



Date: March 15, 1999

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

Subject: GUINEA WORM WRAP-UP #88

To: Addresses

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

**1998: 12 % FEWER CASES, 16% FEWER ENDEMIC VILLAGES OUTSIDE SUDAN**

This issue summarizes the nearly complete surveillance numbers from 1998. As indicated in the enclosed Tables and Figures, in 1998 endemic countries outside of Sudan reduced their number of reported cases to 30,449

Japan's Grant Assistance for Grassroots Projects (GGP, formerly Small Scale Grant Assistance), on behalf of The Carter Center. The grants will be used mainly to purchase one four wheel drive vehicle, 67 motorbikes, 340 bicycles, 950 first aid kits for case containment, and for sewing 100,000 nylon filters. Last year, the Government of Japan donated 150 hand pumps for wells in Niger, Enugu and Ebonyi States.

General Dr. Yakubu Gowon visited authorities in Ebonyi State on March 11. This was his first such visit to an endemic area on behalf of NIGEP. After a courtesy call on the military administrator of Ebonyi State, General Gowon and his entourage visited Ugbodo village in Ebonyi Local Government Area, which is the highest endemic village in the state. They later inspected a hand dug well constructed by the village Task Force members during a visit to Enyibuchiri village. Among those accompanying General Gowon were the chairman of the NIGEP Task

Table 1

**CHRONOLOGY, MODALITIES, AND PURPOSE OF REWARDS IMPLEMENTED BY GUINEA WORM ERADICATION PROGRAMS**

Date	Country	Modality of Rewards	Purpose	Comments
1991	Pakistan	1,000 Rupees (about US \$50) to person (informant) reporting the first case of GWD in any village and the same amount to the health worker who first reports the case the GWEP.	To detect villages with endemic disease.	Reported 160 cases in 1990
1992	Pakistan	Extends rewards to each case, and reward increased to 2,000 Rupees (about US \$100) for each patient who complied with case containment.	To enhance sensitivity of surveillance and effectiveness of case containment.	Reported 106 cases in 1991
1993	Pakistan	Increases reward to 3,000 Rupees (about US \$150)	To enhance the sensitivity of surveillance and effectiveness of case containment.	Reported 23 cases in 1992
1993	Cameroon	Offers 1,000 CFA (about US \$4) per case, plus 500 CFA to the village-based health worker or informer.	To enhance the sensitivity of the surveillance system.	Reported 127 cases in 1992
1994	Yemen	Offers 2,000 Rials (about US \$ 18) award divided between the patient, informant and cost of transport.	To confirm if cases exist and identify endemic villages	National case search
1995	Cameroon	Increases rewards to CFA 7,500 (about US \$ 14)	To enhance sensitivity of surveillance and effectiveness of case containment.	Reported 30 cases in 1994
1995	India	Offers 500-1,000 (about US \$ 15-30) Rupees to first informer of a new case and compensates patient for "lost wages" during stay at health unit to extract the worm(s) manually.	To enhance the sensitivity of surveillance and effectiveness of case containment.	Reported 371 cases in 1994
1996	Pakistan	Prime Minister of Pakistan announces reward of 30,000 Rupees (about US \$850) for reporting of a case.	To confirm absence of cases and transmission	3 years after the last known indigenous case was reported.
1996	Ethiopia	Offers 59 Birr (about US \$ 8) each to the case and to the informant.	To enhance the sensitivity of surveillance.	Reported 514 cases in 1995
1996	Yemen	Increases reward to 6,000 Rials (about US \$ 50).	To enhance sensitivity of surveillance and effectiveness of case containment.	Reported 82 cases in 1995
1997	Ghana	Offers 2,000 Cedis (about US \$ 1.17 for reporting of case with pre-emergent Guinea worm.	To enhance sensitivity of surveillance and effectiveness of case containment.	Reported 4,877 cases in 1996
1997	Chad	Offers reward of 5,000 CFA (about US \$ 9) per case.	Enhance the sensitivity of surveillance	Reported 127 cases in 1996
1997	Uganda	Offers reward 10,000 Ug.Shillings (about US \$ 7) each to the patient and informer, and 4,000 Ug.Shillings to the village health workers in Kitgum and at-risk Districts.	To enhance the sensitivity of surveillance	Reported 1455 cases in 1996
1997	Cameroon	Raises rewards to CFA 22,000 (about US \$40)	To enhance sensitivity of surveillance and effectiveness of case containment.	Reported 8 indigenous cases in 1996. Reward amount attracts cases from Nigeria.
1998	Ghana	Increases rewards for reporting cases to 5,000 Cedis (about US \$ 2.12) to each person allowing the worm to be contained by either surgical or manual extraction; 5,000 Cedis to the surgical extractor for every worm extracted during the pre-emergent stage; 2,000 Cedis (About US \$ 0.85) to the case manager for every case contained by bandaging (worm already emerged); 2,000 Cedis to the informant for every case identified; 5,000 Cedis for every new endemic village identified; and reimbursement of transportation costs to the patient.	To enhance sensitivity of surveillance and effectiveness of case containment.	Reported 8,921 cases in 1997
1999	Uganda	Plans to expands rewards to cover Kotido and Moroto Districts in July.	To enhance sensitivity of surveillance and effectiveness of case containment.	Reported 1,061 cases in 1998
1999	Yemen	Plans to Increase reward to 20,000 Rials (about US \$ 140) beginning in April.	To enhance sensitivity of surveillance and help verify if transmission persists.	Reported 0 cases in 1998
1999	Ethiopia	Offers blankets to patients in addition to cash reward.	To induce patients with emergent worms to remain under observation until removal of worm(s).	Reported 365 cases in 1998

Table 2

**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												TOTAL*	CONT.	%
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER			
SUDAN	465 / 1328	869 / 1280	889 / 1524	1618 / 2627	2135 / 3485	3580 / 6058	3433 / 7432	3374 / 5820	4252 / 6836	2844 / 6078	1736 / 3787	1003 / 1634	26198 / 47889	55	
NIGERIA	1544 / 1549	1188 / 1259	1199 / 1279	854 / 955	952 / 1234	953 / 1484	954 / 1395	800 / 1197							



Table 3

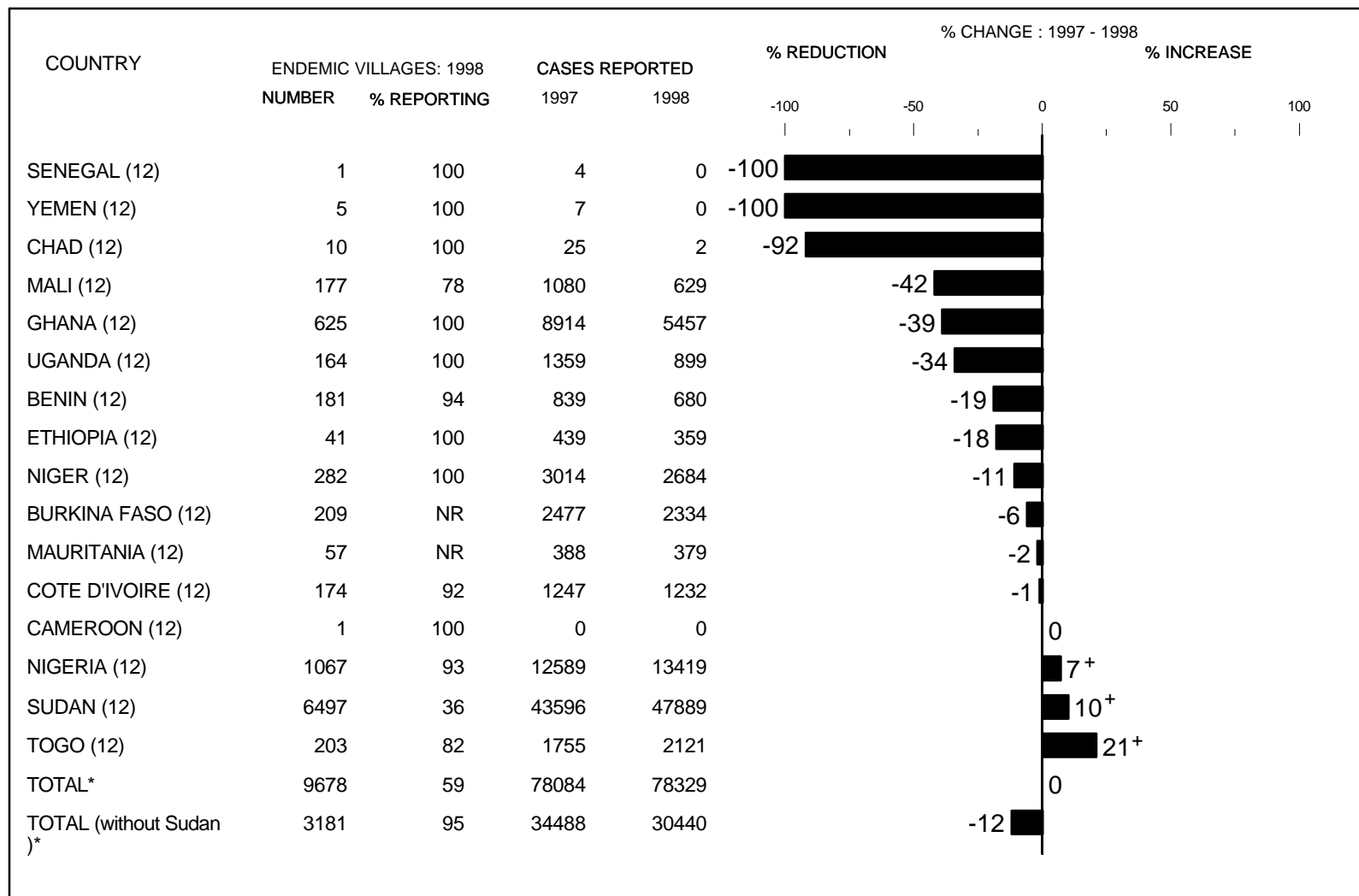
**Number of cases contained and number reported by month during 1999\*  
(Countries arranged in descending order of cases in 1998)**

COUNTRY	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													CONT.
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	
SUDAN	/	/	/	/	/	/	/	/	/	/	/	/	0 / 0	
NIGERIA	596 / 1358	752 / 1432	/	/	/	/	/	/	/	/	/	/	1348 / 2790	48
GHANA	489 / 1142	/	/	/	/	/	/	/	/	/	/	/	489 / 1142	43
NIGER	2 / 2	3 / 3	/	/	/	/	/	/	/	/	/	/	5 / 5	100
BURKINA FASO	/	/	/	/	/	/	/	/	/	/	/	/	0 / 0	
TOGO	92 / 107	/	/	/	/	/	/	/	/	/	/	/	92 / 107	86
COTE D'IVOIRE	42 / 42	/	/	/	/	/	/	/	/	/	/	/	42 / 42	100
UGANDA	3 / 6	7 / 7	/	/	/	/	/	/	/	/	/	/	10 / 13	77
BENIN	85 / 89	/	/	/	/	/	/	/	/	/	/	/	85 / 89	96
MALI	2 / 2	/	/	/	/	/	/	/	/	/	/	/	2 / 2	100
MAURITANIA	/	/	/	/	/	/	/	/	/	/	/	/	0 / 0	
ETHIOPIA	0 / 0	/	/	/	/	/	/	/	/	/	/	/	0 / 0	
CHAD	/	/	/	/	/	/	/	/	/	/	/	/	0 / 0	
TOTAL*	1311 / 2748	762 / 1442	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	2073 / 4190	49
% CONTAINED	48	53											49	

\* PROVISIONAL

Figure 1

**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.

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

NR Countries with unknown or low rate of reporting.

Figure 2

## Distribution by Country of 78,338\* Cases of Dracunculiasis Reported During 1998\*\*

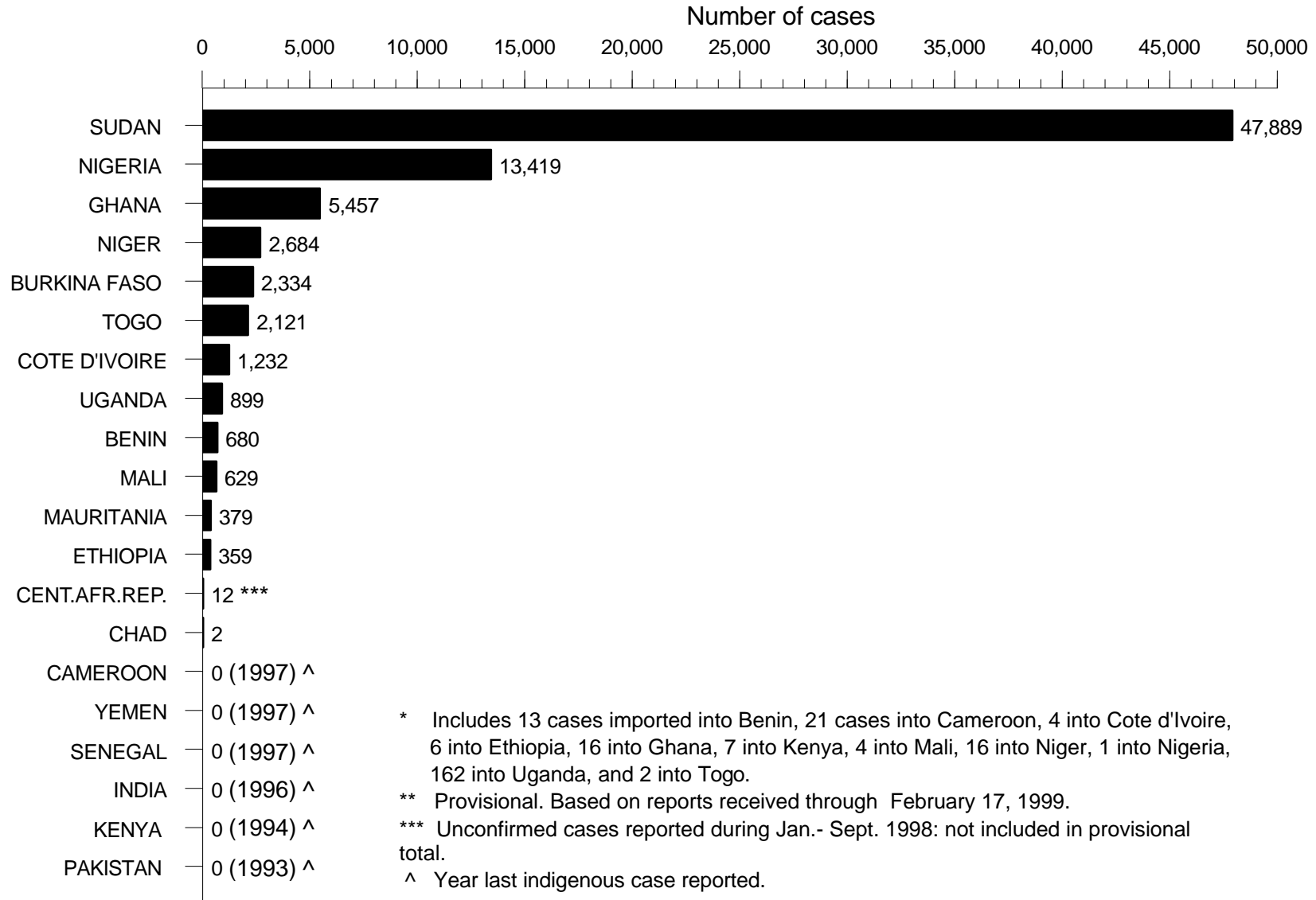


Figure 3

GUINEA WORM RACE!

WHO WILL JOIN THE WINNERS IN 1999?





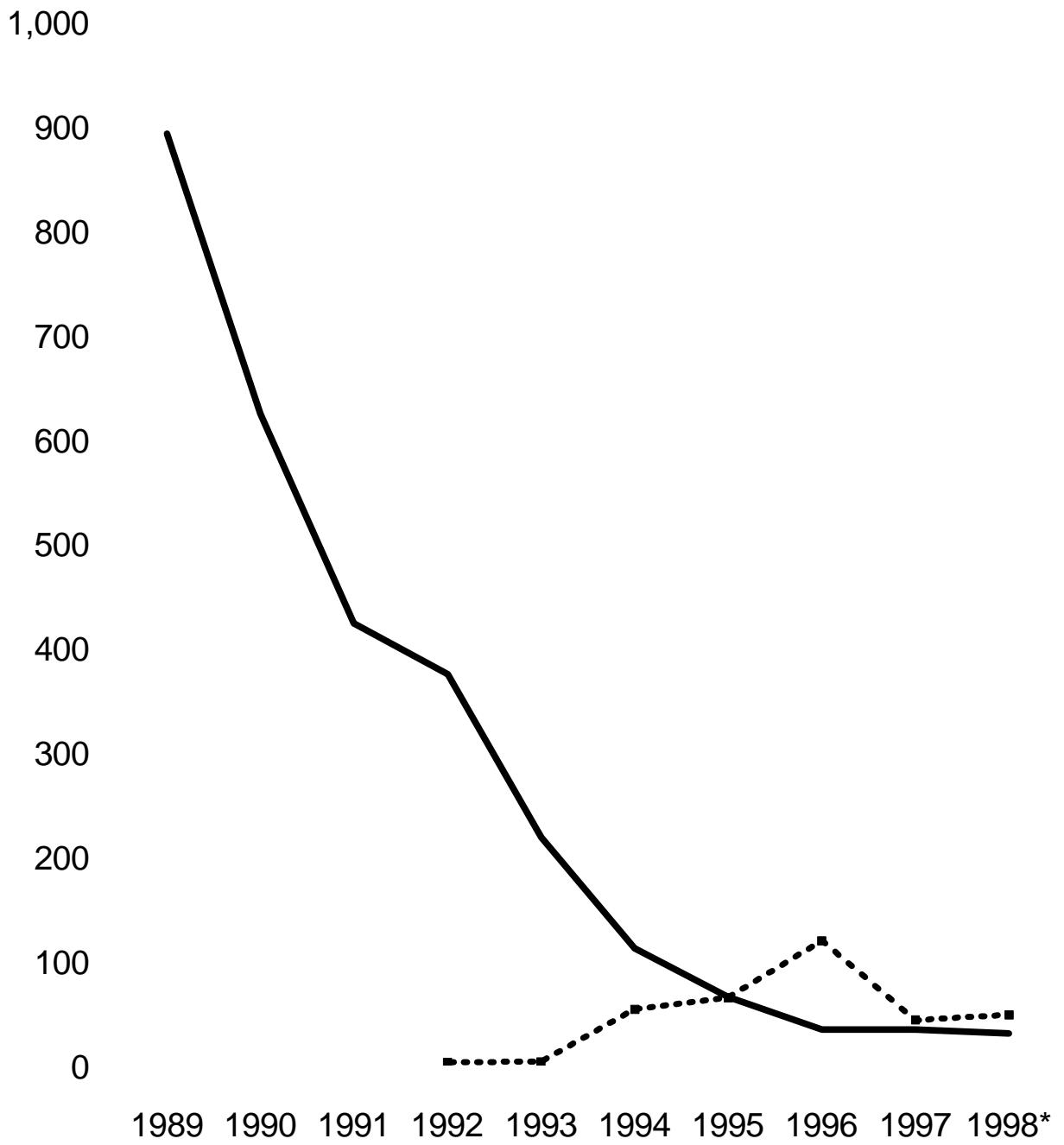


Table 4

**Dracunculiasis Eradication Campaign**  
**Reported Importations of Cases of Dracunculiasis: 1998**

From	To	Cases				
		Month	Number	Contained	Notified*	
Benin	Niger	July	1	0	1	
Burkina Faso	Niger	January	1	1	1	
		June	2	1	2	
		July	3	0	3	
		September	1	1	1	
	Mali	July	1	?	?	
		September	2	?	?	
		November	1	?	?	
	Côte d'Ivoire	June	1	1	1	
		July	1	0	1	
		August	1	1	1	
Côte d'Ivoire	Togo	February	1	?	1	
Ghana	Benin	January	4	4	4	
		May	1	1	1	
		June	1	1	1	
	Togo	June	1	?	1	
Mali	Niger	November	1	1	1	
Niger	Nigeria	August	1	?	1	
	Ghana	October	1	?	?	
	November	1	0	1		
Nigeria	Cameroon	May	2	2	2	
		June	4	4	4	
		July	8	8	8	
		August	5	5	5	
		September	2	2	2	
	Benin	January	1	1	?	
		April	1	1	1	
	Niger	February	2	2	1	
		April	1	1	1	
		May	1	?	1	
		July	1	?	1	
		August	1	?	1	
		September	1	?	1	
		October	1	?	1	
	Sudan	Ethiopia	May	2	2	?
			June	3	3	?
July			1	1	1	
Kenya		June	3	3	?	
		July	3	3	?	
		August	1	1	?	
Sudan	Uganda	March	5	5	5	
		April	13	2	13	
		May	49	17	49	
		June	41	41	41	
		July	45	45	45	
		August	7	2	7	
		September	1	1	1	
		December	1	1	1	
		Togo	Benin	January	1	1
March	1			1	1	
April	1			1	1	
May	1			1	?	
July	1			1	1	
October	2			2	2	
November	1			1	1	
December	2			?	2	
Ghana	May		1	1	?	
	June		11	11	?	
	November		1	1	1	
<b>Total</b>			<b>256</b>	<b>186</b>	<b>224</b>	

\* Notified to country of origin through WHO.

**Dracunculiasis Eradication Campaign**  
**Reported Importations of Cases of Dracunculiasis: 1998**

Table 5

**NUMBER OF ENDEMIC VILLAGES BY COUNTRY  
AND % CHANGE DURING 1998**

Country	Number of endemic villages		% Change
	as of 1/1/1998	as of 1/1/1999*	
Yemen	5	0	-100
Senegal	1	0	-100
Cameroon	1	0	-100
Chad	10	1	-90
Uganda	244	164	-33
Mauritania	83	57	-31
Mali	269	177	-34
Niger	396	282	-29
Ghana	843	625	-26
Benin	212	181	-15
Ethiopia	45	41	-9
Nigeria	1136	1067	-6
Burkina Faso	211	209	-1
Togo	204	203	0
Sudan	5730	6497	13
Cote d'Ivoire	115	154	34
Total	9488	9559	1
Total without Sudan	3758	3160	-16

\* Provisional

*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](http://www.cdc.gov/ncidod/dpd/list_drc.htm).*



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