Acceptability of Tetanus Toxoid Vaccine Prior to Safe Male Circumcision # 1064

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Background

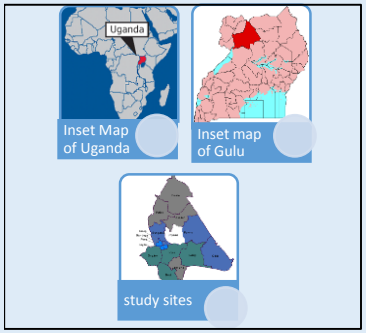
- Safe Male Circumcision (SMC) is part of the national HIV combination prevention strategies
- Its' effectiveness is dependent on reaching 80% eligible male population
- Cases of tetanus reported in SMC programs
- Tetanus toxoid (TT) vaccine strategy introduced for men seeking SMC in Uganda in 2015
- There are concerns that vaccine introduction may affect uptake of SMC in Uganda

Objectives

1. Determine the acceptability of TT vaccine prior to SMC among men in Gulu, Uganda
2. Assess the factors associated with acceptability of TT vaccine prior to SMC among men in Gulu, Uganda

Methods

Figure 1 Shows map of study site



- **Setting:** Gulu district one of the priority areas for accelerated scale up of SMC in Uganda due to high HIV prevalence of 12.8% and circumcision prevalence of 14%. Study was conducted in 10 sub counties

Methods continued

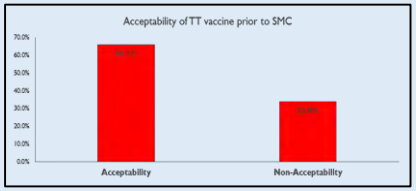
- **Population:** a systematic sample of 685 uncircumcised men aged 18 years and above were interviewed using semi-structured questionnaires. Ten health workers and 2 focal persons for HIV and immunization were also interviewed as key informants
- **Data:** (a) dependent variable was acceptability of TT vaccine prior to SMC, (b) independent variables were: age, place of residence, willingness to get circumcised, knowledge and perception of TT vaccine, distance from vaccination site, and vaccination outreaches.
- **Analysis:** we used STATA version 13. Bivariable and multi variable logistic regression used to determine factors associated with acceptability. Thematic analysis was used for qualitative data.

Results

Table 1 of Respondent Characteristics

Respondent Characteristics		
Variable	**Frequency (n =685)**	**Percentage (%)**
Age group (years)		
15-19	67	9.8
20-24	210	30.7
25-29	161	23.5
30-34	100	14.6
35-39	48	7.0
40-44	37	5.4
45+	62	9.0
Education		
No education	25	3.6
Primary	164	23.9
Secondary	323	47.2
Tertiary	173	25.3
Residence		
Urban	307	44.8
Rural	378	55.2

Figure 2 Shows acceptability of tetanus toxoid vaccine by men prior to SMC



Results continued

Table 2 showing factors associated with acceptability of TT vaccine prior to SMC

Variable	Adjusted Odds Ratio (95% CI)	P value
Knowledge of tetanus and TTV		
Not Knowledgeable	1	
Knowledgeable	2.05(1.04 - 4.04)	0.038
Perception about TT vaccination		
Negative	1	
Positive	0.45(0.24-0.82)	0.01
Vaccination community outreaches		
No	1	
Yes	2.09(1.24 – 3.54)	0.006
Residence		
Urban	1	
Rural	1.93 (1.14 –3.29)	0.015
Ever Received TT vaccine		
No	1	
Yes	2.64(1.76 - 3.97)	< 0.001
Willingness to get circumcised		
No		
Yes	36.64(18.95 – 70.83)	< 0.001

Key findings

- Out of 685 respondents, 66% accepted TT vaccine prior to SMC and more than half (52%) were willing to get circumcised
- TT vaccine acceptability more in rural than urban areas
- Overall knowledge of vaccine was 80.2% but knowledge of recommended doses was only 11.3%
- Main reasons for non-acceptability were: fear of vaccine side effects (33%), vaccine for women (20.3%), and not ready (18.8%)
- Those with good TT vaccine knowledge and had community vaccine outreaches were more likely to accept the vaccine
- TT vaccine implementation challenges were:
  - Vaccine stock outs;
  - Losses to follow up of clients for subsequent vaccine doses;
  - Inadequate funds for transport
  - Limited provider and community awareness on policy change

Conclusions

- Acceptability of TT vaccine prior to SMC by men was sub-optimal
- Knowledge about tetanus and toxoid vaccine and community vaccination outreaches determine acceptability of TT vaccine for SMC
- Poor quality of TT vaccination services hinder acceptability of TT vaccine for SMC.

Implications

With the accelerated scale of SMC, it's important to: **(1)** Develop strategies and plans for community sensitization on TT vaccination of men for SMC, **(2)** Target the use of community based approaches/outreaches of delivery of TT vaccine for men **(3)** Improve the quality of TT vaccination services through consistent vaccine availability, systems for tracing men for subsequent doses, health provider awareness on new TT vaccination policy in SMC **(4)** Evaluate cost effectiveness of integration of TT vaccine in SMC program.

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