



SITUATION: YELLOW FEVER	LOCATION: LIBERIA
DATE OF REPORT: SEPTEMBER 6, 2024	OUTBREAK START DATE: AUGUST 28, 2024
REPORTING PERIOD: SEPT 3-6, 2024	SITREP NO: 1

Highlights

- Three (3) presumptive positive cases reported Nimba (2) and Rivercess (1 dead) Counties
- Eighteen (18) contacts have been identified
- Cumulatively, 3 cases (including 1 death) reported
- Presumptive outbreak till further confirmation

Situational Context

Yellow fever (YF) is a viral hemorrhagic fever. It is transmitted to human by *Aedes aegypti*, mosquitos infected with the YF virus. The case-fatality rates can exceed 50% among severe cases. YF can be prevented through immunization with the YF vaccine, which is safe, inexpensive and reliable. A single dose of the vaccine provides protection against the disease for at least 10 years and possibly throughout life. A high risk exists of an explosive outbreak in an unimmunized population even if there is only one laboratory-confirmed case in the population. The most vulnerable group are children.

Since 2016, Liberia has recorded 9 confirmed cases (1 laboratory confirmed, 8 presumptive positive) including 1 death reported from six (6) counties: Grand Kru, Rivercess, Nimba, Grand Cape Mount, Sinoe and River Gee Counties.

Case description

Case 1

EM, a 47 years old male resident of Bowelay Town, Buu-Yao Health District presented to the Buutuo Clinic on the 5th of July 2024 with complain of headache, abdominal pain, fever, vomiting, diarrhoea with visible blood, nausea. Onset of these symptoms was 3rd July, 2024. The patient was isolated, sample was collected, and sent to the NRL for confirmation on the 5th of July 2024. According to the patient, he lives in Monrovia and he went to visit family in Nimba County and fell sick. There is no international travel history to yellow fever affected areas. No history of been vaccinated against yellow fever. About ten contacts were generated including three healthcare workers. The case patient was treated on OPD basis and sent home for recovery.

On 28 August 2024, the National Public Health Reference Laboratory tested RT-PCR positive for Yellow fever. Before receipt of the Lab result from the NRL, the patient has recovered from the illness and reintegrated into the community. Upon receipt of the Lab result from the NRL, the county immediately informed the district

and the health facility as well as the family of the patient. Risk assessment and community engagement meeting were conducted.

Case 2

MF, a 15 years old male, a resident of Benglan Town, Yarwin Mehnsosnoh Health District presented to the Ganta United Methodist Hospital on the 29th of August 2024 with the complain of headache, abdominal pain, fever, vomiting, diarrhoea with visible blood, nausea, with the symptom onset date of August 15, 2024. On 29th August, 2024, specimen was collected from the case patient and sent to the National public health reference Laboratory. According to the patient's father, there is no travel history and he is not vaccinated against yellow fever About four family members' contacts were generated including with two yellow fever vaccination history. On 2 September 2024, the National Public Health Reference Laboratory tested RT-PCR positive of Yellow fever and notified the County. Upon receipt of the Lab result from the NRL, the county immediately informed the district and the health facility as well as the family of the patient. The patient is still alive and improving in the isolation. Risk assessment and community engagement meeting are ongoing.

Case 3

E. J, a 48-year-old male resident and farmer from Gozohn, Doedain District, Rivercess County. The case was identified in the clinic by the DSO during supportive supervision and active case finding on August 26, 2024. According to the DSO, the case had symptoms onset on August 14, 2024 and presented with body pain, yellowish eyes, loss of appetite along with fever. and he passed out. On August 26, 2024, the case patient died in the clinic after investigation and specimen collection. On August 27, 2024, the district response team worked with the deceased family and community people to do safe and dignified burial.

On September 2, 2024, the case was tested Presumptive-Positive of Yellow Fever, however to strengthen VPDs surveillance system in Rivercess and the country at large, the case had been responded to with all necessary preventive measures taken in Doedain District, Rivercess County. Four (4) contacts including the health facility cleaner had been identified and line listed so far with daily follow up ongoing by the DSO.

Table 1: Summary of Yellow fever Outbreaks, Liberia, September 6, 2024

Total suspected cases reported to the national level	3
Total samples collected	3
Total samples tested	3
Total samples rejected by the Laboratory	0
Total presumptive positive	3
Total negative	0
Total samples pending testing	0
Total confirmed cases alive	2
Total deaths among confirmed cases	1
Total Contacts	18
Total HCW as contact	0
Overall case fatality rate	0
Total counties in outbreak phase	2
Total confirmed cases in isolation	1
Total discharged	1
Total suspected cases in isolation	0
Total counties with confirmed case (s) in isolation	1

Public Health Interventions

The objective of response mechanisms is aimed to protect the populations at risk and rapidly prevent international spread by containing outbreaks. Below are details of the measures taken so far:

I. Coordination

- National Public Health Institute of Liberia (NPHIL), UNICEF, WHO and LMH are providing technical support to the County Health Team
- The County Rapid Response Team was alerted and activated to review progress of implementation of response activities

II. Epidemiological Surveillance

- Cumulatively, 18 contacts were generated and line listed
 - Ten (10) contacts completed and follow up
 - Eight (8) contacts are being monitored
- Active case finding ongoing in affected districts/communities



III. Laboratory

- The National Reference Laboratory is now making preparations to send samples at the Institut Pasteur laboratory in Dakar, Senegal for further confirmation

- Three (3) Yellow fever cases have been confirmed presumptive positive

IV. Case management and IPC

- One (1) case undergoing treatment in isolation

V. Risk Communication & Community Engagement

Community advocacy and engagement meeting with local leaders and family members in the affected community (ongoing)

Awareness and health education on the spread and prevention of the disease at the community level (ongoing)

Conducting risk assessment at the community level

VI. Environmental intervention

- Encouraged community dwellers to regularly clean their surrounding as this will reduce mosquito and other disease causative agent from the community

Next steps

- Plan for NPHIL to send communication to WHO requesting transportation of the Specimen to Dakar, Senegal for further confirmation

For comments or questions, please contact

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