

Date: May 8, 2015

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

Subject: GUINEA WORM WRAP-UP #233

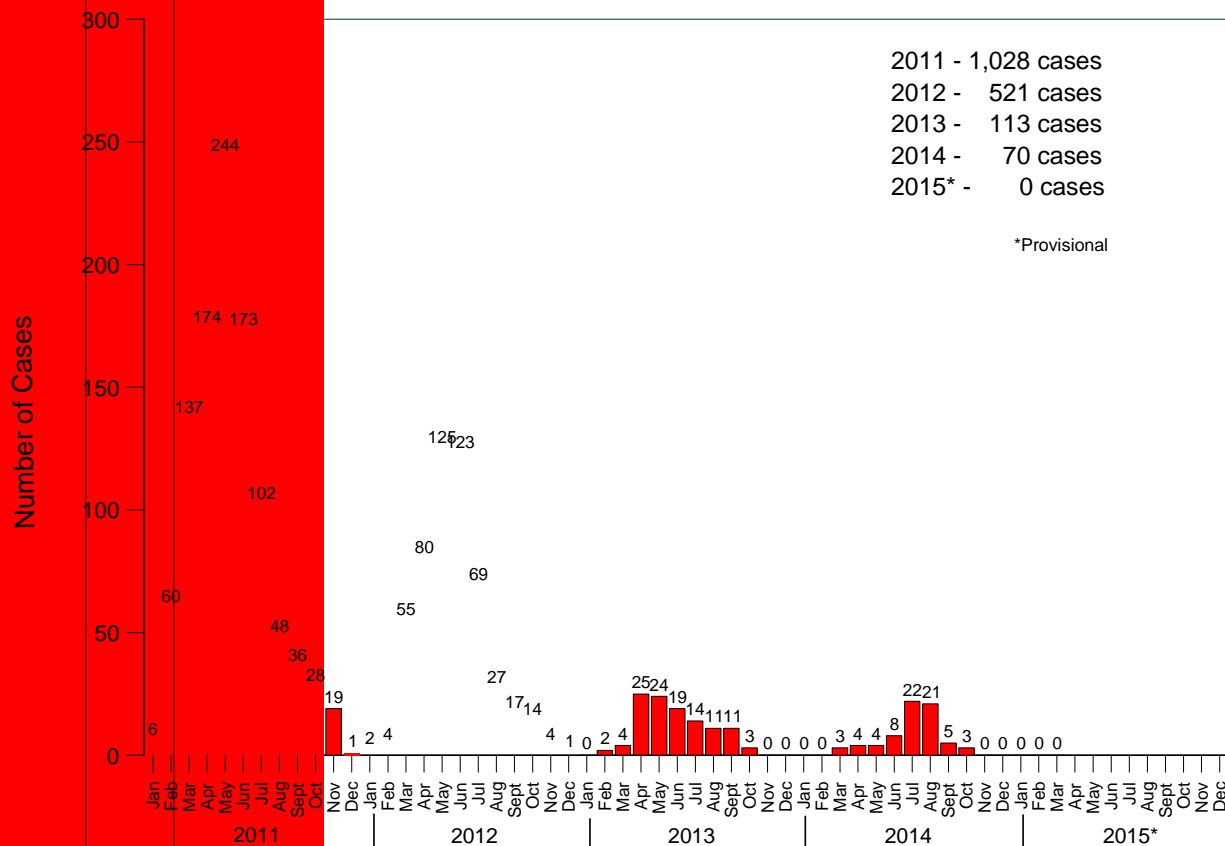
To: Addressees

**SOUTH SUDAN: 5 CONSECUTIVE MONTHS WITHOUT CASES!!!!**

South Sudan's Guinea Worm Eradication Program (SSGWEP) continues its impressive march towards interrupting transmission of Guinea worm disease (GWD), reporting 70 cases from 37 villages in 4 counties in 2014, including only 12 villages with indigenous cases. This is a reduction of 38% from the 113 cases reported from 39 villages in 9 counties in 2013. Moreover, the program has reported zero cases for five consecutive months, November 2014-March 2015 (Figure 1, Table 10).

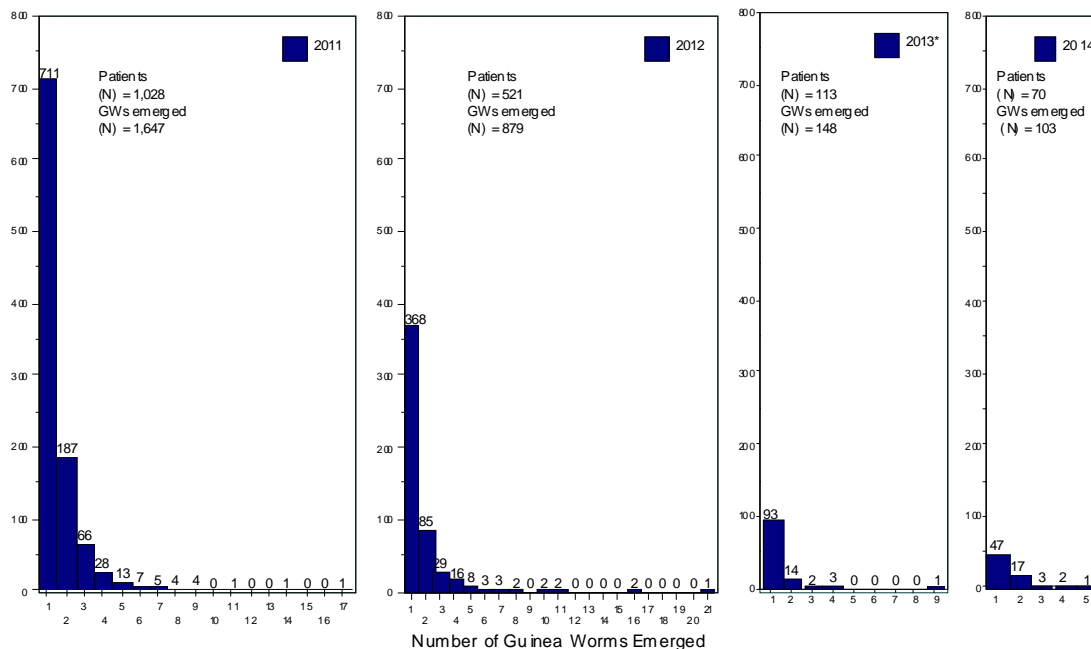
Figure 1.

South Sudan Guinea Worm Eradication Program  
Cases of Dracunculiasis Reported by Month, 2011 - 2015\*



The number of Guinea worms emerging from patients in South Sudan has also been reduced steadily since 2011 (Figure 2).

Figure 2 South Sudan Guinea Worm Eradication Program  
Frequency Distribution of the Number of Patients with Guinea Worm Disease and Number of Guinea Worms Emerging in 2011- 2014



On March 7, 2015, the Undersecretary in the National Ministry of Health, Dr. Makur Matur, represented the national Minister of Health on a visit to the endemic area of Nabweliangakine village in Kapoeta East County of Eastern Equatoria State to commission the mechanized borehole that was completed in late November 2014 with the assistance of UNICEF. Other guests included the Governor, H.E. Louis Lobong Lojore, the Minister of Health of Eastern Equatoria State (Dr. Margaret Itto), the Director General of Preventative Health Services (Dr. John Rumunu), Kapoeta East County Commissioner Mr. Titus Lokwachma, representatives from UNICEF, the World Health Organization, and The Carter Center; ambassadors from the Netherlands, The European Union and the United States; hundreds of community members, and other officials. The Honorable National Minister of Health himself, Dr. Riek Gai Kok, launched the cash reward for reporting a case of Guinea worm disease during a visit to Wulu County in Lakes State in November 2014. The SSGWEP has increased awareness of the cash reward for reporting a case of GWD rapidly throughout the country following its inauguration in April 2014 (Tables 1 and 9). SSGWEP Director Mr. Samuel Makoy Yibi led a Task Force Meeting for regional coordinators of the Guinea worm program in Juba on March 27-28, 2015. Mr. Makoy reports that all active community drug distributors (CDDs) for the Onchocerciasis Control Program have now been trained to conduct awareness of GWD and of the cash reward, as well as to conduct surveillance for GWD. During 2014 the SSGWEP investigated 685 (97%) of 703 rumors about possible cases in areas free of endemic GWD and 656 (93%) were investigated within 24 hours. Similarly it investigated 6,936 rumors of cases in areas with endemic GWD and investigated all within 24 hours (Table 2).

Table 1

Table 2

SouthSudanGuineaWormEradicationProgram

RUMORS	NUMBER	INVESTIGATED	%	INVESTIGATED HOURS	%
REPORTED FROM AREAS FREE OF FGWD	703	685	97%	656	93%
REPORTED FROM ENDEMIC AREAS	6,936	6,936	100%	6,936	100%



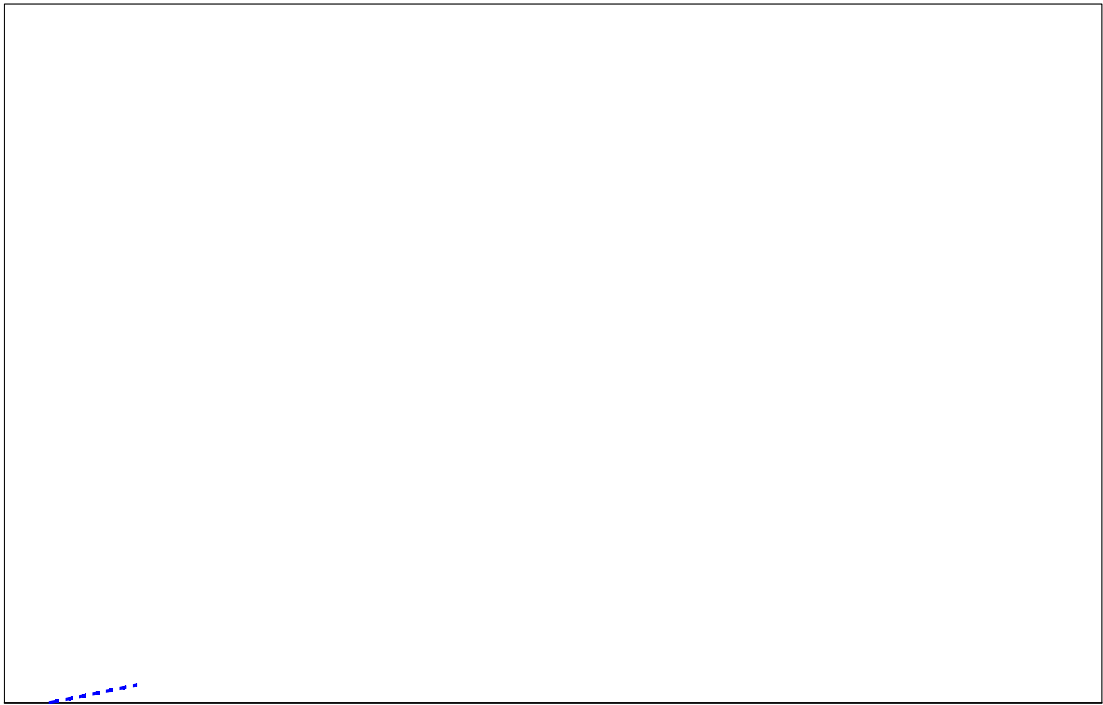


Table 3

Chad Guinea Worm Eradication Program  
Line Listing of Cases of GWD during 2015

Case #	Village or Locality of detection			District	Region	Patient			Case Contained?		1 = imported 2= indigenous	Home Village or Locality			Presumed Source of infection identified?		Presumed Source of infection is a known VAS?		
	Name	1= VAS	2= VNAS			Age	Sex	Date GW emerged (D/M/Y)	(Yes, No, or Pending)	If no, date of Abate Rx		Name	1= VAS	2= VNAS	(Yes or No)	Name	(Yes or No)	Actions?	
1.1	<b>Mourgoum</b>		2	Dourbali	Chari Baguirmi	13	M	19-Feb-15	No	-	2	Mourgoum		2	No		No	Contaminated flowing water	
2.1	<b>Marabe I</b>		2	Kyabe	Moyen Chari	8	F	7-Mar-15	No	-	2	Marabe I		2	No	-	No	Did not contaminate water	
2.2								24-Mar-15											
2.3								13-Apr-15											
3.1	<b>Diganali</b>	1		Guelendeng	Mayo-Kebi Est	9	M	28-Mar-15	No	4/6/2015	2	Diganali	1		No	-	Yes		
3.2								5-Apr-15											
3.3								14-Apr-15										Worm extraction in process	

use the 1.1, 1.2... etc. system to designate number of GWs emerging from same case-patient.

VAS = village under active surveillance

VNAS = village not under active surveillance

MALI: NO CASES AND NO NATIONAL TASK FORCE SO FAR

The transmission season for GWD in Mali in 2014 was August-November, so it is not surprising that no cases have been reported in Mali during the first four months of 2015. This program, which began after 16,024 cases were enumerated in the national case search in 1991, reported 40 cases (88% contained) in 2014. The cases detected in 2014 were in only three localities: Tanzikratene (Ansongo district of Gao Region), which reported 29 cases and contained 28 of them; Nanguaye (Gourma Rharous district of Timbuktu Region), which reported 10 cases and contained 7 of them; and Fion (Tominian district of Segou Region), which reported 1 case, uncontained. Tanzikratene currently has no access to safe water, as their small town water system is broken and has not been repaired due to insecurity. Nanguaye also has no source of safe water. Fion has one functioning and two non-functional boreholes. Abate was applied at appropriate times in all three localities last year (Table 4). Reward awareness appears to be good in Mali (Table 9). The program has distributed the new “Guinea worm cloth” to village volunteers and zonal health agents (ASZ: agents de sante de zone

Table 4

MALI GUINEA WORM ERADICATION PROGRAM															
ABATE TREATMENTS IN THREE VILLAGES WITH GUINEA WORM CASES IN 2014															
COMMUNITY	2014												2015		
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
Tanzikratene (Ansongo, Gao) 28/29 cases 31 Aug 26 Aug															

Table 5

If the reported rate of case containment was accurate and if no cases were missed by the surveillance system last year, Mali may once again be on the verge of stopping transmission of GWD in the country. Mali's GWEP would benefit greatly from a national task force or informal interagency group to meet monthly and help coordinate activities of the program during this critical final stage.

### ETHIOPIA: ON VERGE OF ELIMINATION WITHOUT A NATIONAL COORDINATOR?

Ethiopia reported three cases of GWD in humans during 2014: 2 contained cases in June and 1 uncontained case in December. Two of the cases were residents of Wichini village in Gog district of Gambella Region; the other case was a resident of Bathor village in the same district. In addition, the Ethiopian Dracunculiasis Eradication Program (EDEP) detected three infected dogs and one infected baboon in the same vicinity of Gog district in July-August 2014. The three infected humans, three infected dogs, the infected baboon, and one infected dog detected in January 2015 were resident in or near four villages located along the same road within about 10 kilometers (6 miles) of each other. Abate was applied to the water sources associated with all of these infections within 7 days of the respective infection (Table 6). Reward awareness in Ethiopia has improved, but is not yet at the level it needs to be (Tables 8 and 9). Ethiopia's National GWEP Task Force met on March 13, 2015.

Table 6 Ethiopia Dracunculiasis Eradication Program: Guinea Worm Infections in 2014-2015 in Gog District, Gambella Region

VILLAGE	2014												2015		
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
WICHINI						2/2 H	0/1 D								
ATHETI							0/1 D	0/1 D					0/1 D		
ABLEN								0/1 B							
BATHOR												0/1 H			
	ABATE treatments														

0/1 = uncontained infection

H = human

D = dog

B = baboon; detected on 29 August 2014; ABATE applications began 4 September 2014 in Ablen

Table 7

Category of Districts	Rumor reporting and investigation					
	Total No of woredas	No (%) of woredas that reported rumors	Total No of rumors reported	No (%) of rumors investigated within 24 hours	Total No (%) of rumors investigated	No of rumors confirmed as dracunculiasis
Endemic*	2	2 (100%)	3860	3514 (91%)	3860 (100%)	2
All other districts**	830	11 (1.3%)	428	387 (90%)	428 (100%)	1
Total	832	13 (1.5%)	4288	3901 (91%)	4288 (100%)	3

\* Indigenous cases in 2014 or 2013

\*\* Never endemic, recently freed, formerly endemic



The EDEP began with only 1,120 cases of GWD detected during its national case search in 1993, including two foci of the disease: one in South Omo (SNNP Region) and the other in Gambella Region. The focus in South Omo was eliminated in 2001, and has remained free of GWD since then, leaving the single focus in Gambella Region (currently limited to Gog district). We are informed that the national program coordinator,

Table 9

Reward Awareness in Non-Endemic Areas  
of Endemic Countries, 2012-2014

Non-Endemic Areas	2012	2013	2014	2015 Goal: 80%
Chad	37%	16%	24%	Attain
Mali	4%	46%	98%	Sustain
Ethiopia	60%*	50%	68%	Attain
South Sudan	---	---	90%	Sustain

As Table 8 shows, the number of rumors generated by surveillance efforts so far is still much less than expected in all four countries. In 2014, a study was conducted to estimate how many GWD rumors should be expected in South Sudan with the initiation of the reward system. Based on the variety of skin lesions that could be mistaken for GWD as well as the estimated number of true GWD cases, this study suggested that a fully sensitive surveillance system should generate least 20 rumors of GWD per 1,000 population. There is still much work to do in order to reach that level of sensitivity.

#### ITFDE REVIEWS STATUS OF THE GUINEA WORM ERADICATION CAMPAIGN

On April 28, 2015, the International Task Force for Di

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*

(Countries arranged in descending order of cases in 2013)

COUNTRIES WITH ENDEMIC TRANSMISSION	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													% CONT.
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	
SOUTH SUDAN	0/0	0/0	3/3	3/4	3/4	6/8	13/22	14/21	4/5	1/3	0/0	0/0	47/70	67
CHAD	1/1	1/1	1/1	1/1	0/1	0/1	1/3	0/1	1/1	0/0	1/1	1/1	8/13	62
MALI <sup>§</sup>	0/0	0/0	0/0	0/0	0/0	0/0	0/0	1/1	14/18	12/13	8/8	0/0	35/40	88
ETHIOPIA	0/0	0/0	0/0	0/0	0/0	2/2	0/0	0/0	0/0	0/0	0/0	0/1	2/3	67
TOTAL*	1/1	1/1	4/4	4/5	3/5	8/11	14/25	15/23	19/24	13/16	9/9	1/2	92/126	73
% CONTAINED	100	100	100					65		81	100	50	73	

COUNTRIES REPORTING CASES	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													% CONT.
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	
SUDAN <sup>^</sup>	/	/	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0

TOTAL	1/1	1/1	4/4	4/5	3/5	8/11	14/25	15/23	19/24	13/16	9/9	1/2	92/126	73
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Cells shaded in black denote months when zero indigenous cases were reported. Numbers indicate how many imported cases were contained and reported that month. Number of Reported Cases of Guinea Worm in Sudan, 2013

Cells shaded in yellow denote months when transmission of GWD from one or more cases was not contained.

<sup>§</sup>Reports include Kayes, Koulikoro, Segou, Sikasso, and Mopti, Tinbuktu and Gao Regions; in late April, the GWEP deployed one technical advisor to Kidal to oversee the program during the transmission season (for the first time since 2012).

<sup>^</sup>A Carter Center consultant, deployed to Kafia-Kingi area in South Darfur in March, implemented active village-based surveillance in Kafia-Kingi and four other at-risk villages, and began monthly reporting.

