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From: WHO Collaborating Center for
Research, Training and Eradication of Dracunculiasis

Subject: GUINEA WORM WRAP-UP #144

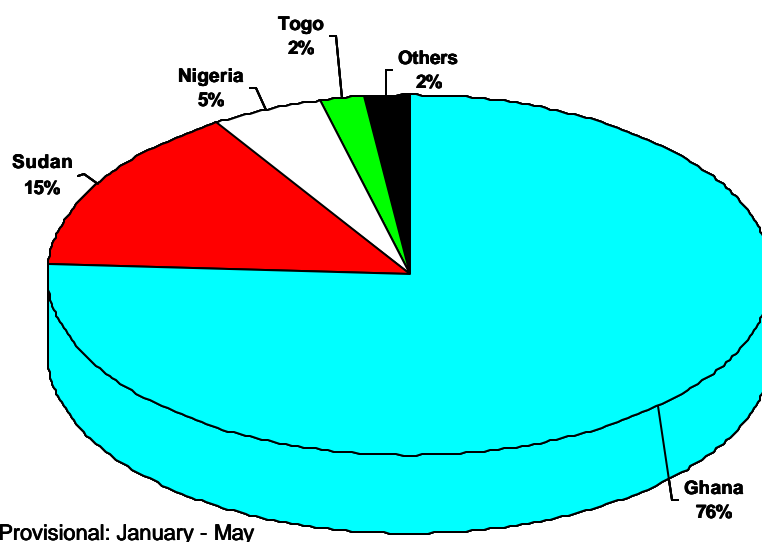
To: Addressees

SUDAN PEACE PROTOCOLS OPENING DOOR TO FINAL CAMPAIGN; DRACUNCULIASIS CASES DECLINING RAPIDLY

Seven days after ministers of health of the last 12 endemic countries and their partners signed the Geneva Declaration on May 19, pledging to complete the eradication of dracunculiasis within five years, momentum towards that goal received another big boost with the signings of the last remaining protocols needed to form the basis for a final comprehensive Peace Agreement between the two sides in Sudan's 21 year-old civil war. If, as expected, the peace protocols signed on May 26 and the previously agreed protocols lead to a final Peace Agreement in August, Sudan's Guinea Worm Eradication Program (SGWEP) should be able to start accessing the last strongholds of Guinea worm disease in southern Sudan during the next dry season, beginning in November 2004.

Figure 1

Distribution of 6,726 indigenous cases of dracunculiasis reported during 2004*



Echoing its birth during the nearly six month long "Guinea Worm Cease-Fire" in 1995, the SGWEP has already taken advantage of the cease-fire that was declared in October 2002 as part of the final political negotiations, by accessing more villages than ever in 2003. After the program distributed >700,000 cloth filters/year for 5 of the last 8 years plus >7 million pipe filters in 2001, and conducted >110,000 health education sessions in each of the past two years, the number of dracunculiasis cases reported from accessible areas of Sudan plummeted by a dramatic -51% and indigenous transmission was halted altogether in the northern states between 2002 and 2003. As the SGWEP implements an increasingly community-based intervention strategy, the numbers of reported cases continue to decline significantly so far in 2004, compared to the same period of 2003 (Table 1 and Figure 2).

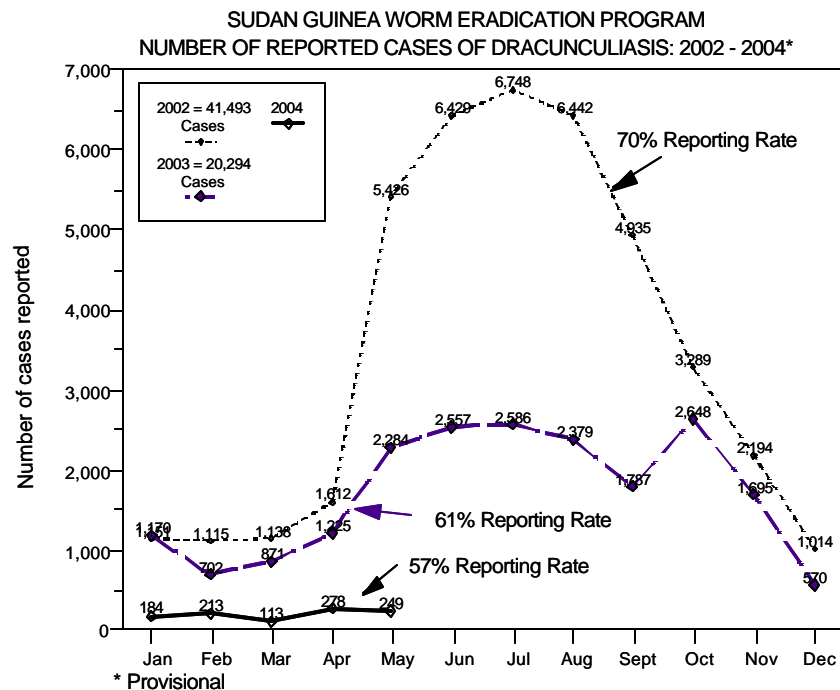
Preparations for the SGWEP in post-war Sudan have included extending health education and pipe and cloth filters to Sudanese refugees in neighboring countries and internally displaced Sudanese in camps inside Sudan. Post-war strategy includes giving geographic priority to the highest endemic areas, plus Akobo, Naita and Torit Districts (the latter three border districts because they pose the greatest threat of

exporting cases to Ethiopia, Kenya and Uganda), while placing programmatic priority on detecting and intervening immediately in new high endemic villages, as well as on collaborating with other compatible health and development efforts. As reported in an earlier issue, eradicating Guinea worm disease will be an engine of much broader development in post-war southern Sudan, catalyzing improvements in health, water supply, agriculture, education, surveillance and capacity building.

During January-May 2004 Sudan's Guinea Worm Eradication Program reported only 1,037 cases from the 3,484 known endemic villages (55% reporting rate), which is a reduction of -83% from the 6,252 cases reported in the same period of 2003 (71% reporting rate). Elimination of "incentives" for village-based health workers and some supervisors a year ago (causing lower reporting rate), more accurate reporting of cases in some areas (less over-reporting), and recent insecurity in some of the newly accessed areas (delayed or absent reports) explain some of the reported reduction in cases.

But actual reductions in transmission of dracunculiasis appear to be significant in much of the remaining endemic area that is already being accessed, and that accessible area is now larger than ever (nearly 9,000 villages). A Guinea worm trivia contest was broadcast by radio at the end of May for Upper Nile and Jongoli States as a part of GW mobilization days. The northern states of Sudan have reported no indigenous cases (and three cases imported from southern Sudan) in January-May 2004. As indicated in Figure 1, Sudan's share of reported cases of dracunculiasis is shrinking.

Figure 2



GHANA ACCELERATES PROVISION OF SAFE DRINKING WATER

As reported in *Guinea Worm Wrap-Up #143*, the Government of Ghana's Community Water and Sanitation Agency (CWSA) has begun drilling wells in endemic villages, using Highly Indebted Poor Countries (HIPC) funds allocated by the government from its 2002 and 2003 savings. By the end of May, this initiative had drilled 34 successful new boreholes in endemic villages of the Northern Region, 32 successful boreholes in Volta Region (25 of them in the country's highest endemic district, Nkwanta), and had also rehabilitated 17 old borehole wells in endemic villages of the Northern Region's Zabzugu-Tatale District (10th highest endemic district so far in 2004; 8th highest in 2003). Hand pumps for installation on these new wells were expected to arrive in June. The CWSA has targeted a total of over 250 new borehole wells for completion in endemic villages in 2004. The government has allocated a total of 34 billion cedis (~US\$2.8 million) for this activity.

With the sharp reduction in cases reported so far this year by Sudan, 76% of all reported cases in January-May 2004 are from Ghana (Figure 1). Of the four districts where Ghana's program discovered large outbreaks during 2003 (Nkwanta, Savelugu-Nanton, Kete-Krachi, Tolon-Kumbungu) and where reported cases have consequently increased by more than 100% so far in 2004, cases have begun to decline in

Nkwanta (outbreak discovered in February 2003; -37% in May-June 2004) and Savelugu-Nanton (outbreak discovered in April 2003; -23% in June 2004) Districts. The outbreaks in Kete-Krachi and Tolon-Kumbungu were discovered in June and December 2003, respectively. No large new outbreaks have been reported so far in 2004, but recent re-establishment of low level endemicity in Ashanti Region, which had been free of indigenous transmission for more than two years, underscores again the dangerous weakness in dracunculiasis surveillance in low and formerly endemic areas of Ghana.

NIGERIA: CASES DOWN, INTERVENTIONS UP

Nigeria has reported -68% fewer cases in January-June 2004 than in the same period of 2003 (357 vs. 1,109 cases), which is better than the -62% reduction in cases achieved between 2002 and 2003. As illustrated in Figure 2, Nigeria's recent dramatic reductions in cases coincided with strong advocacy by former head of state General (Dr.) Yakubu Gowon, increased coverage of endemic villages with cloth filters in every household, more endemic villages with at least one safe source of drinking water, and higher containment rates of reported cases. Since these key indices of interventions are even higher this year than they were in 2003, even greater reductions in cases may be expected in 2005. As of June 2004, Nigeria's program reported complete household filter coverage of 100% of its endemic villages, 72% of which had at least one safe source of water, and 85% of cases so far this year were reportedly contained. Nigeria reported 76% of its total cases of 2003 in the first half of that year, which suggests that Nigeria may report less than 500 cases for all of 2004!

General Gowon paid advocacy visits to Kebbi, Sokoto, Katsina, and Zamfara States from June 26 to 30. He was accompanied by representatives of the Federal and State Ministries of Health, UNICEF, the Yakubu Gowon Center, and The Carter Center. In addition to meeting with three governors and one deputy governor (Sokoto), the Nigerian former head of state and his team met with the Emir of Katsina, and the Emir of Kaura Namoda (in Zamfara). On June 14-26, Drs. Alhousseini Maiga, Ahmed Tayeh and Mr. A. Thomas from the World Health Organization (WHO) visited Nigeria to advise on strengthening surveillance in no longer endemic areas of the country. They visited over 80 formerly endemic villages, and received no reports of active cases in any of them. The team made several recommendations intended to help correct the main weakness of Nigeria's Guinea worm eradication effort, namely, inadequate surveillance in the large number of formerly endemic areas.

Figure 3

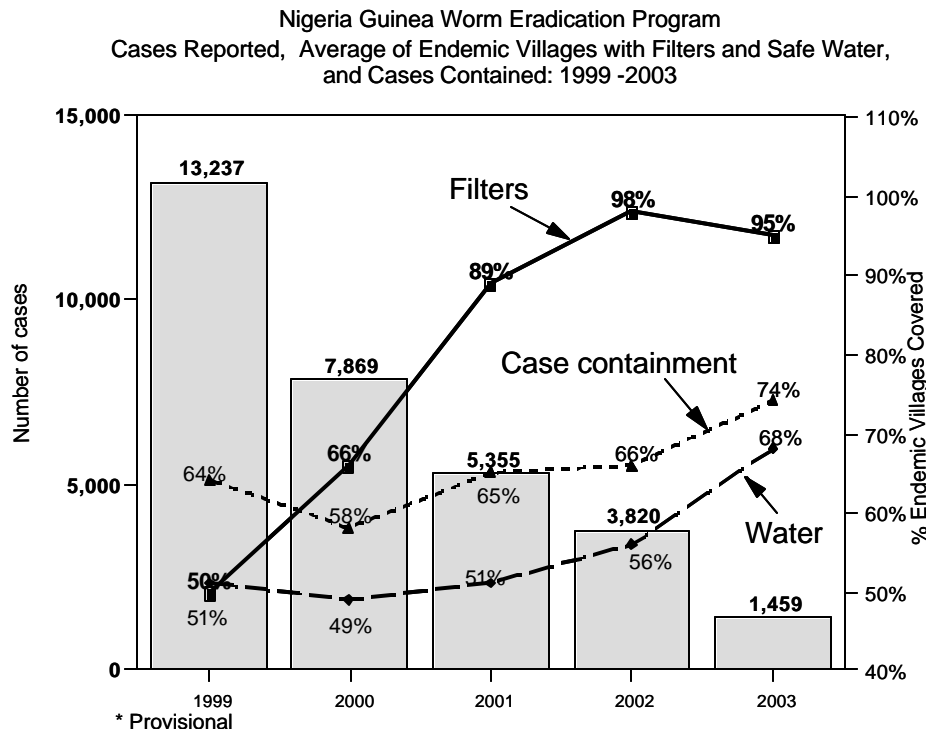
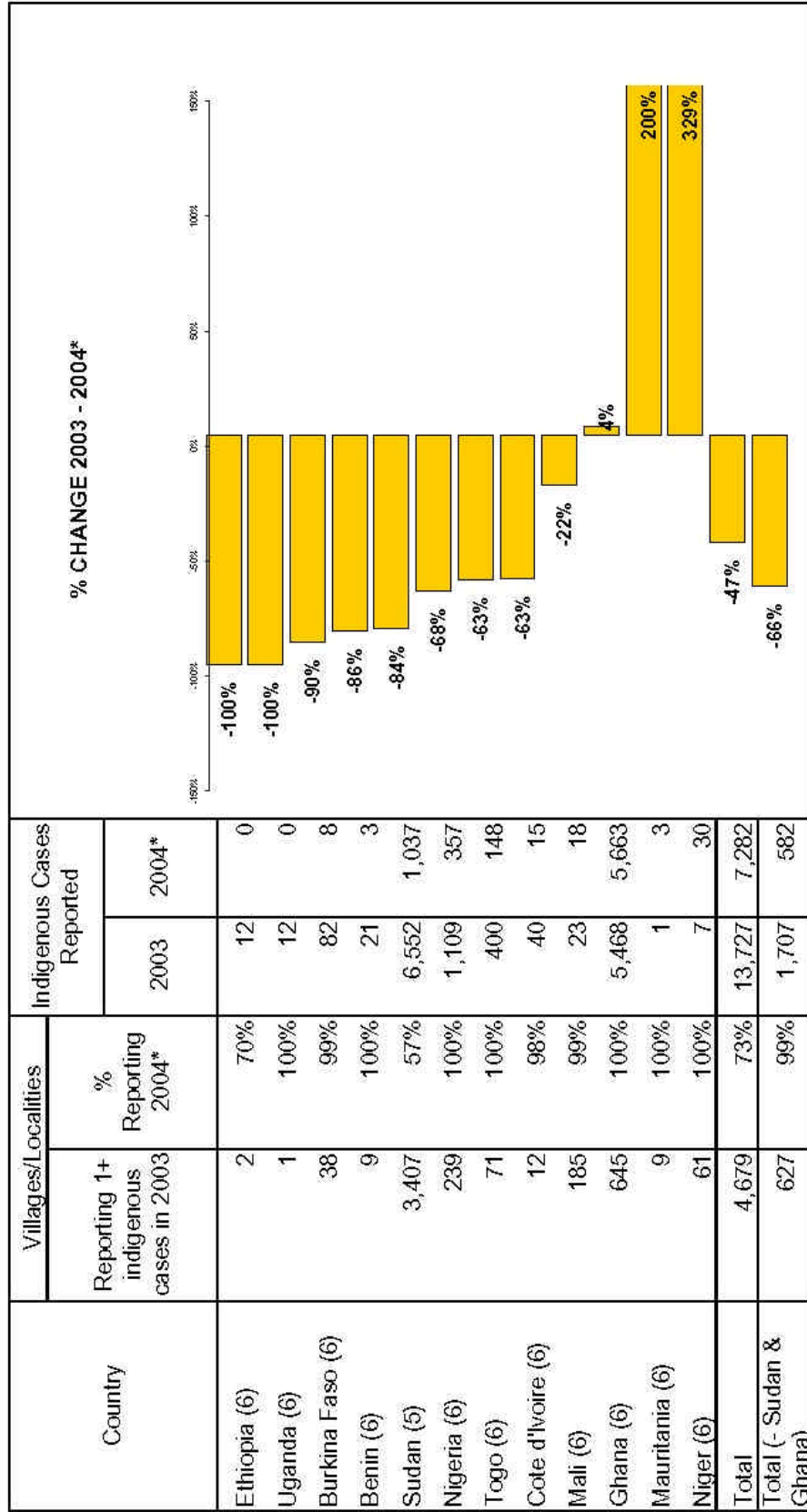


Figure 4
 Number of Villages/Localities Reporting Cases of Dracunculiasis in 2003, Percentage of Endemic Villages Reporting in 2004*, Number of Indigenous Cases Reported During the Specified Period in 2003 and 2004*, and Percent Change in Cases Reported



(5) Indicates months for which reports were received, i.e., Jan. - May, 2004

* Provisional

Table 1

NUMBER OF CASES CONTAINED AND NUMBER REPORTED BY MONTH FROM ALL COUNTRIES REPORTING CASES DURING 2009*
(COUNTRIES ARRANGED BY DESCENDING ORDER OF CASES REPORTED IN 2009)

COUNTRIES REPORTING CASES	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED												% CONTAINED	
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER		TOTAL*
SIERRA	33 / 184	44 / 238	31 / 115	38 / 273	49 / 249	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	195 / 1,637	79
GHANA	647 / 1,212	628 / 1,119	623 / 872	471 / 946	315 / 944	281 / 521	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	3,177 / 5,603	56
LIBERIA	81 / 101	64 / 73	40 / 48	25 / 51	35 / 49	31 / 35	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	304 / 357	86
GALLI	1 / 1	0 / 1	0 / 1	0 / 0	5 / 5	7 / 10	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	13 / 18	72
TOGO	35 / 46	30 / 29	18 / 46	12 / 31	17 / 20	15 / 25	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	132 / 184	64
NIGER	1 / 1	1 / 2	1 / 1	3 / 4	4 / 5	13 / 14	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	34 / 55	79
BURKINA FASO	1 / 1	1 / 2	0 / 0	2 / 2	3 / 5	3 / 3	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	11 / 15	86
COTE D'IVOIRE	1 / 2	3 / 6	9 / 4	1 / 4	1 / 1	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	6 / 16	38
SENEGAL	0 / 0	2 / 2	1 / 1	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	3 / 3	100
ETHIOPIA**	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	20 / 11	91
UGANDA	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1 / 1	100
HAUT VOLTA	1 / 1	0 / 0	0 / 0	0 / 0	0 / 0	2 / 2	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	5 / 5	100
TOTAL*	201 / 1,550	165 / 1,088	113 / 1,102	354 / 1,147	403 / 1,232	353 / 613	0 / 6	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	3,887 / 7,538	80
% CONTAINED	22	51	60	44	52	28							53	
% CONT. OUTSIDE AFRICA	5.6	61	63	53	40	58							59	

* PROVISIONAL

** Reports only from South Omo area, as new entry in Oromia Region has precluded interventions and reporting.

Shaded cells denote months when zero indigenous cases were reported. Non-shaded cells show many imported cases were reported and contained that month. For other imported cases see table of imported cases by month and by country.

TOGOLESE MINISTER OF HEALTH VISITS DJARAKPANGA



Togo's Minister of Health, Mme. Suzanne Aho, visited the endemic village of Djarakpanga on June 25th. Located in the northern district of Sotouboua, which is the country's highest endemic district, Djarakpanga was Togo's highest endemic village (reported 81 cases) in 2003. In the past few months, thirty villages (including 15 endemic villages) in this part of Sotouboua District received 42 new borehole wells, all of which are now functioning, with support provided by the Islamic Development Bank. Djarakpanga has reported only 3 cases in January-June 2004. The minister's visit was broadcast on the evening television news. During the same week of June 21, U.S. Ambassador Gregory Engel attended the final celebration to mark the completion of "Worm Week" in the second-highest endemic district: Haho. Togo's Guinea Worm Eradication Program has arranged for six radio stations to broadcast messages about Guinea worm disease in the five most endemic districts; seven lesser endemic districts were already being covered by radio messages. During January-June 2004, Togo's six districts with case containment centers reported average reductions in cases of -73% (range: -100% to -17%) compared to the same period of 2003, while the twelve endemic districts without case containment centers reported -42% fewer cases (range: -69% to +55%). With -63% fewer cases reported in the first half of 2004, Togo is poised to report a total of less than 500 cases this year for the first time. So far, 36 of the cases reported by Togo this year were imported from Ghana.

NIGER MINISTER OF HEALTH VISITS TUAREGS IN ENDEMIC LOCALITIES



Niger's Minister of Health, Dr. M. Sourghia, participated in social mobilization efforts among the Tuareg population in endemic localities of Tillabery District in early July. The minister also opened the cross-border meeting held at Ayerou, Niger on July 6-7 between senior Guinea worm eradication officials from Niger, Mali and Burkina Faso. The minister visited the village of Tounkouss to meet with the tribal chief, and with group ("fraction") leaders from Swane area of Tillaberi District. The tribal chief, who is a resident of Tounkouss, is responsible for four of the most endemic localities in Tillaberi, including the localities of Erkou and Falala, which have reported 15 and 11 cases, respectively so far during 2004. This year's Worm Week in Tillabery District was held in early June, with the help of Scouts of Niger (a part of the international scouting movement), who formed 15 teams for work in the highest endemic areas of the district as reported in 2003. These energetic scouts are continuing to work in the endemic villages and hamlets, using photographic flip charts (*pagivolts*) developed by Japanese Overseas Cooperation Volunteers (JOCV) in Niger. Tillabery District, which reported 64% of Niger's cases in 2003, has experienced increased insecurity in some areas in recent weeks.

VOLUNTEERS ASSEMBLE 30,000 MEDICAL KITS FOR GHANA, NIGERIA & SUDAN

Johnson & Johnson



More than 300 corporate volunteers and members of the diplomatic community in Atlanta joined Carter Center staff on July 13-30 to assemble 30,000 medical kits for the Guinea Worm Eradication Programs of Ghana, Nigeria and Sudan. As reported in the previous issue of *Guinea Worm Wrap-Up*, Johnson & Johnson donated the medical supplies in the kits. The kits will be distributed to volunteer health workers in the three most endemic countries. Each kit will allow volunteers to care for ten persons with dracunculiasis, as part of case containment efforts. In Sudan, the medical supplies will supplement and help replace the contents of kits that were recently distributed from the Norwegian medical students' Humanitarian Action Campaign of 2003.

Organizations that provided donations of volunteers to support the Herculean effort of assembling the medical kits include: Atlanta Bread Company Airport-Atrium, LLC; BellSouth Corporation; British Consulate General; The Carter Center; Centers for Disease Control and Prevention; Chick-fil-A, Inc.; The

Coca-Cola Company; Consulate General of Canada; Consulate General of France; Consulate General of Japan; Delta Air Lines; Dekalb Medical Center's Cancer Survivors Group; EndosPromo, LLC; Health Students Taking Action Together; The Home Depot, Inc; ING; Johnson & Johnson; Kimberly-Clark Corporation/Kimberly-Clark Health Care; Krispy Kreme Doughnuts; Netherlands Foreign Investment Agency; Proof of the Pudding; RARE Hospitality International, Inc./Longhorn Steakhouse; Rollins School of Public Health of Emory University; Selig Enterprises; Southern Company; Sudan Lost Boys Foundation; Theragenics Corporation; Ulster Project-Atlanta; UPS and WSB-TV. Written on one of the hundreds of cartons with assembled kits was the message: "Packed with love".

IN BRIEF:



Uganda has reported no indigenous cases of dracunculiasis since July 2003. Dr. Ahmed Tayeh of WHO's Geneva Headquarters recently visited to help investigate a suspected case, which was not Guinea worm disease, in a non-endemic village of Kotido District.



Burkina Faso reported only one indigenous case and two cases imported from Mali in June 2004. This is evidence of the extremely effective control measures that the program implemented in response to the outbreak of 33 cases in the village of Ribilou, Kaya District in June 2003 (62 cases reported nationwide that month). Although only 3 of the 33 cases reported from Ribilou were contained, the GWEP interrupted transmission from these cases by promptly treating all 8 unsafe sources of drinking water in Ribilou with ABATE® larvicide "Worm Week" was held in the Tin Agadel area of Gorom Gorom District in June 2004. Burkina appears to be on track to report fewer than 100 cases for the first time this year.



Ethiopia. The Carter Center recently provided 90,000 pipe filters requested by the office of the United Nations High Commission for Refugees in Ethiopia for distribution to Sudanese refugees with appropriate training in use of the pipe filters as well as other health education about prevention of dracunculiasis.

MEETINGS

The 49th Meeting of the Interagency Coordinating Group for Dracunculiasis Eradication met at the headquarters of UNICEF in New York City on July 15. UNICEF Deputy Director Mr. Kul Gautam opened the meeting, which was chaired by Ms. Vanessa Tobin of UNICEF, and also included participants from WHO headquarters, The World Bank, The Carter Center, and CDC. Participants discussed the latest information on the status of the disease and of the eradication campaign, strategies for addressing various problems, preparations for Program Reviews later this year, and potential venues for the annual meeting of program managers in 2005. The next meeting will be held in association with the Program Review for Sudan in Nairobi in October. A brief meeting of the Gates Guinea Worm Committee was also held following adjournment of the Interagency Group meeting, to consider proposals from WHO and UNICEF for funding from the Contingency Fund of the grant from the Bill & Melinda Gates Foundation for Guinea Worm Eradication. Two grants to help support WHO's assistance to selected countries for strengthening surveillance in formerly endemic areas (\$434,000) and UNICEF'S rapid assistance to provision of safe water supplies in targeted endemic villages of Togo, Mali, and Niger by the end of 2005 (\$845,000) were approved.

The schedule for Program Reviews is as follows:

Ghana: August 16-17 in Accra

Francophone countries: August 18-20 in Accra

Sudan: October 5-6 in Nairobi

Nigeria: October 11-12 in Jos

Ethiopia and Uganda: November in Kampala

RECENT PUBLICATIONS

World Health Organization, 2004. Dracunculiasis eradication: Geneva Declaration on Guinea-worm eradication, Geneva, 2004. Wkly Epidemiol Rec 79:234-235.

*Inclusion of information in the Guinea Worm Wrap-Up does not
constitute "publication" of that information.
In memory of BOB KAISER.*

For information about the GW Wrap-Up, contact Dr. James H. Maguire, Director, WHO Collaborating Center for Research, Training, and Eradication of Dracunculiasis, NCID, Centers for Disease Control and Prevention, F-22, 4770 Buford Highway, NE, Atlanta, GA 30341-3724, U.S.A. FAX: 770-488-7761. The GW Wrap-Up web location is <http://www.cdc.gov/ncidod/dpd/parasites/guineaworm/default.htm>.



CDC is the WHO Collaborating Center for Research, Training, and Eradication of Dracunculiasis.