The Research Question

Are there differences in risk behavior between men who choose vs. decline circumcision?

Do men who are circumcised through the national VMMC Program engage in more risk behavior over time, compared with men who decline circumcision?

Background

Three randomized control trials (RCTs) demonstrated at least 60% protection against HIV acquisition of voluntary male medical circumcision (VMMC). VMMC has also been shown to provide significant protection against the acquisition of other sexually transmitted infections (STI) and human papillomavirus. VMMC provides important reproductive health benefits to men.

Important questions for VMMC programs are:

• How does circumcision affect sexual behavior?

• Does circumcision change risk behavior over time?

• Are there differences in risk behavior between those who choose vs. decline circumcision?

The study tracked sexual risk behavior among men who underwent circumcision through a national VMMC program, with no additional risk reduction counseling provided.

Methods

Three randomized control trials (RCTs) were conducted in Zimbabwe, Kenya, and South Africa. Total N = 2,379 men were enrolled, followed up for an average of 24 months. Participants were from the same target population and were eligible if at least 18 years old, sexually active, HIV-negative, and interested in VMMC.

The study was a longitudinal, prospective, cohort design, with three waves of data collection.

The study included the following measures:

• Baseline demographic characteristics

• Sexual behavior characteristics

• Health outcomes

• Risk compensation

• Economic outcomes

• HIV/STI outcomes

• Substance use

• Mental health

• Social behavior

Data were collected at baseline and at four follow-up waves.

The study used a Generalized Estimating Equation (GEE) analysis to account for the correlation within participants over time.

Results

Men who chose not to get circumcised were more likely to have had an STI symptoms in past 12 months than those who underwent circumcision.

Men who did not choose to get circumcised were more likely to have used alcohol and marijuana than men who chose circumcision.

Conclusions

This is the first and only study of risk compensation among men circumcised through a national VMMC program, with no additional risk reduction counseling provided in the research.

We found no evidence for Risk Compensation after VMMC. Group by Wave interaction results found no evidence that circumcision increased their risk behavior over time to a greater degree than uncircumcised men.

Wave effects indicate increases in 14 risk behaviors among both groups: increased partners, concurrency, drinking, Decreased condom use.

This study coincided with increased availability of ART in Zimbabwe.

Wider availability of treatment may have led men to use HIV as a chronic treatable condition, leading to greater risk among all men.