
Pediatric AIDS  
Foundation



*Twitter Hash Tag: #EIDInnovation*

# Integrating point-of-care EID HIV testing into diagnostic and clinical networks and services

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# Summary: Challenges in the Pediatric Testing and Treatment Cascade

## **Challenge 1: Poor access to EID testing**

- Only 42% of the 1.4 million HIV-exposed African children had access to EID testing in 2014
- More than 800,000 exposed infants are missed each year

## **Challenge 2: Delays in early infant testing**

- WHO guidelines recommend testing at 6 weeks, 9 months and 18 months
- Most HIV-exposed infants receive their first test at age 6 months or later
- If untreated, 30% of HIV-infected infants will die before their first birthday

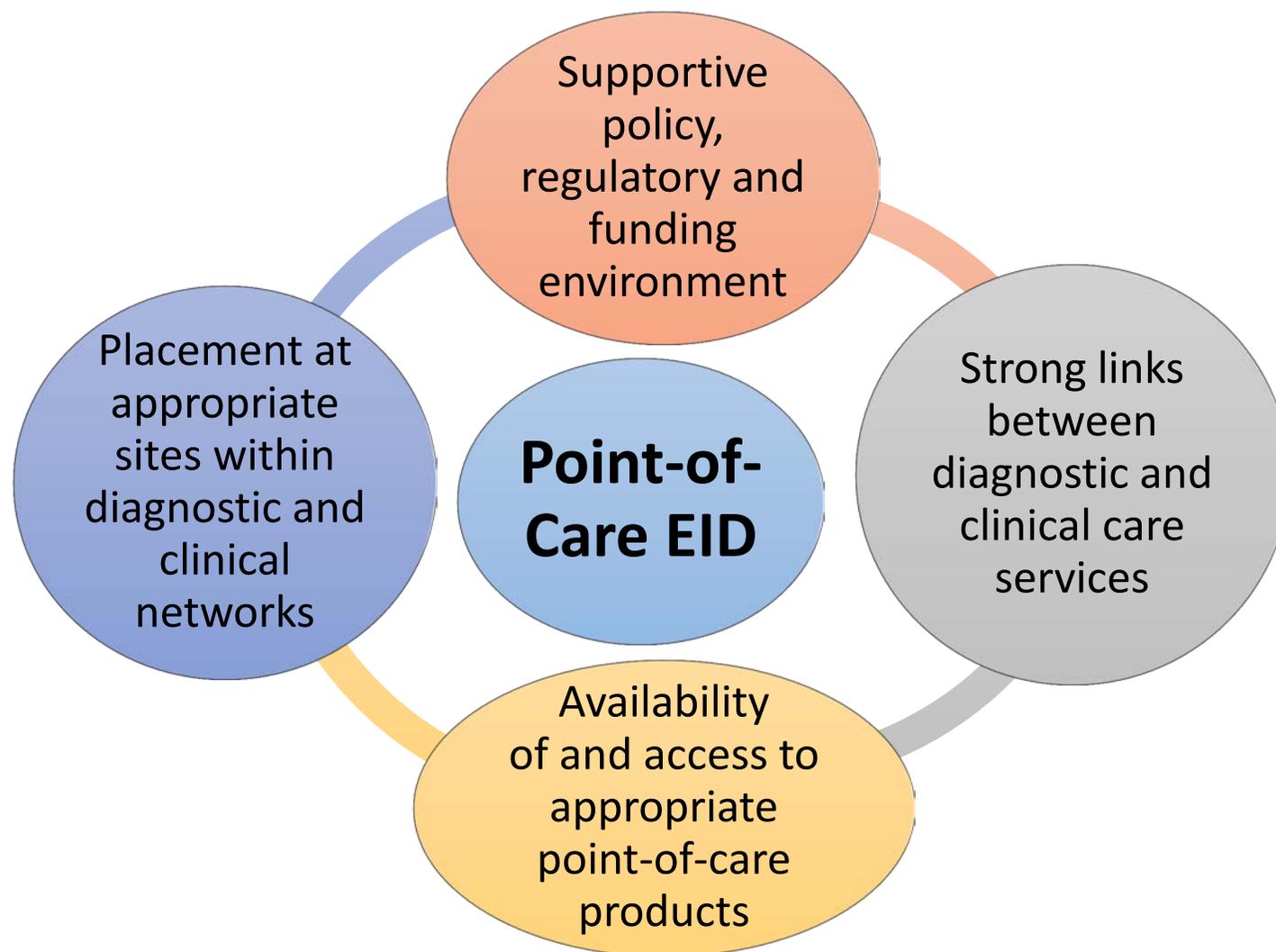
## **Challenge 3: Delays in the return of test results**

- The median time from sample collection to delivery of test results ranges from 30 to 90 days depending on the country
- Only 50% of children who are tested receive their test results

## **Challenge 4: Delays in initiating HIV-positive infants on treatment**

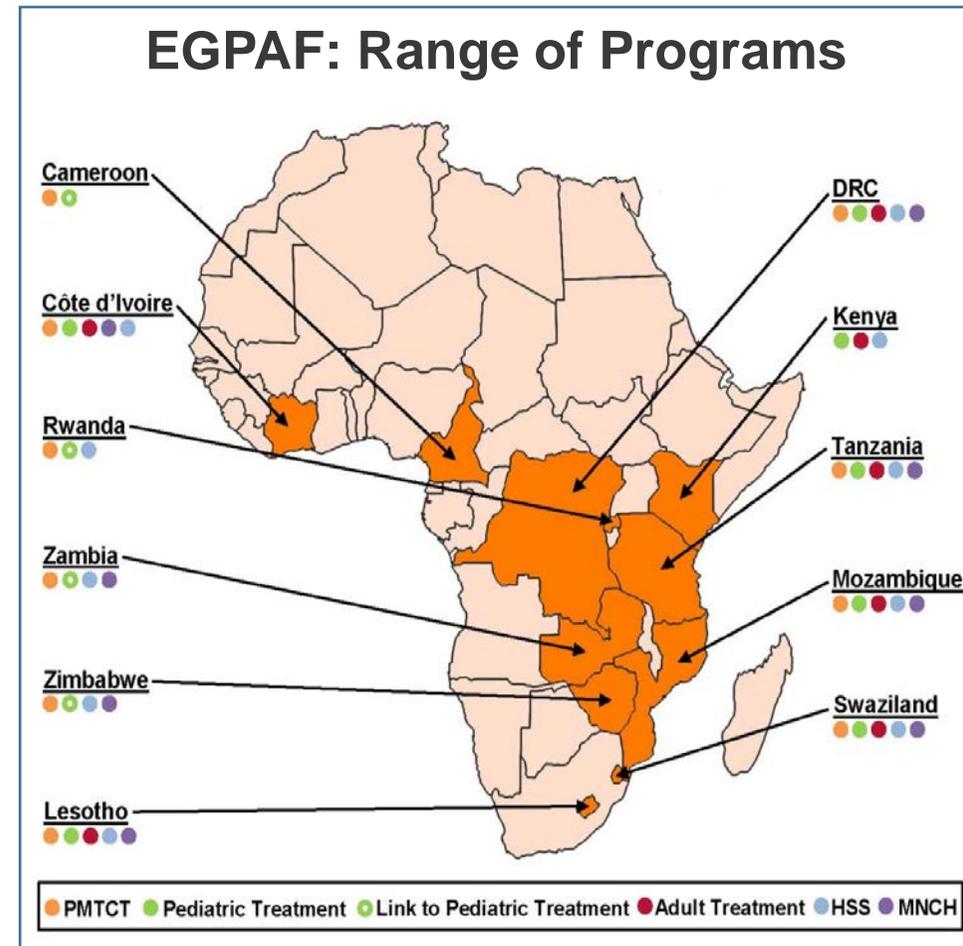
- Study in South Africa found a 10 week delay between positive diagnosis and initiation on treatment
- Study in Kenya found that 44% of positive infants were not initiated on treatment (never reached ART clinic), and
- 12% who were initiated on treatment were lost to follow up

# Key Considerations for Integrating and Ensuring Uptake of Point-of-Care EID



# Elizabeth Glaser Pediatric AIDS Foundation (EGPAF): Presence, Programs and Progress

- Working in **15 countries** across Africa, India and Russia
- Supporting more than **7,000 health facilities**
- **1,200 staff** worldwide
- Since 1988, EGPAF has:
  - Provided more than **21 million women** with PMTCT services
  - Tested more than **19 million women** for HIV
  - Started nearly **1.4 million individuals** – including more than **114,000 children** – on antiretroviral treatment



# EGPAF Work at National and Decentralized Levels



**National:** Technical assistance to MOH; participation in national technical working groups; advocacy for improved policies



**Regions/Provincial and Districts:** Comprehensive clinical, managerial, financial, data, supply chain, laboratory and systems assistance; Pediatric, adolescent and adult HIV testing, care and treatment, PMTCT, TB, MNCH, nutrition



**Health Facilities:** Training of health workers, Supportive supervision, Clinical mentorship and QI/QM initiatives



**Communities:** Community-based service delivery; Tracking & Tracing, Psychosocial Support Initiatives, Adherence; Community systems strengthening

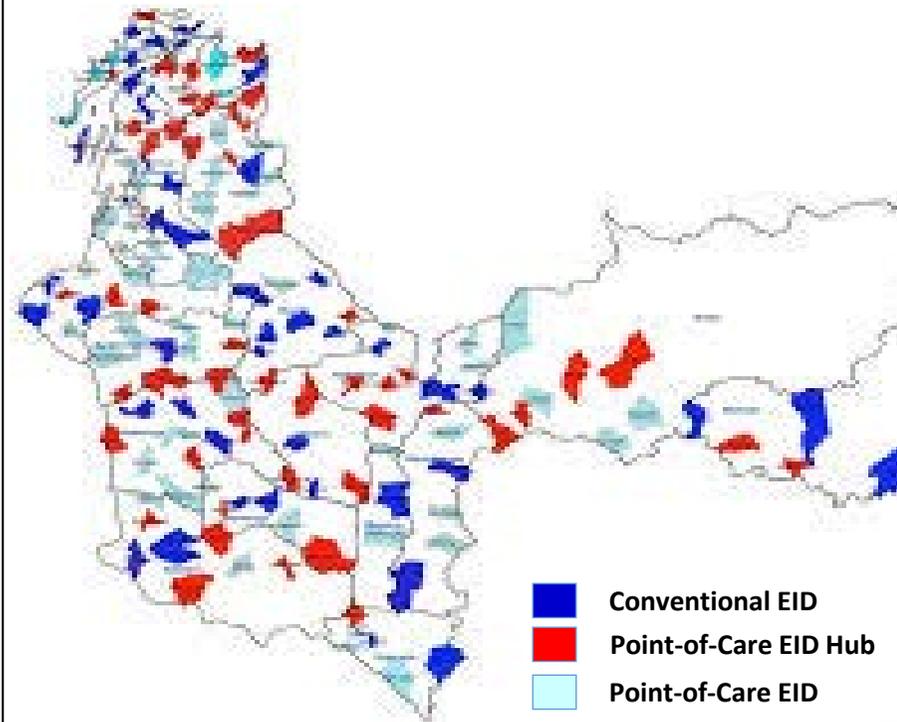


# Integrating Point-of-Care Testing into National EID Diagnostic Networks

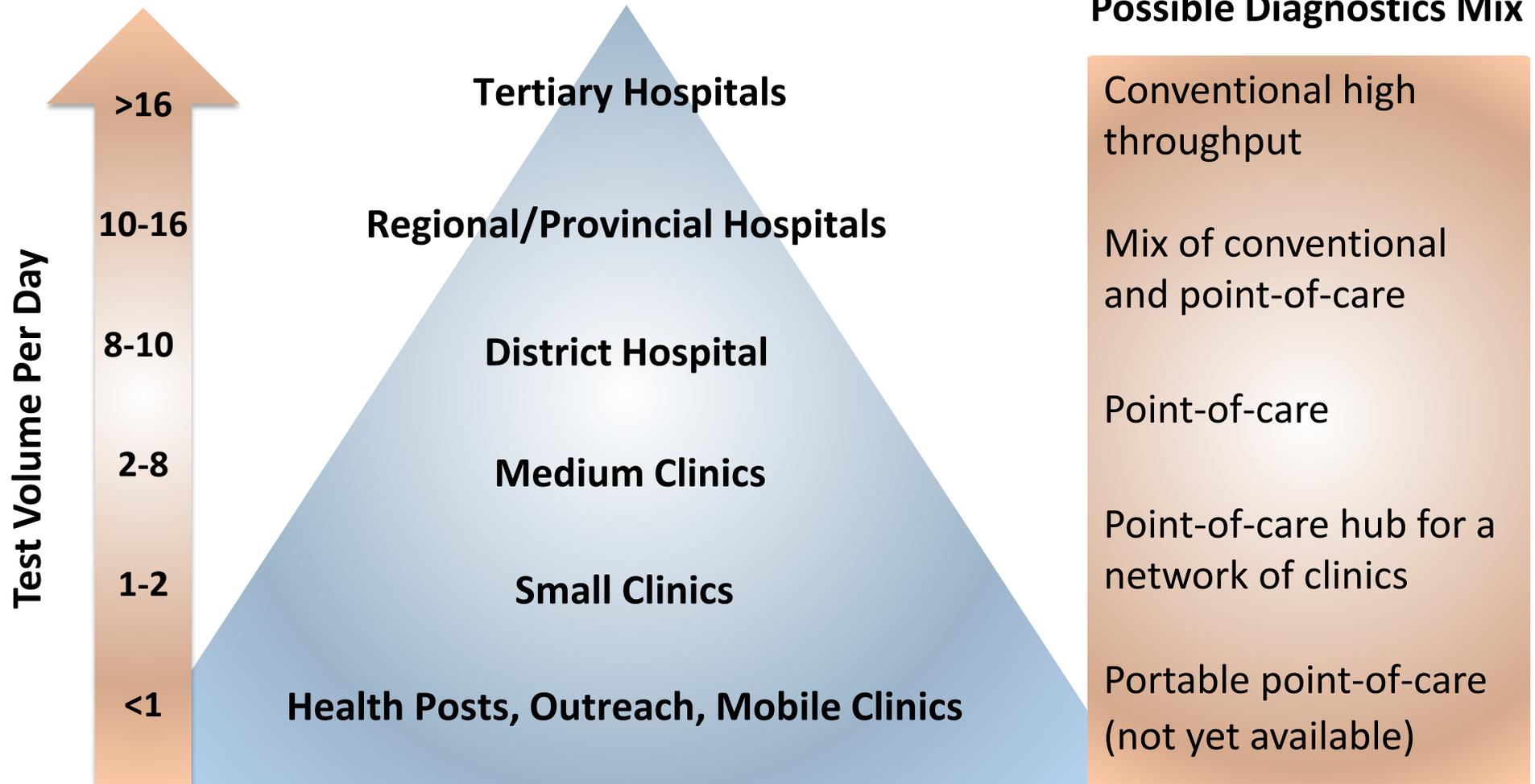
**Mapping of Diagnostic Networks** to identify appropriate sites for point-of-care EID deployment.

Key factors to consider for POC placement:

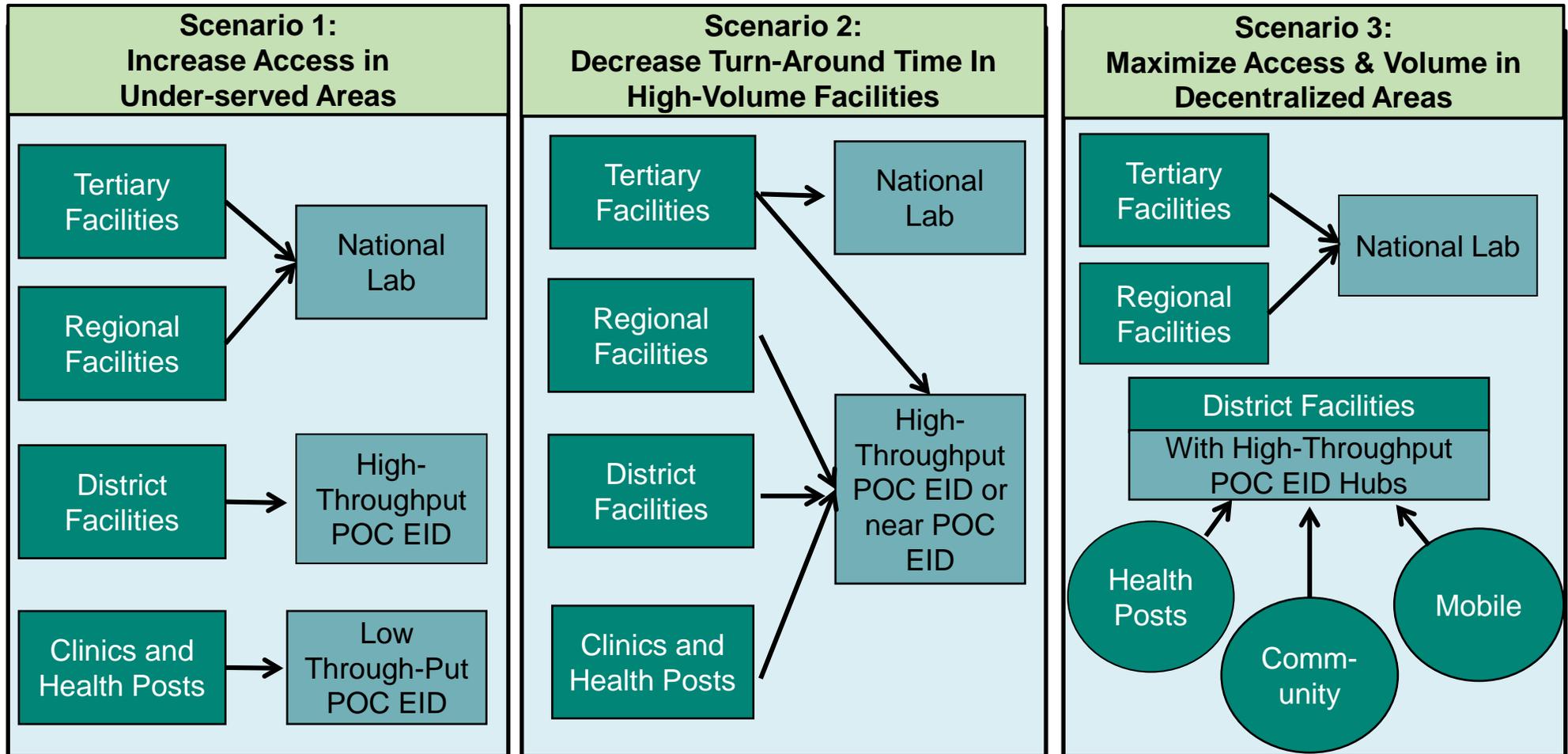
- HIV prevalence
- PMTCT and ART coverage
- Patient volumes
- Current EID network coverage
- Availability of sample transport
- Road quality
- Time for return of results
- Proportion of results not returned
- Presence/link to pediatric HIV treatment
- Capacity for POC (e.g. staff, infrastructure, connectivity, QA, performance monitoring)



# Placement Scenarios: Volume of Tests and Levels of Health Facilities



# POC EID Placement Scenarios: Achieving Key EID Objectives Within Different Health System Contexts

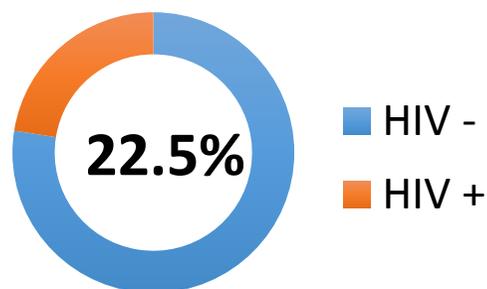




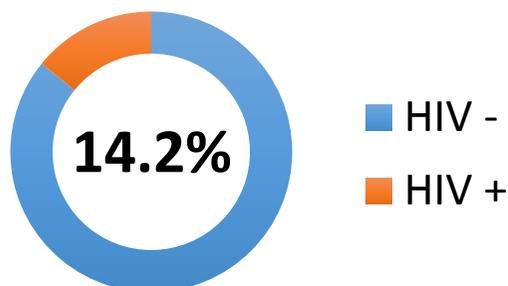
# Selecting Appropriate Entry Points for Point-of-Care EID testing

Results of HIV testing among children under five in different service settings

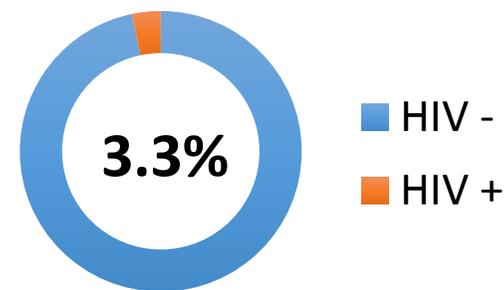
**Pediatric inpatient**



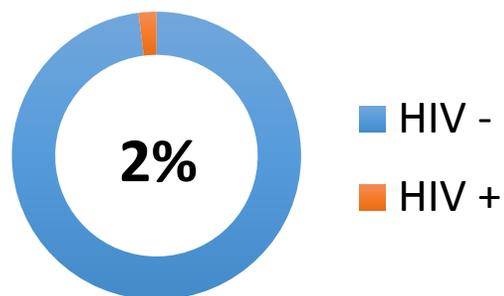
**Nutrition Center**



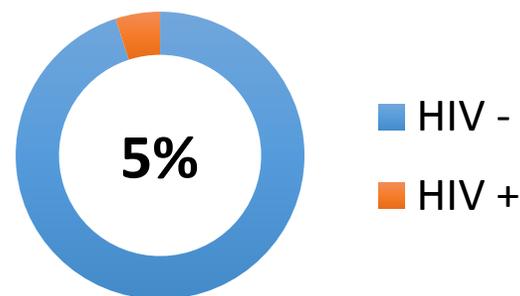
**Immunization (EPI)**



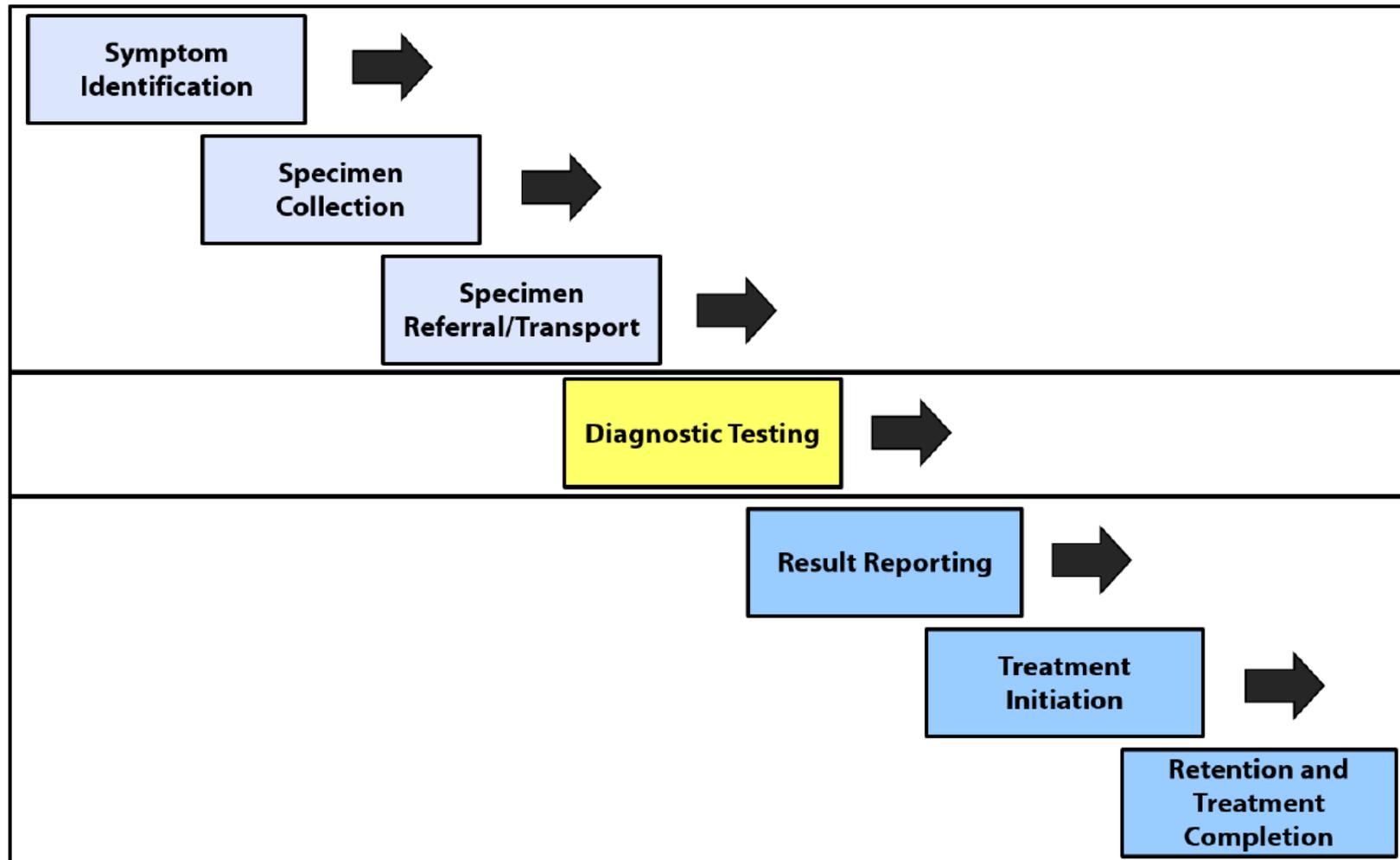
**PMTCT well-functioning**



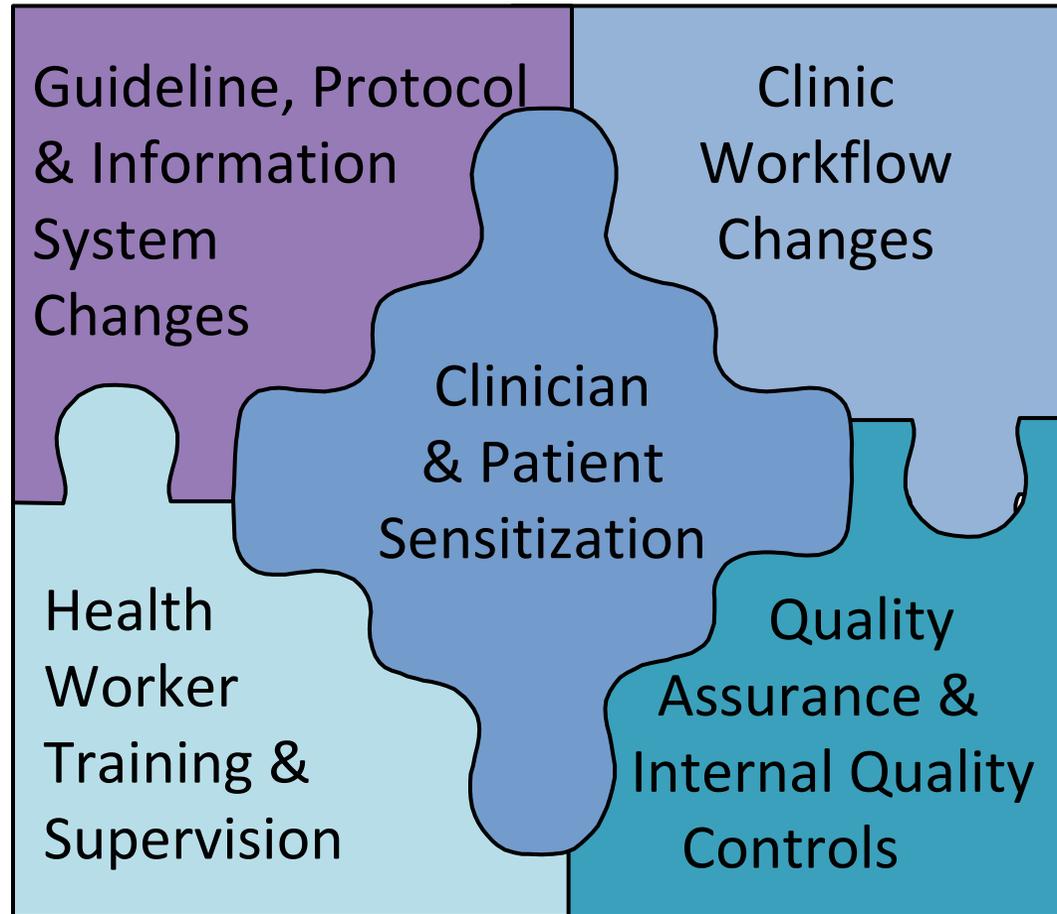
**PMTCT poorly-functioning**



# Placement Must Ensure Strong Links to Care and Treatment: Availability of a Test is Not Sufficient



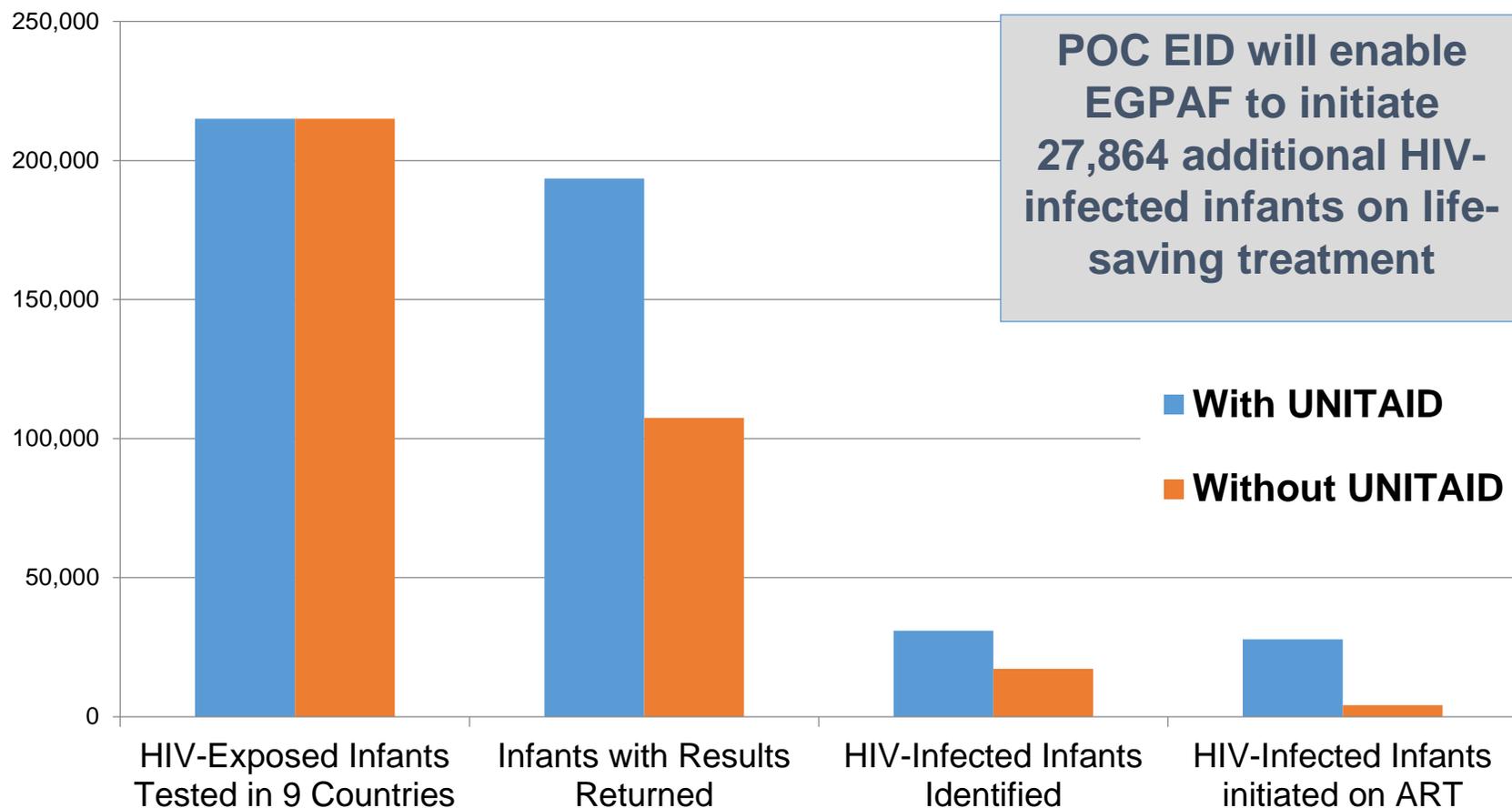
# Health Services and System Changes Needed to Support the Integration of Point-of-Care Testing



**POC EID connectivity = real time opportunities for program improvement**



# Expected Impact on the Testing and Treatment Cascade: Estimates from the UNITAID/EGPAF Project

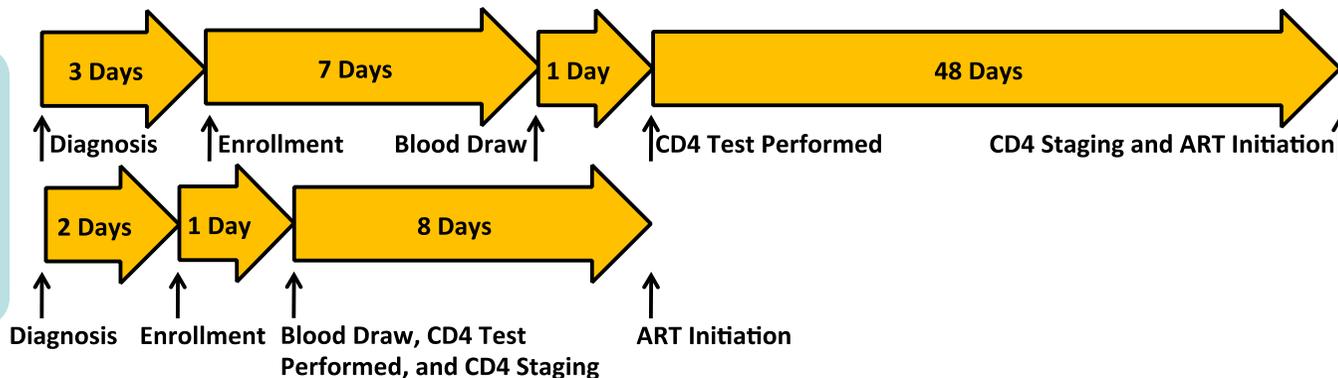


*215,000 infants to be tested in 9 project countries*

# Impact on Turn Around Time and ART Initiation: Will EID Mirror the Impact of Point-of-Care CD4?

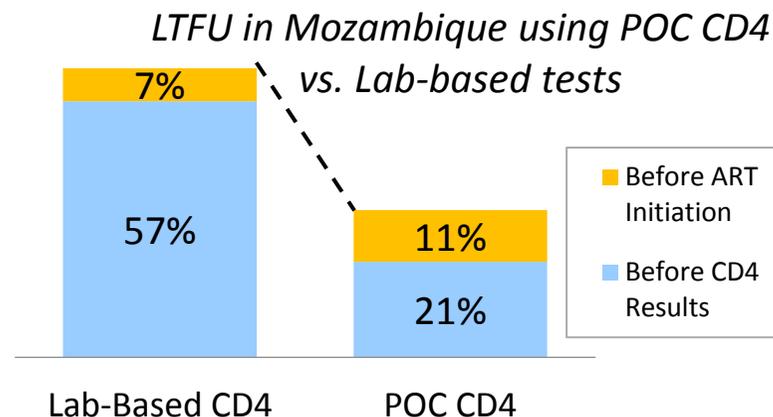
## Uganda<sup>1</sup>

- **Time to ART initiation:** Reduced from 59 to 11 days



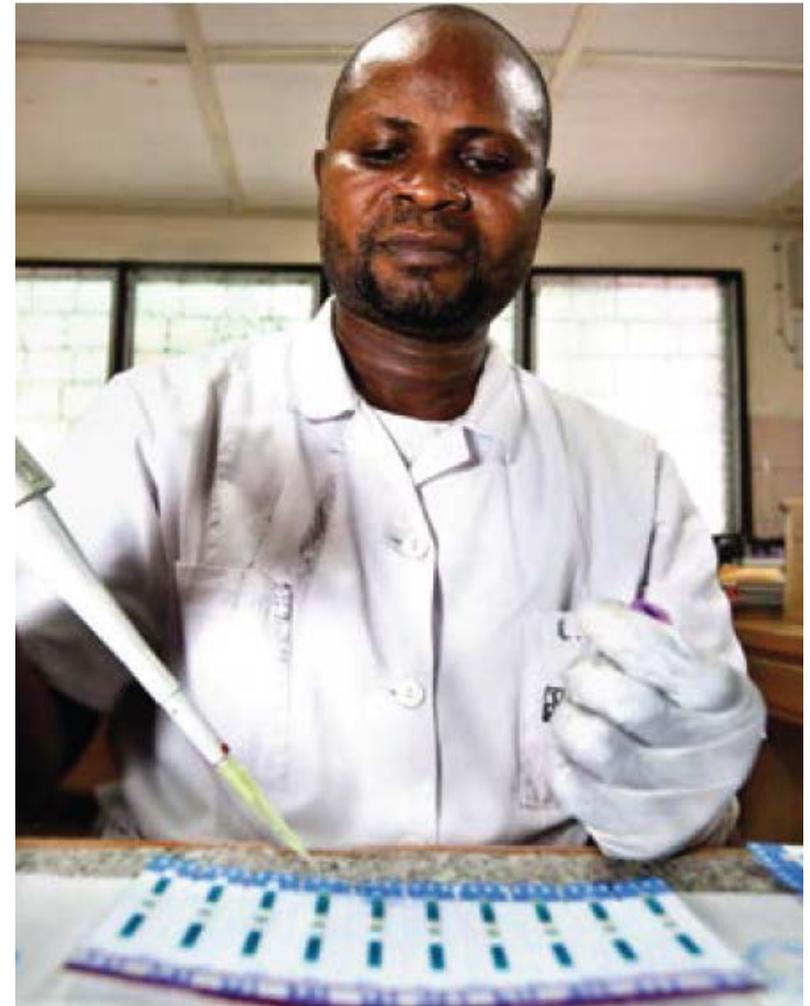
## Mozambique<sup>2</sup>

- **LTFU:** 50% increase in retention from diagnosis to ART initiation
- **ART Initiation:** 85% increase in ART initiation

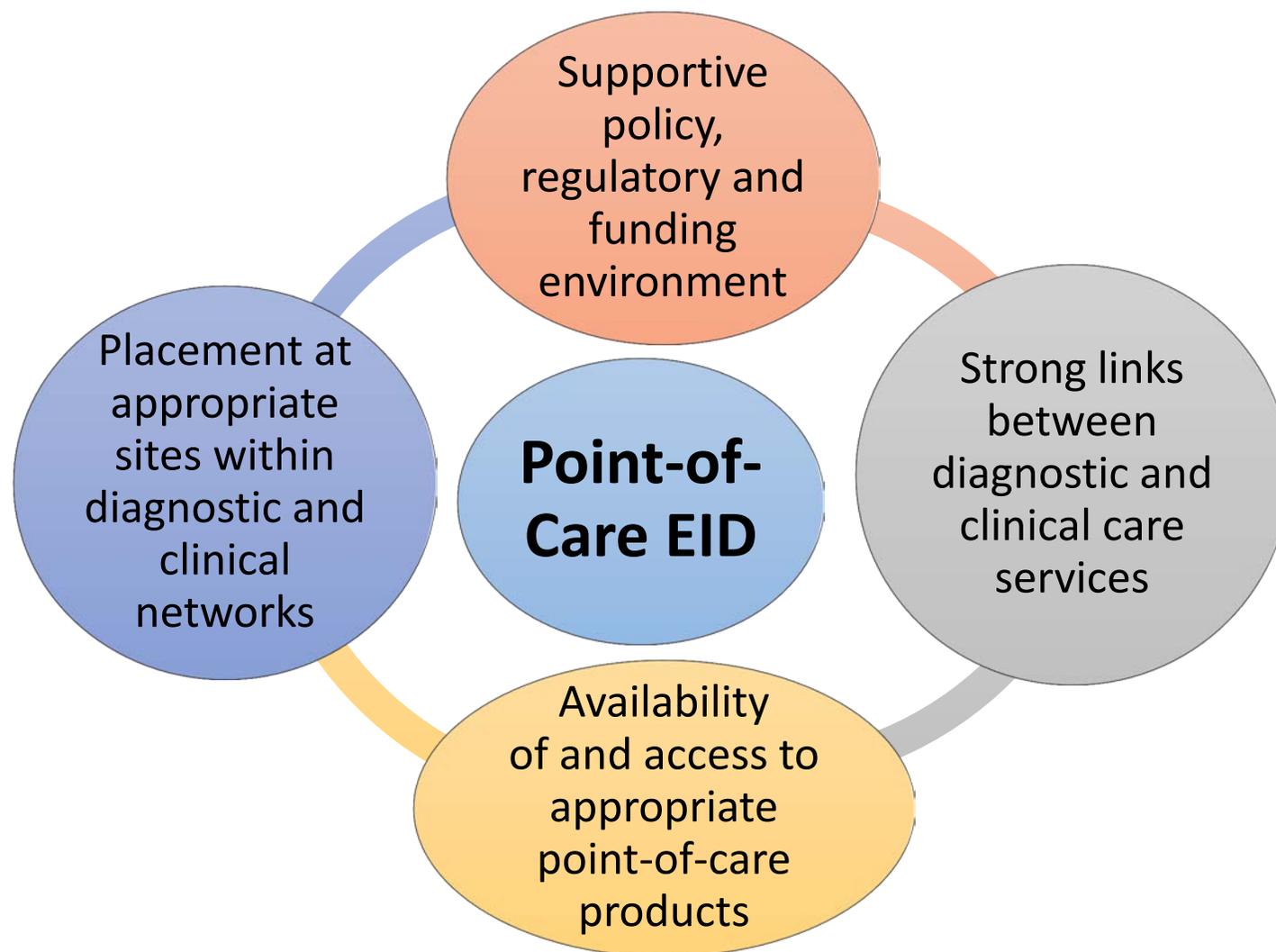


# Evaluation and Research to Capture and Share Knowledge

- **Impact studies** – on turn around time, delivery of test results, initiation of ART, etc.
- **Cost-effectiveness modeling** – to analyze the cost per test result returned, cost per child placed on treatment, etc.
- **Others, TBD**



# Key Considerations for Integrating and Ensuring Uptake of Point-of-Care EID



Thank you

