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

Subject: GUINEA WORM WRAP-UP #122

To: Addressees

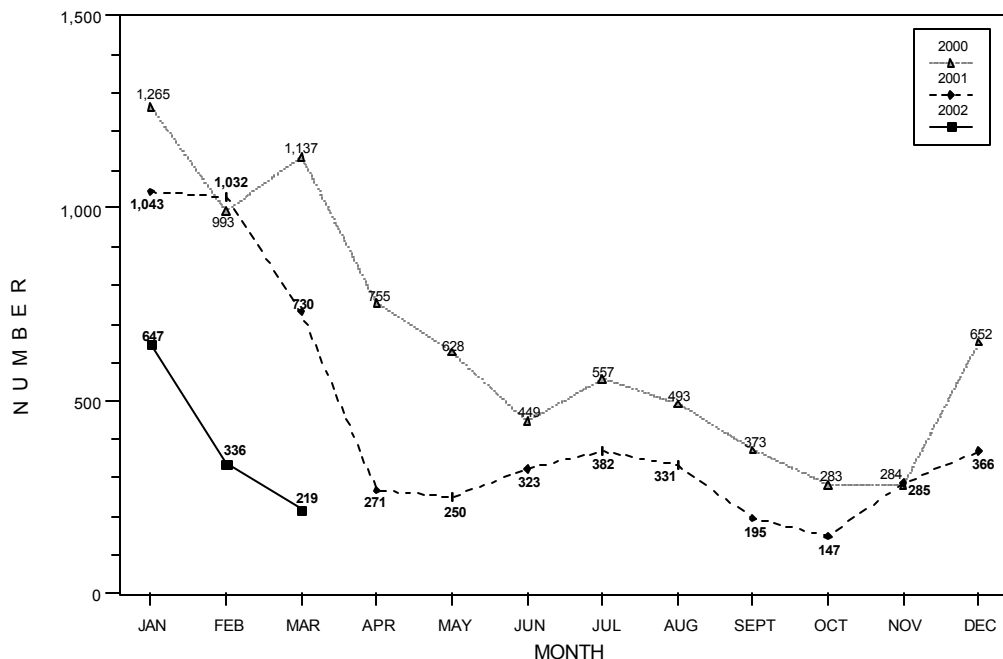
WHAT'S NEW IN 2002?

**NIGERIA REDUCES CASES BY -57% IN FIRST QUARTER OF 2002!**

The Nigerian Guinea Worm Eradication Program (NIGEP) has reported a total of only 1,202 cases of dracunculiasis during the first three months of 2002, as compared to 2,805 cases reported during the same three months of 2001 (Figure 1). This -57% reduction in cases covers the three months of highest dracunculiasis incidence in Nigeria for the entire calendar year. The monthly reductions in Nigeria's cases were -38%, -67%, and -70% for the three months, respectively. These reductions were led by dramatic declines in cases in the Southeast Zone, especially in Eboayi State (-85% for the quarter), which last year reported more cases of dracunculiasis than any other state in Nigeria. The Southeast Zone also achieved improved rates of case containment during the first three months of this year: 78%, 86%, and 79%. As of the end of February, Nigeria reportedly had cloth filters in all households in 97% of villages that reported one or more cases since January 1, 2001; was using Abate in 46%; and 56% of those villages had at least one source of safe drinking water. Overall, Nigeria reportedly contained 58 % (693/1202) of its cases so far this year, which still leaves room for improvement.

Figure 1

**NIGERIA GUINEA WORM ERADICATION PROGRAM  
MONTHLY DISTRIBUTION OF CASES OF DRACUNCULIASIS REPORTED DURING 2000 - 2002\***



\* Provisional

The unprecedented reductions in Southeast Zone were partly offset by increases in cases in Nigeria's Southwest Zone, where dracunculiasis transmission also peaks during the first three months of the year. Oyo has reported more cases (342) than any other state in the country so far this year, for an increase of 317%. Within Oyo State, Ibarapa North Local Government Area (LGA) reported 192 cases in January and February alone, of which 140 cases were from one village: Igangan. Of the 24 endemic villages in Ibarapa North, none has an adequate supply of safe drinking water. A Guinea worm video was shown in 15 of the villages, and two seminars were conducted, one each for local chiefs and all religious leaders in the LGA. Eleven new National Youth Service Corpers have been assigned to Southwest Zone for Guinea worm work. The increased cases are a result of active surveillance undertaken in Southwest Zone since Mr. Joshua Ologe began working as the Global 2000 consultant there last November.

Bravo Nigeria!!!! This is truly new in 2002! Congratulations to General Yakubu Gowon and the Nigerian gladiators!

### **GHANA STRENGTHENS INTERVENTIONS; CASES REDUCED BY -23%**

Ghana continues to improve the monthly reporting of interventions from its endemic states and districts. However, case containment rates in Northern (63%) and Brong Ahafo (28%) Regions are still much lower than they need to be in order to achieve the national goal of interrupting transmission by the end of 2002. In Brong Ahafo Region, Kintampo District reported filter coverage in all households for only 29% of its endemic villages, with a case containment rate of only 37%. Table 1 shows the cases in Kintampo District increased from 53 in January-February 2001 to 190 (13% of the national total), in the same period of 2002. Two districts in Northern Region have also reported significant increases in cases so far this year: Zabzugu-Tatale (from 70 to 226 cases; 16% of the national total) and Tamale (from 89 to 149 cases; 10% of the national total). In Zabzugu-Tatale, a Worm Week was held in 36 endemic villages March 11-16, 2002; another Worm Week will be held April 22-27; 80 Guinea worm paintings were delivered for distribution in March; video shows are to begin in April, and 3 drama troupes are planned to begin performances in May. Of the ten most endemic villages of Zabzugu-Tatale District, containing 72% of cases reported so far in 2002, nine are scheduled to get safe drinking water in 2002 (wells in three of these have already been drilled successfully by the Church of Christ). Ghana's cases have been reduced by -23% overall in January-February 2002. At the end of February, Ghana reportedly had filters in all households of over 70% of its endemic villages, was using Abate in 19%, health education in 69%, and had at least one source of safe drinking water in 51%.

### **COTE D'IVOIRE: CDC, WHO AND UNICEF TO ASSIST ACTIVE CASE SEARCH**

As of the end of March, MAP International had repaired all the broken hand pumps targeted for repair in the highest endemic villages of Tanda and Bondoukou Districts (see line-listing of eight top endemic villages in *Guinea Worm Wrap-Up #119*). As of March 21<sup>st</sup> this year, no cases of dracunculiasis had been reported outside of Tanda District. Although Tanda District began reporting cases again in December 2001, a representative of the national program only visited the area in mid-March 2002. A meeting of the major partners was held in Abidjan on March 19<sup>th</sup>, attended by representatives of the national Guinea Worm Eradication Program, the national water supply agency (*Hydraulique Villageoise*), MAP, CRAS (Centre Rural d'Animation Sociale), U.S. Peace Corps, UNICEF and Global 2000/The Carter Center. A team from WHO, UNICEF and CDC will assist the national program in early May to conduct an active case search in at risk districts that have not completed such a search recently.

### **HOW NOT TO ERADICATE GUINEA WORM**

*"...[name] village reported 20 cases in January and 138 in February! Women (households) in ... had 100% filter coverage as... has been among the top 5 endemic villages for the last 3 years. In fact, each household had 2-3 filters. We were dismayed to enter houses where women, their children and husbands all had GW and were drinking unfiltered water. A new drum size filter was given to each woman and on returning the next day, we discovered the new filters were on top of roofs or tucked away inside the homes unused. During the last days of February and the beginning of March,... had large funeral gatherings."* From a consultant's report.



Table 2

**Number of cases contained and number reported by month during 2002\*  
(Countries arranged in descending order of cases in 2001)**

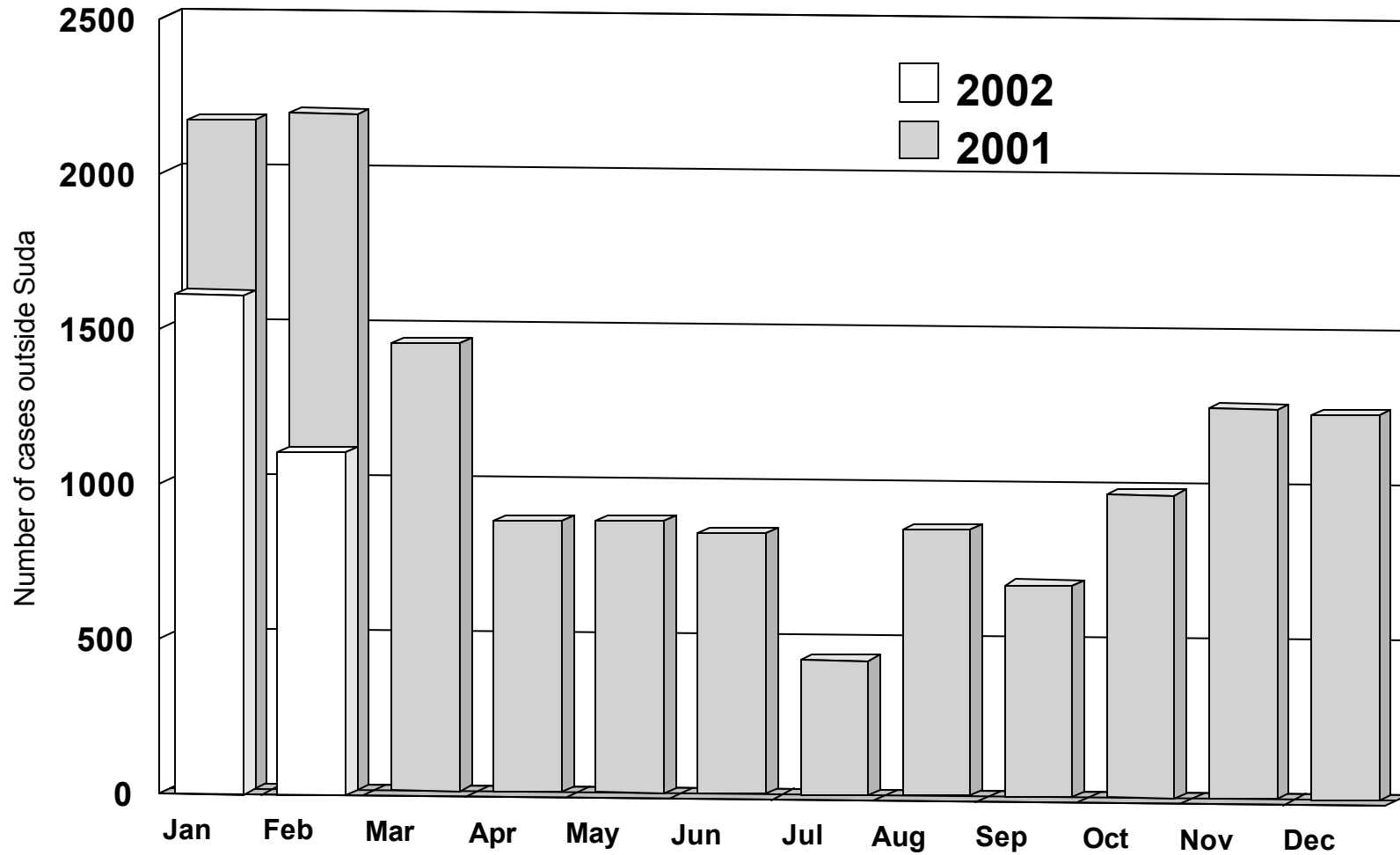
ENDEMIC COUNTRY	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED												
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*
SUDAN	346 / 676	258 / 528	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	604 / 1204
NIGERIA	350 / 647	195 / 336	148 / 220	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	693 / 1203
GHANA	497 / 744	389 / 680	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	886 / 1424
TOGO	147 / 193	70 / 98	18 / 39	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	235 / 330
BURKINA FASO	6 / 8	24 / 28	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	30 / 36
MALI	3 / 4	0 / 0	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	3 / 4
NIGER	6 / 6	0 / 0	0 / 0	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	6 / 6
COTE D'IVOIRE	90 / 91	52 / 52	23 / 24	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	165 / 167
BENIN	28 / 28	8 / 11	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	36 / 39
MAURITANIA	0 / 0	0 / 0	0 / 0	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	0 / 0
UGANDA	0 / 0	0 / 0	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	0 / 0
CAR	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	0 / 0
ETHIOPIA	0 / 0	0 / 0	0 / 0	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	0 / 0
TOTAL*	1473 / 2397	996 / 1733	189 / 283	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	2658 / 4413
% CONTAINED	61	57	67										60

\* PROVISIONAL

Shaded cells denote months when zero indigenous cases were reported. Numbers indicate how many imported cases were reported and contained that month.

Figure 2

Number of Dracunculiasis Cases Reported Outside of Sudan by Month, 2001-2002\*



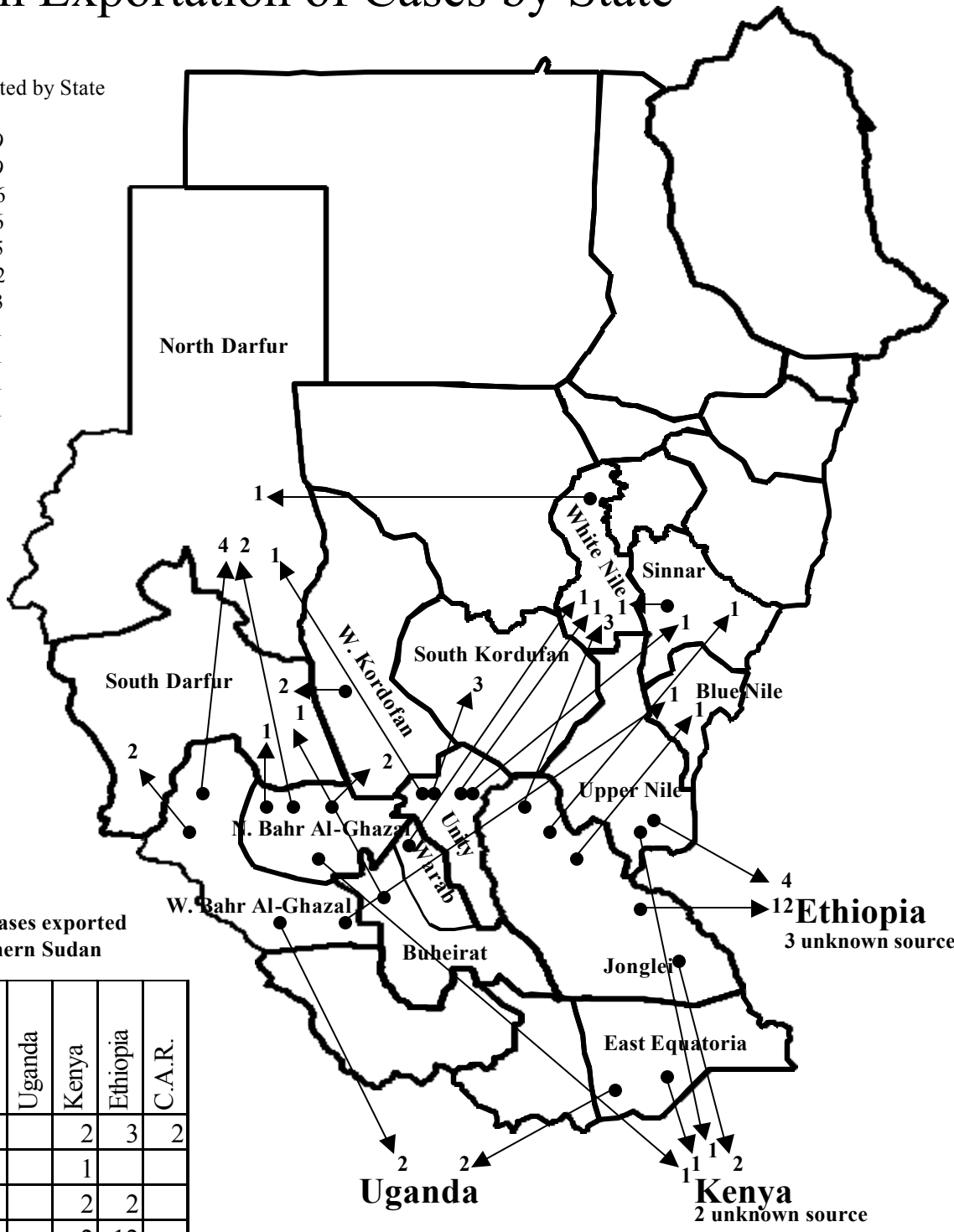
\* provisional

**Figure 3**

# Sudan Exportation of Cases by State

Number of Cases Exported by State

Jonglei	19
W. Bahr al Ghazal	9
N. Bahr al Ghazal	6
Unity	6
Upper Nile	5
W. Kordofan	2
E. Equatoria	3
Buheirat	1
Warab	1
Sinnar	1
White Nile	1



Source of 33 cases exported out of southern Sudan

	Uganda	Kenya	Ethiopia	C.A.R.
Unknown		2	3	2
N. Bahr al Ghazal		1		
Upper Nile		2	2	
Jonglei		2	12	
E. Equatoria	2	1		
W. Bahr al Ghazal	2			

## **SUDAN: SOURCES OF CASES EXPORTED FROM SOUTHERN STATES**

As indicated on the map (Figure 3), 16 cases of dracunculiasis that were exported from Sudan into Ethiopia in 2001 came from Jonglei and Upper Nile States, which share a border with Ethiopia's Gambella Region. Kenya received five cases from four Sudanese states, while the four cases imported into Uganda originated in East Equatoria and W. Bahr Al-Ghazal States. By and large, the 25 cases that were imported into northern Sudanese states among persons displaced from southern Sudan came mostly from states that share a border with one or more of the northern states. The Sudan Guinea Worm Eradication Program and its neighbors need to continue tracking these data in order to help forecast and reduce such exportations as much as possible before the disease is eradicated from southern Sudan.

## **OBITUARY**

It is with sadness and regret that we report the death on April 10, 2002 of Francis Ombija Olwago, who worked at The Carter Center office in Nairobi, Kenya during the last 7 years. His wife Grace, and their five children survive Francis. He was a good man and a true Guinea worm warrior. We express our profound sympathy to his family.

## **QUESTIONNAIRE FOR NATIONAL COORDINATORS**

Assuming that all national Guinea Worm Eradication Programs receive and use available resources in a timely and effective manner, why is it that transmission of Guinea worm disease continues to occur? Below is a questionnaire that can help you answer that question. Each question is worth 5 points. A score of 100% would indicate that there should not be ongoing transmission of the dracunculiasis in your country. How high does your Guinea Worm Eradication Program (GWEP) score? Let the editor of the Guinea Worm Wrap Up know. This questionnaire may also be adapted to evaluate the status of programs at regional or district levels.

1. Has the head of state or minister of health visited an endemic village in the past year?
2. Do you brief or send monthly reports to the minister of health on the status of the program?
3. Does the GWEP hold coordination meetings with its major partners at least every other month?
4. Do village volunteers receive constructive supervision, at least twice monthly, by their superiors using a supervisory checklist?
5. Do you receive accurate monthly reports on the status of all interventions in all endemic areas?
6. Are line-listings and maps showing currently endemic villages being used to forecast appearance of cases, monitor interventions, and are these line-listings updated monthly in every endemic district as well as at regional and national levels?
7. Do village volunteers conduct active surveillance for cases of Guinea worm disease in all known endemic villages?
8. Do you ensure that supervisors train village volunteers (as often as necessary) to teach others about the origin and prevention of dracunculiasis, encourage the village volunteers to do active surveillance, help them to fill out case registers accurately, and provide supplies and materials to enable them to contain transmission from all cases of the disease so that the containment process meets the international standards?
9. Does the program use drama, market talks, video or slide shows about Guinea worm disease in all of the highest endemic areas during peak transmission season?

10. Are primary and secondary students taught about Guinea worm disease prevention in all schools located in all endemic districts?
11. Has the program used “Worm Weeks” in at least half of the highest endemic villages during the past year?
12. Are radio messages about prevention of Guinea worm disease broadcast in local languages to the highest endemic areas at least weekly during the peak transmission season?
13. Do more than 90% of known endemic villages report having cloth filters in 100% of households?
14. Are supervisors teaching filter users how to use and care for cloth filters, pipe filters, etc., each time they visit their endemic villages?
15. Are containment houses or comparable facilities for ensuring that patients do not contaminate water available in each of the endemic districts?
16. Are villagers in remaining endemic areas fully engaged in protecting themselves from Guinea worm disease?
17. Are Abate applications reaching all appropriate water sources, every 30 days during the transmission season, and subject to spot checks of copepod levels in a random sample of treated water sources each month?
18. Is there a national list of priority endemic villages that need new or repair of old sources of safe drinking water that is updated monthly, shared with agencies responsible for providing water, and used for prioritizing this intervention?
19. Are all reported cases in never endemic, formerly endemic, and low endemic areas always investigated as to their origin and containment status, and data on them sent to the national program headquarters?
20. Is there a system for continued surveillance of dracunculiasis in areas of the country that are no longer endemic?

## RECENT PUBLICATIONS

Cairncross S, Muller R, Zagaria N, 2002. Dracunculiasis (Guinea worm disease) and the eradication initiative. Clin Microbiol Rev 15: 223-246.

World Health Organization, 2002. Dracunculiasis eradication in selected African countries. Wkly Epidemiol Rec 77: 9-13.

*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. James H. Maguire, 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: 770-488-7761. . The GW Wrap-Up web location has changed to <http://www.cdc.gov/ncidod/dpd/parasites/guineaworm/default.htm>*




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