#### **DEPARTMENT OF HEALTH & HUMAN SERVICES**

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

Date: June 3, 2013

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

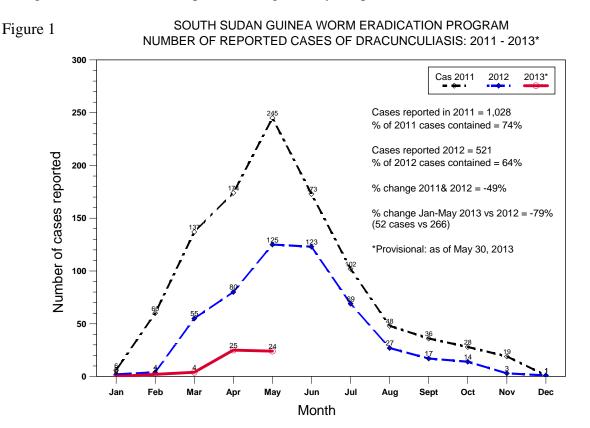
Subject: GUINEA WORM WRAP-UP #219

To: Addressees

## Detect, Contain, & Explain EVERY Case!!!

## SOUTH SUDAN: 79% DECREASE IN CASES SO FAR IN 2013

The South Sudan Guinea Worm Eradication Program (SSGWEP) has reported a provisional total of only 55 cases in January-May 2013 (Table 6), compared to 266 cases reported in the same period of 2012. This is a reduction of 79% in cases so far this year (Figures 1 and 6), and it continues a steady trend of increasing annual reductions in cases since 2009 (Figure 2). May 2012 recorded the most cases (125) of any month that year, so the 81% reduction in cases (24) in May 2013 is especially remarkable. Only two cases have been reported west of the Nile so far, in Warrap State (Table 1), compared to 14 cases reported in Warrap in January-May 2012. However, insecurity incidents in Pibor County of Jonglei State have impeded reporting from that area during May 2013. Pibor County reported 18 cases in March-May 2012. Table 2 is a line listing of 31 cases of GWD reported during January – April 2013.



Memorandum

#### SOUTH SUDAN GUINEA WORM ERADICATION PROGRAM

#### CASES REPORTED AND CONTAINED DURING DECEMBER 2012 AND DURING 2013\* BY STATE, COUNTY AND MONTH

State	County			-		-	-	Cases Contain	ed / Cases Repo	orted	-	-	_	-	-	%
Oldio	County	Dec-12	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total	Contained
	Kapoeta East	0/0	0/0	1 / 2	0/2	17 / 20	16 / 21	1	1	1	1	1	1	/	34 / 45	76%
Eastern Equatoria	Kapoeta North	0/0	0/0	0/0	0/0	1 / 2	2 / 2	1	1	1	/	/	/	/	3 / 4	75%
	Kapoeta South	0 / 0	0 / 0	0 / 0	0/0	0/0	0/0	1	/	/	/	/	1	/	0 / 0	0%
Jonglei	Pibor	1/1	0 / 0	0 / 0	0/0	1/3	1/1	1	1	/	/	/	/	/	1	50%
						1									T	
	Tonj North	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0/0	1	1	1	/	/	/	/	0 / 0	0%
	Tonj East	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	1	/	/	/	/	/	0 / 0	0%
Warrap	Tonj South	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1	/	/	/	/	/	/	0/0	0%
wanap	Gogrial East	0 / 0	0 / 0	0 / 0	1 / 2	0/0	0/0	1	1	1	1	1	1	1	1 / 2	50%
	Gogrial West	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	0/0	0%
	Twic Mayardit	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	1	/	0 / 0	0%
Western Bahr Al Ghazal	Jur River	0 / 0	0/0	0 / 0	0/0	0 / 0	0 / 0	/	1	/	/	/	/	/	0/0	0%
Lakes	Awerial	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	1	1	1	1	/	0/0	0%
	Cuibet	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	0/0	0%
	Yirol E.	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	0/0	0%
	Yirol W.	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	1	/	/	/	/	/	0 / 0	0%
	Maper	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	1	/	/	/	/	/	0 / 0	0%
	Rumbek Centre	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	1	/	0/0	0%
	Rumbek East	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	0/0	0%
SOUTH SUDAN	N TOTAL	1/1	0/0	1 / 2	1/4	19 / 25	19 / 24	1	1	1	1	1	1	1	40 / 55	73%

\* Provisional

1-4 cases of GWD 5-9 cases of GWD

10 + cases of GWD

Table 1

# SOUTH SUDAN GUINEA WORM ERADICATION PROGRAM LINE LISTING OF CASES OF GWD DURING 2013\*

	Village or Localit	v of Det	ection							ntained?		Home Village	or Loca	itv	Presu	med Source of infection identified?	Pre	sumed Source of infection is a known EVA?
Case #		., 0. 200		Payam	County	Age	Sex	Date GW emerged			= Imported : Indigenous			,				
Ö	Name	1 = EVAS	2 = NEVAS					emerged	(Yes, No, or Pending)	If no, date of Abate Rx*	1 = lr 2= lno	Name	1 = EVAS	2 = NEVAS	(Yes / No)	Name	(Yes / No)	Actions?
1.1	LOTUKUTAN CC	1		NARUS	KAPOETA EAST	17	М	2/9/13	Yes	NA	2	?			Yes	Lotukutan CC Wells within Lomuta Cattle Camp Zone (or Lomuta Boma- Napisya Endemic Cluster)	Yes**	The whole endemic cluster is being treated with all the necessary interventions for an endemic boma.
1.2	LOTUKUTAN CC	1		NARUS	KAPOETA EAST	17	М	3/14/13	Yes	NA	2	?			Yes	Lotukutan CC Wells within Lomuta Cattle Camp Zone (or Lomuta Boma- Napisyia Endemic Cluster)	Yes**	The whole endemic cluster is being treated with all the necessary interventions for an endemic boma
2.1	NABOLISO CC		2	KAUTO WEST	KAPOETA EAST	35	М	2/19/13	No	2/23/2013	1	NAROO		2	Yes	Lolagam Cattle Camp	No	On high alert- further investigations are being conducted due to concerns that a source at the village level may be of concern
3.1	KARENGEMUK CC		2	KAUTO WEST	KAPOETA EAST	38	М	3/19/13	No	NA	1	NANGILABOK		2	Yes	Lolagam Cattle Camp	No	On high alert- further investigations are being conducted due to concerns that a source at the village level may be of concern
3.2	KARENGEMUK CC		2	KAUTO WEST	KAPOETA EAST	38	М	3/19/13	No	NA	1	NANGILABOK		2	Yes	Lolagam Cattle Camp	No	On high alert- further investigations are being conducted due to concerns that a source at the village level may be of concern
3.3	KARENGEMUK CC		2	KAUTO WEST	KAPOETA EAST	38	М	3/23/13	No	NA	1	NANGILABOK		2	Yes	Lolagam Cattle Camp	No	On high alert- further investigations are being conducted due to concerns that a source at the village level may be of concern
3.4	KARENGEMUK CC		2	KAUTO WEST	KAPOETA EAST	38	М	3/31/13	No	NA	1	NANGILABOK		2	Yes	Lolagam Cattle Camp	No	On high alert- further investigations are being conducted due to concerns that a source at the village level may be of concern
3.5	KARENGEMUK CC		2	KAUTO WEST	KAPOETA EAST	38	М	4/27/13	No	NA	1	NANGILABOK		2	Yes	LOLAGAM CC		On high alert- further investigations are being conducted due to concerns that a source at the village level may be of concern
4.1	WUTAWEEN		2	TOCH EAST	GOGRIAL EAST	13	М	3/20/13	No	NA	1	WUTAWEEN		2	Yes	Dhok Pan Magot	Yes/No	Already receiving extensive interventions
5.1	NATOWI		2	KAUTO EAST	KAPOETA EAST	20	М	3/27/13	Yes	NA	1	NATOWI		2	Yes	Lokiding Cattle Camp or Lolagam Cattle Camp	Yes	Lokiding CC is Endemic but Lolagam has not previously reported indigenous cases
6.1	THURAMOTH		2	TOCH WEST	GOGRIAL EAST	9	М	3/29/13	Yes	NA	1	THURAMOTH		2	Yes	Dhok Pan Magot	Yes	Already receiving extensive interventions
7.1	LORUONOMOR	1		MOGOS SOUTH	KAPOETA EAST	30	F	4/1/13	Yes	NA	2	LORUONOMOR	1		YES	NAMOJONGORE, LOMALIMALI, NAKELEMKOL	NO	PATIENT ADMITTED TO CCC, MASS FILTER DISTRIBUTION DONE, HEALTH EDUCATION DELIVERED, UNSAFE WATER SOURCES ABATED USED BY COMMUNITY
7.2	LORUONOMOR	1		MOGOS SOUTH	KAPOETA EAST	30	F	4/15/13	Yes	NA	2	LORUONOMOR	1		Yes	NAMOJONGORE, LOMALIMALI, NAKELEMKOL	NO	PATIENT ADMITTED TO CCC, MASS FILTER DISTRIBUTION DONE, HEALTH EDUCATION DELIVERED, UNSAFE WATER SOURCES ABATED USED BY COMMUNITY
8.1	KHOR-ARDEP		2	KASSINGOR	PIBOR	31	F	4/2/13	Yes	NA	1	LORIWO		2	YES	LORIWO CC	NO	THE CASE WAS ADMITTED TO CASE CONTAINMENT CENTER FOR FIRST AND SECOND BUT SHE EASCAPED FOR ONE DAY BUT WE BROUGHT HER BACK TO THE CASE CONTAINMENT CENTER NO WATER CONTAMINATED
9.1	LOPUSINGOLE	1		KAUTO WEST	KAPOETA EAST	7	М	4/5/13	No	6/APRIL, 8/APRIL	2	LOPUSINGOLE	1		Yes	LOPUSINGOLE, BURUTAN- NABWELANGAKINEI	YES	ALL WATER SOURCES ABATED, CASE SEARCH CONDUCTED
9.2	LOPUSINGOLE	1		KAUTO WEST	KAPOETA EAST	7	М	4/30/13	No		2	LOPUSINGOLE	1		Yes	LOPUSINGOLE, BURUTAN- NABWELANGAKINEI	YES	ALL WATER SOURCES ABATED, CASE SEARCH CONDUCTED
10.1	KAMIE	1		KAUTO WEST	KAPOETA EAST	6	М	4/11/13	Yes		2	KAMIE	1		Yes	KAMIE. NAMOJONGORE, KAWAGETE, LOKIDING	YES	KAMIE GARDEN WATER SOURCES TREAETED WITH ABATED

# SOUTH SUDAN GUINEA WORM ERADICATION PROGRAM LINE LISTING OF CASES OF GWD DURING 2013\*

							1					WD DOKING 2015					1	
e #	Village or Locality	of Dete	ection	Davam	County	<b>A</b> 50	Sex	Date GW	Case Co	ontained?	= Imported = Indigenous	Home Village	e or Local	lity	Pres	umed Source of infection identified?	Pre	esumed Source of infection is a known EVA?
Case	Name	1 = EVAS	2 = NEVAS	Payam	County	Age	Sex	emerged	(Yes, No, or Pending)	If no, date of Abate Rx*	1 = lm <sub>l</sub> 2= Indi	Name	1 = EVAS	2 = NEVAS	(Yes / No)	Name	(Yes / No)	) Actions?
10.2	KAMIE	1		KAUTO WEST	KAPOETA EAST	6	М	4/21/13	Yes		2	KAMIE	1		Yes	KAMIE. NAMOJONGORE, KAWAGETE, LOKIDING	YES	KAMIE GARDEN WATER SOURCES TREAETED WITH ABATED
11.1	LOKWAAR	1		KAUTO WEST	KAPOETA EAST	32	F	4/12/13	Yes		2	LOKWAAR	1		Yes	LOKWAAR VILLAGE, NAWOYAPETA- NABWELANGAKINEI	YES	TAKEN TO NABWELANGAKINEI MCCC
11.2	LOKWAAR	1		KAUTO WEST	KAPOETA EAST	32	F	4/26/13	Yes		2	LOKWAAR	1		Yes	LOKWAAR VILLAGE, NAWOYAPETA- NABWELANGAKINEI	YES	TAKEN TO NABWELANGAKINEI MCCC
12.1	LOWOYAPURU		2	MOGOS SOUTH	KAPOETA EAST	27	М	4/14/13	No	4/15/2013	1	LORIWO		2	Yes	LORUS ETUKO CC, MORUESE CC, LOKITELLAKABEI CC, LOGIRAPUS CC, LOKWAPI CC	NO	STILL INVESTIGATING ORIGIN, ALL TA'S AND RC'S ALERTED IN POSSIBLE ORIGIN AREAS
13.1	NAYONAENGOR	1		MOGOS SOUTH	KAPOETA EAST	9	F	4/14/13	Yes		2	NAYONAENGOR	1		Yes	NAYANAENGOR, KANGIBURIN, NAOYATIR, NANGORWUA, KOSARICHO	YES	PATIENT ADMITTED AS A SUSPECT AT CCC , HEALTH EDUCATION WAS ADMINISTERED WHILE AT CCC, WATER SOURCE ABATED, PIPE FILTER GIVEN, COMMUNITY MEETING HELD HENCE CONTAINED AND INDEGINOUS
14.1	NYANGIA		2	KARUKOMUGE	<b>KAPOETA NORTH</b>	7	М	4/14/13	No	4/14/2013	1	NYANGIA		2	Yes	NAWAO	YES	HH FILTER CHECKS, ABATE
15.1	NARUNGATUNY CC		2	MEOUN	PIBOR	14	F	4/16/13	No	5/1/2013	1	NAJO		2	Yes	LOLAGAM CC, LOMEJANTO CC OR NAJO VILLAGE	NO	TRANSMISSION MAY HAVE OCCURRED IN LOLAGM CC, LOMEJANTO CC OR NAJO VILLAGE
	BUYANGOLE	1		KAUTO WEST	KAPOETA EAST	27	F	4/16/13	Yes		2	BUYANGOLE	1		Yes	BURUTAN-NABWELANGAKINEI	YES	HEALTH EDUCATION, CASE SEARCH, ALL WATER SOURCES ABATED AND COMMUNITY MEETINGS
17.1	<b>KAKUMASIA CC ARE</b>	A	2	JIE	KAPOETA EAST	15	F	4/18/13	Yes		1	Nakware	1		Yes	NAKWARE, KOSURO GARDEN	YES	CROSS NOTIFICATION TO TA AND RC IN JIE
18.1	LOPUSINGOLE	1		KAUTO WEST	KAPOETA EAST	9	F	4/18/13	Yes		2	LOPUSINGOLE	1		Yes	LOPUSINGOLE, BURUTAN- NABWELANGAKINEI	YES	ALL WATER SOURCES ABATED, VV/ COMMUNITY MEETING HELD
18.2	LOPUSINGOLE	1		KAUTO WEST	KAPOETA EAST	9	F	4/24/13	Yes		2	LOPUSINGOLE	1		Yes	LOPUSINGOLE, BURUTAN- NABWELANGAKINEI	YES	ALL WATER SOURCES ABATED, VV/ COMMUNITY MEETING HELD
19.1	LOKITELAKANGIKALI	0	2	KAUTO WEST	KAPOETA EAST	13	F	4/18/13	Yes		1	LOPUSINGOLE	1		Yes	LOPUSINGOLE	YES	VV COMMUNITY MEETINGS HELD. LOFUSINGOLE, BURUTAN AND NABWELANGKINEI ; ALL WATERSOURCES ABATED. CASES SEARCHING CONDUCTED.
20.1	KOTIRINYANG CC	0	2	JIE	KAPOETA EAST	5	М	4/19/13	Yes		1	Nakware	1		Yes	NAKWARE	YES	CROSS NOTIFICATION TO TA AND RC IN JIE
21.1	NARUNGATUNY CC	0	2	MEOUN	PIBOR	12	F	4/20/13	No	5/1/2013	1	BILA	1		Yes	LOLAGAM CC OR BILA VILLAGE	YES	TRANSMISSION MAY HAVE OCCURRED IN LOLAGAM CC OR BILA VILLAGE
22.1	NAPEET	1	0	MOGOS SOUTH	KAPOETA EAST	27	F	4/20/13	Yes		2	NAPEET	1		Yes	NAPEET	YES	ADMITTING THE SUSPECT TO THE CCC MASS FILTER DISTRIBUTION, NAPITARENG
23.1	NAPUSIRIET	1	0	MOGOS SOUTH	KAPOETA EAST	28	F	4/24/13	Yes		2	NAPUSIRIET	1		Yes	NAPUSIRIET, POKOTOM AND NALIGOIT	YES	ADMITTED/ TREATED AT MOGOS SOUTH CCC, FILTER DISTRIBUTION DONE, HEALTH EDUCATION GIVEN TO THE VILLAGE MEMBERS
24.1	MOJONGOLE	1	0	MOGOS SOUTH	KAPOETA EAST	49	F	4/24/13	Yes		2	MOJONGOLE	1		Yes	LOTOPOJO/ MOJONGOLE	YES	PATIENT ADMITTED AS A SUSPECT AT CCC WITH A BLISTER, HEALTH EDUCATION WAS ADMINISTERED WHILE AT CCC, WATER SOURCE ABATED, PIPE FILTER GIVEN, COMMUNITY MEETING HELD HENCE CONTAINED AND INDEGINOUS
25.1	NARIWORE	0	2	PARINGA	KAPOETA NORTH	39	F	4/24/13	Yes		1	NARIWORE		2	Yes	MORUARENGAN	NO	H/E WAS DONE, FILTERS DISTRIBUTED, COMMUNITY AWARENESS
26.1	LOKITELAKANGIKALI	0	2	KAUTO WEST	KAPOETA EAST	12	М	4/24/13	Yes		1	LOPUSINGOLE	1		Yes	LOKITALAKANGIKALIO CC,NAKODOLIS CC, LOPUSINGOLE	YES	SUSPECTED VoT: LOPUSINGOLE, BURUTAN, NABWELANGAKINEI. ACTIONS TAKEN SEE REVERSE.

Table 2

# Table 2

## SOUTH SUDAN GUINEA WORM ERADICATION PROGRAM LINE LISTING OF CASES OF GWD DURING 2013\*

e #	Village or Locality	/ of Det	ection	Payam	County	<b>A</b> .co	Sex	Date GW	Case Co	ntained?	= Imported : Indigenous	Home Villag	e or Locality	Presu	med Source of infection identified?	Pres	sumed Source of infection is a known EVA?
Case	Name	1 = EVAS	2 = NEVAS		County	Age	Sex	emerged	(Yes, No, or Pending)	If no, date of Abate Rx*	1 = lml 2= Indi	Name	1 = 2 = EVAS NEVAS	(Yes / No)	Name	(Yes / No)	Actions?
27.1	LOKIPIN	1	0	MOGOS SOUTH	KAPOETA EAST	15	М	4/25/13	Yes		2	LOKIPIN	1	Yes	LOKIPIN, NAOYAKOMWA, NAPEET, NALUKAKITELA	YES	ADMITTED TO MOGOS CCC AS A SUSPECT, HEALTH EDUCATION WAS DONE, WATER SOURCES ABATED ON 15/4/2012, MASS FILTER DISTRIBUTION HENCE CONTAINED AND INDIGENOUS
28.1	LORUONOMOR	1	0	MOGOS SOUTH	KAPOETA EAST	25	F	4/25/13	Yes		2	LORUONOMOR	1	Yes	LORUONOMOR, KAPOETA TOWN	YES	WATER SOURCES ABATED ON 26/4/2013, VIDEO SHOW CONDUCTED, REPLACEMENT OF VILLAGE VOLUNTEER, ADMITTING PATIENT TO THE CCC, HEALTH EDUCATION DELIVERED, MASS FILTER DISTRIBUTION
29.1	LOKWAAR	1	0	KAUTO WEST	KAPOETA EAST	12	F	4/25/13	No	13/4/2013, 3/5/2013	2	LOKWAAR	1	Ves	LOKWAAR VILLAGE, NAWOYAPETA- NABWELANGAKINEI	YES	ADMITTED TO MCCC ON 17.4.2013 BUT ESCAPED ON 22.4.2013 AND NOW MONITORED AT THE VILLAGE LEVEL, WATER PLAN IN PLACE, COMMUNITY MEETING HELD ON 25/4/2013
30.1	LOPUSINGOLE	1	0	KAUTO WEST	KAPOETA EAST	5	М	4/29/13	Yes		2	LOPUSINGOLE	1	Yes	LOPUSINGOLE, BURUTAN- NABWELANGAKINEI	YES	ALL WATER SOURCES ABATED, VV/ COMMUNITY MEETING HELD
31.1	DOCHA	1	0	JIE	KAPOETA EAST	5	F	4/30/13	Yes		2	DOCHA	1	Yes	DOCHA, NAKWARE, KAIKABOSAN GARDENS	YES	ADMITTANCE OF CASE TO CCC. H.E TO CASE AND HH ACTIVE CASE SEARCHING AND FILTER CHECKS IN VILLAGE WATER MONITORING AT WATER SOURCES LINKED TO VILLAGE

\* Provisional

^ 1.1 is the only patient that is noted as contaminating water, the other dates for abate were taken as precautionary measures.

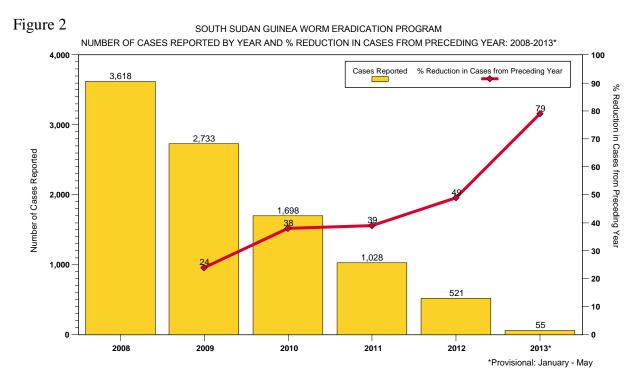
^^ Patient 2.1 is from Lomuta Boma but gave multiple different home villages, each time he was interviewed.

\*\* The cattle camp is now classified as an endemic cattle camp, but it was not previously known as an endemic source

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

EVAS endemic village under active surveillance

NEVAS non endemic village under active surveillance



Interventions in 2013 are even tighter: 73% case containment rate so far, vs. 64% in January-May 2012. There are fewer endemic villages (89 in 2012, including 14 cattle camps vs. 125 in 2011), smaller supervisory areas (98 national program officers and expatriate technical assistants in 2012, vs. 68 in 2011), and more villages under active surveillance (6,410, including 269 cattle camps in 2012, vs. 5,882 in 2011). The proportion of endemic villages receiving at least one treatment with ABATE@ Larvicide increased from 85% in 2011 to 99% in 2012, while the proportion of endemic villages with at least one source of safe drinking water increased from 25% to 30% over the same period. Mr. Adam Weiss, assistant director of The Carter Center's GWEP, is making a supervisory visit to the SSGWEP from May 15 to June 24. Mr. Alex Jones, former Carter Center country representative in South Sudan, has rejoined the Guinea worm war there as senior program manager. Welcome back Alex!

## CHAD: 4 CASES IN APRIL- MAY

Chad has reported a total of four cases in April-May 2013 (Table 6). All four cases (100%) were detected quickly and contained, compared to 40% containment rates in 2012 and 2011 (10 cases each year), and 0% containment rate (10 cases) in 2010. The four new cases were from four different villages, three of which are in the presumed area at risk, where 710 villages are under active surveillance by 1,972 village volunteers, while the other village is just outside of the area under active surveillance. None of the four new villages had had a previous case of Guinea worm disease since the current outbreak became apparent in 2010 (Table 3). During the Informal Meeting at the World Health Assembly, the director general in Chad's Ministry of Health, <u>Dr. N. Rohingalaou</u>, reported that the head of state of Chad personally reviews the status of all epidemics in the country, including Guinea worm disease, with ministry and WHO officials each month. Table 3 is a line listing of cases of GWD reported so far during 2013.

<b>m</b>	1 1		2
Ta	h	0	-
1 a	U.	LU.	2

CHAD GUINEA WORM ERADICATION PROGRAM
LINE LISTING OF CASES OF GWD DURING 2013

								Patien	it								Drooumor	A Source of infection	Drooum	ed Source of infection is a
Case #	Village or L	ocality of	f detection	1	Zone / District	Region	Age	Sex	Date GW	Case Co	ontained?	1 = imported 2= indigenous	Home Vil	lage or I	_ocality			identified?	Flesuin	known EVA?
	Name	1 EVAS	2 NEVAS	3 PSV			Age	UCA.	emerged	(Yes, No, or Pending)	If no, date of Abate Rx	2 maigenous	Name	1 EVAS	2 NEVAS	3 PSV	(Yes or No)	Name	(Yes or No)	Actions?
1.1	Miskine Banana		2		Gambarou /Mandelia	Chari Baguirmi	3	F	4/2/2013	Yes		2	Miskine Banana		2		No			
2.1	Koutoungolo		2		Onoko / Massenya	Chari Baguirmi	35	F	4/8/2013			2	Koutoungolo		2		No			
2.2									4/28/2013	Yes										
3.1	Gasse		2		Onoko / Massenya	Chari Baguirmi	50	F	4/9/2013	Yes		2	Gasse		2		No			
4.1	Gourlong			3	Guelendeng 1/ Guelendeng	Mayo Kebbi Est	12	м	5/5/2013	Yes		2	Gourlong			3	No			

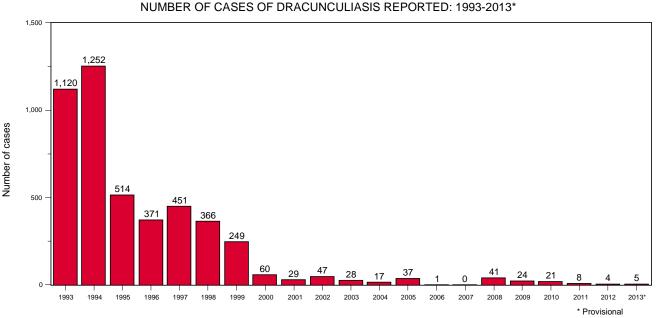
the 1.1, 1.2...etc. system to designates the serial case number (first digit) and the number of GWs emerging (second digit) from same case-patient. EVAS = endemic village under active surveillance NEVAS = non endemic village under active surveillance PSV = Passive surveillance villge

## ETHIOPIA REPORTS FIVE MORE CASES

Figure 3

Ethiopia's Dracunculiasis Eradication Program (EDEP) has reported five cases of Guinea worm disease in April-May 2013, which exceeds by one the total number of cases, of which only 2 were contained, that the EDEP reported in all of 2012 (Table 6, Figure 4). Three of the five cases reported so far this year were contained (Table 4). Four of this year's cases are resident in Batpoulu Village in Abobo District, near the village of Terkudi, which reported an uncontained case in April 2012 that was traced to the endemic village of Utuyu in adjacent Gog District. The fifth case was detected in Pugnido Town in Gog District, Gambella Region. The origin of these infections a year ago remains uncertain. The line listing of cases of GWD in 2013 is shown in Table 4. As is now routine, specimens from all of this year's cases have been or will be sent to CDC for examination. Sporadic insecurity is an issue in part of the areas of concern to the EDEP.

This is an exasperating continuation of dracunculiasis cases in Ethiopia over the past two decades, beginning with less than 1,300 cases in 1993, and shows the need for much more attention by Ethiopian health authorities at national, regional and district levels, including improved surveillance in Guinea worm-free areas of the country (Figure 3).



ETHIOPIA GUINEA WORM ERADICATION PROGRAM NUMBER OF CASES OF DRACUNCULIASIS REPORTED: 1993-201

Utuyu, Ethiopia's only known endemic village, received a functioning borehole well on May 15, 2013, as a result of efforts by the district and regional water bureaus and UNICEF. Carter Center Country Representative <u>Dr. Zerihun Tadesse</u> made a supervisory visit to Gog District on April 21-24. <u>Mr. Adam Weiss</u> from Carter Center headquarters made a supervisory visit to Gambella Region on May 7-15.

Table 4

#### ETHIOPIA DRACUNCULIASIS ERADICATION PROGRAM

#### LINE LISTING OF CASES DETECTED DURING 2013

		VILLAGE			F														SOURCE OF INFECTION		
	_	DI	ETECTI	DN	1						CASE CO	NTAINED		HOME	VILLAGE	OR LOCAL	.ITY		IDENTIFIED?	PRESUME	D SOURCE OF INFECTION IS A KNOWN EVA?
			1	2	3					DATE OF GW	Y/N	DATE OF ABATE	1= INDIGENOUS		1	2	3				
CAS	.GW#	NAME	EVAS	NEVAS	PSV	KEBELE	WOREDA	AGE	SEX	EMERGENCE	PENDING	RX	2= IMPORTED	NAME	EVAS	NEVAS	PSV	Y/N	NAME	Y/N	ACTIONS?
												May 3									
												Abongomera									
		Ojwom			2	Elia	Itang				No	Pond; May 10	2	Batpoulo			3	No		No	
	1.1	Ojwoin			5	LIId	itang	60	М	29/4/2013	NO	Abongomera 2	2	Datpoulo			5	NO		NO	Depuyi pond as well as ponds around
	1.2							60	М	15/5/2013		pond, Agulkidi									Ojwom village where the patient was
	1.3							60	М	16/5/2013		pond.									detected have been abated
		Batpoulo			3	Perpengo	Abobo				Yes		1	Batpoulo			3	No		No	Guule, Awude or Depuyi ponds. All three
	2.1							28	М	4/5/2013											ponds/group of ponds have been abated
		Batpoulo			3	Perpengo	Abobo				Yes		1	Batpoulo			3	No		No	Guule, Awude or Depuyi ponds. All three
	3.1							24	М	17/5/2013											ponds/group of ponds have been abated
		Batpoulo			3	Perpengo	Abobo				Yes		1	Batpoulo			3	No		No	Guule, Awude or Depuyi ponds. All three
	4.1							40	м	20/5/2013											ponds/group of ponds have been abated
	5.1	PRC Agnuak		2		2	Gog	37	М	22/5/2013	Pending		Pending	Wichini		2		No		Pending	
	5.2	FILE Agridak		2		5	GOg	37	М	22/5/2013	renuing		renuing	wichin		2		110		renuing	

1.1 = Case # 1, First GW

EVAS = Endemic villages under active surveillance

NEVAS= non endemic village under active surveillance

PSV= passive surveillance village

PRC = Pugnido Refugee Camp

## MALI: 3 CASES REPORTED IN MAY

Mali reported its first case of 2013 in a 17 year old female from a village in Djenne District of Mopti Region. The patient reportedly did not seek attention when her first worm emerged on May 2<sup>nd</sup> because she was unfamiliar with the disease. She sought medical attention after the second worm emerged on May 11 and was hospitalized at the Sofara Health Center (Table 5). An uncontained case, source undetermined, was diagnosed in Sofara in July 2012, but the current patient's village is located 45 kilometers away from Sofara. Two additional cases were confirmed in Kidal Region during May. Both cases were detected in localities (Etambar Tamachek camp, and Iklahan Arab camp) near Kidal Town in Kidal Region. One had the worm emerge on May 10th and the other on May 11th. None of the three cases reported in May were contained (Table 5, and 6), but all cases are currently hospitalized.

Security is currently satisfactory in Segou and Mopti Regions, each of which reported one case of GWD in June (contained) and July (uncontained) 2012, respectively. Teams from Mali's GWEP visited some areas further north in May and reported acceptable security in the town of Gossi (Gourma Rharous District, Timbuktu Region), but not in rural areas, and improved security in parts of Gao and Ansongo Districts of Gao Region. They did not learn about cases, suspected cases or rumors of Guinea worm disease in the areas visited during 2013, so far. The program is relying on humanitarian missions coordinated by WHO to report and investigate any rumors of Guinea worm cases in Kidal Region. Mali reported two cases, both uncontained, from the village of Takalot in Kidal District of Kidal Region in July 2012. The source of the latter two cases was believed to be Agahbo village in Kidal Region. In September 2012, health authorities in Niger detected and contained three cases of GWD in Koranic students who reportedly had been infected in Mali's Ansongo District in 2011. Mali's GWEP has not been able to ascertain the alleged location of infection of the three students after two investigations.

# INFORMAL MEETING ON GUINEA WORM ERADICATION AT WORLD HEALTH ASSEMBLY

The World Health Organization (WHO) convened the eighth annual Informal Meeting with Ministers of Health of Guinea worm-affected countries from 6 to 8pm on May 22 during the 66<sup>th</sup> World Health Assembly in Geneva. WHO Assistant Director General <u>Dr. H. Nakatani</u> chaired the meeting, the objectives of which were to review the status of the Guinea Worm Eradication Program and ensure the commitment of ministries of health and partners to its completion as soon as possible. The approximately 80 participants included the Honorable Ministers of Health of Ethiopia (<u>Dr. Kesete A. Birhane</u>), Nigeria (<u>Prof. C. O. Chukwu</u>), South Sudan (<u>Dr. Michael <u>M. Hissen</u>), and Sudan (<u>Mr. Bahar I. Abu Garda</u>) and the National Director for Health of Mali (<u>Dr. Diakité Oumou Soumana Maiga</u>). Following summary presentations by <u>Dr. Donald</u> <u>Hopkins</u> of The Carter Center on progress towards the interruption of Guinea worm disease transmission and by <u>Dr. Gautam Biswas</u> of WHO on progress towards certification of dracunculiasis eradication, the ministers of health of South Sudan and Ethiopia, the National Director for Health of Mali and the director-general for sanitary activities in the ministry of health of Chad, <u>Dr. N. Rohingalaou</u>, spoke on behalf of their endemic countries. The honorable minister of health of South Sudan said 2013 is the target year to interrupt transmission in his</u>

Table	5
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# MALI GUINEA WORM ERADICATION PROGRAM LINE LISTING OF CASES OF GWD DURING 2013

								Patier	nt								Dreaum	ed Source of infection	Dreaum	ed Source of infection is a known
Case #	Village or Locality	of dete	ection		Payam or District or	County or			Date GW	Case Co	ontained?	1 = imported 2=	Home Village	or Locali	ty		Presume	identified?	Plesum	EVA?
	Name	1 EVAS	2 NEVAS	3	Woreda	Region	Age	Sex	emerged	(Yes, No, or Pending)	If no, date of Abate Rx	indigenous	Name	1 EVAS	2 NEVAS	3 PSV	(Yes or No)	Name	(Yes or No)	Actions?
1.1	KOUAKOROU			3	DJENNE	MOPTI	17	F	2-May	NO	NA	2	KOUAKOUROU			3	NO		NO	Case detecte > 24 hours. No ABATE applied as ponds were dry. Patient
1.2									20-May											hospitalized and transmission from second worm was prevented.
2.1	Iklahan Camp			3	Kidal	Kidal	?	?	10-May	Yes		2	?			3	No		No	
2.2									?	?										Health Eduaction provided, Filters distributed, Abate applied
2.3									?	?										
2.4									?	?										
3.1	Etambar Camp			3	Kidal	Kidal	?	?	11-May	Yes		2	?			3	N			Health Eduaction provided, Filters distributed, Abate applied

the 1.1, 1.2...etc. system designates the serial case number (first digit) and number of GWs emerging from same case-patient. EVAS = endemic village under active surveillance NEVAS = non endemic village under active surveillance PSV= Passive surveillance villages

country and "we are on course", while the honorable minister of health of Ethiopia declared that he would "personally make [Guinea worm elimination] a part of my agenda". <u>Dr. Abdul Al-Awadi</u> (chair) and <u>Prof. David Molyneux</u> spoke on behalf of the International Commission for the Certification of Dracunculiasis Eradication. After brief remarks by WHO Assistant Director General <u>Dr. Bruce Aylward</u> and representatives of UNICEF and the Bill & Melinda Gates Foundation, the Director of the Disease Prevention and Control Cluster at the WHO Regional Office for Africa, <u>Dr. Francis Kasolo</u>, gave the concluding remarks. The director of South Sudan's Guinea Worm Eradication Program (SSGWEP), <u>Mr. Samuel Makoy Yibi</u>, and the director of The Carter Center's GWEP, <u>Dr. Ernesto Ruiz-Tiben</u>, also attended the Informal Meeting.

## Figure 4

Country	Indigenou Repo	us Cases orted			% CHANGE	2042 2042*		
	2012	2013*	-100%	-50%	% CHANGE 0%	2012-2013	50%	100%
South Sudan (5)	266	55		-79%				
Ethiopia (5)	2	5						150%
Mali(5)^	0	3			∞			
Chad (5)	0	4			∞			
Total	268	67		-75%				

Number of Indigenous Cases Reported During the Specified Period in 2012 and 2013\*, and Percent Change in Cases Reported

\* Provisional.Numbers in parentheses indicate months for which reports have been received, i.e., (5) = January -May 2013.

#### Table 6

### Number of Cases Contained and Number Reported by Month during 2013\*

				(			eeeenanig			/				
COUNTRIES WITH ENDEMIC					NUMB	ER OF CASES C	CONTAINED / NU	MBER OF CASI	ES REPORTED					% CONT
TRANSMISSION	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	
SOUTH SUDAN	<sup>0</sup> / <sub>0</sub>	<sup>1</sup> / <sub>2</sub>	1 <sub>/4</sub>	<sup>19</sup> / <sub>25</sub>	<sup>19</sup> / <sub>24</sub>	/	/	/	/	1	/	/	<sup>40</sup> / <sub>55</sub>	73
CHAD	<sup>0</sup> / <sub>0</sub>	° <sub>/ 0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>3</sup> / <sub>3</sub>	1 / <sub>1</sub>	/	/	/	/	/	/	/	4 <sub>/ 4</sub>	
MALI	<sup>0</sup> / <sub>0</sub>	° / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>3</sub>	/	/	/	/	/	/	/	<sup>0</sup> / <sub>3</sub>	
ETHIOPIA	<sup>0</sup> / <sub>0</sub>	° / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>1</sub>	<sup>3</sup> / <sub>4</sub>	/	/	/	/	/	/	/	<sup>3</sup> / <sub>5</sub>	
TOTAL*	<sup>0</sup> / <sub>0</sub>	<sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>4</sub>	<sup>22</sup> / <sub>29</sub>	<sup>23</sup> / <sub>32</sub>	<sup>0</sup> / <sub>0</sub>	47 <sub>/ 67</sub>	70						
% CONTAINED		50	25	76	72								70	

#### (Countries arranged in descending order of cases in 2012)

#### \*Provisional

Cells shaded in black denote months when zero indigenous cases were reported. Numbers indicate how many imported cases were reported and contained that month.

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

A Beginning in April 2012 reports include only Kayes, Kouliokoro, Segou, Sikasso, Mopti Regions; the GWEP is not currently operational in Timbuktu, Kidal, and Gao Regions.

COUNTRIES WITH ENDEMIC TRANSMISSION		NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED												
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	
SOUTH SUDAN	<sup>2</sup> / <sub>2</sub>	<sup>3</sup> / <sub>4</sub>	<sup>37</sup> / <sub>55</sub>	<sup>50</sup> / <sub>80</sub>	<sup>79</sup> / <sub>125</sub>	<sup>84</sup> / <sub>123</sub>	45 <sub>/ 69</sub>	<sup>14</sup> / <sub>27</sub>	<sup>10</sup> / <sub>17</sub>	<sup>9</sup> /14	<sup>2</sup> / <sub>4</sub>	<sup>1</sup> / <sub>1</sub>	<sup>336</sup> / <sub>521</sub>	64
MALI^	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	1 <sub>/1</sub>	<sup>0</sup> / <sub>3</sub>	<sup>0</sup> / <sub>0</sub>	<sup>3</sup> / <sub>3</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	4 / <sub>7</sub>	57
CHAD	° / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>2</sub>	<sup>0</sup> / <sub>1</sub>	<sup>2</sup> / <sub>4</sub>	<sup>1</sup> / <sub>2</sub>	1 / <sub>1</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>4</sup> / <sub>10</sub>	40
ETHIOPIA	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> /1	<sup>1</sup> / <sub>1</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	1 <sub>/1</sub>	<sup>0</sup> / <sub>0</sub>	<sup>0</sup> / <sub>0</sub>	°,	<sup>0</sup> / <sub>1</sub>	<sup>2</sup> / <sub>4</sub>	50
TOTAL*	<sup>2</sup> / <sub>2</sub>	<sup>3</sup> / <sub>4</sub>	<sup>37</sup> / <sub>55</sub>	<sup>50</sup> / <sub>81</sub>	<sup>80</sup> /126	<sup>85</sup> / <sub>126</sub>	45 <sub>/ 73</sub>	17 <sub>/ 32</sub>	14 <sub>/ 22</sub>	<sup>10</sup> / <sub>15</sub>	<sup>2</sup> / <sub>4</sub>	1 <sub>/2</sub>	<sup>346</sup> / <sub>542</sub>	64
% CONTAINED	100	75	67	62	63	67	62	53	64	67	50	50	64	

#### Number of Cases Contained and Number Reported by Month during 2012\* (Countries arranged in descending order of cases in 2011)

#### \*Provisional

Cells shaded in black denote months when zero indigenous cases were reported. Numbers indicate how many imported cases were reported and contained that month.

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

^ Beginning in April 2012 reports include only Kayes, Kouliokoro, Segou, Sikasso, Mopti Regions; the GWEP is not currently operational in Timbuktu, Kidal, and Gao Regions.

^ Three Malian residents, confirmed as cases of GWD in Niger during September 2012 (shown in italics), are included in Mali's total for the year. Mali has not ascertained the apparent source of these cases

## **RECENT PUBLICATIONS**

Anonymous, 2013. Niger Offers Cash Reward to Help Eradicate Guinea Worm, Reuters. May 14.

Callahan K, Bolton B, Hopkins DR, Ruiz-Tiben E, Withers PC, et al. 2013. Contributions of the Guinea Worm Disease Eradication Campaign toward Achievement of the Millennium Development Goals. PLoS Negl Trop Dis 7(5): e2160. doi:10.1371/journal.pntd.0002160

Ridley Mstt, 2013. Review---Ideas Market--- Mind & Matter: When species extermination is a good thing. Wall Street Journal, Eastern Edition. February 9: (Business and Economics);C.4.

Royal N, 2013. Dracunculiasis, Proximity, and Risk: Analyzing the Location of Guinea Worm Disease in a GIS. Transactions in GIS. June 17:398-312.

World Health Organization, 2013. Dracunculiasis eradication-global surveillance summary, 2012. Wkly Epidemiol Rec 88:189-199.

World Health Organization, 2013. Monthly report on dracunculiasis cases, January-March 2013. Wkly Epidemiol Rec 88:199-200.

Inclusion of information in the Guinea Worm Wrap-Up does not constitute "publication" of that information. In memory of BOB KAISER

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

World Health Organization