

Exposure to anti-malaria BCC messages: Fourth RBHS ITN dipstick survey

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Liberia

Rebuilding Basic Health Services (RBHS)

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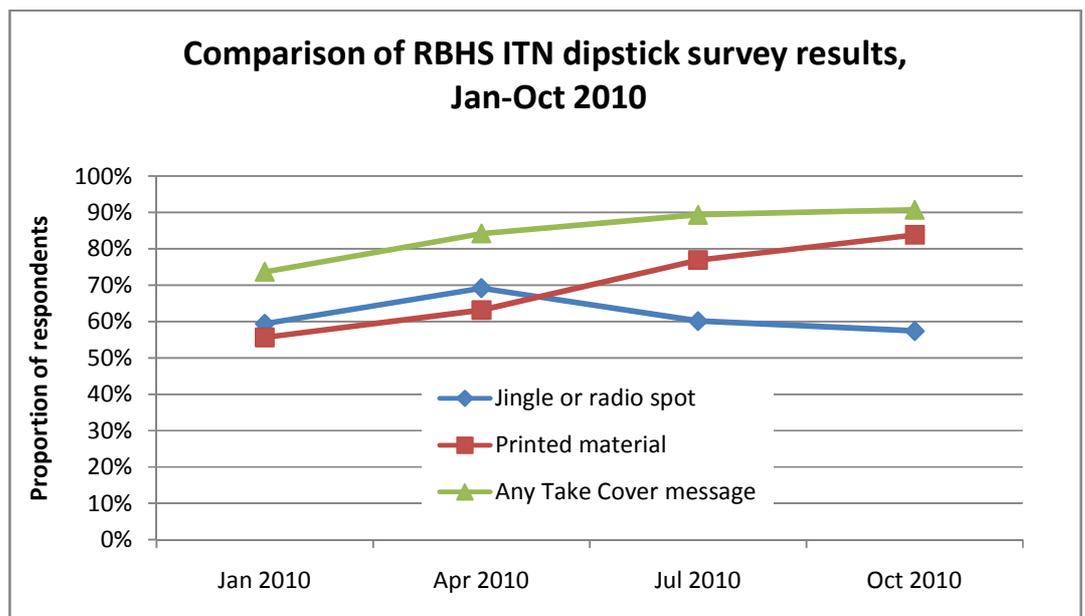
Executive Summary

The Rebuilding Basic Health Services project (RBHS) is supporting the Ministry of Health and Social Welfare (MOHSW) to develop a comprehensive system of high-quality health services for all of Liberia through implementation of the National Health Plan and mobilization of communities. In collaboration with the National Malaria Control Program (NMCP), RBHS launched its first behavior change communication (BCC) campaign on 6 November 2009: “Take Cover” is designed to encourage people all over the country, but especially in RBHS coverage areas, to sleep under insecticide-treated mosquito nets (ITNs). The campaign concentrates where ITNs have already been distributed: Nimba, Lofa, Bong, Grand Cape Mount, and River Gee Counties. The campaign uses a variety of media to get across its message: UNMIL radio, community radio, bulk SMS texting, posters, brochures, stickers, and word of mouth. To maximize the campaign’s effectiveness, RBHS needs to quantify how many people are being reached by the message, and through which media.

This fourth “dipstick” survey’s primary objective was to measure how well the ITN campaign is reaching its target population through a very short and simple study: To find out what proportion of women with children under five have been exposed to the Take Cover message and through what media. The survey followed a cluster design, interviewing 162 mothers of children under five in 27 randomly selected communities in RBHS catchment areas in Grand Cape Mount, Lofa, Bong, Nimba, and River Gee Counties during the week 24-30 October 2010. Four teams of three or four people (two interviewers and one or two supervisors) conducted the survey using EpiSurveyor on Nokia E63 cell phones. Interviewers showed respondents posters, leaflets, and stickers, and also played clips of the Take Cover jingle and one radio spot to test recognition of campaign components.

The results, summarized in the figure below, which compares key results from all four dipstick surveys, show that 91% of respondents have seen or heard some Take Cover message. Moreover, while most women and children who have nets are sleeping under them, only 61% of the households surveyed had a net present, limiting the effect of the campaign, though that is a significant improvement over the January survey results. The mass media campaign has extended its reach since January, with a significant increase in the percentage of people who have been exposed to Take Cover posters (from 56% to 84%) and the overall sleep-under-a-net message (53% to 67%). There is also some statistically significant evidence that

whether women and children sleep under a net is associated with whether the mother had seen or heard a Take Cover message: Mothers who have been exposed to Take Cover and their children are four to five times more likely to sleep under nets than those who have not been exposed.



However, community-level progress continues to be less than expected, with few people hearing messages from chiefs or from gCHVs. Recent agreements with the group Crusaders for Peace should address the community-level gap.

1 Study context and justification

The Rebuilding Basic Health Services project (RBHS) is supporting the MOHSW to develop a comprehensive system of high-quality health services for all of Liberia through implementation of the National Health Plan and mobilization of communities. RBHS uses a three-pronged strategic approach: 1) strengthening and extending health services to clinics and communities through performance-based contracts to NGO partners; 2) strengthening Liberia's health system in the areas of human resource management, infrastructure, policy development, and monitoring and evaluation; and 3) preventing disease and promoting more healthful behaviors through behavior change communication (BCC) and community mobilization.

Malaria remains the major cause of morbidity and mortality in Liberia. The RBHS approach to improving malaria prevention and control is closely linked to the Operational Plan of the President's Malaria Initiative (PMI) and has been designed following close consultation with the National Malaria Control Program (NMCP). It includes components that address BCC, clinical services at facility and community levels, training, and capacity building and management support of the NMCP. A particular focus is on preventing malaria in children under five and pregnant women, the populations for whom malaria can be most dangerous.

RBHS' first BCC campaign was launched on 6 November 2009: "Take Cover" is designed to encourage people all over the country, but especially in RBHS coverage areas, to sleep under insecticide-treated mosquito nets (ITNs). The campaign initially concentrated where ITNs have already been distributed: Nimba, Lofa, Bong, and River Gee Counties. The campaign uses a variety of media to get across its message: UNMIL radio, community radio, bulk SMS texting in partnership with Cellcom, posters, brochures, stickers, and word of mouth. To maximize the campaign's effectiveness, RBHS needs to quantify how many people are being reached by the message, and through which media.

The first of the quarterly "dipstick" surveys was conducted in January 2010; the one described in this report is the fourth.

2 Objectives

2.1 Main objective

The study's primary objective was to measure how well the ITN campaign is reaching its target population over the coming year.

2.2 Study questions

1. Of mothers with children under five in the study area, what percentages have been exposed to the Take Cover message?
2. Of people who have been exposed to the message, how have they been exposed (by what media)?
3. Of people who have been exposed, what percentages have understood the message?

Answers to the study questions will help RBHS to analyze the success of the campaign and modify activities to improve its effectiveness.

3 Methods

3.1 Study population

The study population included all mothers of children under five living in the catchment areas of RBHS facilities in Grand Cape Mount, Lofa, Bong, Nimba, and River Gee Counties, the total catchment population being just under 600,000 people. Note that this is the second dipstick survey to cover Grand Cape Mount and River Gee Counties; the first two covered only Lofa, Bong, and Nimba Counties.

3.2 Study design

The dipstick study is a two-stage cluster design, with 27 clusters and 6 samples within each cluster. (See sample size calculation below.) A cluster is a locality as defined during the 2008 Liberia Census. The study area consists of all localities within the catchment areas of RBHS-supported facilities. All communities within that area were listed, with their populations, and in the first stage of the survey, 27 were selected at random proportional to their populations. The 27 communities represent less than 1% of the total 3,099 localities in the study area, but almost 2% of the total population.

The household was the primary sampling unit and unit of analysis. In the second stage, within each cluster, six households were selected, giving a total of $27 \times 6 = 162$ households.

3.3 Sample size calculation

The sample size was calculated using the following formula:

$$n = \frac{EZ^2 p(1-p)}{d^2}$$

where

E = design effect accounting for a cluster survey design,

Z = 1.96 (for 95% confidence interval),

p = expected proportion with the characteristic of interest, and

d = half the desired width of the confidence interval ($\pm d$).

Since the proportion of the population is not known ahead of time, p is taken to be 50% (worst case). The desired precision is $\pm 10\%$. The design effect is difficult to estimate in advance, and can vary greatly from survey to survey and even from question to question within the same survey. A general formula is

$$E = 1 + (m - 1)\rho$$

where m is the number of samples per cluster (taken here to be 6) and ρ is the intra-cluster correlation coefficient, which also varies across surveys and questions, but an average value for DHS surveys in rural Liberia is 0.06¹, which gives a value of $E = 1.3$. (Note that the design effect specified here is often denoted as “deff”, which is the square of “deft”, also sometimes referred to as “design effect”.)

Using the above values, the sample size is calculated to be 125, requiring 21 clusters. However, because of the expansion from three to five counties and the desire to have to produce at least rough estimates for indicators within individual counties, the number of clusters was increased to 27, for a total sample size of $27 \times 6 = 162$. (“Rough” was defined as $d = 20\%$, and a factor of 5 – the number of counties – was applied to the formula above.)

¹ Le, Thanh N. and Vijay K. Verma. *An analysis of sample designs and sampling errors of the Demographic and Health Surveys*. Demographic and Health Surveys analytical reports no. 3. Macro International, 1997.

3.4 Sampling method

As described above, 27 clusters were selected randomly proportional to population. Within each cluster, one household was selected at random from 2008 Census listings before field work began, then the other five were selected systematically (every third house encountered by walking in an initial random direction) once in the field. However, all study households had to include a woman with children under five, so each household was first screened for the presence of such women. If no such woman was a member of the household, another household was selected by visiting the next closest house. (And if no woman at the closest neighbor was home, the next closest neighbor was visited, continuing until the team found someone at home.)

For households with multiple women having children under five, the sampling scheme included a third stage, in which from a given household a single woman was randomly selected from among those who had children under five. The interviewer wrote the names of all qualifying women on separate scraps of paper, then asked someone else to select one piece of paper without seeing the names. In such a case, the household may still be considered to be the unit of analysis, since there was exactly one woman interviewed per household.

One survey question related to children under five sleeping under an ITN. For that question, the study population is all children under five in the study area, but from each household only one child under five was selected. If there was only one such child in a household, that child was automatically the subject of the question. If there were two or more children under five, then one was selected randomly (using the same method as described above for selecting the respondent) and that child became the subject of the question.

3.5 Study period

Data collection was done during the week 24-30 October 2010. The study questionnaire did not address a specific recall period, with two exceptions: it asked if the respondent or her child slept under an ITN the previous night, and if she had heard any malaria-related message within the past four weeks.

3.6 Data collection

Data were collected by four teams of three or four trained people each: two interviewers and one or two supervisors. The teams covered two to 13 clusters each, depending on the number of clusters in each county, interviewing six households per community. The team members visited each community together, with each interviewer-pair going separately to individual houses. In teams with a single supervisor, the supervisor moved alternately from one interviewer to the other.

Interviewers used a structured questionnaire that was field-tested in a community in Bomi County. Written informed consent to be interviewed was obtained from each respondent before beginning the questions. Data were entered in the field using Nokia E63 cell phones loaded with an EpiSurveyor-based version of the questionnaire. The questionnaire was written in simple English, but was verbally translated by the interviewer into the local language if the respondent was not comfortable in English. It was not feasible to make written translations of the questionnaire into all possible local languages, nor can most people read local languages.

Recall was assessed by first asking for unprompted responses to questions about malaria messages seen or heard. Only after recording answers did interviewers address recognition through use of multimedia supplementary material. For instance, to test recognition of a jingle and radio spot, interviewers played recordings from the cell phone. Interviewers played the jingle first; the much longer radio spot was played only after asking questions about the jingle. The radio spot led off with a few seconds of the jingle. While radio spots are broadcast in 11 different languages, the survey teams played only the version in the language for which the respondent was most comfortable. Similarly, for recognition of the

posters, leaflet, and sticker, interviewers showed full-color, A4-size paper copies, including two posters that were not part of the Take Cover campaign. The posters and other material were displayed simultaneously, pasted on one large sheet of paper:

1. Old MOHSW ITN poster (not Take Cover)
2. Take Cover poster (pregnant woman alone under net)
3. "Fake" ITN poster, used in Ghana, but never in Liberia (not Take Cover)
4. Take Cover poster (couple under net)
5. Take Cover poster (four photos of different net placements)
6. Take Cover leaflet (brochure)
7. Take Cover sticker

3.7 Data analysis

Data were uploaded from the cell phones into the Web-based Epi-Surveyor and exported into an Excel file to be analyzed using Stata/IC 11.0. Frequency distributions of all variables were produced to facilitate data cleaning, and then frequencies and confidence intervals were calculated with Stata. The confidence intervals were adjusted using robust variance estimates to account for the cluster design of the survey. For the questions about children under five and number of women sleeping under a net the previous night, responses were weighted based on the number of children under five and women, respectively, who slept in the household the previous night.

While extensive bivariate analysis could not be supported by the small sample size, some selected analysis was conducted for key factors such as county of residence using Stata's `svy: logistic` function, which adjusted p-values to reflect the cluster design. The same function was used to compare results from this survey with those conducted in January, April, and July.

4 Ethical considerations

No experimentation was carried out on human subjects. The questionnaire was brief and took an average of 10-15 minutes to administer to each household, causing a minimum of inconvenience for the respondents. No questions were likely to be emotionally disturbing, and there were no physically invasive examinations.

Respondents did not directly benefit from the survey, but the study results will be used to make current project activities more effective, which will benefit the entire study population.

Written informed consent was obtained from each study respondent. Confidentiality of responses will be assured by restricting access to the computer database to the two study investigators.

5 Results

No one declined to be interviewed. The total number of respondents, therefore, was exactly the 162 planned. A summary of the survey responses follows; detailed results for each question are shown in Annex 1.

5.1 Household characteristics

Due to the intentionally quick and focused nature of this dipstick survey, few questions not related to malaria and ITNs were asked. Those characteristics are summarized in Table 1 below.

Table 1: Household characteristics

Characteristic	n	Freq/ mean	%	95% confidence interval	
Respondent's age in years (mean)	162	27.8		26.5	29.0
Number of children U5 who slept in HH previous night (mean)	162	1.7		1.6	1.8
Age of selected child in years (mean)	162	2.7		2.4	2.9
Pregnant respondents	162	19	12%	7%	17%
Distance from nearest health center	162				
1 hour or less		62	38%		
2 hours or less but more than 1		25	15%		
3 hours or less but more than 2		25	15%		
4 hours or less but more than 3		15	9%		
More than 4 hours		20	12%		
Do not know or no answer		15	9%		
Have radio in household	162	43	27%	18%	35%
Mobile phone in HH	162	46	28%	20%	37%

Although not important for the purposes of this survey, several results in the table have been consistent across all four surveys and may be valuable to inform other interventions. In particular, the percentage of respondents (i.e., women with children under five) who were pregnant has ranged between 12% and 14% through the four surveys, with a combined mean of 13.3% (95% confidence interval from 10.6% to 16.2%). Moreover, the percentage of respondents living one hour or less from a health facility has ranged from 42% to 50% with a combined mean of 45.7% (95% CI from 41.0% to 50.5%). Finally, radio possession has ranged from 27 to 36%, with a combined mean of 31.9% (95% CI from 27.7% to 36.4%); by comparison, the 2007 DHS survey found that 39.3% of rural households owned a radio.

5.2 ITN ownership and message exposure

As seen from Table 2 below, only 61% of households had an ITN, down from 71% and 68%, respectively, in the April and July surveys, though still higher (albeit not significantly so) than the 52% baseline in January. Most respondents and their children under five (84% and 77%, respectively) slept under a net if they had one. Of the 19 pregnant women surveyed, about the same percentage as for all respondents had an ITN in the household, and all but one who had a net reported sleeping under it the previous night, which is consistent with previous dipstick surveys (ranging from 85% in April to 100% in January and July, all within the margin of error).

Table 2: ITN ownership and message exposure

Question	n	Freq	%	95% confidence interval	
ITN in household	162	99	61%	54%	69%
Respondent slept under ITN last night*	99	82	84%	76%	93%
Under five child slept under ITN last night*	99	78	77%	66%	87%
Pregnant and have net	19	12	63%	38%	88%

Question	n	Freq	%	95% confidence interval	
Pregnant and slept under ITN last night	12	11	89%	69%	110%
Heard any malaria message on radio in last 4 weeks	162	65	40%	29%	51%
Heard any malaria message from chief in the last 4 weeks	155	24	15%	9%	22%
Heard or seen other malaria messages in last 4 weeks	161	31	19%	15%	24%
Heard any malaria message (unprompted)	162	91	56%	47%	66%
Received ITN text message	35	5	14%	2%	27%

**Note: Proportion for children sleeping under a net as well as that of respondents sleeping under a net are weighted by number of U5 in household and number of women in household, respectively.*

No household characteristic factors were significantly associated with having a net or not. However, ITN ownership differed sharply by county, with households in Grand Cape Mount, Nimba, and River Gee Counties (76%) about eight times as likely as those in Lofa and Bong Counties (31%) to have nets (odds ratio [OR]= 6.9, $p < 0.0005$). By contrast, the previous survey in July found that the same combinations (Grand Cape Mount, Nimba, and River Gee versus Lofa and Bong) had identical ITN ownership: 68%. In that survey, Lofa and Nimba households were the most likely to have nets (combined 78%), with Bong, Grand Cape Mount, and River Gee falling well behind (62%). These differences suggest that ITN ownership depends heavily on specific communities (randomly) selected, and that distribution within counties is neither consistent nor uniform.

As shown in Table 1, about a quarter of respondents had a radio in their household. From Table 2, one can also see that 40% of respondents had heard a message about malaria on the radio in the past four weeks. As might be expected, people with radios were more likely to have heard a message on the radio (60%) than those without (33%) (OR=3.1, $p = 0.007$), but owning a radio does not ensure hearing a message, nor does not owning a radio preclude hearing a message. The proportion of respondents who heard a malaria message from a chief in the previous month was still low, only 15%, but varied significantly by county, with respondents in Grand Cape Mount, Nimba, and River Gee over four times as likely to have heard a message from a chief (21%) than those in Lofa and Bong (6%) (OR=4.5, $p = 0.058$). Of those who heard a message from a chief, just over half heard the sleep-under-a-net message, 8% of all respondents. A few respondents also reported hearing or seeing malaria messages from sources other than radios and chiefs, 77% of whom got the message at a health facility; only four respondents (13% of those who hear some message) reported hearing the message from a gCHV.

Combining responses from those three questions shows that just over half of respondents had seen or heard (without being prompted – that is, without the interviewer playing a radio spot or displaying a poster) some malaria message during the previous four weeks. The messages they reported hearing, without being prompted, are shown graphically in Figure 1. Note that the percentages add up to more than 100% because some respondents reported more than one message. (Identical messages from the same respondent – i.e., for two different questions – are not counted twice.) The proportion of respondents reporting having heard a malaria message was just slightly higher than in January and April. However, of those who heard messages, 67% reported having heard a sleep-under-the-net message, substantially higher than in either January or April. In fact, the increase from January-April (53%) to July-October (a combined 71%) is statistically significant (OR=2.2, $p = 0.001$). It remains disturbing that so many people report hearing that they need to clean up the environment to prevent malaria.

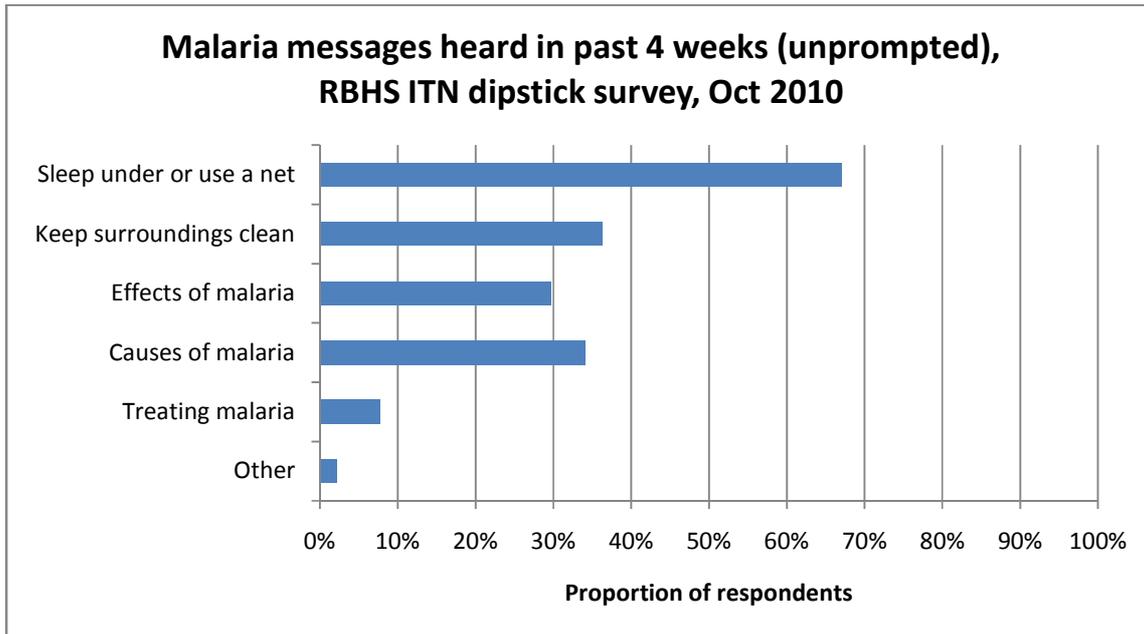


Figure 1

The survey also included a question on whether respondents had received ITN text messages. Only 28% of respondents reported having a mobile phone in the household, of which 61% used Lonestar/MTN, and 30% used Cellcom. Of respondents who could say whether they had received a text message about malaria (only 35 of 46), only five reported having received such a message, just two with Cellcom SIM cards. Respondents anecdotally reported that they could not read, so did not know the subject of messages received (whether it was about ITNs or not).

5.3 Exposure to Take Cover messages

Table 3 below summarizes exposure to the Take Cover jingle, radio spot, three posters, brochure, and sticker, as well as the two non-RBHS posters. (The questions addressing these materials did not specify “in the past four weeks”, so were effectively assessing whether respondents had ever been exposed to them.) Well over half of respondents reported hearing a Take Cover jingle or radio spot, but actually slightly below the results from January (not significantly so). Exposure to radio messages varied significantly with county: Respondents in Grand Cape Mount and Lofa (81%) were almost five times as likely as those in Nimba, Bong, and River Gee (47%) to have heard a Take Cover jingle or radio spot (OR=4.8, p=0.004).

Table 3: Take Cover message exposure

Question	n	Freq	%	95% confidence interval	
Heard Take Cover jingle	162	81	50%	32%	58%
Heard Take Cover radio spot	162	73	45%	32%	58%
Heard Take Cover jingle or radio spot	162	93	57%	45%	70%
Recognized any poster	161	144	89%	83%	96%
Poster A (old)		68	42%	34%	50%

Question	n	Freq	%	95% confidence interval	
Poster B (Take Cover, pregnant woman)		75	47%	36%	57%
Poster C (fake)		23	14%	8%	21%
Poster D (Take Cover, couple)		67	42%	32%	51%
Poster E (Take Cover, collage)		52	32%	22%	43%
Brochure		22	14%	7%	20%
Sticker		7	4%	1%	8%
Seen any Take Cover printed material	161	135	84%	78%	90%
Location of last poster seen	144				
Health facility		126	88%		
Neighbor's or own house		20	14%		
Market		1	1%		
Palava hut		0	0%		
gCHV/TTM		1	1%		
Other		4	3%		
Don't know/no answer		0	0%		
Seen/heard any Take Cover message	162	147	91%	85%	97%

Only 16% of respondents had not seen any Take Cover printed material. Moreover, respondents remained far more likely to recognize all of the Take Cover posters than the fake poster, suggesting that Take Cover recognition is real. (Percentages add to more than 100% because of multiple responses from some respondents.) See Figure 2 for a graphical summary of these data. By far the most common place to have seen printed material was in health facilities (88%), but 20 respondents had a poster in their own home or had seen one in a friend's or neighbor's home, and all but one of those had seen a Take Cover poster. Although it was not part of the survey, interviewers typically asked to see the poster if the respondent said it was in her own house, and invariably it was in fact a Take Cover poster.

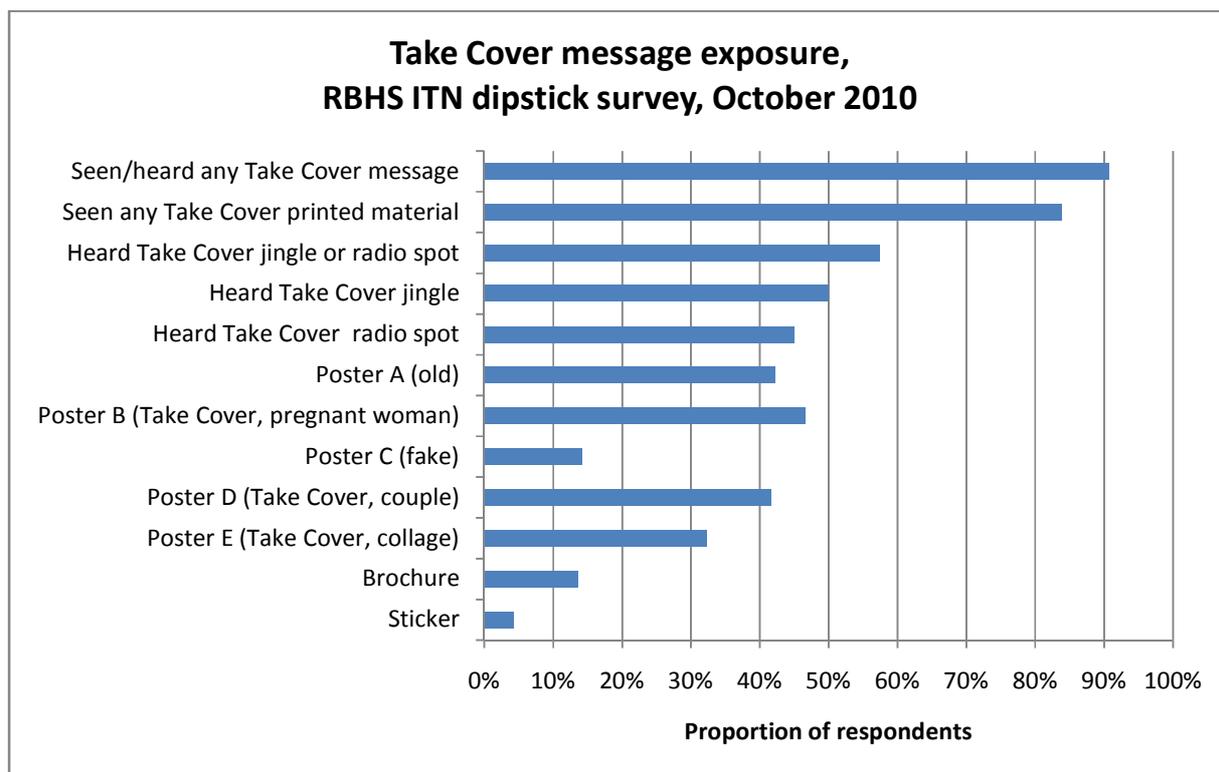


Figure 2

There were no significant differences by county to Take Cover poster recognition, with recognition ranging from 71% in Bong to 89% in Lofa. In fact, no variable measured during the survey was significantly associated with poster recognition.

Overall, 91% of respondents had been exposed to either radio or print Take Cover messages, and exposure was consistently high within each county (88%-100%) except Bong (72%), with respondents in the other four counties over five times as likely as those in Bong to have heard or seen a Take Cover message (OR=5.2, p=0.034).

The purpose of exposing people to the Take Cover campaign is ultimately to result in changed behavior (increased sleeping under ITNs). Are there any early signs of such change? More precisely, is there any association with Take Cover exposure and sleeping under a net? The answer appears to be yes: As in the July survey, children of mothers who had been exposed to the Take Cover campaign were over four times as likely to have slept under nets (88%) as those whose mothers had not been exposed (64%), but so few women had not been exposed that the difference was not statistically significant (OR=4.4, p=0.092). When the results of the July and October surveys are combined, the sample size is effectively doubled, and difference is significant and even stronger (OR=5.4, p=0.003). For respondents themselves, the October data show similar results: Women exposed to Take Cover were five times as likely than those who were not exposed to have slept under a net (84% versus 67%), but the difference was not significant (OR=5.1, p=0.087), and this time combining the July and October results did not result in a significant difference because the July survey found no such association. (Again, the number of women not exposed was so small that shifts in exposure of two or three women have a large effect on the results.)

Also, despite the fact that ITN ownership has dropped somewhat in the past six months, women who had seen Take Cover posters were over twice as likely to have a net (42%) as those who had not seen posters (64%), but the difference was not statistically significant (OR=2.5, p=0.064). Again, combining July and

October surveys increases the sample size to the point that the difference become significant, albeit somewhat weaker (OR=1.8, p=0.036).

5.4 Comparison of survey results over time

Two factors make it difficult to make accurate comparisons among the four dipstick surveys conducted so far: 1) subtle improvements in the way some questions are asked since the first survey and 2) the addition of two new counties to the two surveys since April. The first factor is relatively minor, since addressing it means simply not being able to compare results for certain questions. The second factor is more problematic, since the study populations changed, and differences in survey results may be due at least in part to differences in the study populations. However, as with the July survey, there is virtually no difference between the results for all five counties for the results restricted to the original three counties, as shown qualitatively in Figure 3. In the future, comparisons among these dipstick surveys will be made without regard to the difference in counties covered by the first two surveys versus the rest.

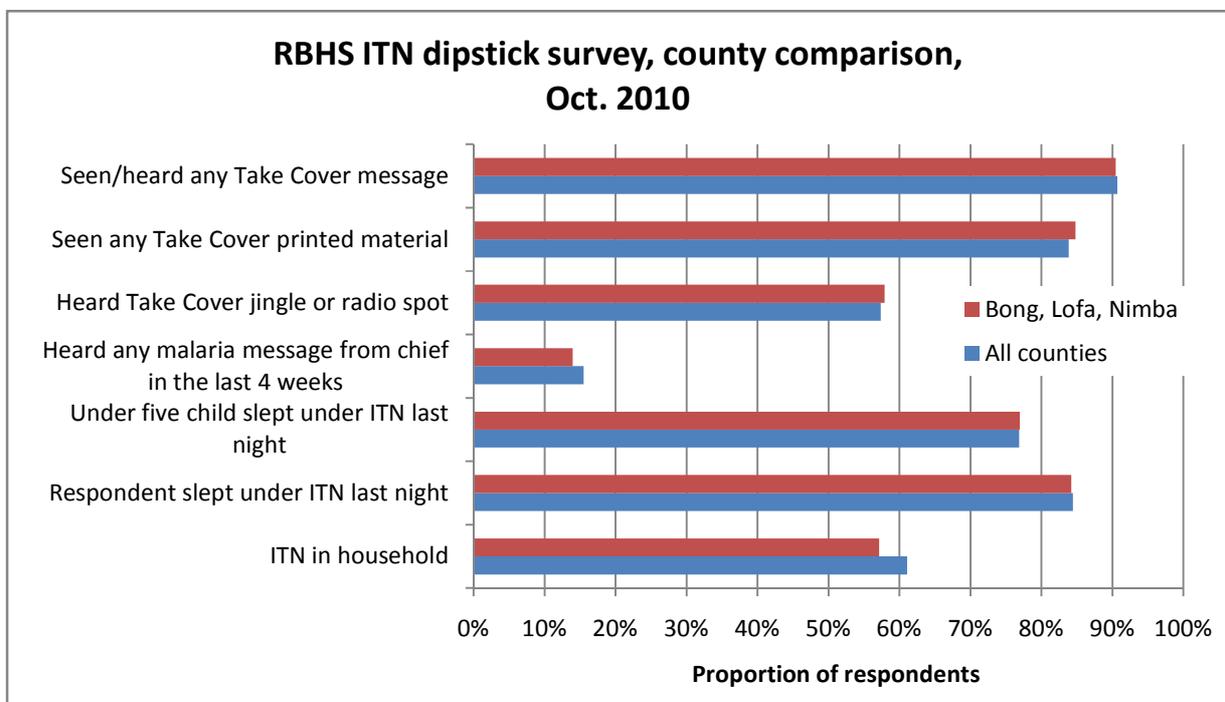


Figure 3

The three main Take Cover exposure indicators are compared in Figure 4 below for each of the four dipstick surveys to date. There is a continuing upward trend in exposure to the Take Cover posters, which also drives the increase in exposure to any Take Cover message, despite the repeated drop in coverage of the jingle and radio spot. While radio exposure stayed about the same in Lofa and Nimba from April to July and Grand Cape Mount from July to October, coverage in Bong County dropped precipitously from 80% in April to 50% in July and October and in Nimba from 74% in July to 51% in October. The Nimba drop is almost certainly due to RBHS terminating the contract with Radio Nimba in late May because the station failed to follow the agreed-on broadcast schedule. The explanation for the Bong drop may be chance: It happens that all three localities selected in the survey for Bong County happened to be in Fuamah District, one of the most remote, purportedly without radio coverage, though obviously people must have some coverage (via ELBC and UNMIL Radio), since half reported hearing a Take Cover radio

message, perhaps when traveling outside the district. That would still not explain the July drop, because there were nine localities selected in Bong for that survey, only one of which was in Fuamah District (and of those six respondents, two reported hearing a Take Cover radio message). By contrast, despite reports that Radio Life in Lofa has been down, radio coverage in Lofa was high (75%).

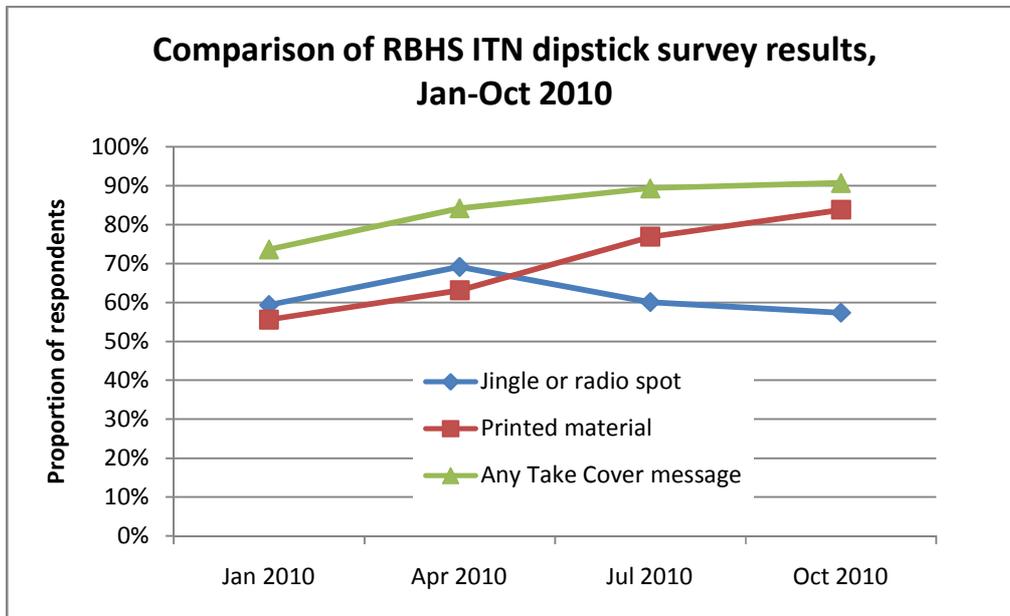


Figure 4

Table 4 shows a more detailed comparison across surveys for key variables. When the odds ratio (OR) and p-value (p) are shown, the reference group is always the baseline dipstick survey in January 2010. From the table, one can see that respondents in the latest survey were significantly more likely to have seen any Take Cover print material (primarily posters) and to have seen or heard any Take Cover message, quantitatively confirming what seems evident from Figure 4. While respondents were more likely to have seen some Take Cover poster, no one poster was significantly more recognized in July than in January. However, the fake poster (poster C), which has never appeared in Liberia, was recognized by significantly fewer respondents in October than in January ($p < 0.0005$).

Table 4: Comparison of indicators over time

Indicator	n	Freq	%	OR	p
Seen any Take Cover print material					
Jan-10	133	74	56%		
Apr-10	133	84	63%	1.33	0.398
Jul-10	169	130	77%	2.58	0.001
Oct-10	161	135	84%	4.02	<0.0005
Heard Take Cover jingle or radio spot					
Jan-10	133	79	59%		
Apr-10	133	92	69%	1.53	0.264
Jul-10	168	101	60%	1.03	0.932
Oct-10	162	93	57%	0.92	0.822
Seen/heard any Take Cover message					
Jan-10	133	98	74%		

Indicator	n	Freq	%	OR	p
Apr-10	133	112	84%	1.90	0.132
Jul-10	169	151	89%	3.00	0.006
Oct-10	162	147	91%	3.50	0.006
Recognized Poster C (fake)					
Jan-10	133	43	32%		
Apr-10	133	25	19%	0.48	0.022
Jul-10	169	22	13%	0.31	<0.0005
Oct-10	161	23	14%	0.35	0.002
Have ITN in house					
Jan-10	133	69	52%		
Apr-10	133	94	71%	2.24	0.018
Jul-10	169	115	68%	1.98	0.049
Oct-10	162	99	61%	1.46	0.264
Respondent slept under net					
Jan-10	69	61	88%		
Apr-10	94	81	86%		
Jul-10	109	100	92%		
Oct-10	99	82	84%		
Child slept under net					
Jan-10	69	61	88%		
Apr-10	94	82	89%		
Jul-10	109	93	81%		
Oct-10	99	78	77%		

The decrease in recognition of the fake poster strengthens the conclusion that recognition of Take Cover posters has actually increased.

6 Discussion

6.1 Exposure to ITN messages

The five counties covered by this survey were selected because mass ITN distribution had been done there within the past year. However, while the proportion of ITN-owners has gone up since the January survey, still only 61% of households reported having a net, which continues to impose a limitation on the potential impact of the Take Cover campaign and ITN messages in general. Nonetheless, it is certainly good news that at least 84% of respondents and 77% of children under five reported having slept under a net the previous night if there was one in the household, as is the fact that almost all pregnant women who had ITNs slept under them.

6.2 Exposure to Take Cover campaign

As documented in sections 5.3 and 5.4 above, there are reasons to think that the Take Cover campaign is increasingly effective, as measured both by how many people have been exposed to Take Cover messages and the association between having heard a message and women or children actually sleeping under a net

or respondents having an ITN. However, great weight should not be put on the latter associations; while the effects were strong, the number of respondents who were not exposed to Take Cover messages was small, as was the number of women and children who did not sleep under a net, and a change in just two or three sleepers would have eliminated the effect.

Further support for the conclusion that the Take Cover campaign has been effective is that the sleep-under-the-net message is being reported by respondents without being prompted: From the first six months of the campaign to the last six months, there was only a small increase in the number of people who had heard a malaria message of some sort; but of those who did hear a message, those in the last six months were over twice as likely to report having heard a sleep-under-the-net message as those in the first six months.

Figure 4 suggests that the Take Cover campaign has reached the saturation point in terms of impersonal media coverage (radio and posters); it is unlikely that much more than the current 91% of mothers can be reached. Nonetheless, while the campaign has been effective over the past year in reaching its target audience, and there is some statistically significant evidence of a positive change in behaviors, that evidence cannot yet be considered decisive. For that to happen, the other components of the campaign need to step forward and play a larger role. So far, messages from chiefs, gCHVs, and Cellcom text messages have had minimal coverage. The text messaging aspect of the campaign should probably be discontinued, since even if all women had Cellphone SIM cards, many are illiterate or fail to read their messages.

This survey documents no progress made in increasing messaging from chiefs: only 8% of respondents heard the sleep-under-the net message from chiefs, consistent with the results of earlier dipstick surveys: 8%-12%. The RBHS strategy has therefore shifted somewhat, to contracting with Crusaders for Peace to sponsor a variety of community-based activities and thereby pass the Take Cover message in more direct and entertaining ways. While still not entirely personal, such an approach is more direct than radio or posters. Potentially the most effective means of conveying the Take Cover message is through gCHVs. RBHS has developed CHEST kits, containing health education tools for gCHVs to use in their communities, including messages about sleeping under ITNs. Those kits will be disseminated in the next two months, after which more results from gCHVs will be expected.

6.3 Study limitations

The primary limitation of this study is the same as that of any study assessing message exposure: People may claim to remember seeing a poster or hearing a radio spot just to satisfy the interviewer or because it indeed seems familiar to them, but they may have it mixed up with a non-RBHS message. To mitigate that problem, the dipstick questionnaire included several questions along the lines of “Have you heard any message and what was it?” before presenting posters and radio jingles, to test what respondents could recall, not just recognize. Moreover, while three Take Cover posters were included, so too were an older non-RBHS poster and a “fake” poster that has never been used in a campaign in Liberia. As noted in section 5.4, the fact that only 14% of respondents report having seen the fake poster versus 47% , 42% and 32% for the three Take Cover posters, suggests that people are truly distinguishing among different posters.

6.4 Conclusions

The dipstick survey was effective in answering questions about people’s use of bed nets and exposure to the message to sleep under nets. The Take Cover message is spreading, but more work needs to be done at the community level, especially with chiefs and CHVs. The text-message component of the campaign is not effective, and given the demographics in the RBHS catchment area, should probably be dropped.

Annex 1: Detailed responses to survey questions

Q#	Question	January 2010				April 2010				July 2010				October 2010							
		n	Freq/ mean	%	95% CL	n	Freq/ mean	%	95% CL	n	Freq/ mean	%	95% CL	n	Freq/ mean	%	95% CL				
0	Number of women with children under the age of five that slept in the household last night (mean)																162	1.5		1.4	1.7
1	Respondent's age in years (mean)	133	28			133	30		28	32	169	30.3		28.6	32.0	162	27.8		26.5	29.0	
2	Number of children U5 who slept in HH previous night (mean)	133				133	1.5		1.4	1.5	169	1.8		1.6	2.1	162	1.7		1.6	1.8	
3	Age of selected child in years (mean)										168	2.4		2.1	2.7	162	2.7		2.4	2.9	
4	Pregnant respondents	133	17	13%	8%	20%	133	19	14%	7%	22%	168	24	14%	9%	19%	162	19	12%	7%	17%
5	ITN in household	133	69	52%	39%	65%	133	94	71%	60%	81%	169	115	68%	57%	79%	162	99	61%	54%	69%
5.1	Respondent slept under ITN last night	69	61	88%	79%	98%	94	81	86%	79%	93%	109	100	92%	85%	98%	99	82	84%	76%	93%
5.2	Under five child slept under ITN last night	69	61	88%	79%	98%	94	82	89%	83%	94%	109	93	81%	68%	94%	99	78	77%	66%	87%
6	Distance from nearest health center						133					169					162				
	1 hour or less							63	47%				76	45%				62	38%		
	2 hours or less but more than 1							42	32%				36	21%				25	15%		
	3 hours or less but more than 2							17	13%				51	30%				25	15%		
	4 hours or less but more than 3							2	2%				4	2%				15	9%		
	More than 4 hours							2	2%				0	0%				20	12%		

Q#	Question	January 2010				April 2010				July 2010				October 2010							
		n	Freq/ mean	%	95% CL	n	Freq/ mean	%	95% CL	n	Freq/ mean	%	95% CL	n	Freq/ mean	%	95% CL				
	Do not know or no answer						7	5%				2	1%				15	9%			
7	Have radio in household					133	45	34%	21%	46%	169	60	36%	25%	46%	162	43	27%	18%	35%	
8	Heard any malaria message on radio in last 4 weeks	133	45	34%	23%	45%	133	47	35%	21%	50%	167	68	41%	30%	51%	162	65	40%	29%	51%
8.1	Last message heard on radio	45					47					68					65				
	Sleep under or use a net		19	42%				21	45%				50	74%				42	65%		
	Keep surrounding clean		9	20%				2	4%				22	32%				13	20%		
	Effects of malaria		3	7%				10	21%				12	18%				19	29%		
	Causes of malaria		6	13%				4	9%				20	29%				22	34%		
	Treating malaria		0	0%				6	13%				1	1%				5	8%		
	Other		7	16%				3	6%				5	7%				0	0%		
	Don't know/no response		4	9%				6	13%				3	4%				0	0%		
9	Heard any malaria message from chief in the last 4 weeks	133	23	17%	8%	27%	133	26	20%	9%	31%	160	25	16%	5%	26%	155	24	15%	9%	22%
9.1	Last message heard from chief	23					26					25					24		0%		
	Sleep under or use a net		16	70%				11	42%				14	56%				13	54%		
	Keep surrounding clean		2	9%				2	8%				16	64%				8	33%		
	Effects of malaria		0	0%				9	35%				0	0%				5	21%		
	Causes of malaria		0	0%				2	8%				5	20%				5	21%		
	Treating malaria		0	0%				5	19%				4	16%				1	4%		
	Other		6	26%				2	8%				1	4%				0	0%		
	Don't know/no response							1	4%				0	0%				1	4%		
9a.0	Have you heard any message on malaria from a cultural troupe in the past four weeks?																159	13	8%	2%	14%

Q#	Question	January 2010					April 2010					July 2010					October 2010				
		n	Freq/ mean	%	95% CL		n	Freq/ mean	%	95% CL		n	Freq/ mean	%	95% CL		n	Freq/ mean	%	95% CL	
9a.1	Last message heard from cultural troupe																13				
	Sleep under or use a net																	6	46%		
	Keep surrounding clean																	1	8%		
	Effects of malaria																	3	23%		
	Causes of malaria																	3	23%		
	Treating malaria																	1	8%		
	Other																	2	15%		
	Don't know/no response																	0	0%		
10	Heard Take Cover jingle	133	38	29%	18%	39%	133	69	52%	40%	63%	168	73	43%	32%	55%	162	81	50%	38%	62%
10.1	Radio station	38					69					73					81		0%		
	Radio Nimba		19	50%				8	12%				15	21%				16	20%		
	Zorzor Radio (Radio Life)		5	13%				1	1%					0%				12	15%		
	Totota radio station (VOR)		2	5%				1	1%					0%				0	0%		
	Radio Piso												1	1%				4	5%		
	Radio Tapita ot VOT		2	5%				8	12%					0%				1	1%		
	Radio Gbarnga		0	0%				11	16%				4	5%				0	0%		
	Radio Cape Mount												13	18%				9	11%		
	ELBC												1	1%				4	5%		
	Don't know		6	16%				19	28%				21	29%				17	21%		
	Unmil radio station		3	8%				10	14%				4	5%				14	17%		
	Other sources: Children, ring tone		1	3%				2	3%				19	26%				16	20%		
	Radio Gee												2	3%				2	2%		
	Radio Zorlayea		0	0%				1	1%					0%				0	0%		
	BBC		0	0%				1	1%					0%				0	0%		
	Radio Kehkeima		3	8%				9	13%					0%				0	0%		
	Canvas of Peace		0	0%				2	3%					0%				0	0%		
	Star Radio		0	0%				1	1%					0%				0	0%		
	Radio Life												1	1%				0	0%		

Q#	Question	January 2010					April 2010					July 2010					October 2010				
		n	Freq/ mean	%	95% CL		n	Freq/ mean	%	95% CL		n	Freq/ mean	%	95% CL		n	Freq/ mean	%	95% CL	
11	Heard Take Cover radio spot	133	76	57%	43%	71%	133	78	59%	46%	71%	168	82	49%	36%	61%	162	73	45%	32%	58%
11.1	Radio station						78					82					73		0%		
	Radio Nimba							15	19%				19	23%				21	29%		
	Radio Life / Zorzor Radio							1	1%					0%				9	12%		
	VOR / Totota radio station							1	1%					0%				0	0%		
	Radio Piso												1	1%				4	5%		
	Radio Tapita ot VOT							7	9%					0%				1	1%		
	Radio Gbarnga							11	14%					4%				0	0%		
	Radio Cape Mount												12	15%				10	14%		
	ELBC												1	1%				2	3%		
	Don't know							15	19%				22	27%				12	16%		
	Unmil radio station							12	15%				3	4%				10	14%		
	Other stations												19	23%				13	18%		
	Radio Gee												7	9%				2	3%		
	Radio Zorlayea							1	1%					0%				0	0%		
	Radio Kehkeima							14	18%					0%				0	0%		
	Canvas of Peace							3	4%					0%				0	0%		
	Star Radio							1	1%					0%				0	0%		
	Radio Meanpea							3	4%					0%				0	0%		
	Kpein Radio							1	1%					0%				0	0%		
	Bong Mines Radio							1	1%					0%				0	0%		
	Talking Drum Studio							1	1%					0%				0	0%		
	From children in community								0%					0%				0	0%		
12	Heard or seen other malaria messages in last 4 weeks	133	48	36%	24%	48%	133	41	31%	23%	38%	168	69	41%	32%	51%	161	31	19%	15%	24%
12.1	Messages heard	48					41					69					31				
	Sleep under or use a net		19	40%				21	51%				48	70%				16	52%		
	Keep surrounding clean												33	48%				16	52%		
	Effects of malaria		4	8%				11	27%				15	22%				8	26%		

Q#	Question	January 2010				April 2010				July 2010				October 2010							
		n	Freq/ mean	%	95% CL	n	Freq/ mean	%	95% CL	n	Freq/ mean	%	95% CL	n	Freq/ mean	%	95% CL				
	Causes of malaria		9	19%			5	12%			18	26%			10	32%					
	Treating malaria		0	0%			4	10%			4	6%			2	6%					
	Other		19	40%			11	27%			4	6%			1	3%					
	Don't know/no response		0	0%			0	0%			1	1%			1	3%					
12.2	Where message last seen or heard	48				41				69				31							
	Health facility		33	69%			19	46%			52	75%			24	77%					
	School		1	2%			1	2%				0%				0%					
	Market		1	2%			2	5%				0%				0%					
	gCHV		5	10%			8	20%			11	16%			4	13%					
	Community dweller or at home						2	5%			1	1%				0%					
	NGO or medical staff		6	13%			5	12%			1	1%				0%					
	Radio		4	8%			8	20%			4	6%				0%					
	Church Conference		2	4%			1	2%			1	1%				0%					
	Others										1	1%			3	10%					
13	Mobile phone in HH					133	65	49%	35%	62%	168	44	26%	15%	37%	162	46	28%	20%	37%	
13.1	SIM type					65					44				46						
	Cellcom						19	29%				6	14%			14	30%				
	Lone star						49	75%				33	75%			28	61%				
	Comium						1	2%				0	0%			2	4%				
	Libercell						1	2%				0	0%			0	0%				
	Don't know/no response											6	14%			5	11%				
13.2	Received ITN text message					47	15	32%	18%	46%	20	3	15%	3%	38%	35	5	14%	2%	27%	
14	Recognized any poster	133	74	56%	47%	64%	133	109	82%	72%	92%	169	146	86%	80%	93%	161	144	89%	83%	96%
14.1	Poster A (old)	133	70	53%	39%	66%	133	63	47%	35%	60%	169	73	43%	33%	53%	161	68	42%	34%	50%
14.1	Poster B (Take Cover, pregnant woman)	133	58	44%	31%	56%	133	51	38%	29%	47%	169	67	40%	30%	49%	161	75	47%	36%	57%
14.1	Poster C (fake)	133	43	32%	22%	43%	133	25	19%	12%	26%	169	22	13%	8%	18%	161	23	14%	8%	21%
14.1	Poster D (Take Cover, couple)	133	47	35%	24%	47%	133	37	28%	17%	39%	169	76	45%	37%	53%	161	67	42%	32%	51%

Q#	Question	January 2010					April 2010					July 2010					October 2010				
		n	Freq/ mean	%	95% CL		n	Freq/ mean	%	95% CL		n	Freq/ mean	%	95% CL		n	Freq/ mean	%	95% CL	
14.1	Poster E (Take Cover, collage)	133	30	23%	12%	33%	133	38	29%	15%	42%	169	41	24%	18%	31%	161	52	32%	22%	43%
14.1	Brochure	133	24	18%	10%	26%	133	12	9%	4%	15%	169	29	17%	10%	25%	161	22	14%	7%	20%
14.1	Sticker	133	13	10%	5%	14%	133	1	1%	0%	4%	169	5	3%	0%	5%	161	7	4%	1%	8%
14.2	Last poster seen						109					143					140				
	Poster A (old)							28	26%				27	19%				17	12%		
	Poster B (Take Cover, pregnant woman)							26	24%				36	25%				29	21%		
	Poster C (fake)							11	10%				7	5%				7	5%		
	Poster D (Take Cover, couple)							13	12%				39	27%				35	25%		
	Poster E (Take Cover, collage)							22	20%				17	12%				33	24%		
	Brochure							6	6%				14	10%				15	11%		
	Sticker							1	1%				3	2%				4	3%		
	Don't know/no answer							2	2%				3	2%				0	0%		
14.4	Location of last poster seen						109					143					144				
	Health facility							80	73%				122	85%				126	88%		
	Market							1	1%				0	0%				1	1%		
	Palava hut							4	4%				3	2%				0	0%		
	Neighbor's or own house							12	11%				27	19%				20	14%		
	gCHV/TTM							4	4%				3	2%				1	1%		
	Other							10	9%				0	0%				4	3%		
	Don't know/no answer							1	1%				0	0%				0	0%		
	Seen any Take Cover printed material	133	74	56%	44%	68%	133	84	63%	51%	76%	169	130	77%	71%	83%	161	135	84%	78%	90%
	Seen/heard any Take Cover message	133	98	74%	62%	85%	133	112	84%	75%	94%	169	151	89%	84%	95%	162	147	91%	85%	97%
	Heard any malaria message (unprompted)	133	70	53%	44%	61%	133	72	54%	43%	65%	169	112	66%	55%	77%	162	91	56%	47%	66%

Q#	Question	January 2010				April 2010				July 2010				October 2010					
		n	Freq/ mean	%	95% CL	n	Freq/ mean	%	95% CL	n	Freq/ mean	%	95% CL	n	Freq/ mean	%	95% CL		
	Malaria messages heard (unprompted)	70				72				112				91					
	Sleep under or use a net		37	53%			38	53%			84	75%			61	67%			
	Keep surroundings clean		18	26%			12	17%			54	48%			33	36%			
	Effects of malaria		5	7%			26	36%			25	22%			27	30%			
	Causes of malaria		13	19%			10	14%			39	35%			31	34%			
	Treating malaria		0	0%			11	15%			9	8%			7	8%			
	Other		19	27%			6	8%			10	9%			2	2%			
	Don't know/no response		0	0%			7	10%			1	1%				0%			
	Heard Take Cover jingle or radio spot	133	79	59%	46% 73%	133	92	69%	57% 82%	168	101	60%	49% 71%	162	93	57%	45% 70%		
	Pregnant and have net	9	8	89%	52% 100%	17	13	76%	42% 95%	24	16	67%	43% 91%	19	12	63%	38% 88%		
	Pregnant and slept under ITN last night	8	8	100%	63% 100%	13	11	85%	55% 98%	16	16	100%	79% 100%	12	11	89%	69% 110%		
	Received Cellcom ITN text message					133	1	1%		2	0	0%		11	2	18%			

* Proportion for children sleeping under a net is weighted by number of U5 in household

**"Any message" refers to Questions 8, 9, 12 combined

Annex 2: Questionnaire and consent form

[see next pages]

RBHS ITN dipstick survey, form updated 19 October 2010

COUNTY	DISTRICT	COMMUNITY/SETTLEMENT	DATE (DD/MM/YY):
INTERVIEWER :		EA Code:	HOUSEHOLD ID#
<i>Team Supervisor must sign below to confirm that the questionnaire is satisfactorily completed</i>			
RESPONDENT INFORMATION			
NAME		NAME	SIGNATURE
			DATE (DD/MM/YY)

Respondent must be a mother with children under five; if there are more than one available to be interviewed, select one at random.

#	Interview Question	Answers
0	How many women with children less than five years slept in this household last night?	1= One 2= Two 3= Three 4= Four 5= Five 6=Six 7=Seven or more 9= Don't know/No answer
<i>Ask for the names of each of those women with under five, and select one at random; If she does consent to being interview, ask her the following questions:</i>		
1.0	How old are you?	_____ years
2.0	How many children under five slept in this household last night?	0= Zero/none 1= One 2= Two 3=Three 4=Four 5= Five 6=Six 7=Seven or more 9= Don't know/No answer
<i>Ask for the names of each of those children under five, and select one at random; use his or her name in Questions 3.0 and 5.2</i>		
3.0	How old is [NAME]?	1= Less than 12 months 2= 12 to 23 months 3=24 to 35 months 4=36 to 47 months 5=48 to 59 months 9= Don't know/No answer
4.0	Are you pregnant now?	0= No 1= Yes 9= Don't know/No answer
5.0	Do you have any treated mosquito nets in this household?	0= No ⇒ Q#6 1= Yes 9= Don't know/No answer
5.1	Did you sleep under a treated mosquito net last night?	0= No 1= Yes 9= Don't know/No answer
5.2	Did [NAME] sleep under a treated mosquito net last night?	0= No 1= Yes 9= Don't know/No answer
6.0	How long does it take to get from your house to the nearest health clinic or hospital?	1= 1 hour or less 2= 1-2 hours (incl. 2, not 1) 3=2-3 hours (incl. 3, not 2) 4=3-4 hours (incl. 4, not 3) 5=more than 4 hours 9= Don't know/No answer
7.0	Do you have a radio in your household?	0= No 1= Yes 9= Don't know/No answer
8.0	Have you heard any information about malaria on any radio in the past four weeks?	0= No ⇒ Q#9 1= Yes 9= Don't know/No answer
8.1	What was the last message you heard on the radio? <i>(multiple responses allowed)</i>	1=Sleep under or use a mosquito net 2= Keep surrounding clean 3=Effects of malaria 4= Causes of malaria 5=Treating Malaria 8=Other 9= Don't know or no response
8.2	<i>(If Other, write specific response)</i>	
9.0	Have you heard any message on malaria from a chief in the past four weeks?	0= No ⇒ Q#9a.0 1= Yes 9= Don't know/No answer
9.1	What was the last message you heard from a chief? <i>(multiple responses allowed)</i>	1=Sleep under or use a mosquito net 2= Keep surrounding clean 3=Effects of malaria 4= Causes of malaria 5=Treating Malaria 8=Other 9= Don't know or no response
9.2	<i>(If Other, write specific response)</i>	
9a.0	Have you heard any message on malaria from a cultural troupe in the past four weeks?	0=NO ⇒ Q#10 1=Yes 9=Don't know / no response
9a.1	What was the last malaria message you heard from a troupe? <i>(multiple responses allowed)</i>	1=Sleep under or use a mosquito net 2= Keep surrounding clean 3=Effects of malaria 4= Causes of malaria 5=Treating Malaria 8=Other 9= Don't know or no response
9a.2	<i>(If Other, write specific response)</i>	
<i>Play jingle, then ask respondent question 10</i>		
10.0	Have you heard this song before?	0= No ⇒ Q#11 1= Yes 9= Don't know/No answer
10.1	On what radio station did you hear this song? <i>(multiple responses allowed)</i>	1= Radio Nimba 2 = Radio Life 3 = Voice of Reconciliation 4 = Radio Piso 5 = Voice of Tappita 6 = Radio Gbarnga 7 = Radio Cape Mount 8 = ELBC 9= Don't know/ can't remember 10 = UNMIL 11 = Other stations
<i>Play radio spot, then ask respondent question 11</i>		
11.0	Have you heard this message before?	0= No ⇒ Q#12 1= Yes 9= Don't know/No answer
11.1	On what radio station did you hear this message? <i>(multiple responses allowed)</i>	1= Radio Nimba 2 = Radio Life 3 = Voice of Reconciliation 4 = Radio Piso 5 = Voice of Tappita 6 = Radio Gbarnga 7 = Radio Cape Mount 8 = ELBC 9= Don't know/ can't remember 10 = UNMIL 11 = Other stations
12.0	Have you seen or heard any message about malaria in the last four weeks other than what you've already told me about?	0= No ⇒ Q#13 1= Yes 9= Don't know/No answer
12.1	What was the last message? <i>(multiple responses allowed)</i>	1=Sleep under or use a mosquito net 2= Keep surrounding clean 3=Effects of malaria 4= Causes of malaria 5=Treating Malaria 8=Other 9= Don't know or no response
12.2	From what source did you last see or hear it? <i>(multiple responses allowed)</i>	1= Health facility 2= School 3= Market 4= Video club 5= SMS text message 6= Poster, flier, sticker, etc 7= gCHV or TTM 8= Other 9= Don't know/No answer
12.3	<i>(If Other, write specific response)</i>	
13.0	Do you have a mobile phone in this household?	0= No ⇒ Q#14.0 1= Yes 9= Don't know/No answer
13.1	Which sim card(s) are you currently using in your mobile phone? <i>(multiple responses allowed)</i>	1= Lonestar/MTN 2= Cellcom 3= LiberCell 4= Comium 9= Don't know/No answer
13.2	In the past 4 weeks have you received a text message to your phone reminding you to sleep under a mosquito net?	0= No 1= Yes 9= Don't know/No answer
<i>Show simultaneously all five posters, the brochure, and the sticker, then ask respondent question 14</i>		
14.0	Have you seen any of these before?	0= No ⇒ END 1= Yes 9= Don't know/No answer
14.1	Which ones have you seen before? <i>(multiple responses allowed)</i>	1=Poster A 2=Poster B 3=Poster C 4=Poster D 5=Poster E 6=Brochure 7= Sticker 9= Don't know/NA
14.2	Which was the last one you saw?	1=Poster A 2=Poster B 3=Poster C 4=Poster D 5=Poster E 6=Brochure 7= Sticker 9= Don't know/NA
14.3	Where did you see it? <i>(multiple responses allowed)</i>	1= Health facility 2= School 3= Market 4= Video club 5=Palava hut 6=Friend's/neighbor's/own house 7= gCHV or TTM 8= Other 9= Don't know/No answer
14.4	<i>(If Other, write specific response)</i>	

Consent form for RBHS dipstick survey

last updated 30 December 2009

Hello, my name is _____. We are here on behalf of a USAID funded project called RBHS to conduct a survey aimed at learning about the health knowledge and status of people in selected communities.

RBHS is an organization working in collaboration with the Ministry of Health and Social Welfare in Liberia to rebuild basic health services.

Data we will collect during the course of this survey will help NGO's, CHTs, and the Government through the Ministry of Health and Social Welfare to plan and implement appropriate health services. It will also help us to increase the effectiveness of some of our activities.

I would like to ask you some questions regarding health messages you may have seen or heard through various media.

If you agree to participate in this survey, it may take us about 15 minutes and whatever answer you give will be kept strictly confidential and only reported when combined with answers from other families.

Participation in this survey is voluntary. Even if you agree to take part in this survey, you may choose to stop answering any or all questions at any time.

However, we hope that you will agree to take part in this survey since, in fact, your views are important.

Would you be willing to take part in this interview?

No Yes

Community/settlement name _____

District _____

County _____

Name of respondent (print) _____

I have read this consent form or someone has explained it to me. I freely agree to be in the survey.

Signature or fingerprint of subject

Interviewer signature

Date / /
 dd *mm* *yyyy*