

Healthy Moms and Healthy Infants: 12 years of Successful Mother to Child HIV Transmission Prevention in a Community Health Center in Bamako, Mali



Karamoko Tounkara¹, Lassina Diarra¹, Yssouf Koné¹, Zoumana Koty¹, Eliza Squibb¹, Lauren Levitz¹, Mali Rochas¹, Sarah Beseme¹, Ben Aboubacar¹, Fanta Tembely¹, Fanta Siby Diallo², Kotou Sangare^{1,3}, Youssouf Traoré⁴, Ousmane Koita³, Anne De Groot^{1,5}

¹GAIA Vaccine Foundation, Bamako, Mali. ²Regional Health Director (DRS), Bamako, Mali. ³Laboratory of Applied Molecular Biology (LMBA), Bamako, Mali. ⁴Gabriel Touré Teaching Hospital, Bamako, Mali. ⁵Institute for Immunology and Informatics (iCubed), University of Rhode Island, Providence, RI, USA.

ISSUES

UNAIDS data for Mali in 2016:

- 5900 (3800-8600) new HIV infections.
- 6100 (4800-7500) AIDS-related deaths.
- 110000 (89000-130000) people living with HIV.
- 35% (25%-44%) were accessing antiretroviral therapy.
- Among pregnant women living with HIV, 35% (28%-42%) were accessing treatment or prophylaxis to prevent transmission of HIV to their children.
- An estimated 1600 (1100-2300) children were newly infected with HIV due to mother-to-child transmission¹.

Community health centers (CSCOMs) are the primary access point to healthcare in much of West Africa. While HIV testing is available in some CSCOMs, it is not consistently offered to all women seeking prenatal care, perhaps related to lack of access to testing supplies or capacity building training for healthcare personnel.^{2,3}

OBJECTIVES

The nonprofit GAIA Vaccine Foundation was founded in 2001 with the mission of infectious disease prevention. GAIA established a connection with a community-run clinic (ASACOMSI) in Sikoro, Mali in 2005. This clinic serves a population of over 40000 inhabitants in a peri-urban neighborhood of Bamako. In partnership with ASACOMSI and local health authorities, GAIA developed a MTCTP program in 2005. This study reports progress on MTCTP at the 12-year point.

METHODS

- Starting in 2005, local clinic staff received formal, government-approved training to encourage HIV testing and adherence to treatment. Topics covered included testing procedures, pre-natal HIV treatment protocols, information about cultural stigmatization of HIV+ patients, and patient confidentiality procedures.
- Following the training, clinic staff systematically offered HIV tests to all women seeking prenatal care.
- Initially, HIV+ mothers were referred to city hospital for treatment and GAIA covered transportation expenses, but in 2008, MTCTP treatment was provided directly at the CSCOM.
- All HIV+ women were provided with ARVs according to local protocols and encouraged to give birth at the clinic, where all delivery costs were covered.
- Infants received anti-retroviral therapy, according to local protocols, immediately after birth. Infant HIV testing was performed, initially by antibody testing at 18 months, followed by PCR/Viral load.

CONCLUSIONS & DISCUSSION

Cost was a significant barrier to effective prenatal care and childbirth for HIV+ mothers-to-be. By providing these services free of charge to HIV+ women, GAIA was able to encourage more active participation in the healthcare system.

GAIA's experience and evaluation suggest that MTCTP interventions are feasible in low-resource settings, and in fact, are most successful when patients have access to local care. Although MTCTP participation is low in Mali, MTCTP was successful at the ASACOMSI clinic due to consistent training and support. The results described here were accomplished by providing technical assistance and monthly stipends to personnel engaged in MTCTP.

CSCOMs are the frontline of patient care and should be equipped to function as the primary setting for HIV prevention among children across West Africa.

REMERCIEMENTS

GAIA souhaite remercier ses collaborateurs des structures de santé publique qui ont rendu ce travail possible : le CSREF de la Commune 1, DRS, DNS, CSLS, HCNLS, et Hôpital Gabriel Touré. Nous remercions particulièrement l'incroyable équipe de l'ASACOMSI et son Président Guidé Diarra, ainsi que le chef de village de Sikoro, Mamadou Niaré.

RESULTS

Figure 1: Over the 12-year period, 99.7% of pregnant women seen for prenatal care at the ASACOMSI clinic accepted counseling and 99.2% accepted HIV testing. Prenatal care n= 18'309. Counseling n= 18'261. HIV Testing n= 18'168.

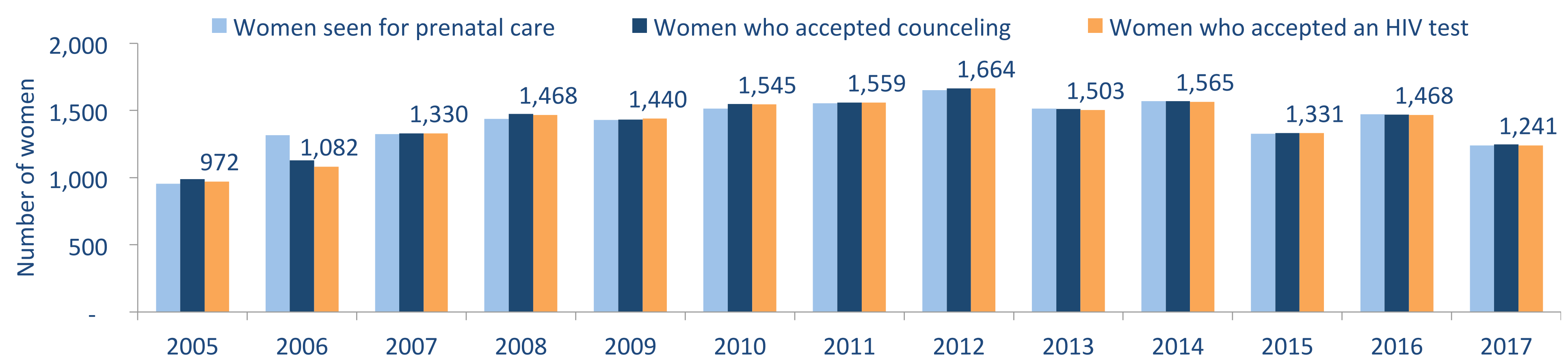


Figure 2: Rates of HIV Test Acceptance at the ASACOMSI Clinic and National Clinics. GAIA's MTCTP program showed a consistently higher test acceptance rate than reported for 338 other MTCTP sites in Mali where the test acceptance rate was measured at 31% in 2011.⁴

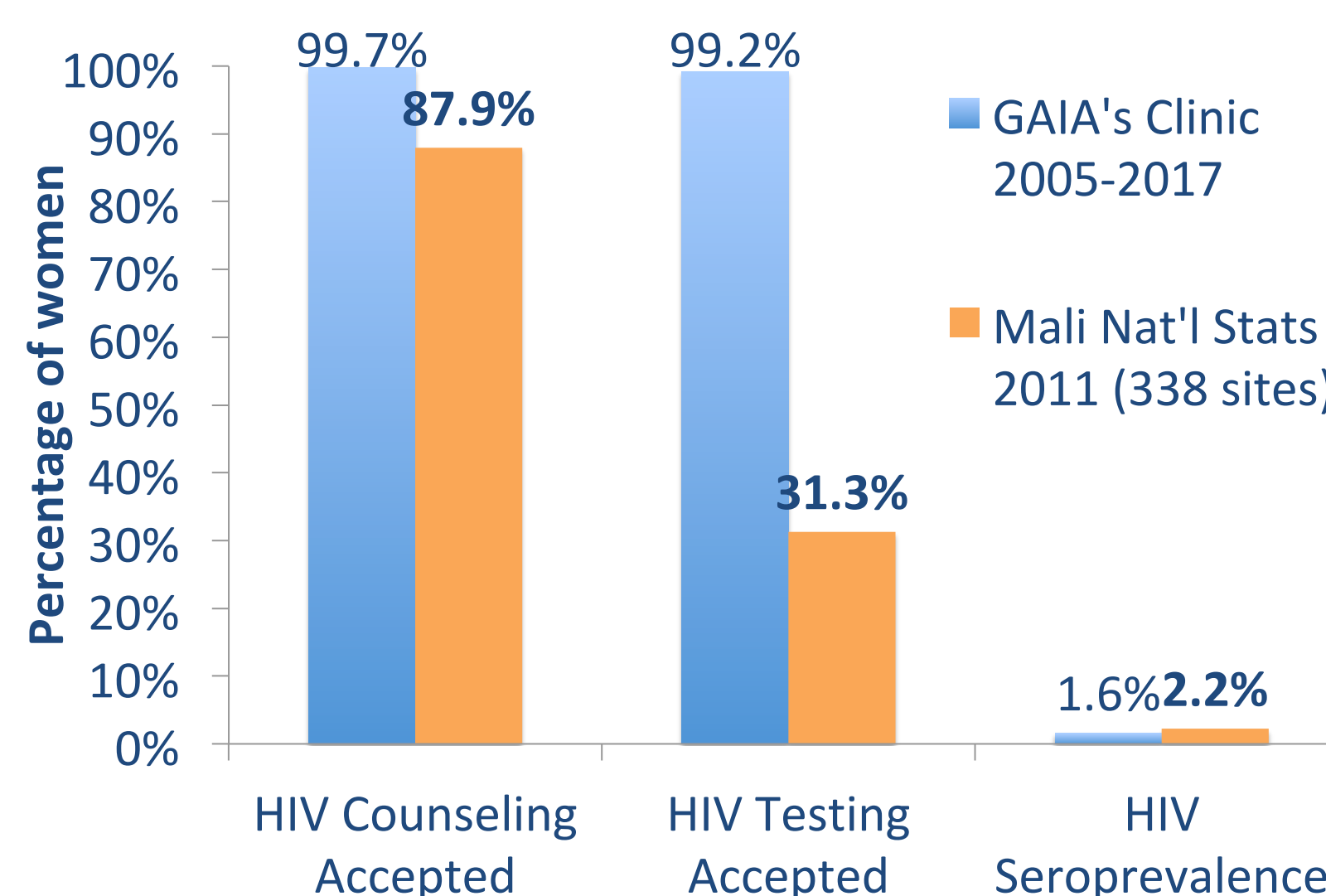


Figure 3: National MTCTP seroprevalence compared to seroprevalence among pregnant women tested in GAIA's MTCTP site in Sikoro. The trend of reduction of HIV seroprevalence in Sikoro accelerated following introduction of MTCTP. National MTCTP rates in Mali are only available from 2007-2011.

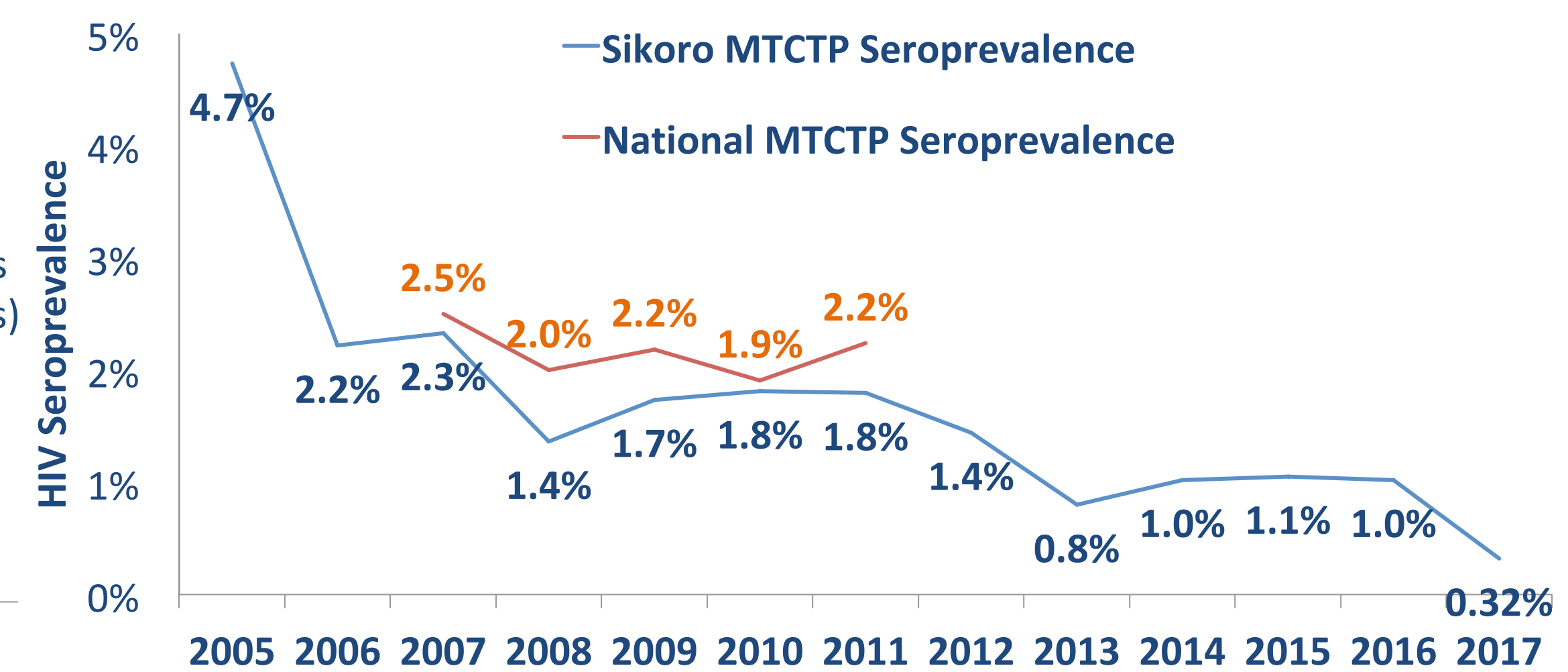


Figure 4: MTCTP results in Sikoro: HIV+ mothers and clinic births at ASACOMSI. Over this 12 year period, 100% of babies born to MTCTP-adherent mothers were HIV seronegative. The number of women and babies requiring MTCTP has decreased with time.

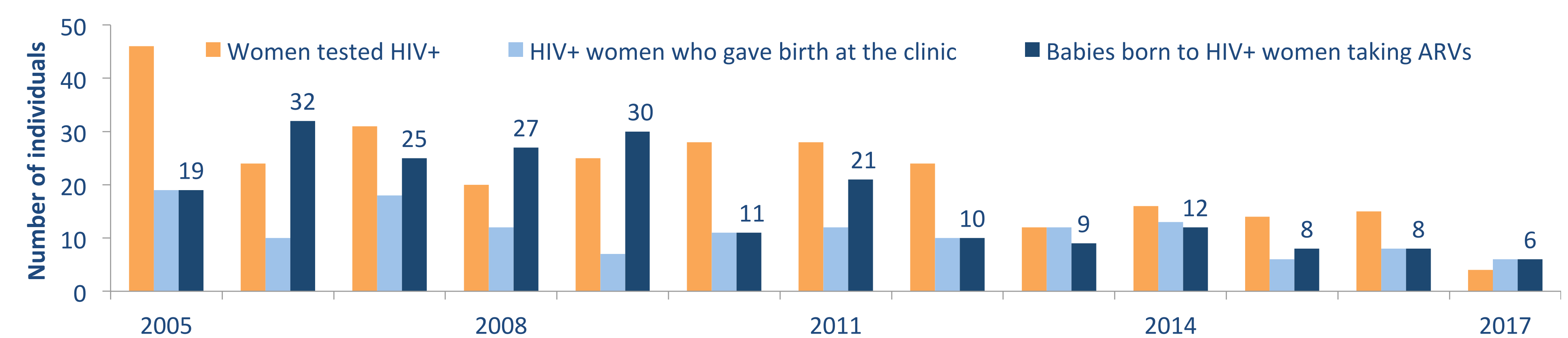
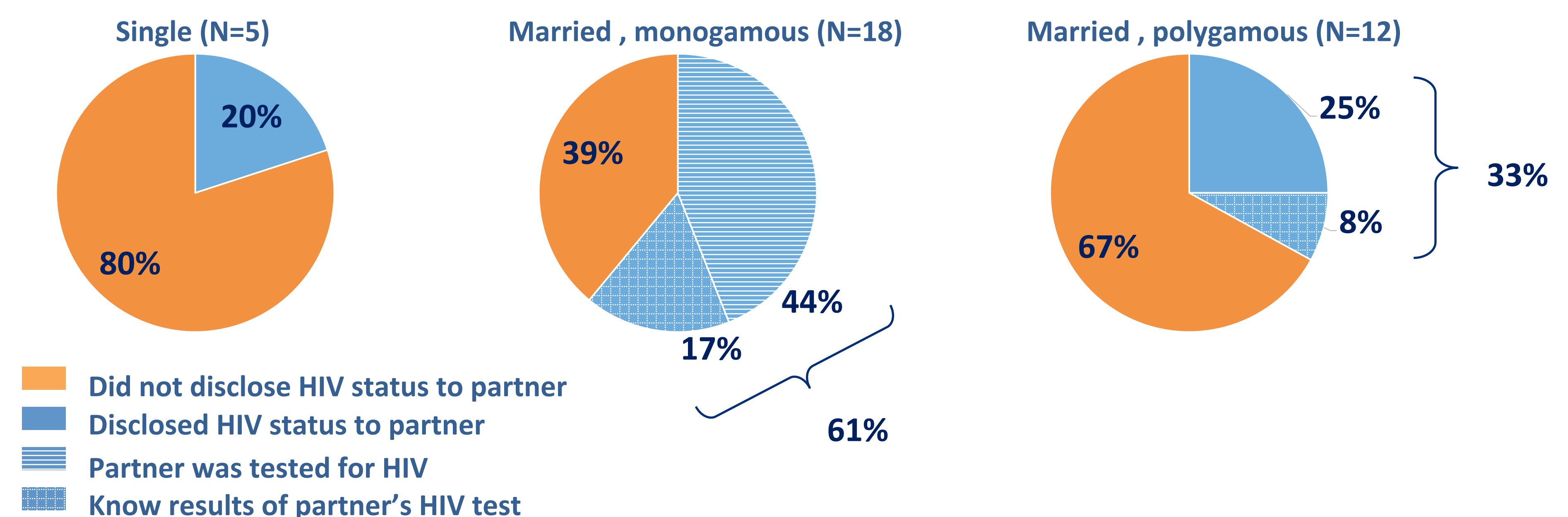


Figure 5: Disclosure of HIV status among single women, and women in monogamous or polygamous marriages. Through structured interviews with HIV+ mothers (n=35) conducted in 2011, staff sought to determine whether marital status affected disclosure of HIV status. Women in monogamous marriages were more likely to disclose their status than single women or women in polygamous marriages. This may affect MTCTP adherence and children's health outcomes.



REFERENCES

1. "AIDSinfo" UNAIDS (2016) Accessed 11/15/2017. <http://aidsinfo.unaids.org/>
2. Nattrass, N. (2008) "Are country reputations for good and bad leadership on AIDS deserved? An exploratory quantitative analysis" *J Public Health (Oxf)*,30(4):398-406. doi: 10.1093/pubmed/fdn075. Epub 2008 Sep 12.
3. Msellati, Philippe. (2009) "Improving mothers' access to PMTCT programs in West Africa: A public health perspective" *Social Science & Medicine* 69 807-812
4. "UNGASS Mali National Report" UNAIDS (2012). Accessed April 2015. http://www.unaids.org/sites/default/files/country/documents/RAPPORT_UNGASS%202012%20_Mali.pdf

