

# **Pre-Analysis Plan for Study “Anti-Stigma Interventions to Encourage HIV Testing in Vulnerable Households in Mozambique”**

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This document outlines the pre-analysis plan for the project “Anti-Stigma Interventions to Encourage HIV Testing in Vulnerable Households in Mozambique.” The primary objective of the study is to test whether providing information that intends to relieve individuals concerns about HIV-related social stigma improves HIV testing rates in vulnerable households in Mozambique. Participants were randomly assigned at the household level to one of the two study groups:

- Treatment group – Individual adults in a treatment household will receive information indicating supportive social opinions about HIV if they hold over-pessimistic beliefs about the HIV-related stigma in their neighborhood. Please see Appendix 1 for the treatment details.
- Control group – No intervention is provided.

## **Outcomes of Interest and Control Variables**

### Primary Outcome of Interest

- The indicator of HIV-testing coupon redemption within 14 days, individual level, adults only

This is a binary variable that takes value 1 if an adult redeems the HIV-testing coupon received from the study team at the designated health center within 14 days after receiving the coupon and takes value 0 if otherwise. This variable is defined only for the adults that consent to the study and are eligible for an HIV-testing coupon. An eligible adult is one who is not self-reported HIV positive and has not been tested for HIV within three months before enrollment.

At the end of the household survey, the study team will distribute one HIV-testing coupon to each eligible adult survey respondent in person. Each coupon has a value of 50 Mts (~\$0.83) and is valid 14 days. A coupon is redeemable at the designated health center when someone presents proof of HIV-testing with the coupon to the research staff on site. The payment will be made in digital cash through MPesa<sup>1</sup>. There is a unique barcode on each coupon that allows the researcher to link the use of the coupon to one’s survey responses.

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<sup>1</sup> In order to receive the payment, a participant will need to provide a valid phone number at the time of redemption. The participant will be informed of this payment method when receiving the coupon.

## Secondary Outcomes of Interest

There are multiple secondary outcomes of interest in this study. Multiple hypothesis correction procedures will be applied to account for multiple outcome measures. The secondary outcomes, as a group, will be considered separately from the primary outcome when the multiple hypothesis correction is applied.

The hypothesis correction procedure will follow that of List, Shaikh, and Xu (2016), which incorporates information about the joint dependence structure of the test statistics, leading to gains in statistical power compared to more traditional approaches (such as Bonferroni (1935) and Holm (1979)). This approach is particularly attractive when working with highly correlated outcome measures.

### 1. The indicator of HIV-testing coupon redemption within 14 days, household level

This is a binary variable that takes value 1 if a household redeemed least one of the HIV-testing coupons received from the study team at the designated health center within 14 days after receiving the coupons and takes value 0 if otherwise. This variable is defined only for the households that consent to the study and at least one person is eligible for an HIV-testing coupon. An eligible person is one who is not reported HIV positive and has not been tested for HIV within three months before enrollment. Adult participants report their HIV status and testing history for themselves while children's information is reported by an adult guardian.

At the end of the household survey, in addition to distributing coupons to adults as described in the primary outcome of interest, the study team will also distribute one HIV-testing coupon to each eligible child. The coupon for a child will be distributed to the adult guardian in person. The coupons for the children are the same as coupons for adults and follows the same redemption rules described above.

### 2. Willingness-to-Accept (WTA) for an HIV-testing coupon, individual level

This variable gives the value (in Mts) an HIV-testing coupon must have that makes a participant indifferent between an HIV-testing coupon and a 50-Mt-Clinic-visiting coupon. This variable is constructed with a WTA-elicitation procedure at the end of the household survey but before the coupon distribution. See the detailed definition of this variable in Appendix 2.

### 3. Changes in beliefs about HIV-related stigma in the community, individual level

This variable measures the change in a participant's answers to the same three stigma-related questions in the household survey and in the phone-call follow-up survey 15-30 days after. The stigma related questions are:

- a) If I ask the question, "Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?", to 10 people in your neighborhood, how many of them, would you expect, to say "Yes"?

- b) If I ask the question, “If a member of your family became sick with AIDS would you be willing to care for them in your own household?”, to 10 people in your neighborhood, how many of them, would you expect, to say “Yes”?
- c) If I ask the question, “In your opinion if a teacher has HIV but is not sick, should they be allowed to continue teaching at school?”, to 10 people in your neighborhood, how many of them, would you expect, to say “Yes”?

The three answers will be summed within each survey for each participant. This variable is calculated by taking the difference between the two sums (later survey minus earlier survey).

### Pre-treatment Belief about HIV-related Stigma

- Individual level: Indicator of a participant overestimating the HIV-related stigma in their community in at least one of the three questions (yes, no)

The three stigma-related questions are those listed in secondary outcomes of interest #3. The true social stigma varies across communities, as measured by the fraction of respondents giving non-stigmatizing answers in the baseline survey. Please see Appendix 1 for details. A participant is considered “overestimating” the stigma if there is an at least 5-percentage-point gap between the guess and the true fraction.

- Household level: Indicator of there being at least one participant in the household overestimating the HIV-related stigma in their community in at least one of the three questions (yes, no)

### Control Variables

The following control variables will be used in individual-level regressions:

- Indicator: a participant is female (yes, no)
- Indicator: a participant is the primary guardian of a child (yes, no)
- Indicator: a participant has his or her own mobile phone
- Indicator: number of sex partners in the last 12 months (zero, one, more than one)
- Indicator: time of the most recent HIV test (never tested, tested more than a year ago, tested less than a year ago)
- Age: in years
- Education: highest grade completed<sup>2</sup>
- Knowledge about HIV (Number of correct answers to the 15 questions testing HIV-related knowledge<sup>3</sup>)

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<sup>2</sup> Education takes value 0 for illiteracy or incomplete 1<sup>st</sup> grade, 1-12 for the 1<sup>st</sup>-12<sup>th</sup> grades, respectively, and 13 for all education levels that are higher than the 12<sup>th</sup> grade.

<sup>3</sup> The 15 questions are the following, with correct answers in the parenthesis.

J05 Can HIV be transmitted from one person to another through sex behaviors? (yes)

JA9 Can HIV be transmitted from one person to another through blood contact? (yes)

J06 Can people reduce their chance of getting HIV by having just one uninfected sexual partner who has had no other sexual partners? (yes)

- Subjective risk of HIV infection<sup>4</sup>

The following control variables will be used in both the individual-level regressions and the household-level regressions.

- The straight-line distance between the household and the testing clinic (in km)
- Square of the straight-line distance between the household and the testing clinic (in km)
- Indicator: the household ever go without food in the last 12 months (yes, no)
- Indicator: there is an HIV positive household member (yes, no)
- Asset ownership index: the first principal component of 14 asset-ownership indicators<sup>5</sup>
- Enumerator fixed-effects
- Community fixed-effects

The following control variables will be used in the household-level regressions.

- Indicator: the head of the household is female (yes, no)
- Indicator: there is a child living in this household (yes, no)
- Indicator: the household has a mobile phone (yes, no)
- Education of the household head: highest grade completed<sup>6</sup>
- Primary respondent's knowledge about HIV (Number of correct answers to the 15 questions testing HIV-related knowledge<sup>7</sup>)

Because respondents are allowed to skip questions in the survey, there may be missing values for some of these control variables. If any missing value exists for some variable "X," we will create an indicator variable for variable X to flag missing status (1 if missing, 0 otherwise), replace the missing value of the variable X with zero, and include the variable X missing indicator variable in the set of control variables.

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J06a	Can people reduce their chance of getting HIV by not having sexual intercourse at all? (yes)
J07	Can people get HIV from mosquito bites? (no)
J07a	Can people get HIV from shaking hands with an infected person? (no)
J07b	Can people get HIV from kissing an infected person? (no)
J14	Can people get HIV from sharing food with a person who has HIV? (no)
J15	Can people get HIV via witchcraft or other supernatural means? (no)
J21	Can HIV be transmitted from a mother to her baby during pregnancy? (yes)
J22	Can HIV be transmitted from a mother to her baby during delivery? (yes)
J23	Can HIV be transmitted from a mother to her baby by breastfeeding? (yes)
J16	Is it possible for a person who looks healthy to have HIV? (yes)
J16a	Is it possible for a person who feels healthy to have HIV? (yes)
J11	Do you think people can reduce the risk of transmission of HIV if they use condoms whenever they have sex? (yes)

<sup>4</sup> This is the answer to the questions "If you take an HIV test today, what do you believe the result will be?" The respondent chooses from five possible answers: I believe strongly that I am HIV negative; I believe weakly that I am HIV negative; I am unsure about whether I am HIV positive or HIV negative; I believe weakly that I am HIV positive; I believe strongly that I am HIV positive, which are coded as value 1, 2, 3, 4, 5, respectively.

<sup>5</sup> The 14 assets are car, motorbike, bike, radio, television, sewing machine, fridge, freezer, iron machine, beds, table, mobile phone, clock, solar panel. An indicator for an asset takes value 1 if the household owns at least one and takes value 0 otherwise.

<sup>6</sup> See footnote 2.

<sup>7</sup> See footnote 3.

## Data Adjustments

### Exclusion of Observations

Observations will be excluded from the analysis under the following circumstances.

- The primary outcome of interest cannot be calculated.
- Three or more control variables are missing.
- The household is from a community where the household-level coupon redemption rate is less than 5%<sup>8</sup>.

### Exclusion of Control Variables

Control variables will be excluded from the analysis under the following circumstances.

- More than 10% of the variable is missing.
- More than 90% of the variable has the same value.
- The study team found evidence that the variable is measured poorly.

## Regression Specifications and Tests

### Primary Regression Specification and Test

- *Specification – treatment-on-treated (TT) on individual testing coupon redemption:*

$$Y_{ihc} = \alpha + \beta_1^{IS} T_h + \beta_2^{IS} S_i + \beta_3^{IS} (T_h * S_i) + \delta^I \mathbf{X}_i + \delta^H \mathbf{X}_h + \epsilon_{ihc} \quad (1)$$

$Y_{ihc}$  is the outcome of interest for individual  $i$  in household  $h$  of community  $c$ .  $T_h$  is the treatment indicator that takes value 1 if household  $h$  received the stigma-relieving information and 0 otherwise.  $X_i$  is the vector control variables listed above.  $\epsilon_{ihc}$  is the error term clustered at the household level.  $S_i$  is the binary indicator of pre-treatment belief about HIV-related stigma.

- *Hypothesis:*

The treatment takes effect only on individuals who overestimated the social stigma and received the anti-stigma treatment, i.e.,  $\beta_3^{IS} > 0$ . The main effect,  $\beta_1^{IS}$ , is expected to be small and not statistically different from zero.

### Secondary Regression Specifications and Tests

- *Specification – treatment-on-treated (TT) on household testing coupon redemption:*

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<sup>8</sup> The household-level coupon redemption rate of a community is the households who redeem at least one coupon (see secondary outcome of interest #1 for details) as a fraction of all households of the study from this community. This rule intends to rule out the communities where the coupon redemption behavior has too little variation across households, most likely because the entire community is too far away from an HIV-testing center.

$$Y_{hc} = \alpha + \beta_1^{HS} T_h + \beta_2^{HS} S_h + \beta_3^{HS} (T_h^{Info} * S_h) + \mathbf{X}_h + \epsilon_{hc} \quad (2)$$

$Y_{hc}$  is the outcome of interest for household  $h$  of community  $c$ .  $T_h$  is the treatment indicator that takes value 1 if household  $h$  received the stigma-relieving information and 0 otherwise.  $X_h$  is the vector control variables listed above.  $\epsilon_{hc}$  is the error term.  $S_h$  is the binary household level indicator of pre-treatment belief about HIV-related stigma.

- *Hypothesis:*

The treatment takes effect only in households where some individual overestimated the social stigma and received the anti-stigma treatment, i.e.,  $\beta_3^{HS} > 0$ . The main effect,  $\beta_1^{HS}$ , is expected to be small and not statistically different from zero.

### Subgroup Analyses

The regression for the primary outcome of interest will also be run in subgroups to assess heterogeneity of treatment effects. We will run regressions separately for subgroups defined below. We will run a pair of regressions in each corresponding subgroup, and test whether the treatment effect is equal across the subgroups (e.g., between males and females).

- Male vs. Female
- Adults vs. Children
- Above- or equal-to- median education vs. Below-median education
- Above- or equal-to- median household asset vs. Below median household asset
- Above- or equal-to- median subject risk of HIV infection vs. Below-median subjective risk of HIV infection

To correct for multiple hypothesis testing in this subgroup analysis, we will also use the method of List, Shaikh, and Xu (2016), accounting for multiple groups.

### **Special Consideration:**

At the time of distributing coupons, the researcher will stress that the coupon should be used by the participant him or herself and is not intended for sharing. Due to the anonymous nature of HIV-testing in the study context, however, the study team will not be able to enforce the use-for-oneself policy and thus will redeem a coupon for any coupon holder who can provide a proof testing within the validity window. After redeeming a coupon, the researcher will record the gender and age range of the coupon claimant and ask questions about where the coupon is from.

If a coupon claimant's gender and age range are consistent with the survey respondent for whom the coupon is intended, and that the coupon claimant self-reports that the coupon was distributed from the study team to him or her directly, then, we consider this coupon to be linked at the individual level.

If fewer than 90% of the redeemed coupons can be linked at the individual level, then, we will drop the individual-level analyses described above. In this case, the Secondary outcome of

interest #1 becomes the primary outcome of interest and the secondary regression specification and test for this outcome becomes the primary regression specification and test.

## References

Bonferroni, C. E., *Il calcolo delle assicurazioni su gruppi di teste*. Tipografia del Senato, 1935.

Holm, S., "A Simple Sequentially Rejective Multiple Test Procedure," *Scandinavian Journal of Statistics*, 1979, pp. 65-70.

List, John, Azeem Shaikh, and Yang Xu, "Multiple Hypothesis Testing in Experimental Economics," *NBER Working Paper 21875*, January 2016.

## Appendix 1. Anti-Stigma Treatment Procedures

The following three questions on HIV-related stigma were asked in the baseline survey.

*J17 Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?*

*J19 If a member of your family became sick with AIDS would you be willing to care for them in your own household?*

*J20 In your opinion, if a teacher has HIV but is not sick, should they be allowed to continue teaching at school?*

We summarized the answers to these three questions of the baseline respondents. Let  $x_{17}$ ,  $x_{19}$ , and  $x_{20}$  be the shares of respondents answered “yes” to question J17, J18, and J19, respectively. The table below shows the values of  $x_{17}$ ,  $x_{18}$ , and  $x_{19}$  in each study community. Note that very high shares of respondents answered “yes,” indicating relatively low rates of HIV-related stigma. The anti-stigma treatment will reveal these very low rates of stigmatizing attitudes to respondents, potentially reducing stigma concerns and thereby raising HIV testing rates.

In the follow-up survey, the respondent will be asked to guess the share of people in their neighborhood answering “yes” to each of the three questions above (i.e., guess the values of  $x_{17}$ ,  $x_{19}$ , and  $x_{20}$ ). Specifically, in the follow-up survey, the respondent will be asked the following three questions:

*J17a If I ask the question, “Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?”, to 10 people in your neighborhood, how many of them, would you expect, to say “Yes”? (guess the value of  $x_{17}$ )*

*J19a If I ask the question, “If a member of your family became sick with AIDS would you be willing to care for them in your own household?”, to 10 people in your neighborhood, how many of them, would you expect, to say “Yes”? (guess the value of  $x_{19}$ )*

*J20a If I ask the question, “In your opinion if a teacher has HIV but is not sick, should they be allowed to continue teaching at school?”, to 10 people in your neighborhood, how many of them, would you expect, to say “Yes”? (guess the value of  $x_{20}$ )*

Let the answers of the respondent to question J17a, J19a, and J20a in the follow-up survey be  $y_{17}$ ,  $y_{19}$ , and  $y_{20}$ <sup>9</sup>, respectively. If  $y_{17} < x_{17}$ , then, it suggests that the respondent has overestimated the HIV-related stigma in their community. In this case, we will reveal to him or her the true value of  $x_{17}$  in the respondent’s community. If  $y_{17} \geq x_{17}$ , we will not reveal  $x_{17}$ . The same rule applies to the pairs of ( $y_{19}$ ,  $x_{19}$ ) and ( $y_{20}$ ,  $x_{20}$ ) as well.

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<sup>9</sup>  $y_{17} = 100\%$  if, when answering question J17a, the respondent guesses that “10 out of 10” people will say “yes”;  $y_{17} = 90\%$  if, when answering question J17a, the respondent guesses that “9 out of 10” people will say “yes”; and so on. The same rules apply when define  $y_{19}$  and  $y_{20}$ .



If a respondent answered in the survey in such a way that  $y_{17} \geq x_{17}$ ,  $y_{19} \geq x_{19}$ , and  $y_{20} \geq x_{20}$ , then, the anti-stigma treatment will not apply to this respondent.

### Enumerator Narrative:

In the baseline survey, we asked people in your neighborhood questions about their attitudes towards HIV/AIDS. We would like to share with you how people responded to these questions.

*If  $y_{17} \geq x_{17}$  for this respondent, then the enumerator skips the succeeding two paragraphs. Otherwise, the enumerator says:*

In the survey we just finished, you guessed that [the survey software automatically inserts the respondent's answer to question J17a] out of 10 people in your community would answer "yes" to the question, "Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?".

We did ask this question to people in your community in the baseline survey. They answered "yes" to this question more often than you think they would. Our data show that [insert the value of  $x_{17}$  for the respondent's community, see the table below] out of 10 of the people answered "yes", indicating that the vast majority of respondents are supportive of people living with HIV.

*If  $y_{19} \geq x_{19}$  for this respondent, then the enumerator skips the succeeding two paragraphs. Otherwise, the enumerator says:*

In the survey we just finished, you guessed that [the survey software automatically inserts the respondent's answer to question J19a] out of 10 people in your community would answer "yes" to the question, "If a member of your family became sick with AIDS would you be willing to care for them in your own household?".

We did ask this question to people in your community in the baseline survey. They answered "yes" to this question more often than you think they would. Our data show that [insert the value of  $x_{19}$  for the respondent's community, see the table below] of the people answered "yes", indicating that the majority of respondents are supportive of people living with HIV.

*If  $y_{20} \geq x_{20}$  for this respondent, then the enumerator skips the succeeding two paragraphs. Otherwise, the enumerator says:*

In the survey we just finished, you guessed that [the survey software automatically inserts the respondent's answer to question J20a] out of 10 people in your community would answer "yes" to the question, "In your opinion, if a teacher has HIV but is not sick, should they be allowed to continue teaching at school?".

We did ask this question to people in your community in the baseline survey. They answered "yes" to this question more often than you think they would. Our data show that [insert the value of  $x_{20}$  for the respondent's community, see the table below] of the people answered "yes", indicating that the majority of the respondents are supportive of people living with HIV.

<b>Community Name<sup>10</sup></b>	<b>The share of respondents answered "yes" to question J17 (i.e., x17)</b>	<b>The share of respondents answered "yes" to question J19 (i.e., x19)</b>	<b>The share of respondents answered "yes" to question J20 (i.e., x20)</b>
EPC de Chipinde	92.5%	96.8%	92.3%
EPC de Munhonha	93.6%	99.1%	96.3%
ES do Dondo	86.8%	96.2%	91.4%
ES de Macharote	75.0%	94.3%	85.4%
EPC 25 de Setembro CFM	81.3%	98.9%	95.4%
EPC 7 de Abril - Matadouro	87.5%	99.0%	93.8%
EPC de Centro de Acomodação - Mach	75.0%	91.8%	87.5%
EPC C.A.de Cheringoma - Dondo	68.4%	85.4%	75.0%
EPC Samora M. Machel	72.6%	84.3%	76.3%
EPC de Mussassa	67.5%	85.7%	71.4%
EPC de Monte Siluvo	87.1%	100.0%	87.5%
EPC de Nharuchonga	79.2%	98.6%	89.7%
EPC de 3 de Fevereiro	88.9%	95.5%	85.7%
EPC 25 de Setembro	91.5%	96.7%	94.2%
EPC 12 de Outubro	89.3%	98.2%	91.1%
EPC Acordos de Lusaka	81.8%	100.0%	89.5%
ES de Tica	93.3%	96.8%	93.7%
ES de Metuchira	79.0%	98.5%	84.9%
EPC de Muda - Gondola	71.6%	89.7%	87.0%
EPC 1 de Maio - Gondola	81.1%	96.1%	94.7%
EPC de Eduardo Mondlane - Mucorodzi	72.6%	82.8%	88.9%
EPC de Cafumpe	75.0%	95.9%	90.4%
ES Josina Machel	88.1%	95.3%	93.8%
ES de Macombe	72.8%	94.1%	91.7%
EPC de Mussiquir	64.5%	87.5%	87.1%
EPC de Bela Vista - Gondola	72.4%	93.2%	86.0%
EPC de Cabeça do Velho	83.6%	80.9%	86.8%

<sup>10</sup> Note that a study community is defined as the surrounding area of a school.

EPC da Fepom	89.2%	97.3%	93.2%
EPC de Nhamaonha	79.7%	89.4%	87.9%
EPC 25 de Setembro	86.9%	100.0%	96.6%
EPC do Centro Hípico	78.7%	95.2%	91.9%
EPC de Nhamadjessa	74.3%	90.3%	91.5%
EPC 7 de Setembro	81.2%	97.1%	88.4%
EPC 7 de Abril	89.2%	95.5%	98.4%
EPC 1 de Junho	80.3%	92.4%	88.3%
EPC de Mudzingadzi	92.8%	94.5%	93.2%
ES da Soalpo	73.1%	94.2%	86.8%
ES Eduardo Mondlane	83.3%	84.6%	83.3%
ES da Vila Nova	72.2%	91.3%	86.1%
ES 7 de Abril	73.5%	95.7%	95.4%
ES de Messica	62.9%	88.2%	79.4%
EPC Eduardo Mondlane	77.3%	80.3%	81.5%
EPC de Vumba	82.0%	86.0%	84.0%
EPC Messica Aldeia	78.9%	89.5%	84.2%
EPC de Manhate	72.2%	79.2%	83.3%
EPC Estevao Dimaka	75.0%	72.9%	71.4%
EPC de Manica	71.7%	87.0%	92.5%

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## Appendix 2. Coupon Choice and Distribution Protocol

Among households in which we will make HIV testing recommendations, a subset will be randomly selected for a testing willingness-to-accept (WTA) elicitation procedure. This procedure aims to measure WTA to be tested for HIV separately from the WTA to bear the time and money costs of traveling to the health clinic. The procedure seeks to determine the respondent's point of indifference between a coupon providing an incentive to simply visit the site of the health clinic (without requiring testing), and a coupon providing an incentive for receiving testing.

The following protocol will be administered to the primary respondent of each selected household:

Enumerator Narrative:

*I will offer your household some coupons. We will offer one coupon per consenting eligible person in your household. I have two types of coupons that you can choose from.*

*Each "visit coupon" has a value of 50 Mts. To redeem a visit coupon, the person to whom the coupon is provided must go to [insert name of the local health center] before [date 14 days from the survey date]. Our staff will pay 50 Mts on site if the person with the coupon shows up before [date 14 days from survey date]. We will not collect any personally-identifying information about any person redeeming a coupon. We expect that each person will have to devote about 30 minutes of their time at the clinic to receive payment.*

*Each HIV testing coupon has a value of X Mts. The value of X will be on the next screen of the tablet. To redeem a test coupon, the person to whom the coupon is provided must go to [insert name of the local health center] to take an HIV test before [date 14 days from the survey date]. Our staff will pay X Mts on site if the person with the coupon can provide proof of testing between today and [date 14 days from survey date]. We will not ask for the result of the test and will not collect any personally-identifying information about any person redeeming a coupon. We expect that each person will have to devote about 30 minutes of their time at the clinic for testing and to receive payment.*

*All redeemed coupons will be returned to our study headquarters in Beira, where senior research staff will determine (via the coupon's unique code) which people in the study redeemed their coupons. At the time of redemption, the person will also need to provide a mobile phone number to receive payment. The same phone number can be used to receive one payment for all the coupons redeemed in your household. When you redeem your coupon(s), our staff will make the required payments immediately via MPesa.*

*Before I reveal the value X, I will ask for your preference over the coupons in different situations. Note that the value X is pre-determined, your answer to the following questions will not change the value of X. X is a random number drawn by the computer from the following values: 55, 60, 65, 70, 75, 80, 85, 90. Each of these numbers has an equal chance of being the value of X. After these questions, I will show you X and give you the coupons you choose. I will give you one coupon for each consenting eligible person in your household.*

X1 If X = 70 Mts, which type of coupon do you want? (Stop if the respondent chooses the visit coupon. Otherwise, move on to the next question.)

X2 If X = 65 Mts, which type of coupon do you want? (Stop if the respondent chooses the visit coupon. Otherwise, move on to the next question.)

X3 If X = 60 Mts, which type of coupon do you want? (Stop if the respondent chooses the visit coupon. Otherwise, move on to the next question.)

X4 If X = 55 Mts, which type of coupon do you want? (Stop if the respondent chooses the visit coupon. Otherwise, move on to the next question.)

X5 If X = 50 Mts, which type of coupon do you want? (Stop if the respondent chooses the visit coupon. Otherwise, move on to the next question.)

X6 If X = 45 Mts, which type of coupon do you want? (Stop if the respondent chooses the visit coupon. Otherwise, move on to the next question.)

X7 If X = 40 Mts, which type of coupon do you want? (Stop if the respondent chooses the visit coupon. Otherwise, move on to the next question.)

X8 If X = 35 Mts, which type of coupon do you want?

Reveal X. If the respondent has chosen the visit coupon for a value that is equal to or greater than the revealed X, then, people in this household will be given visit coupons. Otherwise, people in this household will be given testing coupons that have the Mts value of the revealed X.