



Ashanti Region, Ghana

Post-Distribution Monitoring (PDM) @ 09-months

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REPORT

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I EXECUTIVE SUMMARY

This report provides an overview of the World Vision's implementation of Post Distribution Monitoring (PDM) of long lasting insecticide nets (LLINs), following the distribution of 3,653,768 pieces of AMF-funded LLINs for malaria control in 2018 across three Regions. It highlights key operational outcome of the 9th-month monitoring (PDM) conducted in the 3 Regions (Brong Ahafo, Upper East & Ashanti) of Ghana. As a monitoring activity, the general purpose of the PDM is to provide useful programmatic information to AMF and Health Sector stakeholders on the progress that net distribution is making towards malaria control, and adaptations needed to improve the effectiveness of the intervention. The specific objectives of the PDM were;

- To quantitatively establish the presence, use and condition of distributed nets
- *To remind and encourage communities on the use of the nets*
- To establish the relationship between net usage and incidence of malaria among beneficiary households
- To analyse reasons for non-usage of distributed nets for malaria control by beneficiaries
- To pick lessons for improving the practice of net distribution as a malaria control measure.

In all, a total of **27,871** households out of **28,380** sampled (**98.2%**) were surveyed for the main visit; while **1,762** households out of **1,812** sampled (**97.57%**) for revisits were monitored across the three beneficiary regions in Ghana. The process for the PDM improved with time in terms of organization, enumerator training, logistics, field supervision and community leaders' support. In spite of this, some key challenges such as difficulty in identifying households/respondents, distanced communities and unfavorable weather condition, relocation of project beneficiaries, arm robbery attack as well as difficulty in reaching some communities due to poor accessibility (long distance, bad road, flooding etc.) affected the smooth implementation of PDM 09.

Enhanced proximity of distribution centres to communities, proper announcement of distribution date and adequate sensitization of beneficiaries on the importance of bed nets usage, as well as setting up local community sensitization and monitoring structures in the form of community care groups; and the use of the Ghana Post GPS location platform to record the digital address of householders, or better still emboss Householders ID on the houses to aid identification in subsequent exercises are highly recommended.

The entire exercise started on the 20th June, 2019 in the Brong Ahafo Region and ended on the 15th September 2019 in the Ashanti Region. To complete this exercise, a total number of 88 Enumerators and 18 Supervisors were recruited and trained in the various regions.

2 RESULTS

All sampled communities and households in the 3 region were visited, including spare households in some cases to obtain the required minimum of 22 households per community sampled. In some cases, however, it was practically not possible to obtain the needed 22 households, even with the use of spare households provided, and the use of spare households from other near-by communities within the same district. The following table gives summary results from the survey

Table 1: Actual Data Collection

Region	Required	Achieved	DIFF
Brong Ahafo	9548	9382	166
Upper East	4422	4163	259
Ashanti	14410	14325	85
Total	28,380	27,870	510

2.1 Presence of AMF Nets

Summary on the presence of AMF Nets from PDM 09 is taken from the Output of DES analysis screens, as below:

										AMF Nets									
Region	Households		Forms Signed		Sleeping Spaces		People		Nets Received	Hung		Present not hung		Missing		Worn out/ not usable		M + WO	
	Target	#	%	#	%	#	#/hh	#	#/ss	#	#	%	#	%	#	%	#	%	
Summary →		27,870		27,870	100	73,336	2.63	135,471	1.85	71,676	50,679	71	14,438	20	3,796	5	3,439	5	10
Ashanti		14,325		14,325	100	34,016	2.37	64,786	1.90	34,395	23,801	69	7,339	21	2,050	6	1,367	4	10
Brong Ahafo		9,382		9,382	100	26,063	2.78	47,807	1.83	25,213	19,174	76	3,957	16	1,065	4	1,455	6	10
Upper East		4,163		4,163	100	13,257	3.18	22,878	1.73	12,068	7,704	64	3,142	26	681	6	617	5	11

2.2 Net Usage

Summary on the usage of AMF Nets from PDM 09 is taken from the Output of DES analysis screens, as below:

Region	Nets Used				Household used				People sleeping under nets								
	Correctly		Not Correctly		Correctly		Not correctly		Children under 5		Children 5 to 18		Pregnant women		Other adults		Total
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#
Summary →	44,378	100	0	0	22,438	100	0	0	16,432	18	33,123	36	1,482	2	39,732	44	90,769
Ashanti	13,147	100	0	0	11,220	100	0	0	4,249	17	11,908	47	331	1	9,009	35	25,497
Brong Ahafo	22,166	100	0	0	7,942	100	0	0	7,812	18	13,603	31	898	2	21,538	49	43,851
Upper East	9,065	100	0	0	3,276	100	0	0	4,371	20	7,612	36	253	1	9,185	43	21,421

Key	Explanation
Used correctly	0% > 90% > 95+%
Coverage	0% > 90% > 95+%

The green, orange and red traffic-light system indicates 'very good', 'OK' and 'recommend action is taken'. They are based on an educated assessment of what figures would represent very good, OK, and not so good use and condition of the nets.

We are currently liaising with a number of individuals to gain further advice on where these bands should fall.

2.3 Net Condition

Summary on net condition from PDM 09 is taken from the Output of DES analysis screens, as below:

Region	AMF Nets									
	Total	Very Good		Good		Viable		Worn out		Rating
		#	%	#	%	#	%	#	%	Rating
Summary →	44,732	24,120	54	13,802	31	3,371	8	3,439	8	47
Ashanti	13,681	7,119	52	4,430	32	765	6	1,367	10	45
Brong Ahafo	23,394	12,818	55	6,905	30	2,216	9	1,455	6	48
Upper East	9,194	4,883	53	3,165	34	529	6	617	7	48

2.4 Data Quality Results

Output from DES, looking at the 1.5% main data to assess the performance:

Main Data									
Region	100% Registration records	Sample size %	Sample size target	Main data provided #	Main data provided %	Total PDM data collected #	Total PDM data collected % (% of provided)	Δ #	Δ %
Ashanti	948,074	1.50	14,221	14,410	1.52	14,037	1.48 (97)	-373	-2.59
Brong Ahafo	624,111	1.50	9,362	9,548	1.53	9,165	1.47 (96)	-383	-4.01
Upper East	287,238	1.50	4,309	4,422	1.54	4,081	1.42 (92)	-341	-7.71

Output from DES, looking at the 5% revisit data to assess the performance:

Re-visit data								Spares						
Sample size target %	Sample size target #	Revisit provided #	Revisit provided %	Revisit collected #	Revisit collected % (% of provided)	Δ #	Δ %	Spares provided #	Spares provided %	% of main data that is spares	Spares used	% of visited that is spares	% of target that is spares	% collected matched to HH list
5.00	721	912	6.33	894	6.20 (98)	-18	-1.97	4,585	0.48	31.82	898	6.4	6.3	11.5
5.00	477	564	5.91	524	5.49 (93)	-40	-7.09	3,038	0.49	31.82	418	4.6	4.5	7.8
5.00	221	336	7.60	314	7.10 (93)	-22	-6.55	1,407	0.49	31.82	226	5.5	5.2	9.4

3 OPERATIONS

Orientation of World Vision Ghana Staff and Preparation toward PDM09

The project began with the orientation of World Vision Ghana (WVG) staff on the PDM process. As part of the orientation, a three (3) days Training of Trainers (TOT) was carried out by WVG Planning, Monitoring and Evaluation Manager and Senior Programme Effectiveness Manager at WVG's Head Office in Accra. The purpose was to review the PDM project documents and come out with finalized data collection tool for training and use on the field. It also focused on: Project

management and facilitation skills, understanding the survey tools from AMF, development and testing of ODK tools and action plans for rolling out PDM in all three regions

Recruitment and Training of Data Collectors and Supervisors

Data collectors and supervisors were recruited based on their understanding of the local language, familiarity of the district, and previous experience in data collection and supervision. This was done through and in collaboration with regional/district assemblies and the District Health Directorates in all the regions. Both enumerators and supervisors' success at the recruitment was dependent on their demonstrable skill in community entry and mobilization, communication and persuasive skills. Other criteria for selection of enumerators included:

1. A minimum of SHS qualification; but preferably tertiary qualification or currently enrolled in a tertiary institution.
2. Ability to use mobile technology (Familiar with mobile interface, esp. Android System)
3. Availability of enumerator within the period (Fully available)
4. Proficiency in English (Excellent reading and comprehension of English Language)
5. Ability to speak local dialect of the area (language and communication skills)
6. Readiness to comply with WVG engagement policies – especially on Child Protection and on confidentiality.
7. Willingness to receive the agreed payment (Agreed financial reward/motivation would be made known to applicants during vetting/prior to the training)
8. Should preferably live within or not too far away from the PDM location – districts and villages (to have easy access to communities and households).
9. Demonstrate high level of honesty or trustworthiness and commitment (either through previous engagements or during the vetting candidate)

Training of data Collectors and Supervisors

The data collection for the PDM9 exercise began with a 3-day training across all the three beneficiary regions. The trainings were held at Encom Hotel in Techiman, Tap Hotel in Bolgatanga and Kosados Hotel in Kumasi located in the Brong Ahafo, Upper East and Ashanti Regions respectively. Usually, the first 2 days of training were used to engage both enumerators and supervisors on the following topics to build capacity for efficient and effective quality data collection;

- The PDM and AMF's LLINs Distribution Project [Overview of 2018 Mass Distribution, Objectives of PDM, Scope of the PDM exercise (Details of Main Data Collection & Revisit Data Collection), and Spares usage protocols]
 - Ethics in Data Collection
 - Assuring the quality of Data during Collection
 - Introduction to Tablets and ODK for Data Collection (Moving from paper-based survey to tablet/technology-based, Overview of ODK software, Installing and using ODK to complete a survey, Saving and Finalizing Forms, Synching/sending finalized forms to WVG ODK server)
 - Introduction to the PDM Tool/Questionnaire (Interpretation of each question and collective translation to the language to be used for household interview)
 - Interview and Community Entry Techniques
 - Practicing Household Interview using PDM tool in ODK in a simulated environment (enumerators took turns to conduct mock interviews and thereafter received feedback from whole group for improvement)

At the end of the 2-day training, each enumerator was given a pre-loaded tablet with the PDM tool in ODK and assigned their district of enumeration. Meeting with supervisors and training facilitators were held on the 3rd day when the need be, to review experiences, share lessons learnt from the previous PDM exercise in the other region/s, and devise strategies for better enumeration moving forward.

Number of People Who Worked on the PDM

A total number of 88 Enumerators and 18 Supervisors were recruited and trained in the various regions visited and interviewed 28,380 households in the three regions. Find details below;

Region	No. of Enumerators	No. of Supervisors
Brong Ahafo	29	6
Upper East	17	4
Ashanti	42	8
Total	88	18

Data Collection Process

An appropriate and comprehensive data gathering tool jointly developed and agreed to with AMF to minimize the risk of data gaps was used. Household questionnaire was used as the survey

instrument to capture the required data. Households was the primary unit of data collection; and at this level data collected include:

- Household size
- Total number of sleeping places
- Number of LLINs received
- Hang status of nets, its condition, and brand
- Number of people sleeping under hung nets categorized into U-5 children, children between 6-18years, pregnant women and other adults
- Household's knowledge on correct use of net
- Reasons for non-usage of distributed nets
- Incidence of malaria among beneficiary households in the last 30 days
- Areas with low hang rates

Data collection at the household level was completed in all the 3 regions. The total number of communities allocated to each enumerator varied, but ranged from 10 to 21. On an average, each enumerator interviewed 18 households per day, and data collection exercise on the field lasted for approximately ten (10) weeks; such that by 16th September, 2019 all data collection (for both Main and Revisit) had been completed in all the 3 regions.

To enhance supervision, each Region was divided into clusters, with each cluster having one (1) Supervisor. The minimum number of enumerators to a cluster was four (4), while the maximum was six (6). During the data collection period, supervisors visited at least 2 enumerators in a day, spot-checked their work on the field, and randomly check out some households where the enumerators had reported work completion. As the protocols for this exercise demanded, Supervisors on daily basis or as and when possible reviewed all completed and saved forms to ensure completeness and validity before finalizing and synching to WV's ODK server for download and subsequent cleaning by WV's Officer in charge of the PDM project.

Usage of Spares

Due to the possibility of non-presence of sampled households during data collection, a spare list of 25% of the main 100% data units per village were allowed in the exercise. Some households selected for the main enumeration were replaced by spares due to the following reasons;

- I. Main household not known in the community

2. Single household member deceased
3. Main household not available after several visits
4. Main household refused consent
5. Difficulty in identifying and locating main household, especially in bigger towns
6. Household with two IDs. This caused shortfalls in the total number of households available for interview in the affected community. Example is Householder Rebecca Adomako with ID 28463118 and ID 28468174 at Sekyere Mission in the Ashanti Region.

Revisit (5% of 100%) Data Collection

As part of measures to enhance the integrity of the process and improve data quality, further checks on the “100%” data collection was done by supervisors, and in some cases with the assistance of one or two enumerators to re-visit 5% of the 1.5% sampled households independently in each of the 3 regions. In the case of enumerators that were engaged to assist in revisit, they were not assigned to a community they visited during the main enumeration.

A total number of One hundred and fifty-one (151) communities were selected for revisit for the 3 regions (Brong Ahafo = 47, Upper East = 28 & Ashanti =76). The revisit was expected to commence a day or two after the main enumeration. All supervisors were encouraged to undertake the revisit exercise. Each person was supposed to do 2 communities a day with 12 households per community, which makes up 24 households per day. Not all enumerators for revisit were able to visit the two communities per day due to the distance and difficulty in getting transportation.

During revisit data collection, few cases of non-availability of interviewed householders for the main data collection were recorded. As a result, some randomly selected spares was done to replace the unavailable householders for the revisit data collection.

Key Observations during Data Collection

Clustering of some communities during 2018 Registration and Mass Distribution of LLINs

A unique finding on the field was that some communities were clustered and given one name during registration and distribution in 2018. This meant that one name is registered in the system as a single community, however, on the ground you will actually find that this community name

is not for a community, but rather 3 or 4 communities that have been combined and given one name by the Registration and Distribution Officers in 2018. An example of this case is *Anhewerekrom in Ashanti region (that is the name in the system) which actually on the ground is comprised of Tutuapon, Kwagyekrom and Badukrom*. Another example is *Kontoma/Odumasi also in Ashanti (in the system) is comprised of Kontaga Mummkrom, Nyamekye Akora, and Koojuokrom*. This initially made the work extra difficult for enumerators: first to detect this challenge and distinguish between communities, and secondly how to arrive at which householder lives in which of these 3 or 4 communities. It took days and with the support of local opinion leaders to rectify this anomaly and made headway for smooth data collection.

Inspecting nets outside

Some householders consented to participate in the survey willingly but custom in some parts of the Ashanti Region demands strangers cannot enter the room of a Chief or Traditional Priest. In cases where such categories of householders were surveyed, enumerators could only record (but not inspect) hang status based on householder response and also check nets condition by inspecting net brought outside the room by the householder.

Communities with Householders Name recorded as Null

Adonsu and Adobenso 2 are communities located in the Sekyere Afram Plains District of the Ashanti Region. These two communities were sampled and included in the list for PDM9, but names of heads of households to be interviewed were not provided (names column recorded as “Null”).

Given that householders could not be identified by any other means except for their names, the team had to enquiry from the community opinion leaders to know beneficiary households for the interview while maintaining the household IDs. This process was led by the Project Coordinator to ensure acceptable protocols are used in selecting the householders before enumerators conduct the interview.

Presence of virtually empty communities with few or no available Householders

A peculiar situation was encountered in two communities which had virtually few or none of their householders available due to relocation at the time of data collection. These two communities (Kluklugbaga in Ejura Sekyeredumase District, and Larweh in Asante Akim North District) are settler communities with no permanent residents; people move there to undertake

their farming activities (this was the case of Kluklugbaga) or do seasonal work (the case of Larweh) and return to their home communities after the farming season. Given the situation, enumerators had to resort to the use of unused spares of other communities within the district to make up for the backlog that would have occurred. For Kluklugbaga which is a settler farming community with only 3 houses and residents returned to their various communities at the end of the first farming season for the year.

In the case of Larweh community, which had its residents migrated from the Upper West Region to undertake a booming wood cutting and charcoal burning business is now an empty community after the booming business ended and residents relocated to different destinations. Two of the householders were traced to a nearby community and interviewed while unused householders of other communities were used to make up the remaining 20.

Inaccessible communities

Gyau is a farming community located in the Dawadawa area council of Kintampo North District (formerly Brong Ahafor). To access Gyau, one will have to cross a river which had its bridge broken years ago. Residents use a farm track as their means of transportation to and from Gyau since it is the only means that can pass through the water infested with crocodiles. When the rains are at its peak in the raining season, the river becomes full, and the tractor cease to travel on the route. This made Gyau an inaccessible community particularly due the heavy rainfall in the area.

Different mosquito net part of 2018 mass distribution

In the Ashanti region, it was widely observed in many communities/households that a different mosquito nets (MAGNet) were included in the 2018 mass distribution by Ghana Health Service (GHS). Households with this brand (MAGNet with photo below) confirmed that they received them from GHS at same time and during the same distribution exercise as all other households that received the Permanent brand.



Non receipt of AMF 2018 Distribution of Nets

During the exercise in all the 3 regions it came to light that some householders did not receive the AMF 2018 mass distribution nets even though householders were registered. A close interaction with householders revealed the following as some of the reasons

1. **Missing registration cards:** at the day/period of distribution, some householders had lost their registration card and could therefore not go for their nets since one was required to present his/her registration card in order to obtain their net.
2. **Lack of information about the date of net distribution:** Some households did not get information about when distribution was happening after they were registered, hence did not get the net.
3. **Distanced location of distribution centres:** Old age/disability did not allow some households to travel to the distribution centers to get their nets since distribution was solely done at particular locations. In cases, where the distribution centers were far, the aged and people living with disability could not travel to obtain their nets.
4. **Shortage of nets at Distribution Centre:** In some cases, the nets available at distribution centres were not adequate to serve all registered householders. Hence shortages were recorded at various distribution centres leading to some householders not getting the nets while the many who received did not have the adequate number of nets to match their sleeping spaces.

Two Households in the Tool, But One Person

A key observation made during the exercise was that, some households who had their names repeating or appearing in a different form in the same community with a different household IDs. Find example below:

NAME	ID	LOCATION	DISTRICT
Kwabena Selga	25079142	Kwamebekrom	Asunafo South
	25079141	Kwamebekrom	Asunafo South
Atayeta Ayew	25317152	Nyamefie	Jaman South
	25317151	Nyamefie	Jaman South
Nyame Yeodo	25356057	Hse No. LL174, New Longoro	Kintampo North

Kwaku Nyameyeodo	25355745	Hse No. LL174, New Longoro	Kintampo North
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Splitting of Households

It was discovered in all the regions that during the distribution, some householders split their households into two in other to obtain more nets

Revisit Refused Consent/Household relocation after main enumeration

Few cases of refused consent were recorded during the revisit data collection. Other householders that were selected for revisit had also relocated after the main enumeration. This resulted in randomly selection of households that were interviewed during the main exercise to be visited by the revisit enumerator.

What Went Well

The organization of the PDM9 process such as training of supervisors and enumerators, logistical arrangement, field supervision and support from community leaders went well. Key accomplishment during the period include the following

1. In some cases, registration/distribution agents for certain sub-districts were identified and willingly supported in identifying householders.
2. Householders were friendly and welcoming; easing the stress of data collection for enumerators.
3. The quality of enumerators was high as there were experienced enumerators who had used ODK in data collection on several occasions and were therefore conversant in the use of tablet and ODK for data collection. Very minimal errors were recorded, which were quickly identified and resolved.
4. Community leaders were supportive in locating households and communities that were very difficult to identify due to some mishaps during registration. For instance, some community leaders and members voluntarily served as field guides to help identify clustered communities and relocated householders.
5. Supervisors were able to conduct more spot checks and synched collected data to WVG ODK server within acceptable allotted time to avoid delays.
6. In a rare situation, some enumerators (although few) where able to meet, and in some cases exceed their daily target.
7. According to data collectors, none of the mobile devices malfunctioned; and the tool (ODK) was easy to use.

What Didn't Go Well

The entire PDM9 progressed smoothly but recorded some challenges worth noting. They include

1. Clustering of communities to give them single name during registration made it very difficult in identifying the actual communities during data collection. But the intervention of community leaders due to appropriate community entry helped resolved this challenge.
2. Difficulty in locating households especially in the urban areas/towns. This affected the target of 22 for some communities, even with the use of spare households. Some of sampled names (list) had only first name of head of household captured during the registration. This made identification of households difficult.
3. An enumerator working in the Ahafo Ano South District (formely Brong Ahafo region) was attacked by two young boys, armed with a knife who demanded for the data collection tablet but for the timely intervention of a hunter, the enumerator escaped unhurt. This caused a bit of fear in her and had to be given some days off to recover.
4. Accessibility challenges, distanced communities and harsh weather condition (rain disruptions) caused delays as in some cases an enumerator would have to use a whole day to travel to a community. Some of the communities could only be reached by crossing rivers and travelled on foot for about 6-10km.
5. The period chosen for the exercise coincided with the busy farming season of householders in the districts. In view of this, householders were setting off early from their homes to farms, and other places; making it difficult for enumerator to reach them upon several visits. For instance, at Kluklugbaga community in Ashanti region, all householders had relocated due to end of the farming season.
6. Some households refusing entry into their sleeping spaces despite several education and appeals
7. The social/economic engagements of communities also disrupted enumeration. For instance, some householders had to be traced to funeral grounds and/or market places to schedule interviews.
8. Untraceable households. Some communities were farming communities where the households sleeping spaces were mainly huts. Some of these sleeping places could no longer be traced in the communities. E.g Gyagbire – Kintampo South District, where only 12 households out of 22 were identified.

Lessons Learned

1. Moving forward, familiar/known names of households in a community should be captured separately from the official/formal name in order to assist in identifying and locating a household, especially in the urban areas.
2. The use of the Ghana Post GPS location platform to record the digital address of householders, or better still emboss Householders ID on the houses to aid identification in subsequent exercises is recommended.
3. Flexibility of time to allow enumerators to work very early in the morning and evening to catch up with householders, provision of rain coats and motivating (extra T&T) for enumerators to access difficult communities is recommended.
4. It is also recommended that the data should be analyzed and feedback should be more widely disseminated among all stakeholders.

Schedule

ACTIVITY	DATE	
	From	To
Training of Trainees (ToT)	17/6/19	19/6/19
Brong Ahafo Region PDM9	20/6/19	18/7/19
Upper East Region PDM9	18/7/19	8/8/19
Ashanti Region PDM9	14/8/19	16/9/19
Final Reporting on PDM9	18/9/19	14/10/19

4 FINANCIAL INFORMATION

Overall, the PDM 09 was executed strictly based on the budget, despite encountering various issues in terms of field challenges (and realities), and also variations between the number of households in the budget and the actual number of households that were sampled for the survey.

The financial report is attached below:



AMF-Ghana-PDMs-
WVIG-Budget _ Rcvv