

“Stylish Man” Intervention - Cluster Randomized Trial (CRT) to Increase Adult Male (≥ 19 years) Use of Voluntary Medical Male Circumcision and ART, Rakai, Uganda

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BACKGROUND

VMMC and ART rollout reduces population-level HIV incidence. However, in much of sub-Saharan Africa, service uptake is suboptimal in men ≥ 19 years, hindering HIV control.

METHODS

- In 2013-2018, we conducted an implementation science cluster randomized trial of a “Stylish Man/Stylish Living” intervention to promote VMMC and ART to men ≥ 19 years.
- Components included:
 - Community mobilization via “Village Organizing Committees”
 - De-medicalized messaging via radio
 - A “Stylish Man Van” showcasing testimonials from satisfied male VMMC and ART users and their partners; messages that services keep men active, attractive, and in charge of their lives; music, quizzes, games, and Stylish “swag” (caps, etc...) to rebrand services
 - Immediate service provision in mobile camps: HIV testing services (individuals/couples), VMMC and referral for ART; “red carpet” services for men aged ≥ 19 (separate from women/children, reduced waiting times, evening hours).
- Frequency:
 - 5 intervention community clusters received “Stylish” activities for ~3 days per community every 18 months (total of 3 “Stylish” phases per community). Standard Ministry of Health (MOH) HIV services were available in MOH clinics at all times.
 - 5 control community clusters had access to standard MOH clinic services (HIV testing services [individual/couple], ART, and at 18-month intervals, routine VMMC mobile clinics (total of 3 VMMC clinics phases per community) without additional Stylish activities.

Primary endpoints:

- Number and proportion of VMMC clients aged ≥ 19 compared to adolescents aged 13-18 in both study arms, based on mobile VMMC camp service statistics.
- Population-based VMMC/ART rates, and HIV incidence, at a baseline and 3 follow-up (FU) community surveys, in all consenting resident men aged 15-49, both study arms.
- Differentials between arms were estimated using rate ratios (RR) and 95% confidence intervals (CI).

Community mobilization & de-medicalized messaging were associated with significantly increased adoption of VMMC by adult men aged ≥ 19 . There was no significant effects on use of ART or on population-level HIV incidence. Additional outreach is need.

RESULTS

Table 1: VMMC Mobile Van Service Statistics

	All circumcisions		13-18 years		≥ 19 years		Rate Ratio (95%CI)
	Intervention N	Control N	Intervention N (%)	Control N (%)	Intervention N (%)	Control N (%)	
Phase 1	2775	1760	1556 (56.1)	1368 (77.7)	1219 (43.9)	392 (22.3)	1.97(1.79-2.17)
Phase 2	2470	2066	1932 (78.2)	1773 (85.8)	538 (21.8)	293 (14.2)	1.54(1.35-1.75)
Phase 3	747	568	421 (56.4)	501 (88.2)	326 (43.6)	67 (11.8)	3.70(2.91-4.70)
All	5992	4394	3909 (65.2)	3642 (82.9)	2083 (34.8)	752 (17.1)	1.96(1.82-2.11)

- Compared to control arm clinics, intervention arm VMMC clinics served more male clients (adult plus adolescent), N = 5992 vs 4394, and a higher number of adult men aged ≥ 19 (2083 vs 752).
- A significantly higher proportion of intervention arm VMMC clients were aged ≥ 19 years (intervention 34.8% vs control 17.1%, RR 1.96, (95% CI 1.82-2.11)).
- This was observed within each phase (NB: During Phase 3, WHO/Uganda MOH required 2 tetanus immunizations prior to VMMC: numbers of VMMCs declined sharply across Uganda. This requirement has since been lifted.)

Community survey-based assessment of all consenting resident men

Comparability of adult men aged 19-49 years at baseline, intervention vs control arm

Intervention arm men (n=3418) vs control arm men (n = 3261) were comparable in key characteristics:

- Mean age (31.8 vs 31.6, respectively)
- Educational attainment
- Marital status (67.0% vs 66.3% married; 14.2 % vs 14.1% widowed/divorced)
- Numbers of partners in past year (0= 7.8% vs 7.2%, 1 = 46.3% vs 45.0%, 2+= 45.9% vs 47.8%)
- Religions (Christian 87% vs 85.5%, Muslim 12.0% vs 13.4%)
- Percent non-Muslims circumcised (31.1% vs 32.6%)
- HIV prevalence (20.7% vs 24.9%)
- Proportion of HIV+ men on ART (16.7% vs 18.2%)

Awareness of and participation in the Stylish Program, men aged 19-49, intervention vs control

- Aware of the program: 90.8% vs 24.2%
- Aware of the Stylish Van 84.5% vs 11.7%
- Participated in a Stylish Program activity: 41.0% vs 2.6%

Attitudes among men aware of the Program regardless of study arm

- > 94.0% agreed/strongly agreed it presented a positive image of the Ugandan man and would result in positive behavioral change.



Stylish VMMC Clients

RESULTS, CONT'D

Table 2: VMMC Prevalence in men aged 19-49

	INTERVENTION VMMC/N (%)	CONTROL VMMC/N (%)	RR (95%CI)
Baseline	750/2444 (30.7)	812/2435 (33.4)	0.92 (0.85-1.00)
Follow-up 1	1273/2792 (47.7)	1164/2840 (41.3)	1.11 (1.05-1.18)
Follow-up 2	1510/3074 (49.1)	1398/2893 (48.3)	1.02 (0.96-1.07)
Follow-up 3	1797/3181 (56.5)	1784/3228 (55.3)	1.02 (0.98-1.08)

VMMC prevalence was lower in the intervention arm vs the control arm at baseline and increased in both arms over time ($\Delta = 25.8\%$ vs $\Delta = 21.9\%$). During the first FU, VMMC prevalence was significantly higher in the intervention vs the control arm (RR= 1.11, 95%CI 1.05-1.18); prevalence was comparable between arms in the subsequent FU surveys (Table 2).

VMMC incidence (newly circumcised since the prior survey) was significantly higher in the first FU period (Intervention 257/1131, 22.7% vs control 158/1161, 13.0%, RR (95%CI) 1.71 (1.43-2.05), $P < 0.05$). There was no significant difference between arms in the 2nd and 3rd FU periods.

ART use (self-reported) in HIV+ men was lower in the intervention arm vs the control at baseline (16.7% vs 18.2%, ns), and increased to 77.5% vs 74.8% ($p = 0.23$, ns) by the 3rd FU, with changing Ugandan ART CD4 cell criteria.

HIV incidence at first FU in intervention arm men aged 19-49 was 1.37/100 py (95% CI 0.02-2.04) vs 2.37/100 py (95% CI 1.71-3.27) in the control (borderline significant). There were no differences in subsequent FU periods (2nd FU 1.35/100 py vs 1.40/100py; 3rd FU 1.32/100 py vs 1.30/100 py).

CONCLUSIONS

The intervention increased uptake of VMMC among men aged ≥ 19 as reflected in service statistics and initial increases in population-level VMMC prevalence and incidence. There were no significant effects on ART uptake or HIV incidence. Involving men in HIV care will require additional innovative interventions.

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