LONGITUDINAL PREP ADHERENCE AMONG KENYAN WOMEN WHO INITIATED PREP DURING PREGNANCY

Abstract # 771

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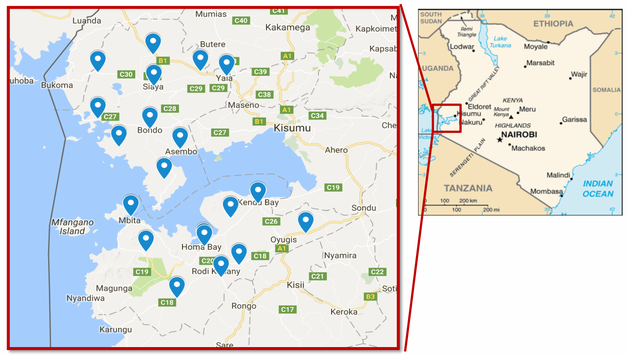
PrIMA
PrEP IMPLEMENTATION FOR MOTHERS IN ANTENATAL CARE

Background

The PrEP Implementation for Mothers in Antenatal Care (PrIMA) Study was a cluster RCT (NCT03070600) evaluating approaches for delivering PrEP to pregnant women within routine antenatal care (ANC) clinics in, Kenya.

Figure 1. Distribution of sites in Siaya and Homa Bay Counties, Kenya



- PrEP is scaling up among pregnant and postpartum women in Kenya, yet few longitudinal data exist on PrEP adherence in this population.
- We evaluated PrEP adherence measured via tenofovir-diphosphate (TFV-DP) concentrations in dried blood spots (DBS) collected from Kenyan women who initiated PrEP during pregnancy and were followed postpartum.

Example of DBS sample collected from participants

Methods and Results

- We prospectively analyzed data from a subset of participants in the PrIMA Study who enrolled in the 2nd trimester, initiated PrEP in pregnancy, and were followed through 9-mos postpartum.
- At follow-up visits (monthly in pregnancy; 6 weeks, 6 months, 9 months postpartum), self-reported PrEP use was assessed and DBS were collected.
- Among a random subset of participants, DBS quantifying TFV-DP concentrations were tested from all visits with any self-reported PrEP use in the last 30 days.
- TFV-DP benchmarks were defined by thresholds from directly observed studies (IMPAACT 2009) among women in the 2nd trimester of pregnancy and postpartum.

Table 1. Correlates of any detectable TFV-DP exposure at follow-ups visit among women who initiated PrEP during pregnancy (n=524)

	n (%)		Multivariate Poisson models	
	Detectable TFV-DP in DBS			
Characteristics	No (N=311)	Yes (n=213)	Adj Risk Ratio (95% CI)	p-value[1,3]
Age category (years)				
<24	41%	29%	0.82 (0.62-1.07)	0.146
≥24	59%	71%	ref	
Visit timing				
Pregnant	43%	69%		
Postpartum	57%	31%	1.87 (1.38-2.53)	<0.001
HIV status of primary partner(s)				
Positive	11%	33%	2.03 (1.33-3.09)	0.001
Negative	48%	30%	ref	
Unknown	41%	37%	1.30 (0.88-1.91)	0.191
HITS score ≥ 10				
Yes	13%	24%	1.35 (0.99-1.83)	0.059
No	87%	77%	ref	
High perceived HIV risk [2]				
Yes	19%	32%	1.34 (1.02-1.77)	0.033
No	81%	68%	ref	
Ever experienced PrEP side effects				
Yes	41%	25%	0.68 (0.47-0.99)	0.042
No	59%	75%	ref	

[1] Poisson regression clustered on site, relative risk of persisted PrEP
[2] Self-perceived HIV risk assessed by asking "What is your gut feeling about how likely you are to get infected with HIV?", with possible responses of "extremely likely", "very likely", "somewhat likely", "very unlikely", "extremely unlikely". (High self-perceived HIV risk: Extremely likely/Very likely = "Yes", Somewhat likely/very unlikely/extremely unlikely = "No").
[3] Adjusted for age, primigravida (yes/no), education (<12 vs. >=12 years), and partner HIV status

- Among visits where participants continued with PrEP (n=454), 94% reported any PrEP use in the last 30 days.
- Among DBS from these visits (n=427), 48% had detectable TFV-DP of which 28% had TFV-DP concentrations indicating <2 doses/week, 64% 2-6 doses/week, and 8% 7 doses/week.

Study nurses, Meridah and Violet, practicing PrEP counseling. Consent provided for all photographs.

Conclusions

- Similar to studies of antiretroviral therapy among women living with HIV, we found that PrEP adherence was higher during pregnancy than postpartum, though adherence to 7 doses/week was low overall. Adherence was also associated with abuse, side-effects, and perceived risk.
- Interventions should prioritize sustaining adherence in the postpartum period and increasing knowledge of partner HIV status.

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