

Situational Report No. 128

Outbreak Name: Cholera	Investigation start date: 4 th October, 2017
Date of report: 16 th February, 2018	Prepared by: MOH/ZNPHI/WHO

1. SITUATION UPDATE

- **Lusaka District:** As of 06:00hours today Friday 16th February, 2018, there were **17 new cases (8 paediatrics and 9 adults); there were no cholera deaths** recorded in the last 24 hours.
 - There were 25 patients under treatment; 12 patients had been discharged
 - Cumulative cases for Lusaka district now stand at **3,860 with 75 deaths**
 - Based on the most recent statistics, the case fatality rate of the current outbreak is **1.94% (facility CFR=0.76%)** with a weekly incidence rate of **5/100,000population¹**, down from 6/100,000 the previous week.

Table 1: Summary of cases reported to CTCs in Lusaka District as of 16th February 2018

CTC/CTU	New Cases	Deaths in 24hrs	Current Admissions	Cum. Cases	Cum. Deaths
Kanyama	1	0	0	1190	32
Chipata	5	0	0	1216	27
Matero	2	0	0	515	10
Chawama	3	0	7	483	3
Bauleni	0	0	0	68	0
Chelstone	0	0	0	84	2
Heroes	6	0	18	304	1
Total	17	0	25*	3860	75

*10 paediatrics and 15adults

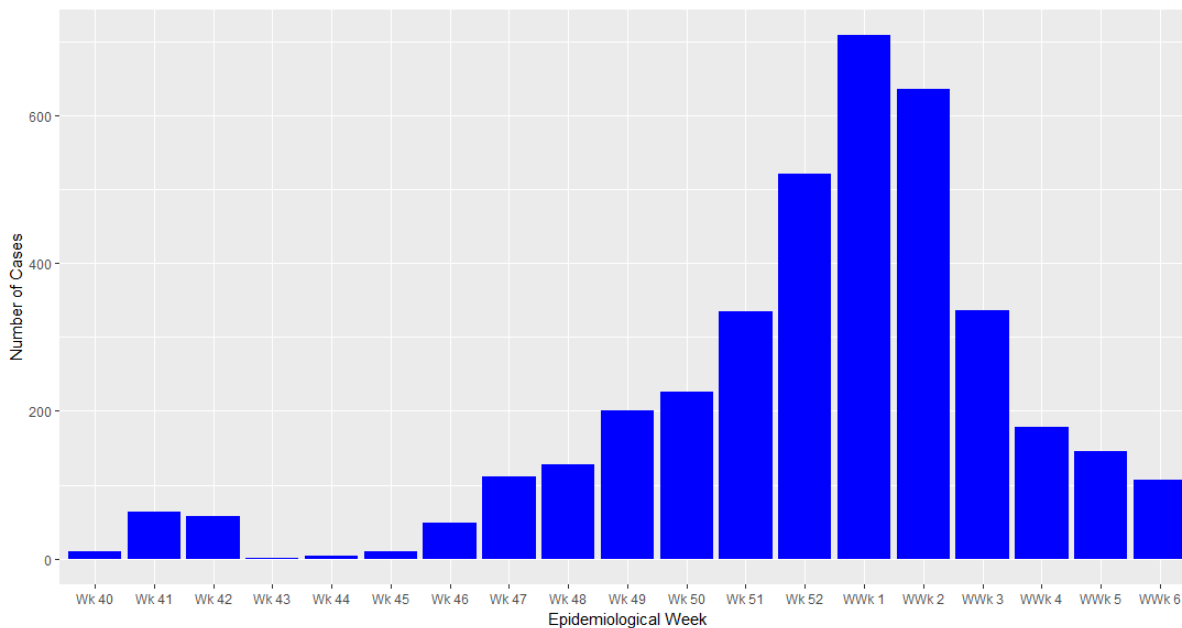
- **Cholera cases reported from outside Lusaka District:**
 - There were **five (5) new cases** reported; 2 from Kafue district, 2 from Shibuyunji and 1 from Kabwe
 - There was **one cholera death** reported in the last 24 hours, a community death from Kafue.
 - There were 6 patients under treatment (3 in Shibuyunji, 2 in Kafue and 1 in Kabwe); no patients had been discharged
 - The cumulative number of cases from other districts is 283. There have been 10 deaths recorded over the course of the outbreak.
- **Country wide:** the cumulative number of cases recorded is **4,143 with 85 deaths**

¹ 110 new cases and 1 death reported from 4th - 10th 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	Chipata (5)	Garden(2), Chaisa(1), Chazanga(1), Six miles (1)
2	Matero (6)	George (4), Ten miles (1), Zingalume (1)
3	Kanyama (1)	Makeni villa (1)
4	Chawama (3)	Misisi (2), John Howard (1)
5	Chelstone (1)	Chainda (1)
6	Chilanga (1)	Maloni (1)

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



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 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 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. 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.

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 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, launched on 10th January 2018, recorded 109% coverage with 1,317,925 people vaccinated. The coverage included 1,407 vaccinated inmates at Lusaka Central Prison.
- The second round of the vaccination campaign commenced on **Monday 5 February 2018**, in Chawama and Kanyama and closed on 14th February 2018.
 - 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: Summary of Round 2 immunisation coverage at close of Day 10 (14/02/18)

Sub-district	Target Population*	Daily achieved	Total vaccinated	Coverage
Chawama	238,807	19,040	301,928	126.4%
Kanyama	242,302	44,365	409,776	169.1%
Total	481,109	63,405	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 are still being recorded from Kanyama, Chawama, Matero, Chipata, Chelstone and Maloni. Interventions including contact tracing, chlorine distribution and water sampling continue to be mounted in all areas.
 - **Shibuyunji district** has recorded 11 cases and 1 death. Surveillance reports from activities conducted from 9-10 February 2018 indicated the cases 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 (**3000 people to date**), chlorine distribution, improved case

management through clinical orientation, inspection of public premises, and strengthening of laboratory capacity

Figure 2: Chiyasa Fishing camp in Shibuyunji



- **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 13th February 2018, cumulatively, 481 patients had been seen. Medical, psychosocial, nutritional treatments and laboratory services have been offered successfully.

4.3 Laboratory:

- **FDCL Daily Report**
 - 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**
 - 983 cumulative samples have been processed by the laboratory since 4/10/17; **328 (33.4%)** have been culture positive for *Vibrio cholerae 01 Ogawa*; 8 for *Salmonella*; and 7 for *Shigella*. There were 24 pending results.
 - Antibiotic susceptibility; 95 isolates tested indicated susceptibility to Co-trimoxazole, Chloramphenicol and Tetracycline. Only one resistant isolate has so far been recorded.

4.4 Environment and WASH interventions:

- **LCC**
 - Burying of shallow wells, and solid waste management including garbage collection and disposal is ongoing with the support of the Defense forces.
- **Teacher training:**
 - As part of an initiative of the EH commander for Chipata sub-district, supported by Water Aid and in collaboration with the Lusaka DEBS, 140 teachers were oriented in WASH in January 2018.
- **LWSC preparedness and response activities:**
 - **Delivery of water by Bowser** to Chipata, Chaisa, Chunga, N'gombe, Garden, Bauleni, Kalingalinga and Mtendere: 38 bowsers were in service and cumulatively water deliveries for the day increased from 2,362,000 liters on the 15th of February 2018 to 3,045,000 liters on the 16th of February 2018
 - **Repair of damaged roads to improve access by bowser:** ZNS doing the road maintenance with the help of resources under the cholera response. They have availed

three tipper trucks and a grader.

- **WaSH activities:**

- 570/847 of schools compliant on inspection. 140 teachers oriented in WaSH with support from water AID
- Distribution of household chlorine continues in all epi-centers. Online chlorinators placed in tanks lacking.

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. A total of 82 successful, 41 unsuccessful and 55 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

- LWSC
 - 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
- LCC
 - Garbage accumulating fast in some areas

6. Priority actions & Recommendations

- Case management:
 - Training and continuous mentorship of CTC staff
- LWSC
 - 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. Provision of safe water, contact tracing, environmental investigations, and health promotion activities, personal hygiene need to be continuously implemented in all areas, and scaled up where necessary. Meanwhile infrastructure development for water and sanitation need urgent attention; a robust water systems to supply adequate clean and safe water, an effective waste management system and a sustainable methods of keeping the environment clean.

Annex 1: Summary of cases reported country-wide as of 16th February 2018



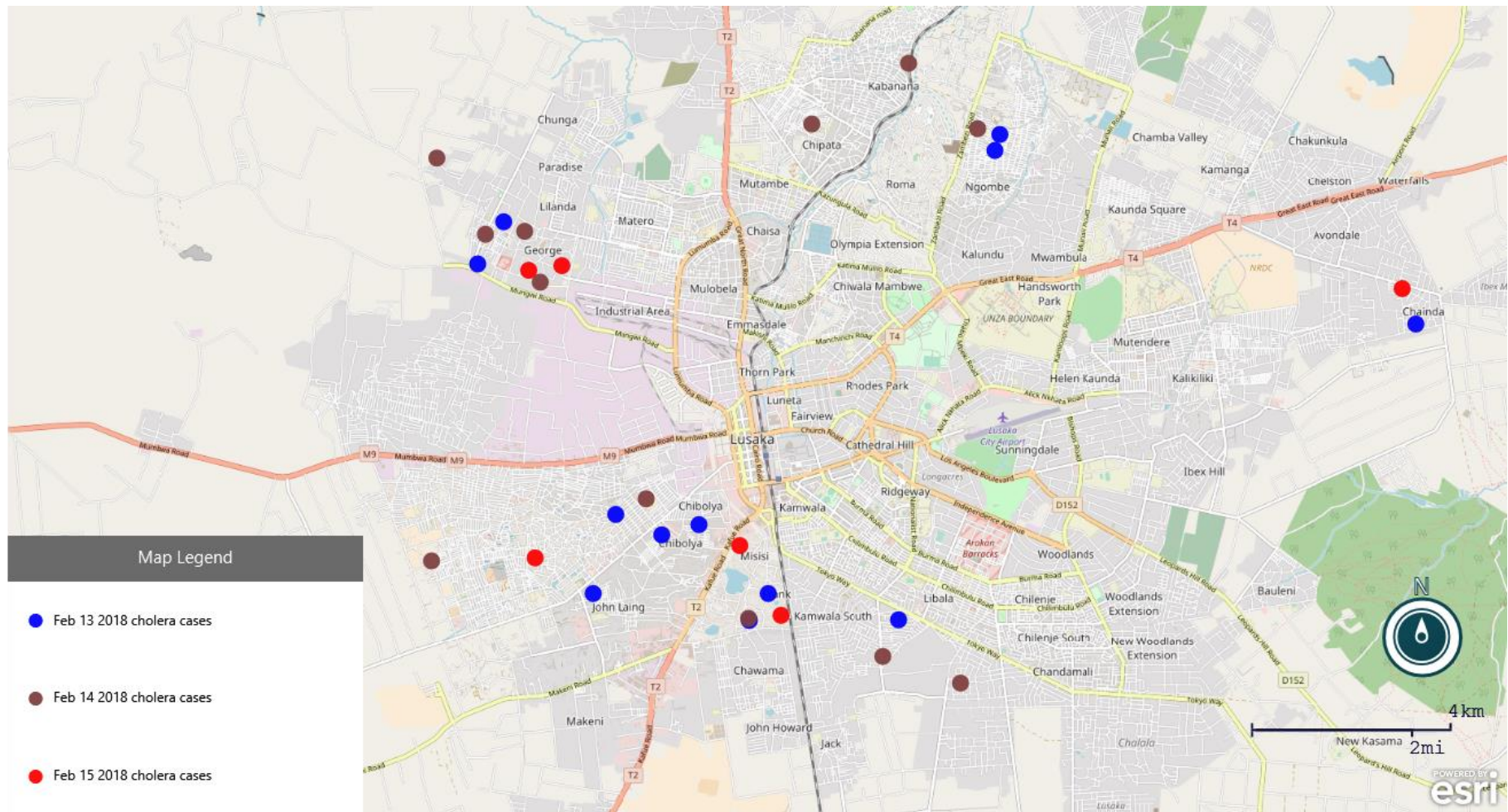
Province	District	New Cases	Deaths in 24hrs	Discharges in 24hrs	Current Admissions	Cumulative cases	Cumulative Deaths
Lusaka	Lusaka	17	0	12	25	3860	75
	Rufunsa	0	0	0	0	5	0
	Shibuyunji	2	0	0	3	30	1
	Chongwe	0	0	0	0	46	1
	Kafue	2	1	0	2	12	2
	Chirundu	0	0	0	0	1	0
	Luangwa	0	0	0	0	0	0
	Chilanga	0	0	0	0	26	0
Central	Kapiri-Mposhi	0	0	0	0	3	1
	Kabwe	1	0	0	1	24	1
	Chibombo	0	0	0	0	16	0
	Mkushi	0	0	0	0	4	0
	Chisamba	0	0	0	0	4	0
	Mumbwa	0	0	0	0	24	1
	Serenje	0	0	0	0	15	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	22	1	12	31	4143	85



Ministry of Health



Annex 2: Map of Cholera cases recorded in Lusaka district from 13-15 February 2018

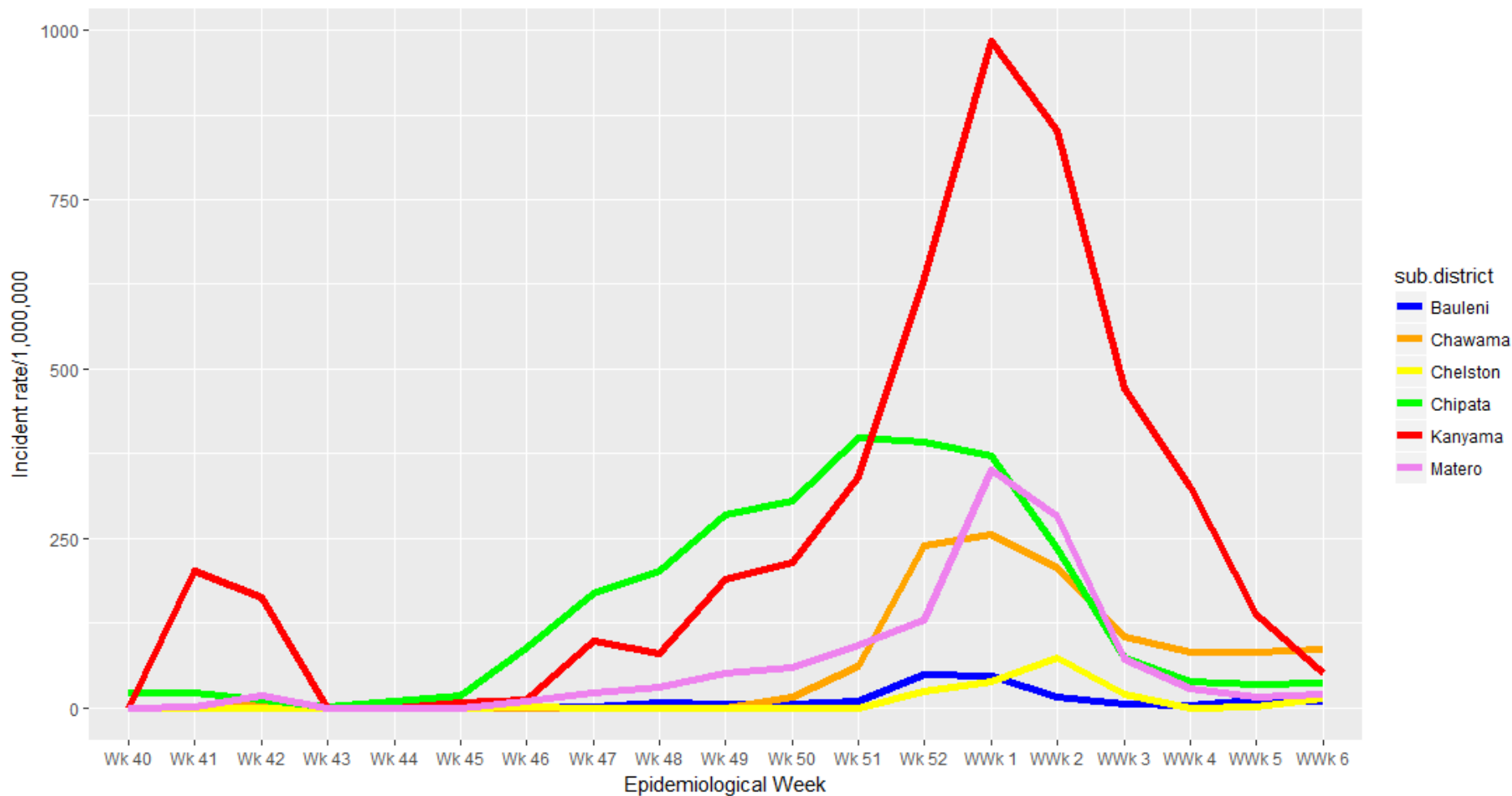


Annex 3: Update on school sanitary inspections conducted in Lusaka district to date

SubDistrict	No. inspected	No. in compliance	No. issued with Improvement Notices	Comments
Chelstone	144	120	24	Working with Ministry of Education officials during inspections using criteria: - WASHE facilities - Solid waste management - Infrastructure - Vector control - General cleanliness
Chawama	150	78	72	
Bauleni	171	88	43	
Kanyama	92	61	31	
Matero	109	83	26	
Chipata	181	140	41	
TOTAL	847	570	237	



Annex 4: Incidence rate of Cholera cases in Lusaka district up to week 6, 2018





Ministry of Health



World Health
Organization