

Episcopal Relief & Development / ADDRO PDCU REPORT to AMF

Project Title/Name: Universal LLIN Distribution Campaign in Greater Accra, Northern and Upper West Regions, Ghana



Date Submitted:

25/06/2018

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&

Anglican Diocesan Development
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Bolgatanga

Implementation period: May 2018	Report Date: July 15 th , 2018
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1.0 Introduction

The Anglican Diocesan Development and Relief Organization (ADDRO), in collaboration with Episcopal Relief & Development and with support from the Against Malaria Foundation (AMF), partnered with Ghana's National Malaria Control Program (NMCP)/Ghana Health Service (GHS) and others for a universal Long Lasting Insecticidal Nets (LLINs) campaign in three regions of Ghana, namely: Northern, Upper West and Greater Accra. As part of the LLINs campaign, ADDRO's team conducts Post-Distribution Check-Ups (PDCU) every 6 months. This will be done for a duration of 2.5 years. The purpose of the PDCU is to assess the level of continued net use and provide significant data and locally actionable information to the relevant GHS/NMCP leaders and other partners, to contribute to health intervention decisions and planning.

Four PDCUs have been conducted in the Northern Region. The first was carried out in November 2016, the second in May 2017, the third in November 2017 and the fourth PDCU in May 2018.

This report covers the PDCU at 24 months (fourth PDCU) exercise which was carried out from 7th April to 6th June, 2018 in all the twenty AMF supported districts in the Northern Region of Ghana. During this period, a number of activities were carried out. The main ones included recruitment and training of enumerators and supervisors to carry out the survey, data collection and supervision, retrieval of completed PDCU forms from enumerators and supervisors and data entry.

2.0 Planning for Northern Region PDCU at 24 Months

As part of the planning process for the PDCU at 24 months' activities, ADDRO regional staff had a meeting on the 7th of April to deliberate on the approach to enhance the quality of the survey.

The main issues discussed were:

1. Strategies to use to recruit/replace supervisors and enumerators.
2. Methods of training that will be very effective for new supervisors and enumerators to be able to pick up and properly understand the PDCU tools quickly
3. How to ensure quality data collection by enumerators
4. How to efficiently use different channels of communication to reach supervisors in "overseas" areas (communities usually cut-off during the rainy season) on time.

At the end of the discussion, it was agreed that:

- (a) Only old supervisors and enumerators who performed well in the last PDCU should be considered and new qualified supervisors and enumerators should be recruited to replace those who did not perform well as well as those who will not be available for the PDCU exercise.
- (b) Facilitators provide an in-depth training for enumerators/supervisors especially the new ones on the PDCU data collection exercise
- (c) Ensure that the responsibilities of supervisors and enumerators are clearly spelled out to them during the training
- (d) Before the start of the main training for both enumerators and supervisors, supervisors should be trained for an hour. This was intended to remind/inform supervisors of their roles and responsibilities and how to empower them to deal with issues that may come up in their supervisory duties.
- (e) Enumerators for 5% checks should start data collection after the third day of the main survey. Supervisors to be admonished to give PDCU forms to enumerators for the 5% checks only after the third day of the main survey to ensure that they do not start data collection before the stipulated time.

The dates for the recruitments, training of enumerators and supervisors, data collection, supervision of data collection and retrieval of PDCU forms from enumerators/supervisors were also agreed on during the meeting.

3.0 The PDCU process

The Northern region mass LLINs distribution exercise was carried out from 11th to 17th April, 2016 in all the 20 AMF supported districts. A grace period of one month was given to enable beneficiaries who could not redeem their nets in the first week to do so. The fourth PDCU (PDCU @ 24 months) data collection took place from the 7th to 13th May, 2018 in all the 20 AMF supported districts.

3.1 Consultative Meetings with Ghana Health Service

According to Ghana Health Service policy, they must be informed about the impending PDCU exercise which will take place in the health districts and sub-districts. The ADDRO regional team therefore informed the District Directors of Health Services and/or their representatives in the 20 AMF supported districts about the PDCU at 24 months exercise. This activity took place from 1st to 5th April, 2018. Prior to this activity, the Regional Health Directorate was duly informed about the PDCU at 24 months to pave the way for engagements with the districts.

3.2 Development of data collection tools and sampling of household listings

The form used in the second and third PDCU data collection was the same form used for the PDCU at 24 months' data collection in the Northern Region. The form was the main data collection tool. It was developed by AMF with input from Episcopal Relief & Development and ADDRO. The form contains six key questions to be administered to each household. See Annex 1 for a sample form.

AMF worked on the sampling of households for the 5% main and 5% checks and generated the household lists. An additional 50% household list was generated as “spare” to take care of household heads that might be absent (deceased, relocated, etc.) during the survey period. In generating the household list for the PDCU @ 24 months, AMF changed the methodology and selected fixed numbers of households in each selected community and multiples of that number in larger communities where appropriate. Communities that had fewer than a minimum size (typically 20 households + spares) were excluded. However, very few communities were excluded for not meeting the selection criteria. This was to bring efficiency and avoid cases where enumerators would travel to small communities and only survey a couple of households.

Out of the 1,234 communities to be visited for the 5% main survey, 1,043 communities had 20 sampled HHs each, 79 communities had 40 sampled HHs each, 10 communities had 60 sampled HHs each and 2 communities had 80 sampled HH each to be visited for the survey. With the 5% checks, all the 115 sampled communities had 12 HHs each to be visited for data collection. Twenty four thousand seven hundred and eighty (24,780) households were sampled for the 5% main and 1,380 for the 5% checks for the Northern Region PDCU at 24 months exercise.

3.3 Printing and distribution of data collection tools

Ahead of the data collection, the Northern regional team printed, sorted out and packaged the household lists and PDCU forms according to sub-districts and communities. Each pack (a plastic folder/file) contained one community household list and the PDCU forms based on the number of households sampled in that community. These packets (containing PDCU forms and a community household list) were given out to main enumerators (5% main) through their supervisors during the PDCU training. The forms for the 5% checks were kept by supervisors and only given to the enumerators for the checks after the third day of the main data collection.

3.4 Recruitment/Replacement of Sub-District Supervisors and Enumerators

The ADDRO Northern Regional team used the performance of enumerators and supervisors in the previous PDCU exercises as a basis in the selection of enumerators and supervisors for the PDCU at 24 months. During the recruitment process, priority was given to candidates who had taken part in the first/second/third PDCU data collection and performed well. This strategy was to ensure that experienced and good enumerators/supervisors were recruited for the exercise to ensure quality data collection. Old enumerators and supervisors who did not perform satisfactorily in the previous PDCU exercise were replaced. The recruitment/replacement took place from the 10th to 15th April, 2018.

The criteria for the replacement of supervisors and enumerators is below:

Supervisors:

- Resident in the sub-district
- Minimum qualification of Senior High School Certificate (SSCE)
- Have experience in supervising volunteers (an added advantage)
- Good leadership skills
- Excellent written and verbal communication skills
- Ability to implement activities and accomplish within deadlines
- Ability to motivate enumerators to carry out planned activities to achieve the desired results
- 25 years and above
- Have a motorbike to facilitate their work
- Have basic knowledge in computer use

Enumerators:

- Minimum qualification of Senior High School Certificate (SSCE)
- Be able to speak the local language of the area
- Resident in the community
- Have experience in household surveys (an added advantage)
- Excellent written and verbal communication skills
- Ability to meet targets within deadlines
- 25 years and above

The role of the enumerators was to collect PDCU data by administering PDCU questionnaires to the sampled households and the role of the supervisors was to supervise and provide support to the enumerators during the PDCU data collection.

A total of 269 enumerators were recruited. Out of this number, 203 were old and 66 were new. Ninety-two (92) supervisors were recruited for the survey. Eighty seven (87) of this number were old and 5 were new. Two hundred and eight (208) of the enumerators were recruited for the 5% main data collection and 61 enumerators for the 5% checks data collection. See table 1 below for details of number of enumerators and supervisors recruited for the PDCU at 24 months exercise.

Table 1: Number of Supervisors and Enumerators Recruited

District	# of Enumerators			# of Supervisors		
	New	Old	Total	New	Old	Total
Bole	1	9	10	0	6	6
Bunkprugu	7	8	15	1	4	5
Central Gonja	2	13	15	0	6	6
Chereponi	3	7	10	1	4	5
East Gonja	2	17	19	0	6	6
East Mamprusi	3	15	18	1	4	5
Gushegu	9	16	25	0	5	5
Karaga	4	11	15	0	4	4
Kpandai	5	4	9	0	4	4
Kumbungu	1	13	14	0	5	5
Mamprugu Moagduri	0	8	8	0	4	4
Mion	2	13	15	0	4	4
Nanumba North	11	8	19	0	4	4
Nanumba South	5	10	15	1	3	4
North Gonja	1	7	8	0	4	4

Saboba	3	5	8	0	3	3
STK	1	14	15	0	5	5
Tatale-Sanguli	1	7	8	1	4	5
West Gonja	1	10	11	0	5	5
Zabzugu	4	8	12	0	3	3
Total	66	203	269	5	87	92

4.0 PDCU Trainings

The PDCU trainings were structured and conducted in two stages. The first was a refresher training for ADDRO regional staff. The second was the training for supervisors and enumerators. However, before the combined training session for the enumerators and supervisors, the supervisors were trained for an hour on their roles and responsibilities. The trainings were designed to further enhance the knowledge of the old participants (Supervisors and Enumerators) and also equip the new supervisors and enumerators with knowledge and skills to carry out the post distribution check-up.

4.1 Staff Training

A refresher Training of Trainers (ToT) for ADDRO regional staff was carried out on the 30th of April, 2018 and was moderated by the ADDRO HQ Team and a staff of Episcopal Relief & Development. Each participant demonstrated how to conduct the training of the supervisors and enumerators using the PDCU forms by taking turns to lead in training their colleague staff. This strategy ensured that facilitators were equipped to conduct effective training for the supervisors and enumerators. Participants were also given scenarios to fill out during the ToT to ascertain whether or not they would be able to replicate the same training for supervisors and enumerators at the sub-district level. Finally, participants at the training were also taken through the supervisory checklist for both sub-district supervisors and ADDRO supervisors to enable them effectively supervise the supervisors and enumerators in the PDCU exercise.

4.2 Training of Supervisors

The supervisors were trained for at least an hour before the combined training of the supervisors and enumerators. At some of the centres, the supervisors were engaged after the combined training for supervisors and enumerators. This was as a result of the late arrival of some supervisors. The training of the supervisors took place from the 1st to 5th of May, 2018 in each of the 14 clusters.

They were trained on their specific roles and responsibilities in the entire PDCU exercise including the following:

- Supervise and provide technical support to the enumerators during data collection.
- Vet and correct all forms filled by enumerators
- Fill at least one checklist for each enumerator while he/she is in the field.
- Identify problems and resolve them.

4.3 Training of Supervisors and Enumerators

The supervisors and enumerators were trained for 5 days (May 1st to 5th, 2018) at 14 training centres. The districts and sub-districts were clustered in such a way as to facilitate easy travel by participants. The training focused on the PDCU form since it is the main tool for the data collection. The main areas of the training were:

- Test participants' ability to remember the main questions in the PDCU form by asking participants (the old ones) to recap what is entailed in the PDCU data collection form
- A brief overview of the AMF program, partners and strategy of PDCU data collection. This was also done to let new participants know who they are working with so as to be able to inform household heads about the organizations involved. It was also to remind old participants on what the program and the PDCU exercise entail.
- Roles and responsibilities of supervisors and enumerators.
- Sharing of experiences and challenges of the last PDCU by enumerators and supervisors: About 15 minutes was given for participants to share their experiences in the previous PDCU activities. Some of the experiences shared and the actions taken were:
 1. Some household heads did not allow enumerators into their rooms to see nets hung. They had to use the spare list since they needed to see the nets to determine its condition.
 2. Long distances between sampled communities for data collection. Enumerators said they had to sleep in those communities in order to meet HH heads for the interviews.
 3. Some household heads could not remember the number of nets they were given. With this problem, enumerators resorted to the use of the spare list
- Definition of key terms/terminologies in the PDCU data collection forms (e.g. AMF, Household ID, First name, Last name, Brand of Net, Very Good, Ok, Poor, etc.)

- How to collect data using the PDCU form: A supervisor was chosen to demonstrate how s/he understands the form to the entire group. The supervisor explained every detail on the household list and the PDCU form and how to use the forms. Questions were allowed and mistakes addressed. After this, ADDRO staff took participants through how to fill the PDCU form, how to use the HH list and how to ask questions on the PDCU form to get the appropriate responses.
- Steps for entering households (community entry skills): Participants were taken through the process of household entry and the communication skills involved when collecting data. These included greeting the household head and asking of their health, keeping eye contact, paraphrasing responses for confirmation, etc.
- Filling out a PDCU form with a given scenario: The PDCU form was drawn on flip chart using markers. A scenario on LLINs was used and the answers were written on the flip chart. Drawing the PDCU form on the flip chart was to encourage active participation and make enumerators/supervisors concentrate on understanding the form. Participants were also given printed out scenarios to test their understanding on how to fill the form.
- Questions and Answers: A period of time was allotted for questions to be asked. Some of the questions asked included: (1) *“if I visited a household head who tested positive for malaria two months ago, would I still record it on the questionnaire?”*, (Answer is *No because the PDCU requests for data on the last month which is one month*) (2) *“if a member of a household did not sleep under a net the previous night, will that member still be counted as a member of the household?”* (this refers to question 6 on the form), (Answer – *yes, because being a member of a HH is different from LLINs usage*), (3) *“what is the difference between table 1 and table 2 in the PDCU form? (Answer - Table 1 records all nets found hung in the HH but table 2 captures only universal coverage campaign nets - only nets received with the coupon).*
- Field practical test: Participants were put into groups and asked to move into nearby households to practice filling the PDCU form and present their findings to the rest of the groups for discussion. New enumerators were asked to lead each group to nearby households so as to make them conversant with the way it is done. At some training centers where it was difficult for participants to conduct the field test because communities close

to the training centers are part of the sampled communities for the survey, a lot of role plays and scenarios were done instead.

- Participants were made to translate all questions on the PDCU form into the local languages of the area to enable them ask the questions correctly and elicit the right responses from household heads.
- The use of role plays on how to enter the households and ask questions to fill the PDCU form was also done.

In all, 361 people were trained for PDCU exercise. Out of this number, 92 were supervisors and 269 were enumerators.

Table 2: Number of Supervisors and Enumerators Trained for NR PDCU @ 24 Months

District	# of Enumerators Recruited	# of Enumerators Trained (A)			# of Supervisors Recruited	# of Supervisors Trained (B)			Total (A&B)
		New	Old	Total		New	Old	Total	
Bole	10	1	9	10	6	0	6	6	16
Bunkpurugu	15	7	8	15	5	1	4	5	20
Central Gonja	15	2	13	15	6	0	6	6	21
Chereponi	10	3	7	10	5	1	4	5	15
East Gonja	19	2	17	19	6	0	6	6	25
East Mamprusi	18	3	15	18	5	1	4	5	23
Gushegu	25	9	16	25	5	0	5	5	30
Karaga	15	4	11	15	4	0	4	4	19
Kpandai	9	5	4	8	4	0	4	4	12
Kumbungu	14	1	13	14	5	0	5	5	19
Mamprugu Moagduri	8	0	8	8	4	0	4	4	12
Mion	15	2	13	15	4	0	4	4	19
Nanumba North	19	11	8	19	4	0	4	4	23
Nanumba South	15	5	10	15	4	1	3	4	19
North Gonja	8	1	7	8	4	0	4	4	12
Saboba	8	3	5	8	3	0	3	3	11
STK	15	1	14	15	5	0	5	5	20
Tatale-Sanguli	8	1	7	8	5	1	4	5	13
West Gonja	11	1	10	11	5	0	5	5	16
Zabzugu	12	4	8	12	3	0	3	3	15
Total	269	66	203	269	92	5	87	92	361

4.4 Challenges and Actions Taken

1. Though several supervisors and enumerators have participated in this activity more than once, they still made some minor mistakes. For example, some supervisors and enumerators ticked at places meant for figures (number of children who slept in a net last night - instead of indicating the number who slept, they ticked). Some trainees assumed that the number of people who slept under a net should be equal to the total number of people in household. Explanations were provided to such enumerators/supervisors and they understood the correct way of filling the form.
2. Some of the trainings did not start at 8:30am as planned but started at 10:00am because of the late arrival of enumerators and supervisors. Training therefore was extended to 5:30 pm in order to cover all topics.
3. At six training centers, participants could not be taken to nearby communities to practice filling of PDCU forms because of the late start of training. In those instances, more role plays were done to enhance enumerators' skills.

5.0 Data Collection

Data collection was carried out by the two hundred and sixty-nine (269) trained enumerators from the 7th to 13th of May, 2018. The data collection involved enumerators using the sampled HH list containing detailed information of the HH head - their full names, community, household location, house number and phone number to enable them locate the sampled household heads to interview. The enumerators were directly supervised by ninety-two (92) sub-district supervisors daily to ensure effective data collection. On the average, each enumerator was to visit at least 120 households, which is about 18 households a day for seven days.

5.1 Data Collection Challenges and Actions Taken

- ADDRO could not get enumerators from some hard to reach communities for the data collection. This is because during the recruitment, it was not possible to get qualified enumerators/supervisors in those communities. As such, enumerators from different communities were assigned to those areas.

- The enumerators who were assigned to travel to these hard to reach areas to collect data also faced transportation problems including breakdown of their motorbikes. ADDRO had to support those enumerators and supervisors with money to meet the extra cost they incurred on transportation.

6.0 Supervision of PDCU data collection

The data collection by enumerators was supervised by the 92 trained supervisors. Each supervisor had a number of enumerators in his/her sub-district to supervise. The number of enumerators supervised by each supervisor depended on the size of the sub-district but on average, one supervisor was responsible for supervising three enumerators during the data collection. Each supervisor supervised all the enumerators at their various locations/sites. Supervisors checked the PDCU data collection forms daily to ensure that they were correctly filled before endorsing and collecting them. The supervisors used the supervisor's checklist for supervision; see Annex 2 for a sample of the checklist.

ADDRO and Episcopal Relief & Development staff also supervised the data collection exercise in the various sub-districts. Twelve (12) out of twenty (20) districts were sampled of which 35 out of 92 sub-districts in these sampled districts were visited and supervised by the ADDRO/Episcopal Relief & Development teams. Eighty-six (86) enumerators and 30 supervisors were met in those sub-districts. See table 3 below.

Table 2: Number of Supervisors and Enumerators visited

Districts	# of Sub - Districts	# of Sub Districts visited	# of Supervisors	Supervisors met	# of Enumerators	# of Enumerators Met
Bole	6	2	6	1	10	6
Bunkprugu	5	5	5	5	15	8
Central Gonja	6	3	6	3	15	8
East Mamprusi	5	4	5	4	19	11
Nanumba North	4	3	4	2	19	10
Nanumba South	4	2	4	2	15	10
North Gonja	4	2	4	2	8	4
Kpandai	4	3	4	3	8	4
Saboba	3	2	3	2	8	4

S.T.K	5	3	5	2	15	9
Tatale-Sanguli	5	3	5	2	8	4
West Gonja	5	3	5	2	11	8
Total	56	35	56	30	151	86

6.1 Observations during supervision by ADDRO Team

- The supervision teams observed that in many communities, the nets distributed were PermaNet. This was obtained from some of the completed PDCU forms.
- Some enumerators who wanted to commence data collection in the hard to reach communities travelled to such communities a day before the agreed survey date.
- Household heads co-operated with enumerators by providing relevant household information.

6.2 Challenges and Actions taken during supervision

- Difficulty in reaching some of the enumerators because of mobile network problems. Such areas have some locations in the community that one can get the network for calls. ADDRO sent SMS messages to the enumerators' phone and any time they get to the location where there is network, they call. ADDRO staff also asked enumerators in nearby communities to tell those enumerators to call them.
- Some households in the Wonjuga sub-district did not want to co-operate especially on the first day of the survey on account that GHS did not inform them through community announcement that such a survey will be carried out. However, after some opinion leaders in the community intervened, they obliged to co-operate and supported the enumerators to conduct the survey in the selected communities.

7.0 Collection of completed PDCU forms and transportation to Data Centre

7.1 Collection of completed PDCU forms

ADDRO Northern Regional team retrieved the completed PDCU forms from the supervisors and enumerators from 17th to the 24th of May. The regional team visited all sub-districts in the 20 AMF supported districts to collect the PDCU forms. Kalba, Kpalbe and Abramase sub-districts forms

were collected on the 31st of May because the supervisors and enumerators could not be reached to inform them of the dates for ADDRO staff visit for collection of forms.

ADDRO staff reviewed each PDCU form for accuracy and completeness before collection and payment of enumerators and supervisors for the work done. Each enumerator was paid according to the number of forms correctly filled while supervisors were paid a fixed amount for the period of supervision.

7.2 Challenges and Actions taken

Three sub-districts (Kalba, Kpalbe and Abrumase) completed PDCU forms could not be collected and transported on scheduled date. This was because the sub-districts are overseas areas and the supervisors and enumerators could not be reached to inform them of the dates for the collection of the PDCU forms. ADDRO staff later arranged with the supervisors and enumerators who travelled to a location for ADDRO staff to meet them for the forms.

7.3 Transportation of Collected forms to data Centre

All sub-districts completed PDCU forms except Kalba, Kpalbe and Abrumase sub-districts were packaged and transported to the data entry centre at the ADDRO headquarters in Bolgatanga on 26th of May, 2018. The Kalba, Kpalbe and Abrumase sub-districts forms were transported on the 6th of June, 2018. Each community's PDCU forms were packaged in a plastic file called *My Clear Bag*. The various community forms in *My Clear Bags* were then parcelled in brown envelopes per sub-district and clearly labelled. The brown envelopes were put into small jute bags (each district had one jute bag which were also labelled accordingly). The jute bags containing the forms were then transported to the data entry centre at the ADDRO Headquarters in Bolgatanga.

A total of 25,328 forms were transported to the data centre. This comprised 24,125 forms for 5% main and 1,203 forms for the 5% checks.

8.0 PDCU Data Entry:

AMF added PDCU at 24 months' data entry field to the Northern Region PDCU data entry site. Data entry started on 28th May, 2018 and ended on 6th June, 2018. However, forms from three (3) sub-districts (Kalba, Kpalbe and Abrumase) were entered on 13th June, 2018. Thirty (30) data entry clerks did the data entry for the Northern Region PDCU @ 24 months. A total of 24,125

households PDCU forms for the 5% main and 1,203 PDCU forms for the 5% checks were entered by the clerks.

8.1 Results of PDCU

A total of 24,125 households' data was entered into the AMF database as against 24,780 target households; representing 97%. The reason for the shortfall in the number of forms expected from the field is that some households could not be located either because they had relocated from the community or due to death of the HH heads. Despite the use of the spare household list, the target could not be met.

A total of 69,590 LLINs were reported as received by the 24,125 households visited during the PDCU survey. Out of this total LLINs received, 59,947 (86%) were found hung over sleeping spaces; 2,651 (4%) were present in the households but not hung over sleeping spaces. 8% were not present in the households (nets worn out hence not usable) and 2% not present in the households for other reasons than worn out. Some major reasons (other than nets worn out) respondents gave for nets received but not present in the households were: nets given to wards to take to school and nets given to other family members in different communities. See table 4 below for summary of nets received and their status (copied from the AMF database on 21th June, 2018).

Table 3: LLINs received and their status

AMF Nets														
Region	Households			Nets Received	Nets Hung			Present not hung		Missing		Worn out/not usable		Missing + Worn Out
	Target	# entered	%	#	#	%	#	%	#	%	#	%	%	
Northern	24,780	24,125	97	69,590	59,947	86	2,651	4	1261	2	5,731	8	10	

8.2 Comparison of Results of PDCU at 6month, 12 months, 18 months and 24 months

Analysis of the results of PDCU at 6 months, 12 months, 18 months and 24 months shows the following:

1. PDCU at 24 months had a higher percentage of households interviewed (97%) than PDCU at 6 month, 12 months and 18 months which achieved 82%, 94% and 95% respectively.

2. Number of LLINs found hung was lower at PDCU at 24 months as against PDCUs at 18 months, 12 months and 6 months (90% of LLINs hung at PDCU at 18 months, 87% hung at PDCU at 12 months, 90% at PDCU at 6 months and 86% at PDCU at 24 months). The reason for the increase in the number of LLINs hung may be because of the ADDRO/Episcopal Relief & Development monthly sensitisation of households on LLINs usage and care.
3. LLINs present in the households but not hung was lower during PDCU at 24 months than PDCUs at 12, 18 and 6 months. That is, 4% at PDCU at 24 months, 5% at PDCU at 18 months, 9% for PDCU at 12 months and 7% for PDCU at 6 months. The reasons for LLINs present but not hung include: have fewer sleeping spaces than LLINs, LLINs producing heat and LLINs reserved for future use.
4. The percentage of LLINs worn out was higher during PDCU at 24 months than PDCUs at 18 months, 12 months and 6 months (4%, 3%, 2% and 1% respectively). This implies that the LLINs gets worn out with time.

Table 5: Comparison of results of PDCUs @ 6, 12, 18 and 24 months

Region	PDCUs			
	PDCU @ 6 months	PDCU @ 12 months	PDCU @ 18 months	PDCU @ 24 months
PDCU				
Target HHs to be visited	25,504	25,542	25,551	24,780
Actual HHs visited/entered in to database	20,949	23,940	24,171	24,125
%	82%	94%	95%	97%
Nets received	64,823	67,899	66,695	69,590
Net hung	58,331	58,793	60,031	59,947
% of Net hung	90%	87%	90%	86%
Nets present but not hung	4,696	6,119	3,250	2,651
% of Nets present but not hung	7%	9%	5%	4%
Nets Missing	1,355	1,520	1342	1,261
% of Nets Missing	2%	2%	2%	2%
Nets worn out/not usable	441	1,467	2,072	5,731
% of Nets worn out/not usable	1%	2%	3%	8%
% of Nets missing+ worn out/not usable	3%	4%	5%	10%

9.0 Analysis of monthly malaria cases – Northern Region – November, 2017 to April, 2018

NB: *This section will be completed when malaria cases data for the period is received from Ghana Health Service.*

10.0 Conclusion

The PDCU at 24 months was successfully planned and conducted. It built on experiences and lessons from the PDCUs at 6, 12 and 18 months.

The number of correctly filled PDCU forms entered into the AMF database was 97%. This is an improvement on the three previous PDCUs.

Annex 1: PDCU Form



POST-DISTRIBUTION CHECK-UP OF MOSQUITO NET USAGE

Country/Region: GHANA/NORTHERN	District name:
Date of distribution: APR - MAY 2016	Sub-District name:
Date of this survey:	Community name:

Household ID:

PLEASE WRITE IN CAPITALS

To the Household Head In the past, you received mosquito nets for free in a community distribution. We are conducting a survey of randomly selected households to assess net usage and condition. We would like to ask your permission to enter your home to gather this information.

I agree to allow you to enter my home, in my presence, to assess the use and condition of my mosquito nets. Signature/Thumb Print of Household Head

Name of the Household Head First name Last name

Contact Number

1. How many regularly used sleeping spaces are there in the household?

2. Please complete the following table for all nets found hanging in the household:
(If there are zero nets found hanging, skip to question #3)

	Brand of net (tick one)			Net distributed in recent mass distribution?	Net condition (tick one)			How many slept under this net last night?				Net condition
	Olynet	Perma-Net	Other		Very Good	OK	Poor	# Children Under 5	# Children 5 to 18 yrs	# Preg W	# Other adult	
Example	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	1		1		Very Good fewer than 2 holes of less than 2cm each
Net 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					OK fewer than 10 small holes
Net 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					Poor more than 10 small holes or 1 big hole, larger than 10 cm
Net 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					if there are more than 10 nets continue on another form (and mark both forms).
Net 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Net 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Net 6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Net 7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Net 8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Net 9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Net 10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					

3. Of the nets received in the recent universal coverage campaign ONLY:

Number originally received	Hung sum of <input checked="" type="checkbox"/> ticked above	Present but not hung *	Not present	
			Worn out	Other #
	=	+	+	+
*Reason:				

4. Does the household head know how to hang and use a net correctly? Yes / No
Ask the household head to demonstrate how the nets are used at night if not obvious from the nets hanging

5. How many people in this household have had blood-test diagnosed malaria in the last month?

6. How many people are there in this household?

CERTIFICATION:
I certify the information in this form is correct

Surveyor's name and position:

Supervisor's name and signature:

Official Stamp

Household ID:

PLEASE WRITE IN CAPITALS

To the Household Head In the past, you received mosquito nets for free in a community distribution. We are conducting a survey of randomly selected households to assess net usage and condition. We would like to ask your permission to enter your home to gather this information.

I agree to allow you to enter my home, in my presence, to assess the use and condition of my mosquito nets. Signature/Thumb Print of Household Head

Name of the Household Head First name Last name

Contact Number

1. How many regularly used sleeping spaces are there in the household?

2. Please complete the following table for all nets found hanging in the household:
(If there are zero nets found hanging, skip to question #3)

	Brand of net (tick one)			Net distributed in recent mass distribution?	Net condition (tick one)			How many slept under this net last night?				Net condition
	Olynet	Perma-Net	Other		Very Good	OK	Poor	# Children Under 5	# Children 5 to 18 yrs	# Preg W	# Other adult	
Example	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	1		1		Very Good fewer than 2 holes of less than 2cm each
Net 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					OK fewer than 10 small holes
Net 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					Poor more than 10 small holes or 1 big hole, larger than 10 cm
Net 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					if there are more than 10 nets continue on another form (and mark both forms).
Net 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Net 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Net 6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Net 7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Net 8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Net 9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Net 10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					

3. Of the nets received in the recent universal coverage campaign ONLY:

Number originally received	Hung sum of <input checked="" type="checkbox"/> ticked above	Present but not hung *	Not present	
			Worn out	Other #
	=	+	+	+
*Reason:				

4. Does the household head know how to hang and use a net correctly? Yes / No
Ask the household head to demonstrate how the nets are used at night if not obvious from the nets hanging

5. How many people in this household have had blood-test diagnosed malaria in the last month?

6. How many people are there in this household?

Annex 2: Checklist for PDCU Supervision

GHANA AMF SIX-MONTHLY PDCU - SUPERVISORY CHECKLIST

COMMUNITY LEVEL SUPERVISION

FOR USE BY SUB-DISTRICT SUPERVISORS

Instruction for sub-district supervisors: Fill form for each enumerator during the PDCU data Collection.

District _____ Sub-district _____

Community _____ Date _____ Time _____

Name of supervisor _____ Signature _____

1. Does the enumerator have adequate number of PDCU forms needed for the day's work?
Yes/NoIf No, why?.....
2. Observe the enumerator collect data in one household from start to finish and record the following:
 - 2.1. Record the start time here (e.g. 2.43pm)
 - 2.2. Did enumerator greet the household head? Yes/No
 - 2.3. Did enumerator explain the purpose of the visit? Yes/No
 - 2.4. Did enumerator ask for household head's Consent before interview? Yes/No
 - 2.5. Did enumerator ask household head to sign or thumbprint PDCU form? Yes/No
 - 2.6. Did enumerator fill the details of HH head (names & phone number) Yes/No
 - 2.7. Did enumerator check the number of LLINs household received during campaign?
Yes/No
 - 2.8. Did enumerator ask of the condition of LLINs in the HH? Yes/No
 - 2.9. Did enumerator ask of number of people who slept under LLINs the previous night
Yes/No
 - 2.10. Did enumerator ask of nets hung, not present etc. Yes/No

2.11. Did enumerator ask if HH head know how to hang and use nets correctly Yes/No?

2.12. Did enumerator ask how many people in HH had blood-test diagnosed malaria in the last month?

Yes/No?

2.13. Did enumerator ask how many people are in the HH Yes/No?

2.14 Record the finish time here (e.g. 2.57pm)

(Explain to the enumerator any corrections and improvements required in private.)

3. Select one completed PDCU form and follow-up to the HH and verify the following information:

4. Ask the head of the household if enumerator visited the household

5. If yes to 4 Ask/check the following

5.1. The number of LLINs received.....

5.2. The number hanging.....

5.3. The number of people in the HH.....

6. Does 5.1, 5.2 and 5.2 agree with information on completed form Yes/No.? If no find out why.

7. What problems were observed and what corrective actions were taken? Use the following table below.

No	Problems observed	Corrective action taken

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7. Enumerate 2 key observations/lessons learnt

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Annex 3: Detailed Malaria Cases data

To be inserted when malaria case data is received from Ghana Health Service.