



Date: March 20, 2000

From:



WHO Collaborating Center for
Research, Training and Eradication of Dracunculiasis

Subject:

GUINEA WORM WRAP-UP # 99

To: Addressees

Detect Every Case, Contain Every Worm!

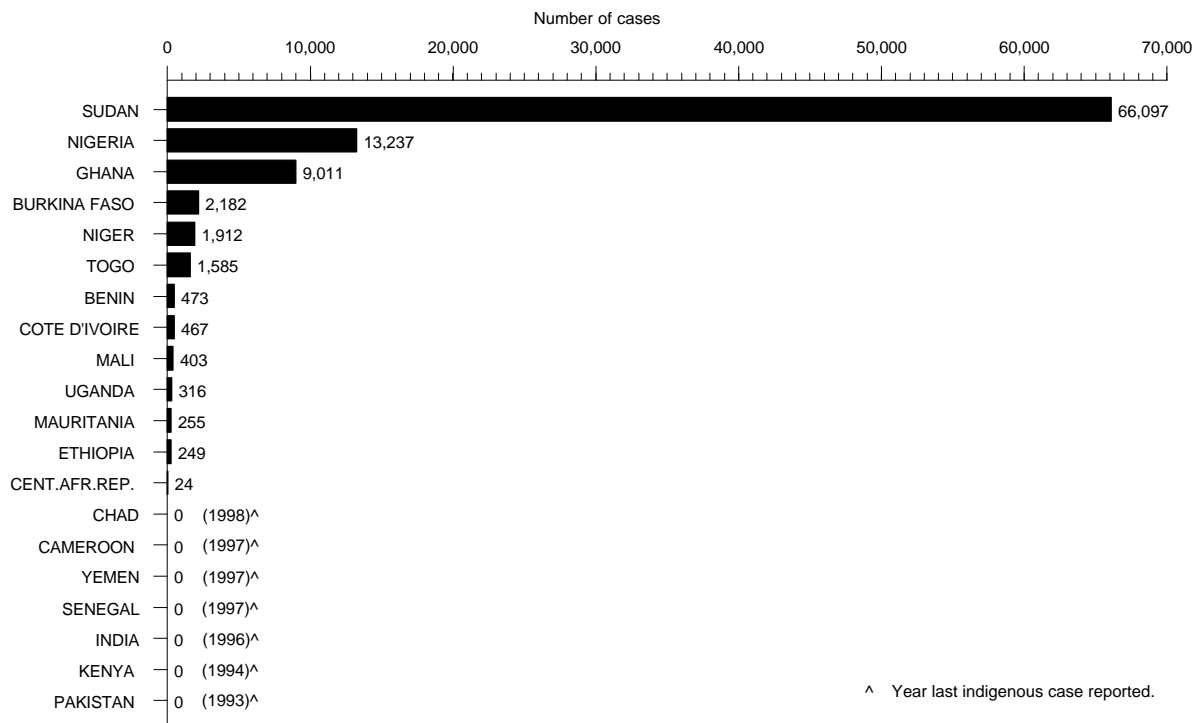
17 COUNTRIES PARTICIPATE IN FIFTH MEETING OF NATIONAL PROGRAM COORDINATORS

About 100 participants, including representatives of Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Ethiopia, Ghana, Guinea, Mali, Mauritania, Niger, Nigeria, Senegal, Sudan, Togo, and Uganda convened in Ouagadougou, Burkina Faso on March 6-9, 2000 for the Fifth Meeting of National Program Coordinators of Guinea Worm Eradication Programs. Former Head of State of Nigeria, General Yakubu Gowon, and former Head of State of Mali, General Amadou Toumani Toure, who have been active advocates for Guinea worm eradication since 1999 and 1993, respectively, both attended and delivered inspirational messages during the Opening Ceremony. This was General Gowon's first participation in one of the annual international meetings on Guinea worm eradication.

Figure 1

Dracunculiasis Eradication Campaign

Distribution of 96,211 Indigenous Cases of Dracunculiasis Reported During 1999 by Country



^ Year last indigenous case reported.

General Gowon, General Toure, and one representative of each of the three major co-sponsoring agencies, (WHO, UNICEF and The Carter Center/Global 2000) also met with the Head of State of Burkina Faso, President Blaise Compaore, to discuss the progress of the eradication campaign. Participants at the coordinators meeting also included several health workers in Burkina Faso's eradication program from districts outside of Ouagadougou, some of the US Peace Corps Volunteers who are participating in the national programs in Burkina Faso and Niger, and one of the Japanese Volunteers who is assisting the program in Niger. Mr. Ross Cox and Mr. Nicholas Farrell represented CDC at the meeting. During the Opening Ceremony, Dr. Donald Hopkins of The Carter Center emphasized the need for the remaining endemic countries to improve supervision and motivation of village-based health workers, increase the intensity and diversity of health education and community mobilization activities (see below), and systematically monitor the status of interventions as well as cases.

Representatives of each country made brief presentations describing the current status of the disease and of the eradication efforts in their nation, followed by discussion. The meeting also included a full day of discussion in three working groups, comprising representatives of countries in the pre-certification stage, and representatives of the still endemic francophone and anglophone countries. The final official reports of statistical data for 1999 are summarized in Figures 1 – 5 and Tables 1, 3 and 4. Cases reported so far during 2000 are shown in Table 2. Highlights of the meeting included presentations and discussions of reasons for the recent lack of progress in Ghana and Nigeria and the steps those two countries have taken to reinvigorate their programs; evidence supporting the recent interruption of transmission of dracunculiasis in Cameroon, Chad, and Senegal; and the significant progress towards interrupting transmission in most of the other countries, as well as in the northern states of Sudan. Cameroon reported that it had investigated a case which was cross-notified from Nigeria last July and found no evidence of infection for the past several years in the alleged originating area near Lake Chad, and that no one in the community knew the patient. Central African Republic (C.A.R.) showed a video illustrating some of the 26 cases that it now reported for 1999, all of which were found in southeastern villages bordering the Democratic Republic of Congo. During follow-up meetings with the major external partners, Cameroon and Chad were unable to secure support for their ongoing integrated surveillance activities.

Dr. Fred Wurapa of the International Commission for the Certification of Dracunculiasis Eradication described the results of the latest meeting of the Commission (see below), and announced that the group had recently recommended that India be certified as having interrupted transmission of the disease. He stressed the level of documentation that the Commission will require in order to certify that transmission has been interrupted in recently endemic countries, and urged the national coordinators to begin preparing for that by preserving records of programmatic and surveillance activities. The Carter Center and WHO provided copies of India's thoroughly documented Country Report, which had been presented to the Commission in support of India's application for certification, to each of the endemic countries represented at this meeting. Unfortunately, the surveillance reports from Chad and Cameroon after August 1999 and from C.A.R. after June 1999 were not available at the time of the meeting of the Commission in February 2000.

UGANDA AND ETHIOPIA'S KEYS TO SUCCESS?



During the workgroup discussions in Ouagadougou, representatives of Uganda and Ethiopia responded similarly to the question, "To what actions do you attribute your program's successful reductions in 1999?" Both in 1998 had had adequate and timely



funding, used line listings to prioritize endemic villages, implemented cash rewards for reporting of cases, and intensive supervision and spot-checking, and both replaced poorly performing health workers. Both programs also had to contend with insecurity in endemic areas. Although the Guinea Worm Eradication Program is not a high priority for the ministry of health in Ethiopia, it enjoys strong governmental support in Uganda.

INTERNATIONAL COMMISSION RECOMMENDS CERTIFICATION OF INDIA AND 41 OTHER COUNTRIES



The International Commission for the Certification of Dracunculiasis Eradication (ICCDE) held its fourth meeting at WHO headquarters from 15 to 17 February 2000. The Commission reviewed applications from 55 countries and territories from the 6 WHO Regions and recommended to the Director General of WHO to certify 42 countries and territories as free of Dracunculiasis:

- **Africa Region:** Burundi, Lesotho, Malawi and Namibia.
- **Region of the Americas:** Antigua & Barbuda, Argentina, Aruba, Bahamas, Belize, Chile, Costa Rica, Ecuador, Guatemala, Guyana, Haiti, Honduras, Paraguay, Peru, Puerto Rico, Saint Vincent & the Grenadines, Suriname, USA (including US Virgin Islands) and Venezuela.
- **Eastern Mediterranean Region:** Libya, Morocco and Saudi Arabia.
- **European Region:** Georgia, Greece, Portugal (including Azores and Madeira), Tajikistan, Turkey, and Turkmenistan.
- **South East Asia Region:** India, the Democratic People's Republic of Korea and Thailand.
- **Western Pacific Region:** Australia and its territories, China, the Marshall Islands, Nauru, New Zealand, the Northern Mariana Islands and Tokelau.

Commission members expressed admiration for the excellent documentation provided by India's program in its Country Report to the commission. Several participants also expressed concern about the poor state of surveillance for dracunculiasis in Kenya, based on the report of the review of that system by the Kenyan Ministry of Health and WHO staff in September 1999 (see *Guinea Worm Wrap-Up* #97). During the meeting, Dr. Daniel Colley, acting director of the WHO Collaborating Center at CDC, made a thorough presentation summarizing the status of dracunculiasis in the remaining endemic countries.

With India being certified and Yemen having interrupted transmission since October 1997, dracunculiasis transmission is now confined to the African continent. In countries where transmission has recently been interrupted (Chad, Senegal, and Yemen) or where no indigenous cases were reported in 1999 (Cameroon, Kenya) surveillance is being intensified and should include coverage of non-endemic areas at risk over a period of at least three years, since transmission was interrupted.

HEAD OF STATE CRITICIZES GHANA'S PROGRAM; RAPID IMPROVEMENTS FOLLOW



Republic of Ghana

Ghana's President Jerry Rawlings made his disappointment in the country's Guinea Worm Eradication Program publicly known during his annual Parliamentary Session Address at the beginning of this year "in no uncertain terms", according to the national

program coordinator, Dr. Sam Bugri. Ripples from the head of state's remarks began to be felt almost immediately, with further intensification of activities in endemic districts. Dr. Bugri himself participated in a "durbar" organized by the ministry of health to re-launch the eradication program in the highest endemic district, Kete-Krachi (Volta Region), on February 10th. By early March, inhabitants of that district's highest endemic community, Osramani (reported one-fourth of the district's 1,666 cases in 1999), were drinking safe, clean water from a new source as a result of efforts by Mr. Francis Yaw Osei-Sarfo, District Chief Executive and the District Assembly. Similar new efforts are underway in the second-highest district, Atebubu (Brong-Ahafo Region). Filter coverage of households in most endemic villages of Northern, Volta, and Brong-Ahafo Regions has increased dramatically to near-saturation levels. Filters are also being provided for use by farmers while in their fields. Specific measures have been taken to motivate village-based health workers and ensure that they actively search for cases, and to correct deficiencies in management of surgical extractions and the reward system. The program has begun using line-listings and new supervisory check-lists. Approximately 2000 new flip charts, 5000 posters and 1000 t-shirts are being distributed, courtesy of Global 2000 and WHO. Brong-Ahafo Region is finalizing a new booklet to aid teaching about dracunculiasis prevention in schools. All these activities have been accompanied by several related news reports on Ghana national radio, television, and newspapers. This program is also receiving increased technical assistance from The Carter Center/Global 2000, including a visit in March by Drs. Ernesto Ruiz-Tiben and Donald Hopkins.

Ghana has reported a total of 9,027 cases in 934 villages in 1999 - an increase of 65% over the cases in 1998. More than half (587) of the villages reporting cases in 1999 were "new" endemic villages. In January 2000, Nanumba District reports the highest number of cases in Northern Region: 356 of the provisional total of 1,034 cases. UNICEF is assisting the rehabilitation of borehole wells in Nanumba District, which reported 67 cases in January 1999.

Figure 2

**Percentage Change in Number of Cases of Dracunculiasis
Countries, Outside Ghana, Nigeria, and Sudan:**

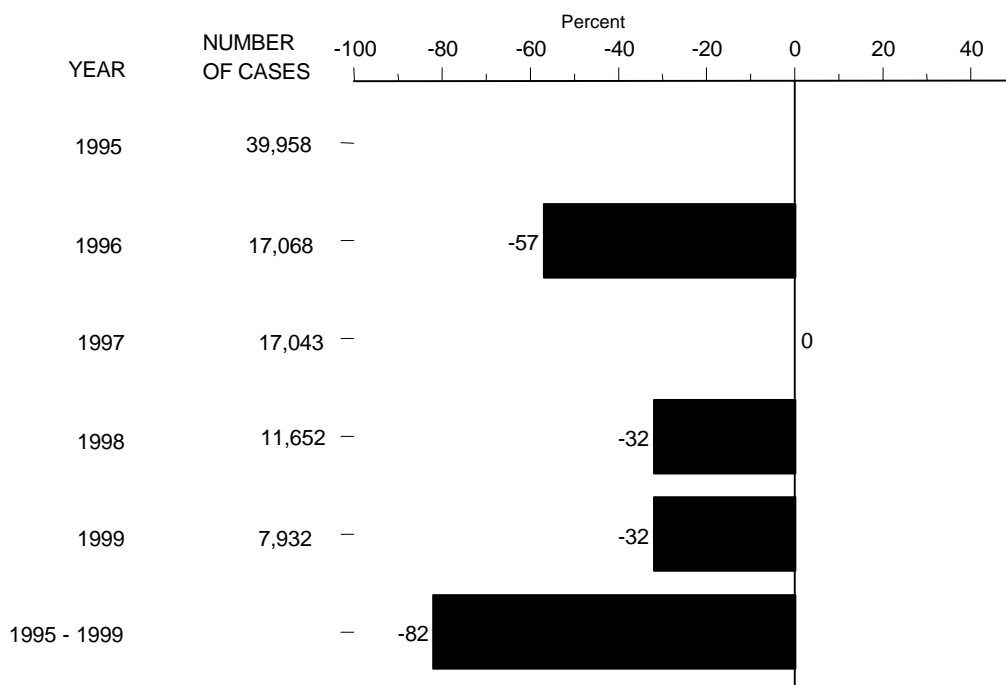
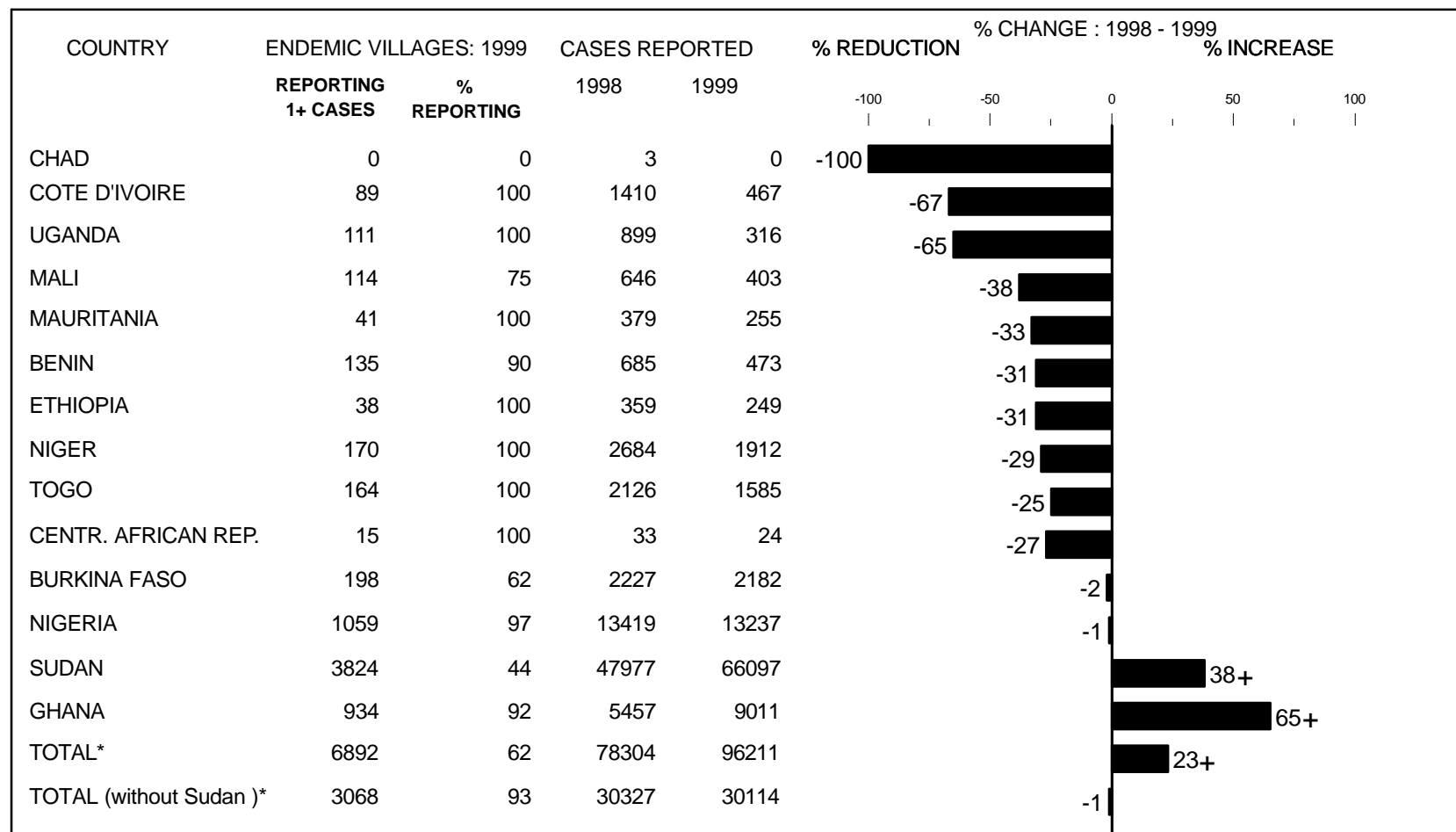


Figure 3

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



* Totals do not include imported cases.

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	1365 / 2894	1658 / 3290	1517 / 2946	1631 / 3189	3595 / 6567	4614 / 9321	4592 / 9848	4293 / 9867	3576 / 8304	2939 / 4345	2323 / 3601	1420 / 1925	33523 / 66097	51	
NIGERIA	585 / 1372	755 / 1435	945 / 1175	874 / 1112	1148 / 1437	1130 / 1502	781 / 1566	557 / 976	353 / 536	331 / 506	524 / 780	479 / 840	8462 / 13237	64	
GHANA	921 / 1140	616 / 1139	546 / 1000	450 / 771	378 / 650	231 / 412	124 / 214	54 / 83	88 / 131	385 / 501	571 / 1115	1180 / 1871	5544 / 9027	61	
NIGER	2 / 2	3 / 3	2 / 2	6 / 6	35 / 45	156 / 300	215 / 480	197 / 486	161 / 332	87 / 157	32 / 63	20 / 44	916 / 1920	48	
BURKINA FASO	1 / 1	1 / 5	46 / 65	19 / 74	160 / 291	243 / 626	201 / 459	156 / 363	131 / 211	11 / 18	32 / 40	0 / 7	1001 / 2160	46	
TOGO	87 / 102	57 / 84	20 / 32	33 / 35	48 / 71	60 / 73	53 / 101	53 / 122	101 / 148	159 / 334	188 / 330	113 / 157	972 / 1589	61	
COTE D'IVOIRE	40 / 55	27 / 44	30 / 39	29 / 45	37 / 54	56 / 67	33 / 44	17 / 22	18 / 20	28 / 29	24 / 35	20 / 22	359 / 476	75	
UGANDA	3 / 6	7 / 7	7 / 7	19 / 21	66 / 70	99 / 102	36 / 39	29 / 32	16 / 16	9 / 10	7 / 8	2 / 3	300 / 321	93	
BENIN	84 / 89	22 / 27	14 / 15	8 / 10	11 / 12	2 / 3	5 / 6	4 / 7	8 / 10	65 / 91	104 / 128	89 / 94	421 / 492	86	
MALI	1 / 2	2 / 2	3 / 3	2 / 2	11 / 14	44 / 72	62 / 89	43 / 71	51 / 64	32 / 62	4 / 20	3 / 4	258 / 405	64	
MAURITANIA	0 / 0	0 / 0	0 / 0	2 / 2	0 / 0	1 / 2	17 / 37	38 / 70	37 / 91	12 / 31	4 / 12	2 / 10	113 / 255	44	
ETHIOPIA	0 / 0	0 / 0	5 / 5	14 / 15	38 / 42	68 / 68	56 / 56	40 / 40	10 / 13	1 / 1	3 / 3	3 / 4	238 / 247	96	
CHAD ¹	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1 / 0	0 / 0	0 / 0	0 / 0	1 / 1	100	
CAMEROON ²	1 / 1	0 / 0	0 / 0	0 / 0	1 / 1	1 / 1	3 / 3	2 / 2	0 / 0	0 / 0	0 / 0	0 / 0	8 / 8	100	
KENYA ³													1	100	
C.A.R. ⁴	1 / 4	2 / 3	3 / 6	0 / 1	0 / 1	1 / 2	0 / 0	0 / 0	0 / 0	1 / 1	2 / 5	2 / 3	12 / 26	46	
TOTAL*	3090 / 5668	3153 / 6039	3134 / 5295	3087 / 5283	5528 / 9302	6705 / 12582	6174 / 12947	5482 / 12093	4550 / 9869	4059 / 6086	3816 / 6140	3335 / 4989	52113 / 96293	54	
% CONTAINED	55	52	59	58	59	53	48	45	46	67	62	67	54		

* Provisional

¹ Reported one case in September imported from Nigeria² All 8 cases reported during January - August 1999 were imported from Nigeria.³ Reported 1 case in August imported from Sudan.⁴ Central African Republic reported 26 alleged (unconfirmed) cases of dracunculiasis. These cases are not included in the totals.

Table 2

**Number of cases contained and number reported by month during 2000*
(Countries arranged in descending order of cases in 1999)**

COUNTRY	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													%
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	
SUDAN	64 / 87	/	/	/	/	/	/	/	/	/	/	/	64 / 87	74
NIGERIA	707 / 1263	455 / 1021	/	/	/	/	/	/	/	/	/	/	1162 / 2284	51
GHANA	1737 / 1896	/	/	/	/	/	/	/	/	/	/	/	1737 / 1896	92
BURKINA FASO	/	/	/	/	/	/	/	/	/	/	/	/	0 / 0	
NIGER	1 / 1	2 / 2	/	/	/	/	/	/	/	/	/	/	3 / 3	100
TOGO	/ 81	/ 49	/	/	/	/	/	/	/	/	/	/	0 / 130	0
BENIN	40 / 53	20 / 29	/	/	/	/	/	/	/	/	/	/	60 / 82	
COTE D'IVOIRE	21 / 25	12 / 44	/	/	/	/	/	/	/	/	/	/	33 / 69	48
MALI	/	/	/	/	/	/	/	/	/	/	/	/	0 / 0	
UGANDA	3 / 4	/	/	/	/	/	/	/	/	/	/	/	3 / 4	75
MAURITANIA	0 / 0	0 / 0	/	/	/	/	/	/	/	/	/	/	0 / 0	
ETHIOPIA	0 / 0	0 / 0	/	/	/	/	/	/	/	/	/	/	0 / 0	
C.A.R.	/ 4	/ 2	/	/	/	/	/	/	/	/	/	/	0 / 6	0
CHAD**	/	/	/	/	/	/	/	/	/	/	/	/	0 / 0	
CAMEROON **	/	/	/	/	/	/	/	/	/	/	/	/	0 / 0	
TOTAL*	2573 / 1509	489 / 1118	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	3062 / 4561	48
% CONTAINED	171	44											67	

* Provisional

Figure 4

Number of Reported Cases of Dracunculiasis, by Year, 1989 - 1999

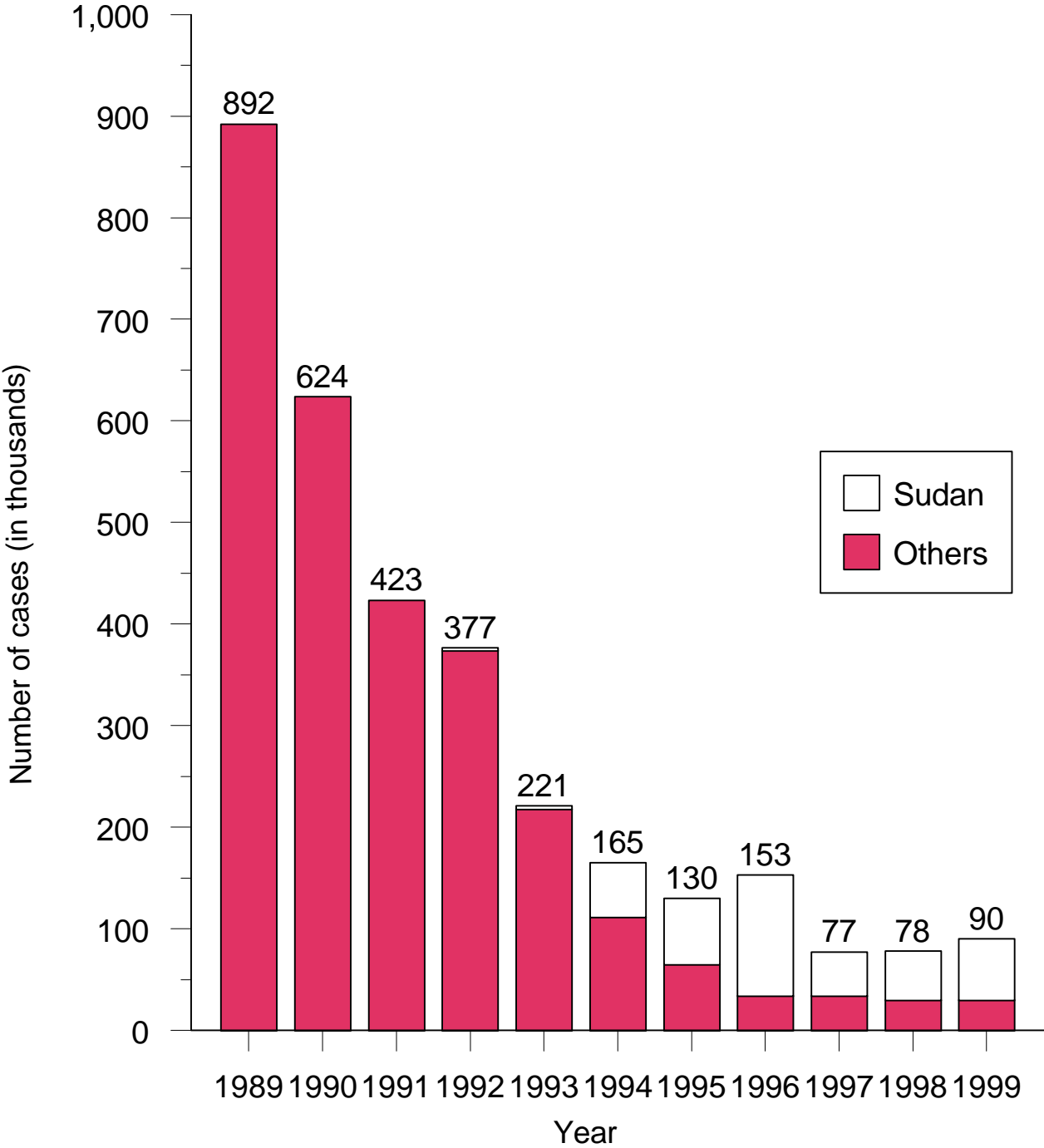


Figure 5

Year, Number of National Programs Reporting, and Number of Villages with Endemic Dracunculiasis

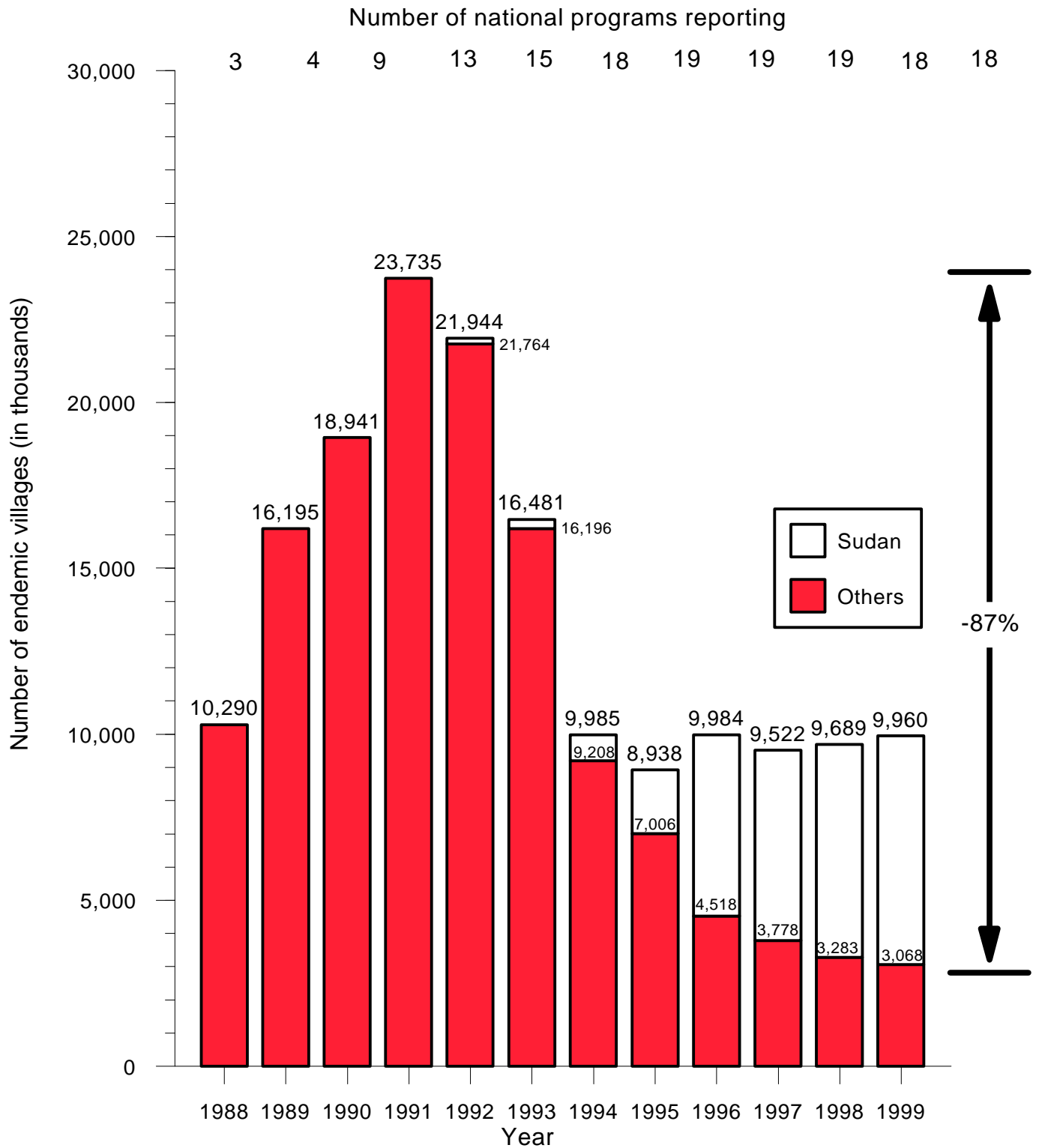


Table 3

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	3	1
		July	2	2	2
	Ghana	June	3	3	?
	Mali	July	1	1	1
		August	1	1	1
		September	4	4	4
Cote d'Ivoire	Mali	December	1	0	?
Ghana	Togo	January	2	2	?
	Cote d'Ivoire	March	1	1	1
	Benin	August	1	1	1
Mali	Niger	September	1	?	1
		?	1	?	1
	Burkina Faso	?	2	?	?
Niger	Cote d'Ivoire	August	2	2	2
		November	1	1	1
Nigeria	Cameroon	January	1	1	1
		May	1	1	1
		June	1	1	1
		July	3	3	3
		August	2	2	2
	Niger	?	3	?	3
	Chad	September	1	1	1
Sudan	Uganda	January	1	1	1
		April	1	1	1
		June	1	1	1
		August	2	?	?
	Kenya	August	1	?	1
	Cent. Afr. Rep.	?	1	?	?
Togo	Benin	January	1	0	1
		February	1	0	1
		May	10	3	10
		July	1	0	1
		August	1	0	1
		September	1	1	1
		October	3	1	3
	Ghana	April	13	11	?
Dem. Rep. of Congo**	Cent. Afr. Rep.	?	1	?	?
Total			82	48	57

* Notified to country of origin through WHO.

** Endemic transmission of dracunculiasis in DRC not confirmed. Origin of infection is uncertain.

MONITORING HEALTH EDUCATION AND COMMUNITY MOBILIZATION ACTIVITIES

The need for programs to diversify and intensify their activities to educate and mobilize persons in at-risk villages is increasingly evident. Stale approaches based on a few posters and lectures by health staff are inadequate for the challenging endemic communities that remain. Programs should seek to foster *discussion and dialogue* about dracunculiasis prevention with affected populations as much as possible, while ensuring that key messages (always filter your drinking water; patients with emerging worms should never enter drinking water sources) are conveyed via as many channels as possible. As more countries use line-listings to help monitor the status of interventions against dracunculiasis in their Guinea Worm Eradication Programs, a code is needed to help indicate which health education/community mobilization measures are being used in affected areas. As a start, countries may wish to consider the following draft code, which was developed in Ghana. Local programs might be encouraged to compete to see how many of these different channels they can bring to bear in each of their area(s):

1. flip charts/demonstration of copepods in water
2. t-shirts/Guinea worm cloth
3. durbar (public ceremony)
4. posters
5. radio (news, messages, songs, jingles)
6. schools
7. churches/mosques
8. local chief/political/traditional leader
9. market strategy (megaphone, pagivolts, banners; for surveillance and education)
10. theater/drama
11. video/slide show
12. other

A code such as this would allow programs to reflect their health education / community mobilization efforts in depth in a small space on the line listing.

IN BRIEF

Benin General Amadou Toure Toumani of Mali visited President Mathieu Kerekou in Benin February 18 – 22 to ask the president to become personally involved in Benin's program. While there, General Toure participated in a ceremony to deliver some of the 400 bicycles purchased by the Government of Benin for the Guinea Worm Eradication Program.

Niger Dr. Donald Hopkins, Mr. M. Salissou Kane, and Mr. Issoufou Issa of The Carter Center/Global 2000 met with President Mamadou Tandja on February 18th during a visit by Dr. Hopkins to Niger. The meeting took place in follow-up to a letter to the newly-elected head of state by former U.S. President Jimmy Carter. President Tandja said he plans to visit an endemic village later this year. Hopkins also visited several endemic villages in Mirriah District of Zinder Region.

Nigeria Ebonyi LGA of Ebonyi State reported 39 cases in February 2000, compared to 369 cases in February 1999 (see *Guinea Worm Wrap-Up # 98*), a reduction of –89%. Nigeria has reported overall reductions in cases of –8% in January and –29% in February. Three zones of the country have reported cumulative reductions in cases in January-February 2000: -76% in Northeast, -19% in Southeast, and –14% in Southwest. Northwest Zone reports an increase of 16% for the same period.

Uganda UNICEF will provide 74 borehole wells to at-risk or endemic villages in 2000: 32 in Kotido, 22 in Moroto, and 20 in Kitgum. Uganda's National Steering Committee on Guinea worm eradication met for the second time on March 14th, under the chairmanship of Dr. Sam Okware. Members were given copies of criteria for certification of dracunculiasis eradication by WHO to study and make comments and contributions during the next meeting. It was agreed that active surveillance be intensified in all previously endemic villages. Members also agreed to increase the amount of cash reward for reporting of a case, with the amount to be decided at the Interdistrict Meeting on 27 – 29 March 2000 in Moroto.

**Table 4 Dracunculiasis Eradication Campaign
Number of Villages Reporting one or more Cases of Dracunculiasis
During 1998 - 1999**

Country	Number of villages reporting 1+ cases		% Change
	1998	1999*	
Sudan	3123	3824	22
Nigeria	1177	1059	-10
Ghana	625	934	49
Niger	282	170	-40
Burkina Faso	209	198	-5
Togo	203	164	-19
Benin	181	135	-25
Mali	177	114	-36
Uganda	160	111	-31
Cote d'Ivoire	154	89	-42
Mauritania	57	41	-28
Ethiopia	41	38	-7
Central Africa Rep.	16	15	-6
Chad	1	0	-100
Cameroon	0	0	0
Total	6406	6892	8
Total without Sudan	3283	3068	-7
Without Sudan, Ghana and Nigeria	1481	1075	-27

*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. Daniel Colley, Acting 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.