

WHO Somalia

Acute Watery Diarrhoea Update



Regional Office for the Eastern Mediterranean

18 May 2007



Cholera Treatment Centre in Baidoa, Bay Region. 13 May 2007. Photo: WHO Somalia

This update describes the development, status, and activities implemented by the humanitarian community in response to the Acute Watery Diarrhoea outbreak in Somalia. The update follows the structure as proposed in the WHO guidelines for cholera outbreak response.

The report is built on surveillance data that health service providers and NGOs transmit on a weekly basis from health facilities and hospitals in South and Central Somalia.

Highlights

- Between 1 January and 18 May, 2007, **32 583** of Acute Watery Diarrhoea (AWD) cases were reported from Central and South Zones including 1031 related deaths.
- In the current week (epidemiological week 20), the reported cases increased by 5%, in comparison with the previous week (1742 and 1833 respectively).
- In comparison with previous epidemiological weeks, the overall Case Fatality Rate (CFR) continues to decrease from 4.32% in epidemiological week 14, to 2.89% in the current week.
- Overall, Banader region reported **39% (12 809)** cases, including **16% (164)** of the total related deaths. However, the trend shows a sharp decrease in the reported cases in the last epidemiological weeks.
- Although Middle Juba and Bakool regions reported only **3% (927)** and **2% (632)** of the total reported cases, they reported the highest CFR **6.36%** and **6.80%** respectively.
- In the current week Galgadud region reported 409 cases, of them 368 caeses including 38 realedt deaths were reported from Hindar district.

The AWD trend showed the number of reported cases is decreasing in Bakool, Hiiraan, Lower Shabelle, Middle Shabelle, Banadir and Bay Regions while increasing in Gedo, Galgadud and Lower Juba regions.

This update has been made possible thanks to the support of:



In this issue

- ✓ Detailed epidemiological description of the current (11-18 May, 2007) AWD outbreak;
- ✓ Revised Bakool and Bay region data including AWD age distribution;
- ✓ Easy-to-grasp figures showing the trends in the affected regions;
- ✓ Interventions from all health partners in response to the ongoing

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1 Epidemiological week No 20⁰: Overall results

Between 1 January and 18 May 2007, a total of **32 583** cases of clinically diagnosed **Acute Watery Diarrhoea (AWD)** including **1031** related deaths (**CFR¹ 3.16%**) were reported from Central and South Somalia. Cases were reported from 10 regions (Hiiraan, Banadir, Lower and Middle Shabelle, Bay, Gedo, Bakool, Galgudud and Lower Juba and Middle Juba) with an estimated population of **4,089,847**; the overall attack rate² (**AR**) is **0.80%**.

In the last **four** epidemiological weeks (17 to 20), the trend shows a decrease in the number of reported cases in Bandir, Lower shabelle, Middle Shabelle, Bay, and Bakoolall regions. However, in the current week (epidemiological week 20), the reported cases increased by **5%**, in comparison with the previous week (1742 and 1833 cases respectively). the overall CFR continues to decrease: from 4.30% in epidemiological week 14 to 1.26% in week 19, in the current week an increase (**CFR 2.89%**) was observed mainly due to the high number of deaths reported from Galgudud region (n=38). The weekly distribution of AWD cases and CFR is shown in figure 1.

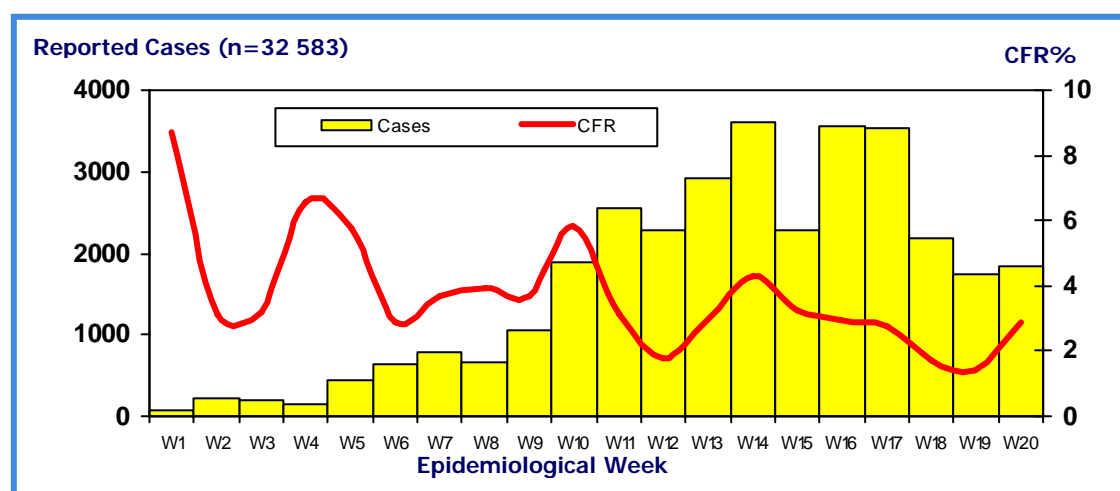


Figure 1: Distribution of AWD cases, Central and South Somalia, 01 January -18 May 2007

The **first** report of an increase in AWD cases was received from **Hiiraan region** in the first epidemiological week of 2007. After reaching the peak in week 7, cases started to decrease up to date (no cases were reported since epidemiological week 12).

In epidemiological **week 3**, the first cases of AWD were reported from **Middle Shabelle** region. The peak was reached in epidemiological week 7, but a slight decrease was observed in epidemiologic weeks 8-11 with another increase in epidemiological week 12, followed by a steady decrease in the previous 5 weeks (epidemiological weeks 16 to 20).

Starting from epidemiological **week 5**, **Lower Juba** region reported AWD cases with high Case Fatality Rate. The peak was reached in epidemiological week 9, but a slight decrease was observed in epidemiologic weeks 10-16 with another increase in epidemiological weeks 17-19. Another slight decrease in the number of reported cases was observed in the current week.

In the beginning of epidemiological **week 6**, an increase of AWD cases was reported from **Lower Shabelle** region. The peak was reached in epidemiological week 10, but a slight decrease was observed in the epidemiologic weeks 11 and 12 with another increase in epidemiological week 13, followed by a steady decrease in the previous 6 weeks (epidemiological weeks 14 to 20).

¹ The case fatality rate (CFR) refers to the number of deaths per 100 cases

² WHO/EMC/ DIS/97.11 "Attack rate of 0.5% would be used for urban areas, 0.2% for rural areas and 1-2% for refugee/displaced populations as a worst case scenario"

Banadir region started reporting cases from **week 8**. The trend is showing a continuous increase up to week 13. In the previous 4 epidemiological weeks (16 and 20), a sharp decrease in the reported AWD cases was observed, in comparison with the previous week the cases decreased by 21% (849 and 1081 respectively). The CFR showed a sharp decrease from 0.83 in week 19 to 0.35 in the current week.

Bay region started to report cases in epidemiological **week 9**. In the current week, the reported cases showed a marked decrease in the trend. In comparison with the previous week, a 40% decrease was observed in the number of reported cases (120 and 47 respectively). On 14 May 2007, **WHO team** (Senior Medical Epidemiologist and Program Officer) visited Bay region to follow up on the situation and validate the reported AWD data. Reviewing the records from 4 Cholera treatment centres named; Baidoa, Burhakaba, Bardale, and Densor, revealed that the total number of registered AWD is **3946** including **227** related deaths, while the reports from the field reported only **3717** cases including the same number of reported deaths (the under reporting was estimated at **6%**). In the current week only **32** ADW cases with no related-deaths were reported from all districts in Bay region. The total number of AWD cases by age group, number of deaths and CFR is shown in table 3.

Gedo region started to report cases in epidemiological **week 10** followed by a marked decrease to the epidemiological week 19, but a slight increase in both reported cases and CFR were observed in the current week (129 and 155 cases respectively).

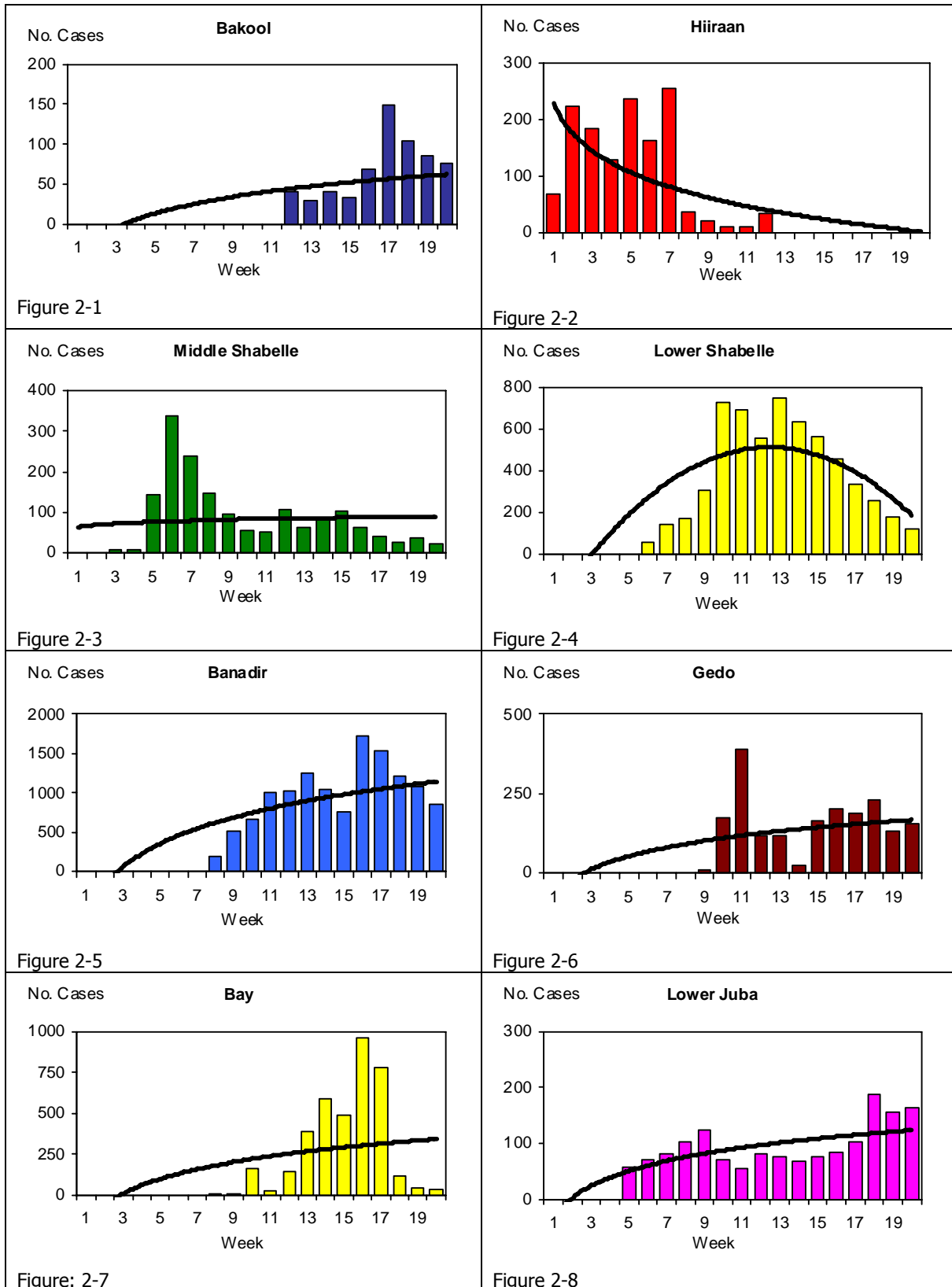
Galgadud region reported AWD cases in epidemiological **week 10**. The peak was observed in epidemiological week 13 and showing a slight decrease in the number of reported cases until epidemiological week 16, but a sharp increase was observed in weeks 18-19 (40 and 27 cases respectively). In the current week **ICRC** reported **368** cases including **38** related deaths (**CFR 9.29%**) from **Hindar** district in Galgadud, investigation team visited the area and confirmed the number of both cases and deaths.

Bakool region started to report cases in epidemiological **week 12** with an increase in the number of reported reaching the peak in the epidemiological week 17, a sharp decrease was observed in the last epidemiological weeks (18 and 19). **WHO team** visited Bakool region on the 16th May to follow up on the situation and validate the reported AWD data. Reviewing the records from 4 Cholera treatment centres named; **Wajid, Elbon, Burdahunle and Tieglow**, revealed that the total number of registered AWD in the four CTC is **632** including **43** related deaths, while the reports from the field reported only **363** cases including 39 related-deaths (the under reporting was estimated at **43%**). In the current week **77** ADW including 4 related deaths (75%; $\frac{3}{4}$ was reported from Elbon district). The total number of AWD cases reported from Bakool region by age group, number of deaths and CFR is shown in table 4.

In epidemiological **week 14**, **Middle Juba** region reported 927 cases including 59 related deaths (CFR 6.36%). No more reports were received in the last four epidemiological weeks (15 to 20).

The charts below (Figure 3-1 to 3-8) show the weekly distribution of AWD and the logarithmic trend line (in black). The charts demonstrate that the outbreak started in Hiiraan region early in January 2007, and then spread to Middle Shabelle in late January. Lower Shabelle region reported cases in February, while Banadir, Gedo and Bay regions cases were reported in early March, followed by Galgadud region. The trend line shows that the number of reported cases is decreasing in Bakool, Hiiraan, Lower Shabelle, Middle Shabelle, Banadir, and Bay regions, while increasing in Gedo, Galgadud, and Lower Juba regions.

2 Distribution of Acute Watery Diarrhoea cases by region, South and Central Somalia, 1 January-18 May 2007 (Figure 2)



Overall, the highest attack rate (AR) was observed in **Gedo** region with **1.83%** and **Banadir** with **1.42%**, followed by **Lower Shabelle** and **Middle Shabelle** with **0.86%** and **0.75%** respectively. The lowest attack rate was observed in **Middel Juba** (**0.31%**) and **Bakool** (**0.26%**). The attack rate per 100 population is shown in figure 3.

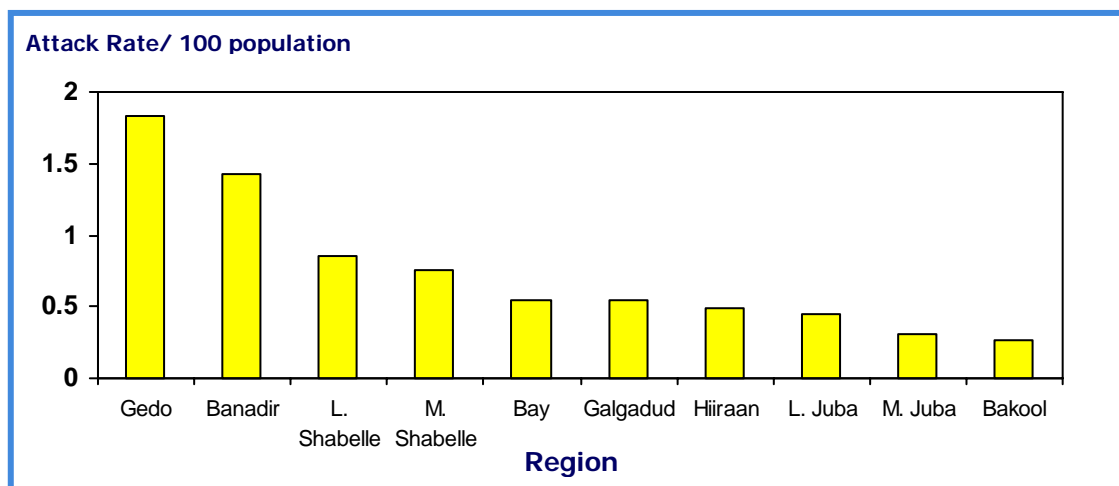


Figure 3: Distribution of AWD cases, deaths and CFR by region, Central and South Somalia, 1 January - 18 May 2007

During the same reporting period, **39%** (12 809/32 583) of AWD cases were reported from **Banadir** region including **16%** (164/1031) of the total related deaths (**CFR³ 1.28%**). **Forty-two percent** (5955) were reported from **Lower Shabelle** including **24%** (250/1031) of the total related deaths (**CFR 4.20%**). **Twelve percent** (3978) reported from **Bay** including **22%** (227/1031) of the total related deaths (**CFR 5.71%**). **Galgadud** region reported **5%** (1769) including **9%** (92/1031) of the total related deaths (**CFR 5.20%**). Although Middle Juba and Bakool regions reported only **3%** (927) and **2%** (632) of the total reported cases, they reported the highest **CFR 6.36%** and **6.80%** respectively.

The distribution of AWD cases, deaths, and CFR by region is shown in figure 4.

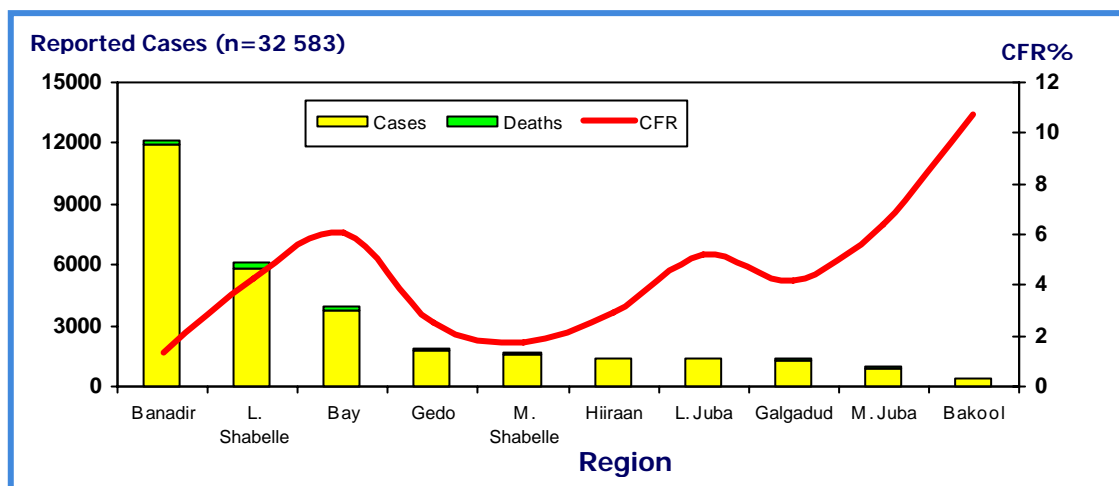


Figure 4: Distribution of AWD cases, deaths and CFR by region, Central and South Somalia, 1 January - 18 May 2007

³ <http://www.who.int/topics/cholera/control/en/index.html> "Prompt and appropriate medical management of cases can significantly decrease mortality (Case Fatality Rate); when applied properly; case-fatality rate should be below 1%. In untreated cases the fatality rate may reach 30-50%. These levels are often observed in crisis situations with overcrowding, limited access to health care and precarious environmental management"

Table 1: Number of reported Acute Watery Diarrhoea cases, deaths and Case Fatality Rate per region, Central and South Somalia*

Central and South Region, 1 January – 18 May 2007, Somalia															
Week	Hiiraan			Banadir			Lower Shabelle			Middle Shabelle			Bay		
	C	D	CFR%	C	D	CFR%	C	D	CFR%	C	D	CFR%	C	D	CFR%
1	69	6	8.70	0	0	0	0	0	0	0	0	0.00	0	0	0.00
2	223	7	3.14	0	0	0	0	0	0	0	0	0.00	0	0	0.00
3	184	6	3.26	0	0	0	0	0	0	6	0	0.00	0	0	0.00
4	129	8	6.20	0	0	0	0	0	0	8	1	12.50	0	0	0.00
5	235	6	2.55	0	0	0	0	0	0	142	4	2.82	0	0	0.00
6	162	4	2.47	0	0	0	59	5	8.47	337	4	1.19	0	0	0.00
7	255	3	1.18	0	0	0	147	18	12.24	240	3	1.25	1	0	0.00
8	37	0	0.00	196	2	1.02	172	15	8.72	147	4	2.72	2	0	0.00
9	21	0	0.00	502	10	1.99	309	18	5.83	94	1	1.06	5	2	40.00
10	10	0	0.00	659	12	1.82	723	69	9.54	54	0	0.00	203	14	8.81
11	11	0	0.00	1006	16	1.59	691	33	4.78	73	2	2.74	92	2	6.90
12	35	0	0.00	1021	14	1.37	552	13	2.36	107	1	0.93	172	4	2.82
13	0	0	0.00	1244	17	1.37	750	22	2.93	64	0	0.00	412	31	7.97
14	0	0	0.00	1036	21	2.03	636	15	2.36	84	1	1.19	566	43	7.33
15	0	0	0.00	751	8	1.07	562	21	3.74	102	2	1.96	452	25	5.08
16	0	0	0.00	1711	29	1.69	453	12	2.65	65	2	3.08	945	44	4.57
17	0	0	0.00	1534	16	1.04	337	8	2.37	40	2	5.00	930	44	5.63
18	0	0	0.00	1219	7	0.57	259	1	0.39	26	1	3.85	119	14	11.67
19	0	0	0.00	1081	9	0.83	180	0	0.00	36	0	0.00	47	4	8.51
20	0	0	0.00	849	3	0.35	125	0	0.00	21	0	0.00	32	0	
TOT	1371	40	2.92	12809	164	1.28	5955	250	4.20	1646	28	1.70	3978	227	5.71

Central and South Region, 1 January – 18 May 2007, Somalia																		
Week	Bakool			Gedo			Galgadud**			Middle Juba			Lower Juba***			GRAND TOTAL		
	C	D	CFR	C	D	CFR	C	D	CFR	C	D	CFR	C	D	CFR	C	D	CFR
1	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	69	6	8.70
2	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	223	7	3.14
3	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	190	6	3.16
4	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	137	9	6.57
5	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	57	15	26.32	434	25	5.76
6	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	70	5	7.14	628	18	2.87
7	1	0	0.00	55	0	0.00	0	0	0.00	0	0	0.00	82	5	6.10	781	29	3.71
8	2	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	102	5	4.90	658	26	3.95
9	0	0	0.00	11	0	0.00	0	0	0.00	0	0	0.00	124	8	6.45	1066	39	3.66
10	0	0	0.00	172	13	7.56	3	0	0.00	0	0	0.00	72	3	4.17	1896	111	5.85
11	0	0	0.00	387	14	3.62	245	10	4.08	0	0	0.00	55	3	5.45	2560	80	3.13
12	41	3	7.32	115	4	3.48	166	0	0.00	0	0	0.00	82	2	2.44	2291	41	1.79
13	29	3	10.34	116	2	1.72	236	8	3.39	0	0	0.00	76	3	3.95	2927	86	2.94
14	41	2	4.88	25	3	12.00	228	10	4.39	927	59	6.36	67	2	2.99	3610	156	4.32
15	34	2	5.88	165	1	0.61	147	12	8.16	NA	NA	NA	75	4	5.33	2288	75	3.28
16	68	5	7.35	201	4	1.99	23	4	17.39	NA	NA	NA	85	5	5.88	3551	105	2.96
17	149	16	10.74	187	0	0.00	245	10	4.08	NA	NA	NA	102	1	0.98	3524	97	2.75
18	104	8	7.69	230	2	0.87	40	0	0.00	NA	NA	NA	178	4	2.47	2175	37	1.70
19	86	0	0.00	129	2	1.55	27	0	0.00	NA	NA	NA	156	10	7.58	1742	25	1.44
20	77	4	5.19	155	5	3.23	409	38	9.29	NA	NA	NA	165	3	2.54	1833	53	2.89
TOT	632	43	7.48	1948	50	2.57	1769	92	5.20	927	59	6.36	1548	78	5.04	32583	1031	3.16

* Please note that the data included in the tables is dynamic due to verifications and updating upon receiving the data from the field.

** 368 AWD cases including 38 related deaths were reported by ICRC in the current week from Hinder district in Galgadud.

*** Data from Lower Shababelle was revised after adding the data form Cholera treatment Centre in Hagar District.

Table 2: Distribution of reported Acute Watery Diarrhoea cases and deaths by district

Region	District	Estimated Population	Cases	AR per 100	Deaths	CFR%	Comments
Hiiraan	Bulo Burte	89,120	355	0.40	26	7.32	
	Jalaalqsi	46,724	795	1.70	6	0.75	
	Beletweyne	144,345	221	1.15	8	3.62	
TOTAL		280,189	1371	0.49	40	2.92	
Lower Shabelle	Merka	192,939	2798	1.45	83	2.97	
	Afgoye	135,012	892	0.66	47	5.27	
	Qoryoley	134,205	589	0.44	52	8.83	
	K/Warey	55,445	771	1.39	30	3.89	
	Sablale	43,055	145	0.34	8	5.52	
	Brave	57,652	579	1.00	13	2.25	
	Awdegle	76,700	181	0.24	17	9.39	
TOTAL		695,008	5955	0.86	250	4.20	
Lower Juba	Kismayo	166,667	1467	0.88	65	4.43	Lab. confirmation (10) <i>V. Cholera Ogawa</i>
	Afmadow	51,334	30	0.06	0	0.00	
	Jamame	129,149	51	0.04	13	25.49	
TOTAL		347,150	1548	0.45	78	5.04	
Middle Juba		238,877	927	0.31	59	6.36	Week 15-20 data are missing
TOTAL		238,877	927	0.31	59	6.36	
Banadir	Mogadishu	901,183	12809	1.42	164	1.28	Lab. confirmation (24) <i>V. Cholera Inaba</i>
TOTAL		901,183	12809	1.42	164	1.28	
Middle Shabelle	Jowhar	218,027	1646	0.75	28	1.70	All samples negative for <i>V. Cholera</i> .
TOTAL		218,027	1646	0.75	28	1.70	
Gedo	Bardera	106,172	1948	1.83	50	2.57	Lab. confirmation (3) <i>V. Cholera Inaba</i>
TOTAL		106,172	1948	1.83	50	2.57	
Bay	Baidoa	726,849	3978	0.55	227	5.71	
TOTAL		726,849	3978	0.55	227	5.71	
Galgudud	Galaheri	330,057	1769	0.54	92	5.20	
TOTAL		330,057	1769	0.54	92	5.20	
Bakool	Wajid	246,335	632	0.26	43	6.80	
TOTAL		246,335	632	0.26	43	6.80	
GRAND TOTAL		4,089,847	32583	0.80	1031	3.16	

Table 3: Distribution of reported Acute Watery Diarrhoea cases, deaths and CFR by district, Bay region*

Week	Baidoa				Burhakaba				Bardale				Densor				Total		
	Cases		D	CFR	Cases		D	CFR	Cases		D	CFR	Cases		D	CFR	Cases	D	CFR
	<5	>5			<5	>5			<5	>5			<5	>5					
1	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
2	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
3	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
4	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
5	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
6	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
7	0	1	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	1	0	0.00
8	0	2	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	2	0	0.00
9	0	5	2	40.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	5	2	0.00
10	0	159	14	8.81	0	0	0	0.00	9	35	0	0.00	0	0	0	0.00	203	14	0.00
11	17	12	2	6.90	0	0	0	0.00	15	48	0	0.00	0	0	0	0.00	92	2	0.00
12	59	67	2	1.59	8	8	2	12.50	7	23	0	0.00	0	0	0	0.00	172	4	0.00
13	112	103	6	2.79	47	127	25	14.37	6	17	0	0.00	0	0	0	0.00	412	31	0.00
14	142	145	14	4.88	28	186	23	10.75	0	2	0	0.00	23	40	6	9.52	566	43	7.60
15	92	67	2	1.26	20	142	9	5.56	0	0	0	0.00	17	114	9	6.87	452	25	5.53
16	186	298	30	6.20	36	72	5	4.63	0	0	5	0.00	29	324	9	2.55	945	44	4.66
17	90	144	20	8.55	0	0	0	0.00	37	125	0	0.00	63	471	24	0.00	930	44	0.00
18	49	28	0	0.00	0	0	0	0.00	0	0	0	0.00	3	39	14	0.00	119	14	0.00
19	35	12	4	8.51	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	47	4	0.00
20	14	18	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	32	0	0.00
TOT	796	1061	96	5.17	139	535	64	9.50	74	250	5	1.54	135	988	62	5.52	3978	227	5.70

** D; Deaths, CFR%; Case Fatality Rate per 100 cases

Table 4: Distribution of reported Acute Watery Diarrhoea cases, deaths and CFR by district, Bakool region*

Week	Wajid				Elbon				Burdhuhunle				Tieglow				Total		
	Cases		D	CFR	Cases		D	CFR	Cases		D	CFR	Cases		D	CFR	Cases	D	CFR
	<5	>5			<5	>5			<5	>5			<5	>5					
1	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
2	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
3	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
4	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
5	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
6	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
7	0	1	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	1	0	0.00
8	0	2	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	2	0	0.00
9	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
10	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
11	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0.00
12	7	34	3	7.32	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	41	3	7.32
13	12	17	3	10.34	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	29	3	10.34
14	20	21	2	4.88	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	41	2	4.88
15	15	4	2	10.53	0	0	0	0.00	0	0	0	0.00	4	11	0	0.00	34	2	5.88
16	18	10	3	10.71	0	0	0	0.00	0	0	0	0.00	15	25	2	5.00	68	5	7.35
17	18	17	2	5.71	8	7	0	0.00	18	69	14	20.29	4	8	0	0.00	149	16	10.74
18	12	12	1	4.17	6	3	1	33.33	3	31	6	19.35	37	0	0	0.00	104	8	7.69
19	14	6	0	0.00	2	4	0	0.00	0	7	0	0.00	16	37	0	0.00	86	0	0.00
20	1	1	1	50.00	9	40	3	7.50	0	1	0	0.00	14	11	0	0.00	77	4	5.19
TOT	117	125	17	7.02	25	54	4	7.41	21	108	20	18.52	89	36	2	1.60	632	43	6.80

*** D; Deaths, CFR%; Case Fatality Rate per 100 cases

3 Laboratory confirmation / drug resistance

Three out of 10 stool samples collected from **Merka district**, Lower Shabelle on 10 March 2007, were confirmed with *V. cholerae*, serogroup O1, serotype *Inaba*, and two samples with *V. cholerae*, serogroup O1, serotype *Hikojima*⁴. WHO requested the African Medical and Research Foundation (AMREF) laboratory in Nairobi to confirm the results. The mean age of confirmed cases was 5.0 years, ranging from 2-20 years. 60% (3/5) were males. The *Vibrio* was resistant to Chloramphenicol, and Cotrimoxazole, while sensitive to Erythromycin and Tetracycline.

On 13 March 2007, 10 stool samples were collected by MSF-Spain from **Banadir hospital**. All 10 samples were confirmed with *V. cholerae*, serogroup O1, serotype *Inaba*. The mean age of confirmed cases was 11.02 years ranging from 10 months-35 years. 70% (7/10) were male.

On 14 March 2007, 12 stool samples were collected by MSF-Spain from **Hayat hospital**. Five samples were confirmed with *V. cholerae*, serogroup O1, serotype *Inaba*. The mean age of confirmed cases was 8.70 years ranging from 2-40 years. Sixty percent (3/5) were male.

In both cases, the *Vibrio* was resistant to Chloramphenicol, and Cotrimoxazole, while sensitive to Tetracycline.

On 05 April 2007, 4 stool samples were collected from **Gedo Region**. Three (**3**) samples were confirmed with *V. cholerae*, serogroup O1, serotype *Inaba* in AMREF Laboratory in Nairobi. The mean age of confirmed cases was 4.70 years ranging from 18 months-16 years.

4 Outbreak control task force

WHO conducted a mission to Burdhuunle (30 km north of Wajid town) to verify and assess the AWD situation. Burdhuunle has approximately 2500 households. A Cholera Treatment Centre (CTC) was run by **World Vision** from 24 April to 8 May, when the centre was closed due to decrease in cases.

ACF conducted hygiene education in Burdhuunle and distributed Aqua tabs for households in neighboring villages, but stopped the daily chlorination of the wells in Burdhuunle on 14 May due to lack of supplies. As part of a community effort, garbage cleaning up campaign was conducted in the streets of Burdhuunle, garbage holes were dug and a shelter was built in the CTC.

A follow up mission was carried out to Elbon, where additional cases of AWD were reported as a cause of ongoing population movements and poor sanitation. **ACF** resumed daily chlorination in the village and **WHO** donated 100 bottles Ringer lactate solution, 1000 sachets of ORS, 100 IV fluids and other essential drugs to the health center in Elbon.



Cholera Treatment Centre in Wajid run by World Vision was closed on 12 May because of lack of patients

⁴ The organism responsible for causing cholera is *Vibrio cholerae* serogroup O1 of which there are 2 biotypes, Classical and El Tor. The biotypes are further split into serotypes *Inaba*, *Ogawa* and (rarely) *Hikojima*. If *Hikojima* serotype is confirmed, all 3 serotypes of *Vibrio cholerae* are present during the ongoing outbreak.

Gedo Health Consortium (**GHC**) is running 27 health posts in the proximity of Elbon. Although GHC has sufficient drugs for the ongoing AWD outbreak, it has requested support with additional supplies such as sterile Gloves and cholera beds.

UNICEF is continuing social mobilization to increase awareness on prevention and treatment of AWD through radio messages. UNICEF also distributed supplies to the Somali Red Crescent Society (**SRCS**) like Aqua tablets, Aluminium sulphate, sanitation tools, wheelbarrows, chlorine and ORS.