

MALARIA MODULE FOR HOUSEHOLD SURVEYS

I. INTRODUCTION

Malaria remains a major public health problem and still is one of the most important diseases in developing countries, causing significant morbidity, mortality, and economic loss. Children under age 5 and pregnant women are disproportionately affected. Hospital records in developing countries suggest that malaria is responsible for a substantial proportion of outpatient visits, admissions, and of inpatient deaths.

Several governments implement strategic plans for malaria control which usually include prevention and control strategies such as:

- Use of long-lasting insecticidal nets (LLINs)
- Indoor residual spraying (IRS)
- Environmental management (where feasible and effective)
- Uncomplicated malaria case management with Artemisinin-based combination therapy (ACT) at the community level and in health units (with emphasis on improved diagnosis and management of severe malaria)
- Treatment and prevention of malaria during pregnancy, including intermittent preventive treatment (IPT)
- Early detection and response to malaria epidemics

Given the resurgence of interest in malaria as a disease of major public health importance, the Roll Back Malaria (RBM) partnership was launched in 1998 in order to coordinate the efforts of the international community. A Global Malaria Action Plan (GMAP) was established in 2008 by the World Health Organization and the Roll Back Malaria Partnership. The GMAP goals, objectives and targets were updated in June 2011. The targets were expected to be met by achieving and sustaining universal access to and utilization of preventive measures including vector control; achieving universal access to diagnostic testing and treatment in the public and private sectors and in the community (including appropriate referral); and accelerating the development of surveillance systems.

In order to collect nationally representative information on malaria-specific indicators, the Monitoring and Evaluation Working Group (MERG) of Roll Back Malaria developed the Malaria Indicator Survey (MIS), a stand-alone household survey for the collection of data from a representative sample of respondents. A MIS measures indicators related to the Millennium Development Goals (MDG), the President's Malaria Initiative (PMI) targets, and the Global Malaria Action Plan (GMAP). The key objectives of a MIS are:

- Assess the coverage and timing of indoor residual spraying (IRS)
- Assess household ownership of insecticide-treated and other types of bednets, as well as their use by children under five years and pregnant women
- Estimate the prevalence of fever, anemia, malaria (and the type and timing of treatment) among children under five years, women of reproductive age, and pregnant women
- Assess the use of intermittent preventive treatment (IPT) for malaria among pregnant women.
- Measurement of malaria parasites and anemia (a common result of malaria) among household members most at risk: children under five years and pregnant women.

The list of indicators that can be calculated from a Multiple Indicator Survey (MIS) are listed in Section II. The 16 indicators for assessing progress towards the Global Malaria Action Plan (GMAP) are listed in Section III.

II. INDICATORS FOR MALARIA CONTROL¹

The list of indicators for assessing progress towards the Global Malaria Action Plan (GMAP) targets is the most comprehensive one and it includes the 16 survey indicators listed next under two main categories: outcome indicators (prevention and case management) and impact measure indicators (morbidity and mortality).

Outcome Indicators: Prevention

1. Percentage of Households with at Least One ITN (Insecticide-Treated Net)

Numerator: Number of households surveyed with at least one ITN

Denominator: Total number of households surveyed

2. Percentage of Households with at Least One ITN for Every Two People (NEW)

Numerator: Number of households with at least one ITN for every two people

Denominator: Total number of households surveyed

3. Percentage of Population with Access to an ITN within their Household (NEW)

Numerator: Total number of individuals who could sleep under an ITN if each ITN in the household is used by two people

Denominator: Total number of individuals who spent the previous night in surveyed households

4. Percentage of Population that Slept under an ITN the Previous Night

Numerator: Number of individuals who slept under an ITN the previous night

Denominator: Total number of individuals who spent the previous night in surveyed households

5. Percentage of Children under Five Years Old Who Slept under an ITN the Previous Night

Numerator: Number of children under five years old who slept under an ITN the previous night

Denominator: Total number of children under five years old who spent the previous night in surveyed households

6. Percentage of Pregnant Women Who Slept under an ITN the Previous Night

Numerator: Number of pregnant women who slept under an ITN the previous night

Denominator: Total number of pregnant women within surveyed households

7. Percentage of Existing ITNs Used the Previous Night

Numerator: Number of ITNs in surveyed households that were used by anyone the previous night

Denominator: Total number of ITNs in surveyed households

8. Percentage of Households with at Least one ITN and/or Sprayed by IRS in the Last 12 Months (Households Covered by Vector Control)

Numerator: Number of households that have at least one ITN and/or have been sprayed by IRS in the last 12 months

Denominator: Total number of households surveyed

¹Adapted from: MEASURE Evaluation, MEASURE DHS, President's Malaria Initiative, Roll Back Malaria Partnership, UNICEF, World Health Organization. *Household Survey Indicators for Malaria Control*. June 2013

9. Percentage of Households with at Least One ITN for Every Two People and/or Sprayed by IRS within the Last 12 Months (Universal Coverage of Vector Control)

Numerator: Number of households with at least one ITN for every two people and/or have been sprayed by IRS in the last 12 months

Denominator: Total number of households surveyed

Additional indicator (IRS National-level Indicator)

Percentage of Households that Received Spraying through an IRS Campaign within the Last 12 Months

Numerator: Number of households that were sprayed with a residual insecticide during an IRS campaign in the last 12 months

Denominator: Total number of households surveyed

10. Percentage of Women Who Received Three or More Doses of Intermittent Preventive Treatment during ANC Visits during Their Last Pregnancy

Numerator: Number of women who received three or more doses of a recommended prophylactic antimalarial drug treatment, at least one of which was received during an ANC visit, to prevent malaria during their last pregnancy that led to a live birth within the last two years

Denominator: Total number of women surveyed who delivered a live baby within the last two years

Additional indicator: Percentage of women who received at least one, two, or four doses of a recommended prophylactic antimalarial drug treatment, at least one of which was received during an ANC visit, to prevent malaria during their last pregnancy that led to a live birth within the last two years

Numerator: Number of women who received at least one, two, or four doses of a recommended prophylactic antimalarial drug treatment, at least one of which was received during an ANC visit, to prevent malaria during their last pregnancy that led to a live birth within the last two years

Denominator: Total number of women surveyed who delivered a live baby within the last two years.

Outcome Indicators: Case Management

11. Percentage of Children under Five Years Old with Fever in Last Two Weeks Who Had a Finger or Heel Stick

Numerator: Number of children under five years old with fever in the previous two weeks who had a finger/heel stick

Denominator: Total number of children under five years old who had a fever in the previous two weeks

12. Percentage of Children under Five Years Old with Fever in the Last Two Weeks for Whom Advice or Treatment Was Sought

Numerator: Number of children under five years old who had a fever in the previous two weeks for whom advice or treatment was sought

Denominator: Total number of children under five years old who had a fever in the previous two weeks

13. Percentage Receiving an ACT (or Other Appropriate Treatment), among Children under Five Years Old with Fever in the Last Two Weeks Who Received Any Antimalarial Drugs

Numerator: Number of children under five years old who had a fever in the previous two weeks who received an ACT (or other appropriate treatment according to national policy)

Denominator: Total number of children under five years old who had a fever in the previous two weeks who received any antimalarial drugs

Impact Measure Indicators: Morbidity

14. Percentage of Children Aged 6-59 Months with Malaria Infection (Parasite Prevalence)

Numerator: Number of children aged 6-59 months with malaria infection detected by rapid diagnostic test or microscopy

Denominator: Total number of children aged 6-59 months tested for malaria parasites by rapid diagnostic test or microscopy

15. Percentage of Children Aged 6-59 Months with a Hemoglobin Measurement of <8 g/dL (Prevalence of Malaria-related Anemia)

Numerator: Number of children aged 6-59 months with a hemoglobin measurement of <8 g/dL

Denominator: Total number of children aged 6-59 months who had hemoglobin measurements obtained during household survey

Impact Measure Indicators: Mortality

16. All-Cause Under-Five Mortality Rate

The under-five mortality rate (U5MR) can be derived from household survey data using direct or indirect methods. The direct method requires the collection of a birth history for all women 15-49. For the MIS, the birth history is restricted to the last six years. The birth history includes information on all children ever born, their survival status and (for non-surviving children) their age at death, in order to calculate the probability of dying before age five from children exposed to mortality during the five-year period before the survey.

III. INDICATORS FROM A MALARIA INDICATOR SURVEY (MIS)²

Household possession of mosquito nets

- Percentage of households with any mosquito net (treated or untreated)
- (1) Percentage of households with at least one insecticide-treated net (ITN)
 - Percentage of households with at least one long-lasting insecticidal net (LLIN)
 - Average number of mosquito nets per household
 - Average number of ITNs per household
 - Average number of LLINs per household
- Percentage of households with at least one net for every two persons who stayed in the household last night
- (2) Percentage of households with at least one ITN for every two persons who stayed in the household last night
 - Percentage of households with at least one LLIN for every two persons who stayed in the household last night

Indoor residual spraying against mosquitoes

- Percentage of households with IRS in the past 12 months
- (8) Percentage of households with at least one ITN and/or IRS in the past 12 months
- (9) Percentage of households with at least one ITN for every two persons and/or IRS in the past 12 months

Use of mosquito nets by persons in the household

- (3) Percentage of the de facto household population with access to an ITN within their household
 - Percentage of the de facto household population who slept the night before the survey under a mosquito net (treated or untreated)
- (4) Percentage who slept under an ITN
 - Percentage who slept under a long-lasting insecticidal net LLIN
 - Percentage who slept under an ITN or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months
 - Among the de facto household population in households with at least one ITN, the percentage who slept under an ITN the night before the survey

Use of existing ITNs

- (7) Percentage of ITNs that were used by anyone the night before the survey

Use of mosquito nets by children the night before the survey

- Percentage of children under age five who slept under a mosquito net (treated or untreated)
- (5) Percentage who slept under an ITN (MDG Indicator 6.7)
 - Percentage who slept under a LLIN
 - Percentage who slept under an ITN last night or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months
 - Among children under five years of age in households with at least one ITN, the percentage who slept under an ITN the night before the survey

Use of mosquito nets by pregnant women

- Percentage of pregnant women age 15-49 who slept under any net the night before the survey
- (6) Percentage who slept under an ITN the night before the survey (MDG Indicator 6.7)
 - Percentage who slept under an ITN last night or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months;
 - Among pregnant women age 15-49 in households with at least one ITN, the percentage who slept under an ITN the night before the survey

²The numbers in parentheses indicate the corresponding indicator in the previous GMAP list.

Use of intermittent preventive treatment (IPTp) by women during pregnancy

Percentage of women age 15-49 with a live birth in the two years preceding the survey who, during the pregnancy preceding the last birth, received any SP/Fansidar during an ANC visit,

(10) Percentage who took at least two doses of SP/Fansidar and received at least one dose during an ANC visit (RBM indicator)

Media exposure to malaria messages

Percentage of women age 15-49 who have seen or heard a message about malaria in the past 6 months through specific sources of media:

Radio

Television

Poster/Billboard

Community health worker

Community event

Any source

Prevalence, diagnosis, and prompt treatment of children under age five with fever in the two weeks preceding the survey

Percentage of children under age five with fever in the two weeks preceding the survey

(12) Percentage of children with fever for whom advice or treatment was sought

(11) Percentage of children with fever who had blood taken from a finger or heel for testing

(13) Percentage of children with fever who took any artemisinin-based combination therapy (ACT)

Percentage of children with fever who took any ACT the same or next day

Percentage of children with fever who took antimalarial drugs

Percentage of children with fever who took antimalarial drugs same or next day (MDG Indicator 6.8)

Type of antimalarial drugs used by children

Percentage of children who took any ACT

Percentage who took Quinine

Percentage who took SP/Fansidar

Percentage who took Chlorine

Percentage who took Amodiaquine

Percentage who took Other antimalarial

Coverage of testing for anemia and malaria in children

Percentage of eligible children age 6-59 months who were tested for anemia

Percentage of eligible children age 6-59 months who were tested for Malaria with RDT

Percentage of eligible children age 6-59 months who were tested for Malaria by microscopy

Prevalence of malaria in children

(15) Percentage of children age 6-59 months with hemoglobin lower than 8.0 g/dl

(14) Percentage of children age 6-59 months classified RDT positive

(14) Percentage of children age 6-59 months classified Microscopy positive

Mortality

(16) Under-5 mortality rate

Neonatal, postneonatal, infant and child mortality rates

IV. LONG VERSION OF THE MALARIA MODULE: QUESTIONS INCLUDED IN A MALARIA INDICATOR SURVEY (MIS)¹

SECTIONS IN THE HOUSEHOLD QUESTIONNAIRE

COVER: IDENTIFICATION AND INTERVIEWER VISITS

CONSENT STATEMENT: INTRODUCTION AND CONSENT

SECTION 1A: HOUSEHOLD SCHEDULE (9 QUESTIONS)

SECTION 1B: HOUSEHOLD CHARACTERISTICS (29 QUESTIONS, 11 ON MALARIA)

SECTION 2: ANEMIA AND MALARIA TESTING FOR CHILDREN 0-6 YEARS (28 QUESTIONS FOR EACH CHILD, 20 ON MALARIA)

(Shaded questions are malaria-specific. In order to save space, detailed coding categories are not shown for some non-malaria questions).

SECTION 1A. HOUSEHOLD SCHEDULE

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX		RESIDENCE		AGE	WOMEN AGE 15-49	CHILDREN AGE 0-5
			4	5	6	7			
1	2	3	4	5	6	7	8	9	
	<p>Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.</p> <p>AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, PROBE TO MAKE SURE THAT THE LISTING IS COMPLETE.</p> <p>THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-9 FOR EACH PERSON.</p>	<p>What is the relationship of (NAME) to the head of the household?</p>	<p>Is (NAME) male or female?</p>	<p>Does (NAME) usually live here?</p>	<p>Did (NAME) stay here last night?</p>	<p>How old is (NAME)?</p> <p>IF 95 OR MORE, RECORD '95'.</p>	<p>CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49</p>	<p>CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5</p>	
01		<input type="text"/>	M F 1 2	Y N 1 2	Y N 1 2	IN YEARS <input type="text"/>	01	01	
20		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	20	20	

¹The shaded questions on malaria can be included in any other kind of survey with small adjustments in the numbering and the referencing. The original MIS questionnaires used by the DHS and MICS programs are available from the Roll Back Malaria (RBM) website: <http://malariasurveys.org/toolkit.cfm>.

SECTION 1B. HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	What is the main source of drinking water for members of your household?		
102	Where is that water source located?		
103	How long does it take to go there, get water, and come back?		
104	What kind of toilet facility do members of your household usually use?		
105	Do you share this toilet facility with other households?		
106	How many households use this toilet facility?		
107	Does your household have: Electricity? A radio? A television? A mobile telephone? A non-mobile telephone? A refrigerator? [ADD ADDITIONAL ITEMS. SEE FOOTNOTE 3.]		
108	What type of fuel does your household mainly use for cooking?		
109	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.		
110	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.		
111	MAIN MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.		
112	How many rooms in this household are used for sleeping?		
113	Does any member of this household own: A watch? A bicycle? A motorcycle or motor scooter? An animal-drawn cart? A car or truck? A boat with a motor?		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
114	Does any member of this household own any agricultural land?		
115	How many hectares of agricultural land do members of this household own? IF 95 OR MORE, CIRCLE '950'.		
116	Does this household own any livestock, herds, other farm animals, or poultry?		
117	How many of the following animals does this household own? Cattle? Milk cows or bulls? Horses, donkeys, or mules? Goats? Sheep? Chickens?		
118	Does any member of this household have a bank account?		
119	At any time in the past 12 months, has anyone come into your dwelling to spray the interior walls against mosquitoes?	YES 1 NO 2 DONT KNOW 8	→ 121
120	Who sprayed the dwelling?	GOVERNMENT WORKER/PROGRAM A PRIVATE COMPANY B NONGOVERNMENTAL ORGANIZATION (NGO) C OTHER _____ X (SPECIFY) DONT KNOW Z	
121	Does your household have any mosquito nets that can be used while sleeping?	YES 1 NO 2	→ 201
122	How many mosquito nets does your household have? IF 7 OR MORE NETS, RECORD '7'.	NUMBER OF NETS <input type="text"/>	

		NET #1	NET #2	NET #3
123	ASK THE RESPONDENT TO SHOW YOU ALL THE NETS IN THE HOUSEHOLD IF MORE THAN 3 NETS, USE ADDITIONAL QUESTIONNAIRE(S).	OBSERVED 1 NOT OBSERVED ... 2	OBSERVED 1 NOT OBSERVED ... 2	OBSERVED 1 NOT OBSERVED ... 2
124	How many months ago did your household get the mosquito net? IF LESS THAN ONE MONTH AGO, RECORD '00'. IF 36 MONTHS OR LESS, RECORD MONTHS. IF MORE THAN 36 MONTHS, RECORD YEARS.	MONTHS 1 <input type="text"/> <input type="text"/> YEARS 2 <input type="text"/> <input type="text"/> NOT SURE 998	MONTHS 1 <input type="text"/> <input type="text"/> YEARS 2 <input type="text"/> <input type="text"/> NOT SURE 998	MONTHS 1 <input type="text"/> <input type="text"/> YEARS 2 <input type="text"/> <input type="text"/> NOT SURE 998
125	OBSERVE OR ASK THE BRAND/TYPE OF MOSQUITO NET. IF BRAND IS UNKNOWN AND YOU CANNOT OBSERVE THE NET, SHOW PICTURES OF TYPICAL NET TYPES/BRANDS TO RESPONDENT.	LONG-LASTING INSECTICIDE-TREATED NET (LLIN) BRAND A 11 BRAND B 12 OTHER/ DK BRAND ... 16 (SKIP TO 128) ← OTHER BRAND ... 96 DK BRAND 998	LONG-LASTING INSECTICIDE-TREATED NET (LLIN) BRAND A 11 BRAND B 12 OTHER/ DK BRAND ... 16 (SKIP TO 128) ← OTHER BRAND ... 96 DK BRAND 98	LONG-LASTING INSECTICIDE-TREATED NET (LLIN) BRAND A 11 BRAND B 12 OTHER/ DK BRAND ... 16 (SKIP TO 128) ← OTHER BRAND ... 96 DK BRAND 98
126	Since you got the net, was it ever soaked or dipped in a liquid to kill or repel mosquitoes?	YES 1 NO 2 (SKIP TO 128) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 128) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 128) ← NOT SURE 8
127	How many months ago was the net last soaked or dipped? IF LESS THAN ONE MONTH AGO, RECORD '00'.	MONTHS AGO ... <input type="text"/> <input type="text"/> MORE THAN 24 MONTHS AGO ... 95 NOT SURE 98	MONTHS AGO ... <input type="text"/> <input type="text"/> MORE THAN 24 MONTHS AGO ... 95 NOT SURE 98	MONTHS AGO ... <input type="text"/> <input type="text"/> MORE THAN 24 MONTHS AGO ... 95 NOT SURE 98
128	Did anyone sleep under this mosquito net last night?	YES 1 NO 2 (SKIP TO 130) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 130) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 130) ← NOT SURE 8
129	Who slept under this mosquito net last night? RECORD THE PERSON'S NAME AND LINE NUMBER FROM THE HOUSEHOLD SCHEDULE.	NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/>	NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/>	NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/>
130		GO BACK TO 123 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	GO BACK TO 123 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	GO TO 123 IN FIRST COLUMN OF A NEW QUESTIONNAIRE; OR, IF NO MORE NETS, GO TO 201.

SECTION 2. ANEMIA AND MALARIA TESTING FOR CHILDREN AGE 0-5 YEARS

201	CHECK COLUMN 9 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 202. IF MORE THAN THREE CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
		CHILD 1	CHILD 2	CHILD 3
202	LINE NUMBER FROM COLUMN 9 NAME FROM COLUMN 2	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____	LINE NUMBER <input type="text"/> <input type="text"/> NAME _____
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME)'s birth date?	DAY <input type="text"/> <input type="text"/> MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	DAY <input type="text"/> <input type="text"/> MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	DAY <input type="text"/> <input type="text"/> MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
204	CHECK 203: CHILD BORN IN JANUARY 2009 (1) OR LATER?	YES 1 NO 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW)	YES 1 NO 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW)	YES 1 NO 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW)
205	CHECK 203: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW) OLDER 2	0-5 MONTHS 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW) OLDER 2	0-5 MONTHS 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW) OLDER 2
206	LINE NUMBER OF PARENT/ OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE). RECORD '00' IF NOT LISTED.	LINE NUMBER <input type="text"/> <input type="text"/>	LINE NUMBER <input type="text"/> <input type="text"/>	LINE NUMBER <input type="text"/> <input type="text"/>
207	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 206 AS RESPONSIBLE FOR CHILD.	<p>As part of this survey, we are asking children all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia.</p> <p>We ask that all children born in 2009 (1) or later take part in anemia testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test.</p> <p>The blood will be tested for anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team.</p> <p>Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you allow (NAME OF CHILD) to participate in the anemia test?</p>		
208	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED 1 _____ (SIGN) ← REFUSED 2 NOT PRESENT 5 OTHER 6	GRANTED 1 _____ (SIGN) ← REFUSED 2 NOT PRESENT 5 OTHER 6	GRANTED 1 _____ (SIGN) ← REFUSED 2 NOT PRESENT 5 OTHER 6

		CHILD 1	CHILD 2	CHILD 3									
	NAME FROM COLUMN 2	NAME _____	NAME _____	NAME _____									
209	ASK CONSENT FOR MALARIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 206 AS RESPONSIBLE FOR CHILD.	<p>As part of this survey, we are asking that children all over the country take a test to see if they have malaria. Malaria is a serious illness caused by a parasite transmitted by a mosquito bite. This survey will help the government to develop programs to prevent malaria.</p> <p>We ask that all children born in 2008 (1) or later take part in malaria testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. (We will use blood from the same finger or heel prick made for the anemia test). One blood drop will be tested for malaria immediately, and the result will be told to you right away. A few blood drops will be collected on a slide(s) and taken to a laboratory for testing. You will not be told the results of the laboratory testing. All results will be kept strictly confidential and will not be shared with anyone other than members of our survey team.</p> <p>Do you have any questions? You can say yes to the test, or you can say no. It is up to you to decide. Will you allow (NAME OF CHILD) to participate in the malaria testing?</p>											
210	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED 1 _____ (SIGN) ← REFUSED 2 NOT PRESENT 5 OTHER 6	GRANTED 1 _____ (SIGN) ← REFUSED 2 NOT PRESENT 5 OTHER 6	GRANTED 1 _____ (SIGN) ← REFUSED 2 NOT PRESENT 5 OTHER 6									
211	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).												
212	BAR CODE LABEL FOR MALARIA TEST.	<div style="border: 1px dashed black; padding: 5px; text-align: center;"> PUT THE 1ST BAR CODE LABEL HERE. </div> NOT PRESENT 99994 REFUSED 99995 OTHER 99996 PUT THE 2ND BAR CODE LABEL ON THE SLIDE AND THE 3RD ON THE TRANSMITTAL FORM.	<div style="border: 1px dashed black; padding: 5px; text-align: center;"> PUT THE 1ST BAR CODE LABEL HERE. </div> NOT PRESENT 99994 REFUSED 99995 OTHER 99996 PUT THE 2ND BAR CODE LABEL ON THE SLIDE AND THE 3RD ON THE TRANSMITTAL FORM.	<div style="border: 1px dashed black; padding: 5px; text-align: center;"> PUT THE 1ST BAR CODE LABEL HERE. </div> NOT PRESENT 99994 REFUSED 99995 OTHER 99996 PUT THE 2ND BAR CODE LABEL ON THE SLIDE AND THE 3RD ON THE TRANSMITTAL FORM.									
213	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA AND MALARIA BROCHURE.	G/DL <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> NOT PRESENT 994 REFUSED 995 OTHER 996				G/DL <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> NOT PRESENT 994 REFUSED 995 OTHER 996				G/DL <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> NOT PRESENT 994 REFUSED 995 OTHER 996			
214	RECORD RESULT CODE OF THE MALARIA RDT.	TESTED 1 NOT PRESENT 2 REFUSED 3 OTHER 6 (SKIP TO 216) ←	TESTED 1 NOT PRESENT 2 REFUSED 3 OTHER 6 (SKIP TO 216) ←	TESTED 1 NOT PRESENT 2 REFUSED 3 OTHER 6 (SKIP TO 216) ←									
215	RECORD THE RESULT OF THE MALARIA RDT HERE AND IN THE ANEMIA AND MALARIA BROCHURE.	POSITIVE 1 (SKIP TO 218) ← NEGATIVE 2 OTHER 6	POSITIVE 1 (SKIP TO 218) ← NEGATIVE 2 OTHER 6	POSITIVE 1 (SKIP TO 218) ← NEGATIVE 2 OTHER 6									

		CHILD 1	CHILD 2	CHILD 3
	NAME FROM COLUMN 2	NAME _____	NAME _____	NAME _____
216	CHECK 213: HEMOGLOBIN RESULT	BELOW 8.0 G/DL, SEVERE ANEMIA 1 8.0 G/DL OR ABOVE 2 NOT PRESENT 4 REFUSED 5 OTHER 6 (SKIP TO 229) ←	BELOW 8.0 G/DL, SEVERE ANEMIA 1 8.0 G/DL OR ABOVE 2 NOT PRESENT 4 REFUSED 5 OTHER 6 (SKIP TO 229) ←	BELOW 8.0 G/DL, SEVERE ANEMIA 1 8.0 G/DL OR ABOVE 2 NOT PRESENT 4 REFUSED 5 OTHER 6 (SKIP TO 229) ←
217	<u>SEVERE ANEMIA REFERRAL STATEMENT</u>	The anemia test shows that (NAME OF CHILD) has severe anemia. Your child is very ill and must be taken to a health facility immediately. SKIP TO 229		
218	Does (NAME) suffer from the any of following illnesses or symptoms (2): Extreme weakness? Heart problems? Loss of consciousness? Rapid or difficult breathing? Seizures? Abnormal bleeding? Jaundice or yellow skin? Dark urine? IF NONE OF THE ABOVE SYMPTOMS, CIRCLE CODE Y	EXTREME WEAKNESS A HEART PROBLEMS ... B LOSS OF CONSCIOUSNESS C RAPID BREATHING ... D SEIZURES E BLEEDING F JAUNDICE G DARK URINE H NONE OF ABOVE SYMPTOMS Y	EXTREME WEAKNESS A HEART PROBLEMS ... B LOSS OF CONSCIOUSNESS C RAPID BREATHING ... D SEIZURES E BLEEDING F JAUNDICE G DARK URINE H NONE OF ABOVE SYMPTOMS Y	EXTREME WEAKNESS A HEART PROBLEMS ... B LOSS OF CONSCIOUSNESS C RAPID BREATHING ... D SEIZURES E BLEEDING F JAUNDICE G DARK URINE H NONE OF ABOVE SYMPTOMS Y
219	CHECK 218: ANY CODE A-H CIRCLED?	ONLY CODE Y CIRCLED 1 ANY CODE A-H CIRCLED 2 (SKIP TO 222) ←	ONLY CODE Y CIRCLED 1 ANY CODE A-H CIRCLED 2 (SKIP TO 222) ←	ONLY CODE Y CIRCLED 1 ANY CODE A-H CIRCLED 2 (SKIP TO 222) ←
220	CHECK 213: HEMOGLOBIN RESULT	BELOW 8.0 G/DL, SEVERE ANEMIA 1 (SKIP TO 222) ← 8.0 G/DL OR ABOVE 2 NOT PRESENT 4 REFUSED 5 OTHER 6	BELOW 8.0 G/DL, SEVERE ANEMIA 1 (SKIP TO 222) ← 8.0 G/DL OR ABOVE 2 NOT PRESENT 4 REFUSED 5 OTHER 6	BELOW 8.0 G/DL, SEVERE ANEMIA 1 (SKIP TO 222) ← 8.0 G/DL OR ABOVE 2 NOT PRESENT 4 REFUSED 5 OTHER 6
221	In the past two weeks has (NAME) taken or is taking [FIRST LINE MEDICATION] given by a doctor or health center to treat the malaria? VERIFY BY ASKING TO SEE TREATMENT.	YES 1 (SKIP TO 223) ← NO 2 (SKIP TO 224) ←	YES 1 (SKIP TO 223) ← NO 2 (SKIP TO 224) ←	YES 1 (SKIP TO 223) ← NO 2 (SKIP TO 224) ←

		CHILD 1	CHILD 2	CHILD 3
	NAME FROM COLUMN 2	NAME _____	NAME _____	NAME _____
222	<u>SEVERE MALARIA REFERRAL STATEMENT</u>	<p>The malaria test shows that (NAME OF CHILD) has malaria. Your child also has symptoms of severe malaria. The malaria treatment I have will not help your child, and I cannot give you the medication. Your child is very ill and must be taken to a health facility right away.</p> <p>SKIP TO 228</p>		
223	<u>ALREADY TAKING [FIRST LINE MEDICATION] REFERRAL STATEMENT</u>	<p>You have told me that (NAME OF CHILD) has already received [FIRST LINE MEDICATION] for malaria. Therefore, I cannot give you additional [FIRST LINE MEDICATION]. However, the test shows that he/she has malaria. If your child has a fever for two days after the last dose of [FIRST LINE MEDICATION], you should take the child to the nearest health facility for further examination.</p> <p>SKIP TO 228</p>		
224	READ INFORMATION FOR MALARIA TREATMENT AND CONSENT STATEMENT TO PARENT OR OTHER ADULT RESPONSIBLE FOR THE CHILD.	<p>The malaria test shows that your child has malaria. We can give you free medicine. The medicine is called [FIRST LINE MEDICATION]. [FIRST LINE MEDICATION] is very effective and in a few days it should get rid of the fever and other symptoms. You do not have to give the child the medicine. This is up to you. Please tell me whether you accept the medicine or not.</p>		
225	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	ACCEPTED MEDICINE 1 _____ ← (SIGN) REFUSED 2 OTHER 6	ACCEPTED MEDICINE 1 _____ ← (SIGN) REFUSED 2 OTHER 6	ACCEPTED MEDICINE 1 _____ ← (SIGN) REFUSED 2 OTHER 6
226	CHECK 225: MEDICATION ACCEPTED	ACCEPTED MEDICINE 1 REFUSED 2 OTHER 6 (SKIP TO 228) ←	ACCEPTED MEDICINE 1 REFUSED 2 OTHER 6 (SKIP TO 228) ←	ACCEPTED MEDICINE 1 REFUSED 2 OTHER 6 (SKIP TO 228) ←
227	TREATMENT FOR CHILDREN WITH POSITIVE MALARIA TESTS	<p>[INSERT DOSAGE INSTRUCTIONS]</p> <p>ALSO TELL THE PARENT/ADULT RESPONSIBLE FOR THE CHILD (10): If [NAME] has a high fever, fast or difficult breathing, is not able to drink or breastfeed, gets sicker or does not get better in two days, you should take him/her to a health professional for treatment right away.</p>		
228	RECORD THE RESULT CODE OF <u>MALARIA TREATMENT OR REFERRAL.</u>	MEDICATION GIVEN 1 MEDS REFUSED 2 SEVERE MALARIA REFERRAL 3 ALREADY TAKING ACTS REFERRAL 4 OTHER 6	MEDICATION GIVEN 1 MEDS REFUSED 2 SEVERE MALARIA REFERRAL 3 ALREADY TAKING ACTS REFERRAL 4 OTHER 6	MEDICATION GIVEN 1 MEDS REFUSED 2 SEVERE MALARIA REFERRAL 3 ALREADY TAKING ACTS REFERRAL 4 OTHER 6
229	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE, IF NO MORE CHILDREN, END INTERVIEW.			

- (1) Year of fieldwork is assumed to be 2014. For fieldwork beginning in 2015 or 2016, the year should be 2010 or 2011, respectively.
- (2) This is a list of generic symptoms indicative of severe malaria. Symptoms should be revised according to the country's national malaria treatment guidelines.

QUESTIONS IN THE WOMAN QUESTIONNAIRE

SECTION 1A. COVER: IDENTIFICATION

SECTION 1B. INTRODUCTION AND CONSENT

SECTION 1C. RESPONDENT'S BACKGROUND (2 ON MALARIA, OTHER: 8)

SECTION 2A. REPRODUCTION: INTRODUCTION (10 QUESTIONS)

SECTION 2B. REPRODUCTION: BIRTH HISTORY IN THE LAST 6 YEARS AND PREGNANCY STATUS (16 QUESTIONS)

SECTION 3. LAST PREGNANCY: ANTENATAL CARE AND MALARIA (7 QUESTIONS ON MALARIA; OTHER: 4)

SECTION 4. FEVER IN CHILDREN AND TREATMENT (25 QUESTIONS FOR EACH CHILD, 14 ON MALARIA)

SECTION 1C. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR <input type="text"/> <input type="text"/> MINUTES <input type="text"/> <input type="text"/>	
102	In what month and year were you born?	MONTH <input type="text"/> <input type="text"/> DONT KNOW MONTH 98 YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DONT KNOW YEAR 9998	
103	How old were you at your last birthday? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/>	
104	Have you ever attended school?	YES 1 NO 2	→ 108
105	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY 1 SECONDARY 2 HIGHER 3	
106	What is the highest (grade/form/year) you completed at that IF COMPLETED LESS THAN 1 YEAR, RECORD '00'.	GRADE/FORM/YEAR <input type="text"/> <input type="text"/>	
107	CHECK 105: PRIMARY <input type="checkbox"/> SECONDARY OR HIGHER <input type="checkbox"/>		→ 109
108	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL 1 ABLE TO READ ONLY PARTS 2 ABLE TO READ WHOLE SENTENCE 3 NO CARD WITH REQUIRED LANGUAGE 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
109	In the past 6 months, have you seen or heard any messages about malaria?	YES 1 NO 2	→ 201
110	Have you seen or heard these messages: On the radio? On the television? On a poster or billboard? From a community health worker? At a community event? RECORD ALL MENTIONED	RADIO A TELEVISION B POSTER OR BILLBOARD C COMMUNITY HEALTH WORKER D COMMUNITY EVENT E OTHER X (SPECIFY)	

SECTION 2B. REPRODUCTION: BIRTH HISTORY IN THE LAST 6 YEARS AND PREGNANCY STATUS

211 Now I would like to record of all your births **since January 2008**, whether still alive or not, starting with the first one you had. RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE ROWS.

212	213	214	215	216	217	218	219	220	221
What name was given to your (first/next) baby? (NAME)	Is (NAME) a boy or a girl?	Were any of these births twins?	In what month and year was (NAME) born? PROBE: What is his/her birthday?	Is (NAME) still alive?	How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	Is (NAME) living with you?	RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	BOY 1 GIRL 2	SING 1 MULT 2	MONTH <input type="text"/> YEAR <input type="text"/>	YES . . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/>	YES . . . 1 NO . . . 2	LINE NUMBER <input type="text"/> ↓ (NEXT BIRTH)	DAYS . . . 1 MONTHS 2 YEARS . . 3	
05	BOY 1 GIRL 2	SING 1 MULT 2	MONTH <input type="text"/> YEAR <input type="text"/>	YES . . . 1 NO . . . 2 ↓ 220	AGE IN YEARS <input type="text"/>	YES . . . 1 NO . . . 2	LINE NUMBER <input type="text"/> ↓ (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . 1 ADD BIRTH NO 2 NEXT BIRTH

222 Have you had any live births since the birth of (NAME OF LAST BIRTH)? IF YES, RECORD BIRTH(S) IN TABLE.
 YES 1
 NO 2

223 COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK:
 NUMBERS ARE SAME NUMBERS ARE DIFFERENT (PROBE AND RECONCILE)

224 Are you pregnant now ?
 YES 1
 NO 2
 UNSURE 8 → 226

225 How many months pregnant are you?
 RECORD NUMBER OF COMPLETED MONTHS.
 MONTHS

226 CHECK 223:
 ONE OR MORE BIRTHS IN 2009 (1) OR LATER
 NO BIRTHS IN 2009 (1) OR LATER OR IS BLANK → 426

SECTION 3. LAST PREGNANCY: ANTENATAL CARE AND MALARIA

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
301	Now I would like to ask some questions about your most recent pregnancy that resulted in a live birth.		
302	FROM 212 AND 216, LINE 01: ENTER THE NAME AND SURVIVAL STATUS OF THE MOST RECENT BIRTH.	LAST BIRTH NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/>	
303	When you were pregnant with (NAME), did you see anyone for antenatal care for this pregnancy?	YES 1 NO 2	→ 305
304	Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.	HEALTH PERSONNEL DOCTOR A NURSE/MIDWIFE B AUXILIARY MIDWIFE C OTHER PERSON TRADITIONAL BIRTH ATTENDANT D COMMUNITY/VILLAGE HEALTH WORKER E OTHER X (SPECIFY)	
305	During this pregnancy, did you take any drugs to keep you from getting malaria?	YES 1 NO 2 DONT KNOW 8	→ 311
306	What drugs did you take? RECORD ALL MENTIONED. IF TYPE OF DRUG IS NOT DETERMINED, SHOW TYPICAL ANTIMALARIAL DRUGS TO RESPONDENT.	SP/FANSIDAR A CHLOROQUINE B OTHER X (SPECIFY) DONT KNOW Z	
307	CHECK 306: SP/FANSIDAR TAKEN FOR CODE 'A' CIRCLED <input type="checkbox"/> CODE 'A' NOT CIRCLED <input type="checkbox"/>		→ 311
308	How many times did you take (SP/Fansidar) during this pregnancy?	TIMES <input type="text"/>	
309	CHECK 304: ANTENATAL CARE FROM HEALTH PERSONNEL DURING THIS PREGNANCY CODE 'A', 'B', OR 'C' CIRCLED <input type="checkbox"/> OTHER <input type="checkbox"/>		→ 311
310	Did you get the (SP/Fansidar) during any antenatal care visit, during another visit to a health facility or from another source?	ANTENATAL VISIT 1 ANOTHER FACILITY VISIT 2 OTHER SOURCE 6	
311	CHECK 215 AND 216: ONE OR MORE LIVING CHILDREN BORN IN 2009 (1) OR LATER <input type="checkbox"/> NO LIVING CHILDREN BORN IN 2009 OR LATER <input type="checkbox"/>		→ 426 GO TO 401

(1) Year of fieldwork is assumed to be 2014. For fieldwork beginning in 2015 or 2016, the year should be 2010 or 2011, respectively.

SECTION 4. FEVER IN CHILDREN

401	<p>CHECK 215: ENTER IN THE TABLE THE BIRTH HISTORY NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2008 (1) OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE ADDITIONAL QUESTIONNAIRES).</p> <p>Now I would like to ask some questions about the health of your children born since January 2008. (We will talk about each separately.)</p>			
402	BIRTH HISTORY NUMBER FROM 212 IN BIRTH HISTORY	LAST BIRTH BIRTH HISTORY NUMBER <input type="text"/> <input type="text"/>	NEXT-TO-LAST BIRTH BIRTH HISTORY NUMBER <input type="text"/> <input type="text"/>	SECOND-FROM-LAST BIRTH BIRTH HISTORY NUMBER <input type="text"/> <input type="text"/>
403	FROM 212 AND 216	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> (GO TO 403 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 426)	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> (GO TO 403 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 426)	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> (GO TO 403 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR, IF NO MORE BIRTHS, GO TO 426)
404	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES 1 NO 2 (GO TO 403 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 426) DON'T KNOW 8	YES 1 NO 2 (GO TO 403 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 426) DON'T KNOW 8	YES 1 NO 2 (GO TO 403 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 426) DON'T KNOW 8
405	Did you seek advice or treatment for the illness from any source?	YES 1 NO 2 (SKIP TO 410)	YES 1 NO 2 (SKIP TO 410)	YES 1 NO 2 (SKIP TO 410)
406	Where did you seek advice or treatment? Anyw here else? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL A GOVT. HEALTH CENTER B GOVT. HEALTH POST C MOBILE CLINIC D FIELDWORKER E OTHER PUBLIC SECTOR _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC G PHARMACY ... H PVT. DOCTOR ... I MOBILE CLINIC J FIELDWORKER K OTHER PRIVATE MED. SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP M TRADITIONAL PRACTITIONER N MARKET O OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT. HOSPITAL A GOVT. HEALTH CENTER B GOVT. HEALTH POST C MOBILE CLINIC D FIELDWORKER E OTHER PUBLIC SECTOR _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC G PHARMACY ... H PVT. DOCTOR ... I MOBILE CLINIC J FIELDWORKER K OTHER PRIVATE MED. SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP M TRADITIONAL PRACTITIONER N MARKET O OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT. HOSPITAL A GOVT. HEALTH CENTER B GOVT. HEALTH POST C MOBILE CLINIC D FIELDWORKER E OTHER PUBLIC SECTOR _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC G PHARMACY ... H PVT. DOCTOR ... I MOBILE CLINIC J FIELDWORKER K OTHER PRIVATE MED. SECTOR _____ L (SPECIFY) OTHER SOURCE SHOP M TRADITIONAL PRACTITIONER N MARKET O OTHER _____ X (SPECIFY)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
407	CHECK 406:	TWO OR ONLY <input type="checkbox"/> MORE ONE CODES CODE CIRCLED CIRCLED ↓ (SKIP TO 409) ←	TWO OR ONLY <input type="checkbox"/> MORE ONE CODES CODE CIRCLED CIRCLED ↓ (SKIP TO 409) ←	TWO OR ONLY <input type="checkbox"/> MORE ONE CODES CODE CIRCLED CIRCLED ↓ (SKIP TO 409) ←
408	Where did you first seek advice or treatment? USE LETTER CODE FROM 406.	FIRST PLACE ... <input type="checkbox"/>	FIRST PLACE ... <input type="checkbox"/>	FIRST PLACE ... <input type="checkbox"/>
409	At any time during the illness, did (NAME) have blood taken from his/her finger or heel for testing?	YES 1 NO 2 DONT KNOW 8	YES 1 NO 2 DONT KNOW 8	YES 1 NO 2 DONT KNOW 8
410	At any time during the illness, did (NAME) take any drugs for the illness?	YES 1 NO 2 (GO BACK TO 403 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 426) DONT KNOW 8	YES 1 NO 2 (GO BACK TO 403 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 426) DONT KNOW 8	YES 1 NO 2 (GO TO 403 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 426) DONT KNOW 8
411	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	ANTIMALARIAL DRUGS SP/FANSIDAR ... A CHLOROQUINE B AMODIAQUINE C QUININE D COMBINATION WITH ARTEMISININ E OTHER ANTI-MALARIAL _____ F (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP ... G INJECTION ... H OTHER DRUGS ASPIRIN I ACETA-MINOPHEN ... J IBUPROFEN ... K OTHER _____ X (SPECIFY) DONT KNOW Z	ANTIMALARIAL DRUGS SP/FANSIDAR ... A CHLOROQUINE . B AMODIAQUINE C QUININE D COMBINATION WITH ARTEMISININ E OTHER ANTI-MALARIAL _____ F (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP ... G INJECTION ... H OTHER DRUGS ASPIRIN I ACETA-MINOPHEN ... J IBUPROFEN ... K OTHER _____ X (SPECIFY) DONT KNOW Z	ANTIMALARIAL DRUGS SP/FANSIDAR ... A CHLOROQUINE B AMODIAQUINE C QUININE D COMBINATION WITH ARTEMISININ E OTHER ANTI-MALARIAL _____ F (SPECIFY) ANTIBIOTIC DRUGS PILL/SYRUP ... G INJECTION ... H OTHER DRUGS ASPIRIN I ACETA-MINOPHEN ... J IBUPROFEN ... K OTHER _____ X (SPECIFY) DONT KNOW Z
412	CHECK 411: ANY CODE A-F CIRCLED?	YES <input type="checkbox"/> NO <input type="checkbox"/> ↓ (GO BACK TO 403 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 426)	YES <input type="checkbox"/> NO <input type="checkbox"/> ↓ (GO BACK TO 403 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 426)	YES <input type="checkbox"/> NO <input type="checkbox"/> ↓ (GO TO 403 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 426)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____								
421	CHECK 411: COMBINATION WITH ARTEMISININ ('E') GIVEN	CODE 'E' CIRCLED <input type="checkbox"/> CODE 'E' NOT CIRCLED <input type="checkbox"/> (SKIP TO 423)	CODE 'E' CIRCLED <input type="checkbox"/> CODE 'E' NOT CIRCLED <input type="checkbox"/> (SKIP TO 423)	CODE 'E' CIRCLED <input type="checkbox"/> CODE 'E' NOT CIRCLED <input type="checkbox"/> (SKIP TO 423)								
422	How long after the fever started did (NAME) first take (COMBINATION WITH ARTEMISININ)?	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE OR MORE DAYS AFTER FEVER 3 DON'T KNOW ... 8	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE OR MORE DAYS AFTER FEVER 3 DON'T KNOW ... 8	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE OR MORE DAYS AFTER FEVER 3 DON'T KNOW ... 8								
423	CHECK 411: OTHER ANTIMALARIAL ('F') GIVEN	CODE 'F' CIRCLED <input type="checkbox"/> CODE 'F' NOT CIRCLED <input type="checkbox"/> (GO BACK TO 403 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 426)	CODE 'F' CIRCLED <input type="checkbox"/> CODE 'F' NOT CIRCLED <input type="checkbox"/> (GO BACK TO 403 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 426)	CODE 'F' CIRCLED <input type="checkbox"/> CODE 'F' NOT CIRCLED <input type="checkbox"/> (GO BACK TO 403 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 426)								
424	How long after the fever started did (NAME) first take (OTHER ANTIMALARIAL)?	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE OR MORE DAYS AFTER FEVER 3 DON'T KNOW ... 8	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE OR MORE DAYS AFTER FEVER 3 DON'T KNOW ... 8	SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE OR MORE DAYS AFTER FEVER 3 DON'T KNOW ... 8								
425		GO BACK TO 403 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 426.	GO BACK TO 403 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 426.	GO TO 403 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 426.								
426	RECORD THE TIME.	HOUR <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> MINUTES <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>										

V. SHORT VERSION OF THE MALARIA MODULE

In the proposed long version of the Malaria Module, section 3 on anemia and malaria testing for children 0-6 years is the most complex and difficult section (28 questions for each child). It is suggested that for the short version of the Malaria Module, anemia and malaria testing don't be included. In this case, the content proposed for the short version of the module is as follows:

SECTION 1A. COVER: IDENTIFICATION

SECTION 1B. COVER: INTERVIEWER VISITS

SECTION 1C. INTRODUCTION AND CONSENT

SECTION 1D. HOUSEHOLD LISTING (9 QUESTIONS)

SECTION 2. HOUSEHOLD CHARACTERISTICS (29 QUESTIONS, 11 ON MALARIA)

QUESTIONS IN THE HOUSEHOLD QUESTIONNAIRE

The eleven questions on malaria to be included in the household questionnaire are listed below:

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
114	Does any member of this household own any agricultural land?		
115	How many hectares of agricultural land do members of this household own? IF 95 OR MORE, CIRCLE '950'.		
116	Does this household own any livestock, herds, other farm animals, or poultry?		
117	How many of the following animals does this household own? Cattle? Milk cows or bulls? Horses, donkeys, or mules? Goats? Sheep? Chickens?		
118	Does any member of this household have a bank account?		
119	At any time in the past 12 months, has anyone come into your dwelling to spray the interior walls against mosquitoes?	YES 1 NO 2 DON'T KNOW 8	→ 121
120	Who sprayed the dwelling?	GOVERNMENT WORKER/PROGRAM A PRIVATE COMPANY B NONGOVERNMENTAL ORGANIZATION (NGO) C OTHER X (SPECIFY) DON'T KNOW Z	
121	Does your household have any mosquito nets that can be used while sleeping?	YES 1 NO 2	→ 201
122	How many mosquito nets does your household have? IF 7 OR MORE NETS, RECORD '7'.	NUMBER OF NETS <input type="text"/>	

		NET #1	NET #2	NET #3
123	ASK THE RESPONDENT TO SHOW YOU ALL THE NETS IN THE HOUSEHOLD IF MORE THAN 3 NETS, USE ADDITIONAL QUESTIONNAIRE(S).	OBSERVED 1 NOT OBSERVED ... 2	OBSERVED 1 NOT OBSERVED ... 2	OBSERVED 1 NOT OBSERVED ... 2
124	How many months ago did your household get the mosquito net? IF LESS THAN ONE MONTH AGO, RECORD '00'. IF 36 MONTHS OR LESS, RECORD MONTHS. IF MORE THAN 36 MONTHS, RECORD YEARS.	MONTHS 1 <input type="text"/> <input type="text"/> YEARS 2 <input type="text"/> <input type="text"/> NOT SURE 998	MONTHS 1 <input type="text"/> <input type="text"/> YEARS 2 <input type="text"/> <input type="text"/> NOT SURE 998	MONTHS 1 <input type="text"/> <input type="text"/> YEARS 2 <input type="text"/> <input type="text"/> NOT SURE 998
125	OBSERVE OR ASK THE BRAND/TYPE OF MOSQUITO NET. IF BRAND IS UNKNOWN AND YOU CANNOT OBSERVE THE NET, SHOW PICTURES OF TYPICAL NET TYPES/BRANDS TO RESPONDENT.	LONG-LASTING INSECTICIDE-TREATED NET (LLIN) BRAND A 11 BRAND B 12 OTHER/ DK BRAND ... 16 (SKIP TO 128) ← OTHER BRAND ... 96 DK BRAND 998	LONG-LASTING INSECTICIDE-TREATED NET (LLIN) BRAND A 11 BRAND B 12 OTHER/ DK BRAND ... 16 (SKIP TO 128) ← OTHER BRAND ... 96 DK BRAND 98	LONG-LASTING INSECTICIDE-TREATED NET (LLIN) BRAND A 11 BRAND B 12 OTHER/ DK BRAND ... 16 (SKIP TO 128) ← OTHER BRAND ... 96 DK BRAND 98
126	Since you got the net, was it ever soaked or dipped in a liquid to kill or repel mosquitoes?	YES 1 NO 2 (SKIP TO 128) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 128) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 128) ← NOT SURE 8
127	How many months ago was the net last soaked or dipped? IF LESS THAN ONE MONTH AGO, RECORD '00'.	MONTHS AGO ... <input type="text"/> <input type="text"/> MORE THAN 24 MONTHS AGO... 95 NOT SURE 98	MONTHS AGO ... <input type="text"/> <input type="text"/> MORE THAN 24 MONTHS AGO... 95 NOT SURE 98	MONTHS AGO ... <input type="text"/> <input type="text"/> MORE THAN 24 MONTHS AGO... 95 NOT SURE 98
128	Did anyone sleep under this mosquito net last night?	YES 1 NO 2 (SKIP TO 130) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 130) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 130) ← NOT SURE 8
129	Who slept under this mosquito net last night? RECORD THE PERSON'S NAME AND LINE NUMBER FROM THE HOUSEHOLD SCHEDULE.	NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/>	NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/>	NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/> NAME _____ LINE NO. <input type="text"/> <input type="text"/>
130		GO BACK TO 123 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	GO BACK TO 123 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	GO TO 123 IN FIRST COLUMN OF A NEW QUESTIONNAIRE; OR, IF NO MORE NETS, GO TO 201.

QUESTIONS IN THE WOMAN QUESTIONNAIRE

Most of the non-malaria questions in the woman questionnaire are on reproduction and are required for most of the questions on malaria. As a result, the questionnaire proposed for the short version of the Malaria Module is exactly the same as the one proposed for the long version which includes the following sections with a total of 23 questions on malaria.

SECTION 1A. COVER: IDENTIFICATION

SECTION 1B. INTRODUCTION AND CONSENT

SECTION 1C. RESPONDENT'S BACKGROUND (2 QUESTIONS ON MALARIA, OTHER: 8)

SECTION 2A. REPRODUCTION: INTRODUCTION (10 QUESTIONS)

SECTION 2B. REPRODUCTION: BIRTH HISTORY IN THE LAST 6 YEARS AND PREGNANCY STATUS (16 QUESTIONS)

SECTION 3. LAST PREGNANCY: ANTENATAL CARE AND MALARIA (7 QUESTIONS ON MALARIA; OTHER: 4)

SECTION 4. FEVER IN CHILDREN AND TREATMENT (25 QUESTIONS FOR EACH CHILD, 14 ON MALARIA)

INDICATORS

Fourteen of the of the 16 household survey indicators for assessing progress towards the GMAP targets will be available when the short Malaria Module is used:

1. Households with at Least One ITN (Insecticide-Treated Net)
2. Households with at Least One ITN for Every Two People (NEW)
3. Population with Access to an ITN within their Household (NEW)
4. Population that Slept under an ITN the Previous Night
5. Children under Five Years Old Who Slept under an ITN the Previous Night
6. Pregnant Women Who Slept under an ITN the Previous Night
7. Existing ITNs Used the Previous Night
8. Households with at Least one ITN and/or Sprayed by IRS in the
9. Households with at Least One ITN for Every Two People and/or Sprayed by IRS within the Last 12 Months (Universal Coverage of Vector Control)
10. Women Who Received Three or More Doses of Intermittent Preventive Treatment during ANC Visits during Their Last Pregnancy
11. Children under Five Years Old with Fever in Last Two Weeks Who Had a Finger or Heel Stick
12. Children under Five Years Old with Fever in the Last Two Weeks for Whom Advice or Treatment Was Sought
13. Percentage Receiving an ACT (or Other Appropriate Treatment), among Children under Five Years Old with Fever in the Last Two Weeks Who Received Any Antimalarial Drugs
16. All-Cause Under-Five Mortality Rate

Since anemia and malaria testing are not included, the following indicators will not be available from the short module:

14. Children Aged 6-59 Months with Malaria Infection (Parasite Prevalence)
15. Children Aged 6-59 Months with a Hemoglobin Measurement of <8 g/dL (Prevalence of Malaria-related Anemia)

VI. RATIONALE

With minor changes in format, the questionnaire used by the Multiple Indicator Survey (MIS) program is the instrument proposed here for the long and short versions of the Malaria Module. However, the specific questions on malaria (shaded questions) can be included in any other kind of survey with the corresponding adjustments in the numbering and skips.

MIS was developed by the Monitoring and Evaluation Reference Group (MERG) of the Roll Back Malaria Partnership (RBM) and technical assistance in the implementation of MIS in specific countries is provided by the DHS Program and other organizations. MIS contains the same malaria questions found in the standard DHS, but is packaged in a shorter, stand-alone survey allowing for faster, less expensive monitoring of key internationally recognized malaria indicators. Standardized malaria indicators are currently available for nearly 30 countries.

In 2002, MERG was established to act as an advisory body for the RBM Partnership Board on all matters pertaining to monitoring and evaluation of RBM initiatives at the international, regional, and national levels. One focus of the MERG has been on assessing core indicators to ensure consistency and accuracy in national and regional reporting. The RBM MERG Survey and Indicator Guidance Task Force arranged for the development of a comprehensive package of tools for providing guidance in carrying out household level surveys relevant for assessing core malaria indicators. Specifically, the questionnaires were designed to assess the core household indicators outlined in RBM's Household Survey Indicators for Malaria Control revised in 2013. Nationally-representative, population-based sample surveys are a principal measurement tool required to collect the necessary data for constructing all 13 outcome indicators and three impact indicators. Three large survey efforts that currently collect data on these indicators are the DHS, the MICS, and the MIS.