Where have all the children gone?

High HIV prevalence in infants attending nutrition and inpatient entry points

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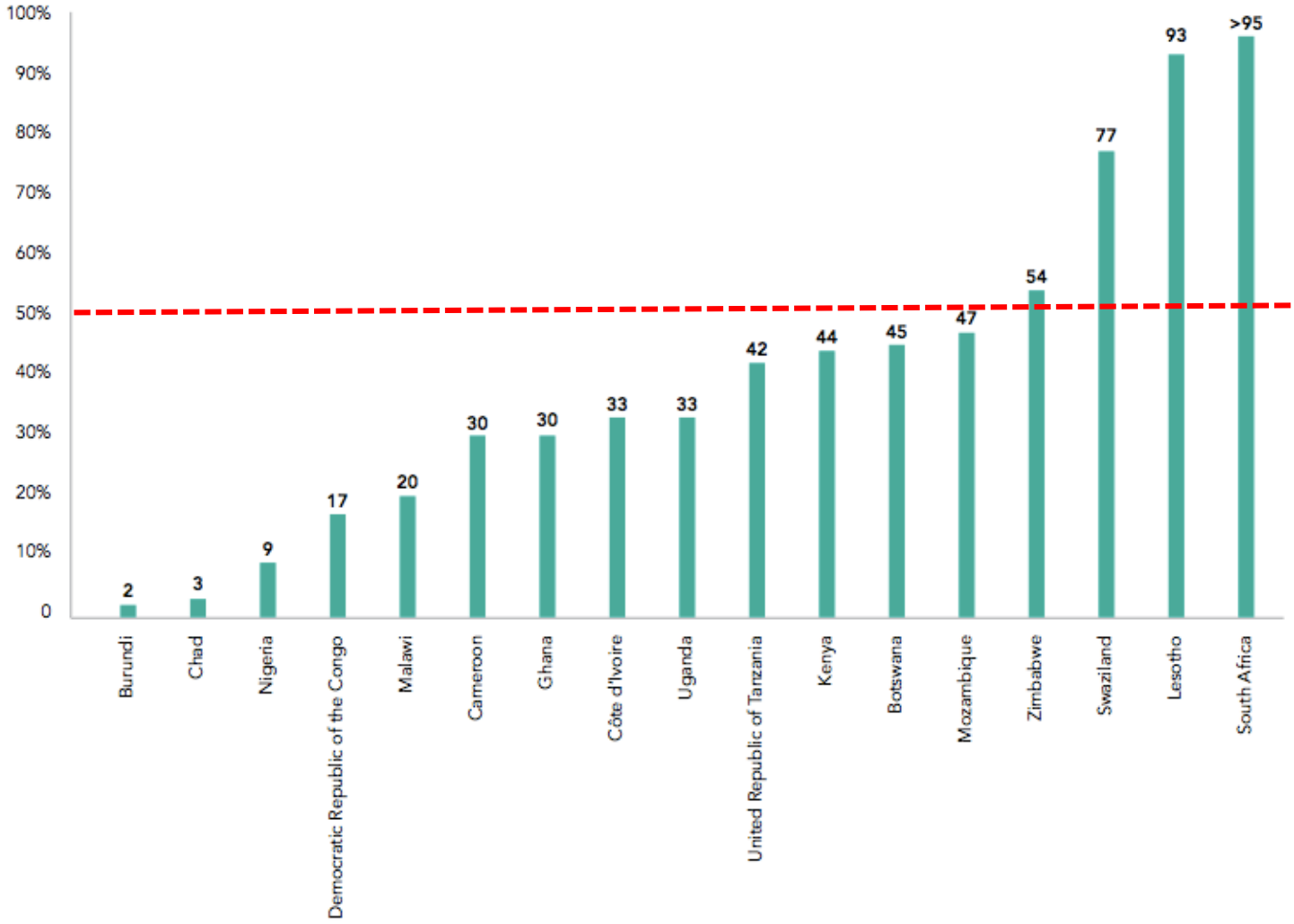
Significant progress has been made in increasing access to EID, but too few infants receive a timely test, and too few are retained in the PMTCT cascade.

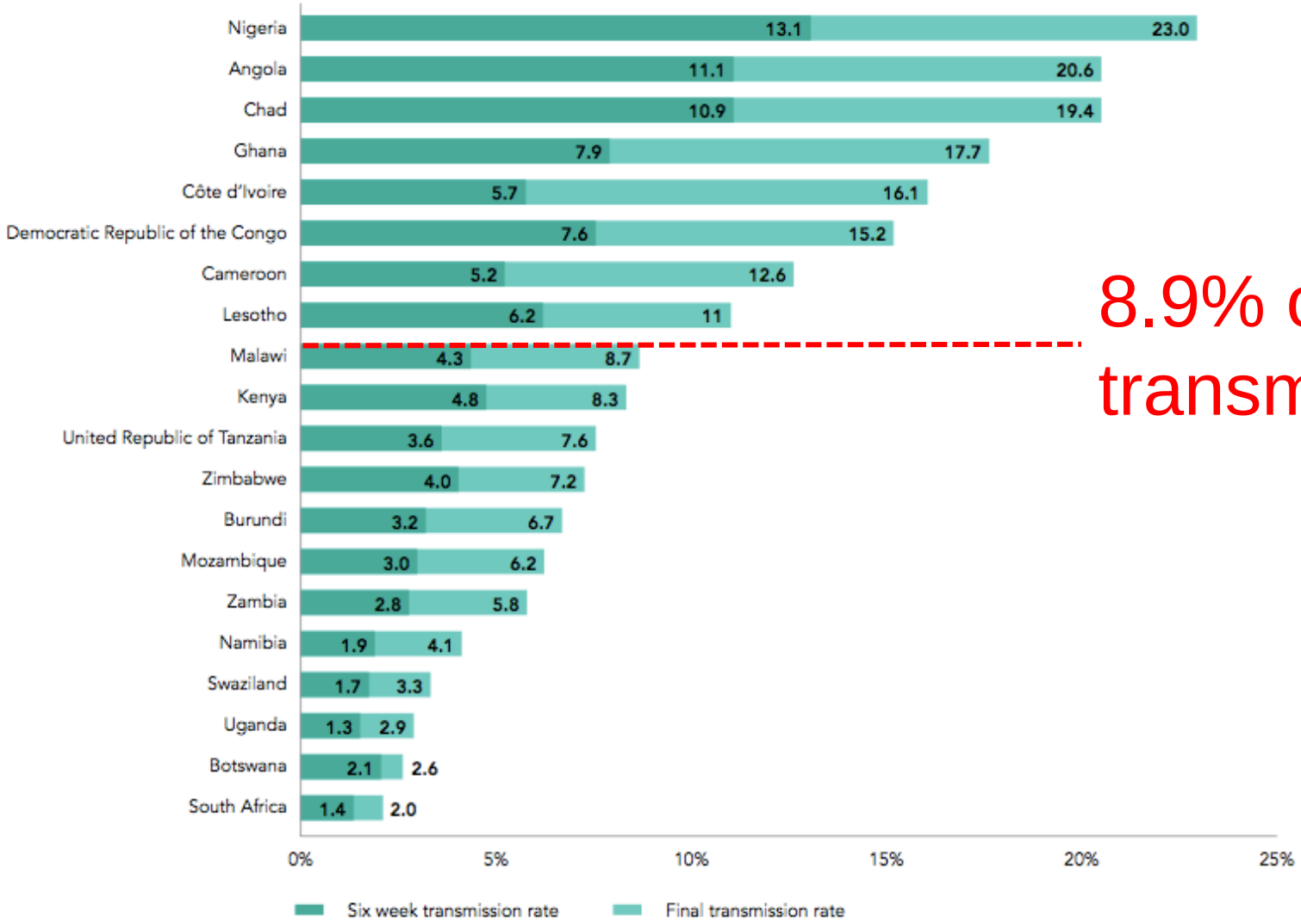
Percentage of infants born to women living with HIV receiving a virological test within the first two months by country, 2015



Source: UNAIDS, UNICEF and WHO Global AIDS progress reporting 2016

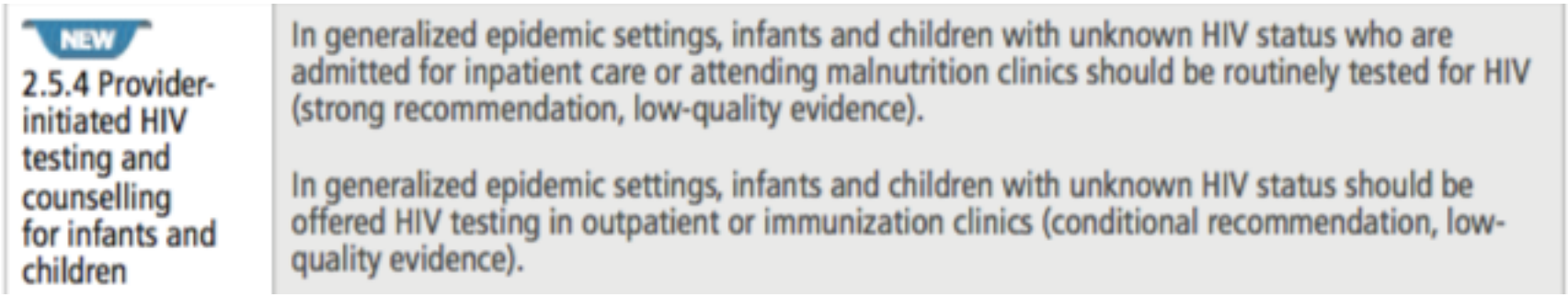
UNAIDS estimates that more than half of new pediatric infections occur during the breastfeeding period.

Six-week and final mother-to-child transmission rates by country, 2015



Source: UNAIDS 2016 estimates.

WHO recommends universal pediatric PITC in malnutrition and inpatient wards, but with low-quality evidence.



NEW

2.5.4 Provider-initiated HIV testing and counselling for infants and children

In generalized epidemic settings, infants and children with unknown HIV status who are admitted for inpatient care or attending malnutrition clinics should be routinely tested for HIV (strong recommendation, low-quality evidence).

In generalized epidemic settings, infants and children with unknown HIV status should be offered HIV testing in outpatient or immunization clinics (conditional recommendation, low-quality evidence).

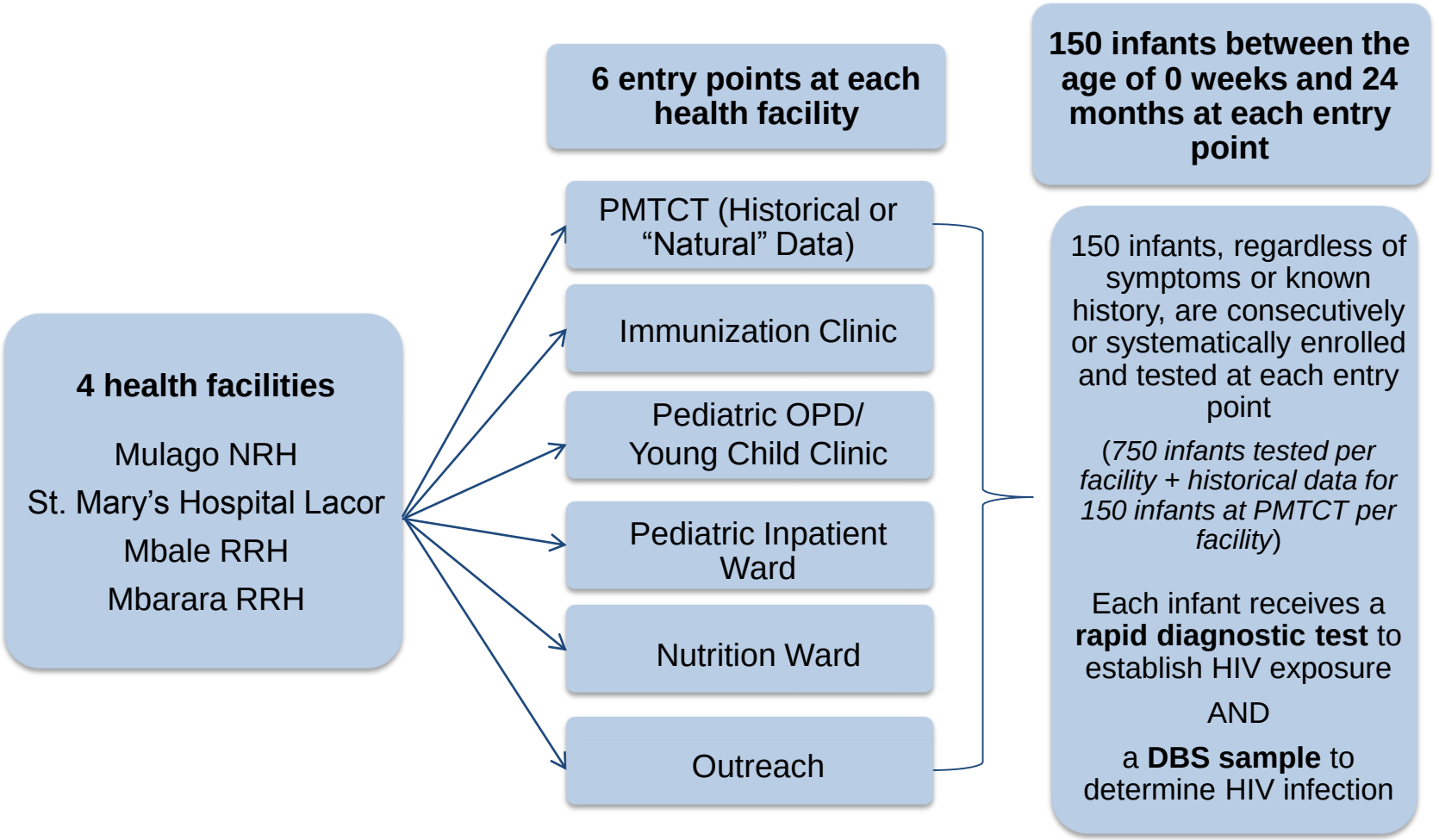
- Many countries include these policies in national guidelines, but practice is inconsistent and insufficient.
- Gaps remain in the existing literature around this recommendation:
  - Few studies have examined HIV prevalence comparing entry points to each other;
  - Many studies lack a comparator, such as PMTCT;
  - Many studies review targeted testing yields rather than consecutive or systematic sampling for true prevalence yields.
- **We sought to understand how to allocate resources more efficiently to identify HIV-positive infants and link them to care and treatment.**

Research question, methodology, and study population

Research Question

What is the HIV prevalence among infants at different entry points in health facilities in Uganda?

Methodology & Study Population



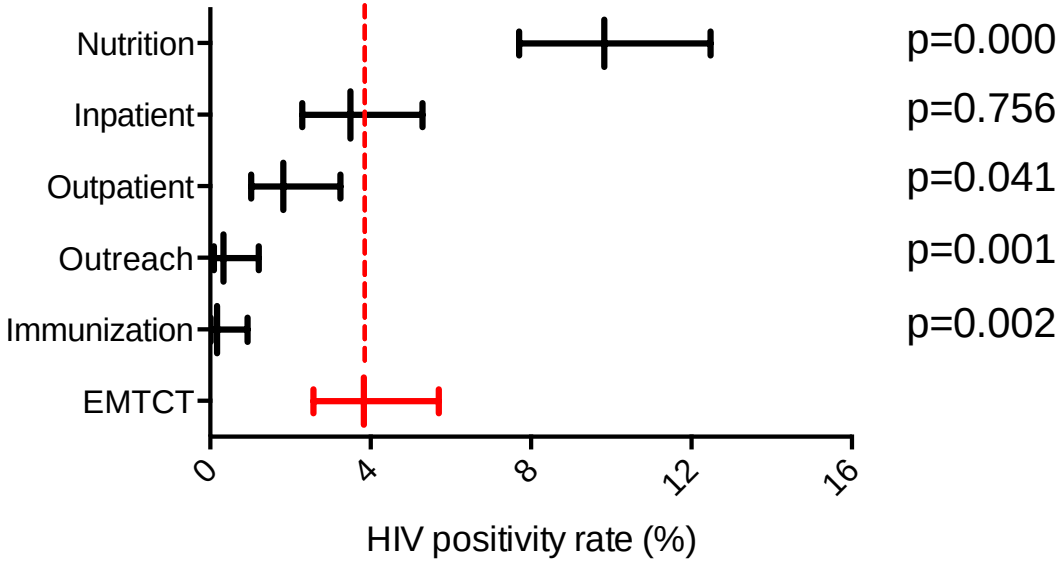
Results: Half of the 117 HIV-positive infants were found in the Nutrition entry point (9.8% prevalence), and 68% were found in Nutrition and Inpatient combined.

Demographics

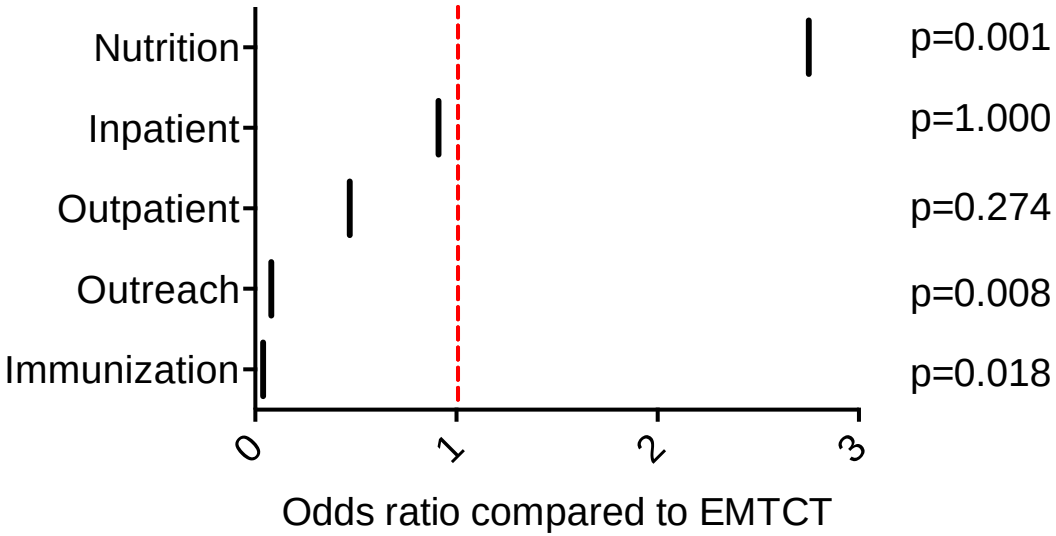
- Study population: 3,600 infants identified; 2 excluded due to invalid EID results
- Median age at study inclusion for all infants: 7 months
- Median age at study inclusion for HIV-positive infants: 11 months
- Previous facility attendance: ~50% of infants attended a health care facility in the last 12 months

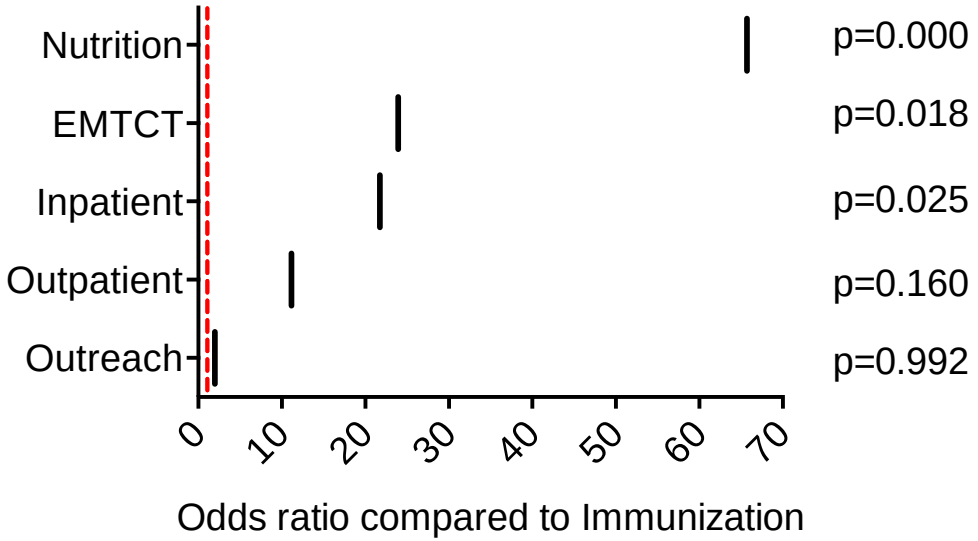
Number and prevalence of HIV-positive infants by entry point

	EMTCT	Immunization	Inpatient	Nutrition	Outpatient	Outreach
Number	23	1	21	59	11	2
Prevalence	3.8%	0.2%	3.5%	9.8%	1.8%	0.3%

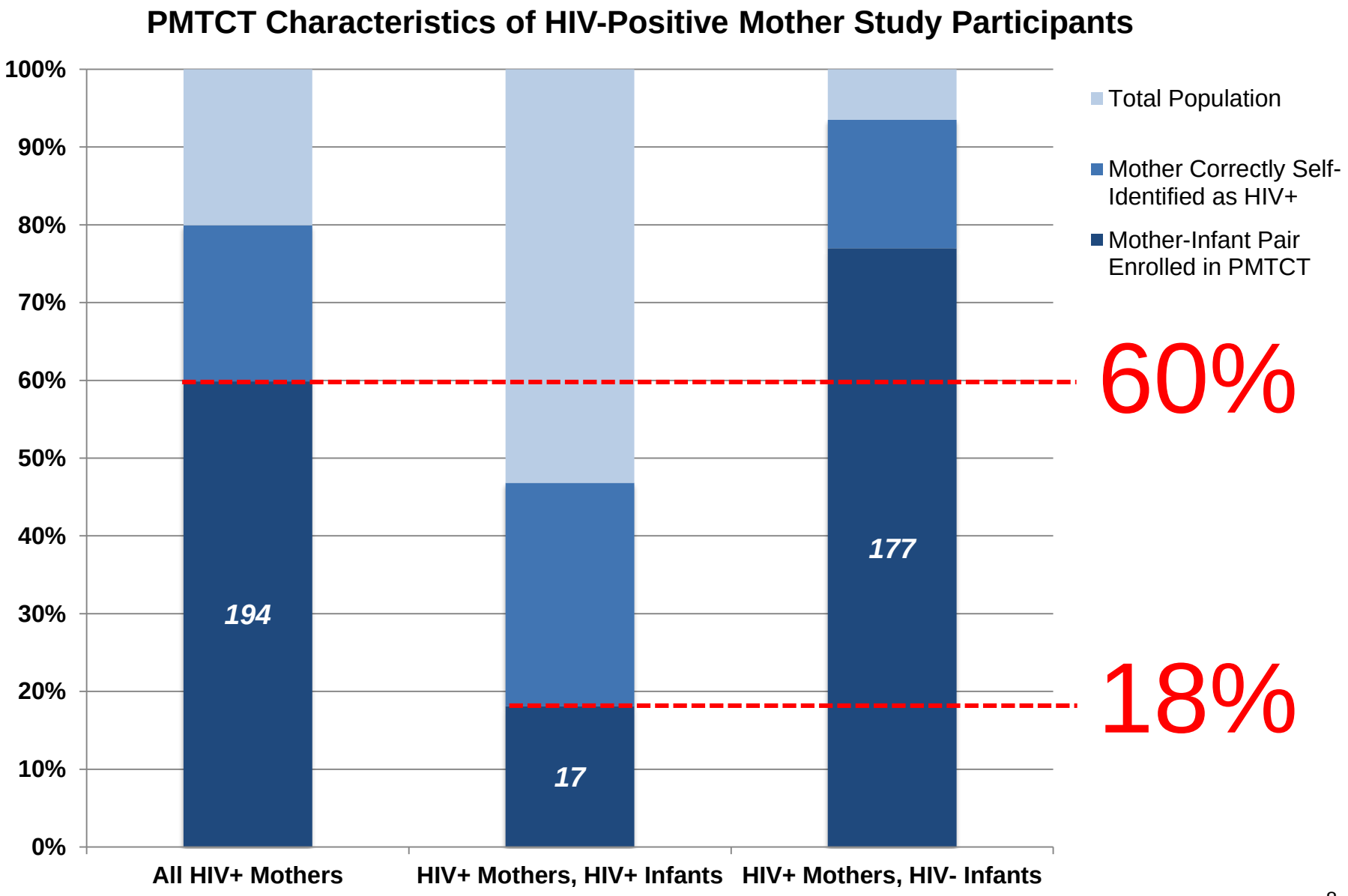


***Results**: We were 3X as likely to find an HIV-positive infant in Nutrition than in PMTCT. We were over 60X as likely to find a positive infant in Nutrition than in Immunization.*





***Results**: 80% of HIV+ mothers enrolled in the study knew their status. But only 60% of HIV+ mothers enrolled in PMTCT, and only 18% of HIV+ infants were in PMTCT.*



Recommendations from findings and implementation considerations

Recommendations

- Looking beyond the PMTCT entry point is critical to closing the EID gap. Different strategies can be tailored to specific entry points.
- **Routine EID testing of infants admitted to nutrition and inpatient entry points** may be a high-yield strategy.
- **Maternal re-testing** in settings that are low-yield but see large volumes of infants, such as immunization and community outreach, may be a strategy to reliably find HIV-exposed infants and refer them to PMTCT.

Implementation Considerations

- Addressing persistent gaps in PMTCT?
- POC EID placement in high-yield testing settings?
- Application of routine EID testing at high-volume facilities vs. low-volume facilities?
- Optimal approaches and opportunities for maternal retesting?
- Considerations for opportunities to leverage EPI and EID?

Thank you!