



Eye of the Eagle



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THE CARTER CENTER

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Four-Country Tour Highlights Health Work in Africa

A delegation visited four countries in Africa in February to bring attention to the Carter Center's work to fight disease on the continent. During the tour of Ghana, Sudan, Ethiopia, and Nigeria, the group talked with community members who receive treatment under Carter Center-assisted programs, met with government and medical leaders, and discussed program challenges with other partners and donors. The Carter

Center delegation included former U.S. President Jimmy Carter and former First Lady Rosalynn Carter; John Moores, chairman of the board of trustees; Dr. John Hardman, president; and Dr. Don Hopkins, vice president for health programs.

In Ghana, the group visited a village endemic with trachoma and another that was experiencing a large outbreak of Guinea worm disease.

During the trip to Sudan, President Carter met with authorities in Khartoum and Juba. Accompanied by Jimmy Ross, president of Lions Clubs International, President Carter met with the recently organized Lions Club in Khartoum. Lions Clubs International Foundation funds most Carter Center-assisted programs for controlling trachoma and river blindness in Sudan and Ethiopia.

In Ethiopia, the delegation attended a Carter Center-sponsored conference, in which health and education ministry officials from nine African countries learned about the

Ethiopia Public Health Training Initiative. The program works with Ethiopian universities to train public health workers. The goal is for other countries to replicate the program.

Additionally, Carter Center officials announced new malaria



Louise Gubb

President Carter and Lions Clubs International President Jimmy Ross talk at the airport in Khartoum, Sudan, before meeting with government officials about the country's work to control river blindness and trachoma.

assistance for Ethiopia. The Center is providing 3 million long-lasting insecticidal bed nets and technical assistance to specific areas of the country. In southwest Ethiopia, Dr. Tebebe Yemane-Berhan, Lion and past district governor, accompanied the Carters to a village endemic with river blindness.

Finally, during the visit to Nigeria, the group met with high-ranking government officials, including President Olusegun Obasanjo, in Abuja and later saw a village that is receiving help for controlling schistosomiasis. The delegation was accompanied by General (Dr.) Yakubu Gowon, former head of state.

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Waging Peace. Fighting Disease. Building Hope.

Trachoma

Trachoma Program Review Reflects on 2006 Accomplishments

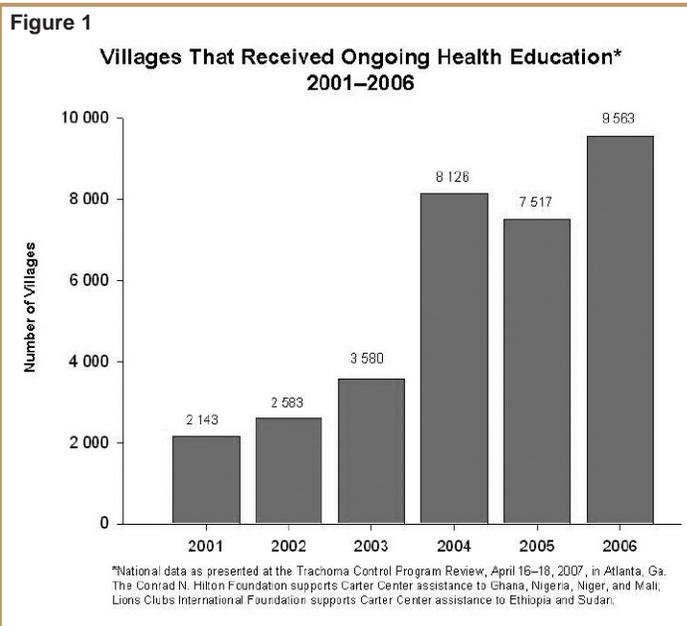
The eighth annual review of Carter Center-assisted trachoma control programs took place April 16-18, 2007, at The Carter Center in Atlanta, Ga. More than 60 people participated, representing the seven Carter Center-assisted programs in six countries and the programs' major partners, the Conrad N. Hilton Foundation, Lions Clubs International Foundation, and Pfizer, Inc.

National program coordinators reported on progress made in 2006 and their program objectives for 2007.

The theme of the meeting was "Ten years after the launch of GET 2020: Where are we now?" and reflected on accomplishments over the past decade among all seven trachoma control programs. In addition, participants discussed how to move forward to deliver quality program interventions through expansion.

In addition to the country programs, the review highlighted the importance of evidence-based planning and evaluations. Data from latrine evaluations completed in Mali, Niger, and Ghana in 2006 were presented and discussed during the meeting. Special sessions also included presentations on achieving gender equity in the implementation of the SAFE strategy (the World Health Organization's four-pronged approach to controlling

trachoma: surgery, antibiotics, facial cleanliness, and environmental improvement), monitoring antibiotic distribution, maintaining progress in latrine promotion, and monitoring hygiene behavior using a standard



definition of a clean face. The Carter Center Trachoma Control Program unveiled the new online trachoma health education materials library, hosted on its Web site.

The following are 2006 highlights by country (national data; also see Figures 1, 2, 3 and Table 1).

Ghana

- 882,217 people received azithromycin
- 889 household latrines constructed
- 626 people received trichiasis surgery

Table 1 Summary of Trachoma Control Interventions (Carter Center-Assisted Countries)
National data as reported for 2006 at the Trachoma Control Program Review, Atlanta, Ga., April 16–18, 2007

	Ghana	Mali	Niger	Sudan		Ethiopia	Nigeria	Totals
				GOS ¹	GOSS ²			
Facial Cleanliness and Environmental Improvement								
Number of villages with hygiene education	2,215	809	4,512	27	901	653	446	9,563
Villages targeted	2,608	4,500	4,438	*	2,004	653	*	14,203
Percent coverage	85.2%	17.9%	101.6%	-	44.9%	100.0%	-	67.3%
Number of household latrines constructed								
Target for household latrines	5,622	15,000	8,400	*	1,000	257,483	*	287,505
Percent coverage	15.7%	97.0%	80.6%	-	15.6%	29.3%	-	36.2%
Antibiotics								
Azithromycin								
Treatments	825,217	3,935,247	2,532,047	29,962	109,405	4,374,796	1,737	11,808,411
2006 target	800,000	3,877,261	4,089,763	250,000	992,000	9,950,000	*	19,959,024
Percent coverage	95.9%	101.5%	61.9%	11.9%	11.0%	43.9%	-	59.2%
Tetracycline								
Treatments	20,134	0	61,504	*	115,324	261,733	25,102	483,797
2006 target	16,935	79,577	76,751	*	660,000	*	*	-
Percent coverage	118.9%	0.0%	80.1%	-	17.4%	-	-	-
Surgery								
Number of surgeries	626	5,272	4,500	1,183	563	52,000	5,572	69,716
2006 target	1,500	8,000	10,580	2,500	26,450	99,315	5,000	153,345
Percent coverage	41.7%	65.9%	42.5%	47.3%	2.1%	52.3%	111.4%	45.9%

¹Government of Sudan (GOS)

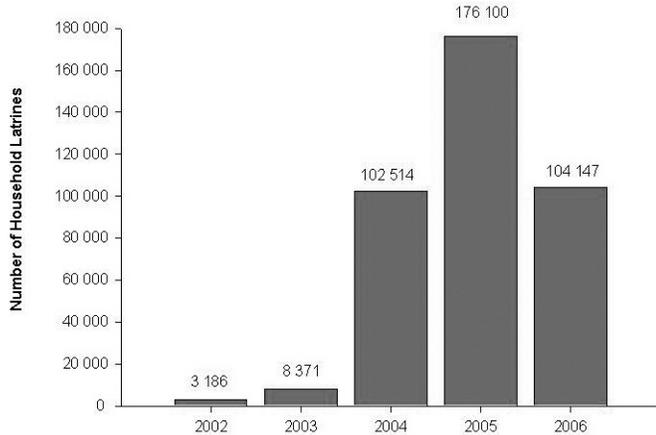
²Government of South Sudan (GOSS)

* Data not presented

Trachoma

Figure 2

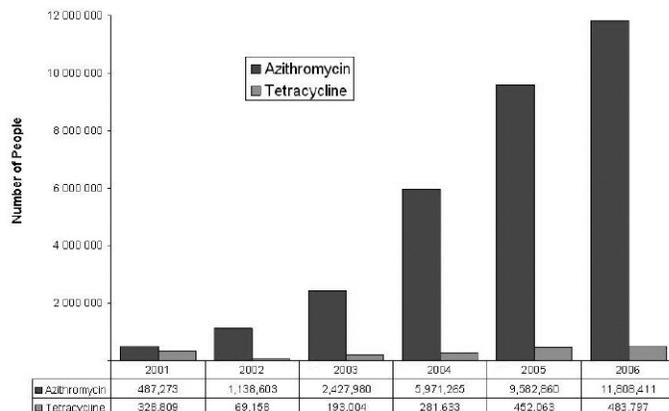
Household Latrines Built* 2002–2006



*National data as presented at the Trachoma Control Program Review, April 16–18, 2007, in Atlanta, Ga. The Conrad N. Hilton Foundation supports Carter Center assistance to Ghana, Nigeria, Niger, and Mali; Lions Clubs International Foundation supports Carter Center assistance to Ethiopia and Sudan.

Figure 3

People Who Received Antibiotics* 2001–2006



*National data as presented at the Trachoma Control Program Review, April 16–18, 2007, in Atlanta, Ga. The Conrad N. Hilton Foundation supports Carter Center assistance to Ghana, Nigeria, Niger, and Mali; Lions Clubs International Foundation supports Carter Center assistance to Ethiopia and Sudan.

National trachoma control programs were represented at the program review by the following people: Dr. Oscar Debrah, Ghana; Dr. Kadri Boubacar, Niger; Drs. Kamal Hashim and Awad Hassan, Government of Sudan; Dr. Omobolane Olowu, Nigeria; and Dr. Asrat Genet, Ethiopia.

Partner organizations represented at the review included the following: Emory University, International Trachoma Initiative, Helen Keller International, Sightsavers International, World Vision International, Operation Eyesight, Francis I. Proctor Foundation,

Ethiopia

- Integration of malaria and trachoma programs in the Amhara region
- 52,000 people received trichiasis surgery
- 4,374,796 people received azithromycin

Mali

- 14,557 household latrines constructed
- 500 villages received ongoing health education
- 3,935,247 people received azithromycin

Niger

- 6,777 household latrines constructed
- 4,500 people received trichiasis surgery
- 2,532,047 people received azithromycin

Nigeria

- 6,128 household latrines constructed
- 446 villages received ongoing health education
- Trachoma prevalence survey in Katsina state conducted
- Integration of trachoma control with other neglected tropical diseases in Plateau and Nasarawa states

Government of Sudan

- Trachoma prevalence surveys in Dongola, Northern state, and Khartoum Internally Displaced Persons Camps conducted
- 29,962 people received azithromycin
- Health education materials and school curriculum for trachoma control developed

Government of South Sudan

- 901 villages received ongoing health education
- 109,405 people received azithromycin
- Trachoma prevalence survey in Ayod, Jonglei state conducted

Kilimanjaro Centre for Community Ophthalmology, and Water Advocates.

Participating Carter Center resident technical advisers and trachoma control program officers included the following people: Jim Niquette and Ibrahim Yussif, Ghana; Mohamed Salissou Kane and Ali Amadou, Niger; Jim Ting and Yaya Kamissoko, Mali; Steven Becknell and Ben Lopidia, South Sudan; Miles Kemplay, Sudan; Dr. Estifanos Biru and Mulat Zerihun, Ethiopia; and Drs. Emmanuel Miri and Nimzing Jip, Nigeria.

Trachoma

Children of Ayod County, Sudan, Face Trichiasis at Young Age

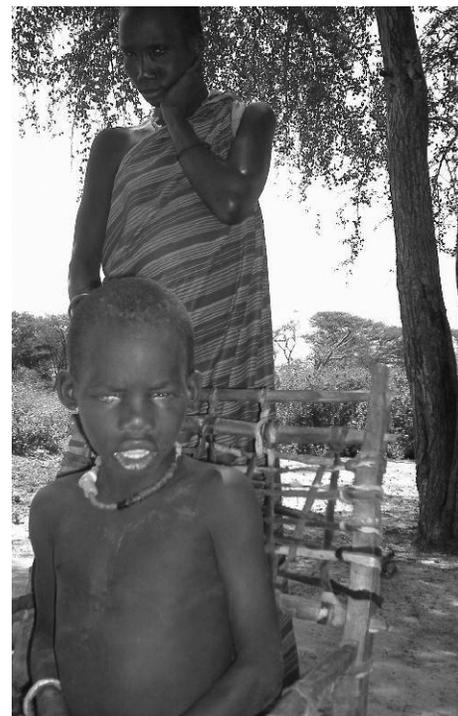
In Ayod county in southern Sudan, village leaders say that *nimnyin*, the local word for trachoma, is the most important health problem in their communities. Ayod county, with an estimated population of 75,000 people, is part of Jonglei state located in southern Sudan. A recent survey conducted by the Carter Center Trachoma Control Program found that one of every seven adults in Ayod suffers from trichiasis (see Table 2).

An estimated 6,652 adults are in immediate need of lid surgery to improve vision and prevent blindness in Ayod county. But the pervasiveness of the most advanced stage of trachoma goes even further. What distinguishes southern Sudan from other countries is the high percentage of young children suffering from trichiasis. According to the survey, 2.2 percent of children ages

1 through 9 years suffer from trichiasis. Following World Health Organization guidelines, this level is more than 10 times higher than the threshold for adults for requiring surgery. Without lid surgery, these children will be isolated and disabled for the remainder of their lives, creating a burden for their families.

What distinguishes southern Sudan from other countries is the high percentage of young children suffering from trichiasis.

In addition, the level of trachomatous inflammation follicular (TF), a sign



Jonathan King

A mother and her 9-year-old son both suffer with trichiasis. Trachoma has incapacitated families in southern Sudan.

of trachoma infection, is one of the highest in the world at 80.1 percent of children ages 1 through 9 years old. Communities in Ayod need the full SAFE strategy immediately to eliminate this disease as a public health problem. The trachoma program in southern Sudan responded in April by distributing the first round of azithromycin to all communities in Ayod and establishing a compound that will serve as the base for organizing and implementing the full SAFE strategy.

Ayod village leaders say the communities also are plagued by diarrheal diseases. Communities that embrace the F and E interventions of SAFE should see remarkable reductions in diarrheal illness that, in combination with reducing trachoma, will transform the health of people in Ayod.

Table 2

Prevalence Estimates of the Clinical Signs of Trachoma by Age Group in Ayod County, Southern Sudan

Clinical Sign	Age 1-9 years (N=847)		Age >14 years (N=1107)	
	n	Estimated %	n	Estimated %
trachomatous inflammation follicular (TF)	686	80.1 (73.9–86.3)	484	50.6 (42.3–58.9)
intense trachoma (TI)	481	60.7 (54.6–66.8)	295	31.0 (23.6–38.4)
trachomatous trichiasis (TT)	17	2.2 (0.73–3.6)	156	14.6 (10.9–18.3)
trachomatous corneal opacity (TCO)	7	0.73 (0.0–1.7)	76	6.4 (4.5–8.3)
TCO both eyes	2	0.30 (0.0–0.78)	54	4.7 (3.4–6.0)

95% confidence limits are shown in parentheses

Estimates and confidence limits are adjusted for correlation among the data

Trachoma

Surveys Find Program Improves Latrine Model in Mali; Niger Coverage Still Low

Since 2003 in Mali and 2002 in Niger, The Carter Center and the respective national trachoma control programs have been promoting the construction and use of household latrines for control of trachoma through technical training, provision of equipment for latrine masons, and donation of materials for latrine construction (e.g., cement, iron bars). While directly supporting latrine construction, The Carter Center also supports health education to promote latrines via radio programming. In late 2006 and early 2007, The Carter Center and the ministries of health of Niger and Mali evaluated latrine promotion by conducting surveys of the Carter Center-assisted latrine promotion programs.

The evaluation had three objectives: (1) to determine the validity of reports of latrines constructed, (2) to examine attitudes toward latrines, and (3) to evaluate

demand for latrines. To achieve these objectives, structured interviews were conducted with household heads from randomly selected program and non-program villages in both countries, and latrines were visually inspected where present.

The survey found that of the 599 households visited in Mali, 541 (90.3 percent) had a latrine, either a traditional latrine or one with an improved Sanplat slab. Of the 541

latrines, 271 (50.1 percent) were found in Carter Center intervention villages. There was no difference in latrine coverage between intervention and non-intervention villages (see Table 3a). Of the 600 households visited in Niger, 107 (17.8 percent) had a latrine, and 91 of these (85.0 percent) were found in Carter Center intervention villages.

In Mali, latrine coverage was high in all villages, but all cement Sanplat latrines except one were in program intervention villages (see Table 3b). Thus, the effect of the program has been to improve the quality of existing facilities. In Niger, latrine coverage was still low—30 percent in program villages and 5 percent in non-program villages. There is evidence, however, that the effect of the program is creeping beyond program villages.

Household heads reported a high demand for latrines in both countries, although most still practice open defecation in the bush in Niger. The personal and health advantages of latrines were well understood, and it should be possible to convert these positive attitudes into positive behavior changes.



Lisa Rotondo

Health worker Hamadou Issa interviews a head of household in Rigal Djerma, Mirriah district, Niger.

Latrine Promotion Program Evaluation Results for Mali and Niger

Table 3a

	Intervention Villages	Non-intervention Villages	Total
Mali			
Number of Latrines	271	270	541
Household Coverage	90.3%	90.3%	90.3%
Niger			
Number of Latrines	91	16	107
Household Coverage	30.3%	5.3%	17.8%

Table 3b

Latrine Type	Mali				Niger			
	Program Village		Non-program Village		Program Village		Non-program Village	
	Number of Latrines	% of Total	Number of Latrines	% of Total	Number of Latrines	% of Total	Number of Latrines	% of Total
Mud and Wood Traditional	164	60.0%	269	99.7%	10	11.0%	10	62.5%
Cement Sanplat	105	38.9%	1	0.4%	80	87.9%	6	37.5%
Other	3	1.1%	0	0%	1	1.1%	0	0%
Total	270	100%	270	100%	91	100%	16	100%

Trachoma

Series on the Human Face of Trachoma Control Nigerien Woman Makes Traditional Soap for Income, Cleanliness

As part of the F (facial cleanliness) component of the SAFE strategy for trachoma control, The Carter Center in Niger assists health districts in training women in the preparation of traditional soap. Through other health education channels, women learn about the importance of washing children's faces regularly to reduce transmission of trachoma.

Carter Center staff met Aisha Oumarou during a visit to her village of Adorihi in the Matameye district

Recipe: Traditional Soap from Niger

Ingredients	Materials
Dried millet stalks	Cooking pot
Water	Calabash
Peanut oil	Piece of straw mat

Burn the dried millet stalks and save the ashes. Prepare the calabash by piercing the bottom as if for a sieve. Place a piece of straw thatch in the bottom of the calabash for water filtration. Put the ashes in the calabash and fill it with water. Stir and let the water filter completely through the calabash to a cooking pot below.

Let it boil until the water has completely evaporated and a white powder remains. Add peanut oil. Stir for 1 minute while still on the fire. Remove the pot from the fire and roll balls of soap by hand while still hot.

of Zinder region, Niger. Aisha was trained to make traditional soap in 2003. Since then, she has taken the initiative to train 20 other women from her own village and neighboring villages. She sells her homemade balls of soap for 50 CFA francs each (about 10¢) and can sell between \$4–8 worth of soap per week in the village. Here she explains the process of making local soap and its benefits.

“When the health district was looking for women to be trained in traditional soap making, I volunteered immediately. I know the importance of soap in keeping clean, and I knew it would be a useful skill to have. During the training, I realized the process is simple to learn. It's also easy because I have all of the ingredients at hand here in the village. The only obstacle sometimes is finding water to use.

“For me, making soap has several benefits. People like my soap and appreciate how it keeps them and their children clean. They say it gives them healthy skin and clean clothes. I also like having a useful skill that brings me some income. I've made a bag full of

soap for my friend who will give birth soon. I know it will be important for her to have soap for cleaning the baby and her clothes.”

This is the fifth in a series of articles showing the human face of the Carter Center Trachoma Control Program. The comments of the individuals highlighted are not reproduced word for word but reflect the spirit of our conversations with people in the field. The authors try to be faithful to the context, content, and tone of the people depicted. Carter Center trachoma activities in Niger are supported by a generous grant from the Conrad N. Hilton Foundation.



Aisha Oumarou demonstrates soap making in her village in Niger.

Lisa Rotondo

River Blindness

Center Hosts Eleventh Annual River Blindness Review

The 11th annual review of the Carter Center River Blindness Program was held in Atlanta, Ga., April 19–21, 2007. Carter Center field staff gave a comprehensive report on program activities for 2006, including treatment, training and health education, sustainability, monitoring and assessment, and research. The review also briefly addressed lymphatic filariasis elimination, schistosomiasis control, malaria control, and vitamin A distribution.

In 2006, the River Blindness Program assisted ministries of health in 11 countries to provide 11,302,023 treatments with Mectizan® (donated by Merck & Co., Inc.), the largest number of treatments in program history (see Figure 4). The number of treatments in 2006 increased 5 percent over the previous year (2005: 10,789,434) and reached 93 percent of the ultimate treatment goal of 11,688,592. Only the Sudan program reported a decrease in treatments compared to 2005. Cumulatively, the River Blindness Program has assisted in more than 88 million treatments since its launch in 1996.

For the first time, all river blindness treatment activities in Carter Center programs were accomplished in partnership with the Lions Clubs International Foundation or with the help of local Lions.

Summaries of specific activities by country follow.

Nigeria

The River Blindness Program in Nigeria assisted in mass treatment of

4,738,892 people with Mectizan in 2006 and also in 443,066 passive treatments. Mass treatments totaled 96 percent of the ultimate treatment goal of 4,943,904, an 11 percent increase over 2005 treatments. Many years of high Mectizan coverage have resulted in improved vision in Nigeria (see photo and the article: Emukah EC, et al. A longitudinal study of impact of repeated mass ivermectin treatment on clinical manifestations of onchocerciasis in Imo State, Nigeria. *Am J Trop Med Hyg.* 2004;70:556-61).

In Plateau and Nasarawa states, the River Blindness Program is integrated with the Lymphatic Filariasis Elimination Program (with funding from the Bill and Melinda Gates Foundation and GlaxoSmithKline), which assisted in 3,344,896 combined treatments with Mectizan and



albendazole, achieving 93 percent of the ultimate treatment goal of 3,598,876. The Schistosomiasis Control Program in Plateau, Nasarawa, and Delta states (funded in part by Izumi Foundation and ChevronTexaco Corporation) reached 152,302 people for 85 percent of the treatment goal. More than 64,000 insecticide-treated bed nets were also distributed through the village-based systems to help stop lymphatic filariasis transmission and control malaria.

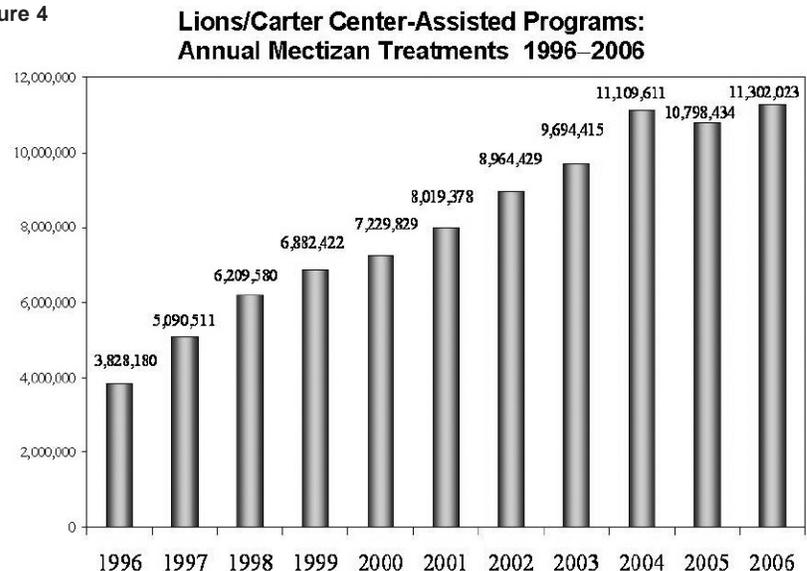
Ethiopia

The Carter Center, working in eight of the 10 endemic zones in Ethiopia, helped treat 2,554,576 people (with support of Lions Clubs International Foundation), which is 93 percent of the ultimate treatment goal. Long-lasting insecticidal nets were distributed in 2007 in areas served by the River Blindness Program with Carter Center assistance as part of the new Carter Center Malaria Control Program.

Cameroon

A total of 1,530,430 people in North

Figure 4

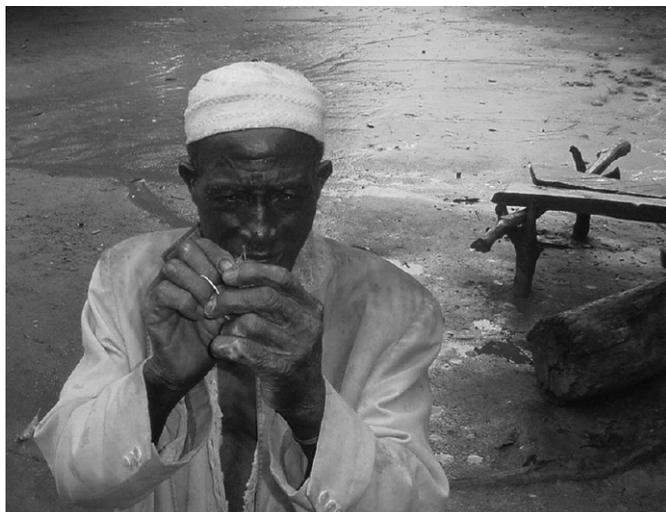


River Blindness

and West provinces received mass treatment with Mectizan in 2006, reaching 91 percent of the ultimate treatment goal and an impressive 10-percent increase over treatments given in 2005. Cameroon has begun integrating vitamin A distribution into the system of community-directed treatment with Mectizan (see Eye of the Eagle, Vol. 8, No. 1, page 3), distributing vitamin A to 230,049 children between ages 12 and 59 months.

Uganda

The Uganda program assisted in the mass treatment of 1,042,378 people with Mectizan in 2006, 97 percent of its ultimate treatment goal and a 2 percent increase over 2005 treatments. Also in 2006, the program, with assistance from Merck and the NGDO group, began assisting the Uganda government in twice-per-year treatments in an elimination campaign in the Wadelai focus of Nebbi district. The country will expand this to include four more foci, for a total population of 584,134 slated to receive semiannual treatment in 2007. This program is no longer assisted by Lions Clubs



This Nigerian tailor said that his Mectizan treatments have enabled him to thread his needle again.

Table 4

Ocular Morbidity Status* in the 13 Foci of the Americas as of 2007

Country	Focus	Baseline Evaluation		Most Recent Evaluation	
		Year	Prevalence	Year	Prevalence
Brazil	Amazonas	1995	31.2%	2007	2.2%
Colombia	Lopez de Micay	1996	2.2%	2006	0%
Ecuador	Esmeraldas	1991	24.7%	2006	0%
Guatemala	Central Focus	1981	20.7%	2007	0%
	Escuintla	1979	6.2%	2006	0%
	Huehuetenango	1981	7.2%	2006	0%
	Santa Rosa	N/A	N/A	2005	0%
Mexico	Chiapas South	1995	1.5%	2006	0%
	North-Chiapas	1995	0.6%	2006	0%
	Oaxaca	1995	0%	2004	0%
Venezuela	North-Central	1999	31%	2005	0%
	North-Eastern	1999	21.7%	2006	3.3%
	South	1998	10.5%	2008	Pending

* Based on finding microfilariae in the anterior chamber of the eye

International Foundation funding through The Carter Center, but local Lions Clubs continue to actively support the program.

Sudan

Sudan's Khartoum office reported 113,974 treatments in 2006, a decrease of 37 percent from what was reported for 2005 and coverage of only 36 percent of the ultimate treatment goal. In 2007, the program will help the

Khartoum government initiate an elimination program in the Abu Hamad focus with twice-per-year treatment and assess the Sundus focus as an elimination target. Overall, 161,500 people will be targeted for semi-annual treatment.

The Americas

The Onchocerciasis Elimination Program for the Americas

(OEPA) assists all six endemic countries to eliminate eye disease and interrupt transmission of river blindness. In the 13 endemic foci for river blindness in the Americas, 852,721 treatments were assisted in 2006, 93 percent of the goal. Three important developments took place in 2006 for OEPA. First, the government of Guatemala announced in November that it would cease treatment in the Santa Rosa focus where it is believed that transmission has been interrupted (see Eye of the Eagle, Vol. 8, No. 1, page 1). Second, Venezuela intensified treatment efforts in the southern focus, and as a result, all 13 foci in OEPA exceeded the 85 percent target coverage of their eligible population in both rounds of treatment for the first time. Third, a review of recent ocular morbidity data (Table 4) shows that microfilariae in the anterior chamber of the eye—an indicator of eye disease due to onchocerciasis—is now present in only two of 12 foci recently evaluated. The South Venezuela focus will be evaluated in 2008.

Task Force Revisits Eradication of River Blindness in Africa

The International Task Force for Disease Eradication found that the eradicability of onchocerciasis (river blindness) in Africa using currently available tools has not yet been proven. The group applauded efforts, however, to eliminate the disease in isolated foci in Africa and recommended that those endeavors be continued where technically feasible. The task force met on Jan. 11, 2007, to review evidence regarding the potential eradicability of onchocerciasis.

The group applauded efforts to eliminate the disease in isolated foci in Africa and recommended that those endeavors be continued where technically feasible.

Other findings from the ITFDE included the following: A research breakthrough to discover a drug that could kill adult *Onchocerca volvulus* or develop a test to detect living adult worms would greatly increase the potential for eradicating this parasite in Africa, and the program to eliminate lymphatic filariasis by mass administration of Mectizan® and albendazole is a welcome addition to the barriers against onchocerciasis transmission in Africa. The task force added that the African Programme for Onchocerciasis Control (APOC) and the affected

African countries should seize every opportunity to integrate efforts against these two diseases and other compatible interventions. The group also recommended that everything possible be done to preserve the gains of the Onchocerciasis Control Program (OCP).

The 10th meeting of the ITFDE was convened at The Carter Center in Atlanta, Ga., and supported by the Bill and Melinda Gates Foundation.

The ITFDE reviewed reports from the former OCP, APOC, and the Onchocerciasis Elimination Program for the Americas (OEPA). It also reviewed new diagnostics and

treatments and recent efforts at elimination using Mectizan multiple times per year with or without vector control in isolated African foci that are being undertaken by the governments of Senegal, Mali, Equatorial Guinea, Tanzania, Sudan, and Uganda.

Other recommendations from the group included conducting further research into the impact of ivermectin, potential macrofilaricidal drugs, alternative delivery strategies, better diagnostic tools, and mathematical modeling.

The ITFDE meeting concluded with an acknowledgment of the magnitude of the contributions by the late Dr. Brian Duke and expression of appreciation and gratitude for his extraordinary work and dedicated commitment to onchocerciasis elimination theory, research, and field work.

The ITFDE is chaired by Dr. Donald Hopkins of The Carter Center. Members include Dr. Olusoji Adeyi, World Bank; Sir George Alleyne, Johns Hopkins University; Dr. Julie Gerberding, Centers for Disease Control and Prevention; Dr. David Heymann, World Health Organization; Dr. Adetokunbo Lucas, Harvard University; 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. Pascal Villeneuve, UNICEF; Dr. Dyann Wirth, Harvard School of Public Health, and Dr. Yoichi Yamagata, Japan International Cooperation Agency. Five of the task force members (Hopkins, Lucas, Molyneux, Spencer, Wirth) attended the meeting and four others were represented by an alternate (Dr. Ousmane Bangoura for Adeyi, Dr. Kayode Oyegbite for Villeneuve, Dr. Lorenzo Savioli for Heymann, Dr. Mike St. Louis for Gerberding).

Presenters at this meeting included Dr. Boakye Boatin of the World Health Organization; Dr. Ousmane Bangoura, World Bank; Dr. Edward Cupp, Auburn University (retired); Dr. Achim Hoerauf, University Clinic Bonn; David Molyneux, Liverpool School of Tropical Medicine (ITFDE member); Dr. Richard Ndyomugenyi, Ministry of Health, Uganda; Dr. Eric Ottesen, Lymphatic Filariasis Support Center; Dr. Frank Richards, Carter Center River Blindness Program; Dr. Mauricio Sauerbrey, Onchocerciasis Elimination Program of the Americas.

River Blindness

Uganda Launches Bold Policy To Eliminate River Blindness

Uganda has unveiled a bold vision for its future—a country dedicated to reducing and eliminating onchocerciasis (river blindness). In January, Henry Kajura, second prime minister of Uganda, announced a new effort in which the disease would be eliminated in all foci where it is technically feasible.

Uganda's foci have been divided into four groups, based on feasibility of elimination. The first group represents

with southern Sudan or the Democratic Republic of the Congo (four foci). Although Uganda's ultimate goal is to move the groups up the priority list, group by group, until transmission has been eliminated throughout the country, the immediate objective is to launch focused elimination efforts within the second group (priority foci) to demonstrate success to the national and international communities.

To achieve rapid interruption

of transmission of onchocerciasis in the second group, Uganda plans to carry out twice-per-year Mectizan treatments (i.e., every six months rather than annually) and provide targeted vector control or vector elimination through ground larvicide application. New epidemiological and entomological surveys will also be conducted as soon as possible in these zones.

The Carter Center announced that it would provide some financial and technical assistance to Uganda through a generous donation by John Moores, chairman of the Carter Center board of trustees. The Center is also supporting establishment of a laboratory at the Vector Control Division in Uganda with PCR analysis for black flies and sensitive serology testing to judge exposure to onchocerciasis transmission.

Merck & Co., through its Mectizan Donation Program, has agreed to provide Mectizan in sufficient quantities to allow twice-per-year treatments. Sightsavers International will intensify efforts in districts it has traditionally assisted that now are aiming for elimination.

Onchocerciasis control commenced in Uganda on a large scale in 1992 with annual mass treatment with Mectizan with financial support to the government by the River Blindness Foundation and Sightsavers International. In 1996, The Carter Center and the African Programme for Onchocerciasis Control (APOC) began to support established projects, and APOC also supported two successful elimination efforts in two foci using focal larvicide and annual Mectizan distribution.



Moses Katabarwa

Lions who attended the launch of Uganda's onchocerciasis elimination policy included Dr. Batwara, chairman of SightFirst, Uganda; Jane Twinomujuni, past president of Lions Club, Kampala; and (seated behind) Polly Ndyarugahi, former Lions governor District 411B, Uganda and Tanzania.

foci where transmission has already been stopped (three foci). The second group is the priority foci targeted for new elimination activities (six foci). The third group includes foci that require further assessment to determine whether elimination is feasible (five foci), and the final group includes foci that are unlikely candidates for elimination at this time because of proximity to international borders

The following people attended the Serena International Conference Center in Kampala where the new Ugandan plan was announced: Dr. Stephen Mallinga, minister of health; Dr. Samson Zaramba, director of health services; and Mohamad Kezara, the permanent secretary. Other top government and district officials and a host of Lions Clubs members in Uganda also attended. The African Programme for Onchocerciasis Control was represented by its director, Dr. Uche Amazigo, and the World Health Organization was represented by its Uganda director, Dr. Melville Goerge. Other representatives included Dr. Frank Richards for The Carter Center, Dr. Johnson Ngorok for Sightsavers International, and Mr. Apollo Ssemwogerere for Merck & Co.

Groups Discuss Ways to Aid Neglected Tropical Disease Fight

At a historic meeting of three nongovernmental development organization (NGDO) coalitions in March, participants discussed how their considerable experience might aid new initiatives supported by the Bill and Melinda Gates Foundation and USAID to fight tropical diseases.

Participating organization coalitions, which included the Coordination Group for Onchocerciasis Control, Lymphatic Filariasis Network, and the

International Coalition for Trachoma Control, hosted by Lions Clubs International Foundation, recommended that a joint technical subcommittee be formed on neglected tropical diseases to consider NGDO issues related to integration platforms, mapping, co-implementation, and co-administration of treatments. Participants felt strongly that better mapping of the different diseases was crucial for effective integrated treatments.

Participants discussed the importance of primary eye health and noted that the experience of group members in using onchocerciasis and trachoma control as entry points to primary eye care and vitamin A supplementation through established community mechanisms also could serve as entry points for interventions for other neglected tropical diseases.

The NGDOs praised Merck on the 20th anniversary of the Mectizan Donation Program. Participants noted how the program set a precedent that encouraged the generous donations of albendazole by GlaxoSmithKline and azithromycin by Pfizer.

Carter Center Distributes Bed Nets in Ethiopia

In February, The Carter Center, in partnership with the Ethiopia Ministry of Health, distributed the first of 3 million long-lasting insecticidal bed nets (LLINs) in Mana, a district in the Oromiya region endemic for malaria. The bed net distribution was part of a new Carter Center program in Ethiopia to help the country fill a shortage of 3 million LLINs to help fight malaria, which kills many children each year. Within two weeks, the 305,300 nets designated for this area were in the hands of household members, ready to provide protection against malaria to an estimated 1.53 million people. Today, all 3 million nets have reached their designated zones across Ethiopia.

The Center committed to assisting the ministry of health in September 2006 by distributing LLINs and providing health education in communities where the Center's Trachoma

Control Program (Amhara region) and River Blindness Program (Kaffa, Sheka, Bench-Maji, North Gondar, Illubabor, Jimma, Gambella, and

Metekel zones) were already working. In addition, the Center agreed to purchase 3 million LLINs to complete the 20 million needed to achieve the national goal.

About 18 million Ethiopians at risk for malaria will be helped in Carter Center-assisted areas.



Former First Lady Rosalynn Carter, with former U.S. President Jimmy Carter, gives a long-lasting insecticidal bed net to an Ethiopian woman in the remote village of Afeta, Jimma, in southwest Ethiopia in February 2007.

Global Health News

Technical Adviser Honored in Sudan

A Carter Center warrior in the fight against neglected diseases in Africa since 2001, Raymond Stewart has been honored for his service by the president of Sudan with the prestigious Order of the Two Niles award.

Stewart began his career with The Carter Center in Burkina Faso, where he was the resident technical adviser for the Guinea Worm Eradication Program. Once cases in the country had been brought down to fewer than 100 per year, Stewart moved to Khartoum, Sudan, in 2003 to coordi-

nate three Carter Center health programs in the 16 northern states—Guinea worm, trachoma, and river blindness.

During his tenure, Stewart guided the transfer of the trachoma and river blindness programs from the Academy of Science and Medical Technology to the Sudan Ministry of

Health, promoted the creation of a national trachoma task force, and helped decentralize the trachoma program to Sudan's endemic states.



Tong Chor

(Left to right) Lion Dr. Al Khair Khalef Allah, deputy of the president; Lion Dr. Moses Katarwa, Carter Center epidemiologist; Lion Raymond Stewart, Carter Center resident technical adviser; and Dr. Kamal Eldin Hashim, director of the Sudan National Program for the Prevention of Blindness.

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One Copenhill
453 Freedom Parkway
Atlanta, GA 30307

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