Ministry of Health

ZNPHI
ZAMBIA NATIONAL PUBLIC HEALTH INSTITUTE

# CHOLERA SITUATIONAL REPORT NO. 5

**Outbreak Name:** Cholera | Investigation start date: **11th April, 2022**

**Date of report:** Saturday 16th April, 2022 | **Prepared by:** MOH/ZNPHI

## 1. SITUATION UPDATE

- **Lusaka District:** As of 09:00hours, there were **four new suspected cases of cholera** reported. The cumulative number of cases recorded to date now stands at nine (9).
    - Two cases were discharged; seven cases are currently admitted at the Kalingalinga CTC (4), Matero CTC (2) and Levy isolation centre (1); all cases are stable.
    - **RDT**: four of the cases tested positive on RDT
    - **Culture confirmed:** Three of the nine cases have so far been confirmed by culture.
- **Outside Lusaka District**:
    - Five suspected cases were reported from Nsumbu, Nsama district
    - Of these, one (1) was confirmed to be cholera, two were positive for *E. coli* and the other two are pending transportation to Mporokoso for analysis
- **Countrywide:** to date, **four culture confirmed cases** have been recorded; three from Lusaka (Chilanga, Kalingalinga areas) and one from Nsumbu in Nsama district
- **Deaths:** There have been no cholera deaths recorded.
- **OCV campaign:** an additional 747 doses were administered on day 3 of the campaign; cumulative doses administered now stand at 1,273.

*Table 1: Summary of cases reported to CTCs in Lusaka District as of 15 April 2022*

| Sub-district | CTC | New Admissions | Discharged in 24hrs | Deaths in 24hrs | Total Current Admissions | Culture confirmed cases | Cum. Cases | Cum. Deaths |
|---|---|---|---|---|---|---|---|---|
| **Chawama** | Chawama | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Chelstone** | Kalingalinga | 1 | 0 | 0 | 4 | 1 | 4 | 0 |
| | Levy | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| **Chilenje** | Chilenje | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Chipata** | Chipata | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Kanyama** | Kanyama | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Matero** | Matero | 2 | 2 | 0 | 2 | 2 | 4 | 0 |
| **TOTAL** | | **4** | **2** | **0** | **7** | **3** | **9** | **0** |

*Table 2: Summary of **new admissions** to CTCs, by area of residence, on 15th April 2022*

| | CTC (total new cases) | New Cases by Area of Residence (# of cases) |
|---|---|---|
| 1 | Chawama (0) | - |
| 2 | Kalingalinga (1) | Middle West (1) [*referred from UTH] |
| 3 | Levy (1) | Mtendere East (1) |
| 4 | Chipata (0) | - |
| 5 | Kanyama (0) | - |
| 6 | Matero (2) | Kabangwe (1); Matero (1) |
| | **Total new cases recorded** | **Four (04)** |

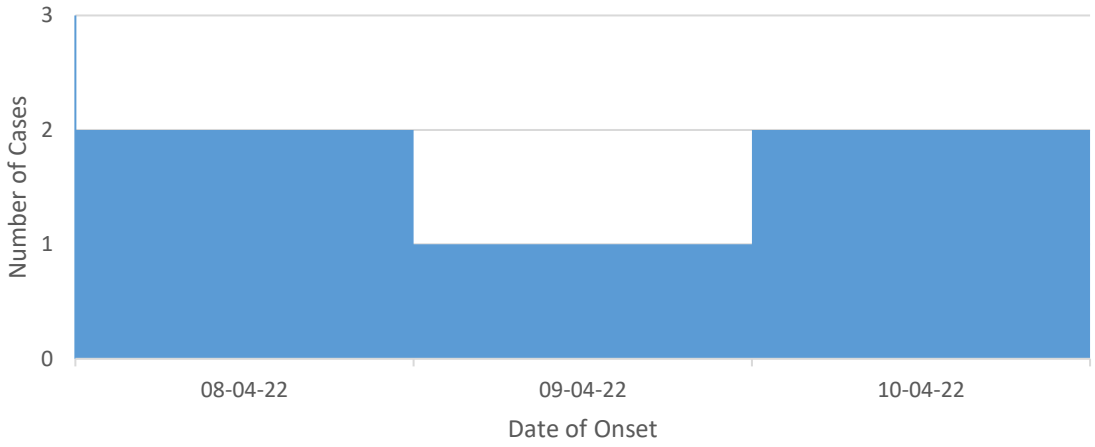


*Figure 1: Epicurve of cholera **cases** reported by date of symptom onset, as of 15th April 2022*

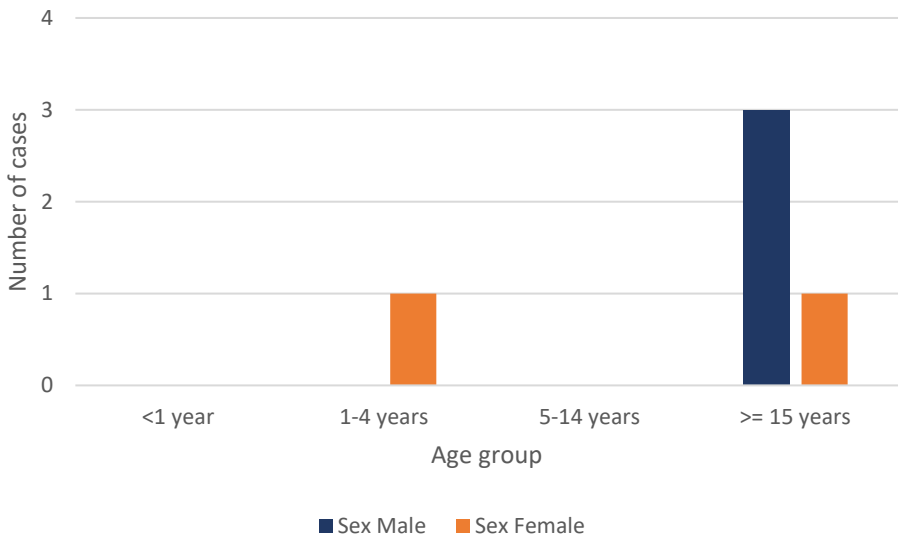


*Figure 2: Age-sex distribution of cholera cases reported, as of 15th April 2022*

## 2. BACKGROUND

- The index case, a 2 year 11 months old female from Mtendere East, was first seen on 8th April 2022 at Mtendere Clinic and was subsequently referred to UTH on the same day presenting with weakness and dehydration following a history of several bouts of diarrhoea and vomiting. Stool samples were collected and sent to the UTH lab for analysis, where they were positive for *Vibrio cholerae* Ogawa 01. Upon diagnosis of Cholera, the case was transferred to Kalingalinga Cholera Treatment Centre (CTC) on 10th April 2022.
- Case investigation revealed that the index case's sister had also previously exhibited gastro-intestinal symptoms, but cholera was not suspected at the time. This was following a visit to Middle west compound in Chilanga, Lusaka West area.
- Subsequent to the admission of the index case, her aunt begun to exhibit symptoms and was admitted to Kalingalinga CTC as a probable case, given her linkage to the index case. Samples were collected for culture and are awaiting results.

## 4. RESPONSE CO-ORDIANTION

### 4.1 Political Will and Leadership

- The Minister of Health, Honourable Sylvia Masebo MP, reaffirmed government's commitment the World Health Assembly's global vision of eliminating cholera by the year 2030 and specifically to Zambia's set legacy goal to eliminate the disease in the country by 2025 through a multisectoral approach anchored in the Office of the Vice President.

### 4.2 National Level

- A national level Incident Management System has been activated to coordinate the multisectoral response and offer support to the provincial and district level teams. Presently, the team is only providing oversight and technical assistance until such a point when the number of cases exceeds 50 (as stipulated in the IDSR guidelines), or where the province specifically requests for the national level to step in if their capacity is exceeded, whichever comes first. Currently, because of the prominence of Lusaka as a district, provincial and national location, the national IMS was established. The team meets daily at 9 hours at ZNPHI.

### 4.3 Provincial/District Level

- The district and provincial level are currently driving the response. A combined district/provincial IMS has been set up at this level to manage the response. The team meets daily at 12 hours. Rapid response teams, technical working groups as well as the epidemic preparedness committees have been activated to support the response.

## 5. ACTIONS TO DATE

### 5.1 Surveillance

- Case investigation and contact tracing is being conducted in Mtendere and Middle west.
- Onsite mentorship was provided and cholera registers for real time monitoring of cases were distributed.
- Notifiable Disease form 1 (ND1) were printed and distributed to facilities.
- A line list has been generated with key indicators including geo-coordinates and OCV status.
- **Case definitions:** Zambia is currently using the WHO standard case definition of suspected and confirmed cholera **regardless of age***. The use of SD Bioline RDT has been employed to determine probable cases.
- **Suspected:** Any Patient presenting with acute watery** or rice watery diarrhoea with or without vomiting and signs of dehydration should be suspected as a case of cholera during an outbreak
- **Probable**: A suspected case in which the SD Bioline RDT is positive and/or is epi-linked to a confirmed (culture positive) case
- **Confirmed:** A suspected case in which *Vibrio cholerae O1* or *O139* has been isolated in stool.

* **Children under 2 years can also be affected during an outbreak**

** Acute watery diarrhoea: passage of watery or liquid stools ≥ 3 times in the last 24 hours

### 5.2 Case management:

- Cholera Treatment Centers have been set up in all six sub-districts.
- Clinician sensitisation was conducted by the district and provincial teams, as well as prepositioning of IPC supplies and emergency health kits
- There were four new admissions at Matero (2), Kalingalinga (1), and Levy CTCs; two patients were discharged from the Kalingalinga CTC, leaving seven patients currently under admission *(see Table 1*).
- Patients are currently being treated with either Doxycycline or Ciprofloxacin for adults and Azithromycin for children.
- The 2017/18 outbreak antibiotic susceptibility profile is given below:

*Table 3: 2017/2018 Cholera outbreak antibiotic susceptibility profile*

| ANTIBIOTIC | No. Tested | Sensitive (%) | Intermediate (%) | Resistant (%) |
|---|---|---|---|---|
| Ampicillin | 50 | 36 (72%) | 14 (28%) | 0 (0%) |
| Chloramphenicol | 50 | 50 (100%) | 0 (0%) | 0 (0%) |
| Sulphamethoxaxole/Trimethoprim (Cotrimoxazole) | 50 | 50 (100%) | 0 (0%) | 0 (0%) |
| Tetracycline | 50 | 50 (100%) | 0 (0%) | 0 (0%) |
| Azithromycin | 22 | 22 (100%) | 0 (0%) | 0 (0%) |

## 5.3 Laboratory:

- **Bacteriology Laboratory Report:**
- Samples are being analysed at UTH and the ZNPHRL
- Stool samples have been collected from all nine cases; four tested RDT positive and three have been culture positive.

*Table 4: Stool culture results of samples analysed at UTH/ZNPHRL, as of 15th April, 2022*

| CTC | Total # of samples collected | # Culture Positive | RDT Positive | Pending |
|---|---|---|---|---|
| Chawama | 0 | 0 | 0 | 0 |
| Chipata | 0 | 0 | 0 | 2 |
| Kalingalinga | 4 | 1 | 2 | 0 |
| Kanyama | 0 | 0 | 0 | 0 |
| Levy | 1 | 0 | 0 | 0 |
| Matero | 4 | 2 | 2 | 0 |
| **Total** | **9** | **3** | **4** | **2** |

- **Food and Drug Control Laboratory Report:**
- Water and food sampling is ongoing; samples are being collected and sent to the Food and Drug control lab for processing and analysis.
- Residual chlorine analysis could not be conducted as water from the area is not chlorinated

## 5.4 Oral Cholera Vaccine Campaign

- The community in Middle west compound was not among the hotspot areas targeted during the preemptive national OCV campaign
- Trainings of vaccinators in the sub-districts was conducted.
- A reactive campaign has been launched using emergency doses secured from the remainder of the preemptive campaign.

- Current estimation is that less than 10,000 doses will be required for the reactive campaign
- 526 Doses have been administered so far

### 5.5 Environment and WASH:

- The environmental health risk assessment was conducted in both affected areas.
- Middle west locality in Chilanga is an unplanned settlement, with mostly unfinished structures. There are currently 600 households, with approximately 3600-4000 inhabitants. On average, seven households use one latrine; ~75% of the households do not have latrines.
- The structure inhabited by the index case is shared by seven families. The area lies on a rock bed, as such most of the latrines are shallow. There is poor access to water supply and the community relies on shallow unprotected wells. The area is also prone to flooding during the rainy season, leading to contamination of the water supply with fecal matter.
- There is no established solid waste management system in the area.
- Environmental cleaning and disinfection has been implemented; 32 households so far have been disinfected.
- **Chlorine distribution:** an additional 204 chlorine bottles were distributed in Kazimva, Middle West.

### 5.6 Risk Communications and Community Engagement

- Local leadership including civic and community leaders, as well as community gate keepers have been engaged to ensure key messages on cholera prevention and control are disseminated.
- Door to door sensitisation is being conducted. Activities include dissemination of health promotion messaging and IEC materials, liquid chlorine distribution and inspection of sanitation facilities
- Interventions including hygiene education, chlorine distribution, sanitation and water sampling are being mounted in all areas.
- Additional innovations and communication channels for advocacy have also been identified.

## 6. GAPS AND CHALLENGES

- Lack of adequate logistics; PPEs (work suits, aprons, heavy duty gloves)
- No $H_2S$ test kits
- Inadequate liquid and granular chlorine for distribution
- Inadequate IEC materials
- Inadequate megaphones
- Inadequate knapsack sprayers

## 7. PRIORITY ACTIONS & RECOMMENDATIONS

- Initiate emergency procurement procedure for limited stock items and identify additional budget lines to support the response
- Submit a separate request to GTFCC for reactive OCV campaign doses as the ICG prioritised doses currently in use from the pre-emptive campaign will not suffice
- Finalise the response contingency plan
- Prepare for NEPPCMC meeting to be held next week
- Print out case definitions, job aids and case management charts to be shared with sub-national teams
- Enhanced community sensitisation

## 8. CONCLUSION

The number of recorded cases has risen to nine. Interventions including chlorine distribution, health promotion and behavioural change communication have been intensified both in Lusaka and Nsumbu, and teams are on high alert in other hotspots.

*Annex 1: Pictures from the area showing latrines, incomplete structures and flooding*

*Annex 2: Kazimva Catchment area map, courtesy of DHO*