

Episcopal Relief & Development / ADDRO PDCU REPORT to AMF

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



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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 team is to conduct Post-Distribution Check-Ups (PDCU) every 6 months 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.

This report covers the first PDCU exercise carried out from 7th to 19th March, 2017 in the Upper West Region. The PDCU was carried out in all the eleven (11) AMF supported districts in the region.

2.0 PLANNING FOR THE PDCU:

Prior to the PDCU, ADDRO Headquarters (HQ) staff had series of discussions mainly via telephone with the ADDRO Upper West regional team on how to adequately prepare for an effective PDCU data collection exercise. Some of the preparatory discussions included:

- Recruiting the enumerators and supervisors
- Printing and packaging of PDCU forms according to communities/districts
- Clustering of districts for the enumerators/supervisors training
- Logistical requirements

3.0 THE PDCU PROCESS

The Post Distribution Check-Up (PDCU) involves sampling of households that benefitted from the LLIN campaign for data collection including checks on the condition and usage of the LLINs every six months.

The actual mass distribution (one week exercise) in the Upper West region was carried out from 5th to 10th September, 2016, with a one month grace period given to enable beneficiaries who could not redeem their nets within the one week mass distribution period to do so. Accordingly, the first 6-monthly PDCU data collection was carried out from 13th to 19th March, 2017 in all the 11 AMF supported districts concurrently. ADDRO planned and carried out a series of activities to help achieve a successful PDCU in the Upper West Region. Activities undertaken included:

- Development of PDCU data collection tool and generation of sampled household lists
- Printing and packaging of PDCU tools/forms
- Recruitment of supervisors and enumerators
- Capacity building for ADDRO regional staff on AMF data collection tool
- Training of supervisors and enumerators on AMF data collection tool
- PDCU data collection by enumerators
- Monitoring/Supervision of PDCU data collection
- Collection of completed PDCU forms from supervisors
- Transportation of PDCU forms to Data Entry Center

3.1 Development of PDCU Data collection tool and Household List

The PDCU form for the Upper West region data collection was developed by AMF. The form contains six key questions to be administered to each household. See Annex 1 for a sample form. AMF sampled the households for the 5% main and 5% checks and generated the household list from the database. Learning from the previous PDCUs in Northern and Greater Accra Regions where the additional 30% households list generated as “spare” was found to be inadequate to take care of household heads that might be absent (deceased, relocated, etc.) during the survey, the percentage for the spare list was increased to 50% for the Upper West Region PDCU. A total of 11,706 households were sampled for the 5% main and 962 for the 5% checks for the Upper West region PDCU exercise.

3.2 Printing and packaging of PDCU data collection tools/forms

ADDRO HQ team oriented the Upper West regional staff on how to print, sort out and package the household lists and PDCU forms according to sub-districts and communities. Each pack or plastic folder contained one community household list and the PDCU forms based on the number of households sampled in that community. These plastic folders (containing PDCU forms and household list) were given out to enumerators through their supervisors during the PDCU training. The number of households to be visited by each enumerator each day was reduced from 25 to 20. The reduction was informed by lessons learnt from the previous PDCUs where enumerators had much challenges/difficulties visiting 25 household heads each day (due to dispersed nature of households and the need to make at least three revisits on missed household heads during first visit). The number of enumerators per community/sub-district was therefore determined based on this agreed standard (20 households' visits per day per enumerator).

3.3 Consultative Meetings with Ghana Health Service

The ADDRO team had consultative meetings with the regional and district health administrations of GHS to brief them on the first phase of the PDCU in the region and to seek their continuous cooperation and support for the post campaign activities, particularly, with the monthly malaria case rate data needed from each of the districts in the region. The consultative meetings with Ghana Health Service at the district levels were held between 14th and 28th February concurrently with the recruitment of Enumerators and Supervisors. During the consultative meetings, the GHS at the regional and district levels were made to understand that the enumerators and supervisors to be recruited will be independent community members and not GHS paid staff.

3.4 Recruitment of Enumerators and Supervisors

The recruitment of independent Enumerators and Supervisors for the Post Distribution Check-Up in the Upper West Region was done from 15th to 28th February, 2017. Prior to the recruitment, the positions were advertised with advertisements pasted on the notice boards of all sub-districts and District Health Administrations (DHAs) for interested eligible candidates to apply. In each

district/sub-district, one officer (resident in the district/sub-district) was identified as the contact person for all applicants to send their applications to. Qualification and experience needed to be a Supervisor included:

- Resident in the sub-district
- Minimum of Senior High School (SHS) Certificate or higher in any related field from any recognized institution
- Experience in supervising enumerators
- Should have good leadership skills
- Excellent written and verbal communication skills
- Ability to implement activities to meet deadlines
- Must be a team player
- Ability to motivate enumerators to carry out planned activities to achieve the desired results
- Age limit 25 years and above

The qualification for Enumerators included the following:

- Minimum of Senior High School (SHS) Certificate or higher in any related field from any recognized institution
- Resident and able to speak the local language of the area
- Excellent written and verbal communication skills
- Age limit 25 years and above

ADDRO regional team visited all seventy (70) sub-districts and seven out of the eleven DHAs to vet applications and shortlisted qualified candidates. During the selection process, another important criterion considered was proximity of enumerators and supervisors to sampled communities. Qualified shortlisted persons were contacted on phone for the PDCU training at various training centers.

Details of the number of Enumerators and Supervisors recruited are shown in table 1 below:

Table 1: Enumerators and Supervisors recruited

District	Number of Enumerators Recruited	Number of Supervisors Recruited	Total Enumerators & Supervisors Recruited
DBI	7	5	12
Nadowli/ Kaleo	13	8	21
Jirapa	14	9	23
Wa-East	12	8	20
Wa-West	13	6	19
Lambussie	7	5	12
Wa-Municipal	19	6	25
Nandom	9	5	14
Sissala West	8	5	13
Sissala East	13	7	20
Lawra	9	6	15
Total	124	70	194

3.5 Recruitment Challenges and Action taken

Reaching out to some enumerators and supervisors via phone for clarification was challenging due to bad network connectivity in some sub-districts particularly Wa-East District and some parts of Sissala East District.

To address this challenge, in some sub districts, example Yala and Nanvile, ADDRO team moved to the sub-districts to meet the enumerators and sub-district supervisors. In some areas with unstable network connectivity (Billaw in the Wa East district), messages were sent via phone to enumerators and sub-district supervisors to call back anytime they moved to locations

with better network connectivity. Though it was difficult calling in these areas, messages via phone were delivered anytime a person moved to a location with better network connectivity.

4.0 PDCU TRAININGS

4.1 Training of ADDRO Regional Staff, Training of Trainers (TOT)

ADDRO headquarters staff (Programme Health Coordinator and M&E Officer) organized a one day Training of Trainers (ToT) for the ADDRO Regional Staff in the Upper West region.

This TOT was aimed at building the capacity of the regional staff on the PDCU data collection form to help organize cascade training for the Enumerators and Supervisors. The one day TOT was held on 7th March, 2017 at ADDRO regional office in the Upper West Region. Key topics covered during the training included:

- Household entry for PDCU data collection
- PDCU form and explanation of terminologies
- Translation of some questions/terms on the PDCU form into the local languages
- Practice filling PDCU forms using scenarios
- Sharing of experiences, lessons and best practices from Greater Accra and Northern Region PDCU exercises
- Proper way of hanging LLINs

This training was very participatory for all the three officers to understand the PDCU form. Questions were asked for more clarification and understanding of the PDCU form.

4.2 Training of Enumerators and Supervisors

Training of Enumerators and Supervisors for the Post Distribution Check Up in Upper West Region lasted for four (4) days; from 8th to 11th March, 2017. The eleven (11) districts in the region were zoned /clustered into seven (7) based on proximity for the PDCU trainings. Two training teams were formed, one ADDRO HQ staff with at least one Upper West regional staff and the number of clusters shared among the teams. Of the total 124 enumerators recruited, 4 did

not turn up for the training while one supervisor out of the 70 recruited did not also turn up for the training. When contacted, the four enumerators and the sub-district supervisor said they had travelled outside their districts for other activities.

The number of households that the enumerators who did not turn up for the training would have visited were added to the enumerators they were supposed to work with within the same communities or nearby communities. Enumerators under the sub-district supervisor who did not turn up for the training were supervised by the supervisor in the nearby/closest sub-district.

The following topics were covered during the trainings for the enumerators and supervisors:

- Brief background to AMF, Episcopal Relief & Development and ADDRO
- Rationale of the PDCU
- Roles and responsibilities of both supervisors and enumerators.
- Going through the PDCU form
- Discussions and explanations of terms used in the PDCU form
- Discussion of supervisory checklist with the supervisors.

The training strategies adopted during the training of the supervisors and enumerators included the following:

- Each participant was given an opportunity to read at least one line on the data collection tool and explain the terms the way he/she understands it.
- Written scenarios were given to all participants to practice filling the PDCU forms.
- Discussion and correction of the filled PDCU forms using the scenarios
- Translating the terms on the PDCU into the local dialects taking into consideration the culture of the community.
- Practical sessions where participants were put into groups to visit a few nearby households to practice filling the forms.

Table 2 below gives details on enumerators and supervisors trained for the PDCU exercise.

Table 2: Number of Supervisors and Enumerators recruited and trained

Name of District	Enumerators Recruited	Supervisors Recruited	Enumerators Present for Training	Supervisors Present for the Training	Total Enumerators & Supervisors Trained	Date of Training
Wa-Municipal	19	6	19	6	25	11/03/17
Wa-West	13	6	12	6	18	11/03/17
Wa-East	12	8	11	8	19	08/03/17
Nadowli	13	8	13	8	21	09/03/17
Jirapa	14	9	13	8	21	10/03/17
Lawra	9	6	9	6	15	10/03/17
Nandom	9	5	9	5	14	11/03/17
Lambussie	7	5	6	5	11	11/03/17
Sissala West	8	5	8	5	13	10/03/17
Sissala East	13	7	13	7	20	09/03/17
DBI	7	5	7	5	12	09/03/17
TOTALS	124	70	120	69	189	

4.3 Training Challenges and Action taken

There was no major challenge except that a few participants had difficulty understanding some aspects of the PDCU form. The specific question that appeared challenging for these people was question two: filling the table about number of LLINs hanged and the specific age group who slept under the net. These participants were given special attention until they understood the entire PDCU form. Moreover, practice filling of the PDCU form with the given scenarios and visiting nearby houses for the practical sessions helped them to be conversant with filling the PDCU form.

5.0 DATA COLLECTION

The Upper West PDCU data collection started on March 13th to March 19th 2017 in all communities. The enumerators visited sampled households and completed the PDCU form for each household. After a successful data collection from each household, enumerators educated and demonstrated to the household heads, the proper way of hanging LLINs if the household

head did not know how to hang the nets correctly or where the nets observed were not hung correctly. In instances where the nets were available but were not hung, the enumerators encouraged the beneficiaries to hang them and sleep under them.

The supervisors monitored each of their enumerators daily to ensure the data collection was properly carried out. Averagely, one sub-district supervisor was responsible for supervising two enumerators during the data collection. Each sub-district supervisor made time to supervise all the enumerators at their various locations/sites. They checked the data collection sheets/forms to ensure that they were correctly filled before endorsing and collecting them. The supervisors used the sub-district supervisor's checklist for supervision; see Annex 2. The sub-district supervisors and enumerators were also supervised and monitored by ADDRO regional and HQ staff and Episcopal Relief & Development Program Officer during the PDCU data collection exercise. All the 120 enumerators and 69 supervisors trained for the data collection were involved in the collection of the 5% main data and the 5% checks data.

6.0 SUPERVISION OF DATA COLLECTION

To ensure high data quality, ADDRO/Episcopal Relief & Development monitored the data collection by enumerators and supervision by sub-district supervisors on the field. The team monitored all the 11 districts in the Upper West region from 13th to 19th March, 2017.

The purpose of the monitoring was to ensure that all enumerators and supervisors were on the field for the PDCU data collection. It also offered the team the opportunity to go through the completed forms and make any corrections where needed.

The monitoring involved ADDRO/Episcopal Relief & Development staff visiting some sampled households to find out if they were visited by enumerators for data collection. The monitoring team also went through the filled PDCU forms of the enumerators on the field for accuracy checking and corrections where necessary.

After the training of the enumerators and the supervisors, ADDRO Programme Coordinator and M&E Officer monitored one district (Sissala East, Tumu) on March 13th, 2017. Subsequently, two teams were constituted to monitor the remaining ten (10) districts in the region. Head of programme for ADDRO and Program Officer for the AMF program from Episcopal Relief & Development each paired with ADDRO regional staff in Wa for the monitoring. This monitoring continued throughout the PDCU data collection period.

The details of the monitoring are found in the table below:

Table 3 - Number of Enumerators and Supervisors met during monitoring visit.

Date of visit	District visited	No. of Sub districts	No. of Sub districts Visited	No. of Enumerators	Enumerators seen on the field	No. of Supervisors	Supervisors seen on the field
13/03/17	Sissala East	7	6	13	8	7	5
14/03/17	Wa- East, Finsi	6	4	11	11	8	5
14/03/17	Wa-Mun.	6	4	19	13	6	3
15/03/17	Lambussie	6	5	6	6	5	3
15/03/17	Wa-West	6	6	12	8	6	4
16/03/17	Nandom	5	4	9	7	5	4
16/03/17	Nadowli/ Kaleo	8	6	13	9	8	5
17/07/17	Sissala West	4	3	8	5	5	3
20/03/17	Jirapa	8	6	13	11	8	6
21/03/17	Lawra	5	4	9	9	6	3
22/03/17	DBI	4	4	7	5	5	4
Totals		65	52	120	92	69	45

6.1 Data collection challenges and action taken

Some of the challenges encountered during the monitoring and supervision were;

- In the urban areas, some household heads could not be contacted because they had permanently relocated to unknown destinations. In the rural areas, some HH heads had temporarily travelled to the Southern parts of Ghana as Upper West was in the dry season which is an idle period for rural farmers. In these cases, the spare lists were used.
- A few households had incorrect addresses, names, contacts and house locations on the list provided by AMF. Community volunteers who took part during the household registration exercise were contacted to assist enumerators identify such households.
- Some minor errors by enumerators such as filling the form using small letters instead of capital letters, leaving blank spaces instead of zero when nobody slept under nets the previous night and forgetting to let the household head sign were observed. These errors were corrected during the monitoring.
- One enumerator in the Bissisan sub-district in the Sissala East District had a little difficulty understanding the form. He was taken through the PDCU form again during monitoring.
- Poor network connectivity in some districts made it difficult to reach out to Enumerators and Supervisors on the field for supervision. ADDRO staff had to move round asking community members until these enumerators and supervisors were found.
- The monitoring team realized that a few enumerators were not capturing LLINs that were being used outside bedrooms (hang on their yards/verandas) as nets found hanging although people slept under them during the night due to the warm season at the time of PDCU data collection. The monitoring teams advised the enumerators to always capture such cases as nets found hanging.

7.0 COLLECTION OF PDCU FORMS FROM ENUMERATORS AND SUPERVISORS

The ADDRO team visited each sub-district to collect the completed forms. The collection of the completed PDCU forms started on March 23rd, 2017 to April 7th, 2017. The ADDRO Upper West regional staff from Wa and sub-district supervisors with their enumerators met at specified

locations at the sub-district levels. Each form was checked by the ADDRO team for completeness and wages were paid to enumerators according to the number of successfully completed PDCU forms. In total, 10,844 forms out of the expected 11,706 PDCU forms (representing 93% of the 5% main) were successfully filled. In the same vein, 788 PDCU forms out of the expected 962 (representing 82%) were successfully filled for the 5% checks. See table 4 for more details.

The data collection was not 100% because some household heads had passed on or relocated and could not be contacted. Some forms were also wrongly filled.

Table 4: Number of PDCU forms successfully filled by Enumerators.

Date	District	PDCU forms Collected (5% Main)	PDCU forms Collected (5% Checks)	Total forms Collected (5% Main +Checks)
24/03/17	DBI	526	38	564
27/03/17	Jirapa	1,033	80	1,113
04/04/17	Lambussie	668	47	715
27/03/17	Lawra	804	63	867
23/03/17	Nadowli/ Kaleo	1,222	79	1,301
03/04/17	Nandom	734	53	787
05/04/17	Sissala East	982	82	1,064
06/04/17	Sissala West	855	55	910
28/03/17	Wa-East	1,075	79	1,154
29/03/17	Wa-Municipal	1649	121	1,770
30-31 /03/17	Wa-West	1,296	91	1,387
	TOTAL	10,844	788	11,632

7.1 PDCU forms collection challenges

Collection of forms from Enumerators and Supervisors was successful, except that a few PDCU forms were not properly filled and as a result were rejected in the Tumu sub-district in the Sissala East. These errors included wrong HH IDs, incomplete information especially question two - filling the table with number of LLINs received, brands, condition of hanged nets and those who slept under it the previous night. Fifteen (15) PDCU forms were rejected as a result of these errors in this sub-district.

8.0 TRANSPORTATION OF PDCU FORMS TO DATA ENTRY CENTRE

The completed checked forms were packaged according to communities in the plastic folders/files (popularly called *my-clear bag*). The plastic folders were packaged per sub-district in brown envelopes and labelled accordingly. The big brown envelopes were put into a small jute bag (each district had one jute bag labelled accordingly). The jute bags together with summary sheets indicating the number of forms collected under each district (both 5% main and 5% checks) were transported to the Data Entry centre at the Headquarters (HQ) in Bolgatanga on 10th April 2017.

9.0 PDCU Data Entry:

AMF added a field for the Upper West PDCU data entry in the AMF database that was developed for entry of LLINs registration data. Thirty Six (36) data entry clerks entered the data for the Upper West PDCU. The data entry started on 18th April, 2017 and ended on 25th April, 2017. A total of 10, 660 households were entered by the clerks.

10.0 RESULTS OF PDCU DATA ENTRY

The AMF database showed that 10,660 households' data had been entered. It was noticed that this figure did not tally with the number of forms (10844) reported to have been transported to the data entry centre as stated in the summary sheets that accompanied the forms. Further checks revealed that 32 forms had duplicate serial numbers (hence were not entered) and 152 were due to counting error.

A total of 23,913 LLINs were reported as received by the 10,660 households visited during the PDCU survey. Out of the total LLINs received, 79.4% were found hung over sleeping spaces; 16.8% were present in the households but not hung over sleeping spaces; 0.5% were not present in the households (nets worn out hence not usable) and 3.2% 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 schools and nets given to other family members in different communities. See Table 5 below for summary of nets received and their status:

Table 5: Number and status of LLINs reported as received during LLIN campaign

		AMF Nets									
Region	Households	Nets Received	LLINs Hung		Present not hung		Missing		Worn out/ not usable		Missing + Worn Out
	#	#	#	%	#	%	#	%	#	%	%
Upper West	10,660	23,913	19,015	79.4	3,996	16.8	771	3.2	128	0.5	3.8

Source: AMF Database, April, 2017

Comparison of LLINs Distribution Data and PDCU Data

Analysis of the PDCU data collected for the Upper West Region, particularly the number of LLINs household heads were given during the mass distribution campaign as against the number of LLINs household heads said they received when asked during PDCU data collection, showed some variations. The total number of LLINs given to household heads during LLINs distribution was 23,428 whilst during PDCU the total number of LLINs the household heads said they received was 23,792 - indicating 364 more LLINs at PDCU than at actual distribution. The difference may be due to nets received from sources other than the recent mass LLIN distribution campaign.

11.0 MALARIA CASE RATE DATA

These are quarterly positive malaria cases collected from the various AMF supported district health directorates. Collected over time, this data will help to assess the impact of the LLINs on malaria cases and its trend. See table 6 for details on monthly uncomplicated malaria positive cases in AMF supported districts in Upper West region for the period August, 2016 to March, 2017.

Table 6: Malaria Case Rate Data for Upper West Region – August 2016 to March 2017

Month/ Year	Age group	Daffiama- Bussie-Issa	Jirapa	Lambussie- Karni	Lawra	Nadowli- Kaleo	Nandom	Sissala East	Sissala West	Wa municipal	Wa East	Wa West	Total
Aug-16	U5 year	178	348	434	402	320	242	897	317	1065	325	480	5008
	PW	16	46	28	19	77	36	27	31	182	24	48	534
	5 to 70+ years	520	836	1072	930	1075	843	2726	949	2753	660	715	13079
		714	1230	1534	1351	1472	1121	3650	1297	4000	1009	1243	18621
Sep-16	U5 year	166	338	596	545	370	380	1209	481	1107	495	702	6389
	PW	22	60	31	24	76	25	29	29	213	70	59	638
	5 to 70+ years	655	1339	2105	1349	1730	1347	4432	1673	3337	1191	1322	20480
		843	1737	2732	1918	2176	1752	5670	2183	4657	1756	2083	27507
Oct-16	U5 year	522	1214	1053	1067	793	978	1231	1030	1481	1088	1270	11727
	PW	22	53	44	20	149	25	45	58	188	75	60	739
	5 to 70+ years	1284	2369	2438	1780	1966	1800	2861	2577	4051	1616	1874	24616
		1828	3636	3535	2867	2908	2803	4137	3665	5720	2779	3204	37082
Nov-16	U5 year	95	718	511	600	360	424	548	485	1140	246	343	5470
	PW	7	67	29	19	140	28	33	41	180	23	26	593
	5 to 70+ years	235	1357	1232	1185	792	543	1254	1028	2520	296	451	10893
		337	2142	1772	1804	1292	995	1835	1554	3840	565	820	16956
Dec-16	U5 year	42	421	257	261	153	123	119	178	768	102	193	2617
	PW	4	84	5	4	35	3	6	41	157	24	27	390
	5 to 70+ years	112	846	603	402	392	207	222	355	1727	111	302	5279
		158	1351	865	667	580	333	347	574	2652	237	522	8286
Jan-17	U5 year	185	656	415	413	383	231	342	308	767	400	452	4552
	PW	16	60	25	8	67	10	10	38	124	46	40	444
	5 to 70+ years	465	1309	901	644	948	368	651	729	1581	475	516	8587
		666	2025	1341	1065	1398	609	1003	1075	2472	921	1008	13583
Feb-17	U5 year	183	584	456	282	276	166	254	404	644	432	545	4226
	PW	9	63	27	16	41	16	16	25	85	48	28	374
	5 to 70+ years	490	1044	917	580	716	274	545	1010	1532	580	649	8337
		682	1691	1400	878	1033	456	815	1439	2261	1060	1222	12937

Mar-17	U5 year	148	419	356	188	248	128	159	301	619	291	319	3176
	PW	16	25	26	6	36	10	10	31	162	30	27	379
	5 to 70+ years	420	919	788	245	686	244	478	650	1202	469	394	6495
		584	1363	1170	439	970	382	647	982	1983	790	740	10050
		5812	15175	14349	10989	11829	8451	18104	12769	27585	9117	10842	145022

11.1 Analysis of Malaria Case Rate Data

The malaria case rate data in all the 11 districts of the Upper West Region (all supported by AMF) are categorized into malaria cases among children under five years, pregnancy women and other age groups (5years to 70+years) as shown in the table above. The Upper West Region LLINs distribution was in September, 2016. The malaria case rate data was collected from August 2016 to see the malaria situation before and after the LLIN distribution. Generally, the data shows an increase in total malaria cases from August to October and a decrease in November and December, 2016. It then increased slightly in January, 2017 and then declined in February and March, 2017. Detailed findings/observation on the data are as follows:

- Malaria cases increased from 18,621 in August, 2016 to 27,507 in September 2016, and then to 37,082 in October 2016. This dropped to 16,956 in November, 2016. This further dropped drastically to 8,286 in December, 2016 but increased to 13,538 cases in January, 2017. However, there was a decline in February (12,937 cases) and March (10,050). The reasons for these malaria case fluctuations are not readily known.
- In Upper West Region, the rainy season is a seven-month period spanning from April to October and the rest of the period being dry season. Overall, malaria cases for the 11 districts were relatively higher in October (37,082) which is part of the rainy season compared to the number of cases reported in November 2016 (16,956), December, 2016 (8,286), January 2017 (13,583), February 2017(12,937) and March, 2017 (10,050) which are the dry season months. Malaria cases are higher in the rainy season because of increased availability of clean stagnant waters (providing breeding places for the *Anopheles* mosquitoes).

- Overall malaria cases for the six-month period October, 2016 to March, 2017, indicates that Daffiama-Bussie-Issa has the lowest malaria cases (5,812 cases), followed by Nandom (8,451 cases) and Wa East (9,117 cases) while Wa Municipal has the highest malaria cases of 27,585 cases followed Sissala East 18,104 cases, Jirapa (15,175) and Lambussie-Karni (14,349). Wa Municipal is an urban district while Daffiama-Bussie-Issa and Nandom are rural districts. The urban settlement may have more breeding areas for *Anopheles* mosquitoes than the rural areas.

12.0 LESSONS LEARNT AND INCORPORATED

Having completed the Northern and Greater Accra regions PDCUs, ADDRO applied the lessons learnt and recommendations in the Upper West region PDCU. Some of the experiences applied in the Upper West PDCU are below:


- ADDRO used the sampled household (HH) list as a guide to recruit enumerators within the sampled communities to avoid enumerators having to travel far distances for data collection. This also helped in enumerators identifying the sampled HH easily since they reside within. In Northern region, some enumerators and supervisors were not resident within the sampled HH communities because the recruitment was done before the list was received from AMF. These enumerators had to travel far to the sampled communities for the data collection, hence had to be supported with fuel to get to those communities.
- In order to avoid wrong interpretation of the PDCU form in the local dialects as was discovered in the Northern region recheck visit, each question was interpreted in the local dialects and enumerators were taught how the questions should be asked to illicit the right responses.
- During the training, ADDRO staff also used more scenarios and practical sessions for enumerators and supervisors to gain better understanding of the PDCU form. During these practical sessions, enumerators and sub-district supervisors with low level of understanding of the PDCU form were identified and assisted.
- In the urban areas where it was difficult to identify the sampled HH heads for the data collection, the services of community volunteers were engaged to assist enumerators to identify these households.
- During the data collection, ADDRO staff reached out to enumerators on the field especially those identified during the training to have low level of understanding on the first day to correct errors if there were any. This helped to minimize errors in their subsequent data collection.

13.0 CONCLUSION

The PDCU exercise in the Upper West region was generally successful. There has been much improvement in the number of PDCU forms successfully administered to household heads (93%) as compared to Northern and Greater Accra regions which achieved 84% and 71% respectively.

14.0 ANNEXES

Annex 1: Upper West PDCU Form



**POST-DISTRIBUTION CHECK-UP
OF MOSQUITO NET USAGE**

Country/Region: GHANA/UPPER WEST	District name:
Date of distribution: SEP – OCT 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			Net distributed in recent mass distribution?	Net condition			How many slept under this net last night?				Net condition
	Obvet	Perma Net	Other		Very Good	OK	Poor	# Children Under 5	# Children 5 to 12 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
Net 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					fewer than 10 small holes
Net 3	<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 4	<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 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?

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			Net distributed in recent mass distribution?	Net condition			How many slept under this net last night?				Net condition
	Obvet	Perma Net	Other		Very Good	OK	Poor	# Children Under 5	# Children 5 to 12 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
Net 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					fewer than 10 small holes
Net 3	<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 4	<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 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

Annex 2: Checklist for PDCU Supervision

GHANA AMF SIX-MONTHLY PDCU - SUPERVISORY CHECKLIST

COMMUNITY LEVEL SUPERVISION

FOR USE BY SUB-DISTRICT ENUMERATOR 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

7. Enumerate 2 key observations/lessons learnt

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