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ogram, chaired the meeting.

The Carter Center assisted in providing treatments with Mectiza 11 countries in 2003, with 96 percel of the annual treatment objective attained. The 2003 accomplishments represented an increase of 8 percent over treatments assisted in 2002. Of the treatments assisted in 2003, 97 percent were accomplished in partnership

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# Clean Faces: When of SAFE Come Toge

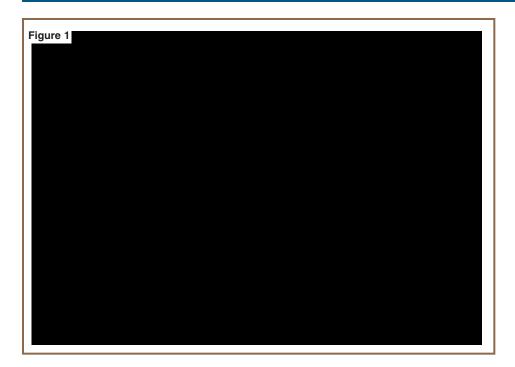
F and E

## River Blindness

to be strengthened. It also would benefit the programs if onchocerciasis were shown to be eradicable in Africa.

**Summary of Treatment Reports** 

## River Blindness



### **Ethiopia**

In its third year of mass Mectizan distribution, Ethiopia treated a total of 1,007,983 people with River Blindness Program/Lions Clubs International Foundation assistance. This represents a 95 percent increase over 2002 and 90 percent of their annual treatment objective for 2003. This was also the first year that the Ethiopian program has exceeded 1 million treatments. The program is expanding into two new regions in 2004, which will more than double its ultimate treatment goal to 2,429,644.

### Sudan

The ongoing war in Sudan and inadequate national funding continue to pose obstacles to safe drug delivery by the program. This year treatments decreased by 22 percent to 439,798, or 61 percent of the annual treatment objective. A peace settlement seems imminent, and the

program continues to develop strategies for increased postwar treatments.

#### The Americas

In OEPA, the strategy is to provide two Mectizan treatment rounds per year in all endemic communities, not only to interrupt transmission of

של של ישל but also to stop all manifestations of disease. In the six countries endemic for river blindness in the Americas, 819,066 treatments were assisted in 2003, 93 percent of the ultimate treatment goal (2), compared to 86 percent in 2002. (See Figure 2, page 4.) The year 2003 was a milestone for OEPA, as it was the first in which every country exceeded the 85 percent target coverage of eligible population in both rounds of treatment. For various reasons. Venezuela was not able to reach this level of coverage in the past. However, extra efforts and involvement of the government have had a strong impact on drug distribution efforts.

### **Attendees**

Attendees included River Blindness Program country representatives Mr. Teshome Gebre, Ethiopia; Ms. Peace Habomugisha, Uganda; Dr. Emmanuel Miri, Nigeria; and the resident technical advisers of Sudan, Mr. Raymond Stewart, Khartoum, and Mr. Mark Pelletier, Nairobi.

Dr. Mauricio Sauerbrey presented progress made in the six river blindness-affected countries in the Americas served by the Onchocerciasis Elimination Program for the Americas.

Dr. Albert Eyamba, Cameroon, was unable to attend this year due to visa processing issues. Dr. Moses Katabarwa, program epidemiologist, presented the Cameroon report in his stead.

Other technical staff members included Dr. Abel Eigege, Nigeria, and Dr. Assefa Worku, Ethiopia. Special guests included professor Mamoun Homeida, chairman. National Onchocerciasis Task Force. Sudan: Ms. Sonia Pelletreau. Lions Clubs International Foundation; Dr. Jamie Maguire, chief, Parasitic Diseases Branch, Centers for Disease Control and Prevention: Dr. Frank Richards, Division of Parasitic Diseases, CDC; Dr. Steve Blount, director, Office of Global Health, CDC; Mr. Ross Cox, deputy director, Office of Global Health, CDC; Dr. Ed Cupp, professor of entomology, Auburn University, Auburn, Ala.; Dr. Tom Unnasch, professor of immunology, University of Alabama at Birmingham; Dr. Bjorn Thylefors, director, Mectizan Donation Program; and Dr. Mary Alleman, associate director, Mectizan Donation Program, among other observers.

Based on the findings of the January 2002 Conference on the Eradicability of Onchocerciasis, a three-day meeting of 64 experts that

took place at The Carter Center and was co-sponsored by the World Health Organization, onchocerciasis

## River Blindness

end to disease morbidity and trans-

# **Sustaining Mectizan Distribution** in the Post-APOC Era

he African Program for Onchocerciasis Control (APOC) has been a key source of funding for the Carter Center's onchocerciasis activities since soon after the beginning of our River Blindness Program. APOC's basic premise is to set up and fund Mectizan distribution operations in endemic areas in 19 countries, in collaboration with The World Bank, WHO, ministries of health, and various nongovernmental development organizations.

# All APOC funding is slated to conclude in 2010.

During the five-year funding period allotted to each project in APOC, a self-sustaining, community-directed treatment structure is to be erected. By the conclusion of APOC funding, the governments of the respective projects are supposed to make up the continuing costs associated with drug distribution. In special cases, APOC will extend funding to a limited degree for up to three additional years. All APOC funding is slated to conclude in 2010. Most Carter Center projects have already reached or will soon reach the end of their APOC funding period.

A few, such as a handful of projects in Ethiopia, are just beginning.

APOC has developed a tool for evaluating the sustainability of its projects. This tool uses a variety of indicators to determine whether a project is approaching a sustainable situation. Project personnel are used to evaluate other projects. As we learned in this year's program review, however, not one project under the APOC umbrella has been graded as fully sustainable with this tool. There are two major reasons for this: inadequate or lack of government funding, and weak front-line health care facilities. Provisional data was gathered from 12 community-directed treatment-withivermectin projects in Cameroon (1), Nigeria (3), Sudan (2), and Uganda (6) that have completed five years of implementation.

Overall, APOC released 87 percent of \$5,135,898 approved budget for the projects over the five years, the River Blindness Program released 83 percent of \$2,256,866 approved budget, and national and local governments released 20 percent of \$517,870 approved budget.

Efforts are underway to determine more precisely what a project will need in order to become fully sustainable. Merck & Co. continues its pledge to donate as much Mectizan as needed for as long as necessary. It may soon be up to the endemic countries and their nongovernmental development organization partners in APOC projects to determine how to best continue the struggle against onchocerciasis in Africa.

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### **Clean Faces**

surveys, but few have collected followup data for evaluation. Routine village line listings in Sudan and Ghana include facial cleanliness estimates, where children are randomly selected and examined for ocular or nasal discharge. Yet, very little has been done with these data up to now.

The South Gondar Trachoma Control Program in Ethiopia is leading the way in routine use of facial cleanliness data. Ato Zelalem Abera of the Amhara Regional Health Bureau and Dr. Anteneh Woldetensay, The Carter Center, track facial cleanliness data monthly. The routine collection of facial cleanliness data is only in its early development, but we already can begin looking for trends in facial cleanliness and signs of progress in F and E interventions. Figure 4 shows aggregate South Gondar facial cleanliness data in children aged 1-9 years, beginning in February 2003. A total of 21,150 children 1-9 years old were examined. Monthly reports from villages are frequently incomplete and have yet to be validated, but the Trachoma Control Program is working to improve monthly surveillance.

In the coming years, we expect to see monthly data on facial cleanliness to compare with these 2003 reports.

environmental hygiene, and it will be exciting to monitor the impact of F and E interventions as facial cleanliness increases, TF decreases, and we move forward to control blinding trachoma.

Group members were able to recall the signs and cause of trachoma and methods of prevention. They reported to have increased their own hygienic behaviors such as face washing, compound sweeping, burying excrement, and the use of latrines. Most importantly, community members reported that radio learning groups motivated them to take action. One participant from the village of Tinabelle said, "Our village is clean because the radio asked us what are we doing to clear trachoma ... so it is mandatory for everyone in this community to join the communal cleaning every Friday."

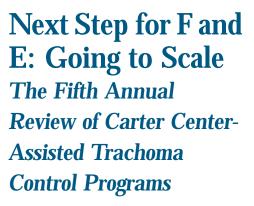
the better, with improved hygienic practices; however, there is still a lot of work to be done. Some community health workers reported that hygiene activities are not always practiced, showing the need for continued supervision.

The Ghana experience has demonstrated that the community members accept radio learning groups and there is a growing demand for expanding the program to include other trachoma-endemic communities. Radio learning groups appear to be a useful way to improve the delivery of key health education messages on tra-

choma control and prevention and motivate community members to make positive hygiene changes.

Based on the findings of this qualitative study and positive reports from villages in the Upper West region, the Ghana Trachoma Control Program expanded radio learning groups to the Northern

region in April 2004. The Ghana program has purchased radios for trachoma-endemic communities. The Carter Center donated 60 additional Freeplay radios and will continue to provide technical assistance to the groups. Carter Center support to the Ghana Trachoma Control Program is made possible through the Conrad N. Hilton Foundation.





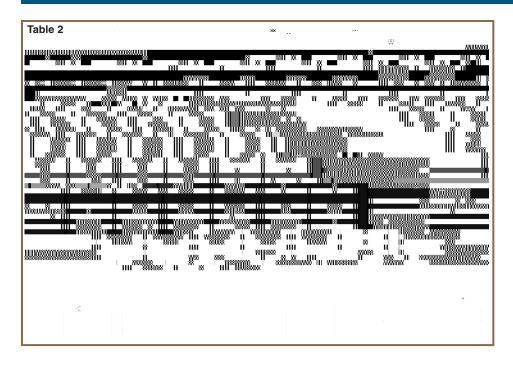




In other villages, respondents reported that their group inspired communities to fix broken borehole wells and begin new latrine construction. The village chief of Tolle said, "The trachoma radio programs have made my village healthier. Before, you could see filth all around, children's faces dirty and flies everywhere." Many communities appear to have changed for

• 18,066 (52 percent annual target) trichiasis patients received corrective surgery.

Special presentations each day highlighted important aspects of trachoma control and allowed the group to brainstorm and challenge one another. The special presentations this



### Niger

- 1,274 village volunteers trained in hygiene education
- 2,000 Trachoma Control Program posters and 450 flip charts printed, and 3,000 T-shirts made
- 1,303 SanPlat latrines constructed (42 percent annual target)
- Approximately 710,230 persons treated with Zithromax (91 percent annual target)
- 4,858 trichiasis patients received corrective surgery (65 percent annual target)

## Nigeria (Plateau and Nasarawa States)

- Latrine promotion project launched in Plateau and Nasarawa states
- Health education materials printed and distributed to all project villages
- 108 masons trained in F and E activities (60 percent annual target)

### **Ethiopia (Amhara Region)**

 Program expanded from area covering 1 million people to 4 million people

- 2,151 household latrines constructed (85 percent annual target)
- Pilot school health curriculum finalized; it will be translated into Amharic with help from local Lions Clubs
- 100,256 persons received Pfizerdonated Zithromax in first round of treatments
- Trichiasis surgery expanded to reach 6,840 patients (61 percent annual target) with close support from Ethiopian Lions Clubs

#### Sudan

- National trachoma prevalence survey over 80 percent completed
- First annual program review for south Sudan held in Lokichokio
- 1,276 villages (53 percent annual target) received regular health education
- 2,182 household latrines constructed (103 percent annual target)
- 303,563 persons treated with Zithromax (96 percent annual target)

## Survey in Amhara Region Confirms High Trachoma Prevalence

thiopia may have the highest burden of blinding trachoma in the world. The national prevalence of blindness is estimated to be 1.25 percent, and more than 900,000 people are believed to be blind. The leading causes of blindness are cataract (40 percent), followed by trachoma (30 percent).

In October 2000, The Carter Center, with funding from the Lions-Carter Center SightFirst Initiative, began assisting work on trachoma control in the Amhara region. The first phase of the Lions-Carter Center support focused on four health districts in the South Gondar zone. The first community-based trachoma prevalence survey was done in South Gondar December 2000-January 2001 by the Amhara Regional Health Bureau with support from The Carter Center. That survey found that overall, the prevalence of follicular inflammatory trachoma (TF) among children 1-9 years old was 62 percent. (See Figure 7, page 10.) The South Gondar Trachoma Control Program began in earnest in 2001 and was very successful in implementing the SAFE strategy in an area of over 1,000,000 inhabitants.

In 2003, The Carter Center and Lions International increased their support to the Amhara Regional Health Bureau for trachoma control, allowing the program to expand to include a total of 19 districts in four zones, with a

ith assistance from the Lions-Carter Center SightFirst Initiative, The Carter Center/Ethiopia began assisting the Amhara Regional Health Bureau in trachoma control in October 2000 with a population-based trachoma prevalence survey.

Activities began soon thereafter in

Amhara Regional Health Bureau. The new districts are in four zones: South and North Gondar and East and West Gojam.

The new Trachoma Control Program area comprises 497 villages, with a total population of 4 million inhabitants. Baseline prevalence and KAP studies were conducted late 2003-early 2004, and a plan of action was developed for 2004-2005. This expansion has increased the total number of intervention communities to 652, with a total population of 4 million people (23 percent of the Amhara region).

In 2003, the Amhara Trachoma Control Program made great progress in implementing all components of the SAFE strategy:

**Surgery**—Eight trichiasis surgeons in the expansion areas were trained, in addition to 11 trichiasis surgeons in the existing districts (100 percent of annual target). Local Lions Clubs in Ethiopia funded these activities through a grant awarded to them by the Lions Clubs International Foundation in 2002. Nine outreach campaigns for trichiasis surgery were conducted in trachoma-endemic districts. Overall, 6,840 trichiasis surgeries were done (61 percent of annual target). Altogether, 10,267 trichiasis surgeries have been conducted in the four endemic districts since the program began, representing 28.5 percent of the program's ultimate intervention goal for surgery for the four pilot districts.

Antibiotics — The Amhara program treated 35,106 people with active trachoma with tetracycline ophthalmic ointment in health centers and during trichiasis surgery outreach campaigns, using 75,000 tubes of tetracycline ophthalmic ointment

provided by The Carter Center. In 2003, the area received its first donation of Zithromax from Pfizer Inc for mass treatment of communities at risk for trachoma. The first district selected for Zithromax treatment was Ebinat, where 100,256 people received the antibiotic (100 percent of annual target) in a rapid, highly successful campaign.

Facial Cleanliness and
Environmental Hygiene — All 155
villages in the four pilot districts

received trachoma health education in 2003 (100 percent of annual target). Routine reports on F and E activities were received quarterly (100 percent of villages) and monthly (71 percent of villages). In March 2004, the expansion districts also conducted hygiene promotion training of health workers, schoolteachers, and village volunteers and distributed community health worker training manuals, flip charts, posters, brochures, booklets for

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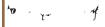
## Global Health News'

# In Memory of Mr. Paul Nabaya

e join the national River Blindness Control Program of Uganda in mourning the loss of Mr. Paul Nabaya, onchocerciasis control coordinator in the Sironko district. Mr. Nabaya died on April 14, 2004.

He was known for his commitment and dedication to the growth of a successful program that provided 48,688 Mectizan treatments during 2003, 98 percent coverage of ultimate treatment goal, in the mountainous region of Sironko district. Our sincere condolences to his family.

#### Lions



school health program, school health curricula, and videocassettes produced by The Carter Center and BBC during the training.

A total of 2,151 latrines were built (85 percent of annual target) during 2003, with support from The Carter Center. Additional latrines were built at three schools and three health centers. To further expand latrine construction and acceptance, the program is pursuing the use of local materials. Thus far in 2004, 575 latrines have been built in East Gojam zone with local materials.

The impact of some of the above-mentioned interventions is becoming evident in cleaner faces of children. (See article on page 1). The Amhara program has set challenging targets for itself in 2004, including implementing hygiene promotion activities in all 652 villages, building 10,000 latrines, and expanding the trachoma prevention school health curriculum in schools. In addition. the program plans to treat 266,000 and 550,000 people with tetracycline ointment and Zithromax, respectively. Sixty-seven trichiasis surgeons will be trained, and 48,881 trichiasis surgeries done in outreach campaigns and at health centers.

This issue is made possible in part thanks to the Michael G. DeGroote Health Program Publications Fund.

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