DEPARTMENT OF HEALTH & HUMAN SERVICES

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

Date: June 17, 2003

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

Subject: GUINEA WORM WRAP-UP #133

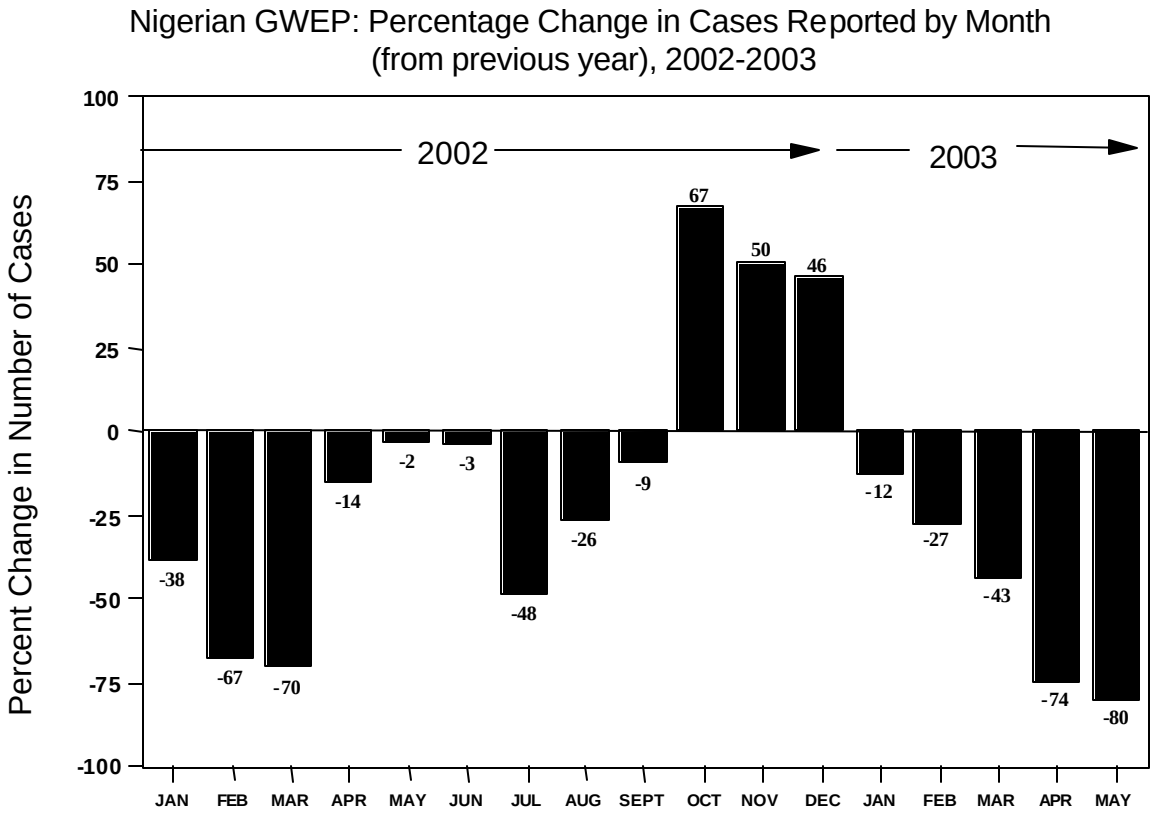
To: Addressees

Are This Year's Interventions Better Than Last Year's? If So, How?

NIGERIA REDUCES ITS CASES BY -37% IN JANUARY-MAY

Nigeria reported only 61 cases of dracunculiasis in April 2003, and only 52 cases in May. These are the first months since the Nigerian Guinea Worm Eradication Program (NIGEP) began in 1988 that less than 100 cases were reported in any month. Although the cumulative percentage reduction in Nigerian cases of -37% between January and May 2003 is less than it was in the same period of 2002 (-50%), the monthly trend in reduction of cases so far this year is very different. There has been a steady increase in the rate of reduction each month in 2003 so far, and the rates of reduction in April (-74%) and May (-80%) 2003 are higher than those seen in any of the past 17 months in Nigeria (Figure 1). *Will the big reductions continue in October, November and December this year*? Progress is also evident in the observation that 70% of Nigeria's dracunculiasis cases are now found in only 5 Local Government Areas (LGAS; Ibarapa North, Ado, Obi, Ishielu, Iseyin) of three states: Benue, Oyo and Ebonyi.

Figure 1



Nigeria is also intensifying its interventions compared to last year. The overall reported rate of case containment has increased from 66% in 2002 to 72% so far this year, and the percentage of endemic villages with at least one source of safe drinking water now stands at 66%, compared to 60% in 2002 and 49% in 2001. The most recent increases in water supply to endemic villages is the result of new hand dug wells, bore hole wells and solar activated wells that were supported by several external agencies (Carter Center/Global 2000, United Nations Development Program, UNICEF, DFID), state water and sanitation agencies (Enugu, Katsina), and by strong advocacy by former head of state General (Dr.) Yakubu Gowon. Thirty-two of the 109 cases reported in April and May 2003 were contained in case containment centers.

Additional "Worm Weeks" were conducted in Ishielu (Ebonyi State) and in Saki-West (Oyo) LGAs in May. A radio discussion on Guinea worm eradication issues was broadcast in the Tiv language on Nasarawa State Radio during May. The first NIGEP Steering Committee meeting of the year was convened at Makurdi, Benue State, on May 26-27, chaired by the national program coordinator, Dr. K.A. Ojodu.

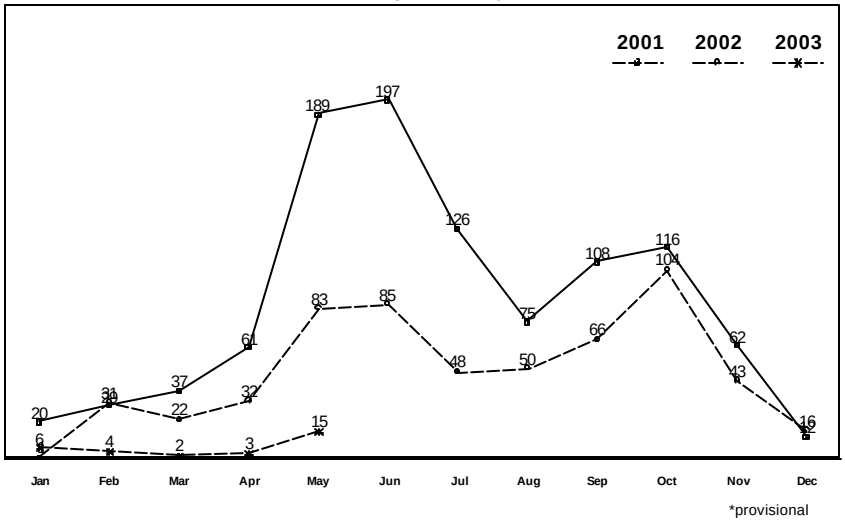
Do Village Volunteers Conduct Active Surveillance for GWD in all Endemic

BURKINA FASO REDUCES ITS CASES BY -84% IN JANUARY-MAY

Currently the sixth-highest endemic country, Burkina Faso has reported only 27 indigenous cases of dracunculiasis in January-May 2003, compared to 174 cases in the same period of 2002 (Figure 2). Although its peak transmission season has just begun, the Burkinabe may be about to break the back of Guinea worm disease in their country. The annual rates of reduction in recent years were –10% in 2000, -47% in 2001, and -43% in 2002. And as reported in the previous issue, Burkina's Guinea Worm Eradication Program has already intensified its interventions in 2003 beyond their level in 2002, with higher filter coverage, higher case containment rates, introduction of case containment centers, and more "Worm Weeks". *Will we welcome Burkina Faso to the ranks of countries reporting less than 100 cases this year?* It would take a reduction of at least 83% to achieve that.

Figure 2

Burkina Faso Guinea Worm Eradication Program
Number of Cases Reported by Month, 2001 - 2003*



*provisional

Is Your Program Distributing Filters Door to Door and Demonstrating Their Proper

SUDAN'S GWEP CONDUCTS GUINEA WORM DAYS IN TWO KEY CITIES

The Sudan GWEP held a Guinea Worm Day in Malakal (Upper Nile State) on April 6, and in Wau (West Bahr Al-Ghazal) on May 30, 2003. During the associated festivities in Malakal, participation by a popular singer from the local Shilluk ethnic group, Vivian James, helped boost attendance to about 5,000 persons. She also recorded a few songs about Guinea worm at the local radio station that are being distributed to other radio stations in the south. Participants included the acting governors and the state ministers of education in each of the two states, as well as the national program coordinator, Dr. Nabil Aziz. The program has also conducted over 16,000 health education sessions, with more than 125,000 attendees, in Internally Displaced Persons (IDPs) camps so far in 2003 (there are an estimated 4 million IDPs in all of Sudan, including almost 2 million in camps around Khartoum).

Medical students from four Norwegian universities have decided to raise funds to purchase at least 6,000 medical kits and some pipe filters for Sudan's GWEP. This will be this year's Humanitarian Action Campaign, which happens every other year in Norway. The students plan to raise approximately US$300,000. Bravo Norway!

Is Your Program Conducting Spot Checks Each Month of Copepod Levels in a Random Sample of Water Sources that Were Treated With ABATE@ Larvicide?

IN BRIEF:

Cote d"Ivoire has reported only 38 indigenous cases during January – May 2003, a reduction of 79% in cases compared to the 181 indigenous cases reported during this same period in 2002. However, the ongoing civil conflict has made much of the central and northern parts of the country inaccessible to the national GWEP. Most (92%) of the cases in 2002 were reported from Tanda District, and 29 (76%) of the cases so far in 2003 have been reported from that same district. Of concern are the 5 cases in February and 4 cases in May cases from 3 villages reported in Bondokou District, which reported zero cases during 2002. The probable origin of these nine cases has not yet been investigated, but it is critical to determine whether transmission in these three villages was entirely missed during 2002, whether these cases originated in adjacent Tanda District, or from elsewhere. The map on page 9 shows the location of all of the villages reporting cases during January – May 2003.

Ghana. The Ghana country offices of UNICEF and the World Health Organization (WHO) are providing a total of about $85,000 to support expansion of the Ghana Red Cross Society's mobilization of its Women's Clubs into nine of the fifteen highest endemic districts in the country. The Carter Center began supporting this activity in the six highest endemic districts last year. Drs. Alhousseini Maiga and Ahmed Tayeh of WHO led a mission on June 1-13 to evaluate prospects for strengthening Ghana's Integrated Community-Based Surveillance System to reliably detect and report cases of dracunculiasis (as well as other diseases) in areas of the country that are no longer endemic, and which thus are not covered by the Ghana Guinea Worm Eradication Program.

Mali has established 11 new zones, making a total of 28, in the key endemic districts (*cercles*) of Ansongo, Gourma Rharous, and Gao to facilitate eradication activites and supervision. The three districts conducted their first "Worm Weeks" ever early in May, with the assistance of U.S. Peace Corps Volunteers; two teams operated in each district. Team members included zonal GW coordinators, *medecin chefs*, mayors, and some heads of sub-prefectures. Radio messages have begun to be broadcast. An epidemiological and Focus Group Study of Tamacheck populations is underway, with assistance by Mr. Hamadoun Maiga of the of the Centre Regional pour l'Eau Potable et l'Assainissement (CREPA-MALI) and Ms. Jennifer Moore, a Global 2000 consultant. The GWEPs of Mali, Burkina Faso and Niger plan to hold a cross-border meeting in Gao in July. Mr. Philip Downs of the Carter Center made a supervisory visit to this program from May 7-22.

Togo continues to report fewer cases in 2003 than in the comparable months a year earlier, except for April. Evidence of the impact of the case containment centers in Togo continues to get stronger. Cases in the catchment area of the case containment centers in Ogou District, where this intervention began in August 2001 were reduced by -59% from August 2002 to May 2003, compared to a 36% increase in cases in districts without case containment centers during the same period (Table 1). Reporting of interventions from the northern districts of Keran and Sotouboua continues to lag, however. The program held its annual national review meeting in Lome on May 5-7.

Table 1

Togo Guinea Worm Eradication Program
Observed Reductions in Cases in Areas With and Without Case Containment Centers

District	Number of Case Containment Centers	Number of Endemic Villages**	Years	Months of Comparison (Jul Aug Sept Oct Nov Dec Jan Feb Mar Apr May Jun)	Number of Cases Reported	% Change	% of All Cases Reported in the District that Were Contained in Case Containment Centers
Ogou*	5	31	2001-2002 2002-2003		464 171	-63%	**44%** **41%**
Haho	1	51	2002 2003		108 34	-69%	**18%** **29%**
Est Mono	3	9	2001-2002 2002-2003		44 40	-9%	**52%** **75%**
Agou & Yoto	1	6	2001-2002 2002-2003		47 29	-38%	**74%** **10%**
Total	10	97	2001-2002 2002-2003		663 274	-59%	**42%** **41%**
Other Districts^	None	131	2001-2002 2002-2003		590 805	36%	None

* Excludes cases from the village of Kpatala from during January-May 2002 and 2003
** Number of villages served by Case Containment Centers
^ Includes all other villages in districts reporting cases that were not served by Case Containment Centers

Uganda has reported 10 indigenous cases of dracunculiasis, 2 in April and 8 in May. All ten cases were contained, and all are from the same village, called IIIa/Nawuapoet, in Kotido District. It is believed that people from the neighboring endemic village (Rikitae) fled to this village during a military skirmish in the same period of last year. This, unfortunately, is already more than the six indigenous cases reported in Uganda for all of 2002. Uganda also recorded one case imported from Sudan in April and 3 other imported cases in May.

Ethiopia has reported five indigenous cases in Gambella Region, and two cases imported from Sudan into South Omo, in May.

Table 2

Number of cases contained and number reported by month during 2003*

(Countries arranged in descending order of cases in 2002)

COUNTRIES REPORTING CASES	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													%
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	CONT.
SUDAN	709 / 1199	353 / 689	541 / 858	467 / 1060	/	/	/	/	/	/	/	/	2070 / 3806	54
GHANA	470 / 870	741 / 1322	510 / 931	602 / 936	498 / 767	/	/	/	/	/	/	/	2821 / 4826	58
NIGERIA	389 / 568	179 / 245	103 / 125	53 / 61	30 / 52	/	/	/	/	/	/	/	754 / 1051	72
TOGO	109 / 147	36 / 50	22 / 30	37 / 40	77 / 87	/	/	/	/	/	/	/	281 / 354	79
MALI	3 / 3	4 / 4	5 / 5	2 / 3	3 / 3	/	/	/	/	/	/	/	17 / 18	94
BURKINA FASO	6 / 6	3 / 4	0 / 2	3 / 3	6 / 15	/	/	/	/	/	/	/	18 / 30	60
NIGER	0 / 0	1 / 1	0 / 0	2 / 2	0 / 0	/	/	/	/	/	/	/	3 / 3	100
COTE D'IVOIRE	7 / 21	5 / 8	1 / 2	1 / 3	4 / 4	/	/	/	/	/	/	/	18 / 38	47
BENIN	21 21	1 / 1	1 / 1	0 / 0	0 / 0	/	/	/	/	/	/	/	23 / 23	100
ETHIOPIA	0 / 0	0 / 0	3 / 3	7 / 7	7 / 7	/	/	/	/	/	/	/	17 / 17	100
MAURITANIA	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	0 / 0	0
UGANDA	0 / 0	0 / 0	0 / 0	3 / 3	11 / 11	/	/	/	/	/	/	/	14 / 14	100
TOTAL*	1714 / 2835	1323 / 2324	1186 / 1957	1177 / 2118	636 / 946	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	6036 / 10180	59
% CONTAINED	60	57	61	56	67								59	

* PROVISIONAL

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

For other imported cases see table of imported cases by month and by country.

Figure 3

Distribution by Country of 10,154 Indigenous Cases of Dracunculiasis Reported During 2003*

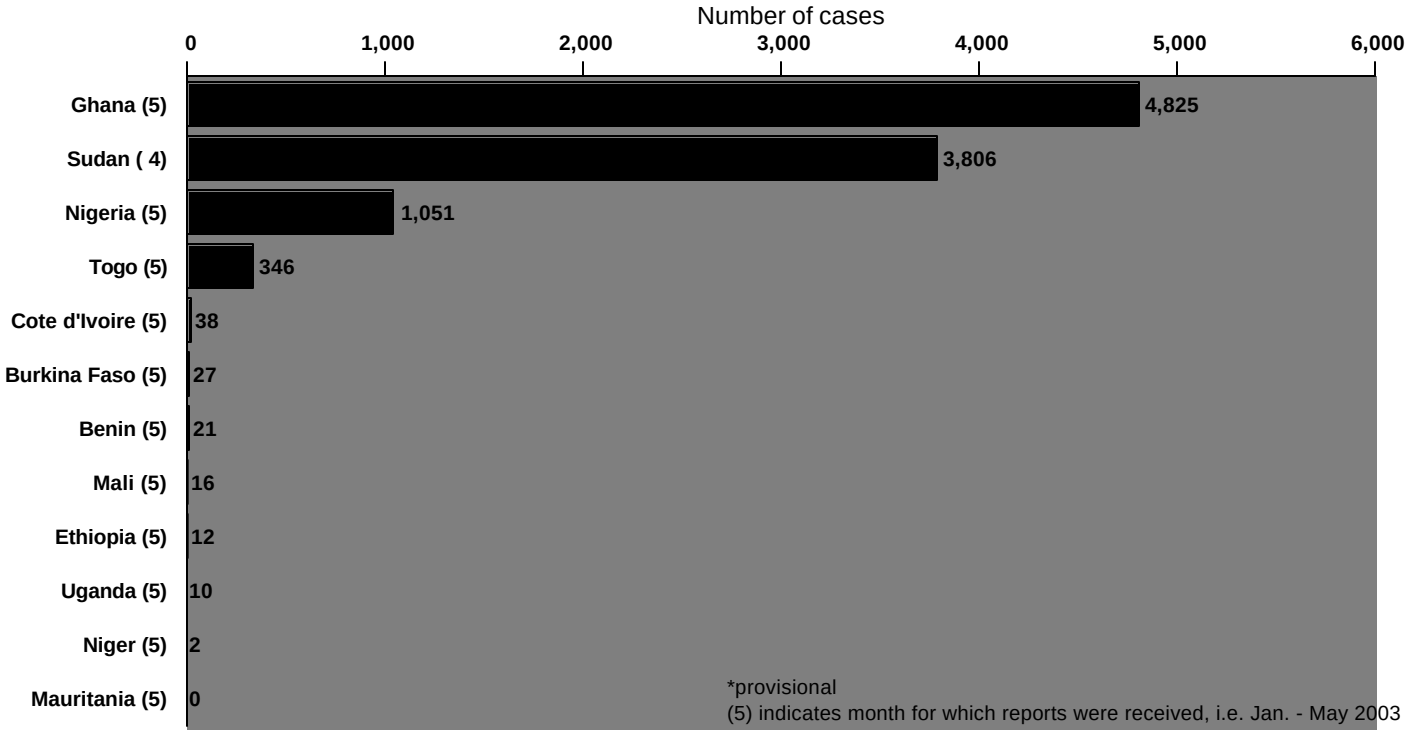


Figure 4

Distribution by Country of Origin of 26 Cases of Dracunculiasis Exported to Other Countries During 2003*

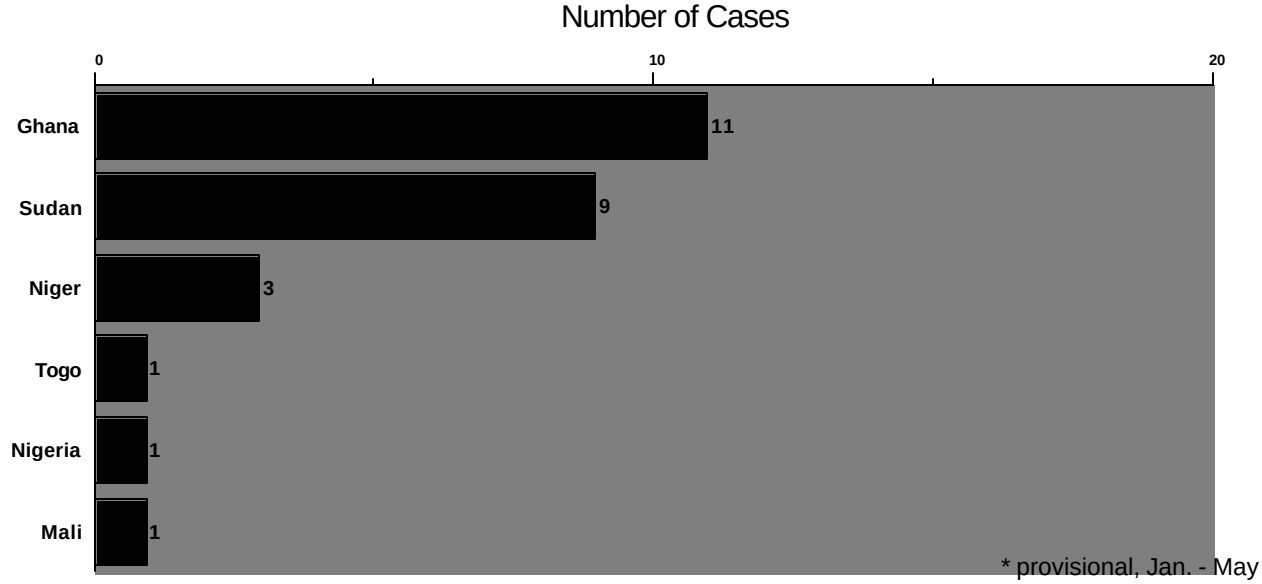
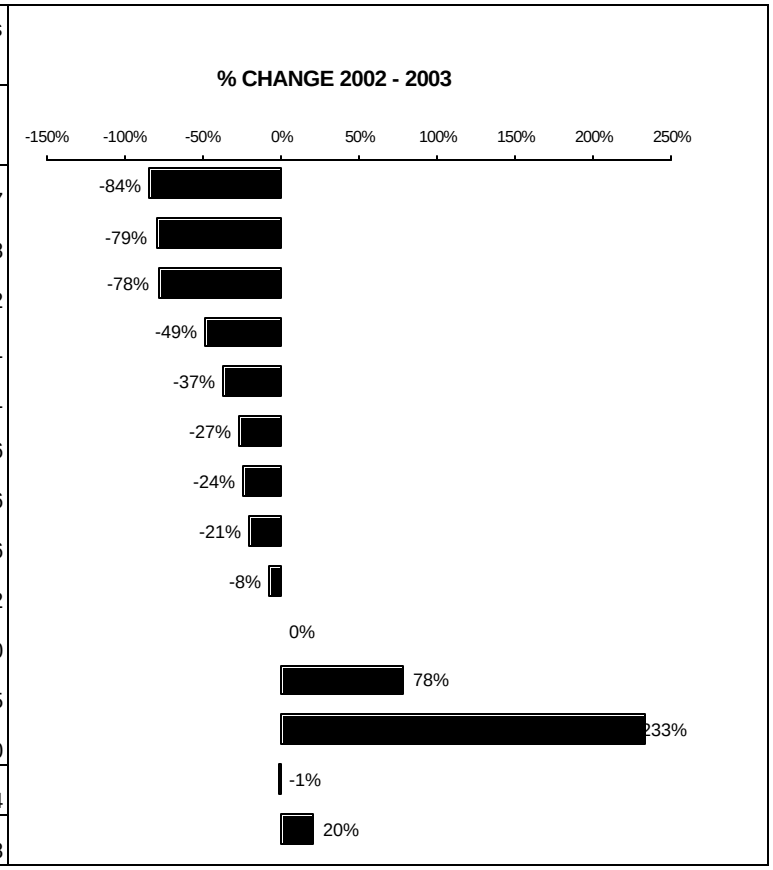


Figure 5

Number of Villages/Localities Reporting Cases of Dracunculiasis in 2002, Percentage of Endemic Villages Reporting in 2003*, Number of Indigenous Cases Reported During the Specified Period in 2002 and 2003*, and Percent Change in Cases Reported

Country	Villages		Indigenous Cases Reported	
	Reporting 1+ cases in 2002	% Reporting 2003	2002	2003
Burkina Faso (5)	133	86%	174	27
Cote d'Ivoire (5)	25	50%	181	38
Niger (5)	77	100%	9	2
Benin (5)	31	100%	41	21
Nigeria (5)	557	100%	1681	1051
Mali (5)	183	NR	22	16
Sudan (4)	4233	58%	5016	3806
Togo (5)	228	100%	438	346
Ethiopia (5)	12	100%	13	12
Mauritania (5)	18	100%	0	0
Ghana (5)	739	78%	2708	4825
Uganda (5)	19	100%	3	10
Total	6255	68%	10286	10154
Total (- Sudan)	5698	88%	5270	6348



(5) Indicates month for which reports were received, i.e., Jan. - May. 2003

* Provisional

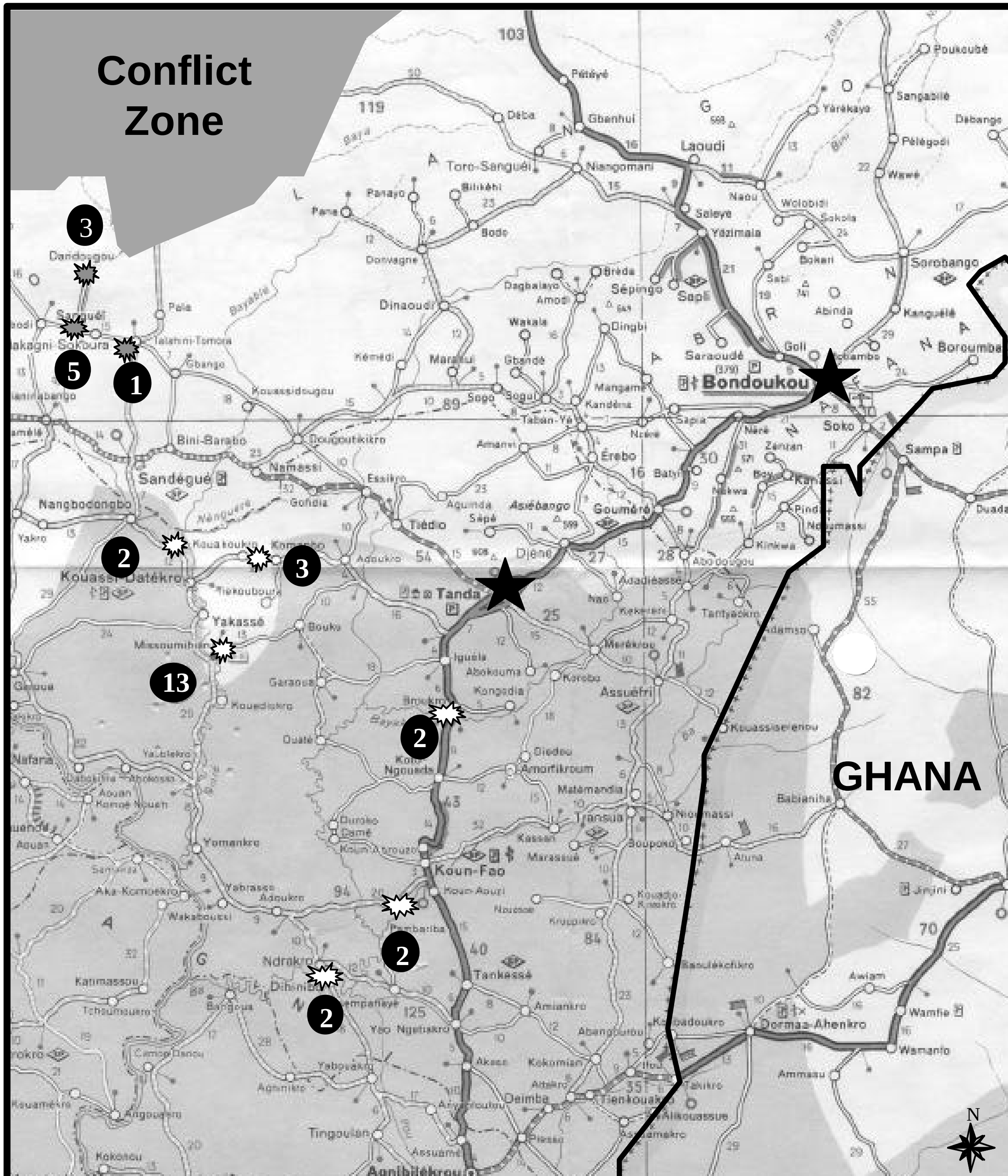
Table 3

DRACUNCULIASIS ERADICATION CAMPAIGN
STATUS OF INTERVENTIONS IN SELECTED COUNTRIES: 2001-2003*

COUNTRY	# OF VILLAGE	INTERVENTIONS	% COVERAGE OF VILLAGES		
			2001	2002	2003*
SUDAN	4,233	FILTERS IN 100 % OF HOUSEHOLDS	62%	64%	60%
		ABATE USAGE	2%	2%	1%
		HEALTH EDUCATION	85%	92%	68%
		1+ SOURCE OF SAFE WATER	61%	59%	54%
		% CASES MANAGED	49%	52%	57%
GHANA	739	FILTERS IN 100 % OF HOUSEHOLDS	85%	95%	75%
		ABATE USAGE	20%	26%	20%
		HEALTH EDUCATION	100%	100%	29%
		1+ SOURCE OF SAFE WATER	34%	44%	35%
		% CASES CONTAINED	68%	66%	57%
NIGERIA	557	FILTERS IN 100 % OF HOUSEHOLDS	88%	98%	99%
		ABATE USAGE	33%	35%	43%
		HEALTH EDUCATION	100%	100%	
		1+ SOURCE OF SAFE WATER	49%	60%	66%
		% CASES CONTAINED	65%	66%	72%
TOGO	228	FILTERS IN 100 % OF HOUSEHOLDS	78%	89%	
		ABATE USAGE	76%	78%	65%
		HEALTH EDUCATION	100%	100%	100%
		1+ SOURCE OF SAFE WATER	47%	43%	48%
		% CASES CONTAINED	62%	62%	79%
MALI	183	FILTERS IN 100 % OF HOUSEHOLDS	99%	90%	94%
		ABATE USAGE	21%	22%	1%
		HEALTH EDUCATION	100%	100%	100%
		1+ SOURCE OF SAFE WATER	15%	22%	21%
		% CASES CONTAINED	51%	58%	100%
BURKINA FASO	133	FILTERS IN 100 % OF HOUSEHOLDS	68%	90%	
		ABATE USAGE	59%	64%	21%
		HEALTH EDUCATION	82%	99%	61%
		1+ SOURCE OF SAFE WATER	78%	79%	80%
		% CASES CONTAINED	73%	75%	84%
NIGER	77	FILTERS IN 100 % OF HOUSEHOLDS	100%	100%	100%
		ABATE USAGE	78%	87%	1%
		HEALTH EDUCATION	100%	100%	100%
		1+ SOURCE OF SAFE WATER	25%	15%	40%
		% CASES CONTAINED	57%	60%	100%

* Provisional data: January-April 2003

Cote d'Ivoire Cases of Dracunculiasis Reported Jan. – May 2003



Key

Reported Cases

- Bondoukou
- Tanda
- Conflict Zone
- District Capital
- # cases reported

NEW PUBLIC SERVICE ANNOUNCEMENTS BEING PREPARED

The Voice of America (VOA) has partnered with the Carter Center since 2001 to develop 12 Public Service Announcements (PSAs) regarding prevention of Guinea worm disease. The VOA has promised to air such announcements as long as necessary, until dracunculiasis is eradicated. The PSAs include some recorded by former President Jimmy Carter, former Nigerian Head of State General Yakubu Gowon, President Amadou Toumani Toure of Mali, and President Tandja Mamadou of Niger. Messages are being aired at least three times a week on VOA's English, French and Hausa language broadcasts and some are also being broadcast by local radio stations in endemic countries. PSAs are now available in Kanuri, and are currently being recorded in Arabic, Bambara, Dinka, Fulani, Konkomba, Nuer, and Tamachek. United Nations Secretary-General Kofi Annan also recently agreed to record a message.

Most of the messages have been built around four key points, urging listeners to:

- **Prevent it**: to prevent Guinea worm, stop everyone with the disease from entering any water source.
- **Avoid it**: Avoid drinking water that may contain Guinea worms. Think before you drink! Drink safe water only.
- **Filter it**: Filter all drinking water that may contain Guinea worms.
- **Report it**: Report all Guinea worm cases to your village health worker.

Audio and written files of these PSAs have been and are being loaded onto The Carter Center's website. They are also being posted in such a way that radio stations in Africa can download the messages directly from the site, free of charge, for use in local broadcasts. The messages may be accessed by direct link at: http://www.cartercenter.org.healthprograms/showstaticdoc.asp?ProgramID=1&docname=gwmedia&submenu=healthprograms

OR
1. www.cartercenter.org
2. select "Health Programs" from horizontal tool bar
3. select "Multimedia" from vertical tool bar
4. select "Guinea Worm Audio/Video"
5. PSA page and 5 minute Togo Guinea worm video (also viewable on the website).

FORMER NIGERIAN FEDERAL MINISTER OF HEALTH OLIKOYE RANSOME-KUTI DIES

It was with great regret that we learned of the death of Professor Olikoye Ransome-Kuti, who passed away while chairing a meeting in London, England on June 1, 2003. Professor Ransome-Kuti served with great distinction as Nigeria's Federal Minister of Health for many years, which fortunately included the formative years of the global Guinea Worm Eradication Program, as well as the beginning years of the national program in Nigeria. The people of Nigeria and the world are indebted to him for his intellect, integrity, and long distinguished service. He deserved, among many other things, to see the end of dracunculiasis in his country. We extend our sincere condolences to his family, and pray that God will rest and bless him for his many good works.

CANADA MAKES GRANT TO THE CARTER CENTER

The Government of Canada has approved a grant of CAD $3.1 million (about US $2.1 million) to The Carter Center to help in the final push to eradicate dracunculiasis. The grant was announced by the Canadian International Development Agency (CIDA) during a meeting in Ottawa on June 18 between CIDA's Minister for International Cooperation Susan Whelan; Carter Center Executive Director Dr. John Hardman; and Dr. Donald Hopkins, Associate Executive Director for the Center's Health Programs. The three-year grant will be administered by CIDA. Specific activities to be supported by this grant include containment of transmission of Guinea worm disease cases, active surveillance, health education, and community mobilization, with emphasis on the remaining endemic countries in West Africa. Through this grant, particular attention also will be given to the impact of the disease on women and girls, as well as women's participation in the implementation of interventions against the disease. In announcing the grant, Minister Whelan stated that "Working through The Carter Center, Canada's support will make a significant difference to the lives of the sufferers and to the communities in which they live."

INTERAGENCY COORDINATING GROUP MEETS IN GENEVA

The World Health Organization hosted the 47th meeting of the Interagency Coordinating Group for Dracunculiasis Eradication in Geneva on May 14-15, 2003. This meeting was convened mainly to consider some issues that arose during the annual meeting of program managers of GWEPs in Kampala in April. Participants included the national program coordinators of Ghana (Dr. Andrew Seidu-Korkor), Burkina Faso (Dr. Dieudonne Sankara), Niger (Alhaji Sadi Moussa), and Uganda (Dr. J. Bosco Rwakimari), as well as Prof. Oladele Kale of Nigeria and representatives of WHO, UNICEF, Health and Development International, and The Carter Center. Participation by the national coordinators was supported by WHO. The main topics covered included a review of the definitions of the indices used to monitor national GWEPs and plans to help certain endemic countries improve surveillance for dracunculiasis in formerly endemic areas. The Gates Guinea Worm Committee also met in Geneva on May 13.

2003 PROGRAM REVIEW MEETINGS

A combined 2003 Program Review for the GWEPs of the three highest endemic countries remaining, namely, Sudan, Ghana and Nigeria, will be held at The Carter Center in Atlanta, Georgia on September 22-25. President Jimmy Carter will participate in a special session of this review on September 25.

The 2003 Program Review for endemic francophone countries (Benin, Burkina Faso, Cote d'Ivoire, Mali, Mauritania, Niger, Togo) is expected to be held in Ouagadougou, Burkina Faso in October (date to be announced).

RECENT PUBLICATIONS

Hopkins, DR, 2003. Dracunculiasis. In: The Cambridge Historical Dictionary of Disease,K.F. Kiple, ed. Cambridge: Cambridge University Press. Pp 98-100.

WHO, 2003. Dracunculiasis eradication: global surveillance summary, 2002. Wkly Epidemiol Rec 78:146-155.

DEFINITION OF CASE CONTAINMENT

A case of Guinea worm disease is contained if all of the following conditions are met:

1. The patient is detected before or within 24 hours of worm emergence; **and**
2. The patient has not entered any water source since the worm emerged; **and**
3. The village volunteer has properly managed the case, by cleaning and bandaging until the worm is fully removed, and by giving health education to discourage the patient from contaminating any water source (if two or more emerging worms are present, the case is not contained until the last worm is pulled out); **and**
4. The containment process, including verification that it is a case of Guinea worm disease, is validated by a supervisor within 7 days of the emergence of the worm.

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

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