

Situational Report No. 115

Outbreak Name	Cholera	Investigation start date	4 th October, 2017
Date of report	3 rd February, 2018	Prepared by	MOH/ZNPFI/WHO

1. SITUATION UPDATE

- Lusaka District:** As of 06:00hours on 3rd February, 2018, there were **16 new cases (8 paediatrics and 8 adults)**. There were **one (1) cholera death** recorded in the last 24 hours, a BID from Kabanana in Chipata subdistrict.
 - There were 33 patients under treatment; 15 patients had been discharged
 - Cumulative cases for Lusaka district now stand at **3,647 with 74 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 **6/100,000population¹**, down from 7/100,000 the previous week.

Table 1: Summary of cases reported to CTCs in Lusaka District as of 3rd February 2018

CTC/CTU	New Cases	Deaths in 24hrs	Current Admissions	Cum. Cases	Cum. Deaths
Kanyama	4	0	0	1161	32
Chipata	1	1	0	1192	27
Matero	1	0	0	504	10
Chawama	5	0	9	422	2
Bauleni	0	0	0	64	0
Chelstone	0	0	0	78	2
Heroes	5*	0	24	226	1
Total	16	1	33**	3647	74

*Cases admitted to Heroes were from Matero subdistrict (1), Maloni (2) and Kanyama subdistrict (2)

**8 paediatrics and 25 adults

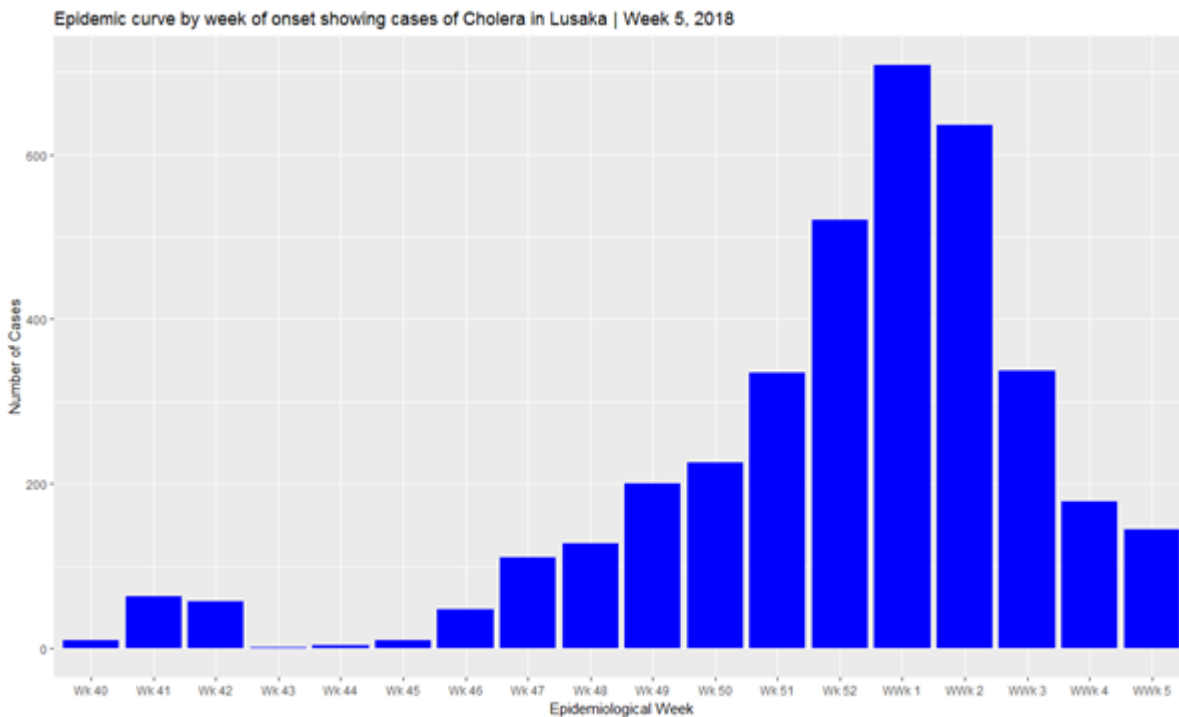
- Cholera cases reported from outside Lusaka District:**
 - There were **two (2) new cases** reported from other districts; 1 from Chongwe; and 1 from Serenje
 - There were no deaths reported in the last 24 hours
 - There were 8 patients under treatment; 2 patients had been discharged
 - The cumulative number of cases from other districts is 250. There have been 7 deaths recorded over the course of the outbreak.
- Country wide:** the cumulative number of cases recorded is **3,897 with 81 deaths**

¹ 140 new cases and 1 death reported from 28th January to 3rd February 2018, compared to 173 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	Kanyama (6)	John Laing (2), Garden House (1), Old Kanyama (2), Kanyama West (1)
2	Chawama (5)	Kuku (2), Kamwala (1), Jack (1), Old Chawama (1)
3	Matero (2)	George (2)
4	Chipata (1)	Kabanana (1)
5	Chilanga (2)	Maloni (2)

Figure 1: Epidemic curve showing cases of cholera in Lusaka district by week of onset (N=3647)



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 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 Ministry of Health continues to use a multisectoral and multi-disciplinary approach in responding to the cholera outbreak.
- The Honourable Minister of Health, Dr Chitalu Chilufya MP, hosts a bi-weekly 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 attended by 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.

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. There are 701,500 available vaccine doses in-country.
- The OCV 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
- 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:** Sporadic cases continue to be recorded in Kanyama, George, Matero, Chipata and Maloni area (Chilanga). Interventions continue to be 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 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. As of 1st February 2018, cumulatively, 424 patients have been seen. Medical, psychosocial, nutritional treatments and laboratory services have been offered successfully.

4.3 Laboratory:

- **FDCL Daily Report**
 - On 02/02/18; 66 swabs were analysed, of which 6 were positive for fecal coliforms.
 - Out of 1761 water samples analysed to date; 621 were positive for fecal coliforms.
 - Out of 101 food samples analysed to date, 28 were positive for fecal coliforms.
 - Out of 518 swabs analysed to date; 129 were positive for 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 preparedness and response activities:**
 - Daily activities by LCC include: emptying of septic tanks, disinfection of pit latrines, burial of shallow well, inspection of public premises, collection and disposal of garbage and disposal of bodies from cholera deaths.
- **Activities conducted by EHTs and volunteers (02/02/18):**

Table 5: Summary of field activities as at 02/02/18

Sn	Activity	Target	Day's achieved	Cumulative
1	Cases traced	3647	8	3017
2	Number of disinfected toilets	204,275	843	133,609
3	Latrines dosed with bio-enzyme	-	-	1599
4	Latrines limed	-	-	2196
5	Water Samples Collected	-	67	11,755
6	Chlorine bottles distributed	501,550	3,006	526,638
7	Inspection of premises	22,619	41	9,361
8	Number of schools reached	1,453	13	1,152
9	Number of markets reached	222	1	568

- **LWSC preparedness and response activities:**
 - **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.
 - **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)

4.5 Health Promotion and Communications

- Door to door and school sensitisation is ongoing.
- OCV campaign jingles have been produced
- The team has procured PA systems
- 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 155 successful, 117 unsuccessful and 147 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/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

- LWSC
 - Costly nature of water delivery by bowser
 - Termite damage to wooden tank stands; some unstable tanks require reinforcement
 - Continued vandalism of tank installations, including previously repaired tanks
 - Attempted theft of installed tanks
 - Kafue treatment plant technical challenges
- LCC
 - Limited manpower for emptying of pit latrines
 - Return of street vendors to undesigned trading places

6. Priority actions & Recommendations

- LWSC
 - Treatment/ replacement of all termite damaged tank stands. 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

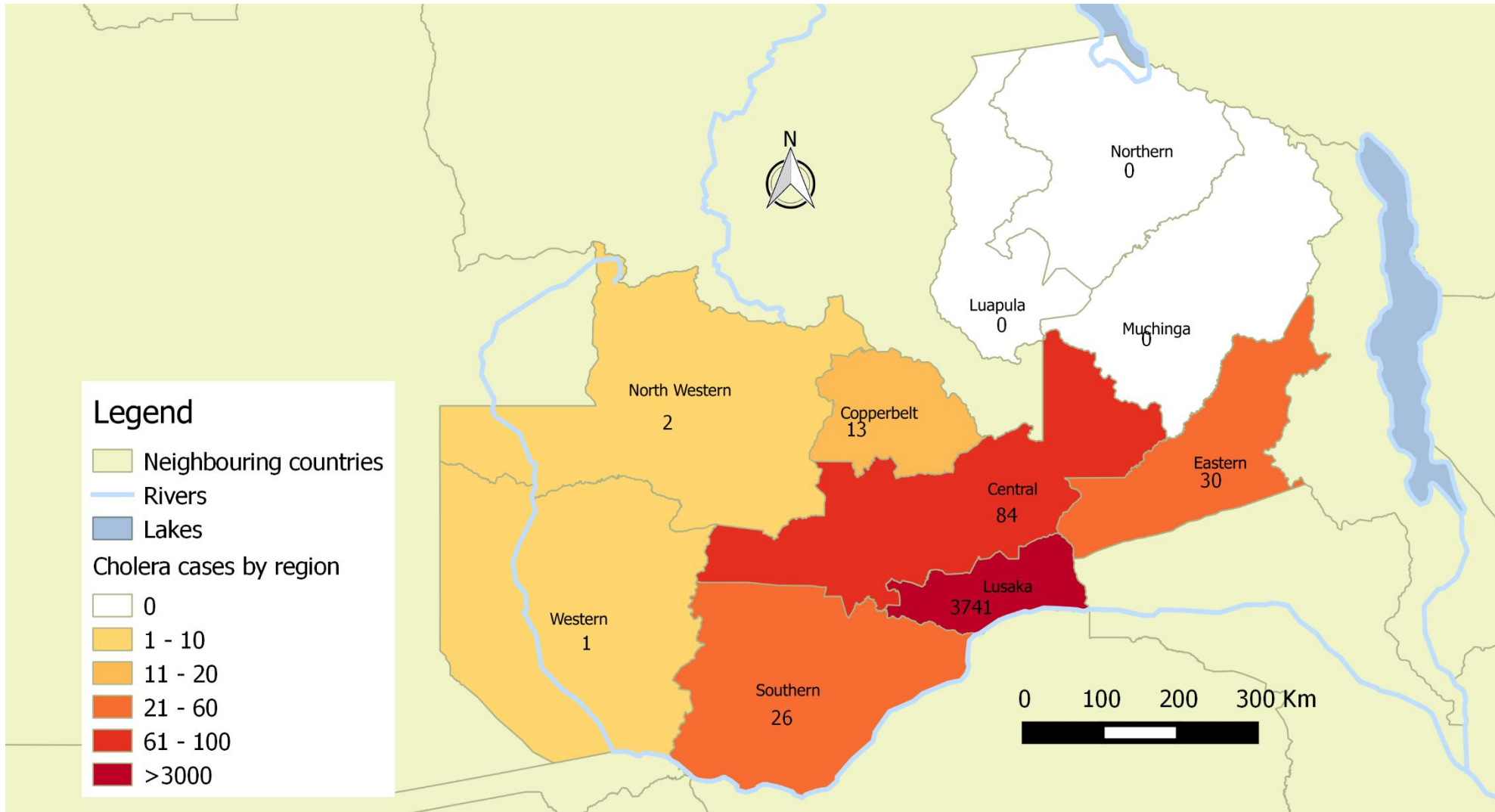
7. Conclusion

There was a slight reduction in the incidence rate in the past week. The incidence has plateaued in the last 3 days. 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 multisectoral approach has been instrumental in mitigating the cholera outbreak.

Province	District	New Cases	Deaths in 24hrs	Discharges in 24hrs	Current Admissions	Cumulative cases	Cumulative Deaths
Lusaka	Lusaka	16	1	15	33	3647	74
	Rufunsa	0	0	0	0	5	0
	Shibuyunji	0	0	0	0	16	0
	Chongwe	1	0	1	1	40	0
	Kafue	0	0	0	0	8	1
	Chirundu	0	0	0	0	1	0
	Luangwa	0	0	0	0	0	0
	Chilanga	0	0	0	3	24	0
Central	Kapiri-Mposhi	0	0	0	0	3	1
	Kabwe	0	0	0	0	22	1
	Chibombo	0	0	0	0	15	0
	Mkushi	0	0	0	0	4	0
	Chisamba	0	0	0	0	4	0
	Mumbwa	0	0	0	0	24	1
	Serenje	1	0	1	4	11	0
	Itezhi- Tezhi	0	0	0	0	1	0
Eastern	Lundazi	0	0	0	0	20	1
	Sinda	0	0	0	0	2	0
	Katete	0	0	0	0	3	0
	Petauke	0	0	0	0	4	1
	Chipata	0	0	0	0	1	0
Southern	Mazabuka	0	0	0	0	6	0
	Kalomo	0	0	0	0	3	0
	Livingstone	0	0	0	0	1	0
	Pemba	0	0	0	0	1	0
	Sinazongwe	0	0	0	0	2	0
	Chikankata	0	0	0	0	11	0
	Siavonga	0	0	0	0	2	0
Copperbelt	Ndola	0	0	0	0	7	1
	Kitwe	0	0	0	0	6	0
	Chingola	0	0	0	0	0	0
Western	Kaoma	0	0	0	0	1	0
	Senanga	0	0	0	0	0	0
N/western	Mwinilunga	0	0	0	0	1	0
	Solwezi	0	0	0	0	1	0
	Total	18	0	17	41	3897	81

Annex 1: Summary of cases reported country-wide as of 3rd February 2018

Annex 2: Map of Zambia showing country wide picture of cases reported to date



Annex 3: Map of Lusaka district showing cholera cases recorded from 28th January to 1st February 2018

