



Ghana

FY2014

Control of Neglected Tropical Diseases

Annual Work Plan

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Acronyms and Abbreviations

| | |
|--------|---|
| APOC | Africa Program for Onchocerciasis Control |
| ASTMH | American Society of Tropical Medicine and Hygiene |
| CDD | Community Drug Distributor |
| CDTI | Community Directed Treatment with Ivermectin |
| CMS | Central Medical Stores |
| CNTD | Centre for Neglected Tropical Diseases |
| CRS | Catholic Relief Services |
| DHMIS | District Health Management Information System |
| DIP | Detailed Implementation Plan |
| TIPAC | Tool for Integrated Planning and Costing |
| FHI360 | Family Health International |
| GAELF | Global Alliance for Elimination of Lymphatic Filariasis |
| GES | Ghana Education Service |
| GHS | Ghana Health Service |
| HRA | High Risk Adult |
| ICCC | Intra Country Coordinating Committee |
| IVM | Ivermectin |
| JAF | Joint Action Forum |
| LF | Lymphatic Filariasis |
| M&E | Monitoring and Evaluation |
| MDA | Mass Drug Administration |
| MOH | Ministry of Health |
| NMIMR | Noguchi Memorial institute for Medical Research |
| NTD | Neglected Tropical Diseases |
| NTDP | Neglected Tropical Diseases Program |
| Oncho | Onchocerciasis |
| PZQ | Praziquantel |
| RMS | Regional Medical Stores |
| SAC | School Age Children |
| SAE | Severe Adverse Events |
| SCH | Schistosomiasis |
| SCM | Supply Chain Management |
| SHEP | School Health Education Program |
| STH | Soil Transmitted Helminthiasis |
| TAS | Transmission Assessment Survey |
| TF | Trachoma Folliculitis |
| USAID | United States Agency for International Development |
| WHO | World Health Organization |

Executive Summary

The Ghana Health Services (GHS) Neglected Tropical Diseases Program (NTDP) is in the process of implementing the 2013 work plan of the United States Agency for International Development (USAID) funded End in Africa project managed by Family Health International (FHI360) to implement, monitor, and evaluate preventive chemotherapy (PCT) for the following five Neglected Tropical Diseases (NTDs): lymphatic filariasis (elephantiasis); schistosomiasis (bilharzia or snail fever); trachoma (blinding eye infection); onchocerciasis (river blindness) and soil-transmitted helminthiasis (intestinal worm infections).

The program is supported by several other external and national partners. This 2014 work plan is the culmination of a work planning meeting that brought together all partners to discuss and agree on priority activities that will help to reach the program goals of elimination and control of the five targeted NTDs.

In FY2013 the program undertook three rounds of mass drug administration (MDA) targeting schistosomiasis (SCH), soil transmitted helminthiasis (STH), onchocerciasis (Oncho) and lymphatic filariasis (LF); and also conducted treatment for some communities found to have Trachoma folliculitis (TF) rates above 5% during surveillance. These treatments targeted more than 10 million persons across the country for the targeted diseases.

In FY2014 the following key activities will be undertaken mainly with the support of USAID:

- Conduct one integrated round of community-based MDA for LF, Oncho and STH in 137 districts in second quarter (Jan to March) 2014. This MDA will target 10,722,817 persons for LF and 3,340,402 for Oncho. USAID will support this activity in 9 out of 10 regions (129 out of 137 districts) while the 10th region (Greater Accra that has 8 districts) will be supported by Liverpool Center for Neglected Tropical Diseases (CNTD).
- Conduct with the support of USAID one integrated round of school and community based MDA for SCH in 126 districts targeting 7,577,187 school aged children (SAC) and high risk adults (HRAs).
- Conduct one round of school based MDA for STH in 170 districts targeting 7,361,075 school-aged children between May and June 2014. The STH campaign will be integrated with SCH treatment in the 126 districts mentioned above that is supported by USAID. STH treatment in the remaining 44 districts will be supported by Partnership for Child development (PCD).
- Conduct a second round of community based treatment for Oncho (round 2) in 40 districts targeting 2,040,020 persons in July 2014 with the support of the African Programme for Onchocerciasis Control (APOC) and Sightsavers.
- With USAID support carry out night blood surveys or pre-transmission assessment surveys (pre-TAS) in 12 LF districts that have completed more than 7 rounds of MDA in November 2013.
- With USAID support carry out transmission assessment surveys (TAS) in 18 evaluation units (EUs) representing 45 districts that have attained an LF prevalence of less than one percent. It is expected that this can be achieved through training of 30 additional laboratory technicians from all regions of the country on survey techniques for LF that will include techniques for pre-TAS and TAS. The training will take place just before the TAS in January-February 2014.

Other activities will focus on planning, monitoring and evaluation, advocacy and capacity building with some support from USAID. Specifically, the following activities will be carried out with USAID support:

- Hold one national post MDA review meeting in August 2014.

- Conduct MDA for trachoma in 1 community of 1 district in FY2014.
- Carry out trachoma case search in 7 districts adjacent to endemic districts.
- Hold quarterly Intra Country Coordinating Committee (ICCC) meetings for the NTD program.
- Update the tool for integrated planning and costing (TIPAC) for 2014.
- Develop publications on NTDP best practices, success stories, lessons learnt and impact surveys.
- Prepare projections for all NTD drugs for 2015.
- Hold capacity building training for NTD team in program planning, management and implementation.

Specifically, the following activities will be carried out with support from other partners:

- With Sightsavers support continue TF surveillance through community and school screening activities in 29 districts where MDA for blinding trachoma has stopped at the district level.
- With Sightsavers support conduct training of clinical staff and volunteers in all 29 endemic districts to identify trachoma cases.
- With Sightsavers and APOC support carry out entomological and epidemiological surveys according to the NTDP oncho surveillance plan.
- Build capacity of health workers, community volunteers and patients to implement lymphedema management. It is expected that support for this activity will come from a another USAID supported project on morbidity management and disability prevention for which a request for application is being requested presently and Ghana is one of the countries that will be targeted by this project.
- With support from the WHO Country Office in Ghana complete selection of communities with HRAs in category “A” and “B” districts for SCH treatment.

Background

The United States Agency for International Development (USAID) funded End in Africa project in Ghana is designed to support the Ministry of Health (MOH)/Ghana Health Service (GHS) Neglected Tropical Diseases Program (NTDP) to implement, monitor, and evaluate preventive chemotherapy (PCT) for the following five Neglected Tropical Diseases (NTDs): Lymphatic Filariasis (elephantiasis); Schistosomiasis (bilharzia or snail fever); Trachoma (blinding eye infection); Onchocerciasis (river blindness) and Soil-transmitted helminthiasis (intestinal worm infections).

The NTDP has completed mapping for all five NTDs and has been implementing mass drug administration (MDA) on a national scale since 2010. For Trachoma, all 29 districts that were endemic at baseline have stopped treatment at the district level with only one community in one district currently requiring treatment. There are 4 districts that have stopped treatment for lymphatic filariasis (LF) with 45 more out of the 74 LF endemic districts at baseline ready for transmission assessment surveys (TAS) to determine whether to stop MDA. An internal review of the parasitological and treatment data for schistosomiasis (SCH) and soil transmitted helminthiasis (STH) was conducted in June 2013 to redefine the country treatment strategy for both diseases. Available baseline parasitological data for SCH and STH are considered adequate for monitoring impact of MDA. SCH and STH treatment has been on-going for four years and districts endemic for SCH have been categorized according to prevalence to be treated once a year, once every 2 years or once every 3 years. Historically, SCH and STH treatment mainly targeted school enrolled school age children (SAC). Moving forward, the NTDP will gradually upscale treatment to include all SACs (school enrolled and non-school enrolled) for SCH and STH and high risk adults (HRAs) for SCH. Treatment for STH is conducted at least once a year for all SACs in all 170 districts. SACs in districts treated for LF are considered to be receiving a second treatment for STH each year. Onchocerciasis (oncho) treatment is conducted annually in 73 districts, among which 40 districts that have relatively high oncho prevalence are treated twice a year receiving the second treatment 6 months after the first.

The NTDP works with several partners in addition to USAID that include the Liverpool Centre for Neglected Tropical Diseases (CNTD), Partnership for Child Development (PCD), African Program for Onchocerciasis Control (APOC), Volta River Authority (VRA) Ghana, School Health Education Program (SHEP) of the Ghana Education Service (GES) and Sightsavers.

In 2013 the country program undertook three rounds of MDA, targeting SCH, STH, Oncho and LF. Eight communities were also treated for Trachoma. Coverage for these MDAs ranged between 75 to 90% in various districts. Activities were undertaken to coordinate partners support to the program and also improve on the programs visibility both in country and internationally.

Table 1: NTD program in Ghana

| Disease | Number of endemic districts (at baseline) ¹ | Number of non-endemic districts (current) | Number of districts needing mapping | Number of districts with ongoing MDA | | Number of districts needing MDA, but MDA not yet started | Number of districts where MDAs have been stopped |
|-----------------------------|--|---|-------------------------------------|--------------------------------------|-----------------|--|--|
| | | | | USAID-funded | Others | | |
| Schistosomiasis | 170 | 0 | 0 | 170 | 39 ² | 0 | 0 |
| Soil-transmitted helminthes | 11 | 159 | 0 | 170 ³ | 44 ⁴ | 0 | 0 |
| Lymphatic filariasis | 74 | 96 | 0 | 70 | 0 | 0 | 4 |
| Onchocerciasis | 73 | 97 | 0 | 73 | 40 ⁵ | 0 | 0 |
| Trachoma | 29 | 141 | 0 | 0 | 0 | 0 | 29* |

*Treatment stopped at district level but 1 community in 1 district will be treated because prevalence in this community was discovered to be >5%.

¹ Districts have been re-demarcated and the number of districts at baseline has changed.

² VRA provides some funding to support SCH treatment in 39 districts in Volta, Eastern and Northern regions. This means there are 39 districts receiving support from USAID and VRA. To avoid duplication of efforts in these 39 districts VRA support will be entirely for community based treatments while USAID will support schoolbased treatment.

³ Even though there are only 11 districts requiring MDA for STH in Ghana according to World Health Organization (WHO) guidelines, the MOH/GHS Ghana has a policy of treating all SAC at least once a year. This is in consideration of the negative effect that STH infection has on growth and school attendance among children especially SAC, and also the fact that the environmental factors in Ghana are still favorable to high transmission of STH and reinfection among children.

⁴ PCD provides some funding to support STH treatment in 44 districts that are not treating for SCH. This means there are 44 districts receiving support from USAID and PCD. To avoid duplication of efforts in these 44 districts PCD support will be entirely for community based treatments while USAID will support schoolbased treatment.

⁵ The 2nd community based MDA for oncho in these 40 districts will be supported by APOC and Sightsavers while the first MDA in 73 districts is supported by USAID.

Goals for the year 2014

Based on the progress made by the program in previous years, the following goals have been set for FY2014:

- Continue with MDA for LF in 70 districts, Oncho in 73 districts, SCH in 126 districts⁶ and STH in 170 districts reaching at least 75% of targeted persons by September 2014.
- Continue surveillance for Trachoma in 29 districts endemic at baseline; and also surveillance in Oncho and LF sentinel sites. The NTDP has teams of trained and experienced technicians that conduct these surveys in the field. While surveillance for trachoma by a team of well-trained regional and national level GHS personnel has been ongoing for the past 4 years, the NTDP has noted the need for training of new technicians to conduct surveys for oncho, LF, SCH and STH and made a technical assistance (TA) request in FY2013 for these trainings of new laboratory technicians that will now be implemented in FY2014. These trainings are expected to take place before the surveys are conducted in FY2014. Surveillance for onchocerciasis (both entomological that involves capture, dissection and PCR study of the vector the black fly and epidemiological that involves skin snipping and microscopy) is supported by Sightsavers and APOC and will be continued by the team of technicians that are planned to be trained through the TA being requested. Surveys for LF (pre-TAS and TAS) are to be supported by USAID and will also be conducted by the team of technicians to be trained.
- Aggressively scale down LF treatment by conducting TAS in 18 evaluation units (EUs) for stopping MDA in at least 45 districts by September 2014. FHI360 will start making arrangements for procurement of 38,000 immune chromatographic tests (ICT) cards for this survey in September 2013 for the survey to start in January 2014. The training of technicians that will be conducted through the TA requested will increase the number of technicians available for this survey.
- Implement revised strategy for SCH and STH control.
- Strengthen the capacity of the NTDP to conduct impact assessment surveys for all targeted NTDs.
- Enhance program visibility through publications, interaction with existing and potential partners and outdoor advertising. Outdoor advertising is intended to increase program visibility and hopefully compliance to treatment within Ghana and will involve both social mobilization and behavior change communication campaigns that will be implemented using billboards, posters, through photo exhibitions, and through documentation of lessons learnt and best practices. The NTDP has submitted a request to FHI360 for the recruitment of a communications support consultant to work with the NTDP for this purpose.

⁶ 126 districts are targeted for FY2014 because the number of districts covered for SCH changes each year based on the category of the districts. Category A districts (prevalence $\geq 50\%$) are treated each year; category B (prevalence $\geq 10\%$ and $< 50\%$) are treated once every 2 years, and category C districts (prevalence $< 10\%$) are treated once every 3 years. The NTDP has developed a spreadsheet that indicates when all endemic districts are treated.

Main Activities

Support NTD Country Program Planning Process

Update the tool for integrated planning and costing (TIPAC) for 2014. With technical support from the END in Africa regional hub in Accra, training was conducted on TIPAC in January 2013. NTDP staff will be trained in FY2014 to update the TIPAC for Ghana in the first quarter of FY2014.

Prepare projections for all NTD drugs for 2015. In the second quarter of FY2014, projections will be made for requirements of all medicines needed for FY2015.

Implement recommendations of the internal SCH/STH review. An internal review of SCH and STH parasitological and MDA data was conducted in June 2013 in which NTDP personnel and representatives from FHI360, SHEP, VRA, CRS and the Noguchi Memorial Institute of Medical Research (NMIMR) participated. The following key decisions were made during this review: (1) available parasitological data on SCH and STH are considered adequate and will be used as baseline for monitoring impact of MDAs on the SCH and STH prevalence in the endemic districts; (2) treatment for SCH and STH have so far been limited and not enough for Ghana to move towards elimination of SCH as SACs that do not attend school and HRAs in the endemic districts have not been targeted. The NTDP will implement recommendations of this review meeting that include the following: (1) all SAC will be targeted during MDAs for SCH and STH in endemic districts; (2) the NTDP will identify and treat all HRAs for SCH in category A and B districts; (3) in future years the NTDP will treat the entire population in category A and B districts for SCH as Ghana moves towards elimination of SCH; (4) the NTDP will collaborate with NMIMR and VRA to improve research in Ghana that relate to SCH and STH.

Host cross border meetings and synchronize treatment of border communities for NTDs. To be able to address issues that impact the control of NTDs along border communities with neighboring countries, the program expects to host meetings with other country programs to, among other things, synchronize MDAs and ensure effective coverage in border communities. FHI360 will take a proactive role in promoting cross border meetings and other cross border collaboration such as synchronized surveillance for NTDs in border areas in coordination with WHO. Furthermore, FHI360 is also recommending that a subregional body such as the West African Health Organization (WAHO) in collaboration with WHO be given the responsibility of coordinating an annual cross border meeting for all NTD endemic countries in West Africa instead of having 3-4 such meeting taking place each year. WAHO and WHO can better coordinate cross border activities and ensure that recommendations made during these cross border meetings are implemented. A manuscript on this topic has been submitted for review to PLOS NTDs and we await their decision on whether they will publish it or not.

Mapping

Mapping for all diseases are completed and disease maps are available for all five targeted NTDs.

Scaling up NTD National Program

The number of districts to be treated for each of the diseases is detailed in the disease workbook for 2014 which is attached as an appendix.

Generally all diseases will be treated in all endemic districts to ensure 100% geographic coverage. Due to the focal distribution of SCH, the program needs to finish selection of communities with HRAs in category “A” and “B” districts to better focus SCH treatment. This activity that was started in 2012 will be funded by WHO Ghana and VRA. In the case of Trachoma, post-MDA surveillance has indicated that treatment has to be conducted in 1 community of 1 district in FY2014.

Table 2 below summarizes targeted districts and populations for MDA in 2014.

Table 2: Target districts and estimated target populations for 2014 MDA

| NTD | Age group targeted | Frequency of distribution | Distribution platform(s) | Number of districts | # of people Targeted |
|----------|---------------------------------|---------------------------|--------------------------|---------------------------|------------------------|
| SCH | SAC and “At risk” Adults | annually | School and Community MDA | 126 | 7,577,187 ⁷ |
| Oncho | Entire population above 5 years | 2 times annually | Community MDA | 73 | 3,340,402 |
| LF | Entire population above 5 years | annually | Community MDA | 70 | 10,722,817 |
| STH | SAC | annually | School MDA | 170 | 7,361,075 |
| Trachoma | Entire population | annually | Community MDA | 1 districts (1 community) | 700 |

Mass Drug Administration

MDA Strategy

There will be 4 rounds of MDA conducted in FY2014 as listed below.

Community-based MDA for LF, Oncho and STH

One integrated round of community-based MDA for LF, Oncho and STH is planned to take place in January/February 2014 in 133 districts. Planning meetings, trainings, drugs and supplies distribution and community mobilization for this MDA will start in December 2013. Actual MDAs to at-risk populations is expected to last for 5 to 7 days.

School and community based MDA for SCH and STH

One integrated round of treatment for SCH in 126 districts and for STH in 170 districts will be conducted between May and June 2014. Planning meetings with GES/SHEP, cascaded trainings, drugs and supplies distribution and community mobilization for this MDA will start in April 2014. Actual school-based and community-based MDA is expected to last up to one week.

Community based MDA for Oncho

One round of community based treatment will be conducted for Oncho (round 2) in 40 hyper endemic districts in July 2014. This MDA will be funded by APOC and Sightsavers and conducted using the

⁷ This number comes directly from the planning work book for FY2014 which takes into consideration the SAC and HRA in all 126 districts targeted for treatment. We will have to modify the drug projections accordingly.

community directed treatment with ivermectin (CDTI)⁸ approach with drug distribution estimated to last for about one month.

Community based MDA for trachoma

MDA for Trachoma will be conducted in one community that was discovered during surveillance in 2012 and 2013 to require MDA. This is a community that still has Trachoma folliculitis (TF) prevalence that is >5% among children 1-9 years of age. While Trachoma surveillance is still ongoing, if any new communities are found to require treatment they will be added on.

Training

Trainings will be held at all levels in a cascaded manner to ensure that all persons involved in MDAs receive some training relevant to the MDAs for the year. The trainings will focus on three cadres of persons. These are health (GHS) and education (GES) staffs at the regional, district and sub-district/circuit levels; and community volunteers at the community level. To be able to bring to the fore specific issues on supply chain management (SCM), the NTD training manual has been updated with an addendum on SCM and standard operational procedures (SOP) for drug management at all levels⁹.

Training will focus on the topics below:

- MDA supervision and monitoring.
- MDA implementation.
- SCM and SOPs for MDA drug management.
- Social mobilization for MDA.
- Record keeping and reporting after MDA.

⁸ Round 1 is the LF/oncho/STH integrated campaign in 133 districts. 70 districts are targeted for LF and 73 for onchocerciasis = total of 143 districts. However, LF and onchocerciasis overlap or are co-endemic in 10 of these 144 districts thus bringing the total number of districts budgeted for this campaign to 133. With this round 1 MDA for LF has to be conducted in rural and urban areas and the campaign is done within 5 days or longer in a few areas (up to 7 days). With the second round MDA is conducted only in rural areas and this makes it possible for communities to direct the MDA through the selection and monitoring of CDDs that distribute the medicines. There is need for the NTDP to guide the community on the month to distribute and the duration of the distribution period for 2 main reasons. Firstly, the NTDP depends on funding from Donors and the distribution period is dependent on the time that these funds are made available. Secondly, the second round treatment has to be conducted 6 months after the first round to have maximum effect on the microfilariae.

⁹ The GHS training manual has just added on the SOPs developed with John Snow Incorporated (JSI) as an addendum. The NTDP and FHI360 will work with JSI to develop a curriculum for training on the SOPs.

Table 3: Training Events¹⁰ - New Personnel and Refresher

| Training Group | Topics | Number to be Trained | | | Number Training Days | Location of training(s) |
|---------------------------------|--|----------------------|-----------|--------|----------------------|-----------------------------|
| | | New | Refresher | Total | | |
| MOH/MOE at Central Level | MDA supervision and monitoring MDA implementation SCM and SOP for MDA drug management Social mobilization for MDA Record keeping and reporting after MDA | | 30 | 30 | 1 | National Office |
| Supervisors | MDA supervision and monitoring SCM and SOP for MDA drug management Social mobilization for MDA Record keeping and reporting after MDA | | 3,600 | 3,600 | 1 | Regional Health Directorate |
| Supply chain managers | MDA implementation SCM and SOP for MDA drug management Record keeping and reporting after MDA | | 200 | 200 | 1 | Regional Health Directorate |
| Drug distributors | SCM and SOP for MDA drug management Record keeping and reporting after MDA | | 25,000 | 25,000 | 1 | Sub district Health Center |
| Other (Teachers) | SCM and SOP for MDA drug management Record keeping and reporting after MDA | | 30,000 | 30,000 | 1 | Circuit office |

Community Mobilization and Information, Education and Communication (IEC)

After several years of MDA implementation, endemic communities have come to accept and even expect annual treatments. Community ownership and participation in MDAs is good. However the inconsistency of the timing of MDA creates situations where some community members are either absent or engaged in other activities and are unavailable to receive treatment. To address this issue in FY2014, the program will work with partners¹¹ to ensure that dates for scheduled MDAs are adhered to and communities are informed well ahead of time of these dates.

¹⁰ These are all trainings that have been developed in-country with the support of partners such as JSI and using WHO guidelines. The NTDP has a training manual for training of all those involved in NTDs at the different levels (national, regional, district and community) that is updated regularly depending on new guidelines provided by WHO. As noted above, JSI has provided new guidelines through the SOPs for SCM and will work with the NTDP to incorporate these SOPs in the training curriculum.

¹¹ In the past funding from different partners has not been made available at the same time thus leading at times to delays in the implementation of MDAs. However, the NTDP recognizes that partners have to be informed well

In FY2014 the following specific actions will be conducted as part of health education, sensitization and community mobilization:

Reproduction of IEC materials:

IEC materials which are already in use by the program at school and community levels will be reproduced as required for use in FY2014 since stocks of materials are depleted at the national level. This reproduction will be informed by a review of how previous materials have been deployed and utilized at the community level. As the IEC materials available are considered good by the NTDP this review will be conducted in October 2013 by a group of participants from the regions, districts and national levels and involve only the updating and changing of logos (i.e. branding) to reflect changes in support provided to program implementation. IEC materials will be distributed together with drugs and other supplies needed for MDA.

Success stories

The program, at all levels, will document success stories and some of these will be shared in local print and electronic media to enhance acceptability of the program. To enhance the enthusiasm of regional and district teams to share success stories, the program will recognise and reward the best success stories from regions during the annual review meeting. Special certificates of recognition signed by senior officials of the GHS and partner organizations will be provided to deserving personnel of the GHS. Success stories will also be shared with FHI360 in semi-annual reports. The NTDP has made an official request to FHI360 for the recruitment of a communications support consultant who will guide the NTDP to implement the activities mentioned above. This consultant should have some expertise on photography to provide good pictures for documentation of lessons learned and best practices through articles and success stories in the End in Africa website and twitter, and also for the photo exhibitions that the NTDP will be organizing in the future.

Local Social Mobilization:

Cultural practices vary by geographical area and these practices determine the methods of social mobilisation that are effective. In rural areas methods such as community meetings, roof top announcements and the use of town criers to disseminate dates of MDA and other NTD related messages is more effective and have been used during previous MDAs, while in the capital Accra and in the regional headquarter towns television and radio announcements have been more useful for social mobilization. The program has therefore budgeted accordingly for social mobilization through television and radios to be used in the capital and regional headquarter towns while roof top announcements, town criers and community meetings will be used in rural areas to communicate messages on MDA.

Supervision

Supervision of MDA will be done along the GHS structure of national, regional, district and sub district health systems. Since the CRS staff working with the NTDP were part of the supervisory team at the national level, FHI360 plans to employ and maintain the same number and category of technical staff that are supporting the NTDP so that implementation of NTDP activities will not be affected with the transition from CRS to FHI360.

ahead of MDAs so they can make their contributions available. The NTDP will try to inform partners of all impending MDAs, their dates and make follow ups to ensure availability of funds at the appropriate time.

Funding will be provided for the NTDP to conduct supervision at all levels as part of the MDA budget. Supervision will be done using GHS developed monitoring checklists at all levels. This will ensure that supervision is standardized.

National supervisors will be oriented prior to visiting regions for monitoring. They will be required to send reports on issues that need urgent attention to the NTDP Manager during the course of the MDAs. Regional and district supervisors will be trained prior to each MDA as outlined above in table 3.

Supply Chain Management

Quantification has been done for all medicines to be used in FY2014 and a joint request for selected medicines has been sent to WHO for approval. The estimation for Praziquantel (PZQ) has been done by the program. Table 4 below shows estimated time lines for drug delivery. The PZQ supplier RTI/Envision Project was unable to import the PZQ consignment on time in FY2013 due to the fact that the intermediate supplier, IDA, could not register their product with the drug regulatory authority. At the time this report was prepared, IDA was in the process of providing required quality data to obtain registration. In future years, it is hoped that the supplier will provide assurance that registration requirements are in place in a timely manner in order to avoid delaying MDAs as is happening in FY2013. Since FHI360 will be responsible for PZQ procurement in FY2014, the procurement process will be started early in October 2013 and action will be taken so that PZQ can be available to the NTDP in March 2014.

Drugs will be received at the Central Medical Stores and distributed to Regional Medical Stores by GHS. Districts will pick up their allocations from their respective regional stores and distribute to sub districts. Volunteers will be allocated drugs from the sub districts as required for the communities they treat.

In order to ensure that donated NTD medicines are managed according to GHS established policies and regulations, the NTDP is now shifting the responsibility of managing NTD medicines from the district level NTD focal points to district pharmacists and this will be extended to all districts in FY2014. It was noted recently that involving regional and district pharmacists in the management of NTD medicines improves SCM and for the past 3 years the NTDP has ensured that regional and district pharmacists are trained on NTDs by inviting them to NTD trainings organized in the regions and districts. Unused drugs after MDAs will be retrieved to regional medical stores for storage and redistribution during the next MDA.

Table 4: NTD Medicines Estimated for the year FY2014

| Drug | Source of drug (Donation program, USAID-funded source, or government procurement) * | Quantity of drug requested | Date of Application (Month/Year) | Requested delivery date (Month/Year) |
|-----------------------------|---|---|---|---|
| IVM | Merck and Co. Inc. | 46,217,062 | February 2013 | September 2013 |
| ALB | GlaxoSmithKline (GSK) | 14,066,990 (LF -10,567,153 STH - 3,499,837) | February 2013 | September 2013 |
| PZQ | USAID (End in Africa) | 13,642,702 | April 2013 | March 2014 |
| Azithromicin (tabs) | Pfizer | 24,000 | May 2013 | September 2013 |
| Azithromicin POS Suspension | Pfizer | 432 | May 2013 | September 2013 |
| Tetracycline ointment | Government of Ghana | 1,850 | July 2013 | September 2013 |

Management of Serious Adverse Events

The GHS, through its Pharmacovigilance Unit, using reporting systems established by WHO and the pharmaceutical companies, reports all serious adverse events (SAEs) for donated medicines as well as medicines procured using USAID-funding. GHS' SAE reporting mechanisms starts from the community volunteer, or health facility (depending on where the patient reports first) to the district health office, through the regional health office and finally to the national NTDP office. Once a report is generated at the district level, it is picked up by the Food and Drugs Authority (FDA) agents at the district level and a parallel report is sent to the FDA Pharmacovigilance unit centrally. FHI360 will support the GHS to ensure that this system operates efficiently.

Specifically the following will be done:

- Community volunteers and health care workers as first point of contact will be trained during refresher trainings to immediately report cases of SAEs to the district NTD focal person as soon as such cases are detected.
- The district NTD focal point also reports the case of SAE immediately to the NTDP manager.
- The NTDP manager will ensure that SAEs are reported within 24 hours of notification to FHI360, USAID as well as to the pharmaceutical companies whose drugs are involved. The district NTD focal point will ensure that an SAE form (Pharmacovigilance form) is also immediately completed and sent to the Pharmacovigilance unit of the GHS and the Program Manager concurrently. In the case of death, GHS at the district and regional level will coordinate and facilitate a thorough investigation of circumstances surrounding the death including a post mortem examination of the body. Findings from this investigation will be shared with all stakeholders by the NTDP Manager.

Program Monitoring and Evaluation

Monitoring and Evaluation of MDA

FHI360 in collaboration with the NTDP will submit semi-annual reports at the end of the reporting period (by 15th of March and 15th of September 2014) with the approval of the NTDP Manager and in compliance with END project reporting guidelines.

The NTDP will utilize tools for data collection that are currently in country in order to avoid duplication and additional burdens on the GHS and front-line data collectors. These tools have however been modified recently to capture sex disaggregated data

While late reporting after MDA remains a challenge, the situation has seen some improvement. The NTDP will continue with early follow up with all regional and district offices after MDA to ensure reports are compiled and sent on time. There are challenges with the quality of data which also contributes to late reporting since reports of low quality are rejected either at the regional or national level.

GHS has developed a District Health Management Information System (DHMIS) for all its public health programs nationwide. This system is web based and data is entered at the district level by information officers and can be accessed online in real time. The NTD program is working with the Policy Planning Monitoring and Evaluation (PPME) unit of the GHS to upload NTD reporting tools within this system. Training of district officers on reporting NTD treatment data within this system will be supported by the NTDP. It is not yet clear when NTD reporting will be fully functional in this platform but the NTDP is advocating with the appropriate authorities to get this started. It is expected that this system will address the problems of reporting noted in the paragraph above.

Program Assessments and Transition to Post-MDA Elimination Strategy

The Ghana Program has reached the transitioning stage where several districts need to be re-assessed for continuation of MDA. So far, 4 out of 74 districts have stopped MDA for LF and 36 more were due for TAS in FY2013. In FY2013 the NTDP had expected to get the ICT cards needed for implementation of TAS in these 36 districts from Liverpool CNTD. However, Liverpool CNTD has since noted that they can no longer fulfil this promise. In FY2013 night blood surveys (pre-TAS) was conducted in 12 EUs representing 21 districts. Results of the surveys are out and show that only 9 of the 21 districts surveyed passed the pre-TAS and are eligible for TAS in FY2014. The NTDP has identified poor compliance and high refusal rates in specific sub district areas as the main reason for the poor results and suggests that special attention should be given and social mobilization intensified in these specific sub district areas while MDAs will continue in 12 of the 21 district that did not pass the pre-TAS for another 2 years. Consequently, TAS will be conducted in 18 EUs representing 45 districts (36 that should have been covered in FY2013 and the 9 that have just passed the pre-TAS). In FY2014 38,000 ICT cards needed for TAS in the 18 EUs representing the 45 districts will be procured by FHI360 using USAID funds and the procurement process will start in September 2013.

For FY2014, the following assessment activities will be supported with funding from USAID:

- Hold one national post MDA review meeting in August 2014.
- Carry out Trachoma case search in 7 districts adjacent to endemic districts. The trachoma program has well-trained ophthalmology technicians that have been conducting surveys for trachoma in

previously endemic districts. These technicians will be conducting similar case search within randomly selected communities in these 7 districts. After randomly selecting communities within a district, houses and families to be screened are also randomly selected within these communities. The screening is conducted through examination of the eyes by trained ophthalmology technicians.

- Carry out night blood surveys in 12 LF districts that have completed more than 7 rounds of MDA (November 2013). These districts are being studied now after more than 7 rounds because some were surveyed previously and did not pass the pre-TAS. Districts that did not pass previous pre-TAS have had 2 more rounds of MDA and can be surveyed now.
- Carry out TAS in 18 EUs to decide whether to stop MDA in 45 districts that have attained an LF prevalence of less than one percent.
- Hold quarterly Intra-Country Coordinating Committee (ICCC) meetings for the NTD program.

Other assessment activities that will be funded by Sightsavers Ghana are:

- Conduct TF surveillance activities in 29 districts where MDA for blinding trachoma has stopped at district level (March to April). Active trachoma case search will be conducted in 58 communities (i.e. 2 randomly selected communities in each of the 29 districts endemic for Trachoma at baseline).
- Conduct screening of school age children (1-9 years) in 145 schools (i.e. 5 schools randomly selected in each of the 29 trachoma endemic districts) in October 2013.
- Conduct screening for TF to detect communities with TF prevalence >5%.
- Training of clinical staff and volunteers in all 29 endemic districts to identify trachoma cases.

Sustainability issues

The Ghana NTDP is well established and has adequate technical capacity at the national regional and district levels to implement program activities. Sustaining the gains made by the program towards elimination and control goals will depend on continuous funding even beyond donor support. FHI360 will work with the NTDP and its partners to develop a sustainability plan that will advocate for local governments to provide funding for MDAs in endemic districts.

Unique country features that can affect programme performance

Ghana has a decentralized system of governance in the health service that delegates decision making to regions and districts. While the national NTDP manager gives overall program direction, the final decision on when to carry out program activities such as MDAs rest with regional and district health authorities. This, in addition to the poor synchronization of funding from NTD partners, can also result in delays in the implementation of MDAs. To avoid such delays the NTDP has to continuously network with regional and district authorities to build consensus and agree on MDA dates and dates for other NTDP activities.

Short term Technical Assistance Request

The NTDP is requesting 3 TA for FY2014: TA for updating TIPAC; TA to develop training curriculum on SCM; and TA to conduct training of laboratory technicians on surveys relating to LF, onchocerciasis, SCH and STH. TA for updating TIPAC: The Institutional Capacity Building Advisor in the END in Africa project conducted training on TIPAC in January 2013 but feedback from the NTDP has indicated that the NTDP personnel have to be further guided on the use of the tool to generate program information from year

to year. TA is therefore requested for a week during which NTDP personnel will be guided on how to update data that was put in the tool during and after the previous training in January 2013.

Developing training curriculum on SOP for SCM: The generic SOP developed by JSI for SCM was adapted to the Ghana situation by the NTDP using local policies on SCM. The NTDP is requesting further support from JSI to develop a curriculum for SCM that can be included in the existing NTD training manual.

TA for training of laboratory technicians on surveys for LF, onchocerciasis, SCH and STH: The NTDP in Ghana has made significant progress with MDA for the targeted NTDs and presently an increasing number of districts are reaching the stage where M&E surveys have to be conducted to determine: (1) MDA impact at specific intervals (impact assessment surveys depending on the WHO guidelines); and (2) when to stop MDA for the individual diseases. The NTDP Ghana has technical teams responsible for the studies on the different NTDs. However, most of the technicians in these teams are either retiring or close to retiring and therefore have to be replaced by new and younger laboratory technicians who need very specific training for the different diseases. Furthermore, the number of people in the technical teams for these surveys has to be increased because the amount of work involved has increased significantly as more districts have to be surveyed within a strict schedule as stipulated in the WHO guidelines on M&E for NTDs. 30 technicians are expected to be trained on Kato Katz technique for SCH and STH impact assessment; pre-TAS and TAS for LF impact assessment; entomological (capture, dissection of the black fly and microscopy) and epidemiological (skin snip and microscopy) surveys for oncho. Except for the entomological training for oncho, which requires up to 3 weeks, the other trainings will last for less than 1 week.

Table 5 below indicates the TA requested from FHI360/USAID for FY2014.

Table 5 Technical Assistance Requests

| Task-TA needed | Why needed | Technical skill required | Number of Days required |
|--|--|--|--|
| TA to update the TIPAC for FY2014. | The NTDP has indicated that they cannot do the updating of the tool on their own | Expertise on TIPAC | 1 week (This activity is expected to be carried out in the first quarter of FY2014.) |
| TA to develop training curriculum for the topics in the SOP for SCM | Knowledge on SCM is still limited within the NTDP | Very good knowledge of the SOPs for SCM | 1 week (This activity is expected to be carried out in the first quarter of FY2014 to be ready for MDA in January/February 2014) |
| TA to train up to 30 new technicians for surveys relating to LF, onchocerciasis, STH and SCH | New and younger laboratory technicians are needed to replace those that have retired (or are retiring) and more districts have to be surveyed in the next 2-3 years. | Knowledge on the different surveys mentioned above for LF, onchocerciasis, SCH and STH | 3 weeks for entomological studies on oncho, and 5 days for epidemiological evaluation for oncho, Kato Katz technique, pre-TAS and TAS. |

Financial Management

There has been a change in the funding mechanism for supporting the MOH/GHS to a Fixed Obligation Grant (FOG) mechanism. After initial challenges in implementing this new funding mechanism in FY2013, FHI360 and the NTDP have perfected working with the mechanism through dialogue and proper training. The program is working on detailed costing of all program activities to ensure adequate funding.

A joint work planning workshop was held in May 2013 involving all program donors to agree on the program's focus for FY2014. Donors have pledged support for NTDP activities and the NTDP team at national level is developing a detailed implementation plan (DIP) with indicative budgets for all partners. A training and implementation workshop will be held in the first quarter of 2014 to review the TIPAC for the year.

Facilitate Collaboration and Coordination

The Ghana NTDP has set up an ICCC led by the MOH which brings together all in country stakeholders of the program. This committee is the forum for coordination among NTD stakeholders and is supporting the NTDP to work towards achieving its goals. The ICCC has formed three sub committees (Technical, Advocacy and Fund Raising) which are working to support these aspects of the programs activities.

A communication support consultant will be hired by FHI360 to support the NTDP and will, among other tasks, support the development of video documentaries and success stories to be shared with stakeholders and MOH/GHS at all levels.

The program will coordinate with the Guinea Worm Program to have NTD volunteers ask for cases of guinea worm during MDAs as part of continuing guinea worm surveillance for certification of elimination.

Proposed Plans for Additional Support to the National NTDP

The NTDP will explore the possibility of adding messages on LF to malaria messages during campaigns to distribute insecticide treated nets (ITN) especially in LF endemic districts. The NTDP will also explore the possibility of adding messages on STH and other NTDs during hand washing campaigns organized by GES/SHEP. These opportunities as well as other potential avenues for collaboration with other public health programs will be pursued in FY2014. The NTDP hopes to convince the programs mentioned to make some slight modifications to their activities that can positively impact on the NTDP and will not need any funding for this.

Environmental Monitoring Plan

The program will monitor the effects of its activities on the environment at all levels of implementation. Technical reports generated from the district level will be transmitted in electronic format to reduce the use of stationery. Measuring poles that have been produced by the program will continue to be used and will be stored after each MDA to be available for reuse to reduce the tendency of new ones being procured for each MDA.

Expired drugs will be disposed of following GHS approved disposal procedures. All expired drugs from sub district and districts will be returned to the Regional Medical Stores where they will be aggregated. An audit team comprising the Food and Drugs Board, Pharmacy, Stores and Accounts departments will be constituted to audit the drugs and recommend for their disposal. Disposal will then be done either by incineration or by burying as recommended by the team.

Travel Plans

It is anticipated that the program will support two people from the NTDP to attend the following international meetings within the year:

1. Meeting of the Global Alliance for the Elimination of Lymphatic Filariasis (GAELF);
2. Meeting of the Joint Action Forum (JAF) for onchocerciasis control/elimination in Africa;
3. Meeting of the American Society for Tropical Medicine and Hygiene (ASTMH).

Timeline

Timelines for Implementation of Major Activities in FY2014 Work Plan

| Activity | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Community-based MDA for LF, Oncho and STH | | | | | | | | | | | | |
| School and Community-based MDA for SCH and STH | | | | | | | | | | | | |
| Community-based MDA for Oncho in 40 districts | | | | | | | | | | | | |
| Hold one national post-MDA review meeting in August 2014 | | | | | | | | | | | | |
| Conduct TF surveillance activities in 29 districts | | | | | | | | | | | | |
| Train clinical staff and volunteers to identify trachoma cases | | | | | | | | | | | | |
| MDA for Trachoma in 1 community in 1 district | | | | | | | | | | | | |
| Trachoma case search in 7 districts | | | | | | | | | | | | |
| Carry out night blood surveys in 12 LF districts that have completed more than 7 rounds of MDA (November 2013) | | | | | | | | | | | | |
| Carry out TAS in 45 districts that have attained an LF prevalence of less than one percent | | | | | | | | | | | | |
| Hold ICCM meetings for the NTD program | | | | | | | | | | | | |
| Update TIPAC for FY2014 | | | | | | | | | | | | |
| Develop publications on the successes and achievements of the NTDP | | | | | | | | | | | | |
| Prepare projections for all NTD drugs for FY2015 | | | | | | | | | | | | |
| Selection of HRAs in category "A" and "B" districts for SCH treatment | | | | | | | | | | | | |
| Capacity building in program planning, management and implementation | | | | | | | | | | | | |
| Conduct entomological survey for oncho in 15 districts | | | | | | | | | | | | |
| Conduct epidemiological survey for oncho in 23 districts | | | | | | | | | | | | |
| Conduct capacity building on lymphedema management | | | | | | | | | | | | |

