

### Situational Report No. 125

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| <b>Outbreak Name:</b> Cholera                          | <b>Investigation start date:</b> 4 <sup>th</sup> October, 2017 |
| <b>Date of report:</b> 13 <sup>th</sup> February, 2018 | <b>Prepared by:</b> MOH/ZNPHI/WHO                              |

## 1. SITUATION UPDATE

- Lusaka District:** As of 06:00hours today Tuesday 13<sup>th</sup> February, 2018, there were **16 new cases (4 paediatrics and 12 adults); there were no cholera deaths** recorded in the last 24 hours.
  - There were 26 patients under treatment; 21 patients had been discharged
  - Cumulative cases for Lusaka district now stand at **3,807 with 75 deaths**
  - Based on the most recent statistics, the case fatality rate of the current outbreak is **1.97% (facility CFR=0.77%)** with a weekly incidence rate of **5/100,000population<sup>1</sup>**, down from 6/100,000 the previous week.

Table 1: Summary of cases reported to CTCs in Lusaka District as of 13<sup>th</sup> February 2018

| CTC/CTU          | New Cases | Deaths in 24hrs | Current Admissions | Cum. Cases  | Cum. Deaths |
|------------------|-----------|-----------------|--------------------|-------------|-------------|
| <b>Kanyama</b>   | 6         | 0               | 3                  | 1182        | 32          |
| <b>Chipata</b>   | 1         | 0               | 0                  | 1209        | 27          |
| <b>Matero</b>    | 1         | 0               | 0                  | 510         | 10          |
| <b>Chawama</b>   | 2         | 0               | 5                  | 470         | 3           |
| <b>Bauleni</b>   | 0         | 0               | 0                  | 68          | 0           |
| <b>Chelstone</b> | 0         | 0               | 0                  | 84          | 2           |
| <b>Heroes</b>    | 6         | 0               | 18                 | 284         | 1           |
| <b>Total</b>     | <b>16</b> | <b>0</b>        | <b>26*</b>         | <b>3807</b> | <b>75</b>   |

\*7 paediatrics and 19 adults

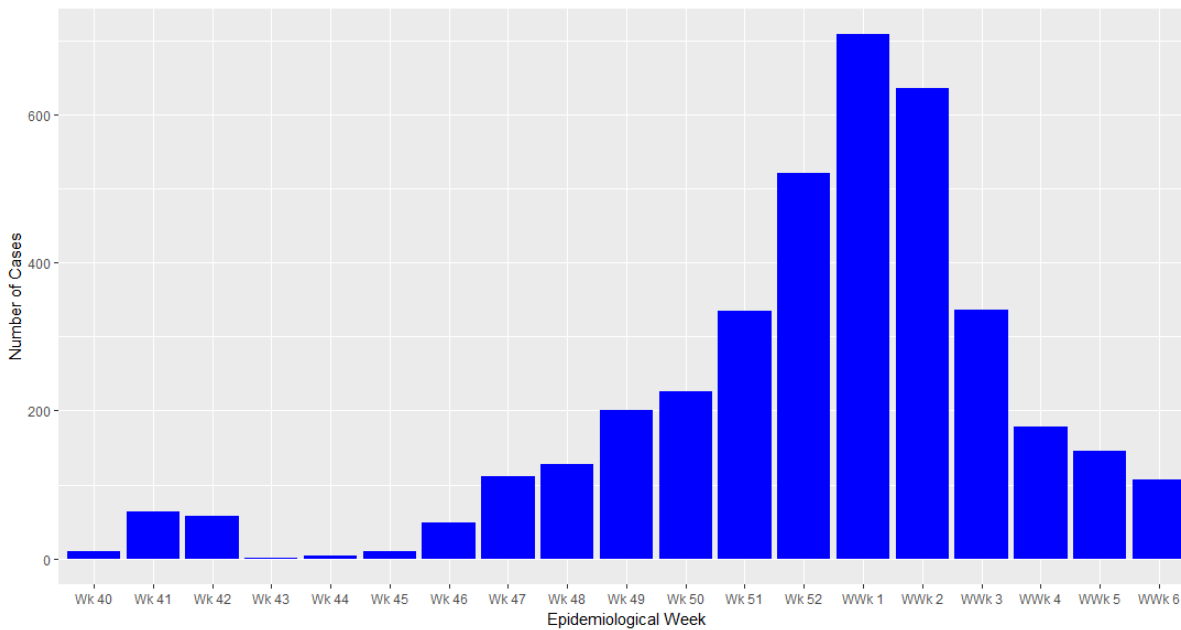
- Cholera cases reported from outside Lusaka District:**
  - There were **three (3) new cases** reported; 1 from Shibuyunji, 1 from Chongwe and 1 from Serenje
  - There were **no cholera deaths** reported in the last 24 hours
  - There were 8 patients under treatment (7 in Shibuyunji and 1 in Chongwe); 3 patients had been discharged
  - The cumulative number of cases from other districts is 276. There have been 9 deaths recorded over the course of the outbreak.
- Country wide:** the cumulative number of cases recorded is **4,083 with 84 deaths**

<sup>1</sup> 110 new cases and 1 death reported from 4<sup>th</sup> - 10<sup>th</sup> February 2018, compared to 140 new cases and 1 death the previous week

Table 2: Distribution of cases reporting in the last 24hrs by area of residence

|   | Sub-district (total new cases) | Cases by Area of Residence (# of cases)  |
|---|--------------------------------|--|
| 1 | <b>Chawama (3)</b>             | Chawama (1), Kamwala South (1), Kuomboka (1)                                     |
| 2 | <b>Matero (3)</b>              | Zingalume (1), George (2)  |
| 3 | <b>Chipata (1)</b>             | Ten miles (1)  |
| 4 | <b>Chelstone (3)</b>           | Chainda (2), Kalikiliki (1)  |
| 5 | <b>Kanyama (6)</b>             | Old Kanyama (1), Garden House (1), Chinika (2), Garden house (1), John Laing (1) |

Figure 1: Epidemic curve showing cases of cholera in Lusaka district by week of onset



## 2. BACKGROUND

The outbreak was declared on 6<sup>th</sup> October, 2017 after laboratory confirmation of two cases from Mazyopa area in Chipata sub-district, who reported to the Chipata Level One Hospital with acute watery diarrhoea on 4<sup>th</sup> October, 2017. Kanyama reported the first suspected case of cholera on 8<sup>th</sup> October, 2017. The patient was a 3 month old baby who was brought in dead after a bout of diarrhoea. The rapid diagnostic test (RDT) was positive from a rectal swab specimen.

### 3. RESPONSE CO-ORDINATION

#### 3.1 Political Will and Leadership

- The Honourable Minister of Health, Dr Chitalu Chilufya MP, hosts a daily ministerial meeting to coordinate water, sanitation and resources being channelled to the response.
- Further, the minister hosts an update meeting, co-chaired by the Minister of Local Government, the Minister in the Office of the Vice President and the Minister of Water Development, Sanitation and Environmental Protection every Friday.
  - Senior members of staff representing the different stakeholders including the line ministries, co-operating partners, Lusaka Water and Sewerage Company (LWSC), Lusaka City Council (LCC), Disaster Management and Mitigation Unit (DMMU), Defence Forces, as well as WASH and health promotion teams attend.
- The Honourable Minister of Health, through the provisions of the laws of Zambia, invoked the Public Health Act, (Laws, Volume 17, Cap. 295), the Public Health (Infected Areas) (Cholera) Regulations, 2017 and issued Statutory instrument No. 79 of 2017 to facilitate the implementation of an enhanced approach to mitigate the current cholera outbreak.
- The Government of Zambia continues to draw resources from its treasury to support the response; supply of ‘free’ clean and safe water, waste management, health promotion and clinical management.
- The Honourable Minister of Local Government, through the provisions of the laws of Zambia, issued SI no. 10 of 2018. The Local Government Act (Cap. 288). The Local Government (Street Vending and Nuisances) (Amendment) Regulation 2018 has been effected to ensure the outbreak is mitigated and prevented from re occurrence
- The Ministry of Fisheries and Livestock have issued a Gazette notice on the extension on fishing ban for 2017/18 season in cholera affected areas; all fishing camps elsewhere would be inspected and those with inadequate sanitary facilities closed.

#### 3.2 National Epidemic Preparedness, Prevention, Control & Management

- The National Epidemic Preparedness, Prevention, Control & Management Committee has held extra-ordinary meetings every Thursday to review the outbreak situation and progress of implemented interventions.

### 3.3 Zambia National Public Health Institute

- The Zambia National Public Health Institute holds technical committee meetings every Monday, Tuesday and Wednesday.

## 4. ACTIONS TO DATE

### 4.1 Oral Cholera Vaccine Campaign

- The World Health Organisation facilitated and provided resources supplementing the Government's efforts to procure the Oral Cholera Vaccine (OCV)
- Round one of the OCV campaign launched on 10<sup>th</sup> January 2018 successfully recorded 109% coverage with 1,317,925 people vaccinated. The vaccination included 1,407 doses of the vaccine were given to inmates at Lusaka Central Prison
- The second round of the vaccination campaign commenced on **Monday 5 February 2018**, in Chawama and Kanyama.
  - The OCV Round 2 schedule for other areas will be communicated in due course
  - The Ministry of Education has approved the delayed opening of schools in the hotspots in order to ensure that target populations receive the vaccine

Table 3: Summary of Round 2 immunisation coverage at close of Day 8 (12/02/18)

| Sub-district   | Target Population* | Daily achieved | Total vaccinated | Coverage      |
|----------------|--------------------|----------------|------------------|---------------|
| <b>Chawama</b> | 238,807            | 42,372         | 238,377          | 99.8%         |
| <b>Kanyama</b> | 242,302            | 46,792         | 348,917          | 144.0%        |
| <b>Total</b>   | <b>481,109</b>     | <b>89,164</b>  | <b>587,294</b>   | <b>122.1%</b> |

\*Target populations have been recalculated based on head count instead of CSO estimations

### 4.2 Surveillance and Case management:

- Surveillance:** Sporadic cases continue to be recorded in Kanyama, Chawama, Matero, and Chipata. Interventions including contact tracing, chlorine distribution and water sampling continue to be mounted in all areas.
  - The **Shibuyunji district** surveillance report from activities conducted from 9-10 February 2018 indicated that 10 of the cases from the district were coming from the fishing camps. The main drivers of the outbreak are contaminated water, poor sanitation including lack of

toilets and poor hygiene, and consumption of contaminated food. Interventions have included removal of all fishing families to the mainland, mass vaccination, improved case management through clinical orientation, inspection of public premises, and strengthening of laboratory capacity

- **Case definition:** Zambia is currently using the WHO standard case definition of suspected and confirmed cholera **regardless of age:**
- 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
- 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  $\geq 3$  times in the last 24 hours
- **Case management:** In order to manage the growing number of cases while maximizing the available resources (i.e. supplies, equipment and human resource), 5 of the initial Cholera Treatment Centers in Kanyama, Chipata, Matero, Bauleni and Chelstone sub-districts have been converted to Cholera Treatment Units. Chawama CTC was converted to a Cholera Referral Centre to cover the southern population of Lusaka district. It has a 41 bed capacity and room for expansion, and a functional referral system. The main Cholera Treatment Hospital was set up at the Heroes Stadium for the northern part, with a 500 bed capacity and room for expansion.
- **Mentorship of frontline workers:** 2-3 hour mentorship visits are being conducted as well as bedside mentorship. To date, Bauleni, Chawama, Kanyama, Matero and Chipata staff have been trained. CDC in collaboration with the ZNPHI have produced jobs aids detailing the case definition and treatment plans. Flow charts for assessment, transfer criteria and discharge criteria have also been made available.
- **Management of Alcohol Delirium Tremens and all other Mental Disorders:** A number of patients have been noted to present with alcohol delirium tremens and other mental disorders. A specialized team from Chainama Hills College Hospital has been assigned to the case management team. Cumulatively, as of 7<sup>th</sup> February 2018, 447

patients had been seen. Medical, psychosocial, nutritional treatments and laboratory services have been offered successfully.

#### 4.3 Laboratory:

- **FDCL Daily Report (7<sup>th</sup> February 2018)**
- Out of 1934 water samples analysed to date; 648 (33.5%) were positive for fecal coliforms.
- Out of 111 food samples analysed to date, 31 (27.9%) were positive for fecal coliforms.
- Out of 534 swabs analysed to date; 132 (24.77%) were positive for fecal coliforms.
- **UTH Bacteriology Laboratory Report (3<sup>rd</sup> February 2018)**
- 816 cumulative samples have been processed by the laboratory since 4/10/17; **272 (33.3%)** have been culture positive for *Vibrio cholerae 01 Ogawa*; 8 for *Salmonella*; and 7 for *Shigella*. There were 38 pending results.
- Antibiotic susceptibility testing of 5 key drugs has been done on 95 isolates to date. Only one resistant isolate has so far been recorded.

#### 4.4 Environment and WASH interventions:

- **Defense**
- Burying of shallow wells, and solid waste management including garbage collection and disposal is on going
- **LWSC preparedness and response activities:**
- **Delivery of water by Bowser:** There were 39 bowsers in service. Deliveries decreased from 3,208,000L the previous day to 3,005,000L; All tanks during a spot check except in 1 of 5 in Kalingalinga, 1 of 9 in Mtendere, 1 of 11 in John Laing and 1 of 2 in Madimba still had water and only required top-ups.
- 1 kiosk in John Laing reported contamination; Chlorination system changed to gas chlorinator
- **China Civil Engineering Company and SINOMINE** have been contracted for emergency development of water supply networks; works to start in Chawama on 14<sup>th</sup> February 2018
- **A dedicated call centre** has been set up to receive complaints regarding sewer blockages (0973271082; 0973254528; 0956343156)

#### 4.5 Health Promotion and Communications

- Community Based Volunteers (CBVs) from CHAZ/OXFAM/Red Cross have been deployed; UNICEF is supporting 200 CBVs in Kanyama and Chawama for the next 3 months
- Door to door outreach as well as church, market and school sensitisation are ongoing.
- The DMMU call centre numbers are 909 (toll free); 0963 930 779; 0976 904 261/73; 0956 513 193/79 open 24/7. A total of 104 successful, 47 unsuccessful and 56 missed calls were recorded.
- The Ministry of Health has been assigned free air on public and private and radio stations for interviews and discussions pertaining to cholera matters. Technocrats and policy makers feature on these programs to give updates on the outbreak and decisions and or interventions implemented
- The MoH continues to disseminate health messages and other information through Press briefs (hosted by one or more of the Ministers in the response or the Permanent secretary to MOH), Public Health Address Systems with the support of Zambia National Information Service (ZANIS), Brochures and Posters

#### 5. Gaps and Challenges

- Some tanks are inaccessible due to deteriorating condition of roads following the rains
- Carrying capacity of International School/Lukasu Road sewer line is overstretched during the rainy season resulting in overflow.
- Costly nature of water delivery by bowser

#### 6. Priority actions & Recommendations

- Case management:
  - Training and continuous mentorship of CTC staff
- LWSC
  - Construction of a by-pass line on the International School/Lukasu Road sewer line to provide relief to the overstretched line; excavations are 98% complete. Pipe laying expected to commence today, 13<sup>th</sup> February 2018. Works are expected to be completed on 21<sup>st</sup> February 2018

- Continued delivery of water by bowser 24/7
- A residual chlorine level of 0.5mg/L in all supplied water to be maintained
- Health Promotion and Communication:
  - Continued engagement and sensitization of communities on hygiene practice and prevention of cholera

## 7. Conclusion

The downward trend in reported cases has continued, with a further decrease in the total number of cases recorded over the past week, from 140 cases the previous week to 110 this week. The outbreak in the fishing camps in Shibuyunji is a pointer to a possible spread to other fishing camps; considering the history of outbreaks in fishing camps, prevention interventions must be escalated in such risk areas. As interventions continue to be escalated, including, provision of safe water, contact tracing, environmental investigations, and health promotion activities, there is need to enforce laws governing prevention of diseases of public health concern.





Annex 1: Incidence rate of Cholera cases in Lusaka district up to week 6, 2018

