Ministry of Health

World Health Organization

Situational Report No. 154	
Outbreak Name: Cholera	**Investigation start date:** 4th October, 2017
Date of report: 14th March, 2018	**Prepared by:** MOH/ZNPHI/WHO

1. SITUATION UPDATE

- **Lusaka District:** As of 06:00hours today Wednesday 14th March, 2018, there were **32 new suspected cases (11 children and 21 adults); there was one cholera death** recorded in the last 24 hours, a BID from Chipata.
  - There were 66 patients under treatment; 52 patients had been discharged
  - Cumulative cases for Lusaka district now stand at **4,443 with 82[1] deaths**
  - Based on the most recent statistics, the case fatality rate of the current outbreak is **1.85% (facility CFR=0.68%)** with a weekly incidence rate of **7/100,000population**[2] **at the close of week 10** (up from 4/100,000 the previous week).

Table 1: Summary of cases reported to CTCs in Lusaka District as of 06hours on 14th March 2018

CTC/CTU	New Admissions	Deaths in 24hrs	Current Admissions	Cum. Cases	Cum. Deaths
Kanyama	2	0	1	1300	32
Chipata	4	1	0	1303	29
Matero	1	0	0	535	12
Chawama	3	0	19	602	4
Bauleni	0	0	0	68	0
Chelstone	0	0	0	88	4
Heroes	22	0	46	547	1
TOTAL	**32**	**1**	**66***	**4443**	**82**

*19 children and 47 adults

- **Cholera cases reported from outside Lusaka District**:
  - In the last 24 hours, there were **five (5) new cases** reported: 1 from Kafue, 1 from Chikankata, and 3 from Chongwe**. No cholera deaths were recorded.**
  - There were 9 patients under treatment; one (1) patient had been discharged
  - The cumulative number of cases from other districts now stands at 390. There have been 14 deaths recorded over the course of the outbreak.
- **Country wide:** the cumulative number of cases recorded is **4,833 with 96 deaths**

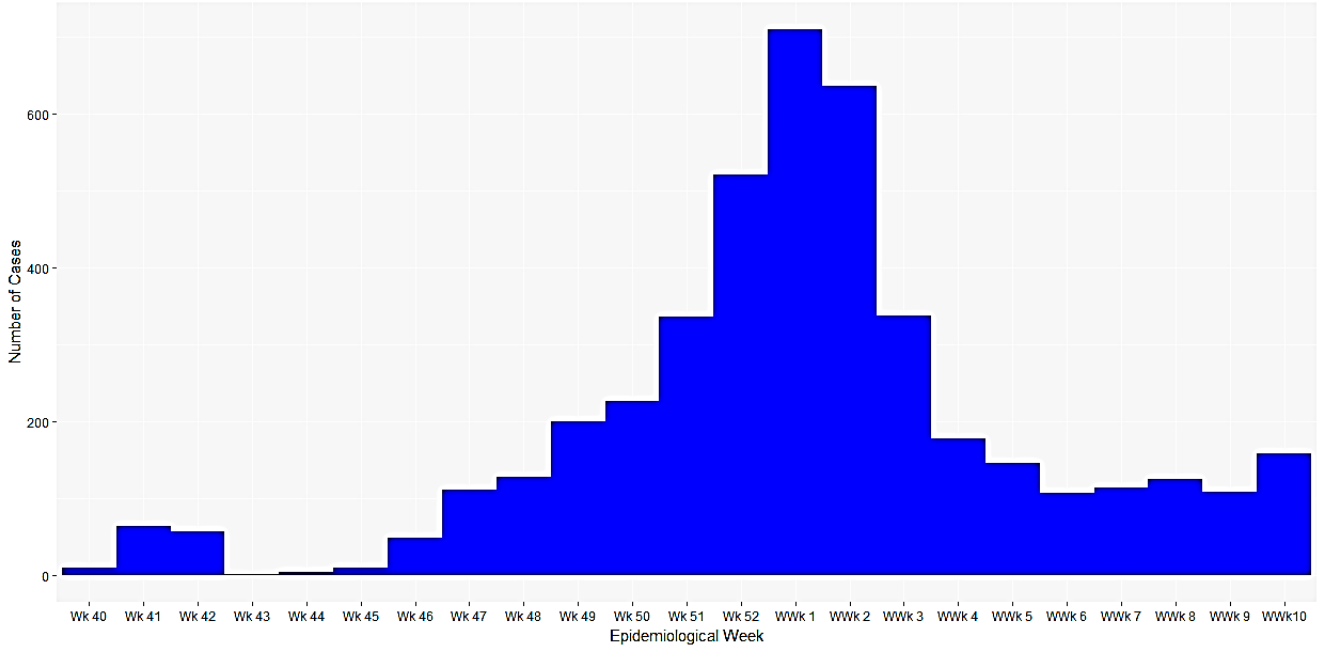
[1] Change in cumulative figures due to ongoing reclassification of cases

[2] 175 new cases and 1 death reported from 4th-10th March 2018, compared to 109 new cases and 0 deaths the previous week

	Sub-district (total new cases)	Cases by Area of Residence (# of cases)
1	**Chipata (6)**	Chaisa (1), Garden (1), Ngombe (1), Chipata (2), Mazyopa (1)
2	**Matero (6)**	George (5), Zingalume (1)
3	**Kanyama (4)**	Garden House (1), Old Kanyama (1), John Laing (1), Makeni (1)
4	**Chawama (2)**	Kuku (1), Misisi (1)
5	**Chelstone (14)**	Mtendere (10), Kalikiliki (2), Avondale (1), Chainda (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 10 2018



2. BACKROUND

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 bought of diarrhoea. The rapid diagnostic test (RDT) was positive from a rectal swab specimen.

3. RESPONSE CO-ORDIANTION

3.1 Political Will and Leadership

- The Honourable Minister of Health, Dr Chitalu Chilufya MP, hosts a bi-weekly 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**. With the reduced incidence, the index of suspicious and sensitivity in investigating diarrhoeal cases has been increased. The use of SD Bioline 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
- **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. As of 10th March 2018, cumulatively, 635 patients had been seen. Medical, psychosocial, nutritional treatments and laboratory services have been offered successfully.

4.3 Laboratory:

- **UTH Bacteriology Laboratory Report (06/03/18):**
  - 1,177 cumulative samples have been processed by the laboratory since 4/10/17; **411** have been culture positive for *Vibrio cholerae 01 Ogawa;* 8 for *Salmonella;* and 7 for *Shigella.*
  - Antibiotic susceptibility testing is ongoing to monitor sensitivity patterns against 5 antibiotics; 243 of the 411 isolates (59.1%) have shown sensitivity.
  - Laboratory microscopy results: 36 of 250 (14%) screened stool samples were found to have parasites, the most common being *Blastocystis hominis* (25%), *Entamoeba coli* (19.4%) and *Giardia lambia* cysts (11.1%)
- **FDCL Daily Report (05/03/18):**
  - Of the 56 water samples analysed, 7 were positive for fecal coliforms; none were positive for *Vibrio cholerae*

4.4 Environment and WASH:

- **Emerging hot spot in Mtendere:**
  - Although the area has an available water network, supply is erratic.
  - Majority of the pit latrines in the area are full or in an unsanitary state; less than 20% of households have standard toilets
  - Street vending is rampant, more so at night
  - The area also has a number of bars with poor sanitation and no water
  - Other factors include low residual chlorine levels, poor waste management, poor drainage and flooding

Figure 2: Household water containers / contaminated water results at household level (Hydrogen Sulfide test)

- **LWSC preparedness and response activities (12th March deliveries):**
  - **Delivery of water by Bowser:** There were 34 bowsers in service. Deliveries decreased to **2,987,000L** (from 3,386,000L the previous day)
    - i. **Chipata, Chaisa, Chunga, Ngombe, Garden, Bauleni, Kalingalinga and Mtendere:** 13 bowsers were in service; 1,721,000L of safe water were supplied
    - ii. **Chawama:** 2 bowsers were in service; 128,000L of safe water were supplied
    - iii. **Kanyama:** 19 bowsers were in service; 1,138,000L of safe water were supplied
  - **International School/Lukasu Road Sewer Overflow:** The line was commissioned on 10th March 2018; the overflow was stopped. The new line functioned well; performance is being observed.

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 130 successful, 56 unsuccessful and 89 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

- General:
  - Flooding in most areas is limiting access and hampering interventions

  - High diarrhoea burden during the rainy season may be driving up the numbers as not all cases are cholera.
- Environment and WASH
  - LCC:
    i. Community resistance against burying of shallow wells; process further slowed by logistical constraints
    ii. Continued street vending despite the ban


- LWSC:
  i. Electricity outages affecting water supply
  ii. Heavy rainfall has resulted in flooding and overflow of septic tanks and pit latrines, posing further risk of spread of the outbreak
  iii. Costly nature of water delivery by bowser
  iv. Some tanks are inaccessible due to deteriorating condition of roads following the rains

6. Priority actions & Recommendations

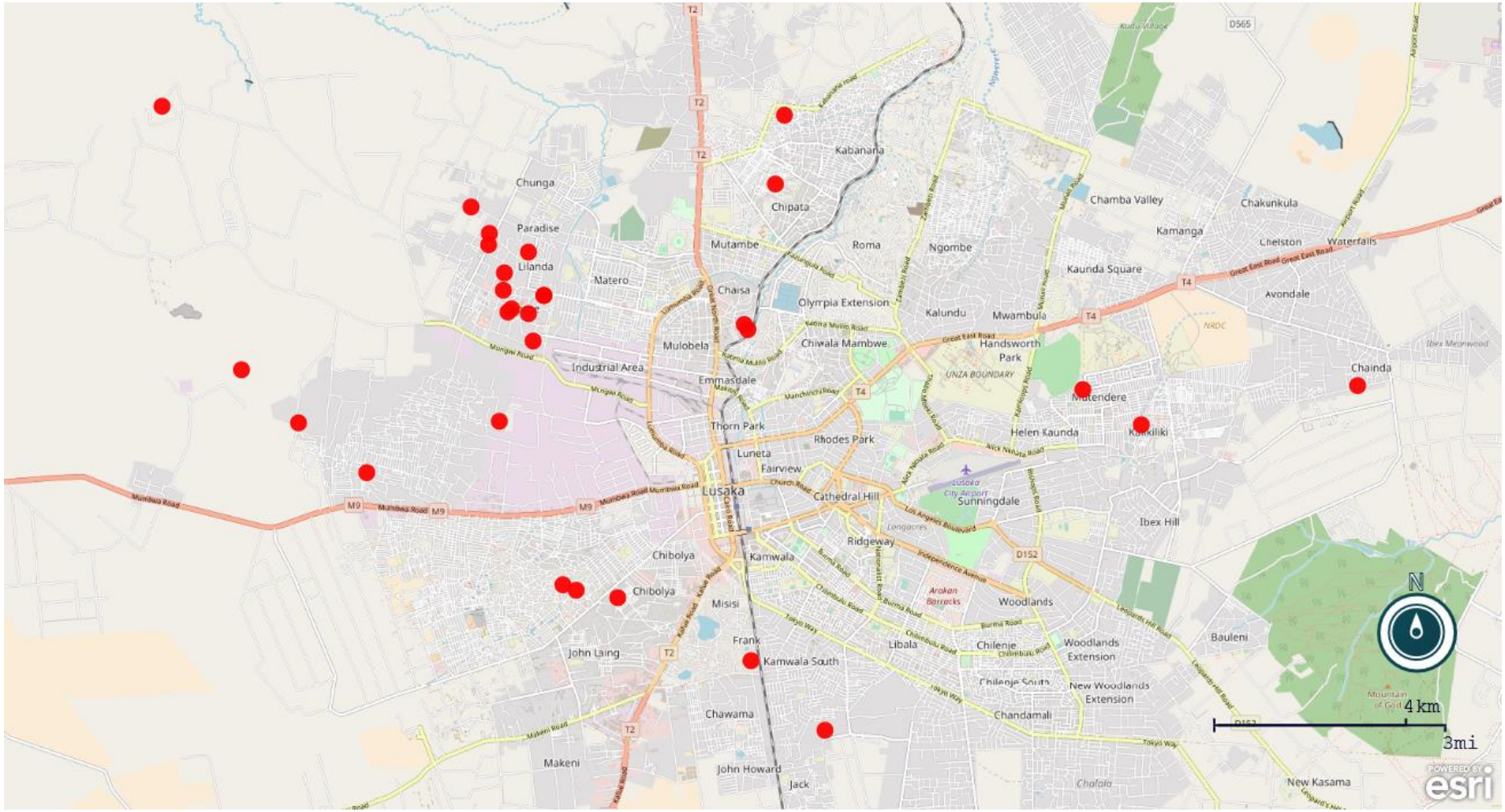
- Case management:
  - Training and continuous mentorship of CTC staff
  - Strengthening lab confirmation and epi-linkage of all cases
  - Co-ordinated GPS tracing of cases
- LWSC
  - Maintenance of residual chlorine level of 0.5mg/L in all supplied water
- Health Promotion and Communication:
  - Continued engagement and sensitization of communities on hygiene practice and prevention of cholera

7. Conclusion

The hot spots of the outbreak remain Kanyama, and George, followed by an emerging situation of increased incidence in Mtendere and sporadic cases being recorded in Kalingalinga justifies the need for continued implementation of interventions. The heavy downpours and resulting floods have exacerbated the situation leading to increasing incidence.

Current interventions including water supply, burial of shallow wells, waste management and enforcement of the ban on street vending must be sustained along with intensification of health promotion and behavioural change communication.

Annex 1: Map of culture positive cholera cases recorded in Lusaka district from 15th February to 5th March 2018



Annex 2: Incidence rate of cholera cases recorded in Lusaka district as of Week 9, 2018