

Date April 10, 1998

From

То



Who Collaborating Center Research, Training and Eradicatio of Dracunculiasis

SubjectGUINEA WORM WORM WRAP #77

Addresses

# Detect Every Case, Contain Every Worm!

## CARTER, TOURE ELECTRIFY SEVENTH AFRICAN REGIONAL CONFERENCE





Conference on Dracunculiasis Eradication at the Palais des Congres in Bamako, Mali, on March 31-April 3, 1998 were treated to stirring addresses at the Closing Ceremony by <u>former U.S. President Jimmy Carter</u> and

former Malian Head of State General Amadou Toumani Touré. President Carter warned against the dangers of complacency and premature celebration, and congratulated national coordinators on their successes so far. He announced significant new contri-butions to the eradication program by the Government of Japan (\$2.5 million), by a private citizen (<u>Mr. Henry McConnon</u>, \$0.5 million), and by several other governments through the special World Bank Trust Fund that was established for that purpose lastyear. General Touré noted that "enthusiasm is contagious", stressed the importance of the desire to win, and expressed his confidence that we shall win. He then issued a "direct order", commanding all

concerned to maintain pressure on the disease wherever it still exists during the final assault being launched at this conference, and to remain resolute in our determination to conclude the eradication campaign successfully and rapidly. The <u>Prime Minister of Mali, Ibrahim Boubacar Keïta</u>, presided on behalf of the head of state at the Opening Ceremony, while the <u>Minister of Energy and Mines, Yoro</u> <u>Diakité</u>, represented the head of state at the Closing Ceremony.

All affected African countries except Kenya were represented at the conference, which was co-sponsored by the Government of Mali, WHO, UNICEF, The Carter Center/Global 2000, and CDC. National programs also contributed to an extensive exhibition of artifacts from the campaign, including many types of monofilament filters, reporting forms, posters, T-shirts, and several examples of "Guinea worm cloth" that were displayed at the meeting. The conference featured workgroups on case detection and case containment among nomadic populations and in small hamlets, in addition to reports from each of the endemic countries represented. There was a general consensus that programs and their partners should mobilize and aim to stop transmission in all remaining areas outside of Sudan within the next two years. The Recommendations of the Conference are listed on page 12 in this issue. The final surveillance data for 1997 are summarized in Tables 1, 2, and 3 and Figures 1, 2 and 3. Provisional data for 1998 are given in Table 4 and Figure 4. This meeting attracted the most extensive media coverage of any such Conference on dracunculiasis, including coverage of the Closing Ceremony by CNN. Also, U.S. Peace Corps had a larger delegation than ever before at this conference (see page 9).





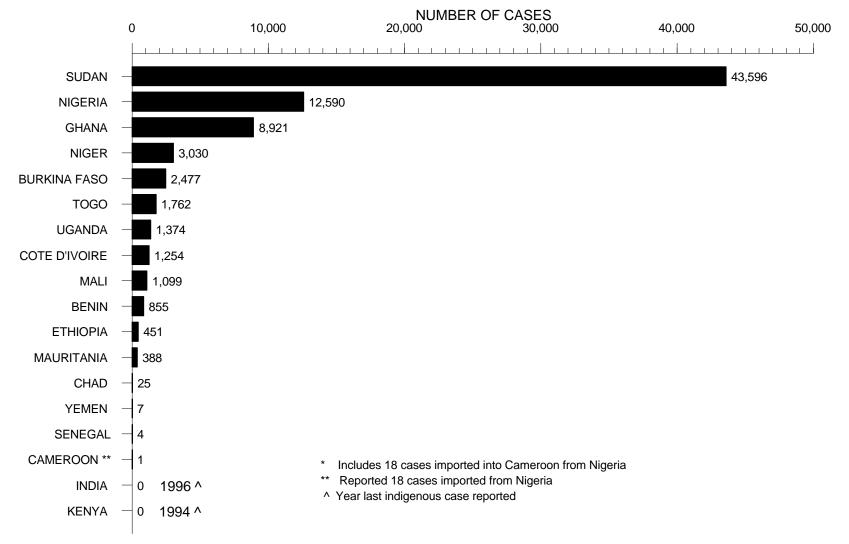
## NUMBER OF CASES CONTAINED AND NUMBER REPORTED BY MONTH DURING 1997\* (COUNTRIES ARRANGED IN DESCENDING ORDER OF CASES IN 1996)

	#														
COUNTRY	OF		NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED												
	CASES														%
	IN 1996	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	CONT.
		1965	862	5603	2621	3264	1969	2089	1785	1544	1037	894	400	24033	
SUDAN	118578	3595	1340	8850 972	7046	7315	2717	2689	3179	2670	1814	1562	819 619	43596 10380	55
NUCERIA	10000	/	/	/	/ 918	/	/	/ 1650	/	/	/	/	/	/	
NIGERIA	12282	1211 1498	1425 1182	1117 904	680	1113 583	1478 272	194	1220 73	625 53	401	766 422	666 605	12590 6589	82
GHANA	4877	/ 1685	/ 1625	/ 1226	/ 909	/ 652	/ 376	/ 274	/ 97	/ 69	/ 162	/ 808	/ 1038	/ 8921	74
		10	10 /	0	36	102	117	219	130	82	44	12	2 /	764	
BURKINA FASO	3241	23	37	47	85	428	392	606	591 500	207	47	12	2	2477 1613	31
NUCER	2055	، ۲	/	/	/	/	/	/	/	/	/	/	/	/	50
NIGER	2956	147	0	4	14	59 134	435	731 96	857 56	485	236	121	65	3030 1081	53
COTE D'IVOIRE	2794	/ 165	/ 198	/ 134	/ 221	/ 151	/ 88	/ 100	63	/ 31	/ 20	/ 18	65	/ 1254	86
		27	11	4	10	24	78	134	199	134	53	16	6	696	
MALI	2402	44	11 30	4	21	31 40	107 35	182	315 47	190	, 101 114	73	20	1099 820	63
		/	/	/	/	/	/	/	/	/	/	/	/	/	
TOGO	1626	6	43	63 27	72	109 295	66 160	173 84	71 35	156 57	277	265 19	346	1762 822	47
UGANDA	1455	/ 7	6	/ 36	/ 197	/ 596	/ 242	/ 124	/ 44	61	/ 22	26	/ 13	/ 1374	60
		98 /	38	15 /	74	28	17 /	4 /	18	38 /	88 /	133 /	178	729	
BENIN	1427	2 112	41	19	79 7	30 6	18	10	22	39 65	91 42	193 23	201	855 300	85
MAURITANIA	562	/ 2	/	/	/ 10	/ 6	/ 11	/ 55	/ 133	/ 91	/ 46	/ 26	/ 6	/ 388	77
		4	3	8 /	40	78	110	62	57	20	8 /	1	1	392	
ETHIOPIA	371	5	5	8	43	108	128	65	58	20	8	1	2	451	87
		2 /	2	6	1	1	4	0 /	6	0 /	0	0 /	0 /	22	
CHAD	127	2 0	2	6	1	2	4	3	6	0	0	0	0	25 4	88
YEMEN	62	/ 0	/ 0	/ 0	/ 1	/ 4	/ 1	/ 0	/ 0	/ 1	/ 0	/ 0	/ 0	7	57
		0 /	0 /	0	0 /	0 /	3 /	1	0 /	0 /	0	0 /	/	4	
SENEGAL	19	0	0	0	0	0	3	1	0	0	0	0	0	4	100
CAMEROON**	17	۲ 0	/ 0	/ 0	/ 0	/ 0	· / 1	'/ 7	2 / 3	/ 5	2/2	· / 1	۲ 0	/ 19	95
	_	0 /	0 /	0 /	0 /	0	0 /	0 /	0 /	/	/	/	/	0 /	
INDIA	9	0 4841	0 3724	0 7700	0 4578	0 5542	0 4170	0 4465	4031	2839	2011	2338	2028	0 48267	~
TOTAL*	152805	6979	/ 4734	/ 11515	/ 9617	/ 10603	6067	6670	6659	/ 4650	/ 3227	/ 3872	/ 3259	/ 77852	62
% CONTAIN	ED	69	79	67	48	52	69	67	61	61	62	60	62	62	

\* Provisional

\*\* Reported 18 cases imported from Nigeria.

# DISTRIBUTION BY COUNTRY OF 77,852 CASES OF DRACUNCULIASIS REPORTED DURING 1997\*



## PERCENTAGE OF ENDEMIC VILLAGES REPORTING AND PERCENTAGE CHANGE IN NUMBER OF CASES OF DRACUNCULIASIS DURING 1996 AND 1997\*, BY COUNTRY

COUNTRY	ENDEMIC	VILLAGES: 1997	CASES R	EPORTED	% REDUCTION	IANGE : 1996 - 19	% IN	% INCREASE	
	NUMBER	% REPORTING	1996	1997	-100 -50 	0	50 I	I	100 
INDIA	3	100	9	0	-100				
CAMEROON **	13	100	16	1	-94				
YEMEN	9	100	62	7	-89				
CHAD	16	100	127	25	-80				
SENEGAL	7	100	19	4	-79				
SUDAN	5744	34	118578	43596	-63				
COTE D'IVOIRE	115	93	2794	1254	-55				
MALI	423	85	2402	1099	-54				
BENIN	419	93	1427	855	-40				
MAURITANIA	143	NR	562	388	-31				
BURKINA FASO	349	100	3241	2477	-24				
UGANDA	413	99	1455	1374		-6			
NIGERIA	1709	96	12282	12590		3+			
NIGER	416	99	2956	3030		∎3+			
TOGO	204	91	1626	1762		8+			
ETHIOPIA	57	98	371	451			22 +		
GHANA	1134	100	4877	8921				8	3+
TOTAL***	11018	61	152804	77852	-49				
TOTAL (without Sudan ***)	5274	93	34226	34256		0			

\* Includes 18 cases imported into Cameroon from Nigeria

\*\* Reported 18 cases imported from Nigeria

\*\*\* Includes 18 cases imported into Cameroon in 1997

NR Not Reported

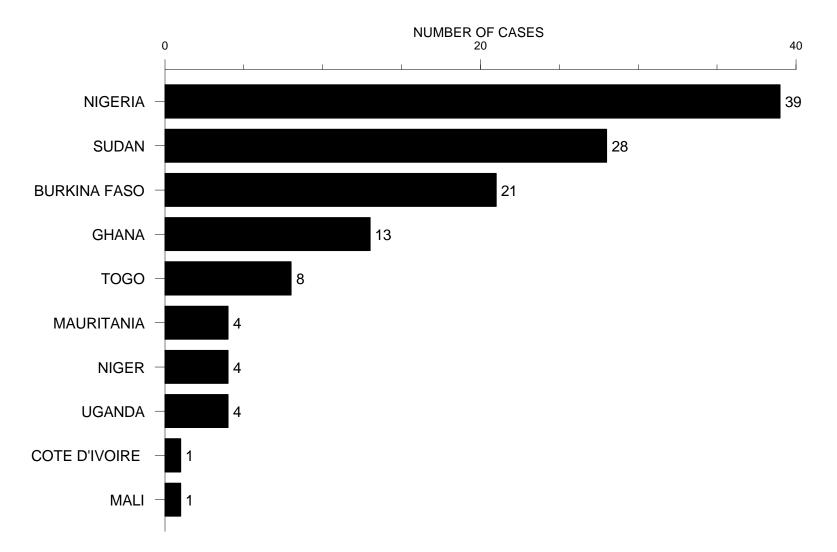
Country	Number e	% Change		
	as of 1/1/97	as of 1/1/98	1996 - 1997	
Sudan	5114	5744	12	
Nigeria	1353	1136	-16	
Ghana	602	765	27	
Burkina Faso	337	211	-37	
Niger	416	396	-5	
Cote d'Ivoire	216	115	-47	
Mali	430	269	-37	
Тодо	249	204	-18	
Uganda	327	244	-25	
Benin	325	212	-35	
Mauritania	142	83	-42	
Ethiopia	57	45	-21	
Chad	12	10	-17	
Yemen	7	5	-29	
Senegal	7	1	-86	
Cameroon	13	1	-92	
India	3	0	-100	
Total	9610	9441	-2	
Total without Sudan	4496	3697	-18	

# Number of Endemic Villages by Country and % Change:1996-1997\*

From	То	Month	Cases					
			Number	Contained	Cross notified			
Burkina Faso	Mali	January	2	2	C			
		June	1	1	1			
		July	3	0	3			
		Sept.	2	0	2			
		October	1	0	1			
		December	2	0	?			
	Côte d'Ivoire	May	1	1	. 1			
		August	6	6	6			
	Nigor		1		1			
	Niger	May		0				
		July	1	0	0			
	Ghana	Sept.	1	1	1			
Côte d'Ivoire	Mali	June	1	1	0			
	Burkina Faso	July	1	?	?			
Ghana	Togo	January	3	1	3			
	Benin	??	10	10	10			
Mali	Burkina Faso	May	1	?	?			
Mauritania	Mali	October	2	2	2			
		November	2	0	2			
Niger	Nigeria	July	1	1	1			
Niger	Mali	July	2	0	0			
	Iviali							
Ninaria	NK	October	1	0	1			
Nigeria	Niger	March	1	1	1			
		April	2	2	2			
		June	1	1	0			
		July	8	1	8			
		August	1	1	1			
		Sept.	1	1	1			
	Cameroon	June	1	0	1			
	Cambroon	July	7	7	7			
		August	3	3	3			
		Sept.	5	5	5			
		October	2	2	?			
	<b>T</b>							
	Togo	February	4	4	0			
	Benin	November	1	1	1			
		??	2	2	2			
Тодо	Ghana	January	3	3	3			
		March	1	1	1			
		October	1	1	1			
		November	1	1	1			
	Benin	??	2	2	2			
Sudan	Uganda	March	3	3	3			
	- 3	July	6	3	6			
		August	3	2	3			
		October	1	0	3			
		November	1	0	1			
		December	1	0	1			
	Ethiopia	February	2	2	0			
		March	2	2	2			
		April	1	1	C			
		May	2	0	2			
		August	2	2	C			
		Sept.	2	2	(			
		October	1	1	1			
	Konvo	August	1	1	1			
lanado	Kenya							
Uganda	Kenya	January	1	1	0			
		June	2	2	C			
		July	1	1	C			
Total			124	88	96			

# Dracunculiasis Eradication Campaign Reported Importations of Cases of Dracunculiasis: 1997

## DISTRIBUTION BY COUNTRY OF ORIGIN OF 124 IMPORTED CASES OF DRACUNCULIASIS DETECTED IN OTHER COUNTRIES DURING 1997



### SUDAN: SOME PROGRESS IN NORTH AND SOUTH



The ten northern states of Sudan have recorded a reduction of 62% in cases in 1997, compared to 1996, with an average reporting rate of 74% in 1997. In these 10 states, 91% of cases were reported to have been contained in 1997. More than half (61%) of the cases in the ten states were reported from West Kordofan. Two of the ten northern states (Gazira and North Kordofan) reported no cases in 1997. The Government of Sudan (GOS) allocated about 350 million Sudanese pounds (~\$214,000) to this program in 1997. Dr. Jason Weisfeld consulted with the program from February 17 to April 9, in

both GOS- and OLS-accessible areas, on behalf of The Carter Center/Global 2000.

In endemic southern areas, ACROSS, working in Bor County (Jongoli State), recorded an 87% decrease in cases (from 9,513 cases in 1996 to 1,194 cases in 1997), while keeping reporting rates at the same level. [If this can be achieved in a "war zone", why not elsewhere?]. OXFAM, working in Rumbeck County (El Buheirat/Lakes State), recorded a reduction of 56% in cases there over the same period (from 12,551 cases in 1996 to 5,456 cases in 1997). A total of 589,096 filters were distributed in the entire country in 1997, resulting in full coverage of 30% of known endemic villages.

#### **GHANA: CONTINUED REDUCTIONS OF CASES IN NORTHERN REGION**



The GWEP of Ghana notes that the reported incidence of dracunculiasis in the country was reduced by 24% in January 1998 compared to January 1997, and by 55% in February 1998 compared to February 1997. These declines have been led by dramatic reductions of over 90% in transmission of the disease in district capitols of the Northern Region, primarily as a result of vector control with Abate beginning early last year. The president of the Hilton Foundation, <u>Mr. Donald Hubbs</u>, and the vice-president of World Vision, <u>Dr. Cary Paine</u>, will visit Savelugu early in April to help consider options for provision of safe water to that

key endemic town.

<u>Dr. Andrew Seidu Korkor</u>, senior medical officer (public health) of the Northern Region, has been appointed as the Deputy Coordinator of Gnana's Guinea Worm Eradication Program as of late March. *Congratulations* !!!

#### UGANDA: KAP SURVEY CONDUCTED



<u>Ms. Sue McLaine</u>, graduate student of the Rollins School of Public Health at Emory University in Atlanta, conducted 335 interviews in Kotido and 150 in Moroto (from 20 villages in each District) as part of a Knowledge-Attitude-Practices (KAP) survey. Preliminary observations indicate that where villagers knew their Guinea worm village volunteer, knowledge about the disease and its prevention was high. People who admitted to having entered sources of drinking water when their Guinea worms were emerging were found only in villages in which knowledge about the disease and its

prevention was low and where residents did not know the village volunteer. Most people interviewed admitted knowing, if nothing else, that they should not enter sources of drinking water while Guinea worms were emerging.

During 1997, twice as many women from Kotido were infected with Guinea worms as were men. Given the preponderance of cases among females (mothers and young girls), special health education sessions are being instituted to sensitize this group and to stimulate women to participate actively in the program. The eradication program in Kotido District is re-training village volunteers and mobilizing communities

by sensitizing village elders, training village leaders, both men and women, about dracunculiasis and its eradication. A total of 60 (62%) of 97 endemic villages in Kotido have one or more sources of safe drinking water.

Preliminary observations from Moroto District indicated that knowledge about the eradication program, about dracunculiasis, and about its prevention was lower than in Kotido. In Moroto, 33 (56%) of 59 endemic villages have one or more safe sources of drinking water. In February 1998, UNICEF began drilling 21 borehole wells in endemic villages of that district. Villagers in Moroto felt confident that borehole wells alone would prevent dracunculiasis.

Several specific recommendations to national and district authorities, including increasing the number of women as village volunteers, and intensifying supervision, were made as a result of this study. The routine recording and reporting of the age and sex of cases of dracunculiasis by the Guinea Worm Eradication Program proved valuable in designing the questionnaires for this KAP study and directing program efforts to those at greatest risk.

### U.S. PEACE CORPS VOWS TO INTENSIFY EFFORTS



An energetic delegation of Peace Corps Volunteers from nine endemic countries (Benin, Burkina Faso, Chad, Côte d'Ivoire, Ghana, Mali, Mauritania, Niger, and Togo), led by <u>Mr. Scott Tobias</u> from Peace Corps headquarters in Washington, DC, participated in the Seventh African Regional Conference in Bamako. During the conference, Mr. Tobias declared that the Peace Corps is seeking ways to increase its participation with national Guinea Worm Eradication Programs in all endemic countries where its Volunteers are

serving. Among the participants were <u>Mr. Ian Moises</u>, who recently began assisting the national coordinator of Côte d'Ivoire, and <u>Mr. Brent Silvers</u>, who contributed to the exhibit a new filter that is designed to accommodate large containers used by households for storing drinking water in Bondoukou, Côte d'Ivoire.

### **IN BRIEF:**



<u>Burkina Faso.</u> According to <u>Dr. Mathias Hien</u> of the OCCGE, this program plans to convene a meeting in Ouagadougou in early April with representatives of major partner agencies to discuss a revised national Plan of Action and budget. In 1997, the program distributed 3,600 bolts of a new "Guinea worm cloth", produced by Faso Fani.

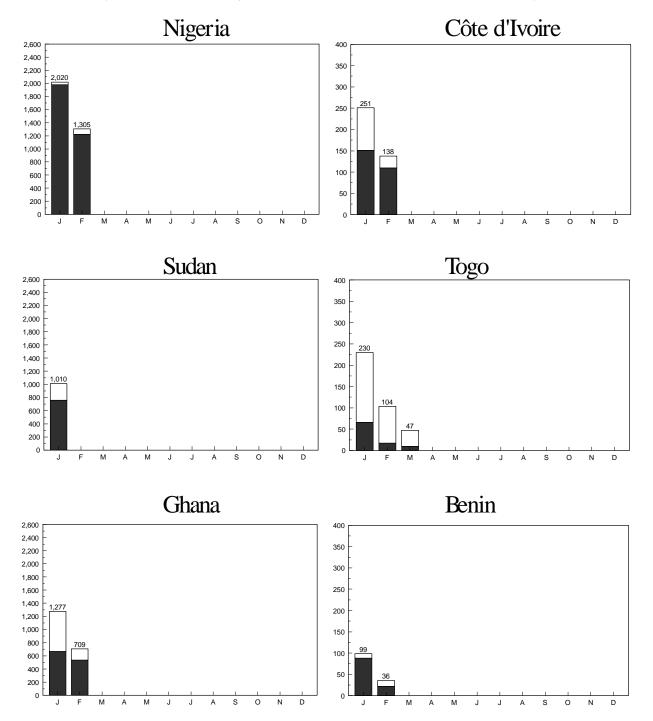
<u>Cameroon</u>. Dr. Dama Mana, regional program coordinator, reports that the single indigenous case of dracunculiasis reported in 1997 occurred in a 39-year old man, whose worm began emerging on October 30 in the village of Sirlawe (Guidiguis District, Extreme North Province). He had no known history of travel outside Cameroon. Sirlawe reported 6 cases in 1995, and 4 cases in 1996. A cross-border meeting with Chad was held on March 16 at Yagoua, Cameroon.

<u>Ethiopia.</u> Additional funding of almost \$93,000 has been provided to this program by the Embassy of Japan, through the Global 2000 office in Addis Ababa.

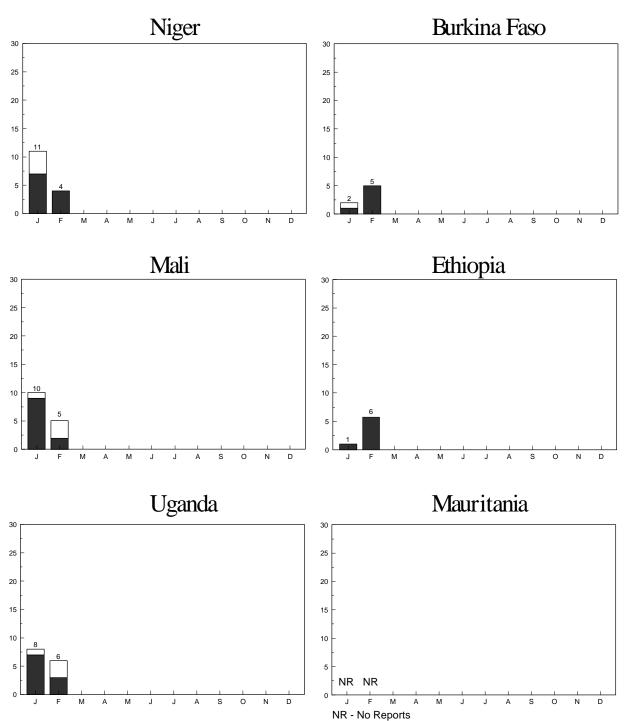
<u>Nigeria.</u> NIGEP marked its National Guinea Worm Eradication Day on March 25 with a ministerial address and press briefing in Abuja. Earlier the same week, the program convened the first National Task Force meeting in two or three years, and the second Steering Committee meeting of 1998. A cross-border meeting with Cameroon was held in Amchide, Cameroon, on February 4.

# NUMBER OF CASES OF DRACUNCULIASIS REPORTED: 1998

(Number of cases reported that were contained are shaded black)



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# NUMBER OF CASES CONTAINED AND NUMBER REPORTED BY MONTH DURING 1998\* (COUNTRIES ARRANGED IN DESCENDING ORDER OF CASES IN 1997)

COUNTRY	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													%
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	CONT.
SUDAN	254 / 1010	/	/	/	/	/	/	/	/	/	/	/	254 / 1010	25
NIGERIA	1982 / 2020	1224 / 1305	/	/	/	/	/	/	/	/	/	/	3206	96
GHANA	670 / 1277	535 / 709	/	/	/	/	/	/	7	/	/	/	1205	61
NIGER	7 / 11	4 / 4	/	/	/	/	/	/	/	/	/	/	11 / 15	73
BURKINA FASO	1 / 2	5 / 5	/	/	/	1	/	1	/	/	/	/	6 / 7	86
TOGO	66 / 230	17 / 104	10 / 47	/	/	/	/	/	/	/	/	/	93 / 381	24
UGANDA	7 / 8	3 / 6	/	/	/	/	/	/	/	/	/	/	10 / 14	71
COTE D'IVOIRE	151 / 251	110 / 138	/	/	/	/	/	/	/	/	/	/	261 / 389	67
MALI	9 / 10 88	2 / 5 22	/	/	/	/	/	/	/	/	/	/	11 / 15 110	73
BENIN	88 / 99	22 / 36 6	/	/	/	/	/	/	/	/	/	/	110 / 135 7	81
ETHIOPIA	1	6	/	/	/	/	/	/	/	/	/	/	7 0	100
MAURITANIA	0	2	/	/	/	1	/	1	/	/	/	/	0	~
CHAD	0	2	/	/	/	/	/	/	/	/	/	/	2	100
YEMEN	0	0	/	/	/	/	/	/	/	/	/	/	0	~
SENEGAL	0	0	/	/	/	/	/	/	/	/	/	/	0	~
CAMEROON**	0 3236	0	/	/	/	/	0	0	0	0	0	0	0 5166	254
TOTAL*	4919	2320	/	/	/	/	0	0	0	0	0	0	7239	71
% CONTAINED	66	83											71	

\* Provisional

#### **RECOMMENDATIONS** 7th African Regional Conference on Dracunculiasis Eradication

1. All the endemic countries involved in the worldwide effort to eradicate dracunculiasis should:

- ensure that this objective continues to be a national priority right until the final certification, and - ensure that this priority is reflected in the plans of action of the relevant ministries and national agencies.

- 2. The endemic countries should intensify the interventions needed to interrupt transmission in villages, hamlets and nomad camps; i.e.:
  - information, education and communication
  - early case detection, containment and reporting
  - distribution and promotion of the use of filters
  - treatment of contaminated and suspected ponds with Abate
  - supervision
  - monitoring and evaluation
  - water supply
- 3. The endemic countries should increase the sensitivity of their surveillance systems, especially in nomadic communities and frontier zones, intensifying the detection, containment and reporting of cases and endemic villages, and also facilitating the exchange between countries of information on imported cases.
- 4. Eradication programs should speed up the mapping of villages and ponds in endemic areas.
- 5. Endemic countries should promote the integration of Guinea worm eradication activities in the context of health services at the various administrative levels, giving particular attention to the community level. This strategy should not compromise or delay the eradication of dracunculiasis.
- 6. Endemic countries should intensify intra- and intersectoral collaboration, especially with veterinary services, with social and professional associations and with existing community networks, with a view to improving the early detection of cases and endemic villages.
- 7. Endemic countries should conduct operational and anthropological research with a view to improving their interventions in nomad communities and hamlets.
- 8. Countries should consider the means of maintaining the motivation of village health workers, avoiding financial incentives if they are likely to have negative effects on the eradication programs or on other development activities.
- 9. Cash reward systems can be useful to find cases of Guinea worm disease in the final phases of eradication. Each country should consider whether it is advisable to implement such a system, bearing in mind its potential positive and negative effects.
- 10. The programs' partners should continue and increase their participation in national Guinea worm eradication programs, under the coordination of the relevant endemic countries.

11. The ministries involved, in collaboration with their partners, should lighten their administrative mechanisms, while protecting the resources specifically allocated to eradication programs, and releasing them in a timely manner so that national programs can implement all planned interventions appropriately.

12. Eradication programs should ensure that adequate resources are made available in good time to permit the implementation of measures to interrupt the transmision of Guinea worm disease.

13 Guinea worm eradication programs should encourage all willing parties, particularly the Peace Corps, other volunteer agencies and NGOs, to become more involved in Guinea worm eradication activities.

14 Water ministries in endemic countries should facilitate and accelerate the provision of water supplies to all endemic villages and, wherever possible, extend this coverage to endemic hamlets and camps.

\* \* \* \* \*

### PATRICK APOYA, ALHOUSSEINI MAIGA RECEIVE 1998 CARTER AWARDS



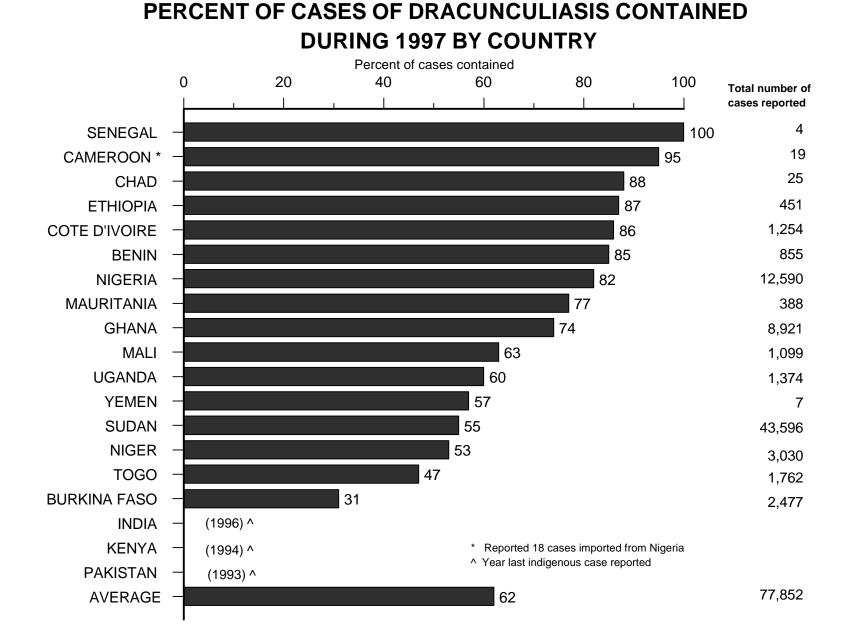
During the final day of the African Regional Conference in Bamako on April 3rd, <u>former U.S. President Jimmy Carter</u> presented a 1998 Jimmy and Rosalynn Carter Award for Guinea Worm Eradication to <u>Mr. Patrick Apoya</u> of Ghana "for outstanding dedication and achieve-ment as Field Supervisor for dracunculiasis eradication activities, Northern Region, Ghana". The awards, which were created by President and Mrs. Carter to recognize exceptional service to the eradication campaigns in Ghana and

Nigeria, have been bestowed annually since 1992. An award for contribution to eradication efforts in francophone countries was also made for the first time at the ceremony in Bamako to <u>Dr. Alhousseini</u> <u>Maïga</u> of Mali "for outstanding dedication and achievement as officer in charge of dracunculiasis eradication, World Health Organization, Regional Office for Africa". *Well done, Patrick and Alhousseini ! ! !* 

#### PRESIDENT KONARE HONORS CARTER, HOPKINS, AGLE



In a dramatic ceremony with trumpet fanfares and military honor guard held at his official residence soon after the close of the African Regional Conference, <u>President Alpha Oumar Konaré</u> of Mali inducted former <u>U.S. President Jimmy Carter</u>, Carter Center associate executive director <u>Dr. Donald Hopkins</u>, and Global 2000 director of operations <u>Mr. Andrew Agle</u> into the National Order of Mali, the nation's highest award which can be granted to a foreigner. President Carter was made a "Commander" of the Order, while Dr. Hopkins and Mr. Agle were made "Knights" (Chevalier) for their roles in leading the global campaign to eradicate this disease.



## **RECENT PUBLICATIONS**



CDC, 1998. Imported dracunculiasis - United States, 1995 and 1997. MMWR, 47:209-211.

Joshi V, Singhi M, Chaudhary RC, 1997. Studies of dracunculiasis in the Indian Desert. <u>J Arid Environ</u>, 37:181-191.

Stephenson J, 1998. A farewell to harms: experts debate global disease eradication efforts. <u>JAMA</u>, 279:897-899.

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.



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