

Concordance Of HIV Risk Perception And Empiric Risk Score Among Pregnant Kenyan Women

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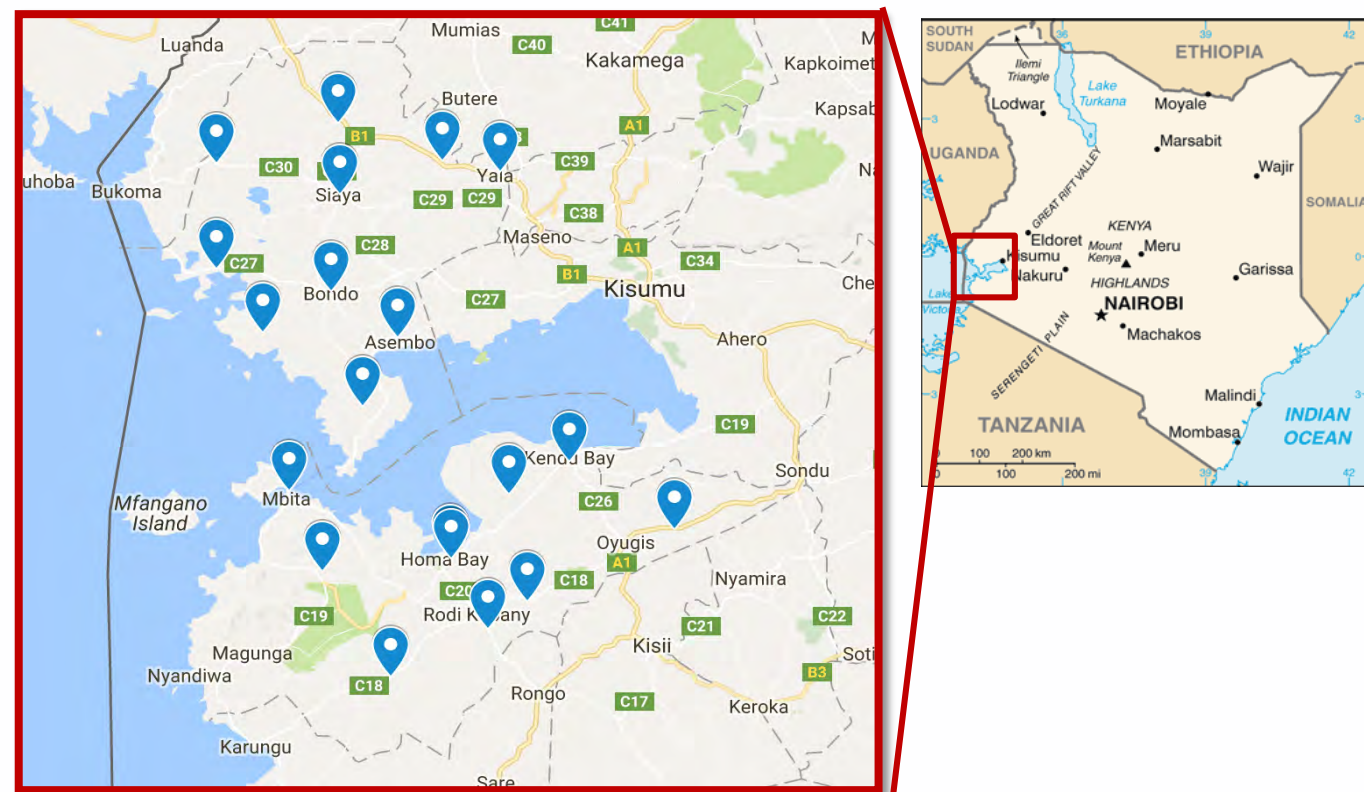
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Background

- Identifying and linking pregnant women at high risk for acquiring HIV with prevention tools like PrEP is critical to protect women and their children
- Understanding how pregnant women perceive their HIV risk and whether this correlates with their actual HIV risk is important to prevention efforts
- Identifying factors that impact perceived risk are crucial for preventing acute HIV infection during pregnancy and postpartum

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



Methods

- PrIMA study (NCT03070600): ongoing cluster RCT in western Kenya of PrEP delivery strategies for pregnant women attending antenatal care
 - Analysis includes enrollment data from Jan – Sep 2018

Factor	Assessment Tool	Scale range or cut-off
HIV risk	Validated empiric risk score ¹	High risk: >6
HIV risk perception	Perceived Risk of HIV Scale (PRHS) ²	10-40
	Vargas Scale ³	0-8
Intimate partner violence (IPV)	Hurt, Insulted, Threatened with Harm & Screamed screening tool ⁴	IPV: >10

- Perceived HIV risk was compared between women with high (>6) and low (≤6) empiric risk scores

Results

- Mean perceived HIV risk was 21 (SD, 4.5) and 1.8 (SD, 1.9) using the Napper and Vargas scales, respectively, signifying moderate perceived risk
- Compared to women with lower risk scores, women with scores >6 were more likely to believe they had a 'great chance' of acquiring HIV in the next year (15% vs 2%)
- Women with high-risk scores, who experienced IPV or who had partners with unknown or known positive HIV status had greater perceived risk in both scales (Figure 2)

Table 1. Baseline characteristics of women in the PrIMA study

Characteristics (N=2,280)	n(%) or Median (IQR)
Age	24 (20, 29)
Gestational age	25 (20, 30)
Married	1915 (84)
IPV (HITS >10)	161 (7)
HIV risk factors	
No. of lifetime sexual partners	2 (2, 3)
Partner HIV unknown	817 (36)
HIV positive partner	99 (4)
Syphilis positive	38 (2)
Risk score >6	925 (40)

Table 2. Risk perception scale items and response scores

	Mean (SD)	
	High-risk (>6)	Low-risk (≤6)
Vargas scale items – Based on your sexual activities over the PAST 3 MONTHS, how much do you think you are: (0- No risk; 4- Very high risk)		
At risk for having a STD?	1.3 (1.0)	0.6 (0.8)
At risk for having HIV?	1.4 (1.1)	0.6 (0.8)
PRHS items (1- No risk; 5- High risk)		
What is your gut feeling about how likely you are to get infected with HIV?	2.8 (0.8)	2.3 (0.8)
I worry about getting infected with HIV	2.8 (1.0)	2.2 (0.9)
Picturing self getting HIV...	2.1 (0.8)	1.9 (0.7)
I am sure I will NOT get infected with HIV	3.7 (1.0)	3.3 (1.2)
I feel vulnerable to HIV infection	3.1 (1.0)	2.3 (1.0)
There is a chance, no matter how small, I could get HIV	3.8 (0.5)	3.5 (0.6)
I think my chances of getting infected with HIV are	3.5 (1.2)	2.5 (1.1)
HPTN HIV Risk Perception Items – How would you describe your: (0- No risk at all; 3, Great chance)		
Chances of getting HIV in the next year?	1.5 (1.0)	0.7 (0.8)
Female friend's chances of getting HIV?	1.5 (0.9)	1.1 (0.9)

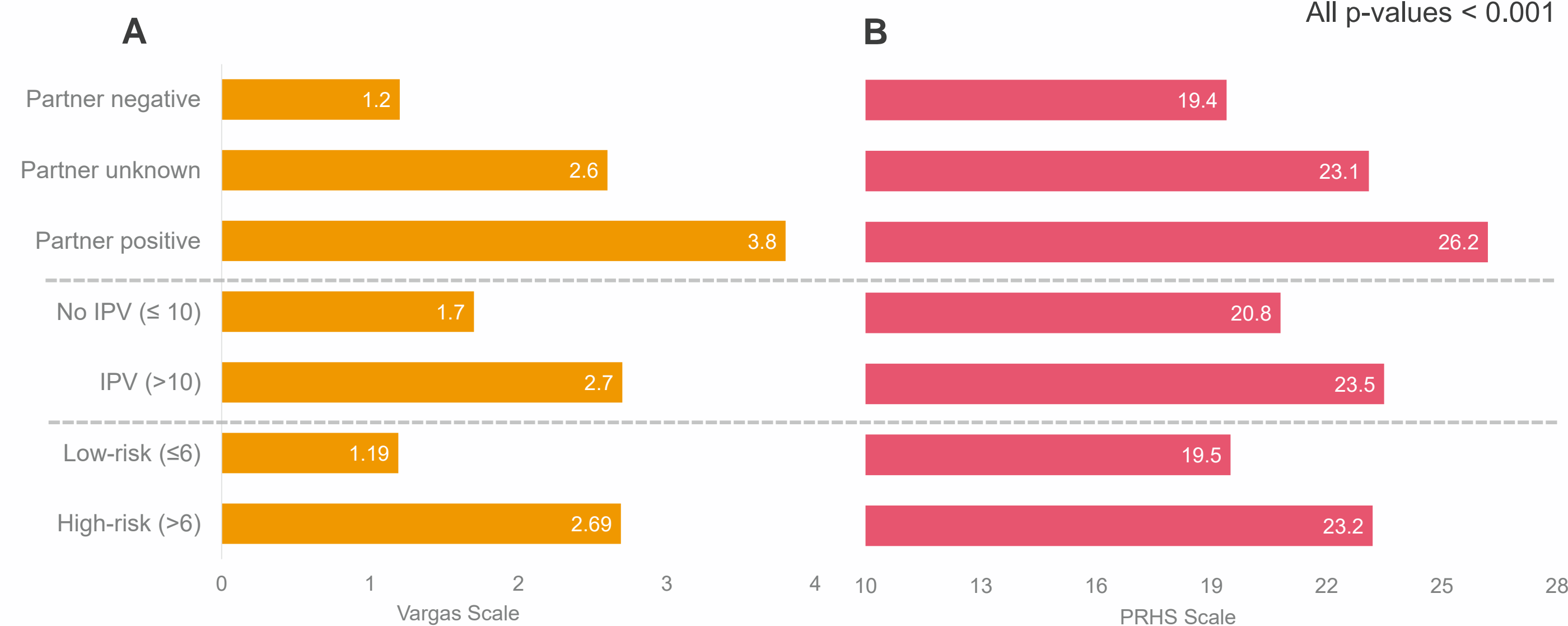


Figure 2. Perceived HIV risk (A, Vargas and B, PRHS scales) by empiric HIV risk, IPV and partner HIV status

Conclusions

- Women with high empiric HIV risk scores were more likely to report a higher perceived risk of acquiring HIV
- Strengths:
- Large sample size across 20 facilities in two counties
 - Utilized validated scales and tools
- Limitations:
- Relied on self-reported partner HIV status
- Implications:
- Pregnant women may accurately assess their own HIV risk
 - Providers may be able to universally counsel women for PrEP rather than conducting a risk assessment to target PrEP



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Acknowledgements

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