

# **Malaria Indicator Survey**

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## **Tabulations for Key Malaria Indicators**

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ORC Macro  
Calverton, Maryland

April 2005

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## **NOTE**

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For a full report on the results of the Malaria Indicator Survey, additional tables may be added on such topics as household characteristics, women's characteristics, treatment of fever with injections or suppositories, and indoor residual spraying for mosquitoes.

**Table 1. Ownership of mosquito nets**

Percentage of households with at least one and more than one mosquito net (treated or untreated), ever-treated mosquito net, and insecticide treated net (ITN), and average number of nets of each type per household, by background characteristics.

<b>Background characteristic</b>	<b>Percentage of households that have at least one net</b>	<b>Percentage of households that have more than one net</b>	<b>Average number of nets per household</b>	<b>Percentage of households that have at least one ever-treated net</b>	<b>Percentage of households that have more than one ever-treated net</b>	<b>Average number of ever-treated nets per household</b>	<b>Percentage of households that have at least one ITN<sup>1</sup></b>	<b>Percentage of households that have more than one ITN<sup>1</sup></b>	<b>Average number of ITNs<sup>1</sup> per household</b>	<b>Number of households</b>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>Residence</b>										
Urban										
Rural										
<b>Region</b>										
Region 1										
Region 2										
Region 3										
<b>Wealth index</b>										
Lowest										
Second										
Middle										
Fourth										
Highest										
<b>Total</b>										

<sup>1</sup> An ITN is 1) a factory-treated net that does not require any further treatment, 2) a pretreated net obtained within the past 12 months, or 3) a net that has been soaked with insecticide within the past 12 months.

## Numerators

- 1: Q16=1.
- 2: Q17 $\geq$ 2.
- 3: Average number of nets per household, based on number of nets in Q17.
- 4: For one or more nets: (Q17 $\geq$ 2, Q20=11 or 12 or 21 or 22) or (Q21=1) or (Q22=1).
- 5: For two or more nets: (Q17 $>$ 2, Q20=11 or 12 or 21 or 22) or (Q21=1) or (Q22=1).
- 6: Average number of ever-treated nets per household, based on number of ever-treated nets from Q20, Q21, and Q22.
- 7: For one or more nets: (Q17 $\geq$ 2, Q20=11 or 12) or (Q19 $<$ 12 and (Q20=21 or 22)) or (Q19 $<$ 12 and Q21=1) or (Q23 $<$ 12).
- 8: For two or more nets: (Q17 $>$ 2, Q20=11 or 12) or (Q19 $<$ 12 and (Q20=21 or 22)) or (Q19 $<$ 12 and Q21=1) or (Q23 $<$ 12).
- 9: Average number of ITNs per household, based on number of ITNs from Q19, Q20, Q21, and Q23.

## Denominator for Columns 1-9

- 10: Total number of households.

<b>Table 2. Use of mosquito nets by children</b>				
Percentage of children under five years of age who slept under a mosquito net (treated or untreated), an ever-treated mosquito net, and an insecticide-treated net (ITN) the night before the survey, by background characteristics				
<b>Background characteristic</b>	<b>Percentage of children under five years of age who slept under a net last night</b>	<b>Percentage of children under five years of age who slept under an ever-treated net last night</b>	<b>Percentage of children under five years of age who slept under an ITN<sup>1</sup> last night</b>	<b>Number of children under five years of age</b>
	(1)	(2)	(3)	(4)
<b>Age (in years)</b>				
<1				
1				
2				
3				
4				
<b>Sex</b>				
Male				
Female				
<b>Residence</b>				
Urban				
Rural				
<b>Region</b>				
Region 1				
Region 2				
Region 3				
<b>Wealth index</b>				
Lowest				
Second				
Middle				
Fourth				
Highest				
<b>Total</b>				

<sup>1</sup> An ITN is 1) a factory-treated net that does not require any treatment, 2) a pretreated net obtained within the past 12 months, or 3) a net that has been soaked with insecticide within the past 12 months.

NOTE: For the child's age in this table, use Column 7 in the Household Listing in the Household Questionnaire [HQ] if the child is not listed in the birth history of any woman with a completed Women's Questionnaire; otherwise, use the age calculated from Q215.

### Numerators

- 1: Number of children listed in Q25 for any net for whom Column 6 in the Household Listing=1 and age is <5.
- 2: Number of children listed in Q25 for whom Column 6 in the HQ Household Listing=1 and age is <5 and ((Q20=11 or 12 or 21 or 22) or (Q21=1) or (Q22=1)).
- 3: Number of children listed in Q25 for whom Column 6 in the HQ Household Listing=1 and age is <5 and ((Q20=11 or 12) or (Q19<12 and (Q20=21 or 22)) or (Q19<12 and Q21=1) or (Q23<12)).

### Denominator for Columns 1-2

- 4: Total number of children with Column 6 in the Household Listing=1 and age is <5.

**Comment [e1]:** With or in or plus?

**Table 3. Use of mosquito nets by pregnant women**

Percentage of all women and pregnant women age 15-49 who slept under a mosquito net (treated or untreated), an ever-treated mosquito net, and an insecticide-treated net (ITN) the night before the survey, by background characteristics.

Background characteristic	Percentage of women who slept under a net last night (1)	Percentage of women who slept under an ever-treated net last night (2)	Percentage of women who slept under an ITN <sup>1</sup> last night (3)	Number of women (4)	Percentage of pregnant women who slept under a net last night (5)	Percentage of pregnant women who slept under an ever-treated net last night (6)	Percentage of pregnant women who slept under an ITN <sup>1</sup> last night (7)	Number of pregnant women (8)
<b>Residence</b>								
Urban								
Rural								
<b>Region</b>								
Region 1								
Region 2								
Region 3								
<b>Wealth index</b>								
Lowest								
Second								
Middle								
Fourth								
Highest								
<b>Total</b>								

<sup>1</sup> An ITN is 1) a factory-treated net that does not require any treatment, 2) a pretreated net obtained within the past 12 months, or 3) a net that has been soaked with insecticide within the past 12 months.

**Numerators**

- 1: Number of women listed in Q25 for any net for whom Column 6 in the HQ Household Listing=1 and Column 8 is circled.
- 2: Number of women listed in Q25 for whom Column 6 in the HQ Household Listing=1 and Column 8 is circled and ((Q20=11 or 12 or 21 or 22) or (Q21=1) or (Q22=1)).
- 3: Number of women listed in Q25 for whom Column 6 in the HQ Household Listing=1 and Column 8 is circled and ((Q20=11 or 12) or (Q19<12) and (Q20=21 or 22)) or (Q19<12) and (Q21=1) or (Q23<12)).

**Comment [e2]:** Not sure if parenthesis are correct.

**Denominator for Columns 1-3**

- 4: Total number of women with Column 6 in the HQ Household Listing=1 and Column 8 is circled.

**Numerators**

- 5: Number of women listed in Q25 for any net for whom in the HQ Household Listing Column 6=1 and (Q224=1 or Column 9=1 for women with no completed questionnaire).
- 6: Number of women listed in Q25 for any net for whom in the HQ Household Listing Column 6=1 and (Q224=1 or Column 9=1 for women with no completed questionnaire) and ((Q20= 11 or 12 or 21 or 22) or (Q21=1) or (Q22=1)).
- 7: Number of women listed in Q25 for any net for whom in the HQ Household Listing Column 6=1 and (Q224=1 or Column 9=1 for women with no completed questionnaire) and ((Q20= 11 or 12) or (Q19<12 and (Q20=21 or 22)) or (Q19<12 and Q21=1) or (Q23<12)).

**Denominator for Columns 5-7**

- 8: Total number of women with Column 6=1 in the HQ Household Listing and (Q224=1 or Column 9=1 for women with no completed questionnaire).

**Table 4. Use of Intermittent Preventive Treatment (IPT) by pregnant women**

Percentage of mothers who took any antimalarial drugs for prevention during pregnancy, percentage who took one or two or more doses of SP/Fansidar, and percentage who received one or two or more doses of SP/Fansidar during an antenatal care visit for the last pregnancy leading to a live birth in the two years preceding the survey, by background characteristics.

<b>Background characteristic</b>	<b>Percentage of mothers who took any antimalarial drug for prevention during their last pregnancy</b>	<b>Percentage of mothers who took any IPT<sup>1</sup></b>	<b>Percentage of mothers who took 2+ doses of IPT<sup>1</sup></b>	<b>Percentage of mothers who received any IPT<sup>1</sup> during an ANC visit</b>	<b>Percentage of mothers who received 2+ doses of IPT<sup>1</sup> at least one of which was during an ANC visit</b>	<b>Number of mothers</b>
	(1)	(2)	(3)	(4)	(5)	(6)
<b><i>Residence</i></b>						
Urban						
Rural						
<b><i>Region</i></b>						
Region 1						
Region 2						
Region 3						
<b><i>Wealth index</i></b>						
Lowest						
Second						
Middle						
Fourth						
Highest						
<b><i>Mother's education</i></b>						
None						
Primary						
Secondary						
Higher						
<b>Total</b>						

<sup>1</sup>IPT: IPT is preventive intermittent treatment with SP/Fansidar during an ANC visit.

**Numerators**

- 1: HQ Household Listing Column 6=1 and Q304=1 and Q215, line 1, is within two years of the interview date.
- 2: HQ Household Listing Column 6=1 and code A is circled in Q305 and Q215, line 1, is within two years of the interview date.
- 3: HQ Household Listing Column 6=1 and Q307 $\geq$ 2 and Q215, line 1, is within two years of the interview date.
- 4: HQ Household Listing Column 6=1 and Q309=1 and Q215, line 1, is within two years of the interview date.
- 5: HQ Household Listing Column 6=1 and Q307 $\geq$ 2 and Q309=1 and Q215, line 1, is within two years of the interview date.

**Denominators for Columns 1-5**

- 6: Number of women in the HQ Household Listing with Column 6=1 and Q215, line 1, is within two years of the interview date.

<b>Table 5. Prevalence and prompt treatment of fever</b>						
Percentage of children under five years of age with fever in the two weeks preceding the survey, and, among those children with fever, percentage who took antimalarial drugs, who took the drugs the same/next day after developing the fever, and who sought treatment from a health facility/provider same/next day, by background characteristics.						
Background characteristic	Percentage of children with fever in last 2 weeks	Number of children under age 5	Among children with fever <sup>1</sup> :			Number of children with fever <sup>1</sup>
			Percentage who took antimalarial drugs	Percentage who took antimalarial drugs same/next day	Percentage who sought treatment from a health facility/provider same/next day	
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Age (in months)</b>						
<12						
12-23						
24-35						
36-47						
48-59						
<b>Sex</b>						
Male						
Female						
<b>Residence</b>						
Urban						
Rural						
<b>Region</b>						
Region 1						
Region 2						
Region 3						
<b>Wealth index</b>						
Lowest						
Second						
Middle						
Fourth						
Highest						
<b>Education</b>						
None						
Primary						
Secondary						
Higher						
<b>Total</b>						

<sup>1</sup>Excludes children whose fever started less than one day before the interview.

### **Numerator**

- 1: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom Q313=1 and HQ Household Listing Column 6=1 for the mother.

### **Denominator for Column 1**

- 2: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom HQ Household Listing Column 6=1 for the mother.

### **Numerators**

- 3: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom HQ Household Listing Column 6=1 for the mother and  $Q314 \geq 2$  and (Q319=A or B or C or D or E or F).
- 4: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom HQ Household Listing Column 6=1 for the mother and  $Q314 \geq 2$  and ((Q321=0 or 1) or (Q325=0 or 1) or (Q329=0 or 1) or (Q333=0 or 1) or (Q337=0 or 1) or (Q341=0 or 1)).
- 5: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom HQ Household Listing Column 6=1 for the mother and  $Q314 \geq 2$  and (Q316=A-G or I-L) and (Q316A<02).

### **Denominator for Columns 3 and 4**

- 6: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom Q313=1 and  $Q314 \geq 2$  and HQ Household Listing Column 6=1 for the mother.

**Table 6. Type and timing of antimalarial drugs**

Among children under five years of age with fever in the two weeks preceding the survey, percentage who took specific antimalarial drugs and percentage who took each type of drug the same/next day after developing the fever, by background characteristics.

Background characteristic	Percentage of children who took drug:						Percentage of children who took drug the same/next day:						Number of children with fever
	<i>SP/Fansidar</i>	<i>Chloroquine</i>	<i>Amodiaquine</i>	<i>Quinine</i>	<i>ACT</i>	<i>Other anti-malaria l</i>	<i>SP/Fansidar</i>	<i>Chloroquine</i>	<i>Amodiaquine</i>	<i>Quinine</i>	<i>ACT</i>	<i>Other anti-malaria l</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
<b>Age (in months)</b>													
<12													
12-23													
24-35													
36-47													
48-59													
<b>Sex</b>													
Male													
Female													
<b>Residence</b>													
Urban													
Rural													
<b>Region</b>													
Region 1													
Region 2													
Region 3													

<b>Wealth index</b>
Lowest
Second
Middle
Fourth
Highest
<b>Education</b>
None
Primary
Secondary
Higher
<b>Total</b>

Note: Table excludes children whose fever started less than two days before the interview.

## Numerator

- 1: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother and  $Q319=A$ .
- 2: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother and  $Q319=B$ .
- 3: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother and  $Q319=C$ .
- 4: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother and  $Q319=D$ .
- 5: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother and  $Q319=E$ .
- 6: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother and  $Q319=F$ .
- 7: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother and  $Q319=A$  and  $(Q321=0 \text{ or } 1)$ .
- 8: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother and  $Q319= B$  and  $(Q325=0 \text{ or } 1)$ .
- 9: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother and  $Q319= C$  and  $(Q329=0 \text{ or } 1)$ .
- 10: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother and  $Q319= D$  and  $(Q333=0 \text{ or } 1)$ .

- 11: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother and  $Q319 = E$  and ( $Q337 = 0$  or 1).
- 12: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother and  $Q319 = F$  and ( $Q341 = 0$  or 1).

**Denominator for Columns 1-12**

- 13: Number of children in Q312 in all columns born within five years of the interview date in Q215 for whom  $Q313 = 1$  and  $Q314 \geq 2$  and Column 6 in the Household Listing=1 for the mother.

**Table 7. Source of antimalarial drugs**

Percent distribution of antimalarial drugs given to children under five years of age with fever in the two weeks preceding the survey, by source of the drugs.

<b>Drug</b>	<b>Already had drug at home</b> (1)	<b>Government health facility/worker</b> (2)	<b>Private health facility/worker</b> (3)	<b>Shop</b> (4)	<b>Other</b> (5)	<b>Don't know</b> (6)	<b>Total</b> (7)	<b>Number of children who took drug</b> (8)
SP/Fansidar								
Chloroquine								
Amodiaquine								
Quinine								
ACT								
Other antimalarial								
All antimalarial drugs								

Note: Table excludes children whose fever started less than two days before the interview.

### Numerators for Columns 1-7

Columns 1-6: Number of children (times 100) coded 1, 2, 3, 4, 6, and 8 in the question on the source of antimalarial drugs for Q323 (SP/Fansidar), Q327 (Chloroquine), Q331 (Amodiaquine), Q335 (Quinine), Q339 (ACT), and Q343 (Other antimalarial) for whom Q314 $\geq$ 2 and Column 6 in the Household Listing=1 for the mother.

### Denominator for Columns 1-6

8: Number of children who took the drug for whom Q314 $\geq$ 2 and Column 6 in the Household Listing=1 for the mother.

Column 7= 100.0 for all rows

<b>Table 8. Anaemia in children</b>				
Among children age 6-59 months, mean haemoglobin values, standard deviation of haemoglobin values, and percentage with severe anaemia (<8 grams/decilitre), by background characteristics				
<b>Background characteristic</b>	<b>Mean haemoglobin value</b>	<b>Standard deviation of haemoglobin values</b>	<b>Percentage of children with severe anaemia</b>	<b>Number of children</b>
	(1)	(2)	(3)	(4)
<b>Age (in months)</b>				
6-11				
12-23				
24-35				
36-47				
48-59				
<b>Sex</b>				
Male				
Female				
<b>Residence</b>				
Urban				
Rural				
<b>Region</b>				
Region 1				
Region 2				
Region 3				
<b>Wealth index</b>				
Lowest				
Second				
Middle				
Fourth				
Highest				
<b>Total</b>				

### **Numerator**

1. Sum of haemoglobin values of children in Column 30 born 6-59 months before the interview date for whom Column 6 in the Household Listing=1 and Column 33 contains a valid haemoglobin measurement.
2. Standard deviation of the haemoglobin values of children in Column 30 born 6-59 months before the interview date for whom Column 6 in the Household Listing=1 and Column 33 contains a valid haemoglobin measurement.
3. Children in Column 30 born 6-59 months before the interview date for whom Column 6 in the Household Listing=1 and Column 33 is less than 8.0 grams/decilitre.

### **Denominator for Columns 1-3**

- 4: Number of children in Column 30 of the haemoglobin measurement section born 6-59 months before the interview date for whom Column 6 in the Household Listing=1 and Column 33 contains a valid haemoglobin measurement.