

Rebecca Thornton  
Susan Godlonton  
Jobiba Chinkhumba  
Rachael Pierotti

# Scaling up male circumcision service provision

Results from a randomised evaluation  
in Malawi

July 2014

Impact  
Evaluation  
Report 13

Health



International Initiative  
for Impact Evaluation

## About 3ie

The International Initiative for Impact Evaluation (3ie) was set up in 2008 to meet growing demand for more and better evidence of what development interventions in low- and middle-income countries work, how and why. By funding rigorous impact evaluations and systematic reviews and by making evidence accessible and useful to policymakers and practitioners, 3ie is helping to improve the lives of people living in poverty.

## 3ie Impact Evaluations

3ie-supported impact evaluations assess the difference a development intervention has made to social and economic outcomes. 3ie is committed to funding rigorous evaluations that include a theory-based design, use the most appropriate mix of methods to capture outcomes and are useful in complex development contexts.

## About this report

3ie accepted the final version of this report, *Scaling up male circumcision service provision: results from a randomised evaluation* in March 2014 as partial fulfilment of requirements under grant OW2.165 issued under Open Window 2. The content has been copyedited and formatted for publication by 3ie. Due to unavoidable constraints at the time of publication, a few of the tables or figures were left as submitted by the authors. All of the content is the sole responsibility of the authors and does not represent the opinions of 3ie, its donors or its board of commissioners. Any errors and omissions are also the sole responsibility of the authors. All affiliations of the authors listed in the title page are those that were in effect at the time the final report was accepted. Any comments or queries should be directed to the corresponding author, Rebecca Thornton, [rebeccal@umich.edu](mailto:rebeccal@umich.edu).

Funding for this impact evaluation was provided by 3ie's donors, which include UKaid, the Bill & Melinda Gates Foundation, Hewlett Foundation and 12 other 3ie members that provide institutional support. A complete listing is provided on the [3ie website](#).

Suggested citation: Thornton, R, Godlonton, S, Chinkhumba, J, and Pierotti, R, 2014. *Scaling up male circumcision service provision: results from a randomised evaluation in Malawi, 3ie Impact Evaluation Report 13*. New Delhi: International Initiative for Impact Evaluation (3ie).

3ie Impact Evaluation Report Series executive editors: Jyotsna Puri and Beryl Leach

Managing editor: Beryl Leach

Assistant managing editor: Kanika Jha

Production managers: Lorna Fray and Omita Goyal

Assistant production manager: Rajesh Sharma

Copy editor: Sarah Chatwin

Proofreader: Proteeti Banerjee

Cover design: John F McGill

Printer: Via Interactive

Cover photo: Thomas Mandlmeier/Deutsche Welle

© International Initiative for Impact Evaluation (3ie), 2014

# **Scaling up male circumcision service provision: results from a randomised evaluation in Malawi**

Rebecca Thornton  
University of Michigan

Susan Godlonton  
University of Michigan

Jobiba Chinkhumba  
University of Malawi

Rachael Pierotti  
University of Michigan

**July 2014**  
**3ie Impact Evaluation Report 13**



**International Initiative  
for Impact Evaluation**

## **Acknowledgements**

Research discussed in this publication has been funded by the International Initiative for Impact Evaluation, Inc. (3ie) through the Global Development Network (GDN). The views expressed in this article are not necessarily those of 3ie or its members. Funding for this study was provided by 3ie, and the Rackham Graduate School at the University of Michigan. The authors gratefully acknowledge use of the services and facilities of the Population Studies Center at the University of Michigan, funded by NICHD Center Grant R24 HD041028. We are grateful for the hard work and cooperation of our partner clinic and especially Brendan Hayes. We acknowledge the extensive contributions of the field team including Eirin Forsund, Victor Kanje, Ernest Mlenga, Ephraim Mwaipopo, Christopher Nyirenda, Justin Schon, Kelvin Balakasi, Thandizo Shaba, Hector Chilimani, Ronald Manjolo, Matthews Mfunne and Collins Zamawe. We also thank the Developmental Idealism Studies Project at the University of Michigan Population Studies Center, as well as helpful contributions from Taryn Dinkelman, David Lam, Emily Oster, Nancy Padian and Jeff Smith.

## **Executive summary**

As governments and non-governmental organisations in Sub-Saharan Africa attempt to reduce the spread of the human immunodeficiency virus (HIV), voluntary medical male circumcision is being suggested as one important strategy. However, despite the rigorous medical evidence suggesting medical male circumcision is important for HIV prevention, no studies have yet examined how information and monetary costs affect the demand for circumcision from uncircumcised men. This information can help to inform policymakers, health workers and governments as to which policies might most effectively increase circumcision rates.

This study is among the first population-based surveys to collect baseline data about circumcision practices, beliefs and attitudes among men. While previous studies on the effectiveness of circumcision have included randomised controlled trials, previous studies on the demand for circumcision have typically been cross-sectional, comparing those who report that they are willing to become circumcised with those who report that they are not. This approach crucially omits variables that may bias causal inferences, making it impossible to accurately predict the effects of policies aimed at increasing circumcision. These studies also rely on reported intentions rather than actions.

Only by conducting and assessing a rigorous randomised policy intervention can investigators ensure proper comparison groups with which to make accurate predictions of what determines the demand for circumcision. In this study, we randomise prices of the surgery and the information that medical male circumcision is associated with lower HIV risk. Additionally, our qualitative interviews give additional insight into the decision-making process for getting circumcised. This evaluation aims to fill the gap in knowledge about the demand for voluntary medical male circumcision.

# Contents

<b>Acknowledgements</b> .....	<b>ii</b>
<b>Executive summary</b> .....	<b>iii</b>
<b>List of figures and tables</b> .....	<b>v</b>
<b>Abbreviations and acronyms</b> .....	<b>vi</b>
<b>1. Introduction</b> .....	<b>1</b>
1.1 Summary of evaluation approach and research questions .....	1
<b>2. Background and context</b> .....	<b>2</b>
2.1 Male circumcision and HIV prevention .....	2
2.2 Cultural practices and prevalence .....	3
2.3 Access to medical male circumcision in Malawi .....	4
2.4 Measuring the demand for medical male circumcision .....	4
<b>3. Intervention and evaluation</b> .....	<b>5</b>
3.1 Data collection methods .....	5
3.2 Analysis methods .....	8
<b>4. Results</b> .....	<b>9</b>
4.1 Sample characteristics at baseline and follow-up .....	9
4.2 Take-up of voluntary medical male circumcision .....	10
4.3 Determinants of take-up .....	13
<b>5. Recommendations and conclusions</b> .....	<b>19</b>
<b>Appendix A: Sample design</b> .....	<b>22</b>
<b>Appendix B: Survey instrument – household listing</b> .....	<b>23</b>
<b>Appendix C: Survey instrument – baseline survey</b> .....	<b>24</b>
<b>Appendix D: Survey instrument – follow-up survey</b> .....	<b>37</b>
<b>Appendix E: Power calculations</b> .....	<b>52</b>
<b>References</b> .....	<b>53</b>

## List of figures and tables

Figure 1 Voucher randomisation.....	6
Figure 2 Information randomisation.....	6
Figure 3 Response to prices.....	12
Figure 4 Response to information.....	13
Figure 5 Reasons against medical male circumcision.....	16
Figure 6 Power calculation for different sample sizes.....	52
Table 1 Percentage of men circumcised in Malawi.....	3
Table 2 Voluntary medical male circumcision take-up.....	11
Table 3 Attitudes toward circumcision.....	18

## **Abbreviations and acronyms**

AIDS	Acquired Immunodeficiency Syndrome
CHAM	Christian Health Association of Malawi
HIV	Human Immunodeficiency Virus
MDHS	Malawi Demographic Health Survey
MWK	Malawi kwacha
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organization



## 1. Introduction

Recent randomised controlled trials have found that medical male circumcision significantly and substantially lowers the likelihood of contracting HIV for men (Auvert *et al.* 2005; Bailey *et al.* 2007; Gray *et al.* 2007; National Institutes of Health 2006). Governments across Africa, as well as multilateral organisations such as the World Health Organization (WHO) and the United Nations, have begun discussing strategies for scaling up medical male circumcision efforts.

While these agencies view medical male circumcision as an important HIV prevention strategy, there are high costs associated with implementation, raising the question of what proportion of the costs could be borne by individuals wanting to protect themselves or their sexual partners, and what proportion of the costs should be subsidised by the government. No study has yet measured how the demand for medical male circumcision responds to prices, informing governments and organisations as to the optimal price to charge or the optimal amount to subsidise. Moreover, very little is known about how information detailing the link between medical male circumcision and reduced risk of HIV affects this demand.

Success in rolling out medical male circumcision in high-priority countries depends on the demand for voluntary medical male circumcision (VMMC), but the decision of how or where to roll out these programmes depends crucially on the cost-effectiveness of this strategy for HIV prevention. Simulations from epidemiological models have suggested that VMMC is cost-effective and that scaling up to 80 per cent male circumcision coverage could avert approximately 22 per cent of forecast HIV infections through 2025, and result in a net saving of US\$16.51 billion (Njeuhmeli *et al.* 2011).<sup>1</sup>

However, these calculations depend crucially on the ability to reach scale (80 per cent coverage is more than 20 million men), and depends on the types of men who choose to become circumcised. In particular, the benefit of male circumcision is maximised when men who are most at risk of HIV infection are first adopters. If men who are least at risk of infection are more likely to take up circumcision, cost-effectiveness estimates will have overestimated the benefits of scale-up.

Malawi provided a good opportunity to explore these questions. Not until October 2011 (after the baseline survey in this evaluation) did the government adopt VMMC into its national strategic plan for HIV prevention. Thus, the number of providers of VMMC was limited, as was the level of media coverage and information about HIV and male circumcision. This report presents findings of an impact evaluation conducted in the catchment area of a private provider of VMMC during 2010 and 2011.

### 1.1 Summary of evaluation approach and research questions

The main goals of this evaluation were to assess how information and price affects the demand for VMMC. The study introduced experimental components in which individuals were allocated vouchers of varying amounts for a discount on a medical circumcision and randomly allocated comprehensive information about HIV risk and male circumcision;

---

<sup>1</sup> See also UNAIDS/WHO/SACEMA 2009; Hankins *et al.* 2011; Nagelkerke *et al.* 2007; White *et al.* 2008; Williams *et al.* 2006.

this allowed us to study the causal effects of these interventions on take-up of VMMC. Our evaluation enables evidence-based recommendations with respect to stimulating demand and targeting the rollout of VMMC. Additionally, the evaluation provides updated cost–benefit estimates of scaling up this programme.

The following are several key research questions for this project:

- How does comprehensive information about VMMC affect the demand?
- How does price affect demand for VMMC?
- What types of individuals are more likely to adopt VMMC?

We also implemented qualitative research methods to better understand the decision-making process for choosing surgery. These results complement the findings from the quantitative component of the study.

## **2. Background and context**

### **2.1 Male circumcision and HIV prevention**

It is estimated that more than 40 million people are currently infected with HIV, the majority of whom live in Sub-Saharan Africa. Despite progress with HIV prevention strategies in a small number of countries, HIV and AIDS (acquired immunodeficiency syndrome) continues to spread (USAID 2005). However, recent randomised controlled trials in South Africa, Kenya and Uganda have provided strong evidence that male circumcision may provide an important way of reducing the spread of HIV infection.

The South African trial was carried out among HIV-negative men aged 18–24 years. Approximately half were randomly assigned to be offered circumcision surgery, while the remainder were left uncircumcised (Auvert *et al.* 2005). After 12 months, researchers found a 61 per cent reduction in risk in men who had received circumcision, when adjusted for behaviour factors. The trial in Kenya resulted in a 53 per cent reduction of HIV infection in circumcised men relative to uncircumcised men, while the trial in Uganda resulted in a 48 per cent reduction in HIV infection (National Institute of Health 2006). All participants in the three studies were extensively counselled in HIV prevention and risk-reduction techniques.

The findings were so dramatic that each study was halted earlier than scheduled on the grounds that it would be unethical to proceed without offering the same procedure to the un-circumcised control group. Anthony Fauci, director of the US National Institute of Allergy and Infectious Diseases, reported,

These randomized studies confirm and show definitively that medically performed circumcision can significantly lower the risk of adult males to contracting [*sic*] HIV. While the initial benefit will be fewer HIV infections in men, ultimately adult male circumcision could lead to fewer infections in women in those areas of the world where HIV is spread primarily through heterosexual intercourse' (NIH 2006).

It has since been noted by experts that these findings also suggest that circumcision can be safely done in Africa. Fauci reported that circumcision is safe and effective 'when performed by medically trained professionals and when patients receive appropriate care during the healing period following surgery' (NIH 2006).

## 2.2 Cultural practices and prevalence

Circumcision is not only one of the oldest surgical procedures in the world, with records of the practice dating back to pre-Egyptian times, it is also one of the most commonly practised for both religious and non-religious reasons (Marck 1997; Doyle 2005). Studies have shown that, overall, 62 per cent of adult males in Africa are circumcised (Drain *et al.* 2004). There is historical evidence of circumcision as a general practice in all areas of Africa, but especially among the Bantu language groups, comprising the largest linguistic group in Africa. Most often among Bantu speakers, male circumcision is associated with adolescent initiation ceremonies and is seen as a rite of passage from childhood to manhood. Among certain groups, men must become circumcised before they can marry or participate in making community decisions (Marck 1997).

**Table 1 Percentage of men circumcised in Malawi**

<b>Ethnicity</b>	<b>Mean</b>	<b>Obs.</b>
Chewa	0.09	973
Tumbuka	0.02	326
Lomwe	0.33	612
Tonga	0.06	70
Yao	0.86	462
Sena	0.07	114
Nkonde	0.10	41
Ngoni	0.04	327
Other	0.21	252
Total	0.24	3,177
Source: MDHS 2004		

In Malawi, as in other African countries, circumcision is highly correlated with religion and ethnicity. According to the Malawi Demographic Health Survey (MDHS) in 2004, an average of 24 per cent of men reported being circumcised (Table 1). This is highly correlated with ethnic group, with the majority (86 per cent) of the Yao ethnic group being circumcised, as well as a significant percentage of Lomwes (33 per cent). Circumcision rates are also highly correlated with religion: approximately 93 per cent of Yaos in Malawi are Muslim, as opposed to less than 2 per cent among other ethnic groups (MDHS 2004).

In Malawi, the Yao and the Lomwe typically practise initiation ceremonies for adolescent boys that include circumcision, as well as rituals involving receiving instruction for future life as a man (Stannus and Davey 1913). Other groups in Malawi practise initiation ceremonies, such as the *Gule wamkulu* or *virombo* among the Chewa, although this does

not involve circumcision. In a recent study in Malawi, 21 per cent of boys were circumcised between the ages of 15 and 19 years (Munthali and Zulu 2007). It should be noted that approximately 80 per cent of youth in Malawi have had sex before the age of 18 years, suggesting that, in terms of using circumcision as an HIV-prevention strategy, earlier ages of circumcision might be more optimal (Biddlecom *et al.* 2007).

### **2.3 Access to medical male circumcision in Malawi**

**Malawi's national strategy to scale up** medical male circumcision – not adopted until 2011, well after this evaluation – has outlined a two-pronged approach: short-term intensive campaigns in target areas, and building circumcision delivery capacity within existing health providers. These providers include Ministry of Health facilities, Christian Health Association of Malawi (CHAM), and non-governmental organisations and private-sector providers (Lawson *et al.* 2008). CHAM and non-governmental facilities typically charge a small fee for their services, which varies by facility. Government facilities officially offer free medical male circumcisions, if the trained personnel are available.

However, in most facilities, VMMC is not available (at least at the time of this evaluation). The Malawi Circumcision Situational Analysis was commissioned by the National AIDS Commission and conducted in 2010 to assess the potential capacity of service providers. That study found that less than 30 per cent of the mission and community hospitals had the capacity to offer VMMC (Bengo *et al.* 2010). Additionally, 'only 4 per cent of the country's medical staff have been trained to carry out the surgical procedure', according to top health officials (IRIN Plus News 2012).

### **2.4 Measuring the demand for medical male circumcision**

Several studies have examined the acceptability of circumcision. One study in South Africa found that 70 per cent of uncircumcised men reported that they would want to be circumcised if it were proven to be protective against sexually transmitted diseases (Lagarde *et al.* 2003). Other similar studies in South Africa, Kenya, Malawi and Zimbabwe found positive attitudes towards circumcision (Nnko *et al.* 2001; Bailey *et al.* 2002; Halperin *et al.* 2002; Rain-Taljaard *et al.* 2003; Ngalande *et al.* 2006). The typical approach in these studies is to ask uncircumcised men if they would be willing to get circumcised. According to acceptability studies across 13 Sub-Saharan African countries, the median willingness to get circumcised was 65 per cent (Westercamp and Bailey 2007). However, given that these are hypothetical questions and answers, it is unclear how these results translate into actual circumcisions (Westercamp and Bailey 2007; Muula 2007).

Between 2008 and 2010, 3,119 medical male circumcisions were reported to have been conducted in facilities across Malawi. This number pales in comparison with the target of 80 per cent circumcision coverage, which would entail circumcising 2 million men in Malawi (WHO 2011). The number of medical male circumcisions conducted might be a proxy for demand, but may also reflect the limited access and lack of supply. Most statistics on VMMC that are reported only provide the number of men circumcised, and do not provide information on how many men chose not to get circumcised; we are missing the denominator that is needed to calculate the demand.

In general, most previous studies have either measured hypothetical willingness to get circumcised, or reported the number of men getting circumcised. Reporting just this

number neglects to measure the denominator of how many men opt not to be circumcised. Our study is the first in our knowledge to overcome both of these challenges.

Informational campaigns have also been found to have aggregate effects on increasing reported desire for circumcisions. For example, in Botswana, respondents were surveyed before and after an informational session that described the risks and benefits of medical male circumcision. In this study, the proportion reporting they would definitely or probably circumcise a child, if free of charge in a hospital setting, rose from 68 per cent before the informational session to 89 per cent after the session. This increase was similar to the change among the uncircumcised men when asked about going for their own circumcision (Kebaabetswe *et al.* 2003). While this suggests that information may have a large effect on willingness to become circumcised, the study collected only reported willingness, rather than information on actual circumcisions.

### **3. Intervention and evaluation**

This section summarises the data collection and analysis methods for the evaluation. All research activities were approved by the University of Michigan Institutional Review Board and the Malawi College of Medicine Research and Ethics Committee. All respondents gave informed consent for their participation.

#### **3.1 Data collection methods**

##### *Partner clinic*

This study was implemented in partnership with a private clinic that provides family planning and basic health services in 31 branches across Malawi. The provider charges a small fee for cost recovery and began offering VMMC in 2010. The price of VMMC at that time was 950 kwacha (MWK) (approx. US\$6.75 before devaluation<sup>2</sup>).

##### *Sample*

The study was conducted in a working-class neighbourhood in central Lilongwe, within the catchment area of our partner clinic. The sampling strategy consisted of first randomly selecting census enumeration areas within the catchment area. Each selected enumeration area was then divided by neighbourhood blocks, which were then also randomly drawn. For each selected block, a household census was conducted, listing any man between the ages of 18 and 35 years who had slept in the household the night before. Each man was contacted and a screener determined his circumcision status. Only uncircumcised men were eligible.

---

<sup>2</sup> US\$1=MKW140.74 (2010). In May 2012, the kwacha was devalued by 34%, and US\$1=MKW 258.54.

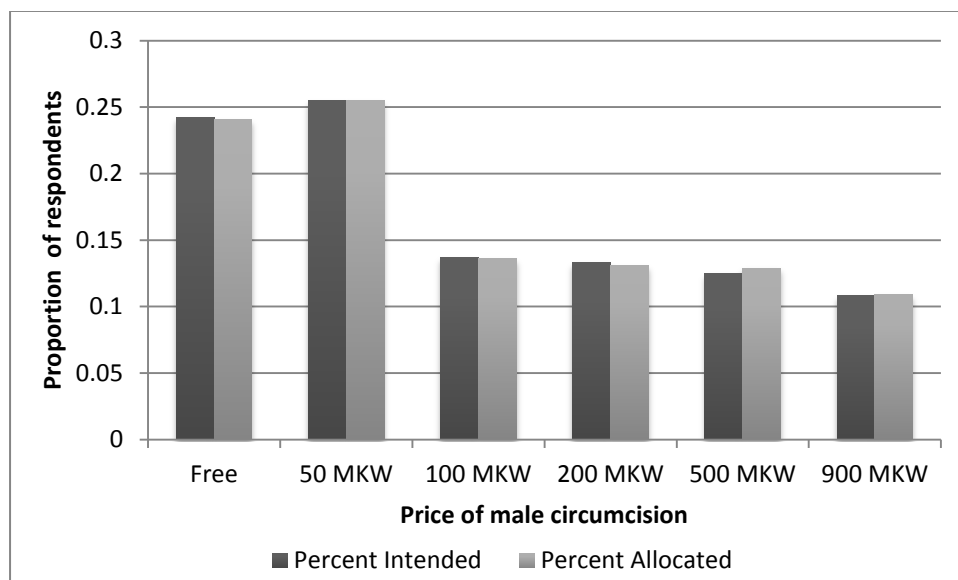
### Baseline survey

The baseline survey was collected in early 2010. A total of 1,634 uncircumcised men were interviewed during the baseline survey, where they were asked about their basic demographics, sexual behaviour and whether they were willing to be circumcised. The survey lasted approximately 45 minutes. At the end of the survey each man was read a sheet listing the services at the clinic, including prices, as well as the operating hours.

### Randomisation

Immediately after the baseline survey, each respondent was given a voucher, valid for approximately three months, for a subsidised circumcision at the partner clinic branch. Vouchers were randomised at the individual level. The value of the vouchers ranged from a discount of MKW50 (US\$0.33) to a full subsidy (free circumcision). Figure 1 presents the distribution of vouchers allocated and actually given to respondents by enumerators.

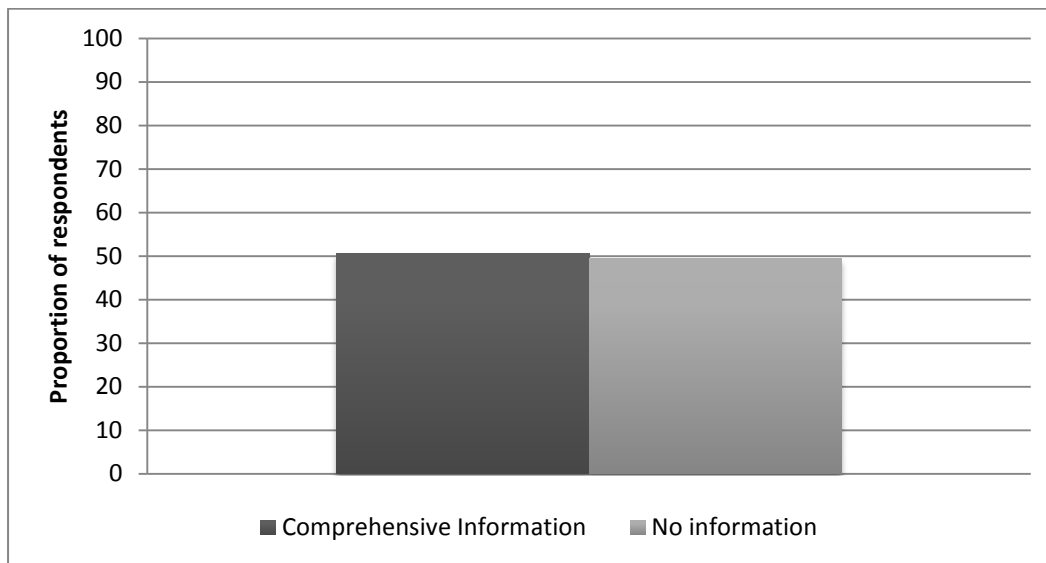
**Figure 1 Voucher randomisation**



Vouchers contained an ID that could be linked to each respondent, the name of the respondent, as well as an indication that a photo ID would be needed to redeem the voucher.

In addition to the randomisation of the voucher, half of the respondents were randomly assigned to receive comprehensive information about male circumcision and HIV. This information consisted of a discussion about the randomised trials in Kenya, Uganda and South Africa, the mechanisms through which medical circumcision reduces transmission of HIV, and how it is not fully protective against HIV. Those who did not receive the comprehensive information were simply told **about the existence of the partner clinic's** services and that medical male circumcision was available there.

**Figure 2 Information randomisation**



*Follow-up survey*

Follow-up surveys were conducted in 2011 among the men who were interviewed in the baseline. In all, 77 per cent of the men who were interviewed at baseline were re-interviewed one year later. There were no significant differences in the rate of survey completion across the price of medical male circumcision or across the information treatment. The follow-up survey included questions regarding interest in circumcision, experience of circumcision and sexual behaviour.

*Clinic data*

The partner clinic provided information on each voucher that was redeemed for an adult medical male circumcision up to six months after the start of the baseline survey. There were approximately 41 men whose vouchers were returned to the study team who also had follow-up surveys.

*In-depth interviews*

Just after the follow-up survey, individual in-depth interviews with a sub-sample of 64 **survey respondents provided additional information on men's decision-making** processes regarding circumcision. The original survey sample was stratified by treatment group and by whether the respondent had been circumcised or sought counselling from the partner clinic in the year following the baseline. A random sample of respondents was drawn from each of those groups. If one of the selected men was not available, an interview was conducted with the next randomly selected respondent from the same group. In total, 64 men were interviewed, 29 of whom had been circumcised since the baseline and 35 of whom had not chosen to get circumcised.

Male Malawian interviewers conducted the interviews, each of which lasted between 45 minutes and three **hours. The interviews took place in the respondents' homes, or** another location of their choosing. With the consent of the interview participants, the interviews were audio recorded.

Interviewers listened to the audio recording and transcribed the interview into English. A project manager read each transcript as it was completed and provided feedback for improving and targeting future interviews.

During each interview, respondents were asked to describe what they knew about circumcision, what they knew about the link between circumcision and HIV, how interested they were in circumcision, what factors motivated them to consider circumcision, what factors dissuaded them from undergoing the surgery, who they spoke with for advice about circumcision, what influenced their final decision and, if they were circumcised, details of the circumcision process.

### **3.2 Analysis methods**

#### *Quantitative analyses*

Researchers analysed the baseline, clinic and follow-up survey data using the statistical software Stata, version 11. Non-randomised studies that measure how the demand for preventative health behaviour or the purchase of goods respond to prices or information suffer from potential omitted variable bias. In the case of medical male circumcision, an **individual's unobservable propensity to undergo surgery is related to his underlying risk preferences, risk type, or demographic or socio-economic characteristics**. This makes causal inference difficult. For example, if studying the relationship between information and the demand for male circumcision in a non-randomised evaluation, those who would have more information about medical male circumcision and HIV prevention would likely be those who already had some interest or had thought about the procedure. This would likely bias the estimates upwards, overstating the true causal impact of information. In this report, we illustrate results graphically, although regression results corresponding to the figures are robust to specifications with or without baseline controls or with linear or probit models.

#### *Qualitative analysis*

Each of the 64 interview transcripts was read through once to identify common themes among respondents. Qualitative codes were developed based on the common themes. We then read through each interview and applied the codes using HyperRESEARCH, a qualitative coding software. This permitted us to group text by code and review the evidence of each substantive theme. In addition, while reading each interview for the second time, macro-level codes were assigned to each respondent, indicating their level of interest in circumcision. These codes were attributed based on a holistic assessment of the transcript. Finally, as a coding reliability check, a research assistant who was not part of the data collection effort also read through each transcript and assigned macro-level codes to each transcript. The coding results were compared and discrepancies were resolved through a collaborative review and discussion of the transcripts.



## 4. Results

### 4.1 Sample characteristics at baseline and follow-up

The sample is on average almost 27 years old and relatively well educated, completing 11 years of school. Individuals spend approximately US\$140 per month (median of US\$98). Just less than 17 per cent of the respondents are from a circumcising tribe, defined in the Malawi Demographic Health Survey as a tribe with over 20 per cent of men circumcised (MDHS 2010). The ethnic composition of respondents is not representative of the study area due to the fact that only uncircumcised men were eligible for the study. Approximately one third (34.6 per cent) of the men are Chewa, 24.7 per cent Ngoni, 13.5 per cent Lomwe, 12.8 per cent Tumbuka, and the remaining 14.4 per cent include Nkhonde, Nyanja, Tonga, Yao and others (not shown). Almost half of the men (47.6 per cent) reported that they would be willing to become circumcised. This is slightly lower than the median acceptability rate of 65 per cent from circumcision acceptability studies across Sub-Saharan Africa (Westercamp and Bailey 2007), but higher than the Malawi Situational Analysis from Lilongwe, where 37 per cent reported that they would be willing to get circumcised (Bengo *et al.* 2010).

Most men in the sample had had sex at least once (87.5 per cent, not shown), with approximately 1.6 sexual partners in the last year and on average 4.2 sexual acts in the past month. Just less than half of the men (46.2 per cent) reported abstaining from sex in the past month. Of those who reported having sex in the last month, 37.4 per cent said they used a condom the last time they had sex. As an indicator of recent safe sex, we created a variable that indicates if the respondent either abstained in the past month or used a condom the last time he had sex; according to this indicator, 65.9 per cent of respondents are classified as a 'safe type'.

Eight men self-reported to interviewers that they were HIV positive. In addition, 20.6 per cent of men reported that they believed there was a high likelihood that they were currently HIV positive. In total, those who reported being HIV positive or having a high likelihood of being currently HIV positive constitute 21 per cent of the sample. Men were also asked to report how likely they thought it was that they would become infected with HIV in the future. In the sample, 33 per cent believed they faced a low risk of HIV in the future, 37 per cent believed they faced a medium risk, 26 per cent believed they faced a high risk, and 4 per cent reported that they did not know. Almost half (48 per cent) of the men had had an HIV test at least once.

A randomised study reduces this possible selection bias by creating a counterfactual that is composed of the same underlying types in each of the treatment groups. Treatment groups are similar along observable baseline characteristics.

## 4.2 Take-up of voluntary medical male circumcision

Overall, we find low take-up of medical male circumcision. Out of the 1,634 uncircumcised men interviewed at the baseline, 43 men, or 2.6 per cent, had redeemed vouchers before the expiration date, indicating a medical male circumcision had been performed.<sup>3</sup>

Out of the 1,252 men who were also surveyed at the follow-up, 26 per cent reported that they had had some interaction with the partner clinic; examples of these interactions are having an actual circumcision, being counselled, making a visit to enquire or making a phone call to the clinic.

In addition, 70 additional men reported having received a circumcision after the baseline survey. Of these, 25 men (23 per cent of the total circumcisions) reported getting circumcised at either a non-partner clinic or traditionally, 9 men (8 per cent of total circumcisions) reported getting circumcised at the partner clinic but after the expiration date of the vouchers, and 36 men (33 per cent of total circumcisions) reported getting a circumcision at the partner clinic while the vouchers were still valid.

In total, this gives an upper estimate of 111 men or 8.9 per cent receiving a circumcision, either from self-reports or clinical records.

---

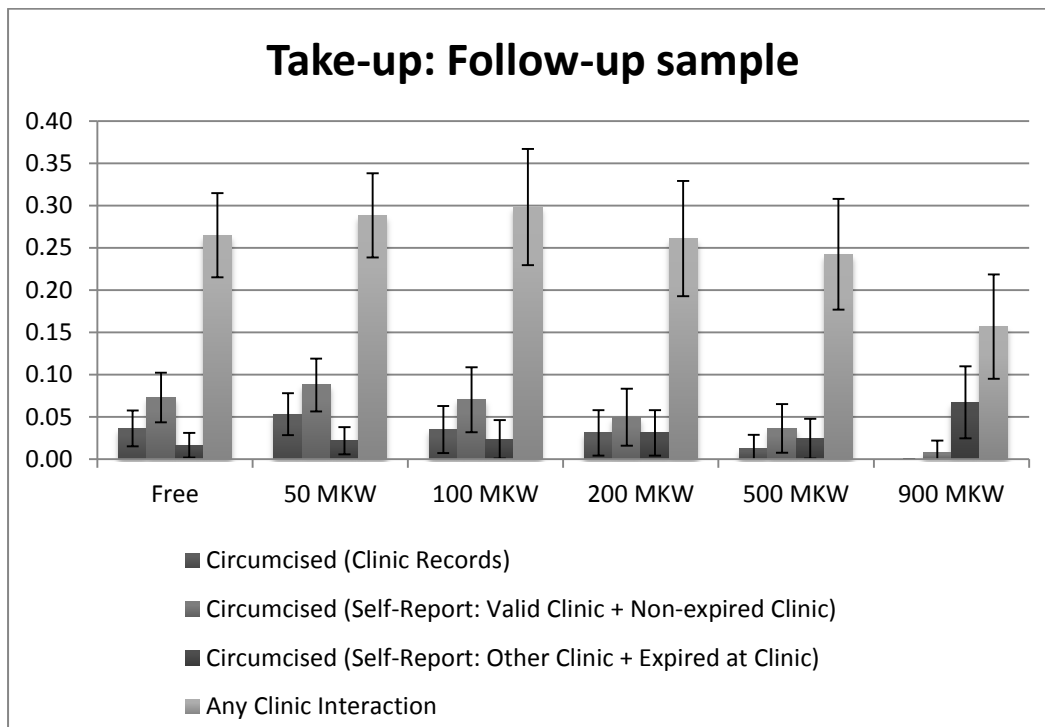
<sup>3</sup> Note that some studies have found mis-reports of circumcision status, in which case circumcision may be overstated (Hewett *et al.* 2012). However, other studies have found self-reports to be a valid measure of circumcision status (Templeton *et al.* 2008). We use clinical records as our main outcome, although no results change if we additionally use self-reports of circumcision at the partner clinic before voucher expiration.

**Table 2 Voluntary medical male circumcision take-up**

		Number of men (1)	% of full sample (2)	
<u>Panel A: Full sample (N=1,634)</u>				
<i>Clinic data</i>	Circumcised	43	0.0263	
				% of total (clinic or survey circumcisions)
<u>Panel B: Follow-up sample (N=1,252)</u>				
<i>Clinic data</i>	Circumcised	41	0.033	0.369
<i>Survey data</i>	Any interaction with the partner clinic about circumcision	326	0.260	N/A
	Circumcised at non-partner clinic	25	0.020	0.225
	Circumcised at partner clinic after validity period	9	0.007	0.081
	Circumcised at partner clinic during validity period	36	0.029	0.324
<i>Total (clinic or survey)</i>	Circumcised	111	0.089	

Figure 3 plots the take-up of medical male circumcision by price as measured by the clinic data and by self-reports. In this figure, 'free' indicates that an individual was offered a free circumcision, and 50, 100, 200, 500, 900 are the amounts that were required to be paid for the surgery at the partner clinic. Take-up increases slightly – although not significantly – among those having to pay a small amount and then declines monotonically thereafter with increasing price. No one was circumcised (as measured by the clinic data) who had to pay the highest amount.

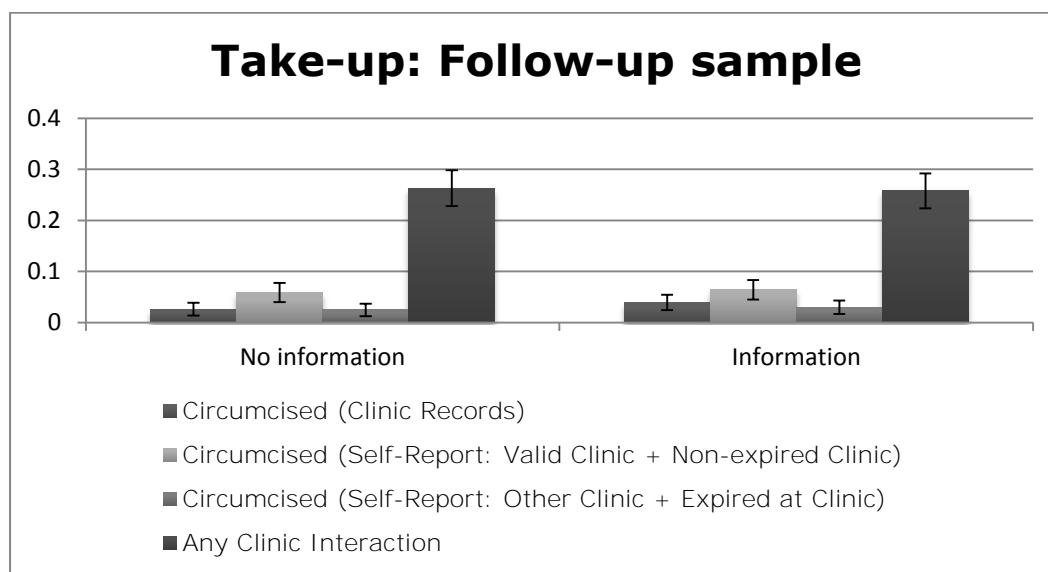
**Figure 3 Response to prices**



There are large and significant effects of price on having any interaction with the clinic. By receiving a higher subsidy, individuals may have been more likely to approach the clinic for more information or counselling even if they did not choose to get circumcised at the end of that enquiry process. Every dollar (approximately MWK150) increase in price reduces interactions with the clinic by 2.2 percentage points. Those offered free circumcisions are 12.4 percentage points more likely to have had any interactions with the clinic than those offered a circumcison at MWK900.

In terms of actual circumcisions as measured by the clinic's records, every dollar increase in price reduced the likelihood of take-up by almost one percentage point. Those offered a free circumcison were 3.1 percentage points more likely to adopt than those offered a circumcison for MWK900, while those offered a price of MWK50 were 4.1 percentage points more likely to be circumcised.

**Figure 4 Response to information**



In terms of the response to information, the only significant effect was on circumcisions measured by the clinic data. Those who were given the comprehensive information were 1.4 percentage points more likely to get circumcised than those who were not given the information.

### **4.3 Determinants of take-up**

#### *Determinants of take-up*

One of the most important predictors of getting circumcised was openness to a circumcision, defined as reporting willingness to be circumcised at the baseline. Those who reported being willing to undergo circumcision at the baseline were between 2.6 and 3.1 percentage points more likely to receive a circumcision, as reported by the clinic, and almost 9 percentage points more likely to have had any interaction with the clinic.

There is no statistically significant effect of age on actual take-up, despite the large proportion of men at the baseline who stated being 'too old' as a reason not to get circumcised. This result should be viewed in the context of our sample, which only included men between ages 18 and 35 years. Moreover, most men, when stating they were 'too old', were comparing themselves to the age at which most Malawian boys are traditionally circumcised: between 10 and 18 years old.

While opportunity cost may be an important factor for the decision to get circumcised, data on income or employment is unavailable. Total household expenditure – included in the regressions – is one proxy for these other variables. Expenditures are not associated with circumcision take-up. This is somewhat contradictory to the finding that take-up was so responsive to price, suggesting that credit constraints may be important. One explanation may be that measurement error in expenditure data biases the coefficient towards zero. Another possibility is that the immediate small costs are more important than the actual ability to pay. We have some evidence of this. Men who were circumcised at the partner clinic were asked what their perceived opportunity cost was of receiving the surgery (i.e. lost wages); on average they reported MWK11,000 (approximately

US\$73; not shown). Expanding the sample to men who reported getting circumcised anywhere (i.e. including self-reports), they reported a loss of MWK14,720 (US\$98). In both cases, the median reported opportunity cost is MWK5,000 (US\$33). In contrast to these estimates, the voucher amounts are quite small.

Distance to the clinic is negatively associated with take-up, but not with having any interaction with the clinic. Having heard of someone getting a circumcision at the clinic is also significantly associated with getting circumcised or having any interaction at the clinic.

Those who have ever had an HIV test are 6.4 percentage points more likely to have any interaction at the clinic, potentially indicating selection on risk preferences. However, there is no relationship between prior HIV testing and actual circumcisions. There is also no significant effect of beliefs of being infected on getting a circumcision, or an interaction between beliefs and having been tested for HIV.

However, the in-depth interview responses demonstrate that risk of HIV is seen as an important motivator for circumcision. Benjamin explained that he got circumcised because of his fear of HIV.

Most of the people that are being found to be HIV positive these days are the youth. Most of them are less than 25 years old, which is our group, we youth. Things are not ok, so without circumcision, eishh! So for me I support circumcision.

Benjamin, respondent

Many of the interview respondents who had not undergone a circumcision also explained that protection from HIV was the reason they were still interested in getting the surgery. They explained that other methods of HIV prevention were not always adequate, so they wanted the added protection of circumcision. In particular, many described the **limitations of condoms and an inability to trust one's sexual partners.**

Lastly, we find that those who used a condom at last sex were significantly more likely to get circumcised – when the definition of circumcision is expanded to include self-reports. Our data are limited given the small take-up rate, but the extent of selection based on **ex-ante** risk would significantly affect the efficacy of medical male circumcision rollout, and is important for future studies and programmes to consider.

In the in-depth interviews, a majority of those who had chosen to be circumcised expressed that they had been interested in circumcision even before the arrival of the research team. They were happy to receive the vouchers because they provided financial assistance and additional motivation to get circumcised. Thomas was happy when he received the voucher.

I received it happily because at that time I also had the thoughts to do things like these [to get circumcision], yeah. So, when I received that voucher I was very **happy to say, 'Maybe now I can** do the things I wanted freely, yeah.

Thomas, respondent

As evidenced in the quantitative results, those who were open to circumcision were more likely to take advantage of the opportunity provided by the research project.

### *Other barriers to take-up*

In addition to the cost of the circumcision surgery, during the in-depth interviews men reported several other barriers to undergoing circumcision. First, among the interview respondents who had not been circumcised in the year following the baseline survey, approximately half reported having no interest in circumcision. This corresponds with the finding from the baseline survey that about 50 per cent of respondents were not willing to be circumcised. Matthews, one of the respondents who did not get circumcised, said, **'I don't even desire to do it in any way even though it is good and I know its advantage. But for me to go and get it, no, I don't do that.'** He explained that he was not interested no matter what the benefit of circumcision.

Other interview respondents continued to express interest in circumcision. However, opportunity costs, fear, lack of accurate information and inadequate service provision prevented them from acting on their stated desire to get circumcised.

**Opportunity costs:** Part of contemplating circumcision is considering the opportunity costs associated with the surgery. After the procedure, men are typically out of work for approximately one week while their wound heals. Many respondents were unable to prioritise circumcision over a week of income generation opportunities because they use their daily earnings to feed themselves and their families.

I have a family and one child, I pay rent, and everything I do it on my own. So I say; aah, with that, if I can go to the hospital to do that [get circumcised] how am I going to pay rent, what am I going to eat?

Michael, respondent

Before undergoing the surgery, men explained that they would have to save for the impending income loss. Such planning requires a high degree of commitment.

**Fear:** Many men expressed fear of pain and of the potential for botched surgery. Some of the respondents described images of worst-case scenarios that discouraged them from seeking a circumcision. For example, Zachariah said, 'My only fears concerned the outcome of poor surgery, which would consequently lead to one being disabled and that would compel the surgeons to completely cut the whole thing off.' Intense fear discouraged the respondents from making circumcision a priority.

**Availability of accurate information:** Often men's fears were compounded by the spread of rumours and by difficulties in obtaining accurate information about the process and/or outcome of the circumcision surgery. Men reported receiving a lot of conflicting information. Juma gave a detailed explanation of his decision-making. When he got the voucher for circumcision from the research team, he first went to his friends for advice. Some of his friends relayed rumours they had heard about circumcisions gone wrong, while others encouraged him to get the surgery. He described his considerations when deciding whether or not to get circumcised.

Obviously the first thing was what my friends told me that once I get circumcised the wound would not heal and eventually my private parts will start to disintegrate up to the point that they will just cut them so as to prevent me from dying. Then I said to myself that it was not worth dying for. I said I was going to

think deeply over this. And then I asked another person, then another one, and again another one, then I said I think the other one was telling me lies. Then I said this one is telling the truth, just like this one is also saying the truth. I said to myself that I was still going to get the real answer.

Juma, respondent

Like other respondents, **Juma’s decision**-making was delayed because he had to seek information from multiple sources and sort through conflicting information and advice.

**Unreliable service provision:** The provision of circumcisions at the partner clinic was often unreliable. Most of the men who got circumcised had to return to the clinic multiple times before getting the surgery. One interview respondent, Prince, tried several times to get circumcised at the partner clinic and finally gave up.

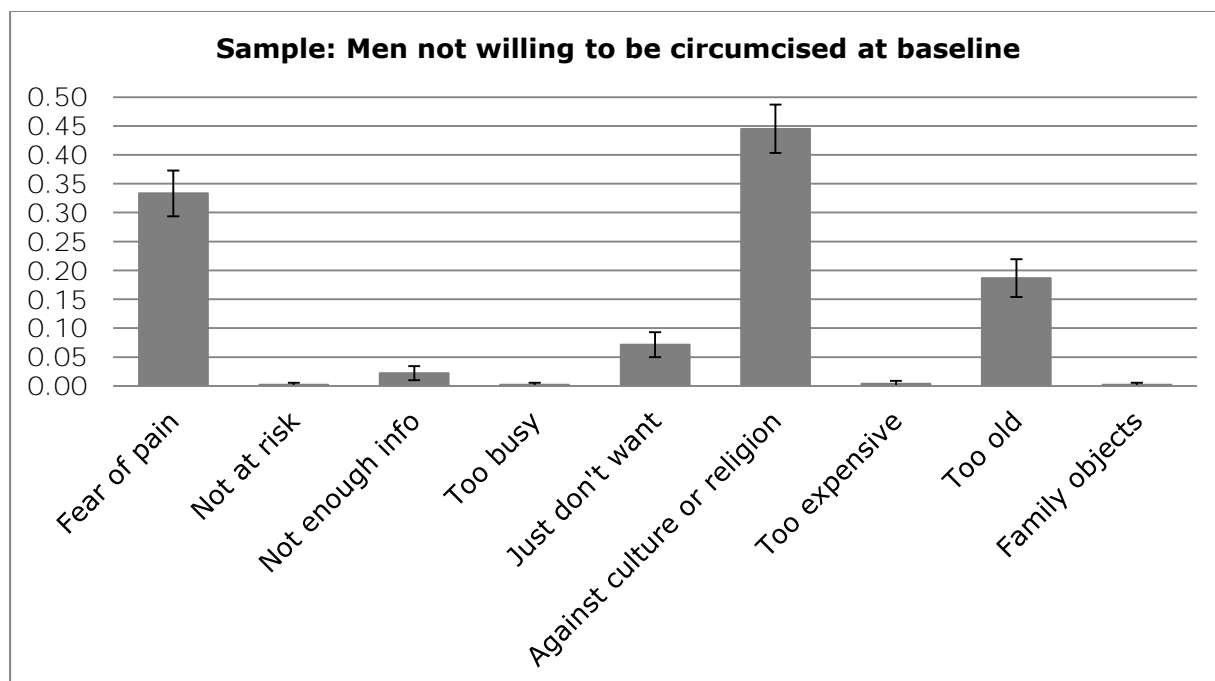
I went there and I was told the doctor was not available. I waited for an hour and later left. I went there the following morning where I produced the voucher and had to wait again for an hour or so and the doctor did not show up. I was told to wait because the doctor was coming. I went there again. I really wanted to do it but the person [doctor] I was looking for was not available. This is what brought this whole thing to a halt.

Prince, respondent

To meet the goals of ongoing circumcision campaigns, supply of circumcision services will need to be scaled up dramatically.

At the baseline, men who reported that they were unwilling to get circumcised were asked why they were unwilling. The most common answers were cultural or religious reasons, fear of pain, being too old or just not wanting to get a circumcision.

**Figure 5 Reasons against medical male circumcision**





To gain insight into the low overall take-up, we examine how offering the vouchers and the comprehensive information affected attitudes towards medical male circumcision.

Men at the follow-up – who had not undergone a circumcision – were again asked whether or not they would be willing to be circumcised. Approximately 75 per cent reported they would be willing to get circumcised, despite the fact that they had not yet done so (not shown). Those who were unwilling were asked why they were unwilling and those who reported being willing were asked why they had not yet received a circumcision. We pool these responses together; there are some differences in responses across the two groups of men, but these are not large enough to change the main results (not shown).

There were no significant effects of information or price on cultural or religious reasons, the fear of pain, believing one is too old, or just simply not wanting to be circumcised. Importantly, these were the most commonly stated reasons for not getting circumcised at the baseline.

Prices had some effects on reported barriers to circumcision. Those who were offered less expensive circumcisions were less likely to say expense was a barrier. They were also more likely to report being too busy.

Information also had effects on barriers to medical male circumcision. Those receiving the comprehensive information were more likely to say that they were not at risk, less likely to say that **they didn't have enough information, and** more likely to report that a family member objected to the surgery. In total, there was a small significant increase in the total number of barriers or reasons given among those who were provided with the comprehensive information.

Importantly, there was no impact of either information or price on expressing any positivity towards circumcision – as coded from the open-ended questions – or on the willingness to be circumcised.

**Table 3 Attitudes towards circumcision**

Dependent variable: Barrier to circumcision due to	Culture or religion	Fear of pain	Too old	Just don't want	Too expensive	Lost or expired voucher	Too busy	Not at risk	Not enough info	Family objects	Number of reasons	Positive about VMMC	Willing
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Information	0.03 [0.030]	0.009 [0.027]	0.004 [0.013]	0.016 [0.014]	0.014 [0.012]	-0.002 [0.014]	-0.044* [0.026]	0.023*** [0.009]	-0.043* [0.025]	0.043*** [0.016]	0.059* [0.033]	0.017 [0.018]	-0.016 [0.025]
Free	-0.046 [0.047]	-0.031 [0.043]	0.739 [0.025]	0.7772 [0.030]	0.198 [0.033]	0.25 [0.020]	0.103*** [0.038]	-0.005 [0.016]	-0.024 [0.038]	-0.018 [0.034]	-0.072 [0.044]	0.011 [0.029]	0.019 [0.046]
MWK50	0.00 [0.051]	-0.031 [0.039]	-0.005 [0.028]	-0.023 [0.028]	-0.052 [0.037]	0.034* [0.020]	0.080* [0.044]	-0.008 [0.016]	0.006 [0.047]	0.002 [0.035]	0 [0.054]	0.029 [0.027]	0.011 [0.041]
MWK100	4.284 [0.065]	7.1278 [0.042]	0.884 [0.021]	0.902 [0.032]	0.949 [0.034]	0.8428 [0.024]	0.077* [0.042]	-0.007 [0.016]	0.007 [0.041]	-0.025 [0.036]	-0.045 [0.058]	0.028 [0.028]	0.04 [0.045]
MWK200	-0.046 [0.051]	-0.03 [0.045]	-0.019 [0.028]	-0.013 [0.030]	-0.04 [0.039]	0.004 [0.018]	0.101** [0.043]	-0.024 [0.014]	-0.015 [0.054]	0.006 [0.039]	-0.072 [0.061]	-0.01 [0.028]	0.064 [0.048]
MWK500	-0.01 [0.055]	-0.057 [0.041]	0.005 [0.029]	-0.039 [0.033]	-0.046 [0.035]	0.02 [0.021]	0.068* [0.035]	0.028 [0.024]	-0.003 [0.048]	0.041 [0.039]	-0.011 [0.051]	-0.008 [0.026]	0 [0.050]
Observations	1075	1074	1074	1074	1078	1074	1076	1074	1079	1074	1074	1074	1252
R-squared	0.06	0.02	0.03	0.04	0.05	0.04	0.04	0.04	0.03	0.04	0.05	0.02	0.12
Incl. controls?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ave of dep variable	0.270	0.146	0.048	0.061	0.046	0.049	0.170	0.019	0.230	0.088	1.128	0.083	0.747

Notes:

Robust standard errors clustered by block. Control variables include: age, age squared, logged total expenditures, years of schooling, whether the respondent is of a circumcising tribe, whether the respondent reported he was willing to be circumcised, whether the respondent thought his risk of having HIV was high, whether the respondent had ever had an HIV test, the interaction of belief of high risk and having an HIV test, whether the respondent had heard of anyone who had been circumcised at the partner clinic, whether the respondent correctly believed that circumcision was associated with lower risk of HIV, distance to the clinic, and indicators of being low risk and high risk. We also include circumcision price indicators and an information treatment indicator. For covariates with missing values, the median has been inputted, and a dummy included for whether or not the covariate is missing. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%. MC = male/medical circumcision. Interaction with the partner clinic includes medical male circumcision, counselling, visits or phone calls.

These results help to explain the low take-up in this study and why the information and price interventions were unable to increase it substantially. Although many men state that they are willing to get circumcised, in actuality providing comprehensive information about the benefit and providing free clinical circumcisions are not enough to reduce the main barriers that constitute over half of the stated reasons against circumcision.

It is important also to note that there may have been administrative or logistical barriers to take-up as well. Because the voucher was only valid for three months, men may have demanded a circumcision at a different time or season when the opportunity costs were lower. Additionally, there were some reports that men were unable to schedule a time at the clinic when the clinician was available. This speaks to the importance of the need to promote both demand and ensure supply of medical male circumcision services. Among those men who made any contact with the clinic, there was an average of 2.25 calls made to the clinic, 2.12 visits, and 1.9 attempts for surgery. Even among those who eventually got circumcised it took some effort; these men made 1.75 calls, 1.33 visits and 2 attempts at surgery.

## **5. Recommendations and conclusions**

This report measures the demand for medical male circumcision and the response to price using a randomised trial. The study findings provide insights into the delivery and demand for circumcision in the setting of an actual health provider. Overall, the demand was relatively low, ranging from 3.3 per cent based on clinic data to 8.9 per cent on clinic and self-reported data. This is particularly low when compared with rollout campaigns in other areas of Sub-Saharan Africa, such as Kenya, and relative to the targets set for medical male circumcision rollout strategies. Importantly, those who were most open to circumcision and those who were safer types as determined by sexual behaviour were more likely to adopt medical male circumcision. Although the delivery of services was unreliable at times, the results from this intervention provide important new information relevant for policymakers interested in scaling up medical male circumcision. Below we discuss the main lessons learned and recommendations.

- **Price was not the only barrier to receiving a male circumcision, but it was certainly a major barrier for some.**

Current policies from some donors, such as the **US President's Emergency Plan for AIDS Relief**, require circumcisions to be provided free of charge, which is likely to have impacts on increasing demand. However, we found strong interaction effects with price and risk of HIV infection, such that lowering prices is more likely to attract those who will yield the least benefit from the protection given by medical male circumcision. It should be noted that opportunity costs are likely to be far greater than the actual costs of circumcision and our results are not informative for predicting responses to 'negative prices' or financial incentives.

- **Providing information was not enough to stimulate demand for medical male circumcision.**

Given the results in this paper, other interventions for medical male circumcision should be rigorously evaluated to determine their effects on increasing demand. There is some experimental evidence that suggests that merely providing information is not an effective strategy to promote demand. In this study, in addition to randomising the price of medical male circumcisions, intense information about the protective benefits of male circumcision was randomly disseminated to respondents at the end of the baseline survey. Despite the detailed information given out, overall adoption of male circumcision remained low. There was a significant impact of receiving the information on take-up, but this effect was small. These results are similar to a separate study in which information about male circumcision and HIV was given to respondents, randomly allocated by village, in rural Malawi. There was no significant difference in the take-up of circumcisions among uncircumcised men one year after the information was disseminated (Godlonton *et al.* 2012).

- **The decision to become circumcised currently requires time for consideration and a high degree of motivation.**

In the qualitative interviews, several respondents explained that the decision to get circumcised takes time. In the current social environment of urban Malawi, where medical male circumcision is uncommon, it can take time for men to decide whether they want to prioritise circumcision. For example, Thomas used his voucher to get circumcised, but he admitted that he had wanted a circumcision for 1.5 years before the arrival of the research team and had never attempted to get the surgery. He explained his period of inaction by saying that it takes people time to accept a new social practice.

Yes, there is something I would like to add and it is that when you people are doing research there is need for you to tell the people things *zogwiramtima* [that touch their heart]. We people have difficulty to understand what we knew a long time ago to be changed within a matter of a day; it is something difficult....Because when you are putting into the mind of a person something that you are saying is good, you have to oppose something that he knows before you tell him, you see that? Or what their parents told them, yeah.

Thomas, respondent

He highlights the fact that the new messages about circumcision conflict with previous understandings of the procedure, learned from older generations, as a practice that was conducted only on young Yao or Muslim boys. With the promotion of medical male circumcision as an HIV prevention strategy, circumcision has become an important option to many men for whom it was previously an irrelevant practice. Thomas explained that it takes time for people to adjust to a new understanding of an existing social practice.

As demonstrated in the quantitative analyses, this resulted in a select group of men who opted for circumcision. The decision-making process for men contemplating circumcision is likely to change, however, as take-up increases and VMMC becomes a more common practice. There is a need for additional studies of selection and take-up at later stages of the scale-up of VMMC for HIV prevention.

It is important to note that the results in this report may not generalise to other Sub-Saharan African countries or to other service delivery models. In addition, these results are among the very first adopters and the findings may not generalise to other contexts or to later in the adoption process. However, the findings do provide the first rigorous estimates of the demand for medical male circumcision and shed light on some of the real challenges for scaling up circumcision coverage to meet global targets.

With the goal of reducing HIV infections, scaling up medical male circumcisions has become a high priority. However, there must be joint efforts on both increasing demand, particularly among high-risk groups, and ensuring a reliable supply of quality services during scale-up. We have shown that reducing the price to zero was not sufficient to reach targeted levels of medical male circumcision coverage. How to incentivise high-risk adult men in endemic areas to get circumcised is an important question for future research.

## **Appendix A: Sample design**

The study involves approximately 1,600 men living in the catchment area of a partner clinic in Lilongwe, Malawi. While this population is not representative of the overall male population of Malawi because they live in a peri-urban centre, in order to start the scale-up of the programme, we focus among those who are able to reach the partner clinic. Our randomisation is at the individual level, which helps to increase power for statistical analysis. While spillovers, particularly in terms of information, may be a concern, we will collect GPS coordinates of the men to measure neighbourhood effects of living in the vicinity of those receiving the information about male circumcision (Miguel and Kremer 2004). In addition, our questionnaires at baseline and in the clinic will help to measure potential information spillovers.

# Appendix B: Survey instrument: household listing

**UNIVERSITY OF MICHIGAN: Family and Household Roster: February - April 2010**

H1. Date (DD/MM/YYYY):       H2. Start Time (24hr clock):   h   H3. End Time (24hr clock):   h

H4. GPS Coordinates: Long (South):         Lat (East):         H5. Interviewer Name:

H6. Describe the location: How would you find this house?

H7. Area ID:   H8. Block ID:   H9. Interviewer ID:   H10. Running Number:

H11a Was household listing completed?  1. Yes  0. No H11b If no, provide information to assist with revisit:

**Ndikugwira ntchito ndi nthambi ya kafukufuku ya sukulu ya ukachenjeda ya ku Michigan (America) tikufufuza za umoyo komanso hiv m'dziko muno. Tikuyenda khom ndi khomo kuti tidziwe anthu amene amakwala m'dera lino. Tatenga chilolezo kwa a mfumu a m'dela lino, kolegi ya za umoyo, a DC komanso ku polisi. Kodi tingacheze nanu kwa ka nthawi kochepa zokhudzana ndi khomo lino? Kucheza kwathu kuttengeta mphindi pafupifupi teni.**

H.12. Name of the person providing the information (also provide details about who the informant is in relation to the HH: Family member, House servant etc...):

Names Q1	Rel Q2	Gender Q3	Age Q4		Religion Q5	Eligibility Q6	Envelope Selection Q7	Respondent ID Q8
NAME: (First ask the respondent to list all people who regularly resides in this HH and slept in this HH last night. Then complete each line. Start with the recognized head of the household. Please provide full names including nick names, all possible names and family names.)	Relation to HHH CODE	Gender 1=M 2=F	Yrs	Months If <1 yr	Religion 1=Christian 2=Muslim 3=None 98=Other	* Male * Age:18-35 NOTE: if none eligible, END 1=Yes 0=No	If more than one eligible respondent, Give each eligible man a number (1,2,3 etc. .) Use the envelope with the number that matches the total number of eligible respondents. Draw paper from the envelope without looking. Circle the number drawn. The person corresponding to this number is the target respondent.	Area ID Block ID Interviewer ID Running Number
1	1							
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

1 = HH Head    4 = Son    7 = Mother    10 = Grandchild    12 = Fath-in-law    14 = Son-in-law    16 = Broth-in-law    18 = Uncle    20 = Cousin    22 = Servant/paid worker  
 2 = Husband    5 = Daughter    8 = Brother    11 = Grandparent    13 = Motb-in-law    15 = Daught-in-law    17 = Sis-in-law    19 = Aunt    21 = Friend (non-relative)    98 = Other. Specify.

# Appendix C: Survey instrument: baseline survey

Study No.: HUM00030672

**University of Michigan**  
**URBAN SURVEY - FEBRUARY - APRIL 2010**  
**R. Respondent**

**Complete the first part of the coversheet by transferring information from the listing form (R1 through R8).**

**R1.** Respondent Name: \_\_\_\_\_  
 (Please include all names including nicknames)

**R2.** Respondent's ID: 

--	--	--	--	--	--	--	--	--	--

**R3.** Area ID: 

--	--

**R4.** Block ID: 

--	--	--

**R5.** Interviewer ID: 

--	--

**R6.** Running Number: 

--	--	--	--

**R7.** Contact Address: (Do NOT write down a postal address, we need a residential address. If no residential address is available, please describe how to find the Household. Specify any stores, churches, schools nearby as well as any street intersections and any other notable features.)  
 \_\_\_\_\_  
 \_\_\_\_\_

**R8.** GPS Coordinates:  
 Latitude (South): 

--	--	--	--	--	--	--	--

  
 Latitude (East): 

--	--	--	--	--	--	--	--

**R9.** Is the respondent available at home now?  
 1. Yes     0. No    **→ If respondent is not available, please complete the remainder of the cover sheet with the individual who assisted you with the HH listing.**

**R10.** What hours are you (or is he) usually away from home?  

Mon	Tues	Weds	Thurs	Fri	Sat	Sun

**R.11a** In what area does the respondent work (if he is not available at home)?  
 1. Old town     3. Kanengo     5. Bwā triangle     99. Other. Specify: \_\_\_\_\_  
 2. City Centre     4. Bwalo la Njovu     6. Within Kawale

**R.11b** Also, what is the name of the place at which he works? \_\_\_\_\_

**R.12** Do you have (or does he have) a cellphone?  
 1. Yes    **→** **b. If yes, what is your (his) number:** \_\_\_\_\_  
 We will keep this number confidential and only use for our records or future projects.  
 0. No    (If respondent has multiple phone numbers please capture all) \_\_\_\_\_  
Go to R.14

**R.13** **If no,** please record a phone number and name of a member of the household or a neighbor on which you can be reached:  
 Name: \_\_\_\_\_ Phone number: \_\_\_\_\_

**R.14**

	HH Listing Visit (1)	Visit 2	Visit 3	Visit 4
A Date (DD/MM/YY)				
B Information day?				
C Current Time (24hr clock):				
D Interviewer Number:				
E Interviewer Name:				
F Result (see codes):				
G Important notes:				
H Appointment booked for (Date, Time):				

**Result codes:**  
 1 = COMPLETED    3 = HOSPITALISED    5 = RESPONDENT NOT KNOWN    7 = MOVED (Specify)    99 = OTHER (Specify)  
 2 = REFUSED    4 = DEAD    6 = TEMPORARILY ABSENT    8 = TO TRACKING TEAM

IRB: «IRB»

IRB Number: «ID»

Document Approved On: «ApprovalDate»  
 Page 1 of 13



**Interviewer:** Now make sure to read the consent form to the respondent and then continue the interview.

**S.Starter**

Part of this study is on your background experiences. Just a few questions for you before we start.

S.1 On a scale from 0 - 10, with 0 being very unhappy and 10 being very happy, how happy are you right now?

Scale (0 - 10): \_\_\_\_\_

S.2 What is your favourite football team in Malawi? (No abbreviations, please write out in full)

Name: \_\_\_\_\_

S.3 What is your date of birth (day, month and year)?

D	D	M	M	Y	Y	Y	Y
---	---	---	---	---	---	---	---

98. Don't know date → Age: \_\_\_\_\_

S.4a Do you have a voter identification?

1. Yes → **Go to S.5**

0. No → S.4b Do you have any other picture identification?

1. Yes (Specify: \_\_\_\_\_)

0. No

S.5 What is your ethnic group?

1. Chewa

3. Tumbuka

5. Ngoni

7. Sena

99. Other: \_\_\_\_\_

2. Yao

4. Lomwe

6. Senga

8. Tonga

Now, I am going to ask you about your circumcision status. Circumcision is the removal of the foreskin from the penis. This can be conducted in the clinic or traditionally (in the bush).

S.6 Are you circumcised?

1. Yes



S.7 It is quite common for men who get circumcised not to have the whole foreskin removed

How much of your foreskin was removed:

1. The entire foreskin

2. Only some of the foreskin

97. Refused

**Go to S.10**

S.8 Would you ever get circumcised?

0. No

98. Don't know



0. Ayi

1. Inde

**Go to S.10**

S.9 What are some of the reasons that you would not get circumcised?

**Do not read. Mark all that apply**

A. The pain will be too great

G. I am too old

B. It would be bad for my health

H. I am afraid of dying

C. I don't agree with the religious practice

I. Waste of money

D. Women won't like it

J. Encourages pre-marital sex

E. It is too expensive

99. Other.

Specify: \_\_\_\_\_

F. I don't trust the doctors at the clinic

**Go to S.10**

S.10 Have you fathered any children?

1. Yes

0. No

**Go to S.12**

S.11 How many children have you ever fathered?

A. Number of Boys: \_\_\_\_\_

B. Number of Girls: \_\_\_\_\_

S.12 Interviewer Check: Using question S.8 is the respondent circumcised?

1. Yes

**Go to S.13**

0. No

**Go to DB.0.**

S.13 Interviewer Check: Does respondent ID end with an odd number (1,3,5,7,9)?

1. Yes

**Go to DB.0.**

0. No

**Go to Section O. Intro**

## A. Background

**A.1** In which district were you born?

District Name: \_\_\_\_\_

**A.2** What is your religion?

- |                                      |   |   |  |   |
|--------------------------------------|---|---|--|---|
| <input type="checkbox"/> 1. Catholic | <input type="checkbox"/> 5. Baptist     | <input type="checkbox"/> 8. Church of Christ            | <input type="checkbox"/> 11. Jehovah's Witnesses   | <input type="checkbox"/> 0. No religion |
| <input type="checkbox"/> 2. Muslim   | <input type="checkbox"/> 6. Anglican    | <input type="checkbox"/> 9. Seventh Day Adventist       | <input type="checkbox"/> 99. Other. Specify: _____ | ↓<br><b>Go to A.5</b>                   |
| <input type="checkbox"/> 4. CCAP     | <input type="checkbox"/> 7. Pentecostal | <input type="checkbox"/> 10. Indigenous Christian / AIC |  |   |

**A.3** What is the name of the church/mosque that you currently attend?

**Interviewer Instructions: Please be as specific as possible.**

Name: \_\_\_\_\_ Area: \_\_\_\_\_

**A.4** How frequently do you attend services and activities held at this church/mosque - More than once a week; Once a week; 2 - 3 times per week; Once a month; or Less than once a month?

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> 1. More than once a week | <input type="checkbox"/> 3. 2-3 times per week | <input type="checkbox"/> 5. Less than once a month |
| <input type="checkbox"/> 2. About once a week     | <input type="checkbox"/> 4. About once a month |  |

**A.5** What is the highest level of schooling you have completed?

- |                                   |                                   |                                   |  |                                     |
|-----------------------------------|-----------------------------------|-----------------------------------|--|-------------------------------------|
| <input type="checkbox"/> 0. None  | <input type="checkbox"/> 3. Std 3 | <input type="checkbox"/> 6. Std 6 | <input type="checkbox"/> 9. Form 1           | <input type="checkbox"/> 11. Form 3 |
| <input type="checkbox"/> 1. Std 1 | <input type="checkbox"/> 4. Std 4 | <input type="checkbox"/> 7. Std 7 | <input type="checkbox"/> 10. Form 2          | <input type="checkbox"/> 12. Form 4 |
| <input type="checkbox"/> 2. Std 2 | <input type="checkbox"/> 5. Std 5 | <input type="checkbox"/> 8. Std 8 | <input type="checkbox"/> 13. College or more |                                     |
- ↓  
**Go to A.8**

**A.6** Can you read a letter written in:

- |   |  |
|---|--|
| A. Chichewa? <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | B. English? <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No |
|---|--|

**A.7** Can you write a letter in:

- |   |  |
|---|--|
| A. Chichewa? <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | B. English? <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No |
|---|--|

**A.8** Which of the following applies to your current living situation?

- Read options and mark all that apply**
- |  |  |
|--|--|
| A. Own my home in Kawale (family) <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | D. Own a home outside of Kawale <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No |
| B. Live with relatives /friends <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No   | E. Work at the home <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No             |
| C. Pay rent <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No                       | F. Other. Specify: _____   |

**A.9** Do you have electricity in the household in which you reside in Kawale?

1. Yes  0. No

**A.10** Now I'd like to talk a little about how you earn your living and your economic situation. Let's talk about the household items that you and your household have. Do you and/or your household own any of the following items?

- | A. Does your household own any of the following items?                                    | B. If yes, how many? |       |
|---|----------------------|-------|
| A. Sofa <input type="checkbox"/> 0. No <input type="checkbox"/> 1. Yes                    | →                    | _____ |
| B. Working TV <input type="checkbox"/> 0. No <input type="checkbox"/> 1. Yes              | →                    | _____ |
| C. Bicycle <input type="checkbox"/> 0. No <input type="checkbox"/> 1. Yes                 | →                    | _____ |
| D. Working Car <input type="checkbox"/> 0. No <input type="checkbox"/> 1. Yes             | →                    | _____ |
| E. Working Computer/Laptop <input type="checkbox"/> 0. No <input type="checkbox"/> 1. Yes | →                    | _____ |
| F. Working Stereo System <input type="checkbox"/> 0. No <input type="checkbox"/> 1. Yes   | →                    | _____ |
| G. Working Hotplate/Stove <input type="checkbox"/> 0. No <input type="checkbox"/> 1. Yes  | →                    | _____ |
| H. Working Refrigerator <input type="checkbox"/> 0. No <input type="checkbox"/> 1. Yes    | →                    | _____ |

**Now I would like to ask you about what you personally spend.**

**A.11** Approximately how much did **YOU** spend in the **past month** in total (this includes money you spent on yourself or others) on:

**Kwacha**

- A. Clothes, fabric, or shoes
- B. Medical expenses at a clinic, doctor, pharmacy, singana
- C. Expenses on food: maizes, meat ndiwo, eating out
- D. Expenses on transportation
- E. Air time (This should include all units spent including that at a phone booth, please also report even if you don't own a phone)

A \_\_\_\_\_  
 B \_\_\_\_\_  
 C \_\_\_\_\_  
 D \_\_\_\_\_  
 E \_\_\_\_\_

A.12 How would you compare this household's current financial situation to that of other household's in Kawale, would you say much better than others, slightly better than others, about the same, slightly worse, or much worse?

**Read out all options and mark one**

1. Much better than most     3. About the same as most     5. Much worse than most  
 2. Slightly better than most     4. Slightly worse than most     98. Don't know (if VOL)

A.13 Now, I am going to ask you some questions about what you might expect to happen in the future. Sometimes the future is difficult to know, but I would like to know your best guess. Do you think that you will live up to:

**Interviewer:** Ask for each age until R answers 'No'.

Age	Yes	No	Dk	Age	Yes	No	Dk	Age	Yes	No	Dk
40	1	0	88	65	1	0	88	85	1	0	88
45	1	0	88	70	1	0	88	90	1	0	88
50	1	0	88	75	1	0	88	95	1	0	88
55	1	0	88	80	1	0	88	100	1	0	88
60	1	0	88								

A.14 **Current Time:**

A.15 **Interviewer Check:**  
 Is the Respondent Circumcised?     1. Yes     0. No

**END THE INTERVIEW - Go to Section O**

**B. General Sexual Behavior**

There are many types of different types of sexual interactions existing in Malawi. Generally our sexual interactions also change over time and past experiences don't necessarily define our current sexual interactions. We would like to ask you about your sexual history generally. We will not be asking for the name of your sexual partners nor how they relate to you (i.e. whether you are married to them or not). We would like to encourage you to answer as truthfully as possible bearing in mind that all information shared here will be kept confidential and neither your neighbors nor your sexual partners will find out.

First some questions for you, even if you have never had sex

B.1 In the past year, how many women have wanted to sleep with you? This should include all women including both those with whom you slept with and those that you did not.

Number: \_\_\_\_\_

B.2 In the past month, how many women have wanted to sleep with you? This should include all women including both those with whom you slept with and those you didn't.

Number: \_\_\_\_\_

B.3 Have you ever heard of receiving oral sex from a women?

1. Yes     0. No    **Go to B.6**

B.4 Do you know of any of your friends who have received oral sex from a women?

1. Yes     0. No

B.5 Have you ever received oral sex from a women?

1. Yes     0. No

Now I am going to ask you about your own sexual behavior. I'd like to remind you that I'm not going to ask if you are married, or anything that might reveal details about your partner or partners.

B.6 At what age did you first have vaginal sex?  
 Age \_\_\_\_\_    97. Never had sex    **Go to Section D.**

**B.7** How many people overall you have ever had sex with in your lifetime?

Number: \_\_\_\_\_

**B.8** Have you ever used a condom?

1. Yes  0. No

→ **Go to B.13**

**B.9** Which of these condoms have you ever used?

**Read out options and mark ALL that apply**

A. Chisango	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	E. Contempo Brand (incl. Rough Rider, Bareback, King Sized, Wet and Wild)	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No
B. Free condoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	F. Have you used any other condoms? If yes, specify: _____	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No
C. BLM Brand	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No			
D. Manyuchi	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No			

**B.10** Which brand of condoms do you use most often (Chisango, Free condoms, BLM brand, Manyuchi, Contempo Brand, Any others)?

**Mark ONLY one**

<input type="checkbox"/> 1. Chisango	<input type="checkbox"/> 3. BLM Brand	<input type="checkbox"/> 5. Contempo Brand (incl. Rough Rider, Bareback, King Sized, Wet and Wild)	<input type="checkbox"/> 99. Other, Specify: _____
<input type="checkbox"/> 2. Free condoms	<input type="checkbox"/> 4. Manyuchi		

**B.11** When choosing a condom, what is your most important consideration such as availability, Price, Quality, Strength, Partner Preference, Anything else?

**Read out options and mark ONLY one**

<input type="checkbox"/> 1. Availability	<input type="checkbox"/> 3. Quality	<input type="checkbox"/> 5. Partner Preference
<input type="checkbox"/> 2. Price	<input type="checkbox"/> 4. Strength	<input type="checkbox"/> 99. Other (Specify): _____

**B.12** If you were designing your own condom, what characteristics would be important to you (Flavour, Size, Sensitivity for you, Sensitivity for her, Strength, Colour, Anything else)?

**Read out options and mark ONLY one**

<input type="checkbox"/> 1. Flavour	<input type="checkbox"/> 3. Sensitivity for you	<input type="checkbox"/> 5. Strength	<input type="checkbox"/> 99. Other. Specify: _____
<input type="checkbox"/> 2. Size	<input type="checkbox"/> 4. Sensitivity for her	<input type="checkbox"/> 6. Color	

**B.13** How many different women did you have sex with in the past 12 months?

Number: \_\_\_\_\_  0. No sex in past 12 months

→ **Go to B.16**

**B.14** How many different women did you have sex with in the past month?

Number: \_\_\_\_\_  0. No sex in past month

→ **Go to B.16**

**B.15** Thinking about ALL your different partners over the past month, how many times in the past month did you have sex?

Number: \_\_\_\_\_

**B.16** In your opinion, what is the likelihood (chance) that you are infected with HIV/AIDS now (No likelihood, Low Likelihood, Medium Likelihood, and High Likelihood)?

<input type="checkbox"/> 1. No likelihood	<input type="checkbox"/> 3. Medium likelihood	<input type="checkbox"/> 98. Don't Know
<input type="checkbox"/> 2. Low likelihood	<input type="checkbox"/> 4. High Likelihood	

**Only if volunteered by respondent**

<input type="checkbox"/> 5. I know I am HIV+
<input type="checkbox"/> 6. I know I am HIV-

**B.17** In your opinion, if you learned that you do not have HIV, what is the likelihood (chance) that you will become infected with HIV/AIDS in the future?

<input type="checkbox"/> 1. No likelihood	<input type="checkbox"/> 3. Medium likelihood	<input type="checkbox"/> 98. Don't Know
<input type="checkbox"/> 2. Low likelihood	<input type="checkbox"/> 4. High Likelihood	

### C. Primary Sexual Partner

**Section C: Introduction**

If you have had more than one sexual partner in the last year, please now think about the one with whom you share the most time with and who you think has the most chance for a lasting relationship. This could be a wife, girlfriend or any other sexual partner.

**Lets say her name is Hope.**

**Now, I am going to ask you some general questions about Hope, but remember that I am not going to ask you for her real name nor her**

**C.1** In what year did you first meet her?

Year: \_\_\_\_\_

C.2 Where did you first meet her (School, Church, At work, In the neighborhood, Through family or a mutual friend)?

**Read out options and mark one**

1. In primary school       5. At work       8. Met through a mutual friend  
 2. In secondary school       6. In my neighborhood       9. Met through family  
 3. In college       7. In a bar/dance place       99. Other. Specify: \_\_\_\_\_  
 4. At church/mosque

C.3 From the time you first met her, how much time passed (in weeks) after you met her did you sleep with her?

Weeks: \_\_\_\_\_

C.4 How old is she now?

**Interviewer: If exact age is not known, estimate.**

Age: \_\_\_\_\_

C.5 How many years of schooling has she completed?

**Interviewer: Estimate if not known**

0. None       3. Std 3       6. Std 6       9. Form 1       12. Form 4  
 1. Std 1       4. Std 4       7. Std 7       10. Form 2       14. Some college  
 2. Std 2       5. Std 5       8. Std 8       11. Form 3       13. College or more

C.6 What is her ethnicity?

1. Chewa       3. Tumbuka       5. Ngoni       7. Sena       99. Other: \_\_\_\_\_  
 2. Yao       4. Lomwe       6. Senga       8. Tonga

C.7 I am not going to ask if you live with her, I just would like to know approximately how close you live to each other. Where does she live - in Kawale; in Lilongwe but not in Kawale; in rural Lilongwe; or in another district?

**Read out options and mark one**

1. In Kawale       2. In Lilongwe district but not in Kawale       99. Other district. Specify: \_\_\_\_\_  
 96. Other country Specify: \_\_\_\_\_

C.8 How often do you see her, would you say every day, several times per week, once a week, several times per month, once a month, several times a year, or less than once a year?

**Read out options and mark one**

1. Every day       4. Several times per month       7. Less than once a year  
 2. Several times per week       5. Once a month       8. Stopped meeting with her  
 3. Once a week       6. Several times in a year

C.9 When was the last time that you had sex with this partner?

**Read out options and mark one**

1. In the last week

2. In the last 2 weeks

3. In the last month

4. In the last 6 months

5. In the last year

6. Prior to one year ago

Go to C.11

Go to C.12

C.10 In the past week, how many times did you have sex with this partner?

Times: \_\_\_\_\_

C.11 In the past month, how many times did you have sex with this partner?

Times: \_\_\_\_\_

C.12 The last time you had sex, did you use a condom?

1. Yes

0. No

C.13 How frequently do you use a condom with this partner - Every time we have sex; Most of the time we have sex; Some of the time; Rarely, or Never?

1. Every time we have sex

3. Some of the time

5. Never

2. Most of the time

4. Rarely

C.14 Have you ever used any of these methods to prevent this partner from getting pregnant?

**Interviewer: Ask each and mark all that apply**

A. Pill  1. Yes  0. No  98. DK

E. Female Sterilization  1. Yes  0. No  98. DK

B. Injections/ Depo  1. Yes  0. No  98. DK

F. Withdrawal  1. Yes  0. No  98. DK

C. Norplant  1. Yes  0. No  98. DK

G. Condom  1. Yes  0. No  98. DK

D. Male Sterilization  1. Yes  0. No  98. DK

H. IUD  1. Yes  0. No  98. DK

I. Other  1. Yes  0. No Specify: \_\_\_\_\_

C.15 Many people in Malawi have multiple sexual relationships, even if they are in a committed relationship. Which of the following statements do you think best characterises this partner during the time that she has been in a committed relationship with you: I know she has had another partner and I have proof, I think she has had multiple other partners but I have no proof, I think she has had multiple other partners and I have proof, I think she has had one other partner and I have heard rumours supporting this, No possibility she has had another partner, and I can confirm that, I don't think she has had another partner but I cant prove it, or I think she has had one other partner but I cant prove it.

**Interviewer: Ask each and mark only one option**

1. I know she has had another partner and I have proof

5. No possibility she has had another partner, and I can confirm that

2. I think she has had multiple other partners but I have no proof

6. I don't think she has had another partner but I cant prove it

3. I think she has had multiple other partners and I have proof

7. I think she has had one other partner but I cant prove it

4. I think she has had one other partner and I have heard rumours supporting this

### D. HIV Attitudes and Beliefs

Now I'd like to talk about your own attitudes and beliefs about HIV

D.1 If we took a group of 100 people living in Kawale, how many of them do you think would now have HIV/AIDS?

Number \_\_\_\_\_

D.2 If a person gets HIV today, how many years would they have to live, if they had **no drugs (ARVs)** from the clinic to help them?

Years \_\_\_\_\_

D.3 If a person gets HIV today, how many years would they have to live, if they had **drugs (ARVs) from the clinic** to help them?

Years \_\_\_\_\_

D.4 If 100 men each slept with a woman who is HIV positive last night and did NOT use a condom, how many of them do you think would get HIV?

Number \_\_\_\_\_

**D.5** If 100 men each slept with a woman who is HIV positive last night and DID use a condom, how many of them do you think would get HIV?

Number \_\_\_\_\_

**Now, I'd like to ask you some questions about your attitudes and beliefs about circumcision.**

**D.6** If 100 circumcised men each sleep with a woman who is HIV positive last night and did not use a condom, how many of them do you think would get HIV?

Number \_\_\_\_\_

**D.7** If 100 uncircumcised men each sleep with a woman who is HIV positive last night and did not use a condom, how many of them do you think would get HIV?

Number \_\_\_\_\_

**D.8** How many weeks do you think it takes for an adult man to return to normal activities after having a male circumcision in a clinic?

Weeks: \_\_\_\_\_

**D.9** How many weeks do you think it takes until an adult man is able to have sex after having a male circumcision in a clinic?

Weeks: \_\_\_\_\_

**D.10** Have you ever heard about a scientific study that took place about circumcision and HIV?

0. No  1. Yes

**D.11** Was the study conducted in...

**READ out responses and mark ALL that apply**

- A Ghana  0. No  1. Yes  98. DK
- B Kenya  0. No  1. Yes  98. DK
- C Malawi  0. No  1. Yes  98. DK
- D Norway  0. No  1. Yes  98. DK

- E Nigeria  0. No  1. Yes  98. DK
- F South Africa  0. No  1. Yes  98. DK
- G Uganda  0. No  1. Yes  98. DK
- H UK  0. No  1. Yes  98. DK
- I Other:  0. No  1. Yes  
Specify: \_\_\_\_\_

### Section E: Health related and BLM specific

**Now lets talk about condoms, even if you have never had sex**

**E.1** Have you ever purchased condoms?

1. Yes  0. No

**E.2** In the past month, did you purchase condoms from:

- |   |   |                                |                                 | If Yes, How many? |
|---|---|--------------------------------|---------------------------------|-------------------|
| A | Clinic/ Hospital                                      | <input type="checkbox"/> 0. No | <input type="checkbox"/> 1. Yes | _____             |
| B | Banja La Mtsogolo Clinic                              | <input type="checkbox"/> 0. No | <input type="checkbox"/> 1. Yes | _____             |
| C | Grocery store   | <input type="checkbox"/> 0. No | <input type="checkbox"/> 1. Yes | _____             |
| D | Club/Bar/Beer Hall                                    | <input type="checkbox"/> 0. No | <input type="checkbox"/> 1. Yes | _____             |
| E | Did you purchase condoms from somewhere else?Specify: | <input type="checkbox"/> 0. No | <input type="checkbox"/> 1. Yes | _____             |

**E.3** Have you been given any free condoms in the past month?

1. Inde  0. Ayl

**E.4** In the past month did you get free condoms from any of the following:

- |   |  |                                |                                 | If Yes, How many? |
|---|--|--------------------------------|---------------------------------|-------------------|
| A | Partner  | <input type="checkbox"/> 0. No | <input type="checkbox"/> 1. Yes | _____             |
| B | Friend/Relative                                      | <input type="checkbox"/> 0. No | <input type="checkbox"/> 1. Yes | _____             |
| C | Banja La Mtsogolo Clinic                             | <input type="checkbox"/> 0. No | <input type="checkbox"/> 1. Yes | _____             |
| D | Other Clinic/ Hospital                               | <input type="checkbox"/> 0. No | <input type="checkbox"/> 1. Yes | _____             |
| E | Did you receive condoms from somewhere else?Specify: | <input type="checkbox"/> 0. No | <input type="checkbox"/> 1. Yes | _____             |

E.5 I will not ask about the results. Have you ever been tested for HIV?  
 1. Yes       0. No      → **Go to E.8**

**Only if volunteered by respondent:**  
 2. I know I'm HIV+  
 3. I know I'm HIV-

E.6 When was the last time that you had a test for HIV?  
 A. Year \_\_\_\_\_ B. Month \_\_\_\_\_

E.7 Where were you tested the last time you were tested for HIV?  
 Clinic Name/Other VCT center: \_\_\_\_\_  97. Home

Now, I'd like to ask you some questions about the **Banja La Mtsogolo Kawale** clinic.

E.8 Do you know where the Banja La Mtsogolo (BLM) **Kawale** Clinic is?  
 1. Yes       0. No      → **Go to E.14**

E.9 How many minutes would it take you to walk to the BLM **Kawale** clinic? Even if you haven't been how long do you think it will take to get there?  
 Interviewer: indicate time for usual mode of transport. **ONLY MARK ONE UNLESS USES MORE MODES OF TRANSPORT**  98. Don't know

Mode of Transport	Minutes
A. Foot	
B. Bicycle	
C. Car or Bus	
D. Motorcycle	

E.10 Have you ever been to Banja La Mtsogolo **Kawale** clinic?  
 1. Yes       0. No      → **Go to E.14**

E.11 When was the last time you were at Banja La Mtsogolo **Kawale** clinic?  
 A. Year \_\_\_\_\_ B. Month \_\_\_\_\_

E.12 Why did you go to the Banja La Mtsogolo **Kawale** clinic the last time you went?  
 \_\_\_\_\_  
 \_\_\_\_\_

E.13 How many times in total have you been to the Banja La Mtsogolo **Kawale** clinic:  
 Number of times: \_\_\_\_\_

E.14 Which of the following services do you think are offered at Banja La Mtsogolo - **Kawale** Clinic. Even if you have never been there?  
 Please could you also tell me which of the services that you think they offer you have ever sought services for at their clinic.

	E.14a Do they offer it?			E.14b Have you sought this service at BLM?		
	<input type="checkbox"/> 0.No	<input type="checkbox"/> 98. DK	<input type="checkbox"/> 1.Yes	<input type="checkbox"/> 1.Yes	<input type="checkbox"/> 0.No	
A. Antenatal services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B. ARV treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C. Family Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
D. HIV Testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E. Male circumcision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
F. TB testing/treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
G. Malaria testing and treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H. Treatment for cold/flu	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I. Treatment for diarrhoea	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

E.15 Have you heard of anyone who was circumcised at Banja La Mtsogolo **Kawale** clinic?  
 1. Yes       0. No      → **Go to E.17**



**E.16** What is your relationship to those people (or person) that you know was circumcised at Banja La Mtsogolo Kawale clinic?

**Ask respondent for each option**

- |                   |                                 |                               |   |                                 |                               |
|-------------------|---------------------------------|-------------------------------|---|---------------------------------|-------------------------------|
| A. Friend         | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No | D. Neighbour  | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No |
| B. Relative       | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No | E. Just heard stories/rumours don't know personally | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No |
| C. Work colleague | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No | F. Other. Specify:                                  | _____                           |                               |

**E.17** If you went today, what do you think is the estimated cost that would be incurred if you would go for a circumcision at:

	<b>Kwacha</b>	
A. CHAM/Mission Clinic	<input type="text"/>	<input type="text"/> 98.DK
B. Kamuzu Central Hospital	<input type="text"/>	<input type="text"/> 98.DK
C. Private doctor/Private Clinic	<input type="text"/>	<input type="text"/> 98.DK
D. Banja La Mtsogolo (Kawale Clinic)	<input type="text"/>	<input type="text"/> 98.DK

---

### F. VOUCHER

---

**Now, read through the voucher script and ask for consent for issuing the voucher.**

F.1 What amount is indicated on the voucher that the respondent received:

0. Respondent pays 0 Kwacha; Subsidy is 950 Kwacha

3. Respondent pays 200 Kwacha; Subsidy is 750 Kwacha

1. Respondent pays 50 Kwacha; Subsidy is 900 Kwacha

4. Respondent pays 500 Kwacha; Subsidy is 450 Kwacha

2. Respondent pays 100 Kwacha; Subsidy is 850 Kwacha

5. Respondent pays 900 Kwacha; Subsidy is 50 Kwacha

F.2 On a scale from 0 - 10, with 0 being very unhappy and 10 being very happy, how happy are you **right now**?

Scale (0 - 10): \_\_\_\_\_

F.3 Please record the voucher ID:

--	--	--	--	--	--	--	--

F.4 Please record the expiry date of the voucher (write in words):

---

---

F.5 Please record what type of photo identification you noted on the back of the voucher:

1. Voter ID     2. Driver's license     3. Passport     99. Other, specify: \_\_\_\_\_

F.6 What do you think people should be researching in Malawi?

---

---

F.7 **Current Time:**

--

**G. INFORMATION DAY**

G.0 **Current Time:**

G.1 **Interviewer Check: Is this respondent assigned to receiving information? (Check Coversheet)**

1. Yes       0. No      **Go to Section H.**

**Now, read through the information script about Male Circumcision.**

G.2 Which one of the following statements applies best to you?

1. I have heard all of this information before       4. I have heard none of this information before      **Go to G.5**

2. I have heard most of this information before

3. I have heard some of this information before

G.3 In what year did you hear this information?

G.4 Where have you heard this information before?

**Read all**

- |  |                                 |                               |                     |                                 |                               |
|--|---------------------------------|-------------------------------|---------------------|---------------------------------|-------------------------------|
| A. From a friend or relative in Kawale         | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No | E. On the radio     | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No |
| B. From a friend or relative outside of Kawale | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No | F. In the newspaper | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No |
| C. At a clinic                                 | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No | G. On the internet  | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No |
| D. On the television                           | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No | H. Other. Specify:  | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0.No |

G.5 How believable is the information that I read to you?

1. I believe it without any doubts

2. It might be true but I'm not completely convinced

3. I don't think it is true

G.6 **Current Time:**

**O. OFFICE:**

Before leaving the household, give the respondent his 200 units of airtime and thank him for his time. After leaving the household please complete the following set of questions. These MUST be completed by you as the interviewer and not by asking the respondent himself.

1. No other person was around at ANY point  3. 1 or more people were in hearing range for the DURATION of the interview  
 2. 1 or more people were in hearing range during PART of the interview

**O.2** Were there any interruptions during the interview?  
 0. No  1. Yes → **If yes, what type of interruptions:** \_\_\_\_\_

**O.3** How well do you know the respondent?  
 1. Not at all  3. I have heard of him  5. Relative  
 2. Know his family  4. I know him quite well  99. Other . Specify : \_\_\_\_\_

**O.4** How wealthy is the individual relative to other individuals in Kawale?  
 1. Much wealthier than others  3. About equally wealthy  5. Much poorer than others  
 2. Slightly wealthier than others  4. Slightly poorer than others  98. Don't know

**O.5** Was respondent interviewed at his home?  
 1. Yes  0. No → **Go to O.7**

**O.6** How wealthy is the household relative to other households in Kawale?  
 1. Much wealthier than others  3. About equally wealthy  5. Much poorer than others  
 2. Slightly wealthier than others  4. Slightly poorer than others  98. Don't know

**O.7** How patient was the respondent during the interview?  
 1. Very impatient  2. Somewhat impatient  3. Somewhat patient  4. Very patient

**O.8** Any additional notes/observations you have?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Please remember to fill out the result code on the coversheet

<b>TO BE COMPLETED BY SUPERVISORS AND DATA CAPTURERS:</b>			
<b>O.9</b>	Interview Checked by:	_____	
<b>O.10</b>	Requires Callback	<input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No	<b>O.11</b> Callback Checked by: _____
<b>O.12</b>	Data entered	<input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No	

# Appendix D: Survey instrument: follow-up survey

**University of Michigan**  
**3IE FOLLOW-UP SURVEY**  
**P. Respondent Pre-edit**

**P.1** Respondent Name: \_\_\_\_\_  
(Please include all names including nicknames)

**P.2** Respondent's ID:

**P.3** Area ID:  **P.4** Block ID:

**P.5** Interviewer ID:  **P.6** Running Number:

**P.7** Contact Address: (Do NOT write down a postal address, we need a residential address. If no residential address is available, please describe how to find the Household. Specify any stores, churches, schools nearby as well as any street intersections and any other notable features.)  
 \_\_\_\_\_  
 \_\_\_\_\_

**P.8** GPS Coordinates:  
 Longitude (South):   
 Latitude (East):

**P.9** What hours is he usually away from home?

Mon	Tues	Weds	Thurs	Fri	Sat	Sun

**P.10** In what area does the respondent work (if he is not available at home)?  
 1. Old town     3. Kanengo     5. Biwi triangle     99. Other. Specify: \_\_\_\_\_  
 2. City Centre     4. Bwalo la Njovu     6. Within Kawale

**P.11** Also, what is the name of the place at which he works? \_\_\_\_\_

**P.12** Does he have a cellphone?  
 1. Yes    **→** **b. If yes, what is his number:** \_\_\_\_\_  
We will keep this number confidential and only use for our records or future projects. (If respondent has multiple phone numbers please capture all)  
 0. No   

**P.13** Phone number and name of a member of the household or a neighbor on which you can be reached:  
 Name: \_\_\_\_\_ Phone number: \_\_\_\_\_

**R.1** Is the respondent available at home now?  
 1. Yes    **→** **READ the CONSENT FORM and Go to R.3**     0. No

**R.2** If the respondent is not available at present, please find a neighbour or relative and work through the remainder of this page. Please write down the name and the relationship of the informant to the respondent:  
 Name: \_\_\_\_\_ Relationship of informant to respondent: \_\_\_\_\_

**R.3** Contact Address: If the respondent has moved please capture the new information on how to locate the individual. If the respondent has not moved, tick the box and provide any additional details for locating the household. (Do NOT write down a postal address, we need a residential address. If no residential address is available, please describe how to find the Household. Specify any stores, churches, schools nearby as well as any street intersections and any other notable features.)

0. Respondent has NOT moved

**R.4** GPS Coordinates: (These coordinates are only to be recorded if the respondent has moved or the coordinates are missing on the front page and you are at the house of the respondent.)

Longitude (South):

-									
+									

Latitude (East):

**R.5** What hours are you (or is he) usually away from home?

Mon	Tues	Weds	Thurs	Fri	Sat	Sun

**R.6** In what area do you work or does the respondent work (if he is not available at home)?

0. Respondent works in same place → **Go to R.8**

1. Old town     3. Kanengo     5. Bwini triangle     99. Other. Specify: \_\_\_\_\_

2. City Centre     4. Bwalo la Njovu     6. Within Kawale

**R.7** Also, what is the name of the place at which you (or he) works? \_\_\_\_\_

**R.8** Do you or does he have a cellphone?

1. Yes →

0. No ↓

b. **If yes**, what is his number:  
We will keep this number confidential and only use for our records or future projects.  
(If respondent has multiple phone numbers please capture all)

**Go to R.10**

**R.9** **If no**, please record a phone number and name of a member of the household or a neighbor on which you can be reached:

Name: \_\_\_\_\_ Phone number: \_\_\_\_\_

		Visit 1	Visit 2	Visit 3	Visit 4
A	Date (DD/MM/YY)				
C	Current Time (24hr clock):				
D	Interviewer Number:				
E	Interviewer Name:				
F.1	Result (see codes):				
F.2	Specify (if moved, or other):				
G	Important notes:				
H	Appointment booked for (Date, Time):				

**Result codes:**

1 = COMPLETED  
2 = REFUSED

3 = HOSPITALISED  
4 = DEAD

5 = RESPONDENT NOT KNOWN  
6 = TEMPORARILY ABSENT (Specify)

7 = MOVED (Specify)  
99 = OTHER (Specify)

**R.11** Where did the interview take place?

1. At home     2. At his work     99. Other. Specify: \_\_\_\_\_

**READ THE CONSENT FORM NOW IF YOU HAVE NOT ALREADY DONE SO.**

**S. Starter**

Part of this study is on your background experiences. Just to begin,

S.1 On a scale from 0 - 10, with 0 being very unhappy and 10 being very happy, how happy are you right now?  
Scale (0 - 10): \_\_\_\_\_

**A. Survey Recall and Information Acquisition**

A.0 Current Time:

A.1 Do you remember being asked questions early last year (February, March, or April) as part of a survey about male circumcision?  
 1. Yes  0. No

A.2 Did you receive a coupon or voucher at the end of the survey?  
 1. Yes  0. No → **Go to A.12**

A.3 What was the voucher for?

A.4 How much was the voucher worth? **Its okay if you don't remember, just tell us your best guess.**  
**Do not READ out responses**  
 0. 950 MKW subsidy; MC was free  1. 900 MKW subsidy; MC cost 50 MKW  2. 850 MKW subsidy; MC cost 100 MKW  
 3. 750 MKW subsidy; MC cost 200 MKW  4. 450 MKW subsidy; MC cost 500 MKW  5. 50 MKW subsidy; MC cost 900 MKW

A.5 How confident/certain are you that you remember this correctly?  
**READ out responses and mark only ONE.**  
 1. Very confident (Certain)  2. A little confident  3. Not at all confident  4. I'm guessing

A.6 Has the voucher expired?  
 1. Yes  0. No → **Go to A.8**

A.7 When did the voucher expire?  
A. Year: \_\_\_\_\_ B. Month (1-12): \_\_\_\_\_ C. Day (if known): \_\_\_\_\_  98. Don't Know

A.8 What colour was it?  
 1. Red  2. Yellow  3. Green  4. White  5. Blue  6. Pink  
 98. Don't Know

A.9 Do you still have the voucher?  
 1. Yes  0. No

A.10a Can I see the voucher?  
 1. Yes  0. No → **Go to A.12**

A.11 Why do you not have the voucher?  
**Do not READ responses; Mark ALL that apply.**  
 1. I used it when I went to BLM for MC  
 2. I gave it to a friend  
 3. I lost it  
 4. It expired so I thought it was useless  
 5. I threw it away as I didn't intend to use it  
 99. Other. Specify: \_\_\_\_\_

A.10b If yes, how much was the voucher worth?  
 0. 950 MKW subsidy; MC was free  3. 750 MKW subsidy; MC costed 200 MKW  
 1. 900 MKW subsidy; MC costed 50 MKW  4. 450 MKW subsidy; MC costed 500 MKW  
 2. 850 MKW subsidy; MC costed 100 MKW  5. 50 MKW subsidy; MC costed 900 MKW

A.12 Did you receive any money or gifts after being asked questions as part of a survey?  
 1. Yes  0. No → **Go to A.14**

A.13 What did you receive before or after the survey by the interviewer?  
Airtime number of units: \_\_\_\_\_  0. None  99. Other. Specify \_\_\_\_\_

A.14 At the time when the person interviewed you, were you told any information about headlice?

1. Yes

0. No

A.15 If yes, what information? (If respondent says No, then ask the respondent what information he has heard or been told about headlice in the last 12 months.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A.16 During the interview that was conducted last year did you hear about a scientific study that took place in Africa about circumcision and HIV?

1. Yes

0. No

---

### B. Beliefs and Attitudes

Now, I'd like to ask you some questions about your attitudes and beliefs about circumcision.

B.1 If 100 uncircumcised men each sleep with a woman who is HIV positive last night and did not use a condom, how many of them do you think would get HIV?

Number \_\_\_\_\_

B.2 If 100 circumcised men each sleep with a woman who is HIV positive last night and did not use a condom, how many of them do you think would get HIV?

Number \_\_\_\_\_

B.3 Who faces a higher risk in contracting HIV- a circumcised man, an uncircumcised man, or do they face about the same risk?

**Mark only one**

1. Circumcised man faces higher risk

3. The face the same risk

2. Uncircumcised man faces higher risk

98. Don't know

B.4 Have you ever heard about a scientific study that took place in Africa about circumcision and HIV?

1. Yes

0. No

B.5 Do you remember in which countries the study was conducted?

Even if you haven't heard about such a study, where do you think that such a scientific study would have taken place.

**READ out responses and mark ALL that apply**

A. Egypt  1. Yes  0. No

F. Nigeria  1. Yes  0. No

B. Ethiopia  1. Yes  0. No

G. Senegal  1. Yes  0. No

C. Ghana  1. Yes  0. No

H. South Africa  1. Yes  0. No

D. Kenya  1. Yes  0. No

I. Uganda  1. Yes  0. No

E. Malawi  1. Yes  0. No

J. Zambia  1. Yes  0. No

B.6 Do you recall what the study showed as to who (a circumcised man, or uncircumcised man) faces higher risk of contracting HIV?

Even if you haven't heard about such a study, do you think such a scientific study about circumcision and HIV would show that a circumcised, or uncircumcised man faces higher risk, or would it be the same?

1. Circumcised man faces higher risk

3. The face the same risk

98. Don't know

2. Uncircumcised man faces higher risk

99. Study showed something else. Please explain:

Now I would like to talk about some of your opinions about HIV/AIDS

B.7 How many people known to you do you suspect have died from AIDS overall?

Number \_\_\_\_\_

B.8 If we took a group of 10 people from this area—just normal people who live around you—how many of them do you think would now have HIV/AIDS?

Number \_\_\_\_\_



**B.9** Now, I am going to ask you some questions about what you might expect to happen in the future. Sometimes the future is difficult to know, but I would like to know your best guess.  
Do you think that you will live up to:

Interviewer: Start at Respondents age or 25 and ask for each age until R answers "No".

Zaka	Yes	No	Dk	Zaka	Yes	No	Dk	Zaka	Yes	No	Dk
25	1	0	88	50	1	0	88	75	1	0	88
30	1	0	88	55	1	0	88	80	1	0	88
35	1	0	88	60	1	0	88	85	1	0	88
40	1	0	88	65	1	0	88	90	1	0	88
45	1	0	88	70	1	0	88	95	1	0	88
								100	1	0	88

98. I do not know

**B.10** If 100 babies were born today, how many of them do you think would live up to age 75?

Number \_\_\_\_\_

**B.11** Think about 10 people in this area who live around you and are the same age as you. How many of them do you think will die before you do?

Number \_\_\_\_\_

### C. Male Circumcision: General

Now, I am going to ask some questions about male circumcision as well as any experiences you had at the BLM Kawale clinic pertaining to male circumcision. Circumcision is the removal of the foreskin from the penis. This can be conducted in the clinic or traditionally (in the bush). It can be the removal of the entire foreskin or only part of the foreskin. Some people agree with circumcision, some people do not agree with circumcision. It is really a matter of opinion. Please feel free in telling us what you think. We don't mind whether you agree with it or disagree with it, we are just interested to know what YOUR opinion is.

**C.1** In the past year, did you at any point contemplate (think about) getting a male circumcision?

1. Yes

0. No

Only if volunteered by respondent.  
 98. I got circumcised

**C.2** In the past year, did you Speak to your partner about MC (whether or not you got circumcised)?

1. Yes

0. No

99. Don't have a partner

**C.3** In the past year, did you Speak to any of your friends and/or relatives about MC (whether or not you got circumcised)?

1. Yes

0. No

**C.4** In the past year, did any of your male friends or relatives contemplate (think about) getting a male circumcision?

1. Yes

0. No

**C.5** Think of all your male friends and relatives, how many of them are circumcised?

Number: \_\_\_\_\_

**C.6** In the past year, how many of your male friends or relatives got circumcised?

Number: \_\_\_\_\_

**C.7** Have you ever discussed sexual or reproductive health with a health care provider?

1. Yes

0. No

**C.8** At any time when your partner was pregnant, did you yourself talk with a doctor or any other health care provider about the health of the mother or the pregnancy?

1. Yes

0. No

2. No children

Go to C.10

**C.9** Have you yourself ever taken one of your children to a health facility for care?

1. Yes

0. No

2. No children

**C.10** In the past year, did you contemplate (think about) having your male child or a young male relative circumcised?

1. Inde

0. Ayi

99. Don't have a son or young male relative.

Go to C.15

C.11 In the past year, did you have one of your sons (or a young male relative) circumcised?

1. Inde  0. Ayi → **Go to C.15**

How many sons and young male relatives did you have circumcised in the past year?

C.12

Number: \_\_\_\_\_

C.13 For each of your sons and young male relatives that you had circumcised in the past year, please could you tell us:

	A. Is this child your son or a male relative?	B. In what year and month did he get	C. How old was the child at the time
Child 1:	<input type="checkbox"/> 1. Own child <input type="checkbox"/> 2. Male relative	Year: _____ Month: _____	Age: _____
Child 2:	<input type="checkbox"/> 1. Own child <input type="checkbox"/> 2. Male relative	Year: _____ Month: _____	Age: _____
Child 3:	<input type="checkbox"/> 1. Own child <input type="checkbox"/> 2. Male relative	Year: _____ Month: _____	Age: _____

C.14 Where did you have your son or male relative circumcised?

A. Clinic: \_\_\_\_\_ B. Village: \_\_\_\_\_ C. Area/District: \_\_\_\_\_

D. Other: (if multiple children were circumcised at different locations, please provide details): \_\_\_\_\_

When we last visited you, we shared some information about the services available at BLM. We'd like to ask you some questions related to your experience regarding the health care services at BLM specifically regarding Male Circumcision.

C.15 Did you ever try to call (by phone) BLM about anything relating to Male Circumcision (whether or not you ended up visiting the clinic for the surgery)?

1. Yes  0. No → **Go to C.20**

C.16 Including all of the times you were successful and those times you were not successful, how many times did you attempt to call?

Times: \_\_\_\_\_

C.17 When was the first time you called (by phone) BLM about anything related to Male Circumcision?

A. Year: \_\_\_\_\_ B. Month: \_\_\_\_\_  98. Don't know

C.17b. Was it early, middle, or late in the month?

1. Early  2. Middle  3. Late

C.18 Of these times, how many times were you successful in reaching a BLM staff member or the BLM clinic?

Times: \_\_\_\_\_

C.19 How much airtime total (in kwacha) did you use in attempting to contact BLM about their MC service over the phone for ALL phone calls that you made?

Kwacha: \_\_\_\_\_

C.20 In the past year, did you ever go to the BLM Kawale clinic to get more information about MC or to attend MC counselling (if you were successful or if you were unsuccessful)?

1. Yes  0. No → **Go to C.23b**

C.21 When was the first time you went to BLM to get information about MC or to try to attend MC counselling?

A. Year: \_\_\_\_\_ B. Month: \_\_\_\_\_  98. Don't know

C.21b. Was it early, middle, or late in the month?

1. Early  2. Middle  3. Late

C.22 How many times did you go to the BLM Kawale clinic to get more information about MC or to try to attend MC counselling (if you were unsuccessful or if you were unsuccessful)?

Times: \_\_\_\_\_

**C.23a** Including the travelling time to and from the clinic, as well as the waiting time at the BLM Kawale clinic, approximately how long (thinking about all visits) in total in minutes did you spend at the BLM Kawale clinic to get more information about MC or to attend MC counselling?

Time (in minutes): \_\_\_\_\_

**C.23b** Even if you never went to the BLM Kawale clinic, approximately how long do you think it would take in total in minutes if you were to go to the BLM Kawale clinic to get more information about MC or to attend MC counselling? (Including travelling time to and from the clinic and waiting time at the clinic)?

Time (in minutes): \_\_\_\_\_

**C.24** In the past year, did you ever go to the BLM Kawale clinic to get MC surgery (even if you were unsuccessful or decided not to have it)?

1. Yes

0. No → **Go to C.27b**

**C.25** When was the first time you went to BLM to get Male Circumcision Surgery?

A. Year \_\_\_\_\_ B. Month \_\_\_\_\_  98. Don't know

**C.25b** Was it early, middle, or late in the month?

1. Early

2. Middle

3. Late

**C.26** How many times did you go to the BLM Kawale clinic to get MC surgery (even if you were unsuccessful or decided not to have it)?

Times: \_\_\_\_\_

**C.27a** Including the travelling time to and from the BLM clinic and the waiting time at the BLM Kawale clinic, approximately how long (thinking about all visits) in total in minutes did you spend at the BLM Kawale clinic to get MC surgery?

Time (in minutes): \_\_\_\_\_

**C.27b** Even if you never went to the BLM Kawale clinic, approximately how long do you think it would take in total in minutes if you were to go to the BLM Kawale clinic to get an MC surgery? (Including travelling time to and from the clinic and waiting time at the clinic)

Time (in minutes): \_\_\_\_\_

**C.28** **Interviewer Check:** Did respondent ever interact with BLM (for whatever reason, whether or not they were successful in making contact)? (Select "YES" if the respondent answered "YES" to any of the following questions - C.15; C.20 and C.24)

1. Yes → **Go to C.30**

0. No

**C.29** Which of the following statements do you agree with?

**READ out each question and mark ALL that apply**

A. In all, I had no interactions with BLM because I wasn't interested in a circumcision

1. Yes

0. No

B. In all, I had no interaction with BLM because I was too busy

1. Yes

0. No

C. In all, I had no interaction with BLM because I thought it was too costly

1. Yes

0. No

**C.30** Did you go anywhere such as a clinic, NGO, or other resource, other than BLM to get more information about MC or to attend MC counselling?

1. Yes

0. No → **Go to C.33**

**C.31** Where did you go (if multiple places, please list all places)?

Name of place(s): \_\_\_\_\_

**C.32** Including the travelling time and waiting time at this place, approximately how long (thinking about all visits) in total in minutes did you spend there to get more information about MC or to attend MC counselling?

Time (in minutes): \_\_\_\_\_

**C.33** Did you go anywhere such as a clinic or NGO, other than BLM to get MC surgery?

1. Yes

0. No → **Go to Section D**

C.34 Where did you go (If multiple places, please list all places)?

Name of place(s): \_\_\_\_\_

C.35 Including the travelling and waiting time at this location, approximately how long (thinking about all visits) in total in minutes did you spend there to get MC surgery?

Time (in minutes): \_\_\_\_\_

**D. Male Circumcision: Specific**

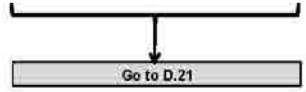
Now, I am going to ask you about your circumcision status. Recall circumcision is the removal of the foreskin from the penis. This can be conducted in the clinic or traditionally (in the bush). It can be the removal of the entire foreskin or only part of the foreskin. It is extremely important to us that you tell us your true experiences and beliefs. There is no right or wrong answer. We care most about YOUR opinion and YOUR actual experiences.

D.1 Are you circumcised?

1. Yes

0. No

98. Don't know



D.2 It is quite common for men who get circumcised not to have the whole foreskin removed

How much of your foreskin was removed:

1. The entire foreskin

97. Refused

2. Only some of the foreskin

*Only if volunteered by respondent:*

4. I wasn't truthful last year to the survey team last year.

5. There must be some mistake, I was circumcised when I was interviewed last year

D.3 What year did you get circumcised?

98. Don't know

→ D3b. Please estimate age when you were circumcised: \_\_\_\_\_

D.4 What month (1-12) did you get circumcised?

\_\_\_\_\_

98. Don't know

D.5 Where did you get circumcised?

1. In Lilongwe at a government clinic

2. In Lilongwe at BLM

3. In Lilongwe at a private clinic (Not BLM)

Go to D.7

98. Other, Specify: \_\_\_\_\_

D.6 What is painted on the ceiling of the BLM operating room?

1. No picture

2. Don't remember

3. Description: \_\_\_\_\_

D.7 What is the name of the clinic or village where you were circumcised?

Clinic: \_\_\_\_\_

Village: \_\_\_\_\_

TA/ Area: \_\_\_\_\_

District: \_\_\_\_\_

D.8 How much did you pay for the circumcision out of pocket for the surgery? Even if you cant remember exactly, please give us your best estimate.

Kwacha: \_\_\_\_\_

D.9 How confident/certain are you that you remember this correctly?

1. Very confident (Certain)

2. A little confident

3. Not at all confident

4. I'm guessing

D.10 After receiving the MC surgery, did you have any of the following complications?

Ask each question

- |                       |                                 |                                |                     |                                 |                                |
|-----------------------|---------------------------------|--------------------------------|---------------------|---------------------------------|--------------------------------|
| A. Wound still open   | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0. No | F. Scarring         | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0. No |
| B. Foreskin remaining | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0. No | G. Bleeding         | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0. No |
| C. Crust              | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0. No | H. No complications | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0. No |
| D. Swelling           | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0. No | I. Other            | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0. No |
| E. Lacerations        | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0. No | J. Specify:         | _____                           |                                |

D.11 On a scale from 0 - 10 how severe would you say the complications you experienced were (Think of 10 as the most severe/dangerous; and think of 0 as no complications)

Scale (0 - 10): \_\_\_\_\_

D.12a Did you receive/buy any medications from the following:

D.12b. IF yes, how much did you spend on medicine?

D.12c What medicine was it?

- |                               |                                 |                                |                   |            |
|-------------------------------|---------------------------------|--------------------------------|-------------------|------------|
| A. BLM                        | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0. No | → A. _____ Kwacha | → A. _____ |
| B. Pharmacy or other hospital | <input type="checkbox"/> 1. Yes | <input type="checkbox"/> 0. No | → B. _____ Kwacha | → B. _____ |

D.13 What was the most painful part of the procedure?

\_\_\_\_\_

D.14 How many days did it take until your penis was completely healed after being circumcised?

Days: \_\_\_\_\_

D.15 How many days after the circumcision did you wait until you had sex after circumcision?

Days: \_\_\_\_\_

99. Never had sex      97. Have not had sex since  
Go to D.19

D.16 In what way has sex changed for you since you got circumcised?

\_\_\_\_\_  
 \_\_\_\_\_

D.17

Would you say you enjoy sex more, less or about the same now that you are circumcised compared to when you were not circumcised?

1. Enjoys sex more      2. Enjoys sex less      3. Enjoys sex the same as before

D.18 Would you say your partner enjoys sex more, less or about the same now that you are circumcised compared to when you were not circumcised?

1. Enjoys sex more      2. Enjoys sex less      3. Enjoys sex the same as before  
 99. No partner

D.19 How many days after the circumcision did you return to the clinic to have the stitches removed?

Days: \_\_\_\_\_      0. I never did

D.20 How much money did you lose, when you went through the process of MC. Total for all of the time it took?

Wages lost (Amount in Kwacha): \_\_\_\_\_

D.21 Interviewer check: Respondent's circumcision status (Refer to question D.1.)

1. Uncircumcised     → Go to D.22      0. Circumcised     → Go to Section E.

D.22 How much money do you think you would lose, if you had to go through a MC surgery. Total for all of the time it would need to take?

Wages lost (Amount in Kwacha): \_\_\_\_\_

D.23 How many days after circumcision do you think you would have to wait until you had sex after circumcision?

Days: \_\_\_\_\_

D.24 Do you think you would enjoy sex more, less or about the same if you were to become circumcised compared to now?

1. Enjoys sex more       2. Enjoys sex less       3. Enjoys sex the same as before

D.25 Do you think your partner would enjoy sex more, less or about the same if you were to become circumcised compared to now?

1. Enjoys sex more       2. Enjoys sex less       3. Enjoys sex the same as before  
 99. No partner

D.26 If you were to get circumcised, how many days after the circumcision do you think it would take before your penis would be completely healed?

Days: \_\_\_\_\_

D.27 Would you ever get circumcised?

1. Yes

0. No



D.28a Why have you not gotten circumcised?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

D.28b Why would you not get circumcised?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

D.29 How much is the cost of a circumcision at BLM? Even if you do not know, please give your best estimate.

Kwacha: \_\_\_\_\_

D.30 Have you ever heard of BLM giving free circumcisions?

1. Yes

0. No

### E. Sexual Behavior

E.1 I will not ask about the results. Have you ever been tested for HIV?

1. Yes

0. No

Go to E.4

Only if volunteered by respondent:

2. I know I'm HIV+

3. I know I'm HIV-

E.2 When was the last time that you had a test for HIV?

A. Year \_\_\_\_\_

B. Month \_\_\_\_\_

E.3 Where were you tested the last time you were tested for HIV?

Clinic Name/Other VCT center: \_\_\_\_\_

97. Home

Now I am going to ask you about your own sexual behavior. I'd like to remind you that I'm not going to ask if you are married, or anything that might reveal details about your partner or partners.

E.4 In your opinion, what is the likelihood (chance) that you are infected with HIV/AIDS now (No likelihood, Low Likelihood, Medium Likelihood, and High Likelihood)?

1. No likelihood

3. Medium likelihood

2. Low likelihood

4. High Likelihood

98. Don't Know

Only if volunteered by respondent:

5. I know I am HIV+

6. I know I am HIV-



E.18 Do you have a condom with you? If you do, can I see it?

1. Yes, and saw condom       2. Yes, but didn't see it       3. No condom with me

E.19 READ: People sometimes have sex in different ways. One of those ways is oral sex, which is when a woman pleases a man by using her mouth to stimulate his penis. This is also known as kuyamwa chida cha abambo. Some people call it orosex, bulo jobu, mikilophone, kuyamwa shada, kunyambita, kukudana, or kuphukusa.

A. Have you ever heard of oral sex, kuyamwa chida cha abambo, or any of the other terms for this?		B. Has your best or closest male friend ever received oral sex from a woman?		C. Have you ever received oral sex from a woman?		D. Have you ever orgasmed from oral sex?		E. Did you enjoy receiving oral sex?
<input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No	→ Go to Section F	<input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No	→	<input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No	→ Go to Section F	<input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No	→	<input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No

### F. Economics

Now I have a few questions about your background (migration), employment and income generating activities.

F.1 F.1a In the past year, have you participated in the following as a primary activity or occupation?

- A. Salaried job       1. Yes       0. No
- B. Being a student       1. Yes       0. No
- C. Just Sitting       1. Yes       0. No
- D. Day Labor       1. Yes       0. No

F.1b If yes, how many months did you do this in the past year?

- A. Months \_\_\_\_\_
- B. Months \_\_\_\_\_
- C. Months \_\_\_\_\_
- D. Months \_\_\_\_\_

F.2 Think about all of the work that you have done in the past month in which you have been paid cash or kind. How much do you estimate that you have earned in the past month?

Kwacha \_\_\_\_\_

F.3 Have you ever worked as an enumerator/interviewer?

1. Yes       0. No      → **Go to F.5**

F.4 How many times?

Times: \_\_\_\_\_

F.5 Which of the following actions did you have to complete as part of the job recruitment process for your current job or your most recent past work experience? Think about jobs as very general.

**READ out choices**

- A Did you have to compete with other applicants for the position?       0. No       1. Yes
- B Did you have to take a test as part of the recruitment process?       0. No       1. Yes
- C Did you have to undergo an interview?       0. No       1. Yes
- D Did you have to attend a training?       0. No       1. Yes

F.6 Thinking about the last 5 years, how many times have you attended an interview for a job (include those interviews you attended but were not successful in getting the job)?

1. Never attended a job interview       3. 2 - 5 times       5. 10 - 25 times
2. Once       4. 5 - 10 times       6. More than 25 times



F.7 In what type of area did you spend most of your childhood - Rural (in a village); Peri-urban (at a trading center); Urban (in a town or city)?

1. Rural (in a village)       2. Peri-urban (at a trading center)       3. Urban (town or city)

F.8 Between the ages of 10 and 15 years of age in what type of area did you spend most of your time - Rural (in a village); Peri-urban (at a trading center); Urban (in a town or city)?

1. Rural (in a village)       2. Peri-urban (at a trading center)       3. Urban (town or city)

F.9 How many years total have you lived in Lilongwe city?

Number of years: \_\_\_\_\_

---

### X. Gender Norms

For this section, I will read you some statements. Please tell me if you agree, partially agree, or disagree with each statement.

X.1 It is the man who decides when to have sex.

1. Agree       2. Partially agree       3. Disagree

X.2 There are times when a woman deserves to be beaten

1. Agree       2. Partially agree       3. Disagree

X.3 You don't talk about sex, you just do it

1. Agree       2. Partially agree       3. Disagree

X.4 Changing diapers, giving the kids a bath, and feeding the kids are a woman's responsibility

1. Agree       2. Partially agree       3. Disagree

X.5 I would be outraged if my wife asked me to use a condom

1. Agree       2. Partially agree       3. Disagree

X.6 A man should have the final word about decisions in his home

1. Agree       2. Partially agree       3. Disagree

X.7 It is a woman's responsibility to avoid getting pregnant when a pregnancy is not desired

1. Agree       2. Partially agree       3. Disagree

X.8 Women need health services more than men

1. Agree       2. Partially agree       3. Disagree

X.9 I would feel weak if I asked for help

1. Agree       2. Partially agree       3. Disagree

X.10 If a woman cheats on a man, it is okay for him to hit her

1. Agree       2. Partially agree       3. Disagree

X.11 Men need sex more than women do

1. Agree       2. Partially agree       3. Disagree

X.12 A man needs other women, even if things are fine with his wife

1. Agree       2. Partially agree       3. Disagree

X.13 Men are always ready to have sex

1. Agree       2. Partially agree       3. Disagree

Just to finish off.

X.14 On a scale from 0 - 10, with 0 being very unhappy and 10 being very happy, how happy are you right now?

Scale (0 - 10): \_\_\_\_\_

X.15 **Current Time:**

---

### Section G: Condom Purchases

---

G.1 I would now like to give you 30 Kwacha to thank you for your time today.  
Please sign here that you have received this money:

Signature: \_\_\_\_\_

G.2 I also have brought with me chisango condoms. They are available for you to purchase for a discounted price. You can purchase a pack for 5 Kwacha, or if you would just like one condom, you may purchase it for 2 Kwacha. I will also record your condom purchase here.

Would you like to purchase any condoms today?

1. Yes       0. No      → **Go to Section O.**

G.3 How many condoms would you like to purchase?

Number \_\_\_\_\_

---

### O. OFFICE:

---

Before leaving the household, give the respondent his allocation of airtime and thank him for his time.

After leaving the household please complete the following set of questions. These **MUST** be completed by you as the interviewer and not by asking the respondent himself.

O.1 Were other persons within hearing range at any time during the interview?

1. No other person was around at ANY point       3. 1 or more people were in hearing range for the DURATION of the interview  
 2. 1 or more people were in hearing range during PART of the interview


O.2 Were there any interruptions during the interview?

0. No       1. Yes      → **If yes, what type of interruptions:** \_\_\_\_\_

O.3 How well do you know the respondent?

1. Not at all       3. I have heard of him       5. Relative  
 2. Know his family       4. I know him quite well       99. Other : Specify \_\_\_\_\_

**O.4** How wealthy is the individual relative to other individuals in Kawale?  
 1. Much wealthier than others     3. About equally wealthy     5. Much poorer than others  
 2. Slightly wealthier than others     4. Slightly poorer than others     98. Don't know

**O.5** Was respondent interviewed at his home?  
 1. Yes     0. No     **Go to O.7**

**O.6** How wealthy is the household relative to other households in Kawale?  
 1. Much wealthier than others     3. About equally wealthy     5. Much poorer than others  
 2. Slightly wealthier than others     4. Slightly poorer than others     98. Don't know

**O.7** How patient was the respondent during the interview?  
 1. Very impatient     2. Somewhat impatient     3. Somewhat patient     4. Very patient

**O.8** Any additional notes/observations you have?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**O.9** Do you think the respondent was truthful about his circumcision status, explain:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Please remember to fill out the result code on the coversheet**

**QUESTIONNAIRE TRACKING - TO BE COMPLETED BY SUPERVISORS:**

- O.10 Questionnaire remains with core team     1. Yes     0. No    s Supervisor: \_\_\_\_\_
- O.11 Questionnaire to Kawale tracking team     1. Yes     0. No    s Supervisor: \_\_\_\_\_
- O.12 Questionnaire to tracking team     1. Yes     0. No    s Supervisor: \_\_\_\_\_
- O.13 Questionnaire to Qualitative team     1. Yes     0. No    s Supervisor: \_\_\_\_\_
- O.14 Questionnaire to Data capture team     1. Yes     0. No    s Supervisor: \_\_\_\_\_

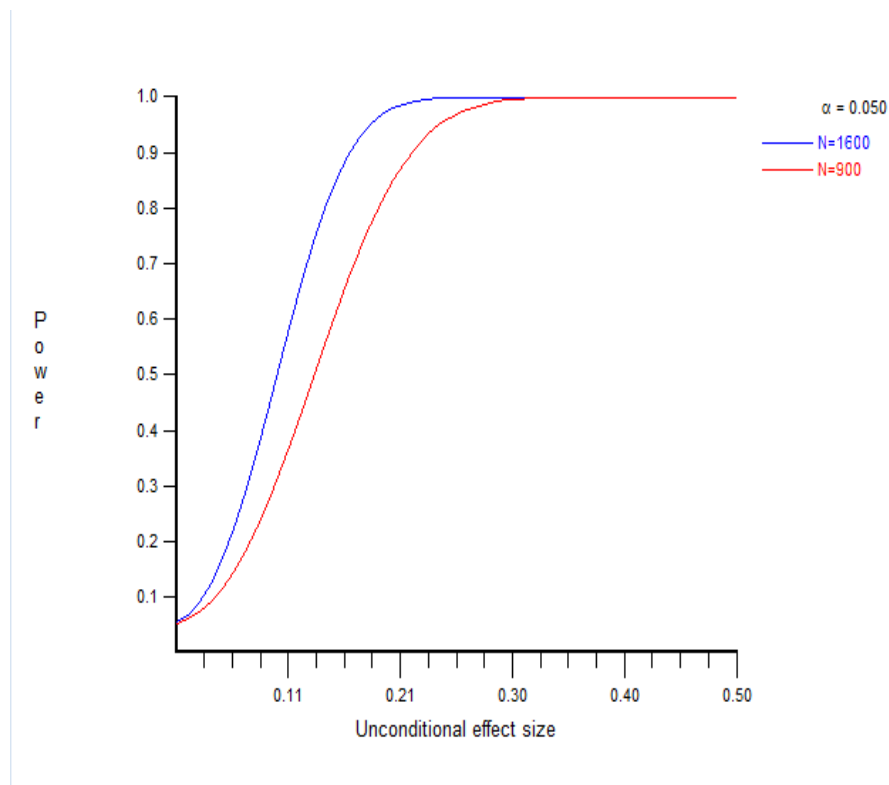
TO BE COMPLETED BY SUPERVISORS:	TO BE COMPLETED BY DATA CAPTURERS:
O.15 Interview Checked by: _____	O.18 Data entered <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No
O.16 Requires Callback <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No	O.19 Data entered by: _____
O.17 Callback Checked by: _____	

## Appendix E: Power calculations

From our experience, we expect very low refusal rates in participation. Initially, we had not planned on conducting a follow-up survey and thus did not account for attrition to the follow-up study.

Power calculations were conducted examining one main outcome variable: circumcision at the clinic. Statistical power is a function of the expected effect size, the level of significance desired and sample size (Kish 1965; Cohen 1977). In health research, standardised effect sizes of approximately 0.20–0.30 are considered worth detecting. With one site in Malawi with 1,600 men, we would be able to detect minimum effect sizes of 0.16 for the effect of information. Testing across voucher amounts between the lowest and highest two amounts consists of a sample size of approximately 900 men; this yields a minimum detectable effect size of 0.21 with 90 per cent power.

**Figure 6 Power calculation for different sample sizes**



## References

- Auvert, B, Taljaard, D *et al.*, 2005. Randomized, controlled intervention trial of male circumcision for reduction of HIV infection risk: The ANRS 1265 trial. *PLoS Medecine*, 2(11), e298.
- Bailey, RC, Muga, R *et al.*, 2002. The acceptability of male circumcision to reduce HIV infections in Nyanza Province, Kenya. *AIDS Care*, 14(1), pp.27–40.
- Bailey, RC, Moses, S *et al.*, 2007. Male circumcision for HIV prevention in young men in Kisumu, Kenya: a randomised controlled trial. *Lancet*, 369(9562), pp.643–656.
- Bengo, JM *et al.*, 2010. *Situation Analysis of Male Circumcision in Malawi*. Blantyre Malawi: University of Malawi College of Medicine.
- Biddlecom, AE and Munthali, A, Singh, S, and Wong, V, 2007. Adolescents' views of and preferences for sexual and reproductive health services in Burkina Faso, Ghana, Malawi and Uganda. *African Journal of Reproductive Health*, 11(3), pp.99–100.
- Cohen, Jacob, 1977. *Statistical power analysis for the behavioral sciences*. New York: Academic Press.
- Doyle, D, 2005. Ritual Male Circumcision: A Brief History. *J R Coll Physicians Edinb*, 35, pp.279–285.
- Drain, PK, Smith, JS, Hughes, JP, Halperin, D, and Holmes, KK, 2004. Correlates of national HIV seroprevalence: An ecological analysis of 122 developing countries. *J Acquir Immune Defic Syndr*, 35, pp.407–420.
- Godlonton, S, Munthali, A and Thornton, R, 2012. *Behavioral Response to Information? Circumcision, Information, and HIV Prevention*. University of Michigan Working Paper.
- Gray, RH, Kigozi, G *et al.*, 2007. Male circumcision for HIV prevention in men in Rakai, Uganda: a randomised trial. *Lancet*, 369(9562), pp.657–666.
- Halperin, DT, Weiss, HA, Hayes, R, Auvert, B, Bailey, RC, Caldwell, J, Coates, T, Padian, N, Potts, M, Ronald, A, Short, R, Williams, B and Klausner, J, 2002. Response to Ronald Gray, male circumcision and HIV acquisition and transmission: cohort studies in Rakai, Uganda. *AIDS*. 16(5), pp.810–812.
- Hankins, C, Forsythe, S and Njeuhmeli, E, 2011. Voluntary medical male circumcision: an introduction to the cost, impact, and challenges of accelerated scaling up. *PLoS Med*, 8(11), e1001127.
- Hewett, PC, Haberland, N, Apicella, L, Mensch, BS, 2012. The (Mis)Reporting of Male Circumcision Status among Men and Women in Zambia and Swaziland: A Randomized Evaluation of Interview Methods. *PLoS ONE*, 7(5), e36251.

IRIN Plus News, 2012. MALAWI: Government finally moves on Male Circumcision. *IRIN*, [online] 10 February. Available at: <http://www.irinnews.org/report.aspx?reportid=94832> [Accessed 24 February 2012].

Kebaabetswe, P, Lockman, S, Mogwe, S, Mandevu, R, Thior, I, Essex, M and Shapiro, RL, 2003. Male circumcision: an acceptable strategy for HIV prevention in Botswana. *Sex Transm Infect.*, 7, pp.214–219.

Kish, Leslie, 1965. *Survey Sampling*. New York: Wiley.

Lagarde, E, Dirk, T, Puren, A, Reathe, RT and Bertran, A, 2003. Acceptability of male circumcision as a tool for preventing HIV infection in a highly infected community in South Africa. *AIDS*, 17(1), pp.89–95.

Lawson, M, Mazengera, S, Nkhoma-Mbawa, F *et al.*, 2008. *Malawi Essential Health Services Campaign*. Oxfam Research Report, Oxfam International.

Marck, Jeff, 1997. Aspects of male circumcision in sub-equatorial African culture history. *Health Transition Review Supplement to Volume 7*, pp.337–359.

MDHS, 2004. *Malawi Demographic and Health Survey*. Zomba, Malawi and Calverton, MD: National Statistical Office [Malawi] and ICF Macro.

MDHS, 2010. *Malawi Demographic and Health Survey 2010*. Zomba, Malawi and Calverton MD: National Statistical Office [Malawi] and ICF Macro.

Miguel, E and Kremer, M, 2004. Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities. *Econometrica*, 72(1), pp.159–217.

Munthali, AC and Zulu, EM, 2007. The Timing and Role of Initiation Rites in Preparing Young People for Adolescence and Responsible Sexual and Reproductive Behaviour in Malawi. *African Journal of Reproductive Health*. 11(3), pp.150–167.

Muula, AS, 2007. Male circumcision to prevent HIV transmission and acquisition: what else do we need to know? *AIDS Behavior*, 11(3), pp.357–363.

Nagelkerke, NJ, Moses, S *et al.*, 2007. Modelling the public health impact of male circumcision for HIV prevention in high prevalence areas in Africa. *BMC Infectious Diseases* 7, article 16.

National Institutes of Health, 2006. Adult Male Circumcision Significantly Reduces Risk of Acquiring HIV. *National Institutes of Health News*, [online] 13 December.

Ngalande, R *et al.*, 2006. Acceptability of Male Circumcision for Prevention of HIV Infection in Malawi. *AIDS and Behavior*, 10(4), pp.377–385.

Nnko, S, Washija, Robert, R, Urassa, M, and Boerma, JT, 2001. Dynamics of Male Circumcision Practices in Northwest Tanzania. *Sexually Transmitted Diseases*, 28, pp.214–218.

Njeuhmeli, E, Forsythe, S *et al.*, 2011. Voluntary Medical Male Circumcision: Modeling the Impact and Cost of Expanding Male Circumcision for HIV Prevention in Eastern and Southern Africa. *PLoS Medicine*, 8(11), e1001132.

Rain-Taljaard, RC, Lagarde, E, Taljaard, DJ, Campbell, C, MacPhail, C, Williams, B, and Auvert, B, 2003. Potential for an intervention based on male circumcision in a South African town with high levels of HIV infection. *AIDS Care*, 15(3), pp.315–327.

Stannus, HS and Davey, JB, 1913. The Initiation Ceremony for Boys Among the Yao of Nysaland. *The Journal of the Royal Anthropological Institute of Great Britain and Ireland*, 43, pp.119–123.

Templeton, DJ, Mao, L, Prestage, GP, Jin, F, Kaldor, JM and Grulich, AE, 2008. Self-report is a valid measure of circumcision status in homosexual men. *Sexually Transmitted Infections*, 84(3), pp.187–188.

UNAIDS/WHO/SACEMA Expert Group on Modeling the Impact and Cost of Male Circumcision for HIV Prevention, 2009. Male Circumcision for HIV Prevention in High HIV Prevalence Settings: What Can Mathematical Modelling Contribute to Informed Decision Making? *PLoS Medicine*, 6(9), e1000109.

Westercamp, N and Bailey, RC, 2007. Acceptability of male circumcision for prevention of HIV/AIDS in sub-Saharan Africa: a review. *AIDS Behavior*, 11(3), pp.341–355.

White, RG, Glynn, JR *et al.*, 2008. Male circumcision for HIV prevention in sub-Saharan Africa: who, what and when? *AIDS*, 22, pp.1841–1850.

WHO and UNAIDS, 2011. *Progress in scale-up of male circumcision for HIV prevention in Eastern and Southern Africa: Focus on service delivery* (2011 revised), Geneva: WHO.

Williams, BG, Lloyd-Smith, JO *et al.*, 2006. The potential impact of male circumcision on HIV in Sub-Saharan Africa. *PLoS Medicine*, 3(7), e262.

## Publications in the 3ie Impact Evaluation Report Series

The following reports are available from <http://www.3ieimpact.org/en/publications/3ie-impact-evaluation-reports/3ie-impact-evaluations/>

*The promise of preschool in Africa: A randomised impact evaluation of early childhood development in rural Mozambique, 3ie Impact Evaluation Report 1.* Martinez, S, Naudeau, S and Pereira, V (2012)

*A rapid assessment randomised-controlled trial of improved cookstoves in rural Ghana, 3ie Impact Evaluation Report 2.* Burwen, J and Levine, DI (2012)

*The GoBifo project evaluation report: Assessing the impacts of community-driven development in Sierra Leone, 3ie Impact Evaluation Report 3.* Casey, K, Glennerster, R and Miguel, E (2013)

*Does marginal cost pricing of electricity affect groundwater pumping behaviour of farmers? Evidence from India, 3ie Impact Evaluation Report 4.* Meenakshi, JV, Banerji, A, Mukherji, A and Gupta, A (2013)

*Impact evaluation of the non-contributory social pension programme 70 y más in Mexico, 3ie Impact Evaluation Report 5.* Rodríguez, A, Espinoza, B, Tamayo, K, Pereda, P, Góngora, V, Tagliaferro, G and Solís, M (2014)

*The impact of daycare on maternal labour supply and child development in Mexico, 3ie Impact Evaluation Report 6.* Angeles, G, Gadsden, P, Galiani, S, Gertler, P, Herrera, A, Kariger, P and Seira, E (2014)

*Social and economic impacts of Tuungane: final report on the effects of a community-driven reconstruction programme in the Democratic Republic of Congo, 3ie Impact Evaluation Report 7.* Humphreys, M, Sanchez de la Sierra, R and van der Windt, P (2013)

*Paying for performance in China's battle against anaemia, 3ie Impact Evaluation Report 8.* Zhang, L, Rozelle, S and Shi, Y (2013)

*No margin, no mission? Evaluating the role of incentives in the distribution of public goods in Zambia, 3ie Impact Evaluation Report 9.* Ashraf, N, Bandiera, O and Jack, K (2013)

*Truth-telling by third-party audits and the response of polluting firms: Experimental evidence from India, 3ie Impact Evaluation Report 10.* Duflo, E, Greenstone, M, Pande, R and Ryan, N (2013)

*An impact evaluation of information disclosure on elected representatives' performance: evidence from rural and urban India, 3ie Impact Evaluation Report 11.* Banerjee, A, Duflo, E, Imbert, C, Pande, R, Walton, M and Mahapatra, B (2014)

*Targeting the poor: evidence from a field experiment in Indonesia, 3ie Impact Evaluation Report 12.* Atlas, V, Banerjee, A, Hanna, R, Olken, B, Wai-poi, M and Purnamasari, R (2014)



*Scaling up male circumcision service provision: results from a randomised evaluation in Malawi, 3ie Impact Evaluation Report 13.* Thornton, R, Chinkhumba, J, Godlonton, S and Pierotti, R (2014)

*Providing collateral and improving product market access for smallholder farmers: a randomised evaluation of inventory credit in Sierra Leone, 3ie Impact Evaluation Report 14.* Casaburi, L, Glennerster, R, Suri, T and Kamara, S (2014)

*A youth wage subsidy experiment for South Africa, 3ie Impact Evaluation Report 15.* Levinsohn, J, Rankin, N, Roberts, G and Schöer, V (2014)

*The impact of mother literacy and participation programmes on child learning: evidence from a randomised evaluation in India, 3ie Impact Evaluation Report 16.* Banerji, R, Berry, J and Shortland, M (2014)

*Assessing long-term impacts of conditional cash transfers on children and young adults in rural Nicaragua, 3ie Impact Evaluation Report 17.* Barham, T, Macours, K, Maluccio, JA, Regalia, F, Aguilera, V and Moncada, ME (2014)

*Impact of malaria control and enhanced literacy instruction on educational outcomes among school children in Kenya: a multi-sectoral, prospective, randomised evaluation, 3ie Impact Evaluation Report 18.* Brooker, S and Halliday, K (2014)

*A randomised evaluation of the effects of an agricultural insurance programme on rural households' behaviour: evidence from China, 3ie Impact Evaluation Report 19.* Cai, J, de Janvry, A and Sadoulet, E (2014)

*Environmental and socioeconomic impacts of Mexico's payments for ecosystem services programme, 3ie Impact Evaluation Report 20.* Alix-Garcia, J, Aronson, G, Radeloff, V, Ramirez-Reyes, C, Shapiro, E, Sims, K and Yañez-Pagans, P (2014)

*Shelter from the storm: upgrading housing infrastructure in Latin American slums, 3ie Impact Evaluation Report 21.* Galiani, S, Gertler, P, Cooper, R, Martinez, S, Ross, A and Undurraga, R (2014)

This report presents results from a randomised evaluation of how price and information affects the take-up of voluntary medical male circumcision in Lilongwe, Malawi. Overall, take-up was low, and price and information were still barriers. However, the main barriers to male circumcision – cultural norms and fear of pain – were not affected by prices or information.

Qualitative research about male decision-making showed that social networks play an important role in deciding to have a circumcision, and that men take time to gather information before making their decision. Significant demand-generation efforts are needed for this HIV prevention strategy to be effective.

### **Impact Evaluation Series**

International Initiative for Impact Evaluation  
c/o Global Development Network  
2nd Floor, West Wing, ISID Complex  
Plot No. 4, Vasant Kunj Institutional Area  
New Delhi – 110070  
India

[3ie@3ieimpact.org](mailto:3ie@3ieimpact.org)  
Tel: +91 11 4323 9494



[www.3ieimpact.org](http://www.3ieimpact.org)