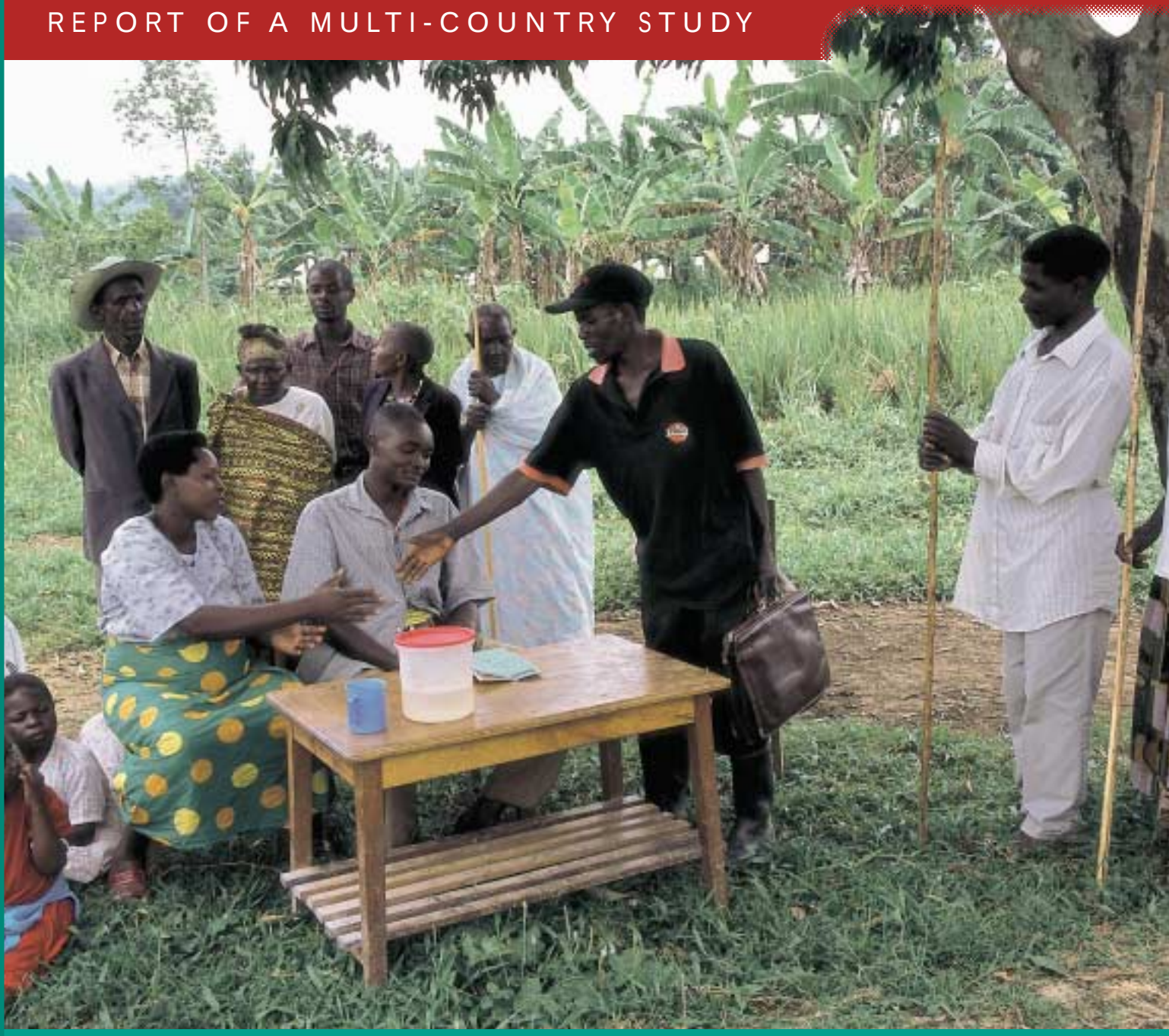
REPORT OF A MULTI-COUNTRY STUDY



The involvement of community-directed distributors of ivermectin in other health and development activities

UNDP/World Bank/WHO Special Programme for Research & Training in Tropical Disease (TDR)

TDR/IDE/CDDI/03.1

TDR/IDE/CDDI/03.1

Concept and design: Andy Crump, Lisa Schwarb
Cover photo: A local health worker (holding bag) arrives in a remote pygmy village. Rukungiri, Uganda. (WHO/TDR/Crump)

The involvement of community-directed distributors of ivermectin in other health and development activities

UNDP/World Bank/WHO
Special Programme for Research and Training in Tropical Diseases
(TDR)

Acronyms

APOC
African Programme for Onchocerciasis Control

CDD
Community-directed distributor

CDTI
Community-directed treatment with ivermectin

EPI
Expanded Programme of Immunization

FGD
Focus group discussion

H&D
Health and development

LGA
Local government area

NPI
National programme of immunization

NID
National immunization day

PHC
Primary health care

TB-DOTS
Tuberculosis-directly observed treatment short course, the internationally-recommended TB control strategy

Team composition

CALABAR, CROSS RIVER, NIGERIA

Cross River Onchocerciasis Control Programme, Ministry of Health, Calabar

- Ukam Oyene (Principal Investigator)
- Joseph Okeibunor
- Inyang Atting
- Philip Bassey
- Bassey Esu
- Gabriel Undelikwo
- Uwem Ekpo
- Rose Duke

SOUTH-WEST PROVINCE, CAMEROON

Institute of Medical Research and Study of Medicinal Plants

- Martyn T. Sama (Principal Investigator)
- Roger Moyou
- Richard Penn
- Jude Nting
- Penn Teyha

KADUNA, NIGERIA

Ahmadu Bello University Teaching Hospital, Kaduna

- Michael Kayode Ogungbemi (Principal Investigator)
- Elizabeth Elhassan
- Sunday Isiyaku
- Daramola Femi
- Enwezor Felicia
- Sanda Safia

REGION CENTRALE AND REGION DE LA KARA, TOGO

Programme Nationale de lutte contre l'onchocercose, Direction Régionale de la Santé, Kara

- Gbeleou Sesso (Principal Investigator)
- Dare Aboudou
- Kouassi Koame

CONTENTS

EXECUTIVE SUMMARY

Community-directed treatment with ivermectin (CDTI), through which millions of people are treated, is currently the principal drug delivery strategy for onchocerciasis control. The success of CDTI in onchocerciasis control has caught the attention of other health and development programmes and there have been various attempts to use the CDTI structures and community-directed distributors (CDDs) for other health interventions.

However, the implications of this development for the effectiveness and sustainability of CDTI are not yet clear. Some expect that integration of other community-level health care activities with CDTI would enhance its sustainability. Others fear that sustainability may be jeopardized if CDDs are overloaded with tasks for other health and development activities. Hence there was a need for a detailed scientific evaluation of the current experiences and to identify what actions, if any, need to be taken to ensure that integration of other activities in CDTI strengthens rather than weakens its effectiveness and sustainability. Four research teams, from Calabar, Cross River and Kaduna in Nigeria; South-west Province, Cameroon; and Region Centrale and Region de la Kara, Togo, were commissioned to investigate this.

The study used a cross sectional design focusing on CDDs in the community as the unit of analysis. The study population consisted of all partners involved in the process of community-directed treatment of onchocerciasis with ivermectin at the community level. These included community members, their leaders and the CDDs they had selected, health facility staff and at the district level, and managers of other health and development programmes operating in the study communities.

The results showed that the majority of CDDs were involved in additional health and development activities. These were mainly Expanded Programme of Immunization (EPI), water and sanitation, and community development activities. The additional activities are not considered an important burden and do not seem to affect CDTI performance, as evidenced by the fact that ivermectin treatment coverage did not decline with increasing number of additional activities per CDD.

Most health programmes are interested in building on the experiences and structures of CDTI and in involving CDDs in their activities. Two-thirds of CDDs are already involved in EPI. Programmes such as EPI provide financial incentives to community volunteers, and this may explain why EPI is more popular with CDDs than CDTI. However, the results of the study suggest that provision of incentives by other programmes does not have a negative influence on CDTI and that communities often take advantage of such opportunities to reward the CDDs by selecting them for these other activities.

Nearly all CDDs were highly motivated to continue working as a CDD while being very much aware that they could not expect any financial reward for their CDTI work.

CDDs, communities and health workers were very much in favour of greater involvement of CDDs in additional health and development activities. The health workers wanted to build on the experience of the CDDs; the community wanted better services and had confidence in the CDDs; and, for the CDDs, this offered an opportunity for further capacity strengthening and they were particularly interested in doing more health-related work.

1

INTRODUCTION

Community-directed treatment, in which the community itself designs and implements treatment of its members, has been shown to be effective for treatment of onchocerciasis in Africa, and community-directed treatment with ivermectin (CDTI) is currently the principal drug delivery strategy for onchocerciasis control. Through the CDTI strategy, the African Programme for Onchocerciasis Control (APOC) reaches many neglected communities that have limited access to orthodox health services – an impressive total of 20 million individuals (in some 50 000 communities in 14 countries) received ivermectin treatment in the year 2000.[1]

The success of CDTI in onchocerciasis control has caught the attention of other disease control programmes and there have been various attempts to use the CDTI system and community-directed distributors (CDDs) for other health interventions. A preliminary investigation of the extent to which CDDs are involved in other health and development activities, which was funded by APOC and conducted at four CDTI project sites (Kisoro in Uganda, South-west Province in Cameroon, Raja in Sudan, Zamfara in Nigeria), showed that more than 50% of CDDs are already involved in other health and development activities (e.g. distribution of vitamin A, malaria treatment, polio immunization, guinea worm eradication, nutrition, water protection, serving as community health workers).[2,3,4,5]

However, the implications of this development for the sustainability of CDTI are not yet clear. It is expected that integration of other community-level health care activities with CDTI would enhance its sustainability. However, sustainability may also be at risk if health services use CDDs for other activities, possibly by overloading them and eroding community ownership and community direction in the process.[6] There is therefore a need for detailed scientific evaluation of the current experiences and to identify what, if any, action needs to be taken to ensure that integration of other activities in CDTI strengthens rather than weakens its effectiveness and sustainability.

---

1 *Joint Action Forum Report, sixth session, Yaoundé, 2000.* World Health Organization, Ouagadougou: African Programme for Onchocerciasis Control, 2000 (document WHO/APOC/MG/00.16).

2 Report on Community-directed distributors' involvement in other health and development projects in Zamfara State, Nigeria, 2000. World Health Organization, Ouagadougou: African Programme for Onchocerciasis Control, 2000 (document WHO/APOC/CS/00.6).

3 Report on Assessment of Community-Directed Distributors' (CDDs) involvement in other health or development activities in Kisoro District, South Western Uganda, 2000. World Health Organization, Ouagadougou: African Programme for Onchocerciasis Control, 2000 (document WHO/APOC/CS/00.7).

4 Report on assessment of community-directed distributors' (CDDs) involvement in other health or development activities in Sudan. World Health Organization, Ouagadougou: African Programme for Onchocerciasis Control, 2000 (document WHO/APOC/CS/00.8).

5 *Report on CDDs' involvement in other health care and development activities in Cameroon, 2000.* World Health Organization, Ouagadougou: African Programme for Onchocerciasis Control, 2000 (document WHO/APOC/CS/00.9).

6 Homeida M et al. APOC's strategy of community–directed treatment with ivermectin (CDTI) and its potential for providing additional health services to the poorest populations. *Annals of Tropical Medicine and Parasitology*, 2002, 96:(suppl 1): S93-104.

A multicountry study was designed and implemented to address these issues, and this report derives from the data collected from four study centres, namely Calabar and Kaduna in Nigeria, South-west Province in Cameroon, and Central and Kara provinces in Togo.

2
STUDY OBJECTIVES

The objectives of the study were to:

- Determine the socio-demographic characteristics of the CDDs in the study communities.
- Identify and document the types and nature of additional health and development activities performed by CDDs in their communities.
- Determine the relationship between level of involvement of CDDs in additional health and development activities and performance of CDDs and sustainability of CDTI.
- Identify the roles played by communities in the introduction and implementation of the other health and development programmes in which CDDs are involved.
- Identify policies and practices with respect to community involvement and ownership of other health and development programmes in which CDDs are involved.
- Determine the perceptions and attitudes of CDDs, community members, and health personnel towards the involvement of CDDs in other health and development activities in the communities.

3
METHODOLOGY

This study used a cross-sectional comparative design focusing on CDDs at the community level as the main unit of analysis. All study sites followed a standard research protocol that was developed during a joint workshop held in March 2002 in Ouagadougou, Burkina Faso.

3.1 Study population, sampling, and data collection

The study population consisted of all partners involved in the process of community-directed treatment of onchocerciasis with ivermectin at the community level. These included village/community members, their leaders, and the CDDs they had selected to distribute the drug. Health facility staff at the community level who assist in ivermectin management and CDD supervision were also key partners studied.

At the local government area (LGA)/district level, the heads of other health and development activities operating within the study communities in which CDDs were involved were also studied.

The following sampling and data collection procedures were used:

- In each study site, 40 communities and their corresponding health facilities were randomly selected, ensuring that each health facility was selected only once even if it served more than one community.
- Two CDDs were selected per community. This was done through a simple random process of balloting if a community had more than two CDDs. This gave a total of 80 CDDs in each study site. A standardized CDD questionnaire was used in the four study sites to collect information on the socio-demographic characteristics of CDDs, their involvement in other health and development activities, and other issues.
- Of the households covered by each CDD, 15 were randomly sampled and administered the household treatment survey form to determine the treatment coverage achieved by the CDD.
- Forty focus group discussions (FGDs), one per community, were conducted in each study site. Of these FGDs, 20 were conducted with groups of adult males and 20 with groups of adult females.
- Forty community leaders, one for each of the selected communities per study site, were selected and interviewed.
- Forty health facility staff who supervised CDDs were selected for the study in each study site, one per community.
- The leaders of other health and development (H&D) activities operating in the study communities were also enlisted in the study, although only policy-makers of these other H&D activities were selected at LGA/district level.

3.2 Research instruments and relation to study objectives

Five sets of instruments were employed in the study, each targeting different sources of information. These included: a CDD questionnaire to obtain data from the CDDs selected in each study area; a household treatment coverage survey form to collect information on the coverage rates recorded by each CDD; focus group discussions (FGDs) with adult members of the study communities; an in-depth interview guide for health personnel; an in-depth interview guide for community leaders. Table 1 shows the instruments in relation to the study objectives and targets; the instruments are included as annexes.

Table 1: List of instruments in relation to study objectives

OBJECTIVES	TARGETS	INSTRUMENTS
To determine the socio-demographic characteristics of the CDDs.	- CDD	- CDD questionnaire
To identify and document the type and nature of additional health and development activities performed by CDDs.	- CDD	- CDD questionnaire
To determine the relationship between level of *involvement* of CDDs in additional health and development activities, *performance* of CDDs, and *sustainability* of CDTI.	- CDD - Communities	- CDD questionnaire - Review of CDD records - Household treatment coverage - FGD
To identify the roles played by communities in the introduction and implementation of other health and development activities in which CDDs are involved.	- Communities	- FGD - In-depth interview for leaders
To identify policies and practices with respect to community involvement and ownership of the other health and development programmes in which CDDs are involved.	- Leaders of H&D personnel at community level - District-level policy-makers of H&D activities	- In-depth interview for health and development personnel
To determine the perceptions and attitudes of CDDs, community members, and health personnel to the involvement of CDDs in other H&D activities in the communities.	- CDDs - Health personnel - Community members	- CDD questionnaire - Attitudinal scale for heath workers and CDDs - FGD

4
STUDY AREAS AND STATUS OF CDTI

The study took place at four sites in three countries, namely Calabar and Kaduna in Nigeria; Central and Kara provinces in Togo; and South-west Province in Cameroon. At all sites, ivermectin distribution had been ongoing for many years; all had adopted the CDTI approach for ivermectin distribution three to five years earlier. At the time of the study in Cameroon, CDDs were entitled to a certain percentage of the cost recovery funds, which was not the case at the other sites. Cost recovery was introduced in the Cameroon CDTI programme as a policy of the Bamako Initiative for sustainability purposes. In this policy, adults contributed 100 francs (CFA) and children 10 francs (CFA) per dose of Mectizan. However, the policy has recently been revisited and found to have a negative effect on coverage, and even on sustainability, due to poor management of funds.

In Nigeria and Togo there is no state policy to compensate CDDs for their role in CDTI. However, findings from preliminary studies in the different countries revealed that CDDs are getting involved, though to different degrees, in other health and development activities.

4.1 Cross River State, Nigeria

The Mectizan treatment programme was established in 1995 through the community-based distribution (CBIT) strategy. Treatment coverage rates were low, about 50% on average, for the State. In 1998, the community-directed treatment with ivermectin (CDTI) project was established with APOC support. The CDTI approach allows the community greater responsibility in planning and implementing the project. Since its implementation, greater success has been recorded on many fronts, with therapeutic coverage increasing from 50% in 1995 to 70% in 2001.

A total of 2531 CDDs were trained, and 171 core supervisors of local onchocerciasis control teams at LGA and state level were trained in the various skills of project implementation.

A deliberate effort was made to engender community participation right from the inception of CDTI, and communities have come to appreciate their roles and responsibilities in the programme. Given the poor status of primary health care (PHC) in the state, it became necessary to collaborate with other sectors of human development in forestry, agriculture, education and the media, religious groups, and community-based organizations, to strengthen the PHC system as the main vehicle for effective implementation of CDTI with a view to sustainability.

The State is situated within the Cross River basin and has two main seasons, the rainy season from April to October and the dry season from November to March. The rainfall is 1500-3000mm annually. The state is situated within one of Africa's most dense rain forests, found on the eastern borders with Cameroon, with secondary forest and savannah in the western and northern parts. The major ethnic groups are Efik, Ejagham, Bekwarra, Yakurr, and Yala. The major activities are farming and fishing.

The study involved 40 communities in six LGAs (Akamkpa, Ikom, Obanliku, Obudu, Odukpani, Yakurr) of Cross River State, Nigeria.

4.2 South-west Province, Cameroon

The study was conducted in South-west Province, Cameroon. The study area was made up of eight health districts with 61 health areas and a population of 710 050 living in 465 communities. Among the 465 communities, 294 (63%) were hyper-endemic for onchocerciasis and 56 (12%) were meso-endemic. Four health districts (Limbe, Muyuka, Tiko, Kumba) were randomly selected, all in South-west Province project 1 (SWI).

Six distinct ethno-linguistic groups live in the study area. These are the Bakweries, Bafaws, Bakossi, Bassossis, Orokos, and Balongs. People coming from other provinces, mainly the northwest, are found in areas where they provide manpower to CDC. Important Nigerian and Ghanaian communities live in this area where they are involved in fishing and other business ventures. The population is dispersed and most of the inhabitants live in small settlements beside the main roads.

A traditional chief heads each community. The chiefs make the linkage between the communities and the administration. Farming is the main occupation in the province.

CDTI was introduced in South-west Province, Cameroon, in 1999. Presently, the area covered by South-west Province project 1 has an estimated treatment population of 470 000. CDTI is implemented in all health districts of the SW1 area.

4.3 Kaduna State, Nigeria

Kaduna State is located in the north central part of Nigeria. The state shares boundaries with Plateau State to the east, Nasarawa to the south-east, Niger to the west, Federal Capital Territory to the south, and Katsina and Kano State to the north. The state has 23 LGAs and an estimated population of 4.7 million. The major rivers are the Kaduna, Galma, and Gurara. The vegetation is mainly savannah grassland with pockets of forest mosaic. The climate consists of a dry season (November to March) and wet season (April to October).

The main occupations in the state are farming, fishing and trading. The people of the study area are predominantly farmers and account for the largest quantity of rice cultivated in the whole of the State; they also produce large quantities of cash crops including groundnut, guinea corn, millet, yam and maize.

The people are mostly indigenous and live in permanent settlements. The major ethnic group in the area is Jaba; minor tribes include Hausas, Fulani's, Gbagyis, Koro, Bajjus, and Kadara.

Community leaders, in consultation with their elders and community members, take decisions on vital issues including the health and welfare of the people.

Mectizan distribution started in Kaduna State in 1988 in Lere and Kauru LGAs. Distribution was expanded to Birnin Gwari LGA in 1990, and to Kachia and Zango Kataf LGA in 1993. The APOC project proposal was approved in May 1997 and funds were received in October 1997. In the first year (1998) of CDTI implementation, the five LGAs – Lere, Kauru, Birnin Gwari, Kachia, Zango Kataf – were covered. Since then, the project has expanded to 15 LGAs including the four study LGAs.

The three tiers of government in Nigeria support the PHC system in Kaduna State, and the facilities are within reach of the communities. Disease control and health programmes such as the national programmes on immunization, malaria, onchocerciasis and maternal and child health, have been successfully integrated into the PHC system. The communities also embark on a number of socioeconomic development services.

The study was carried out in Jaba, Jema, Kaura, and Kargarko LGAs of Kaduna State. The four LGAs had previously had four years of ivermectin distribution using the CDTI strategy. In each LGA, ten communities were selected from a group of communities that had health facilities. The list of communities with health facilities in each LGA was compiled in consultation with the LGA onchocerciasis control coordinators; the 40 communities were randomly selected on condition that they each had an independent health facility. This procedure ensured that there was one health facility staff member to supervise the CDDs from each of the study communities.

4.4 Togo

Sur six régions sanitaires, cinq sont endémiques de l'onchocercose. L'évaluation épidémiologique de 2002 a montré un niveau d'endémicité relativement bon mais il existe des villages de suivi où la prévalence standardisée est > 10 %. Les taux les plus élevés sont notés dans la zone d'intervention spécifique (région de la Kara) et dans la région des Plateaux. Ils sont estimés respectivement à 42,8 % et 28,9 %. Cependant la charge, microfilarienne est quasi nulle.

La population concernée par l'endémie de l'onchocercose est évaluée à environ 2 143 434 personnes. En juillet 2002, 4587 villages sont couverts par le traitement à l'ivermectine sous directives communautaires. Les deux régions concernées par la présente étude (Région de la Kara et Région Centrale) totalise 1552 villages (34%) sur le bassin Kara, Kéran et Mo. La région de la Kara est une zone d'intervention spécifique. Dans les deux régions de l'étude, 702 531 personnes ont été recensées, 576 075 sont éligibles au traitement à l'ivermectine 523 273 ont été traitées soit 74%. La couverture thérapeutique dans les deux régions est respectivement de 76% et 72%.

Les activités ci-après ont été réalisées également cette année ou sont en cours de réalisation dans le cadre de la lutte contre l'onchocercose au Togo:

- la formation/recyclage des distributeurs;
- la surveillance entomologique et l'étude post-traitement larvicide;
- la sensibilisation de la population;
- le suivi/supervision du traitement à l'ivermectine sous directives communautaire de la revue des activités de 2001.

5
RESULTS

5.1 Socio-demographic characteristics of CDDs

The age, sex, occupation, and level of education of the CDDs at each of the four study sites is shown in table 2.

Table 2: Socio-demographic characteristics of CDDs in the four study sites

Variable	Profile	Study site									
		Calabar		Cameroon		Kaduna		Togo		Total	
		N	%	N	%	N	%	N	%	N	%
Age in Years	10 - 19	1	1.3	–	–	3	3.7	–	–	4	1.5
	20 - 29	21	26.9	13	16.5	20	24.7	11	29.7	65	23.6
	30 - 39	30	38.5	27	34.2	40	49.4	17	45.9	114	41.5
	40 - 49	18	23.1	26	32.9	16	19.8	9	24.3	69	25.1
	50 - 59	4	5.1	13	16.5	2	2.5	–	–	19	6.9
	60+	4	5.1	–	–	–	–	–	–	4	1.5
	Total	**78**	**100**	**79**	**100**	**81**	**100**	**37**	**100**	**275***	**100**
Sex	Male	74	92.5	75	93.6	78	96.3	31	81.6	258	92.5
	Female	6	7.5	5	6.3	3	3.7	7	18.4	21	7.5
	Total	**80**	**100**	**80**	**100**	**81**	**100**	**38**	**100**	**279**	**100**
Level of education	Primary	17	21.3	31	38.5	9	11.1	8	21.1	65	23.3
	Secondary	34	42.5	39	48.3	60	74.1	29	76.3	162	58.1
	Post-Secondary	29	36.3	10	12.5	12	14.8	1	2.6	52	18.6
	Total	**80**	**100**	**80**	**100**	**81**	**100**	**38**	**100**	**279**	**100**
Occupation	Farmer	37	46.3	66	82.5	52	64.2	24	63.2	179	64.2
	Trader	–	–	4	5	3	3.7	1	2.6	8	2.9
	Housewife	–	–	1	1.3	1	1.2	3	7.9	5	1.8
	Civil serv.	31	38.8	4	5	16	19.8	2	5.3	53	19.0
	Religious leader	–	–	1	1.3	–	–	3	7.9	4	1.4
	Unemployed	5	6.3	1	1.3	5	6.2	–	–	11	3.9
	Other	7	8.8	3	3.6	4	4.9	5	13.2	19	6.8
	Total	**80**	**100**	**80**	**100**	**81**	**100**	**38**	**100**	**279**	**100**

*** Ages were not recorded in years for four CDDs**

Some 90% of the CDDs were aged 20-49 years, and about 42% were aged 30-39 years. The CDDs were predominantly male (92.5%), and most (58.1%) had received some secondary school education. A majority (64.2%) were farmers, which may reflect the fact that, in most rural areas in the study sites, people maintain farms irrespective of their other economic activities. In Calabar (38.%) and Kaduna (19.8%), a relatively high proportion of CDDs were civil servants; this is consistent with the higher level of education seen in the CDDs of these study sites. These civil servants are mostly teachers resident in the communities, and are highly respected. Most CDDs had served as CDDs for three years or more.

5.2 Additional health and development activities of CDDs

Four out of five CDDs were involved in other health and development activities in the community. Table 3 shows the types of additional activity in the four study sites. The level of involvement and type of activity varied between communities and across study sites, but prominent at all sites were Expanded Programme of Immunization (EPI - 67.8% of CDDs), community development (60.9%), and water and sanitation (55.4%) activities.

Table 3: Percentage of CDDs involved in other health and development activities

Health and development activity	Calabar	Cameroon	Kaduna	Togo	All sites
EPI, including polio	46.9	63.8	87.9	68.8	67.8
Community development project	27.1	66.3	89.4	38.7	60.9
Water & sanitation	20.8	76.3	66.7	30.0	55.4
Agriculture & forestry	2.1	11.3	25.8	0.0	12.2
HIV – AIDS	0.0	2.5	0.0	50.0	7.6
Family planning	0.0	1.3	4.5	40.0	7.1
Guinea worm	2.1	0.0	0.0	13.3	2.2
Vitamin A	0.0	5.0	0.0	0.0	1.8
Eye care	0.0	2.5	0.0	0.0	0.9
TB – DOTS	0.0	1.3	0.0	0.0	0.4
Epilepsy	0.0	1.3	0.0	0.0	0.4
Lymphatic filariasis	0.0	0.0	0.0	0.0	0.0
Others	17.5	16.3	38.3	34.2	25.4
Any of the above	**62.5**	**98.8**	**81.5**	**86.8**	**81.7**

Qualitative data provided further information on what these different activities entailed:

- *"The two CDDs are involved in polio immunization as guides, and one of them is the secretary of water sanitation team"* (in-depth interview with community leader, Kaduna).
- *"In my village, the two CDDs which we have guided the nurse from house to house especially the houses you find young children for polio vaccination. CDDs are very active and useful for latrine inspection"* (in-depth interview with community leader, Cameroon).
- *«Tous les 36 distributeurs d'ivermectine sous ma supervision sont associés aux activités de lutte contre la poliomyélite. La stratégie consiste à les motiver de cette manière mais s'il y a un problème de santé dans les communautés c'est essentiellement sur eux que nous nous basons pour intervenir»* (infirmier chef de poste, Dispensaire de Naware, Préfecture de Dankpen, Togo).
- *"They are involved in sanitation committee, at times we send them to direct those who come to give immunization (EPI). One of them like Otu, is a member of community development committee"* (male FGD, Calabar).
- *«Nous avons sous notre supervision cinq distributeurs d'ivermectine. Celui de Bitchalambé a été formé pour la gestion des cas de paludisme simple par un projet. Deux distributeurs de Natchamba centre ont été formé, l'un par la Croix Rouge Togolaise pour la sensibilisation contre le VIH SIDA, la distribution des condoms, l'autre a été formé à la lutte contre le ver de guinée et à la distribution des filtres tamis. Deux autres distributeurs sont impliqués dans la direction du groupement de producteur de leur village»* (infirmier chef de poste, village de Natchamba, préfecture de Bassar, Togo).
- *"In the quarter, they are very active in village matters such as community work and quarter sanitation – inspection of latrines, ensure that pigs and goats are fenced"* (in-depth interview, Cameroon) .
- *"Community participation is the key to our village development and CDDs play a good part in water point maintenance, roads, and market places, they the supervisors"* (female FGD, Cameroon).
- *"Community participation has been with us for a long time, and since CDDs are our children, they are involved in all our developmental activities"* (in-depth interview with community leader, Cameroon).

The main responsibility of CDDs for EPI was to act as local guides for house-to-house immunization of children below six years and to assist in community mobilization. Water and sanitation involved maintenance of sources of water supply, toilet and general environmental sanitation in the community. Community development projects included construction of roads, markets, schools and clinics, and provision of secretarial services to communities and community-based organizations.

The CDDs reported that EPI activities took less than a week of their time per year (average six days, not full time), water and sanitation and community development took about two weeks each (average 12 and 14 days respectively per year), while CDTI took the most time at up to 3 or 4 weeks (average 20 days), again not full time. The CDTI work and other health and development activities were performed at different times of the year and there was no conflict between the activities.

Table 4: Involvement of CDDs in other health and development activities and the process of their selection

Health and development activity	No. of CDDs	Started activity after becoming CDD	Selected for other activity by		
			Health personnel	Village leader/ Committee	Village meeting
EPI, including polio	154	91%	47%	32%	21%
Community development project	137	69%	0%	53%	41%
Water & sanitation	124	68%	2%	47%	45%

The process of selection of CDDs for additional health and development activities varied with the type of activity. Table 4 shows that, in health matters, programme managers tended to initiate selection of CDDs, while the community was almost exclusively responsible for the selection of CDDs for community development and water and sanitation projects. In the case of EPI, 47% of CDDs reported that they had been enlisted by health workers. But for the other, non-health, activities, the CDDs were selected by village leaders/committees and village meetings through a community decision process.

The following quotes from the FGDs and in-depth interviews further illustrate how CDDs were selected:

- *"It is the Nurse that dragged Pius, it is not the community that initiated it"* (male FGD, Calabar).
- *"For the EPI, I suggested CDDs' names to the NID [national immunization day] coordinator"* (in-depth interview with health personnel, Kaduna).
- *"I informed the community leader to nominate hard-working people"* (in-depth interview with health personnel, Kaduna).
- *"The chiefs sitting in the palace use their eyes to go round the village and then select the persons they know that can be able carry out these duties"* (male FGD, Calabar).
- *«Certaines personnes sont venues de Blitta pour discuter de l'initiative de responsabiliser des jeunes dans d'autres activités de santé que la distribution de l'ivermectine avec le chef de notre village. Le chef a convoqué une réunion et tout le village a trouvé l'idée intéressante. Mais c'est le village qui a décidé d'ajouter cette activité aux distributeurs d'ivermectine»* (focus group femme, Village de Pagala Lassa, Préfecture de Blitta, Togo).

The reasons for selection of CDDs included their proven competence and commitment, their character and their literacy, as shown by the following quotes from the FGDs and in-depth interviews:

- *"The CDDs were selected for additional responsibilities because of their commitment to the CDTI and how well they have performed"* (in-depth interview with community leader, Kaduna).
- *"We selected them for other health and development activities because of their exemplary way of life, which is dedication and commitment to any assignment given to them"* (community leader, Cameroon).
- *«Nous avons choisi le distributeur d'ivermectine parce qu'il a déjà une bonne expérience et connaissance en médicaments et qu'il a été à l'école»* (focus group homme, village de Bougabou, Préfecture de Bassar, Togo).

- *"We selected them because they are literate and honest"* (female FGD, Kaduna).
- *"NPI [national programme of immunization] is based on PHC [primary health care] concept, which ensures the involvement of communities in the programme. One of the strategies to achieve this objective is to use CDDs who are agents of the community to accomplish tracing defaulters, community mobilization, and as local guides during NIDs. CDDs at the community are the most functional structure at the community level"* (health personnel, Calabar).

Table 4 also shows that, for most of the other health and development activities, the CDDs only became involved after they had started work as distributors of ivermectin. This was particularly the case for EPI, for which over 90% of CDDs reported that they started this work after becoming a CDD. This indicates that the EPI programmes targeted the existing and functioning CDTI structure at the community level and enlisted the established CDDs for community-based support for their immunization programme.

Table 5: Financial incentives and comparative levels of motivation for CDTI and other health and development activities in which CDDs are involved

Health and development activity	No. of CDDs	Financial incentives for activity	Motivation for other activity as compared to CDTI		
			Less motivated	Same motivation	More motivated
EPI, including polio	154	63%	16%	39%	45%
Community development project	137	7%	67%	23%	10%
Water & sanitation	124	15%	65%	22%	13%

An important difference in community-based programmes is whether financial incentives are provided to community members or not. Table 5 shows that two-thirds of CDDs reported that they had received financial compensation for their work in EPI, while financial incentives were rare in community development projects and for water and sanitation activities, as shown in the following quotes:

- *"The CDDs involved in immunization are given financial assistance by the local government"* (in-depth interview with community leader, Kaduna).
- *"They are paid an amount by government for polio vaccination, though I do not know the amount"* (community leader, Kaduna).
- *"When they come we cook heavily for them at times we give them raw yams or raw fish. That's what we have been doing to appreciate their work in other H&D activities"* (male FGD, Calabar).
- *"We also contribute money for them to buy batteries for their torch light for the vigilante activities"* (male FGD, Kaduna).
- *"The village health development committee provides incentives for CDDs for latrine inspection, slaughter houses inspection only, but other developmental activities do not have incentives. NIDs have incentives from the programme, CDTI has incentives from cost recovery"* (community leader, Cameroon).

Thus, occasionally, the CDDs would receive a modest financial or other material incentive from the community, but this remains exceptional and the community generally does not see a need for financial incentives for community activities:

- *"We do not give CDDs money for the other H&D activities since the activities are communal"* (community leader, Kaduna).
- *"The culture says the CDDs, being the sons, should voluntarily work and get only commendation and prayers"* (community leader, Calabar).
- *"We do not give anything to CDDs, we only pay for the tablets"* (male FGD, Cameroon).
- *"No incentive has ever been given to the CDDs for past five years because the two CDDs were their sons as they said. The community makes provision for pens and community register book"* (community members, Kaduna).
- *"We do not need to support him. He is our son and we can send him to town. During the rainy season he can use any of our canoes, else he treks to the health facility"* (community members, Cameroon).
- *"There is no need for such. I do not give my children money for sending them to the market"* (community leader, Kaduna).

Table 5 shows that CDDs involved in EPI were more motivated for their EPI activities than for their CDTI functions. On the other hand, the majority of CDDs involved in community development and in water and sanitation projects indicated that they were less motivated for these programmes than for CDTI. This may indicate that health programmes are more motivating than other community activities, and that programmes that provide incentives may have an advantage, in spite of comments made by the community members and leaders that no incentives are needed.

An interesting finding of the present study was that community members and health workers in all study sites were keenly aware of the different CDTI and EPI policies with respect to financial incentives, and the potential problems this might create, and that community members and health workers often solved this problem by having the CDD undertake both activities:

- *"The reason we involved them (in immunization) is that they distribute the Mectizan free of charge from house to house. They are not given anything, not even common food. So we involved them because it is from that immunization that they are able to get small-small thing"* (female FGD, Calabar).
- *"CDDs' involvement in NPI programme was mainly borne out of the dire need to give incentive to the CDDs who are not paid or given incentive by the CDTI programme/project"* (NPI/PHC manager, Calabar).
- *"Since CDDs get some incentives for other health activities they willingly do CDTI" (in-depth interview with health personnel* Cameroon).
- *«Nous n'avons pas pris de décision en ce qui concerne leur assistance ou motivation financière et matérielle ni pour la distribution de l'ivermectine, ni pour les gouttes qu'ils donnent aux enfants ou pour une quelconque autre activité. Ils n'ont ni argent, ni nourriture. Mais en décidant de les associer à la polio cela les encouragerait à continuer leur travail premier de distributeur d'ivermectine»* (focus group, femmes, village de Solaou, Préfecture de Tchaoudjo, Togo).

- *"The CDDs are involved to compensate them since they are not well compensated in the CDTI programme. Efforts and plans are presently being made to involve more of the CDDs in subsequent NPI activities in the LGA"* (health personnel, Calabar).
- *"Since CDDs get some incentives for other health activities they willingly do CDTI"* (health worker, Cameroon).

Thus, the provision of financial incentives by other programmes does not necessarily have a negative influence on CDTI, but may provide an opportunity for the CDD to benefit from financial incentives from other programmes. Communities and health workers may take advantage of the existence of such opportunities to reward the CDDs for their 'selfless efforts' by selecting them for these other activities. This also avoids friction that might otherwise occur if another community member would be paid for EPI work while the CDD in the same community would not receive any financial compensation for the more demanding distribution of ivermectin.

The CDDs were very motivated to continue their work in ivermectin distribution and Table 6 shows the reasons they gave for their willingness to continue as a CDD.

Table 6: Reasons for willingness to continue as a CDD

Reasons for wanting to continue working as CDD	% of CDDs giving this reason
Cash reward	2
Reward in kind	3
Recognition	12
Self fulfillment	28
To help my community	76

The results show that the CDDs are well aware that they cannot expect a cash reward for ivermectin distribution, and financial incentives were the least important factor for their willingness to continue working as a CDD. Instead, non-financial incentives, such as self-fulfillment and recognition, and especially the spirit of promoting the community's interest, are the main motivating factors.

The following quotations are typical of their response when asked if they were willing to continue with the distribution of ivermectin in their communities:

- *"I am willing to continue because it is helping the community"* (CDD, Cameroon).
- *"We are willing to continue because the drug is free and it is to help our people"* (CDD, Calabar).
- *"We are ready to continue the work and ready to do it for a long time to come because our community and our parents appreciate the drug"* (CDD, Kaduna).
- *"We would continue even if we are not paid because we are doing a voluntary service for our community"* (CDD, Kaduna).

- *"It is my contribution to development and investment to political future and good will of my people"* (CDD, Kaduna).

Most health and development programmes in the study areas have general policies of community involvement but it has been difficult to implement these policies. As CDTI is the most advanced programme with respect to community involvement, other programmes are interested in building on the experiences and structures of CDTI and involving CDDs in their health programmes. This point was eloquently made by the NPI manager from Calabar:

"NPI is based on PHC concept, which aims at the involvement of the community. One of our strategies to achieve this objective is to use CDDs who are agents of the community. CDDs are the most functional structure at the community level. The NPI is simply using existing structures, being the most credible, that are owned and respected by the community so mobilization through them is easier and more effective" (NPI manager, Calabar).

However, this example also demonstrates that, despite policies for community participation in health programmes, the actual involvement of CDDs may be a top down process which depends on the initiatives and decisions of programme managers.

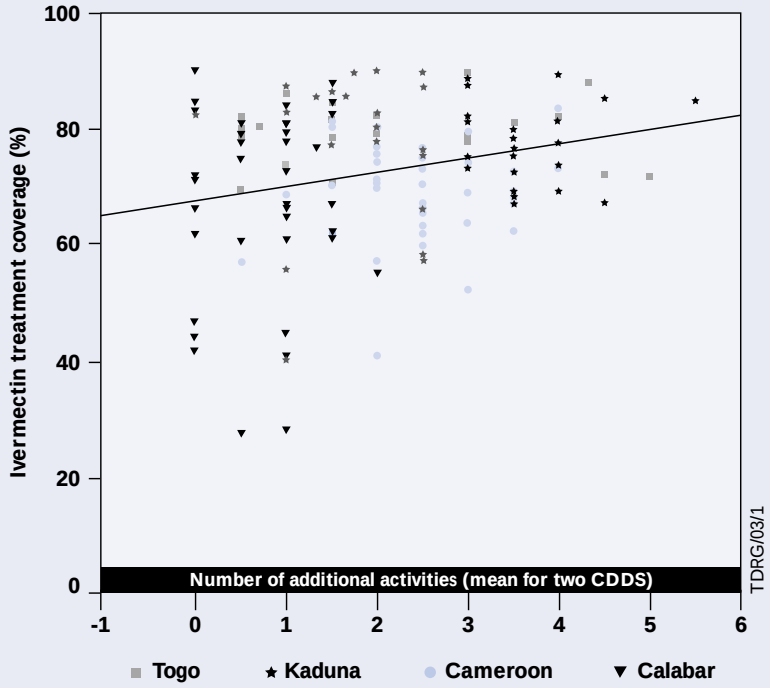
5.3 Relationship between the involvement of CDDs in other health and development activities and the performance of CDTI

CDDs were involved in many other health and development activities in the community. CDDs reported up to six additional activities, with a median of one additional activity for Calabar, two for Cameroon and Togo, and three for Kaduna.

In order to examine the relationship between level of involvement of the CDDs in other activities and the performance of CDTI, the treatment coverage per community was plotted against the average number of additional health and development activities per CDD in the same community. The results are shown in Figure 1. The treatment coverage increases with the number of additional activities, and this increase is statistically significant (linear regression, $P<0.005$).

A possible explanation for the increase may be that CDDs who take on a large number of additional activities are particularly motivated and committed individuals who will therefore also make extra efforts to ensure a high ivermectin treatment coverage during CDTI. But whatever the explanation for the increase, Figure 1 does not provide any evidence for decreasing performance of CDTI with an increasing number of additional activities for CDDs.

Figure 1. Treatment coverage and CDD involvement in other activities



5.4 Attitudes towards involvement of CDDs in other health and development activities

The CDD interview included an instrument to measure the opinions and attitudes of CDDs towards their involvement in additional health and development activities, and towards related issues. Respondents were asked to score on a scale of 1-5 their level of agreement with 11 different statements.

The statements related to three issues: current performance of CDTI, community involvement, and the addition of other health and development tasks for CDDs. For each issue, the scores for related statements were combined (after inverting scores for negatively formulated statements) into one indicator, ranging from 0 for a completely negative attitude/opinion to 100 for the most positive attitude/opinion score possible. The results are shown as box plots.[7]

The first indicator measures the opinion of CDDs on the current performance of CDTI. This indicator combines the responses to the following statements:

- *The performance of CDTI in this community is satisfactory.*
- *The work of CDDs has improved since they got involved in additional activities.*
- *The performance of CDTI in this community is not satisfactory*.

[7] The box plots (see page 22) show the distribution in responses. The boxes show the range in responses between the 25th and 75th percentile. The thick line on the box represents the median. The lines above and below the box (the whiskers) show the minimum and maximum values. Extreme values at a distance of more than two box lengths from the median are shown separately as an O or *.

Figure 2. CDD opinion on performance of CDTI

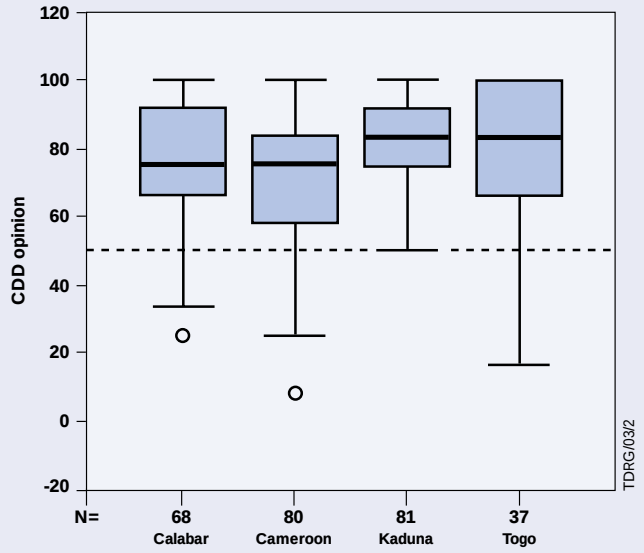


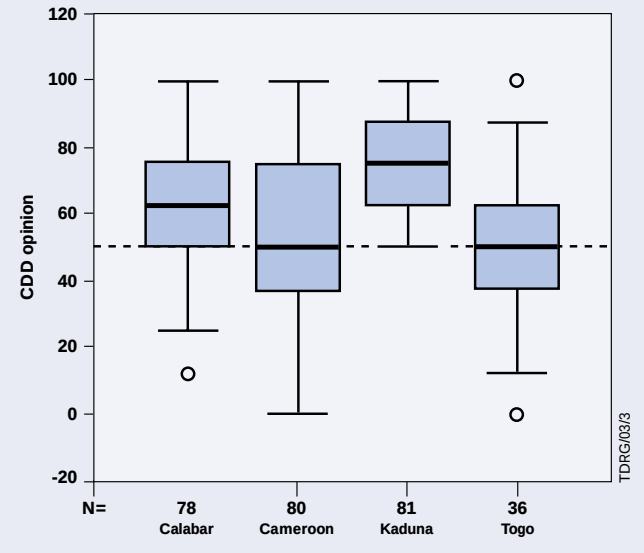
Figure 2 shows that CDDs have a very positive opinion about the performance of CDTI, which is not completely surprising as, with this indicator, they are commenting on their own performance. Nevertheless, there were a few dissenters in all sites except Kaduna. Otherwise, the attitude was quite similar between study sites.

The second indicator measures aspects of community involvement and combines the responses to the following statements:

- *The nature/type of support given by the community to CDDs is enough motivation.*
- *The communities are always involved in the decision-making process on the addition of other activities for CDDs.*

In this case (as shown in Figure 3), the CDDs are clearly less in agreement with the statements. Only in Kaduna did the CDDs have a strong positive opinion, but in both Cameroon and Togo they appeared to have considerable reservations on the issue of community support and involvement.

Figure 3. CDD opinion on community support and involvement



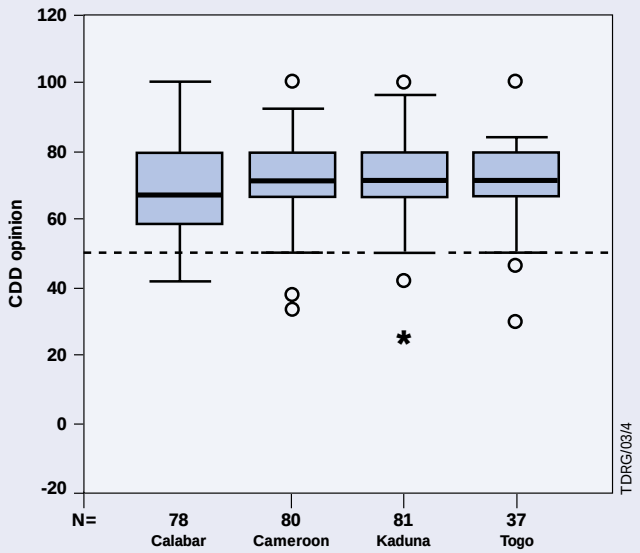
The third indicator measures the opinion of CDDs on adding other health and development tasks to their CDTI work. This indicator combines the responses to the statements listed below:

- *CDDs are not capable of handling several health activities at the same time.*
- *To be effective, a CDD should not be involved in other health-related activities.*
- *When a CDD is involved in other developmental activities, this helps in the mobilization of the community for ivermectin distribution.*
- *Because there are few health services in the communities, CDDs have to take additional responsibilities.*
- *The involvement of CDDs in other health and development activities enhances health services in this community.*
- *The involvement of CDDs in additional health activities allows for frequent monitoring and supervision by health staff.*

Figure 4 shows that CDDs in all four study sites were very positive about taking on additional health and development activities, and there were hardly any dissenters.Among the reasons given for wanting to take on additional tasks were:

- *"It will afford me the opportunity to know my people more"* (CDD, Kaduna).
- *"I will be serving my people in other capacities"* (CDD, Calabar and Kaduna).
- *"It will even help in mobilization for CDTI"* (CDD, Kaduna and Calabar).
- *"It will help me to know more about health matters"* (CDD, Kaduna).
- *"It makes me proud among my groups"* (CDD, Cameroon).
- *"I help my community with it"* (CDD, Cameroon).

Figure 4. CDD opinion on adding health and development tasks



The same attitude scale was used in the interview with health workers (Figure 5), and the same three scores were calculated to summarize their responses.

Figure 5 shows the health workers' opinions on performance of CDTI. In three sites, the health workers agreed with the CDDs that CDTI performs very well, and this finding reinforces the findings of previous community-directed treatment (ComDT) studies which have shown that health workers are initially very negative about the concept of community-directed health care, but that their attitude becomes much more positive with actual experience of ComDT. In Cameroon the response was more mixed, with most health workers being positive but more than a quarter having a negative opinion.

Figure 5. Health workers' opinions on the performance of CDTI & CDDs

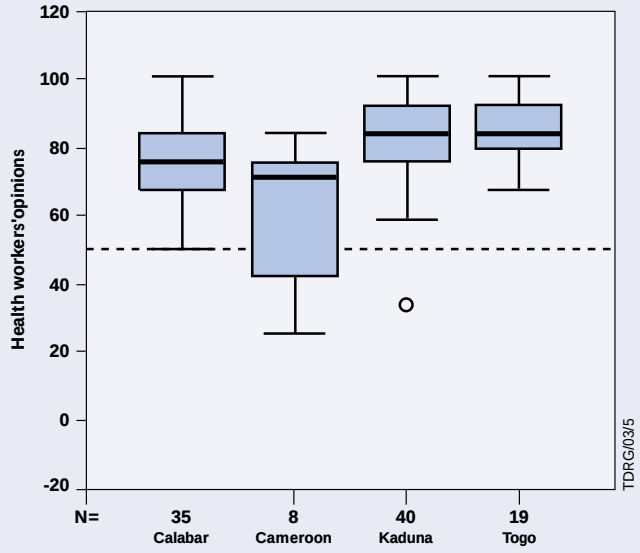


Figure 6. Health worker's opinions on community support and involvement

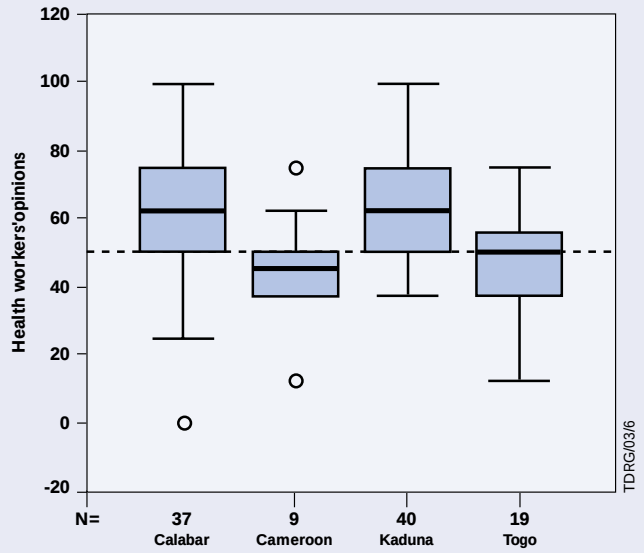


Figure 7. Health workers' attitudes towards adding tasks to CDD

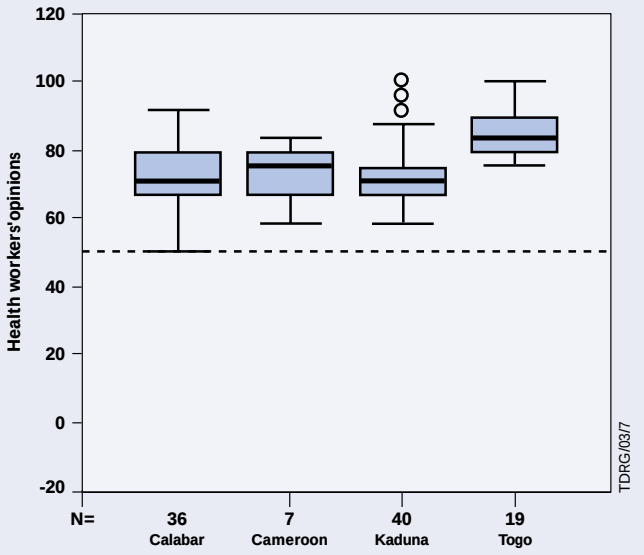


Figure 6 shows that the health workers in Cameroon and Togo agreed with the CDDs in these two countries that community support and community involvement was not satisfactory. Only in the two Nigerian sites did health workers and CDDs have a positive opinion about the level of community involvement in the implementation of CDTI.

Figure 7 shows that health workers are strongly in favour of involving CDDs in other health and development activities. The response was very positive in all four study sites and agreed with the response of the CDDs. The positive attitude of the health workers was very clear during the interviews, as the following quotations show:

- *"CDDs have reduced my workload, since they have taken up my role in health education and mobilization"* (health personnel, Calabar).
- *"It makes them perform better as CDDs. The Community recognizes their acceptability by health workers and thus respects them the more. It also enhances the distribution of Mectizan"* (health personnel, Calabar).
- *"The involvement engenders a sense of responsibility, increases the CDDs' commitment towards the health needs of the community"* (health personnel, Cameroon).
- *"It has made them improve on their primary role because it helps them to mobilize people for CDTI"* (in-depth interview with health personnel, Kaduna).
- *"It impacts more skills and allows for integration"* (health personnel, Calabar).
- *"The involvement of CDDs in immunization makes them happy and gives them a sense of belonging to work better as CDDs"* (health personnel, Calabar).
- *"The other H&D activities are sources of encouragement for them to continue in their primary role as CDDs"* (health personnel, Calabar).
- *«L'extension des taches des distributeurs à d'autres responsabilité de santé et de développement est une bonne façon de réussir l'intégration des programmes et la coordination des activités. Cette intégration au niveau communautaire volorise surtout le travail des agents communautaires»* (infirmier chef de poste, Dispensaire de Bago, Préfecture de Tchamba, Togo).
- *«La participation communautaire est nécessaire pour tout le système de santé. Nous comptons beaucoup sur les distributeurs d'ivermectine pour mieux réussir à engager les communautés»* (technicien supérieur de génie sanitaire, Direction préfectorale de santé de Tchaoudjo, Togo).

7
CONCLUSIONS

- The majority of CDDs (82%) were involved in additional health and development activities. The main additional activities were EPI (community mobilization and as local guides), water and sanitation (maintenance of water points and latrine inspection), and community development projects (vigilante, construction, community and agricultural secretarial activities). Most of these activities, especially EPI, started after their selection as CDDs.

- These additional activities do not take up much of the CDD's time (less than two weeks per year) and they are not considered an important burden. They do not coincide with CDTI and do not seem to affect CDTI performance. There was no decline in ivermectin treatment coverage with increasing number of additional activities.

- Most health programmes in the study areas have general policies of community involvement but it has proven difficult to implement these policies. As CDTI is the most advanced programme with respect to community involvement, other programmes are interested in building on the experiences and structures of CDTI and involving CDDs in their health programmes. EPI has made most progress and two-thirds of the CDDs are already involved in community mobilization and as guides for vaccination programmes in the community.

- Programmes such as EPI provide financial incentives to community volunteers, and this may explain why EPI is more popular with CDDs than CDTI. However, the present study indicates that the provision of incentives by other programmes does not necessarily have a negative influence on CDTI. Rather, it may enhance the performance of CDDs when they are involved in their capacity as CDD in EPI and have a chance to benefit from the financial incentives of other programmes. Communities often take advantage of the existence of such opportunities to reward the CDDs for their 'selfless efforts' by selecting them for these other activities.

- Nearly all CDDs expressed interest in continuing to work as a CDD. Financial incentives were not seen to be important in this respect, CDDs being very much aware that they cannot expect any cash reward for their CDTI work. They expressed strong motivation to continue 'to help their community' as CDDs.

- CDDs, communities and health workers demonstrated a very positive attitude towards greater involvement of CDDs in additional health and development activities. The health workers want to build on the experience of the CDDs, the community want better services and have confidence in the CDDs, and, for the CDDs, this offers an opportunity for further capacity strengthening. The CDDs were particularly interested in doing more health-related work.

8
RECOMMENDATIONS

1. Additional health and development activities for CDDs do not appear to pose a threat to CDTI, but rather provide an opportunity to strengthen sustainability and effectiveness of ivermectin treatment. It is recommended that this opportunity be further explored through intervention studies that address this concept.

2. In the meantime, it is recommended that CDTI programmes explore using the findings of potential positive impact of financial incentives by other programmes and facilitate integration of health programmes with different incentive policies at the community level.

9
ACKNOWLEDGEMENTS

We are grateful to Dr Hans Remme for his technical input and personal commitment to the successful conduct of this project. We thank Dr A. Seketeli and Dr Uche Amazigo for their technical advice, and the financial contribution of APOC to the project. We are also grateful to researchers, health and social workers, members of the CDTI teams in the respective project sites and others who participated in the field work for community sensitization and data collection. We extend our warmest appreciation to the leaders and members of the study communities for their cooperation and active participation during the study.

9
BIBLIOGRAPHY

Seketeli A. et al. The achievement and challenges of the African Programme for Onchocerciasis Control (APOC).
Annals of Tropical Medicine and Parasitology, 2002, 96(suppl 1):S15-28.

Community directed treatment with ivermectin: report of a multicentre study.
Geneva, UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases, 1996 (document TDR/AFR/RP/96.1).

Implementation and sustainability of community directed treatment with ivermectin.
Geneva, UNDP/World Bank/WHO Special Programme for Reseach and Training in Tropical Diseases, 2000 (TDR/AFR/RP/96.1).

Report of the International Conference on Primary Care, Alma Ata. Geneva, World Health Organization, 1998.

ANNEXES:
RESEARCH INSTRUMENTS 1-5

Instrument 1: Questionnaire for CDDs

Identification of project site

Study team ☐ (1 = Calabar, 2 = Cameroon, 3 = Ibadan, 4 = Kaduna, 5 = Togo, 6 = Sudan)

LGA/district ☐☐
Community ☐☐
CDD ID ☐☐

Socio-demographic characteristics

1. Sex Male ☐
Female ☐

2. Age in years ☐☐

3. Marital status
- Single ☐
- Married ☐
- Divorced ☐
- Widow ☐

4. Educational level
- No formal education ☐
- Primary level ☐
- Secondary level ☐
- Post secondary ☐

5. Occupation
- Farmer ☐
- Trader ☐
- Housewife ☐
- Civil servant ☐
- Religious leader ☐
- Unemployed ☐
- Other (Specify) .....

CDD involvement in CDTI and other activities

6. When was CDTI introduced in this community?

1996 ☐ 1997 ☐ 1998 ☐ 1999 ☐ 2000 ☐

7. How long have you been a CDD?

- One year ☐
- Two years ☐
- Three years ☐
- Four years ☐
- Five years ☐

8. How were you selected as a community distributor?

- At a village meeting ☐
- By the health worker ☐
- By the health committee ☐
- By the traditional chief ☐
- By the local council chairman ☐
- Other (specify) .....

9. How many days do you spend for CDTI in a year?

.....

10. Are you involved in any other health or development activities beside the distribution of ivermectin?

- Yes ☐
- No ☐ Skip to Q 18 →

11. If yes, what are the different activities in which you are involved in this community?

.....

.....

.....

.....

.....

12. How did you get involved in these activities, and when?

Activities	How did you get involved?	When (year)?
1		
2		
3		
4		
5		
Total		

13. How motivated are you to carry out each of these activities as compared to your work as CDD?

Activities	Level of motivation	Give reason
1		
2		
3		
4		
5		

1. Less motivated than CDTI

2. Equally motivated as CDTI

3. More motivated than CDTI

14. How many days (in a year) do you spend on each of these activities?

Activities	Days spent per year	Period when activities are carried out *
1		
2		
3		
4		
5		

*** 1= before CDTI**
2 = during CDTI
3 = after CDTI

15. Are financial incentives provided for any of these activities?

Activities	Financial incentive provided? yes /no	How much?	Source
1			
2			
3			
4			
5			

16. Are there similarities between your functions in the other activities you are involved in and your tasks as CDD?

- Yes ☐
- No ☐

17. If yes to Q 16, what are the similarities?

……

……

……

……

Performance

18. What activities did you carry out during the last distribution as a CDD?
(These are not options – tick as many as performed.)

- Treatment of eligible persons ☐
- Management of side-effects ☐
- Community mobilization ☐
- Health education ☐
- Census update ☐
- Record keeping ☐
- Collection of drugs ☐
- Others (specify) .....

19. How many people were you supposed to treat in this community during the last distribution? .....

20. How many received the drugs during the last distribution?
..... (verify from records)

Sustainability

21. Will you want to continue as CDD?

- Yes ☐
- No ☐

22. Give reasons for your answer

.....

.....

.....

.....

23. How do you think your involvement in other activities will affect your work as a CDD?

.....

.....

.....

.....

.....

Attitude scale

24. Indicate your strength of agreement/disagreement with the following statements:

Statements	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
1 The performance of CDTI in this community is satisfactory					
2 The nature/type of support given by the community to CDDs is enough motivation					
3 The CDDs are not capable of handling several health activities at the same time					
4 The work of the CDD has improved since they got involved in additional activities					
5 The communities are always involved in the decision-making process on the addition of other health or development tasks to CDDs.					
6 To be effective, a CDD should not be involved in other health-related activities					
7 The performance of CDTI in this community is not satisfactory					
8 When a CDD is involved in other developmental activities, this helps in mobilizing the community for ivermectin distribution					
9 Because there are few health services in the communities, CDDs have to take on additional responsibilities					
10 The involvement of CDDs in other health and development activities enhances health services in this community					
11 The involvement of CDDs in additional health activities allows for frequent monitoring and supervision by health staff					

25. Comments and suggestions (for CDDs involvement in other activities)

.....

.....

.....

.....

Review of village-based records: census records

District: ..... Village/community: .....

1. Mark the type of record book (tick)

- Soft cover exercise book/notebook ☐
- Hard cover register ☐
- Other (specify) .....

2. Condition of census records (tick)

- Clean ☐ or Stained, smudged, dirty ☐ *describe problems, ask for reasons*
- Intact ☐ or damaged, torn, missing pages ☐ *describe problems, ask why*

3. Evidence of updating since last distribution (tick all that are found)

- Children born have been added ☐
- New families who have moved in have been added ☐
- People who have moved out have been crossed off ☐
- No evidence of updating ☐
- Other (specify) .....

4. Does the register distinguish between village members who are normally present and those who are not usually around (e.g. work in the city, away at school, married and living elsewhere)?

- Yes ☐
- No ☐

Instrument 2: Household Coverage Survey Form

Instructions: The following questions on the most recent distribution should be answered by every member of the household. First ask the head of the household or his/her representative to list the names of all the members of the household. Next pose the questions to each household member and record the answer in the appropriate column (use additional sheets if required).

DISTRICT: VILLAGE: ETHNIC GROUP: DISTANCE TO DISTRIBUTION POINT:

NAMES of household members	Sex M=1 F=2	Age	QUESTION 1	IF YES TO QUESTION 1					IF NO TO QUESTION 1		QUESTION 2
			When the people with this (show bottle) tablet visited, did you receive tablets? Y=1; N=2	How many tablets were you given?	What colour were they? White=1 Other=2	Did you swallow the tablets? Y=1 N=2	How did the tablets affect you?*	If unwell within two days, what did you do?**	Why did you not receive the tablets?***	Have you taken these tablets since then? Y=1 N=2	Did you take the tablets the year before the last distribution? Y=1 N=2

* codes: not treated =00, no reaction=01, itching=02, dizziness=03, headache=04, swelling=05, nausea/vomiting=06, many reactions=07, feeling better=08, others=88, no response=99

** code: nothing=1, modern medicine=2, traditional medicine=3, others=4

*** code: child<5=1, absent=2, pregnant=3, refusal=4, not informed=5, sick=6, others=7

Instrument 3:
Focus Group Discussion (FGD) for community members

Introduction/establishment of rapport

• Good day. I am …….. and my colleages are ……. We thank you for agreeing to come and participate in this discussion.

• We are from …… and we are here to learn from you about the involvement of CDDs in other health and development activities which are not part of the Mectizan distribution programme.

• We have invited you because of your wealth of experience in this community and the confidence we have in you.

• Please, in this discussion, there are no right or wrong answers. Everyone's opinion is important and should be freely expressed.

• What we will learn from you today will be useful in the future for planning how Mectizan distribution and other health and development activities can continue without problems.

• We crave your indulgence to allow us to use a tape recorder to record the proceedings of these discussions. This is to ensure we do not forget all the useful opinions you will share with us. We, however, assure you that whatever you disclose to us will not be disclosed to anyone else or used against you in any way. We therefore appeal to you to participate fully and honestly in the discussions. Once again, thank you for coming.

General

1. What are the health care facilities in this community?

Probe into:

- Availability of health care facilities and how they function in the community.
- How well these health care facilities satisfy the needs of the community.
- Existence of VHWs and types of activities they perform.
- Services provided by these health care facilities.
- If no health care facility in the community, probe into the distance of the community from the nearest health facility.

2. When was CDTI introduced in the community?

Also probe into:

- Number of people selected and trained to be CDDs.
- Number of such people who are still functioning.
- What the community was told about its role or contribution regarding ivermectin distribution.
- Benefits or useful experience so far.
- Problems being faced with ivermectin distribution.

3. How were the CDDs selected to be community distributors? What were the criteria?

Role of communities in CDD's involvement in health and development activities

4. Apart from CDTI, what other health and development (H&D) activities are performed by the CDDs in this community?

- Community self-help projects.
- Health and development programmes brought into the community by other people, e.g. EPI, Guinea worm control, water and sanitation.

5. How were these other H&D activities brought into this community?

Probe into the following aspects of each activity:

- Who initiated it?
- How was it introduced? e.g. village meeting, village health committee, village head or village elders, health worker?

6. If the community was involved in deciding to involve CDDs in these activities that have been mentioned, probe into:

- Reasons for deciding to involve CDDs in these activities.
- Criteria for selecting CDDs to be involved (i.e. where there is more than one CDD), e.g. experience, honesty, track record of effectiveness.

7. What is your opinion about the advantages and disadvantages of involving CDDs in other H&D activities?

Probe into:

- Whether it works and should be encouraged.
- Whether it does not work and should be discouraged.
- Whether it affects the CDD's role in ivermectin distribution.

Performance

8. What do you think about the performance of CDDs in this community?

Probe into:

- Are people satisfied or not? Please explain.
- Has the performance of the CDD improved or dropped since s/he became a CDD?
- Have there been any problems? Please explain what problems and how they were addressed.
- Have any CDDs been changed? If yes, please explain circumstances.

9. What types of support (cash, kind, moral) were given to CDDs by the community to help them do their jobs better? What types of support were given for other H&D activities? Probe for any financial assistance? Please explain – who gave assistance?

10. Are CDDs involved in other H&D activities provided with some support by other H&D providers? Probe for types of support, if any.

11. Did community members help the CDD to carry out any of his/her duties? Who helped? What duties?

12. What other kinds of help or assistance were provided? What kind? Who provided?

13. Do you think that CDD involvement in other activities has any effect on ivermectin distribution in your community? Please explain.

14. Do you think that CDDs involvement in other H&D activities allows for frequent monitoring and supervision by health staff? If yes, in what ways?

15. What could be done to improve the performance of CDDs who are involved in additional activities?

Instrument 4:
In-depth Interview Guide for community leaders

1. What are the health care facilities in this community?

Probe into:

- Availability of health care facilities and how they function in the community.
- How well these health care facilities satisfy the needs of this community.
- Existence of voluntary health workers and types of activities they perform.
- Services provided by these health care facilities.
- If no health care facility in the community, probe into the distance of the community from the nearest health facility.

2. When was CDTI introduced in the community?

Also probe into:

- Number of people selected and trained to be CDDs.
- Number of such people who are still functioning.
- What the community was told about its role or contribution regarding ivermectin distribution.
- Benefits or useful experience so far.
- Problems being faced with ivermectin distribution.

3. How were the CDDs selected as community distributors? What were the criteria?

4. Apart from CDTI, what other H&D activities are performed by CDDs in this community?

Probe into:

- Community self-help projects.
- H&D programmes brought into the community by other people, e.g. EPI, Guinea worm control, water and sanitation.

5. How were these other H&D activities brought into this community?

Probe into the following aspects of each activity:

- Who initiated it?
- How was it introduced, e.g. village meeting, village health committee, village head or village elders, health worker.

6. If the community was involved in deciding to involve CDDs in the activities that have been mentioned, probe into:

- Reasons for deciding to involve CDDs in these activities.
- Criteria for selecting CDDs to be involved (i.e. where there is more than one CDD), e.g. experience, honesty, tract record of effectiveness, stability in the village.

7. What is your opinion about the advantages and disadvantages of involving CDDs in other health and developmental activities?

Probe into:

- Whether it works and should be encouraged.
- Whether it does not work and should be discouraged.
- Whether it affects the CDDs role in ivermectin distribution.

8. What do you think about the performance of CDDs in this community?

Probe:

- Are people satisfied or not? Please explain.
- Has the performance of the CDD improved or dropped since s/he became a CDD?
- Have there been any problems? Please explain what problems and how they were addressed.
- Have any CDDs been changed? If yes, please explain circumstances.

9. What types of support (cash, kind, moral) were given to the CDDs by you and/or the community to help them do their jobs better? What types of support were given for other H&D activities? Probe for any financial assistance? Please explain – who gave assistance?

10. Are CDDs involved in other H&D activities provided with some support by other H&D providers? Probe for types of support, if any.

11. Did community members help the CDD to carry out any of his/her duties? Who helped? What duties?

12. What other kinds of help or assistance were provided? What kind? Who provided?

13. Do you think that CDD involvement in other activities has any effect on ivermectin distribution in your community? Please explain.

14. Do you think that CDDs involvement in other H&D activities allows for monitoring and supervision by health staff? If yes, in what ways?

15. What could be done to improve the performances of CDDs who are involved in additional activities?

Instrument 5: In-Depth Interview guide for H&D personnel at the community level

1. Are you aware of the CDTI programme in this community?

2. When was CDTI introduced in the community?

Also probe into:

- Number of people selected and trained to be CDDs.
- Number of such people who are still functioning.
- What the community was told about its role or contribution regarding ivermectin distribution.
- Benefits or useful experience so far.
- Problems being faced with ivermectin distribution.

3. How were the CDDs selected to be community distributors? What were the criteria?

4. How many CDDs do you supervise, if any?

5. Apart from CDTI, what other H&D programmes and activities are carried out by the CDDs you supervise?

6. How many CDDs are involved in other H&D activities in the communities under your supervision?

7. Why are the CDDs being involved in other H&D activities?

8. What steps are laid down for involving CDDs in other H&D activities in the communities under your supervision

9. What are the usual criteria or yardsticks for determining the types of H&D activities which CDDs are asked to participate in, in addition to their CDTI work?

10. What role do you play in the process of involving the CDDs in other H&D activities for the communities under your supervision?

11. What is the effect of involving CDDs in other H&D activities on their primary role as CDDs?

12. How has the involvement of CDDs affected your workload?

Attitude scale (health workers)

13. Indicate your strength of agreement/disagreement with the following statements:

Statements	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
1 The performance of CDTI in this community is satisfactory					
2 The nature/type of support given by the community to CDDs is enough motivation					
3 The CDDs are not capable of handling several health activities at the same time					
4 The work of the CDD has improved since they got involved in additional activities					
5 The communities are always involved in the decision-making process on the addition of other health or development tasks to CDDs.					
6 To be effective, a CDD should not be involved in other health-related activities					
7 The performance of CDTI in this community is not satisfactory					
8 When a CDD is involved in other developmental activities, this helps in mobilizing the community for ivermectin distribution					
9 Because there are few health services in the communities, CDDs have to take on additional responsibilities					
10 The involvement of CDDs in other health and development activities enhances health services in this community					
11 The involvement of CDDs in additional health activities allows for frequent monitoring and supervision by health staff					

Comments and suggestions (for CDD involvement in other activities):

.....

.....

.....

.....

Check list for assessing functionality of PHC at the community level

Item	Available	Not available	Not applicable
Health personnel			
Drugs			
Preventive services, e.g. immunization, health education			
PHC facility			
Pharmacy store			
Laboratory services			

Guide for reviewing of records and for interviewing head of H&D personnel at district level

1. What are the policies and objectives of the programme?

2. To what extent does the programme policy rely on community participation using CDDs?

3. What are the achievements and obstacles experienced in involving CDDs in the programme?

Mailing address:
TDR
World Health Organization
Avenue Appia 20
1211 Geneva 27
Switzerland

Street address:
TDR
World Health Organization
Centre Casai
Avenue Louis-Casai 53
1216 Geneva
Switzerland

Tel: (+41) 22-791-3725
Fax: (+41) 22-791-4854
E-mail: tdr@who.int
Web: www.who.int/tdr

TDR/IDE/CDDI/03.1