



Date July 13, 1998

From



Who Collaborating Center  
Research, Training and Eradication of Dracunculiasis

Subject

GUINEA WORM WRAP #80

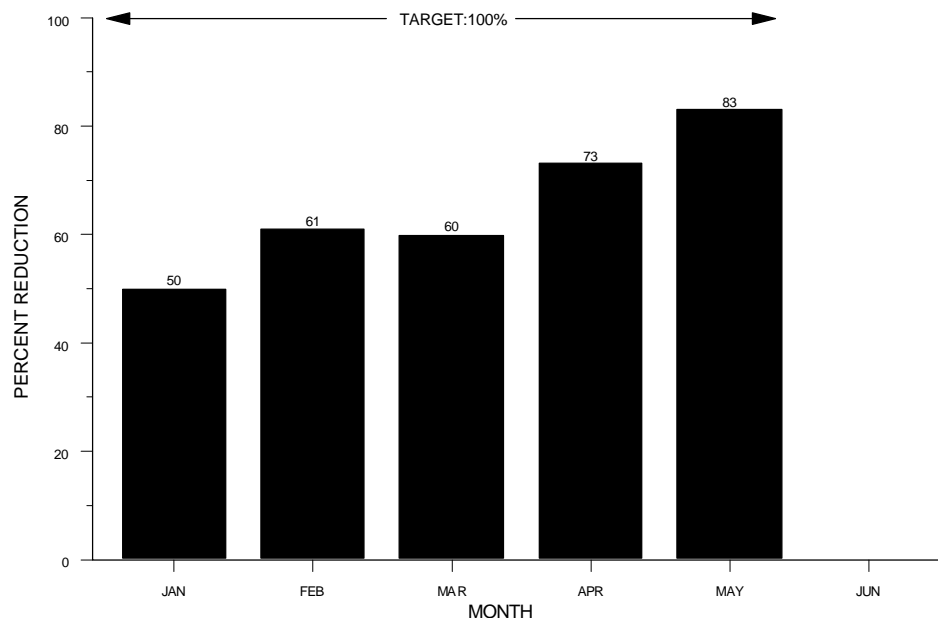
To Addresses

## **Detect Every Case, Contain Every Worm!**

### **GHANA'S NORTHERN REGION ACHIEVES 83% REDUCTION IN MAY!**

The Northern Region of Ghana continues to attain increasing rates of reduction of dracunculiasis in 1998 (Figure 1). The 83% reduction achieved there in May 1998 (87 cases, vs. 523 cases in May 1997) is unprecedented for such a highly endemic region of any country in the global Guinea Worm Eradication Program so far. This spectacular impact is a direct result of improved surveillance following introduction in December 1996 of small cash rewards for reporting of cases, intensified containment of cases, treatment of a few key dams with Abate beginning in January 1997, and provision or rehabilitation of safe water sources in a few key endemic towns over the past year and a half. [The most urgent challenge for Northern Region now is to determine how and why those 87 cases in May 1998 escaped all the interventions that the region had in place in May 1997: who are those people (age, sex, tribe, occupation, village), and where were they most likely infected (home, farm, visit to another village)? Each of those cases drank water which 1) had been contaminated by someone last year, 2) wasn't filtered, and 3) wasn't treated with Abate.

**GHANA GUINEA WORM ERADICATION PROGRAM  
PERCENT REDUCTIONS IN NUMBERS OF CASES OF DRACUNCULIASIS REPORTED  
FROM THE NORTHERN REGION: JANUARY - MAY, 1998 vs. JANUARY - MAY 1997**



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	465 / 1328	649 / 937	744 / 1135	1528 / 2426	1314 / 2109	/	/	/	/	/	/	/	4700 / 7935	59
NIGERIA	1982 / 2020	1224 / 1305	1210 / 1278	854 / 942	949 / 1220	/	/	/	/	/	/	/	6219 / 6765	92
GHANA	870 / 1277	535 / 709	478 / 554	276 / 382	208 / 263	/	/	/	/	/	/	/	2367 / 3185	74
NIGER	7 / 11	4 / 4	5 / 5	42 / 43	129 / 168	277 / 367	/	/	/	/	/	/	464 / 598	78
BURKINA FASO	1 / 1	5 / 7	/ 13	/ 100	/ 8	/	/	/	/	/	/	/	6 / 129	5
TOGO	72 / 251	18 / 91	29 / 78	14 / 22	29 / 40	/	/	/	/	/	/	/	162 / 482	34
UGANDA	7 / 8	3 / 6	24 / 43	167 / 226	190 / 295	/	/	/	/	/	/	/	391 / 578	68
COTE D'IVOIRE	151 / 251	110 / 138	115 / 184	65 / 195	/	/	/	/	/	/	/	/	441 / 768	57
MALI	9 / 10	2 / 5	0 / 0	17 / 21	4 / 8	/	/	/	/	/	/	/	32 / 44	73
BENIN	88 / 99	22 / 36	9 / 9	28 / 29	23 / 23	/	/	/	/	/	/	/	170 / 196	87
ETHIOPIA	1 / 1	6 / 6	10 / 10	59 / 61	66 / 68	86 / 90	/	/	/	/	/	/	228 / 236	97
MAURITANIA	0 / 0	0 / 0	0 / 0	4 / 4	0 / 0	1 / 1	/	/	/	/	/	/	5 / 5	100
CHAD	0 / 0	2 / 2	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	2 / 2	100
YEMEN	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	/	/	0 / 0	~
SENEGAL	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	0 / 0	~
CAMEROON**	0 / 0	0 / 0	0 / 0	0 / 0	2 / 2	/ 3	/	/	/	/	/	/	2 / 5	40
TOTAL*	3653 / 5257	2580 / 3246	2624 / 3309	3054 / 4451	2914 / 4204	364 / 461	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	15189 / 20928	73
% CONTAINED	69	79	79	69	69	79							73	

\* Provisional

\*\* Reported 2 case imported from Nigeria in May, 3 in June and 2 in July.

Learning quickly where the deficiencies were in last year's interventions will permit the program to correct them now, avoid similar mistakes this year, and prevent residual cases next year. Most of next year's cases will be some of the same people and households that have dracunculiasis this year. Congratulations to Dr. Sam Bugri, Dr. Sylvester Anemana, Dr. Andrew Seidu Korkor, Mr. Patrick Apoya, Mr. Patrick O'Mara, and their colleagues!

Ghana as a whole has reduced its incidence of dracunculiasis by 48% in January-May 1998 (Figure 7, Table 1). Four of the ten regions have had no indigenous cases so far this year: Ashanti, Greater Accra, Upper East, and Western. As Ghana's annual period of lowest transmission (August-October) approaches, the national program should be poised to detect EVERY case and contain EVERY worm that appears after September 1, 1998 (Figure 5).

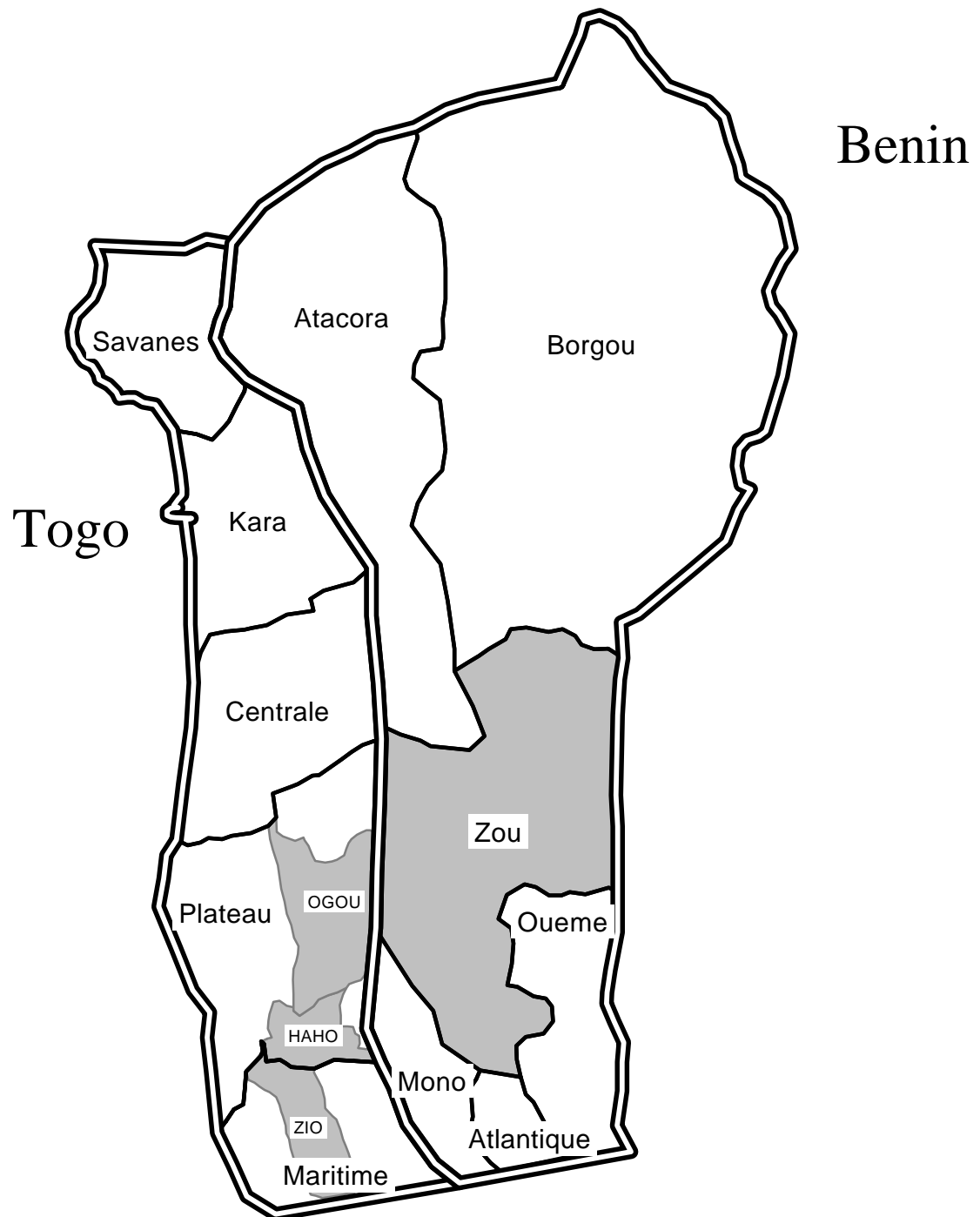
Global 2000's new Resident Technical Advisor to the Ghanaian program, Mr. Keith Hackett, arrived in country on July 8. Mr. Hackett, who holds a degree in civil engineering, previously worked with the Guinea Worm Eradication Program of Sudan on behalf of The Carter Center for two years, based at Lokichokio, Kenya. Before that, he worked on Guinea worm eradication in Mali as a Peace Corps Volunteer, and also consulted with the eradication programs in Benin, Togo, and Côte d'Ivoire on behalf of Global 2000. Mr. Hackett replaces Mr. Patrick O'Mara, who has done yeoman service in Ghana since 1991.

#### **BENIN AND TOGO: AIMING TO STOP TRANSMISSION IN 1999, 2000**

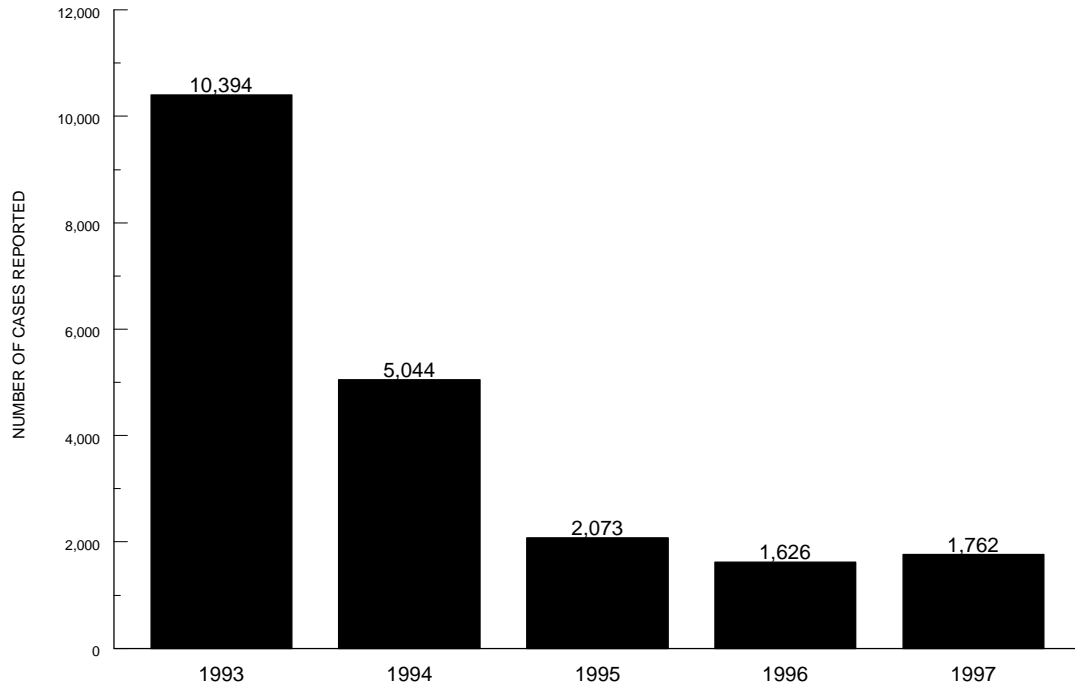
Sandwiched between the two dracunculiasis heavyweights of Nigeria and Ghana, Benin and Togo share a long common border, and peak transmission seasons of September/ November-January. Both of their Guinea Worm Eradication Programs have achieved significant progress towards dracunculiasis eradication in the 1990s, with the help of U.S. Peace Corps, UNICEF, WHO, Global 2000/The Carter Center, and others. The highest endemic areas remaining are in the south of both countries: Zou Department in Benin, and Zio, Ogou, and Haho Prefectures in Togo (Figure 2). Since 1995, however, Benin has been more successful than Togo in sustaining its reduction of cases (Figures 3 & 4). In Togo, one village (Hakedji, in Zio Prefecture of Maritime Region) had 115 cases, or 6.5% of the 1,762 cases reported in the whole country in 1997. Global 2000 has provided increased consultations to help intensify interventions and surveillance in both countries in January-April this year. In Togo, the Japan International Cooperation Agency (JICA) and the Conseil d'Entente plan to provide 400 new wells and to rehabilitate 400 other wells in Maritime Region in 1998-1999, including some of the endemic villages. Peace Corps is resuming more active participation in Togo's program, including support for retraining of village-based workers in July. The program in Togo also plans to expand use of Abate beyond Haho Prefecture, where it was used extensively in 1997, to more of Ogou and Zio Prefectures. The National Program Coordinators of these two programs are Dr. Aristide Paraiso (Benin) and Mr. K. Ignace Amegbo (Togo).

# Togo & Benin Guinea Worm Eradication Programs

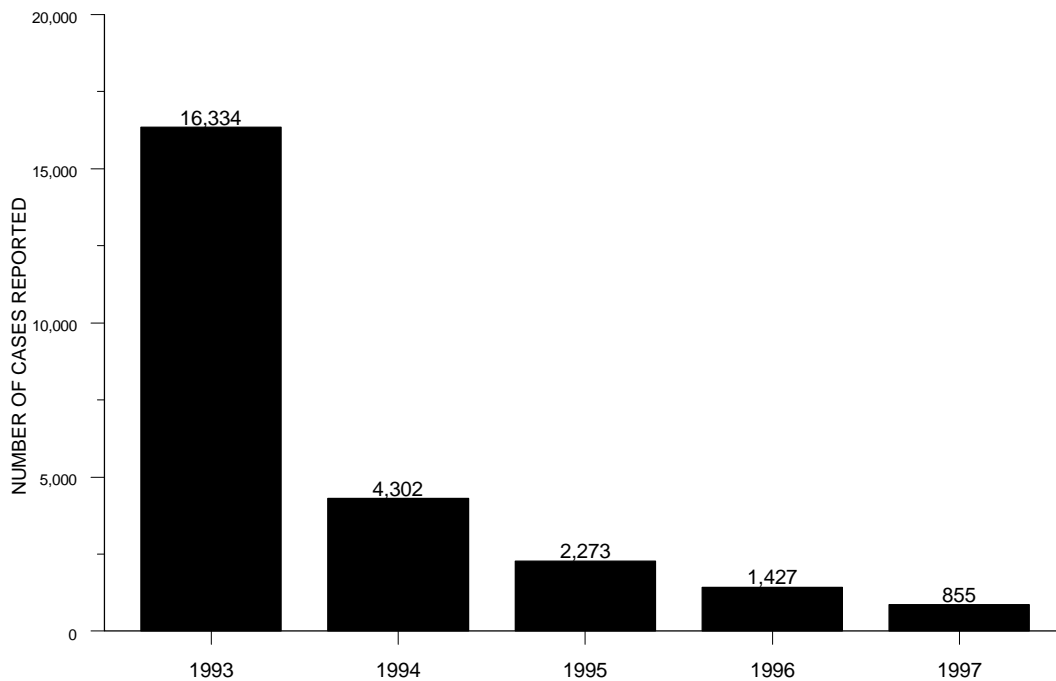
## Areas of Highest Incidence in 1997-98



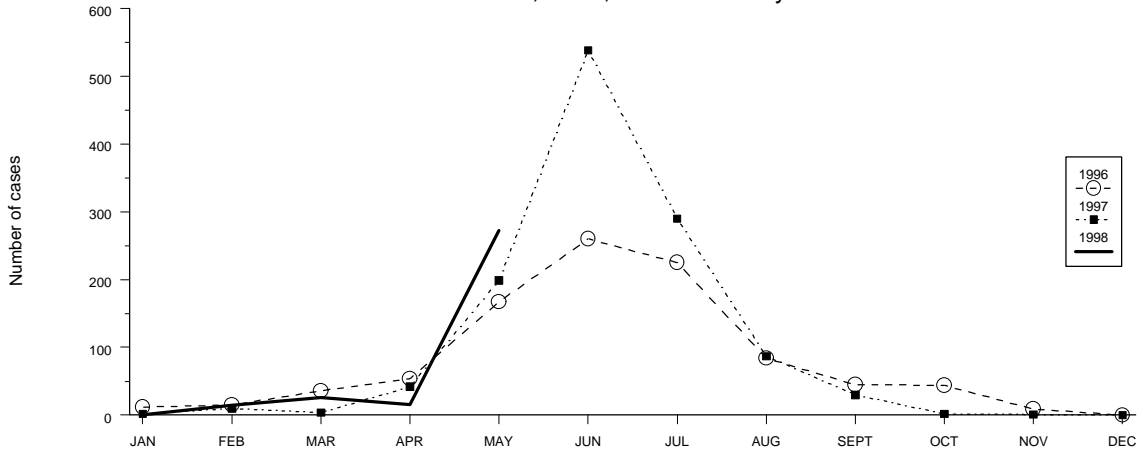
TOGO GUINEA WORM ERADICATION PROGRAM  
NUMBER OF CASES OF DRACUNCULIASIS REPORTED: 1993-1997



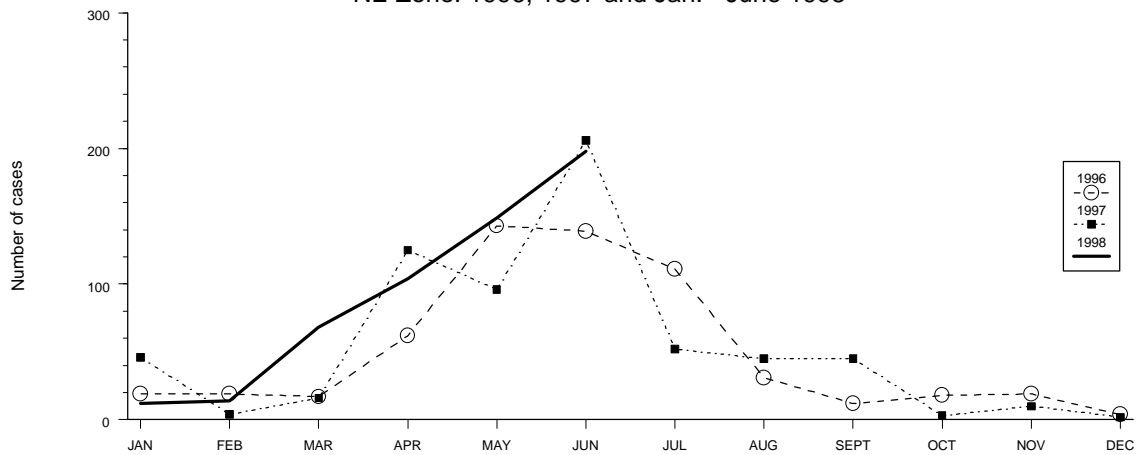
BENIN GUINEA WORM ERADICATION PROGRAM  
NUMBER OF CASES OF DRACUNCULIASIS REPORTED : 1993-1997



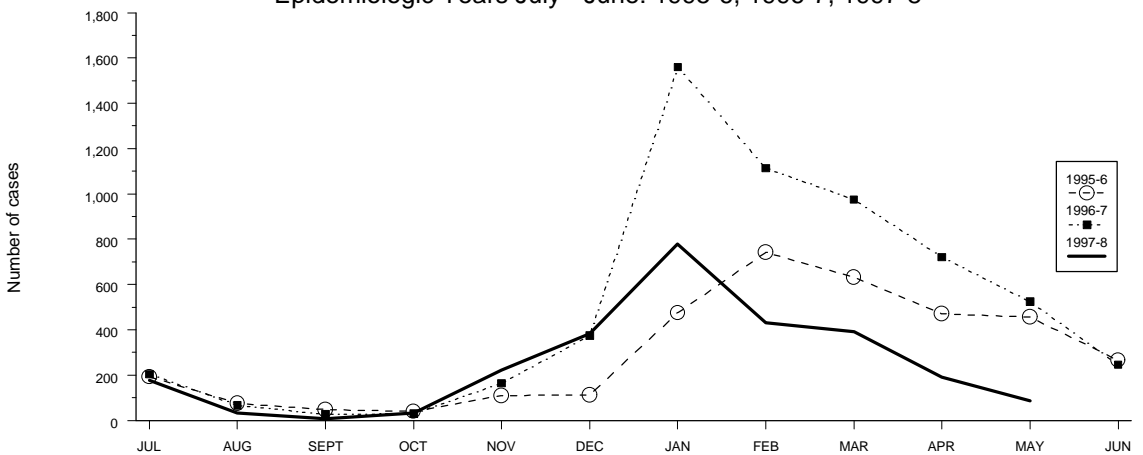
Nigeria Guinea Worm Eradication Program  
 Number of cases of dracunculiasis reported from Zamfara State:  
 NW Zone: 1996, 1997, and Jan. - May 1998



Nigeria Guinea Worm Eradication Program  
 Number of cases of dracunculiasis reported from Gombe State:  
 NE Zone: 1996, 1997 and Jan. - June 1998



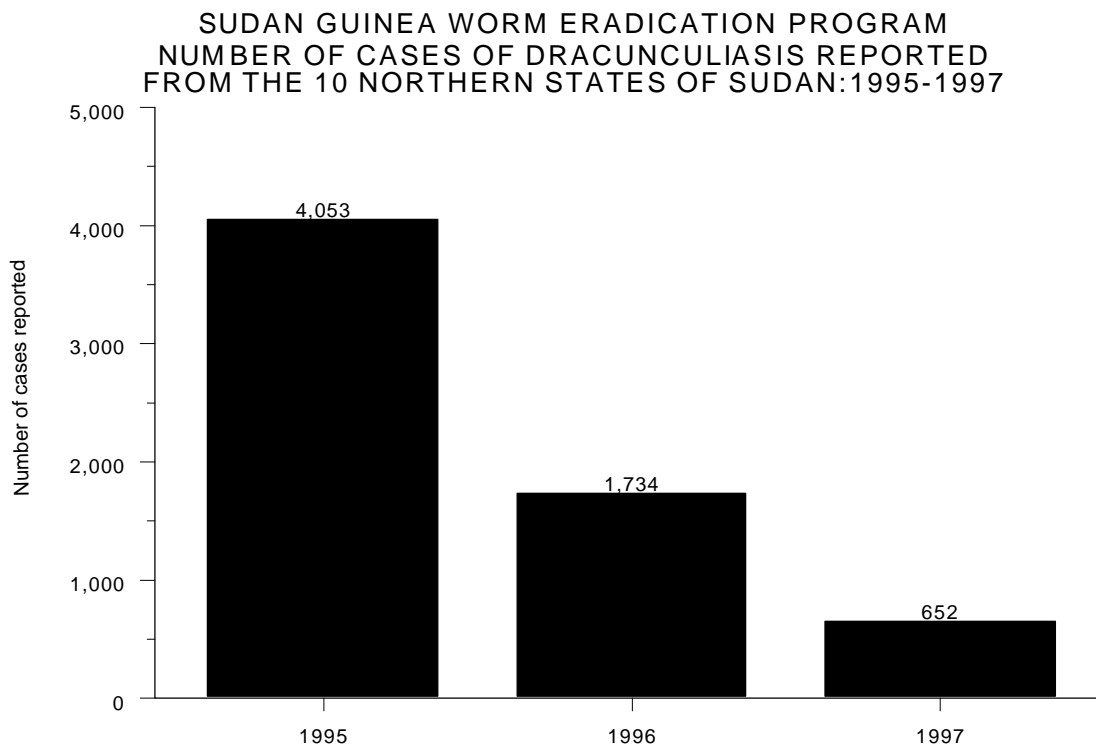
Ghana Guinea Worm Eradication Program  
 Number of cases of dracunculiasis reported from Northern Region:  
 Epidemiologic Years July - June: 1995-6, 1996-7, 1997-8



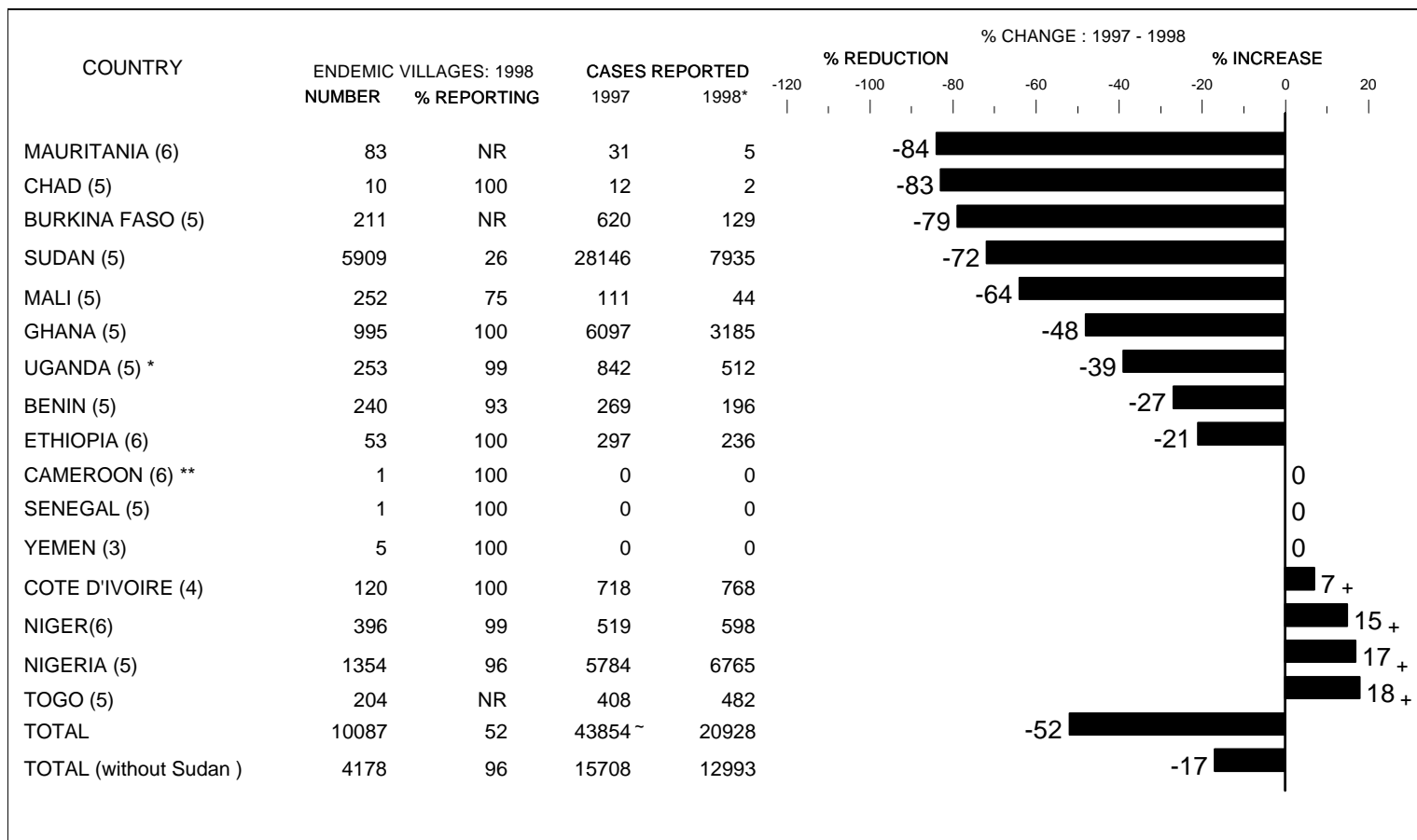
## SUDAN PROGRAM HOLDS COORDINATION MEETING IN KHARTOUM

The most recent coordination meeting of the Sudan Guinea Worm Eradication Program, including representatives of Operation Lifeline Sudan (OLS)-South, met in Khartoum on June 24-25. The new Undersecretary of the Federal Ministry of Health, Prof. Beshir Ibrahim Mukhtar, and the Federal State Minister of Health, Dr. Thomas Abwal, also attended and participated in a large portion of the meeting, in addition to the new Governor of Jongoli State, Dr. Riek Gia, and representatives of UNICEF/Khartoum, The National Water Corporation, OLS/South, and The Carter Center/Global 2000. According to data presented at this meeting, the 10 northern states of Sudan have reported a total of 104 cases in January-May 1998, the same as in the first five months of 1997, but with improved reporting this year (89%). The number of cases of dracunculiasis reported from the northern states was reduced from 4,053 in 1995, to 1,734 in 1996 and 652 in 1997 (Figure 6). Most (79%) of the cases in the northern states so far this year have reportedly been contained. All endemic villages in the northern states have cloth filters and trained village-based health workers, 60% have at least one source of safe drinking water, and 9% are now using Abate. (Training for use of Abate is to begin in July-August in the OLS-served areas of Eastern and Western Equatoria.) A total of 7,935 cases have been reported from all of Sudan in January-May 1998 so far, with 26% of known endemic villages reporting. Some 4,700 or 59% of these cases were contained or managed. This program will conduct a national Program Review in Nairobi on September 22-23. The final shipment of nylon filter material (100,294 square yards) donated to The Carter Center by the Dupont Corporation and Precision Fabrics Group for this program arrived at Mombasa in June.

The coordination meeting was preceded by an all-day meeting of the national coordinator and members of the secretariat of the program with Dr. Riak Machar, Assistant President and Chairman of the South Sudan Coordinating Council; the Governors of the three Upper Nile States (Jongoli, Unity, and Upper Nile); the Federal State Minister of Health; and the Minister of Health for the South Sudan Coordinating Council. This meeting discussed steps needed to eradicate Guinea Worm Disease in these areas.



**PERCENTAGE OF ENDEMIC VILLAGES REPORTING  
AND PERCENTAGE CHANGE IN NUMBER OF CASES OF DRACUNCULIASIS  
DURING 1997 AND 1998 ~, BY COUNTRY**



\* Reported 66 cases imported from Sudan ( 5, 13, and 48 during March, April, and May, respectively)

\*\* Reported 2 cases imported from Nigeria in May, and 3 in June.

~ Provisional. Totals include imported cases.

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

NR Not Reported



The most recent estimates are that over 1.4 million polio immunizations were administered during the National Immunization Days (NIDs) that were conducted in Sudan for polio eradication with the help of UNICEF and WHO earlier this year, in cooperation with the Guinea Worm Eradication Program. Global 2000 provided almost two months of exclusive staff support for that effort, at a cost of significant reduction in (Guinea worm) supplies distributed and training of local staff in preparation for this year's peak transmission season. Data from Guinea worm surveillance forms returned by the NID teams identified 310 dracunculiasis-endemic villages which were previously unknown and/or inaccessible to the Guinea Worm Eradication Program. WHO is considering providing support for Guinea worm interventions to three NGOs working in Ayod, Yirol, and the western outskirts of Juba where most of the newly-identified endemic villages are located.

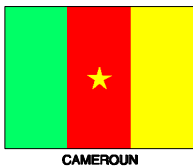
Mr. Bruce Ross, who will replace Mr. Ross Cox as The Carter Center/Global 2000 representative in Nairobi for the Guinea worm eradication effort in Sudan, arrived in Kenya on June 13 to assume his new post. Mr. Ross, who like his predecessor, is on loan from CDC, worked for the past 3 years with the USAID Regional Mission for Central Asia in Kazakstan. This is his first assignment for Guinea worm eradication. Mr. Ross Cox, who directed The Carter Center office in Nairobi since 1995, returns to CDC in July. Ms. Kelly Callahan, a former Peace Corps Volunteer with the Guinea Worm Eradication Program in Côte d'Ivoire, has succeeded Mr. Keith Hackett as The Carter Center/Global 2000 representative in Lokichokio.

#### AMERICAN HOME PRODUCTS DONATES MORE ABATE

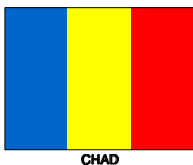


Mr. John R. Stafford, chairman, president, and chief executive officer of American Home Products Corporation, has informed Global 2000 chairman, former President Jimmy Carter of American Home Products' agreement to donate 30,000 liters of Abate (temephos) to The Carter Center for use in the Guinea Worm Eradication Program over the next three years (1998-2000). A total of 70,288 liters of Abate has been donated to the program already under the terms of the original donation that was announced by American Cyanamid (now a part of American Home Products) in 1990.

#### IN BRIEF:

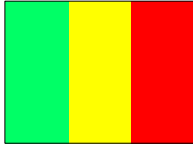


Cameroon reports a total of 5 cases of dracunculiasis imported from Nigeria in May (2) and June (3). All five cases were cross-notified to WHO/Cameroon for relay to Nigeria; the two cases in May were contained. This compares to one case imported from Nigeria in June 1997 and no case in May 1997. This year, Borno State, from which all importations from Nigeria to Cameroon have originated in recent years, has reduced the incidence of dracunculiasis by 43% in January-June (from 113 cases to 64 cases) compared to 1997. Cameroon and Nigeria will hold their next cross border meeting to discuss Guinea worm Eradication issues on July 11; the previously-scheduled meeting on June 24 was cancelled. During mid-May, Dr. Alhousseini Maiga, WHO/AFRO, visited the districts of Mora, Kolofata, and Guidiguiss to assess the status of the program, and to discuss WHO requirements for ascertaining that indigenous transmission of dracunculiasis no longer occurs and the certification of eradication.

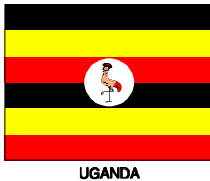


Chad. The National Coordinator, Dr. Hinn-Danje Gagde, reports that the Guinea Worm Eradication Program and the Leprosy Drug Distribution outreach service are working together in Salamat Prefecture to intensify surveillance for the two diseases at the end stage of Chad's GWEP. (Chad has reported only two cases of dracunculiasis in January-June 1998, vs. 16 during the same period last year.) The training course for the leprosy

outreach workers (circuit lepre) also included information about dracunculiasis. They will have appropriate GWEP reporting forms, and will also search for cases of dracunculiasis during their rounds to the villages. The village-based health workers in the GWEP, who have also received training in leprosy, will have a stock of drugs for treating persons with leprosy. WHO has provided flyers with information on both diseases for use by health workers involved. Dr. Alhousseini Maiga, WHO/AFRO, visited the districts of Bongor and Fianga (Mayo Kebbi) during the beginning of May to assess the status of the program, and to discuss WHO requirements for ascertaining that indigenous transmission of dracunculiasis no longer occurs and the certification of eradication. Dr. Maiga also advised health authorities on the integration of surveillance for dracunculiasis and leprosy in Chad.



Mali. The National Coordinator, Dr. Issa Degoga, Global 2000 resident technical advisor, Mr. Brad Barker, and WHO consultant Dr. Alhousseini Maiga visited Mopti Region in June to assess the status of the program. Five villages were visited: three were selected because they were known or rumored to have cases of dracunculiasis. Endemic dracunculiasis was confirmed in a large hamlet of one of the five villages visited (7 patent cases were documented and 14 other persons allegedly had worms emerge prior to the visit). Two other villages are expected to report more cases in June 1998 than during the same month in 1997. However, the two remaining villages were expected to report zero cases by the end of June. The need for flexibility of funding for supporting the investigation of rumors of cases was exemplified by the finding of cases in the one hamlet associated to a “non-endemic village”. The team also addressed other program shortcomings with the Region’s health authorities. Prior to this visit (January-May 1998), only 3 cases of dracunculiasis had been reported from Mopti Region, compared to 24 cases during the same period in 1997.

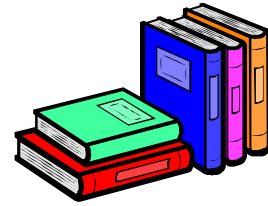


Uganda will celebrate its Guinea Worm Eradication Day this year at a ceremony to be held in Moroto on July 21. The Prime Minister is expected to attend.

## INTERAGENCY MEETING

The U.S. Agency for International Development, Washington, DC, will host the next meeting of the Interagency Coordinating Group for Dracunculiasis Eradication on July 31, 1998.

## RECENT PUBLICATIONS



Olsen A, Magnussen P, Anemana S, 1997. The acceptability and effectiveness of a polyester drinking-water filter in a dracunculiasis-endemic village in Northern Region, Ghana. Bull WHO, 75:449-452.

*Inclusion of information in the Guinea Worm Wrap-Up does not  
constitute "publication" of that information.  
In memory of BOB KAISER.*

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