

# Strategies For Identifying HIV Exposed Infants

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# Preamble

- At the end of 2010, there were 3,4 million children less than 15 years living with HIV
- In 2009, 370 000 children were newly infected by HIV
- Without any intervention, about a third of HIV infected children will die in the first year of life while 50% will be dead by age 2 years; with majority of such children dying in the first 6 months of life
- It is therefore imperative that an early HIV diagnosis is made; and that treatment is initiated early

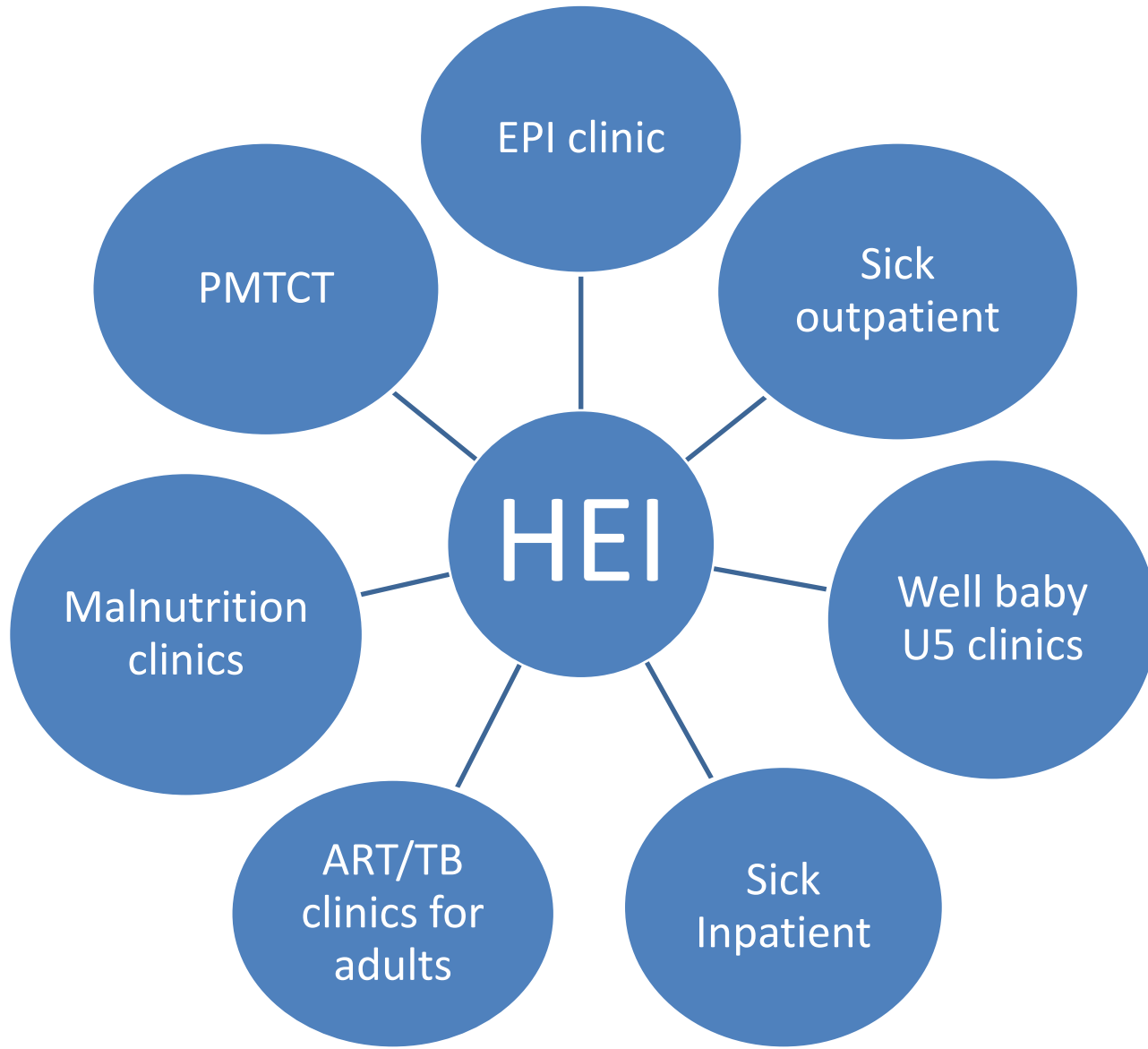
# WHO recommendations for testing infants

- If you do not test a child, you will never know
- It is strongly recommended that all infants with unknown or uncertain HIV exposure being seen in health-care facilities at or around birth or at the first postnatal visit (usually 4–6 weeks), or other child health visit, have their HIV exposure status *ascertained*.
- It is strongly recommended that HIV virological assays be used for diagnostic testing at 4–6 weeks of age or at the earliest opportunity thereafter in exposed infants
- Recognising that in children older than 9 months, antibody testing can be used for diagnosis

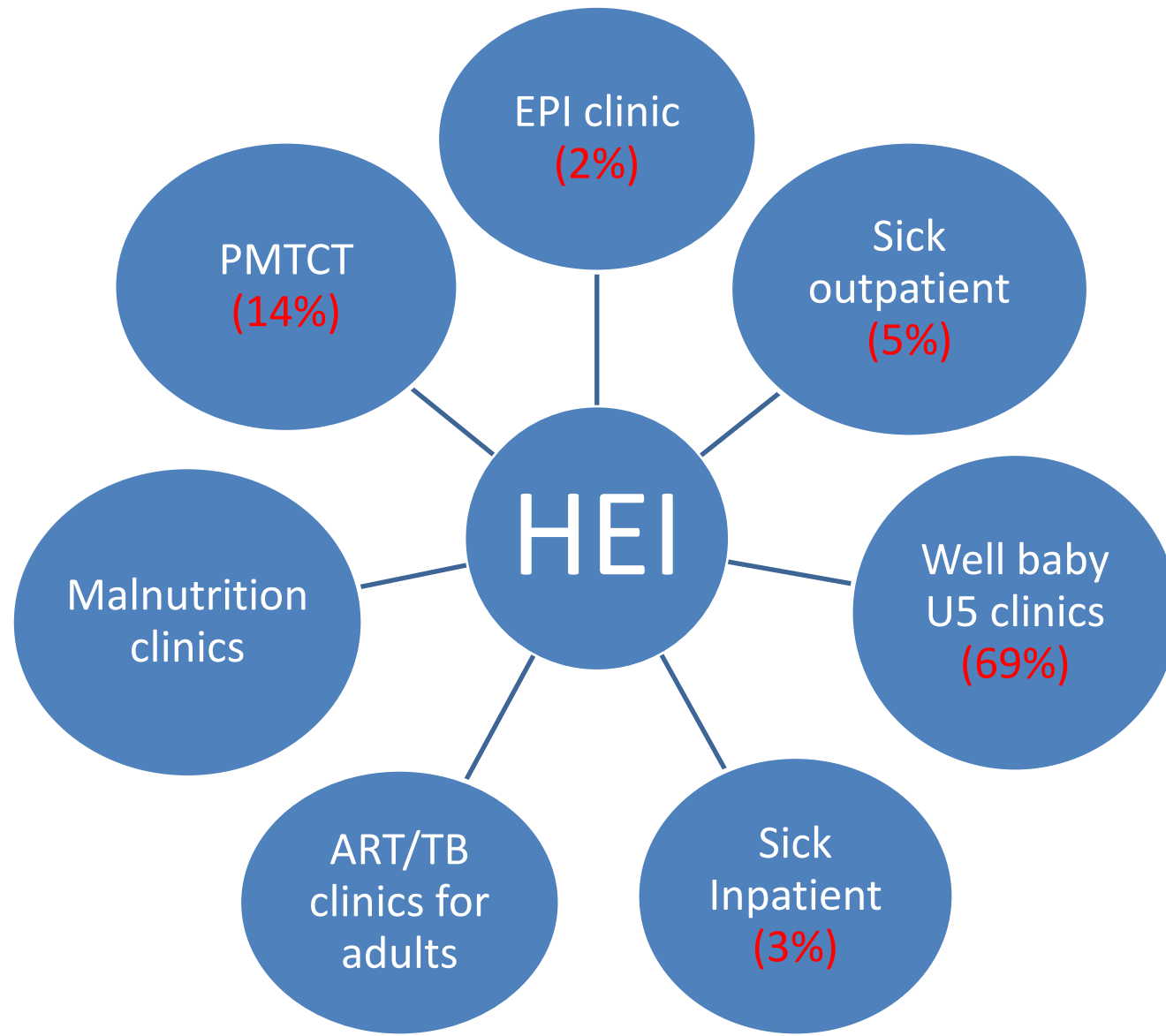
# Eliciting HIV Exposure Status in a Child

- Maternal hand held ANC card
- Maternal PMTCT status codes on child health card
- Seeking out HIV status of the mother from history taking during a consultation
- Screening children for HIV exposure at all contacts with the health care facility as shown below (PITC)

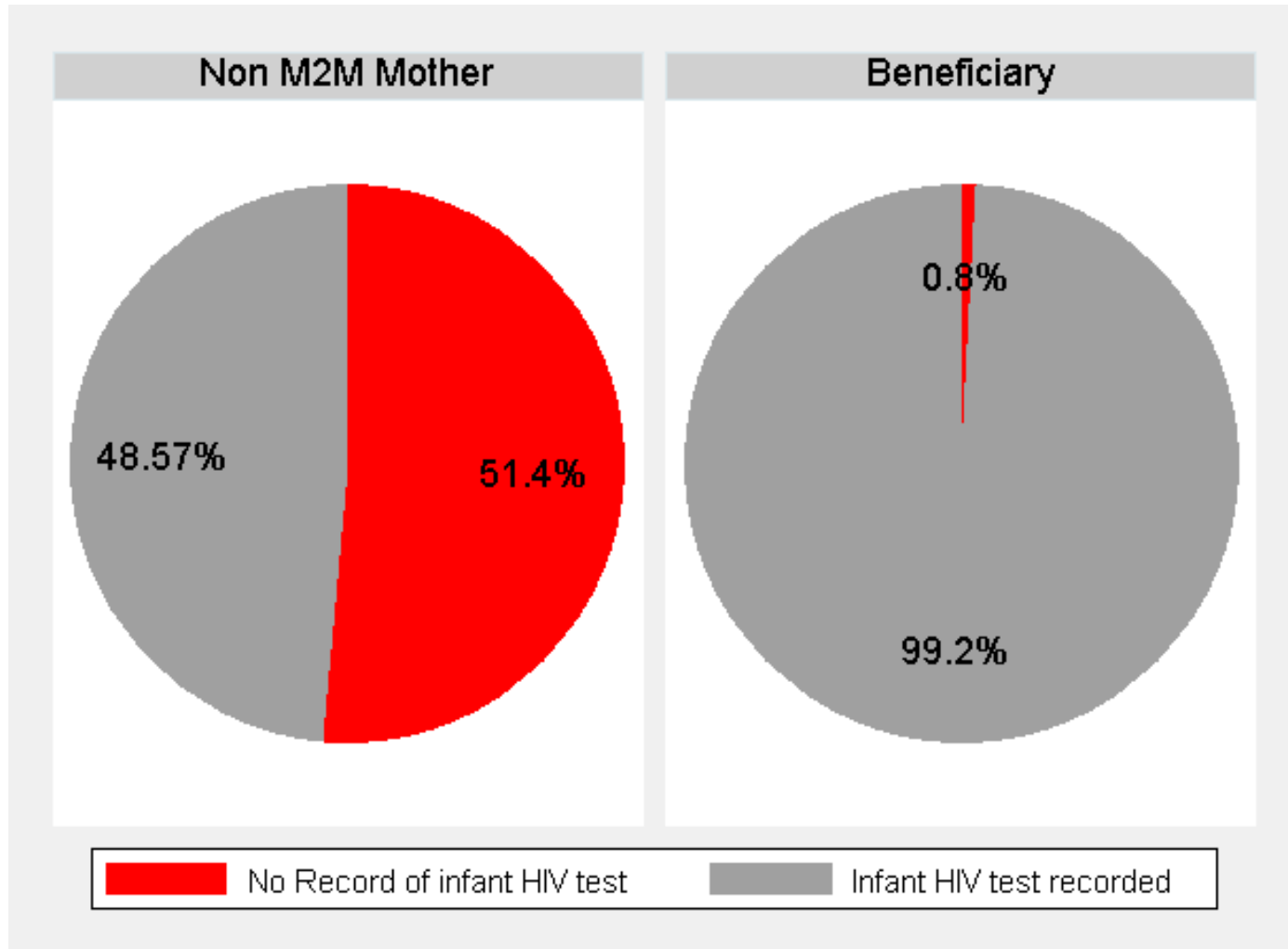
# Entry Points for Identification of HIV exposed Infants (HEI)



# Proportion of Infants Tested at Entry Points: Review by CHAI/UZ-CHS/MOHCW Zim



# Mentor mother pilot-MSF Bulawayo



**P value  
<0.0005**



# Entry Points: The Stark Reality

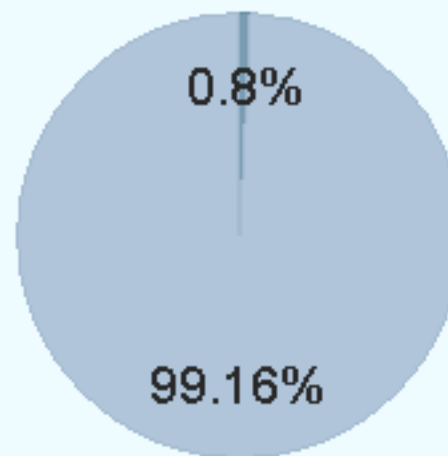
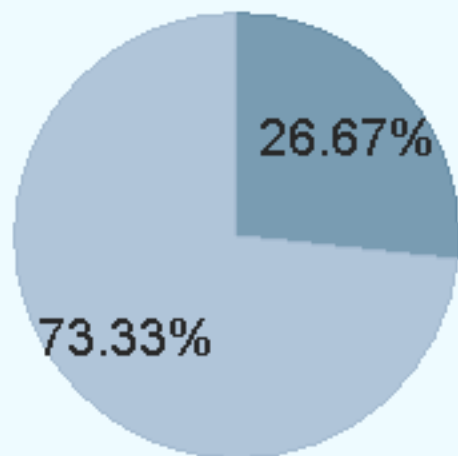
- Even though most countries have a PITC policy, determination of HIV exposure status at all entry points is not happening as it should
- And even where it happens, results do not get to caregivers as they should



# After testing - did mother obtain result?

- Mother notified of child's test result
- Mother not notified of child's test result

Mother not in M2M programme    Mother in M2M programme

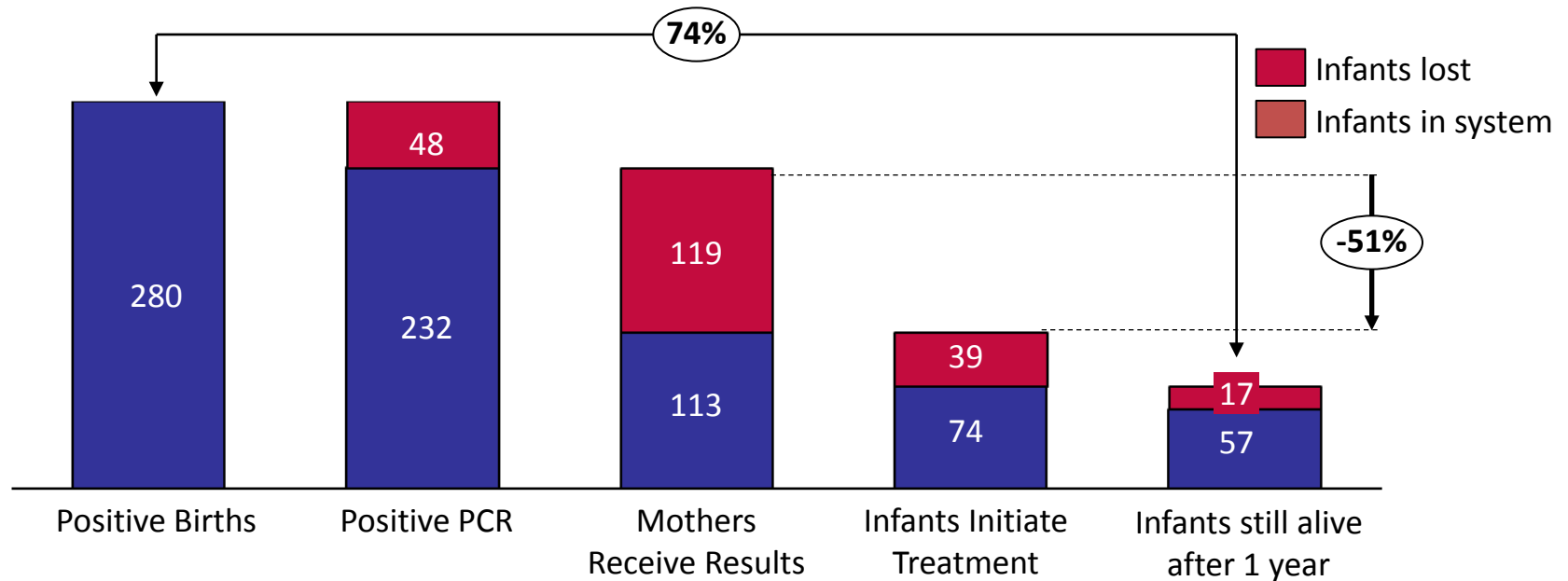


**P value  
<0.0005**



# PCR Results are not communicated to more than half of all infants tested

## Retention of Infants Throughout the Care and Treatment Continuum



- 74% of positive infants from 16 studied sites could not be accounted for and confirmed to be on treatment after 1 year
- Greatest loss occurs between a positive test and the return of results where 51% of infants are lost
- Chance of survival if HIV positive infant is not in treatment after 2 years is 50%

# Problem with delivery of EID test results



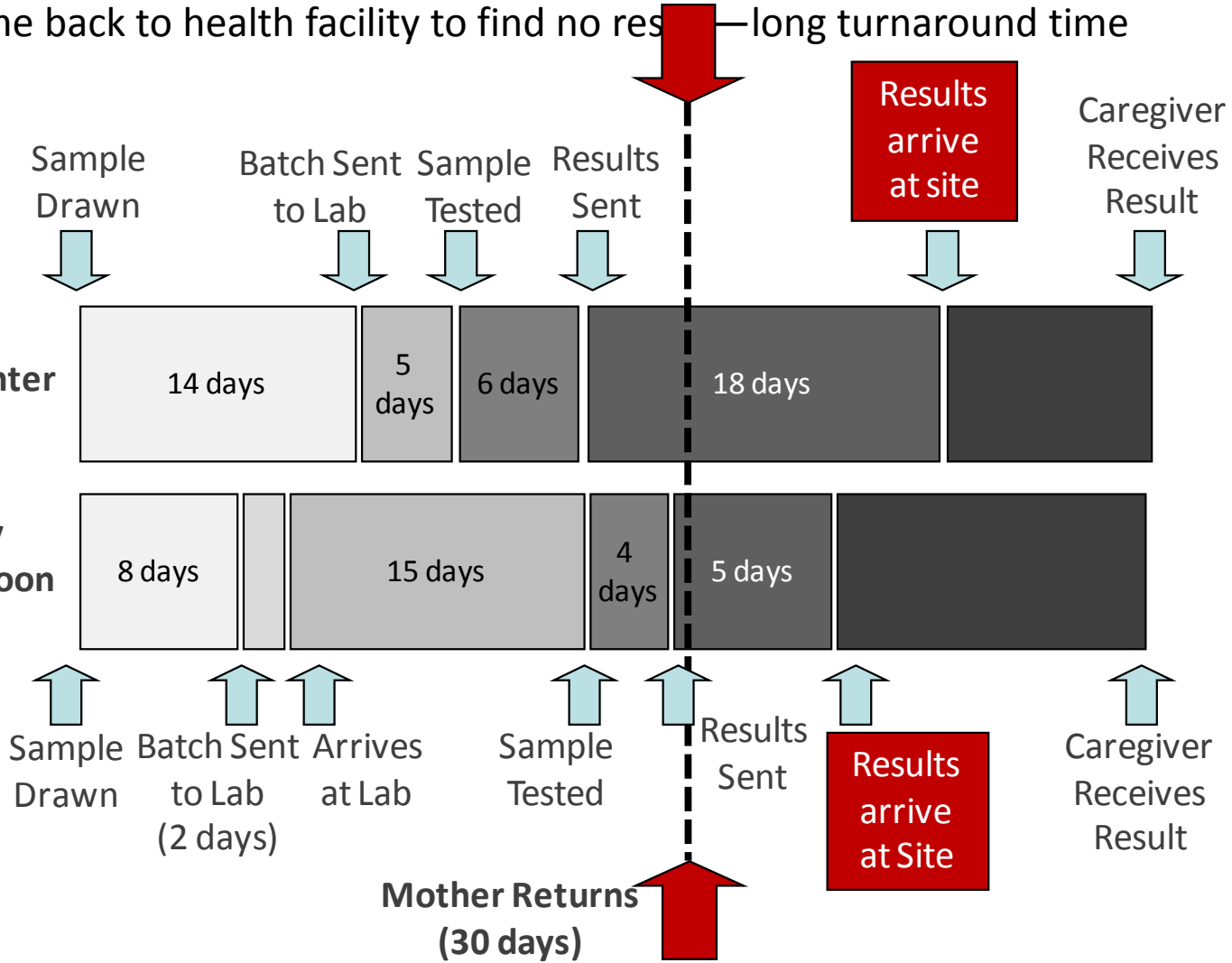
EID testing is tied to Immunization visits at 6 weeks, 10 weeks and 14 weeks.

results  
 Mother Returns (30 days)  
 come back to health facility to find no results — long turnaround time

Examples

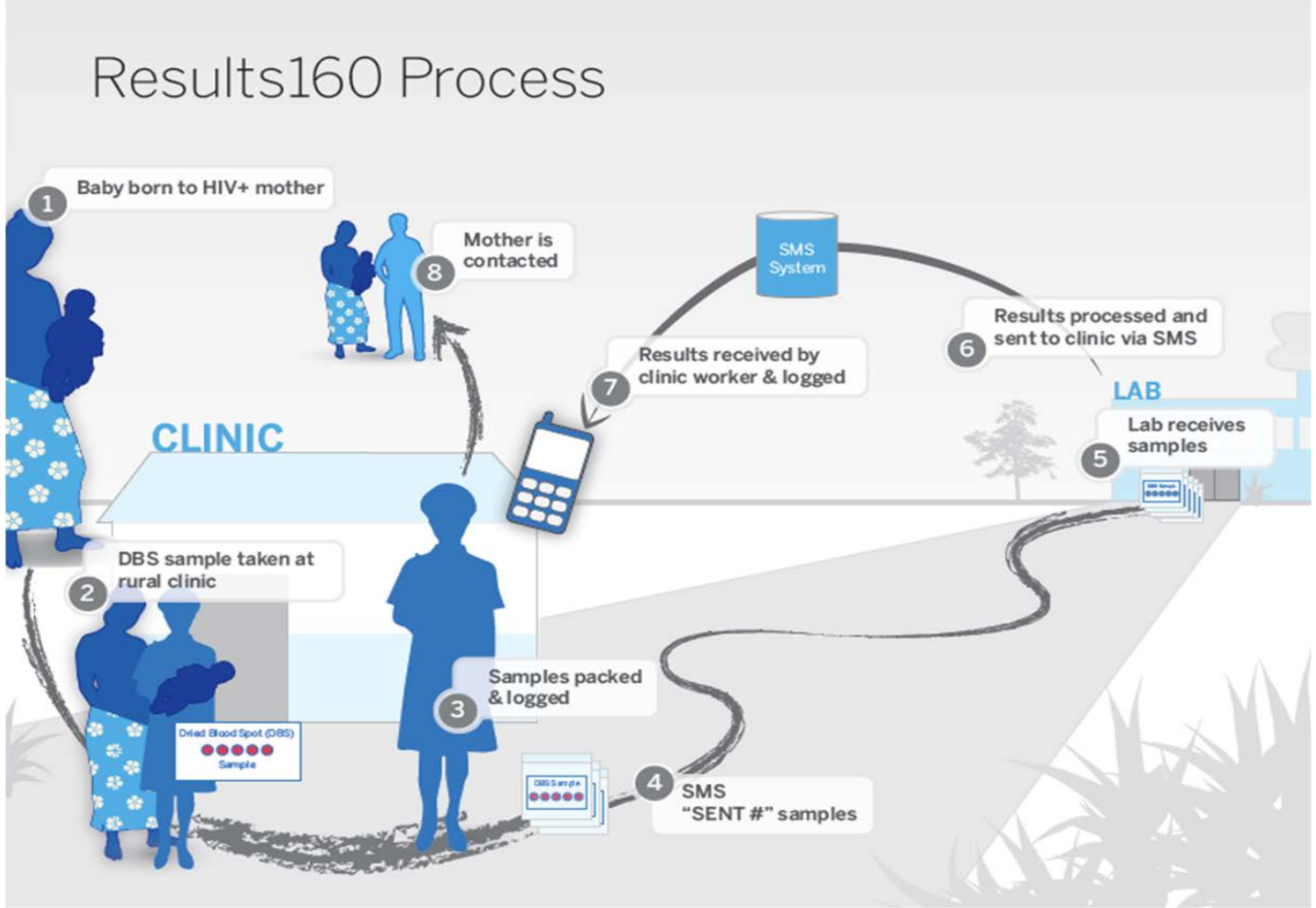
Kangemi Health Center  
 Nairobi, Kenya

Health Facility  
 Yaoundé, Cameroon



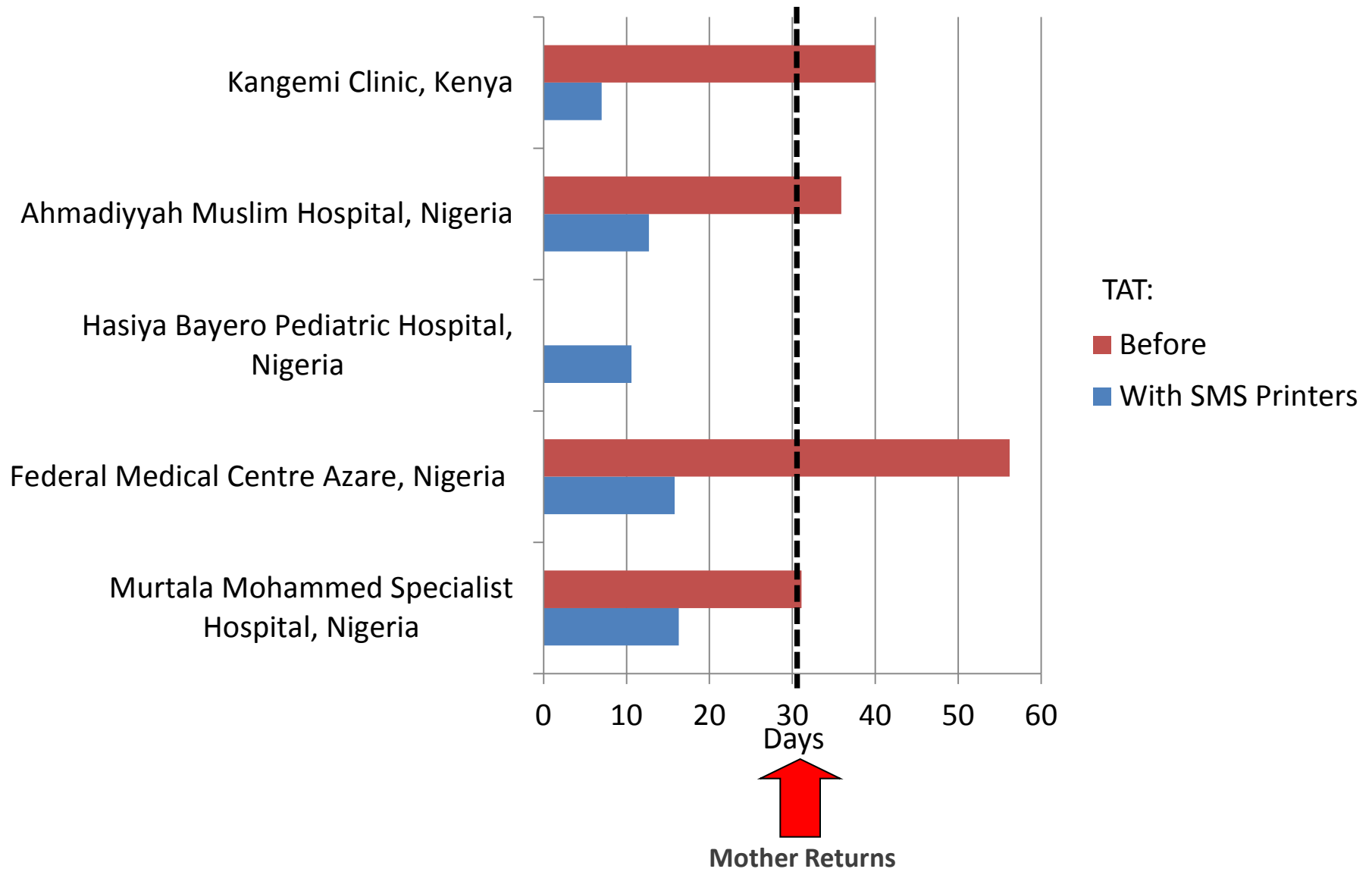
The test result must be delivered to the Clinic of sample collection within 30 days, as an emergency—the child is otherwise likely lost to follow up

# Using mobile technology to reduce PCR results TAT in Malawi



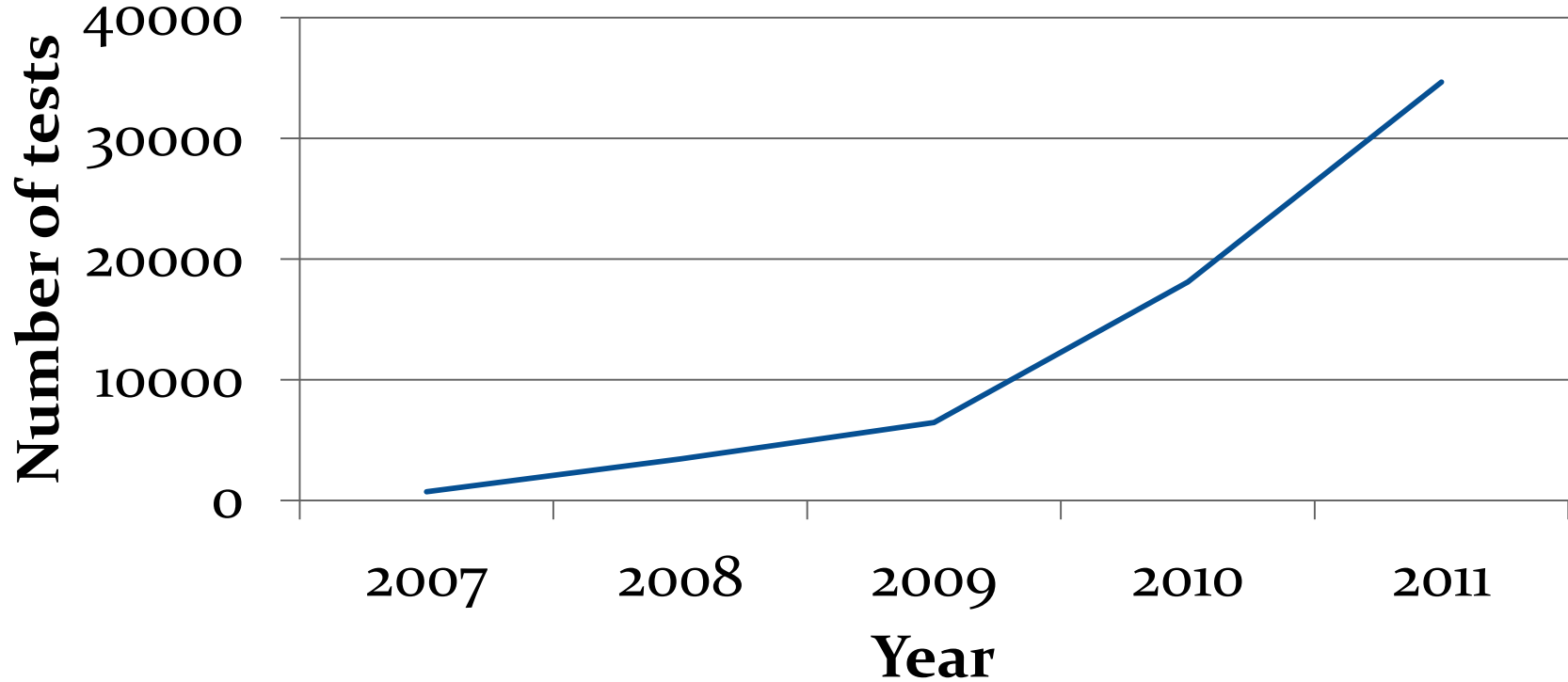
# Selected Data Comparison Before and with SMS/GSM Printers

TAT is reduced to ensure EID results are available to returning mothers



# Zimbabwe: Total PCR Tests Done By Year

**Total tests done: by year**



# Many possible reasons for challenges with EID

- Lack of community awareness on the need to test infants
- Not determining HIV exposure status of children
- Low facility coverage of EID services-few sites, few DBS/EID trained health care workers
- Supply chain management for DBS and PCR reagents
- Strained laboratory capacity in the face of EID expansion
- Transport challenges-with long turn around times (TAT) for results

# Recommendations

- PITC and integration of infant testing e.g. with EPI
- Reliable courier system to bring sample to lab and results back to clinic
- Creative use of technology to cut down on results return to clinic and to client-Expedited Results System in Malawi
- Newer technologies such as point of care diagnostics
- EID not just to know HIV status of child; but for linkage to HIV care and treatment



# Acknowledgements

- MOHCW
- NMRL Zimbabwe
- Clinton Health Access Initiative: Zimbabwe and Nigeria
- UZ-College of Health Sciences
- MSF
- WHO/UNICEF

**Thank you**

**Tatenda!**

**Siyabonga!**