

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

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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).