



Eye of the Eagle



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Sudan Treats More Onchocerciasis, Begins Trachoma Control In 2000

Sudan's Onchocerciasis Control Program achieved considerable progress against onchocerciasis and trachoma during 2000. The program reported this good news at the Fifth and Second Annual Program Reviews, respectively, of Carter Center-assisted River Blindness and Trachoma Control Programs, which were held in Atlanta February 26-

March 2, 2001. Sudan's Onchocerciasis Control Program treated more than 559,437 persons in 2000 compared to 409,646 persons treated in 1999 (Figure 2). Almost 398,000 of the treatments in 2000 were in the Government of Sudan (GOS) areas. Numbers from the Operation Lifeline Sudan (OLS) areas (coordinated by HealthNet International) are incomplete due to delayed reporting. Activities in parts of southern Sudan were impeded by increased insecurity and the withdrawal of several non-governmental organizations (NGOs) in a dispute with controlling authorities there. The Ultimate Treatment Goal for Sudan is estimated to be 526,980 for the GOS areas and 600,000 for the OLS areas. Treatments were conducted for the first time at Abu Hamad and in the Al Baraka camp for displaced persons in three new localities in Khartoum North.

The GOS program held a successful Onchocerciasis Day at Wau in March 2000 that was attended by the Federal State Minister of Health. It presented a "CDD of

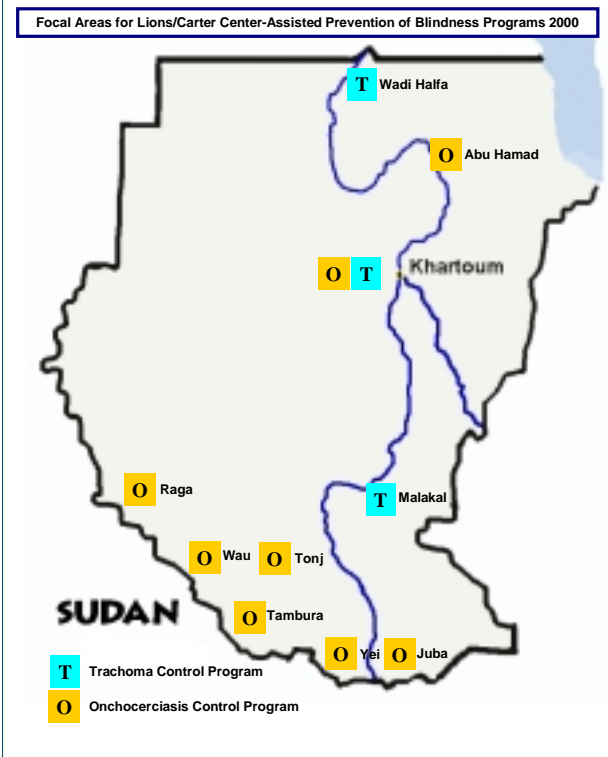
the Year" (community directed distributor) award to Ms. Elizabeth Henry, distributed more than 1,100 t-shirts, posters sets, and illustrated flip-charts, and formed "Oncho Clubs" in seven schools in East Equatoria State. Three members of the National Onchocerciasis Task Force from Khartoum met with health authorities from the Sudan Relief and Rehabilitation Association and staff from the Sudan People's Liberation Movement

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Figure 1



Sudan

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in Nairobi in October 2000. Funding for the onchocerciasis activities is provided by the Lions-Carter Center SightFirst Initiative and the African Program for Onchocerciasis Control, and it is supported by two dozen other NGOs (including Moslem Zakat Chamber, Sudanese Red Crescent/ICRC, and International Medical Corps).

Following KAP surveys and prevalence surveys conducted early in 2000, Sudan's Trachoma Control Program began implementing all elements of the SAFE strategy in four villages around Malakal in Upper Nile state in August 2000. A total of 115 surgeries were done for trachomatous trichiasis and 12,671 people were treated with Zithromax (78 percent of the eligible population). In the town of Malakal average water supply was increased from 11.5 to 47.4 liters per person as a result of a new water plant, and pit latrines were increased to 47 percent of homes in 2000 (compared to 37 percent in 1999). Control measures will be expanded in 2001 to at least 100,000 more people around Malakal, at Wadi Halfa and in Jongoli State, the latter with assistance of MEDAIR, Christian Mission Aid, and Adventist Development Relief Agency (ADRA). External support for this program is provided by the Lions-Carter Center SightFirst Initiative, Pfizer Inc., and the International Trachoma Initiative. Prevalence surveys were completed in March 2001 in camps for displaced persons around Khartoum, and a national survey of nine states is planned for later this year.

The presentations for Sudan were made by Professor Mamoun Homeida, chairman of the National Task Forces for Onchocerciasis and for Trachoma of the Government of Sudan, Ms. Irene Mueller of HealthNet International (river blindness), and Ms. Kelly Callahan of The Carter Center (trachoma).★

More Than 7 Million Treatments Aided by The Carter Center in 2000

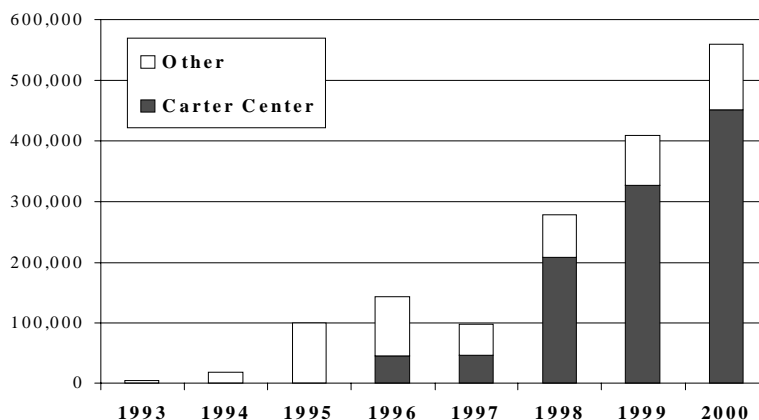
A total of 7,229,829 people were treated in Carter Center-assisted Global 2000 river blindness programs (97 percent of the 2000 ATO). This represents an increase in treatments of 9 percent compared to 1999. Of the treatments in 2000, 7,015,575 (97 percent) were accomplished in partnership with the Lions Clubs (LCIF) in Nigeria, Uganda, Cameroon, Sudan, and OEPA. Most treatment activities in Africa were in collaboration with the African Program for Onchocerciasis Control (APOC). A summary of treatment activities is provided in the treatment table (Table 1, page 4).

These gains were among the topics at The Carter Center's fifth annual review meeting for the Global 2000 River Blindness Program in Atlanta on February 26-28, 2001. The main purposes of the review, which was

chaired by Dr. Frank Richards (Technical Director, GRBP), were to assess the status of each program and to determine impediments and problems in program implementation. In attendance were GRBP country representatives from Cameroon, Ethiopia, Uganda, Nigeria, Sudan (Khartoum and Nairobi offices) and the Onchocerciasis Elimination Program for the Americas (OEPA). Special guests included Professor Mamoun Homeida, (Chairman, National Onchocerciasis Task Force, Sudan), Ms. Irene Mueller (Program Manager, HealthNet International [HNI], Sudan, Mr. Peter Lynch (Lions Clubs), Ms. Minnie Iwamoto (Lymphatic Filariasis Program, Glaxo SmithKline, Dr. Steve Blount (Director of Global Health, CDC, Dr. Danny Haddad (Helen Keller Worldwide [HKW], Dr. Mary Alleman

Figure 2

Sudan: Carter Center-Assisted Mectizan® Treatments as Part of the Total Treatments Provided, 1993-2000



Since 1997, GRBP activities in Sudan have been supported by Lions Clubs International Foundation

River Blindness

(Mectizan® Donation Program), and other observers. Each program made a three hour presentation, with discussions focused on treatment and training activities, 2000 annual treatment objectives (ATO's), ultimate treatment goals (UTG's), sustainability issues, Mectizan® security, epidemiological assessment activities, operations research, and administrative issues.

A 2001 ATO of 8,016,909 for GRBP-assisted countries was established at the conference, which includes projects for Ethiopia (see this page). The UTG (full coverage) of all GRBP assisted areas is 9,360,261 (Figure 3, page 4).

Nigeria

GRBP, in collaboration with LCIF and APOC, helped in treating 4,673,235 people with Mectizan in 2000. This was 88 percent of the Ultimate Treatment Goal (UTG), and a 3 percent increase in treatments compared to 1999. As the APOC assistance in GRBP programs in Nigeria enters its fourth year in some areas, the focus has been on sustainability and advocacy to mobilize states and Local Government Areas (LGAs) to release funds budgeted for onchocerciasis activities.

Uganda

The program in Uganda treated 903,429 people with Mectizan in 2000 in collaboration with LCIF and APOC. This was 97 percent of their UTG, and an increase in treatments of 10 percent compared to 1999.

Cameroon

A total of 833,973 people were treated in Cameroon with GRBP assistance. This was 58 percent of the UTG, and a 23 percent increase in treatments compared to 1999. Of the

2000 treatments, 619,719 were achieved in collaboration with the LCIF in the West Province, while 214,254 in the APOC supported North Province project.

Sudan

(See article on cover page.)

OEPA

In the Americas, 367,619 people were treated with Mectizan in 2000, 82 percent of their UTG and a 26 percent increase compared to 1999.

In OEPA, the strategy is to provide two Mectizan[®] treatment rounds per year in all endemic communities so as to interrupt transmission of *Onchocerca volvulus*, as well as stop morbidity from river blindness. In order to reach this goal, all programs in the region will need to increase their treatment activities (Figure 4, page 8), especially in Venezuela, Ecuador, and Brazil, where semiannual coverage is particularly low (41 percent, 50 percent, and 56 percent respectively).★

Ethiopia Begins Treatment for Onchocerciasis

In March 2001 The Carter Center's Global 2000 River Blindness Program assisted the ministry of health in launching the Ethiopia Onchocerciasis Control Program in Kaffa and Sheka zones of the Southern Nations, Nationalities, and Peoples Region. The annual treatment objective for 2001 is to provide Mectizan[®] treatment to 239,436 people. The program also produced t-shirts and posters that were delivered to zones for distribution to trachoma

CDDs and health facility workers.

By the beginning of April 2001, treatment had started in all of the targeted woredas and by May, 203,884 people had received treatment, 85 percent of Ethiopia's ATO! These activities were undertaken by the Ministry of Health of Ethiopia in close partnership with the Lions-Carter Center SightFirst Initiative and the African Program for Onchocerciasis Control.

Congratulations to Ethiopia!★



A young woman's height is measured and then Mectizan treatment is received in Kaffa zone, Ethiopia.



Rachel Barwick

River Blindness

Onchocerciasis: 2000 Mectizan treatment figures for Global 2000 River Blindness Program (GRBP)-assisted areas in Nigeria, Cameroon, Uganda, and collaborative programs in Latin America and Sudan

Country/Tx Category		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL	% ATO	% ALL GRBP TX
NIGERIA	*ATO(earp)	4,586,500		ATO(arv)=	7,712											
TX(earp)		3,062	2,886	165,965	199,437	354,349	681,933	192,794	446,088	349,910	725,533	954,495	596,783	4,673,235	102%	65%
TX(arv)				218	303	637	1,524	432	1,210	861	1,101	1,257	531	8,074	105%	57%
UGANDA	*ATO(earp)	931,568		ATO(arv)=	1,890											
TX(earp)		12,539	817	776	156,414	97,087	150,257	189,757	80,853	134,964	41,985	18,344	19,636	903,429	97%	12%
TX(arv)				490	162	339			134	221	544	0		1,890	100%	13%
CAMEROON	ATO(earp)	1,020,039		ATO(arv)=	2,611											
TX(earp)						196,201	127,957	128,018	57,028	43,509	111,312		169,948	833,973	82%	12%
TX(arv)						755	571	345	225	170	130			2,315	89%	16%
OEPA*	ATO(earp)	411,044		ATO(arv)=	1,943											
TX(earp)				188,238			101,024			31,171			47,186	367,619	89%	5%
TX(arv)				1,053			343			222			148	1,766	91%	13%
SUDAN	ATO(earp)	489,232		ATO(arv)=	593											
TX(earp)		20,677	51,388	90,232	38,196	33,424	6,384	37,092	31,490	14,489	55,616	14,144	58,441	451,573	92%	6%
TX(arv)																
Totals	ATO(earp)	7,438,383		ATO(arv)=	14,749											
TX(earp)		36,278	55,091	445,211	394,047	681,061	966,531	547,661	615,459	574,043	915,922	986,983	891,994	7,229,829	97%	100%
TX(arv)		0	0	1,271	793	1,554	2,434	777	1,569	1,474	1,775	1,257	679	14,045	95%	100%

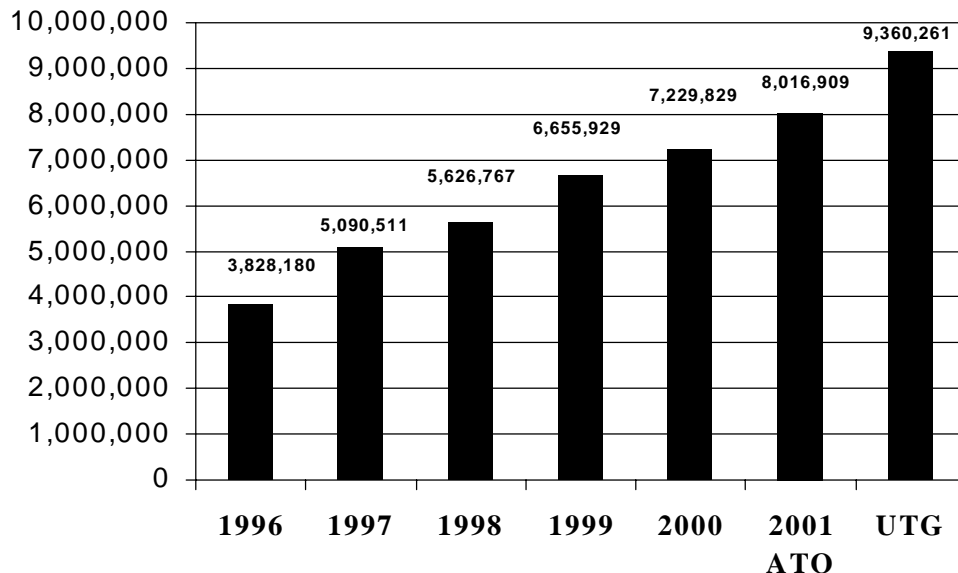
GRBP Cumulative totals=
28,406,539

ATO: Annual Treatment Objective, TX: Number Treated, earp: Eligible At Risk Population, arv: At Risk Villages (mass Mectizan treatment is provided)

*OEPA figures reported quarterly

Sudan figures only include GRBP-assisted treatments. A total persons treated in Sudan in 2000=559,437

Carter Center-assisted Programs: Mectizan Treatments 1996 - 2000, 2001 Annual Treatment Objective, and Ultimate Treatment Goal



Trachoma knowledge, attitudes and practices in the South Gondar Zone of Ethiopia

In October 2000, The Carter Center began a partnership with Ethiopia's Amhara Regional Health Bureau to help control blinding trachoma in four districts of the South Gondar Zone. The four districts, Simada, Dera, Estie and Ebinat, are comprised of 157 sub-districts with a total population of over one million inhabitants.

In February 2001, a qualitative knowledge, attitudes and practices (KAP) study was completed including focus group discussions with men, women, and school children in all four districts. In addition, health workers, schoolteachers and village chairpersons were interviewed, and environmental risk factors for trachoma were assessed. Dr. Tewodros Assefa, regional team leader for prevention of blindness, directed the study teams. The Carter Center provided technical and financial support, which was made possible by the Lions-Carter Center SightFirst Initiative. Key findings of the study are summarized below:

■ Importance of eye disease

Eye diseases, including trachoma, are perceived to be important health problems, along with malaria and pneumonia.

■ Knowledge of trachoma

Study participants are quite aware of what active, inflammatory trachoma is and have some knowledge of its transmission and prevention. Trichiasis is also well known but is considered to be a different disease. In addition, many persons hold traditional beliefs about both active trachoma and trichiasis. Discussions

with health workers, teachers and development agents suggest that these individuals also need training on trachoma control.

■ Facial cleanliness

Most children in the study villages had very dirty faces, with visible ocular and/or nasal discharge, and/or at least five flies near the eyes. Children did not appear to be bothered by flies and did not shoo them away.

■ Access to water

Access to water is not perceived to be a problem in any of the study villages. Water sources include hand pumps, wells, rivers, and unprotected springs. One respondent said that access to water is not a problem, but that communities do not understand the appropriate uses of water.

■ Latrine use

Latrines are not commonly used in the communities visited. In some communities, clean, uncovered latrines were found at the school, or in the teacher's house or chairman's compound. Community members reported that they are not accustomed to using latrines, which are not part of their culture. Adults reported that they walk far from their compounds to defecate in the bush. Children defecate close to home. Direct observation showed that there were human excreta within 100 meters of the compounds visited.

■ Treatment of active trachoma

Study participants know that tetracycline ointment is used to treat active trachoma and can be purchased from health posts. Although most community members receive free

medical care, they do not perceive the cost of tetracycline ointment to be a barrier. However, both villagers and health care workers reported that ophthalmic tetracycline is often not available in health centers or pharmacies in villages and towns. Instead, traditional medications, such as herbal remedies, kohl and butter are often used to treat active trachoma.

■ Access to trichiasis surgery

Women with trichiasis know that their condition can be treated surgically, but report that they do not have access to those services. District and zonal health centers do not have surgeons or equipment to offer trichiasis surgery. Trichiasis surgery is available in regional hospitals, but this is not considered a viable option for many patients interviewed. As a result, trichiasis patients use traditional forceps to epilate their eyelashes and temporarily relieve their pain.

■ Health education channels

Villagers in the South Gondar Zone receive health education focusing on family planning and HIV/AIDS from village health volunteers. These group discussions are held in churches, schools, village meetings and other social gatherings. Outreach health workers discuss children's health during monthly visits. Some schools have used theater to disseminate information to the entire community. Access to radios was reported to be mainly limited to men. Women said they listen to music on the radio, but do not understand the content of the messages transmitted.★

Trachoma References

Bowman RJ. Sillah A. Van Dehn C. Goode VM. Muquit M. Johnson GJ. Milligan P. Rowley J. Faal H. Bailey RL. "Operational comparison of single-dose azithromycin and topical tetracycline for trachoma." *Investigative Ophthalmology & Visual Science*. 41(13):4074-9, 2000 Dec.

Dobson R. "New fly trap may reduce prevalence of blindness from trachoma." *Bulletin of the World Health Organization*. 78(10):1282, 2000.

Guzey M. Aslan G. Ozardali I. Basar E. Satici A. Karadede S. "Three-day course of oral azithromycin vs topical oxytetracycline/polymyxin in treatment of active endemic trachoma." *Japanese Journal of Ophthalmology*. 44(4):387-91, 2000 Jul-Aug.

Markel H. "The eyes have it: trachoma, the perception of disease, the United States Public Health Service, and the American Jewish immigration experience, 1897-1924." *Bulletin of the History of Medicine*. 74(3):525-60, 2000 Fall.

Wedner SH. Ross DA. Balira R. Kaji L. Foster A. "Prevalence of eye diseases in primary school children in a rural area of Tanzania." *British Journal of Ophthalmology*. 84(11):1291-7, 2000 Nov.

Second Annual Review of Carter Center-Assisted Trachoma Control Programs

Improving trachoma control efforts and strengthening the "F" and "E" components of the control strategy were targeted as specific recommendations at the second annual program review for Carter Center-assisted trachoma control programs. The national program coordinators from Sudan, Yemen and Ghana represented their programs at the meeting, held at The Carter Center in Atlanta March 1-2, 2001. Regional program coordinators or other representatives from Ethiopia, Mali, Niger, Nigeria, and Ghana also presented. Nigeria was represented by The Carter Center's country director, Dr. Emmanuel Miri. The Operation Lifeline Sudan/South program, which is part of Sudan's national TCP, was represented by Ms. Kelly Callahan and Dr. Jeremiah Ngondi, The Carter Center/Nairobi resident technical advisor and TCP manager, respectively. Also participating were the medical officers from

Vietnam and Tanzania who coordinate TCP activities for the International Trachoma Initiative (ITI) in those countries. Representatives of Lions International, the Hilton Foundation, World Vision International, Pfizer Inc, the International Trachoma Initiative, Helen Keller Worldwide, the Centers for Disease Control and Prevention, and Emory University also attended.

Special sessions on health education and disease surveillance generated lively debate and illuminated interesting aspects of each program. Reports from the participants were very positive, in keeping with the enthusiasm with which the program coordinators rose to the challenge to make progress in 2000. At the conclusion of the meeting, the challenge was renewed to make greater progress in 2001. All indications are that the programs and their partners are prepared to do just that.★

SAFE in the Amhara Region

Last October, during the long drive from Ebinat to Bahir Dar after completing the qualitative knowledge, attitudes and practices (KAP) study in the South Gondar Zone of Ethiopia (see article, page 5), Dr. Tewodros Assefa, Regional Prevention of Blindness Team Leader, Amhara Regional Health Bureau, and Ms. Misrak Makonnen of The Carter Center and their team, took on the challenge of translating SAFE into Amharic, the language of the Amhara Region, which includes South Gondar. Their new acronym to describe the strategies for controlling trachoma is "Mamene." Taken whole, mamene means **believe**, but the three letters that spell mamene stand for:

Ma – Maskorete, meaning surgery

Me – Medehanit, meaning medication (including antibiotics)

Ne – Netsehena, meaning cleanliness (both facial and environmental)

Dr. Tewodros proposed this Amharic acronym to national and regional prevention of blindness workers at the Prevention of Blindness Workshop in February 2001, and it received enthusiastic approval.★

Trachoma

Lions International Receives Photo Album of Sudan TCP

Dr. James Zingesser, Carter Center senior epidemiologist, attended the January 11, 2001, SightFirst Advisory committee meeting in Oak Brook, Illinois. There, he presented Lions International with an album of his photographs documenting the very successful launch of Sudan's national Trachoma Control Programme in Malakal last August. Lions International President Dr. Jean Behar graciously accepted the album on behalf of the Lions, thanking President Carter and reaffirming Lions International's commitment to the Lions-Carter Center SightFirst Initiative, which provided the funding to launch the Sudan and Ethiopia programs. The



Dr. Zingesser presents album to President Behar at Lions Headquarters in Oakbrook, IL.

photographs document the treatment of more than 12,000 men, women and children in the Malakal area with Zithromax, donated by Pfizer, Inc.★

Sudan helps Yemen launch TCP

Dr. Malik Ali Abdel Gadir, deputy director of Sudan's national Trachoma Control Program, flew to Sana'a, Yemen on November 15, 2000 to assist the Yemen Trachoma Control Program. Over the following two weeks, Dr. Malik helped train ophthalmologists and epidemiologists in trachoma control and survey techniques in preparation for their national tra-

choma prevalence survey. Dr. Malik also assisted Dr. Abdul Hakeem Al-Kohlani in designing the prevalence survey. On April 22, a team from Yemen's Trachoma Control Program, led by Dr. Saleh Al-Shabba, general director, Prevention of Blindness, arrived in Khartoum to observe and work with the Sudanese Trachoma Control Program in Khartoum and Malakal. The Carter Center financed and coordinated the travel of Dr. Malik and the Yemeni team. The Carter Center's assistance to Yemen is made possible by funding from the Conrad N. Hilton Foundation.★

Yemen's Trachoma Prevalence Survey Begins

Under the leadership of Dr. Saleh A. Al-Shabba, general director, Prevention of Blindness, and Dr. Abdul Hakeem Al-Kohlani, general director, National Center for Epidemiology and Disease Surveillance, in the Republic of Yemen's Ministry of Public Health, Yemen's Trachoma Control Program began a national integrated trachoma prevalence survey in February 2001. Dr. Al-Kohlani designed this population-based, two stage cluster survey to:

1. collect epidemiological data to assess personal and environmental risk factors for getting trachoma, including access to, and use of, latrines and water,
2. do ophthalmic and physical examinations, and
3. collect laboratory samples to test for evidence of systemic illness.

The survey, which will eventually cover all 20 governorates, began in four governorates with technical and financial support from The Carter Center and the World Health Organization. The initial four governorates represent the four regions of Yemen, one each from the coastal, middle highland, highland and desert areas. In addition to randomly sampled villages, the ministry teams will visit schools to collect disease and risk data from school children.★

Meetings

Gates Foundation Supports Conference on Eradicability of Onchocerciasis

The Bill & Melinda Gates Foundation has asked The Carter Center to convene a conference of experts to reassess the potential eradicability of onchocerciasis and to develop an agenda for demonstration efforts and further research to facilitate eradication or improved control of the disease. The conference will take place in January 2002 at The Carter Center, Atlanta, Georgia, USA.

Donor Representatives Visit Ghana and Niger

Hilton Foundation vice president Ms. Dyanne Hayes and Mr. Gil and Mrs. Sukey Garcetti, of the Roth Family Foundation, made a supervisory visit to Ghana, Niger and Burkina Faso with representatives of World Vision International, Helen Keller Worldwide and The Carter Center in January 2001. Ms. Hayes' messages of encouragement, support and solidarity delivered on behalf of the Hilton Foundation were enthusiastically well received by host ministries of health and partner organizations.

Disclaimer: Inclusion of information in Eye of the Eagle does not constitute "publication" of that information.

Ethiopia PBL Workshop

From February 12-16, Ethiopia's Federal Ministry of Health hosted a National Workshop on the Prevention and Control of Blindness in Ethiopia at the Addis Ababa Hilton Hotel. The workshop was organized in collaboration with the World Health Organization, Lions Clubs International, Christoffel-Blindenmission (CBM), ORBIS International, and the International Trachoma Initiative (ITI).

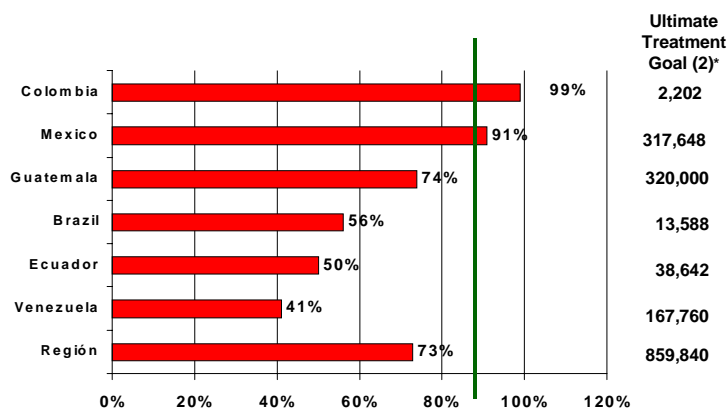
Workshop participants included prevention of blindness team leaders from the national and regional levels, regional health bureau staff from all of Ethiopia's regions, as well as two Lions: Mr. Ramendra Harjivan Shah and Dr. Tebebe Berhan (District SightFirst Chairman for Ethiopia). NGO participants included the hosts as well as World Vision, Help Age, Menchen fur Menchen, World Vision International and Mr. Teshome Gebre, Ms. Misrak Makonnen and Dr. James Zingeser from The Carter Center.



Misrak Makonnen

Participants in Knowledge, Attitudes, and Practices (KAP) study in Ebinata Woreda, South Gondar Zone (see article on page 5).

Onchocerciasis in the Americas: Percent of UTG(2) reached in 2000, by country



*Ultimate Treatment Goal (2) = UTG multiplied by two

