

# Factors associated with post-operative follow-up after voluntary medical male circumcision at twelve health facilities in five districts in Nyanza Province, Kenya



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## Program Background

- Family AIDS Care and Education Services (FACES)
  - PEPFAR funded, family-focused program
  - Collaboration between Kenya Medical Research Institute (KEMRI) and University of California, San Francisco (UCSF)
  - Operational since September 2004 in Nyanza and Nairobi



Kisumu East District Hospital

- FACES program areas
  - Provider Initiated Testing and Counseling (PITC)
  - Prevention of Mother to Child Transmission (PMTCT)
  - HIV Care and Treatment
  - Voluntary Medical Male Circumcision (VMMC)

## Background

- Voluntary medical male circumcision (VMMC) reduces HIV risk acquisition by up to 60%
- In Kenya, VMMC services has reached over 395,000 men in less than four years
- Current guidelines require a 7-day post-surgery follow-up visit to:
  - Monitor outcomes
  - Identify and treat adverse events (AEs)
  - Reinforce risk reduction and sexual abstinence for 6 weeks post-surgery
- A large proportion of men fail to return for follow-up



## Method

- A retrospective cohort study was conducted
- VMMC data extracted from medical records
  - 11,483 men
  - 12 FACES-supported HIV clinics in Nyanza
  - Between January 2011–August 2012
- Data from men who attended the 7-day follow up visit were compared with those who did not
- Associations between client characteristics and 7-day visit attendance analyzed
  - Logistic regression

## Results - Patient Characteristics

- Among 11,483 clients, the median age was 17 years (IQR; 16-21) and 6686 VMMC operations were performed at clinics in rural/semi-rural regions; 23% attended the 7-day follow-up visit.
- More than half (67%) of clients cited community mobilization as their referral source for VMMC services
- Adverse events (AEs) at 7-day follow-up (FU) were reported by 0.8% men, with only 0.06% being severe.
- There was a small increased likelihood of FU visit per 5-year age increase (OR=1.02; 95%CI 1.01-1.02)

Variables	Results
Median age	17 (IQR; 16-21)
VMMC surgeries in clinics in rural/semi-rural regions	6686 (58%)
Attended 7-day follow up visit	2588 (23%)
Adverse events at 7-day follow-up	95 (0.8%)
Severe	6 (0.6%)
Referral source cited by clients	
Community mobilization	7461 (67%)
Radio	1749 (15%)
Other various sources	917 (8%)

## Results - Associations

- Men were more likely to return if the procedures were carried out at an urban/semi-urban vs. rural clinic (OR=2.60; 95%CI 2.36 - 2.86) and men were less likely to return for 7-day follow-up if referred through mobilization (OR=.67 (0.61 – 0.73)

Associations	OR; 95% (CI)
Age (per 5-year age increase)	1.02; (1.01-1.02)
Urban/semi-urban vs rural/semi-rural clinic	2.60; (2.36-2.86)

## Conclusion

- Clients who underwent VMMC were relatively young, few reported AEs, and post-surgery 7-day follow-up (FU) was infrequent
- Clinic locality influenced 7-day FU visits; urban/semi-urban clinics saw higher 7-day follow-up visits yet the majority of surgeries were in rural clinics
- Although community mobilization prompted VMMC service uptake, it did not influence 7-day FU visit. Innovative interventions for clinic follow-up, particularly in more rural areas, are needed to ensure that VMMC clients are followed-up appropriately

## Limitations

- There could be other factors associated with being an urban male (e.g., education level, socio-economic status, and distance to clinic) that influence attendance at the health facility for a FU visit that were not evaluated

## Recommendations

- Innovative interventions for clinic follow-up may:
  - help improve adverse event ascertainment and;
  - provide an opportunity to reinforce risk reduction and sexual abstinence post-surgery

## Acknowledgements

- To our donors, staff and partners at FACES, KEMRI and UCSF, who continuously support the program and enable its success and to our patients, for whom all efforts are geared towards
- For more information on the FACES programme, please visit [www.faces-kenya.org](http://www.faces-kenya.org)
- This research has been supported by the President's Emergency Plan for AIDS Relief (PEPFAR) through the U.S Centers for Disease Control and Prevention, Division of Global HIV/AIDS under the terms of Coag # 1U2GDP5001913.

Please note: The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

