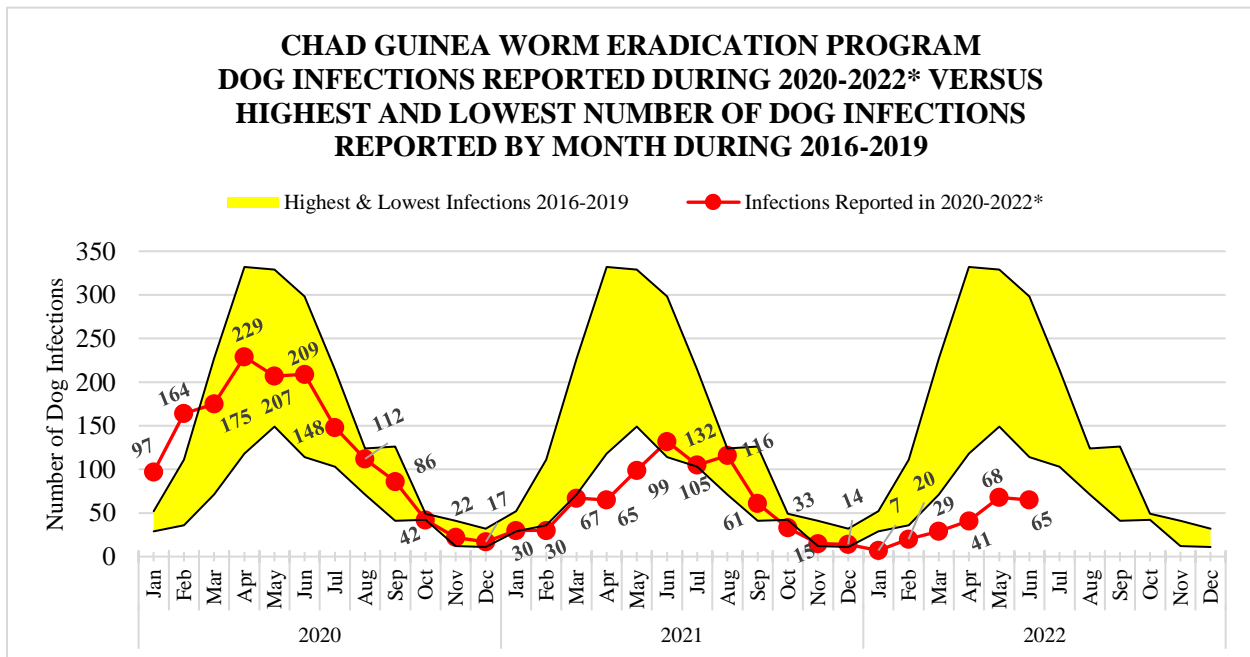


**Date:** July 27, 2022  
**From:** WHO Collaborating Center for Dracunculiasis Eradication, CDC  
**Subject:** GUINEA WORM WRAP-UP #290  
**To:** Addressees

*Find, Contain, and Explain Every Guinea Worm!*

Figure 1



**CHAD**



Chad has reported 229 dogs with Guinea worm infections (72% contained), 24 cats (63% contained) and 2 confirmed human cases (50% contained) in January-June 2022, compared to 423 infected dogs, 15 cats, and 5 human cases reported during January-June 2021. This is a 46% reduction in dog infections and 60% reduction in

human cases in Chad so far in 2022. Figure 1 illustrates the Chad Guinea Worm Eradication Program's progress against infected dogs.

All of the 43 worm specimens sent to CDC from dogs in an area of **Cameroon** near the Chad border (see *Guinea Worm Wrap-Up* #285) in January-April 2022 that have been reviewed so far have been confirmed to be *D. medinensis*. Those 43 specimens were recovered from 23 domestic dogs. While surveillance and awareness creation have been increased at the border areas, Cameroon expanded active surveillance to 8 more villages in January 2022, in addition to the 7 villages in Guere district of Extreme North Region that were under active surveillance already. It began proactive tethering of dogs in 2021 and has worked closely with Chad's GWEP. In June 2022, the Guinea worm eradication programs of Cameroon and Chad conducted joint supervision visits to Guinea worm affected villages located at the border areas of Chad and Cameroon. This mission highlighted the strengths and areas for improvement by the two countries. One of the best lessons learned from this mission is that active involvement of administrative authorities in the implementation of interventions is one of the key components of a successful disease eradication campaign. In response to a request for assistance from Cameroon's minister of health, two staff members from Carter Center headquarters will visit Cameroon in late July-early August. A line list of confirmed infections will be included in next month's issue.

### **MALI REPORTS THREE CONFIRMED DOG INFECTIONS**



Mali has reported a total of three dogs whose Guinea worm infections in 2022 were confirmed as *D. medinensis* by the CDC laboratory. A line list will be included in the next issue. Two of the dogs were found in June in Togo village/Tominian district and Kolongo Bozo hamlet/Macina district of Segou Region. The third dog was found in July in Kanafa (Djenne)/Djenne district of Mopti Region. All three dogs' infections were contained and all three are believed to have been infected in their resident village. Kolongo Bozo reported five dogs with Guinea worm infections in 2021: 2 in August and one each in September, November, and December (see line list in *Guinea Worm Wrap-Up* #285), three of which were not contained (2 in August, 1 in November). Djenne Central health zone reported three dogs and one cat with Guinea worm infections in August, September, and October 2021, two of which were not contained, including the cat in Kanafa neighborhood of Djenne in September 2021. Djenne Town, Kolongo Bozo village, and Macina Town each had known Guinea worm infections in humans and/or animals in 2020 and 2021.

National Program Coordinator Dr. Cheick O. Coulibaly, National Veterinary Service Directorate Representative Dr. Diahara H. Traore Coulibaly, and Carter Center Country Representative Mr. Sadi Moussa led a joint supervisory mission to Djenne and Mopti districts of Mopti Region and Tominian and Macina districts of Segou Region on June 22-28, 2022. In Djenne district they met with the chief medical officer and the head of the veterinary sector, visited 17 households, and inspected 37 dogs, 3 of which were not tethered. In Tominian district they visited the village of Togo before visiting the village of Kolongo Bozo and hamlets in Macina district. Overall, the joint

supervisory team found that proactive tethering of dogs was effectively underway in Djenne and Kolongo Bozo/Macina district and that human and animal health services were collaborating effectively at local and regional levels in Mopti. They also found that several of the tethered dogs were not vaccinated, and a commitment was made to correct that. A second supervisory team led by Carter Center consultant Dr. Gabriel Guindo accompanied by GWEP data manager M. Yacouba Traore and Segou Regional Health Office representative M. Daouda Coulibaly visited Tominian, San, Markala, and Baraoueli districts of Segou Region during the same period as the first team.

The Peace/Health Project has selected three endemic health areas in Macina district (Macina, Kokry, and Kolongo Bozo) and three others in Tominian district (Benena, Ouan, and Fangasso) for phase 2. In May, the respective GW technical advisors and focal points met with 5 dog traders and inspected 52 dogs in Kolongo Bozo/Macina district, 17 dog traders and 108 dogs in Tominian district, and 34 dog traders and 202 dogs in San district/Segou Region.

## ETHIOPIA



Ethiopia’s Dracunculiasis Eradication Program (EDEP) has reported no Guinea worm infection in a human or animal in January-June 2022, compared to one human infection in February 2021. It also reported three animal infections (2 dogs, 1 cat) in August, October, and November 2021. Three of the four Guinea worm infections in 2021 were contained. With 198 villages and 201 non-village areas (commercial farms) under active surveillance in Gog and Abobo districts of Gambella Region, the program has investigated 12,422 rumors of Guinea worm infections in January-May 2022, including 2,277 rumors from Level 2 surveillance areas and 212 rumors from Level 3 surveillance areas. Wild animal surveillance included 36 baboons and monkeys found dead or killed by villagers in January-May 2022, none of which had an evident Guinea worm infection. Proactive tethering of domestic animals continues, with 2,019 dogs and 251 cats tethered in Gog and Abobo districts in May. As of May 2022, Maxar remote sensing satellite technology helped the program discover 14 new water sources for Abate treatment. A cash reward awareness survey of 450 persons in seven districts of Gambella Region in May found that 406 (90%) were aware of the reward, while a rare survey in a Level 3 surveillance area (Gendewuha district of Amhara Region) found a spot with unusually high awareness, i.e., 93% (52/56) were aware of the reward.

## SOUTH SUDAN



South Sudan appointed a new national minister of health in March 2022. She is Ms. Yolanda Awel Deng Juach. The new minister is a psychologist and mental health expert. She earned a Bachelor of Arts degree in psychology from the University of Saskatchewan, and a Master of Arts degree in conflict analysis and management from Royal Roads University, both in Canada. She has specialized in working with vulnerable populations and worked with the

United Nations in dealing with former child soldiers and women in Africa and health authorities. Minister Awel is a member of the Reconstituted Transitional Legislative Authority, representing Twic County of Warrap State. She replaces former Minister of Health Elizabeth Achuei Yol.

South Sudan reported zero cases so far in 2022.

Jim Niquette has officially returned to Guinea worm combat by being named the new Country Representative of The Carter Center in South Sudan. He has been Acting Country Representative since mid-2021. He previously was Country Representative for the Center in Ghana from September 2006 to September 2011 and consulted on GW elimination in Ghana, Nigeria, and South Sudan before or after that. Welcome back Jim!!!!

### **INTERNATIONAL CERTIFICATION TEAM VISITS DRC**



International Committee for the Certification of Dracunculiasis Eradication (ICCDE) member Dr. Robert Guiguemde of Burkina Faso is leading an International Certification Team (ICT) to visit the Democratic Republic of Congo (DRC) from 11<sup>th</sup> July 2022 to 6<sup>th</sup> August 2022. Accompanied by Dr. Dieudonné Sankara, Dr. Andrew Seidu Korkor, and Dr Augustin Ebeja Kadima of WHO, and Mr Boulama Ousmane, also an international independent consultant from Niger, and national independent consultants and facilitators, the team will review the DRC’s formal Country Report to WHO on DRC’s Guinea worm activities (including extensive surveys in recent years inquiring about the disease), consult with the Ministry of Health, and conduct on-site reviews to prepare a report and recommendation(s) for consideration by the full ICCDE. The DRC has not reported a case of Guinea worm disease since the 1950s and it has never detected a Guinea worm infection in an animal.

### **GARY STRIEKER: PRODUCER, DIRECTOR, GUINEA WORM WARRIOR**

We share with heavy hearts the news that Gary Strieker died this month. Among his many accomplishments, Gary worked nearly twenty years for CNN, including as CNN’s bureau chief in Nairobi. It was in the latter role that he accompanied former U.S. President Jimmy Carter, at Carter’s invitation, from Nairobi to Khartoum, Sudan in March 1995 to document and broadcast the famous “Guinea Worm Cease-Fire” agreement between the warring sides in Sudan’s long civil war. As a prolific film producer and director, he accompanied President and Mrs. Carter on an epic four country tour initiated by then-Carter Center Board of Directors Chair John Moores to visit Carter Center-assisted health projects in Ghana, Sudan/southern Sudan, Ethiopia, and Nigeria in 2007. The tour focused on Guinea worm eradication in all four countries, as well as on onchocerciasis, lymphatic filariasis, and schistosomiasis in Nigeria; onchocerciasis and malaria bed net distribution in Ethiopia; and trachoma in Ghana. In 2010 he produced the award-winning feature film about Guinea worm eradication, “Foul Water/Fiery Serpent”. We extend our deepest sympathy to his family.

**Table 1**  
**Number of Laboratory-Confirmed Cases of Guinea Worm Disease, and Number Reported Contained by Month during 2022\***  
 (Countries arranged in descending order of cases in 2021)

COUNTRIES WITH TRANSMISSION OF GUINEA WORMS	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													% CONT.
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	
CHAD	0/0	1/2	0/0	0/0	0/0	0/0							1/2	50 %
SOUTH SUDAN	0/0	0/0	0/0	0/0	0/0	0/0							0/0	N/A
MALI	0/0	0/0	0/0	0/0	0/0	0/0							0/0	N/A
ETHIOPIA	0/0	0/0	0/0	0/0	0/0	0/0							0/0	N/A
ANGOLA	0/0	0/0	0/0	0/0	0/0	0/0							0/0	N/A
TOTAL*	0/0	1/2	0/0	0/0	0/0	0/0							1/2	N/A
% CONTAINED	N/A	50 %	N/A	N/A	N/A	N/A							50 %	

*\*Provisional*

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

Numbers indicate how many cases were contained and reported that month.

**Number of Laboratory-Confirmed Cases of Guinea Worm Disease, and Number Reported Contained by Month during 2021**  
 (Countries arranged in descending order of cases in 2020)

COUNTRIES WITH TRANSMISSION OF GUINEA WORMS	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													% CONT.
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL	
CHAD	0/0	1/1	1/1	1/2	0/0	0/0	1/2	0/0	0/0	1/1	1/1	0/0	6/8	75 %
ETHIOPIA	0/0	1/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	1/1	100 %
SOUTH SUDAN	0/0	0/0	0/0	0/0	0/0	0/0	1/2	0/1	0/0	0/1	0/0	0/0	1/4	25 %
ANGOLA	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	N/A
MALI	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/1	1/1	0/0	0/0	0/0	1/2	50 %
TOTAL	0/0	2/2	1/1	1/2	0/0	0/0	2/4	0/2	1/1	1/2	1/1	0/0	9/15	60 %
% CONTAINED	N/A	100 %	100 %	50 %	N/A	N/A	50 %	0 %	100%	50 %	100 %	N/A	60 %	

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

Numbers indicate how many cases were contained and reported that month.

## RECENT PUBLICATIONS

Dattani S, Spooner F, 2022 (July 7). Guinea worm disease is close to being eradicated-how was this progress achieved? *Our World in Data* <https://ourworldindata.org/guinea-worm-path-eradication#:~:text=Despite%20these%20challenges%2C%20there%20has,free%20of%20this%20debilitating%20disease> [The interactive maps and graphs in this online newsletter are fascinating.]

Hopkins DR, Weiss A, Torres-Velez FJ, Sapp SGH, Ijaz K, 2022. Dracunculiasis eradication: end-stage challenges. *Am J Trop Med Hyg* 107(2):373-382. <https://doi.org/10.4269/ajtmh.22-0197>

World Health Organization, 2022. Monthly report on dracunculiasis cases, January-May 2022. *Wkly Epidemiol Rec* 97(26):310-311.

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](mailto:gwwrapup@cdc.gov)) or to Adam Weiss ([adam.weiss@cartercenter.org](mailto:adam.weiss@cartercenter.org)), 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, Dr. Donald Hopkins and Adam Weiss of The Carter Center, Dr. Sharon Roy of CDC, and Dr. Dieudonné Sankara of WHO.

*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](mailto:gwwrapup@cdc.gov), fax: 404-728-8040. The GW Wrap-Up web location is <https://www.cdc.gov/parasites/guineaworm/wrap-up>*

Back issues are also available on the Carter Center web site in English, French, and Portuguese and 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_english.html).

[http://www.cartercenter.org/news/publications/health/guinea\\_worm\\_wrapup\\_francais.html](http://www.cartercenter.org/news/publications/health/guinea_worm_wrapup_francais.html)

[http://www.cartercenter.org/news/publications/health/guinea\\_worm\\_wrapup\\_portuguese.html](http://www.cartercenter.org/news/publications/health/guinea_worm_wrapup_portuguese.html)



**World Health  
Organization**

CDC is the WHO Collaborating Center for Dracunculiasis Eradication