



Eye of the Eagle



Volume 6, Number 2

THE CARTER CENTER

July 2005

Center Hosts Ninth Annual River Blindness Review

Exceeds 10 Million Treatments in One Year

Hosting the ninth annual review meeting for its River Blindness Program in Atlanta March 3-5, 2005, local and field staff of The Carter Center reported on the status of each program and addressed the unique issues and opportunities of programs in each country. This year, the topic for African programs was “Sustaining Onchocerciasis Control

After APOC,” while the Onchocerciasis Elimination Program for the Americas theme focused on “Accelerating Onchocerciasis Elimination.” As always, the review looked at the year’s treatment returns, training activities, annual treatment objectives where still applicable, ultimate treatment goals, sustainability issues, Mectizan® logistics, epidemiological assessment activities, operations research, and administrative issues.

In 2004, The Carter Center assisted in providing 11,131,879 treatments

with Mectizan in 11 countries, representing 97 percent of the annual treatment objective of 11,889,684 and 95 percent of the ultimate treatment goal of 12,017,481. Table 1 provides a summary of the 2004 treatment activities. (See page 3.) The 2004 accomplishments represented an increase of 15 percent over treatments assisted in 2003. Of the treatments assisted in 2004, 97 percent were accomplished in partnership with the Lions Clubs International Foundation and with the help of local Lions. About half of the Carter Center’s projects received funding from the African Programme for Onchocerciasis Control in 2004, but by the end of 2005, only five of the 28 project areas will still be

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Strategies for Scaling Up: Sixth Annual Trachoma Program Review

“Think big. Start small. Act now!”

The sixth annual review of Carter Center-assisted trachoma control programs took place Feb. 28–March 2, 2005, at The Carter Center in Atlanta, Ga. Nearly 70 people participated, representing Carter Center-assisted programs in six countries and the programs’ major donors, the Conrad N. Hilton Foundation, Lions Clubs International Foundation, and Pfizer Inc.

Representatives of Tanzania and Morocco’s national eye care programs

participated in this review for the first time, with support provided by the International Trachoma Initiative. These programs highlighted their progress in controlling trachoma and served to offer lessons learned to other countries. ITI also had increased participation at the review this year, including its representatives from Ethiopia, Ghana, Mali, Morocco, Niger, and Tanzania in addition to staff from ITI headquarters.

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Waging Peace. Fighting Disease. Building Hope.

River Blindness

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receiving substantial APOC funding. The majority of the projects now receive only Lions-Carter Center and government support, and the partners agreed that in 2004 selected areas in Uganda, Nigeria, and Cameroon would receive only government support to test the post-APOC sustainability scenario. The projects that are testing the scenario all fared well in APOC evaluations.

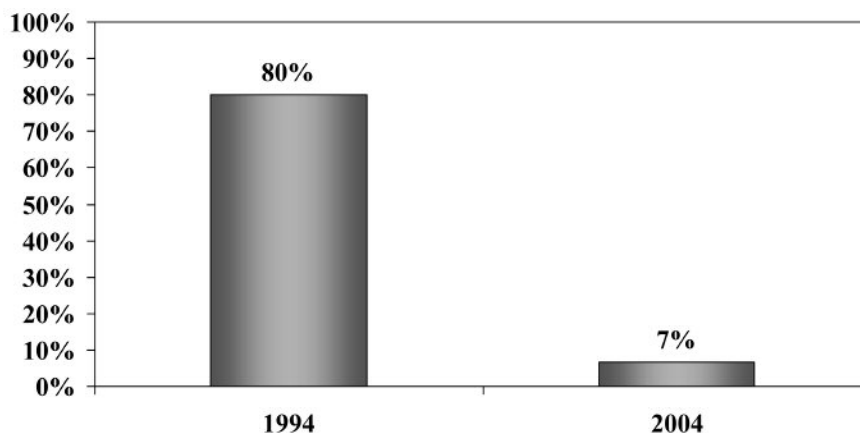
Summary of Treatment Reports

Nigeria

The River Blindness Program, in collaboration with LCIF and APOC (in two of its nine states), assisted in treating 4,986,925 people with Mectizan in 2004 (provisional pending final treatment figures). This was 97 percent of the ultimate treatment goal and a 1 percent decline from the number of treatments given in 2003. In the two states where the post-APOC sustainability scenario is being tested,

Figure 1

Percent of Population with Microfilaria in Skin Snips in Four Villages in Moyo District, Uganda



treatments declined by 2 percent between 2003 and 2004. Treatment reports came four months late in these areas, however. Nigeria also has demonstrated simultaneous impact on the three diseases addressed by its Carter Center-supported program. (See related article, page 4.) Dr. Gail Thomas, consultant surgeon to The Carter Center and the Nigerian federal Ministry of Health, made a special

presentation on hydrocele surgery. (See related article, page 11.)

Uganda

The program in Uganda treated 1,054,220 people with Mectizan in 2004 in collaboration with LCIF. This was 103 percent of the ultimate treatment goal, a 6 percent increase over 2003 treatments. Uganda continues to exhibit high treatment coverage, including the two districts where the

Attending the review meeting this year were river blindness country representatives Dr. Albert Eyamba, Cameroon; Mr. Teshome Gebre, Ethiopia; Ms. Peace Habomugisha, Uganda; Dr. Emmanuel Miri, Nigeria; and the resident technical advisers to Sudan, Mr. Raymond Stewart in Khartoum and Ms. Glenna Snider in Nairobi. Dr. Mauricio Sauerbrey, director of OEPA, presented progress made in the six endemic countries in the Americas.

Other technical staff members

included Ms. Alba Lucía Morales Castro, OEPA; Ms. Alice Bosibori-Onsarigo, Carter Center/Nairobi; Drs. Abel Eigege and Emmanuel Emukah, Nigeria; and Mr. Abate Tilahun, Ethiopia. Dr. Bjorn Thylefors, director; Dr. Mary Alleman, associate director; and Dr. Nana Twum-Danso, associate director, represented the Mectizan Donation Program.

Special guests included Dr. Tony Ukety, nongovernmental development organization coordinator for onchocerciasis control, representing

APOC; Dr. Bellario Ahoy Ngong, Southern Sudan Onchocerciasis Task Force; Ms. Sonia Pelletreau, Lions Clubs International Foundation; Ms. Catherine Cross, Sight Savers International; Dr. Ed Cupp, professor of entomology, Auburn University; Dr. Tom Unnasch, professor of immunology, University of Alabama; and numerous representatives from the Centers for Disease Control and Prevention. Dr. Frank Richards, technical director of the Center's River Blindness Program, chaired the meeting.

River Blindness

Table 1

Onchocerciasis: 2004 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

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL	% ATO	% ALL GRBP TX
NIGERIA	*UTG= 5,155,917		ATO (villages)= 10,139												
Treatments	0	262	82,135	234,511	436,241	329,679	775,995	559,812	1,157,644	196,033	622,382	592,231	4,986,925	97%	45%
Villages treated	0	1	62	192	674	704	1,319	920	1,936	585	1,417	1,480	9,290	92%	29%
UGANDA	*UTG= 1,024,258		ATO (villages)= 2,360												
Treatments	0	122,990	131,502	115,403	143,443	31,107	112,394	140,800	117,905	93,113	45,239	324	1,054,220	103%	9%
Villages treated	0	158	574	46	297	22	443	767	351	323	233	0	2,360	100%	7%
CAMEROON	*UTG= 1,439,052		ATO (villages)= 3,429												
Treatments	0	0	0	0	0	109,553	689,115	337,636	45,018	95,722	26,213	48,909	1,352,166	94%	12%
Villages treated	0	0	0	0	0	203	1,141	1,002	430	371	176	106	3,429	100%	11%
OEPA	**UTG(2)= 889,116		ATO (villages)= 1,934												
Treatments	0	0	221,393	0	0	207,106	0	0	0	166,521	0	264,079	859,099	97%	8%
Villages treated	0	0	1,253	0	0	599	0	0	0	997	0	861	1,855	96%	6%
ETHIOPIA	*ATO= 2,621,799		ATO (villages)= 13,843												
Treatments	35,884	79,552	0	54,008	280,241	143,713	779,574	333,365	982	0	568,825	89,002	2,365,146	90%	21%
Villages treated	238	318	0	1,216	1,313	845	3,718	2,680	4	0	3,452	59	13,843	100%	43%
SUDAN	*ATO= 759,542		ATO (villages)= 1,204												
Treatments	20,838	19,972	23,554	84,676	109,830	31,898	63,228	86,293	3,424	8,895	1,353	60,362	514,323	68%	5%
Villages treated	103	64	124	251	147	109	179	217	35	30	28	100	1,204	100%	4%
TOTALS	*ATO= 11,889,684		ATO (villages)= 32,909												
Treatments	56,722	222,776	458,584	488,598	969,755	853,056	2,360,502	1,380,508	1,322,902	611,751	1,323,021	1,054,907	11,131,879	94%	100%
Villages treated	341	541	2,013	1,705	2,431	2,035	3,082	2,906	2,752	2,306	1,854	2,547	31,981	97%	100%

GRBP-assisted cumulative treatments (1996 - 2004) = 66,226,253

*ATO: Annual Treatment Objective, UTG: Ultimate Treatment Goal

**OEPA figures reported quarterly, UTG(2) is the Ultimate Treatment Goal times 2, since OEPA treatments are semiannual

post-APOC sustainability scenario is being tested. Uganda also has collected data, showing impact on microfilaria in the skin in the four villages in Moyo district. (See Figure 1.) In 1994, 80 percent of persons tested had microfilaria, while in 2004, only 6.6 percent carried microfilaria. (See Figure 1.)

Cameroon

A total of 1,352,166 people were treated in Cameroon with River Blindness Program/LCIF assistance in 2004. This was 94 percent of the ultimate treatment goal and approximately equal to treatments given in 2003. Of the 2004 treatments, 78 percent (1,053,244) were achieved in collaboration with the LCIF in West province, with the remaining 289,922 in the North province project where the post-APOC scenario is being tested. North province received strong government support and reached 100 percent of its ultimate treatment goal.

Ethiopia

In its fourth year of mass Mectizan distribution, a total of 2,365,146 people were treated with River Blindness Program/LCIF assistance in Ethiopia. This number represents a whopping 135 percent increase over 2003 and 90 percent of this project's annual treatment objective for 2004. The program expanded into two new regions in 2004, which more than doubled the country's annual treatment objective—to 2,661,799. In 2005, Ethiopia will reach its ultimate treatment goal.

Sudan

This year, treatments increased by 17 percent to 514,323, which was 68 percent of the annual treatment objective. As the peace settlement becomes a reality, the river blindness program in South Sudan will adapt its operating procedures in accord with the new government's expectations.

The Americas

In OEPA, the strategy is to provide two Mectizan treatment rounds per year in all endemic communities to reduce all manifestations of disease and interrupt transmission of *Onchocerca volvulus*. In the six countries endemic for river blindness in the Americas, 859,099 treatments were assisted in 2004, 97 percent of the ultimate treatment goal(2), compared to 93 percent in 2003. The year 2004 was the second in which every country exceeded the 85 percent target coverage of their eligible population in both rounds of treatment. OEPA is now monitoring its coverage by focus, to give a more detailed picture of its activities. (See Figure 2, page 4.) Southern Venezuela remains problematic.

Outcomes of the Meeting

In the post-APOC scenario, projects showing higher government support and kinship structure in their

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distribution seemed to fare better. It was decided to continue these sustainability trials in 2005. All African programs are investigating add-on interventions and integration with other disease control programs using similar community-based intervention in light of the reduction in funding support in most River Blindness Program-assisted areas. As the Americas battle to eliminate onchocerciasis, OEPA is focusing on enhancing the level of interventions by increasing the focus on areas with continued active transmission. OEPA will heighten health education and increase community participation to ensure that everyone takes his or her treatments.

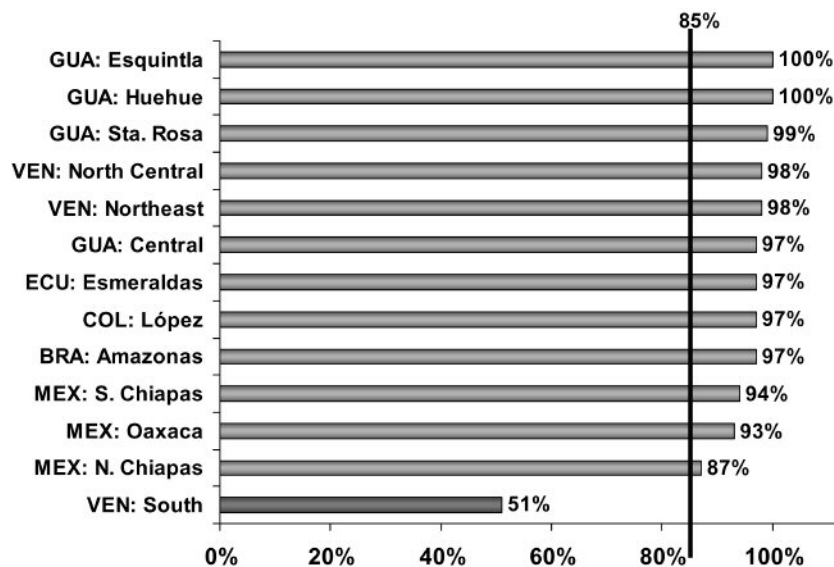
Nigeria Mourns

Dedicated researcher Professor J.K. Udonsi was laid to rest on Feb. 12, 2005. He conducted research in parasitology at the University of Port Harcourt and was a consultant to the Carter Center-assisted health programs in Nigeria. Professor Udonsi left his colleagues with this charge, "As onchocerciasis remains under intensive control and Guinea worm makes its final exit from the 'Paradise of Parasites' that is Nigeria..., we shall look forward with hope this day that our generation of scientists will also witness a world free of lymphatic filariasis."

May his hope be realized.

Figure 2

OEPA: Coverage of UTG by Focus, 2004



Programs Offer Simultaneous Impact in Nigeria

The Ministry of Health of Nigeria, assisted by The Carter Center, is testing integration of lymphatic filariasis elimination and schistosomiasis control efforts with the older onchocerciasis (river blindness) control program in Plateau and Nasarawa states. The Ministry of Health's onchocerciasis program began in 1993 with the launching of Mectizan distribution, donated by Merck, with support from the River Blindness Foundation. The Carter Center took over for the foundation in 1996 and, in 1999, helped the Ministry of Health add schistosomiasis control with distribution of praziquantel through the same system used for onchocerciasis. Lymphatic filariasis elimination followed soon after, with the addition of albendazole, donated by GlaxoSmithKline, in 2000. Health

education is a key component of all three treatment programs.

Using baseline data and data collected after several years of treatment, the Nigerian program staff have noted substantial impact on the manifestations of all three diseases. Specifically, sustained health education and mass drug distribution have resulted in reduced onchocerciasis nodules, reduced blood in urine from schistosomiasis, and reduction of both lymphatic filariasis mosquito infection rates and lymphatic filariasis antigen prevalence in human blood.

Preliminary impact data are shown in Figure 3. Onchocerciasis nodule data was first collected in 1992 by the River Blindness Foundation prior to the launching of Mectizan treatment and repeated in 1999 in 23 of the originally surveyed villages. Thirty to 50

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males were sampled. The nodule rate prior to treatment was 51 percent, and seven years later was just 3 percent – an astonishing finding.

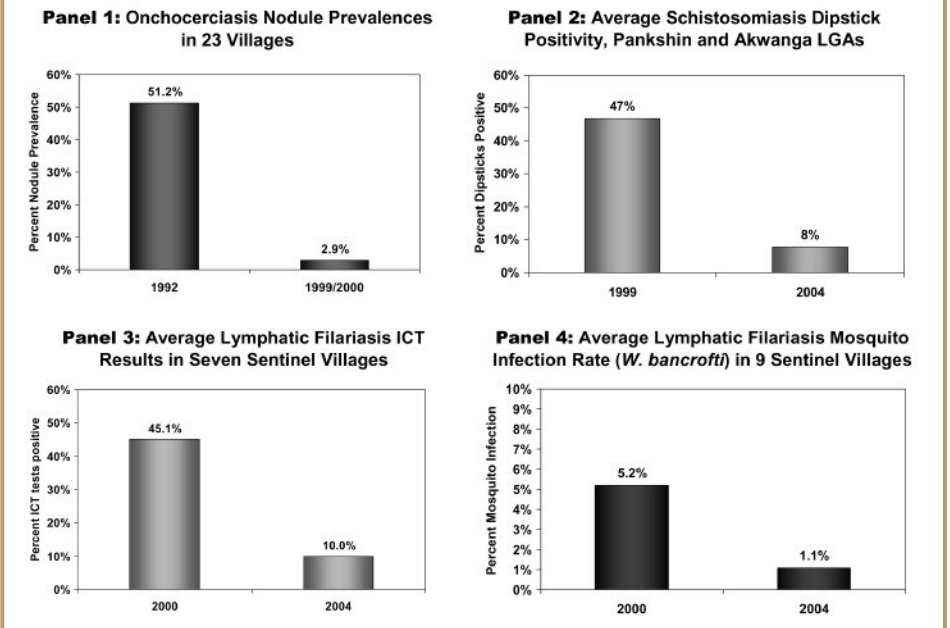
“Studies have demonstrated the safety and efficacy of the coadministration of albendazole, ivermectin and praziquantel, and this was operationally significant for the integration of the treatment of onchocerciasis, lymphatic filariasis and other helminths.”

– From the final communiqué of the 10th session of the Joint Action Forum of the African Programme for Onchocerciasis Control, Kinshasa, Democratic Republic of Congo, Dec. 7–9, 2004

Blood in urine, or hematuria, is a manifestation of schistosomiasis. Hematuria prevalence was determined using a rapid test, the dipstick test, to detect blood in urine. Baseline testing of urine in 1999 was repeated in 2004 in 10 villages of Pankshin and Akwanga local government areas of Plateau and Nasarawa states, respectively. Independent samples of 30 school-age children per village were tested in each round, for a sample size of 300. Prior to treatment, 47 percent of children tested had blood in their urine. After six rounds of treatment, this rate was reduced to 8 percent.

Two lymphatic filariasis studies have shown evidence of diminishing disease burden and reduced transmission in Plateau and Nasarawa states. One study of nearly 2,000 people in seven villages used a rapid test (ICT)

Figure 3
Impact on Onchocerciasis, Schistosomiasis and Lymphatic Filariasis in Plateau and Nasarawa States of Nigeria



to detect lymphatic filariasis antigen in blood. Antigen presence in 2000, just prior to starting combination Mectizan/albendazole treatment, was 45 percent; this dropped to 10 percent in 2004 as the result of the program. Testing of mosquitoes for lymphatic

filariasis infection was conducted in nine villages. The infection rate in 2000 was 5.2 percent and in 2004 only 1 percent.

The results of these studies are being prepared for publication in scientific journals.

River Blindness References

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Trachoma

Strategies

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The theme for this year's meeting was "Strategies for Scaling Up." National program coordinators reported on progress made in 2004 and their objectives for 2005. For each country, challenges and successes were discussed, with all participants providing support and suggestions. Overall program progress is summarized in Figures 4-7.

A particular highlight described by Mr. Teshome Gebre was the "jubilee" in Ethiopia as they reported 89,096 household latrines built in 2004. (See Figure 8, page 9.) Community members accomplished this unprecedented achievement with support from the Amhara regional health bureau, woreda administrators, schools, and religious and women's group leaders. The Ethiopian team inspired and challenged the group to "Think big. Start small. Act now!" to improve latrine promotion.

During open discussion, the gender aspect of trachoma also emerged as a

National and regional trachoma control programs were represented at the program review by Drs. Maria Hagan and Daniel Yayemain, Ghana; Dr. Bamani Sanoussi, Mali; Dr. Kadri Boubacar, Niger; Dr. Bellario Ahoy Ngong, Sudanese People's Liberation Movement; and Dr. Grace Saguti, Tanzania. For the first time this year, the Nigerian coordinator for the Programme for Prevention of Blindness, Dr. Dienne Apiafi, attended the program review and presented the country's trachoma control activities. (Not represented because of difficulty in obtaining visas were national coordinators and representatives from Ethiopia and the government of Sudan.)

Additional partner organizations represented at the review included the World Health Organization, the Centers for Disease Control and Prevention, Sight Savers International, World

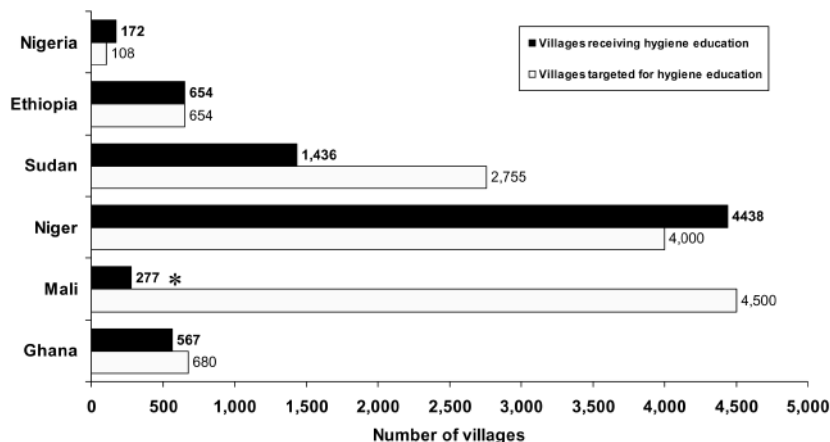
Vision International, Emory University Rollins School of Public Health, the London School of Hygiene and Tropical Medicine, the Proctor Foundation of the University of California—San Francisco, Christoffel Blindenmission, and Princeton University.

The participating Carter Center resident technical advisers and trachoma control program officers included Mr. Aryc Mosher and Ms. Lydia Ajono, Ghana; Mr. Mohamed Salissou Kane and Mr. Ali Amadou, Niger; Dr. Mamadou Bathily and Mr. Yaya Kamissoko, Mali; Ms. Glenna Snider and Ms. Alice Bosibori-Onsarigo, Government of South Sudan/Nairobi; Mr. Raymond Stewart, Government of Sudan/Khartoum; Mr. Teshome Gebre, Dr. Anteneh Woldetensay, and Mr. Abate Tilahun, Ethiopia; and Drs. Emmanuel Miri and Nimzing Jip, Nigeria.

prominent theme. Women are more likely to be affected by trachoma than their male counterparts and benefit considerably from interventions like latrine construction and traditional soap making. Taking primary responsibility for the health of their families, women bear most of the burden of trachoma. As a strategy for scaling up trachoma interventions, the group identified targeting women as peer health educators and leaders for trachoma control activities in their communities.

Participants also brainstormed the issue of motivation of community health workers and volunteers. Some expressed concern about offering incentives of cash or gifts that may

Figure 4
Number of villages receiving hygiene education, by country
Carter Center-assisted trachoma control programs
January – December 2004



Source: National data

* Low number reflects lack of data received from national office.

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attract volunteers for the wrong reasons; others talked about how hard trachoma volunteers work and that it was appropriate to offer small tokens of appreciation. The Carter Center's Dr. Moses Katarbarwa further stimulated discussion when he spoke about the successes achieved by working with large numbers of volunteers, each of whom takes responsibility for serving small groups of extended family members.

This year's special sessions also included presentations on latrine promotion in Ethiopia, The Gambia, and Niger; traditional soap making; elimination of ocular Chlamydia with antibiotics; integration of trachoma and lymphatic filariasis programs; the use of data in program planning; and activity updates from both WHO and ITI. Some country program highlights are illustrated below. (See also Table 2.)

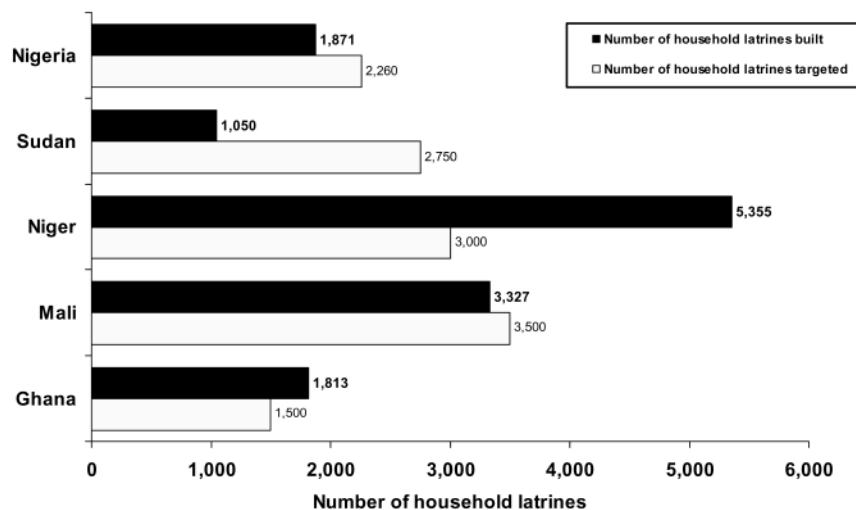
Ghana

- Special presentation on trachoma prevalence survey in 12 districts of Northern and Upper West regions
- Program expanded to cover all 18 districts of Upper West and Northern regions
- 41 additional trained and functioning radio listening groups

Ethiopia

- Program woredas increased to 19, serving a population of 4 million (22 percent of Amhara regional state)

Figure 5
Number of household latrines built by country
Carter Center-assisted trachoma control programs
January – December 2004*



Source: National data

*See Figure 8 for data from Ethiopia.

Table 2

Summary data (2004), from six countries receiving Carter Center support, as presented at the annual program review in Atlanta

Indicators	Ghana	Mali	Niger	Sudan	Ethiopia Amhara Reg.	Nigeria
F & E						
Number of villages with hygiene education	567	277	4,438	1,436	654	172
Villages targeted	680	4,500	4,000	2,755	654	108
Percent coverage	83%	6%	111%	52%	100%	159%
Number of latrines constructed	1813	3,327	5,355	1,050	90,552	1,871
Target for latrines	1,500	3,500	3,000	2,750	10,130	2,260
Percent coverage	121%	95%	179%	38%	894%	83%
Number of water sources provided	1,102	0	0	160	22	22
Targeted number of water sources	250	100	25	650	0	15
Percent coverage	441%	-	-	25%	-	-
Antibiotics						
Azithromycin						
Treatments	292,560	2,688,061	1,915,456	447,338	816,205	2,428
Target Population	315,000	2,500,000	2,363,252	682,000	550,000	-
Percent coverage	93%	108%	81%	66%	148%	-
Tetracycline Oint.						
Treatments	15,101	0	0	80,260	142,424	45,582
Target Population	30,000	100,000	44,054	81,000	266,000	-
Percent coverage	50%	0%	0%	99%	54%	-
Surgery						
Surgeries	951	2,758	5,286	1,757	32,316	3,830
Target Population	2,100	5,000	10,500	8,900	48,881	-
Percent coverage	45%	55%	50%	20%	66%	-

Source: National data presented at the 2005 Program Review

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Strategies

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- School health curriculum translated to Amharic and distributed; training of trainers conducted
- Trainer’s guide titled “The Leading Role of Women in Trachoma Control” written in Amharic and distributed for training of women at various levels
- Training for behavior change, communication, and community mobilization in collaboration with the regional health bureau

Mali

- Special presentation on training village volunteers for health education
- Inclusion of trachoma in the primary education curricula
- Clean village competitions in 26 villages; social mobilization days at schools in three regions

Niger

- 140 teachers and community volunteers trained in health education
- Numerous radio spots broadcast on trachoma and hygiene

Nigeria

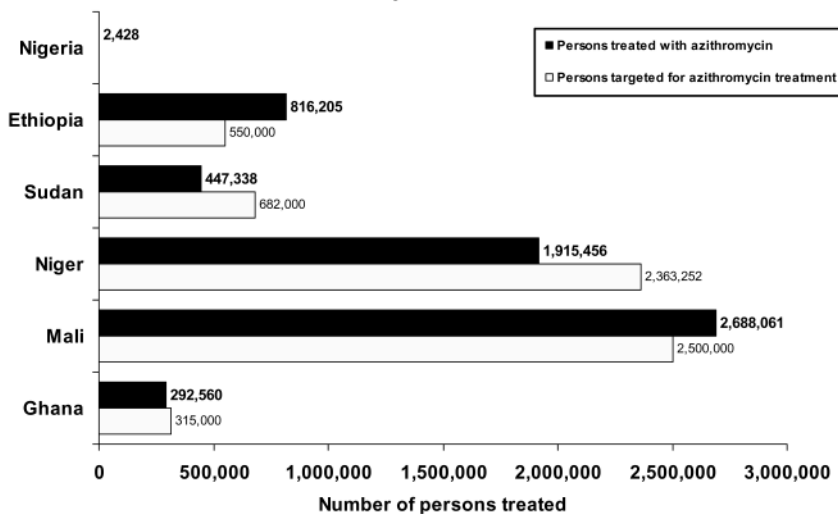
- 2,428 people treated with azithromycin with support from Sight Savers International

Sudan/Government of South Sudan

- Shift from nongovernmental organization-based program implementation to community-driven approach

Figure 6

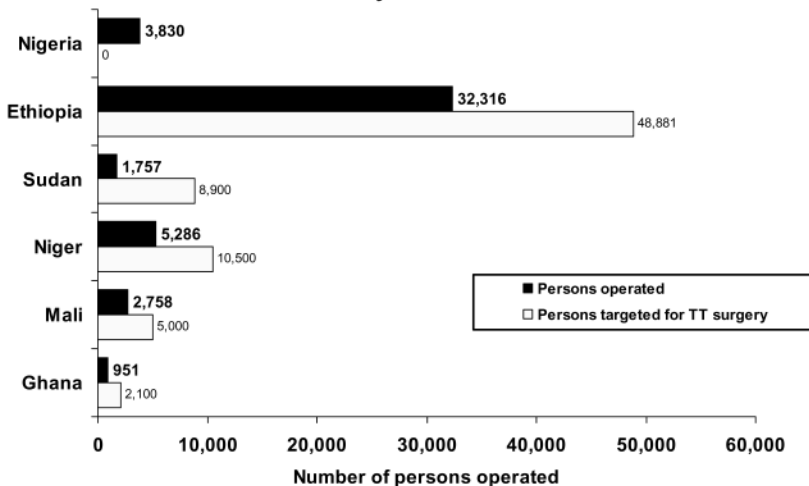
Number of persons treated with azithromycin, by country
Carter Center-assisted trachoma control programs
January – December 2004



Source: National data

Figure 7

Number of persons having received trichiasis surgery, by country
Carter Center-assisted trachoma control programs
January – December 2004



Source: National data



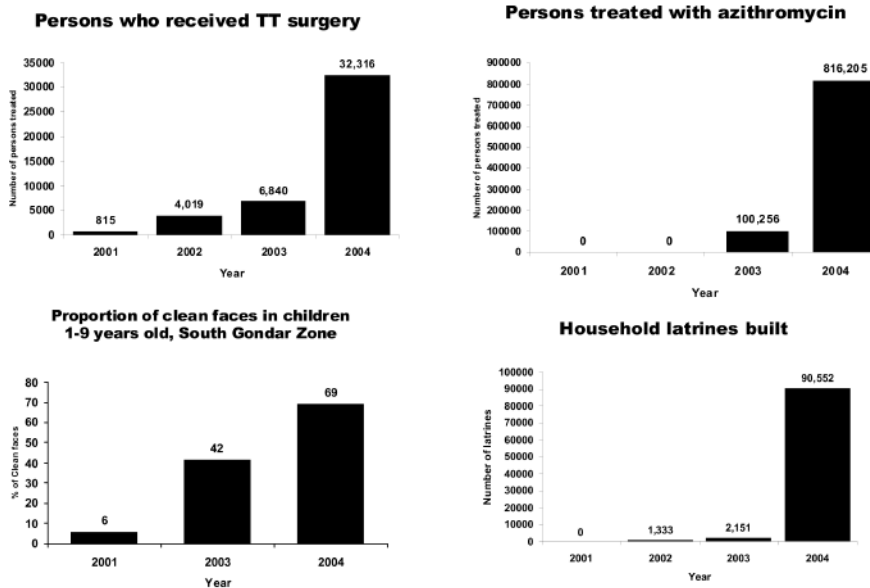
Ceja Cooper

Ms. Sonia Pelletreau, Lions Clubs International Foundation; Dr. Paul Emerson, The Carter Center; and Dr. Peter Kilima, International Trachoma Initiative, enjoy talking at a break in the proceedings.

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Figure 8

Ethiopia: SAFE strategy implemented by different partners, 2001-2004



Sudan/Government of Sudan

- 40,143 people reached with ongoing health education

Tanzania

- Launched and disseminated new five-year strategic plan on World Sight Day 2004
- Expanded program covers a total population of 7 million with health education, latrine construction, and safe water provision
- Conducted 4,036 trichiasis surgeries
- Distributed 989,084 doses of azithromycin

Morocco

- Program covers a population of 680,000 with all components of SAFE



Ceja Cooper

Ms. Dyanne Hayes, Conrad N. Hilton Foundation; Dr. Joe Riverson, World Vision; and Dr. Maria Hagan, Ghana Health Service, stand next to an informative display produced for the program review.

- 2004 survey showed decrease in trachoma prevalence, allowed calculation of new ultimate intervention goals

Azithromycin Distribution Increased in Sudan, 2000-2004

In 2000, the Sudan trachoma control program launched implementation of all components of the SAFE strategy. The same year, more than 12,000 people were treated with azithromycin, 78 percent of the eligible population at the time. From 2000 through 2004, there has been a steady increase in the number of individuals targeted for antibiotic treatment throughout Sudan. During the same period, a total of 1,068,703 treatments for trachoma with Pfizer-donated Zithromax® have been distributed in Sudan. This considerable achievement in azithromycin distribution was accomplished through collaborative efforts between the Sudan trachoma control program and its local and international partners through the Lions-Carter Center SightFirst Initiative.

In 2004, despite continued insecurity in southern Sudan, The Carter Center, in collaboration with U.N. agencies and international nongovernmental organizations, was able to provide azithromycin treatment to 180,708 people in nine districts: Katigiri, Keew, Kiech Kuon, Lankien, Oriny, Padak, Paluer, Tali, and Boma. Likewise, 266,630 people were treated with azithromycin in government of Sudan areas this year. This success in both government-supported areas and throughout southern Sudan highlights the great effort put forth in the face of past conflict and insecurity.

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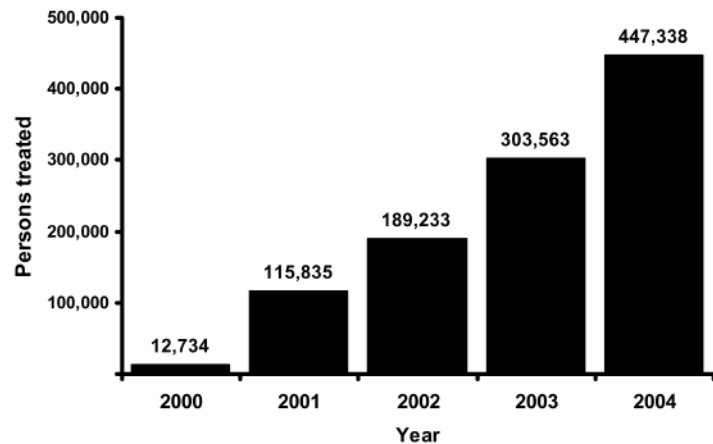
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Azithromycin, *continued from page 9*

A dividend of the January 2005 Sudanese peace agreement for the trachoma control program will be the prospect of enhanced distribution of azithromycin in the future. Successful implementation of the antibiotic (A) component of the SAFE strategy leads the Sudan programs to plan for similar progress in the S, F, and E components in the new postwar period. The 2005 annual intervention goal for azithromycin distribution in all of Sudan is nearly 1 million doses. Figure 9 shows the number of people treated with azithromycin in Sudan from 2000 to 2004.

Figure 9

Persons treated with azithromycin in Sudan, 2000-2004



The Human Face of the Trachoma Control Program

Paul Emerson met Memunatu Alhassan in Botingli village in northern Ghana. She is an active member of her village's radio-listening club and frequently appears on the shows herself. The Carter Center supports the production of trachoma shows, pays for airtime, and has provided 250 Freeplay radios to the radio-listening clubs.

"I was one of the founding members of the radio-listening club here in my village. The village health worker told us that the club should have about half men and half women, so I volunteered. We meet on Sunday evenings after all the household chores are finished and tune in to the show on Radio Savannah. The trachoma broadcast lasts half an hour; after the show we usually sit together to discuss the broadcast and how it relates to us.

"The radio was given to us by The Carter Center. It doesn't need batteries; we power it by winding the handle or using the solar panel. This type is better than the first ones because the



Memunatu Alhassan

solar panel comes off and charges the radio through wires. The old one had the panel on the top; when the batteries charged, the set got hot and the case finally cracked.

"The broadcasts are very enjoyable because they are in our local language and we can relate to the people on the

shows. That's why I felt I could write in when they asked us to. I gave my letter to a neighbor who took it to Tamale and then handed it to a friend who passes the radio station. He gave it to the radio people. I'm glad my letter made it, because a few weeks later the man from the radio station came here, to our village, with his microphone and recorder. I was interviewed and they put it into one of the broadcasts.

"Do I think I'm a health worker? No, not really, I just feel happy when I hear myself on the air!"

"Yes, I was nervous when that show came on! But the others congratulated me, and my husband was proud. The discussion after the show that evening was very enjoyable. Since then I have participated in several more shows. I sing traditional songs and repeat some of the messages that the health worker has been telling us.

"Do I think I'm a health worker? No, not really, I just feel happy when I hear myself on the air!"

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Surgeries Bring Hope to Men With Hydrocele

The battle against lymphatic filariasis is one not only of stopping transmission but also of reducing the manifestations of the disease. The Carter Center, working closely with the Nigerian federal Ministry of Health and the ministries of health of Plateau and Nasarawa states, has helped develop a way to address the suffering many men have from hydrocele, the collection of large amounts of clear fluid in the scrotum. A Ministry of Health/Carter Center survey conducted in those states in 1999 found that 13 percent of 4,320 men examined (557) suffered from hydroceles. The hydrocelectomy campaign began when it was decided that surgery should be offered to those men identified in the survey.

Dr. Gail Thomas, a surgeon and consultant to The Carter Center, has provided technical assistance to Nigerian surgeons since 2001, helping to plan and safely conduct this surgical program. Affected individuals are offered surgical correction of hydrocele using the eversion technique most commonly performed by surgeons and general practitioners in Nigeria. All patients from surveyed villages in Plateau and Nasarawa states are eligible provided they are determined to be good candidates for the surgery. These men and their villages also are offered annual mass treatment with Mectizan and albendazole.

Typically in Nigeria, hydrocele surgery is performed in larger village hospitals during "mass hydrocele

surgery days." All personnel, equipment, and supplies are assembled for three to five days of hydrocele surgeries. Patients are admitted, examined, and undergo the 20- to 30-minute procedure to remove the fluid and prevent its re-accumulation. Efforts have been made to find patients months after their operations to evaluate post-operative outcome. To date, more than 200 patients have undergone surgical correction of their hydroceles. Overall, the patients have done extremely well, and the rate of hydrocele recurrence has been very low. The surgeries are extremely popular, and the Lymphatic Filariasis Elimination Program hopes to continue to be able to offer mass hydrocele surgery days in Plateau and Nasarawa states.

Global Health News

Richards Returns Katarbarwa Receives Sheth Award

Frank O. Richards Jr., M.D., rejoined The Carter Center on March 1, 2005, after retiring from the Centers for Disease Control and Prevention. He returns as technical director for the River Blindness Program, Lymphatic Filariasis Elimination Program, and Schistosomiasis Control Program. Dr. Richards was seconded from CDC to the Center in 1996 with the launching of the River Blindness Program and served as its technical director until 2002.

Dr. Moses Katarbarwa, program epidemiologist of the Carter Center's River Blindness, Lymphatic Filariasis Elimination, and Schistosomiasis Control programs and a graduate of Emory University's Rollins School of Public Health, received the Sheth Distinguished International Alumni Award from President James Wagner at a special dinner on March 30, 2005. The award recognizes international alumni of Emory who have gone on to achieve prominence in universities, governments, private sectors, or

nongovernmental organizations. Dr. Katarbarwa served as country director for the Carter Center's Uganda office, 1996-2003.



Wilford Harewood

Moses Katarbarwa (left) receives the Sheth Distinguished International Alumni Award from Emory University President James Wagner.

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