



Date: February 28, 2025

From: Guinea Worm Eradication Program, The Carter Center

Subject: GUINEA WORM WRAP-UP #317

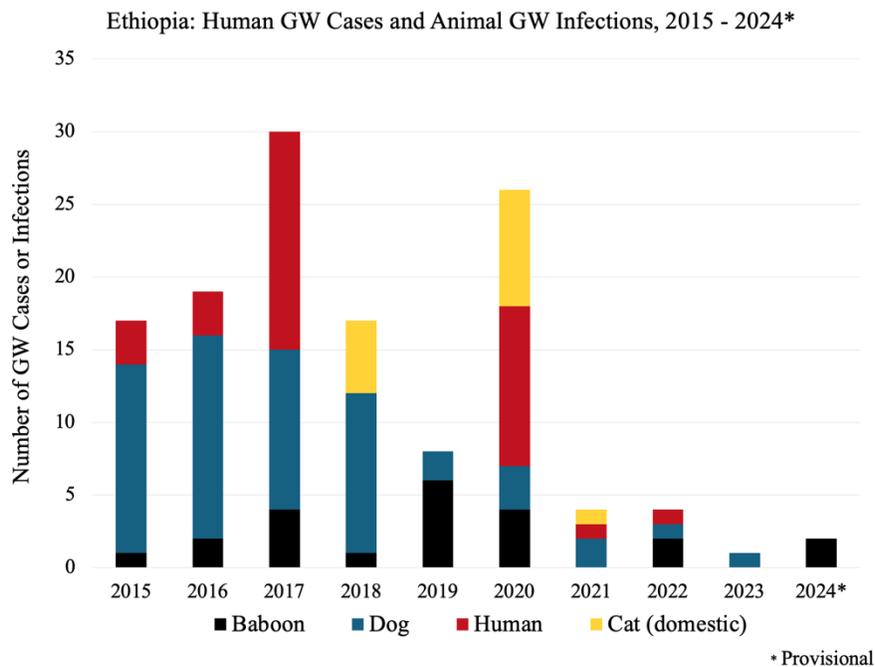
To: Addressees

The worm will be the judge of the quality of our work last year.
MAKOY Samuel Yibi

Goal: zero GW everywhere by 2027, certification in 2030.
GW incidence in 2025 is already set by our work in 2024.
GW incidence in 2026 depends on our work in 2025.

What is the quality of our work *this* year?

Figure 1



ETHIOPIA: NO KNOWN GW-INFECTED HUMANS, DOGS, OR CATS IN 2024; 2 CONFIRMED BABOONS



The Ethiopia Dracunculiasis Eradication Program (EDEP) has steadily reduced reported human Guinea worm cases and animal infections since it began proactively tethering dogs in at-risk areas in 2018, except for small outbreaks in humans and cats in 2020. The most recent infected domestic cat was reported in 2021, the latest human case in 2022, and the latest dog infection in 2023 (Figure 1). The EDEP also detected a wild serval cat with an un-emerged Guinea worm

in 2023 (see note on the significance of emerged and un-emerged Guinea worms in issue #315). 2024 was the second consecutive year with no known human GW case in the country, a milestone that Ethiopia also achieved in 2018-2019.

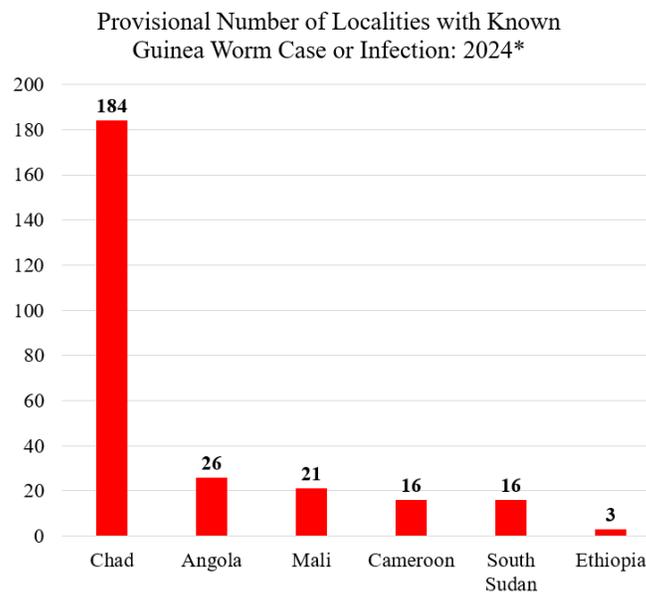
The EDEP detected 5 possible infected baboons in 2024, of which 2 have been laboratory confirmed as *Dracunculus medinensis* and 3 are provisional. Two baboons had a total of seven emergent Guinea worms, the remaining 3 baboons only had subcutaneous worms. The 5 possible infections were found in three baboon troops in Gambella region: 2 troops close to each other in Gog district and 1 troop about 25 miles (42 km) distant in Abobo district. Abobo district had only one infected baboon, with six un-emerged, confirmed Guinea worms. The 2 baboons with emerged worms were trapped by the baboon study team near Akweramero Farm in Gog district, one in July and one in November. Both animals were released after treatment with a high dose of ivermectin and are being tracked with GPS collars, and all mapped surface water sources in their home ranges are under a regular cycle of monthly Abate treatment. Two other baboons in Gog district had only un-emerged worms.

These 5 possible infected baboons were detected by examining a total of 241 baboons temporarily sedated by the baboon study team during three trapping rounds (March/April, July/August, October/November) in 2024 and 317 baboons that were killed by hunters or other villagers in 2024. *Surveillance in 2024 suggests that GW transmission occurred in only three Ethiopian localities in 2023, only two of which had emergent worms with risk of forward transmission during 2024. In 2025, robust ongoing surveillance of people and animals in Gog and Abobo districts and genetic analysis of the GW specimens from 2024 will reveal how close Ethiopia is to zero Guinea worms.*

The EDEP completed construction in December 2024 of shallow wells in Chieng village of Gog district and Gutok village of Abobo district. Both wells are now operational. Chieng had a Guinea worm-infected dog in 2022 and Gutok was visited by two infected baboons in 2022.

FIGHTING GUINEA WORM VILLAGE-BY-VILLAGE

Figure 2



*Infected humans & animals; contained & uncontained; emerged & un-emerged. See note on significance of emerged and un-emerged Guinea

At this end stage of the eradication campaign, countries should be combatting GW village-by-village, locality-by-locality, and door-to-door. Figure 2 shows the provisional number of known localities with Guinea worm infections in 2024, by country. *Outside of Chad, in 2024 the five other affected countries each had about two dozen or less known villages with Guinea worm; numbers small enough to allow GWEPs to shut down transmission NOW, by applying intensive surveillance and maximum interventions in each one of those few villages or localities.*

Every endemic country, province or state, and district or county should maintain an up-to-date list of the known affected localities in its area, in rank order according to the respective number of GW cases and/or infections. The list should include a few key surveillance and intervention indices such as confirmed active surveillance, containment rate, proactive tethering coverage, monthly Abate coverage, cloth and pipe filter coverage, and safe water status. Cameroon prepared a line list showing the status of interventions in its 14 villages with confirmed GW infections to date from January-May 2024 (*Guinea Worm Wrap-Up #310*). When displayed on the walls of program offices, such lists have been powerful motivators in Guinea Worm Eradication Programs. Programs in Mali and South Sudan might also indicate whether each locality is fully, partially, or not accessible. The provisional 266 localities with known Guinea worm infections or cases in 2024 are 21% fewer than the 334 known affected localities in 2023.

SOUTH SUDAN GWEP CONVENES 19TH ANNUAL REVIEW MEETING



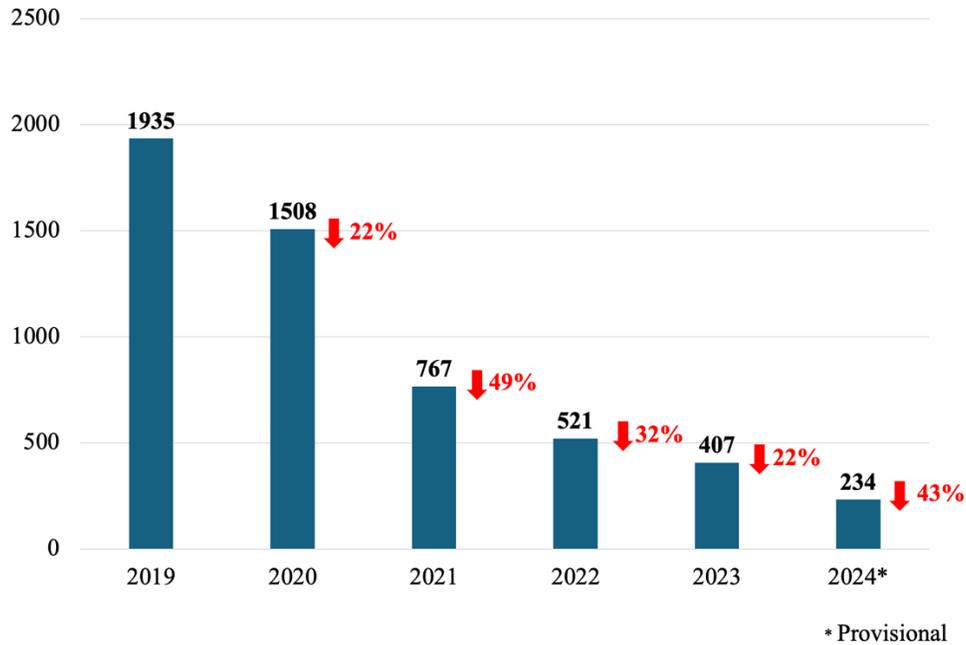
Undersecretary of the Ministry of Health Dr. Harriet Pasqual opened the 19th Annual Review Meeting of the South Sudan Guinea Worm Eradication Program (SSGWEP) on February 4-5, 2025, at the Palm Africa Hotel in Juba, South Sudan. SSGWEP Director Dr. Hakim Gol reported on the SSGWEP's achievements in 2024. The SSGWEP detected confirmed GW infections in 6 humans, 2 domestic cats, and 1 domestic dog, as well as 14 small wild felines with un-emerged Guinea worms in 2024. The list of human cases was included in the previous issue. The infected domestic cats occurred on August 4 and August 19 in Tonj East district of Warrap State and Uror district of Jonglei State, respectively; the infected domestic dog occurred on August 23 in Rumbek North district of Lakes State. The 253 specimens (24 human, 229 animal) which the SSGWEP submitted to the CDC laboratory for testing also yielded 56 Spargana and 1 *Onchocerca* infection. Only 21% (525) of 2,490 villages under active surveillance have a source of safe drinking water. All 38,804 eligible water sources were treated with Abate monthly during the transmission period. The SSGWEP, which includes 5,833 workers, of whom 95% (5,519) are community volunteers, responded to approximately 421,000 rumors of GW infection (provisional; 391,000 animal, 30,000 human) in 2024, compared to 160,000 rumors in 2023. The National Committee for Certification of Dracunculiasis Elimination met in April and June 2024, and the SSGWEP held a cross-border meeting with the Ethiopia Dracunculiasis Eradication Program in November 2024. Carter Center GWEP Director Mr. Adam Weiss presented an overview of the global GW situation at the meeting. Dr. Mutale Nsakashalo Senkwe presented on behalf of the World Health Organization (WHO) South Sudan and stressed the importance of surveillance and Abate, in light of the animal transmissions now facing the program. She confirmed WHO's continued support toward elimination in South Sudan despite this growing challenge.

On February 6, the Government of South Sudan held a special ceremony in Juba to commemorate Former U.S. President Jimmy Carter's life and legacy in South Sudan. Her Excellency Vice President Rebecca Garang provided the keynote address. Minister of Information Michael Makuel Lueth and Acting Minister of Health (current Minister of Labor) James Hoth Mai also made remarks. Former Minister of Health Dr. Riek Gai Kok was among the many other dignitaries and officials who attended the ceremony. The Government of South Sudan also presented an award to recently retired SSGWEP Director Mr. Makoy Samuel Yibi on this occasion.

CHAD

Figure 3

Chad Guinea Worm Eradication Program: Number and Percentage Reduction in GW - Infected Dogs, 2019 - 2024



From a high of 1,935 dogs reported with GW infections in 2019, Chad's GWEP detected 1,508 infected dogs in 2020, 767 in 2021, 521 in 2022, 407 in 2023, and a provisional total of 234 infected dogs in 2024, for an overall 88% reduction in five years (Figure 3). The previous issue listed the 8 confirmed human Guinea worm cases that Chad reported so far for 2024. Chad also reported a provisional total of 47 infected cats in 2024.

IN BRIEF

Cameroon has detected 10 provisional animal GW infections (6 contained) in January 2025, compared to 14 confirmed animal infections (13 contained) in January 2024.

Angola has detected 13 provisional animal GW infections (11 contained) in January 2025, compared to 4 confirmed animal infections (4 contained) in January 2024.

DEFINITION OF A PRESUMED SOURCE OF GUINEA WORM INFECTION

A presumed source/location of a human dracunculiasis case is considered identified if: The patient drank unsafe water from the same source/location (specify) as other human case(s) or an infected animal 10-14 months before infection, or

The patient lived in or visited the (specify) household, farm, village, or non-village area of a (specify) Guinea worm patient or infected domestic/peri-domestic animal 10-14 months before infection, or

The patient drank unsafe water from a (specify) known contaminated pond, lake, lagoon or cut stream 10-14 months before infection.

If none of the above is true, the presumed source/location of the infection is unknown. Whether the patient's residence is the same as the presumed source/locality of infection or not should also be stated in order to distinguish indigenous transmission from an imported case.

DEFINITION OF A CONTAINED CASE**

A case of Guinea worm disease is contained if all of the following conditions are met:

1. The patient is detected before or within 24 hours of worm emergence; and
2. The patient has not entered any water source since the worm emerged; and
3. A village volunteer or other health care provider has properly managed the case, by cleaning and bandaging until the worm is fully removed and by giving health education to discourage the patient from contaminating any water source (if two or more emerging worms are present, the case is not contained until the last worm is pulled out); and
4. The containment process, including verification that it is a case of Guinea worm disease, is validated by a supervisor within 7 days of the emergence of the worm, and
5. ABATE® is used if there is any uncertainty about contamination of the source(s) of drinking water, or if a source of drinking water is known to have been contaminated.

***The criteria for defining a contained case of Guinea worm disease in a human should be applied also, as appropriate, to define containment for an animal with Guinea worm infection*

MEETINGS

Mali GWEP Review Meeting – February 20-21, 2025

Ethiopia GWEP Review Meeting – February 27-28, 2025

Angola GWEP Review Meeting – March 27-28, 2025

28th International Review Meeting of GWEP Program Managers, N'Djamena, Chad – April 8-9, 2025

Table 1
Number of Laboratory-Confirmed Human Cases of Guinea Worm Disease, and Number Reported Contained by Month during 2024*
 (Countries arranged in descending order of cases in 2023)

| 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 | 0/0 | 0/0 | 0/0 | 0/1 | 0/0 | 0/3 | 1/1 | 1/1 | 1/1 | 1/1 | 0/0 | 4/8 | 50% |
| SOUTH SUDAN | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/2 | 0/3 | 0/0 | 0/1 | 0/0 | 0/0 | 0/0 | 0/6 | 0% |
| CENTRAL AFRICAN REPUBLIC | 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 |
| CAMEROON | 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 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | N/A |
| TOTAL* | 0/0 | 0/0 | 0/0 | 0/0 | 0/1 | 0/2 | 0/6 | 1/1 | 1/2 | 1/1 | 1/1 | 0/0 | 4/14 | 29% |
| % CONTAINED | N/A | N/A | N/A | N/A | 0% | 0% | 0% | 100% | 50% | 100% | 100% | N/A | 29% | |

**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 2023
 (Countries arranged in descending order of cases in 2022)

| 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 | 0/0 | 0/0 | 0/0 | 1/1 | 1/1 | 1/3 | 1/1 | 1/2 | 1/1 | 0/0 | 0/0 | 6/9 | 67% |
| SOUTH SUDAN | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/1 | 0/1 | 0/0 | 0/0 | 0/0 | 0/2 | 0% |
| ETHIOPIA | 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 |
| CENTRAL AFRICAN REPUBLIC | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/1 | 0/0 | 0/0 | 0/1 | 0% |
| MALI | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/1 | 0/0 | 0/0 | 0/0 | 0/0 | 0/1 | 0% |
| CAMEROON | 0/0 | 0/0 | 0/0 | 0/0 | 1/1 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 1/1 | 100% |
| TOTAL | 0/0 | 0/0 | 0/0 | 0/0 | 2/2 | 1/1 | 1/3 | 1/3 | 1/3 | 1/2 | 0/0 | 0/0 | 7/14 | 50% |
| % CONTAINED | N/A | N/A | N/A | N/A | 100% | 100% | 33% | 33% | 33% | 50% | N/A | N/A | 50% | |

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.

Are the right people receiving the Guinea Worm Wrap-Up?

We remind leaders of National Guinea Worm Eradication Programs to make sure all appropriate persons are receiving the Guinea Worm Wrap-Up directly, by email. With frequent turnover of government officials, representatives of partner organizations, and recruitment of new Guinea worm program staff, keeping desired recipients up to date is challenging. Frequent review of who is receiving the newsletter directly is advised. To add an addressee, please send their name, title, email address, and preferred language (English, French, or Portuguese) to Adam Weiss at The Carter Center (adam.weiss@cartercenter.org)

Note to contributors: Submit your contributions via email to Adam Weiss (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, and Dr. Dieudonné Sankara of WHO. Formatted by Diana Yu.

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_francais.html

http://www.cartercenter.org/news/publications/health/guinea_worm_wrapup_portuguese.html