Ghana CCM

The Global Fund to Fight HIV/AIDS, TB & Malaria

MALARIA OVERIGHT FIELD VISIT TO UPPER WEST REGION

Report

July 22-25, 2015

INTRODUCTION:

The Malaria Oversight Committee carried out an oversight field visit to Upper West Region from July 22-25, 2015 following an invitation of NMCP to participate in the first round of Seasonal Malaria Chemoprophylaxis (SMC). The team arrived in Wa in the early afternoon of the 22 July 2015 and met Dr. Sebastian Sandaare there.

James Frimpong of NMCP is thanked for his role and support in organizing the site visit. Furthermore, the team would like to thank AGA Mal for providing a vehicle and driver throughout the site visit as well as for the pickup and drop off from/to Tamale airport and all the persons who took time to exchange with the CCM team.

CCM OVERSIGHT TEAM

1. Reginald Laud Tetteh Baddoo, JSI Deliver
2. Dr. Felicia Owusu-Antwi, WHO
3. Dr. Sebastian Sandaare, Association of Presiding Members UW/R
4. Annekatrin El Oumrany, CCM Secretariat

OBJECTIVES OF THE VISIT

1. Assess the impact of GF support to the Upper West Region,
2. Familiarize with SMC activities that are being implemented for the first time in Ghana,
3. Obtain an overview on AGA Mal's strategy to IRS in the Upper West region,
4. Ascertain the assets of AGA Mal earmarked for disposal,
5. Obtain first hand view of community beneficiaries of IRS and SMC activities,
6. Verify stock levels of health products at the Regional Medical Store, identify the state of the storage facility after the renovations in 2013 and get an overview on the effectiveness of the new distribution schedule of direct delivery of commodities from the central to the regional level.
7. Get first hand experiences of an ART clinic

SITES VISITED

The team visited the

- Regional Health Directorate,
- Zonal Office of AGA Mal Limited in Wa,
- Regional hospital in Wa,
- Regional Medical Store in Wa,
- District Health Directorate in Nadowli,
- SMC team and communities in Dapuori.

VISIT TO THE REGIONAL HEALTH DIRECTORATE

The CCM team was introduced to the Regional Director of Health Services Dr. Abudulai Adams Forgor by James Frimpong of NMCP, who had also announced the CCM team's visit to him. A representative of the Regional Health Committee as well as Mr Ralph Hadzie, the Deputy Director of Pharmaceutical Services joined the conversation. Dr. Forgor provided the team with an overview on the current state of malaria control activities and commended the significant improvements during the last years. He was very satisfied with the activities as well as the new supply chain arrangements indicating that he does not foresee any major challenges in the near future. Dr. Forgor was positive that if the combined efforts of IRS, SMC, IPT, bed net distribution as well as correct case management can be sustained in the future, it will be possible to drive malaria out of the Upper West region eventually.

VISIT TO AGA MAL

The CCM team was lucky to meet not only Musa Abdul Rassac, the Zonal Operations Manager, and his team but also Eric Obu Buetey, the Head of Operations, who happened to be in Wa with his team during the CCM visit.

After the introduction of the participants of the meeting, Eric Obu Buetey gave an overview on the history of IRS in Ghana which is a pilot project for AngloGold's worldwide operations. Thanks to comprehensive malaria control activities, incl. larviciding and bed net distribution, malaria prevalence in Obuasi community could be reduced by 75%. While activities in Obuasi are fully financed by AngloGold Ashanti, those in the Upper West region are funded by the Global Fund. Upper West region is currently the only one eligible for GF funded IRS due to its malaria prevalence of more than 40%. Since malaria prevalence in the Upper East region dropped to 11%, IRS is discontinued. However, the AngloGold Ashanti team expressed deep sorrow about this decision since the currently low prevalence of 11% is not going to be sustained without continued IRS. In fact, AGA Mal is expecting malaria prevalence to increase significantly over the

next months. Additionally, the discontinuation is not only going to have an impact on the prevalence but also on the trust of the inhabitants in sustainable donor activities, possibly resulting in less community commitment during subsequent projects.

Under the New Funding Model, the number of spraying cycles will be reduced to one due to the longer efficacy of supposedly nine months of a different insecticide used. AGA Mal confirmed that the communities have fully bought into IRS after having seen its impact on malaria prevalence. The problem of resistance of two communities mentioned in the 2013 site visit report is solved. Community resistance was primarily due to

- the strong smell of the insecticide used (which is still strong),
- the problem of stained walls,
- the effort necessary to empty the house for IRS as well as
- privacy concerns.

AGA Mal was able to team up increasingly with GHS to gain a higher credibility during their IEC activities. The coverage of 93% is higher than the target. The remaining 7% are primarily due to buildings that were not accessible during the IRS activities, not to communities being left out.

Collaboration with GHS was described as excellent. There is a regular exchange with GHS and Titus Tagoe, the Regional Malaria Coordinator, on the activities. GHS participates in IEC activities and IRS data are forwarded to GHS. Furthermore, AGA Mal is invited to the GHS performance reviews and uses a wing of RMS for the storage of its insecticides.

The entomologist showed the CCM team the insectary, in which larvae collected from a number of different locations are grown and used as adults for insecticide effectiveness testing. She explained that a number of 10-20 adult mosquitoes are held against a newly sprayed wall for 30 min to establish how many will be killed by the insecticide. The lower the percentage, the lower the effectiveness of the insecticide used. This test is repeated on the same surface on a monthly basis. This will be especially important with the new organophosphate that is claimed to be effective during nine months, resulting in the reduction of the formerly two annual spraying cycles into one. The spraying season will start each year around the same time resulting in a period of about 3 months in which the insecticide may not provide protection. The CCM will have to monitor the impact of this decision in terms of evolution of malaria prevalence.

The CCM intended to have a look at the assets that are earmarked for disposal. Unfortunately, the zonal manager was not sufficiently informed, so that the team could only evaluate the state of the 52 vehicles parked in the yard. AGA Mal staff confirmed that due to monthly inspections, the vehicles are mostly in a good condition (about 42 out of 52 vehicles). 10 vehicles earmarked for handover to NMCP have been standing in the yard for several months without being claimed. Those will only be serviced once NMCP has indicated to pick them up. Several of the vehicles have worn out tires but those can be exchanged any time. The majority of the vehicles and other equipment used for IRS will be brought to Obuasi until the next IRS season starts.

Challenges encountered:

- **Discontinued IRS in Upper East region** is expected to result in significantly higher malaria prevalence rates in the future and lower level of trust of the population in sustainable donor activities in general
- **Reduction to one annual spraying cycle** has an impact on the economy as majority of spraying teams and community volunteers have a contract over 3-4 months only. The higher staff turnover may also result in higher error margins. Additionally, the level of malaria prevalence during the three months between the fading efficacy on the walls and the next IRS cycle needs to be observed. The expected impact on prevalence depends on the weather conditions, notably the rains, of which the timing varies by the year.
- **Mosquito behavior change**: It was observed that the mosquitoes adapt their behavior. Instead of resting on the wall, they may now rest increasingly on curtains and other clothes present in the room which are not treated with an insecticide. This behavior change will have to be thoroughly monitored in order to establish if retreatment kits that were discontinued a few years back may be useful for those fabrics.

VISIT TO THE REGIONAL MEDICAL STORE

The team visited the Regional Medical Stores (RMS) for a general assessment of the facilities, storage conditions and stock of health commodities. The team, accompanied by the staff of AGA Mal, headed by Mr. Rassac first visited the store allocated to AGA Mal by the regional health directorate. Mr. Paul Amekudzi Kwame-Kuma, the logistics officer of AGAMal, showed the team round to inspect the storage capacity, stock levels, and safety standards in place for the storage of insecticides. The place looked very tidy and organized and was equipped with fire extinguishers. The CCM team also got an impression of the strong scent of the insecticide stored that is considered much more pleasant than the previously used brand. The stock levels of Actellic insecticide available was sufficient to serve about a third of the households to be sprayed in the next spray season.

After the visit to the AGA Mal stores, the team was joined by Mr Hadzie, the regional Deputy Director of Pharmaceutical Services (DDPS), who is in charge of the Regional Medical Store. Mr Hadzi, together with Mr Tony Takyi-Patrick, the Global Fund/JSI Logistics Support Project (GFLSP) regional logistics officer took the team round at the warehouse where malaria, HIV, TB and other program commodities were stored. The team assessed stock levels of program medicines in the stores. In general, storage conditions in the store were adequate as the store was generally clean and ordered with updated bin cards for all commodities in stock.

Most adult first line ARVs were out of stock with the exception of Tenofovir/Lamivudine/Nevirapine (TLN) and Zidovudine/Lamivudine tablets. Most pediatric ARVs were in stock. About 47,070 packs of TLN which expired in January 2015 were on the corridor of the RMS. All age bands of ACTs were adequately in stock, however there was the complaint about the low uptake of pediatric Artemether/Lumefantrin tablets by health facilities, resulting in overstock. An explanation could be that since each tablet contains the same concentration, healthcare facilities prefer to stock adult formula only and adjust the child doses via the number of tablets.

There was stock of TB cat 1&3 and pediatric formulations. The logistics officer explained to the team that malaria RDTs were adequately in stock and this was confirmed by at the presence of a consignment of malaria RDTs on the corridors of the RMS waiting to be sent to health facilities. Stock levels of HIV first response RDTs however were low according to the logistics officer. Stock levels of SP was very low and there may be a stock out in the next month or two if stocks are not received. However, the next delivery of SP is not going to arrive before December 2015.

On the schedule delivery of commodities from the central level to the RMS, the logistics officer explained that it was a very helpful system. Delivery of commodities from the RMS to health facilities was also being implemented, however, Mr. Hadzi pointed out that his vehicles are too large for deliveries, so that many healthcare facilities are still required to pick up the ordered health products from the RMS.

Challenges encountered:

- **Inadequate storage space** to receive all their supplies. This was evidenced by the presence of commodities, including RDTs and LLINs, outside under the roof. It was however not clear to the team if the roof would be sufficient to protect the commodities from rain, especially during a windy day. Furthermore, while the RMS has a full day and night security, the team questioned if this security is sufficient, especially in absence of additional security measures, such as a razor wire fence or similar.

- **Documentation and packaging unit.** The fact that the RMS orders in numbers of individual packages but receives documentation from the central level on delivered commodities in terms of carton boxes leads to confusion.
- **Timing of deliveries from the central level:** Trucks often arrive late in the evening and truck drivers, being under time pressure, would not accept to unload during the next day. Being tired, there is a lot of pressure on fast unloading, which limits the possibility of thorough checks.
- **Local deliveries:** Mr Hadzi explained that one of the key challenges faced by the RMS in delivering commodities to health facilities is that the delivery trucks are oversized.
- **Low stock / stock out:** Most adult first line ARVs were out of stock with the exception of Tenofovir/Lamivudine/Nevirapine (TLN) and Zidovudine/Lamivudine tablets. Stock levels of HIV first response RDTs were low and stock levels of SP were very low.

VISIT TO THE WA REGIONAL HOSPITAL – ART CLINIC

The team visited the Wa regional hospital to interact with staff at the ART and TB clinics and the hospital's laboratory to obtain firsthand information on the ART and TB treatment services rendered as well as laboratory diagnosis for HIV, TB and Malaria.

The CCM team was met and welcomed by Dr. Dodoo, the Medical Director of the hospital, who led the team to the ART clinic. Madam Salih Lubabah, the clinical HIV coordinator, briefed the team on the activities of the clinic. The clinic has currently about 800 clients with about 600 of them being retained. It offers a clinic day on Wednesdays for newly diagnosed or referred clients on Wednesdays where they tend to receive 80-90 clients but is available during other days for clients who are unable to attend clinic for various reasons. She mentioned that for fear of stigmatization clients came from far and near Wa. The ART clinic is in good collaboration with doctors of the various wards and therefore where there is a suspected case, the center was invited to test and take the needed follow up actions.

Mrs. Lubabah explained that the center will first conduct the necessary counseling and send the client to the laboratory for specific tests, after which a decision on treatment will be made. All newly referred clients are tested for TB among the other routine tests, some additionally undergo an X-ray. However, she complained about the lack of CD4 reagents, so that her team needs to make a treatment decision based on symptoms only. The client is given medication where considered appropriate and scheduled for review in 2 weeks or a month. Once accustomed to the treatment, the client may receive medication for up to three months. Those not yet on ART are requested to come back for quarterly checkups. PMTCT is also part of the ART clinic's routine activities. The CCM team was happy to hear that out of the 39 samples for early infant diagnosis, only one turned out HIV positive (the mother refused PMTCT).

While due to time reasons, it was not possible to have an in-depth discussion with Faustina Salifu, the institutional TB coordinator, she confirmed that every TB case is tested for HIV.

To ensure that clients are retained, Mr Emmanuel Wondow, the Data Manager explained that the clinic uses an NACP provided software that keeps client information and scheduled follow up days and prompted the data mangers on defaulting clients for them to follow up on. Compliance rate is stated as around 75%. Madam Lubabah further explained that the local association and leadership of PLWA were of tremendous help to the clinic. On clinic days, PLHIV actually work with the clinic by performing basic non clinical functions as well as assist the clinic staff counsel new clients. They also assist the clinic follow up on defaulting clients.

The clinic obtains all ARVs from the hospital's pharmacy and test kits from the hospital's laboratory. The ART clinic was almost stocked out of both. Low stocks and stock out have been a common experience. Whenever the ART clinic faces low ART stocks, clients will receive ARVs for a shorter period only (compared to 3 months supply as soon as things go smoothly). When they face a complete stockout, the ART clinic tries to get stock from different health facilities or switch to different combinations, so clients would not experience any treatment ruptures. The ART clinic regularly checks the stock levels with the hospital's pharmacy in order to not be taken by surprise.

Challenges encountered:

- **Very low stock levels of HIV test kits** (first response and Oraquick test kits)
- **Occasional stock out of ARTs**
- **Unavailability of medicines for opportunistic infections**
- **Inadequacy of staff** at the ATR clinic and suggested need for more in-service training to ensure more staff are made available to work there. Mrs. Lubabah also lamented about the stigma attached to staff of an ART clinic which makes it even harder to get staff. She suggests ART or TB clinic staff to be show casted in the various sensitization spots in order to recognize their efforts publically and to reduce the stigma related to their job simultaneously.
- **Stigma** is still an important issue among clients. The ART clinic therefore faces an additional workload since clients are not willing to report the OPD for treatment on conditions independent of HIV. Due to inadequacy of medical doctors currently in the hospital, the hospital management are unable to allocate a doctor specifically to the clinic to take care of clients with other general medical conditions.

- **Lack of competence at RMS:** The ART clinic states that it is not sufficient to check RMS stocks via telephone. At several instances, a certain medicine or an equally acceptable combination that was announced as finished could be found in the RMS by hospital staff during a personal visit.

VISIT TO THE WA REGIONAL HOSPITAL – LABORATORY

The Laboratory Manager, Mr Samuel Yaw Oduro, took the team round the laboratory. Mr Oduro showed the team round the various equipments and test they conduct for HIV, TB and Malaria. He mentioned that the laboratory's Gen expect equipment which was out not functional for some time has become functional. Additionally, the lab has a fluorescent microscope. The equipment for testing the viral load has not arrived yet but was promised to the regional hospital by NACP.

The laboratory store was looking orderly with all commodities well arranged with inventory control cards. Most reagents were in stock, including malaria RDTs and adequate microscope for malaria diagnosis.

Challenges encountered:

- **Unavailability of CD4 counts:** FACS equipment was not usable due to the lack of one reagent since March 2014. However, the other related reagents were in stock and cannot be used as the main FACS reagent is stocked out and thus these reagents risk to expire soon
- **A new machine that NACP delivered cannot be used for tests related to HIV** due to its sensitivity that results in many false positive results. However, it is now used for serological analyses for different diseases incl. cancer.
- **Very low stock of HIV first response test kits.**

SEASONAL MALARIA CHEMOPROPHYLAXIS (SMC) / VISIT TO NADOWLI DISTRICT

SMC, formerly known as 'intermittent preventive treatment of malaria in children', is defined as "intermittent administration of full treatment courses of an antimalarial medicine during the malaria season to prevent malarial illness with the objective of maintaining therapeutic antimalarial drug concentrations in the blood throughout the period of greatest malarial risk". The SMC strategy in Ghana consists of administering three treatment courses at monthly intervals to children aged 3–59 months. While WHO recommends SMC in areas of highly seasonal malaria transmission since 2012, it is the first time that SMC is implemented in Ghana. SMC is currently carried out in the Upper West Region only. For more information on SMC and its implementation in Ghana, kindly refer to the two annexes.

James Frimpong of NMCP gave the CCM team a comprehensive overview on the implementation of Seasonal Malaria Chemoprophylaxis (SMC) and his first impressions. He was very satisfied with the initial results and expected that 75% of the eligible households would be covered within the first week.

The CCM team was able to confirm his positive impression during a site visit to Nadowli and Dapuori in Nadowli district. Nadowli has eight sub districts, 11 healthcare facilities and 21 CHPS compounds (target: 28). Additionally Nadowli pursues a strategy of mobile CHPS. According to the census, close to 69,000 people live in the primarily rural Nadowli district. The district has 232 CBAs of which about 100 are active. The CBAs do not offer rapid malaria tests and can thus not contribute to the respective NMCP indicator.

The district malaria focal person Franklin Ampofo expressed his satisfaction with the effective roll out of SMC and other malaria control activities in his district. Comprehensive sensitization activities as well as the significant impact of malaria control on the health of the communities have resulted into an exemplary acceptance rates among the population. Volunteers receive 8 GHC per for a period of five days per treatment round.

The only issue that the CCM team could identify is the lack of information on the number/percentage of fully dosed children that is not captured on any of the summary sheets, furthermore, Franklin Ampofo pointed out that some of the SMC blister packs do not have the full number of tablets (production error). However, this is not expected to cause any problems due to the sufficient buffer stock.

Franklin Ampofo confirmed the good collaboration between AGA Mal and GHS. However, he wished that AGA Mal informed GHS specifically on the planned IRS dates, so they would be able to remind the communities as well. Additionally, he hopes to receive data on the targeted households and the results achieved at district level. Franklin Ampofo emphasized the importance of continuous IRS activities. In 2013, when one cycle of IRS was left out, malaria prevalence went up notably. People in his district, notably women, are highly convinced of malaria control activities as they see their impact on their health. However, there are also people who complain that most malaria control activities are dedicated to children and women only.

Additionally, the CCM team inquired about LLIN distribution campaigns and learned that the District Health Directorate receives respective information on ANC and immunization campaigns. However, there is a gap in the information provided by SHEP on the LLIN distribution at schools. The team suggested to invite the local SHEP coordinator to meetings at which a report on school activities shall be delivered. LLINs are available in sufficient numbers, however, districts still have to travel to the RMS to get their supply. Unfortunately no information is available on how the nets distributed are being used. The team suggested to get more information on this aspect to be able to evaluate LLIN effectiveness.

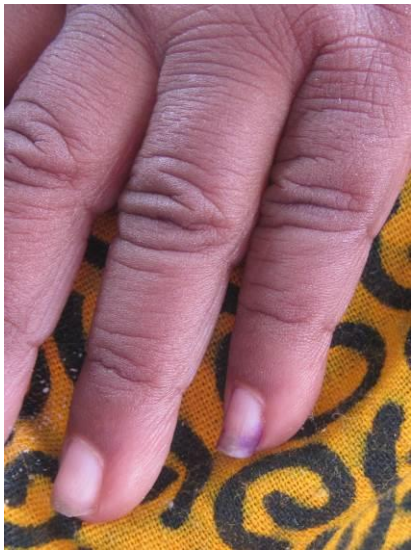
Franklin Ampofo complained about the stock out of SP for IPT lasting two to three months earlier this year. He explained that the current SP stock is largely insufficient.

The CCM team continued to Dapuori to speak to an SMC volunteer and community members on their experiences with SMC and other malaria control measures. The community volunteer David Gungumah was found on his farm since he had fully covered his community within the first three days which means that the CCM team could unfortunately not directly observe the SMC administration. Nonetheless, he confirmed the positive statements on the role out of SMC and accompanied the team through the community. David Gungumah did not experience any resistance by the mothers of children under 5 visited. Even though it was farming season, he met

all mothers and caretakers and the children under 5 at home waiting for the volunteer. David's activities went very smoothly and according to him, everything was well prepared.

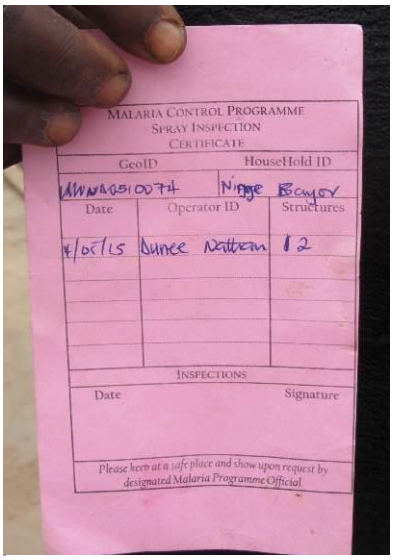
Healthcare workers compiling SMC data in a summary sheet

The team also spoke to several women in the community of Dapuori. The women were all very glad about the malaria control activities. The team saw residuals of the ink that confirms SMC treatment on the small finger of every small child. The houses of families with small children carried the chalk mark S1, indicating the SMC treatment of children. One mother showed the team am IRS certificate indicating that her premises were sprayed. She confirmed that the IRS team covered every single room in her compound, including the sheep barns. Pregnant women the CCM team talked to confirmed to attend ANC clinics and to have received SP.



The marked finger of a baby who received SMC

A Dapuori resident holding up her IRS certificate



Her IRS certificate

The CCM team was very satisfied with the effective rollout of malaria control activities in this district.

Challenges encountered

- **Rain protection:** SMC volunteers are not equipped with rain coats, however, this will be important especially during the next two treatment rounds that fall into the rainy season.
- **SMC:** Even though the community sensitization included information on the importance of having eaten before the treatment, some children have not done so when the SMC volunteers arrive. The volunteers suggest to provide a small budget for biscuits, so they could help those children.
- **Stock levels:** Stock out of SP in the past over several months, low stock currently. Current stock out of ARTs.

RECOMMENDATIONS

1. AGA Mal is requested to report to the CCM on the results of insecticide effectiveness tests over the year to compare against the 9 month effectiveness claim of the manufacturer.
2. AGA Mal is requested to inform GHS at district and sub district about its schedule, targets and results.
3. CCM should get data on monthly malaria prevalence in the Upper West Region to measure the impact of the annual IRS activities compared to the previous biannual IRS activities.
4. CCM should get data on malaria prevalence in the Upper East Region to estimate the impact of IRS discontinuation.
5. Discuss the vehicle situation with NMCP (those parked at AGA Mal for several months)
6. The CCM shall follow up with JSI Deliver on the next planned quarterly delivery to evaluate if this one can solve the problems of low stock and stock out and consider respective follow up measures
7. RMS is requested to identify a sustainable solution in order to protect commodities that are placed under the veranda from the weathers and possible theft. This issue has been pointed out during the CCM site visit two years ago.
8. RMS staff should get a refresher training on how commodities that have finished can be replaced by others or other combinations in order to orient health facilities in demand accordingly.
9. MoH should run HIV/TB sensitization campaigns that also feature healthcare workers in this domain in order to fight stigma related to those professions
10. SMC volunteers should get a rain coat.

LIST OF CONTACT PERSONS ATTACHED:

NO.	NAME	LOCATION	DESIGNATION	CONTACT
1.	Dr. Abudulai Adams Forgor	Reg. Wa	Regional Director of Health services	0244577985
2.	Titus Tagoe	Reg.Wa	Regional Malaria Coord.	0243303691
3.	Ralph K. S. Hadzi	Reg. Wa	Dep. Director of Pharmaceutical services	0208168383
4.	Tony Takyi-Patrick	Reg.Wa	Global Fund/JSI Logistics Support Project (GFLSP) at the RMS	
5.	Musa Abdul Rassac	Reg. Wa	Zonal Operations Manager, AGA Mal	0501296682
6.	Eric Obu Buetey	Reg. Wa	Head of Operations	0244845723
7.	Seidu Musah	Reg. Wa	Zonal Finance & Admin Officer	0203298079 0247818103
8.	Joyce Mawuse Tawiah	Reg. Wa	Zonal M&E Coordinator	0501297955
9.	Alberta J. Gordon Bosomtwe	Reg. Wa	Zonal IEC Coordinator	0501291585
10.	Paul Amekudzi Kwame-Kuma	Reg. Wa	Zonal Logistics	0501323995
11.	Gilbert Dossah	Reg. Wa	Entomology Technician	0200324463
12.	Grace Oppong	Reg. Wa	Entomology Technician	0245117140
13.	Michael Boye Kofi	Reg. Wa	Deputy Director of Nursing services, Reg. Hospital	0201849020
14.	Lubabah Salih	Reg. Wa	Incharge of ART Clinic, Reg. Hospital	0244749714
15.	Faustina Salifu	Reg. Wa	Institutional TB Coordinator, Reg. Hospital	0206351762
16	Emmanuel Wondoh	Reg. Wa	Data Manager, Reg. Hospital	0208338307
17.	Samuel Yaw Oduro	Reg. Wa	Laboratory manager, Reg. Hospital	
18.	Franklin Ampofo	Nadowli	Malaria Focal Person	0206572333
19.	Emmanuel Timbila	Nadowli	Disease Control	
20.	Mohammed Dumba	Dapuori	SMC Subdistrict Coordinator	0206444119
21.	Philip Tuorong	Dapuori	SMC Supervisor	0246178710
22.	Ben Oteng Danso	Dapuori	SMC Supervisor	0205669897
23.	David Gungumah	Dapuori	SMC Volunteer	0506180612
24.	Various mothers	Dapuori		