Do Voluntary Medical Male Circumcision (VMMC) Strategies Increase HIV Testing and Proportion Positive Among Young Men Compared to Non-VMMC Strategies in Kisumu County?

Edwin Mulwa[1,2], Dennis Mboya[1,2], Mary A. Guzé[2,3], George Nyanaro[1,2], Steve Osome[1,2], Michelle Moghadassi[2,3], Jayne Lewis-Kulzer[2,3]

Affiliations

1. Research Care and Training Program (RCTP), Kenya Medical Research Institute (KEMRI), Nairobi, Kenya

2. Family AIDS Care and Education Services (FACES), Kisumu, Kenya

3. Department of Obstetrics, Gynecology, and Reproductive Sciences, University of California San Francisco (UCSF), San Francisco, CA, USA

Word Count: 350

Key Words: HIV, circumcision, Kenya, VMMC, HTS, HIV testing

Introduction: Over half of men with HIV aged 15-34 years in Kenya do not know their HIV status and young men are least likely to seek health services or testing. With HIV incidence among men four times the national average, Kisumu County is in urgent need of male and youth oriented health services. The Voluntary Medical Male Circumcision program (VMMC) provides HIV testing services (HTS) and is offered in both community and clinic settings. This evaluation examined whether VMMC approaches drew younger men for HTS compared to non-VMMC approaches, such as facility-based HTS.

Methods: The Family AIDS Care and Education Services (FACES) in Kisumu County provided HTS as part of VMMC package of services in static, mobile outreach and moonlight sites that were open between 8am-5pm, 2pm-8pm and 6pm-6am respectively. Aggregate non-VMMC HTS data was collected from 62 sites and electronic medical record data was downloaded from 37 VMMC sites between October 2016 and September 2017 for males >9 years of age). Uptake of testing and proportion positive by age groups among VMMC clients was compared to non-VMMC clients using Pearson's Chi-square and Fisher's.

Results: A total of 237,867 males were tested, 40,720 (17.1%) via VMMC testing strategies (23,933 static, 11,451 mobile; 5,336 moonlight). Proportionally, non-VMMC tested fewer males aged 10-24 (53%) compared to VMMC strategies (static 82%, mobile 69%, moonlight 63%), $p<0.001$. Among non-VMMC testing, more males aged 10-24 were identified positive (0.4%) versus VMMC static, mobile, and moonlight strategies (0.2%, 0.2%, 0.1%, respectively), $p<0.001$. Similarly, among ages 25-49, non-VMMC had higher proportion positive (2.2%) versus VMMC static, outreach, and moonlight strategies (0.3%, 0.2%, 0.2%, respectively), $p<0.001$. There was no significant difference in proportion positive for ages ≥50 between non-VMMC (1.78) and VMMC static (2.0), mobile (0) and moonlight (0) strategies, $p=0.48$.

Conclusion: The proportion HIV positive among VMMC was lower for all men aged below 50 compared with non-VMMC testing, consistent with VMMC as a means of HIV prevention. However, compared with non-VMMC

channels, HIV testing through VMMC strategies proportionally reached more young men age 10-24 who are typically at high risk for future HIV infection and transmission.