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141 26,03

ENTER INFORMATION ONLY IF NOT INCLUDED ON COVER OR TITLE PAGE OF DOCUMENT

1. Project/Subproject Number 9365948	2. Contract/Grant Number DPE-5948-C-00-9030-00	3. Publication Date December 1993
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4. Document Title/Translated Title

Mid-Term Evaluation of the Adamawa/Taraba Onchocerciasis Program
September 16 - October 22, 1993

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6. Contributing Organization(s)

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7. Pagination 61 pages	8. Report Number 81505-1	9. Sponsoring A.I.D. Office R&D/H/CD
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10. Abstract (optional - 250 word limit)

11. Subject Keywords (optional)

1.	4.
2.	5.
3.	6.

12. Supplementary Notes

13. Submitting Official Robert W. Lennox, Sc.D.	14. Telephone Number (703) 527-6500	15. Today's Date December 15, 1993
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16. DOCID	17. Document Disposition DOCRD [] INV [] DUPLICATE []
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VBC PROJECT

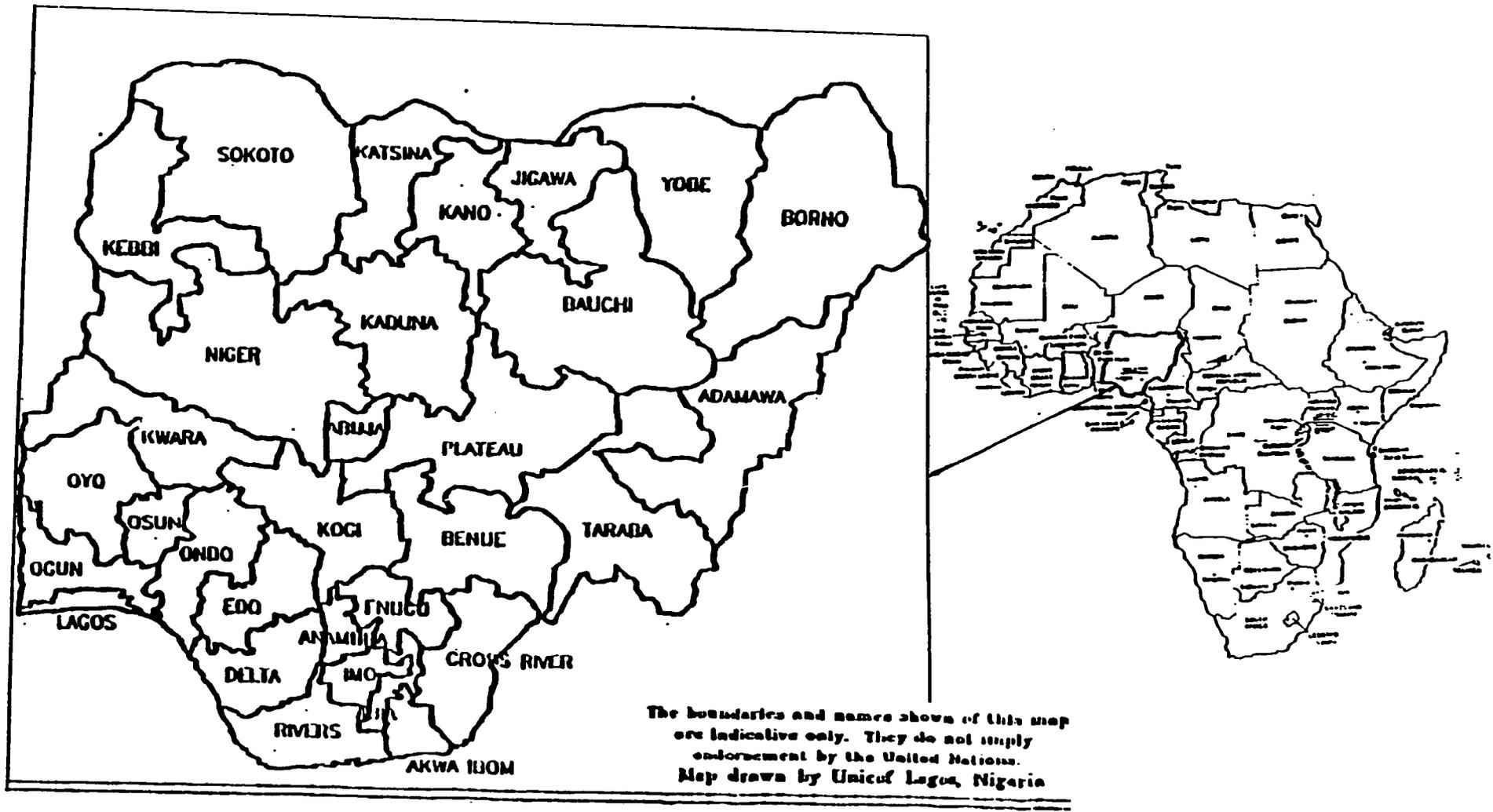
Tropical Disease Control for Development

**Mid-Term Evaluation of the
Adamawa/Taraba Onchocerciasis Program
September 16 - October 22, 1993**

by

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VBC Report No. 81505-1



ADMINISTRATIVE MAP OF NIGERIA

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Acknowledgement

Preparation of this document was sponsored by the VBC Project under Contract No. DPE-5948-C-00-9030-00 to Medical Service Corporation International, Arlington, Virginia, U.S.A., for the Agency for International Development, Office of Health, Bureau for Research and Development.

Acronyms and Abbreviations

ATOP	Adamawa/Taraba States Onchocerciasis Program
CBD	Community-Based Distributor
CHW	Community Health Worker
EPO	Expatriate Project Officer
IDP	Ivermectin Delivery Program
IEF	International Eye Foundation
LGA	Local Government Area
LOCT	Local Onchocerciasis Control Team
LOCW	Local Onchocerciasis Control Worker
NGO	Non-Governmental Organization
NOCP	National Onchocerciasis Control Program
PHC	Primary Health Care
PVO	Private Voluntary Organization
RBF	River Blindness Foundation
SMOH	State Ministry of Health
SOCT	State Onchocerciasis Control Team
SOCU	State Onchocerciasis Control Unit
SOCW	State Onchocerciasis Control Worker
SOCT	State Onchocerciasis Control Team
TDR	Tropical Disease Research (WHO)
WHO	World Health Organization

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Executive Summary

The mid-term evaluation of Nigeria's Adamawa/Taraba Onchocerciasis Program (ATOP) took place at the end of the 25th month of the project. The evaluation team concluded that the project had made satisfactory progress with strengthening the institutional capacity of government health services to provide cost-effective and sustainable delivery of ivermectin. Adequate numbers and categories of field staff have been appropriately trained at both the local government areas (LGA) and state levels. In two of the three LGAs visited by the evaluation team the local government policy makers appear to have adopted the program as their own responsibility. During the second year of the project, they have dedicated sufficient management capacity to address most of the administrative needs and sufficient funds to pay for at least 75% of the running costs of distribution¹.

In one of the three LGAs visited, however, the local government has failed to adequately support ivermectin distribution activities even though that particular local government has a relative abundance of resources. Although the state governments express interest and support for the project, the State Ministries of Health (SMOH), particularly the Taraba SMOH, appear to have made inadequate progress toward assuming management responsibility or responsibility for paying for the field expenses of the State Onchocerciasis Control Unit (SOCU) staff. After initial discussions with local mission organizations, the project has had little interaction with these non-government organizations (NGO), and they have played very little role in ivermectin distribution in either of the two states.

Rapid assessment (nodule palpation and blindness) surveys were carried out by LGA health workers trained and supervised by SMOH staff. By the time of the evaluation, epidemiological assessment had been completed in all 16 of the LGAs of Adamawa State but in only three LGAs in Taraba State.

Based upon the rapid assessment data, it appears that in addition to the three LGAs which have so far benefited from ivermectin distribution, Adamawa State has two more LGAs with heavy and widespread

¹Including all the field allowances for LGA staff and CBDs, most fuel purchases, all drugs needed for treatment of reactions and most of the cost of printing record forms.

onchocerciasis. It appears likely that there is at least one more LGA in Taraba with widespread onchocerciasis of major public health and social importance.

The epidemiological surveys conducted by the project thus far have confirmed that the public health impact of river blindness in parts of these two states is significantly greater than in most other areas with endemic onchocerciasis. In the 100 communities rapidly assessed during the first year of the project, an *average* of 15% of the men were blind. Under these circumstances, treatment of onchocerciasis should be and has become a leading public health priority in selected parts of Adamawa and Taraba States.

The first twelve months of ivermectin distribution extended from March 1992 to February 1993. During this time, ivermectin was distributed to 84,300 people, and all of the endemic areas of the targeted LGAs were covered. Thus, by the 19th month the project had already exceeded the End-of-Project objective for ivermectin distribution. Based on enumeration carried out by the project itself, 86% of eligible persons in the target communities were treated during the first round of distribution.

The second round of distribution began in May 1993 and was about half completed at the time of the evaluation. Thus far during the second round of distribution, an estimated 80% of the eligible persons in the targeted communities have been treated.

Analysis of Africare's expenditures to date on ATOP shows that the in-country running costs have been remarkably modest (about \$25,000/year for the two states together). Due to these low in-country expenditures, \$260,165 of budgeted funds remained as of 6/30/93. The money thus far saved from the in-country budget will be needed to pay for the increased in-country running costs, vehicles and other capital expenditures essential to significantly strengthen the management capacity in both states.

1. Introduction

The mid-term evaluation of Adamawa/Taraba Onchocerciasis Program took place at the end of the 25th month of the project. The evaluation team leader, a short-term consultant for the VBC Project, traveled to Garoua, Cameroon with a representative of Africare/Washington. There they met with the Onchocerciasis Program Coordinator of the International Eye Foundation (a sub-contractor supplying consultants to ATOP), the Expatriate Project Officer of ATOP and representatives of the Adamawa and Taraba SOCUs. All of these persons traveled to Garoua to attend a conference from September 21 to 23, 1993 on distribution of ivermectin in Nigeria, Cameroon, C.A.R. and Chad. From Garoua, the evaluation team traveled to Yola, the capital of Adamawa state, and met with a representative of USAID/Lagos, a representative of the Federal Ministry of Health's National Onchocerciasis Control Programme and a representative of Africare/Lagos.

The evaluation took place from September 26 to October 4. On October 5, representatives of each of the Africare assisted IDPs in Nigeria (i.e., the programs in Kwara, Kogi and Borno states² in addition to ATOP) met in Yola for a Lessons Learned Workshop. Included as Annexes are officials interviewed and sites visited by the evaluation team. Also included is the questionnaire which was completed by each member of the evaluation team.

²It is notable that each of these programs is partially supported by funds from USAID/Lagos

2. Background on the Project

The ATOP is a three year project implemented by Africare with funding provided by USAID and the River Blindness Foundation (RBF). The purpose of the project is to assess the feasibility of using U.S.-based private, voluntary organizations (PVOs) to strengthen the institutional capacity of indigenous health systems to provide cost-effective and sustainable delivery of ivermectin to people living in communities heavily affected by onchocerciasis.

The objectives of ATOP are:

- A decentralized ivermectin distribution program (IDP) administered by local government and church health services (NGOs) totally responsible for managing the distribution of ivermectin.
- Identification of endemic communities in every rural district in both states through skin snip surveys and/or rapid assessment techniques.
- A total of at least 75,000 eligible persons in Gashaka, Bali and Gombi (three of the 28 local government areas into which the two states are divided) will be started on annual treatment with ivermectin.

Africare specified that ATOP would introduce a system for mass distribution of ivermectin by non-professional Community-Based Distributors (CBDs). These CBDs would be trained and supervised by the existing staff of local government and/or church clinics. The staff of these local clinics would, in turn, be trained and supervised by the staff of the SMOH, along with staff hired by Africare especially for the program.

The original proposal stipulated that, "The program in Gongola State will assist with some of the expense of the first round of distribution in each local government area. Thereafter, the running costs of distribution will be borne by state and local governments, local NGOs and the communities themselves."

Onchocerciasis, or river blindness, is a disease caused by infection with the parasitic worm *Onchocerca volvulus*, which is transmitted by the bite of the black fly. Onchocerciasis has blinded one-third of a million people in Africa. One-third of all cases in the world occur in Nigeria. The region of Nigeria that is most severely affected is located in the far east of the country in the former Gongola state where Nigeria shares a mountainous border with Cameroon. Surveys in this region have identified many villages where more than five percent of the entire population has been blinded by the disease.

Controlled clinical studies have shown that ivermectin is safe and effective drug in preventing the blindness caused by onchocerciasis. A single oral dose must be taken once a year. Fortunately, ivermectin is so safe that it can be administered on an outpatient basis with only minimal follow-up.

The drug has no adverse effects on those who are not infected. Because the sole manufacturer of ivermectin, Merck, has agreed to supply it free of charge, it is not necessary to expend time and money to determine who in an endemic village is infected.

Instead, with a few exceptions, ivermectin can be administered to the entire population of a disease-endemic village. The challenge that remains is to design an ivermectin delivery system that is affordable and easy to administer yet reaches those who need it. Because of the high cost of transportation and field incentives as well as problems with supervision, governments and other agencies have so far found it difficult to sustain programs that deliver services to remote communities.

There are three tiers of government in Nigeria: federal, state and local. In 1991 there were only 21 states when Africare prepared the proposal to assist Gongola state with an onchocerciasis control program. Several months after this proposal was accepted for funding, the state boundaries were changed and the number of states increased to 30. Gongola state was carved into Adamawa state in the north and Taraba state in the south. Adamawa has a population of about 2.3 million people and is divided into 16 Local Government Areas (LGAs). Taraba has a population of about 1.5 million in 12 LGAs. Adamawa and especially Taraba are two of the least developed states in Nigeria.

In 1990-1991, most of the responsibility for primary health care in Nigeria was officially transferred from state to local governments. At this time staff, vehicles, and equipment were also transferred to local governments as were the funds to pay for some running costs. Since that time, SMOH have viewed their roles as being limited to the provision of guidelines and technical assistance. SMOHs in Nigeria have only a very limited capacity to carry out field work. Field activities are viewed as being the financial and administrative responsibility of the LGAs. This has important implications for a program such as ATOP which depends upon state level managers to train and supervise field workers and to lobby LGA policy makers for funding and transportation.

3. Findings of the Evaluation Team

Identifying Endemic Communities in Adamawa and Taraba States

The IDP set as an objective to identify all of the onchocerciasis endemic communities in Adamawa and Taraba States through skin snip and/or rapid assessment (nodule palpation) surveys. Skin snip surveys were performed in a small number of sites prior to and during the first months of the project until research confirmed the reliability of rapid assessment as a substitute for skin snipping.

Rapid assessment surveys were carried out by LGA health workers trained and supervised by SOCU staff. By the time of the evaluation, epidemiological assessment had been completed in all 16 of the LGAs of Adamawa State (although two LGAs have not yet forwarded their results to the SOCU) but in only three LGAs (Gashaka, Bali and Jalingo) in Taraba State. There are two major reasons why rapid assessment has not proceeded as far in Taraba as it has in Adamawa:

- 1) the Taraba SMOH in general and the Taraba SOCU in particular has fewer experienced staff and fewer resources than in Adamawa; and
- 2) the Africare office has been located in Yola and the Africare Expatriate Program Officer has found it difficult to help organize the activities of the SOCU during brief visits to Jalingo.

In Adamawa State the more experienced SOCU together with the Africare Expatriate Program Officer were able to train staff from each of the LGAs. Africare has not yet been able to help organize such training in Taraba State. Staff from the Taraba SOCU attended a training workshop on rapid assessment in Abeokuta organized by the Federal Ministry of Health's National Onchocerciasis Control Programme. The Taraba SOCU was unsuccessful, however, in attempts to follow-up on that workshop and train LGA staff in rapid assessment.

Even in Adamawa State the quality of the training and supervision provided for the rapid assessment was not uniform. The Expatriate Project Officer (EPO) trained and supervised the rapid assessment

workers for Jada and Fufore LGAs, but he was on medical leave during the training and the rapid assessment exercise carried out in nine other LGAs.

In light of the limited resources of state and local governments and the large number of communities with high prevalence of onchocerciasis, program planners have elected to limit active distribution of ivermectin to the most heavily affected communities. Thus far, active distribution has taken place only in communities where nine or more (> 30%) out of 30 men examined had palpable nodules. In such communities, the skin snip prevalence in the overall population would be roughly 45% or more. Research conducted by the World Health Organization (WHO) scientists working for the Onchocerciasis Control Program in West Africa has shown that more than 90% of the blindness caused by onchocerciasis occurs in such communities.

Based upon the rapid assessment data it appears that in addition to the three LGAs which have so far benefited from ivermectin distribution (Ganye, Gombi and a few communities in Yola LGA), Adamawa State has two more LGAs (Fufore and Jada) with heavy and widespread onchocerciasis. Another five or more LGAs in Adamawa have more moderate problems with onchocerciasis. Little is known about the severity and geographic distribution of onchocerciasis in nine of the 12 LGAs in Taraba State. It appears likely, however, that there are at least three more LGAs in Taraba with widespread onchocerciasis of major public health and social importance.

The epidemiological surveys conducted by the project thus far have confirmed what researchers have previously noted: the public health impact of river blindness in parts of these two states is significantly greater than in most other areas with endemic onchocerciasis. In the 100 communities rapidly assessed during the first year of the project, for example, an *average* of 58% of men had nodules. An *average* of 15% of the men in the sample were blind. Under these circumstances, treatment of onchocerciasis should be and has become a leading public health priority in selected parts of Adamawa and Taraba States.

In fact, due to the success of the project in publicizing the problem of onchocerciasis and promoting political support for its control, it seems likely that planners will come under increasing pressure to distribute ivermectin widely in the two states. The experience with the Africare-

supported program in Kwara State is instructive in this respect. The Kwara program, now in its fourth year, has steadily expanded to the point that active ivermectin distribution now takes place in two-thirds of the LGAs. Most of the running costs and the administrative responsibilities of the Kwara program are covered by the LGAs. In the long-run, however, it may be difficult to maintain the commitment of LGAs in which onchocercal blindness is not common.

Location of Communities Receiving Ivermectin

Originally the project specified that ivermectin distribution activities would take place in three LGAs: Gashaka and Bali in Taraba State and Gombi in Adamawa State. Initial epidemiological investigations revealed that only a small number of communities were affected in Gombi LGA. Thus, the decision was made early in the project to distribute ivermectin in another heavily infected LGA in Adamawa State called Ganye³. Gashaka, Bali and Ganye LGAs touch each other to form a single contiguous region that constitutes the most heavily infected focus of onchocerciasis in Nigeria and perhaps in the world. The evaluation team visited Gashaka, Bali and Ganye LGAs, but did not visit Gombi LGA.

Choice of Distribution Strategy

Contrary to the original plan, distribution during the first year of the project was carried out by mobile teams of local health professionals rather than by CBDs. This permitted the local onchocerciasis control workers (LOCWs) to become fully acquainted with the targeted communities and the procedures involved in ivermectin distribution. The first year distribution also allowed staff of Africare and the state and local governments to overcome their concerns about the safety and popularity of the drug.

All parties (Africare, SMOH, LGA) agreed, however, after the first round of distribution that a mobile professional strategy was too difficult to sustain. It was expensive during the first round of distribution and,

³A small cluster of villages near the capital of Adamawa state, constituting the only endemic focus in Yola LGA, was also targeted. Thus, the project distributed ivermectin to all endemic areas of 5 LGAs.

because field allowances for health professionals have recently been raised, it would have been even more expensive to use a mobile professional team again during the second round of distribution. Moreover, many health professionals complained about the difficult travel and living conditions. Finally, as noted in the section on supervision, in one LGA health professionals were caught pilfering tablets of ivermectin.

Thus for the second round of ivermectin treatment, distribution is being done by non-professional community-based distributors. At the time of the evaluation the second round of distribution was approximately half completed. Based upon this experience, there was unanimous agreement among health workers, public health officials and policy makers that the CBD strategy was preferable to the mobile professional strategy. It was repeatedly noted, however, that even the CBD strategy would continue to require supervision by mobile health professionals.

Information, Education and Communication

Planning for the health education component of the project began with a Knowledge, Attitudes and Practices (KAP) survey. This was organized late in 1991 by an external consultant. Although the survey provided project staff with an opportunity to visit the field and acquaint themselves with the affected communities, the evaluation team felt that the KAP survey was an expensive exercise, and little of the information coming from the survey appeared to play a role in the design of field activities. It is notable that the project now has no plans to carry out a follow-up KAP survey to determine whether knowledge, attitudes and practices have changed as a result of project activities.

Efforts to plan a health education strategy for ATOP continued with the visit of another external consultant, an anthropologist on contract with the VBC Project. The anthropologist felt the results from the KAP survey provided a useful beginning for communication research in the ATOP area, but she spent much of her time conducting focus group discussions and interviewing key informants. The EPO told the evaluation team that he felt this consultancy to be somewhat intrusive, time consuming and superfluous for project staff, since the consultant appeared to disregard much of what they had done related to health education. Thus far, the only result of the consultancy has been the

design of a set of health education brochures, which have not yet been completed.

It is sometimes said that qualitative research methods yield a greater wealth of information on knowledge, attitudes and practices at a cheaper price than a quantitative KAP survey. It is notable that both qualitative and quantitative research methods were employed in the design phase of ATOP, yet neither type of research appears to have yielded much useful information for project managers. This is not so much a reflection of the inherent usefulness of these research methods as it is an indication of how applied research is of practical value only if the researchers collaborate closely with program managers to design the research, interpret the findings and translate the findings into practical recommendations.

In the end, a very simple health education strategy was employed for ATOP:

- a) Nurses visit communities to talk with groups and with individual leaders about onchocerciasis and ivermectin;
- b) CBDs provide a brief explanation about the disease and the drug as they distribute ivermectin from house-to-house.
- c) Local school children were also taught a song about onchocerciasis and ivermectin.

Fortunately, in areas where onchocerciasis is a significant public health problem, ivermectin distribution has turned out to be such a popular service that little more than publicity has been required to convince people to take the drug.

The evaluation team interviewed a small sample of community residents of Gashaka LGA to determine the impact of this simple publicity campaign. Men, in particular, appeared to have retained a large portion of what they had been told about onchocerciasis and about ivermectin. Women and children had absorbed less of the message, and it appeared that CBDs (entirely male) may have neglected to speak to these subgroups.

One member of the evaluation team advocated repeating the KAP survey (as part of a blindness survey) to document any changes in KAP since the start of the project. All members of the evaluation team, furthermore, agreed that CBDs and health professionals needed better visual aids.

Training

Numerical objectives for the training of State Onchocerciasis Control Workers (SOCWs), LOCWs, and CBDs had been specified in the Detailed Implementation Plan.

- **Objective:** At least 12 staff of the Adamawa and Taraba State Ministries of Health will be trained to train and supervise LGA onchocerciasis workers and directors of mission (NGO) health programs.

Progress Achieved: A total of 12 SMOH employees, six for Adamawa State and six for Taraba State, have been trained to become members of the State Onchocerciasis Control Teams (SOCTs). Six SOCWs had already several years of experience with onchocerciasis control as they had been part of the former Gongola SOCU. These experienced health professionals assisted the Project Manager with training the six SOCT members who had no prior experience in onchocerciasis. SOCWs were trained on the job rather than in special workshops. The SOCUs are now able to perform the following functions: planning of all activities of ivermectin distribution, training and supervision of LOCWs and CBDs, performing rapid epidemiological assessment, and performing KAP surveys.

- **Objective:** At least 150 LOCWs will be trained to distribute and supervise community-based distributors.

Progress Achieved: A total of 152 LOCWs were trained in four LGAs. In the first year, a large number of health workers were trained to perform the actual distribution.

In Year Two, a selected subgroup of these LOCWs became trainers and supervisors of CBDs.

- **Objective:** At least 250 community based distributors (one CBD for 300 - 500 people), selected by the community, will be trained to publicize, register and administer ivermectin to those who are eligible.

Progress Achieved: As of September 1993, a total of 86 CBDs had been trained: 30 in Gashaka LGA, Taraba State; 27 in Dakka District, Bali LGA, Taraba State; 25 in Toungo District, Ganye LGA, Adamawa State; four in Bole Village Area, Yola LGA, Adamawa State.

A large number of additional CBDs will be trained when the second round of ivermectin distribution is completed in Bali LGA in February/March 1994.

The second round of treatment was exclusively delivered by CBDs. For this, the CBDs went through three to five days of training. CBDs were selected by the community leaders and then trained at a local clinic. They received theoretical training for two days, followed by one to three days of practical training. A training manual, both in English and Hausa, was developed for the training of the CBDs. Visual aid teachers used the posters on onchocerciasis developed by the Federal Ministry of Health. To assess previous knowledge and the progress made during the training, pre- and post-tests were given. Immediately after the training, the CBDs returned to their villages to treat their community members.

Table 1. LOCWs Trained

LGA/STATE	# LOCWs TRAINED
Gashaka/Taraba	28
Bali/Taraba	81
Ganye/Adamawa	40
Gombi/Adamawa	3
TOTAL	152

Many of the smaller endemic villages in Gashaka, Ganye and Bali LGAs had no suitable candidates for CBD training. No one in the

villages was literate. Ivermectin was distributed to such villages by a CBD residing in a neighboring community. In Ganye LGA, for example, each CBD was assigned to distribute in an average of five separate communities. In some cases CBDs had to trek for several hours to reach an assigned village.

When interviewed by the evaluation team three months after distribution, some of the CBDs could recall all the important aspects of their training, whereas others had forgotten much of what they had been taught. Three of the CBDs in Dakka district of Bali LGA appeared to have difficulty answering any questions in a public setting even when they were asked in the Hausa language. Either these CBDs were very shy or they were so poorly educated that instructing them would be difficult.

Record Keeping and Reporting

The evaluation team felt that the field records were appropriately designed and appeared to have been appropriately completed. The record forms were simple enough for CBDs to complete. It appeared from interviews with local health professionals that the forms had been useful for supervision of CBDs.

Project managers had regularly and promptly produced detailed and informative reports on all project activities. The representative from Africare/Lagos, Management Information System specialist Tom Ubuane, suggested that it would be helpful to Africare if the ATOP reports and the reports from other Africare-assisted IDP's had a common format which permitted the data to be more easily aggregated and followed from one year to the next. Mr. Ubuane also suggested that the reports would be useful for advocacy and collaboration with other organizations. He recommended that the reports be more widely disseminated.

It was noted that Africare/Lagos, Africare/Washington, USAID, RBF and VBC had provided very little feedback to the many reports produced by the project.

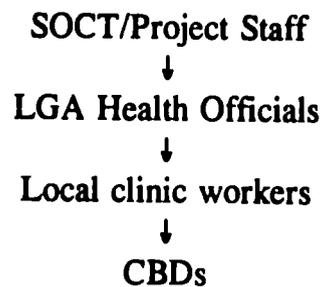
Management of Secondary Reactions to Ivermectin

During the first year, when distribution was carried out by mobile professionals, people had to locate these same professionals if they had any reaction to ivermectin. During the second round, with distribution conducted by CBDs, some, but not all, CBDs received drugs to manage reactions. In some cases in Gashaka, the local government failed to provide drugs to the CBDs for treatment of reactions. Once again, if anyone in a remote village had a reaction to ivermectin, they had to find a health professional to get treated for the reaction. Fortunately, by the second round of distribution the prevalence and severity of reactions to ivermectin had been considerably reduced.

No serious reactions to ivermectin were reported. One ten year old girl in Gashaka died within 48 hours after taking ivermectin. Project staff investigated the case and determined that the girl had had a chronic respiratory problem for more than a year. The Expatriate Project Officer, Dr. Abdalla Meftuh, judged that her death was unrelated to ivermectin.

Supervision

Supervision takes place at several levels:



The overall level of training and supervision appears to be very good, although it seems to vary from LGA to LGA. As discussed in a separate section, one of the biggest constraints to adequate supervision was the lack of transportation. By the second round of distribution the majority — but by no means all — of the supervision was provided by local government staff. After the CBDs had finished distributing ivermectin, LGA health professionals were able to visit most, but not all, villages in Gashaka and Ganye LGAs to perform spot checks, confirm the accuracy of CBD records, and determine whether residents had any complaints.

Several health workers noted that the most important supervision was provided by the elders of each community. When visiting a community to supervise the work of a CBD, health workers would first interview the elders to determine whether anyone had any complaints.

Distribution was not adequately supervised during either round in Bali LGA. During the first round, the Bali LGA PHC coordinator was accused of diverting Naira 100,000 out of the budget allocated by the LGA for ivermectin distribution activities. Due to inadequate supervision on the part of LGA officials, in one area 585.5 tablets of ivermectin were missing. In another instance, a nurse created a fraudulent list of 500 "ghost patients" instead of treating the people in one community. The people in the community complained that they had not received the drug and the fraud was detected. The ivermectin was recovered from the nurse and given to another health professional who subsequently treated the community. The large size of Bakunde district in Bali, with 35,000 residents, appeared to have contributed to the difficulties with supervision in that area. The evaluation team recommended that in the future large districts such as Bakunde be divided up and distribution activities be carried out in phases, so that distribution need be supervised in only a small number of communities at any one time. In light of the experience in Bali LGA, the evaluation team felt that it was necessary for the SOCU and even for Africare to continue to provide some supervision for several more years.

Incentives for CBDs

Thus far, during the second round of ivermectin distribution, LGAs have compensated CBDs for the cost of transport to training workshops and promised to pay the CBDs a flat sum of N200 to N300 (U.S.\$7 to \$10) for their work as distributors. Two of the three LGAs (Ganye and Gashaka) were able to fulfill this promise, spending N5,000 to N10,000 on these CBD incentives. This amounted to approximately 25% of the funds paid by the LGAs for ivermectin distribution.

A third LGA (Bali) budgeted the funds to pay the CBDs but only 18 of 30 CBDs actually received their incentives. Ironically, Bali receives a great deal of tax revenue from agricultural production and trade. It is the wealthiest of all LGAs in the two states. However, the policy makers in Bali appear to be significantly less interested in the health

problems of remote villages. Thus, the money budgeted for onchocerciasis was diverted to other purposes.

Once again, the experience with other IDPs in Nigeria is instructive. For four years, CBDs in Kwara have received payments from the LGAs for each person they treat. This year, however, LGA financial planning was disrupted by an abrupt rise in the salaries of civil servants. This has made it difficult for LGAs to pay CBDs. Until now, program planners in Kwara as well as in ATOP have done little to encourage communities to take on responsibility for remunerating CBDs. Africare advisers and SMOH officials have until recently felt that the LGAs would be more reliable than communities themselves at providing incentives to CBDs. This is especially true if the community lacks a literate person who can serve as a CBD. Under those circumstances, ATOP has had to train someone from outside the community to function as a CBD. Communities, however, are quite reluctant to provide incentive to an outsider. Planners of the RBF-supported program in Plateau State have also done little to get communities to remunerate CBDs.

Recently, some of Africare's Nigerian staff working in other states have begun to advocate that the communities should provide most, if not all, of the CBD incentives. Thus, planners of the newly started IDPs in Borno and Kogi States are asking communities to find their own way to reward the CBDs. Planners of the UNICEF-assisted IDPs in Bauchi, Benue, Niger and Oyi States have recently embraced a CBD strategy. They too insist that it must be the communities' responsibility to motivate the community-based workers. In the short run, a recent 45% increase in the salaries of government workers (to keep pace with inflation) may so disrupt LGA financing as to make some LGAs unwilling to pay CBDs. In the long run, at least one of Africare's Nigerian Project Managers predicts that Nigeria's oil revenue may decline so much that the share allocated to local government will drop substantially. This would seriously impact on any program which is heavily dependent upon LGA financing.

Planners of IDPs can learn from the history of community health workers (CHWs). The community-based strategy achieves maximal coverage but at a cost. The community workers must be motivated (e.g. paid an incentive), and they must be supervised by a health professional. Thus, a community-based strategy can only be sustained over many years if health administrators, donors and/or communities themselves continue

to commit funds and attention to the strategy. Continued government financing of community workers will remain uncertain, but the communities themselves usually have even less capacity to tax themselves and reliably provide incentives to workers. Gill Walt emphasizes this in his review article on evaluations of community health worker programs⁴. The article notes that, "The reality is that most national programmes pay their CHWs either a salary or an honorarium, that almost no examples exist of sustained community financing of CHWs, and that even non-government organizations tend to find ways of rewarding their CHWs. Moreover, while there are programmes in which CHWs work on a completely voluntary basis, attrition rates are high.... A recent WHO draft document concludes that there is little evidence that the mobilization of volunteers in national CHW programmes is an effective policy." Walt concludes that "...unless adjustments are made, CHW's programs will drift towards demise, not because CHW's themselves cannot deliver, but because the support that makes them effective is, in general, absent."

Transportation

Transportation is of key importance to the success of any field program. Availability of four wheel drive vehicles and motorcycles is a problem at all levels, including Africare/Yola. The project budgeted for only one vehicle — a diesel, four wheel drive, extended-cab, Toyota Hilux pick-up. After less than 15 months, this vehicle was out of commission due to a problem with its fuel injection system. It apparently fell victim to the same epidemic of vehicle malfunction which has affected a very large number of diesel Toyotas in Nigeria. Three new vehicles provided by UNICEF to the Taraba SMOH were out of commission after less than two years of use. The rumor was that adulteration of the local diesel fuel had contributed to the problem. While the EPO was on medical leave, project staff hired a local mechanic to replace the engine on the ATOP Hilux with a petrol engine. It appears that this repair was not done adequately, and at the time of the evaluation the project had no all-terrain vehicle for use in either state.

⁴Walt, G. CHWs: Are national programmes in crisis? *Health Policy and Planning* 1988; 3(1): 1-11

To carry out their field work, project administrators have often had to ask LGA officials to loan them vehicles. The Taraba SOCU told the evaluation team that they had not done any field work for the last three months because of the lack of a vehicle. Neither does the project own any motorcycles. Several were budgeted for but never purchased. To permit local health professionals to carry out their supervision, the project has relied upon local governments to use their own motorcycles or to rent ones.

The state and local governments in Nigeria do have a limited capacity to purchase vehicles and motorcycles. During the visit of the evaluation team, the governor of Taraba State promised that the state government would purchase a vehicle for the SOCU. The Director of Disease Control of Adamawa State said that his state might be able to do the same. In the recent past, UNICEF has been fairly generous in providing transportation. UNICEF has recently cut back such assistance, however. Government officials have so many conflicting ways of putting the available vehicle to use that they will find it quite difficult to provide sufficient transportation for ivermectin distribution activities in the future.

Number of Persons Treated with Ivermectin

Because of delays in opening the project office in Yola and in delivery of ivermectin and the project vehicle, ivermectin distribution did not begin until March 1992, the seventh month of the project. It had been proposed that only 25,000 people be treated during the first year.

The first twelve months of ivermectin distribution extended from March 1992 to February 1993. During this time, ivermectin was distributed to 84,649 people, and all of the endemic areas of the targeted LGAs were covered. Thus, by the 19th month the project had already exceeded the End-of-Project objective for ivermectin distribution. Based on enumeration carried out by the project itself, 86% of eligible persons in the target communities were treated during the first round of distribution.

The second round of distribution began in May 1993 and was about half completed at the time of the evaluation. Thus far during the second round of distribution, an estimated 82% of the eligible persons in the

targeted communities have been treated. Table 2 gives details on ivermectin treatments.

Table 2. Number of People Treated with Ivermectin

STATE	LGA	District	Round #1			Round #2		
			Date	Number	Coverage	Date	Number	Coverage
Taraba	Gashaka	(whole LGA)	Mar '92	16,930	87%	May '93	16,060	82%
"	Bali	Dakka	Aug '92	10,932	93%	June '93	8,625	73%
"	"	Bakundi	Feb '93	34,054	83%	-----	-----	-----
Adamawa	Ganye	Toungo	May '92	13,294	89%	July '93	13,000*	87%
"	"	Sugu	Nov '92	4,980	83%	-----	-----	-----
"	Gombi	Garkida	Nov '92	2,998	86%	-----	-----	-----
"	Yola	Bole		1,461	86%	-----	-----	-----
TOTAL				84,649	86%		37,685	82%

*estimate

Project Management

The original plan for ATOP provided for the EPO, Dr. Abdalla Meftuh, to remain only one year. Planners felt that a second year of expatriate management was not affordable. The original plan called for the EPO to select and train a Nigerian counterpart to whom management responsibility could be transferred at the end of the first 12 months of the project. A qualified Nigerian, Mr. Hickson Hellendendu, was selected to be project assistant. A conflict developed between the project assistant and the EPO, however, and Africare decided to extend the tenure of the EPO for a second year. For two and one half months during this second year, the EPO went on medical leave leaving Mr. Hellendendu to manage the project during a critical period when the CBD strategy was first being introduced. Mr. Hellendendu appears to have done a very credible job during this interval. In spite of this, Mr. Hellendendu returned to the SMOH and Africare sought out another Nigerian to take over after the departure of the EPO.

During the third year of the project, Dr. Meftuh will remain in Yola as the Project Adviser for an Africare/USAID supported Adamawa State Child Survival Project. It is anticipated that he will continue to provide a minimum amount of financial oversight of the project until he leaves Nigeria sometime during 1994. Meanwhile, a Nigerian employee of Africare who has worked on the Borno State Onchocerciasis Project will take over as manager of ATOP.

Mr. Hellendendu will return to the Adamawa SMOH where he will assume responsibility for various health projects in addition to being the most senior official in the SMOH with day-to-day responsibility for onchocerciasis control. Officially Mr. Hellendendu is supposed to spend 60% of his time on onchocerciasis control. The Director of Disease Control of the Adamawa SMOH, Dr. Omar, assured the evaluation team that Mr. Hellendendu would spend as much time as was necessary on ivermectin distribution. If Africare's new Nigerian Project Manger can share with Mr. Hellendendu responsibility for planning and administration of the project, this will encourage the state to adopt the project as their own.

In Taraba to an even greater extent than in Adamawa, the ivermectin distribution project remains dependant upon Africare for planning and management support. The Taraba SMOH has fewer trained personnel

and an even greater need for outside assistance. Unfortunately, however, as noted in the above section on epidemiological assessment, Africare has its headquarters in Adamawa State and the EPO has found it difficult to provide adequate management assistance during brief trips to the Taraba state capital. The Commissioner of Health of Taraba State complained of this in a speech delivered at a meeting of the Zone D Onchocerciasis Task Force meeting on May 20, 1993.

It is notable that no one from the Taraba SMOH came to Yola to join the evaluation team at the outset of the evaluation. According to the EPO, the Taraba SMOH had been asked to send a representative but failed to follow through on this request. The message is clear: there is a pressing need for Africare to increase its management support to Taraba State.

In both states, Africare needs to involve the SMOH to a greater extent in report writing as well as in completion of the renewal application for Mectizan. The long-term success and credibility of the project will depend upon the ability of the SMOH to carry out the evaluation and reporting functions now conducted by Africare staff. There is an equally pressing need to develop the planning, management, and reporting capacity of LGA health officials.

Progress Toward Sustainability

The evaluation team concluded that the project had made satisfactory progress in strengthening the institutional capacity of government health services to provide cost-effective and sustainable delivery of ivermectin. Adequate numbers and categories of field staff have been appropriately trained at both the LGA and state level. In Gashaka and Ganye LGAs, the local government policy makers appear to have adopted the program as their own responsibility and have, during the second year of the project, dedicated sufficient management capacity to address most of the administrative needs and sufficient funds to pay for at least 75% of the running costs of distribution⁵. Officials with Gashaka LGA reported that the recurrent health budget for the LGA was about Naira two million per year, of which Naira 60,000 was spent in 1992 and Naira

⁵Including all the field allowances for LGA staff and CBDs, most fuel purchases, all drugs needed for treatment of reactions and most of the cost of printing record forms.

100,000 (i.e., 5%) was spent in 1993. In addition to devoting a vehicle and six motorcycles to the month long ivermectin distribution campaign, Gashaka LGA officials rented three motorcycles for several weeks to help with supervision of CBDs. The chairman of Gashaka LGA told the evaluation team that for the next year he wished to increase the amount allocated to ivermectin distribution to Naira 200,000. "My area suffers more than any other from oncho," he said. Officials with Ganye LGA similarly estimated that they had spent Naira 70,000 on ivermectin distribution in 1992 and another Naira 30,000 so far during 1993. This amounted to about 5% of the recurrent health budget. The secretary of Ganye LGA insisted that the LGA could afford to pay up to Naira 100,000 per year for the indefinite future.

In Bali LGA, however, the local government has failed to adequately support ivermectin distribution activities, even though that particular local government has a relative abundance of resources⁶. Project documents noted that in Bali, "LGA machinery views the program as belonging to Africare and expect Africare to settle all the bills and provide all necessary input." As noted in the section on supervision, during the first round of distribution, this lack of support on the part of LGA officials manifested itself in financial mismanagement and the pilfering of ivermectin. During the second round of distribution in Dakka district, the LGA had budgeted over Naira 30,000 to pay for field allowances and other running costs, but it actually disbursed only Naira 3,000 and allocated only one of its ten motorcycles to the effort. During their visit to Bali, the evaluation team was told by three CBDs and one local clinic worker that the LGA still owed field allowances to many of the CBDs and local clinic workers.

The example of Bali LGA is very instructive. It demonstrates, as one member of the evaluation team put it, "It is not enough for the LGAs to have the money. Management and allocation of the money are also important." Another member of the evaluation team noted that, "Without the active intervention of Africare or state government officials, the money may never trickle down." On the whole, however, ATOP has made considerable progress towards achieving the

⁶For 1993, Bali LGA budgeted Naira 11 million for construction of clinics. Such capital expenditures allow LGA officials to award lucrative construction contracts.

institutionalization necessary to develop an IDP that will operate as an integral part of the existing primary health care system.

Dr. Meftuh, Mr. Hellendendu and other project staff have frequently visited LGA policy makers and health officials to lobby for support for ivermectin distribution activities. ATOP staff have also encouraged the leaders of communities heavily affected by onchocerciasis to themselves lobby policy makers. The willingness of LGA policy makers to fund ivermectin distribution activities appears to be a reflection of the pressure placed upon them by their rural constituents as well as by project managers. Thus, the success of ATOP is a example of the benefits of local democracy in Nigeria.

In Bali, LGA it appears that the same democratic forces have not yet persuaded the policy makers to adequately support ivermectin distribution. This may be because political power in Bali LGA is centered in Bali town and not in the portions of the LGA most heavily affected by onchocerciasis. Regardless, the key to convincing policy makers in Bali LGA to support ivermectin distribution is to convince them that a large number of their constituents demand ivermectin distribution.

Clearly, the support of LGA policy makers is critical to the success of ivermectin distribution activities. This means that if new politicians are elected or if civilian administration is once again replaced by military decree then Africare or state or federal health officials will have to once again lobby and re-orient the new local policy makers.

Although the state governments express interest and support for the project, the SMOHs, particularly the Taraba SMOH, appear to have made inadequate progress toward assuming management responsibility or responsibility for paying for the field expenses of the SOCU staff. To date, the SMOHs in the two states have provided staff for the SOCUs (about six workers in each state) and the Adamawa SOCU has provided two aging vehicles. Neither state, however, has provided office space for its SOCU nor significant funding for purchase of fuel or payment of field allowances.

The Director of Disease Control for Adamawa State, Dr. Omar, told the evaluation team that "Africare is only assisting us. This is our program. The program is part and parcel of the State Ministry of

Health." Dr. Omar insisted that the SMOH would continue to dedicate six staff to the SOCU and that next year's budget included Naira 200,000 for ivermectin distribution activities. "This may go up to Naira 1,000,000 after Africare withdraws," Dr. Omar, commented. "The money cannot be set aside or allocated as one lump sum. Project managers should send advance notice to senior SMOH officials two to three weeks in advance of each field exercise. That way the money will come dribbling out bit by bit and it may total more than Naira 200,000."

Although the project has made impressive progress towards sustainability, the evaluation team members and state and LGA officials agreed unanimously that it would be inappropriate for Africare to withdraw its management and financial support after only three years of assistance. The evaluation team felt that Africare should continue its support at least until 1996. For another two to three years, Africare would play a critical role in advocacy and monitoring/evaluation. Moreover, the original proposal overlooked the fact that the project would inevitably be responsible for implementing ivermectin distribution activities, not only in the three LGAs initially targeted, but in all of the LGAs of the two states which are seriously affected by onchocerciasis. Unless managerial and minimal financial assistance are provided to help the two states expand to other highly endemic LGAs, the plans of the onchocerciasis control teams in the two states will be disrupted and Africare (as well as the donors) will be faulted for abandoning the two states of Nigeria which have the greatest problem with onchocerciasis. Even if Africare and the donors do not support expansion of ivermectin distribution to other LGAs, the states are likely to attempt to extend distribution on their own. It is possible that they may do so in ways that are not sustainable and that will interfere with existing distribution activities and attempts to develop the SOCUs.

In light of the financial constraints faced by USAID, RBF, and other possible donors, Africare must develop a minimum cost strategy which permits it to continue to provide a minimum amount of management support at least until 1996. The possible cost of such a strategy is discussed in the following section.

After initial discussions with local mission organizations, the project has had little interaction with these NGOs, and they have played very little role in ivermectin distribution in either of the two states. Dr. Meftuh and Mr. Hellendendu explained that the mission health programs

covered only a very small and selective number of communities in any one LGA. Even in those areas where they are most active, it was impossible for missions to distribute ivermectin to the majority of communities. Moreover, missions frequently must charge a fee to cover the cost of any outreach activities. Under these circumstances, it seemed easiest to let the local government health service assume responsibility for ivermectin distribution. The Director of Disease Control for Adamawa State, Dr. Omar, pointed out, however, that missions play a significant role in delivery of health services in some areas, and he encouraged the managers of ATOP to re-open a dialogue with these organizations. Even if the missions covered only a minority of communities in any district and even if the mission health workers charged a fee when the local government did not, Dr. Omar thought that the mission health programs might be of assistance to the effort in the long run.

Cost-Effectiveness

A formal cost analysis was beyond the scope of the present evaluation. Several members of the evaluation team as well as health officials at the state and LGA level noted, however, that the CBD strategy employed during the second round of distribution appeared to be cost-effective compared to the mobile professional strategy employed during the first round of distribution. Project reports noted that the marginal running costs⁷ of distribution amounted to three to five naira per person treated per year. During the first round of distribution, this three to five naira was worth 15 to 25 U.S. cents. During the second round of distribution, it was worth 10 to 17 U.S. cents.

From the point of view of the external donors, the project's in-country activities certainly appeared to be cost-effective. Project accounts show that from July 1, 1992 to June 30, 1993 only about \$25,000 had been spent in-country on both states combined. The savings on in-country expenditures could largely be attributed to the success of project managers in convincing LGA officials to pay for a significant portion of

⁷Including field and training allowances, fuel, drugs to treat secondary reactions, printing of record forms. Excludes the salaries and office overheads of Africare staff and government health workers and depreciation on vehicles and motorcycles.

the running costs. During the first round of distribution, LGAs paid for about 25% of the marginal running costs of the field work. Thus far during the second round of distribution, two of three LGAs have paid for about 75% of these marginal running costs.

The evaluation team felt that the project needed to modestly increase the donors' in-country expenditures during the third year of the project in order to more fully develop the capacity of the SOCUs in both states. On the other hand, since most of the marginal running costs of the field work are paid for by the LGAs once the state level capacity has been developed, the project should be able to extend ivermectin distribution activities to additional endemic LGAs without the donor having to spend much more. Thus, from Africare's and the donors' perspectives, expansion of the project to additional LGAs should be seen as improving the cost-effectiveness of the project.

Members of the evaluation team were asked the following:

Please provide an estimate of what you think the entire budget for the field operations for year four will have to be. What percentage of that should be contributed by the LGAs, what percentage by the state government and what percentage by an external donor?

Team members suggested that, based upon the experience of the first two years, each LGA should budget five percent to ten percent of their recurrent PHC budgets amounting to about Naira 100,000/year to 200,000/year (about \$3,000 to \$6,000). Each SMOH should budget five full-time staff positions plus Naira 250,000/year (about \$7,500) for field allowances and fuel plus Naira 175,000/year (about \$5,000) for repair of vehicles and motorcycles. The donors/Africare should budget for \$10,000 to \$20,000/year/state for in-country expenditures plus another \$0 to \$5,000/year/state for vehicle amortization. Communities should be encouraged to begin rewarding their own CBDs. Excluding the community contribution, the total in-country expenditures during the fourth year of the project might thus amount to \$100,000 to \$150,000 of which 30% to 40% would come from the LGAs, 30 to 40% would come from the states, and 30% to 40% would come from the external donors.

Several members of the evaluation team noted that a few changes could be made to the distribution strategy to make it more affordable to the LGAs. Firstly, for distribution to people living in towns (population

greater than 2,500), LGAs should consider switching to less expensive "passive" distribution from existing health centers. Secondly, the project should consider dividing larger districts into smaller areas which are treated sequentially to reduce the number of motorcycles needed at any one time. Finally, the project should assist the LGAs with efforts to combine additional health activities (e.g. impregnating mosquito nets with permethrin) with the ivermectin distribution campaign in ways that will increase the effectiveness of the campaigns without increasing their cost.

Integration with Other Health Services

With a CBD strategy the actual drug distribution is typically carried out by single purpose⁸ community workers who are not integrated into the previously existing primary health care system. However, the CBDs are supervised and supplied by the existing local health service. In this respect, any CBD strategy does depend upon integration with the existing PHC system.

In highly endemic areas, utilization of the existing health service to supervise a single purpose disease control worker can be justified if it is cost-effective and does not interfere with the provision of other health services. This may be the case with community-based distribution of ivermectin where a single CBD can complete the work in one week and local health professionals need to visit each village only two or three times and only for a few minutes each visit.

Officials with Gashaka LGA insisted that the ivermectin distribution activities did not at any time interfere with the delivery of other health services. In Ganye LGA, on the other hand, the PHC coordinator complained that ivermectin distribution had diverted attention from the expanded program for immunization. Africare's Nigerian Project Manager for Kogi State reported that there was a perception on the part of the SMOH there that the IDP was competing for resources with

⁸In cases where a community already has a community health worker providing other services, it is entirely appropriate to use that existing worker to distribute ivermectin. Most communities with endemic onchocerciasis do not have such workers, however. There is no reason why a community with a heavy burden of onchocerciasis should have to wait until a clinic outreach program is set up before they can begin to benefit from mass distribution of ivermectin.

immunization, leprosy, and guinea worm programs. Program planners and evaluators must remain alert to the possibility that onchocerciasis control activities might interfere with the other work of the health service.

Although experience tells us that community workers are easily overburdened and that their motivation can easily be sapped if asked to perform too many tasks, operations research is needed to determine whether CBDs can perform additional roles in their communities. For example, another public health intervention that must be carried out once a year is impregnation of mosquito nets with permethrin. Research in the Gambia has demonstrated that use of such impregnated bednets can reduce under five mortality by more than 30%. Perhaps CBDs could organize the impregnation of bednets at the same time that they go house-to-house to distribute ivermectin. There are many alternative services that CBDs could be trained and supervised to perform.

Analysis of the Budget and the Expenditures to Date

ATOF has been funded for three years with a total budget of \$581,137 provided by USAID and the River Blindness Foundation. Funding officially began on September 1, 1991 and will officially end on August 31, 1994. The following analysis is based upon financial data prepared by Africare/Washington on July 31, 1993 and covers the first 22 months of the project (through 6/30/93). The following table shows the amount of funding promised by the two donors and the amount of funding spent by Africare:

Table 3. Funding

	3 year budget	Expended 1/9/91 to 6/30/92	Expended 7/1/92 to 6/30/93	Balance as of 7/1/93
RBF funds	\$161,804	\$45,597	\$29,801	\$86,406
USAID funds	\$419,333	\$113,425 ⁹	\$132,149	\$173,759
Total funds	\$581,137	\$159,022	\$161,950	\$260,165

⁹Assuming the \$18,000 from the I.E.F. sub-contract during each of the first two years of the project.

For the three years, \$178,138 was budgeted for in-country expenses. As of 7/1/93, Africare had spent a total of \$58,065 in Nigeria¹⁰. It is particularly notable that for the most recent 12 month period for which financial data are available, Africare spent only about \$25,000¹¹ in Nigeria to support onchocerciasis activities in Adamawa and Taraba. Thus, as of 6/30/93, the balance remaining for in-country support of the project was \$120,073. At the rate of expenditure set during the first 22 months of the project, only 53% of the in-country budget would be spent by August 31, 1994.

For the life of the project, \$259,024 was budgeted for the direct headquarters expenses of Africare/Washington and IEF/Bethesda¹². Of this amount, \$203,566 had been spent as of 6/30/93¹³ leaving a balance of \$55,458. Excluding the IEF sub-contract (for which accounting information will be provided separately), salary, benefits and transportation for the in-country expatriate project manager (excluded based upon the assumption that these expenses are non-recurrent start-up costs) and the cost of capital equipment (vehicle, computer, printer, fax, photocopier,), a total of \$70,275 was budgeted for Africare/Washington's direct headquarters recurrent expenses. Of this amount, \$51,432 had been spent as of 6/30/93¹⁴, leaving a balance of \$18,843. It is particularly notable that Africare/Washington spent at least \$7,500 on telephone/telex/post/delivery¹⁵. At the rate of

¹⁰\$36,521 from 1/9/91 to 30/6/92 and \$21,544 from 7/1/92 to 6/30/93

¹¹\$24,781

¹²This "headquarters" budget includes the salary, benefits and international transport of the in-country expatriate project manager and international consultants as well as the project vehicle and project office equipment which were purchased outside of Nigeria.

¹³\$103,732 from 9/1/91 to 6/30/92 and \$99,834 from 7/1/92 to 6/30/93

¹⁴\$22,613 from 9/1/91 to 6/30/92 and \$28,819 from 7/1/92 to 6/30/93

¹⁵The spreadsheets showing only headquarters expenses show that Africare/Washington spent \$7,502 on communications while the spreadsheets showing combined headquarters/in-country expenses shows that Africare/Washington, Africare/Lagos and Africare/Yola spent a total of \$10,996 on telephone/telex/post/delivery.

expenditure set during the first 22 months, the headquarters recurrent expenditures will be over budget by 20% by the end of the project.

In summary, analysis of Africare's expenditures to date on ATOP shows that the in-country running costs have been remarkably modest. Due to these low in-country expenditures, after 22 months of project activities (61 % of the life of the project) only 55% of project funds have been spent and a balance of \$260,165 of budgeted funds remained as of 6/30/93. As discussed in the following section, the money thus far saved from the in-country budget will be needed to pay for the increased in-country running costs, vehicles and other capital expenditures essential to significantly strengthen the management capacity in both states.

4. Recommendations

Development of Management Capacity and Political Support

Africare

- Five of the seven evaluation team members believe that Africare/Nigeria should recruit a Nigerian professional to be their national onchocerciasis coordinator. This coordinator would backstop all Africare-assisted IDPs in Nigeria, as well as represent them at national and international meetings. The two dissenting team members believed that an additional staff member at Africare/Nigeria headquarters would not be cost-effective, a view not shared by the rest of the team.
- Africare should promptly appoint a Nigerian project manager to the project in each state. These Africare employees would provide management support to their respective projects. For the next year, these project advisers will probably act as the leading managers of project activities. It should be the objective, however, for Africare to steadily hand over more and more management responsibility to regular staff of the SMOH in each state.
- Africare should assist with the development of an office for the SOCU in each state. To do this, Africare should purchase a computer, printer and office equipment for the SOCU office in Jalingo. For at least another year, each office should have a secretary and part-time or full-time accountant paid by Africare and selected by Africare in consultation with the SMOH.
- Africare and IEF should work with SMOH and LGA officials to prepare separate in-country budgets and detailed implementation plans for years three and four of the projects in each state.

State Ministry of Health

- Each State should have an onchocerciasis coordinator in the SMOH for the effective management of SMOH onchocerciasis activities.

- The project managers should begin to negotiate a State Project Accord for each state for year four.
- Project staff should provide additional training to the SOCU members in the areas of training techniques, and, possibly, how to apply for Mectizan.
- Project staff should assist the Taraba SMOH personnel with planning and budgeting for onchocerciasis control.

Local Government Areas

- Each LGA should have annual written agreements with the SMOH/Project.
- SOCU members and project staff should provide additional training to LOCT members in the areas of report writing, inventory keeping, accounting, monitoring and supervision.
- The project manager in Taraba State and the state onchocerciasis coordinator should meet with the chairman of Bali LGA/Taraba State to re-emphasize the need for a strong commitment to onchocerciasis control. A joint meeting with the Governor of Taraba State should be considered as well.
- All chairmen of the Taraba State LGAs should be asked to attend the rapid assessment workshop for Taraba State.
- The assistant PHC coordinator of Bali LGA/Taraba State and the project manager of Taraba State should see to it that field workers are paid.
- LOCTs and SOCTs must monitor ivermectin usage closely in order to avoid abusive use of the drug.

Finance

- Africare should consider developing separate working budgets for each state.
- Africare should begin to develop a funding proposal for year five.

Ivermectin Field Work

Health Education/Training

- Adamawa and Taraba project managers, in collaboration with the SOCTs and LOCTs, should plan and implement the dissemination of already-designed graphics to be printed into handbills, posters and T-shirts.
- Africare/Nigeria and SOCU staff should consider developing a standard CBD training protocol. Suggestions for this protocol are included as an appendix.
- Annual re-training of CBDs in all aspects of the core curriculum is essential.
- Special efforts should be made to inform all segments of the community, including women, about ivermectin.
- An "in-house evaluation" should be organized for Dakka District/Bali LGA/Taraba State.
- The training manual for the training of CBDs needs to contain graphics. For this, the team of the IDP in Borno State should be contacted.

Distribution of Ivermectin and Management of Adverse Reactions

- In large settlements, such as Serti Town and Bali Town, ivermectin should be made available in the health centers.
- Large districts, such as Bakundi District/Bali LGA/Taraba State, should be divided into sub-divisions in order to improve supervision by staff with limited transportation options.
- If CBDs are used to distribute ivermectin for the first time to any endemic community then the CBDs must be provided with drugs to treat minor reactions. More importantly, they must know how to recognize and refer serious reactions. The project should do more to assure that CBDs complete records on reactions, and supervisors

should review these records and correct the CBD when it appears they have made a mistake in treatment.

CBD Incentives

- In some villages or village areas, the project should consider experimenting with alternatives to the present method of providing incentives to CBDs. While asking the communities to pay does not seem very realistic at this point, it may be possible for the communities to provide some in-kind support to the CBDs. The monetary incentive paid by the LGA could then be either reduced or eliminated altogether.

Cost Recovery

- Only one of seven members of the evaluation team felt that it was practical for the projects to even experiment with individual user fees for community-based distribution.
- The evaluation team does consider it appropriate for clinics to charge individual fees for ivermectin treatment if it is already their policy to charge fees for other services. If fees are charged then clinics must have a means to waive the fee for indigent patients.

Epidemiological Assessment

Rapid Assessment in Taraba State

- The following persons should be invited to take part in a rapid assessment workshop to be held in Taraba State before the end of 1993: Africare/Nigeria Country Representative, NOCP Zone D Coordinator, Project Manager and SOCU of Taraba State, and project staff of Adamawa State.
- The guidelines of the NOCP protocol should be followed where possible (i.e., increase sample size from 30 to 50, etc.).
- Plans should be made to validate the results of a state-wide rapid assessment survey.

Rapid Assessment in Adamawa State

- The results of the rapid assessment surveys in the LGAs of Adamawa State should be validated. Special attention should be given to those LGAs where survey activities were not supervised due to transportation problems.
- Concerning the most appropriate and reliable methods of validation, consulting WHO/TDR should be considered.
- To interpret the data collected during the Adamawa State rapid assessment survey, all listed communities should be located on a map. If necessary, assistance with the interpretation should be requested from WHO/TDR.

Blindness Survey in Gashaka LGA/Taraba State.

- A scientifically valid blindness survey should be carried out in Gashaka LGA/Taraba State to establish true levels of blindness.
- WHO/PBL should be consulted regarding appropriate and accepted methods of blindness assessment.

Record Keeping and Reporting

LGA Level

- The LOCT should be trained to aggregate data correctly and prepare reports.

Project/State Level

- After consultation with existing projects, Africare/Lagos should provide reporting guidelines to the Africare-assisted IDPs. These guidelines should be in line with the SMOH reporting system.
- A system for filing field data needs to be developed in the project office.
- Project staff should receive computer training.

- The Country Office in Lagos should ensure timely dissemination of project reports to all interested parties, including the director of the NOCP and the NOCP Zone D coordinator.

Transportation

Vehicles

- Africare/Lagos should assist the State Projects in locating a reliable mechanic and a source of spare parts. UNICEF and RBF ought to be contacted for advice on this matter.
- The history of repairs made thus far on the project vehicle (Toyota Hilux) should be investigated (> N60,000).
- The purchase of diesel vehicles should be avoided.
- Each state needs its own road worthy four wheel drive vehicle devoted solely to onchocerciasis work. The vehicles should not be placed in the general motor pool of the SMOH, which is noted in the Project Accord. It is essential that these vehicles be available by the end of November 1993.

Motorcycles and Bicycles

- Africare should purchase two motorcycles for each state. The odometer cables must be kept intact and the log books kept adequately. Suzukis of 125 cc should be considered.
- With each motorcycle, one helmet must be purchased.
- Africare should provide Bali LGA/Taraba State with three bicycles for use by the LOCWs. The use of these bicycles should be carefully monitored and their usefulness assessed. The responsibility for care and retrieval of the bicycles should be assigned to the project staff of Taraba State.

Additional In-Country and Capital Expenditures Required

Personnel

1. Hiring of an Africare/Nigeria Onchocerciasis Coordinator
2. Hiring of two Nigerian Project Managers (one for each state)
3. Hiring of one additional secretary (for the Jalingo office)
4. Hiring of a part-time accountant (for the Jalingo office)
5. Additional field time for existing both SOCU (i.e., additional per diems)

Field expenses

Increased field travel will require increased expenditures for fuel and vehicle maintenance/repair.

Office expenses

1. Increased communications between Jalingo, Yola and Lagos/Kaduna
2. Additional stationary/printing/photocopying

Capital expenditures

1. One or two new four wheel drive vehicles needed (one for each state)
2. Computer and printer for Jalingo
3. Office furniture for Jalingo
4. Optional: Four motorcycles (two for each state), photocopier and fax for Jalingo

A balance of \$260,165 of budgeted funds remained as of 6/30/93. Africare should consult with its donors to draw up new separate budgets

for each state for the remainder of the projects. The \$173,756 remaining in the USAID budget should cover the actual and additional running costs for more than one more year. The \$86,406 remaining in the RAF budget should cover the cost of the additional capital expenditures, with money left over to extend project activities well into a fourth year.

Appendix A

Statement of Work

MIDTERM EVALUATION OF THE IVERMECTIN DELIVERY PROGRAM

of

Africare: Adamawa and Taraba States, Nigeria

Table of Contents

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1. Activities to be Evaluated

- * **Africare:** Adamawa and Taraba States Ivermectin Delivery Program

USAID Grant Number: 624-00007-G-SS-1085-00

Start Date: September 1, 1991

Completion Date: August 31, 1994

2. Purpose of the Evaluation

The purpose of the evaluation is to determine what progress has been made toward achieving program objectives and to provide guidance for the remaining period of implementation. The emphasis of the midterm evaluation will be to identify program strengths and weaknesses and make recommendations for improvement.

3. Background

The A.I.D. Ivermectin Delivery Program (IDP) is a pilot ivermectin distribution program in targeted countries in Africa and Latin America. The purpose of the three-year IDP is to assess the feasibility of using U.S.-based private, voluntary organizations (PVOs) to strengthen the institutional capacity of indigenous health systems to provide cost-effective and sustainable delivery of ivermectin.

The IDP is a collaborative effort involving U.S. PVOs, their host country counterparts, USAID missions, and AID/W. The U.S. PVO is responsible for implementing the IDP within the framework of the host country's national onchocerciasis program. Program management and oversight is normally the responsibility of the USAID mission, except in Guatemala where the program is managed directly by the A.I.D. Office of Health.

The challenge for the PVO rests primarily in establishing the program within the existing health care infrastructure. The PVO guides the initial scientific work, establishes the mode of drug delivery, initiates the training of personnel, begins education efforts, and establishes collaborative mechanisms with the local government and private agencies. The early rounds of drug distribution are initiated by the PVO, with eventual complete assumption by national public and private counterparts.

4. Key Evaluation Issues

The midterm evaluations of the Africare/ATOP program will be formative. This is the usual role of the midterm evaluation, since by the final evaluation it is too late to help correct errors and emphases. While it is valuable to stress the positive achievements of this program, of which there will be many, focus should be brought to bear on those issues of most importance to objective and purpose achievement, in order to catch problems and to reappraise basic assumptions soon enough to recommend mid-course corrections.

Key focus areas of the evaluation, thus, will center on objectives enumerated in the detailed implementation plans issued with project start-up.

The **central question** of this evaluation for A.I.D. is whether the agency can employ PVOs to install a self-sustaining process of community demand and government or private supply of ivermectin in needful communities. What is most important to the present evaluation, as opposed to any internal evaluation activities Africare may conduct for its own purposes, is the degree to which the ATOP project has succeeded in strengthening the institutional capacity of the state, local, and private health systems to carry out "cost effective and sustainable delivery of ivermectin."

The success of ATOP participants, including Africare, the State and Local Area governments, and USAID, in institutionalizing an effective and sustainable program of ivermectin distribution is thus a somewhat separate issue in this evaluation from the ATOP ability to assess population needs and treat needy community members in a dependable and cost-effective manner. Evidence of the transfer of skills and organizational procedures to local health officials and community-based distributors (CBDs) will be necessary to judge whether ATOP has carried out its mandate successfully. There is, in fact, some contradiction in this: what A.I.D. is asking is for Africare to work itself out of the lead role in this project by the end of three years.

What is meant by the terms "institutional strengthening", "cost effective", and "sustainable", and how do we know that Africare, assuming it has created a cost effective ivermectin delivery system, can leave systems and procedures in place or the long term? To answer these questions it will be necessary to examine the financial, personnel, and logistical structures planned or in place on the ground and assess whether it is likely that they can be taken over by the Nigerian public (or private) sector over the remaining life of project. The nature and degree of the present involvement of Nigerian health professionals and community workers is obviously key in judging the likelihood of

successful institutionalization by program end.

5. ATOP Program Objectives

The Detailed Implementation Plan proposed the following objectives:

General Objectives

- * Prevent blindness caused by onchocerciasis through annual mass distributions of ivermectin in heavily infected communities in Gashaka, Bali, and Gombi Local Government Areas (LGAs) of Taraba and Adamawa States
- * Demonstrate safe and cost-effective approaches for community mass distribution of ivermectin.

Specific Objectives

- * By end of project a decentralized IDP, administered by local government and church health services (NGOs), will be totally responsible for managing the distribution of ivermectin, supported by appropriate surveys, training, health education, and monitoring.
- * By end of project the program will have identified endemic communities in every rural district in both states through skin-snip surveys and/or appropriate rapid assessment techniques.
- * By end of project a total of at least 75,000 eligible persons in Gashaka, Bali, and Gombi will have started annual treatment with ivermectin. Some 25,000 people will be targeted in Year 1, and the total treated will rise in subsequent years to 75,000, as 50,000 more people begin treatment.
- * The primary emphasis of the project is to train health workers and community-based distributors (CBDs), who will publicize treatment, register the population in endemic communities, and administer ivermectin to those who are eligible.

Program Outputs

The DIP defined program outputs to be:

- * At least 12 staff of the Adamawa and Taraba State Ministries of Health will be trained to supervise and train LGA

onchocerciasis workers and directors of NGO health programs.

- * At least 150 local community health workers (LOCWs) in the three LGAs will be trained to distribute and supervise community-based distributors.
- * At least 250 community-based distributors (1CBD for 300-500 people) selected by the community will be trained to publicize, register, and administer ivermectin to those who are eligible.
- * One KAP survey will be completed in each intervention LGA prior to the publicity campaign and distribution of ivermectin.
- * Eight intensive media (television, radio, newspaper) campaigns will have been mounted in both states to educate the population about onchocerciasis and promote acceptability of ivermectin.

6. Priority Evaluation Information

The various categories of information needed for this evaluation are well outlined in the detailed implementation plan. They can be summarized, however, as follows:

1. Epidemiological Surveys

- * Were surveys undertaken to establish the degree of onchocerciasis prevalence in all communities where the disease might be endemic?
- * Were these rapid reconnaissance surveys adequate to the task of classifying communities by degree of infection and were they conducted in time to guide program implementation?
- * Were the targeted communities selected from these results?
- * Can local officials, health professionals, and church workers continue the use of these surveys to monitor disease prevalence in existing or future project communities?

2. Selection and Training of Community-based Distributors (CBDs)

- * How were CBDs selected and by whom?
- * How are CBDs to be integrated and maintained within the

overall primary health care system in Adamawa and Taraba States?

- * Does the composition of CBDs adequately represent age groups and gender?
- * What is the likely attrition rate for CBDs from one distribution round to the next, and what is the ATOP strategy for training of replacements?
- * Was a training needs assessment conducted to assist in devising the CBD training course?
- * Has the training kept pace with the need for an adequate number of CBDs in all endemic communities by project end?
- * Has the CBD training been appropriate?
- * Do the State and LGA onchocerciasis teams have the capacity to continue this training in the absence of Africare? If not, will this capacity exist at project end? Where will it be carried out?

3. Training of Supervisors

- * Was a training needs assessment conducted among LGA and church service officials prior to the training course?
- * Did the training of health supervisors occur in a timely manner and have the new skills been applied appropriately in the field?
- * Do the State MOH officials have the capacity to appropriately supervise LGA and church officials in the financial and managerial maintenance of the ivermectin delivery system?
- * Will this training continue to be offered after the departure of Africare? If so, who will do it, when, and where?

4. Educational/Motivational Activities

- * Was a KAP survey conducted to assess the level and form of public awareness of onchocerciasis and to identify appropriate methods to educate and motivate target communities to sustain participation in the ivermectin distribution program?

- * Has an effective IEC program been mounted to inform communities of the symptoms and dangers of onchocerciasis?
- * Has an appropriate IEC program been carried out to promote public acceptance of annual doses of ivermectin?
- * How have the CBDs been involved in IEC activities?
- * Has a sustainable incentive system been created to motivate field work by public and private health workers and CBDs?
- * Will the IEC and incentive systems outlive the departure of Africare?

5. Record Keeping Capabilities

- * What are the report forms used by Africare in the conduct of their programs? Do these reports capture appropriate information efficiently.
- * What constitutes appropriate information for an IDP?
- * Are the CBDs correctly using household ivermectin treatment records and the report form for adverse reactions?
- * How is health information generated and transmitted in a timely manner to key program managers? What are the key indicators for this monitoring process? How effectively has this system been computerized?
- * To what degree are these techniques of assembling and disseminating information now used by local public and private health workers?
- * Is there a financial monitoring system appropriate for transfer to local government officials and health workers?
- * Is there a monitoring and evaluation system for project impacts separate from ivermectin distribution data or financial and logistical monitoring? Are follow-up surveys of onchocerciasis endemicity planned or being carried out in treated communities?

6. Distribution System

- * Was the eligible population effectively reached in all endemic communities?
- * Was distribution carried out at least cost?
- * What were the various options and their costs for carrying out the desired distribution program?
- * Have cost recovery schemes been employed and with what likelihood for sustainability?
- * What plans have been made to ensure that local transportation and infrastructure can sustain distribution beyond the project?
- * From the Africare experience, what indicates that PVOs can mount campaigns to distribute ivermectin in a cost-effective, sustainable manner?
- * Were the Merck guidelines understood, communicated, and properly observed in all project communities? If not, how can they be more fully observed?
- * What evidence exists that the Merck guidelines will be observed fully after project end?

7. Program Institutionalization

- * Has the skills mix of the project team been adequate to the task of implementing ATOP and can this personnel structure be sustained? Is there a "critical mass" of personnel to ensure successful implementation and transfer of responsibilities beyond life of project?
- * Has Africare demonstrated a progressive shift in responsibility from PVO staff to host country counterparts in the implementation of the IDP?
- * Do these counterparts demonstrate the ability to continue executing the IDP at end of project?
- * What training needs remain and what plans have been made to complete them by project end?
- * What evidence exists in the Africare experience that PVOs have a comparative advantage in institutionalizing systems and procedures at the local governmental and community levels?

7. Key Documents

The following documents will be provided for the evaluation.

1. "Project Design and Implementation of the Ivermectin Delivery Program." J. Madison Seymour, VBC Report No. 81239.
2. Adamawa and Taraba States Ivermectin Distribution Program: Detailed Implementation Plan. February, 1992. Africare.
3. "End of Year Report." Africare Adamawa and Taraba State River Blindness/Onchocerciasis Control Project (ATOP). Africare. June, 1992.
4. Workshop Report: Africare and Adamawa and Taraba States Ivermectin Delivery Program." January, 1992. Africare.
5. "See So That They May See: Communication for Ivermectin Delivery Programs. A Pilot Project in Northeastern Nigeria. March, 1993. VBC Report No. 81340B.
6. Ivermectin Delivery Program, Workshop Report, J. Madison Seymour, Ph.D., VBC Report No. 81239
7. Workshop on Future Directions in Health Education for Ivermectin Delivery Programs, VBC Report No. 81340.
8. "Third-Year Evaluation and KAP Survey Report." Africare Kwara State River Blindness Program. December, 1991. Ilorin, Nigeria.

8. Schedule

September 8-15	Finalize scope of work and team composition
September 13-15	Finalize evaluation dates and send cables
September 13-16	Plan TPM and distribute agenda
September 17	Conduct team planning meeting
Sept. 25 - Oct. 4	Conduct evaluation in Nigeria
October 18-19	Hold midterm workshop in Garoua
November 5	Submit revised draft to AID/H

November 19 Submit final evaluation report
November 29 Debrief AID/Washington.

9. Evaluation Team Composition

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10. Reporting Requirements

1. **Written report:** Will address the elements outlined in the scope of work. The completed document is to be submitted to A.I.D. within one month after the follow-up workshop in Garoua, Cameroon (October 18-19). Final printing will be done by VBC.
2. **Briefing to A.I.D:** A briefing on lessons learned and evaluation outcomes is to be made to A.I.D. and interested parties within 10 days of submission of the completed evaluation report. Africare will also provide a briefing on evaluation findings to the USAID representative in Nigeria.
3. **Role of the team leader:** The evaluation team leader will be the principal external evaluator of ATOP and will be responsible for addressing the issues and questions

contained in Section 6 (priority evaluation information) of this scope of work. He will also be responsible for assembling a summary report for presentation at the follow-up workshop in Garoua, Cameroon, between October 18-19. Following comments on the draft by workshop participants, the team leader will finalize the report for submission to AID/RD/H/CD for review not later than November 5. The final draft will reflect this review and be submitted by November 19 to VBC for formatting and publication.

4. **Follow-up workshop:** The team leader and other key members of the ATOP evaluation team will join evaluators from the IDP/Cameroon in Garoua between October 18-19 to discuss lessons learned and future actions for both projects. The theme of the workshop will be progress made toward assuring the institutional and financial sustainability of ATOP and the IEF/Cameroon IDP.

11. Contacts

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Appendix B

Persons Interviewed by the Evaluation Team

Adamawa

- H. E. Alhaji Saleh Michika, Governor of Adamawa State
- Hon. R.S. Jatau, Commissioner of Health of Adamawa State
- Hon. (Mrs.) M.R. Bonji, Director General of the Adamawa State Ministry of Health
- Dr. Omar, M.D., Director of Disease Control of the Adamawa State Ministry of Health
- Secretary of Ganye LGA
- PHC Coordinator of Ganye LGA
- Assistant PHC Coordinator for Disease Control of Ganye LGA
- Members of the Adamawa SOCU
- LOCWs in Ganye LGA

Taraba

- H.E. Rev. Jolly Nyame, Governor of Taraba State
- Hon. Dr. Peter G. Warwar, Commissioner of Health of Taraba State
- Hon. (Mrs.) V. T. Umar, Director General of the Taraba State Ministry of Health
- Mr. David Ali, Onchocerciasis Coordinator for the Taraba State Ministry of Health
- Other members of the Taraba SOCU
- Hon. Alhaji Bakko, Secretary of Bali LGA
- Hon. S.M. Sambo, Chairman of Gashaka LGA
- Mr. Hosea Sale, PHC Coordinator of Gashaka LGA
- Mr. Christopher Sullei, Assistant PHC Coordinator of Gashaka LGA
- LOCWs in Bali and Gashaka LGAs
- CBDs in Bali and Gashaka LGAs

Appendix C

Schedule of the Evaluation

September 21 to 23

International Conference on Savanna Onchocerciasis in Garoua, Cameroon (attended by representatives from ivermectin distribution programs in Nigeria, Cameroon, C.A.R. and Chad).

September 24 to 26

Planning of evaluation and review of project documents.

September 27

Meeting with officials of the Adamawa State Ministry of Health and the Adamawa State Onchocerciasis Control Unit.

September 28

Visit to Ganye LGA to meet with political leaders, health officials and health workers.

September 29

Travel to Jalingo, the capital of Taraba State to meet with political leaders, health officials and health workers. Visit to village in Dakka District of Bali LGA to interview village residents and CBDs

September 30

Travel to Bali Town of Bali LGA to meet with political leaders, health officials and health workers. Travel to Serti Town of Gashaka LGA to meet with political leaders, health officials and health workers.

October 1

Visit to villages in Gashaka LGA to meet with residents, community leaders and CBDs.

October 2

Completion of evaluation questionnaires.

October 3

Meeting of evaluation team to discuss conclusions and recommendations.

October 4

Completion of recommendations. Debriefing with Adamawa State Ministry of Health and Governor of Adamawa State.

October 5

Representatives of each of the Africare-assisted IDPs in Nigeria (i.e. the programs in Kwara, Kogi and Borno states in addition to ATOP) met in Yola for a Lessons Learned Workshop.

Appendix D

Questionnaire Used for the Mid-term Evaluation of the Adamawa/Taraba Onchocerciasis Program

Indicate whether you agree or disagree with each of the following statements:

1. The current IDPs in Adamawa and Taraba states are cost-effective.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree

Whether you agree or disagree with this statement, please elaborate:

2. The current IDPs in Adamawa and Taraba states are sustainable.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree

Whether you agree or disagree with this statement, please elaborate:

3. The experience with ATOP thus far demonstrates that Africare has strengthened the institutional capacity of government health services in Adamawa and Taraba states to provide cost-effective and sustainable delivery of ivermectin in selected LGAs (Gashaka, Bali, Ganye, Bombo).

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree

Whether you agree or disagree with this statement, please elaborate:

4. After year two of the programs, the state and local governments are likely to be willing and able to reliably pay all field/training allowances for state and local government health professionals, pay for fueling and maintaining vehicles and motorcycles, pay for all

medicines needed to treat side effects, and pay for all printing costs.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree
Whether you agree or disagree with this statement, please elaborate:

5. Africare has significantly strengthened the capacity of the state and local government health services to provide the appropriate training and supervision and to manage ivermectin distribution activities.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree
Whether you agree or disagree with this statement, please elaborate:

6. Continued management support by Africare for at least another three years will be essential to sustaining the Adamawa and Taraba State Oncho Programs.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree
Whether you agree or disagree with this statement, please elaborate:

7. With the resources available to the state and local governments in Adamawa it appears to be unlikely that sustainable ivermectin distribution activities will be expanded to all heavily affected areas in the state unless significant additional external support is provided."

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree
Whether you agree or disagree with this statement, please elaborate:

8. With the resources available to the state and local governments in Taraba, it appears to be unlikely that sustainable ivermectin distribution activities will be expanded to all heavily affected areas in the state unless significant additional external support is provided.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree

Whether you agree or disagree with this statement, please elaborate:

9. Please provide an estimate of what you think the entire budget for the field operations for year 4 will have to be. What percentage of that should be contributed by the LGAs, what percentage by the state government and what percentage by an external donor?

10. Africare must work to extend sustainable IDP activities to all endemic communities of the five states to which it is already committed (Kwara, Kogi, Adamawa, Taraba and Borno) before it considers providing assistance to any other state in Nigeria.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree

Whether you agree or disagree with this statement, please elaborate:

11. In view of the large number of Africare supported IDPs in Nigeria, the need for on-going management and technical support and the relative affordability of well qualified Nigerian professionals, Africare/Nigeria should recruit for its national headquarters staff an appropriate Nigerian professional with a proven interest in field work and ability to manage and supervise public health field programs.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree

Whether you agree or disagree with this statement, please elaborate:

12. The KAP surveys performed for ATOP yielded much information that was used in the design of project activities. The surveys were performed in a cost-effective manner.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree

Whether you agree or disagree with this statement, please elaborate:

13. The record forms were designed adequately and completed adequately.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree

Whether you agree or disagree with this statement, please elaborate:

14. The reports provided by the project supplied prompt, accurate and complete information in a manner that was easy to understand.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree

Whether you agree or disagree with this statement, please elaborate:

15. The Africare/Lagos/Africare/Washington, VBC and/or USAID/Washington appear to have provided project managers with adequate feedback on their project reports.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree

Whether you agree or disagree with this statement, please elaborate:

16. The medical management of side effects to ivermectin and the investigation of serious reactions appear to have been handled appropriately.

a. strongly agree b. agree c. uncertain d. disagree e. strongly disagree

Whether you agree or disagree with this statement, please elaborate:

17. The success of an ivermectin distribution program depends on the success of many different tasks including budgeting, planning, training, supervision, transport, supply of field allowances, supply of drugs for side effects, health education, advocacy, etc.. In the

table below list these tasks according to whether they currently (as of September 30, 1993) appear to be the responsibility of the community, the LGA, the SMOH or Africare. Below this or on separate sheets of paper indicate your prediction about how this division of responsibilities will have changed as of the official end of the project (September 30, 1994) and five years after the end of the project (September 30, 1999).

Community responsibilities	LGA responsibilities	SMOH responsibilities	Africare/donor responsibilities

Appendix E

Some Guidelines for Training Community Based Distributors

At present, the total length of CBD training and the time devoted to theory versus practice varies between one LGA and another. While flexibility should be maintained in determining these time periods, a minimum length of training time should be established and an optimum relationship between time allotted for theory and for practice recommended.

The SOCU in Taraba recently held a six- day CBD training which consisted of an initial full day of orientation to the IDP and subsequent combination days where a period of lecture was followed by actual, supervised distribution to eligible persons in an endemic community.

This sequence of workshop sessions may serve as a useful model for a standardized training module. In addition to local adaptations that may be required, the following provisions are recommended:

- 1) Every morning session should provide a review of the previous day's lessons. During this review, CBD trainees should be given an opportunity to comment on the previous day's experience. The teacher should comment on omissions or mistakes made during the previous days practical exercise. The teacher should also be sure to compliment the trainees on aspects which they performed well.
- 2) The training period should last at least four days.
- 3) The CBDs should return to their villages and begin distribution within three weeks after training. The CBDs are likely to forget much of what they have learned, if there is a longer gap between training and distribution.