



Date: July 14, 1999

From:



WHO Collaborating Center for
Research, Training and Eradication of Dracunculiasis

Subject:

GUINEA WORM WRAP-UP #92

To: Addressees

Detect Every Case, Contain Every Worm!

NIGERIAN GOVERNMENT DONATES \$1 MILLION FOR GUINEA WORM ERADICATION



The Federal Government of Nigeria has donated US\$1 million to The Carter Center for Guinea worm eradication. The funds are to be used over the next two years to help complete eradication of dracunculiasis in Nigeria. The award was made at the request of former Nigerian Head of State, General Abdulsalam Abubakar and his successor, President Olusegun Obasanjo in



response to an appeal by former United States President Jimmy Carter on behalf of Global 2000/The Carter Center.

This award is the second such substantial funding provided by the Government of Nigeria for eradication of dracunculiasis. Ten years ago, then Nigerian Head of State General Ibrahim Babangida donated \$1 million to the campaign during the International Donors Conference for Dracunculiasis Eradication, which was held in Lagos, Nigeria on July 31, 1989. The grant by the Government of Nigeria in 1989 is part of the approximately \$9 million which was mobilized in 1988-1998 for the Nigerian Guinea Worm Eradication Program (NIGEP) by the Global 2000 Program of The Carter Center (not including costs associated with Resident Technical Advisors, who have provided full-time technical assistance to NIGEP since 1988). The 9 million dollars also includes over \$1 million in vehicles donated by the Government of Japan in 1991, and more than \$4 million of donated nylon filter material provided by the DuPont Corporation and Precision Fabrics Group. UNICEF and WHO have also provided major external assistance to the program during this period. With the recent involvement of former Nigerian Head of State General (Dr.) Yakubu Gowon in the campaign (see Wrap-Up #91), and provision of grants by the Embassy of Japan (see Wrap-Up #88), this additional funding by the Government of Nigeria will help to assure that village-based health workers in endemic villages receive the supervision and other support which they need in order to conduct active surveillance, contain cases, and stop transmission of dracunculiasis in Nigeria by the end of 2000.

Nigeria has reported 4% fewer cases in June 1999 (1,420) as compared to June 1998 (1,484) (Table 1). Reductions of 24%, 38% and 56% in the Northeast, Southeast, and Southwest Zones were offset by an increase of 19% in cases in Northwest Zone in comparison with June 1998. Seventy-seven percent (77%) of this June's cases were reportedly contained. Mr. Michael Kinzer and Ms. Holly Chaney, consultants provided by Global 2000, have arrived in Nigeria to assist the programs in Northwest and Northeast Zones, respectively, during their peak transmission seasons.

NIGER MINISTER OF HEALTH VISITS ZINDER, ISSUES "BAOUCHERI APPEAL"



Republic of Niger

On July 12- 13, the Minister of Health of Niger, M. Maman Sani Malan Maman led a social mobilization visit to the Region of Zinder, which reported the second-highest number of cases of dracunculiasis in Niger in 1998 (850 of 2,700 cases), after Tillibery Region. The minister was accompanied by national directors of the ministry of health, Mr. Horiuchi Yoshio representative of the Japan International Cooperation Agency (JICA), the national coordinator Mr. Sadi Moussa, and Global 2000 resident technical advisor Mr. M. Salissou Kane. In

Zinder, the minister was briefed on the state of dracunculiasis eradication at global, national and regional levels by national and regional officials of the program, and representatives of Global 2000 and U.S. Peace Corps.

The minister and his delegation visited two endemic villages which have received assistance from the Government of Japan for drilling borehole wells. The minister also attended a health education session held in a market by a Peace Corps Volunteer and his Nigerian counterpart, as well as a slide show that was presented by Japanese Volunteers in support of the Zinder Guinea worm health education program. On the final afternoon of his visit, during an important meeting held in the endemic village of Baoucheri, in Mirria District, the minister issued a “Baoucheri Appeal” (L’Appel de Baoucheri): “Consequently, from the village of BAOUCHERI, I launch a vibrant call towards health workers, hydrologists, valiant community workers, associations, non-governmental organizations, partners in development, administrative and traditional authorities and populations, to join their efforts for the final assault.”

The minister’s successful visit was broadcast widely on national television, and on local, national and foreign radio networks.

LESS EXPENSIVE FILTER DESIGN

Donations of nylon cloth by DuPont Corporation and Precision Fabrics Group to The Carter Center ended in December 1997. Up to that time, national Guinea worm eradication programs had distributed filters, mostly made entirely of donated nylon cloth, at little or no cost to the programs. Since 1998, all national eradication programs or their supporters have had to purchase the nylon cloth from commercial vendors at approximately US \$4 per square meter (including air shipment costs). However, many national programs continue to make filters made entirely of nylon cloth measuring 18-20 inches (45-50 centimeters) in diameter which, at current wholesale prices, cost approximately US \$1.00 each, not including the costs of sewing a hem and providing a draw string (cinch) to make the filter user-friendly. Only about 4 such filters can be made from a square meter of nylon cloth.

Figure 2 shows a filter design which substantially reduces the cost of each filter and permits about a 10-fold increase in the number of filters which can be made from each square meter of nylon cloth purchased. The key to cost savings is the use of a 6 x 6 inch (15 x 15 centimeters) piece of nylon cloth (costing about US \$0.10), sewn to a round piece of cotton cloth by two rows of stitching to ensure the integrity and durability of the seam. Approximately 40 pieces of nylon cloth (6 x 6 inches; 15 x 15 centimeters) can be obtained from each square meter of nylon cloth, instead of only about 4 if a filter this size were to be made entirely of nylon cloth. Cotton muslin, i.e., a type of “gray baft”, or if affordable, some other higher quality cotton cloth can be used.

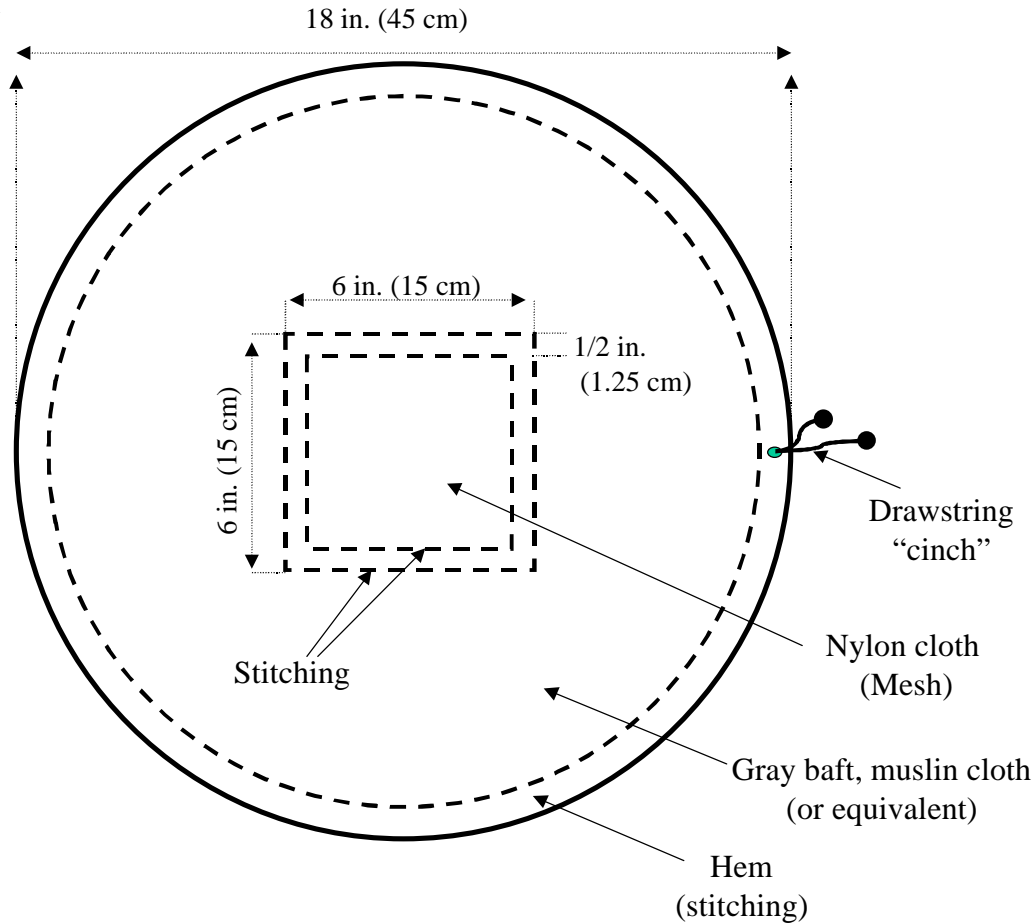
Based on actual cost of manufacturing this filter design in Ghana and Nigeria, national programs can make savings of 40 - 65% in the cost of each filter.

Component	Approximate Cost in US \$ per filter	
	Ghana	Nigeria
Nylon Cloth (6 x 6 inches)	0.10	0.11
Cotton Cloth Gray Baft	0.20	0.15
Sewing	0.20	0.10
Draw String (Cinch)	<u>0.02</u>	<u>0.02*</u>
Total	\$0.52	\$0.38

* Cost not provided, but assumed to be similar to that in Ghana.

The concept of this filter design is not new, as similar ones using larger pieces of nylon cloth than recommended here have been used in Benin, Ghana and Togo during the eradication campaign. The design is user-friendly, does not reduce the rate of filtration, and one size can fit over many types/sizes of water storage vessels. Moreover, the Guinea worm program logo can be stamped on one side of the cotton cloth to facilitate teaching persons how to use the filter, particularly how to back-wash it.

Figure 1



GOVERNMENT OF THE NETHERLANDS RENEWS SUPPORT FOR SUDAN



The First Secretary of the Embassy of the Government of the Netherlands in Khartoum has informed The Carter Center's representative in Khartoum that the Netherlands will provide an additional \$250,000 grant in 1999-2000 to The Carter Center in support of the latter's work to help eradicate dracunculiasis in Sudan. This is a renewal of previous annual grants made by the Government of the Netherlands to The Carter Center for the same purpose. Since the "Guinea Worm cease-fire" in 1995, the Government of the Netherlands has been a major and consistent supporter of the eradication effort.

The ten northern states of Sudan, which are aiming to stop transmission of dracunculiasis by December 1999, have reported 67% fewer cases in January-May 1999 (32 cases) than in the same period of 1998 (103 cases). Twenty-one (21) of the 32 cases in 1999 were imported from areas of southern Sudan, but it is not known how many of the 1998 cases were imported, if any. Of the 32 cases so far this year, 26 (81%) were reportedly contained.

CDC DONATES NYLON FILTER MATERIAL



As a part of its continued commitment to dracunculiasis eradication, CDC (Centers for Disease Control and Prevention) has purchased approximately 22,000 square yards of nylon filter material (~\$87,000), which has been allocated to the program in Ghana.

Table 1

**Number of cases contained and number reported by month during 1999*
(Countries arranged in descending order of cases in 1998)**

COUNTRY	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													CONT.
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	
SUDAN	1066 / 2159	1425 / 2588	1229 / 2183	1030 / 1983	1258 / 2676	/	/	/	/	/	/	/	6008 / 11589	52
NIGERIA	596 / 1358	752 / 1432	902 / 1131	887 / 1111	1112 / 1369	1097 / 1420	/	/	/	/	/	/	5346 / 7821	68
GHANA	921 / 1140	616 / 1139	546 / 1000	450 / 771	378 / 650	/	/	/	/	/	/	/	2911 / 4700	62
NIGER	2 / 2	3 / 3	2 / 2	5 / 5	35 / 41	149 / 265	/	/	/	/	/	/	196 / 318	62
BURKINA FASO	1 / 1	0 / 2	2 / 5	5 / 32	56 / 70	/	/	/	/	/	/	/	64 / 110	58
TOGO	87 / 102	57 / 84	15 / 28	32 / 34	48 / 71	55 / 66	/	/	/	/	/	/	294 / 385	76
COTE D'IVOIRE	58 / 58	32 / 43	31 / 33	16 / 28	36 / 39	32 / 49	/	/	/	/	/	/	205 / 250	82
UGANDA	3 / 6	7 / 7	7 / 7	20 / 21	65 / 70	99 / 102	/	/	/	/	/	/	201 / 213	94
BENIN	84 / 88	22 / 27	14 / 15	9 / 9	11 / 12	2 / 3	/	/	/	/	/	/	142 / 154	92
MALI	1 / 2	2 / 2	3 / 3	2 / 2	10 / 14	/	/	/	/	/	/	/	18 / 23	78
MAURITANIA	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	/	0 / 0	
ETHIOPIA	0 / 0	0 / 0	5 / 5	14 / 15	38 / 42	68 / 68	/	/	/	/	/	/	125 / 130	96
CHAD	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	0 / 0	
CAMEROON**	1 / 1	0 / 0	0 / 0	/	/	/	/	/	/	/	/	/	1 / 1	100
C.A.R. ***	/	/	/	/ 4	/	/	/	/	/	/	/	/	0 / 4	0
TOTAL*	2820 / 4917	2916 / 5327	2756 / 4412	2470 / 4011	3047 / 5054	1502 / 1973	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	15511 / 25694	60
% CONTAINED	57	55	62	62	60	76							60	

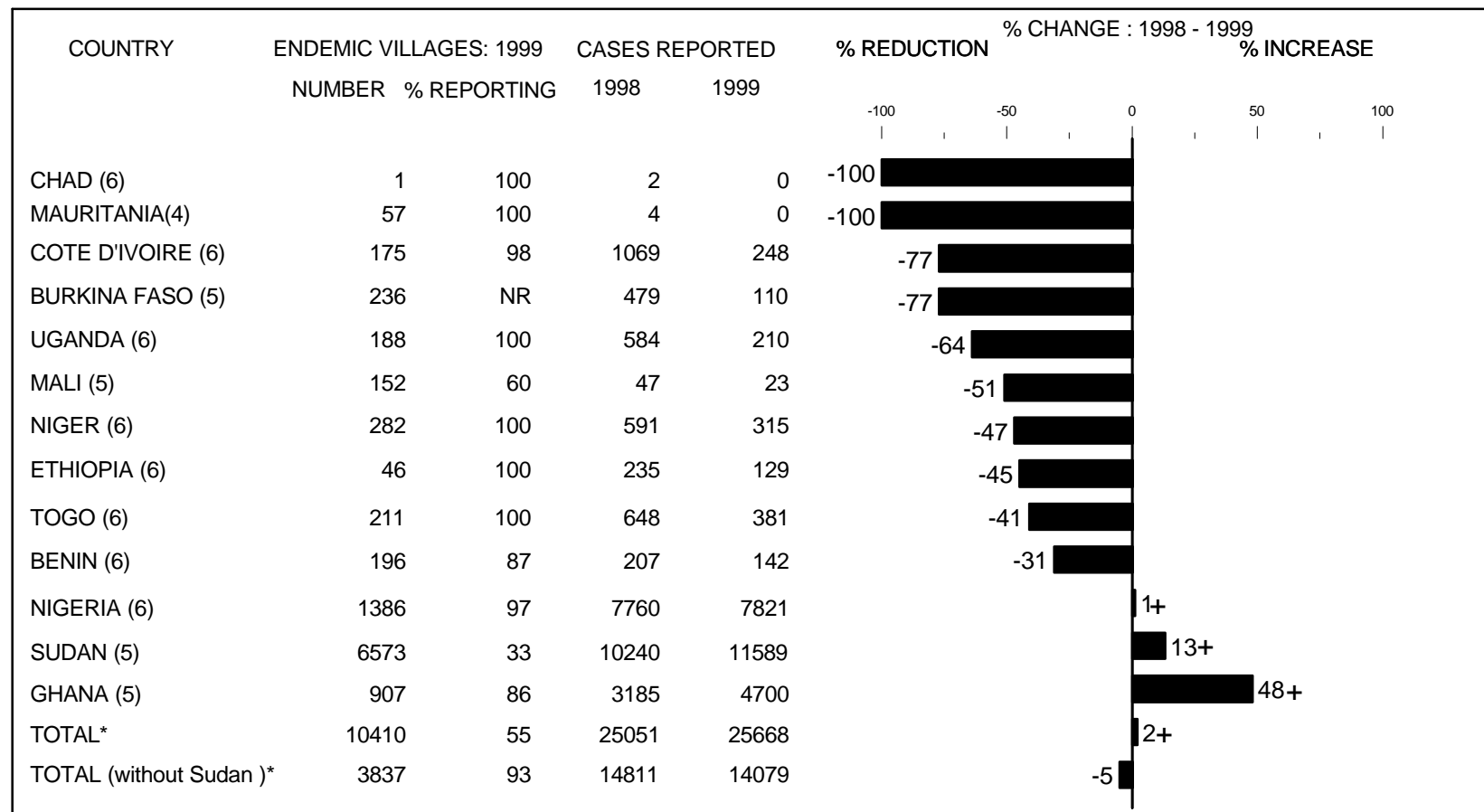
* Provisional

** Cameroon reported one case imported from Nigeria during January.

*** Central African Republic reported 4 alleged (unconfirmed) cases of dracunculiasis for the period January - April, 1999. These cases are not included in the totals.

Figure 2

Percentage of Endemic Villages Reporting and Percentage Change in Number of Indigenous Cases of Dracunculiasis During 1998 and 1999 *, by Country



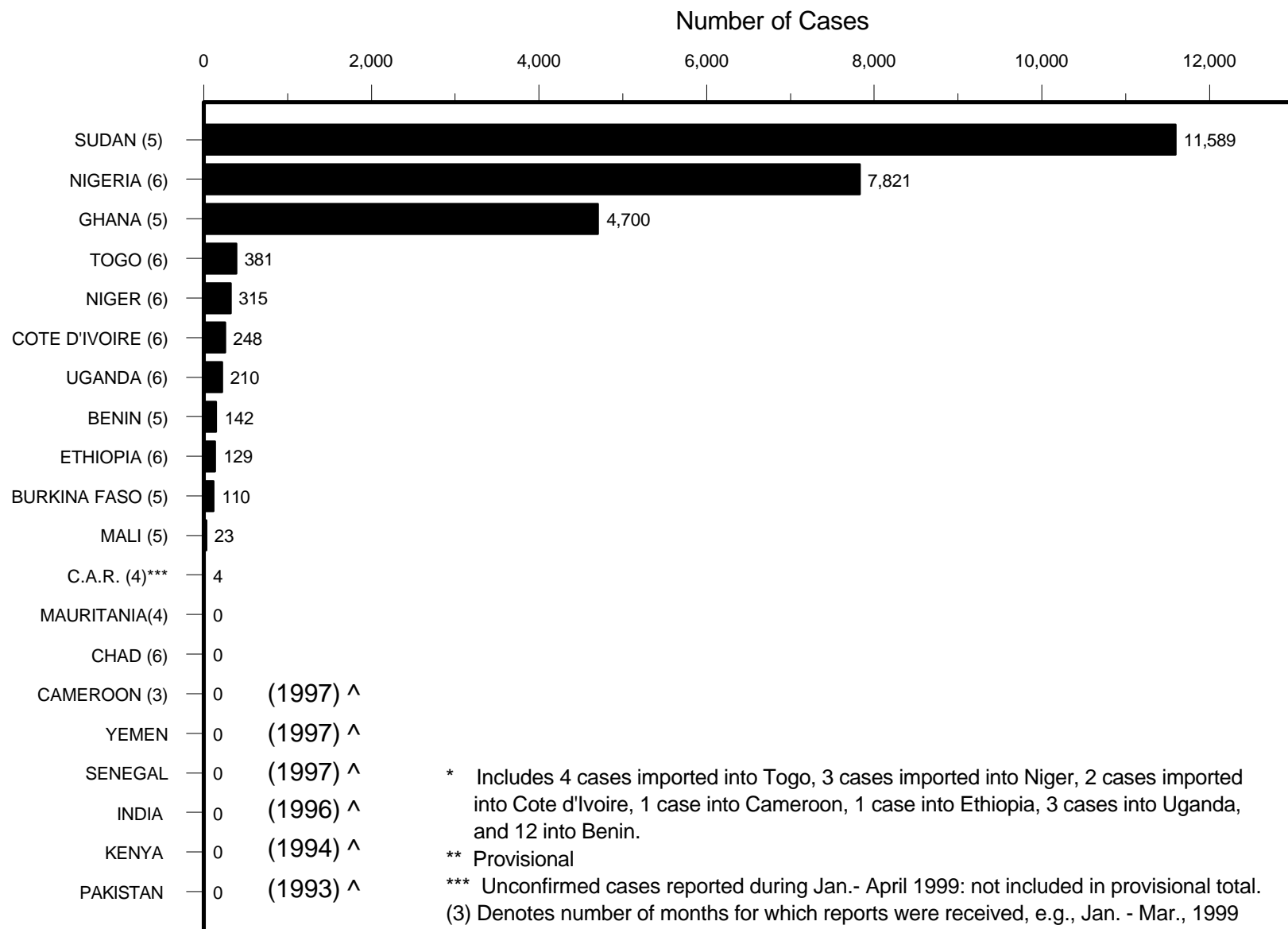
* Provisional. Totals do not include imported cases.

(5) Denotes number of months for which reports were received, e.g., Jan. - May, 1999

NR Countries with unknown or low rate of reporting.

Figure 3

Distribution by Country of 25,694* Cases of Dracunculiasis Reported: January - June 1999**



* Includes 4 cases imported into Togo, 3 cases imported into Niger, 2 cases imported into Cote d'Ivoire, 1 case into Cameroon, 1 case into Ethiopia, 3 cases into Uganda, and 12 into Benin.

** Provisional

*** Unconfirmed cases reported during Jan.- April 1999: not included in provisional total.

(3) Denotes number of months for which reports were received, e.g., Jan. - Mar., 1999

^ Year last indigenous case reported.

DRACUNCULIASIS UNLIKELY TO OCCUR IN LIBYA



At the request of Libya's Government an International Certification Team (ICT) visited areas of the country during February 1999 that were formerly endemic for Guinea worm disease.

Cases of dracunculiasis had been reported in 1993 in the Nafusah Highlands, Sabha and Murzuq which are important gateways to Libya for people traveling from sub-Saharan Africa. In addition Al Kofrah is located on a major route for migrants from neighboring Sudan. In each of these areas the team visited the health facilities, collected information on the health system and communicable disease surveillance, and evaluated the water supply system. Almost all villages have a health facility run by a medical doctor who reports to the Ministry of Health on a monthly basis. Generally, the reporting is done regularly and timely. Safe drinking water is available to almost each household through piped water. In Libya all immigrants are screened and a medical record is established for each of them.

The team concluded that reintroduction of the parasite and establishment of the transmission cycle is unlikely in Libya. The ICT will report its detailed findings to the international Commission for the Certification of Dracunculiasis Eradication at its next meeting in WHO Headquarters.

IN BRIEF:

Benin. US\$20,000 have been allocated to the Guinea Worm Eradication Program (GWEP) by WHO to evaluate the Guinea Worm comic book developed in Geneva by the Dracunculiasis Eradication Team. The evaluation will take place in schools in Zou, Atlantique, Mono and Ouémé Departments. The funds will also permit the distribution of filters in the households of the young students.

Ten of the 12 cases reported from Benin in May 1999 were imported from Togo into Zou Department (Table 2). Only two cases, reported from Mono Department, were indigenous. In May 1998, Benin reported a total of 26 indigenous cases, 13 of which were in Zou. Benin reports only 3 cases in June 1999. **Getting close!**

Burkina Faso. Emergency funding of US\$ 5,000 has been provided to the GWEP by the WHO Dracunculiasis Eradication Team to support the logistics for the application of Abate during the transmission season.

Côte d'Ivoire. Global 2000 has provided a grant of \$14,400 for support of Abate treatment teams, \$3,500 for repair of a vehicle, and purchased 2000 square yards of additional nylon filter material (about \$8, 000).

Ethiopia. Dr. Michael Kramer of CDC began a one month consultation in South Omo in mid-July. This follows earlier consultations to Gambella in April/June by Dr. Jason Weisfeld on behalf of Global 2000 and Dr. Rachel Barwick of CDC. The Ethiopian health workers recently sent into Naï ta report that four local health promoters are working in the area, and are being supplied from The Carter Center sub-office in Lokichokio, Kenya via the Diocese of Torit in Eastern Equatoria, Sudan. All 16 cases detected in Naï ta in April and May were reportedly contained.

Ghana. On July 1st, Mr. Emmanuel Puplambu replaced Mr. Keith Hackett as Global 2000's Resident Technical Advisor in Ghana. Mr. Puplambu, who is a Ghanaian-born U.S. citizen, holds a Masters Degree in Administration with concentration in public health. He is on loan to Global 2000 from CDC, where he has worked as a public health advisor since 1991. Mr. Puplambu had previously consulted with Guinea Worm Eradication Programs in Ghana, Mauritania, and Nigeria on behalf of Global 2000. In separate letters, Ghanaian Minister of Health the Honorable Samuel Nuamah Donkor expressed his ministry's "sincere thanks and gratitude" for Mr. Hackett's "effort and devotion", and warmly welcomed Mr. Puplambu as a "son of the soil". Mr. Hackett returned to the United States to pursue further graduate studies.

Mauritania. The WHO Dracunculiasis Eradication Team has agreed to provide US\$20,000 to the GWEP to enhance surveillance and reinforce its Village Volunteer training and re-training. Part of the funds will also serve to perform a survey to assess the dracunculiasis transmission levels among the nomadic population.

MEETINGS

The 38th Meeting of the Interagency Coordinating Group for Dracunculiasis Eradication will be held on August 26, 1999 at The Carter Center.

RECENT PUBLICATIONS

Mann J, 1999. Seeking total victory over a terrible disease. The Washington Post. June 30, p. C15.

Table 2

Dracunculiasis Eradication Campaign Reported Importations of Cases of Dracunculiasis: 1999

From	To	Cases			
		Month	Number	Contained	Notified*
Benin	Togo	January	1	?	1
		February	1	1	1
Burkina Faso	Niger	May	3	?	3
	Cote d'Ivoire	June	1	0	?
Ghana	Togo	January	2	2	?
	Cote d'Ivoire	January	1	0	1
Nigeria	Cameroon	January	1	1	1
Sudan	Ethiopia	January	1	1	1
		January	1	1	1
	Uganda	April	1	1	1
		June	1	1	1
Togo	Benin	January	1	0	1
		February	1	0	1
		May	10	3	10
Total			26	11	23

* Notified to country of origin through WHO.

*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 Trenton K. Ruebush, MD, 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) 488-4532.

The GW Wrap-Up is also available on the web at http://www.cdc.gov/ncidod/dpd/list_drc.htm.



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