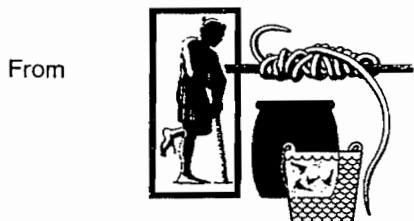




Memorandum

Date September 3, 1996



From WHO Collaborating Center for
Research, Training, and Eradication of Dracunculiasis

Subject GUINEA WORM WRAP-UP #59

To Addressees

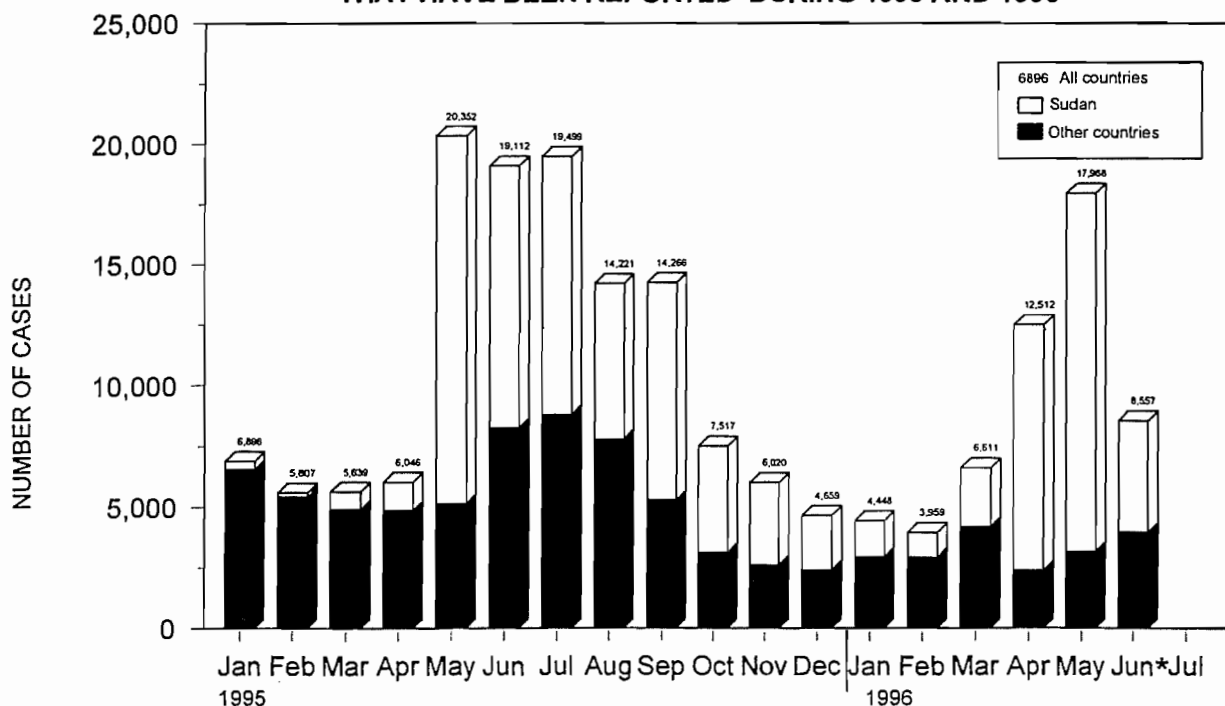
Detect Every Case, Contain Every Worm!

67% OF GLOBAL CASES IN SUDAN . . .

Sudan has reported 67% of all cases of dracunculiasis during the first six months of 1996 (Figure 1, Table 1). This is increased from the 33% of global cases that were reported by Sudan in 1994, and the 50% of global cases that were reported by Sudan in 1995. Within Sudan, 92% of the cases were reported from six southern states: Northern Bahr al Ghazal, Warab, Western Equatoria, Jongoli, Buheirat (Lakes), and Eastern Equatoria (Table 2, Figure 2).

Figure 1

**NUMBERS OF CASES OF DRACUNCULIASIS IN THE WORLD
THAT HAVE BEEN REPORTED DURING 1995 AND 1996**



* Partial Data from Sudan

Table 1

NUMBER OF CASES CONTAINED AND NUMBER REPORTED BY MONTH, 1996
(COUNTRIES ARRANGED IN DESCENDING ORDER OF CASES IN 1995)

COUNTRY	# OF ENDEMIC VILLAGES: 1/1/96	NUMBER OF CASES IN 1995	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED												TOTAL*		
			JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER			
SUDAN	1932	64608	416 / 1512	414 / 1056	1494 / 2413	1534 / 10122	4627 / 14806	888 / 4587	/	/	/	/	/	/	/	/	9373 / 34476
NIGERIA	1846	16374	778 / 1264	926 / 1023	562 / 675	559 / 801	523 / 1153	803 / 1870	/	/	/	/	/	/	/	/	4151 / 6786
NIGER	750	13821	17 / 25	2 / 5	0 / 0	9 / 10	28 / 75	167 / 210	346 / 510	/	/	/	/	/	/	/	569 / 835
GHANA	1057	8894	467 / 611	657 / 863	538 / 728	388 / 535	340 / 502	231 / 386	142 / 235	/	/	/	/	/	/	/	2763 / 3860
BURKINA FASO	516	6281	25 / 28	37 / 57	72 / 128	46 / 152	230 / 355	326 / 498	159 / 207	/	/	/	/	/	/	/	895 / 1425
UGANDA	810	4810	39 / 46	22 / 24	28 / 40	232 / 276	329 / 444	264 / 310	146 / 162	/	/	/	/	/	/	/	1060 / 1302
MALI	534	4218	54 / 76	8 / 15	14 / 19	55 / 153	78 / 86	132 / 212	219 / 359	/	/	/	/	/	/	/	560 / 920
COTE D'IVOIRE	252	3801	241 / 369	303 / 598	146 / 271	153 / 313	137 / 331	127 / 249	89 / 128	/	/	/	/	/	/	/	1196 / 2259
TOGO	302	2073	200 / 227	168 / 194	38 / 96	51 / 53	61 / 61	78 / 78	/	/	/	/	/	/	/	/	598 / 709
BENIN	491	2273	133 / 256	56 / 94	14 / 23	43 / 51	48 / 81	15 / 22	/	/	/	/	/	/	/	/	309 / 527
MAURITANIA	255	1762	1 / 8	1 / 4	7 / 10	0 / 2	1 / 1	9 / 10	4 / 4	/	/	/	/	/	/	/	23 / 39
ETHIOPIA	77	514	0 / 1	1 / 4	2 / 2	15 / 27	58 / 64	88 / 110	89 / 98	/	/	/	/	/	/	/	253 / 306
CHAD	39	149	24 / 24	34 / 34	23 / 23	4 / 4	0 / 0	4 / 4	0 / 0	/	/	/	/	/	/	/	89 / 89
YEMEN	21	82	0 / 1	7 / 8	12 / 12	14 / 14	5	6 / 10	4 / 5	/	/	/	/	/	/	/	48 / 55
SENEGAL	15	76	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1 / 1	0 / 0	/	/	/	/	/	/	/	1 / 1
INDIA	24	60	0 / 0	0 / 0	0 / 0	2 / 2	4 / 4	0 / 0	3 / 3	/	/	/	/	/	/	/	9 / 9
KENYA	0	23	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	/	/	0 / 0
CAMEROON**	4	15	0 / 0	0 / 0	1 / 1	0 / 0	0 / 0	0 / 0	2 / 2	/	/	/	/	/	/	/	3 / 3
PAKISTAN	0	0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	0 / 0
TOTAL*	8925	129834	2395 / 4448	2636 / 3959	2951 / 4441	3107 / 12515	6469 / 17968	3139 / 8557	1203 / 1713	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	21900 / 53601

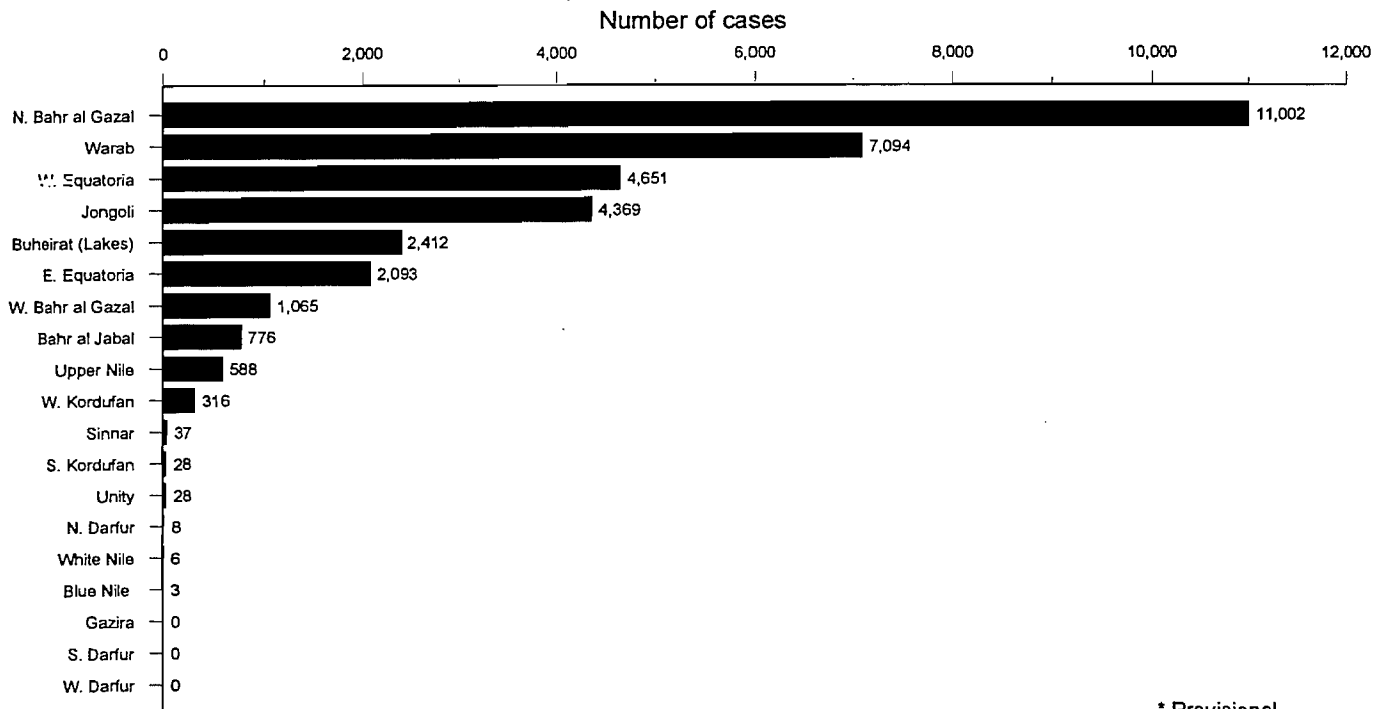
* Provisional
** July cases (2) were imported

In 1996, the percentage of known endemic villages reporting monthly in Sudan has averaged only 31% (Figure 3), which suggests that the incidence of dracunculiasis in Sudan is still significantly under-reported. The 34,476 cases reported in Sudan in January-June 1996 represent an increase of 21% over the 28,482 cases reported during the first six months of 1995 (Figure 4), but surveillance of dracunculiasis was especially incomplete in Sudan during the first three months of 1995, before the Guinea Worm Cease-Fire. Of the Sudanese cases reported so far this year, 27% have received minimal first aid care and/or have been contained (Figure 3).

The number of known endemic villages in Sudan is now at 4,141, of which 3,394 are in the southern part of the country. This represents 38% of the 10,819 villages known to be endemic globally. The Sudan GWEP has recently prepared a map showing the areas of the country where the program has not yet had adequate access for implementing surveillance and control measures (Figure 5). Despite the constraints, approximately 49% of endemic villages have a trained village-based volunteer, at least 56% have had one or more health education sessions during 1996, and about 34% of endemic villages have a cloth filter in every household (more than half of all endemic villages have received some cloth filters). A total of over 150,000 cloth filters were distributed in Sudan during the first five months of 1996. Helping to provide external support for Sudanese workers in this program are Action Africa in Need, Association of Christian Resource Organizations Serving Sudan, Adventist Development and Relief Agency, Action Internationale Contre la Faim, CARE, Carter Center/Global 2000, Christian Mission Aid, Coordinating Committee for Voluntary Service, Diocese of Torit, International Rescue Committee, Medecins du Monde, Medecins sans Frontieres-Belgium, Norwegian Church Aid, Operation Lifeline Sudan, OXFAM, Save the Children, Sudan Medical Care, UNICEF, and World Vision International.

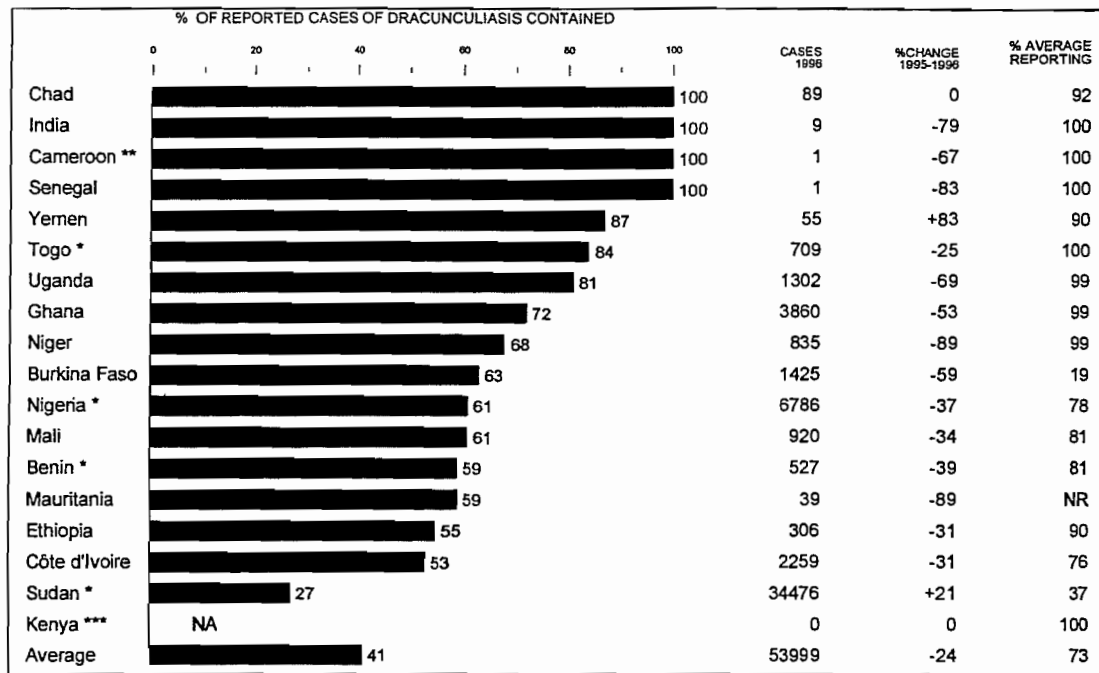
Figure 2

**SUDAN GUINEA WORM ERADICATION PROGRAM
DISTRIBUTION BY STATE OF 34,476 CASES REPORTED: JANUARY - JUNE 1996***



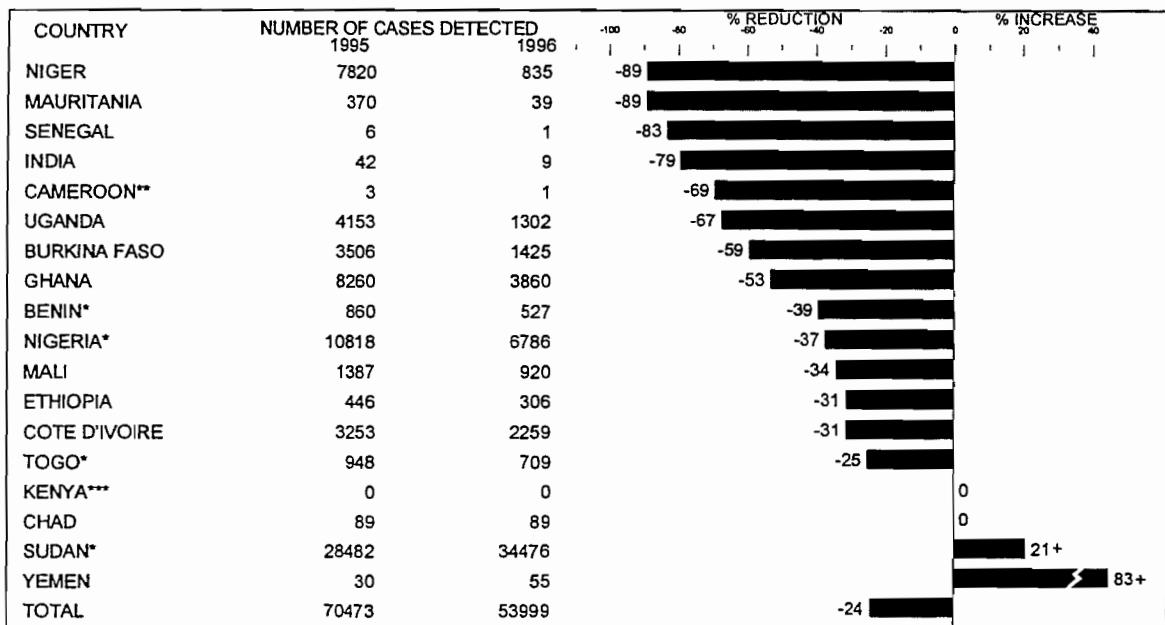
* Provisional

Figure 3 PERCENTAGE BY COUNTRY OF CASES CONTAINED, REDUCTION IN CASES COMPARED TO SAME PERIOD IN 1995, AND ENDEMIC VILLAGES REPORTING: JANUARY - JULY 1996 †



* Includes reports for January - June only
 ** Reported 2 imported cases from Nigeria in July
 *** Reports from 19 villages under surveillance during January - May.
 NR Not Reported
 † Provisional
 NA Not applicable

Figure 4 PERCENTAGE CHANGE IN NUMBER OF CASES OF DRACUNCULIASIS REPORTED DURING JANUARY - JULY 1995 AND JANUARY - JULY 1996, † BY COUNTRY



* Reports for January - June only
 ** Reported two cases imported from Nigeria in July
 *** Reports for January - May from 19 villages under surveillance
 † Provisional

AREAS OF SOUTHERN SUDAN WITH ENDEMIC DRACUNCULIASIS AND AREAS INACCESSIBLE FOR IMPLEMENTING SURVEILLANCE AND CONTROL MEASURES.

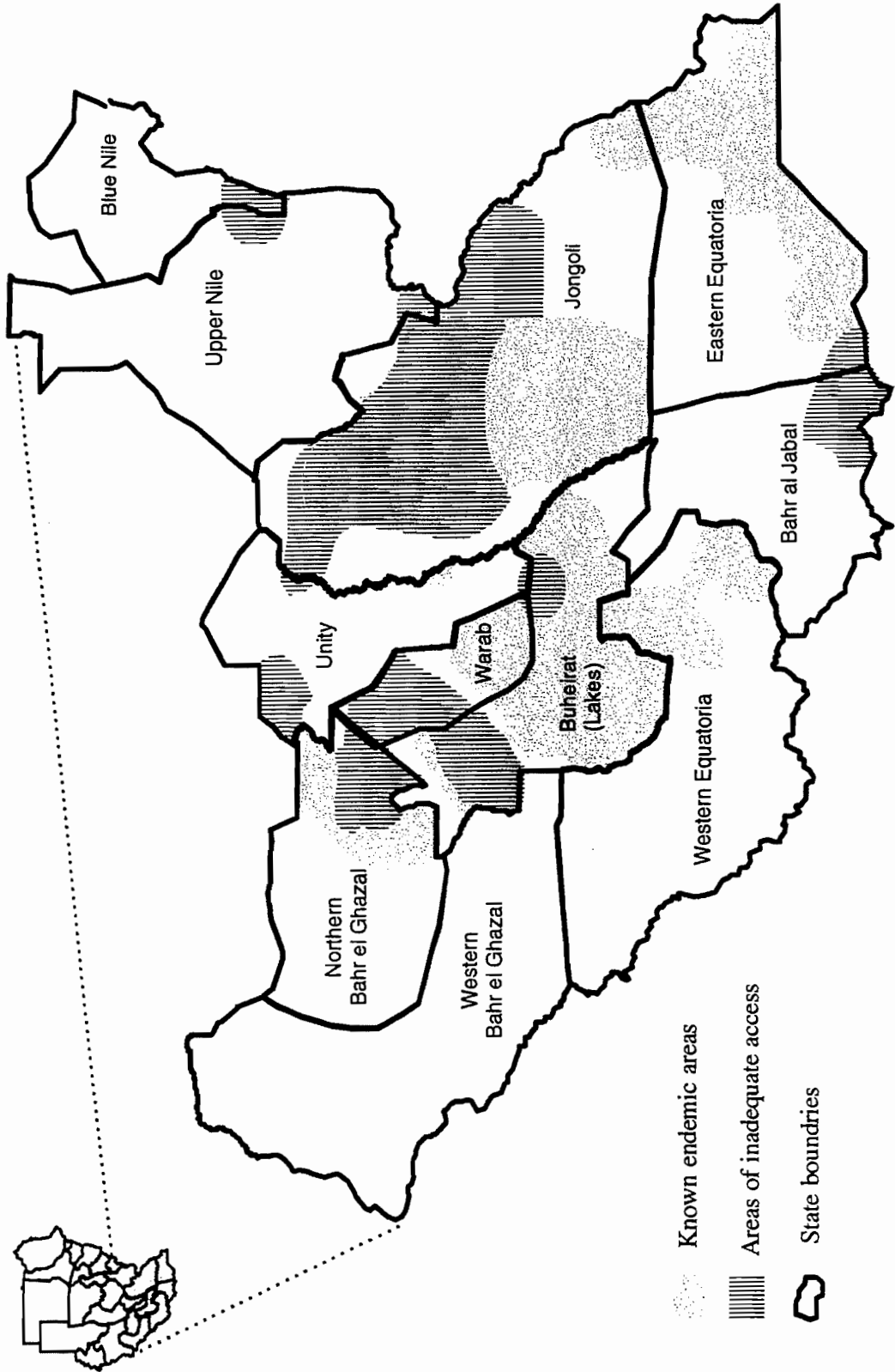


Figure 5

... ALL OTHER COUNTRIES REDUCE CASES BY 56%, CONTAIN 66% IN 1996

Outside of Sudan, steady progress continues in most other countries (Figures 3,4). Of the non-Sudanese cases of dracunculiasis reported so far this year, 66% have reportedly been contained, and the rate of reduction in cases in all other countries this year as compared to the same time last year is 56%. However, these averages obscure some disappointing performances, as well as some dramatic successes. Of the highest endemic countries, Niger and Uganda have achieved admirably high rates of reduction in incidence this year: 89% and 67%, respectively, as compared to the same period last year, having now completed all or most of their peak transmission seasons for 1996. In the four original endemic departments of Mali, incidence is also reduced by an impressive 67% through June, and the numbers of cases reported so far this year from prospective surveillance in Gao and Timbuktu are fortunately much less than last year's retrospective surveys had suggested would occur.

Ghana's reduction of 53% so far is less than expected, but should improve greatly during the second half of this year, based on the low incidence and high case containment rates in July-December 1995. The biggest concern, however, is Nigeria, where incidence in May and June 1996 was almost the same (4% less) as in May-June 1995, making Nigeria's reduction in incidence for the first six months of 1996 only 37%. The main states contributing to Nigeria's unexpectedly higher numbers in 1996 are Katsina and Sokoto in May, and Bauchi in June. Burkina Faso has had very poor reporting this year because of the meningitis epidemic, with 63% of its reported cases contained. Côte d'Ivoire has reduced its incidence by only 31% compared to 1995, with 52% of its reported cases contained.

EDITORIAL NOTE:

As the numbers show, programs in nearly all endemic countries outside of Sudan are now moving in the right direction. But most are not moving fast enough, considering that we are now eight months past the target date for eradication. At this stage of the campaign, programs should be reducing annual incidence by at least 80%, and striving to contain 100% of this year's cases.

This is an eradication program, not a control program. The two are very different. Eradication requires intolerance to any distraction from that goal, including premature or inappropriate integration of control measures with other activities. In areas where Guinea worm has not yet been eradicated, completing eradication will require highest priority.

In areas where dracunculiasis is no longer endemic, village-based health workers should be integrated into other programs (which then become responsible for their support, training, and supervision) immediately. But workers in the remaining endemic areas need to maintain their primary focus on eradicating dracunculiasis. In those still-endemic areas, other programs should "Ask not what Guinea worm eradication can do for them, but ask what they can do for Guinea worm eradication". The sooner Guinea worm disease is eradicated, the better for everybody.

We know what needs to be done now: work meticulously on the details of implementing CASE CONTAINMENT in the remaining endemic areas, including active surveillance, vector control, and social mobilization. CASE CONTAINMENT requires detecting each case within 24 hours of worm emergence and immediate management and care of the patient to prevent transmission. Community mobilization and/or vector control should follow within 24 hours of case detection. To do these things effectively requires regular supervisory visits and concentrating on the remaining endemic villages.

1996 EVALUATION OF NIGERIAN PROGRAM COMPLETED

The Nigerian GWEP (NIGEP) was evaluated June 10-28 by four teams of three persons, each of which included two Nigerians with no affiliation to the program and one expatriate from CDC, Global 2000, UNICEF, or WHO. Each team worked in one of the four zones of the country. In each zone, the two most highly endemic states were visited (Bauchi, Benue, Enugu, Jigawa, Katsina, Oyo, Ogun, Sokoto) and, in each of those states, the two most highly endemic Local Government Areas (LGAs). A total of 56 villages were visited. The evaluation focused on case containment, surveillance, and supervision. The teams were able to verify that 55% of cases reported in April 1996 in the areas visited had been contained, and that 83% of endemic villages had been reported for that month. Of the cases investigated, 82% had reportedly been contained, as compared to the average 55% verified (documented case containment ranged from 0% to 73% among the four zones). Except for South East Zone, case containment reports were not maintained routinely in the villages or at the LGAs. Where case containment reports could be reviewed, there was an average of 3 days between emergence of a worm and notification of a health person, and an average of 2 days between notification of a health person and bandaging of the wound. An average of 61% of the villages visited had received filters in 1996 so far, and 61% of 72 persons interviewed reported having been told not to enter sources of drinking water if they had an emerging worm. Of the endemic villages visited, 26% were using vector control.

The key conclusion of the evaluation is summarized in the report as follows: "Notwithstanding . . . the remarkable progress made by NIGEP, the evaluation teams found supervision to be the weakest component of all the eradication activities. This weakness is due less to a shortage in the number of zonal, state, and LGA staff available for supervision than to the frequency and quality of the supervision provided." The teams felt that improving supervision would also improve the shortcomings in surveillance and case containment that were observed in some of the areas they visited. Figure 6 shows how much of Nigeria is already free of dracunculiasis or has reported no cases in the first six months of 1996. This is a remarkable achievement which awaits the final intensive push to complete the job.

JAPAN AND OPEC PROVIDE ADDITIONAL SUPPORT VIA WHO

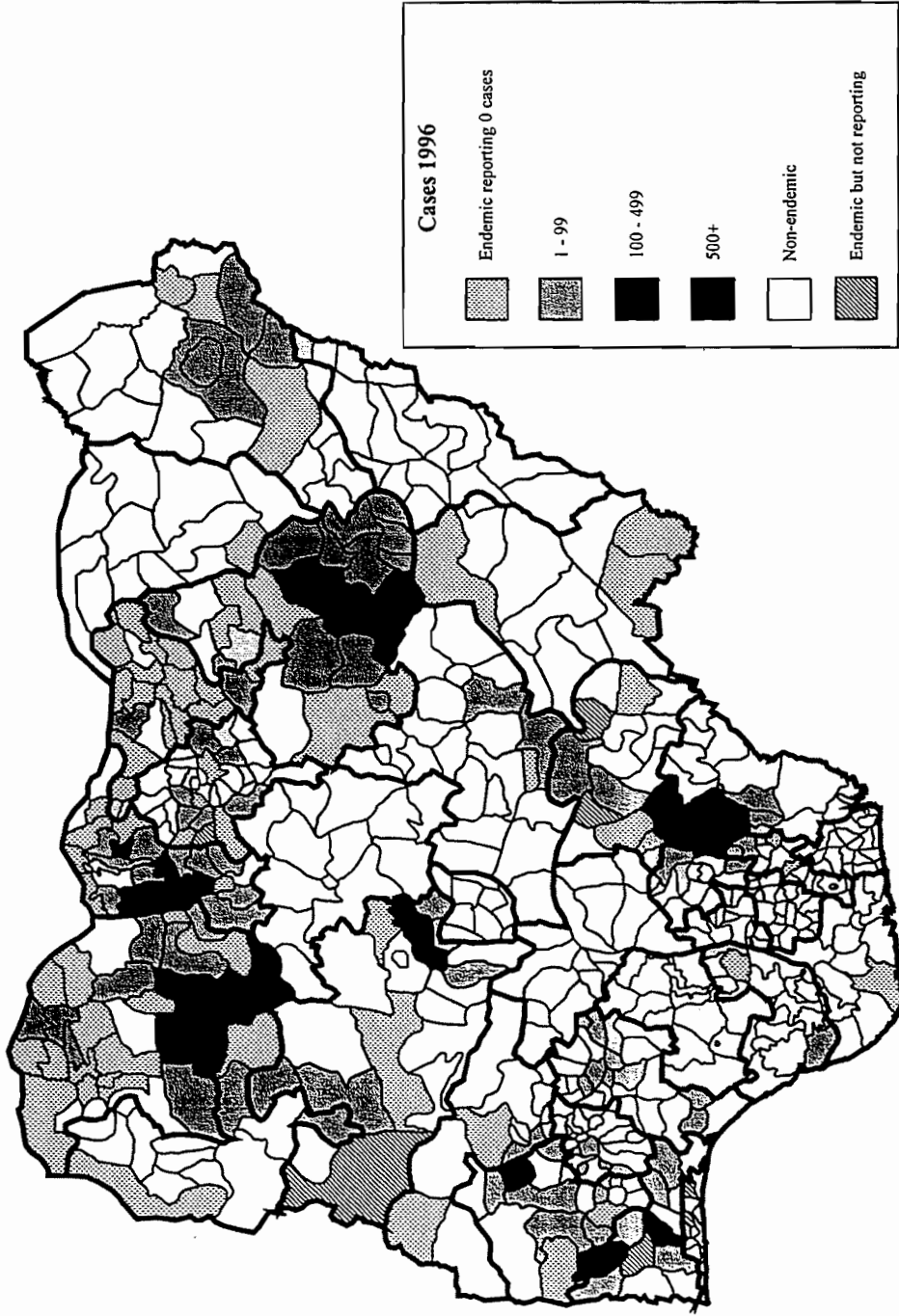
In June, WHO received \$200,000 from the Government of Japan for support of certification of eradication activities in 14 countries during 1996. The same month, the OPEC Fund for International Development informed WHO that it would provide \$150,000 to the organization in support of case-containment operations of the Guinea Worm Eradication Program.

ARRIVAL OF ABATE

The long-awaited latest shipments of Abate donated by American Cyanamid/American Home Products to the Carter Center for the program have arrived in Accra, Lagos, and Nairobi. National Coordinators should note that this Abate was manufactured in July 1995 and has an expiration date of July 1997. Therefore, it is important to use the Abate judiciously and appropriately during the next 11 months. National Coordinators should also arrange to collect the designated amounts for their programs. Of the 2,700 liters sent to Accra, 480 liters each are for Burkina Faso and Mali, 240 liters each for Côte d'Ivoire, Mauritania, and Togo, and 100 liters for Senegal (already collected). Of the 2,700 liters sent to Lagos, 600 liters are for Niger (already collected) and 240 liters for Benin. Of the 1,600 liters sent to Nairobi, 480 liters are for Uganda. This is the last shipment of donated Abate to West Africa.

Figure 6

NIGERIAN GUINEA WORM ERADICATION PROGRAM
DISTRIBUTION OF 6,786 CASES OF DRACUNCULIASIS REPORTED
JANUARY - JUNE 1996 BY LOCAL GOVERNMENT AREAS (LGA)



The designations employed in the presentation of this map do not imply expression of any opinion concerning the delimitation of Nigeria's frontiers or other boundaries. The authors have not verified the accuracy or completeness of this map.

IN BRIEF:

Michael Kinzer, the U.S. Peace Corps Volunteer assigned to the Global 2000/Niger GWEP sub-office in Zinder, recently developed and implemented the first Worm Week in Zinder. Five Peace Corps Volunteers and five Nigerian counterparts from Zinder and Maradi Departments joined forces to spend four days in five key endemic villages, during which each pair of volunteers (1 PCV and 1 Nigerian worker) worked intensively with the villagers, village-based health worker, and chief in their assigned village to educate, mobilize, and otherwise motivate villagers to prevent Guinea worm. By all accounts, Zinder's Worm Week was a grand success.

National coordinators and others from the national GWEPs of Burkina Faso, Mali, and Niger met in Koro, Mali, on July 23-24 to discuss border issues of mutual concern.

Representatives of the GWEPs of Togo and Ghana held a border conference for the first time in the Ghanaian town of Ho on August 7-8. The meeting was widely covered in the news media. Both programs agreed to meet every six months.

Uganda held its annual Guinea Worm Eradication Day and Conference, which was geared towards the anticipated end of dracunculiasis transmission in the country, in Kampala, on July 22-23. Each endemic district presented an analysis of when, where, and why the final case in their district would occur. It was agreed that a reward system would be started in the less endemic districts in the coming months.

Ethiopia is introducing cash rewards for reporting of cases, using resources provided by Health and Development International. A reward of 50 birr (about US\$8) each will be given to the patient and to the reporting person after case containment measures have been implemented by the verifying officer. Ethiopia thus joins Cameroon, India, Kenya, Pakistan, and Yemen in offering such rewards during the final stage of its program. The second National Review Meeting is scheduled to be held on August 27 in Awassa.

Global 2000 has announced changes in assignment of several of its personnel, effective in August-September: Mr. Craig Withers will return to headquarters in Atlanta from Sudan. Mr. Elvin Hilyer (formerly in Uganda) becomes Global 2000's resident advisor in Sudan. Mr. Mike Street (formerly in Nigeria) becomes the resident advisor in Uganda, and Mr. Wayne Duncan (on loan from CDC) becomes the resident advisor in Nigeria. In addition, Global 2000 and WHO/AFRO have agreed to share costs of supporting Dr. Alhousseini Maiga, who will continue to provide consultation to dracunculiasis eradication programs now that ITECH has closed. Dr. Maiga will work out of the WHO office in Ouagadougou (FAX: c/o WHO Country Representative, 226-33 25 41).

RECENTLY EXPORTED/IMPORTED CASES

Nigeria to Cameroon: 2 cases in July, both contained and cross-notified.

Nigeria to Togo: 1 case in May, contained (?) and cross-notified.

Sudan to Uganda: 4 cases in April-May and 1 case in July, none contained, all cross-notified.

Togo to Ghana: 3 cases in June, contained (?), cross-notified (?).

Ghana to Togo: 1 case in June, contained and cross-notified.

GENERAL TOURE WINS 1996 AFRICA PRIZE



During a globally telecast news conference held in conjunction with the annual summit of the Organization of African Unity in Yaounde on July 11, the New York-based Hunger Project named General Amadou Toumani Touré of Mali and Chief (Mrs.) Bisi Ogunleye of Nigeria as the winners of the 10th annual Africa Prize for Leadership for the Sustainable End of Hunger. In addition to his singular leadership which brought democracy to his country, General Touré was cited for his leadership of the campaign to eradicate Guinea Worm in Mali and elsewhere. The \$100,000 Africa Prize, which will be shared by the two 1996 laureates, will be presented on September 26 at a ceremony to be held in conjunction with the opening of the United Nations General Assembly. Congratulations, General ATT !!!

MEETINGS

- The 1996 Program Review for English-speaking endemic countries will be held in Nairobi, Kenya, September 23-26.
- The Sudan GWEP will hold its next North-South Coordination Meeting on September 27, 1996 in Nairobi, Kenya.
- The 1996 Program Review for all French-speaking endemic countries will be held in Nouakchott, Mauritania, October 27-31.
- The second meeting of the International Commission for the Certification of Dracunculiasis Eradication, previously scheduled to be held in Cairo, Egypt, in September, has been postponed. Certification teams are still scheduled to visit Pakistan and Iran in the next few months.

RECENT PUBLICATIONS



Brieger WR, Kendall C, 1996. The Yoruba farm market as communication channel for guinea worm surveillance. Social Science and Medicine, 42: 233-243.

Brieger WR, Adekunle SA, Oke GA, Adesope A, 1996. Culturally perceived illness and guinea worm disease surveillance. Health Policy and Planning, 11:101-106.

Brieger WR, 1996. Health education to promote community involvement in the control of tropical diseases. Acta Tropica, 61:93-106.

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**10th ANNIVERSARY OF THE
FIRST AFRICAN REGIONAL CONFERENCE ON DRACUNCULIASIS**

We acknowledge with this issue the 10th anniversary of the First African Regional Conference on Dracunculiasis which convened at the Palais de Congress in Niamey, Niger, on July 1-3, 1986. Over 50 participants attended, including representatives from 14 African countries affected by the disease. The Carnegie Corporation of New York, the Agency for International Development (USAID), the Centers for Disease Control, and WHO co-sponsored the Conference. Most of the funding for the meeting was provided by the Carnegie Corporation of New York.

* * * * *

*Inclusion of information in the Guinea Worm Wrap-Up does not constitute "publication" of that information.
The GW Wrap-Up is published 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.