



# Dual Elimination of Mother-to-Child Transmission of HIV and Syphilis: **IS IT POSSIBLE?**

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# eMTCT HIV & Syphilis: Is it possible?



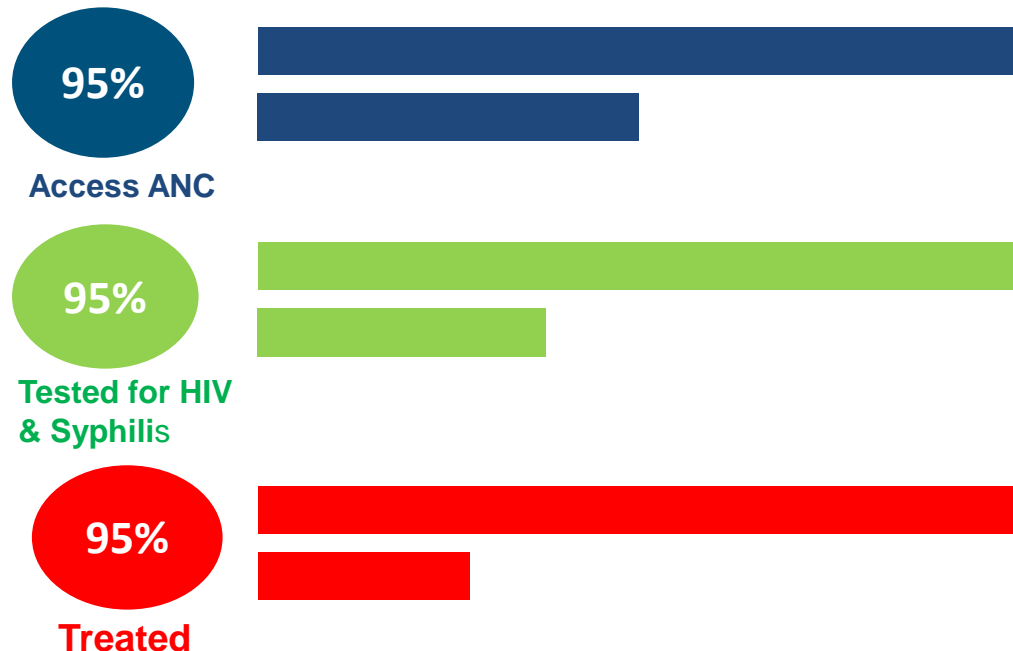
- Criteria and Conditions for disease elimination
- Do we have all the conditions to achieve elimination? What have we learnt from countries that have achieved elimination?
- Can we do better with what we have?

# Criteria for elimination and Conditions for achieving it

WHO/UNAIDS

Targets:

Case rates: < 50 per 100,000



Conditions necessary for elimination:

- Means of case finding or diagnosis
- Effective cure
- No intermediate vector(s)

# Countries that have achieved eMTCT



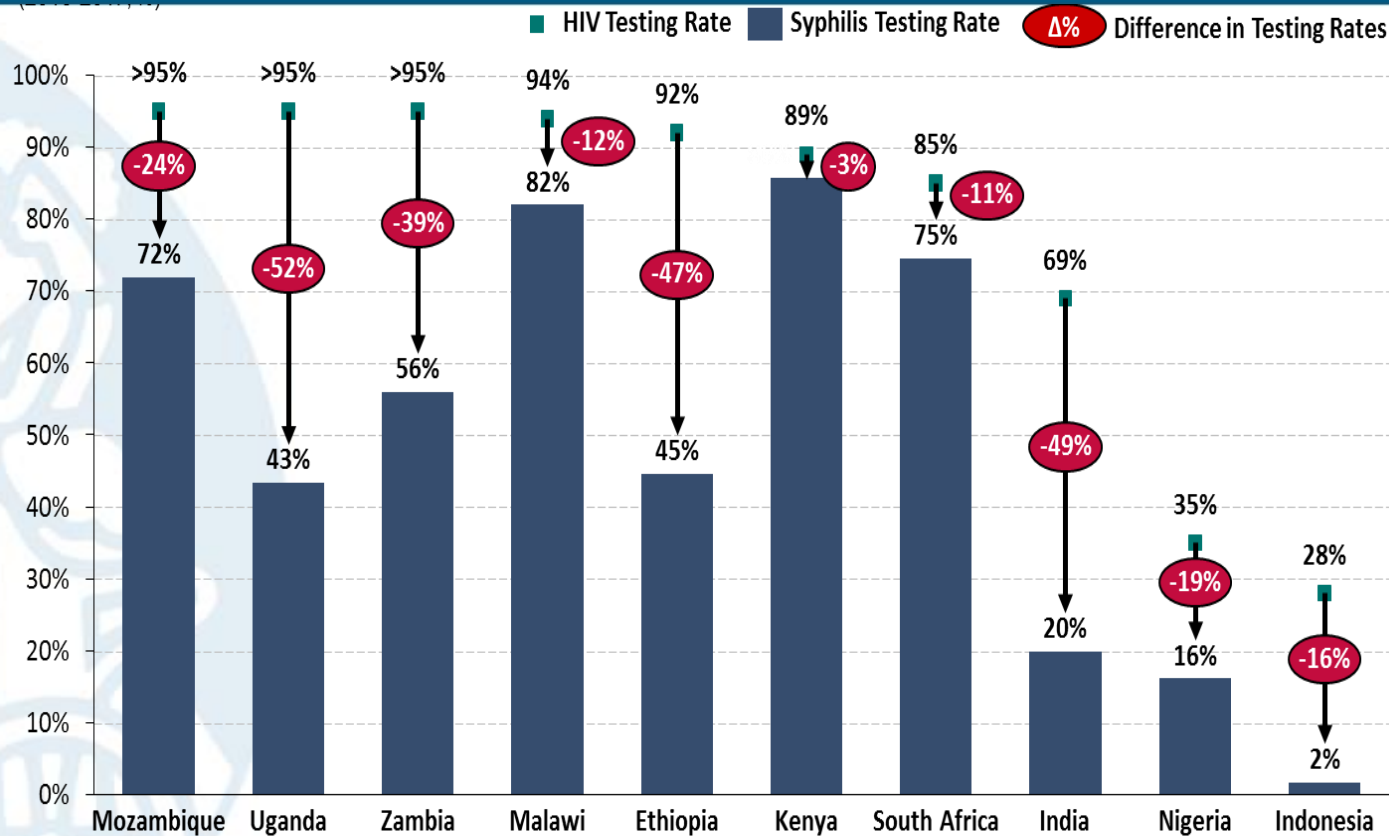
## Countries that have achieved elimination:

- **2016:** Cuba
- **2017:** Thailand, Anguilla, Antigua & Barbuda, Bermuda, Cayman Islands, Montserrat, St. Christopher & Nevis
- **2018:** Malaysia
- **2019:** Maldives

## Lessons Learnt:

- Political will
- Human and financial resources to support elimination
- Robust health system with provision of basic health services
- Equity of access, esp. for hard to reach and marginalised populations

# Testing Coverage for HIV & Syphilis in Pregnant Women Who Visit ANC in Selected Countries (2016-2018)



## Prevalence

HIV	15.0%	7.3%	14.3%	11.7%	1.2%	6.2%	23.7%	0.2%	3.0%	0.3%	Women between 15-49 years
Syphilis	4.6%	2.9%	3.5%	1.0%	1.1%	1.4%	2.0%	0.38%	0.8%	3.2%	% ANC attendees positive for Syphilis

# Sustainable Development Goals (SDGs): A Global Pledge to Leave No-One Behind



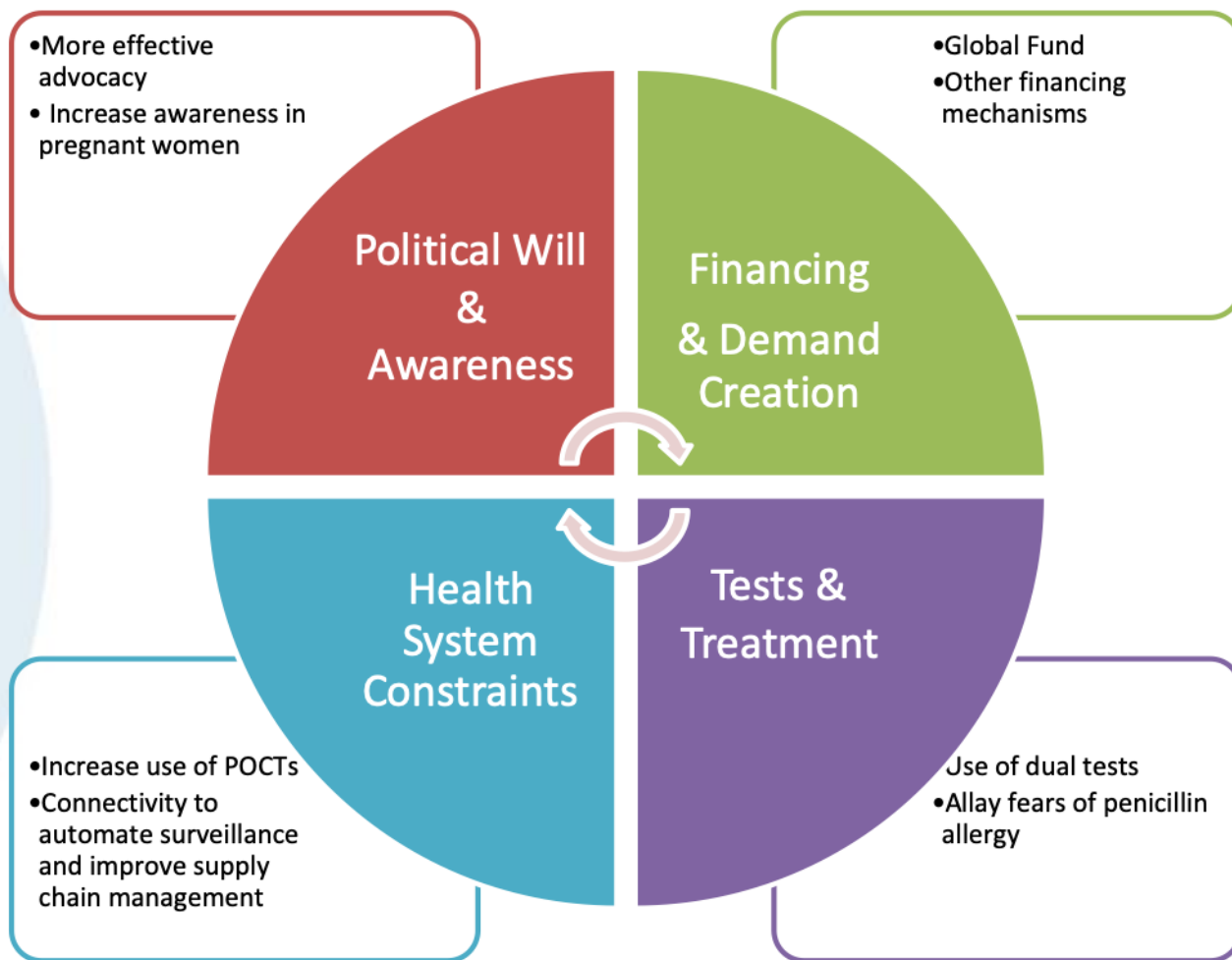
## SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD





# eMTCT HIV and Syphilis: what can we do better?



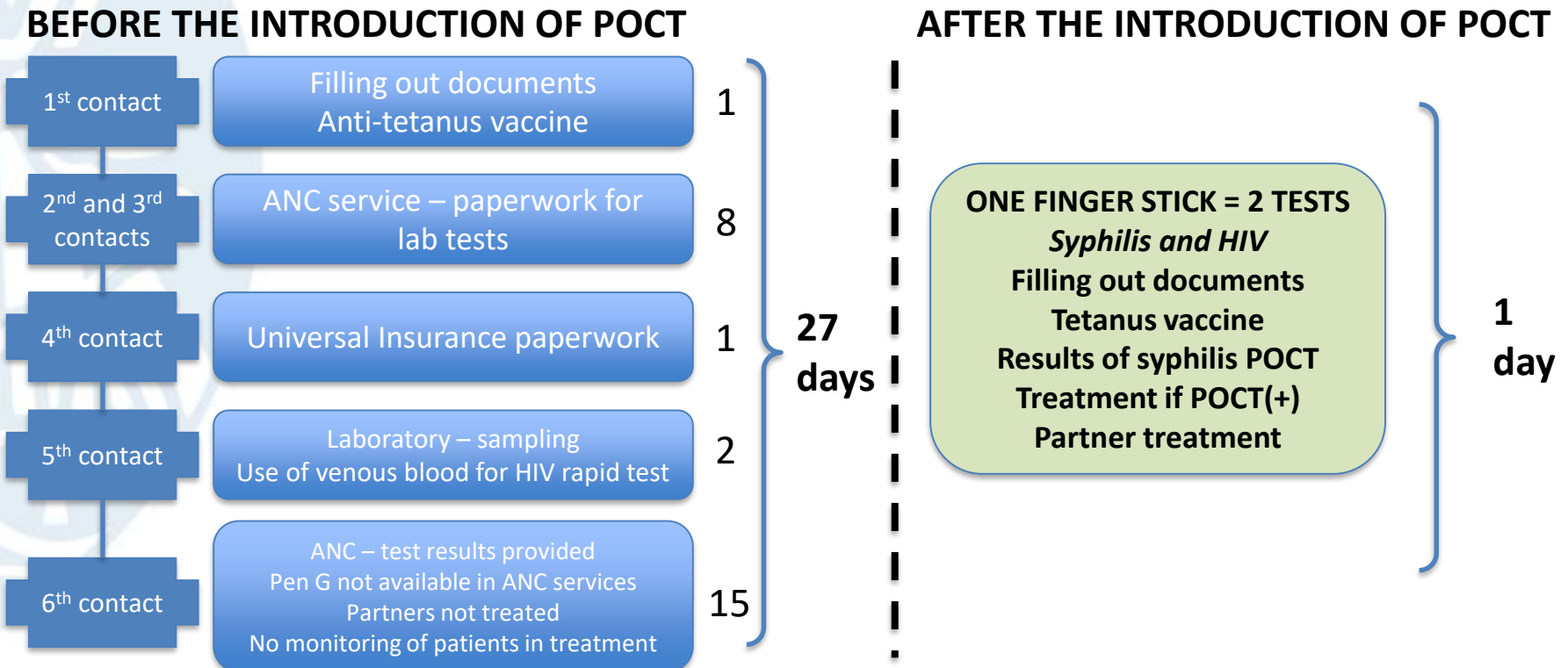


# Rapid POC Test Implementation Success

## Rapid Syphilis Tests as Catalysts for Health Systems Strengthening: A Case Study from Peru

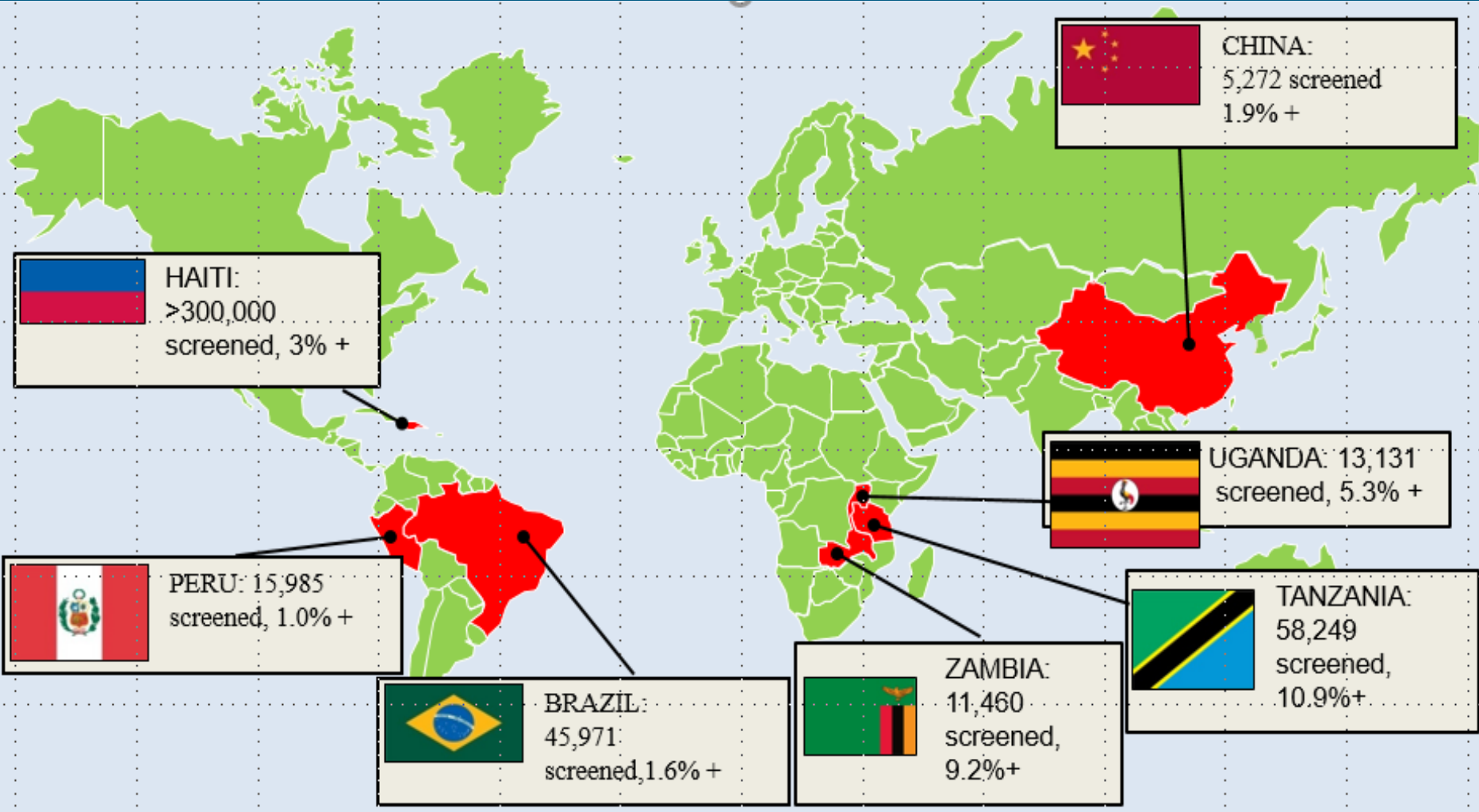
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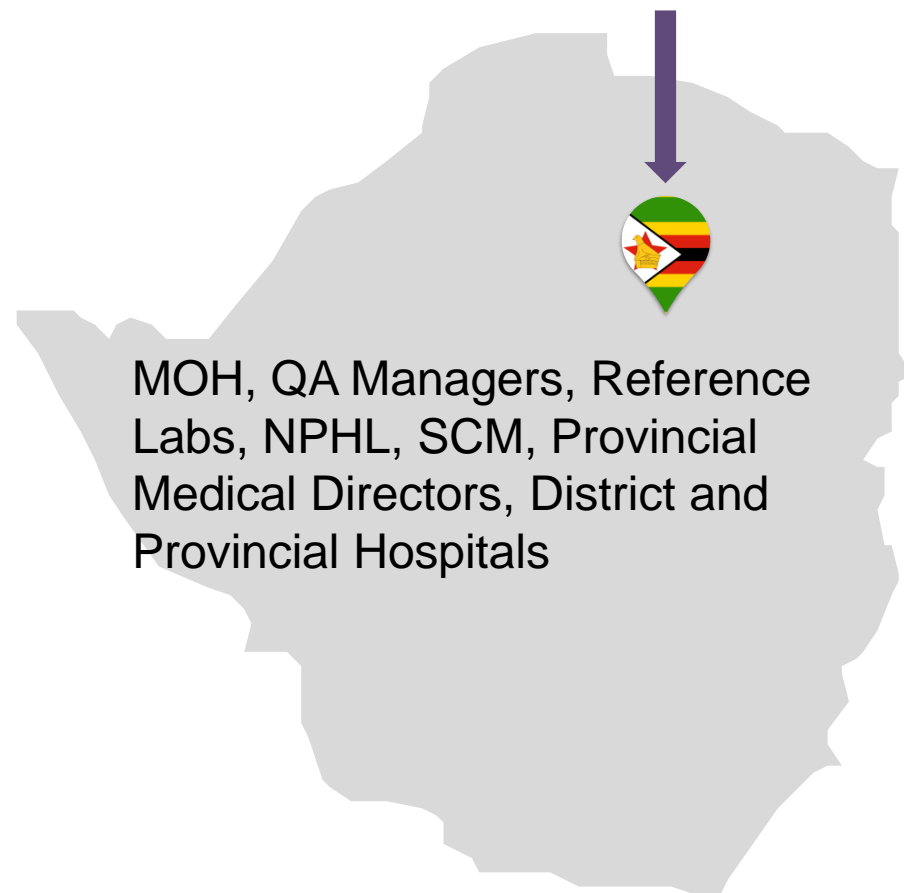
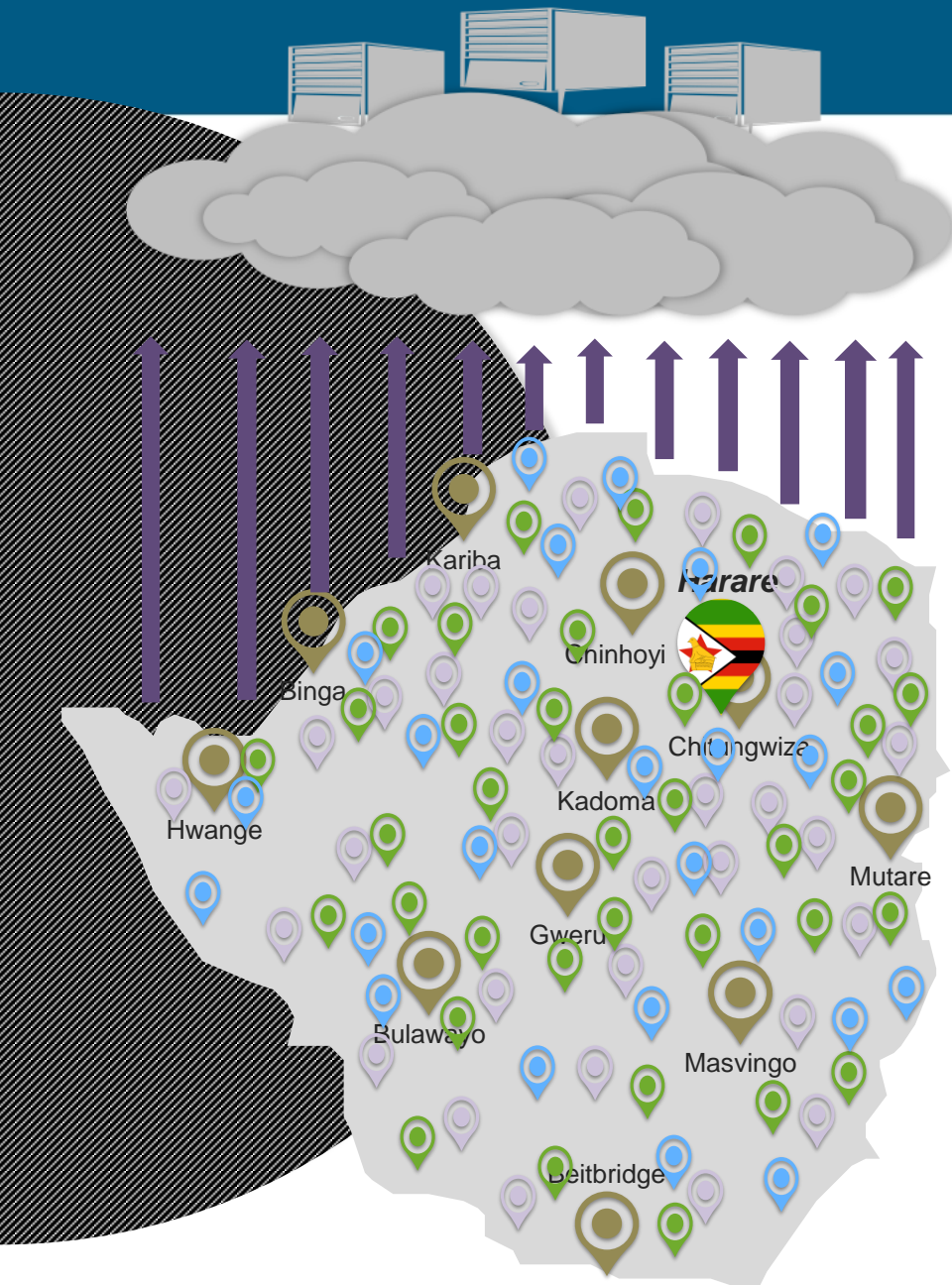


# POCTs can be used to strengthen health systems and save new born lives



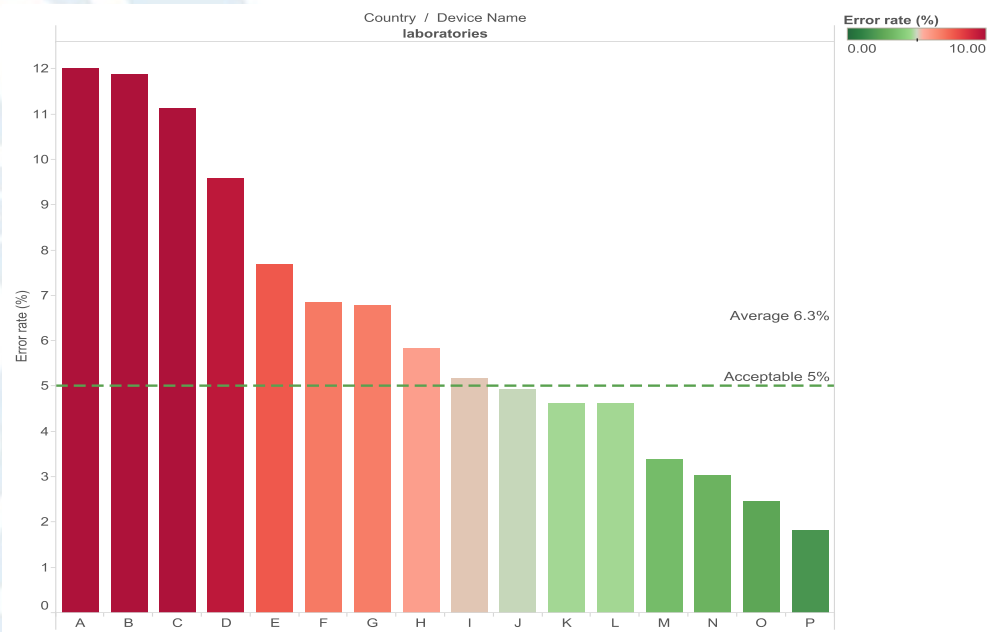
Mabey D et al. Point-of-care Tests to Strengthen Health Systems and Save Newborn Lives: the Case of Syphilis. *PLoS Med.* 2012 Jun;9(6):e1001233

# The Need for Connectivity in Zimbabwe



# Connectivity Dashboards

## Monitoring Error Rates:



Laboratories or POC Testing sites

## Monitoring stock/supplies:



Gous N, Boeras DI, Cheng B, Takle J, Cunningham B, Peeling RW. [The impact of digital technologies on point-of-care diagnostics in resource-limited settings.](#) Expert Rev Mol Diagn. 2018 Apr;18(4):385-397.

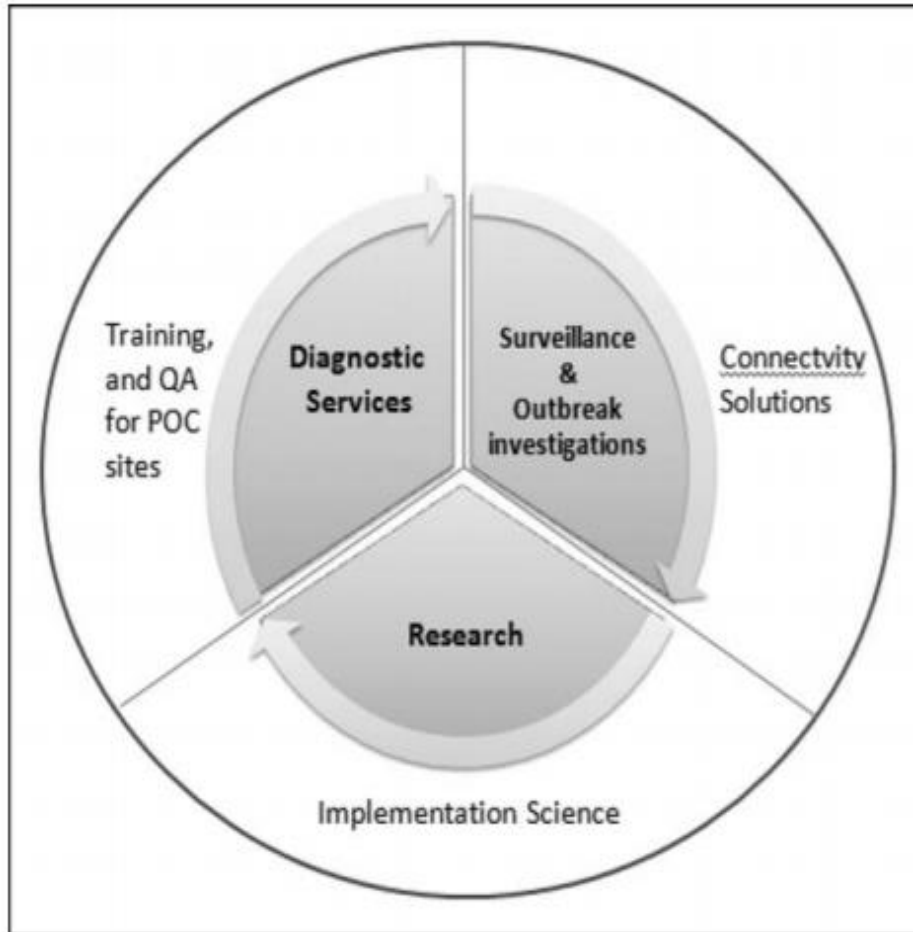
# Convergence of Digital Technology & POCTs



*Connectivity allows data to be turned into real-time intelligence to ensure quality of testing, provide alerts of outbreaks, improve efficiency of health systems and patient outcomes*

- 1 Quality Assurance
- 2 Patient treatment
- 3 Instrument performance
- 4 Stock management
- 5 Lab interface
- 6 Automated surveillance
- 7 Outbreak alert & response

# Ensuring Quality: The Lab as a Command Centre



**The Laboratory needs to take on the role of a Command Centre that provides:**

- **training, quality assurance and supervision of POC testing sites**
- **Collate surveillance data and turn data into intelligence for outbreak alerts and control interventions**
- **Conduct research into implementation**

# Summary

- **Yes, dual elimination of Mother-to-child Transmission of HIV and Syphilis is possible**
- **More than 10 countries have achieved dual MTCT. Successful elimination programmes are supported by:**
  - Political will
  - Human and financial resources to support elimination
  - Robust health system with provision of basic health services
  - Equity of access, esp. for hard to reach and marginalised populations
- **Many country elimination programmes fail to scale because of lack of political will and awareness among pregnant women, sustainable financing mechanisms, and health system constraints such as lack of sufficient trained health care personnel, constant stockouts of tests and drugs, lack of quality assurance**
- **What can we do better:**
  - **Laboratories need to take on a new role as a command centre, providing training and QA at POC sites**
  - **In this digital age, connectivity solutions provide opportunities to link data from diagnostic laboratories and POC test readers/devices, automating surveillance and improving supply chain management**





# Acknowledgement

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