DEPARTMENT OF HEALTH & HUMAN SERVICES

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

Date: May 31, 2010

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

Subject: GUINEA WORM WRAP-UP #197

To: Addressees

Detect Every Case! Contain all transmission! Explain every source!

NO UNCONTAINED CASE OUTSIDE OF SUDAN IN JANUARY-APRIL 2010

According to provisional surveillance reports received to date, only 20 cases of dracunculiasis were detected outside of Sudan during January-May 2010, all but one of which were reportedly contained and the sources adequately explained. This compares to 223 cases reported from the same three countries during the same period of 2009, of which 9 cases were reportedly uncontained. Ethiopia reported 11 cases so far in 2010, including one uncontained case in May (vs. 13 in January-May 2009, all allegedly contained), Ghana reported 8 cases (vs. 209 in January-May 2010, 9 of which were reportedly uncontained), and Mali reported one case during January-May 2010 versus one case during the same period in 2009. Southern Sudan reported a provisional total of 303 cases, 78 of which were not contained, in January-April 2010 (Tables 1 and 4, and Figure 1).

Table 1

Eradication Countdown January-April 2010

Country	Total cases reported*	**Uncontained cases***
Sudan (1)	303	**78**
Ghana (2)	7	**0**
Mali (3)	0	**0**
Ethiopia (4)	9	**0**

*Provisional. (1) peak transmission season April-October, (2) peak season October-May, (3) peak season May-December, (4) transmission season February-August

Ghana's last known uncontained case was in December 2009, Mali's last known uncontained case was in November 2009, and Ethiopia's last known uncontained case before May 2010 was in June 2009. The Worm will soon challenge these assertions, starting next month.

ETHIOPIA

A team comprising Dr. Dieudonne Sankara, Dr. Abderrahmane Kharchi, and Mr. Getachew Temeche of WHO, Mr. Teshome Gebre and Ms. Jessica Flannery of The Carter Center, and Msrs. Getachew Bati, Head of Public Health Emergency, Nena Okello, Regional Guinea Worm Coordinator and Mr.Garwich, Nuer Zone GW Coordinator, of the Gambella Regional Health

Bureau, visited Gambella Region in April to monitor progress of Guinea worm eradication efforts in the region, including especially Gog, Abobo, Larie and Itang woredas (districts). They reported the main strengths of program activities were intensification of efforts in Gog woreda (where all currently confirmed endemic foci are located) and a well functioning case containment center. Although the EDEP (with WHO assistance) trained 374 health extension workers in Gambella Region during 2009-2010 on GWD eradication, including surveillance, the main weaknesses that they identified included failure to develop a plan of work by program staff outside of Gog woreda, weak supervision at all levels, very low community awareness about the reward system, an ineffective Integrated Disease Surveillance and Response System (IDSR), and non-functioning village based volunteers in the formerly endemic woredas.

Immediately before the Informal Meeting on Dracunculiasis during the 2010 World Health Assembly, Ethiopia's state minister of health Mr. K. W. Admasu and Dr. Tsehaynesh Messele, director-general of the Ethiopian Health & Nutrition Research Institute met with Drs. Donald Hopkins and Ernesto Ruiz-Tiben of The Carter Center and Drs. Alhousseini Maiga, Gautam Biswas, and Dieudonne Sankara of WHO to discuss the urgency of improving supervision, nationwide surveillance and government support for stopping transmission of dracunculiasis in Ethiopia this year. The line-listing of cases reported in Ethiopia so far in 2010 is given in Table 3. Ethiopia reported 41 cases in 2008 (vs. 38 cases in Nigeria), 24 cases in 2009 (vs. 0 in Nigeria), and 11 cases so far in 2010 (vs. 0 in Nigeria).

ENDEMIC SUDANESE VILLAGES GET SAFE DRINKING WATER

In January-April 2010, the Southern Sudan Ministry of Water Resources and Irrigation, UNICEF, and other partners have completed new functioning borehole wells in 43 Guinea worm-endemic villages of Warrab (41) and Lakes (2) States. These villages reported a total of 392 cases of dracunculiasis in 2009 (14.3% of total cases). The main current concern is to get hand pumps on 13 other borehole wells that have been drilled but do not have pumps, before these areas (mainly Kirik, Thiet and Abuyong Payams) become inaccessible due to the rains. Maintaining existing borehole wells in functioning condition year-round is another crucial concern. Strategically targeted provision of safe drinking water to endemic villages must continue to help accelerate elimination of dracunculiasis in Southern Sudan.

The number of cases reported and contained during 2010 by month, county, and state is shown in Table 5, and the number, place and nature of insecurity incidents during 2010, so far, is shown in Table 6.

INFORMAL MEETING ON DRACUNCULIASIS AT WORLD HEALTH ASSEMBLY

The World Health Organization convened an Informal Meeting with Ministers of Health of Guinea worm-affected countries from 6 to 8 pm on May 19, 2010 during the 63rd World Health Assembly in Geneva, Switzerland. The theme of this year's meeting was "Guinea Worm Eradication – Into Extra Time." The meeting was co-chaired by the regional director for WHO's Eastern Mediterranean Region, Dr. Hussein Abdul R. Gezairy, and Dr. Lusamba, deputy

Table 2

Ghana Guinea Worm Eradication Program
Line Listing of Cases of Dracunculaisis in 2010

Case No.	Age (year)	Gender	Date case detected	Date Guinea worm emerged	Likely Source
1	15	M	22-Jan	30-Jan	Sheigbuni farm pond
2	35	F	30-Jan	31-Jan	Unnamed farm pond (near Yaa)
3	27	M	1-Feb	3-Feb	Jahnifo farm pond
4	50	M	21-Jan.*	20-Feb	Jahnifo farm pond
5	30	M	25-Feb	27-Feb	Jahnifo farm pond
6	9	M	27-Feb	2-Mar	Jahnifo farm pond
7	43	M	25-Mar	6-Apr	Kugyini farm pond
8	41	F	4-May	11-May	Jahnifo farm pond?

* As a suspected case

Table 3

Ethiopia Dracunculiasis Eradication Program
Line Listing of Cases of Dracunculaisis in 2010

Case No.	Age (year)	Gender	Date case detected	Date Guinea worm emerged	Likely Source
1	14	F	14-Feb	14-Feb	walking path Abwiri / Agenga
2	18	M	8-Mar	8-Mar	walking path Abwiri / Agenga
3	35	F	6-May	17-Mar	walking path Abwiri / Agenga ?
4	60	F	8-Apr	7-Apr	walking path Abwiri/Utuyo
5	20	M	16-Apr	16-Apr	walking path Abwiri / Agenga
6	18	M	26-Apr	25-Apr	walking path Abwiri / Agenga
7	30	M	24-Apr	27-Apr	Dimyu Pond, Athetii
8	45	M	19-Apr	27-Apr	walking path Abwiri/Utuyo
9	40	F	27-Apr	30-Apr	walking path Abwiri / Chayanak
10	35	F	16-May	20-May	Atheti-Wicini-Pugnido Path
11	40	M	29-May	20-May	Atheti-Wicini-Pugnido Path

Table 4

Number of Cases Contained and Number Reported by Month during 2010* (Countries arranged in descending order of cases in 2009)

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	6 / 7	24 / 34	87 / 103	108 / 159	/	/	/	/	/	/	/	/	225 / 303	74
GHANA	2 / 2	3 / 3	1 / 1	1 / 1	1 / 1	/	/	/	/	/	/	/	8 / 8	100
MALI	0 / 0	0 / 0	0 / 0	0 / 0	1 / 1	/	/	/	/	/	/	/	1 / 1	0
ETHIOPIA	0 / 0	1 / 1	2 / 2	6 / 6	1 / 2	/	/	/	/	/	/	/	10 / 11	91
TOTAL*	8 / 9	28 / 38	90 / 106	115 / 166	3 / 4	/	/	/	/	/	/	/	244 / 323	76
% CONTAINED	89	74	85	69	75								76	
% CONT. OUTSIDE SUDAN	100	100	100	100	75								95	

* provisional

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

Number of Cases Contained and Number Reported by Month during 2009* (Countries arranged in descending order of cases in 2008)

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	4 / 12	12 / 18	39 / 47	134 / 221	277 / 428	388 / 458	434 / 521	452 / 543	240 / 275	104 / 141	39 / 55	11 / 14	2134 / 2733	78
GHANA	40 / 45	49 / 50	50 / 52	27 / 28	30 / 34	18 / 19	6 / 7	1 / 1	1 / 1	2 / 3	0 / 0	1 / 2	225 / 242	93
MALI	0 / 0	0 / 0	0 / 0	0 / 0	1 / 1	7 / 7	14 / 23	34 / 43	48 / 68	23 / 34	5 / 7	3 / 3	135 / 186	73
ETHIOPIA	0 / 0	0 / 0	2 / 2	6 / 6	2 / 5	6 / 8	2 / 2	1 / 1	0 / 0	0 / 0	0 / 0	0 / 0	19 / 24	79
NIGERIA	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0
NIGER	0 / 0	0 / 0	0 / 1	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1 / 2	0 / 1	1 / 1	0 / 0	2 / 5	40
TOTAL*	44 / 57	61 / 68	91 / 102	167 / 255	310 / 468	419 / 492	456 / 553	488 / 588	290 / 346	129 / 179	45 / 63	15 / 19	2515 / 3190	79
% CONTAINED	77	90	89	65	66	85	82	83	84	72	71	79	79	
% CONT. OUTSIDE SUDAN	89	98	95	97	83	91	69	80	70	66	75	80	83	

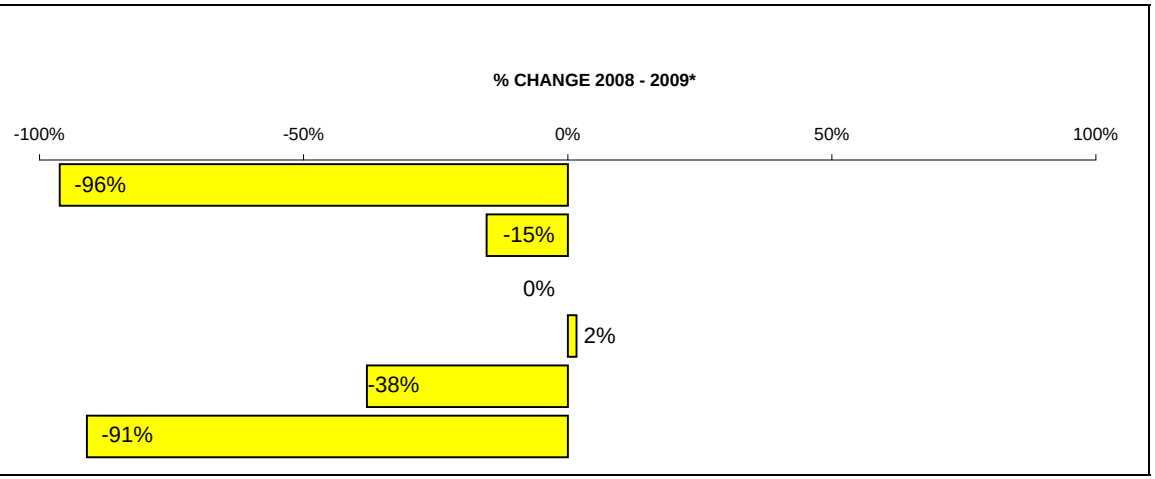
* provisional

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

Figure 1

Number of Indigenous Cases Reported During the Specified Period in 2009 and 2010*, and Percent Change in Cases Reported

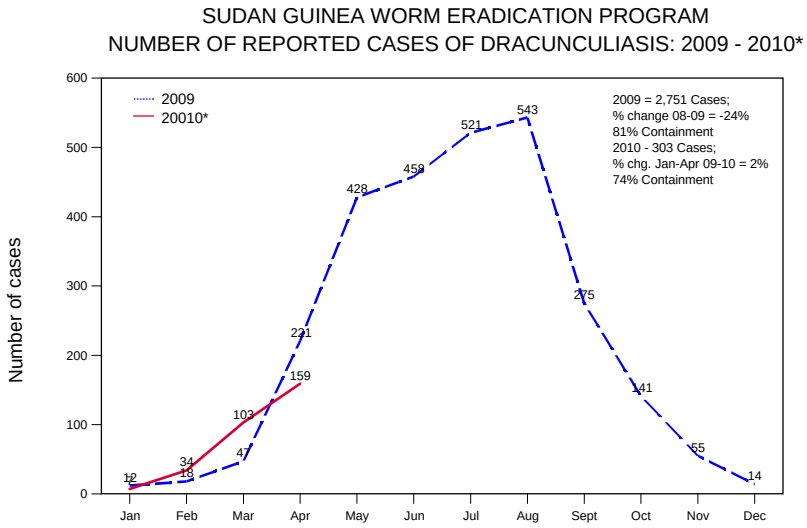
Country	Indigenous Cases Reported	
	2009	2010*
Ghana (5)	209	8
Ethiopia (5)	13	11
Mali (5)	1	1
Sudan (4)	298	303
Total	521	323
All countries, excluding Sudan	223	20

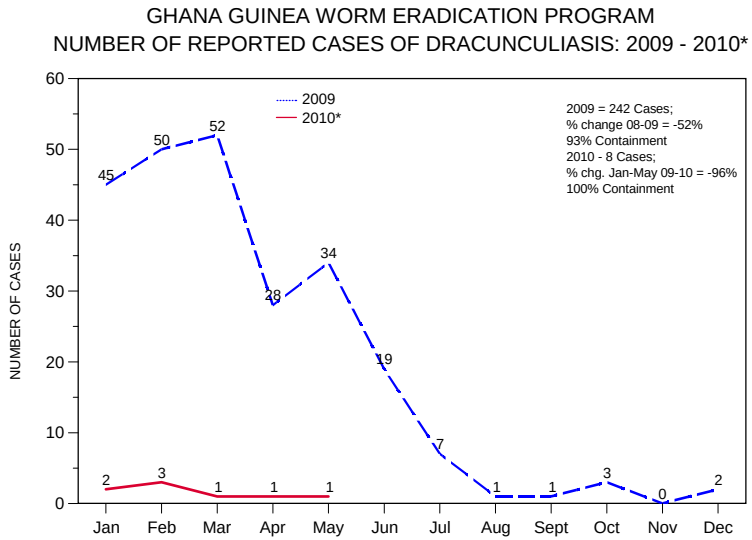


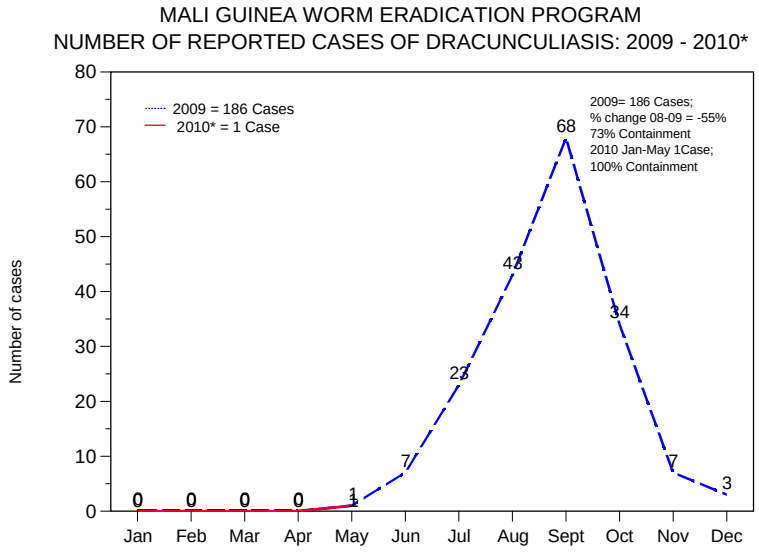
* Provisional: excludes cases exported from one country to another

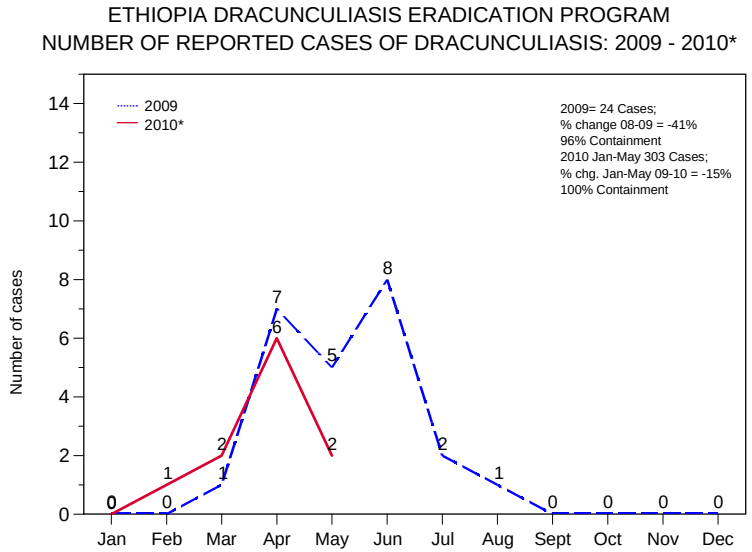
(5) Indicates months for which reports were received, i.e., Jan. -May. 2010*

Figure 2









* Provisional

Table 5

SOUTHERN SUDAN GUINEA WORM ERADICATION PROGRAM

CASES REPORTED AND CONTAINED DURING 2010 BY MONTH, COUNTY AND STATE

State	County	Cases Contained / Cases Reported													% Contained
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total	
Warrab	Tonj North	1 / 1	2 / 2	0 / 0	3 / 4	/	/	/	/	/	/	/	/	6 / 7	86%
	Tonj East	0 / 0	1 / 1	1 / 1	7 / 8	/	/	/	/	/	/	/	/	9 / 10	90%
	Tonj South	0 / 0	1 / 1	0 / 0	1 / 1	/	/	/	/	/	/	/	/	2 / 2	100%
	Gogrial East	0 / 0	0 / 0	1 / 1	0 / 0	/	/	/	/	/	/	/	/	1 / 1	100%
STATE TOTAL		1 / 1	4 / 4	2 / 2	11 / 13	/	/	/	/	/	/	/	/	18 / 20	90%
Eastern Equatoria	Kapoeta North	0 / 0	0 / 0	11 / 14	39 / 52	/	/	/	/	/	/	/	/	50 / 66	76%
	Kapoeta East	2 / 2	17 / 25	72 / 84	49 / 83	/	/	/	/	/	/	/	/	140 / 194	72%
	Kapoeta South	0 / 0	0 / 0	0 / 1	4 / 6	/	/	/	/	/	/	/	/	4 / 7	0%
STATE TOTAL		2 / 2	17 / 25	83 / 99	92 / 141	/	/	/	/	/	/	/	/	194 / 267	73%
Lakes	Awerial	0 / 0	1 / 1	0 / 0	4 / 4	/	/	/	/	/	/	/	/	5 / 5	100%
STATE TOTAL		0 / 0	1 / 1	0 / 0	4 / 4	/	/	/	/	/	/	/	/	5 / 5	100%
Central Equatoria	Terekeka	1 / 2	1 / 3	2 / 2	0 / 0	/	/	/	/	/	/	/	/	4 / 7	57%
STATE TOTAL		1 / 2	1 / 3	2 / 2	0 / 0	/	/	/	/	/	/	/	/	4 / 7	57%
Western Bahr Al Ghazal	Jur River	1 / 1	0 / 0	0 / 0	1 / 1	/	/	/	/	/	/	/	/	2 / 2	100%
STATE TOTAL		1 / 1	0 / 0	0 / 0	1 / 1	/	/	/	/	/	/	/	/	2 / 2	100%
Western Equatoria	Mvolo	1 / 1	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	/	1 / 1	100%
STATE TOTAL		1 / 1	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	/	1 / 1	100%
Jonglei	Nyriol	0 / 0	1 / 1	0 / 0	0 / 0	/	/	/	/	/	/	/	/	1 / 1	100%
STATE TOTAL		0 / 0	1 / 1	0 / 0	0 / 0	/	/	/	/	/	/	/	/	1 / 1	100%
SOUTHERN SUDAN TOTAL		6 / 7	24 / 34	87 / 103	108 / 159	/	/	/	/	/	/	/	/	225 / 303	74%

Table 6

SOUTHERN SUDAN GUINEA WORM ERADICATION PROGRAM

INCIDENTS OF INSECURITY AFFECTING PROGRAM OPERATIONS IN 2010*

No.	Date	Location	Reported cases of GWD		Payam	County	State	Incident	Outcome
			2009	2010*					
1	17-Jan	Alabek	see #4	see #4	Alabek	Tonj North	Warab	Area Fighting (ethnic clashes)	Disrupted GW activities
2	18-Jan	Wunlit	see #4	see #4	Wunlit	Tonj East	Warab	Area Fighting (ethnic clashes)	Disrupted GW activities
3	20-Feb	Cueibet	41	0	Cuiebet & Tonj	Cueibet	Lakes & Warrab	Area Fighting (ethnic clashes)	Disrupted GW activities, shipment of supply and trainings
4	21-Feb	Greater Tonj	1,137	19	Tonj South, North and East	Greater Tonj	Warrab	Area Fighting (ethnic clashes)	Disrupted shipment of supply pre-transmission for all of Warab and Western Bahr Al Gazal States
5	2-Mar	Palal Town	see #4	unknown	Palal	Tonj East	Warab	SPLA retaliation	All GW activities stopped. GW Area Supervisor killed. GW sub store looted of intervention materials and training supplies
6	14-Mar	Namoropus base	139	149	Kaldo	Kapoeta	East Equatoria	Guard attacked and beaten. Compound robbed	Disrupted GW activities
8	15-Mar	Rumbek - Juba - Wau road	ALL CASES W OF THE NILE AFFECTED				Central Equatoria and BEG	Armed robbers looted TCC supply trucks	Disrupted GW activities
9	16-Mar	Rumbek - Juba - Wau road	ALL CASES W OF THE NILE AFFECTED				Central Equatoria and BEG	Armed robbers looted TCC supply trucks	Disrupted GW activities
10	19-Mar	Rumbek - Juba - Wau road	ALL CASES W OF THE NILE AFFECTED				Central Equatoria and BEG	Armed robbers looted TCC supply trucks	Disrupted GW activities
11	18-Apr	Alabek compound	88 of 706 (see #4)	unknown	Alabek	Tonj North	Warab	Staff termination (non-renewal of contract)	All GW activities disrupted. GW FO beaten and threatened
		TOTAL	**1,317**	**168**					

*Provisional: January - April 2010

for program management in WHO's Regional Office for Africa, and attended by more than 70 persons, including the ministers of health of Cote d'Ivoire, Ghana, Niger, Nigeria and Sudan, the state minister of health of Ethiopia, the director-general of Mali's ministry of health, WHO deputy director-general Dr. Asamoah-Baah, WHO assistant director-general Dr. Hiro Nakatani, and other WHO headquarters staff, as well as representatives of Benin, Burkina Faso, Cameroon, Chad, and Uganda. The Carter Center, UNICEF, Bill & Melinda Gates Foundation, the United Kingdom's Department of International Development, Austrian Mission (Geneva), and Vestergaard Frandsen were also represented. Representatives from the International Federation of Red Cross and Red Crescent Societies also attended. Former U.S. President Jimmy Carter sent a message to the meeting via video. This was the 5th and best attended such meeting since President Carter met with ministers of health of the endemic countries during the World Health Assembly in May 2004.

IN BRIEF

Nigeria. Former Nigerian Head of State General (Dr.) Yakubu Gowon made a "Thank you" visit to Cross River State on May 5, 2010 to commend and congratulate state authorities for their successful efforts to eradicate Guinea worm disease.

SURVEILLANCE IN GW-FREE AREAS OF GUINEA WORM ENDEMIC COUNTRIES: RUMORS, INVESTIGATIONS, REPORTING, AND USE OF REWARDS

- With only 3,190 cases reported globally in 2009 from only 4 countries with endemic transmission of GWD, there is increasing national and international urgency to conclude the global eradication campaign. Averting outbreaks of GWD in areas already free of transmission by improving surveillance capacity for prompt detection of imported cases of the disease and/or prompt detection of local transmission should it suddenly occur is now more important than ever to the success of the campaign.
- In order to increase surveillance capacity in areas free of GWD, a concerted effort must be undertaken to inform and mobilize everyone (society at large, including government and non-governmental organization (NGO) staff, all other organizations and religious groups active in the country) about the national eradication effort, including the civic duty to immediately report all cases of GWD in order to interrupt transmission nationwide quickly, and about the national requirements for international certification of the country as free of the disease. The aim of mobilizing everyone is to engender allegations about possible cases of GWD i.e., "rumors," particularly from areas already free of transmission, so that all such rumors can be promptly investigated and the outcome of the investigation reported to the national GWEP and recorded in a national Guinea Worm Rumor Register.
- A **case** of Guinea worm disease (GWD) is defined as a person with a lesion on the skin with a Guinea worm protruding through the lesion. A person with GWD is declared a case only once during a calendar year, when the first Guinea worm emerges. Although transmission from each additional Guinea worm that might emerge later during the same calendar year from the same person must be prevented, each new worm emergence does not justify declaring that person again a case of GWD that same year.

- The monthly/weekly health returns from the national Integrated Disease Surveillance and Response System (IDSR) in each of the 4 remaining endemic countries contains line entries for confirmed cases of GWD. Hence, all district GWEPs should share monthly reports about all confirmed cases of GWD with the IDSR system.
- The IDSR system is geared to report only confirmed cases of diseases of public health importance (communicable diseases with epidemic potential). It is a facility (public health clinic) based system, usually without routine village outreach capacity.
- Dissemination of information about the need to report cases of GWD should be advertised via all possible media, including:
    - Public service announcements on local FM radios and television (where appropriate)in local languages using the local name for GWD;
    - Posters with a picture of a case of GWD posted in public health clinics, hospitals, schools, markets, and everywhere else deemed appropriate;
    - Advertisements in national and local newspapers, and newsletters;
    - Local drama shows, songs, etc; and
    - Messages and health education passed from person to person
- In countries reporting a few hundred cases or less, a substantial monetary reward should be offered for a confirmed case of GWD, including for voluntary hospitalization; this reward will promote prompt detection of and prevention of transmission by each Guinea worm that emerges, and can become an "engine" for engendering rumors about alleged cases of GWD nationwide as long as information about such rewards is effectively disseminated.
- A **rumor** of GWD is defined as credible information about an alleged case or cases of GWD received via one or more lay persons (non GWEP staff informants), particularly from areas already free of the disease. Rumor reporting should be rare from at-risk villages (those reporting GWD cases during any of the last three consecutive years) where there is already village-based active surveillance, and from the remaining endemic villages where there is active case detection and containment of transmission, because in both instances a reliable diagnosis of GWD can usually be made immediately by GWEP staff. Cases or suspect cases detected during surveys, searches or active village based surveillance in at-risk or known endemic villages by GWEP staff should not be considered rumors.
- While the objective is to raise suspicion about possible cases of GWD in areas free of GWD, care must be exercised that this is not taken to the extreme, as available staff, time and transportation resources required for investigation and reporting of each rumor is required.
- Figure 3 shows the distribution of rumors of GWD received and investigated in endemic and non-endemic districts of Ghana during January-April 2010. Table 7 summarizes provisional information by country, and district reporting about rumors, reporting by districts and confirmed cases of GWD.
- Desired parameters to be recorded during the investigation of each rumor received about a possible case of GWD are listed below.
    - Community from which alleged case is reported
    - District reporting
    - Region reporting
    - Month of report

- Year of report
- Informant
  - Name,
  - Age and gender
  - Occupation
  - Work affiliation
  - Address
  - Reasons for providing information about a possible case of GWD (e.g., rewards, civic duty to report, etc) and how did the informant came to know about need to report.
- Name of person alleged to have GWD
  - Signs and symptoms alleged
  - Date symptoms began
  - Age
  - Gender
  - Ethnicity
  - Occupation
  - Address
- Date rumor received
- Date rumor investigation began
- Outcome of investigation
  - GWD confirmed
    - Name, title, affiliation of person making the confirmation.
    - Date of confirmation
    - Date GW emerged
    - Date containment of transmission began
    - Imported?
      - Date cross-notified to place of origin.
      - Date reported to GWEP
    - Indigenous?
      - Date reported to GWEP.
    - Date GW completely removed.
    - Transmission contained (did or did not meet standards for case containment?)
    - Date reported to IDSR
  - Not GWD
    - Signs and symptoms observed
    - Further monitoring indicated (yes or no).
      - If yes, indicate who will monitor the patient, how often and for how long.
- Date rumor investigation completed.
- Date, name, title and affiliation of person signing final investigation report.

Figure 3

GHANA GUINEA WORM ERADICATION PROGRAM

DISTRIBUTION OF 711 RUMORS OF GWD REPORTED DURING JANUARY - APRIL 2010 BY THE NINE REMAINING ENDEMIC DISTRICTS AND BY 8 (5%) OF 161 NON-ENDEMIC DISTRICTS*

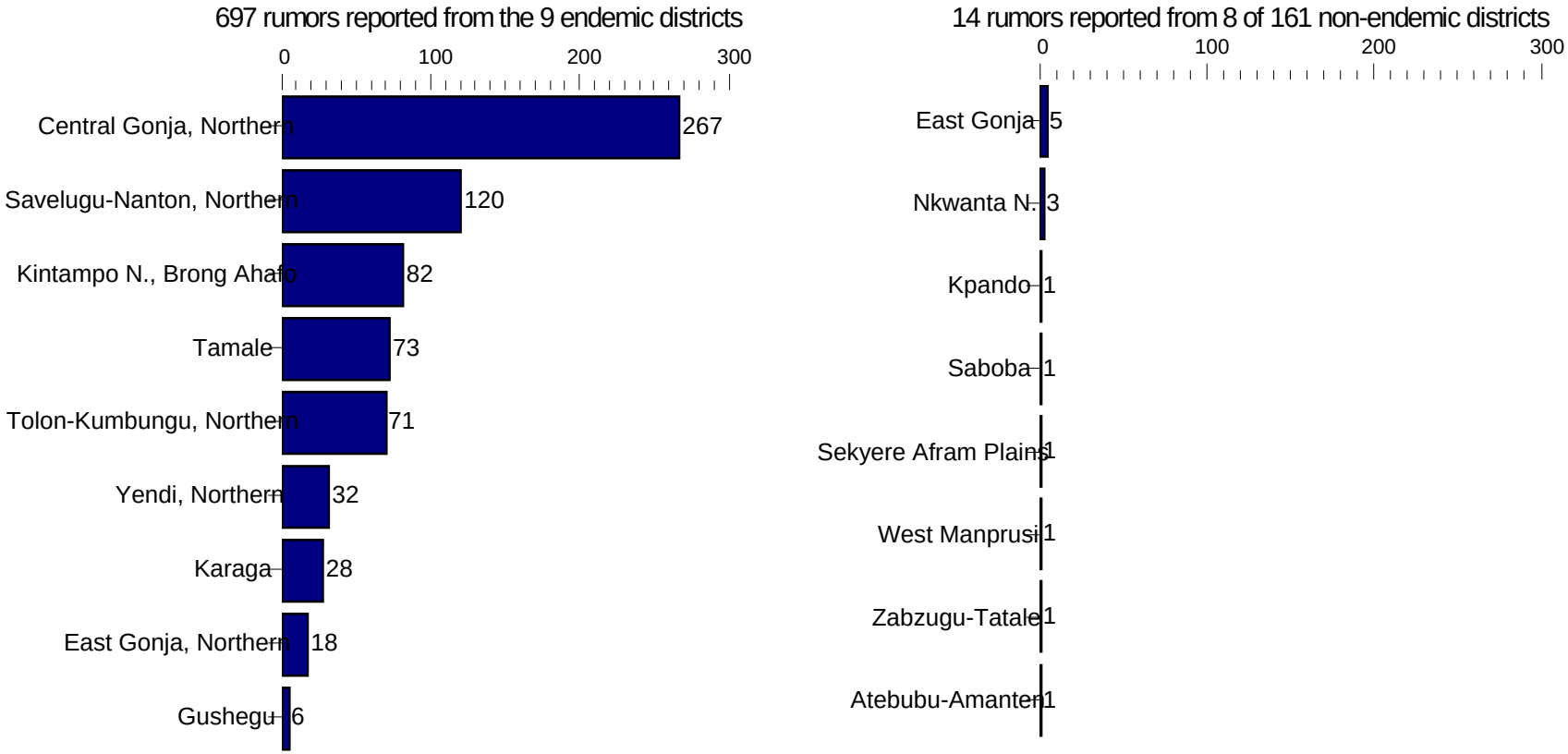


Table 7

Number of Districts[1] with endemic Guinea worm Disease (GWD) and Number non-endemic, Percent of Districts Reporting Monthly, Number of Rumors Received, Percent of Rumors Investigated, Number Residents Sampled, and Percent of Residents Sampled with Knowledge About the Need to Report GWD

January - April 2010											
Country	Districts[1]				Rumors of Alleged Cases of GWD Received from Non-Endemic Districts			Knowledge Among Residents			
	Endemic[2]		Non-Endemic[2]					About the Need to Report GWD		About Reward for Reporting GWD[3]	
	Number of Districts	% Reporting Monthly[4]	Number of Districts	% Reporting Monthly[4]	Number of Rumors Received	% of Rumors Investigated[5]	Number of Rumors Confirmed as GWD	Number of Residents Sampled.	% of Residents with Knowledge About the Need to Report GWD	Number of Residents Sampled.	% of Residents with Knowledge About a Reward for GWD
Sudan	18	100	29	26%	110	96%	0	NR	NR	NR	NR
Ghana[6]	9	100	161	5%	14	100%	0	NR	NR	NR	NR
Mali	5	100	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethiopia[7]	1	100	735	0%	NR	NR	NR	NR	NR	NR	NR
Total	33	100	925	2%	124	96%	0	-	-	-	-

[1] Districts (Ghana); Cercles (Mali); Woredas (Ethiopia); and Counties (Southern Sudan)

[2]Surveillance in Endemic Districts is village-based and proactive with monthly reporting. Surveillance in non-endemic Districts is passive, but monthly reporting about alleged cases of GWD is required.

[3]Ghana and Sudan have no reward system in place at this time. However, all remaining endemic countries need to track monthly the proportion of sampled residents from GW-free districts with knowledge about the need to report cases of GWD.

[4] Number of district reports received / expected number of district reports.

[5] Include rumor investigations completed. Update ongoing rumor investigations in the next report.

[6] Ghana recorded and investigated 711 rumors (see Figure 3) during this period.

[7] Two Woredas (Districts) reported one alleged indigenous case each during 2009, but the real origin of those infections is uncertain. However, the two incriminated villages remain under surveillance.

MEETINGS

WHO will convene the first meeting to review the national Guinea Worm Eradication Programs in the post-certification phase at Cotonou, Benin on June 1-4, 2010. This meeting will examine, country-by-country, post-certification activities in 2008-2009, and identify constraints to integrated surveillance of dracunculiasis. Representatives of Algeria, Benin, Cameroon, Central African Republic, Guinea, Liberia, Mauritania, Senegal, Sierra Leone, and Uganda are expected to attend.

GUINEA WORM DISEASE IN PRINT, IN THE NEWS AND IN CYBERSPACE

Fabiansen C, Harboe ZB, Christensen V, 2010. Images in tropical medicine: dracunculiasis in South Sudan. Am J Trop Med Hyg 82: 757.
www.ajtmh.org/cgi/content/full/82/5/757

World Health Organization, 2010. Monthly report on dracunculiasis cases, January 2009-February 2010. Wkly Epidemiol Rec 85:147-148

World Health Organization, 2010. Dracunculiasis eradication-global surveillance summary, 2009. Wkly Epidemiol Rec 85: 166-176.

"Guinea Worm Disease: Heightened Surveillance: A Key To Eradication" (video) may be viewed at http://video.who.int/streaming/Dracunculiasis.wmv

Kristof ND, 2010. http://video.nytimes.com/video/2010/05/21/opinion/1247467891260/anyak-vs-the-guinea-worm.html

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 the WHO Collaborating Center for Research, Training, and Eradication of Dracunculiasis, CGH, 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 is http://www.cdc.gov/ncidod/dpd/parasites/guineaworm/default.htm
Back issues are also available on the Carter Center web site English and French are located at
http://www.cartercenter.org/news/publications/health/guinea_worm_wrapup_english.html.
http://www.cartercenter.org/news/publications/health/guinea_worm_wrapup_francais.html