



Date: January 22, 1999

From:



WHO Collaborating Center for
Research, Training and Eradication of Dracunculiasis

Subject:

GUINEA WORM WRAP-UP #86

To: Addesses

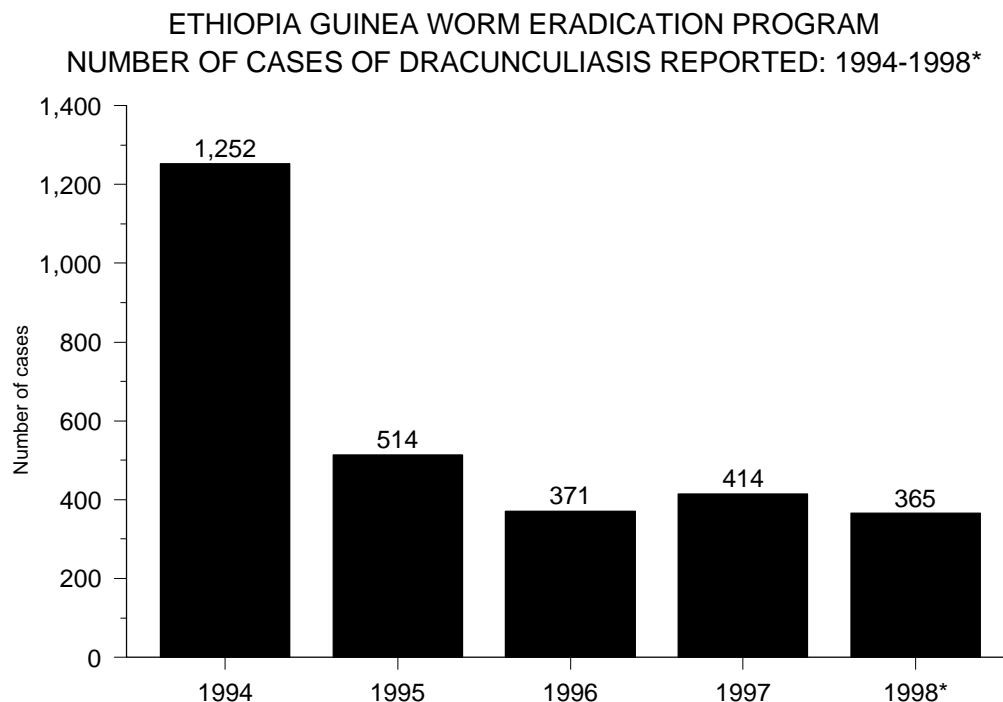
Detect Every Case, Contain Every Worm!

ETHIOPIA: NO CASES IN NOVEMBER, AIMING TO BREAK TRANSMISSION IN 1999



After three years of almost unchanged incidence (Figure 1), Ethiopia's Dracunculiasis Eradication Program (EDEP) expects to achieve a significant decrease in incidence of the disease in 1999, and it is going all-out to prevent any transmission from cases this year. The program reported zero cases in November 1998, which was its first month with zero cases since the program began. In 1998, 83% of all cases were reported from the region of South Omo, which borders Kenya and Sudan, and is home to the semi-nomadic, pastoral Nyangaton (Bume) people. The status of interventions in the thirty settlements that were considered endemic in the region in 1998 is summarized in Table 1. The program constructed six new rainwater catchment tanks among the nine most highly endemic villages of South Omo during 1998, with funding provided by the Government of Japan, UNICEF and Global 2000. Abate treatments of standing water sources were also increased in 1998. Although the EDEP reported an overall case containment rate of 96% in 1998,

Figure 1



* Provisional

Table 1

ETHIOPIAN DRACUNCULIASIS ERADICATION PROGRAM (EDEP)
STATUS OF INTERVENTIONS BY VILLAGE AS OF 31 DECEMBER 1998
SOUTH OMO REGION DRACUNCULIASIS ERADICATION PROGRAM (SODEP)

Village code	Village name	No. of households	No. of new cases*	No. of cases contained	No. of filters distributed	No. of ponds treated	No. of safe water points	No. of health education sessions	Medical**1 kits available	Medical kits refilled	Frequency of supervisory visits	Comments
16	Ejem	568	61	59	1440	1	3	weekly	3	3	weekly	
29	Kopria	164	54	50	245	1	2	2/month	1	1	2/month	Majority displaced
14	Ariapa	153	25	25	393	0	2	weekly	1	1	weekly	
19	Lomotoy	60	22	22	166	1	0	weekly	0	0	weekly	Med. kits shared
10	Lopeto	126	21	21	208	0	2	weekly	1	1	weekly	
20	Kawleona	84	16	16	215	0	1	weekly	0	0	weekly	Med. kits shared
15	Lobor	69	12	11	263	0	0	weekly	0	0	weekly	Med. kits shared
30	Kakuta	90	12	11	257	1	2	weekly	0	0	2/month	Med. kits shared
21	Achuka	57	11	11	153	1	3	weekly	2	2	weekly	
22	Kangalen	61	11	10	157	0	3	weekly	2	2	weekly	
23	Aipa	59	10	10	199	1	1	weekly	1	1	weekly	Med. kits shared
18	Lowus	40	8	8	81	1	0	weekly			weekly	Med. kits shared
27	Napolokoit	216	6	6	216	0	3	weekly	1	1	2/month	
7	Loger	108	6	6	176	0	1	weekly			weekly	Med. kits shared
11	Arong	90	4	4	107	0	4	weekly			weekly	Med. kits shared
28	Kakerzia	88	4	4	185	1	0	weekly	1	1	weekly	
5	Kalle	136	3	3	217	0	0	weekly	1	1	weekly	
8	Lopiding	85	3	2	137	0	0	weekly			weekly	Med. kits shared
17	Nachelete	24	3	3	73	1	0	weekly	1	1	weekly	
4	Jonai	235	2	2	333	0	1	weekly			weekly	Med. kits shared
12	Lokorna	28	2	2	40	0	0	weekly			weekly	Med. kits shared
1	Mechar	74	1	1	50	0	1	weekly			weekly	Med. kits shared
2	Lokodo	39	1	1	58	0	0	weekly			weekly	Med. kits shared
9	Esekon	58	1	1	84	0	0	weekly			weekly	Med. kits shared
24	Lekawi	17	1	1	57	0	0	weekly			weekly	Med. kits shared
25	Lolome	59	1	1	70	0	0	weekly			weekly	Med. kits shared
13	Kapoko	65	1	1	108	0	2	weekly				
3	Lopeyok	43	0	0	66	0	0	weekly			weekly	Med. kits shared
6	Ailla	30	0	0	40	0	0	weekly			weekly	Med. kits shared
26	Narogoy	33	0	0	33	0	0	weekly			weekly	Med. kits shared
31	Naita	504	NR	NR	NR	NR	NR	NR	NR	NR	NR	Difficult to reach
Total		3463	302	292	5827	9	31		15	15		

Safe water points include rainwater tanks.

* Does not include imported cases.

** Medical kits are kept with health promoters. They serve 2 to 3 villages (hamlets) on average.

Ejem¹, the largest endemic village, is an exception in this case.

NR indicates no reports received (Naita community is inaccessible).

the reported containment rate of 87% in 1997 clearly did not reflect the true state of case containment then, since incidence was reduced by only 18% between 1997 and 1998. At the regional review meeting for Gambella on November 9, it was reported that "case containment efforts during 1998 were very reliable as compared to...previous years." South Omo and Gambella are the only endemic regions in Ethiopia.

In 1999, the program is receiving increased attention and support from the office of the Prime Minister and the Minister of Health. A regional meeting (South Omo) is scheduled for early February, when a proposal to increase the amount of the reward to induce persons with emergent worms to remain under observation and care, until the worm(s) are manually extracted will be discussed. The purpose of such a reward is to ensure that each case detected is fully contained. A WHO-funded socio-cultural study of people in the endemic area of South Omo has just been completed. It found that 92% of the households surveyed reported that they were using cloth filters. In preparation for the peak transmission season Global 2000/The Carter Center will provide several consultants to this program in collaboration with CDC, beginning just before the peak transmission season this year. Among the major challenges remaining to the Ethiopian program is the need to gain access to suspected endemic areas in parts of Akobo District of Gambella Region and Naita District of South Omo Region, where insecurity has prevented adequate surveys for cases.

CAMEROON: NO INDIGENOUS CASES FOR ONE YEAR !!!!



The latest report from the field coordinator of Cameroon's Guinea Worm Eradication Program, Dr. Dama Mana, indicates that 23 cases, all imported from Borno State, Nigeria, were reported during January-October 1998. This report confirms that Cameroon has had no indigenous case of dracunculiasis since October 30, 1997. The patient with emergence of a worm on October 30, 1997 was the only indigenous case reported in Cameroon that year. All 18 other cases in Cameroon in 1997 were imported from Nigeria. With intensified interventions and active surveillance in neighboring Borno State of Nigeria beginning in October 1997, there is hope that Cameroon will be free of imported cases this year.

SUDAN: FILTER COVERAGE LIMITED; INCREASED CASES IN NORTHERN STATES



Provisional reports are that the Sudan Guinea Worm Eradication Program (SGWEP) distributed a record total of over 695,000 cloth filters in 1998, including about 427,000 in areas accessed by Operation Lifeline Sudan (OLS). Still, in the OLS-accessed areas, less than 25% of households in endemic villages are fully covered with filters. Endemic areas accessed by the Government of Sudan (GOS) also are less well covered than they could be if sufficient filters were available. In OLS-accessed areas, the ratio of household filters distributed to pipe or straw filters is about 4:1. The Carter Center/Global 2000-coordinated effort in OLS-accessed areas shipped over 10.5 metric tons of supplies into southern Sudan in January-November 1998. Provisional data through the end of November reveal a total of 6,493 known endemic villages in Sudan, and Sudan has reported 61% of all cases of dracunculiasis in 1998 so far.

For the first time in three years, the northern states have reported an increase in cases, from 647 cases in January-November 1997 to 806 cases in the same period of 1998 (+24%). Most of the increase is reported from Sennar (+129 cases), and is thought to be the result of increased programmatic activity and improved

Figure 2

GUINEA WORM CASE THAT IS NOT CONTAINED

Beginning in January 1999, complete this form for each case of Guinea worm that is not contained, and submit it along with the monthly data reports to the National Coordinator/Secretariat.

State _____ Month of report _____

Patient name _____ Age _____ Sex _____

Village _____ Village Volunteer _____

Council _____ Council Supervisor _____

Province _____ Province Supervisor _____

1. Describe the circumstances that resulted in this case not being contained. See definition below. Specify which criteria were not met and clarify; for example, if the case was detected more than 24 hours after the worm emerged, discuss why you think that happened. _____

2. In your opinion, what needs to be done to ensure that the next case in this village is contained? _____

3. What actions have been taken by you, other supervisors, and/or the village volunteer to ensure that the next case in this village is contained? _____

4. Did the person enter a drinking water source when the blister broke or while the worm was emerging? YES ____ NO ____
If YES, which water source _____.
5. Has it been treated with Abate? YES ____ NO ____ If YES, date for treatment _____.
6. Have the province and council supervisor for this area and the village volunteer for this village been trained in case containment? YES ____ NO ____.
7. In your opinion, do they understand the steps for case containment? YES ____ NO ____.
8. Was this case imported into the village in which the worm emerged? YES ____ NO ____.
If YES, complete the import form (even if just from another village in the state).

DEFINITION:

A case is considered contained if all the following criteria are true:

1. Detected before or within 24 hours of worm emergence.
2. Appropriately bandaged with 24 hours of worm emergence.
3. Education is provided to the patient and family (and others as needed).
4. Did not enter a water source (or if entered, the source is treated with Abate within 7 days and filters provided to each household).
5. Verified by Supervisor or other reliable source* within 7 days of detection.
* May include a medical person, community health worker, midwife, or even very well trained, experienced, and reliable village volunteers in cases where it is not practical for a supervisor to be involved.

To ensure full containment of each case after the initial bandaging of Guinea worm lesion(s), national programs need to find ways of keeping each patient under observation and providing care of the lesion(s), i.e., "containment", until the worm(s) are manually extracted.

Name of State Coordinator

Signature of State Coordinator

Date

surveillance in 1998. South Darfur has reported no cases in January-November 1998, despite 100% of known endemic villages reporting, and thus may become the third of the ten northern states to stop endemic transmission. The program aims to stop transmission in all of the northern states by the end of 1999. It has developed a form to be used to report on each uncontained case in the ten northern states (Figure 2), which should help to discover and correct "holes" in the case containment system.

We reported in Guinea Worm Wrap-Up #48 (May 1995) on the heroic exploits of the Sudanese sanitarian Mr. Abdul Gadir El Sid, who led a team of workers in the Smallpox Eradication Program to pursue the smallpox virus into Ethiopia. Since 1995, he has been a field consultant to the SGWEP, supported by The Carter Center/Global 2000. We include here an excerpt from his report of an extraordinary trip in pursuit of Guinea worm disease in Jongoli State in October 1998. It is a vivid illustration of the challenges to be overcome in parts of southern Sudan.

"Our boat was in the River Sobat. The entrance to the Jongoli Canal is closed by a broken iron bridge. The boat had to be pulled out and pushed on land for 30 meters and dropped behind the bridge into the canal. More than a hundred persons from the army, police forces and villages came to help. The second obstacle was to make a path through the thick water grass [sudd]. This took six hours for not more than four miles. The danger of being bitten by green snakes during this battle was highlighted to all on board the boat. After sailing for another three hours we reached another grass sudd that took another two hours. The third and fourth sudds consumed one hour each....

It became dark and was dangerous to sail due to floating trunks of drowning trees. All eleven in addition to a woman we picked on our way were so tired and wet, so we decided to stop and spend the night on the boat in the middle of the canal. The land side was unsafe due to wild animals, snakes, or outlaws. In the early hours of the day we went to the bank. Those who traveled on foot before were able to identify some landmarks showing that we were within a few hours from Magok...we had our supplies for Ayod and we had to deliver them to our village volunteers. At the same time we couldn't sacrifice to proceed back and face the water grass by night. And worst of all, our fuel ran short and we had to paddle. That can't be done by so tired and exhausted people....It took us a bit more than two hours. All our clothes were wet to the chest. We were walking in a muddy area with long grass and flood. There was no way to rest or sit down. Mr. Johnson, the previously mentioned Council Executive Officer and an ex-Guinea worm supervisor with RASS, was so surprised and pleased to see us coming to fight Guinea worm in its dreadful home. All villagers who heard the news of our arrival, gathered to welcome our team. Chaps were sent to collect our things from the boat. We were offered a goat to eat. We shared our bread and rice with them...."

The seven tractors donated by AGCO Limited at the request of The Carter Center to provide transportation for the SGWEP in swampy areas are scheduled to arrive at Port Sudan on January 24.

NIGERIA CONTINUES TO IMPROVE INTERVENTIONS IN EBONYI & BENUE STATES

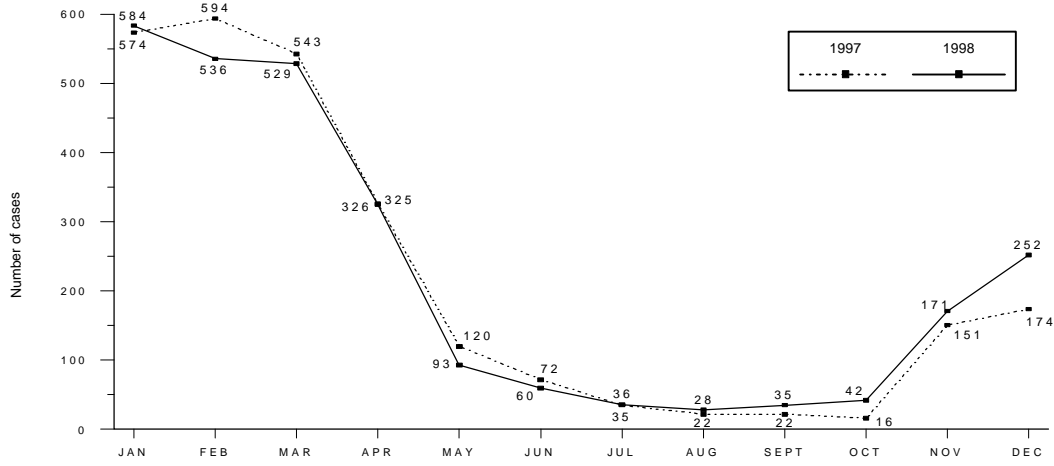


Following the discovery of serious deficiencies in surveillance and interventions in parts of Ebonyi and Benue States in November, the Nigerian program has moved to strengthen active surveillance and interventions in those areas. The latest monthly incidence of dracunculiasis in Ebonyi, Benue and Oyo States is illustrated in Figure 3. Figure 4 shows the distribution of cases of dracunculiasis in the 33 Local Government Areas which reported 81% of all cases during 1998. An emergency shipment of 10,000 square yards of nylon filter

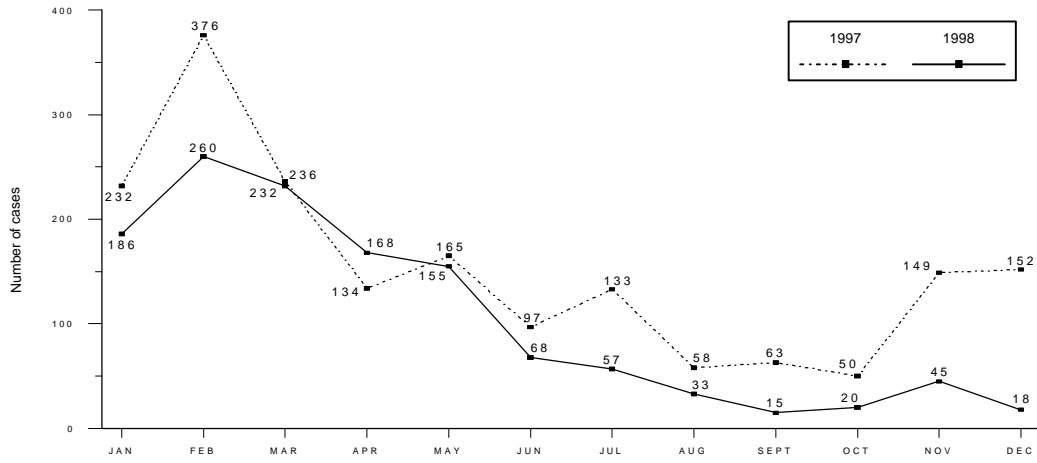
Figure 3

Nigeria Guinea Worm Eradication Program

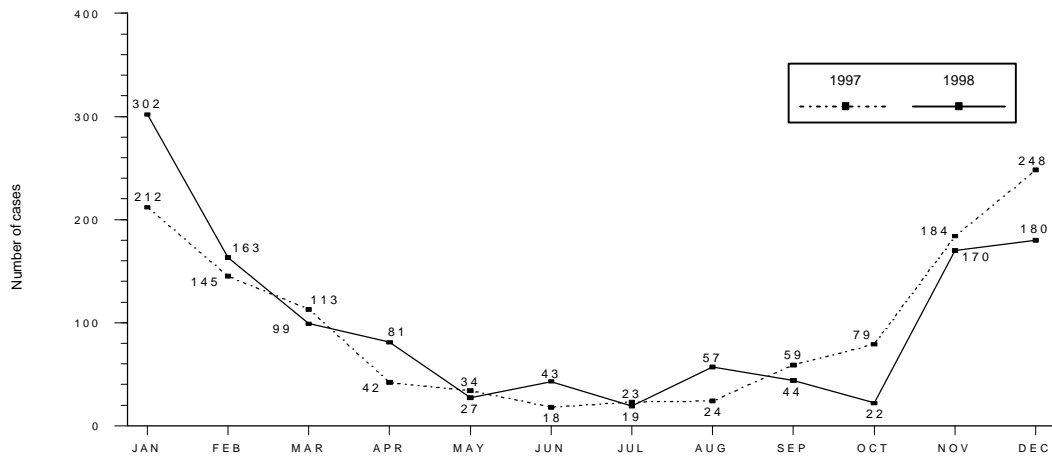
Number of cases of dracunculiasis reported from Ebonyi State during 1997-1998*



Number of cases of dracunculiasis reported from Benue State during 1997-1998*



Number of cases of dracunculiasis reported from Oyo State during 1997-1998*

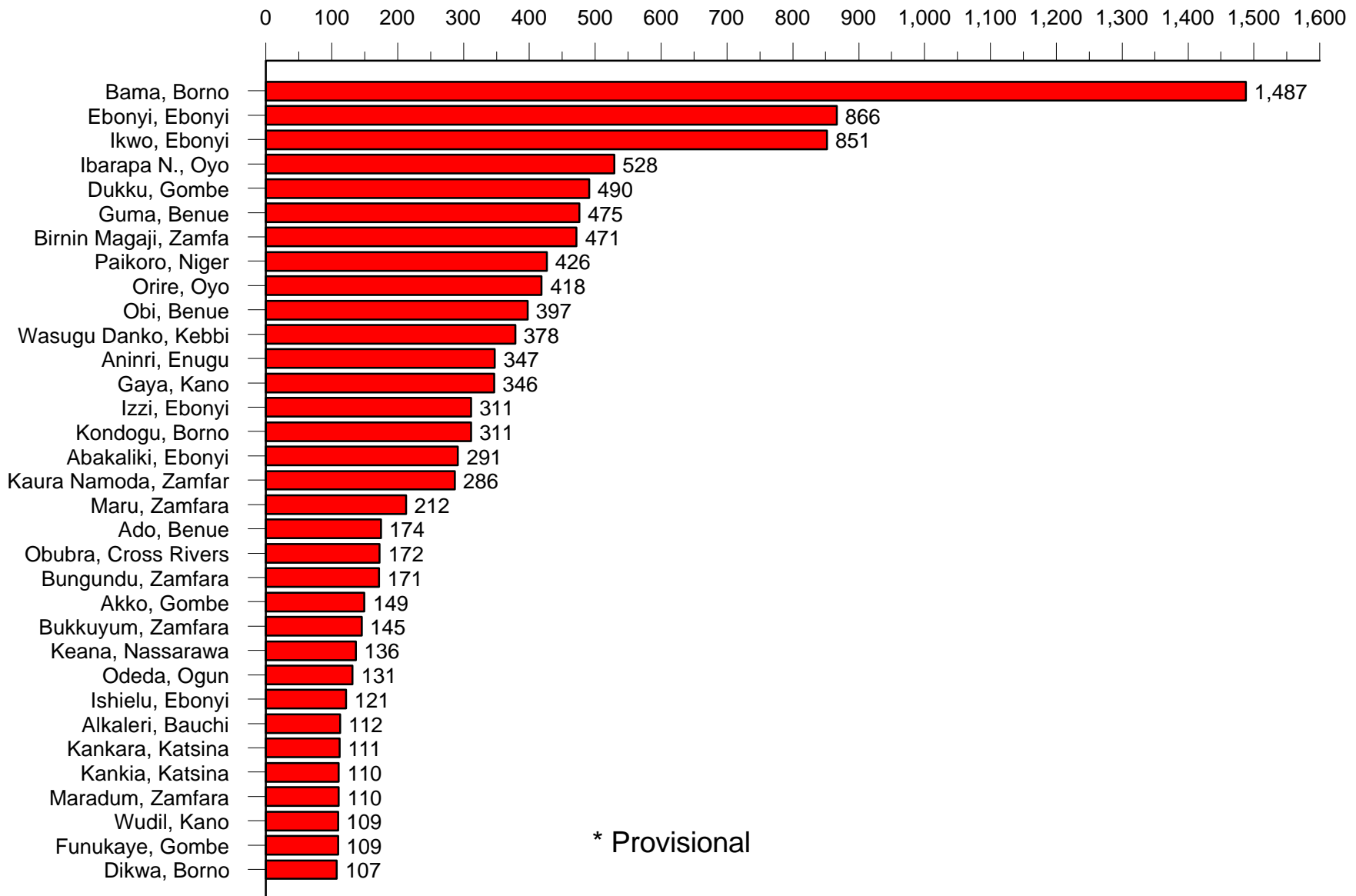


* provisional

Nigeria Guinea Worm Eradication Program

33 LGAs reporting 10,858 (81%) of 13,420 cases reported during 1998*

Number of cases



* Provisional

material (cost: ~US\$38,000) provided by Global 2000 arrived in Lagos on January 7. Two of the four external consultants who assisted the program in October-December 1998 returned to Nigeria in mid January. The Global 2000 RBP in Southeast Zone has loaned 10 motorcycles for use by the Guinea Worm Program in Benue and Ebonyi States until March 1999. In Southwest Zone, Dr. Fola Osigbogun has been appointed deputy zonal facilitator.

In the northern states, Borno alone reported 2,053 (15%) of all cases reported in Nigeria during November 1998. Bama Local Government Area (LGA), the part of Borno State which exported most of the cases reported by Cameroon last year, reported 1,487 cases in 1998. A village-to-village case search began in Bama LGA on December 3rd. UNICEF/Nigeria recently provided a grant of about \$7,700 for use by the program in North East Zone, which includes Borno State. Former President Jimmy Carter will discuss the latest developments in the program with Nigerian Head of State General Abdulsalami Abubakar during a pre-election visit to Nigeria in late January.

NIGER EVALUATION HELPS PROGRAM PREPARE FOR 1999



National Program Coordinator Mr. Sadi Moussa has forwarded results of the latest annual evaluation of the Niger GWEP, which was conducted in December 1998. In the endemic villages sampled, over 92% of households had attended a health education session, all had at least one trained village health worker, and 95% of households had a cloth filter.

However, many water sources that should have been treated with Abate were not treated (some sources in 21% of endemic villages were treated), and not all village health workers had medical kits to use in containing individual cases. Supervision of village health workers was judged to be regular, but its quality needed to be improved.

The Niger GWEP reduced cases by only 11%, but it reduced the number of endemic villages by 29%, from 396 endemic villages on 1/1/98 to 282 by 1/1/99. The program is taking steps to ensure that first aid kits are delivered and training is completed before the onset of the rains in 1999, as well as to extend the use of Abate to all appropriate endemic villages and hamlets. The government of Japan will install the remainder of 83 new wells and rehabilitate 68 others in Zinder's Mirriah District during 1999, and has delivered 3 vehicles and other supplies to the Zinder program as a part of the water supply and health education project they are assisting in that highly endemic district. UNICEF has also delivered motorcycles and case containment kits for use by the Niger program. Forty-five thousand square yards of filter material is being purchased through The Carter Center with funding provided by a grant from DANIDA, and USAID/Niger has granted about \$4500 to Global 2000/Niger for use in preparing cloth filters and case containment supplies.

MALI, MAURITANIA AND SENEGAL DISCUSS CROSS-BORDER ISSUES



The National Program Coordinators of the GWEPs of Mali (Dr. Issa Degoga) and Mauritania (Dr. Sidi Mohammed) joined the Field Coordinator of Senegal's GWEP (Mr. Georges N'Diaye), representatives of WHO and UNICEF, and a few others in a cross-border meeting in the city of Kayes, Mali on December 17-18. Representing WHO at the meeting were Dr. Alhousseini Maiga and Dr. Nevio Zagaria. The participants reported on the status of dracunculiasis in their respective countries, particularly in the border areas, and discussed ways to facilitate

communications and learn more about migratory movements of border populations. Senegal has apparently interrupted transmission of dracunculiasis, with no cases reported since July 1997. Mali has reduced its cases by -45% overall in 1998 (-80% in Kayes Region, which adjoins the formerly endemic area of Senegal and currently endemic areas in Mauritania). Mauritania has reported 373 cases in January-November 1998 compared to 388 cases in 1997 (Figure 5).

The meeting also included a thank you ceremony for 20 health workers in Kayes Region who began working in the Guinea Worm Eradication Program of that region in February 1994, with the support of USAID and Global 2000, and were released from service in October 1998. Dr. Zagaria, the Regional Governor, and the Regional Director of Public Health distributed certificates from General Amadou Toumani Toure, thanking them for their service and expressing appreciation for their success (Kayes Region reported only 29 cases in 1998). The health workers thanked General Toure and the program for the experience and for making them a part of the success story. The Regional Governor, who is President of the Regional Intersectorial Group, represented General Toure at the ceremony.

Mr. Michael Ashcroft, a business executive and philanthropist who attended the African Regional Conference on Dracunculiasis Eradication in Bamako last year, has donated \$150,000 to The Carter Center in support of the eradication program in Mali. This follows a gift of \$100,000 made last year by Mr. Ashcroft to assist the global campaign.

IN BRIEF:

Burkina Faso successfully completed the final two of three regional workshops in December, and has completed a draft Plan of Action (1999-2000), which is currently under review. A total of 209 villages are known to have reported one or more cases of dracunculiasis in 1998 (vs 211 in 1997). A date for the national workshop and re-launching of the program has not yet been announced.

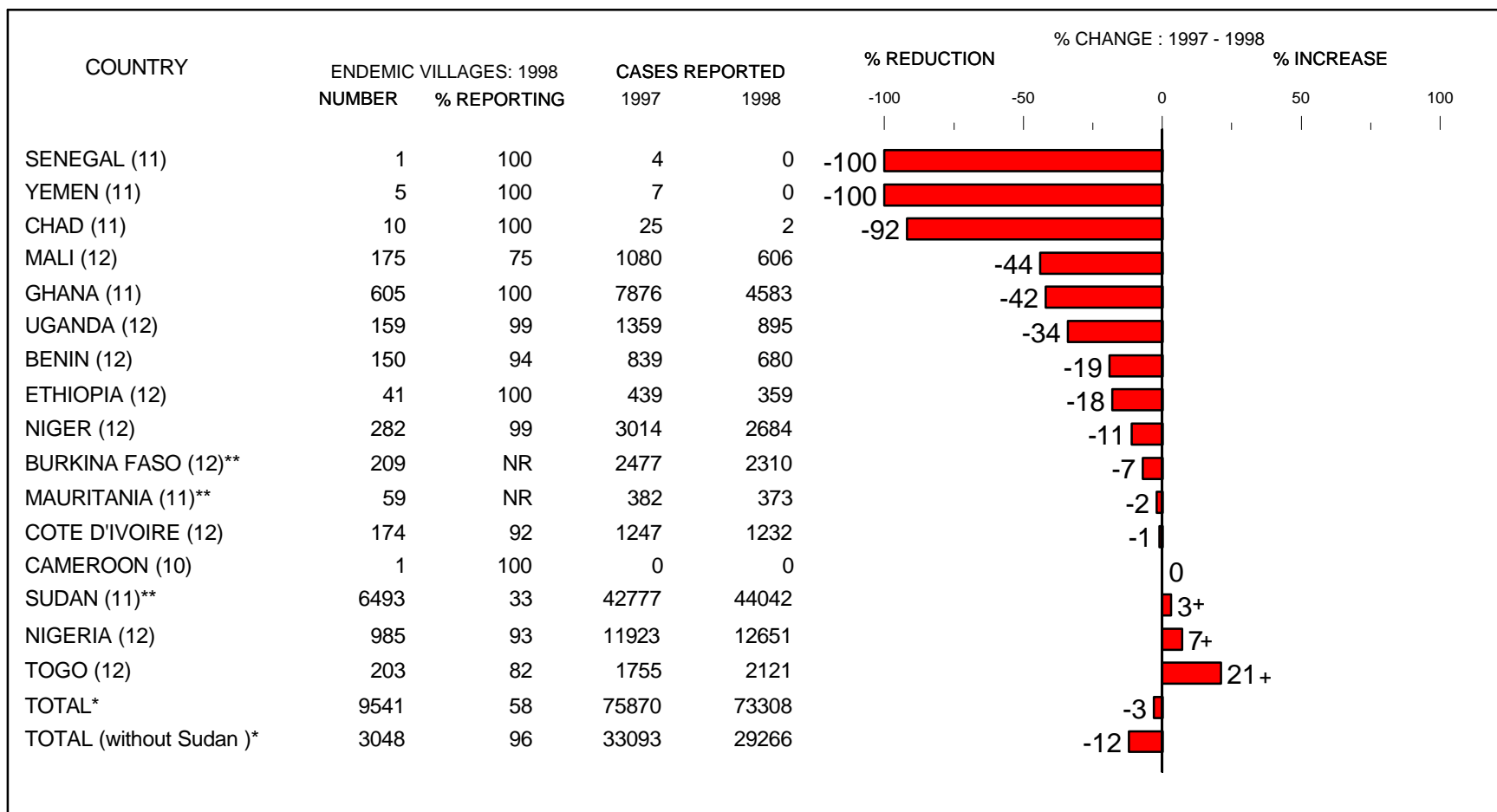
In Ghana, which achieved a 42% reduction in cases in 1998, Atebubu District (Brong-Ahafo Region) alone accounted for 34% of cases reported by Ghana in October, and 43% of November's cases. Kete Krachi District (Volta Region) reported 14% of November's cases. Overall, 80% of the cases reported in Ghana in November were from only 6 of the country's 110 districts.

Togo's minister of health announced on national television that Togo is working to stop transmission of dracunculiasis in the country by December 31, 2000. Global 2000 resident advisor in Niger, Mr. Mohammed Salissou Kane, spent a week in Togo in January reviewing the status of Togo's program at the invitation of Togo's national program coordinator, Mr. K. Ignace Amegbo.

36TH INTERAGENCY MEETING HELD AT WORLD BANK HEADQUARTERS

The 36th Meeting of the Interagency Coordinating Group for Dracunculiasis Eradication met at the headquarters of The World Bank in Washington D.C., on January 13, 1999, under the chairmanship of Mr. Bruce Benton. The meeting, which included representatives of The Carter Center/Global 2000, Centers for Disease Control and Prevention, U.S. Peace Corps, the UN Foundation, UNICEF and the World Health Organization (WHO), was also linked by video-conferencing to WHO headquarters in Geneva, Switzerland. Mr. Benton opened the meeting by reporting that The World Bank would like to step up its efforts in support of the dracunculiasis eradication campaign. In a televised message, WHO director-

**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.

** Countries with low rate of reporting (< 50%) from endemic villages. Percent reductions are over estimates due to under reporting from endemic villages.

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

NR Countries with unknown or low rate of reporting.

**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	465 / 1328	856 / 1254	889 / 1524	1618 / 2627	2135 / 3485	3580 / 6058	3433 / 7428	3374 / 5820	4229 / 6791	2164 / 5259	731 / 2468	/	23474 / 44042	53
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	589 / 670	/	3541 / 4599	77
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 / 6	1 / 17	12 / 160	122 / 295	78 / 514	147 / 744	71 / 212	91 / 299	37 / 54	7 / 8	0 / 0	568 / 2310	25
TOGO	84 / 277	22 / 109	40 / 87	36 / 49	34 / 47	63 / 83	71 / 130	80 / 131	104 / 255	160 / 345	184 / 407	124 / 203	1002 / 2123	47
UGANDA ***	7 / 8	3 / 6	24 / 43	164 / 226	209 / 300	154 / 176	116 / 128	58 / 71	45 / 48	31 / 33	10 / 10	10 / 10	831 / 1059	78
COTE D'IVOIRE	151 / 251	110 / 138	115 / 184	65 / 195	110 / 158	96 / 121	32 / 40	24 / 39	10 / 53	33 / 34	12 / 13	7 / 10	765 / 1236	62
MALI	9 / 10	2 / 5	0 / 0	18 / 24	4 / 8	21 / 63	41 / 94	93 / 149	76 / 101	41 / 95	23 / 35	7 / 26	335 / 610	55
BENIN	92 / 103	22 / 37	10 / 10	29 / 30	25 / 26	10 / 10	7 / 7	10 / 10	25 / 41	100 / 105	195 / 210	95 / 104	620 / 693	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	10 / 12	/	181 / 373	49
CHAD	0 / 0	2 / 2	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	2 / 2	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	~
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	~
CAMEROON ****	0 / 0	0 / 0	0 / 0	0 / 0	1 / 2	4 / 4	8 / 8	5 / 5	2 / 2	/	/	/	20 / 23	87
TOTAL*	3231 / 4817	2751 / 3535	2771 / 3714	3175 / 4755	3999 / 6059	5493 / 9197	5461 / 10967	5017 / 8422	5413 / 8882	3430 / 7380	2180 / 4687	757 / 1140	43678 / 73555	59
% CONTAINED	67	78	75	67	66	60	50	60	61	46	47		59	

* PROVISIONAL

** Reported 1 case imported from Togo in May and 11 in June.

*** Reported 5 cases imported from Sudan in March, 13 in April, 49 in May, 41 in June, 45 in July, 7 in August, 1 in September and 1 in December.

**** Reported 2 cases imported from Nigeria in May, 4 in June, 8 in July, 5 in August, 2 in September, and 2 in October.

general Dr. Gro Harlem Brundtland stated that WHO remains "fully committed" to eradicating dracunculiasis, pledged WHO's intention to work more closely with other partners in the program, and urged the agencies to develop a coordinated workplan and plan for mobilization of the necessary resources. She also promised to work with other United Nations agencies to continue to plead for an end to the war in Sudan. WHO's executive director for communicable diseases, Dr. David Heymann, also expressed his views that a unified workplan and advocacy would help, and that dracunculiasis eradication should not be left to the routine health services. Participants reviewed needs and problems of the remaining endemic countries, heard a report on the status of WHO activities regarding certification and pre-certification countries (Cameroon, C.A.R., Chad, India, Kenya, Senegal, Yemen), and discussed plans for conducting the delayed Program Review for francophone countries at Dakar, Senegal.

RECENT PUBLICATIONS

Sharma RC, and Biswas G. 1998. Guinea Worm Eradication Programme in India. Report and recommendations of the sixth independent evaluation (January 1998). Delhi: Division of Helminthology, National Institutes of Communicable Diseases, 124 pages.

*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.