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Male Circumcision Pilot Program in Lilongwe, Malawi

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Abstract

Male circumcision is one method of effective prevention against HIV/AIDS. In Malawi, however, male circumcision is not the predominant practice. Project Malawi conducted a pilot program of male circumcision for villagers with fully subsidized operation costs. After we conducted sensitization programs to create demand for circumcision, the rate of male circumcision has increased. This pilot project allowed us to consider the acceptability of male circumcision in Malawi. Unsafe surgery, a long recovery period, religious beliefs, and age were the most-cited reasons Malawians rejected male circumcision. We also have found three critical barriers—operation cost, transportation cost, and opportunity cost—which can largely explain the limited accessibility of male circumcision procedures. Lastly, in order to scale up male circumcision in Malawi, the importance of delivering the complete information and significant availability issues need to be addressed.

Author's Note

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Key Words: Male circumcision, HIV/AIDS, Acceptability, Accessibility, Malawi.

1. Introduction

Male circumcision, the surgical removal of the foreskin of the penis, is one of the oldest and most common surgeries in the world. It is typically performed for social, cultural, religious or medical reasons. Since male circumcision was indicated as possible protective measure heterosexual HIV transmission in 1986, many studies have shown a negative correlation between male circumcision and HIV prevalence in Africa (Weiss, *et al.* 2008, Westercamp, *et al.* 2007). It was significant that three recent studies based on randomized controlled trials in South Africa, Kenya, and Uganda suggested up to a 60% reduction in heterosexually-acquired HIV infection among circumcised men (Auvert *et al.* 2005, Bailey *et al.* 2007, Gray *et al.* 2007). Finally, in 2007, UNAIDS and the World Health Organization strongly recommended male circumcision as a key strategy for reducing female to male transmission of HIV, particularly in regions where the incidence of heterosexually-acquired HIV infection is high, such as Sub-Saharan Africa. Moreover, considering the lifelong benefits, male circumcision is currently considered the most cost-effective and sustainable prevention against HIV/AIDS (Galárraga, O. *et al.* 2009).

Malawi, a landlocked country in southeastern Africa, has one of the highest prevalence rates of HIV/AIDS in the world. The 2010 UNAIDS HIV report

indicated that HIV prevalence in Malawi in 2009 was 11%, which is more than twice that of the Sub-Saharan African average (5%) and thirteen times higher than the world average (0.8%). Nearly one million people are estimated to live with HIV, and many of those do not know they are infected. Furthermore, every year 73,000 people are newly infected with HIV, and the primary mode of HIV transmission is unprotected heterosexual intercourse, which accounts for 88% of HIV infections in Malawi.

According to the 2010 Male Circumcision Situation Analysis Report in Malawi (henceforth referred to as “the Situation Report”), only one in five men reports that he has been circumcised, which demonstrates that male circumcision is not a predominant practice in Malawi (Bengo *et al.*, 2010). Moreover, many of those circumcised may not have the full benefits of male circumcision because most circumcisions in Malawi follow traditional procedures, which, unlike medical circumcision operations, do not completely remove the foreskin.

The Situation Report also tells us that a majority of Malawians know the definition of male circumcision, but it is primarily understood in its cultural and religious context. Muslims and members of the Yao tribe are circumcised to conform to Islamic tradition. Muslims and Yaos account for 12% and 13% of Malawian males respectively (MDHS, 2010), and a majority of them inhabit the southern and lakeshore districts of Malawi. Therefore, male circumcision in Malawi is regarded as a religious or tribal ritual in the southern region of Malawi and is not readily accepted by other ethnic and religious groups. However, the Situation Report also suggests that once people receive complete information about male circumcision, particularly regarding preventive benefits against HIV and the affordable operation cost, willingness to accept male circumcision significantly increases.

2. Project Malawi and Male Circumcision Pilot Program

2.1 Project Malawi

Project Malawi was started in 2010 in conjunction with the South Korean government as the Daeyang Luke Hospital’s¹ community outreach program in the Lilongwe area for HIV/AIDS prevention for mother and child. For HIV/AIDS prevention, Project Malawi provides the most effective interventions for the secondary students within the hospital’s catchment area. It provides services according to UNAIDS and WHO’s recommendations, which include the following: 1) free voluntary male circumcision, 2) HIV/AIDS education and 3) HIV Voluntary Counseling and Testing. In order to evaluate the impact of these three interventions, this project plans a controlled trial of male circumcision for secondary school students in the Lilongwe area.

2.2 Male Circumcision Pilot Program

¹ Daeyang Luke Hospital is a mission hospital founded in March, 2008 and is one of the best hospitals in Lilongwe, Malawi, with more than 150 beds for inpatients. The hospital is responsible for the health care of approximately 70,000 people who reside in the hospital’s catchment area.

In preparation for the main intervention—male circumcision for students—Project Malawi staff tried to learn how to create demand for male circumcision and streamline the logistics of the circumcision operation. Hence, we decided to conduct a pilot program of male circumcision. We provided fully subsidized male circumcision operations for villagers in the neighborhoods of the hospital during the months of June to September of 2011. Considering the low perceived acceptability of male circumcision for most Malawian males, with the exception of Muslims and Yaos, the pilot program needed to start with a sensitization program to provide villagers with information about the health benefits of male circumcision and a free operation at the hospital. We started the sensitization programs through the neighboring health centers, which are located within the Daeyang Luke Hospital's catchment area. For the first four sensitization programs at the health centers, however, we could not find our target audience, adult men, but only saw mothers with children in need of medical care. Therefore, at the recommendation of the health center directors and our local staff members, we decided to visit local markets instead of the health centers. Many adult male villagers are unemployed or employed in the informal sector, so they spend their most of their daytime in markets.

In order to attract public attention in markets, we created a one-and-half-hour sensitization program consisting of songs, information and Q&A sessions, and two skits (short dramas). The first skit informed people about the health benefits of male circumcision and how to be provided with a free circumcision operation at Daeyang Luke Hospital. The information session explained in detail the benefits of male circumcision and other HIV/AIDS prevention strategies. The second skit emphasized the importance of voluntary HIV/AIDS counseling and testing. Lastly, there was a Q&A session to discuss common misconceptions about male circumcision. We distributed brochures explaining the benefits of male circumcision and directions for getting the free operation, and we put up posters in the market. We completed sixteen sensitization programs at ten neighboring markets and four health centers between the first week of June and the third week of July. For every sensitization program at local markets, about three hundred brochures were distributed to adult men and housewives, and more than one hundred audience members stayed throughout the program.

2.3 Sensitization Created Demand for Male Circumcision

Daeyang Luke Hospital performed approximately five male circumcisions per month in 2010 and 2011 before this pilot program started. The first four sensitization programs at the health centers were apparently not effective because only four patients visited during the first two weeks of the program, and all of them were unaware that the operation was free of charge. From the fourth week of June after the fifth market sensitization program, however, the number of male circumcision operations at the hospital drastically increased. On average, fifteen men were registered and four patients got circumcised every week. Eventually, in July, the hospital expanded its operation capacity to twelve cases per week to meet the greater demand. For the three months from June to August, 158 men were registered for the operation, and 99 were circumcised.

Among the 99 circumcised, eighteen people were younger than 10 years old, twenty were between 10 and 20 years old, and the majority, 61, were over 20 years old. We did not ask for patients' religion, but given that most Yao's circumcisions are performed for the young boys between 7 and 15 years old, most of the people over 20 years old were not likely Yao or Muslim. Out of the 80 men surveyed, 60 men responded that they were at the sensitization programs. They watched our sensitization program, read the brochure, or saw the posters. Word of mouth also played an important role. Eighteen men came to know about the free circumcision thanks to friends or neighbors who were at the sensitization programs or heard of the free circumcision. The others heard of the information from the clinical officers at the health centers.

3. Acceptability of Male Circumcision in the Villages

For each sensitization program, we had a Q&A session for about twenty minutes and answered seven to ten questions from a diverse audience ranging from teenage boys to old women. Letting villagers express their deepest concerns after they were provided with relevant information in the previous session allowed us to consider the villagers' level of acceptance of male circumcision.

We have categorized the most frequently asked questions into four categories of reasons villagers might be against male circumcision based on the acceptability study of male circumcision in Malawi (Ngalande *et al.* 2006). The most commonly expressed reasons against male circumcision were 1) Unsafe Procedure of Male Circumcision, 2) Pain and the Healing Period, 3) Religion and 4) Preferred Age. In addition, we asked the men who were circumcised at the hospital about what would have prevented them from being circumcised in the post-operation survey.

(1) Unsafe Procedure of Male Circumcision

The acceptability study reveals that the most critical barrier against male circumcision is the perception that the procedure is unsafe. The most frequently asked question during our sensitization programs was about the possible adverse effects. 23 of the 80 circumcised men responded in the post-operation survey that the risks of the surgery were their greatest fear regarding circumcision. Since most male circumcisions in Malawi are performed at Muslim or Yao's traditional facilities, most people perceive male circumcision as not a medical operation but a part of complex initiation ceremonies. In addition, the operations performed by traditional circumcisers in unsterile environments can cause excessive bleeding and other side effects. Therefore, little knowledge about the operation and concerns about side effects have discouraged people in other ethnic or religious groups from accepting male circumcision as a viable practice.

(2) Pain and the Healing Period

The acceptability study suggests that pain during the operation does not serve as a critical barrier to male circumcision. Instead, the pain after the procedure and the six-weeks of required abstinence seem to be more crucial in deterring men from circumcision. During the sensitization programs, we observed that the adult men who were particularly interested in male circumcision were seriously worried about the abstinence after the operation. Given that the benefits of male

circumcision are insufficiently perceived, the compulsory abstinence for six weeks can be regarded as a considerable sacrifice for sexually active adults.

(3) Religion

The study reveals that religion can partially account for a man's circumcision status and acceptance of circumcision. Since male circumcision in Malawi is performed mainly among Muslims as a religious tradition, many Christians (who account for approximately 80% of the population) do not approve of male circumcision as a righteous procedure (MDHS, 2010). Our interviews with the villagers who are not Muslims also confirm the study's observation. They agreed that getting circumcised is associated with Muslim tradition and so is regarded as a sort of renunciation of one's religious beliefs. Household heads and teenagers whose decisions are significantly influenced by the family or village headman showed particularly high intolerance to male circumcision. Contrary to the generally negative view of male circumcision among interviewees, there were a few villagers who asked about a religious legitimacy of male circumcision during the sensitization programs. Furthermore, 61 of the 80 circumcised men answered in the survey that they decided to get circumcised because of its health benefits regardless of their religious or cultural tradition.

(4) Preferred Age

The question that particularly attracted our attention during the sensitization programs was about the preferred age of male circumcision. Many people thought that men should be circumcised as young boys and that the operation is not appropriate for adult men. The acceptability study also reveals that opinions on the drawbacks and benefits of circumcision can be affected by the age at which the circumcision is performed. Because traditional male circumcision in Malawi is performed primarily for boys who are between 7 and 15 years old as a rite of passage, people think that the operation is not proper for adult men. However, our pilot program has involved a majority of adult men—61 of the 99 circumcised were men over the age of 20.

4. Poor Accessibility to Medical Male Circumcision

Even after people realize the health benefits of male circumcision and hope to get circumcised, they often find that the operation is not easily accessible due to its substantial cost (Ngalande *et al.* 2006, Bengo *et al.* 2010). The acceptability study reveals that a great majority of the respondents were concerned with high costs that include not only payment to the operator but other costs associated with the procedure and the healing process. From this pilot project, we have found three critical barriers that make male circumcision less accessible: operation cost, transportation cost and opportunity cost.

(1) Operation cost

The National AIDS Commission of Malawi has estimated that the marginal cost of medical male circumcision is MK1,200 (about \$7), excluding indirect costs. In the case of Daeyang Luke Hospital, the male circumcision costs amount to at least MK2,000 (about \$11), including the operation, medication and postoperative check-ups. It is a substantial burden for ordinary Malawians considering that about 75% of the population lives on less than \$1 a day. According to the Situation Report, over a

third of the respondents indicated a reluctance to pay for circumcision, and about two thirds indicated a willingness to pay up to MK1,000 (about \$6). Lack of trained doctors (especially surgeons) and medical supplies make the cost too high for many people to afford the operation (Bengo *et al.* 2010).

(2) Transportation Cost

In addition to the operation cost of male circumcision, indirect burdens such as high transportation costs substantially decrease the accessibility to male circumcision services at Daeyang Luke Hospital. Even though we conducted the sensitization programs at the markets located in the vicinity of the hospital, we found some men could not visit the hospital because they were not able to afford transportation. The distances from the hospital to most of the markets and health centers that we visited are less than 6 km. However, the minimum transportation cost is as high as MK150 (about \$0.80), and it ranges up to MK300 (about \$1.70) and above based on the distance to paved roads and other factors. Furthermore, considering the circumcised men are discharged from the hospital right after the surgery and experience high levels of pain, it is not an option for them to travel back home by foot or bicycle.

(3) Opportunity Cost

Project Malawi team has tried to examine how much time is spent for the male circumcision operation and found that inefficiencies during the process incur a substantial opportunity cost. Due to poor transportation networks, it takes at least a half an hour to travel to the hospital even for the people who live in the nearest villages. In the hospital, patients need to wait for about five hours on average to have pre-check-ups including HIV and hemoglobin tests before the circumcision operation, which itself only takes 40 minutes. In total, the patients need to spend at least six hours for the surgery, time they could spend at work or school. Moreover, the patients need to revisit the hospital and spend additional hours there for post-operation check-ups. Daeyang Luke Hospital is one of the best-equipped hospitals in Malawi, and other health facilities operate with greater inefficiencies. This highlights the many barriers to male circumcision that ordinary Malawians face.

5. Discussions to Scale Up Male Circumcision

Since male circumcision has been proven to be an effective prevention against HIV/AIDS, international organizations have set ambitious goals to encourage male circumcision in Sub-Saharan African countries, scaling-up male circumcision to reach 80% of adult males. Malawi is one of the thirteen Southern and Eastern African countries indicated for the male circumcision scale-up by UNAIDS and the WHO, but it has not made significant progress in developing its country-level strategy compared to its neighboring countries. With such a challenging goal ahead, our pilot program of male circumcision in Malawi suggests the following agendas must be discussed: 1) Delivering Complete Information Regarding Male Circumcision, 2) Externalities of Decision-Making About Male Circumcision and 3) Financial Subsidies and Expanding Capacities.

(1) Delivering Complete Information Regarding Male Circumcision

The Situation Report argues that implementing male circumcision as an HIV prevention strategy in Malawi will require a very dramatic generation of demand to

further the spread of the practice. It also suggests that people will change their perceptions on the acceptability of male circumcision if the right information is provided. Since the official prevention strategy against HIV/AIDS in Malawi is “ABC” (Abstain from sex, Be faithful, use a Condom), the efficacy of male circumcision against HIV/AIDS has not been prioritized or sufficiently explained. Therefore, a majority of the respondents of the Situation Report knew the definition of male circumcision, but few precisely understood its health benefits, especially its preventive effect against HIV/AIDS. However, once they became aware of the preventive benefits against HIV/AIDS, their support for circumcision substantially increased. The result of our pilot project in the Lilongwe area also suggests that it is important to deliver complete information about medical male circumcision. After the sensitization programs, the number of circumcision operations increased, and 54 of the 80 circumcised answered in the survey that their primary reason for undergoing circumcision was knowledge of the health benefits and the safety of the medical circumcision, information they received from the sensitization program.

However, we have also recognized that incomplete information about male circumcision can be dangerously misleading. A few villagers believed that male circumcision leads to an increase in one’s sexual ability or provide complete immunity against HIV/AIDS. Based on such responses, the acceptability study notes that promotion of male circumcision could result in men engaging in riskier sex after circumcision—such as unprotected sex with multiple partners. Therefore, the promotion of male circumcision should deliver complete information explaining that it is only partially protective against HIV infection. This must remind us of the importance of the combined prevention strategies against HIV infection. The effectiveness of the male circumcision scale-up strategy, if combined with HIV education or voluntary counseling and testing, should be further investigated (Merson *et al.* 2008, Hogan *et al.* 2005).

(2) Externalities of Decision-Making About Male Circumcision

If the scale-up strategy aims at increasing the male circumcision of a specific age group, such as teenage boys or adult men, we need to consider different decision-making processes among age groups. We have observed that given the same information about the health benefits of male circumcision, the decision-making process seems quite different among people depending on one’s age. For example, even though there were many housewives who wanted their neonatal or infant children to be circumcised and did register for the operation, most of them did not show up. This can be partly explained by the fact that the decision on a young boy’s circumcision is not made solely by his mother, but primarily by the family headman or village headman. In case of a young adult man, however, his decision-making seems relatively independent from other family members. Rather, it is considerably influenced by his sexual partners’ or peer group’s opinions. For instance, one young college student we interviewed showed negative sentiments about circumcision because it is not acceptable in his religious community. However, he decided to get circumcised shortly after all his classmates were circumcised at the hospital. Given that those externalities exist, the scale-up strategies will not be successful without further investigations about the different factors that critically influence one’s decision on circumcision.

(3) Financial Subsidies and Expanding Capacities

In addition to indicating current low acceptability, our pilot program suggests that the operation cost and incurred indirect cost could be the most critical factors that discourage people from getting circumcised. Thus, the scale-up strategy should consider subsidizing not only operation costs but also indirect costs such as transportation and the opportunity cost of lost wages. Providing transportation vouchers with subsidized operation costs could attract more men than our pilot project, though the optimal combination of financial supports requires further study. The mobile male circumcision clinic could be a good solution to lower the indirect or opportunity cost for remote villagers, provided that confidentiality of circumcision in the local communities can be maintained by providers (USAID PEPFAR 2009).

We hope that providing not only the right information but also the proper financial assistance can substantially boost demand for male circumcision in Malawi. However, dramatically scaled-up male circumcision might end up being an elusive goal without more extensive support in solving availability issues. Even though Daeyang Luke Hospital is relatively resourceful in terms of professional medical staff, equipment and consumables for operations, it was not easy to expand its male circumcision operation capacity due to lack of medical doctors and supplies. Therefore, in addition to creating demand for male circumcision, expanding and improving the capacity of existing health facilities is another serious issue that must be addressed in order to promote male circumcision in Malawi.

Appendix



Figure 1: The first skit is performed at the *Kauma* market.



Figure 2: Villagers view the male circumcision posters at the *Senti* market.



Figure 3: A man asks a question about male circumcision at the Area 25-A market.

Mon	Tue	Wed	Thu	Fri
JUNE 6 AREA 18 HC	7 CHIWAMBA HC	8	9 DZENZA HC	10 AREA 25 HC
13	14 AREA 25-A MARKET	15 AREA 25-B MARKET	16 MSUNGWI MARKET	17
20	21 MCHEZI MARKET	22 MGONA MARKET (1)	23	24 CHIMOKA MARKET
27 MGONA MARKET (2)	28	29 SENTI MARKET	30	JULY 1
4	5	6 MAKATANI MARKET	7	8
11	12	13 KAUMA MARKET	14 DUBAI MARKET(1)	15
18	19 DUBAI MAREKT(2)	20	21	22

Table 1: Male Circumcision Sensitization Program Schedule in June and July

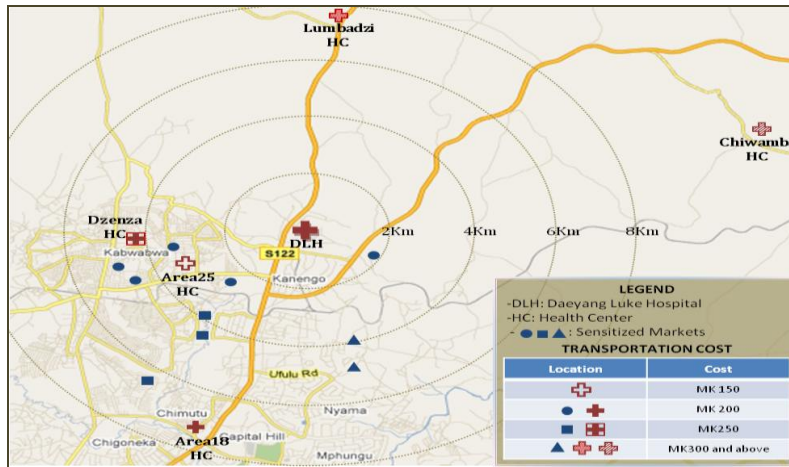


Figure 4: Map of sensitized markets and health centers in Lilongwe and the transportation costs from those places to the hospital

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