

Situational Report No. 114

Outbreak Name	Cholera	Investigation start date	4 th October, 2017
Date of report	2 nd February, 2018	Prepared by	MOH/ZNPFI/WHO

1. SITUATION UPDATE

- Lusaka District:** As of 06:00hours on 2nd February, 2018, there were **16 new cases (2 paediatrics and 14 adults)**. There were **no cholera deaths** recorded in the last 24 hours.
 - There were 33 patients under treatment; 15 patients had been discharged
 - Cumulative cases for Lusaka district now stand at **3,631¹ with 73 deaths**
 - Based on the most recent statistics, the case fatality rate of the current outbreak is **2.0% (facility CFR=0.8%)** with a weekly incidence rate of **7/100,000population²**, down from 14/100,000 the previous week.

Table 1: Summary of cases reported to CTCs in Lusaka District as of 2nd February 2018

CTC/CTU	New Cases	Deaths in 24hrs	Current Admissions	Cum. Cases	Cum. Deaths
Kanyama	3	0	2	1157	32
Chipata	1	0	0	1192	26
Matero	1	0	1	503	10
Chawama	2	0	4	416	2
Bauleni	0	0	0	64	0
Chelstone	0	0	0	78	2
Heroes	9*	0	26	221	1
Total	16	0	33**	3631	73

*Cases admitted to Heroes were from Matero subdistrict (8) and Kanyama subdistrict (1)

**7 paediatrics and 26 adults

- Cholera cases reported from outside Lusaka District:**
 - There were **two (2) new cases** reported from other districts; 1 from Chongwe; and 1 from Serenje
 - There were no deaths reported in the last 24 hours
 - There were 8 patients under treatment; 3 patients had been discharged
 - The cumulative number of cases from other districts is 248. There have been 7 deaths recorded over the course of the outbreak.
- Country wide:** the cumulative number of cases recorded is **3,879 with 80 deaths**

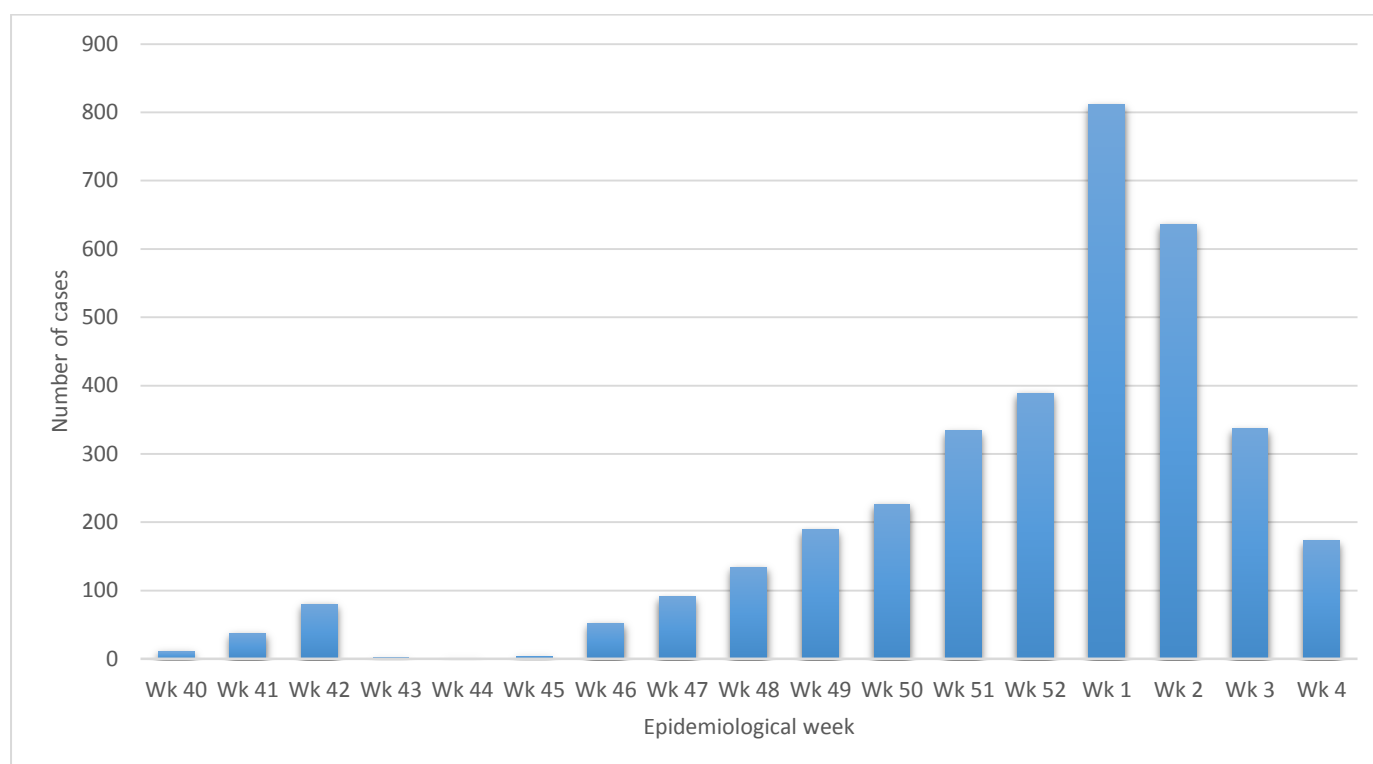
¹ 5 cases were re-classified

² 173 new cases and 1 death reported from 21st to 27th January 2018, compared to 337 new cases and 2 deaths the previous week

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

	Subdistrict (total new cases)	Cases by Area of Residence (# of cases)
1	Kanyama (4)	Old Kanyama (1), Garden House (1), John Laing (1), Chibolya (1)
2	Chawama (2)	New Chawama (1); Old Chawama (1)
3	Matero (9)	Kasupe (1), Maloni (7), Barlastone (1)
4	Chipata (1)	Garden Kanele (1)

Figure 1: Epidemic curve showing cases of cholera in Lusaka district by week of onset (N=3507)



2. BACKGROUND

The outbreak was declared on 6th October, 2017 after two laboratory confirmed cases were recorded from Chipata from suspected cases who reported to the clinic 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 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.

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 campaign saw overwhelming response from the public. The exercise was extended from the initial 6 day plan to 10 days.

- The initial target was exceeded. The WHO gave the go-ahead for part of the allocation for the second dose to be used during round 1 of the campaign. Supplemental doses for the second round have been secured.
- Plans for round 2 of the exercise are being finalized. The tentative date for commencement of Round 2 is **Monday 5 February 2018**, with Chawama and Kanyama being targeted initially.
- The Ministry of Education has approved the delayed opening of schools in the hotspots in order to ensure that target populations receive the vaccine
- The OCV vaccination sites in Chipata were closed after Day 8 while sites in Chawama and Matero closed after Day 9. Kanyama sites closed on Day 11
- 1,407 doses of the vaccine were given to inmates at Lusaka Central Prison

Table 3: Summary of immunisation coverage as at close of the exercise on 20/01/18

Sub-district	Target Population*	Total vaccinated	Coverage
Chawama	238,807	231,950	97%
Kanyama	242,302	343,760	142%
Matero	356,462	293,808	82%
Chipata	368,344	448,351	122%
Prisons	-	1,407	-
Total	1,205,915	1,319,276	109%

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

4.2 Surveillance and Case management:

- **Surveillance:** Kamwala South and Chilanga have continued to report new cases. The cases from Chilanga were reported from Maloni compound, which is reported to have poor sanitation and one communal toilet. Contact tracing of all cases is ongoing.
- **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 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 ZNPFI 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. Nine (9) patients were seen on 1st February 2018, 5 of whom were commenced on alcohol detoxification treatment. Cumulatively, 424 patients have been seen. Medical, psychosocial, nutritional treatments and laboratory services have been offered successfully.

4.3 Laboratory:

- **FDCL Daily Report**
 - On 31/01/18; 18 water samples were analysed; 3 were positive for fecal coliforms. Additionally, 8 food samples and 32 swabs were analysed; 2 food samples and 12 swabs were positive for fecal coliforms.
 - Out of 1680 water samples analysed to date; 583 were contaminated with fecal coliforms.
 - Out of 101 food samples analysed to date, 28 were contaminated fecal coliforms.
 - Out of 444 swabs analysed to date; 117 were contaminated fecal coliforms.
- **UTH Bacteriology Laboratory Report**
 - 781 cumulative samples have been processed by the laboratory since 4/10/17; **265** have

been culture positive for *Vibrio cholerae* 01 Ogawa; 8 for *Salmonella*; and 7 for *Shigella*. There were 23 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:

- **LCC response activities (31/01/18):**
 - i. 1,141T (163 loads) of waste were collected. Cumulatively, 79,785T (8,164 loads) of waste have been collected from all constituencies.
 - ii. 22 septic tanks were emptied. The total number of septic tanks emptied to date is 683.
 - iii. 675 pit latrines have been inspected to date. Of these, 194 have been emptied (130 in Kanyama and 64 in Garden)
 - iv. 24 additional shallow wells were buried in Kanyama (18) and George (6), bringing the total number of wells buried to 1,709. The initial assessment indicates there are ~3000 wells.
 - v. 39 additional public premises were inspected in Chawama, Mandevu, Matero, Kanyama and Lusaka Constituencies bringing the total number of public premises that have been inspected to 2,318; 25 have been closed while others were issued with warnings.
 - vi. Fifty-seven (57) markets have been inspected to date; re-inspections are being done regularly
 - vii. 70 council supervised burials have been conducted at Chingwere Cemetery to date.
- **LWSC preparedness and response activities (31/01/18):**
 - **Delivery of water by Bowser:** Three upgraded drawing points were introduced at Lumumba and two at Mass Media. This has reduced the turnaround time of bowsers. There were 37 bowsers in service. Deliveries increased to 2,643,000L, from 2,429,000L delivered the previous day.
 - i. **Chipata, Chaisa, Chunga, Chazanga, Garden, SOS, Matero market, Kalingalinga and Mtendere:** 12 bowsers were in service; 1,261,000L of safe water were supplied
 - ii. **Chawama, Kamwala:** 5 bowsers were in service; 128,000L of safe water were supplied
 - iii. **Kanyama (Garden House, John Laing, Chinika etc.):** 20 bowsers were in

service; 1,254,000L of safe water were supplied

- **China Civil Engineering Company and SINOMINE** have been contracted for emergency development of water supply networks
- **A dedicated call centre** has been set up to receive complaints regarding sewer blockages (0973271082; 0973254528; 0956343156)
- **Activities conducted by EHTs and volunteers (31/01/18):**
Case tracing is continuously taking places as cases are reported and chlorine distributed. Toilets are disinfected continuously; latrines dozed with bio-enzyme and limed. Health inspection continues and public facilities meeting the standards that were closed, reopened.

Table 4: Summary of field activities as at 31/01/18

Sn	Activity	Day's achieved	Cumulative
1	Cases traced	12	2997
2	Number of disinfected toilets	1029	131,353
3	Latrines dosed with bio-enzyme	-	1599
4	Latrines limed	-	2196
5	Water Samples Collected	38	11,491
6	Chlorine bottles distributed	1,848	515,242
7	Inspection of premises	23	9,581
8	Number of schools reached	8	1,140
9	Number of markets reached	1	567

4.5 Health Promotion and Communications

- Additional CBVs have been received from CHAZ, OXFAM and Red Cross
- UNICEF has facilitated the printing of 500 Oral Cholera Vaccine (OCV) campaign posters and trained 200 community volunteers in prevention and hygiene promotion prior to the commencement of second OCV dose in Kanyama and Chawama.
- 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 154 successful, 168 unsuccessful and 132 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.
- 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

4.6 Logistics and Transport

- Pharmanova delivered of 500 shippers of domestic chlorine to Chawama CTC. Additionally, 94 water purifiers from MSL were delivered to Kanyama CTC (50) and Chipata CTC (44), and 50 gum boots and 50 lab coats were delivered to Heroes CTC.
- The transport pool currently has 79 vehicles available.
 - Kanyama has 10 vehicles, 7 of which are assigned to field work
 - Chipata has 10 vehicles, 5 of which are assigned to field work
 - Matero has 6 vehicles, 5 of which are assigned to field work
 - Chelstone has 5 vehicles, 4 of which are assigned to field work
 - Chawama has 6 vehicles, 4 of which are assigned to field work
 - Chilenje has 4 vehicles
 - Additionally, logistics has been assigned 5 vehicles, the DHO has 6, ZNPHI has 5, Health Promotion has 4, the PHO has 11 and Heroes has 7

*Some vehicles have been withdrawn and 11 currently require maintenance and repairs.

5. Gaps and Challenges

- LWSC
 - There was a safety concern arising from a dropped ZESCO cable along the delivery route for one of the bowsers
 - Continued vandalism of tank installations, including previously repaired tanks
 - Attempted theft of installed tanks
 - Some unstable tanks require reinforcement
- LCC
 - Limited manpower for emptying of pit latrines
 - Indiscriminate filling of waste bins
 - Return of street vendors to undesigned trading places

6. Priority actions & Recommendations

- LWSC
 - ZNS has come on board to reinforce all unstable tanks
 - Reinforced security being provided by the community and police in some areas to curb vandalism

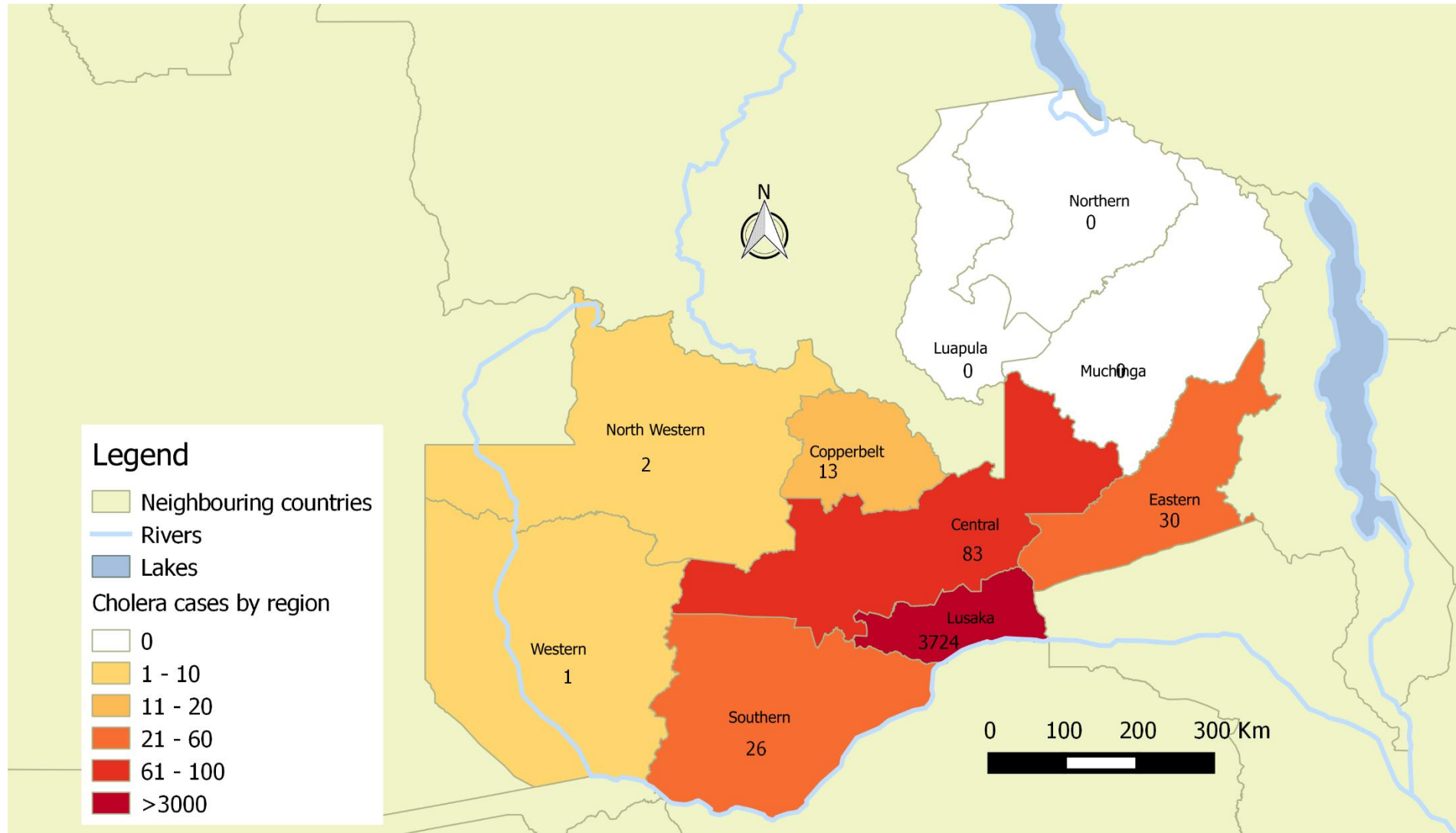


- Monitoring of hours of supply at established water points to be intensified.
- Maintenance of a residual chlorine level of 0.5mg/L in all supplied water
- LCC
 - Call lines have been provided to markets to inform the council of solid waste skips requiring emptying
 - A letter was written to shop owners requesting that all waste is emptied by close of business
 - Extension of waste collection hours to night time to reduce pressure on the available bins
- Case management:
 - Training and continuous mentorship of CTC staff
- Health Promotion and Communication:
 - Continued sensitization of communities on hygiene practice and prevention of cholera especially in George compound

7. Conclusion

Contact tracing, environmental investigations, and health promotion activities will continue to be implemented in all areas. Measures to increase the number of water access points and burying of shallow wells will also continue to be implemented and scaled up where necessary. The incidence of cholera continues to steadily decrease since the beginning of 2018.

Annex 1: Map of Zambia showing country wide picture of cases reported to date



Annex 2: Map of Lusaka district showing cholera cases recorded from 28-30th January 2018

