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THE CARTER CENTER

A 2013

Historically, the focus of the Carter Center's River Blindness Program has been to eliminate the disease in the

# Trachoma

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Carter Center staff in Ethiopia have found that using portable electronic devices in the field for collecting data saves the program money and provides faster results. Personnel using a system called Swift Insights in summer 2012 were able to make trachoma survey results available two months sooner — 35 percent faster — compared with collecting data on paper questionnaires.

Data were entered in the field using tablet computers, eliminating the need for staff to transfer information from paper questionnaires collected in the field into computers later.

Swift Insights, developed in collaboration with Georgia Tech graduate volunteers, allows Carter Center staff in Ethiopia to download collected survey data immediately following the completion of the field work and present results to the Ministry of Health, which then can make immediate program decisions.

A recent study documenting the cost of trachoma prevalence surveys found that data entry from paper questionnaires to a computer database accounted for 10 percent of all incremental costs. The estimated

cost of collecting data with paper questionnaires plus supplies in 360 communities was \$13,883. Incremental cost of the first deployment of Swift Insights on 24 tablet computers plus accessories to survey 354 communities in the Amhara region was \$10,320. The tablets and accessories have been reused in subsequent surveys. Even with the cost of purchasing 10 additional tablets to increase the number of survey teams to cover 531 communities, The Carter Center estimates that electronic data collection has saved approximately \$16,477 since 2011.

The Swift Insights software can be used with any mobile computing device operating on the Android platform. For example, Sudan Ministry of Health's trachoma control program has deployed the Barnes & Noble Nook e-reader for data collection in trachoma survey activities, including the recent subdistrict-level assessment of 160 communities in five districts. Some of the benefits of this e-reader for the field include long battery life, crisp contrasting screen for use in bright daylight, and affordability (under \$100 per device).

Use of Swift Insights is planned for



Aisha E. Stewart



upcoming subdistrict-level trachoma prevalence surveys to determine whether elimination targets have been met in Mali and Niger. Such an expansion will mark the utility of Swift Insights in Amharic, Arabic, French, and English. Future applications might include routine program data collection and reporting, as well as the ability to immediately generate up-to-date charts to track progress toward annual targets.



(WASH) programs.

Under the theme of “better,” the second day of the review focused on ways to improve current trachoma work and included updates from academic institutions that have partnered with The Carter Center for research.

Dr. Zerihun Tadesse, Ethiopia

country representative for The Carter Center, provided survey results on MalTra week antibiotic coverage. Occurring twice a year, MalTra week is a one-week event in which government health officers and volunteers blanket a region of Ethiopia to detect and treat malaria and treat trachoma through mass drug administration.

Dr. Kadri Boubacar, deputy national coordinator of Niger's

trachoma control program, presented results from a survey on the prevalence of postoperative trichiasis in four districts. Dr. Jonathan King, epidemiologist for The Carter Center, presented the findings from a survey showing that multiple years of exposure to the SAFE strategy — surgery, antibiotics, facial cleanliness, and environmental improvement — lead to decreased trachomatous scarring,

# Trachoma

The Carter Center's Trachoma Control Program has embarked on a multicountry assessment of its health education activities. This assessment, now completed in Ethiopia, Mali, South Sudan, and Sudan, identifies best practices in trachoma health education to determine which can be broadened for greater impact within and across programs. The Center is currently refreshing activities in all six countries where it works.

For health education delivered in schools, new curricula and other school-based activities are being developed to reduce transmission of trachoma in school-age children, who are particularly vulnerable.

In Sudan, school health education activities are being scaled up to reach two states that previously had no school-based activities. In Nigeria, classroom materials have been developed and piloted. The Carter Center is now evaluating and revising them.

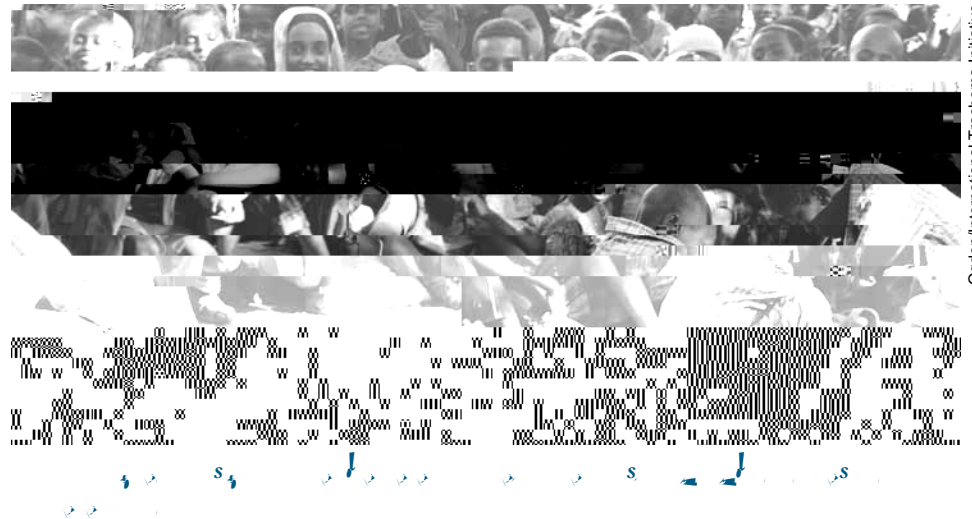
In Ethiopia, the country with the strongest school health program, a graduate student will study how to more effectively reach children with health education in preparation for revising the trachoma curriculum.

In nine districts in Niger, teachers will receive training on a curriculum developed by Carter Center partner Helen Keller International to speed progress toward the 2015 elimination target. And the program in South Sudan is working with UNICEF and UNESCO to include trachoma health education in life skills flip charts and curriculum in primary schools that reach high-priority areas.

School-age children are not the only group receiving trachoma education. During surgical campaigns, mass drug administration campaigns, soap-making microfinance programs, and latrine building, all community

members are targeted for health education. In addition, in South Sudan, hygiene promoters have been given trachoma flip charts to educate people in their target areas. In Sudan, people are being trained to provide trachoma health education in low-endemicity areas.

As assessments of activities conclude, Carter Center staff will continue to identify and implement the most effective activities. As one school director in Ethiopia said: "The eye is essential. Without the eye, students can't read, can't learn, can't know. We must always give the eye care."



Ogden/International Trachoma Initiative

the precondition for the blinding form of trachoma. Other presentations included a study exploring systematic differences between schoolchildren and children who do not attend school and an update on best practices in mass drug administration.

Presentations on the third day of the review, under the theme of "faster," focused on increasing program efficiency. Zeinab Abdalla, Carter

Center program officer in Sudan, discussed preliminary findings from an ongoing study in Sudan looking at accelerating mass drug administration in districts where active trachoma is between 5–9 percent. A student from Emory University's Rollins School of Public Health presented findings from an impact survey in Nigeria following two years of mass drug administration. Lisa Dickman, Carter Center assistant

director, presented findings from a multicountry assessment of health education.

Meeting presentations showed that the national programs are making progress toward their elimination targets. Also, current operational research initiatives hold promise for improving future program delivery and assisting these national programs in meeting their goals.

# Trachoma



# River Blindness

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concluded that river blindness (onchocerciasis) could be eliminated in the Americas, but not in Africa. That is, with ongoing interventions, African victims could be spared the worst of the disease, but transmission of river blindness likely would persist. Now, owing in part to the Carter

Center's accomplishments in both Latin America and Africa using an accelerated treatment schedule of the medicine Mectizan,<sup>®</sup> donated by Merck, prevailing opinions have been transformed. Many experts now believe river blindness can be eliminated in Africa as well.

The Center is moving forward with an eight-year plan to interrupt river blindness transmission everywhere

the Center currently assists by 2020. The change in goals in Africa was due largely to decisions by the ministries of health in Ethiopia and Nigeria to aim for elimination of river blindness transmission, in coordination with activities to eliminate lymphatic filariasis.

As a result of this new focus, the Center's program will now be named the River Blindness Elimination Program.

**A**t its 17th Annual River Blindness Program Review, March 5–7, The Carter Center set a goal to help provide more than 20 million treatments in 2013 of the medicine that treats and prevents the disease, an increase of 40 percent. The

governments, this shift will require new assessments and enhanced interventions where transmission persists and in new areas where treatments have never been given. Treatments now will be administered twice or four times a year, rather than annually. Thus, the 2013 ultimate treatment goal for all Carter Center–assisted river blindness programs has grown to over 20 million, compared with 2012's 15 million.

Meeting participants also discussed the Carter Center's new collaboration with the Envision project, sponsored by U.S. Agency for International









**W**hen Catalina Garcia proclaims, “We’re going to take the streets of Patalul,” it isn’t a threat — or is it? Dressed as the black fly vector that spreads river blindness, she is surrounded by people in vests stamped “OEPA,” the Onchocerciasis Elimination Program for the Americas led by The Carter Center. Behind her are others dressed up as Mectizan® bottles who dance to a marching band, and up ahead is a superhero on stilts with “Mectizan” emblazoned on his chest, honoring the disease-fighting drug donated by Merck. People from seven districts in central Guatemala have come to celebrate the news that as of late 2011, river blindness transmission was interrupted.

Garcia is a member of a nonprofit artistic expression troupe called Caja Ludica — the “playful box.” OEPA worked with Caja Ludica to craft activities that would educate, engage, and inspire. A community collaboration, hundreds of locals — kids to seniors — participated in the events.

The two days of festivities in Patalul are more than a fiesta. They are a careful integration of health education activities called Art as a Bridge to Health. Alba Lucia Morales, OEPA’s health adviser, believes looking at the disease through a creative lens provides benefits beyond river blindness education. “You are also contributing to other tools for life, for community building, and for cooperation between different community health initiatives,” said Morales.

That cooperation is important as Guatemala undergoes three years of post-treatment surveillance before

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the disease can be declared eliminated. Dr. Mauricio Sauerbrey, director of OEPA, says keeping the message alive in once-endemic communities is critical. “We’ve recently stopped Mectizan drug delivery in this area,” said Sauerbrey, “but we have to keep the population alert in case there is a resurgence of the disease.”

Dr. Carlos Diaz, who coordinates Guatemala’s onchocerciasis elimination program, said others should take notice. “This celebration is an excellent mechanism and strategy — the playfulness and the art — to keep the attention of the people.”



Emily Staub

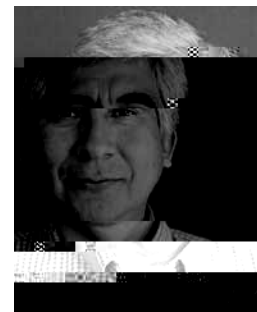


The playfulness and the art are catching the attention of other health programs. As street parades are bringing awareness to the Day of Nonviolence Against Women and World AIDS Day, it is clear that while onchocerciasis is no longer spreading in Guatemala, what might be spreading is the idea that art can bring communities together and improve health.

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**T**he Carter Center congratulates Dr. Alfredo Dominguez, senior epidemiologist at its Onchocerciasis Elimination Program for the Americas office in Guatemala, for receiving the 2012 Science Award from Mexico’s Chiapas state. The Chiapas governor, the Hon. Juan Sabines, presented the award to Dr. Dominguez during the annual InterAmerican Conference on Onchocerciasis on Nov. 22, 2012.

Dr. Dominguez, a native of Chiapas, won the award for his leadership in



the successful effort to interrupt the transmission of river blindness (onchocerciasis) there in 2011.

The fourth annual review of the Carter Center's Malaria Control Program was convened on March 8 in Atlanta, Ga. Ministry of health officials and the Center's field office staff in Ethiopia and Nigeria provided reports on their malaria control work (summarized below). Participants discussed program successes and challenges from 2012 and made recommendations for 2013. Attending the meeting were representatives from the Bill & Melinda Gates Foundation, PATH/MACEPA, the U.S. Centers for Disease Control and Prevention, International Public Health Advisors, Lions Club of Ethiopia, Malaria Foundation International, Emory University, Johns Hopkins University, Colby College, Tulane University, and the University of Notre Dame. Also present was Dr. Adetokunbo O. Lucas of Nigeria, who was recently awarded the Jimmy and Rosalynn Carter Humanitarian Award by the National Foundation for Infectious Diseases.

The agenda also included talks on historical and current examples of efforts to eliminate malaria at the national or subnational levels. Dr. Randall Packard of Johns Hopkins University and Dr. James Webb of Colby College, both historians of pub-

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# Global Health News

In May 2013, 1.8 million long-

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Mass Net Distribution in National Scale-Up Campaigns		
2010	Plateau	1,424,254
2011	Ebonyi	942,148
	Enugu	1,267,506
2012	Abia	710,530
	Imo	1,451,209
	Edo	1,157,307
2013	Delta	1,744,109*
Other Net Distribution: Operational Research, Small-Scale Distribution		
2004–2012	Plateau, Nasarawa, Imo, Ebonyi	623,009
● AL		9,420,072*

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