



# Eye of the Eagle



Volume 3, Number 1

THE CARTER CENTER

January 2002

## OEPA: President Carter Attends the Eleventh IACO in Mexico City; Increased Mectizan Coverage Reported

The theme of the eleventh annual InterAmerican Conference on Onchocerciasis (IACO '01), held in Mexico City November 27-29, 2001, was "How close are we to elimination of onchocerciasis in the Americas?" Sponsors included the Pan American Health Organization (PAHO), the InterAmerican Development Bank (IDB), and The Carter Center (in partnership with Lions Clubs). The meeting was organized by the Ministry of Health of Mexico, with assistance from staff of the Onchocerciasis Elimination Program for the Americas (OEPA). Approximately 140

persons attended the meeting, including representatives from all six endemic countries in the Americas (Brazil, Colombia, Ecuador, Guatemala, Mexico, and Venezuela), OEPA, Lions (from Brazil, Colombia, and Mexico), Merck and Co., PAHO, the Centers for Disease Control and Prevention, and The Carter Center. Among the attendees were former President Jimmy Carter; Secretary of Health of Mexico, Dr. Julio Frenk Mora; and Dr. Maria Neira of the World Health Organization (WHO). At the meeting's opening ceremony, President Carter thanked all partners for their efforts to eliminate onchocerciasis from the region by 2007 through a strategy of mass distribution of Mectizan® (ivermectin, donated by Merck & Co.), twice per year, in all

endemic communities. He noted the relationship between improving health of the poor (who are most afflicted by onchocerciasis) and opportunities for peace. Dr. Frenk, speaking for Mexican President Vicente Fox, stated Mexico's firm commitment to stop onchocerciasis transmission in Mexico by the end of his administration. Dr. Neira assured IACO '01 of WHO's intent to assist countries in the certification of elimination process.

Significant progress was made toward the regional goal of reaching 85% or more coverage of the ultimate treatment goal [UTG(2)]. Coverage improved for all countries compared to last year's IACO reports (see Figure 1

*continued on Page 2*

### What's Inside

Ghana Trachoma Control Program Implements Village-based Activities	1
Task Force Concludes Elimination of Onchocerciasis Feasible	2
President Carter Visits Uganda Lions Clubs	3
Worm Week Targets Guinea Worm	4
Community-based Trachoma Prevalence Survey Completed	6
Sudan Honors Elvin Hilyer	8

## Ghana Trachoma Control Implements Village-based Health Activities

Based on the results of Carter Center-sponsored knowledge, attitudes, and practices (KAP) studies, subsequent health education strategy workshops, and with technical assistance from the BBC World Service Trust, the Ghana Trachoma Control Program (GTCP) has begun implementing hygiene education activities in trachoma-endemic villages. Beginning in June 2001, health workers, teachers, and village-based volunteers have been disseminating health education mes-

sages for trachoma prevention and control in 77 villages in the Northern Region (NR) and 101 villages in the Upper West Region (UWR). Entertaining and informative prevention messages are delivered using a variety of media, including pictures, posters, and playing cards. In addition, radio messages about trachoma and its prevention are broadcast throughout the two regions, being received in far more than the

*continued on Page 5*

# River Blindness

## OEPA in Mexico City

*continued from Page 1*

and *Eye of Eagle*, volume 1, number 1). A total of 603,314 Mectizan treatments were provided by the six country programs during the period January-September 2001, a 23.4% increase over treatments reported for the same interval last year at IACO 2000 (487,264). This represents 69% coverage of the 2001 treatment objective, UTG(2), of 871,640, compared to 57% of 859,580 last year. (The final coverage for all 2000 was 73%.) Brazil's coverage figures increased from 37% to 64% despite the challenge of reaching at-risk populations in extremely remote areas of the Amazon basin, and Colombia provided 98% treatment coverage despite the fact that its

endemic area is also a zone of conflict.

During scientific sessions, Dr. John Davies, entomologist and well-known mathematical modeler of onchocerciasis transmission, reported that his model predicted interruption of transmission in a previously hyper-endemic area in Ecuador by 2006.

Among the most important IACO '01 recommendations were 1) for all countries to treat with Mectizan twice per year in all endemic areas as soon as possible, reaching or maintaining 85% coverage, 2) to continue entomological, serological, and modeling studies to monitor impact of the program on transmission, and 3) to strengthen regional and national information systems to monitor coverage in individual communities.★

## Task Force Targets Onchocerciasis

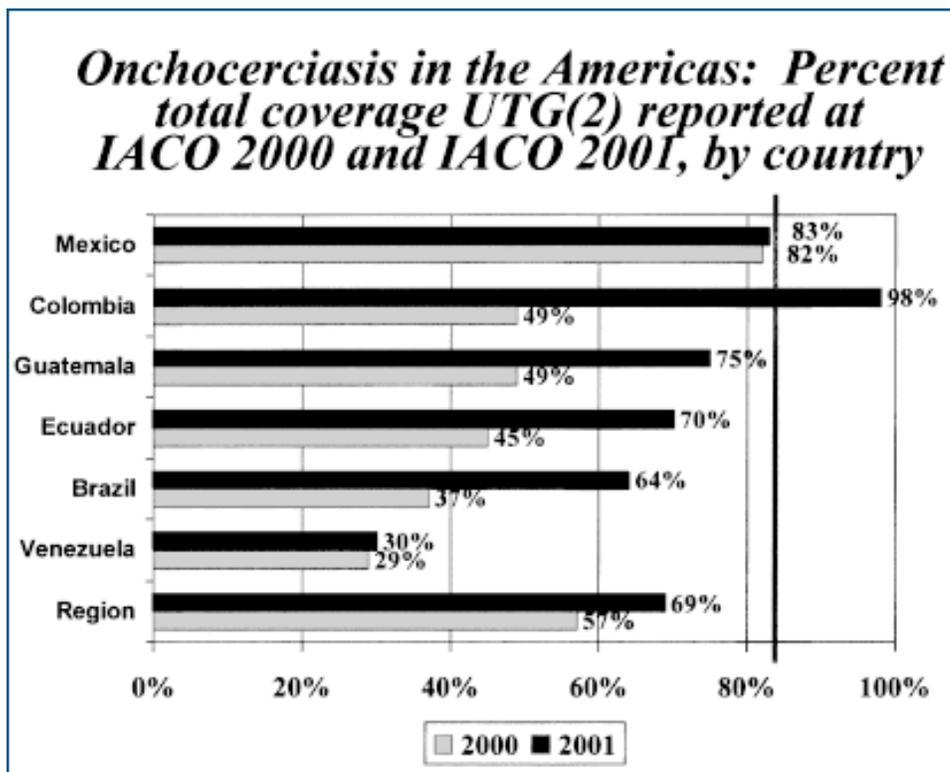
With support from the Bill and Melinda Gates Foundation, The Carter Center convened the first meeting of the International Task Force for Disease Eradication in June 2001. The main goals of the meeting were to review progress in the field of disease eradication, review the status of selected diseases, and make recommendations regarding opportunities for eradication or better control of certain diseases.

Of four diseases considered at this meeting, onchocerciasis (river blindness) in the Americas was targeted as a potentially eradicable disease. The task force was given a presentation on the Onchocerciasis Elimination Program for the Americas (OEPA), the regional coalition working to eliminate both morbidity and transmission of onchocerciasis in the Americas through distribution of Mectizan® twice a year. Participants at the meeting, including President Carter, heard that:

■ The number of people currently at risk of onchocerciasis in the Americas is 544,009, of whom 429,920 are eligible for treatment. They live in six countries (Mexico, Guatemala, Venezuela, Colombia, Ecuador, and Brazil) in 1,969 endemic communities, including 211 hyper-endemic communities.

■ The number of persons treated with Mectizan increased from less than 30,000 in 1990 to 367,619 in 2000. The ultimate treatment goal (UTG), or number of eligible persons at risk who need to be treated, is 429,920.

Figure 1



# River Blindness

■ The ultimate treatment goal (2) is used to express the number of treatments that should be given in each country in order to treat each eligible person at risk twice annually. Of that number for the region (859,840), 73% were treated in 2000.

■ Data on reductions in prevalence of microfilariae in the skin show dramatic reductions in prevalence in all study areas: Brazil (from 63% in 1995 to 28% in 1998), Colombia (40% in 1996, 7% in 1998), Ecuador (37% in 1991, 0.3% in 1996), Guatemala (52% in 1994, 20% in 1998), Mexico-Oaxaca (7% in 1993, 0% in 1996), Mexico-Chiapas (16% in 1995, 7% in 1997), and Venezuela-North (29% in 1998, 2% in 1999).

■ Regarding impact on transmission of onchocerciasis, the 13 foci in the Americas may be divided into three groups: four foci currently are suspected to have no known transmission, three foci are very close to ending transmission, and six foci are still significantly endemic.

Following the presentation and a discussion, the task force made the following conclusions and recommendations:

■ The scientific feasibility of eliminating morbidity and transmission of onchocerciasis in the Americas, using currently available tools, is clear.

■ The primary remaining concern is whether all six programs can reach and maintain at least 85% coverage of the UTG (2).

■ OEPA needs to address specific operational, political, and financial constraints in order to escalate its advocacy and help the endemic countries to intensify interventions against onchocerciasis in all remaining endemic foci.

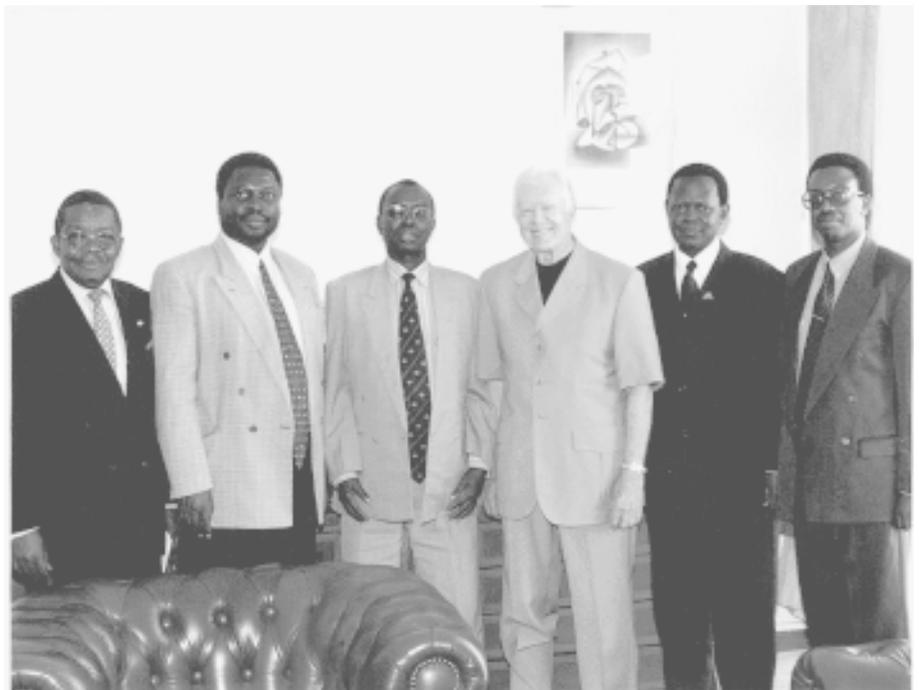
■ Priority research needs include effective drugs and diagnostic tools.

■ It is important that immunochromatographic antibody tests continue to be available in order to facilitate evaluation of onchocerciasis in the Americas.

The task force will meet again in January 2002. Task force members are: Sir George Alleyne, Pan American Health Organization; Dr. Yves Bergevin, UNICEF; Dr. David Heymann, World Health Organization; Dr. Jeffrey Koplan, Centers for Disease Control and Prevention; Mr. James Lovelace, The World Bank; Dr. Adetokunbo Lucas, Nigeria; Professor David Molyneux, Liverpool School of Tropical Medicine; Dr. Mark Rosenberg, Task Force for Child Survival and Development; Dr. Harrison Spencer, Association of Schools of Public Health; Dr. Dyann Wirth, Harvard School of Public Health; Dr. Yoichi Yamagata, Japan International Cooperation Agency; and Dr. Donald Hopkins, The Carter Center. ★

## President Carter Visits Lions Clubs of Uganda

On June 7, 2001, President Carter met with members of the Lions Clubs of Uganda in Kampala to discuss issues relating to the Global 2000 River Blindness Program, including the history of Lions' involvement in onchocerciasis control activities and transmission of the disease. In 2000, the Lions/Carter Center partnership assisted in treating 903,429 people with Mectizan® in Uganda. Thus far in 2001, 923,954 people have been treated, 98% of the objective for 2001. The president was in Uganda to attend a meeting that brought together ministers of agriculture, policy makers, representatives of the World Bank, and other specialists to discuss food security. ★



*From left to right: Lion Gerald Kakuba, Lion Dr. Stanley Mubukire, Lion Mr. Polly Ndyarugahi, Former U.S. President Jimmy Carter, Lion Dr. James Batwara, Lion Mr. Moses Katarwara*

# Trachoma

## First Joint “Worm Week”

With support from Niger’s Ministry of Health, The Carter Center, and the U.S. Peace Corps, Peace Corps volunteer Michael Kinzer started Worm Week in 1996. In 2001, Peace Corps volunteers Melissa McSwegin and Kelley Sams organized the first joint trachoma/Guinea worm Worm Week, held in Zinder, Niger, June 4-8.

Niger villagers most at-risk for Guinea worm disease are often also at risk for trachoma, as both diseases afflict people living in arid environments in extreme poverty, with little access to safe water or health care services. Zinder is the most trachoma-endemic region of Niger, as well as the most Guinea worm-endemic, and

Mirriah is perhaps the most highly co-endemic area of Zinder.

2001’s joint Worm Week saw 30 teams of volunteers living in 29 of the most Guinea worm-endemic villages in the Mirriah Arrondissement. The 19 American and 11 Japanese volunteers, who took a week away from their routine assignments to work in villages even more remote and underdeveloped, were paired with Nigerian counterparts.

During Worm Week, each team visited villages and hamlets surrounding their host village, meeting with villagers to gain an understanding of their lives and to provide health education activities. The teams reported that doing both trachoma and

Guinea worm activities worked well, allowing them to vary and broaden their impact and take better advantage of their brief stay.

In the years since its inception, Worm Week has become a semi-annual event in two regions of Niger and has been replicated by Peace Corps volunteers in the Ivory Coast, Ghana, Togo, and Burkina Faso. In recent years, the Japanese Overseas Cooperation Volunteers organization has become an important partner in the evolution of Worm Week. The Conrad N. Hilton Foundation supports The Carter Center’s assistance to Niger’s Trachoma Control Program. ★

Table 1

**Onchocerciasis: 2001 Mectizan treatment figures for Global 2000 River Blindness Program (GRBP)-assisted areas in Nigeria, Uganda, Cameroon, Ethiopia, and collaborative programs in Latin America (OEPA) and Sudan**

Country/Tx Category		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL	% ATO	% ALL GRBP TX
<b>NIGERIA</b>	<b>*ATO(earp)=</b>	<b>4,676,586</b>		<b>ATO(arv)=</b>	<b>7,832</b>											
TX(earp)		16,336	13,254	271,656	399,486	424,944	728,125	610,667	607,459	831,531				3,903,458	83%	63%
TX(arv)		25	16	273	653	899	1,702	978	1,052	2,104				7,702	98%	55%
<b>UGANDA</b>	<b>*ATO(earp)=</b>	<b>945,163</b>		<b>ATO(arv)=</b>	<b>1,890</b>											
TX(earp)		14817	9,564	279,663	147,055	34,915	9,074	183,669	165,392	79,805				923,954	98%	15%
TX(arv)		31	27	590	262	138	17	783	969	750				3,567	189%	26%
<b>CAMEROON</b>	<b>ATO(earp)=</b>	<b>1,079,189</b>		<b>ATO(arv)=</b>	<b>2,708</b>											
TX(earp)						143,111	35,793	142,718						321,622	30%	5%
TX(arv)						418	136	333						887		6%
<b>OEPA*</b>	<b>ATO(earp)=</b>	<b>403,030</b>		<b>ATO(arv)=</b>	<b>1,969</b>											
TX(earp)				231,649			40,342			329,323				601,314	149%	10%
TX(arv)							1,264							1,264	64%	9%
<b>ETHIOPIA</b>	<b>ATO(earp)=</b>	<b>239,436</b>		<b>ATO(arv)=</b>	<b>247</b>											
TX(earp)					97,490	125,443	16,426							239,359	100%	4%
TX(arv)					456	12								468	189%	3%
<b>SUDAN</b>	<b>ATO(earp)=</b>	<b>625,633</b>		<b>ATO(arv)=</b>												
TX(earp)				74,097	99,820	33,236	40,200							247,353	40%	4%
TX(arv)														0		
<b>Totals</b>	<b>ATO(earp)=</b>	<b>7,969,037</b>		<b>ATO(arv)=</b>	<b>14,646</b>											
TX(earp)		31,153	22,818	857,065	743,851	761,649	869,960	937,054	772,851	1,240,659	0	0	0	6,237,060	78%	100%
TX(arv)		56	43	863	1,371	1,467	1,855	2,094	2,021	2,854	0	0	0	13,888	95%	100%

GRBP Cumulative totals=

34,643,589

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.

# Trachoma

## Village-based Activities

*continued from Page 1*

villages initially targeted by the GTCP. Experience in other health and hygiene programs, such as the Ghana Guinea Worm Eradication Program, has shown that community theater and video shows are effective means of reaching villagers in Ghana. With support from the BBC World Service Trust, the GTCP has used theater and video productions in the Northern Region since October 2000. In 2001, a similar program began in the Upper West Region with Carter Center support. In all, the program estimates that over 80,000 people have been reached through trachoma health education activities. The national trachoma control program has also organized an essay competition for medical students on the topic "Trachoma is the leading cause of preventable blindness. It is of public health significance in Northern and Upper West Regions of Ghana. Discuss how the disease could be controlled and blindness from trachoma eliminated so that the disease becomes no longer a public health problem in the country."

As part of an integrated SAFE strategy, the GTCP has been able to take advantage of the "A" in SAFE to inform villagers how to prevent trachoma through improvements in personal and environmental hygiene. Health education is an important part of the community mobilization activities conducted in preparation for antibiotic treatment campaigns. As of November 2001, the GTCP has treated 71,438 persons with Zithromax® (81% coverage) and 7,082 with topical tetracycline ointment in 205 villages. The program plans to expand the reach of health education activities through school health programs, to work with environmental health officers, and to

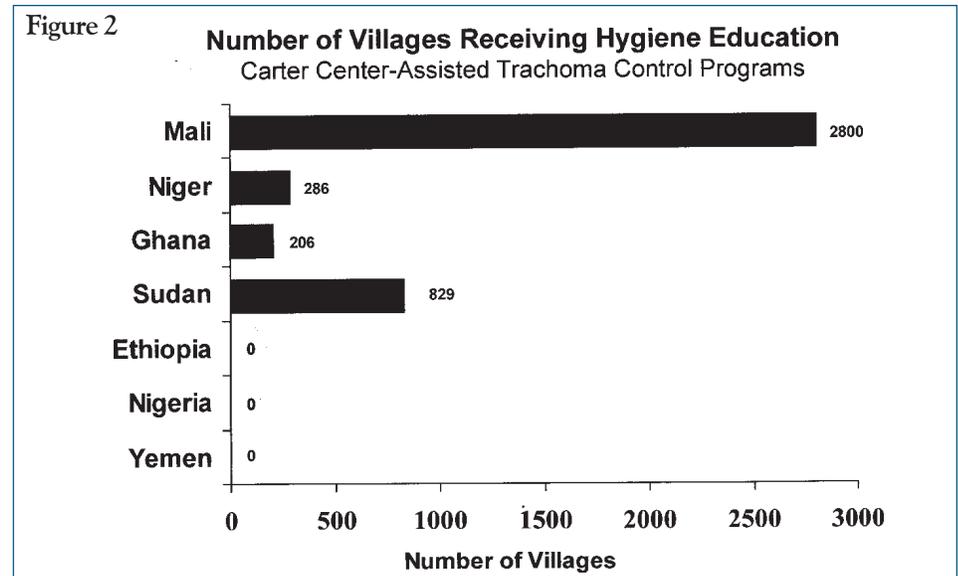


*Ms. Alimata Ali, GTCP focal person for UWR and Mr. Eric Dumakor, Carter Center Trachoma Program officer, conducting health education activities at Loggu Community gathering in Wa, Upper West Region.*

form radio listening clubs with a specific focus on trachoma prevention and control.

The GTCP has assessed the status of hygiene in the 205 villages targeted in the initial phase of the program. They found that 59% of the target villages have access to clean water and less than 2% have access to covered

latrines. Trichiasis surgery is being offered to patients in all of the initial target villages. As of October 2001, 177 persons received this treatment. More trichiasis surgeons will be trained in 2002 to expand the program's reach to all affected communities. ★



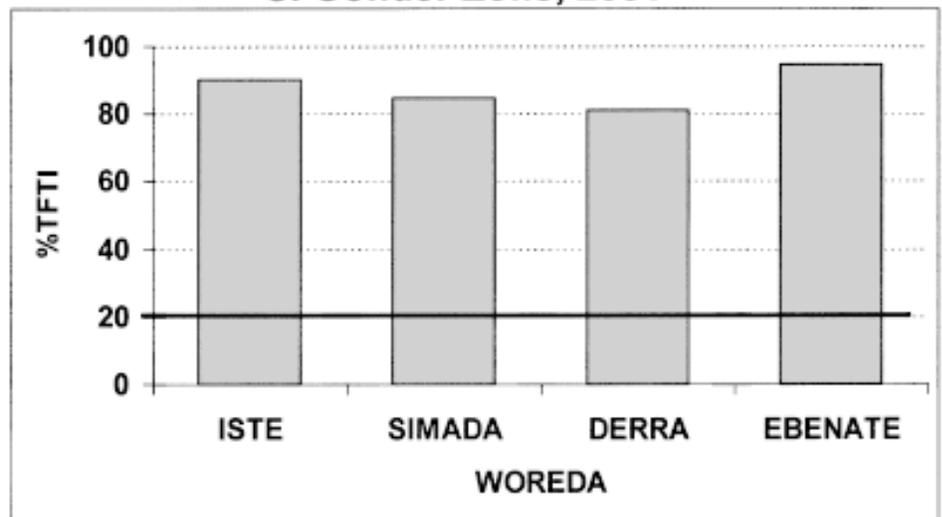
## Survey Finds High Trachoma Prevalence in South Gondar Zone, Ethiopia

In October 1999, former U.S. President Jimmy Carter and then-Lions International President Jim Ervin inaugurated the Lions-Carter Center SightFirst Initiative at The Carter Center. Among other activities, the initiative allowed The Carter Center to begin assisting trachoma control activities in partnership with local Lions and the Ministry of Health in Ethiopia. Based on health center data and anecdotal reports of highly endemic trachoma, the Ministry asked The Carter Center to work in the South Gondar Zone of the Amhara Region. Four districts, Ebenate, Iste, Derra, and Simada, with a combined population of over one million inhabitants, were selected as areas for the new trachoma control program.

As the first step in planning the trachoma control program, in December 2000-January 2001, the Amhara Regional Health Bureau and The Carter Center conducted a community-based trachoma prevalence survey in the four districts. This survey was the first of its kind done in Ethiopia, and it provided invaluable information for planning and evaluation. The survey team, led by Dr. Liknaw Adamu, Ministry of Health, with technical support from Dr. Rachel Barwick Eidex of The Carter Center, did a multistage cluster survey of 30 randomly selected kebeles (groups of villages) in the four districts. In all, 6,455 persons were interviewed and

Figure 3

Prevalence of TFTI in Children Age 1-10 by Woreda S. Gonder Zone, 2001



**Note:** Solid line indicates the level of active trachoma (20%) above which trachoma is considered to be a serious public health problem by the World Health Organization.

had their eyes examined by ophthalmic health care workers.

Table 2 and Figure 3 summarize the study findings. This study provides evidence supporting anecdotal observations that Ethiopia has an extremely high level of severe trachoma, perhaps the highest in the world. Extrapolating from the study results, the Ministry of Health now estimates that there are 36,000 trichiasis patients in need of surgery and almost 300,000 children

with inflammatory trachoma in need of antibiotic treatment in the four districts. Furthermore, the study found high levels of inflammatory trachoma in adults, greatly increasing the number of persons who may require antibiotic treatment.

The survey also provided information on risk factors for trachoma in this population. The Amhara Regional Health Bureau and The Carter Center then did a knowledge, attitudes, and practices survey in the same four districts in February 2001. Armed with solid data on the epidemiology and sociology of trachoma in South Gondar Zone, the Trachoma Control Program

Table 2	Ebinat	Este	Dera	Simada
TF/TI in children 1-10 years of age	95%	90%	81%	85%
TT in women 40+ years of age	20%	18%	23%	19%

Table 3

**Summary of Trachoma Control Interventions (January- November 2001)**  
Carter Center-assisted Trachoma Control Programs

	Ghana	Mali	Niger	Sudan	Ethiopia* S. Gondar***	Nigeria* 2 States****	Yemen*
<b>F &amp; E</b> intervention villages:	205	2,800	276	829	157	-	-
Health Education	Y	Y	Y	Y	N	N	N
Availability of latrines	N	N	Few	Y	N	N	N
Water Provision	Y	N	121 (partial)	Y	N	N	N
<b>Antibiotics</b>							
<b>Azithromycin</b> intervention villages:	205	433	72	829	0	-	-
Treatments (2001)	71,438	200,000	0	96,756	0	0	0
Target Population	88,237	200,000	776,000	100,000	0	0	0
Coverage (%)	81%	100%	0%	96.7%	N/A	N/A	N/A
<b>Tetracycline Oint.</b> intervention villages:	205	17 HC**	286	829	157	-	-
Treatments (2001)	7,082	25,000	Y	Y	0	0	0
Target Population	8,000	-	N/A	-	200,000	-	-
Coverage (%)	89%	-	N/A	-	0%	N/A	N/A
<b>Surgery</b> intervention villages:							
<b>Surgery</b> intervention villages:	205	17 HC**	286	829	157	-	-
Surgeries (2001)	177	2,500	2596 (1)	953	601	0	0
Target Population	500	-	5,000	-	36,000	0	0
Coverage (%)	35%	-	52%	-	1.7%	N/A	N/A

\* Interventions have not yet begun

\*\* Health center-based activities; offering services to villages within 50 km

\*\*\* S. Gondar Zone is one of three areas beginning interventions in Ethiopia

\*\*\*\* Plateau and Nasarawa States

(1) Partial data from health center from January - June 2001

developed a comprehensive five-year plan of action. Planned interventions include primary trachoma prevention through a strong hygiene education strategy (both village- and school-based) and advocacy for provision of safe water and sanitation facilities; secondary prevention for persons infected with trachoma through antibiotic treatment; and tertiary prevention of blinding trachoma through trichiasis surgery. Health care workers and their partners have worked in the South Gondar Zone with dedication and perseverance.

Discussions with Lions Club of Ethiopia have been initiated for local

Lions-supported trichiasis outreach eye camps at the district level to clear the trichiasis cases backlog in all four districts. This level of dedication and support will be essential in the upcoming fight to control blinding trachoma in one of the most highly trachoma-endemic regions of the world.

The World Health Organization considers trachoma to be a serious health problem when the level of active trachoma in children 1-10 years of age is >20% and the level of trichiasis in women 40 years of age is > than 1%. ★

## Death in Jos

We are saddened to report the death of **Mr. Daudu Jibo**, who was a security guard at The Carter Center/Global 2000 Nigeria office in Jos, Nigeria. Mr. Jibo had worked for the office since before The Carter Center assumed the assets of the River Blindness Foundation in May 1996. He was killed during the violence in Jos in September. We extend our profound sympathy to his family.

## Elimination Programs Gain Momentum

Two years ago, the State Ministries of Health of Plateau and Nasarawa states of Nigeria, assisted by The Carter Center, adapted their river blindness program and strategy for community Mectizan® treatment to incorporate schistosomiasis control and lymphatic filariasis elimination. Launched in the villages of Mungkohot (Pankshin local government area of Plateau State) and Andaha (Akwanga local government area of Nasarawa State), the schistosomiasis control program has made significant progress since its inception in October 1999.

Treatment and health education activities have been expanded to include the local government areas of Kanam (Plateau State) and Nasarawa Eggon (Nasarawa State). A total of 78,025 people in all four local government areas have received treatment with Praziquantel as of September. This number represents 137% of the annual treatment objective established at the beginning of the year. The increase was due to the fact that two new local government areas were added to the treatment area following assessment activities. Since the program was launched, a total of 131,505 persons have received treatment with Praziquantel.

Since Praziquantel is still not widely donated for schistosomiasis control, expanding this program is challenging. It is currently estimated that treatment will be required in all 30 local government areas of the two states in which distribution is currently taking place. In 2001, the program

needs 400,000 tablets, or 2.6 tablets per person, to achieve its treatment objective.

As of September 2001, 613,492 persons have been treated with combination therapy (Mectizan® and albendazole) for lymphatic filariasis in the same two Nigerian states, bringing the cumulative number of persons treated since this component of the

project began in 2000 to 773,047.

The Global 2000 River Blindness Program of The Carter Center also supported a fact-finding visit to Nigeria in June by Dr. Gail Thomas, a surgeon from Darent Valley Hospital in England. She reviewed aspects of lymphatic filariasis morbidity control, including treatment for hydrocele in men. ★

## Sudan Honors Elvin Hilyer

In an award ceremony held in Khartoum on November 3, the Vice President of Sudan, Mr. Moses Macar, acting on behalf of President Omar El-Bashir, conferred the Order of the Two Niles, Sudan's highest civilian honor, on departing Carter Center Resident Technical Advisor Mr. Elvin Hilyer. The award cites Mr. Hilyer's "appreciated efforts in the programs of River Blindness Control, Trachoma Control, and the Eradication of Guinea Worm [disease] in Sudan. And in gratitude to The Carter Center..." Congratulations to Elvin and Nancy Hilyer! Elvin and Nancy arrived in Sudan in September 1996, after Mr. Hilyer served as Global 2000 (Carter Center) Resident Technical Advisor to Uganda's Guinea Worm Eradication Program for two years. Before then, Mr. Hilyer worked for the U.S. Centers for Disease Control and Prevention (CDC) for 30 years.

Mr. Hilyer worked very closely during five years in Sudan with Professor Mamoun Homeida, National Coordinator for the River Blindness and Trachoma Control Programs, in establishing and intensifying those national programs. He

also worked closely with Dr. Nabil Aziz, National Coordinator for Guinea Worm Eradication. Mr. Hilyer responded upon receiving the award that these two coordinators and their program personnel share in receiving the award for progress due to their efforts. Support for The Carter Center's onchocerciasis and trachoma activities in Sudan is provided by the SightFirst Program of Lions Club International and the African Programme for Onchocerciasis Control.

Mark and Beth Pelletier have succeeded the Hilyers in Khartoum. Mark was a U.S. Peace Corps volunteer in Ghana before joining CDC in 1992. He served as Resident Technical Advisor for Global 2000 (The Carter Center) to the Guinea Worm Eradication Program in Uganda in 1997-1998, before being assigned by CDC to work with WHO on polio eradication efforts in Ethiopia and later at the WHO Regional Office for Africa in Harare, Zimbabwe. Mark assumed his new duties in Khartoum in mid-October. ★

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