Memorandum



Date: June 18, 2018

From: WHO Collaborating Center for Dracunculiasis Eradication, CDC

Subject: GUINEA WORM WRAP-UP #255

To: Addressees

"I know from my own experience in politics that with buy-in from highest levels, anything is possible. Without it, progress is difficult."

WHO Director-General Dr. Tedros Adhanom Ghebreyesus, at Opening Ceremony of 71st World Health Assembly, 21 May 2018

CHAD: FEWER INFECTED HUMANS, SLIGHTLY MORE INFECTED DOGS



Chad has provisionally reported 3 humans with Guinea worm disease, all contained, from 2 new villages in January-May 2018, compared to 6 cases (5 contained) in humans during the same period of 2017. So far this year the provisional number of infected dogs has increased compared to 2017: 483 dogs with 946 emerging Guinea worms in 186 villages During January-May 2018, vs 420 infected dogs and 690 emerging worms in 165 villages

during January-May 2017 (Figure 1). As reported in the previous issue, three of the four highest endemic villages in the country that experienced an upsurge in infected dogs early in 2018 were initially excluded from systematic applications of Abate Larvicide@ after dogs there were enrolled in the Advocate@ treatment trial since October 2016. Two of the four villages began receiving systematic Abate applications in February 2018 and the other two in April 2018. Chad also has reported 8 infected cats in 8 villages so far this year.

The provisional containment rates for infected dogs and their emerging Guinea worms rose in January-May 2018 to 78% and 82% respectively, from 75% and 76% in January-May 2017. As of May 2018, all 47 villages that reported 52% of Chad's dog infections in 2017 were receiving monthly applications of Abate (Figure 2). The percentage of surveyed households in villages with one or more infected humans or animals that practiced safe disposal of fish guts in January-April 2018 was 85% (2158/2538). In addition to national radio and television, as of April 2018 all 15 identified community radio stations have begun broadcasting Guinea worm messages as part of the program's enhanced communication campaign. As of April 2018 Chad had 1,874 villages under active surveillance for Guinea worm infections, and it had reported 2,213 rumors of infected humans and 1,414 rumors of infected dogs. Of 1,015 persons surveyed for awareness of the cash reward for reporting an infected human in Level 1, 2 and 3 surveillance areas in January-April 2018, 58% were aware of the reward, while 41% of 982 persons surveyed knew about the dog cash reward.

Carter Center Country Representative <u>Dr. Hubert Zirimwabagabo</u> recently made supervisory visits to Haraze district (24-27 May) and Amtiman and Aboudeia districts (28 May-1 June) in Salamat Region. Spot checks of 63 persons surveyed during the visits found 44 persons (70%) were aware of the cash reward for reporting a human with Guinea worm disease, while 22 (35%) were aware of the reward for reporting an infected dog.

Figure 1

CHAD GUINEA WORM ERADICATION PROGRAM NUMBER OF GUINEA WORM - INFECTED DOGS BY MONTH :2017-2018*

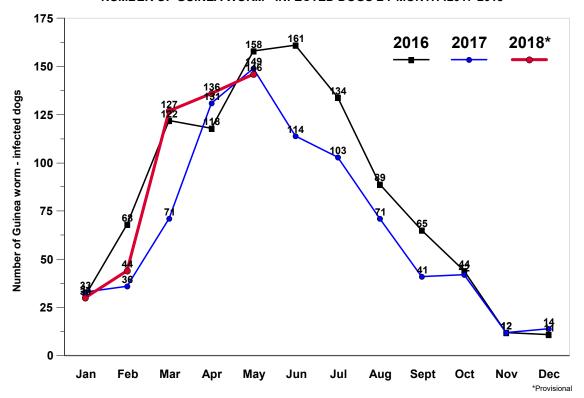


Figure 2 CHAD GUINEA WORM ERADICATION PROGRAM CUMULATIVE NUMBER OF PONDS AND VILLAGES RECEIVING MONTHLY APPLICATIONS OF ABATE: OCTOBER 2017- MAY 2018*

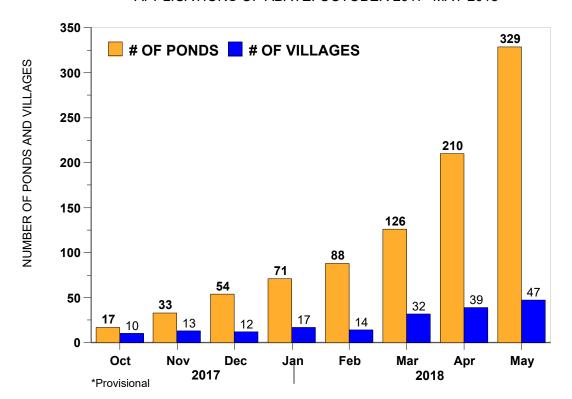


Table 1

CHAD GUINEA WORM ERADICATION PROGRAM LINE LISTING OF CASES OF GWD DURING 2018

		Village or Locality of detection						Patient								Presume	d Source		
Case	_			District	Danie				Date GW	Case Contained?		1 = imported	Home Villa	Village or Locality		of infection identified?		Presumed Source of infection is a known VAS?	
Case	Wame	1 or 2 = VAS	3 = VNAS	District	Region	Age	Age Sex Ethnicity emerged (Pes, No, If no, Indigeno us Name Pending) Abate Rx		1 or 2 = VAS	3 = VNAS	(Yes or No)	Name	(Yes or No)	Actions/ Comments?					
1	Madjyam	1		Marabe	Moyen Chari	22	F	Sara Kaba	27/1/2018	Yes		2	Dangalakayan	1		No		Yes	Sister-in-law of case 2, and 4 dog infections in this village in 2017
2	Dangalakayan	1		Marabe	Moyen Chari	25	F	Sara Kaba	19/2/2018	Yes		2	Dangalakayan	1		No		Yes	Sister-in-law of case 1, and 4 dog infections in this village in 2017
3	Guelbodane	1		Korbol	Moyen Chari	50	М	Ndam	19/3/2018	Yes		2	Guelbodane	1		No		Yes	2 dog infections in this village in 2017

Table 2 CHAD GUINEA WORM ERADICATION PROGRAM

RANK ORDER OF TEN VILLAGES WITH HIGHEST CUMULATIVE INCIDENCE OF DOG INFECTIONS 2012-2018*

Village	District	Region			Dog GW	infections	reported			Total
			2012	2013	2014	2015	2016	2017	2018*	
Marabe 2	Kyabe	Moyen Chari				22	71	17	11	121
Baingara	Bousso	Chari Baguirmi		2		11	40	27	10	90
Marobodokouya 1	Kyabe	Moyen Chari				12	39	23	14	88
Tarangara	Danamadji	Moyen Chari					28	33	24	85
Magrao	Guelendeng	Mayo Kebbbi Est				18	15	10	2	45
Marabe 1	Kyabe	Moyen Chari				14	12	7	11	44
Ngargue	Bailli	Chari Baguirmi		1	4	4	17	7	9	42
Djanta	Bailli	Chari Baguirmi	3		4	12	9	6	9	43
Mecontie	Onoko	Chari Baguirmi		1	7	10	12	7	5	42
Kemkian	Sarh	Moyen Chari					7	21	11	39
Total			3	4	15	103	250	158	106	639
% Change from pre	ceding year			33%	275%	587%	143%	-37%		

*Provisional: as of May 2018

Table 3

Number of Laboratory-Confirmed Cases of Guinea Worm Disease, and Number Reported Contained by Month during 2018*

(Countries arranged in descending order of cases in 2017)

						8	iding order or							
COUNTRIES WITH ENDEMIC	ENDEMIC NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED												% CONT.	
TRANSMISSION	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	
CHAD	1 / 1	1 / 1	1 / 1	0 / 0	0 / 0	/	/	/	/	/	/	/	3 / 3	100%
ETHIOPIA	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1	/	/	/	1	/	/	0 / 0	0%
SOUTH SUDAN	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1	/	/	/	/	/	/	0 / 0	0%
MALI [§]	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1	/	1	/	/	1	/	0 / 0	0%
TOTAL*	1 / 1	1 / 1	1 / 1	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	3 / 3	100%
% CONTAINED	100%	100%	100%	0%	0%								100%	

*Provisional

Cells shaded in black denote months when zero indigenous cases were reported. Numbers indicate how many cases were contained and reported that month. Shaded cells denote months when one or more cases of GWD did not meet all case containment standards.

Number of Laboratory-Confirmed Cases of Guinea Worm Disease, and Number Reported Contained by Month during 2017*

(Countries arranged in descending order of cases in 2016)

COUNTRIES WITH ENDEMIC	DEMIC NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED											% CONT.		
TRANSMISSION	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	001111
CHAD	0 / 0	1 / 1	1 / 1	1 / 2	2 / 2	1 / 2	2 / 2	0 / 1	0 / 2	1 / 1	0 / 0	1 / 1	10 / 15	67%
SOUTH SUDAN	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%
ETHIOPIA [^]	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	2 / 8	0 / 4	1 / 2	0 / 1	3 / 15	20%
MALI §	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%
TOTAL*	0 / 0	1 / 1	1 / 1	1 / 2	2 / 2	1 / 2	2 / 2	0 / 1	2 / 10	1 / 5	0 / 0	1 / 2	13 / 30	43%
% CONTAINED	0%	100%	100%	50%	100%	50%	100%	0%	20%	20%	0%	50%	43%	F

*Provisional

Cells shaded in black denote months when zero indigenous cases were reported. Numbers indicate how many cases were contained and reported that month. Shaded cells denote months when one or more cases of GWD did not meet all case containment standards.

^ 10 of 12 cases laboratory confirmed; 2 of 12 declared cases based on where and when these became infected in 2016, and having had signs and symptoms of GWD at the same time as others.

[§]Reports include Kayes, Koulikoro, Segou, Sikasso, and Mopti, Timbuktu and Gao Regions; contingent on security conditions during 2018, the GWEP continued to deploy one technical advisor to Kidal Region to oversee the program.

Reports include Kayes, Koulikoro, Segou, Sikasso, and Mopti, Timbuktu and Gao Regions; contingent on security conditions during 2017, the GWEP continued to deploy one technical advisor to Kidal Region to oversee the program.

ETHIOPIA: 8 INFECTED DOGS, NO HUMAN CASES

As of the end of May, the Ethiopian Dracunculiasis Eradication Program (EDEP) had reported 8 dogs with Guinea worm infections and no infected humans so far in 2018 (Table 4). All of the infected dogs were detected in Gog district of Gambella Region. Three infected dogs occurred in Atheti village, which also had two infected dogs in May/June 2017 and reported half (21/42) of all infected animals detected in the Atheti/Wichini/Ablen hyper-endemic focus in 2013-2017 (Map 1). Gog district reported the most infected dogs and humans and all infected baboons found in Ethiopia in 2011-2017. The EDEP has increased applications of Abate to surface water sources in Gog and adjacent Abobo districts four-fold since 2015 (Figure 3). This intensification and other interventions have helped prevent infections in humans in Gog for the past 20 months, since September 2016, but not transmission to dogs or baboons, which numbered 11 and 4 infections in 2017, respectively (no infected baboons found so far in 2018). The peak season for animal infections in Ethiopia is June-September. The EDEP has 160 villages under active surveillance and has reported a cumulative total of 1,161 rumor/suspects in January-April 2018. Cash reward awareness surveys conducted in Gog district (a Level I surveillance area) in April 2018 found 79% (81/102) and 71% (72/102) were aware of the cash reward for reporting a Guinea worm case in humans and dogs, respectively. In Abobo district (also a Level I surveillance area), the comparable findings were 90% (175/190) awareness for both human and dog rewards.

Ethiopia appointed a new Minister of Health in May, the <u>Honorable Dr. Amir Aman</u>, who earned his medical degree from Addis Ababa University and a Master's of Public Health degree from South Africa's University of the Western Cape. Carter Center Country Representative <u>Dr. Zerihun Tadesse</u> was among the heads of several Non-Governmental Organizations that attended a meeting on May 11 with the new minister, who promised to work hard on Guinea worm eradication and other Neglected Tropical Diseases. Two days before meeting the new minister Dr. Zerihun also met with Ethiopia Public Health Institute (EPHI) Director General <u>Dr. Ebba Abate</u> and EPHI Deputy Director General <u>Dr. Beyene Mogos</u>, both of whom stressed their intention to strengthen interventions against Guinea worm disease in the country, including the nationwide communication campaign, as well as EPHI's partnership with The Carter Center. Dr. Beyene will be the Center's main contact on Guinea worm eradication.

<u>Dr. James Zingeser</u>, veterinarian-epidemiologist in the GWEP at Carter Center headquarters, traveled to Ethiopia from March 12 to May 20, 2018 to work with <u>Dr. Fekadu Shiferaw</u> of the TCC-Ethiopia, <u>Dr. Fanuel Kebede</u> of the Ethiopian Wildlife Conservation Authority (EWCA), and others to continue preparations for ecological studies of baboons and dogs in Gog district. He was joined on April 10-19 by zoologist <u>Dr. Harry Marshall</u> of the University of Roehampton, UK and on April 28-May 16 by <u>Prof. Robbie McDonald</u> and three other scientists from the University of Exeter, UK. During this trip project leaders supervised and continued training of three baboon tracking teams, each of which identified two baboon troops for study of the animals' behavior and diet. Prof. McDonald and his group placed GPS and proximity locator devices on 129 of the 131 dogs living in Atheti, Wichini and Ablen villages for three weeks and collected samples of dog whiskers, hair and food for similar studies of dog behavior and diet. <u>Mr. Adam Weiss</u>, Senior Associate Director of the GWEP at Carter Center headquarters conducted a support visit to the EDEP on April 8-20. He accompanied National Coordinator <u>Mr. Getaneh Abrha</u> on supervisory visits to affected areas of Gog and Abobo districts of Gambella Region and Anfillo district of Oromia Region.

Collaboration between EPHI, Gambella Regional Health Bureau, WHO and The Carter Center during recent months resulted in joint monitoring in level I surveillance areas of Gog and Abobo districts. WHO assisted the EDEP with training of community outreach agents in 5 refugee camps of Gambella, and with comprehensive active case searches coupled with awareness creation on the new amount of the cash reward scheme (10,000 Birr; =\$360). In June 2018, WHO deployed one additional new officer to Benishangul Gumuz region to support Guinea Worm Disease surveillance in refugee camps there.

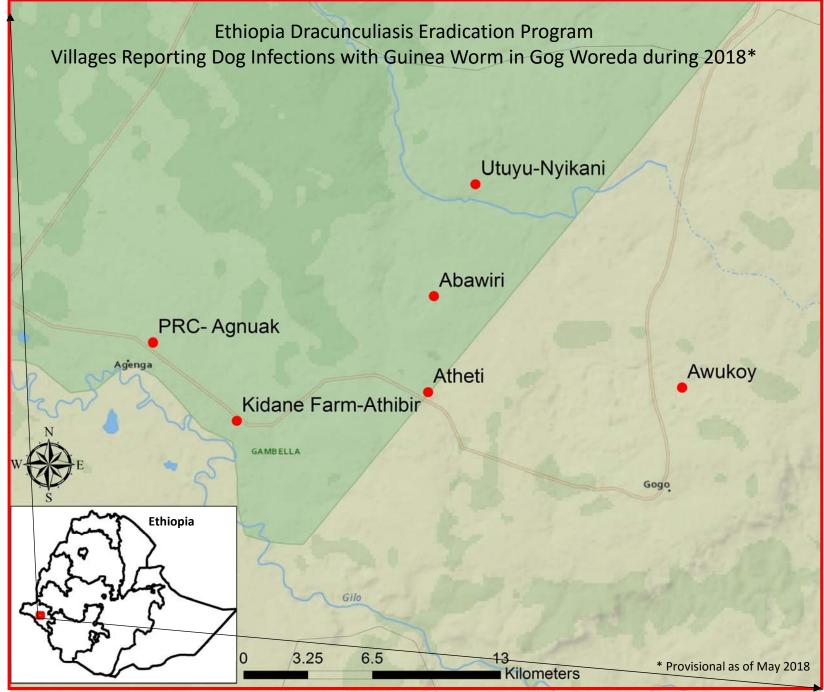


Table 4

Ethiopia Dracunculiasis Eradication Program

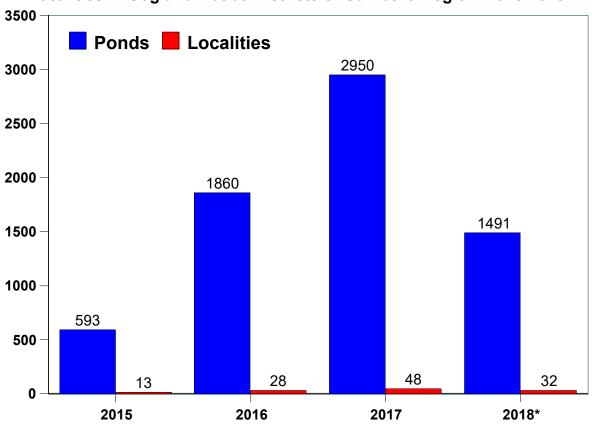
Line Listing of Animals Infected with Guinea worms: January-June 2018*

Dog#	District	Village	Date of Detection	Date GW emerged	Containment	Abate applied	Additional information
1	Gog	Athibir-Kidane Farm	15-Apr-18	15-Apr-18	Yes	Yes	Chained from date of GW emergence. Dog had GW in June 2017
2	Gog	Abawiri	7-May-18	7-May-18	No	Yes	Infected baboon found next to dog's household in June 2017
3	Gog	Atheti	9-May-18	10-May-18	No	Yes	Imported from Ablen
4	Gog	PRC Agnuak Pochalla A	14-May-18	14-May-18	No	Yes	Household had a dog infection in September 2017
5	Gog	Utuyu-Nikane	17-May-18	17-May-18	Yes	Yes	Imported from Abawiri
6	Gog	Atheti	18-May-18	19-May-18	Yes	Yes	Chained from date of detection
7	Gog	Awukoy	29-May-18	29-May-18	No	Yes	No known travel history
8	Gog	Atheti	1-Jun-18	1-Jun-18	Yes	Yes	Dog proactively chained due to movement with dog #6

Figure 3

*Provisional: as of May 2018

Ethiopia Dracunculiasis Eradication Program Number of Ponds Treated with ABATE and Number of Protected Localities in Gog and Abobo Districts of Gambella Region: 2015-2018*



MALI: ONE INFECTED DOG IN MAY AND ONE IN JUNE

Mali has reported no human case of Guinea worm disease as of the end of May 2018 for the past 30 months, since November 2015, but it reported 11 infected dogs (8 contained) in June-October 2016, and 9 infected dogs (6 contained) plus 1 infected cat (contained) in June-November 2017. All of the animal infections were detected in Tominian district of Segou Region, but the animals apparently became infected in villages in Djenne, Mopti, Tenenkou and Youwarou districts in adjacent Mopti Region from which they were imported. The program detected a dog with three emerging Guinea worms on May 16, 2018 in Tierakuy village of Tominian district. This dog was imported from Barakabougou village in Markala district of Segou Region, about 370 kilometers (222 miles) away. Inhabitants of Barakabougou, located near a branch of the Niger River, mostly belong to the Bozo ethnic group whose main activity is fishing. Carter Center Country Representative Mr. Sadi Moussa and local health staff visited Barakabougou in June. They found no other infected dog(s), and persons interviewed reported they had never seen people or dogs with Guinea worms, but stated that dogs there eat fish and fish entrails. A second dog with an emerging Guinea worm was reported from Matina village (18 kilometers from Fangasso Town health center) in Tominian District. The dog owner purchased six dogs, including the infected one, from Diguissere Sahel village, in the commune of Dioura, Tenenkou District, Mopti Region during May 2018. All except the infected dog were sold to other residents of Matina village and are being monitored. On May 4th the ministry of health issued a letter re-positioning *medecins d'appui* to focus their attention to districts implicated in the dog infections.

On May 2nd former National Program Coordinator <u>Dr. Mohamed Berthe</u>, who is now an advisor to the minister of health, convened a meeting to assess the progress of the nationwide communication campaign that the minister launched in March 2017 to publicize the cash rewards and Guinea worm disease prevention. Participants reviewed results of an evaluation conducted in two districts of Sikasso Region and two districts of Koulikoro Region which showed that only about 30% of persons interviewed knew about the cash reward. The interviewees who were aware had heard about the reward mainly from radio or television. Few had learned of it from interpersonal communication or health education posters. The team recommended increasing broadcast messages by community radios and printing more posters with the new amount of the reward (200,000 CFA =~US\$360) and that the communication campaign should be accelerated, with emphasis on Level III (previously non-endemic) surveillance areas. Mali's GWEP team is not able to supervise northern areas of the country at present, but visited Level III areas of Kayes, Mopti, Segou and Sikasso Regions in February-May 2018. The National Certification Committee visited Kayes and Segou Regions in March and April.

SOUTH SUDAN CONVENES NATIONAL GUINEA WORM COMMITTEE

On May 23, 2018 the Honorable Minister of Health of South Sudan <u>Dr. Riek Gai Kok</u> officially opened the first meeting of the South Sudan National Committee for the Documentation of Dracunculiasis Elimination (NCDDE). Chaired by former Minister of Health <u>Dr. Luka Tombekana Monoja</u>, the twenty-member committee was presented with an overview the status of the South Sudan Guinea Worm Eradication Program by the program's director <u>Mr. Samuel Makoy Yibi</u>, reviewed the Terms of Reference for the committee, and established a work plan for the remainder of 2018, including an induction workshop to occur in June with the full participation of all its members. The NCDDE will meet quarterly.

As of the end of May 2018 South Sudan has not reported a case of Guinea worm disease for 18 consecutive months, since November 2016.

COMMUNICATIONS CAMPAIGNS AID PRE-CERTIFICATION OF COUNTRIES

Collaboration between Kyne Inc, The Carter Center and the national GWEPs in Chad, Ethiopia, Mali and South Sudan led to ministries of health officially launching nationwide campaigns in 2017 to disseminate information about the disease, the need to report possible infections with Guinea worms, and about cash rewards for information leading to confirmation of human and animal infections. The aim of these campaigns is to make all residents in these countries "eyes and ears" for the national eradication effort, and in essence become part of the surveillance system during the pre-certification phase of the GWEPs.

Chad. The "Le Héros du Ver de Guinée" communications campaign continues to extend nationally. The campaign conducted dissemination workshops for over 350 health professionals in Chari Barguimi, Mayo Kebbi Est, Mandoul, Moyen Chari and Salamat. National radio and TV broadcasts of the campaign music video, song and radio messages have been broadcasted 365 times on national radio, 64 times on TV (ONRTV), and 301 times on eight community radio stations. As of May 2018, over 20,000 posters have been distributed throughout the country to health personnel and field staff.

Ethiopia. The "Let Our Journey Not Be Interrupted by Guinea Worm" communications campaign hosted a national dissemination workshop in Bishoftu in February with members of the Federal and Regional government structures including the Federal Ministry of Health (FMoH) and regional representatives from Oromia, Amhara, SNNPR and Gambella regions. Similar zonal workshops were conducted in Kellem Wollega and East Hararge in March and April. The campaign TV public service announcement (PSA) in Amharic began broadcasting nationally in May 2018 and will air once a week, at peak viewership time, for at least three months. Planning for national and Oromia region radio broadcasts of five radio dramas and three radio jingles is underway. As of April 2018, 11,000 Oromiffa posters were printed and transported for dissemination in Oromia region. An additional 64,000 Oromiffa posters are in the process of distribution in Oromia region across 301 Level 3 woredas.

Mali. The "Heros du Ver de Guinée" communications campaign continues to roll out nationally; national TV and radio stations broadcasts of the song, radio spot and music video featuring Malian artist Djeneba Seck will continue through 2018. A total of 36,000 campaign posters have been provided to the Ministry of Social Development (MoSD) to facilitate distribution across the country. The posters are being distributed across key locations down to the district level, including community health centers, and public spaces, including markets and schools.

South Sudan. Recent "It Pays to Report Guinea Worm" communications campaign activities include training of the trainer workshops in March and April for 170 state level facilitators from Juba, Kapoeta, Rumbek and Wau. A briefing was also conducted with UNKEA and Nile Hope representatives on how to cascade the training to Ethiopia border areas. In June, Eye Radio (covering eight states) began broadcasting campaign audio materials (radio drama, song and jingle) at peak times and will continue through 2018. Good News Radio in Rumbek has also commenced ongoing broadcasts of campaign audio materials. Discussions around potential partnerships with Internews for national radio dissemination, and other health actors for dissemination of campaign materials in areas that do not currently have SSGWEP presence, are currently underway. As of May, 2,000 copies of two posters were disseminated to Nile Hope and UNKEA for coverage in border areas. Additionally, bulk print orders of 6,000 Community Engagement Guides, 6,000 flipcharts and 35,000 posters are currently being printed for nationwide dissemination.

WHO CONVENES ANNUAL BRIEFING ON GUINEA WORM ERADICATION DURING WHA



The annual Informal Meeting of Ministers of Health of Guinea Worm-affected countries was held on May 23, 2018 during the Seventy-First World Health Assembly (WHA) in Geneva, Switzerland. This year's meeting was chaired by <u>Dr. J. Kabore</u> of WHO's Regional Office for Africa and was formatted via a series of questions by moderator <u>Mr. Ashok Moolok</u> of WHO's Public Information Office. WHO Director General <u>Dr. Tedros Adhanom Ghebreyesus</u> participated in the meeting briefly, and urged the ministerial

representatives to assist their national GWEP programs and finish the job. He reminded everyone that the last stages of the eradication program are the most difficult and require all possible political support. <u>Dr. David Molyneux</u> of the International Commission for the Certification of Dracunculiasis Eradication announced that the Commission would recommend establishment of a global cash reward for information leading to confirmation of a case of dracunculiasis. The ministers of health of Chad, Ethiopia and Mali were represented at the meeting by other members of their country's delegation to the WHA; South Sudan's Undersecretary of Health <u>Dr. Makur Matur Kariom</u> represented his minister. Carter Center Vice President for Health <u>Dr. Dean Sienko</u> and Guinea Worm Program Director <u>Dr. Ernesto Ruiz-Tiben</u> represented The Carter Center at the meeting.

The annual informal meeting of ministers of health of all endemic and formerly endemic countries held at the 71st World Health Assembly (May 2018) was attended by about 80 participants. The meeting was successful and well attended by delegations from WHO Member States, which included the Ministers of Health of Angola (Ms Silvia Lutucuta) and Kenya (Ms Sicily Kariuki), as well as State Ministers of Health of Ethiopia (Dr Kebede Worku) and Sudan (Mr Mohamed Musa).

Countries have committed themselves to the work towards interrupting transmission in the three countries endemic for the disease (Chad, Ethiopia and Mali); meeting the certification criteria in the four other countries that remain to be certified (Angola, Democratic Republic of the Congo, South Sudan and Sudan) as well as maintaining adequate surveillance globally in order to prevent any setbacks in the already certified countries.



Edward Losike (1979-2018)

South Sudan Guinea Worm Eradication Program mourns Edward Losike, who was born in 1979 to Nakan Lokurit Mudangkori and Loteyo Nakan. Edward grew up in the village of Nangolet in Kapoeta East County. He studied in Loolim Primary School and Kakuma Refugees Camp School in Kenya.

Edward joined the South Sudan GWEP June 2008 as a Field Officer in Kapoeta South County and was later transferred to Lotimor in Kauto Payam, Kapoeta East County. As a Field Officer in Lotimor, Edward did great exploits for the Program, including a four- day walking journey into Ethiopia to bring back a GW suspect (who later was confirmed a case of GWD and completely contained). This led to his promotion as a Program Officer in 2011, working in a number of GW-endemic areas within Kapoeta State. He resigned in mid-2015 to attend to demanding family issues but because of his commitment to work, Edward rejoined the GWEP on the State Government side as the State Field Coordinator, the position he held up to his death in May, 2018. Edward was a true asset to the eradication effort. Even in the face of serious illness, he remained focused on the Guinea worm eradication campaign. His dedication and commitment to the SSGWEP is an inspiration to his coworkers, associates and friends. Edward left behind four wives and six children. May God watch over his family.



Prof. Ogobara Doumbo (1956-2018)

We profoundly regret to report the passing of the Director of the Malaria Research and Training Center of the Faculty of Medicine of the University of Bamako and International Commission for the Certification of Dracunculiasis Eradication member Professor Ogobara Doumbo, on June 9, 2018.

RECENT PUBLICATIONS

Cromwell EA, Roy S, Sankara DP, Weiss A, Stanaway J, Goldberg E, Pigott DM, Larson H, Vollset SE, Krohn K, Foreman K, Hotez P, Bhutta Z, Bekele BB, Edessa D, Kassembaum N, Mokdad A, Murray CJL, Hay SI. Slaying Little Dragons: The Impact of the Guinea Worm Eradication Program on Dracunculiasis Disability Averted from 1990 to 2016 Gates Open Research 2018, 2:30. (doi: https://doi.org/10.12688/gatesopenres.12827.1)

Hopkins DR, Ruiz-Tiben E, Eberhard ML, Weiss A, Withers PC Jr, Roy SL, Sienko D, 2018. Dracunculiasis eradication: are we there yet? <u>Am J Trop Med Hyg</u> 98:xxxx-xxxx. Available on-line 4 June 2018: https://doi.org/10.4269/ajtmh.18-0204

Weiss AJ, Vestergaard-Frandsen T, Ruiz-Tiben E, Hopkins DR, Asiedu-Bekoe F, Agyemang D, 2018. What it means to be Guinea worm free: an insider's account from Ghana's Northern Region. <u>Am J Trop Med Hyg</u> 98:1413-1418.

World Health Organization, 2018. Monthly report on dracunculiasis cases, January-March 2018. Wkly Epidemiol Rec 93:239-240.

World Health Organization, 2018. Dracunculiasis eradication: global surveillance summary, 2017. Wkly Epidemiol Rec 93:305-320.

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

In memory of BOB KAISER

Note to contributors: Submit your contributions via email to Dr. Sharon Roy (gwwrapup@cdc.gov) or to Dr. Ernesto Ruiz-Tiben (eruizti@emory.edu), by the end of the month for publication in the following month's issue. Contributors to this issue were: the national Guinea Worm Eradication Programs, Drs. Donald R. Hopkins and Ernesto Ruiz-Tiben of The Carter Center, Dr. Sharon Roy of CDC, Dr. Dieudonné Sankara of WHO, and Dr. Mark Eberhard.

WHO Collaborating Center for Dracunculiasis Eradication, Center for Global Health, Centers for Disease Control and Prevention, Mailstop A-06, 1600 Clifton Road NE, Atlanta, GA 30329, USA, email: gwwrapup@cdc.gov, fax: 404-728-8040. The GW Wrap-Up web location is

http://www.cdc.gov/parasites/guineaworm/publications.html#gwwp

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 francais.html



CDC is the WHO Collaborating Center for Dracunculiasis Eradication