

Global Fund Malaria Behavior Change Activities

Barrier Analyses for Four Behaviors Sierra Leone

Table of Contents

OVERALL OBJECTIVE	1
BEHAVIORS TO INVESTIGATE	1
DETAILS OF THE BARRIER ANALYSIS	3
METHODOLOGY AND SAMPLE SIZE	3
EVALUATION FIELD WORK	3
ENUMERATOR AND SUPERVISOR TRAINING	3
SUPERVISORS	4
ANALYSIS	4
KEY FINDINGS AND RECOMMENDATIONS	4
CHILDREN LESS THAN FIVE YEARS OF AGE SLEEPING INSIDE AN ITN	4
PREGNANT WOMAN SLEEPING INSIDE ITN	6
SEEKING CARE WITHIN 24 HOURS FOR A CHILD WITH FEVER	7
COMPLETING AT LEAST THREE DOSES OF IPTp	8
LIMITATIONS	10
CONCLUSIONS	11
ANNEX	1
APPENDIX I: TRAINING AGENDA	1
APPENDIX II: QUESTIONNAIRES	3
CHILDREN UNDER 5 SLEEPING INSIDE ITN	3
PREGNANT WOMEN SLEEPING INSIDE ITN	9
CARE SEEKING FOR CHILDREN UNDER 5 WITH FEVER	15
RECEIVING AT LEAST 3 DOSES OF IPTp	21
APPENDIX III: DETAILED RESULTS	27

Overall objective

The objectives of the Barrier Analysis were to provide deeper insights into barriers to malaria behavior change activities in Sierra Leone. Four behaviors were selected for investigation: (1) sleeping inside an Insecticide Treated Net (ITN)¹ by children less than five years of age, (2) sleeping inside an ITN by pregnant women, (3) uptake of at least three doses of IPTp, (4) and care seeking within 24 hours when a child less than five years of age has a fever. The insights from the Barrier Analyses will inform the design and creation of future malaria prevention programs in Sierra Leone. This activity in June 2017 follows an assessment of BCC/IEC strategies in Sierra Leone in February 2017.

Malaria is a leading source of morbidity in Sierra Leone and is endemic throughout the country. Estimates are that 25% of morbidity for all ages can be attributed to malaria with that percentage rising to cause 38% of morbidity in children less than five years of age.² A detailed background of the scope of malaria in the country as well as current activities around malaria prevention can be found in the recent report IEC/BCC Assessment for Malaria Activities.³

A Barrier Analysis investigates determinant of behaviors and what can motivate or impede the adoption of specific behaviors.⁴ All Barrier Analysis surveys investigate the four most powerful determinants of behavior: perceived self-efficacy/skills, perceived social norms, perceived positive consequences and perceived negative consequences. Most surveys, including those conducted here, also include the following additional determinants of behaviors: perceived action efficacy, access, perceived susceptibility/risk, perceived severity, perceived divine will, cues of action/reminders, policy, and culture. These Barrier Analyses also included social proof.

Behaviors to investigate

The four behaviors investigated were selected based on the results of the IEC/BCC assessment in consultation with CRS and MNCP staff.

Children less than five years of age sleeping inside an ITN every night for the previous three nights. The SLMIS reported a high percentage of people sleeping inside a net,

¹ Insecticide Treated Net (INT) and bed net are used interchangeably in this document.

² National Malaria Control Program (NMCP). 2016. Sierra Leone Malaria Indicator Survey.

³ Long, Elizabeth. 2017. IEC/BSS Assessment for Malaria Activities, Sierra Leone. Prepared for Catholic Relief Services.

⁴ Kittle, Bonnie. 2013. A Practical Guide to Conducting a Barrier Analysis. New York, NY: Helen Keller International

but many responses from the BCC assessment showed people were not sleeping inside a net. However because the BCC was conducted using focus group discussions, there was no way to give a precise estimate of how many individuals were or were not sleeping inside a net. According to the SLMIS, in households owning at least one ITN, 63% of the household population, 71% of children under 5, and 75% of pregnant women slept under an ITN the previous night. For the barrier analysis, a stricter behavior of sleeping inside a net every night for the previous three days was used due to the importance of sleeping inside a net as a *continuous* behavior. Net ownership for at least the previous seven days was a requirement for inclusion in the survey. Since the activity took place at the end of the national net distribution campaign, rates of net ownership were at very high levels.

Pregnant women sleeping inside an ITN every night for the previous three nights. Pregnant women are also recommended to sleep inside an ITN every night to protect them against malaria. The Barrier Analysis investigated reasons high numbers of pregnant women are not sleeping inside an ITN. According to the SLMIS, ITN use increased from 27% to 47% in pregnant women between the 2008 SLDHS and 2013 SLMIS. Between the 2013 SLMIS and the 2016 SLMIS, levels of ITN use in these populations remained steady (44% ITN use in both children and pregnant women). As with children sleeping inside a net, net ownership for at least seven days was required for inclusion in the survey.

Care seeking within 24 hours when a child less than five years of age has a fever. The SLMIS reported that care seeking for a febrile child in the previous two weeks was 71.4% but within the crucial 24 hour period was only 50.3%. Additionally, the IEC/BCC assessment substantiated this data and revealed that mothers might wait until the next day before seeking care. For inclusion in the study, the child was required to have had a fever within the two weeks prior to the study.

Pregnant women taking the recommended three or more doses of IPTp treatment. The SLMIS reported that 31% of pregnant women had received at least three doses of IPTp while 71% were taking two doses. The percentage of women receiving IPTp1+ increased from 17% in the 2008 SLDHS to 79% in the 2013 SLMIS to 90% in the 2016 survey. A similar trend was observed in the uptake of IPTp2, which was 71% in 2016. The IEC/BCC assessment showed low overall knowledge of the number of doses a woman should receive, however, pregnant women were not specifically interviewed during focus groups. Therefore this finding should be interpreted with caution. For inclusion in the study, a woman needed to be in the third trimester of

her pregnancy or have given birth within the previous year and have visited the ANC clinic at least 3 times.⁵

Details of the Barrier Analysis

Methodology and Sample Size

The Barrier Analysis methodology will follow recent recommended best practices. The current best practice is to sample 90 individuals, 45 Doers and 45 Non-Doers but there was a desire for this activity to be national in scope and include all four regions. Therefore a larger sample was required. 180 individuals were included, 90 Doer and 90 Non-Doers, which allowed for an improved detection of differences.

Evaluation Field Work

Field work for qualitative data collection for the barrier analyses occurred during an eight-day period from 6 to 14 June 2017. Four teams, each with a supervisor, collected the data for the assessment. Each team was assigned a region and one district within that region was selected: Western Area Rural in Western Area, Kenema in the East, Koinadugu in the North, and Pujehun in the South. Data was collected by pairs with one individual asking questions and one individual recording answers. As is common for a barrier analysis, pairs were not gender disaggregated. Data collection for each behavior required two days, and supervisors compiled results nightly.

Enumerator and Supervisor Training

All enumerators and supervisors attended a three-day interactive training from 31 May to 2 June 2017 that included pilot testing. Enumerators were recruited based on previous experience working on either quantitative or qualitative surveys in Sierra Leone, including the recent IEC/BCC assessment. Adult learning techniques and a highly interactive design taught each enumerator how to ask the barrier analysis questionnaire. There were multiple sessions for participants to practice and receive feedback.

Day 1 of the training was classroom-based with a focus on learning key techniques and practices as well as translating the questions to Krio. During days 2 and 3 of the training, enumerators pilot tested the four questionnaires by practicing the survey on Doers and Non-Doers in select urban communities around Freetown. Data collected during pilot testing were not included as part of the formal survey and is not included in this report. During the training and pilot testing enumerators received feedback from fellow enumerators, supervisors, and the evaluation team.

⁵ The criteria of having given birth in the previous year was set because the Ministry of Health changed the IPTp policy in 2015 to include at least 3 doses. Therefore women who had given birth in the previous year fell within the new policy and would have been eligible to receive at least three doses.

Supervisors

Each team was lead by a supervisor. Supervisors were selected based on prior work experience with surveys in Sierra Leone and West Africa. Supervisors were in charge of managing day-to-day activities in the villages being surveyed and communicating with village leaders. They also helped coordinate and recruit participants for interviews. Additionally, they compiled Doer and Non-Doer results nightly.

The evaluation team, consisting of CRS staff and an external consultant, supervised assessment activities. The team accompanied the enumerators to the field on a roving basis and conducted daily calls to each field team to debrief on activities.

Analysis

The results from each supervisor were transmitted to the external consultant and compiled for final results in a spreadsheet for each behavior.

Key Findings and Recommendations

Results that are statistically significant at the 5% level are reported below with their odds ratios. All results, regardless of significance level, are reported in Appendix III.

Children less than five years of age sleeping inside an ITN

For children less than five years of age sleeping inside an ITN, six determinants of behavior were found to be significant. They are: perceived self-efficacy, perceived consequences, social norms, social proof, perceived access, and cues for action.

Perceived Self-Efficacy: *Doers are 2.7 times more likely than Non-Doers to report that heat or the net being too hot makes it more difficult to put their child to sleep inside an ITN.* There were no other statistically significant differences between Doers and Non-Doers that made it easier or more difficult to put their children to sleep inside an ITN at night. Despite the heat, Doers still followed the behavior. In line with positive deviance theory, providing the message that ITNs can be hot but they are still worth sleeping under and that people do overcome and use them despite the heat could encourage Non-Doers to increase usage.

Perceived Positive and Negative Consequences: *Doers are 1.8 times more likely than Non-Doers to report that preventing malaria is an advantage of putting their child to sleep inside an ITN. Non-Doers are 3.2 times more likely than Doers to report that good health for their child is an advantage of putting them to sleep inside an ITN.* Doers reported the advantage being preventing malaria whereas Non-Doers reported general good health. This difference in mental models- a specific threat (malaria) compared to a vague threat (poor health)- is significant. For humans, taking action or making a plan to deal with a specific threat is easier and more likely to occur than doing so against a vague threat. Therefore making sure that messaging

focuses on the specific behavior a caregiver can take against a specific threat- i.e. putting their child to sleep inside an ITN to prevent malaria- could be used to help change mental models.

Social Norms: *Doers are 8.9 times more likely than Non-Doers to report that most people approve of them putting their child inside an ITN to sleep.* The high disconnect of the perception of the social norm between Doers and Non-Doers is a key finding. Messaging should seek to increase the perception that people in the community- be they neighbors, family members, community leaders, or health workers- approve of putting a child to sleep inside an ITN at night. No specific individuals were found to be significant in terms of approval or disapproval of this action by Doers or Non-Doers.

Social Proof: *Doers are 1.9 times more likely than Non-Doers to report that they know for certain that their neighbors put their children to sleep inside an ITN.* While it is hard to observe sleeping behavior since people do not enter the private spaces of others, encouraging individuals in the community to speak about the fact they themselves use ITNs at home is also important to provide social proof to the behaviors that are hard to observe.

Access: *Non-Doers are 2.2 times more likely than Doers to report that it is "very difficult" to get an ITN. Doers are 2 times more likely than Non-Doers to report that it is "not difficult at all" to get an ITN.* The recent national distribution campaign should have eliminated any immediate issues with access to nets. However, ensuring adequate supply at ANC and child health clinics is crucial to continue consistent protection. Additionally, it is important that the costs of these nets remain within reach of the communities.

Cues for Action: *Doers are 2.4 times more likely than Non-Doers to report that it is "very easy" to remember to put their child to sleep inside an ITN. Non-Doers are 2 times more likely than Doers to report that it is "somewhat difficult" to remember to put their children inside an ITN.* Doers have strategies to help them remember to put their nets down at night whereas Non-Doers find a cue to action difficult to remember. Having Doers share their strategies, similar to positive deviance, could be a way to help Non-Doers overcome their difficulty remembering. Providing visual cues for caregivers, such as small posters or visual to post within their homes, could help Non-Doers. Additionally, having an individual responsible for reminding community members in each cluster of house prior to nightfall could provide cues for action.

Pregnant woman sleeping inside ITN

For pregnant women sleeping inside an ITN, five determinants of behavior were found to be significant. They are: perceived self-efficacy, perceived consequences, cues for action, action efficacy, and divine will.

Perceived Self-Efficacy: *Doers are 3.9 times more likely than Non-Doers to report that it is easier to sleep inside an ITN with the knowledge that the ITN protects them from malaria. Doers are 3.4 times more likely than Non-Doers to report that it is easier to sleep inside an ITN because the ITN improves sleep. Non-Doers are 6.8 times more likely than Doers to report that it is more difficult to sleep inside an ITN because it hurts their skin.* The fact that Doers are enjoying the benefits of nets and that this makes it easier for them to use the nets is an opportunity for Doers to share their stories using a positive deviance framework with Non-Doers. Additionally messages on how to protect your skin from the chemicals of the nets should be reinforced.

Perceived Positive and Negative Consequences: *Non-Doers are 1.7 times more likely than Doers to report that an advantage of sleeping inside an ITN is that it protects them from mosquito bites. Non-Doers are 3.1 times more likely than Doers to report that an advantage of sleeping inside an ITN is that it makes them and/or their baby healthy.* As with a child sleeping inside a net, Doers reported a specific reason (mosquitos) compared to a vague reason (good health). Therefore making sure that messaging focuses on the detailed behavior an individual can take for a specific advantage could be used to help change mental models.

Cues for Action: *Doers are 3.6 times more likely than Non-Doers to report that remembering to sleeping inside the ITN was “very easy”. Non-Doers are 2.5 times more likely than Doers to report “somewhat easy” and 5 times more likely to report “not easy at all”.* Just as with the behavior of having children sleep inside a net, Doers have strategies to help them remember to put their nets down whereas Non-Doers find it difficult to remember the cue to action. Having Doers share their strategies with Non-Doers, similar to positive deviance, could be a way to help Non-Doers overcome their difficulty remembering. The same visual or community reminders could also be utilized.

Action Efficacy: *Non-Doers are 2 times more likely than Doers to report that it is “very likely” that they get malaria even if they sleep inside an ITN. Doers are 1.9 times more likely than Non-Doers to report that it is “not likely at all” that they contract malaria if they sleep inside an ITN.* Doers have a stronger belief that their behavior of sleeping inside an ITN will result in the desired outcome of less malaria. Messages that strengthen the link of the behavior to the desired outcome- including

stories of individuals who sleep inside nets- could be disseminated. Additionally, messaging around other ways that mosquitos can infect an individual and other ways to protect oneself could be expanded so that Non-Doers have more trust in the ability of the ITNs to protect them while they are sleeping.

Divine Will: *Doers are 1.7 times more likely than Non-Doers to report that is not God's will that they get malaria.* Including religious leaders in the dissemination of messaging of how individuals can protect themselves, thereby decreasing the perception that it is God's will, can be expanded.

Seeking care within 24 hours for a child with fever

For whether a caregiver takes their febrile child for treatment within 24 hours, five determinants of behavior were found to be significant. They are: perceived self-efficacy, perceived consequences, social norms, perceived access, and action efficacy.

Perceived Self-Efficacy: *Doers are 3.6 times more likely than Non-Doers to report that knowing they should take their child for treatment makes it easier to take their child for treatment within 24 hours. Non-Doers are 2 times more likely than Doers to report that long distances to the clinic make it more difficult to take their child for care within 24 hours.* Knowing what action should be taken and why it should be following reduces the hesitation for Doers, so strengthening the link between symptoms and actions is an opportunity to increase action for Non-Doers. Additionally, distance is a significant stumbling block for Non-Doers to take their children to the clinic quickly compared to Doers. While increasing the number of health facilities is not feasible in the short run, increasing the number of individuals who are trained in Rapid Diagnostic Tests (RDTs) and have drugs available could be expanded so that more communities have easier and closer access to resources.

Perceived Positive Consequences: *Doers are 2.1 times more likely than Non-Doers to report that the drugs will save their child's life is an advantage of taking the child to the health facility or CHW. Doers are 2.3 times more likely than Non-Doers to report that knowing they will get the correct treatment for their child is an advantage of taking the child to the health facility. Non-Doers are 1.7 times more likely than Doers to report that improved general health is an advantage of taking the child to the health facility or CHW.* As with other behaviors, Doers are more likely to report specific reasons for action whereas Non-Doers are more likely to report vague reason. Making sure that messaging is specific- i.e. the drugs will save your child's life with malaria instead of that drugs are good for your child- may help increase the likelihood that individuals take their child for care faster.

Perceived Negative Consequences: Non-Doers are 1.9 times more likely than Doers to report that payment for treatment is a disadvantage of taking their child to the health facility. Non-Doers are 2.8 times more likely than Doers to report that negative experiences- being treated rudely- by health workers are a disadvantage of taking their child to the health facility. These negative consequences of poor treatment and having to pay money for services that should be free can be overcome by additional training of health facility staff and increased accountability of health workers. Additionally, the ability for members of the public to report health workers who request bribes, for example by sending a text message or calling a free number, could increase the quality of care at facilities and increase the likelihood that caregivers take their children for prompt care.

Social Norms: Doers are 3.9 times more likely than Non-Doers to report that most people approve of taking their child for care within 24 hours. This finding is similar to what was found for the social norms of children sleeping inside an ITN, since Doers are more likely to believe others approve of the behavior. Messaging should seek to increase the perception that people in the community- neighbors, family members, community leaders, or health workers- approve of taking a child for treatment within 24 hours. No specific individuals were found to be significant in terms of approval or disapproval of this action by Doers or Non-Doers.

Perceived Access: Doers are 2 times more likely than Non-Doers to report that it is “not difficult at all” to take their child to the clinic within 24 hours. Doers are 2.2 times more likely than Non-Doers to report that they expect to be treated “very well” at the health facility. This is an opportunity to utilize the benefits of positive deviance and have Doers share strategies for how they find it easy to take their child to the clinic. As was found with other behaviors, the expectation of better treatment links back to the importance of increasing quality of care at health facilities.

Action Efficacy: Non-Doers are 2.2 times more likely than Doers to report that it is “somewhat likely” their baby will die if not taken for care. (Doers were more likely to report “very likely” but the difference is not statistically significant.) Non-Doers are discounting their efficacy of their action and of the outcome of taking this child for care. This is an opportunity to strengthen messaging and empower women, possibly using positive deviance or stories by other women like them, of the effects that their actions can have in keeping their child alive and healthy.

Completing at least three doses of IPTp

For whether a pregnant woman receives at least three doses of IPTp, seven determinants of behavior were found to be significant. They are: perceived self-

efficacy, social norms, social proof, perceived access, cues for action, action efficacy, and perceived severity.

Perceived Self-Efficacy: Doers are 3.5 times more likely than Non-Doers to report that the drug being free makes it easier to take the third dose during pregnancy. Non-Doers are 2.6 times more likely than Doers to report that the cost of the drug makes it more difficult to take the third dose during pregnancy. As with taking a febrile child for treatment, the quality of services offered at health facilities is a key determinant to taking the third dose of the SP/Fansidar. Health workers should be retrained to improve the quality of care offered at health facilities.

Social Norms: Doers are 8.9 times more likely than Non-Doers to report that most people approve of them taking the third dose during pregnancy. Non-Doers are 7.9 times more likely than Doers to report that most people “possibly” approve of them taking the third dose. The power of social norms is again evident with the behavior of completing at least the three recommended doses of SP/Fansidar since there is a high disconnect between Doers and Non-Doers, as was found with other behaviors. Messaging should seek to increase the perception that people in the community—be they neighbors, family members, community leaders, or health workers—approve of taking a child for treatment within 24 hours. No specific individuals were found to be significant in terms of approval or disapproval of this action by Doers or Non-Doers.

Social Proof: Doers are 2 times more likely than Non-Doers to report that they knew for certain that their sister also took the third dose. Doers are 1.7 times more likely than Non-Doers to report that they knew for certain their neighbors took the third dose. Doers are 1.9 times more likely than Non-Doers to report their friends took the third dose and 2.9 times more likely to report that their aunt took the third dose. In addition to the strength of Social Norms, Social Proof is also powerful here. Doers are more likely to report that they know their sister, neighbor and friends took the third dose, therefore more individuals in the community should be encouraged to disseminate the fact they followed this behavior if it is not directly observable.

Perceived Access: Doers are 2.6 times more likely than Non-Doers to report that it is “not difficult at all” to receive the third dose. Non-Doers are 2.2 times more likely than Doers to report it is “somewhat difficult” and 1.8 times more likely than Doers to report that it is “very difficult”. Doers are 2.9 times more likely than Non-Doers to report that they expect to be treated “very well” at the health facility. Non-Doers are 3.2 times more likely than Doers to report they expect to be treated “somewhat well”. This is again another opportunity to utilize the benefits of positive deviance of Doers. As was consistently found, the expectation of the quality of treatment links back to the importance of increasing quality of care at health facilities.

Cues for Action: Doers are 2 times more likely than Non-Doers to report it is “very easy” to remember to visit the clinic at least three times during pregnancy. Non-Doers are 2.3 times more likely than Doers to report it is “somewhat easy” to remember. Doers are 4.5 times more likely than Non-Doers to report it is “very easy” to remember to take the third dose during pregnancy. Non-Doers are 5 times more likely than Doers to report that it is “somewhat easy” to remember. As with other the other behaviors in this survey, Doers have strategies and cues to action to help them remember to follow the behavior, in this case to go to the ANC clinic and to make sure they take the third dose of SP/Fansidar. Doers should be encouraged to share these strategies with others in the community there could also be visual cues and reminders by community members.

Action Efficacy: Non-Doers are 2 times more likely than Doers to report that it “somewhat likely” they will get malaria during pregnancy even if they take the third dose. (Doers were more likely to report “not likely at all” but the difference is not statistically significant.) Non-Doers have less faith in the efficacy of their own action and in the drug, which could be due to a lack of knowledge about the reasons for taking the drug and the strength of the drug. Clear and specific messaging around how SP/Fansidar differs from other drugs taken during pregnancy and why it should be taken can be strengthened.

Perceived Severity: Doers are 1.9 times more likely than Non-Doers to report that getting malaria during their pregnancy would be “very serious”. Doers are also 3.6 times more likely than Non-Doers to report that getting malaria would be “not serious at all”. Non-Doers are 3 times more likely than Doers to report that getting malaria would be “somewhat serious”. These results are slightly contradictory as Doers were more likely to report both ends of the severity spectrum- very serious and not serious at all- whereas Non-Doers were more likely to report moderate views on severity. The importance of perceived severity was not found as a determinant in other malaria prevention behaviors therefore should be interpreted with caution.

Limitations

The national net distribution campaign occurred directly prior to the barrier analyses surveys. Therefore individuals who recently received ITNs could have started using them because they were novel and newly distributed but may not otherwise be habitual or continuous users. Therefore some individual may have been classified as Doers when they could be temporary or recent Doers.

Data enumerators did not want surveys translated into written Krio since Krio is typically a spoken language. During the training each question was discussed in detail and consensus was reached on how to say that question in Krio, therefore the questions should have been asked consistently across enumerators. However, it is possible there were deviations in the field during data collection.

Translation from answers in Krio to English occurred during the interviews as the second enumerator was writing answers. A lack of consistency in translation and then the compilation of results at the regional level by supervisors could have resulted in more general answers than if results were compiled from the original Krio. However, time and resource constraints did allow all for the latter option.

Conclusions

The results of these Barrier Analyses provide evidence that can inform the development of the future national strategy. There is strong evidence around the need to harness the power of social norms in behavior change strategies for these recommended behaviors. Additionally, positive deviance and storytelling can be used to share strategies around cues for actions and reminders for following through. The importance of improving quality at health facilities cannot be underestimated as low quality and fees for services repeatedly impeded Non-Doers from taking action and following recommended behaviors.

Annex

Appendix I: Training Agenda

Barrier Analysis Enumerator Training Global Fund Malaria Behavior Change Activities 31 May - 2 June 2017

Day 1

Training Objectives:

- Learn about a barrier analysis
- Review the BA questionnaire
- Learn how to complete the questionnaire
- Learn qualitative interview techniques

10:30 - 11:00	Introduction, review of objectives and icebreaker
11:00 - 12:00	Basic interview techniques
12:00 - 13:00	Basic overview of BA and categories of questions
13:00 - 13:30	Work through examples of classifying doer and non-doers
13:30 - 14:30	Lunch
14:30 - 15:00	Review sample completed BA questionnaire
15:00 - 17:00	Review questions and Krio translations

Day 2

Training Objectives:

- Practice asking questions of individuals in the community
- Receive feedback
- Compile results from sample interviews

10:00 - 11:00	Review questions and Krio translations
11:00 - 13:00	Practice in groups of 3 - interviewer, respondent, observer
13:00 - 14:00	Lunch
14:00 - 16:00	Field practice
16:00 - 16:30	Debrief from afternoon interviews
16:30 - 17:00	Review additional questionnaires and Kiro translations

Day 3

Training Objectives:

- Practice asking questions of individuals in the community
- Receive feedback
- Review data collection plan

9:00 - 9:30	Review objectives
9:30 - 13:30	Field practice (<i>Enumerators only</i>)

9:30 - 13:30	Compiling results (<i>Supervisors only</i>)
13:30 - 14:30	Lunch
14:30 - 15:00	Debrief and review of morning field interviews
15:00 - 17:00	Review of data collection plan and administrative issues

Materials needed

Day One

- BA questionnaire- Children sleeping under net (2 per participant)
- Sample completed BA questionnaire (one per participant)
- Interview tips worksheet (one per participant)
- Feedback worksheet (one per participant)

Day Two

- BA questionnaires (1 per participant, of *each* questionnaire)
- Feedback worksheet (one per participant)

Day Three

- BA questionnaires (*printing needs to be determined*)
- Compilation worksheet (one per supervisor)

Appendix II: Questionnaires

Children under 5 sleeping inside ITN

Group: Doer Non-Doer

Barrier Analysis Questionnaire: Children Sleeping inside an ITN

Behavior Statement

Mothers of Children 0 – 59 month ensure that their young children sleep inside an insecticide treated bednet each night for the previous three nights.

Demographic Data

Interviewer's Name: _____

Questionnaire No.: _____

Community: _____

Date: _____

Short Introduction:

Hi, my name is [say your name here], my partner is [say name here], and we are part of a study team from NMCP and CRS looking into malaria prevention practices. The study involves asking you some questions about your own behavior and will take about 20 minutes. I would like to hear your views on this topic. You are not obliged to participate in the study and no services will be withheld if you decide not to. Likewise, if you chose to be interviewed you will not receive any gifts, special services or remuneration. Everything we discuss will be held in strict confidence - I'm not going to ask your name - and will not be shared with anyone else. Do you have any questions?

Would you like to participate in the study? [If not, thank them for their time and move to a new household.]

Section A - Doer/Non-doer Screening Questions

1. How old is your youngest child? _____ ← write age here
 - a. 59 months or younger
 - b. 60 months or older → *End interview and look for another respondent*
 - c. don't Know / Won't say → *End interview and look for another respondent*
2. Do you have any mosquito nets in your house?
 - a. yes
 - b. no → *End interview and look for another respondent*
 - c. don't Know / Won't say → *End interview and look for another respondent*
3. Have you had these nets for at least 4 days?
 - a. yes
 - b. no → *End interview and look for another respondent*
 - c. don't know / won't say → *End interview and look for another respondent*
4. What type of mosquito nets do you have at home? Mosquito nets treated with insecticide (chemicals) or a bednet that is not treated with chemicals? If you received a net from the recent distribution campaign, that is a treated net.
 - a. insecticide treated bednet

- b. not insecticide treated / both types → *Mark as Non-doer and continue to Section B*
- c. don't Know → *End interview and look for another respondent*

5. Last night, who slept inside a bed net in your family?

- a. the youngest child; or youngest child and other children; or youngest child and mother; or youngest child and anyone else
- b. any other person but NOT the youngest child → *Mark as Non-doer and continue to Section B*
- c. no one → *Mark as Non-doer and continue to Section B*
- d. does not know / no response → *End interview and look for another mother*

6. How many nights of the past 3 nights has your youngest child slept inside the mosquito net?

- a. every night (3 days)
- b. 2 nights → *Mark as Non-doer and continue to Section B*
- c. only 1 night → *Mark as Non-doer and continue to Section B*
- d. don't know/won't say → *End the interview and look for another mother*

DOER /NON-DOER CLASSIFICATION TABLE

DOER (all of the following)	Non-Doer (any ONE of the following)	Do Not Interview (any ONE of the following)
Question 1 = a		Question 1 = b or c
Question 2 = a		Question 2 = b or c
Question 3 = a		Question 3 = b or c
Question 4 = a	Question 4 = b	Question 4 = c
Question 5 = a	Question 5 = b or c	Question 5 = d
Question 6 = a	Question 6 = b or c	Question 6 = d

Group: Doer Non-doer

Also check the Doer or Non-doer box on the top of the first page.

Section B – Research Questions

Read to participant: I'm going to ask you a question about yourself.

How many total children do you have? _____ ← write number here

Read to participant: Now, in the following questions I am going to be talking about sleeping inside an ITN – by this I mean a bednet that has been treated with a chemical.

(Perceived Self-efficacy)

1a. Doers: What makes it **easier** for you to put your baby to sleep inside an ITN every night?

1b. Non-doers: What would make it easier for you to put your baby to sleep inside an ITN every night?

(Write all responses below. Probe with “What else?”)

(Perceived Self-efficacy)

2a. Doers: What makes it **difficult** for you to put your baby to sleep inside an ITN every night?

2b. Non-doers: What would make it **difficult** for you to put your baby to sleep inside an ITN every night?

(Write all responses below. Probe with “What else?”)

(Perceived Positive Consequences)

3a. Doers: What are the **advantages** of putting your baby to sleep inside an ITN every night?

3b. Non-doers: What would be the **advantages** of putting your baby to sleep inside an ITN every night?

(Write all responses below. Probe with “What else?”)

(Perceived Negative Consequences)

4a. Doers: What are the **disadvantages** of putting your baby to sleep inside an ITN every night?

4b. Non-doers: What would be the **disadvantages** of putting your baby to sleep inside an ITN every night?

(Write all responses below. Probe with “What else?”)

(Perceived Social Norms)

5a. Doers: Do most of the people that you know **approve** of you putting your baby to sleep inside an ITN every night?

5b. Non-doers: Would most of the people that you know **approve** of you putting your baby to sleep inside an ITN every night?

- a. Yes
- b. Possibly
- c. No
- d. Don't Know / Won't say

(Perceived Social Norms)

6a. Doers: Who are the people that **approve** of you putting your baby to sleep inside an ITN every night?

6b. Non-doers: Who are the people that **would approve** of you putting your baby to sleep inside an ITN every night?

(Write all responses below. Probe with “What else?”)

(Perceived Social Norms)

7a. Doers: Who are the people that **disapprove** of you putting your baby to sleep inside an ITN every night?

(Write all responses below. Probe with “What else?”)

7b. Non-doers: Who are the people that **would disapprove** of you putting your baby to sleep inside an ITN every night?

(Perceived Access)

8a. Doers: How difficult is it to get an ITN? Very difficult, somewhat difficult, or not difficult at all?

- a. Very difficult
- b. Somewhat difficult
- c. Not difficult at all.
- d. Don't Know / Won't say

8b. Non-doers: How difficult would it be to get an ITN? Very difficult, somewhat difficult, or not difficult at all?

(Perceived Cues for Action / Reminders)

9a. Doers: How easy is it to remember to put your baby to sleep inside an ITN every night? Very easy, somewhat easy, or not easy at all?

- a. Very easy
- b. Somewhat easy
- c. Not easy at all
- d. Don't Know / Won't say

9b. Non-doers: How easy do you think it would be to remember to put your baby to sleep inside an ITN every night? Very easy, somewhat easy, or not easy at all?

(Perceived Susceptibility / Perceived Risk)

10. Doers and Non-doers: How likely is it that your baby will get malaria in the next 6 months? Very likely, Somewhat likely or not likely at all?

- a. Very likely
- b. Somewhat likely
- c. Not likely at all
- d. Don't Know / Won't say

(Perceived Severity)

11. Doers and Non-doers: How serious would it be if your baby got malaria compared to other problems they could get? Very serious, somewhat serious, or not serious at all?

- a. Very serious
- b. Somewhat serious
- c. Not serious at all
- d. Don't Know / Won't say

(Action Efficacy)

12. Doers and Non-doers: How likely is it that your child would get malaria if you put him to sleep inside an ITN every night?

- a. Very likely
- b. Somewhat likely
- c. Not likely at all
- d. Don't Know / Won't say

(Perception of Divine Will)

13. Doers and Non-doers: Do you think that it's **God's will** that your baby gets malaria?

- a. Yes
- b. No
- c. Don't Know / Won't say

(Policy)

14a. Doers: Are there any community **laws or rules** in place that you know of that made it more likely that you put your baby to sleep inside an ITN every night?

14b. Non-doers: Are there any community laws or rules in place that you know of that would make it more likely that you will put your baby to sleep inside an ITN each night?

- a. Yes
- b. No
- c. Don't Know / Won't say

(Culture)

15a. Doers and Non-doers: Are there any **cultural** rules or taboos that you know of against putting your baby to sleep each night inside an ITN?

- a. Yes
- b. No → *If no, skip to question 16.*
- c. Don't Know / Won't say

15b. Doers and Non-doers: Do you believe in those taboos?

- a. Yes
- b. No
- c. Don't Know / Won't say

(Social Proof)

16. Doers and Non-doers: Who do you know for certain who puts their baby to sleep each night inside an ITN?

Read: Now I'm going to ask you a question unrelated to ITNs.

(Question on Universal Motivators)

17. Doers and Non-doers: What is the one thing that you desire most in life?

THANK THE RESPONDENT FOR HIS/HER ANSWERS!

Barrier Analysis Questionnaire: Pregnant Women Sleeping inside an ITN

Behavior Statement

Pregnant women who sleep inside an insecticide treated bednet each night for the previous three nights

Demographic Data

Interviewer's Name: _____

Questionnaire No.: _____

Community: _____

Date: _____

Short Introduction:

Hi, my name is [say your name here], my partner is [say name here], and we are part of a study team from NMCP and CRS looking into malaria prevention practices. The study involves asking you some questions about your own behavior and will take about 20 minutes. I would like to hear your views on this topic. You are not obliged to participate in the study and no services will be withheld if you decide not to. Likewise, if you chose to be interviewed you will not receive any gifts, special services or remuneration. Everything we discuss will be held in strict confidence - I'm not going to ask your name - and will not be shared with anyone else. Do you have any questions?

Would you like to participate in the study? [If not, thank them for their time and move to a new household.]

Section A - Doer/Non-doer Screening Questions

1. Are you currently pregnant?
 - a. yes
 - b. no → *End interview and look for another respondent*
 - c. don't know / won't say → *End interview and look for another respondent*

2. Do you have any mosquito nets in your house?
 - a. yes
 - b. no → *End interview and look for another respondent*
 - c. don't know / won't say → *End interview and look for another respondent*

3. Have you had these nets for at least 4 days?
 - a. yes
 - b. no → *End interview and look for another respondent*
 - c. don't know / won't say → *End interview and look for another respondent*

7. What type of mosquito nets do you have at home? Mosquito nets treated with insecticide (chemicals) or a bednet that is not treated with chemicals? If you received a net from the recent distribution campaign, that is a treated net.
 - a. insecticide treated bednet
 - b. not insecticide treated / both types → *Mark as Non-doer and continue to Section B*
 - c. don't know → *End interview and look for another respondent*

8. Last night, who slept inside a bed net in your family?
- a. pregnant woman and anyone else
 - b. any other person but NOT the pregnant woman → *Mark as Non-doer and continue to Section B*
 - c. no one → *Mark as Non-doer and continue to Section B*
 - d. does not know / no response → *End interview and look for another mother*
9. How many nights of the past 3 nights have you slept inside the mosquito net?
- a. every night (3 days)
 - b. 2 nights → *Mark as Non-doer and continue to Section B*
 - c. only 1 night → *Mark as Non-doer and continue to Section B*
 - d. don't know/won't say → *End the interview and look for another mother*

DOER /NON-DOER CLASSIFICATION TABLE

DOER (all of the following)	Non-Doer (any ONE of the following)	Do Not Interview (any ONE of the following)
Question 1 = a		Question 1 = b or c
Question 2 = a		Question 2 = b or c
Question 3 = a		Question 3 = b or c
Question 4 = a	Question 4 = b	Question 4 = c
Question 5 = a	Question 5 = b or c	Question 5 = d
Question 6 = a	Question 6 = b or c	Question 6 = d

Group: Doer Non-doer

Also check the Doer or Non-doer box on the top of the first page.

Section B – Research Questions

Read to participant: I'm going to ask you a question about yourself.

How many total children do you have? _____ ← write number here

Read to participant: In the following questions I am going to be talking about a pregnant woman sleeping inside an ITN – by this I mean a bednet that has been treated with a chemical.

(Perceived Self-efficacy)

1a. Doers: What makes it **easier** for you to sleep inside an ITN every night?

1b. Non-doers: What would make it easier for you to sleep inside an ITN every night?

(Write all responses below. Probe with “What else?”)

(Perceived Self-efficacy)

2a. Doers: What makes it **difficult** for you to sleep inside an ITN every night?

2b. Non-doers: What would make it difficult for you to sleep inside an ITN every night?

(Write all responses below. Probe with “What else?”)

(Perceived Positive Consequences)

3a. Doers: What are the **advantages** of sleeping inside an ITN every night?

3b. Non-doers: What would be the **advantages** of sleeping inside an ITN every night?

(Write all responses below. Probe with “What else?”)

(Perceived Negative Consequences)

4a. Doers: What are the **disadvantages** of sleeping inside an ITN every night?

4b. Non-doers: What would be the **disadvantages** of sleeping inside an ITN every night?

(Write all responses below. Probe with “What else?”)

(Perceived Social Norms)

5a. Doers: Do most of the people that you know **approve** of you sleeping inside an ITN every night?

5b. Non-doers: Would most of the people that you know **approve** of you sleeping inside an ITN every night?

- a. Yes
- b. Possibly
- c. No
- d. Don't Know / Won't say

(Perceived Social Norms)

6a. Doers: Who are the people that **approve** of you sleeping inside an ITN every night?

6b. Non-doers: Who are the people that **would approve** of you sleeping inside an ITN every night?

(Write all responses below. Probe with “What else?”)

(Perceived Social Norms)

7a. Doers: Who are the people that **disapprove** of you sleeping inside an ITN every night?

(Write all responses below. Probe with “What else?”)

7b. Non-doers: Who are the people that **would disapprove** of you sleeping inside an ITN every night?

(Perceived Access)

8a. Doers: How difficult is it to get an ITN? Very difficult, somewhat difficult, or not difficult at all?

- a. Very difficult
- b. Somewhat difficult
- c. Not difficult at all.
- d. Don't Know / Won't say

8b. Non-doers: How difficult would it be to get an ITN? Very difficult, somewhat difficult, or not difficult at all?

(Perceived Cues for Action / Reminders)

9a. Doers: How easy is it to remember to sleep inside an ITN every night? Very easy, somewhat easy, or not easy at all?

- a. Very easy
- b. Somewhat easy
- c. Not easy at all
- d. Don't Know / Won't say

9b. Non-doers: How easy do you think it would be to remember to sleep inside an ITN every night? Very easy, somewhat easy, or not easy at all?

(Perceived Susceptibility / Perceived Risk)

10. Doers and Non-doers: How likely is it that you will get malaria in the next 6 months? Very likely, Somewhat likely or not likely at all?

- a. Very likely
- b. Somewhat likely
- c. Not likely at all
- d. Don't Know / Won't say

(Perceived Severity)

11. Doers and Non-doers: How serious would it be if you got malaria compared to other problems you could get during pregnancy? Very serious, somewhat serious, or not serious at all?

- a. Very serious
- b. Somewhat serious
- c. Not serious at all
- d. Don't Know / Won't say

(Action Efficacy)

12. Doers and Non-doers: How likely is it that you would get malaria if you sleep inside an ITN every night?

- a. Very likely
- b. Somewhat likely
- c. Not likely at all
- d. Don't Know / Won't say

(Perception of Divine Will)

13. Doers and Non-doers: Do you think that it's **God's will** that you get malaria?

- a. Yes
- b. No
- c. Don't Know / Won't say

(Policy)

14a. Doers: Are there any community **laws or rules** in place that you know of that made it more likely that you sleep inside an ITN every night?

14b. Non-doers: Are there any community laws or rules in place that you know of that would make it more likely that you will sleep inside an ITN each night?

- a. Yes
- b. No
- c. Don't Know / Won't say

(Culture)

15a. Doers and Non-doers: Are there any **cultural** rules or taboos that you know of against sleeping each night inside an ITN?

- a. Yes
- b. No → *If no, skip to question 16.*
- c. Don't Know / Won't say

15b. Doers and Non-doers: Do you believe in those taboos?

- a. Yes
- b. No
- c. Don't Know / Won't say

(Social Proof)

16. Doers and Non-doers: Who do you know for certain who is pregnant and sleeps each night inside an ITN?

Read: Now I'm going to ask you a question unrelated to ITNs.

(Question on Universal Motivators)

17. Doers and Non-doers: What is the one thing that you desire most in life?

THANK THE RESPONDENT FOR HIS/HER ANSWERS!

Barrier Analysis Questionnaire: Care Seeking for Children under 5 with fever

Behavior Statement

Mothers of Children 0 – 59 month ensure that they seek care for a child under 5 years within 24 hours of the onset of fever

Demographic Data

Interviewer's Name: _____

Questionnaire No.: _____

Community: _____

Date: _____

Short Introduction:

Hi, my name is [say your name here], my partner is [say name here], and we are part of a study team from NMCP and CRS looking into malaria prevention practices. The study involves asking you some questions about your own behavior and will take about 20 minutes. I would like to hear your views on this topic. You are not obliged to participate in the study and no services will be withheld if you decide not to. Likewise, if you chose to be interviewed you will not receive any gifts, special services or remuneration. Everything we discuss will be held in strict confidence - I'm not going to ask your name - and will not be shared with anyone else. Do you have any questions?

Would you like to participate in the study? [If not, thank them for their time and move to a new household.]

Section A - Doer/Non-doeer Screening Questions

1. Do you have any children under 5 years of age? _____ ← write age(s) here
 - a. 59 months or younger
 - b. 60 months or older → *End interview and look for another respondent*
 - c. don't know / won't say → *End interview and look for another respondent*

2. Did one of your children who is less than 5 years of age have a fever in the previous 2 weeks?
 - a. yes
 - b. no → *End interview and look for another respondent*
 - c. don't know / won't say → *End interview and look for another respondent*

10. Did you take your young child with fever to a health clinic or community health worker within 24 hours? Before the sun set once after the start of the fever.
 - a. yes
 - b. no → *Mark as Non-doeer and continue to Section B*
 - c. don't know → *End interview and look for another respondent*

DOER /NON-DOER CLASSIFICATION TABLE

DOER (all of the following)	Non-Doer (any ONE of the following)	Do Not Interview (any ONE of the following)
Question 1 = a		Question 1 = b or c
Question 2 = a		Question 2 = b or c

Question 3 = a	Question 3 = b	Question 3 = c
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Group: Doer Non-doer

Also check the Doer or Non-doer box on the top of the first page.

Section B – Research Questions

Read to participant: I'm going to ask you a question about yourself.

How many total children do you have? _____ ← write number here

Read to participant: In the following questions I am going to be talking about taking your child to a health clinic or community health worker when the child had fever.

(Perceived Self-efficacy)

1a. Doers: What makes it **easier** for you to take your baby for care within 24 hours when he/she has a fever?

1b. Non-doers: What would make it easier for you to take your baby for care within 24 hours when he/she has a fever?

(Write all responses below. Probe with "What else?")

(Perceived Self-efficacy)

2a. Doers: What makes it **difficult** for you to take your baby for care within 24 hours when he/she has a fever?

2b. Non-doers: What would make it difficult for you to take your baby for care within 24 hours when he/she has a fever?

(Write all responses below. Probe with "What else?")

(Perceived Positive Consequences)

3a. Doers: What are the **advantages** of taking your baby for care within 24 hours when he/she has a fever?

3b. Non-doers: What would be the **advantages** of taking your baby for care within 24 hours when he/she has a fever?

(Write all responses below. Probe with "What else?")

(Perceived Negative Consequences)

4a. Doers: What are the **disadvantages** of taking your baby for care within 24 hours when he/she has a fever?

4b. Non-doers: What would be the **disadvantages** of taking your baby for care within 24 hours when he/she has a fever?

(Write all responses below. Probe with "What else?")

(Perceived Social Norms)

5a. Doers: Do most of the people that you know **approve** of you taking your child for care within 24 hours when he/she has a fever?

- a. Yes
- b. Possibly
- c. No
- d. Don't Know / Won't say

5b. Non-doers: Would most of the people that you know **approve** of you taking your child for care within 24 hours when he/she has a fever?

(Perceived Social Norms)

6a. Doers: Who are the people that **approve** of you taking your child for care within 24 hours when he/she has a fever?

6b. Non-doers: Who are the people that **would approve** of you taking your child for care within 24 hours when he/she has a fever?

(Write all responses below. Probe with "What else?")

(Perceived Social Norms)

7a. Doers: Who are the people that **disapprove** of you taking your child for care within 24 hours when he/she has a fever?

7b. Non-doers: Who are the people that **would disapprove** of you taking your child for care within 24 hours when he/she has a fever?

(Write all responses below. Probe with "What else?")

(Perceived Access)

8a. Doers: How difficult is it to take your child for care within 24 hours when he/she has a fever? Very difficult, somewhat difficult, or not difficult at all?

8b. Non-doers: How difficult would it be to take your child for care within 24 hours when he/she has a fever? Very difficult, somewhat difficult, or not difficult at all?

- a. Very difficult
- b. Somewhat difficult
- c. Not difficult at all.
- d. Don't Know / Won't say

(Perceived Access)

9a. Doers: To what degree are you treated well when you visit the health clinic or CHW when your child has had fever for less than 24 hours? Very well, somewhat well, or not well at all?

- a. Very well
- b. Somewhat well
- c. Not well at all
- d. Don't Know / Won't say

9b. Non-doers: To what degree do you think you would be treated well when you visit the health clinic or CHW when your child has had fever for less than 24 hours? Very well, somewhat well, or not well at all?

(Perceived Cues for Action / Reminders)

10a. Doers: How easy is it to remember to take your child for care within 24 hours when he/she has a fever? Very easy, somewhat easy, or not easy at all?

- a. Very easy
- b. Somewhat easy
- c. Not easy at all
- d. Don't Know / Won't say

10b. Non-doers: How easy do you think it would be to remember to take your child for care within 24 hours when he/she has a fever? Very easy, somewhat easy, or not easy at all?

(Perceived Susceptibility / Perceived Risk)

11. Doers and Non-doers: How likely is it that your baby's fever will get worse if you do not take him/her for care? Very likely, Somewhat likely or not likely at all?

- a. Very likely
- b. Somewhat likely
- c. Not likely at all
- d. Don't Know / Won't say

(Perceived Severity)

12. Doers and Non-doers: How serious would it be if your baby's fever got worse compared to other problems they could get? Very serious, somewhat serious, or not serious at all?

- a. Very serious
- b. Somewhat serious
- c. Not serious at all
- d. Don't Know / Won't say

(Perceived Susceptibility / Perceived Risk)

13. Doers and Non-doers: How likely is it that your baby will die if you do not take him/her for care? Very likely, Somewhat likely or not likely at all?

- a. Very likely
- b. Somewhat likely
- c. Not likely at all
- d. Don't Know / Won't say

(Perception of Divine Will)

14. Doers and Non-doers: Do you think that it's **God's will** that your baby dies if they have a fever?

- a. Yes
- b. No
- c. Don't Know / Won't say

(Policy)

15a. Doers: Are there any community **laws or rules** in place that you know of that made it more likely that you took your child for care within 24 hours when he/she has a fever?

15b. Non-doers: Are there any community **laws or rules** in place that you know of that would make it more likely that you will take your child for care within 24 hours when he/she has a fever?

- a. Yes
- b. No
- c. Don't Know / Won't say

(Culture)

16a. Doers and Non-doers: Are there any **cultural** rules or taboos that you know of against taking your child for care within 24 hours when he/she has a fever?

- a. Yes
- b. No → *If no, skip to question 17.*
- c. Don't Know / Won't say

16b. Doers and Non-doers: Do you believe in those taboos?

- a. Yes
- b. No
- c. Don't Know / Won't say

(Social Proof)

17. Doers and Non-doers: Who do you know for certain who takes their child for care within 24 hours when their child has a fever?

Read: Now I'm going to ask you a question unrelated to seeking care when your child has a fever.

(Question on Universal Motivators)

18. Doers and Non-doers: What is the one thing that you desire most in life?

THANK THE RESPONDENT FOR HIS/HER ANSWERS!

Group: Doer Non-Doer

Barrier Analysis Questionnaire: Pregnant women receive at least 3 doses of IPTp

Behavior Statement

Pregnant women in their third trimester or women who have given birth in the previous year and who received at least 3 doses of IPTp (SP/Fansidar) treatment during pregnancy

Demographic Data

Interviewer's Name: _____

Questionnaire No.: _____

Community: _____

Date: _____

Short Introduction:

Hi, my name is [say your name here], my partner is [say name here], and we are part of a study team from NMCP and CRS looking into malaria prevention practices. The study involves asking you some questions about your own behavior and will take about 20 minutes. I would like to hear your views on this topic. You are not obliged to participate in the study and no services will be withheld if you decide not to. Likewise, if you chose to be interviewed you will not receive any gifts, special services or remuneration. Everything we discuss will be held in strict confidence - I'm not going to ask your name - and will not be shared with anyone else. Do you have any questions?

Would you like to participate in the study? [If not, thank them for their time and move to a new household.]

Section A - Doer/Non-doeer Screening Questions

1. Are you currently pregnant and in your third trimester or do you have a child who is less than a year old?
 - a. yes
 - b. no → *End interview and look for another respondent*
 - c. don't know / won't say → *End interview and look for another respondent*

2. Did you attend at least 3 visits at the ANC clinic during your pregnancy?
 - a. yes
 - b. no → *End interview and look for another respondent*
 - c. don't know / won't say → *End interview and look for another respondent*

11. Did you receive at least 3 doses of IPTp treatment (SP/Fansidar) at the ANC clinic during your pregnancy?
 - a. yes
 - b. no → *Mark as Non-doeer and continue to Section B*
 - c. don't know → *End interview and look for another respondent*

DOER /NON-DOER CLASSIFICATION TABLE

DOER (all of the following)	Non-Doer (any ONE of the following)	Do Not Interview (any ONE of the following)
Question 1 = a		Question 1 = b or c

Question 2 = a		Question 2 = b or c
Question 3 = a	Question 3 = b	Question 3 = c

Group: Doer Non-doer

Also check the Doer or Non-doer box on the top of the first page.

Section B – Research Questions

Read to participant: I’m going to ask you a question about yourself.

How many total children do you have? _____ ← write number here

Read to participant: In the following questions I am going to be talking about receiving at least 3 doses of SP/Fansidar treatment during your pregnancy.

(Perceived Self-efficacy)

1a. Doers: What makes it **easier** for you to receive the 3 doses of SP/Fansidar during your pregnancy?

1b. Non-doers: What would make it **easier** for you to receive the 3 doses of SP/Fansidar during your pregnancy?

(Write all responses below. Probe with “What else?”)

(Perceived Self-efficacy)

2a. Doers: What makes it **difficult** for you to receive the 3 doses of SP/Fansidar during your pregnancy?

2b. Non-doers: What would make it **difficult** for you to receive the 3 doses of SP/Fansidar during your pregnancy?

(Write all responses below. Probe with “What else?”)

(Perceived Positive Consequences)

3a. Doers: What are the **advantages** of receiving the 3 doses of SP/Fansidar during your pregnancy?

3b. Non-doers: What would be the **advantages** of receiving the 3 doses of SP/Fansidar during your pregnancy?

(Write all responses below. Probe with “What else?”)

(Perceived Negative Consequences)

4a. Doers: What are the **disadvantages** of receiving the 3 doses of SP/Fansidar during your pregnancy?

4b. Non-doers: What would be the **disadvantages** of receiving the 3 doses of SP/Fansidar during your pregnancy?

(Write all responses below. Probe with “What else?”)

(Perceived Social Norms)

5a. Doers: Do most of the people that you know **approve** of you receiving the 3 doses of SP/Fansidar during your pregnancy?

- a. Yes
- b. Possibly
- c. No
- d. Don't Know / Won't say

5b. Non-doers: Would most of the people that you know **approve** of you receiving the 3 doses of SP/Fansidar during your pregnancy?

(Perceived Social Norms)

6a. Doers: Who are the people that **approve** of you receiving the 3 doses of SP/Fansidar during your pregnancy?

(Write all responses below. Probe with “What else?”)

6b. Non-doers: Who are the people that **would approve** of you receive the 3 doses of SP/Fansidar during your pregnancy?

(Perceived Social Norms)

7a. Doers: Who are the people that **disapprove** of you receiving the 3 doses of SP/Fansidar during your pregnancy?

(Write all responses below. Probe with “What else?”)

7b. Non-doers: Who are the people that **would disapprove** of you receiving the 3 doses of SP/Fansidar during your pregnancy?

(Perceived Access)

8a. Doers: How difficult is it to receive the 3 doses of SP/Fansidar during your pregnancy? Very difficult, somewhat difficult, or not difficult at all?

- a. Very difficult
- b. Somewhat difficult
- c. Not difficult at all.
- d. Don't Know / Won't say

8b. Non-doers: How difficult would it be to receive the 3 doses of SP/Fansidar during your pregnancy? Very difficult, somewhat difficult, or not difficult at all?

(Perceived Access)

9a. Doers: To what degree are you treated well when you visit the ANC clinic during pregnancy? Very well, somewhat well, or not well at all?

- a. Very well

9b. Non-doers: To what degree do you think you would be treated well when you visit the ANC clinic during pregnancy? Very well, somewhat well, or not well at all?

- b. Somewhat well
- c. Not well at all
- d. Don't Know / Won't say

10a. Doers: Before going to the clinic, to what degree were you confident that the clinic would have the SP/Fansidar drugs at the clinic? Very confident, somewhat confident, or not confident at all?

- a. Very confident
- b. Somewhat confident
- c. Not confident at all
- d. Don't Know / Won't say

10b. Non-doers: Before going to the clinic, to what degree were you confident that the clinic would have the SP/Fansidar drugs at the clinic? Very well, somewhat well, or not confident at all?

(Perceived Cues for Action / Reminders)

11a. Doers: How easy is it to remember to visit the ANC clinic at least 3 times during your pregnancy? Very easy, somewhat easy, or not easy at all?

- a. Very easy
- b. Somewhat easy
- c. Not easy at all
- d. Don't Know / Won't say

11b. Non-doers: How easy do you think it would be to remember to visit the ANC clinic at least 3 times during your pregnancy? Very easy, somewhat easy, or not easy at all?

(Perceived Cues for Action / Reminders)

12a. Doers: How easy is it to remember to receive the 3 doses of SP/Fansidar during your pregnancy? Very easy, somewhat easy, or not easy at all?

- a. Very easy
- b. Somewhat easy
- c. Not easy at all
- d. Don't Know / Won't say

12b. Non-doers: How easy do you think it would be to remember to receive the 3 doses of SP/Fansidar during your pregnancy? Very easy, somewhat easy, or not easy at all?

(Perceived Susceptibility / Perceived Risk)

13. Doers and Non-doers: How likely is it that you will get malaria if you receive the 3 doses of SP/Fansidar during your pregnancy? Very likely, Somewhat likely or not likely at all?

- a. Very likely
- b. Somewhat likely
- c. Not likely at all
- d. Don't Know / Won't say

(Perceived Severity)

14. Doers and Non-doers: How serious would it be if you got malaria during your pregnancy? Very serious, somewhat serious, or not serious at all?

- a. Very serious
- b. Somewhat serious
- c. Not serious at all
- d. Don't Know / Won't say

(Perception of Divine Will)

15. Doers and Non-doers: Do you think that it's **God's will** that you get malaria during your pregnancy?

- a. Yes
- b. No
- c. Don't Know / Won't say

(Policy)

16a. Doers: Are there any community **laws or rules** in place that you know of that made it more likely that you to receive the 3 doses of SP/Fansidar during your pregnancy?

16b. Non-doers: Are there any community laws or rules in place that you know of that would make it more likely that you will receive the 3 doses of SP/Fansidar during your pregnancy?

- a. Yes
- b. No
- c. Don't Know / Won't say

(Culture)

17a. Doers and Non-doers: Are there any **cultural** rules or taboos that you know of against receiving the 3 doses of SP/Fansidar during your pregnancy?

- a. Yes
- b. No → *If no, skip to question 18.*
- c. Don't Know / Won't say

17b. Doers and Non-doers: Do you believe in those taboos?

- a. Yes
- b. No
- c. Don't Know / Won't say

(Social Proof)

18. Doers and Non-doers: Who do you know for certain who receives the 3 doses of SP/Fansidar during your pregnancy?

Read: Now I'm going to ask you a question unrelated to taking the SP/Fansidar during pregnancy.

19. Doers and Non-doers: What is the one thing that you desire most in life?

THANK THE RESPONDENT FOR HIS/HER ANSWERS!

Appendix III: Detailed Results

Barrier Analysis Tabulation Sheet

Children <5 sleeping inside ITN

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers : +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
1. Self - Efficacy : What makes it easier to put your child inside the net to sleep?							
<i>Prevents mosquito bites</i>	22	15	24%	17%	8%	1.53	0.134
<i>Large size of the net</i>	4	3	4%	3%	1%	1.30	0.500
<i>Having the net hung</i>	15	23	17%	26%	-9%	0.61	0.100
<i>Prevents malaria</i>	9	6	10%	7%	3%	1.48	0.296
<i>It makes the child sleep well</i>	3	2	3%	2%	1%	1.44	0.500
<i>Protects from other insects</i>	2	0	2%	0%	2%	10.20	0.249
<i>If it does not cause rash/irritation</i>	0	5	0%	6%	-6%	0.00	0.030
<i>Keeps us healthy</i>	3	0	3%	0%	3%	10.31	0.123
2. Self - Efficacy: What makes it more difficult?							
<i>Scratches/irritates skin</i>	9	6	10%	7%	3%	1.48	0.296
<i>Makes breathing difficult</i>	4	2	4%	2%	2%	1.86	0.341
<i>Smell of the net</i>	4	5	4%	6%	-1%	0.81	0.500
<i>Not having it hung over the bed</i>	9	8	10%	9%	1%	1.12	0.500
<i>Not large enough</i>	1	1	1%	1%	0%	1.00	0.751
<i>Heat/too hot</i>	12	4	13%	4%	9%	2.73	0.032
<i>Uncomfortable</i>	9	6	10%	7%	3%	1.48	0.296
3. Positive Consequences: What are the advantages?							
<i>Prevents malaria</i>	55	40	61%	44%	17%	1.84	0.018
<i>Prevents mosquito bites</i>	49	43	54%	48%	7%	1.27	0.228
<i>Sound/easier sleep</i>	36	35	40%	39%	1%	1.04	0.500
<i>Protects against other insects</i>	5	1	6%	1%	4%	3.72	0.105
<i>Gives baby good health</i>	6	18	7%	20%	-13%	0.31	0.007
4. Negative Consequences: What are the disadvantages?							
<i>Hot</i>	10	11	11%	12%	-1%	0.91	0.500
<i>Skin itches/burns the skin/eye/nose</i>	14	9	16%	10%	6%	1.56	0.186
<i>Difficulty breathing</i>	2	2	2%	2%	0%	1.00	0.690
<i>Uncomfortable</i>	2	5	2%	6%	-3%	0.41	0.222
<i>Child will get malaria</i>	3	0	3%	0%	3%	10.31	0.123
5. Social Norms: Do most people approve?							
Yes	89	81	99%	90%	9%	8.92	0.009
Possibly	0	9	0%	10%	-10%	0.00	0.002
No	0	0	0%	0%	0%		1.000

Barrier Analysis Tabulation Sheet

Children <5 sleeping inside ITN

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers : +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
Don't know	0	0	0%	0%	0%		1.000
6. Social Norms: Who approves?							
Husband	47	45	52%	50%	2%	1.08	0.441
Sister	15	23	17%	26%	-9%	0.61	0.100
Mother	27	21	30%	23%	7%	1.36	0.200
Mother in-law	13	17	14%	19%	-4%	0.75	0.275
Friends	7	7	8%	8%	0%	1.00	0.609
Neighbors	11	14	12%	16%	-3%	0.78	0.334
Brother	4	6	4%	7%	-2%	0.68	0.373
Brother in-law	2	3	2%	3%	-1%	0.68	0.500
CHW or Nurse	4	2	4%	2%	2%	1.86	0.341
Village Leader of Chief	0	0	0%	0%	0%		1.000
General family members	8	7	9%	8%	1%	1.14	0.500
7. Social Norms: Who disapproves?							
<i>Mother in-law</i>	0	0	0%	0%	0%		1.000
<i>Neighbor</i>	1	3	1%	3%	-2%	0.35	0.310
<i>Husband</i>	0	1	0%	1%	-1%	0.00	0.500
<i>Traditional healer</i>	0	0	0%	0%	0%		1.000
<i>Sister</i>	0	0	0%	0%	0%		1.000
<i>Friends</i>	0	0	0%	0%	0%		1.000
8. Access - how difficult is it to get an ITN?							
<i>Very difficult</i>	13	26	14%	29%	-14%	0.45	0.015
<i>Somewhat difficult</i>	31	29	34%	32%	2%	1.09	0.437
<i>Not difficult at all</i>	51	34	57%	38%	19%	1.99	0.008
<i>Don't know/Won't say</i>	0	1	0%	1%	-1%	0.00	0.500
9. Reminders - how easy is it to remember?							
<i>Very easy</i>	68	49	76%	54%	21%	2.37	0.002
<i>Somewhat easy</i>	17	30	19%	33%	-14%	0.50	0.021
<i>Not easy at all</i>	4	11	4%	12%	-8%	0.36	0.052
<i>Don't know/Won't say</i>	0	0	0%	0%	0%		1.000
10. Risk- How likely is it that your baby will get malaria?							
<i>Very likely</i>	28	24	31%	27%	4%	1.21	0.311

Barrier Analysis Tabulation Sheet

Children <5 sleeping inside ITN

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers : +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
Somewhat likely	36	40	40%	44%	-4%	0.85	0.325
Not likely at all	26	28	29%	31%	-2%	0.91	0.435
Don't know/Won't say	0	0	0%	0%	0%		1.000
11. Severity - How serious would it be if your child got malaria?							
Very serious	72	61	80%	68%	12%		0.062
Somewhat serious	16	26	18%	29%	-11%	0.56	0.056
Not serious at all	0	3	0%	3%	-3%	0.00	0.123
Don't know/Won't say	2	1	2%	1%	1%	1.84	0.500
12. Action Efficacy - How likely is it that your child would get malaria if they sleep inside ITN every night?							
Very likely	18	15	20%	17%	3%	1.22	0.563
Somewhat likely	30	36	33%	40%	-7%	0.77	0.220
Not likely at all	43	37	48%	41%	7%	1.28	0.227
Don't know/Won't say	0	2	0%	2%	-2%	0.00	0.249
14. Divine Will - do you think it is God's will that your child gets malaria?							
Yes	41	47	46%	52%	-7%	0.79	0.228
No	48	44	53%	49%	4%	1.17	0.327
Don't know/Won't say	0	0	0%	0%	0%		1.000
15. Policy - Any community laws/regulations that make is more likely you will do the behavior?							
Yes	38	38	42%	42%	0%	1.00	0.560
No	49	52	54%	58%	-3%	0.89	0.382
Don't know/Won't say	2	0	2%	0%	2%	10.20	0.249
16. Culture - Any cultural rules/taboo against the behavior?							
Yes	22	24	24%	27%	-2%	0.90	0.432
No	67	66	74%	73%	1%	1.05	0.500
Don't know/Won't say	0	0	0%	0%	0%		1.000
17. Social proof - Who else does?							
Sister	31	26	34%	29%	6%	1.26	0.261
Neighbors	31	18	34%	20%	14%	1.92	0.022

Barrier Analysis Tabulation Sheet

Children <5 sleeping inside ITN

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers : +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
Sister in-law	8	10	9%	11%	-2%	0.80	0.402
Friends	12	15	13%	17%	-3%	0.79	0.338
Mother	0	6	0%	7%	-7%	0.00	0.014
Brother	0	1	0%	1%	-1%	0.00	0.500
Aunt	2	6	2%	7%	-4%	0.34	0.139
General family members	9	8	10%	9%	1%	1.12	0.500
Co-wife	2	1	2%	1%	1%	1.84	0.500

Barrier Analysis Tabulation Sheet

Pregnant woman sleeping inside ITN

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers: +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
1. Self - Efficacy : What makes it easier to sleep inside?							
<i>Knowledge it protects- for good health and prevents malaria</i>	10	2	11%	2%	9%	3.89	0.016
<i>Keeps mosquitos and other bugs away</i>	17	10	19%	11%	8%	1.73	0.105
<i>Improves sleep</i>	12	3	13%	3%	10%	3.40	0.014
<i>Easy to use</i>	1	1	1%	1%	0%	1.00	0.751
<i>When it is already hung</i>	9	5	10%	6%	4%	1.74	0.202
<i>When it is not torn</i>	0	4	0%	4%	-4%	0.00	0.060
<i>Husband or child reminds me</i>	4	8	4%	9%	-4%	0.50	0.185
<i>Comfortable to sleep inside</i>	6	5	7%	6%	1%	1.19	0.500
<i>When the chemicals are not uncomfortable</i>	2	6	2%	7%	-4%	0.34	0.139
<i>When not too hot</i>	1	4	1%	4%	-3%	0.26	0.184
2. Self - Efficacy: What makes it difficult to sleep inside?							
<i>Heat or gives heat rash</i>	20	28	22%	31%	-9%	0.66	0.119
<i>Hurts my skin</i>	1	7	1%	8%	-7%	0.15	0.032
<i>Dislike chemical, including smell</i>	5	11	6%	12%	-7%	0.45	0.095
<i>Net in poor condition/damaged</i>	2	3	2%	3%	-1%	0.68	0.500
<i>Makes it hard to breathe</i>	1	0	1%	0%	1%	10.10	0.500
<i>Net is not large enough</i>	0	2	0%	2%	-2%	0.00	0.249
<i>It makes husband/child uncomfortable</i>	3	7	3%	8%	-4%	0.44	0.165
<i>Time consuming to use</i>	7	4	8%	4%	3%	1.68	0.268
3. Positive Consequences: What are the advantages of sleeping inside?							
<i>Protects from malaria</i>	60	62	67%	69%	-2%	0.91	0.437
<i>Protects from mosquito bites</i>	54	66	60%	73%	-13%	0.58	0.041
<i>Makes me/my baby healthy</i>	4	12	4%	13%	-9%	0.33	0.032
<i>Prevents rash from mosquito bites</i>	1	4	1%	4%	-3%	0.26	0.184
<i>Sleep well</i>	41	37	46%	41%	4%	1.18	0.326
<i>Protects from other illnesses</i>	9	8	10%	9%	1%	1.12	0.500
<i>Feel comfortable</i>	6	3	7%	3%	3%	1.88	0.248
<i>Feel safe</i>	6	7	7%	8%	-1%	0.86	0.500

Barrier Analysis Tabulation Sheet

Pregnant woman sleeping inside ITN

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers: +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
4. Negative Consequences: What are the disadvantages of sleeping inside?							
<i>Sleepless night</i>	0	1	0%	1%	-1%	0.00	0.500
<i>Baby will not be healthy</i>	0	0	0%	0%	0%		1.000
<i>Too hot at night</i>	23	15	26%	17%	9%	1.61	0.100
<i>Skin rash or chemical uncomfortable</i>	17	15	19%	17%	2%	1.15	0.423
<i>Uncomfortable</i>	15	7	17%	8%	9%	2.11	0.055
5. Social Norms: Do most people approve of sleeping inside?							
Yes	89	84	99%	93%	6%	5.79	0.059
Possibly	0	3	0%	3%	-3%	0.00	0.123
No	1	2	1%	2%	-1%	0.52	0.500
Don't know	0	1	0%	1%	-1%	0.00	0.500
6. Social Norms: Who approves?							
Husband	70	60	78%	67%	11%	1.66	0.067
Sister	19	20	21%	22%	-1%	0.94	0.500
Mother	30	29	33%	32%	1%	1.05	0.500
Mother in-law	11	9	12%	10%	2%	1.22	0.407
Friends	10	8	11%	9%	2%	1.25	0.402
Neighbors	20	19	22%	21%	1%	1.06	0.500
Brother	3	2	3%	2%	1%	1.44	0.500
Brother in-law	0	0	0%	0%	0%		1.000
CHW or Nurse	22	14	24%	16%	9%	1.64	0.096
Village Leader of Chief	1	2	1%	2%	-1%	0.52	0.500
General family members	7	11	8%	12%	-4%	0.63	0.228
7. Social Norms: Who disapproves?							
<i>Mother in-law</i>	0	0	0%	0%	0%		1.000
<i>Neighbor</i>	1	3	1%	3%	-2%	0.35	0.310
<i>Husband</i>	0	0	0%	0%	0%		1.000
<i>Traditional healer</i>	0	0	0%	0%	0%		1.000
<i>Sister</i>	2	0	2%	0%	2%	10.20	0.249
<i>Friends</i>	0	0	0%	0%	0%		1.000
8. Access - How difficult is it to get an ITN?							
<i>Very difficult</i>	27	19	30%	21%	9%	1.52	0.116
<i>Somewhat difficult</i>	16	26	18%	29%	-11%	0.56	0.056
<i>Not difficult at all</i>	47	45	52%	50%	2%	1.08	0.441

Barrier Analysis Tabulation Sheet

Pregnant woman sleeping inside ITN

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers: +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
<i>Don't know/Won't say</i>	0	0	0%	0%	0%		1.000
9. Reminders - How easy is it to remember?							
<i>Very easy</i>	78	56	87%	62%	24%	3.55	0.000
<i>Somewhat easy</i>	10	23	11%	26%	-14%	0.39	0.010
<i>Not easy at all</i>	2	10	2%	11%	-9%	0.20	0.016
<i>Don't know/Won't say</i>	0	1	0%	1%	-1%	0.00	0.500
10. Risk - How likely is it that you will get malaria?							
<i>Very likely</i>	21	35	23%	39%	-16%	0.51	0.018
<i>Somewhat likely</i>	30	29	33%	32%	1%	1.05	0.500
<i>Not likely at all</i>	39	24	43%	27%	17%	1.93	0.014
<i>Don't know/Won't say</i>	0	2	0%	2%	-2%	0.00	0.249
11. Severity - How serious would it be if you get malaria?							
<i>Very serious</i>	73	70	81%	78%	3%		0.580
<i>Somewhat serious</i>	12	17	13%	19%	-6%	0.69	0.209
<i>Not serious at all</i>	5	3	6%	3%	2%	1.60	0.360
<i>Don't know/Won't say</i>	0	0	0%	0%	0%		1.000
12. Action Efficacy - How likely is it that you will get malaria if you sleep inside ITN?							
<i>Very likely</i>	15	24	17%	27%	-10%		0.103
<i>Somewhat likely</i>	18	13	20%	14%	6%	1.42	0.215
<i>Not likely at all</i>	57	52	63%	58%	6%	1.23	0.271
<i>Don't know/Won't say</i>	0	1	0%	1%	-1%	0.00	0.500
13. Divine Will - Is it God's will that you get malaria?							
<i>Yes</i>	33	44	37%	49%	-12%	0.64	0.066
<i>No</i>	57	44	63%	49%	14%	1.70	0.036
<i>Don't know/Won't say</i>	0	2	0%	2%	-2%	0.00	0.249

Barrier Analysis Tabulation Sheet

Pregnant woman sleeping inside ITN

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers: +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
14. Policy - Any community laws/regulations that make is less likely you will do the behavior?							
Yes	38	42	42%	47%	-4%	0.85	0.326
No	51	48	57%	53%	3%	1.13	0.382
Don't know/Won't say	1	0	1%	0%	1%	10.10	0.500
15. Culture - Any cultural rules/taboo against the behavior?							
Yes	2	4	2%	4%	-2%	0.52	0.341
No	70	68	78%	76%	2%	1.12	0.430
Don't know/Won't say	0	0	0%	0%	0%		1.000
16. Social proof - Who else does?							
Sister	34	43	38%	48%	-10%	0.69	0.114
Neighbors	42	42	47%	47%	0%	1.00	0.559
Sister in-law	10	10	11%	11%	0%	1.00	0.593
Friends	19	28	21%	31%	-10%	0.62	0.087
Mother	3	9	3%	10%	-7%	0.33	0.066
Brother	0	0	0%	0%	0%		1.000
Aunt	6	8	7%	9%	-2%	0.75	0.391
General family members	0	0	0%	0%	0%		1.000
Co-wife	0	1	0%	1%	-1%	0.00	0.500

Barrier Analysis Tabulation Sheet

Care Seeking with Fever for Children Under 5

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers : +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
1. Self - Efficacy : What makes it easier to take your baby for care within 24 hours?							
<i>Knowledge to take child for treatment</i>	13	3	14%	3%	11%	3.63	0.008
<i>Trust in/knowing good treatment will be given</i>	11	7	12%	8%	4%	1.55	0.228
<i>Short distance and ability to get transport to the clinic</i>	51	40	57%	44%	12%	1.56	0.068
<i>Trust in the drug from the hospital</i>	5	10	6%	11%	-6%	0.50	0.140
<i>Trust in or knowing the health worker</i>	35	33	39%	37%	2%	1.09	0.439
<i>Treatment is free</i>	9	3	10%	3%	7%	2.67	0.066
<i>Having money</i>	16	24	18%	27%	-9%	0.62	0.105
<i>Help with other children or household tasks</i>	10	9	11%	10%	1%	1.11	0.500
<i>Availability of CHW</i>	1	5	1%	6%	-4%	0.21	0.105
<i>Knowing the location of the clinic</i>	4	9	4%	10%	-6%	0.45	0.124
2. Self - Efficacy: What makes it more difficult to take your baby for care within 24 hours?							
<i>Cost of treatment/drug at clinic</i>	19	25	21%	28%	-7%	0.72	0.193
<i>Cost of transportation (lack of money for transport)</i>	25	34	28%	38%	-10%	0.66	0.102
<i>General financial constraints</i>	15	25	17%	28%	-11%	0.55	0.053
<i>Transport difficulties at night</i>	12	11	13%	12%	1%	1.09	0.500
<i>Long distance to clinic</i>	12	22	13%	24%	-11%	0.51	0.043
<i>Own self being sick</i>	0	4	0%	4%	-4%	0.00	0.060
<i>Negative attitude of nurses</i>	0	4	0%	4%	-4%	0.00	0.060
<i>Other responsibilities- children or work</i>	10	10	11%	11%	0%	1.00	0.593
<i>Lack of medications/drugs</i>	4	4	4%	4%	0%	1.00	0.640
<i>Lack of staff at clinic</i>	0	3	0%	3%	-3%	0.00	0.123
3. Positive Consequences: What are the advantages?							
<i>Improves baby physically</i>	12	17	13%	19%	-6%	0.69	0.209
<i>Improved general health</i>	34	47	38%	52%	-14%	0.59	0.036
<i>Cures the baby - saves the life</i>	17	8	19%	9%	10%	2.12	0.042
<i>Receive drugs</i>	45	52	50%	58%	-8%	0.75	0.185

Barrier Analysis Tabulation Sheet

Care Seeking with Fever for Children Under 5

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers : +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
<i>Correct treatment</i>	20	9	22%	10%	12%	2.26	0.021
<i>Receive free treatment or drugs</i>	17	10	19%	11%	8%	1.73	0.105
<i>Fast treatment</i>	11	12	12%	13%	-1%	0.91	0.500
<i>Good quality of treatment</i>	6	4	7%	4%	2%	1.46	0.373
<i>Given advice/information</i>	9	6	10%	7%	3%	1.48	0.296
<i>Own happiness at child's health</i>	3	4	3%	4%	-1%	0.76	0.500
4. Negative Consequences: What are the disadvantages?							
<i>Payment for treatment</i>	13	23	14%	26%	-11%	0.52	0.046
<i>Length of time at clinic</i>	20	18	22%	20%	2%	1.13	0.428
<i>Negative experiences at clinic</i>	6	16	7%	18%	-11%	0.36	0.019
<i>Transport costs</i>	11	9	12%	10%	2%	1.22	0.407
<i>Drug shortage</i>	1	5	1%	6%	-4%	0.21	0.105
<i>Issues with other responsibilities</i>	3	1	3%	1%	2%	2.55	0.310
<i>Distance far</i>	4	4	4%	4%	0%	1.00	0.640
<i>Food problem</i>	6	4	7%	4%	2%	1.46	0.373
5. Social Norms: Do most people approve?							
Yes	88	82	98%	91%	7%	3.94	0.050
Possibly	1	5	1%	6%	-4%	0.21	0.105
No	1	3	1%	3%	-2%	0.35	0.310
Don't know	0	0	0%	0%	0%		1.000
6. Social Norms: Who approves?							
Husband	45	49	50%	54%	-4%	0.85	0.327
Sister	17	20	19%	22%	-3%	0.83	0.356
Mother	31	40	34%	44%	-10%	0.68	0.111
Mother in-law	7	5	8%	6%	2%	1.38	0.383
Friends	13	8	14%	9%	6%	1.62	0.177
Neighbors	26	28	29%	31%	-2%	0.91	0.435
Brother	7	13	8%	14%	-7%	0.53	0.118
Brother in-law	3	0	3%	0%	3%	10.31	0.123
CHW or Nurse	15	11	17%	12%	4%	1.38	0.263
Village Leader or Chief	1	1	1%	1%	0%	1.00	0.751
General family members	21	17	23%	19%	4%	1.27	0.292
7. Social Norms: Who disapproves?							
<i>Mother in-law</i>	1	3	1%	3%	-2%	0.35	0.310

Barrier Analysis Tabulation Sheet

Care Seeking with Fever for Children Under 5

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers : +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
<i>Neighbor</i>	10	6	11%	7%	4%	1.63	0.216
<i>Husband</i>	1	2	1%	2%	-1%	0.52	0.500
<i>Traditional healer</i>	0	2	0%	2%	-2%	0.00	0.249
<i>Sister</i>	0	1	0%	1%	-1%	0.00	0.500
<i>Friends</i>	2	0	2%	0%	2%	10.20	0.249
8. Access - How difficult is it to take your child for care within 24 hours?							
<i>Very difficult</i>	21	28	23%	31%	-8%	0.70	0.158
<i>Somewhat difficult</i>	23	32	26%	36%	-10%	0.65	0.098
<i>Not difficult at all</i>	46	29	51%	32%	19%	2.02	0.008
<i>Don't know/Won't say</i>	0	1	0%	1%	-1%	0.00	0.500
9. Access - To what degree are you/would you be treated well at the health clinic or CHW?							
<i>Very well</i>	73	58	81%	64%	17%	2.20	0.009
<i>Somewhat well</i>	15	25	17%	28%	-11%	0.55	0.053
<i>Not well at all</i>	2	7	2%	8%	-6%	0.29	0.084
<i>Don't know/Won't say</i>	0	1	0%	1%	-1%	0.00	0.500
10. Reminders - how easy is it to remember?							
<i>Very easy</i>	76	68	84%	76%	9%	1.67	0.096
<i>Somewhat easy</i>	12	16	13%	18%	-4%	0.73	0.269
<i>Not easy at all</i>	2	7	2%	8%	-6%	0.29	0.084
<i>Don't know/Won't say</i>	0	0	0%	0%	0%		1.000
11. Risk- How likely is it that baby's fever will get worse?							
<i>Very likely</i>	74	68	82%	76%	7%	1.44	0.181
<i>Somewhat likely</i>	14	18	16%	20%	-4%	0.76	0.280
<i>Not likely at all</i>	2	4	2%	4%	-2%	0.52	0.341
<i>Don't know/Won't say</i>	0	1	0%	1%	-1%	0.00	0.500
12. Severity - How serious would it be if baby's fever got worse compared to other problems they could get?							
<i>Very serious</i>	72	66	80%	73%	7%		0.290
<i>Somewhat serious</i>	14	21	16%	23%	-8%	0.63	0.129
<i>Not serious at all</i>	1	2	1%	2%	-1%	0.52	0.500
<i>Don't know/Won't say</i>	3	2	3%	2%	1%	1.44	0.500

Barrier Analysis Tabulation Sheet

Care Seeking with Fever for Children Under 5

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers : +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
13. Risk - How likely is it that your baby will die if you do not take them for care?							
Very likely	68	56	76%	62%	13%		0.053
Somewhat likely	15	29	17%	32%	-16%	0.45	0.012
Not likely at all	5	3	6%	3%	2%	1.60	0.360
Don't know/Won't say	2	2	2%	2%	0%	1.00	0.690
14. Divine Will - Is it God's will that your baby gets a fever?							
Yes	48	52	53%	58%	-4%	0.85	0.326
No	42	38	47%	42%	4%	1.18	0.326
Don't know/Won't say	0	0	0%	0%	0%		1.000
15. Policy - Any community laws/regulations that make it more likely you will go for care within 24 hours?							
Yes	47	51	52%	57%	-4%	0.85	0.327
No	41	40	46%	44%	1%	1.04	0.500
Don't know/Won't say	2	1	2%	1%	1%	1.84	0.500
16. Culture - Any cultural rules/taboo against going?							
Yes	7	6	8%	7%	1%	1.16	0.500
No	82	85	91%	94%	-3%	0.64	0.283
Don't know/Won't say	1	0	1%	0%	1%	10.10	0.500
17. Social proof - Who else does?							
Sister	38	32	42%	36%	7%	1.29	0.222
Neighbors	54	45	60%	50%	10%	1.44	0.115
Sister in-law	15	16	17%	18%	-1%	0.93	0.500
Friends	24	32	27%	36%	-9%	0.69	0.130
Mother	2	5	2%	6%	-3%	0.41	0.222
Brother	1	0	1%	0%	1%	10.10	0.500
Aunt	9	10	10%	11%	-1%	0.90	0.500
General family members	6	5	7%	6%	1%	1.19	0.500
Co-wife	1	1	1%	1%	0%	1.00	0.751

Barrier Analysis Tabulation Sheet

Third dose of IPTp

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers : +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
1. Self - Efficacy : What makes it easier?							
<i>Knowing of having a good relationship with health workers</i>	22	26	24%	29%	-4%	0.81	0.307
<i>Good attitude/kind health worker</i>	6	3	7%	3%	3%	1.88	0.248
<i>Trust in the drug - it will keep healthy</i>	10	9	11%	10%	1%	1.11	0.500
<i>Drug is free</i>	16	4	18%	4%	13%	3.53	0.004
<i>Having money to attend the clinic</i>	3	9	3%	10%	-7%	0.33	0.066
<i>Being close to the health center</i>	30	25	33%	28%	6%	1.26	0.259
<i>Drug is available</i>	11	8	12%	9%	3%	1.37	0.314
2. Self - Efficacy: What makes it more difficult?							
<i>Nurses asking for money</i>	2	1	2%	1%	1%	1.84	0.500
<i>Cost of drugs</i>	6	15	7%	17%	-10%	0.38	0.031
<i>Feeling ill</i>	28	22	31%	24%	7%	1.35	0.203
<i>Lack of health workers - Health workers being absent</i>	2	3	2%	3%	-1%	0.68	0.500
<i>Drug not available</i>	0	4	0%	4%	-4%	0.00	0.060
<i>No water to take drug</i>	1	3	1%	3%	-2%	0.35	0.310
3. Positive Consequences: What are the advantages?							
<i>Keeps or makes self healthy</i>	47	46	52%	51%	1%	1.04	0.500
<i>Keeps or makes baby healthy</i>	26	26	29%	29%	0%	1.00	0.565
<i>Keeps both self and baby healthy</i>	2	0	2%	0%	2%	10.20	0.249
<i>Prevents or protects against malaria</i>	35	35	39%	39%	0%	1.00	0.561
<i>Safe delivery</i>	8	10	9%	11%	-2%	0.80	0.402
4. Negative Consequences: What are the disadvantages?							
<i>Taste or smell of drug</i>	12	10	13%	11%	2%	1.20	0.410
<i>General side effects of drug (vomiting, weakness, etc.)</i>	33	28	37%	31%	6%	1.25	0.264
<i>Loss of appetite</i>	6	2	7%	2%	4%	2.61	0.139
<i>Increase in appetite</i>	1	3	1%	3%	-2%	0.35	0.310
5. Social Norms: Do most people approve?							
Yes	89	81	99%	90%	9%	8.92	0.009
Possibly	1	8	1%	9%	-8%	0.13	0.017

Barrier Analysis Tabulation Sheet

Third dose of IPTp

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers : +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
No	0	0	0%	0%	0%		1.000
Don't know	0	1	0%	1%	-1%	0.00	0.500
6. Social Norms: Who approves?							
Husband	61	69	68%	77%	-9%	0.67	0.122
Sister	22	14	24%	16%	9%	1.64	0.096
Mother	23	22	26%	24%	1%	1.05	0.500
Mother in-law	10	16	11%	18%	-7%	0.61	0.145
Friends	11	8	12%	9%	3%	1.37	0.314
Neighbors	18	17	20%	19%	1%	1.07	0.500
Brother	3	4	3%	4%	-1%	0.76	0.500
Brother in-law	2	1	2%	1%	1%	1.84	0.500
CHW or Nurse	25	18	28%	20%	8%	1.47	0.147
Village Leader of Chief	0	0	0%	0%	0%		1.000
General family members	4	5	4%	6%	-1%	0.81	0.500
7. Social Norms: Who disapproves?							
Sister	0	2	0%	2%	-2%	0.00	0.249
Neighbor	1	1	1%	1%	0%	1.00	0.751
Mother	0	3	0%	3%	-3%	0.00	0.123
Witches	0	1	0%	1%	-1%	0.00	0.500
Bad people or can't say	1	5	1%	6%	-4%	0.21	0.105
Husband	0	2	0%	2%	-2%	0.00	0.249
8. Access - How difficult is it to receive the 3 doses?							
Very difficult	17	28	19%	31%	-12%	0.55	0.042
Somewhat difficult	12	24	13%	27%	-13%	0.45	0.020
Not difficult at all	56	33	62%	37%	26%	2.55	0.000
Don't know/Won't say	0	5	0%	6%	-6%	0.00	0.030
9. Access - To what degree are you/would you be treated well?							
Very well	76	57	84%	63%	21%	2.87	0.001
Somewhat well	8	23	9%	26%	-17%	0.31	0.003
Not well at all	6	8	7%	9%	-2%	0.75	0.391
Don't know/Won't say	0	2	0%	2%	-2%	0.00	0.249

Barrier Analysis Tabulation Sheet

Third dose of IPTp

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers : +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
11a. Reminders - how easy is it to remember to visit clinic at least 3 times?							
<i>Very easy</i>	76	65	84%	72%	12%	1.96	0.035
<i>Somewhat easy</i>	10	21	11%	23%	-12%	0.44	0.024
<i>Not easy at all</i>	4	4	4%	4%	0%	1.00	0.640
<i>Don't know/Won't say</i>	0	0	0%	0%	0%		1.000
12b. Reminders - how easy is it to remember to take 3rd dose?							
<i>Very easy</i>	77	48	86%	53%	32%	4.55	0.000
<i>Somewhat easy</i>	8	32	9%	36%	-27%	0.20	0.000
<i>Not easy at all</i>	5	5	6%	6%	0%	1.00	0.627
<i>Don't know/Won't say</i>	0	5	0%	6%	-6%	0.00	0.030
13. Risk- How likely that you will get malaria if you take 3 doses?							
<i>Very likely</i>	22	20	24%	22%	2%	1.12	0.430
<i>Somewhat likely</i>	13	24	14%	27%	-12%	0.49	0.032
<i>Not likely at all</i>	54	44	60%	49%	11%	1.50	0.089
<i>Don't know/Won't say</i>	1	2	1%	2%	-1%	0.52	0.500
14. Severity - How serious would it be if you got malaria?							
<i>Very serious</i>	67	53	74%	59%	16%	1.91	0.027
<i>Somewhat serious</i>	14	34	16%	38%	-22%	0.33	0.001
<i>Not serious at all</i>	9	2	10%	2%	8%	3.59	0.029
<i>Don't know/Won't say</i>	0	1	0%	1%	-1%	0.00	0.500
15. Divine Will - Do you think it is God's will that you get malaria during pregnancy?							
<i>Yes</i>	40	50	44%	56%	-11%	0.67	0.090
<i>No</i>	50	40	56%	44%	11%	1.49	0.090
<i>Don't know/Won't say</i>	0	0	0%	0%	0%		1.000

Barrier Analysis Tabulation Sheet

Third dose of IPTp

Total Doers	90						
Total NonDoers	90						
Estimated Prevalence of Behavior	10%						
Determinants	Doers: +Exp. (A)	NonDoers : +Exp. (B)	Doers %	Non- doers %	Diff.	Estim. Relative Risk	p- value
15. Policy - Any community laws/regulations that make is more likely you will do the behavior?							
Yes	28	33	31%	37%	-6%	0.80	0.264
No	62	55	69%	61%	8%	1.36	0.174
Don't know/Won't say	0	2	0%	2%	-2%	0.00	0.249
16. Culture - Any cultural rules/taboo against the behavior?							
Yes	1	5	1%	6%	-4%	0.21	0.105
No	85	84	94%	93%	1%	1.19	0.500
Don't know/Won't say	0	1	0%	1%	-1%	0.00	0.500
17. Social proof - Who else does?							
Sister	31	17	34%	19%	16%	2.04	0.014
Neighbors	42	29	47%	32%	14%	1.72	0.033
Sister in-law	2	5	2%	6%	-3%	0.41	0.222
Friends	40	25	44%	28%	17%	1.92	0.015
Mother	1	4	1%	4%	-3%	0.26	0.184
Brother	0	0	0%	0%	0%		1.000
Aunt	10	3	11%	3%	8%	2.92	0.040
General family members	0	1	0%	1%	-1%	0.00	0.500
Co-wife	0	0	0%	0%	0%		1.000