

Predictors of Medical Male Circumcision Uptake by Men Aged 25-39 Years in Nyanza

CROI Poster #799

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Introduction

Background:

- Uptake of voluntary medical male circumcision (VMMC) as an intervention for the prevention of HIV is low among men aged ≥ 25 years in Nyanza region, Kenya.
- We evaluated the baseline prevalence and cofactors of VMMC among men 25-39 years who were targets of interventions to improve VMMC uptake.

Objective:

To determine Predictors of Medical Male Circumcision Uptake by Men Aged 25-39 Years in Nyanza

Methods

Study area:

The study was conducted in four counties (Siaya, Kisumu, Homabay Migori) within Nyanza region of Kenya-highlighted in yellow

The four counties are top nationally in HIV prevalence, ranging between 14 -26%, against a national prevalence of 6%.

The four counties are inhabited by a largely traditionally non-circumcising ethnic community

Lack of circumcision partly accounts for the high HIV prevalence

Figure 1



Mapped subunits in 4 counties where study was conducted

Household mapping was conducted in 11 sub counties of the four counties.

45 non-contiguous clusters were selected, from which 209 villages were randomly selected for enumeration to identify and mark households where eligible men aged 25-39 years resided.

All households within the 209 villages were enumerated, and potentially eligible men listed

Figure 2



Procedures

- Research assistants later visited marked households to interview eligible men who consented to participate
- Behavioral and demographic data was collected from men aged 25-39yrs during a baseline survey for a cluster randomized controlled trial of interventions to increase VMMC uptake in four counties in Nyanza region of Kenya.
- Circumcision status was recorded based on self-report.
- Predictors of being circumcised were assessed using univariate and multivariate Generalized Estimating Equations logistic regression to account for study design.

Results

- Of the 9,711 men screened, 5,639 (58.1%) consented to participate in the survey and were enrolled and 2,851 (50.6%) self-reported being circumcised.
- The odds of being circumcised were greater for men with secondary education (adjusted Odds Ratio (aOR)=1.65; 95% CI: 1.45-1.86, $p < 0.001$), post-secondary education (aOR=1.72; 95% CI: 1.44-2.06, $p < 0.001$), and men who were employed (aOR=1.32; 95% CI: 1.18-1.47, $p < 0.001$). However, the odds were lower for men with a history of being married (currently married, divorced, separated, or widowed).

Figure 3: Demographic predictors of circumcision among men 25-39years

Covariate	Prevalence of Circumcision	Univariate Analysis			Multivariate Analysis		
		[†] OR	95% [‡] CI	[§] P-value	[†] aOR	95% CI	[§] P-value
Age group							
25-29*	41.3%	1			1		
30-34	34.4%	0.97	(0.83-1.13)	0.71	1.08	(0.95-1.23)	0.225
35-39	24.3%	0.84	(0.72-0.98)	0.03	0.85	(0.74-0.98)	0.023
Marital Status							
Single*	13.3%	1			1		
Married	84.7%	0.72	(0.58-0.88)	0.002	0.84	(0.70-1.00)	0.050
Divorced/Separated/Widowed	2.0%	0.44	(0.31-0.62)	<0.001	0.59	(0.39-0.87)	0.007
Religion							
Christian*	98.5%	1			1		
Non-Christians	1.5%	2.12	(1.30-3.45)	0.003	2.01	(1.20-3.47)	0.009
Education							
Primary*	53.6%	1			1		
Secondary	33.0%	1.72	(1.52-1.93)	<0.001	1.65	(1.45-1.86)	<0.001
Post-Secondary	13.4%	1.86	(1.57-2.22)	<0.001	1.72	(1.44-2.06)	<0.001
Employment Status							
Unemployed*	63.8%	1			1		
Employed	36.2%	1.39	(1.21-1.61)	<0.001	1.32	(1.18-1.47)	<0.001

[†]Odds ratio (OR)

[‡]Adjusted odds ratio (aOR)

[§]Confidence interval

*Referent group

Conclusions

Among adult men in the rural Nyanza region of Kenya, men with post-primary education and employed were more likely to be circumcised. VMMC providers seeking to improve uptake among men 25-39 years should prioritize the married men with low socio-economic status (low education and unemployed).

SUPPORT: This study was made possible by support from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) through cooperative agreement # 5U2GPS00252 from the U.S. Centers for Disease Control and Prevention (CDC), Division of Global HIV & TB (DGHT).

DISCLAIMER: The findings and conclusions in this poster are those of the authors and do not necessarily represent the official position of the Government of Kenya or U.S. Centers for Disease Control and Prevention.

CROI 2017, Seattle, USA, February 13-16, 2017

