Heterogeneity of HIV retesting during pregnancy and postpartum in Kenya (# 0774)

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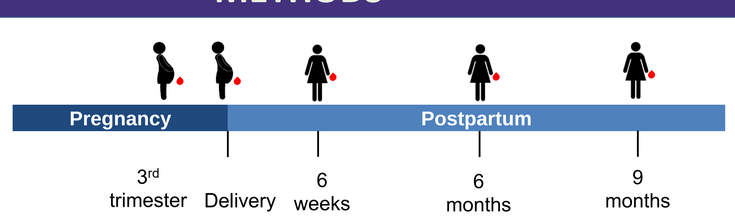
INTRODUCTION

- HIV retesting during pregnancy/postpartum is crucial for early detection and treatment of incident maternal HIV infection and to achieve elimination of mother-to-child HIV transmission (EMTCT).
- Kenyan guidelines recommend retesting of peripartum HIV negative women but data on implementation are lacking.

OBJECTIVE

To measure maternal HIV incidence, and the prevalence and correlates of HIV retesting during 3rd trimester, delivery and postpartum, by 9 months postpartum.

METHODS



Study sites: Ahero & Bondo (Nyanza)

Population: HIV negative, or missed HIV testing at ANC/unknown HIV status (postpartum only)

Study design: Cross-sectional (ongoing, target N=930 at each time point)

Procedures: Brief survey, blood for 4th generation rapid testing. Retesting history abstracted from maternal and child health (MCH) booklets.

Retesting: Any HIV test after the initial antenatal care (ANC) test, or after pregnancy if testing was not done in ANC.

Eligibility:

- ≥ 14 years
- Willing to be tested for HIV
- ≥ 28 weeks gestation (pregnant women)
- Documented HIV negative during pregnancy at least 3 months prior, or unknown HIV status (postpartum women only)

Statistical methods:

- Chi-square tests to compare timing of programmatic retesting
- Poisson generalized linear model (GLM) with a log-link function and robust standard errors, clustered by site, used to identify correlates of retesting among women enrolled at 9 months postpartum
- Maternal age, education and marital status *a priori* potential confounders.
- Variables with p <0.1 included in multivariate model.

PRELIMINARY RESULTS

Figure 1: Enrollment Nov 2017-Feb 2019

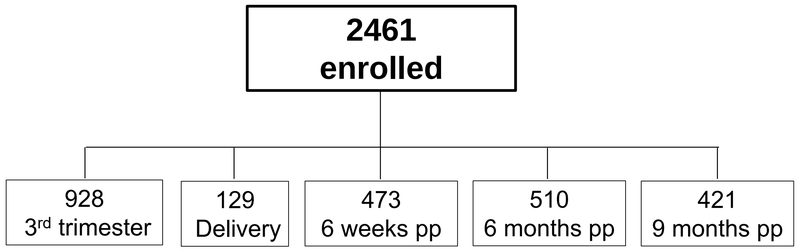


Figure 2: Incident maternal infections (n=10, 0.4%)

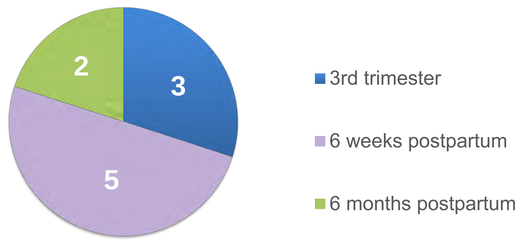
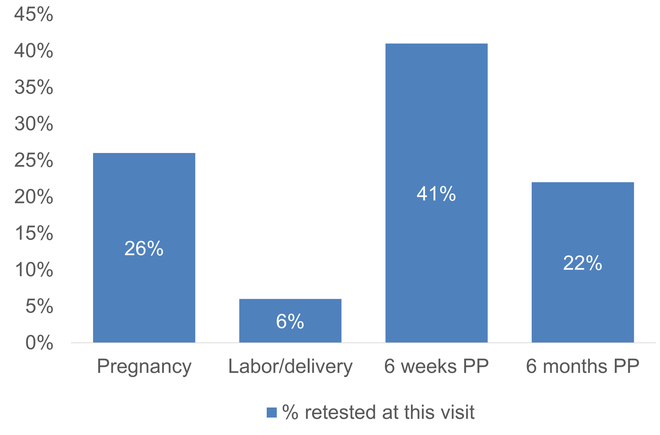


Figure 3: Programmatic HIV retesting history by 9 months postpartum (n=421)



Retesting significantly higher at 6 weeks postpartum than at other times (p <0.001 for all).

Table 1: Correlates of receiving maternal HIV retesting at 9 months postpartum

	Retested	*Not retested*	*PR[1]*	*Adjusted PR[1]*
	N (%) or median IQR		*(95% CI)*	*(95% CI)*
Maternal age (years)				-
<21	97 (29)	21 (25)	Ref	
21-30	205 (61)	55 (65)	0.96 (0.83-1.11)	
>30	34 (10)	9 (11)	0.96 (0.66-1.41)	
Education (years)[1]	172 (51)	46 (54)	0.98 (0.86-1.10)	-
Married	216 (64)	46 (54)	1.09 (0.98-1.21)	-
Orphan	187 (56)	49 (58)	**0.98 (0.97-0.99)***	1.01 (0.99-1.03)
Facility delivery	156 (96)	24 (89)	**1.24 (1.04-1.47)***	-
Gravidity	2 (1-3)	1 (1-2)	**1.05 (1.04-1.06)****	**1.05 (1.03-1.07)****
History of STI	3 (1)	0(0)	1.26 (0.98-1.60)	1.22 (0.96-1.54)
Partner HIV positive or unknown[2]	73 (31)	21 (44)	**0.90 (0.89-0.92)****	-

[1]per year increment in model; [2]versus unknown; STI, sexually transmitted infection; PR, prevalence ratio; CI, confidence interval. *p<.05, **p<0.001. Bold font indicates statistical significance of p <0.05. Maternal age, education and marital status excluded due to collinearity.

CONCLUSION

- Maternal retesting was most common in the early postpartum period and among women with higher gravidity.
- Retesting peripartum women in high prevalence regions helps identify incident maternal HIV and maximize EMTCT efforts, particularly retesting in the early postpartum period.

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