



Ministry of Health

Situational Report No.12			
Outbreak Name	Cholera	Prepared by	MOH/ZNPFI/PHO/ DHO/WHO
Date of report	22 May 2019	Investigation start date	3 rd April 2019

SITUATION UPDATE / HIGHLIGHTS

- **On 22 May, 2019**

- 1. Kapembwa Catchment area**

- 0 new case in the last 24 hours
- 0 cases currently under admission at Kapembwa CTU
- Cumulative total 30 cases of which 28 are suspected and 2 laboratory confirmed *Vibrio Cholerae O1 Ogawa*
- 2 community deaths (12/05/2019 and 18/05/2019)

- 2. Mpulungu HC catchment**

- 5 new cases in the last 24 hours
- 11 cases discharged today
- 12 cases currently under admission
- Cumulative total 176 cases of which 136 are suspected and 40 laboratory confirmed *Vibrio Cholerae O1 Ogawa*
- 1 facility death (18/05/2019)

- 3. Kabyolwe HP catchment**

- 0 new cases in the last 24 hours
- 0 reporting for last 9 days
- 0 cases currently under admission
- Cumulative total 19 cases of which 16 are suspected and 3 laboratory confirmed *Vibrio cholerae O1 Ogawa*
- 1 facility death (4th May 2019)

- 4. Isoko RHC catchment**

- 0 new case in last 24 hours
- 1 case discharged today
- 1 case currently under admission
- Cumulative total 28 of which 24 are suspected and 4 laboratory confirmed *Vibrio cholera O1 Ogawa*
- 2 deaths (1 community –7/05/2019 and 1 facility—6/05/2019)

Table 1: Cholera cases and Deaths by Area, Mpulungu District (as of 22/05/19)

District Affected	Area affected	Date of Onset of index case.	Population (2019 CSO).	New case reported on 22/05/19	Cumulative number of cases	Cumulative suspected cases	Cumulative confirmed cases	Attack rate(per 100,000)	Cumulative deaths	CFR (%)
Mpulungu	Kapembwa	3/04/19	2,900	0	30	28	02	1034.5	2	4.0
Mpulungu	Mpulungu HC	6/04/19	38,136	5	176	136	40	435.3	1	1.0
Mpulungu	Kabyolwe	2/05/19	2,600	0	19	16	03	730.8	1	5.3
Mpulungu	Isoko	6/05/19	12,059	0	28	24	4	232.2	2	7.1
Mpulungu	Total		55,695	5	253	204	49	454.3	6	2.4

BACKGROUND

On 3rd April 2019, a 3 year 6 months old girl was brought to Kapembwa Health Post, presenting with acute watery diarrhea and vomiting with some dehydration. The condition of the patient gradually deteriorated due to continued diarrhea and vomiting. Upon realizing this, the health staff (Community Health Assistant) referred the patient to Mpulungu Health center where the Clinical Officer on duty suspected it to be a case of cholera. He admitted the patient to the isolation ward and then alerted the District Health Office. She tested positive using the Rapid Diagnostic Test (RDT) for *Vibrio cholerae*. Additionally, stool sample submitted for culture to Kasama General Hospital laboratory tested positive to *Vibrio cholerae*O1 Ogawa.

Kapembwa Health post is located along the shores of Lake Tanganyika approximately 90km away from the District Hospital. It is a newly constructed facility that can only be accessed by marine transport and serves a population of about 2,900 (CSO, 2019). It is a fishing camp though some people have decided to settle there.

Three days later, on 6th April 2019, a 12 year old male, from a different area within the township of Mpulungu, presented to Mpulungu Health center with acute watery diarrhea and vomiting. He also tested positive with the RDT for *Vibrio cholerae*. A stool sample was submitted to Mbala General Hospital laboratory for culture but tested negative to *Vibrio cholerae*. Thereafter, the district started receiving a lot of cases from both Kapembwa and several areas within the Mpulungu Township. However, all the stool samples from Mpulungu Township that were submitted to Mbala General Hospital for culture tested negative to *Vibrio cholerae*. Despite this, the district continued to record increased cases of acute watery diarrhea and vomiting from different areas and thus decided to continue reporting as a possible cholera outbreak.

Between 2nd and 5th May 2019, Kabyolwe Health Post, another facility located about 120km on the shores of Lake Tanganyika, reported 10 cases of acute watery diarrhea and vomiting. One of the

cases had history of travel to Nsumbu in Nsama district with his parents. He developed the symptoms a day after returning from Nsumbu. Kabyolwe is another fishing camp and has a population of about 2,600(CSO, 2019).

On 6th May 2019, another facility, Isoko RHC, located 29km from the District Hospital reported two cases of acute watery diarrhea and vomiting. One of the cases, a 47 year old female died at the facility while the health staff were trying to resuscitate her. The following day, the facility staff received a report of a 78 year old male who died in the community from acute watery diarrhea and vomiting. Isoko RHC has a catchment population of 12,059 (CSO, 2019). This area has got only one borehole and thus the majority of the people draw water for domestic use from a stream that runs along the length of the catchment area. This is the same stream where agricultural economic activities on a small scale are done especially sugar cane.

The continued increase in the number of diarrheal cases and deaths, despite negative laboratory results, prompted the District Health Office to request for epidemiological and laboratory support from the Ministry of Health (MOH) and the Zambia National Public Health Institute (ZNPHI) through the Provincial Health Office (PHO).

EPIDEMIOLOGY & SURVEILLANCE

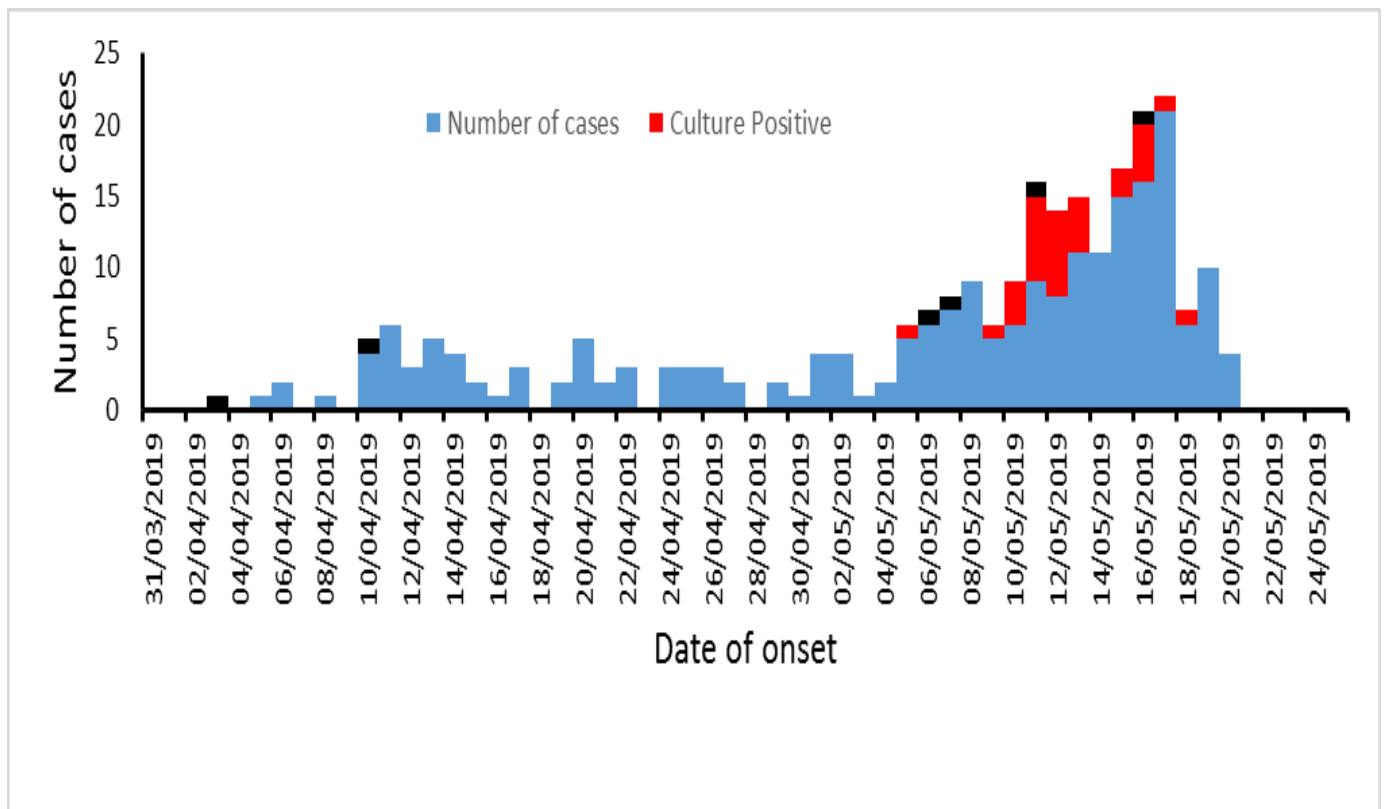


Figure 1: Distribution of cases by date of onset for Mpulungu District, Zambia, 22 May 2019. (N= 244)

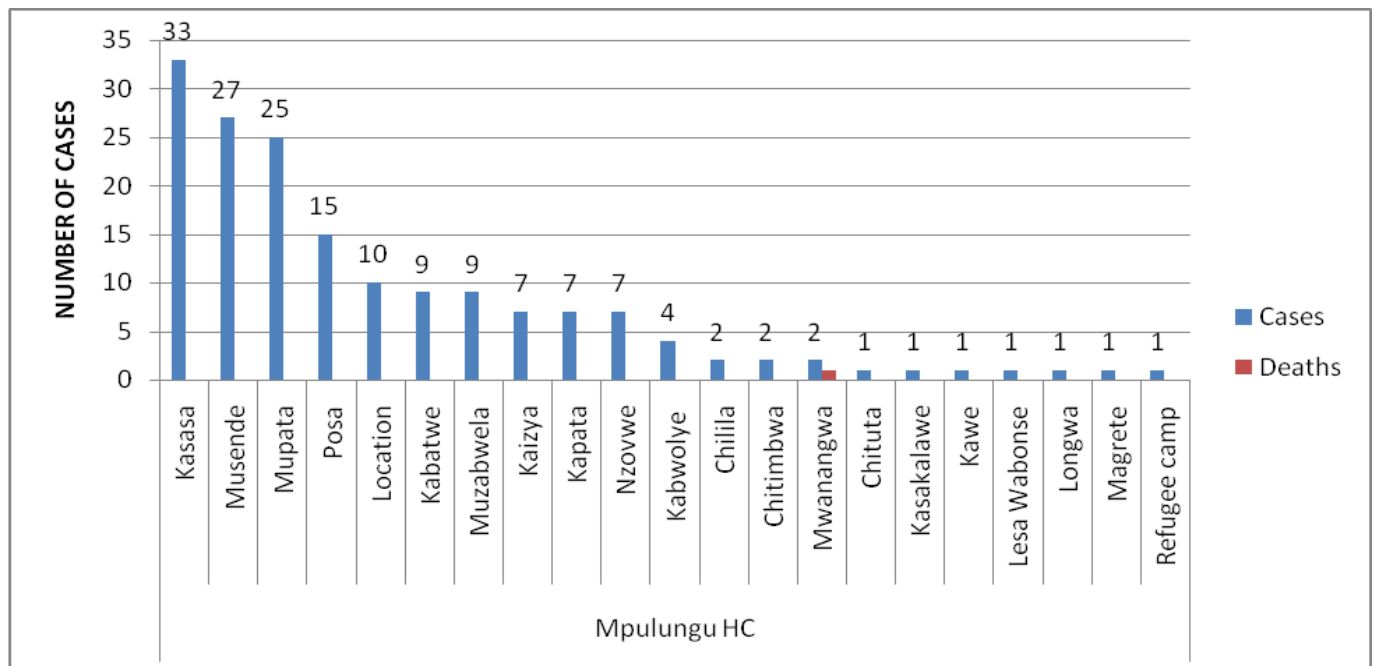


Figure 2: Distribution of cases by location, Mpulungu HC, Mpulungu, 22 May 2019

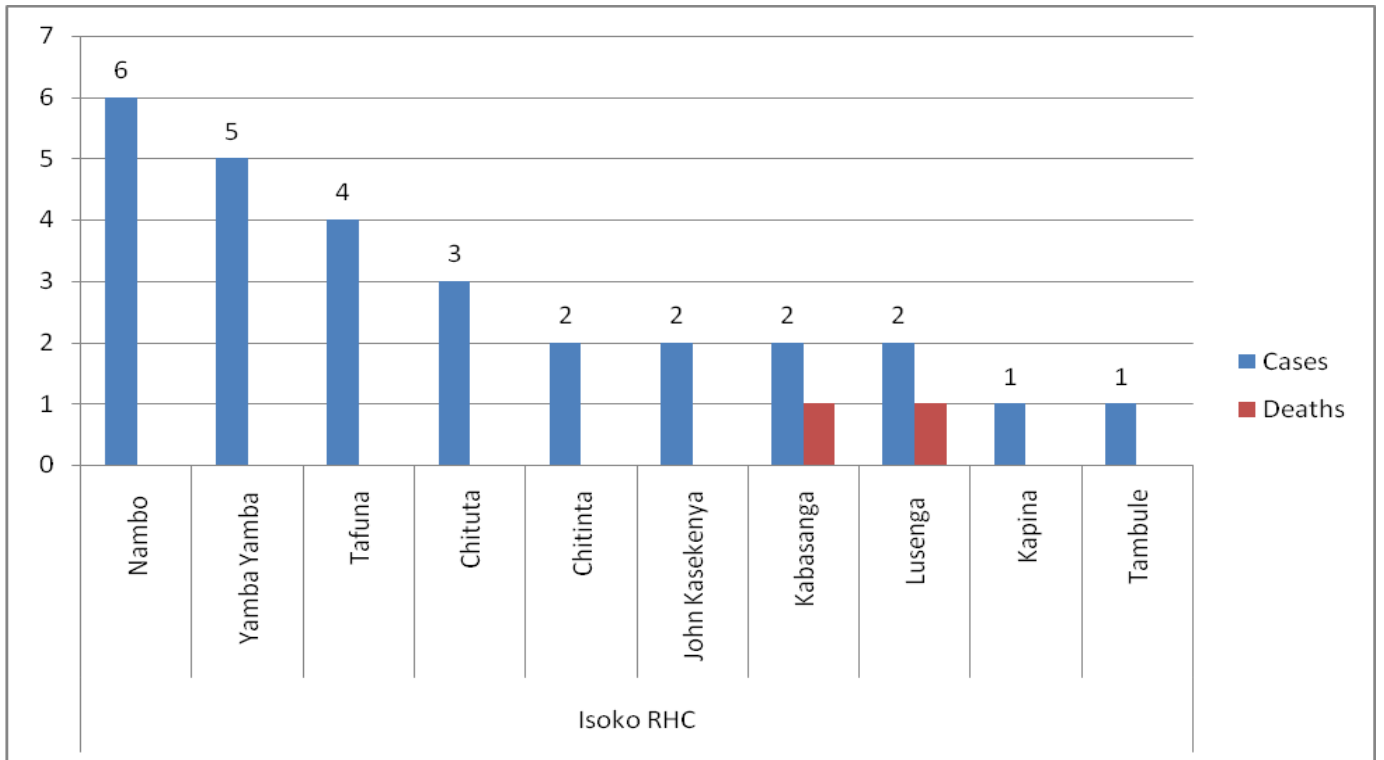


Figure 3: Distribution of cases by location, Isoko HC, Mpulungu, 22nd May 2019

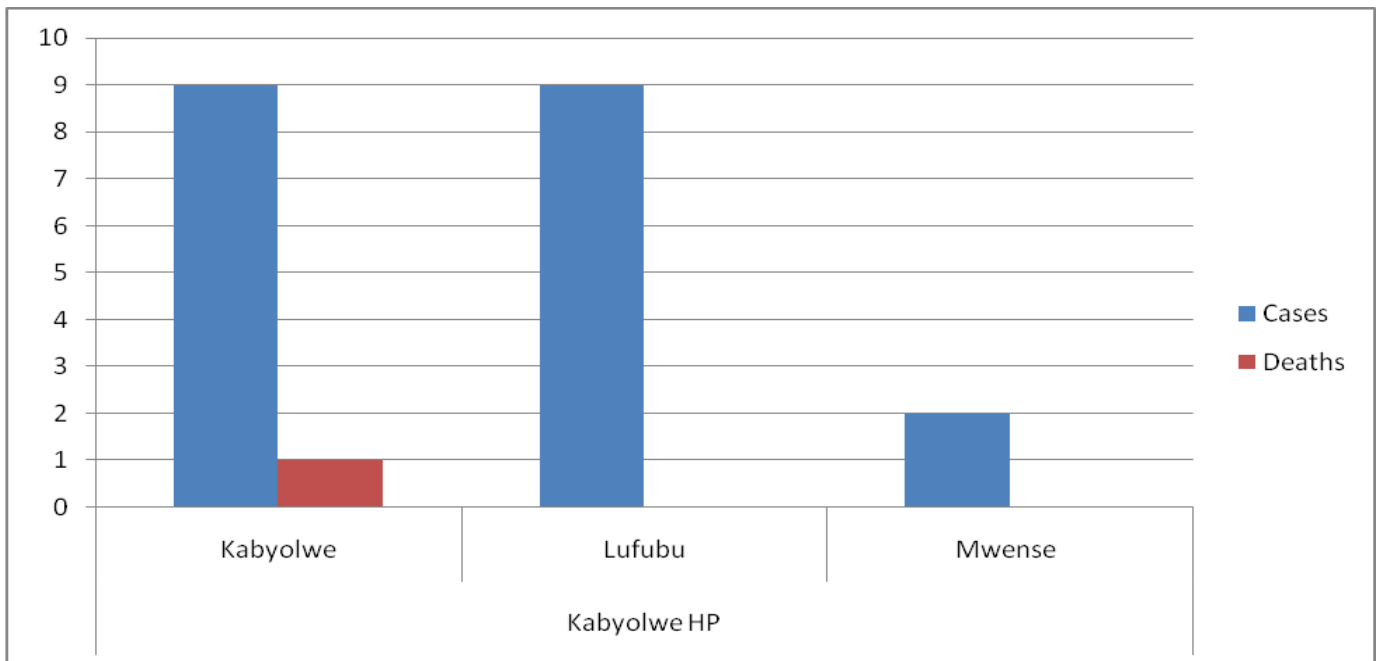


Figure 4: Distribution of cases by location, Kabyolwe HP, Mpulungu, 19th May 2019

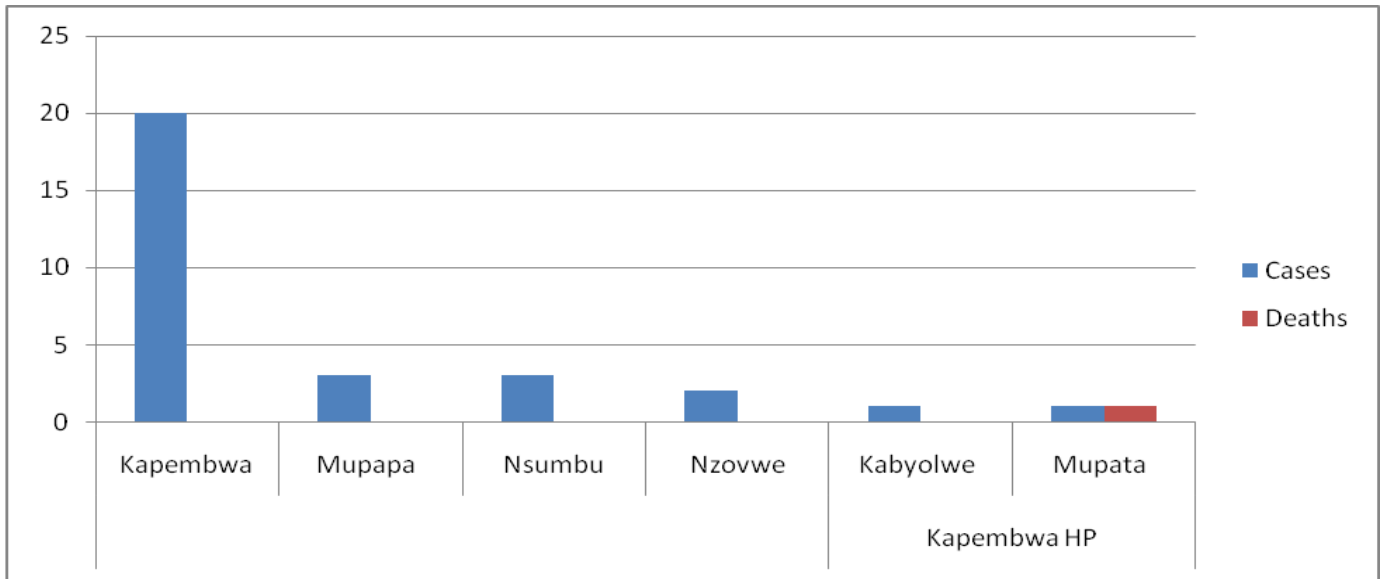


Figure 5: Distribution of cases by location, Kapembwa HP, Mpulungu, 19th May 2019

Key Priority Actions

4.1 COORDINATION

- Received supplies for Oral cholera vaccination exercise
- Held an IMS briefing at 07:30 hrs and 17:00 hrs to review progress and strategize for next day

4.2 SURVEILLANCE

- Intensified community disease surveillance
- Heightened active surveillance in the whole district. All facilities reporting cases of diarrhea at 07:00hrs and 17:00hrs every day
- Continued with Active Case finding in Mpulungu district
- Passenger screening and intensified port health services continues

4.3 LABORATORY

- Team of experts analyzing samples from all the CTUs
- As at 18:00 hrs on 22nd May 2019, the following have been done:
 - 2 additional samples were culture positive for *Vibrio cholerae* O1 Ogawa
 - 12 samples are pending results
- A cumulative total of 192 water samples collected to date for bacteriological analysis out of which 155 have been completely analyzed and 95 show fecal contamination (61.3%).
- 37 water samples undergoing analysis
- *Pseudomonas aeruginosa* has been isolated from water at Matebele SDA borehole in Muzabwela Village
- Chlorine monitoring exercise has started and showed 100% super chlorination in Mupata village

4.4 CASE MANAGEMENT

- Strengthened health education to patient relatives (ongoing)
- Red cross helping enforce restriction of visitors to the CTC ongoing

4.5 LOGISTICS

- Currently we have 6 vehicles (2 District, 2 National, 1 Province and 1 DC's office) for contact tracing, Social mobilization, outreach services-chlorine distribution, disinfection, water sampling, surveillance and sample transportation

4.6 ENVIRONMENTAL HEALTH & HEALTH PROMOTION

- Have conducted contact tracing for **240** out of **244** patients (cumulatively)
- Distributed bottles of liquid chlorine giving a cumulative total of **3792**
- Worked with volunteers to conduct community sensitization, chlorine distribution
- Disinfected **1637** pit-latrines

- Radio spots on cholera prevention and control are running on the local community radio station
- Using ZANIS PA to reach out to carry out community sensitization

CHALLENGES / GAPS

5.1 WASH

- Lack of safe water supply at Isoko Rural Health Center. The tank provided has a crack hence is not used
- Inadequate sanitary facilities at Isoko RHC
- Lack of posters, leaflets and cholera prevention booklets

5.2 LABORATORY

- Lack of equipment for food analysis
- Inadequate biochemical reagents for isolation and identification of organisms
- Lack of Hydrogen sulphide water testing kits
- Inadequate lauryl sulphate broth

5.3 LOGISTICS

- Inadequate funds for the response.
- Inadequate PPEs
- Inadequate cholera beds and linen

5.4 CASE MANAGEMENT.

- No food supplies for patients in the Cholera Treatment Centre.

5.5 OCV CAMPAIGN

- OCV officially launched today by Mpulungu DC at Kasakalawe HC
- Opened a total of 11 vaccination posts: 3 under Kasakalawe Zone and 8 under Mpulungu urban Zone. More post to be opened tomorrow on the main land areas.
- A total of 7,293 people have been vaccinated today
- Need for more vehicles to be allocated for OCV
- Planning and preparing logistics for vaccination in the lake shores and islands

RECOMMENDATIONS/ WAYFORWARD

- Mobilize funds to help coordinate the response.
- Source for lime for liming of pit latrines
- Vaccination of the population
- The reservoir water at Isoko RHC to be replaced with 10,000 ltr tank
- Mobilize more granular and liquid chlorine
- Intensify health promotion and sensitization activities

Table 2: GENERAL DISINFECTION OF TOILETS as at 21/05/2019

Area(Township/Villages)	Estimated no. of households	Estimated no. of toilets/pit latrines	Total No. of pit latrines disinfected	Coverage (%)	Second round of pit latrines disinfected	No. of pit latrines not disinfected	Population
Mupata	3757	3100	2853	92%	0	247	16,907
Muzabwera	3568	2780	2128	77%	0	1,251	12,408
Kasasa	371	320	320	100%	0	0	2280
Kabatwe	420	315	307	97%	0	8	2520
Location	1,400	1400	110	7.9%	0	1290	5600
Chibambo	58	53	53	100	0	0	348
Makaye	543	539	539	100%	0	0	1266
Posa	326	253	250	99%	0	3	1956
Musende	1,397	1,017	1009	99.20%	0	8	818
Muzumwa	162	150	150	100%	0	0	512
Chilila	200	178	24	13%	0	154	702
Kapata	154	154	154	100%	0	0	583
Isoko	2750	2650	2526	95%	0	133	13,100
Kapembwa	713	471	352	78%	0	119	3,297
Kaizya	1635	1470	371	23%	0	1572	4,540
Kasakalawe	560	380	50	68%	0	330	3,360
Chisanza	910	785	389	50%	0	245	5,460
Kabyolwe	500	310	280	90%	0	30	2,100
Total=	19,424	16,325	11865	73%	0	5,393	

Note: Disinfection of pit-latrines only started a week ago after receiving granular chlorine from the national levels. Areas reporting higher cases were given priority.

Table 3: Door to Door Distribution of Chlorine as at 21/05/2019

Area(Township/Villages)	Estimated no. of households	No. of H/H who received Chlorine 1st Round.	Coverage (%)	No. of H/H who received Chlorine 2nd Round.	No. of H/H who did not receive Chlorine.	Population
Mupata	3757	3698	98.40%		1439	16,907
Muzabwera	3568	912	25%		2,656	12,408
Kasasa	371	368	99%		30	2280
Kabatwe	420	418	99.50%		2	2520
Location	1,400	385	28%		1015	5600
Chibambo	58	58	100%		0	348
Makaye	543	543	100%		0	1266
Posa	326	325	100%		1	1956
Musende	1,397	1397	100%	489	0	818
Muzumwa	162	162	100%		0	512
Chilila	200	24	12%		176	702
Kapata	154	154	100%		0	583
Isoko	2750	1488	69%		1262	13,100
Kapembwa	713	713	100%	480	0	3,297
Kaizya	1635	299	18%		1336	4,540
Kasakalawe	560	240	42%		320	3,360
Chisanza	910	560	62%		350	5,460
Kabyolwe	500	480	96%		20	2,100
Total=	19,424	12224	63%		8,405	77,757

Table 4: Health Education Coverage as at 21-05-19

S/N	PLACE	TOPIC	ATTENDANCE	
			Male	Female
1	Mupata	Diahorrea/Cholera prevention	5126	6350
2	Muzabwera	Diahorrea/Cholera prevention	2840	3220
3	Kasasa	Diahorrea/Cholera prevention	800	1250
4	Kabatwe	Diahorrea/Cholera prevention	150	320
5	Location	Diahorrea/Cholera prevention	230	370
6	Chibambo	Cholera prevention	69	120
7	Makaye	Cholera prevention	500	560
8	Posa	Cholera prevention	400	556
9	Musende	Cholera prevention	800	1500
10	Muzumwa	Cholera prevention	45	63
11	Chilila	Cholera prevention	60	110
12	Kapata	Cholera prevention	100	120
13	Isoko	Cholera prevention	1700	1950
14	Kapembwa	Cholera prevention	340	550
15	Kaizya	Cholera prevention	2100	3210
16	Kasakalawe	Cholera prevention	800	1500
17	Chisanza	Cholera prevention	600	1400
18	Kabyolwe	Cholera prevention	450	630
			17,110	23,779

