



Date: April 19, 1999

From:



WHO Collaborating Center for
Research, Training and Eradication of Dracunculiasis

Subject:

GUINEA WORM WRAP-UP # 89

To: Addressees

Detect Every Case, Contain Every Worm!

TWELVE COUNTRIES ATTEND PROGRAM REVIEW AT DAKAR



Carter Center



unicef

Representatives of twelve francophone countries (Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Guinea, Mali, Mauritania, Niger, Senegal, Togo) attended the annual Program Review for French-speaking countries in Dakar, Senegal on April 6th-9th. The Review, which was organized by WHO, and co-sponsored by UNICEF and The Carter Center (Global 2000), had been postponed from late 1998. In addition to reviewing the status of dracunculiasis eradication in the individual countries, the Review included presentations by Mali and Niger on epidemiological surveillance for dracunculiasis among nomadic populations. Also attending, in addition to representatives of the three co-sponsoring agencies, were representatives from OCCGE, The World Bank, Health and Development International, and CERMES. The minister of health of Senegal, His Excellency Assane Diop, opened the meeting officially. A summary of the status of the disease in the countries represented is given below. As a result of the data presented, revised Tables and Figures summarizing the final epidemiological status of dracunculiasis for 1998 are also included in this issue.

Apart from the apparent interruption of transmission in Cameroon, Senegal, and probably Chad in 1998, the most noteworthy result presented at this review was the dramatic average reduction in cases of -59% in Benin, Côte d'Ivoire and Togo in January-February 1999, during their peak transmission season. Beginning in January 1998, programs in those three countries were assisted by intensive short-term consultancies that were provided by The Carter Center/Global 2000, Health and Development International, and CDC. Seguela, the highest endemic sanitary region in Côte d'Ivoire in 1998, reduced its reported incidence by -91% in January-February 1999! This significant reduction is a tribute to the dedicated work of Dr N'Dolli Kouakou, District Medical Director, US Peace Corps Volunteers Philip Downes, Cindy Stover, and Stacy Ellington, Global 2000 consultant Misrak Makonnen, and to the support provided by the national secretariat, including Dr. Henri Boualou, National Program Coordinator.

Niger contained 67% of its 2,700 cases in 1998, provided filters to 94% of endemic households, and used Abate® in 38% of endemic villages. 61% of endemic villages have at least one source of safe drinking water. Reduced incidence in 1998 by 11% and endemic villages by 29% from 1997. Reduced incidence in January-February 1999 by 73%. Tera District in Tillaberi Region is one of only three areas in West Africa with more than 1,000 cases reported in 1998 (Bama LGA of Nigeria's Borno State, and Atebubu District of Ghana's Brong-Ahafo Region are the others). Peace Corps Volunteers based in Niger and a representative of DANIDA also attended.

Burkina Faso held a national workshop during March 10-11, 1999 to re-launch efforts to halt transmission of dracunculiasis by 31 December 2000. During the workshop a national plan of action and budget were discussed with national program staff, donors, and collaborating organizations. The Guinea Worm Eradication Program is preparing to begin systematic interventions in three main endemic zones starting in May, which is the beginning of the peak transmission season. During 1998 a total of 495 (22%) of 2,227 cases reported were contained. Although cases were reported from 236 villages, monthly reporting from known endemic villages was only 50%.

Togo contained 49% of 2,128 cases in 203 villages in 1998. 54% of endemic households have 100% filter coverage. Used Abate® in 78% of endemic villages. 34% of endemic villages have safe water. Increased cases by 21% in 1998, but reduced cases by 54% in January-February 1999, which includes part of peak transmission season.

Côte d'Ivoire contained 60% of 1,414 cases in 1998, in about 176 endemic villages. 74% of endemic households reportedly are using filters. Abate® was used in 83% of endemic villages in 1998. Fully 87% of endemic villages have safe water, and all unserved endemic villages are to receive safe water in 1999. Increased cases by 13% in 1998; but decreased cases by 80% in January-February 1999, which is in the peak transmission season.

Benin contained 87% of 695 cases in 1998, in 179 endemic villages. 92 of the 179 endemic villages had only one case. 41% of endemic villages have 100% of households with filters, 55% used Abate® in 1998, and 60% of endemic villages have a source of safe water. Reduced cases by 19% in 1998; by 21% in January-February 1999, which is in peak transmission season. The head of state is planning to visit an endemic village to raise the population's awareness to the disease and its prevention, apparently in response to a letter from President Carter.

Mali contained 55% of 650 cases, in 177 endemic villages in 1998. Reduced cases by 40% in 1998; and by 73% in January-February 1999. Filters in 100% of endemic villages; Abate® coverage was 25%. 62% of endemic villages have a source of safe drinking water.

Mauritania contained 49% of 379 cases in 1998. Reduced cases by only 2% in 1998, but reduced endemic villages by 29%. One village (Hassi Atila, in Hodh El Chargui Region) reported 30% of all cases in 1998. That village is receiving improved water supply, and had Abate® added to the single source of drinking water after the outbreak was discovered last year. All endemic villages have filters; Abate® was used in 13 villages. Many of the 28 endemic villages which do not have safe water, will receive a safe source as Japan helps provide 216 wells during 1999-2001. In response to President Carter's letter, the Prime Minister is considering visiting an endemic village at the beginning of the transmission season in June.

Central African Republic reported 34 cases in 1998, but participants at the Review meeting expected more evidence to confirm these diagnoses and whether the patients were indigenous or imported from another country, in particular those reported from the Obo Region bordering southern Sudan.

Chad reported a total of 3 cases in 1998, the last case having occurred in September. The other two cases were reported in February 1998, from an area (Fianga District) which has reported no further cases through March 1999.

Cameroon reported a total of 23 cases, all imported from Nigeria. All but one was contained.

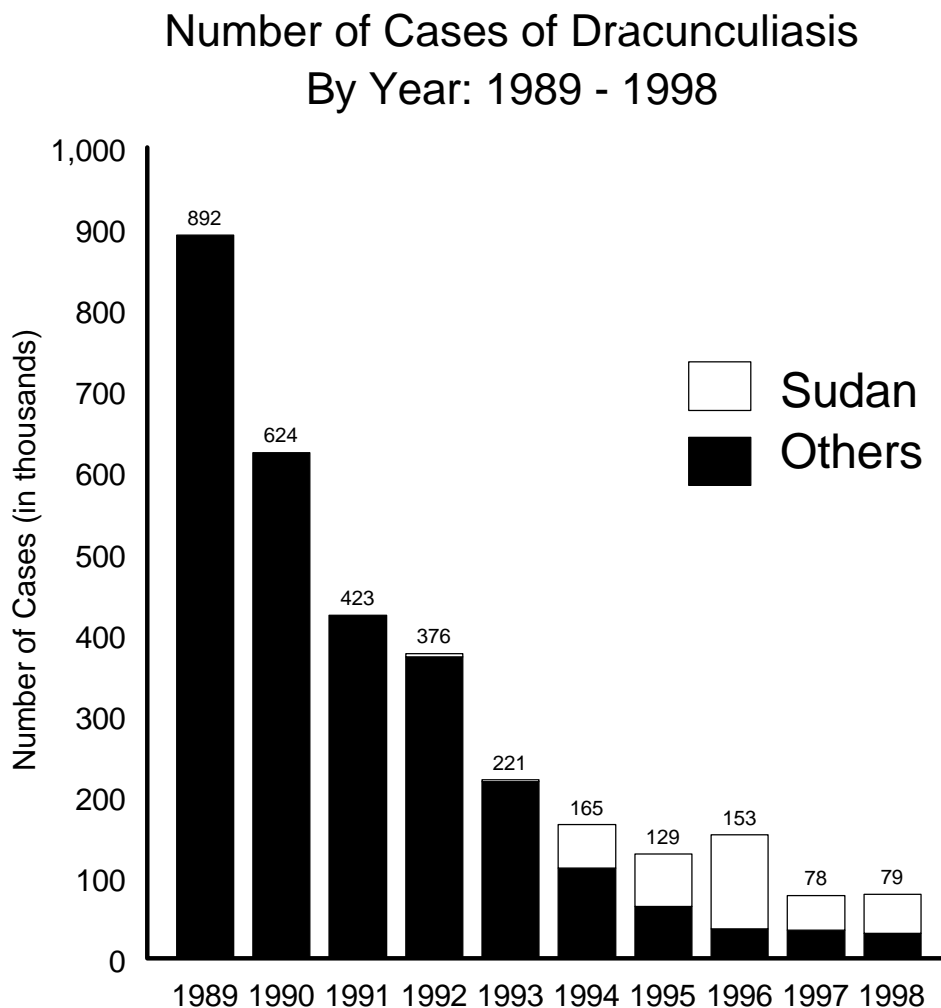
Senegal has reported no case since July 1997.

Guinea has reported no indigenous cases of dracunculiasis for several years.

INTERAGENCY MEETING:

Representatives of The Carter Center/Global 2000, Health and Development International, OCCGE, World Bank, UNICEF and World Health Organization participated in the 37th Meeting of the Interagency Coordinating Group for Dracunculiasis Eradication, which was held at the Novotel Hotel in Dakar. The meeting was held after the conclusion of the Program Review for French-speaking countries, on April 9th. Participants discussed strategies for addressing the requests for external assistance made by representatives of the countries who attended the Program Review.

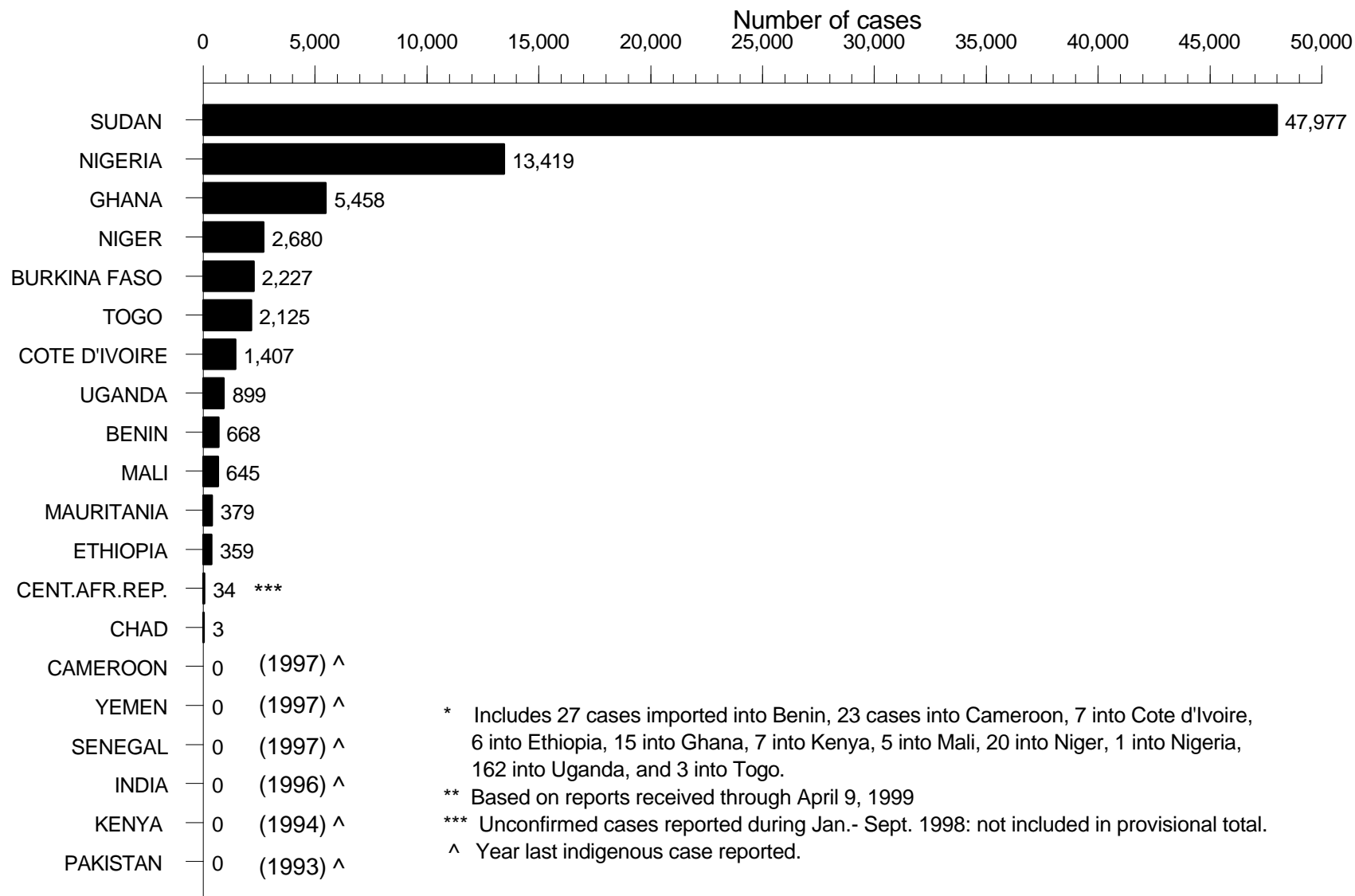
Figure 1



* Based on reports received through April 9, 1999

Figure 2

Distribution by Country of 78,522* Cases of Dracunculiasis Reported During 1998**



* Includes 27 cases imported into Benin, 23 cases into Cameroon, 7 into Cote d'Ivoire, 6 into Ethiopia, 15 into Ghana, 7 into Kenya, 5 into Mali, 20 into Niger, 1 into Nigeria, 162 into Uganda, and 3 into Togo.
 ** Based on reports received through April 9, 1999
 *** Unconfirmed cases reported during Jan.- Sept. 1998: not included in provisional total.
 ^ Year last indigenous case reported.

Table 1

Number of cases contained and number reported by month during 1998*
(Countries arranged in descending order of cases in 1997)

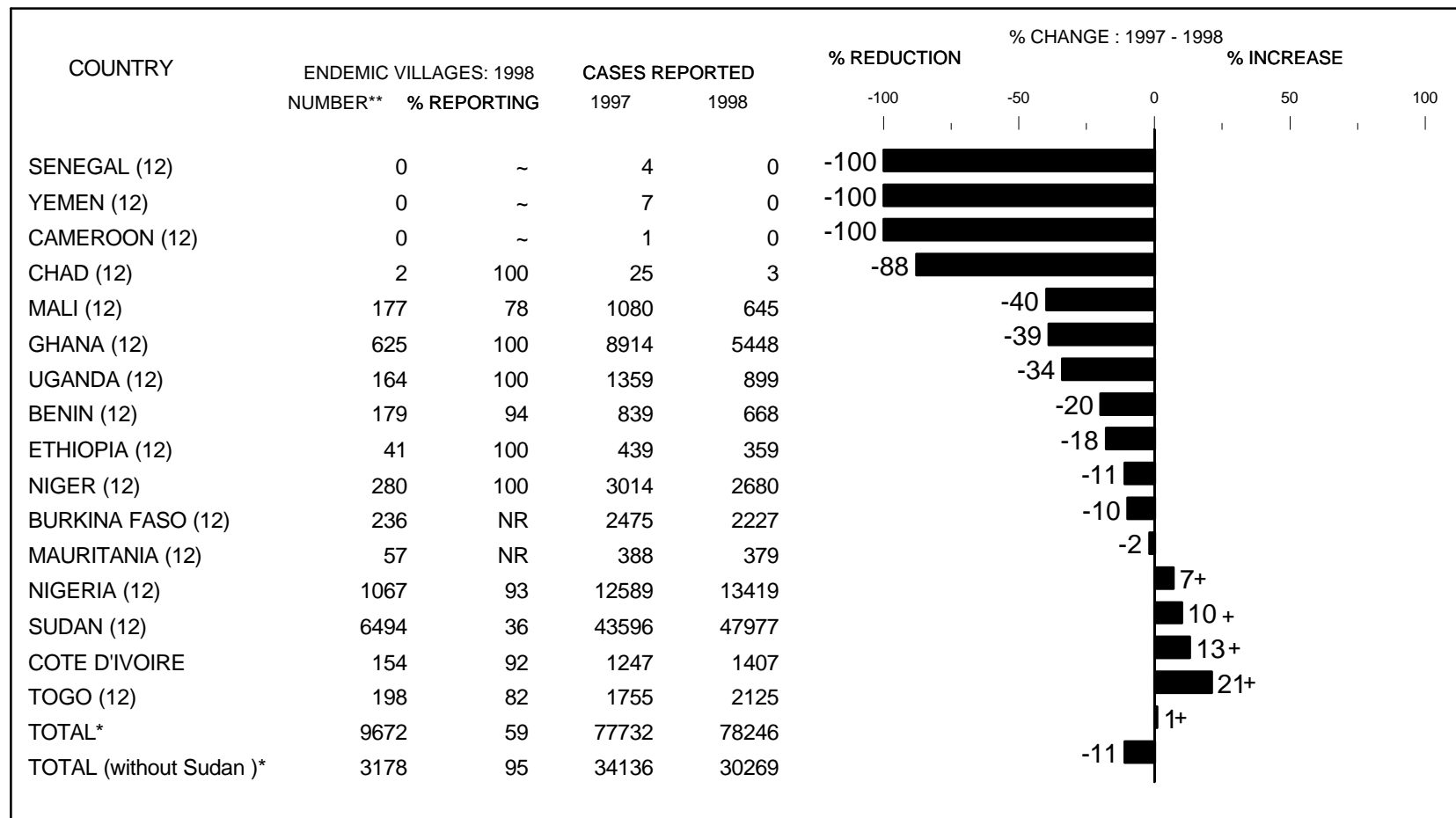
COUNTRY	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													CONT.	%
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*		
SUDAN	461 / 1324	869 / 1280	887 / 1522	1620 / 2629	2134 / 3485	3578 / 6058	3425 / 7425	3377 / 5843	4251 / 6860	2846 / 6081	1762 / 3820	1015 / 1650	26225 / 47977	55	
NIGERIA	1544 / 1549	1188 / 1259	1199 / 1279	854 / 955	952 / 1234	953 / 1484	954 / 1395	800 / 1197	412 / 659	481 / 907	348 / 738	499 / 764	10184 / 13420	76	
GHANA **	870 / 1278	535 / 709	478 / 554	276 / 382	208 / 263	169 / 226	132 / 178	40 / 58	53 / 67	191 / 214	620 / 710	608 / 834	4180 / 5473	76	
NIGER	7 / 11	4 / 4	5 / 5	42 / 43	129 / 168	277 / 367	411 / 687	378 / 575	315 / 468	153 / 237	71 / 116	11 / 19	1803 / 2700	67	
BURKINA FASO	1 / 1	1 / 5	0 / 16	5 / 107	77 / 258	25 / 469	170 / 661	74 / 355	104 / 274	31 / 62	7 / 8	0 / 11	495 / 2227	22	
TOGO	84 / 275	21 / 109	38 / 85	38 / 51	36 / 47	63 / 83	69 / 128	81 / 131	104 / 253	160 / 345	192 / 409	148 / 212	1034 / 2128	49	
UGANDA ***	7 / 8	3 / 6	24 / 43	164 / 226	209 / 300	154 / 176	116 / 128	58 / 71	45 / 48	31 / 33	10 / 10	12 / 12	833 / 1061	79	
COTE D'IVOIRE	98 / 205	97 / 162	122 / 213	75 / 211	112 / 170	100 / 126	43 / 59	16 / 36	32 / 66	33 / 37	73 / 75	47 / 54	848 / 1414	60	
MALI	9 / 10	2 / 5	0 / 0	18 / 24	4 / 8	21 / 63	41 / 94	94 / 148	80 / 118	48 / 102	31 / 57	7 / 21	355 / 650	55	
BENIN	92 / 103	22 / 37	10 / 10	29 / 30	25 / 26	10 / 10	7 / 7	10 / 10	25 / 41	100 / 105	197 / 212	95 / 104	622 / 695	89	
ETHIOPIA	1 / 1	6 / 6	10 / 11	58 / 60	70 / 73	87 / 89	79 / 84	28 / 28	7 / 7	2 / 2	0 / 0	4 / 4	352 / 365	96	
MAURITANIA	0 / 0	0 / 0	0 / 0	3 / 4	0 / 0	1 / 2	30 / 44	56 / 127	44 / 91	37 / 93	13 / 15	3 / 3	187 / 379	49	
CHAD	0 / 0	2 / 2	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1 / 1	0 / 0	0 / 0	0 / 0	3 / 3	100	
YEMEN	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	-	
SENEGAL	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	-	
CAMEROON ¹	0 / 0	0 / 0	0 / 0	0 / 0	1 / 2	4 / 4	8 / 8	5 / 5	4 / 4	0 / 0	0 / 0	0 / 0	22 / 23	96	
KENYA ²	/	/	/	/	/	3 / 3	3 / 3	1 / 1	/	/	/	/	7 / 7	100	
TOTAL*	3174 / 4765	2750 / 3584	2773 / 3738	3182 / 4722	3957 / 6034	5445 / 9160	5488 / 10901	5018 / 8585	5477 / 8957	4113 / 8218	3324 / 6170	2449 / 3688	47150 / 78522	60	
% CONTAINED	67	77	74	67	66	59	50	58	61	50	54	66	60		

* PROVISIONAL

¹ All cases reported during 1998 were imported from Nigeria.² All cases reported during 1998 were imported from Sudan.

Figure 3

Percentage of Endemic Villages Reporting and Percentage Change in Number of Indigenous Cases of Dracunculiasis During 1997 and 1998 *, by Country



* Provisional. Totals do not include imported cases.

** As of 1 January 1999.

~ All villages under surveillance reported.

(12) Denotes number of months for which reports were received, e.g., Jan. - Dec., 1998.

NR Countries with unknown rate of reporting from endemic villages.

Table 2

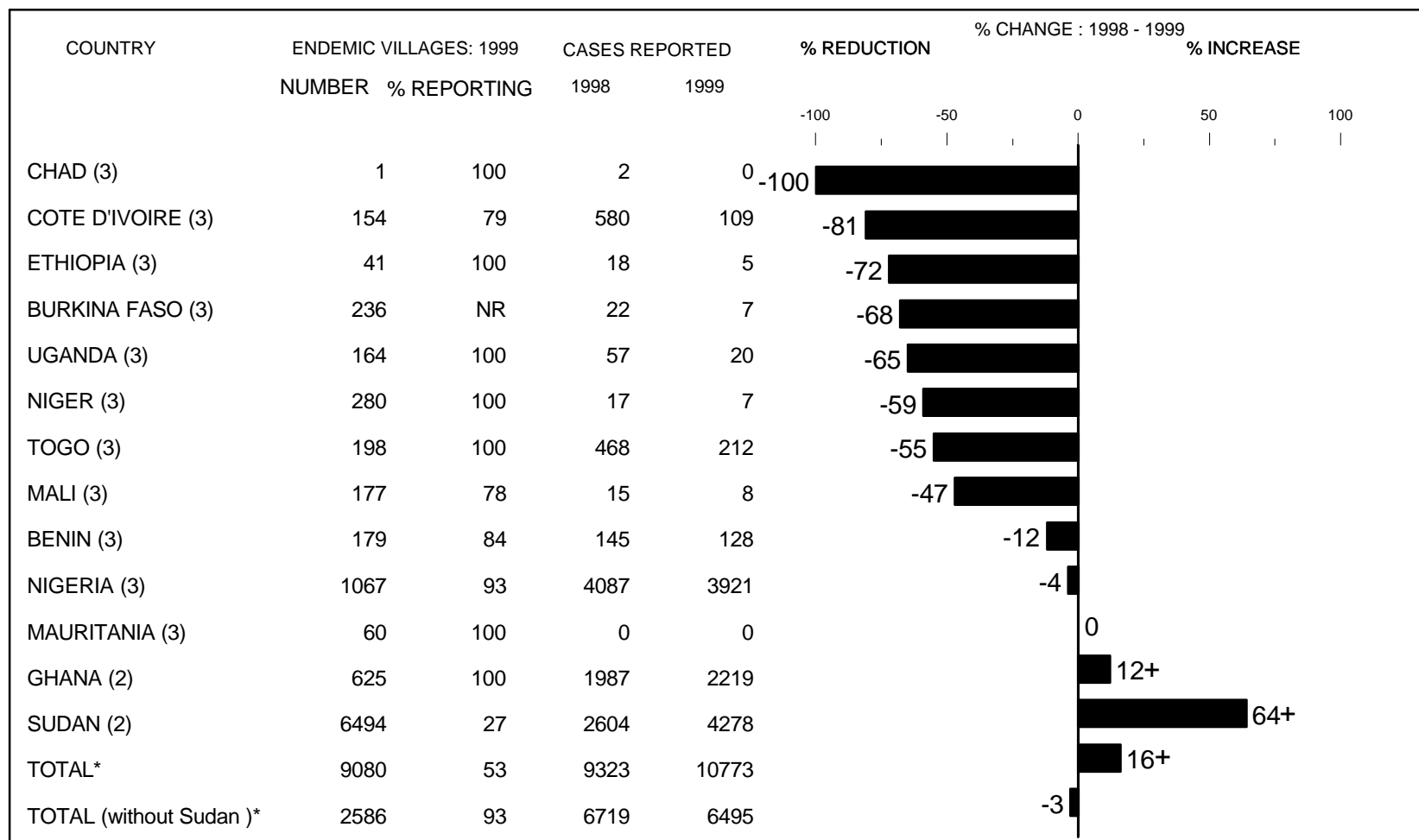
Number of cases contained and number reported by month during 1999*
(Countries arranged in descending order of cases in 1998)

COUNTRY	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													CONT.
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	
SUDAN	1008 / 2004	1288 / 2274	153 / 228	/	/	/	/	/	/	/	/	/	2449 / 4506	
NIGERIA	596 / 1358	752 / 1432	902 / 1131	/	/	/	/	/	/	/	/	/	2250 / 3921	57
GHANA	489 / 1142	632 / 1077	/	/	/	/	/	/	/	/	/	/	1121 / 2219	51
NIGER	2 / 2	3 / 3	2 / 2	/	/	/	/	/	/	/	/	/	7 / 7	100
BURKINA FASO	0 /	0 /	7 /	/	/	/	/	/	/	/	/	/	7 /	100
TOGO	87 /	57 /	15 /	/	/	/	/	/	/	/	/	/	159 /	74
COTE D'IVOIRE	58 /	29 /	13 /	/	/	/	/	/	/	/	/	/	100 /	91
UGANDA	3 /	7 /	7 /	/	/	/	/	/	/	/	/	/	17 /	85
BENIN	84 /	22 /	14 /	/	/	/	/	/	/	/	/	/	120 /	92
MALI	1 /	2 /	3 /	/	/	/	/	/	/	/	/	/	6 /	75
MAURITANIA	0 /	0 /	0 /	/	/	/	/	/	/	/	/	/	0 /	
ETHIOPIA	0 /	0 /	5 /	/	/	/	/	/	/	/	/	/	5 /	100
CHAD	0 /	0 /	0 /	/	/	/	/	/	/	/	/	/	0 /	
CAMEROON	0 /	0 /	1 /	/	/	/	/	/	/	/	/	/	1 /	100
TOTAL*	2328 /	2792 /	1122 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	0 /	6242 /	56
% CONTAINED	49	56	78										56	

*provisional

Figure 4

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.

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

NR Countries with unknown or low rate of reporting.

GHANA: THE WORM FIGHTS BACK IN ATEBUBU



Republic of Ghana Atebubu District of Brong-Ahafo Region and the adjoining “overseas” part of East Gonja District of Northern Region are now the epicenter of dracunculiasis transmission in Ghana. Atebubu District alone reported 1,063 cases (in 33 villages) in 1998, which was almost 20% of the national total. Authorities in both regions and the national Guinea Worm Eradication Program are making vigorous efforts to find and contain all cases in the area, which is also the source of numerous cases exported to other parts of Ghana. Northern Region Guinea worm coordinator Patrick Apoya reports that large gatherings at funerals are proving to be an important mode of spread of the disease. The status of cases reported from Northern, Volta and Brong-Ahafo Regions so far in 1999 is given in Figure 6. The increases are at least partly attributed to delays in release of ministry of health funding in January-March 1998, and to depletion in January 1998 of Abate supplies in part of Northern Region. In 1998, 90% of Ghana’s reported cases were located in only 17 of the country’s 110 districts (Figure 5). Five of Ghana’s 10 regions had no indigenous cases in January 1999; 4 regions had no indigenous cases in February.

Meanwhile, two important districts in Northern Region, Gushiegu-Karaga and Nanumba, reduced their reported cases of dracunculiasis by 83% (from 1,869 to 325) and 61% (from 1,024 to 403), respectively, between 1997 and 1998. Gushiegu-Karaga District was the highest endemic district in Ghana in 1997, when President Jerry Rawlings visited there to re-launch the program in October. Global 2000 and World Vision helped provide safe drinking water to the district capitol in Gushiegu beginning in 1997. Also, efforts by the Savelugu-Nanton District Assembly, World Vision (supported by the Hilton Foundation), Global 2000 and UNICEF to provide safe drinking water for the town of Savelugu are beginning to bear fruit. By late March, four successful boreholes had been drilled in different parts of the town: three low yields and one high yield. The low yield boreholes are to be fitted with handpumps in early April. Water from the high yield borehole will be distributed via standpipes from an overhead tank.

IN BRIEF:

Ethiopia. Global 2000 resident technical advisor Mr. Teshome Gebre reports that a team of two volunteer Ethiopian health workers has reached Naita. They have searched 49 hamlets in the area so far and found no cases of dracunculiasis. They also discovered that health workers from the Diocese of Torit NGO in Eastern Equatoria State of Sudan have provided health education about dracunculiasis prevention to the population in this area for sometime. Ethiopia has reported zero cases in January and February 1999. Intensified surveillance is however needed to ascertain the absence of the disease throughout areas considered at risk.

RECENT PUBLICATIONS

Sing, A; Wienert, P; Sabisch, P; Heesemann, J; Rinecker, H. 1998. Photo quiz. Infection due to *Dracunculus medinensis*. Clinical Infectious Diseases. 27 (6); 1361, 1508-9.

Ghana Dracunculiasis Eradication Program

17 Districts that Reported 90% of the Cases in 1998

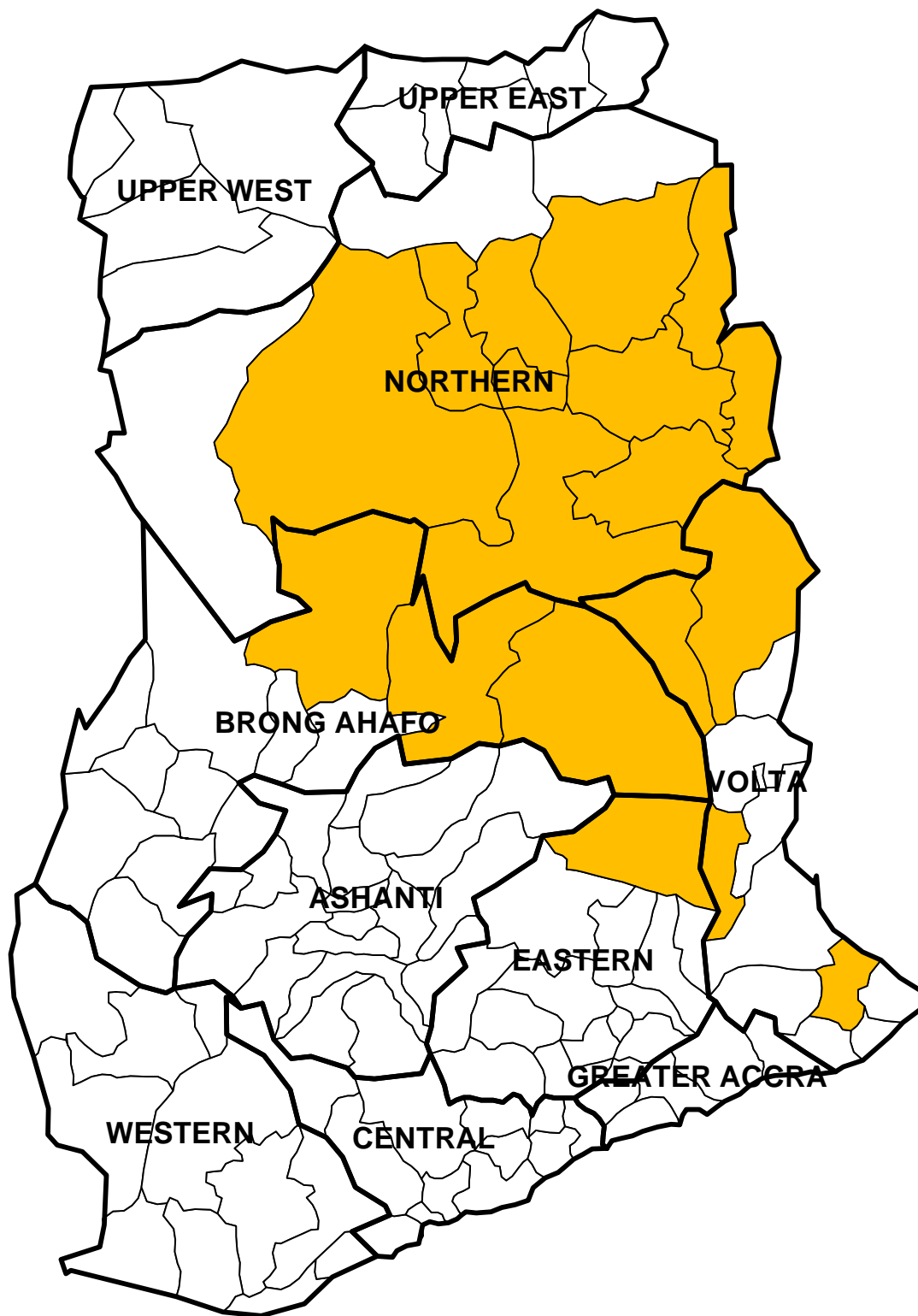


Figure 6

**Ghana Guinea Worm Eradication Program
Number of Cases of Dracunculiasis reported Monthly
From Northern, Volta and Brong Ahafo regions During 1998 and 1999**

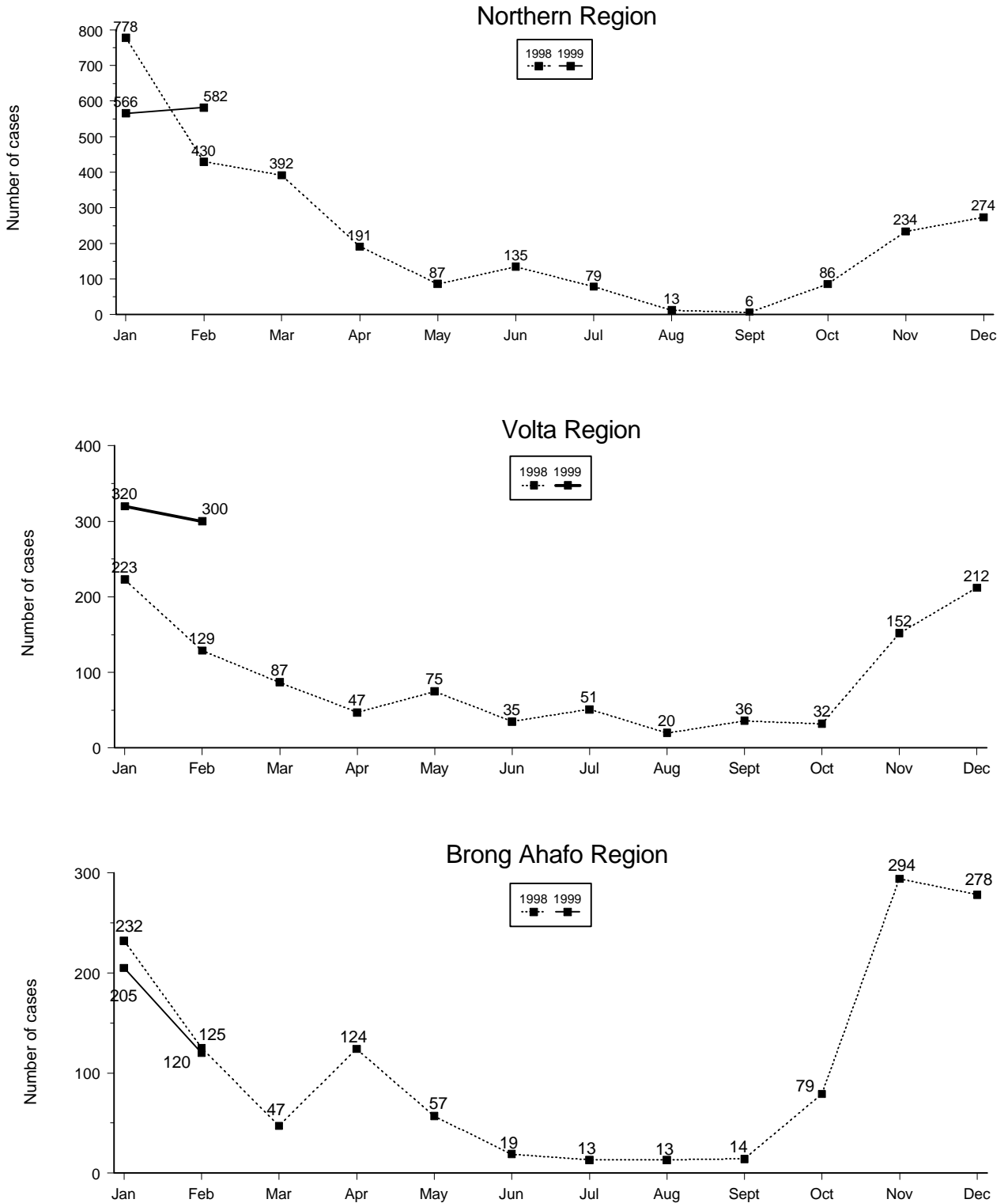
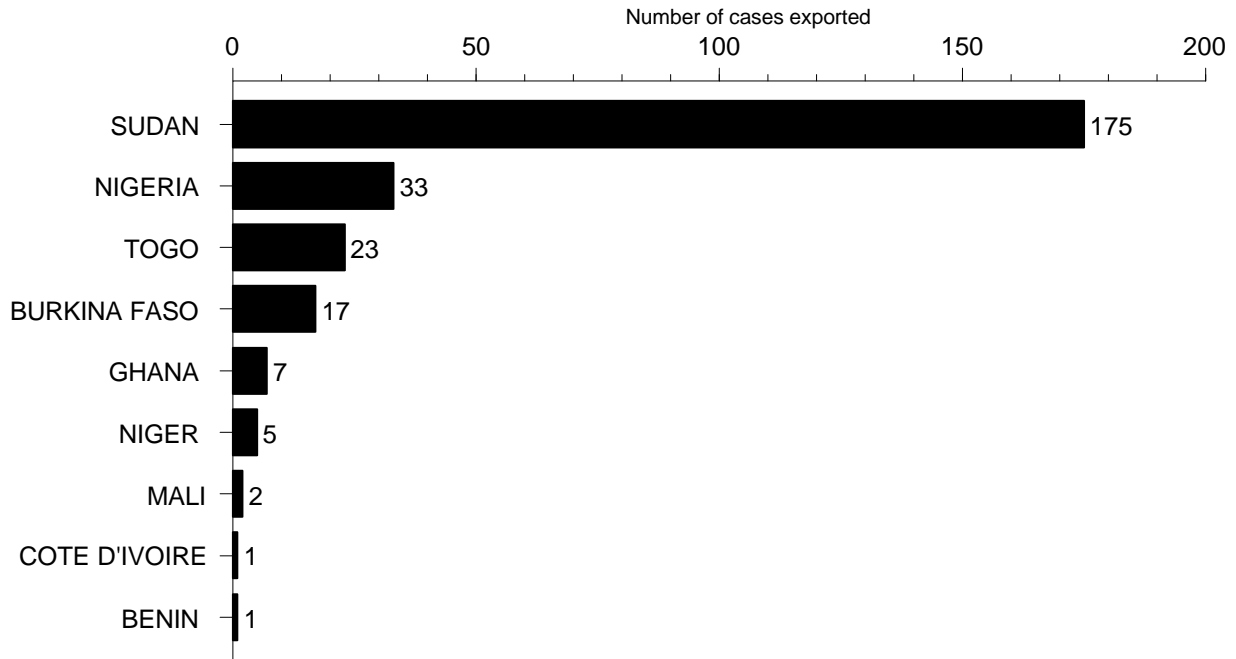


Figure 7

Distribution by Country of Origin of 269 Cases of Dracunculiasis Exported to Other Countries During 1998



*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.