

Situational Report No. 138

Outbreak Name: Cholera	Investigation start date: 4 th October, 2017
Date of report: 26 th February, 2018	Prepared by: MOH/ZNPHI/WHO

1. SITUATION UPDATE

- Lusaka District:** As of 06:00hours today Monday 26th February, 2018, there were **15 new cases (7 paediatrics and 8 adults); there were no cholera deaths** recorded in the last 24 hours.
 - There were 20 patients under treatment; 18 patients had been discharged
 - Cumulative cases for Lusaka district now stand at **4,028 with 75 deaths**
 - Based on the most recent statistics, the case fatality rate of the current outbreak is **1.86% (facility CFR=0.73%)** with a weekly incidence rate of **5/100,000population¹ at the close of week 8.**

Table 1: Summary of cases reported to CTCs in Lusaka District as of 06hours on 26th February 2018

CTC/CTU	New Admissions	Deaths in 24hrs	Current Admissions	Cum. Cases	Cum. Deaths
Kanyama	5	0	1	1230	32
Chipata	4	0	0	1233	27
Matero	0	0	0	521	10
Chawama	2	0	8	526	3
Bauleni	0	0	0	68	0
Chelstone	0	0	0	85	2
Heroes	4	0	11	365	1
Total	15	0	20*	4028	75

*7 paediatrics and 13 adults

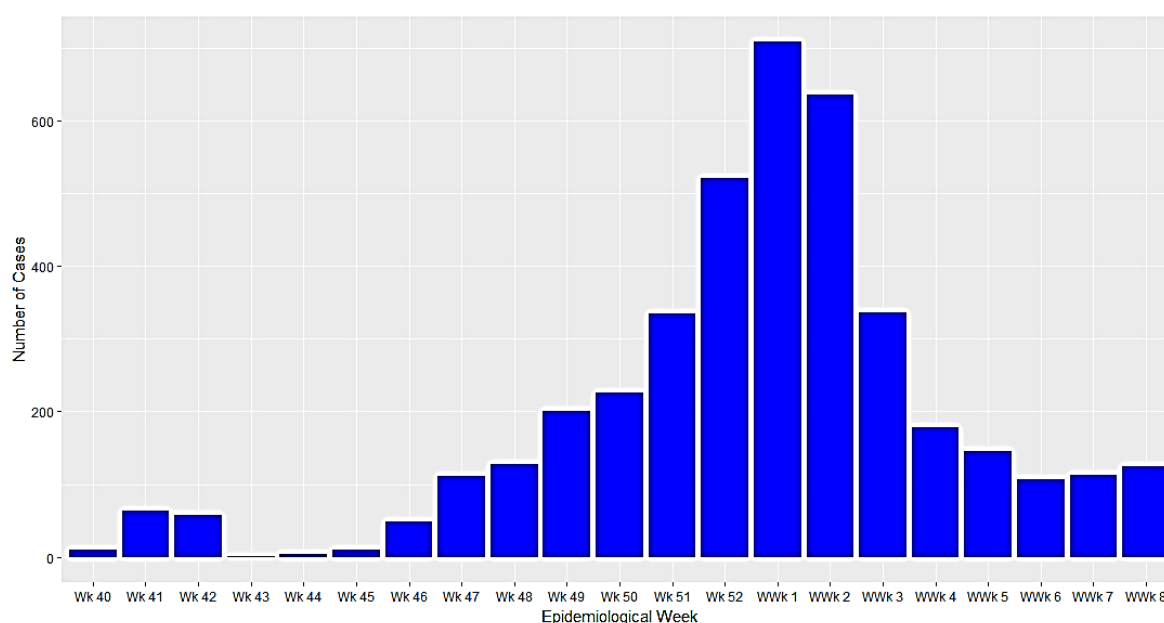
- Cholera cases reported from outside Lusaka District:**
 - There were **five (5) new cases** reported from other districts in the last 24 hours; 3 from Kafue (all residents of Zambia compound), 1 from Chisamba (a resident of Katuba, Chibombo) and 1 from Shibuyunji. There was **one cholera death recorded**, a BID from Shibuyunji.
 - There were 11 patients under treatment (8 in Kafue, 1 in Chongwe, 1 in Chisamba and 1 in Shibuyunji); three (3) patients had been discharged
 - The cumulative number of cases from other districts now stands at 325. There have been 13 deaths recorded over the course of the outbreak.
- Country wide:** the cumulative number of cases recorded is **4,353 with 88 deaths**

¹ 128 new cases and 0 deaths reported from 18th - 24th February 2018, compared to 118 new cases and 0 deaths the previous week

	Sub-district (total new cases)	Cases by Area of Residence (# of cases)
1	Chipata (4)	Ngombe (1), Chipata (3)
2	Matero (3)	George (2), Barlastone (1)
3	Kanyama (6)	Old Kanyama (1), Garden House (2), John Laing (3)
4	Chawama (1)	Kuku (1)
5	Chelstone (1)	Mtendere (1)

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

Figure 1: Epidemic curve of cholera cases recorded in Lusaka district by week of onset as at close of Week 8 2018



2. BACKGROUND

The outbreak was declared on 6th 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 4th October, 2017. Kanyama reported the first suspected case of cholera on 8th October, 2017. The patient was a 3 month old baby who was brought in dead after a bought 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 meeting to coordinate water, sanitation and resources being channelled to the response.
 - 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 Government of Zambia continues to draw resources from its treasury to support the response, including provision of clean and safe water, waste management, health promotion and clinical management.
- 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 Honourable Minister of Local Government, through the provisions of the laws of Zambia, issued **Statutory Instrument No. 10 of 2018**. The Local Government Act (Cap. 288), the Local Government (Street Vending and Nuisances) (Amendment) Regulations 2018 has been effected to ensure the outbreak is mitigated and prevented from re-occurring.
- The Ministry of Fisheries and Livestock has issued a Gazette notice on the **extension of the fishing ban for the 2017/18 season in cholera affected areas** to 30th April 2018. Fishing camps in unaffected areas will be inspected; those with inadequate sanitary facilities shall remain 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.

4. ACTIONS TO DATE

4.1 Oral Cholera Vaccine Campaign

- The Government of the Republic of Zambia with the support of World Health Organisation facilitated and provided resources to procure the Oral Cholera Vaccine (OCV)
- **Round one** of the OCV campaign, which run from 10th to 20th January 2018, recorded 1,317,925 people vaccinated, with a coverage 109%. The coverage included 1,407 vaccinated inmates at Lusaka Central Prison.
- **Round two** of the OCV campaign commenced in Chawama and Kanyama on **Monday 5th February 2018** and closed on **Wednesday 14th February 2018**.
 - The heavy downpour in most cases resulted in reduced numbers of people accessing the vaccination centres. This necessitated a re-strategising of efforts, including door to door vaccinations.
- The OCV Round 2 schedule for other areas will be communicated in due course; Chipata and Matero are currently scheduled to receive the vaccine next.
- 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: Comparison of Round 1 and Round 2 immunisation coverage in Chawama & Kanyama

Sub-district	Target Population*	Round 1 total vaccinated (% coverage)	Round 2 total vaccinated (% coverage)
Chawama	238,807	235,227 (99.0%)	301,928 (126.4%)
Kanyama	242,302	331,841 (137.0%)	409,776 (169.1%)
Total	481,109	567,068 (118.0%)	711,704 (147.9%)

*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. Interventions including contact tracing, chlorine distribution and water sampling are being mounted in all areas.
- **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 ≥ 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 main Cholera Treatment Centre to cover the southern population of Lusaka district and serves as a referral centre. 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. CDC in collaboration with the ZNPHI produced jobs aids detailing the case definition and treatment plans. Flow charts for assessment, transfer criteria and discharge criteria were 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. On 24th February 2018, 8 patients were seen, 5 of whom were commenced on alcohol detoxification therapy. Cumulatively, 535 patients have been seen. Medical, psychosocial, nutritional treatments and laboratory services have been offered successfully.

4.3 Laboratory:

- **UTH Bacteriology Laboratory Report (24/02/18):**
 - 1,091 cumulative samples have been processed by the laboratory since 4/10/17; **357 (32.72%)** have been culture positive for *Vibrio cholerae* O1 Ogawa; 8 (0.73%) for *Salmonella*; and 7 (0.64%) for *Shigella*.
 - Antibiotic susceptibility testing is ongoing to monitor sensitivity patterns against 5 antibiotics.
- **FDCL Daily Report (22/02/18):**
 - Out of 2,286 water samples analysed to date; 754 (33.0%) were positive for fecal coliforms.

- Out of 162 food samples analysed to date, 43 (26.5%) were positive for fecal coliforms.
- Out of 675 swabs analysed to date; 184 (27.2%) were positive for fecal coliforms.

4.4 Environment and WASH interventions:

- **LCC**
 - The council has engaged the community based enterprises (CBEs) over the discontinuation of waste collection services following the announcement of free waste collection
 - Night time collection of solid waste is ongoing.
 - Council inspectors have been conducting sanitation enforcement in accordance with the Public Health Act provisions for latrine accommodation

Figure 2: Night time solid waste collection by LCC



Figure 3: One of the pit latrines in George compound discovered during the sanitation enforcement exercise

- **LWSC preparedness and response activities:**
 - **Delivery of water by Bowser:** There were 35 bowsers in service. Deliveries decreased to **3,615,000L** (from 3,777,000L the previous day) as most tanks still had water from the previous day.
 - Chipata, Chaisa, Chunga, Ngombe, Garden, Bauleni, Kalingalinga and Mtendere:** 14 bowsers were in service; 2,122,000L of safe water were supplied
 - Chawama:** 2 bowsers were in service; 140,000L of safe water were supplied
 - Kanyama:** 19 bowsers were in service; 1,353,000L of safe water were supplied
- **International School/Lukasu Road Sewer Overflow:** An additional 36m of pipeline were laid bringing the total length covered to-date to 282m (out of the 352m total length of piping to be laid). The daily target is to lay minimum of 30m stretch. The target completion date is 28th February 2018.
- **Improved road accessibility:**
 - The Zambia National Service (ZNS) continues to carry out road maintenance works with resources provided for under the cholera response.
- **Water supply to Zambia Compound - Kafue:**
 - Water quality monitoring has continued; residual chlorine level is now averaging 0.5mg/L following dosage adjustment

4.5 Health Promotion and Communications

- There are currently 480 community based volunteers (CBVs) assigned to field activities, with support from UNICEF, Oxfam, the Zambia Red Cross and CHAZ
- 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. A total of 71 successful, 90 unsuccessful and 66 missed calls were recorded..
- The Ministry of Health has been allocated 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

➤ Environment and WASH

- LCC
 - i. Accumulation of solid waste following discontinuation of service by CBEs
 - ii. Inadequate earth moving equipment at the landfill has resulted in delayed turn-around times

Figure 4: Vehicles line up to dump waste



- LWSC:
 - i. Costly nature of water delivery by bowser
 - ii. Some tanks are inaccessible due to deteriorating condition of roads following the rains

6. Priority actions & Recommendations

➤ Case management:

- Training and continuous mentorship of CTC staff

➤ LCC:

- Hire of additional earth moving equipment to handle increased solid waste accumulation at the landfill
- Sensitisation of communities on the importance of paying for solid waste management

- LWSC
 - Maintenance of residual chlorine level of 0.5mg/L in all supplied water
- Health Promotion and Communication:
 - Continued engagement and sensitization of communities on hygiene practice and prevention of cholera

7. Conclusion

The multisectoral and multidisciplinary approach in case management, provision of safe water, contact tracing, environmental investigations, and health promotion have been effective in abating the outbreak. However there is need to heighten contact tracing to ensure the cases are contained within the affected areas.



Annex 1: Map of cholera cases recorded in Lusaka district from 22-24 February 2018

