



Ministry of Health

Situational Report No.13			
<b>Outbreak Name</b>	Cholera	<b>Prepared by</b>	MOH/ZNPFI/PHO/DHO/WHO
<b>Date of report</b>	23 May 2019	<b>Investigation start date</b>	3 <sup>rd</sup> April 2019

## SITUATION UPDATE / HIGHLIGHTS

- **On 23 May, 2019**
  - 1. Kapembwa Catchment area**
    - 1 new case in the last 24 hours
    - 1 case currently under admission at Kapembwa CTU
    - Cumulative total 31 cases of which 29 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
    - 2 cases discharged today
    - 10 cases currently under admission
    - Cumulative total 181 cases of which 141 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 11 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 (4<sup>th</sup> May 2019)
  - 4. Isoko RHC catchment**
    - 0 new case in last 24 hours
    - 1 case discharged today
    - 0 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 23/05/19)**

District Affected	Area affected	Date of Onset of index case.	Population (2019 CSO).	New case reported on 23/05/19	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	<b>1</b>	31	29	<b>02</b>	1069.0	2	6.5
Mpulungu	Mpulungu HC	6/04/19	38,136	<b>5</b>	181	136	<b>40</b>	474.6	1	0.6
Mpulungu	Kabyolwe	2/05/19	2,600	<b>0</b>	19	16	<b>03</b>	730.8	1	5.3
Mpulungu	Isoko	6/05/19	12,059	<b>0</b>	28	24	<b>4</b>	232.2	2	7.1
<b>Mpulungu</b>	<b>Total</b>		<b>55,695</b>	<b>6</b>	<b>259</b>	<b>210</b>	<b>49</b>	<b>465.0</b>	<b>6</b>	<b>2.3</b>

## BACKGROUND

On 3<sup>rd</sup> 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 cholera*. 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 6<sup>th</sup> 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 2<sup>nd</sup> and 5<sup>th</sup> 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 6<sup>th</sup> 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 (ZNPPI) through the Provincial Health Office (PHO).

On 23 May 2019, Mpulungu reported 5 new suspected cases, Kampembwa 1, Isoko 0 and Kabyolwe 0 suspected cases. No reported cases from other areas in the district. Mpulungu Township is considered the most affected area with the cholera outbreak in the district with cumulative confirmed cases 40, suspected 141 and 1 death (case fatality Rate= 0.5%).

*Outbreak is declining for the last one week with around 5 reported case(s)/ day. However, the aim is to reach to zero cases before the start of the next month.*

## EPIDEMIOLOGY & SURVEILLANCE

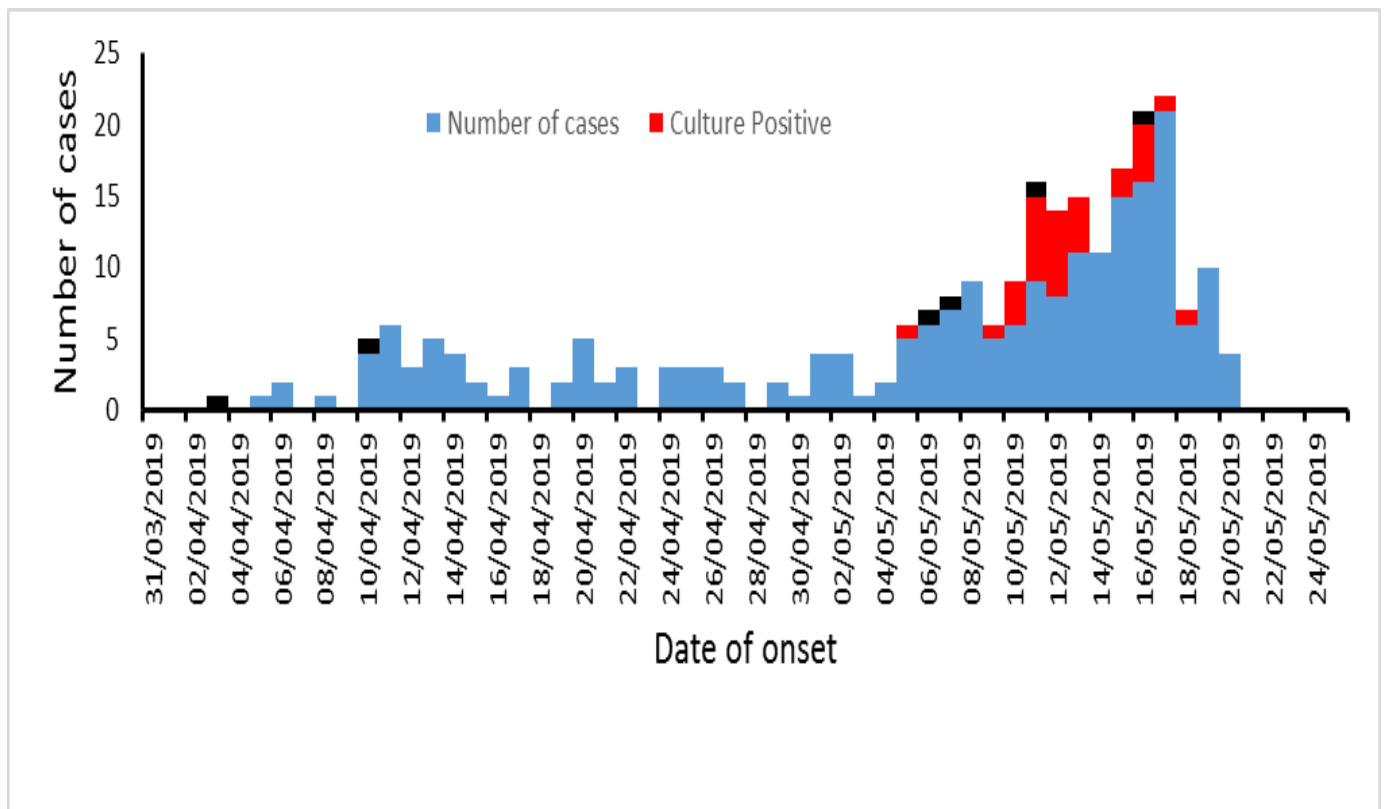


Figure 1: Distribution of cases by date of onset for Mpulungu District, Zambia, 23 May 2019. (N= 259)

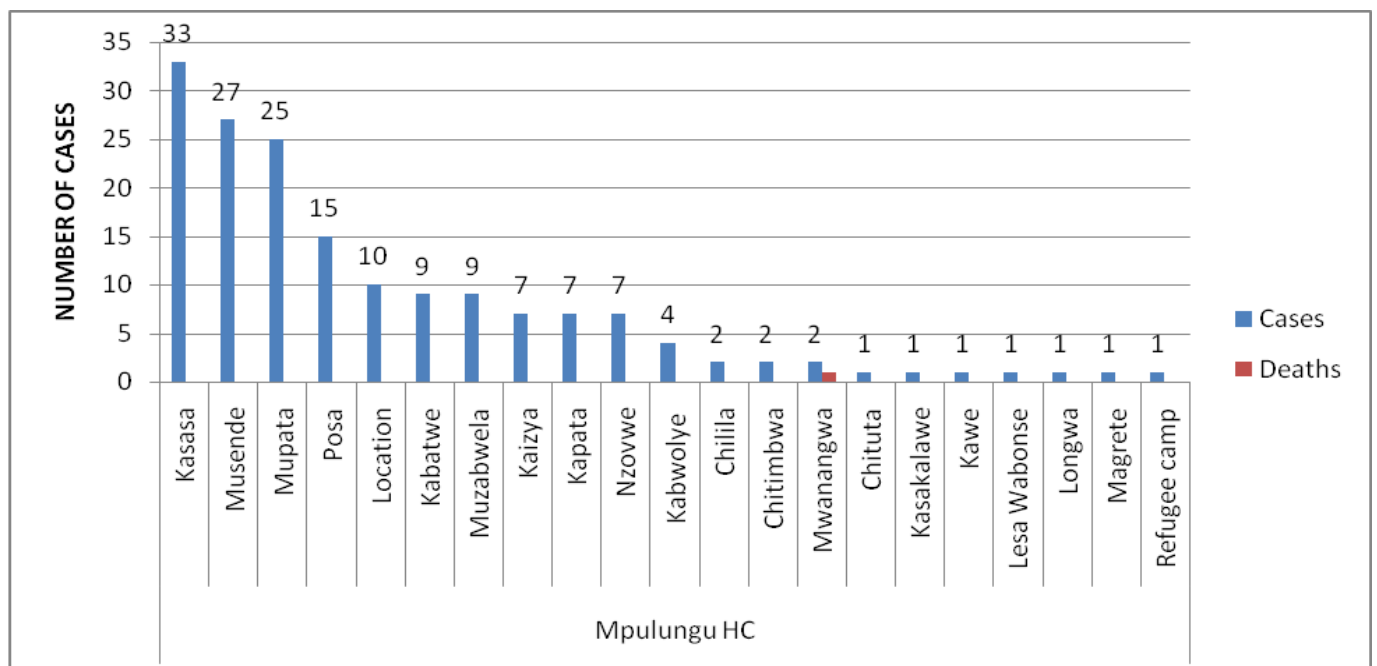


Figure 2: Distribution of cases by location, Mpulungu HC, Mpulungu, 23 May 2019

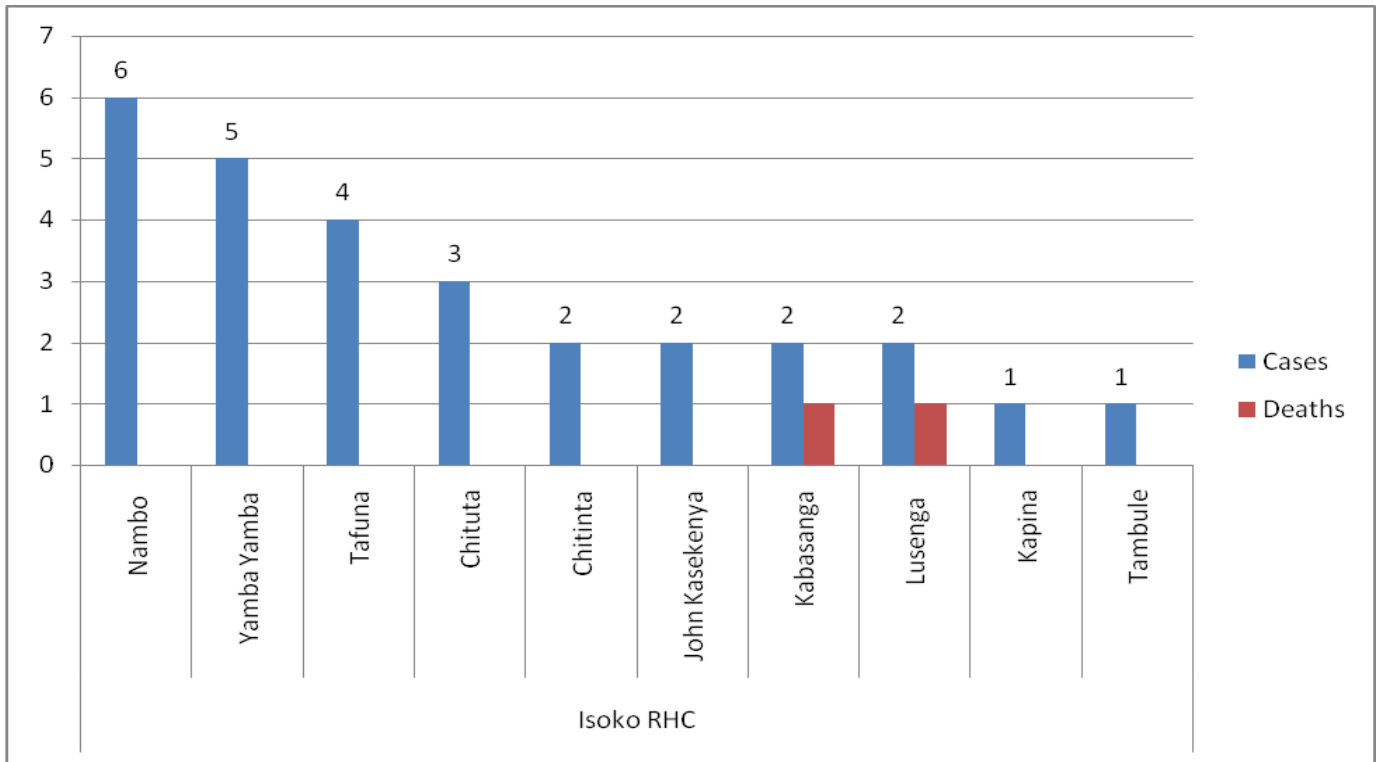


Figure 3: Distribution of cases by location, Isoko HC, Mpulungu, 23<sup>rd</sup> May 2019

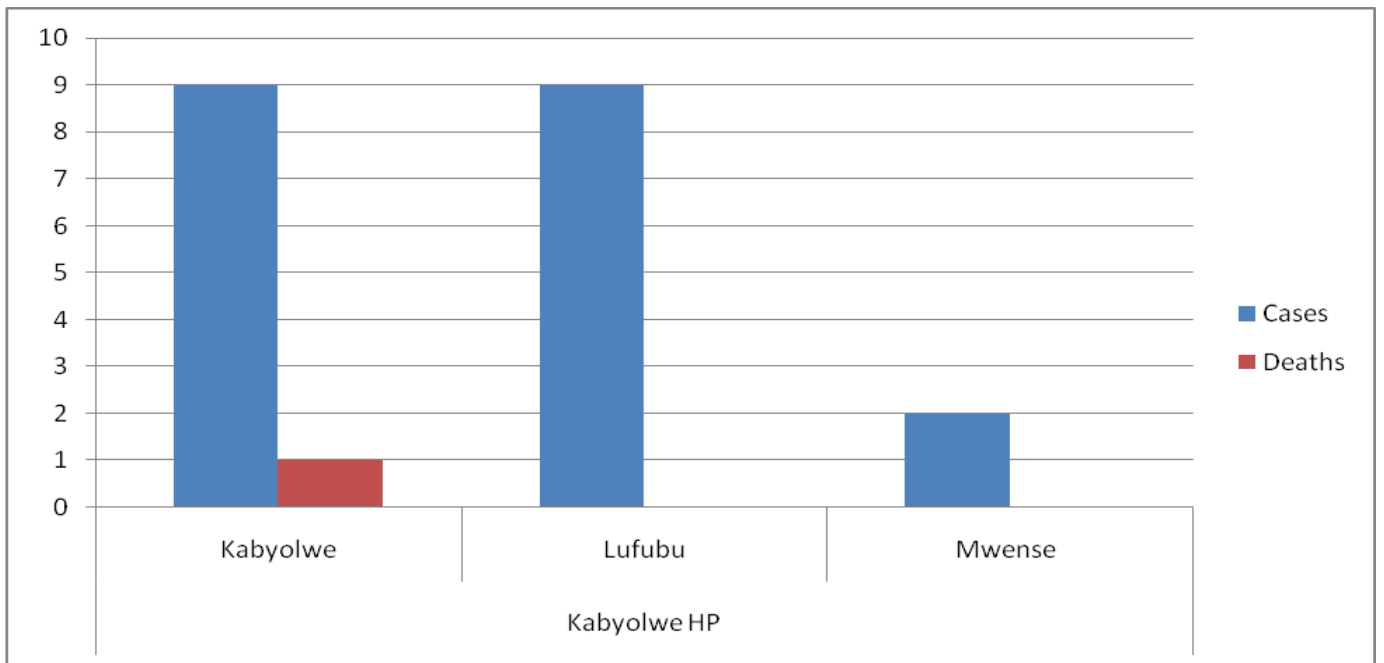


Figure 4: Distribution of cases by location, Kabyolwe HP, Mpulungu, 23<sup>rd</sup> May 2019

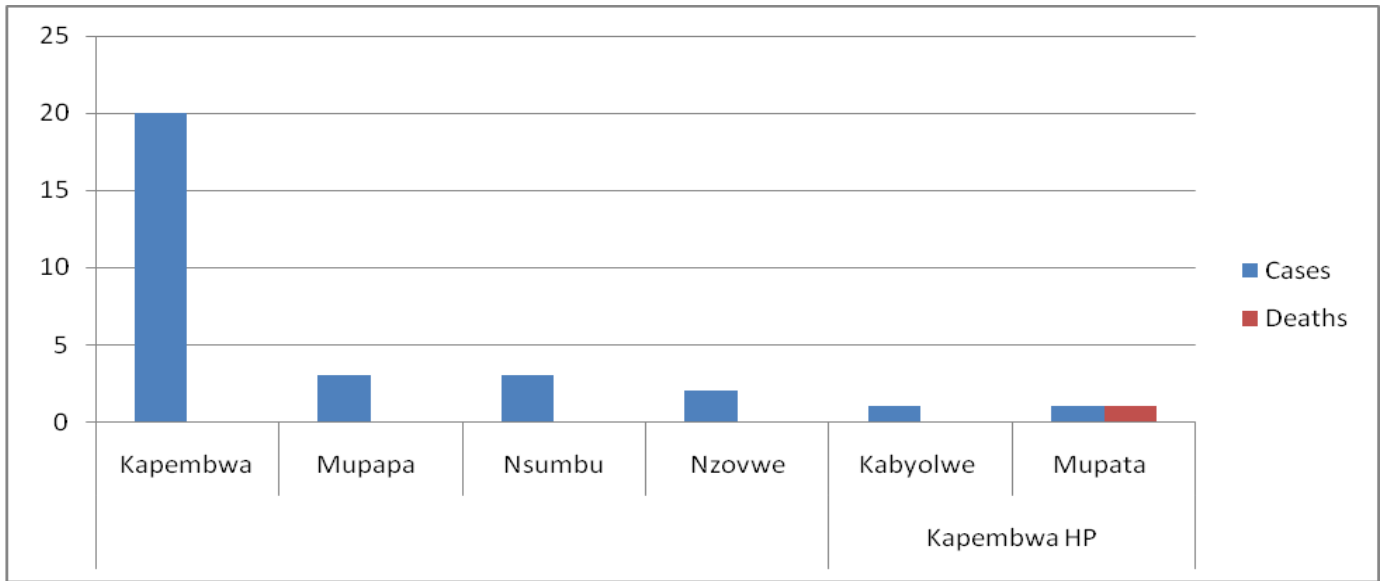


Figure 5: Distribution of cases by location, Kapembwa HP, Mpulungu, 23<sup>rd</sup> May 2019

## Key Priority Actions

### 4.1 COORDINATION

- The Zambia National Public Health Institute (ZNPPI) of the Ministry of Health leads the response to the cholera outbreak with support from Disaster Management and Mitigation Unit (DMMU), the Mpulungu District Council, WHO, Zambia Red cross, UNICEF, and other partners.
- ZNPPI is providing technical oversight into coordination using the Incident management System, case management, interpretation of laboratory findings and guide the choice of antibiotics, oral cholera vaccination and outbreak investigations.
- Held an IMS briefing at 07:30 hrs and 17:00 hrs to review progress and strategize for next day
- Had a teleconference with the national EOC on OCV and other interventions towards the cholera response
- Stakeholders meeting at District Commissioner's Office which included District Health Office, DMMU, WHO, District Council and Chambeshi Water

### 4.2 SURVEILLANCE

- Heightened active surveillance in the whole district. All facilities reporting cases of diarrhea at 07:00hrs and 17:00hrs every day
- Passenger screening and intensified port health services continues at the harbor

### 4.3 LABORATORY

- As at 18:00 hrs on 23<sup>rd</sup> May 2019, the following have been done:
  - 8 additional samples were culture positive for *Vibrio cholerae* O1 Ogawa and 1 sample tested culture negative for *Vibrio cholerae*
  - 8 samples pending analysis
  - Cumulative total samples received 91 of which 49 are culture positive to *Vibrio cholerae* O1 Ogawa and 34 are culture negative
  - Received 6 new samples
- A cumulative total of 210 water samples collected to date for bacteriological analysis out of which 195 have been completely analyzed and 116 show fecal contamination (60%).
- 15 water samples undergoing analysis
- Chlorine monitoring exercise has continued

### 4.4 CASE MANAGEMENT

- The four treatment sites set up for case management remain operational
- Strengthened health education to patient relatives (ongoing)
- Red cross helping enforce restriction of visitors to the CTC ongoing

### 4.5 LOGISTICS

- Currently we have 10 vehicles (2 District, 3 National, 2 Province, 1 WHO, 1 Red cross and 1 DC's office) for contact tracing, Social mobilization, outreach services-chlorine

distribution, disinfection, water sampling, surveillance, sample transportation and OCV campaign

- We have two boats (marine transport) for the lake shore
- Received most of the logistics for OCV campaign

#### **4.6 ENVIRONMENTAL HEALTH& HEALTH PROMOTION**

- Water, sanitation and hygiene (WASH) activities include increasing the water supply to hotspots, and DMMU is supporting installation of water tanks.
- Risk communication, social mobilization, and community engagement activities continue to inform the public on cholera prevention messages as well as the oral cholera vaccination campaign.
- Have conducted contact tracing for 260 out of 261 patients (cumulatively)
- Distributed bottles of liquid chlorine giving a cumulative total of 13510
- Disinfected a cumulative total of 12110 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
- Using volunteers to conduct door to door community sensitizations
- Working with the Zambia Red cross to promote Hand washing targeting 3500 households in cholera hotspots

#### **4.7 OCV CAMPAIGN**

- OCV campaign: Targeting 130, 743 people at risk of cholera in 15 catchment areas in the district. In addition, planning for the sero-assessment survey is on course and will start soon
- Total of 19 vaccination posts: 3 under Kasakalawe Zone, 15 under Mpulungu urban Zone and 1 Kaizya. We have trained and oriented staff to operationalize 3 vaccination sites in Isoko area tomorrow; all vaccination logistics have been delivered
- A total of 14,521 people have been vaccinated today giving a cumulative of 21,814 (16.68%)
- Planning and preparing logistics for vaccination in the lake shores and islands

### **CHALLENGES / GAPS**

#### **5.1 WASH**

- Inadequate sanitary facilities at Isoko RHC
- 80% of the population had no adequate Hand washing facilities with running water (SNV, 2018)
- Lack of posters, leaflets and cholera prevention booklets

#### **5.2 LABORATORY**

- Lack of equipment for food analysis
- 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
- No standard treatment unit at Chisanza RHC. A number of cases have been reported from this area and most patients tend to be referred to Mpulungu CTC

#### 5.5 OCV CAMPAIGN

- People working for long hours conducting vaccinations without any refreshments
- Inadequate bin liners for waste management
- Inadequate transport for the campaign

### RECOMMENDATIONS/ WAYFORWARD

- Mobilize funds to help coordinate the response.
- Source for lime for liming of pit latrines
- Continue vaccinating the population
- Mobilize more granular and liquid chlorine
- Intensify health promotion and sensitization activities
- Provide refreshments for the vaccination teams
- Source for bin liners from Mbala
- Send a team to Chisanza to open a standard CTU as well as conduct OCV
- Mobilize more vehicles for the OCV campaign

**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 2: Door to Door Distribution of Chlorine as at 23/05/2019**

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	98.43%		56	16,907
Muzabwera	3568	1152	32.29%		2,416	12,408
Kasasa	371	368	99.19%		30	2280
Chikula	204	204	100.00%		0	522
Kabatwe	420	418	99.52%		2	2520
Location	1,400	385	27.50%		1015	5600
Chibambo	58	58	100.00%		0	348

Makaye	543	543	100.00%		0	1266
Posa	326	325	99.69%		1	1956
Musende	1,397	1397	100.00%	489	0	818
Muzumwa	162	162	100.00%		0	512
Chilila	200	24	12.00%		176	702
Kapata	154	154	100.00%		0	583
Isoko	2750	2190	79.64%		560	13,100
Kapembwa	713	713	100.00%	480	0	3,297
Kaizya	1635	299	18.29%		1336	4,540
Kasakalawe	560	360	64.29%		80	3,360
Chisanza	910	560	61.54%		350	5,460
Kabyolwe	500	500	100.00%		0	2,100
<b>Total</b>	<b>19,628</b>	<b>13510</b>	<b>68.83%</b>		<b>6,022</b>	<b>78,279</b>

**Table 3: General disinfection of toilets as at 23/05/2019**

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	2373	85%	0	407	12,408
Kasasa	371	320	320	100%	0	0	2280
chikula	204	204	204	100%	0	0	522
Kabatwe	420	315	307	97%	0	8	2520
Location	1,400	1400	110	8%	0	1290	5600
Chibambo	58	53	53	100%	0	3	348
Makaye	543	539	539	100%	0	0	1266
Posa	326	253	250	99%	0	3	1956
Musende	1,397	1,017	1009	99%	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	75%	0	119	3,297
Kaizya	1635	1470	371	25%	0	1572	4,540
Kasakalawe	560	380	50	13%	0	330	3,360
Chisanza	910	785	389	50%	0	396	5,460
Kabyolwe	500	310	310	100%	0	30	2,100
<b>Total=</b>	<b>19,628</b>	<b>16,325</b>	<b>12110</b>	<b>74%</b>	<b>0</b>	<b>4700</b>	<b>77,757</b>

**Table 4 :Health Education Coverage as at 23-05-19**

S/ N	PLACE	TOPIC	ATTENDANCE	
			Male	Female
1	Mupata	Diahorrea/Cholera prevention/OCV	5342	6350
2	Muzabwe ra	Diahorrea/Cholera prevention/OCV	2950	3220
3	Kasasa	Diahorrea/Cholera prevention/OCV	1100	1250
4	Kabatwe	Diahorrea/Cholera prevention/OCV	200	320
5	Location	Diahorrea/Cholera prevention/OCV	230	370
6	Chibambo	Cholera prevention/OCV	69	120
7	Makaye	Cholera prevention/OCV	500	560
8	Posa	Cholera prevention/OCV	400	556
9	Musende	Cholera prevention/OCV	800	1500
10	Muzumw a	Cholera prevention/OCV	100	150
11	Chilila	Cholera prevention/OCV	150	250
12	Kapata	Cholera prevention/OCV	100	120
13	Isoko	Cholera prevention/OCV	1800	1950
14	Kapembw a	Cholera prevention/OCV	340	550
15	Kaizya	Cholera prevention/OCV	2100	3210
16	Kasakala we	Cholera prevention/OCV	2000	3200
17	Chisanza	Cholera prevention/OCV	600	1400
18	Kabyolwe	Cholera prevention/OCV	550	730
	<b>Total</b>		<b>19,331</b>	<b>25,806</b>

