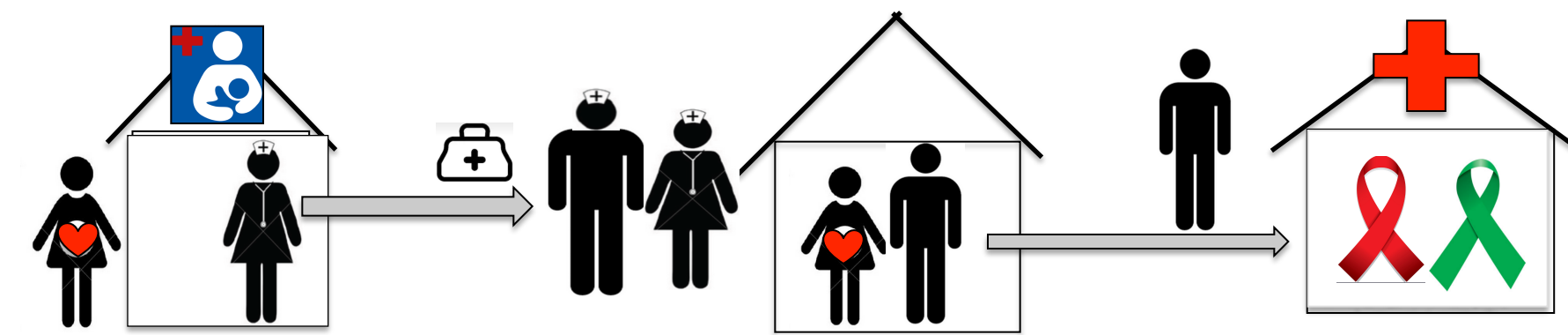


MALE PARTNER LINKAGE TO CLINIC STI-HIV SERVICES AFTER HOME COUPLE EDUCATION AND HIV TESTING

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Background: Home-based HIV testing and education has potential for increasing HIV testing and access to health information and services among men. However, the extent to which men follow-up to clinic based STI and HIV services is yet to be defined.

Study Objective: To understand how home-based antenatal couple education and HIV testing intervention influences male partner follow-up to clinic-based HIV and STI services (i.e. HIV and STI care and treatment, medical male circumcision).

Methods: September 2013 to June 2015 (Kisumu, Kenya)

Study within a RCT: 601 pregnant women attending a first antenatal visit alone
Men were married/cohabiting with female participant, encountered at home visit

Intervention: Home-based couple education and rapid HIV-syphilis testing during pregnancy delivered by male and female health workers pairs

- Identification of STI symptoms and the importance of clinic-based treatment
- Syphilis testing and treatment (SDBioline 3.0, Standard Diagnostics)
- HIV testing and treatment
- Circumcision for HIV-negative men
- Referral to clinic-based STI services based on HIV or syphilis tests results, or complaint of STI-like symptoms

Control arm: women gave men invitation letters for clinic-based HIV-testing

Evaluation: Men's self-report of attendance to clinic-based services

- Compared interviews at 6 month postpartum home-visit
- Exit HIV and syphilis testing at the end of the interview for final infection status

Results: 487 men (93% participation) of 525 women completing the study

STI consultation: ~60% greater likelihood of seeking a visit within the intervention. Additionally, linkage following specific syphilis testing was 4/4 men within couples recommended for treatment sought care.

Linkage to HIV services: No significant differences among men with newly diagnosed HIV. Of 40 intervention and 21 cases of HIV, new HIV diagnoses during the study were 17/40 (42%) and 5/21 (24%) men who were referred to care and treatment.

* Linkage to HIV services were 4/17 men and 3/5.

Male Medical Circumcision: No significant differences. Few men sought circumcision among eligible (4/72 intervention and 2/88 control).

Table 1. Characteristics of Male Partners in the Home-based Partner Education and Testing (HOPE) Study

Baseline characteristics ^a	Intervention Arm (N=219) ^b		Control Arm (N=172) ^b	
	Median	(IQR)	Median	(IQR)
Age in years (years)	30	(26, 35)	30	(27, 37)
Age of sexual debut (years) ^c	17	(16, 19)	17	(16, 19)
Number of lifetime sex partners	4	(3, 5)	4	(3, 5)
Age at marriage, if married	25	(22, 29)	25	(23, 30)
Years married with participant	3	(1, 8)	5	(3, 7)
Number of total children ^d	2	(1, 3)	2	(2, 3)
Children with female participant	1	(0, 2)	2	(1, 3)
	n	(%)	n	(%)
Circumcised	162	(66)	146	(61)
Marital Status				
Married	219	(100)	172	(100)
Living together	204	(93)	155	(90)
Attended ANC last pregnancy	32	(20)	23	(13)
Education				
No formal education	1	(<1)	42	(24)
At least some primary school	87	(40)	42	(24)
At least some secondary school	84	(38)	101	(59)
> Secondary school	47	(21)	29	(17)
Previous HIV testing experience	183	(84)	151	(88)
Reports being HIV positive ^d	18	(10)	16	(10)
Knows Female partner's HIV status	167	(77)	158	(93)
Partner is HIV positive	32 / 167	(19)	22 / 158	(14)

IQR = interquartile range, ANC = antenatal care
^a No significant differences between arms (p>0.05) except for "number children with participant" and "partner HIV status known" due to delay in screening control arm until after female partner delivery
^b No screening data: missing 28 of 247 in the intervention arm and 67 of 240 in the control arm
^c Missing data: 9 men in Intervention missing age of sexual debut,
^d Preferred not to respond: age of sexual debut; 2 in control preferred not to respond regarding number of total children; 1 in control preferred not to respond regarding number of children with female partner enrolled, 1 in intervention preferred not to respond about HIV status

Table 2. Self-reported HIV status of male partners completing an interview at 6 months postpartum recommended for care and treatment

	Intervention (n=247)		Control (n=240)	
	n	(%)	n	(%)
Known HIV positive status before exit testing	40 / 247	(16)	21 / 240	(9)
HIV+, before study	19 / 40	(8)	13 / 21	(6)
HIV +, newly diagnosed during study ^ψ	18 / 40	(7)	5 / 21	(2)
HIV +, period of diagnosis not reported	3 / 40	(1)	3 / 21	(1)
HIV- or unknown HIV status before exit testing*	207 / 247	(<1)	219 / 240	(<1)
Men diagnosed newly HIV+ at exit testing	2 / 207	(<1)	2 / 219	(<1)
Total HIV positive men by end of study exit interview	42	(17)	22	(9)

^ψ 10 of 18 men of the intervention were diagnosed at the home-based intervention during pregnancy

* HIV negative (204/207 & 219/219) or never tested before ((3/207 & 0/207) in the intervention and control arms

Table 3. Male partner self-reported follow-up to clinic-based sexually transmitted infections services by 6 months after female partner delivery of child

Self-reported Follow-up to Clinic-based services	Intervention (n=247)		Control (n=240)		Unadjusted RR	95% CI
	n	(%)	n	(%)		
STI Services						
Sought any STI clinic services (non-HIV) ^{a,b}	47	(19)	16	(7)	1.59	(1.33 - 1.89)
Sought clinic if recommended for syphilis treatment	4 / 4	(100)	0 / 0	-	-	-
Voluntary Male Medical Circumcision						
Uncircumcised at baseline ^{b,c}	85	(34)	94	(39)	1.02	(0.86 - 1.24)
Recommended for circumcision as HIV prevention	72 / 85	(85)	88 / 94	(94)		
Sought circumcision	3 / 72	(4)	2 / 88	(2)	1.29	(0.62 - 2.70)
Linkage to HIV care and treatment services						
New HIV diagnosis during study, linked to care ^a	4 / 15	(27)	3 / 5	(60)	0.66	(0.34 - 1.29)
Diagnosis period unknown, ever linked to care ^d	2 / 3	(66)	2 / 3	(66)	0.75	(0.21 - 2.65)

RR = Relative Risk; CI = Confidence Interval

^a Missing data= 1 intervention man missing data on STI clinic-services, 2 men of the intervention missing data on linkage to HIV care and treatment

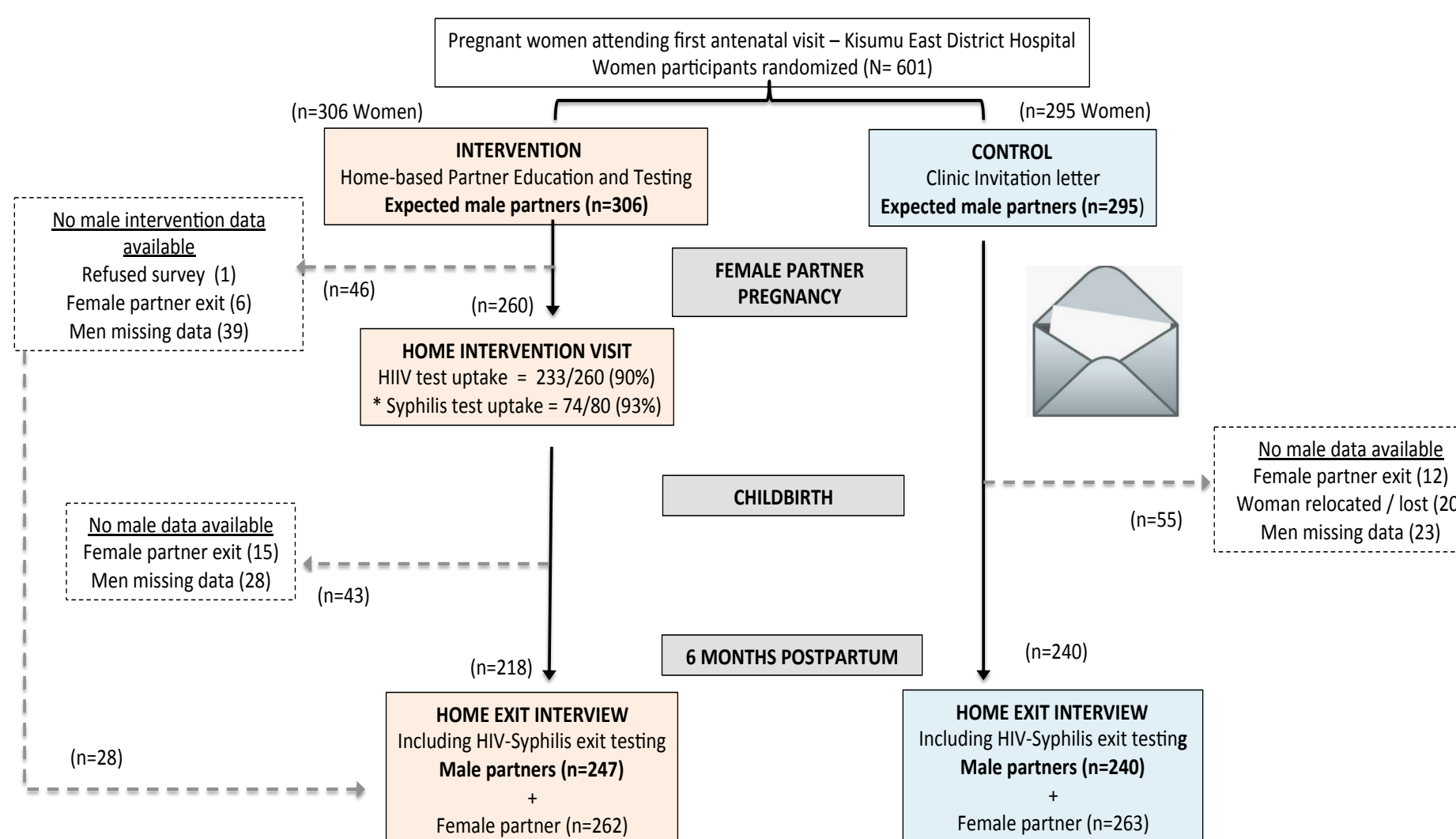
^b Prefer not to respond (included as % of respondents): 2 men of the intervention preferred not to respond regarding seeking STI clinic-services, 1 man of the intervention and 2 men of the control arm preferred not to respond to male circumcision status

^c Does not know (included as % of respondents): 14 men of the intervention and 6 men of the control did not know about their male circumcision status

^d Diagnosis period could not be differentiated to new diagnosis during the study, or known HIV positive before the study period

Conclusions

- One-time, home-based education and testing resulted in more men seeking clinic general STI consultations during female partner pregnancy than invitations alone.
- No effect on linkage to voluntary medical male circumcision for HIV prevention.
- No effect on linkage to HIV care and treatment for newly diagnosed HIV infection.
- Newly diagnosed men identified in home-based testing should be targeted to follow-up linkage to HIV care, which could result in equivalent or better access than clinic-based services alone.



* 80 men offered syphilis testing when it became available in the intervention