DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Centers for Disease Control
and Prevention (CDC)

Memorandum

Date January 10, 1997

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

Subject GUINEA WORM WRAP-UP #63

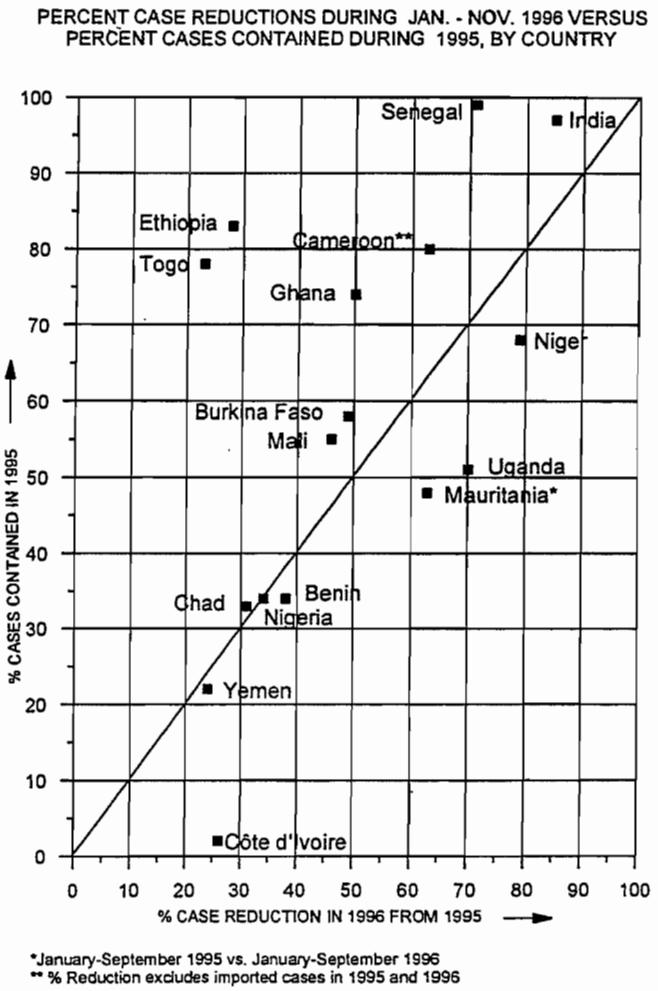
To Addressees

Detect Every Case, Contain Every Worm!

REDUCTIONS IN 1996 REFLECT CASE CONTAINMENT IN 1995

Figure 1 plots the percentage of reduction in cases achieved by endemic countries between 1995 and 1996, in comparison with the percentage of cases reportedly contained in the same country during 1995. As expected, in general, the rates of containment of cases in 1995 correlate well with the extent of reduction in cases seen in 1996; the higher the percentage of cases contained in 1995, the greater the impact on incidence of dracunculiasis in 1996. Two noteworthy exceptions to this general pattern are Ethiopia and Togo, both of which realized much smaller reductions in incidence in 1996 than their reported rates of cases contained in 1995 implied would occur. Although even one uncontained case can contaminate the water supply for an entire community and thus lead to many more cases the following year, the overall message of Figure 1 is clear: what matters is the realization of case containment. Guinea Worm Eradication Programs in all endemic countries outside of Sudan should aim to contain 100% of their cases in 1997.

Figure 1



*January-September 1995 vs. January-September 1996
** % Reduction excludes imported cases in 1995 and 1996

Table 1

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

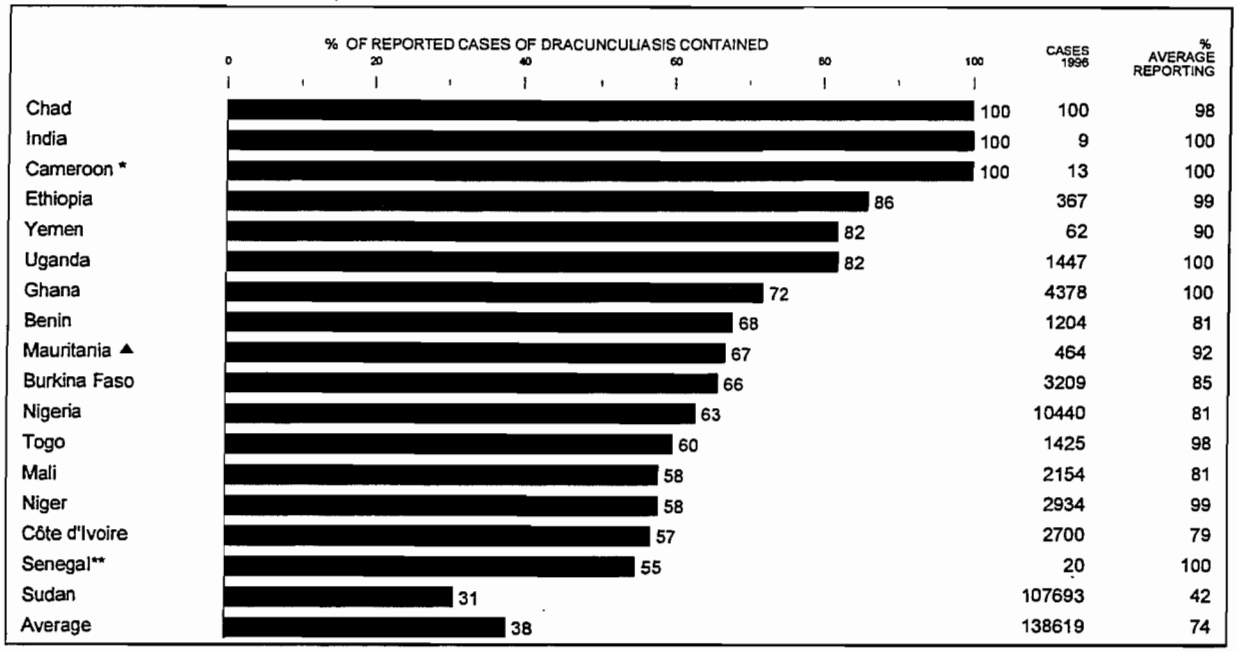
COUNTRY	NUMBER OF CASES IN 1995	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED												
		JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL*
SUDAN	64608	289 / 1535	279 / 1003	1405 / 3632	1344 / 10388	4526 / 15718	3973 / 13099	4269 / 14595	5779 / 16655	5317 / 14813	2911 / 9039	3151 / 7216	/	33243 / 107693
NIGERIA	16374	778 / 1264	926 / 1023	562 / 675	559 / 801	523 / 1153	803 / 1870	546 / 1419	769 / 1009	420 / 491	350 / 353	371 / 382	/	6607 / 10440
NIGER	13821	17 / 25	2 / 5	0 / 0	9 / 10	28 / 74	167 / 210	344 / 508	434 / 886	419 / 757	191 / 329	92 / 130	/	1703 / 2934
GHANA	8894	467 / 611	657 / 863	538 / 728	388 / 535	340 / 502	231 / 386	142 / 235	61 / 100	72 / 87	52 / 68	225 / 263	/	3173 / 4378
BURKINA FASO	6281	25 / 37	36 / 57	72 / 118	96 / 154	308 / 394	512 / 748	472 / 696	287 / 528	206 / 355	97 / 110	12 / 12	2 / 2	2125 / 3211
UGANDA	4810	39 / 46	22 / 24	28 / 40	232 / 276	329 / 444	264 / 310	147 / 164	59 / 70	38 / 44	17 / 19	9 / 10	/	1184 / 1447
MALI	4218	49 / 76	13 / 15	14 / 19	55 / 153	78 / 86	132 / 215	203 / 405	259 / 447	254 / 378	120 / 190	81 / 170	/	1258 / 2154
COTE D'IVOIRE	3801	244 / 368	272 / 606	188 / 299	171 / 343	164 / 358	137 / 249	111 / 160	117 / 125	30 / 46	32 / 41	85 / 105	/	1551 / 2700
TOGO	2073	200 / 225	168 / 194	79 / 117	62 / 74	61 / 61	78 / 78	64 / 64	61 / 61	88 / 98	/ 239	/ 214	/	861 / 1425
BENIN	2273	134 / 255	56 / 94	15 / 24	43 / 53	48 / 81	15 / 22	48 / 56	37 / 55	108 / 132	139 / 195	171 / 237	/	814 / 1204
MAURITANIA	1762	8 / 9	4 / 6	2 / 2	6 / 7	1 / 2	27 / 35	59 / 82	105 / 175	99 / 146	/	/	/	311 / 464
ETHIOPIA	514	0 / 1	1 / 4	2 / 2	17 / 29	58 / 64	88 / 110	97 / 106	25 / 25	15 / 15	4 / 4	7 / 7	/	314 / 367
CHAD	149	24 / 24	34 / 34	23 / 23	5 / 5	2 / 2	4 / 4	4 / 4	4 / 4	0 / 0	0 / 0	0 / 0	/	100 / 100
YEMEN	82	0 / 1	7 / 8	12 / 12	14 / 14	5 / 5	6 / 10	4 / 5	1 / 2	2 / 5	0 / 0	0 / 0	0 / 0	51 / 62
SENEGAL***	76	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1 / 1	1 / 1	2 / 2	4 / 4	3 / 3	0 / 9	/	11 / 20
INDIA	60	0 / 0	0 / 0	0 / 0	2 / 2	4 / 4	0 / 0	3 / 3	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	9 / 9
KENYA	23	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	0 / 0
CAMEROON**	15	0 / 0	0 / 0	0 / 0	0 / 0	1 / 1	0 / 0	1 / 1	2 / 2	5 / 5	4 / 4	0 / 0	/	13 / 13
PAKISTAN	0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	0 / 0
TOTAL*	129834	2274 / 4477	2477 / 3936	2940 / 5691	3003 / 12844	6476 / 18949	6438 / 17347	6515 / 18504	8002 / 20146	7077 / 17376	3920 / 10594	4204 / 8755	2 / 2	53328 / 138621

* Provisional

** Reported 10 cases imported from Nigeria 1 case in May, 1 in July, 1 in August, 3 in September, and 4 in October.

Figure 2

PERCENTAGE BY COUNTRY OF CASES CONTAINED, REDUCTION IN CASES COMPARED TO SAME PERIOD IN 1995, AND ENDEMIC VILLAGES REPORTING: JANUARY - NOVEMBER ✣1996



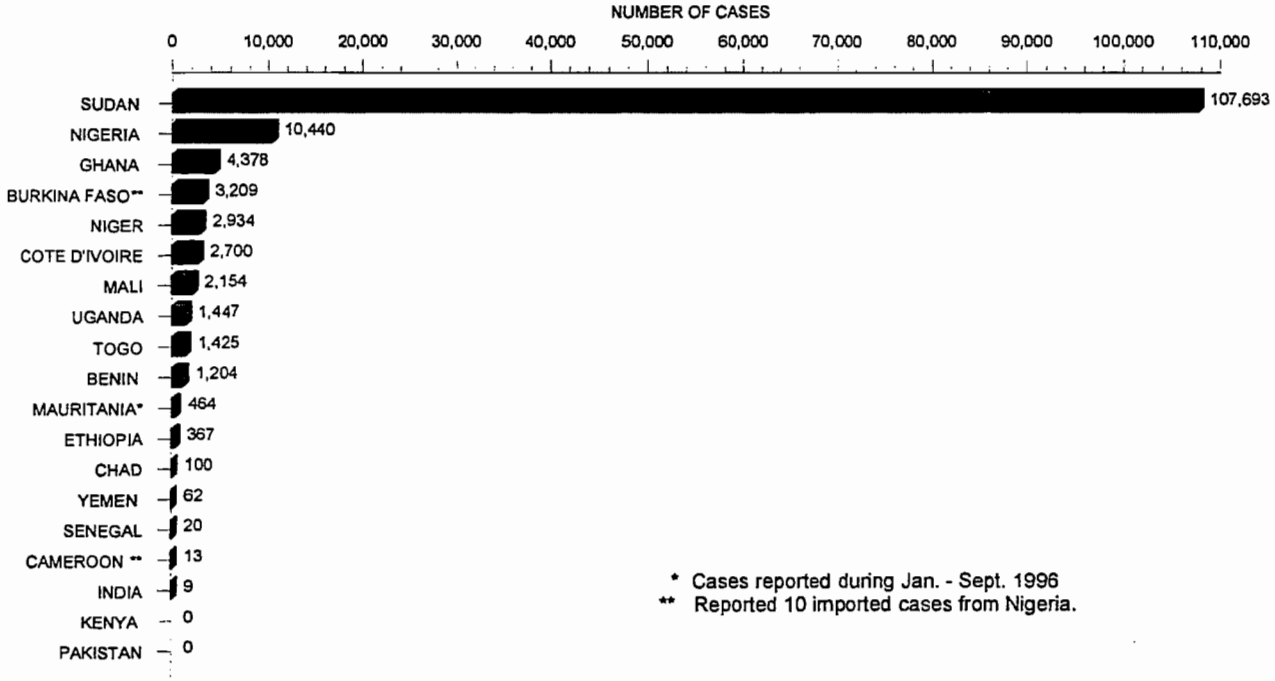
✣ Provisional ▲ Jan. - Sept. data only

* Reported 10 cases imported from Nigeria: 1 case in May, 1 in June, 1 in Aug., 3 in Sept., and 4 in Oct..

** Reported 1 case imported from Mali in September

Figure 3

DISTRIBUTION BY COUNTRY OF 138,619 CASES OF DRACUNCULIASIS REPORTED DURING JANUARY- NOVEMBER 1996



* Cases reported during Jan. - Sept. 1996

** Reported 10 imported cases from Nigeria.

RECENT PUBLICATIONS

Cookson C, 1996. Condemned as a parasite. Financial Times (London), December 23, p. 16.

Tayeh A, 1996. Dracunculiasis. In: The Illustrated History of Tropical Diseases. FEG Cox (ed.) London: The Wellcome Trust.

Tayeh A, Cairncross S, Maude GH, 1996. The impact of health education to promote cloth filters on dracunculiasis prevalence in the Northern Region, Ghana. Soc Sci Med, 43:1205-1211.

Tayeh A, Cairncross S, 1996. The impact of dracunculiasis on the nutritional status of children in South Kordofan, Sudan. Ann Trop Pediatr, 16:221-226. [This paper documents, for the first time, the adverse indirect effects of dracunculiasis infections in parents on the nutritional status of their uninfected children under 6 years old. "It was anticipated that when the otherwise able adult members of a household had dracunculiasis, they were likely to be disabled by the disease and so prevented from fully performing their agricultural activities, so that the nutritional status of children in the same household would deteriorate in the following year. It was found that in 16.9% of the 136 'affected' households the children were wasted . . . , compared with only 6% of the other households." The study reviewed data from an investigation conducted in South Kordofan, Sudan in 1988.]

Zhen-xian W, 1995. The first discovery of human case of dracunculiasis in China. Chin J Zoon, 11:16-18. [During the last 70 years there have been two additional reports, one from Korea (1926) and one from Japan (1986), of a case of dracunculiasis from a country without endemic disease and in individuals without a history of travel to endemic areas. Although each of the case reports have described the adult worm or associated larvae as Dracunculus medinensis (the Guinea worm of humans), it is likely that these infections were of zoonotic origin and caused by some species of Dracunculus from reptiles or wild fur-bearing mammals. The life cycle of those species include a transport host, for example, fish. Eating raw fish (loaches) was associated with each of the cases reported from Korea and Japan and may also explain this 1995 case from China. Another indication that the current case is likely of zoonotic origin is the short length (166 mm) of the gravid female worm excised from this 12 year-old boy.]

MEETING

The Regional Office for Africa of the World Health Organization (WHO/AFRO) announced that the Fourth Dracunculiasis Programme Managers' Meeting will be held from March 24-26, 1997, in Niamey, Niger.

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.

CDC is the WHO Collaborating Center for Research, Training, and Eradication of Dracunculiasis.