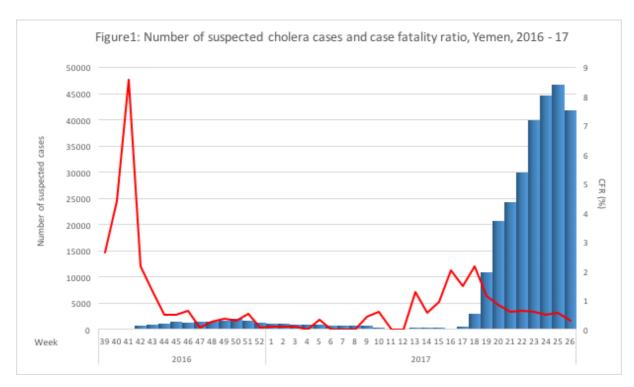
YEMEN: cholera outbreak Weekly epidemiology bulletin Week 26 - 2017



Highlights

- During week 26 (from 25 June to 1 July 2017), **43 282 suspected cholera cases and 147 deaths** were reported in Yemen.
- Since the beginning of this outbreak second wave (from 27 April to 2 July 2017), **262,650** suspected cholera cases, and 1 587 deaths (CFR: 0.6%) have been reported in 21 of the country 23 governorates (91%), and in 86% of the districts (287/333).
- For the first time since the beginning of the outbreak second wave, two cases were reported in Mukkala governorate, and tested positive with rapid diagnostic tests.
- The apparent overall decline of suspected cases reported in the last weekly bulletin was not confirmed, and the apparent decline in the curve shown figure 1 should be interpreted with caution¹. But a decline seems to have started since week 25 in the two most affected governorates, Amanat Al Asimah and Al Hudaydah.



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¹ Given the huge number of back log cases reported every day

Geographical distribution of cases

The four most affected governorates were Amanat Al Asimah, Al Hudaydah, Hajjah and Amran with 48.4% (127 023/262 650) of the cases reported **since 27 April 2017**. Amran governorate had the highest attack rate (18.3‰), followed by Al Mahwit governorate (17.4‰) (see table 1 and figure 2).

Table 1: Number of cholera cases and attack rate by governorate, Yemen, 27 April – 2 July 2017

Governorate	Cases	Attack Rate (‰)
Amanat Al Asimah	37 981	11.5
Al-Hudaydah	31 889	9.5
Hajjah	29 095	13.1
Amran	28 058	18.3
Sana'a	21 157	16.9
lbb	19 993	6.5
Taizz	19 079	6.3
Dhamar	15 443	7.3
Al Mahwit	13 228	17.4
Al Dhale'e	12 360	16.4
Al Bayda	8 067	10.5
Aden	7 939	8.3
Abyan	5 976	9.8
Raymah	4 937	7.8
Lahj	3 597	3.4
Al_Jawf	1 933	3.0
Ma'areb	1 048	2.9
Sa'ada	415	0.5
AL Mahrah	293	1.8
Shabwah	160	0.2
Moklla Total	2 262 650	0.0
TULAI	202 050	8.9

Since 27 June², 29 587 suspected cases and 103 deaths of cholera were reported in 20 governorates and 259 districts (see table 2). The highest numbers of cases were reported in Al Hudaydah and Amran governorates, and in the districts of Al Hali (Al Hudaydah gov., 928 cases, 2 deaths), Kanfir (Abyan gov., 796 cases, 1 death) and Utmah (Dhamar gov., 614 cases, 1 death).

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² Previous weekly epi bulletin was released on 26 June

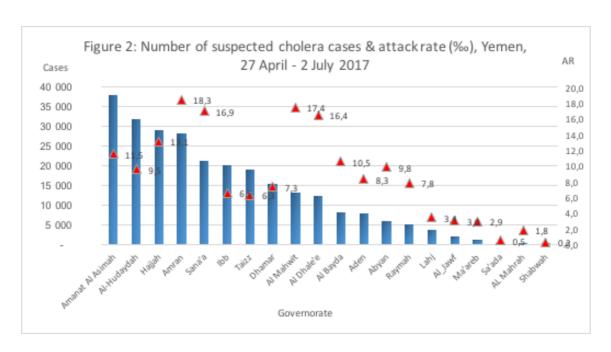
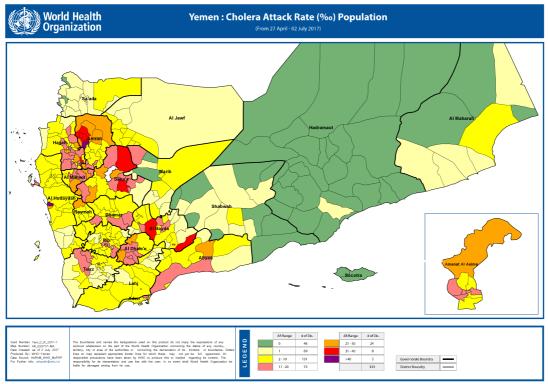


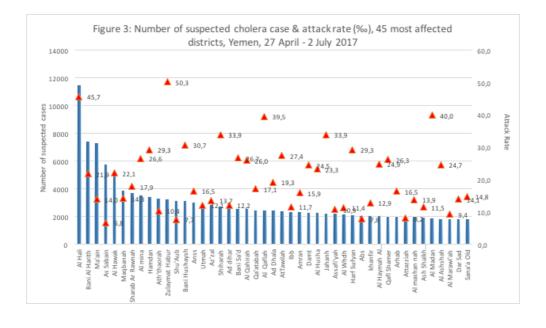
Table 2: Number of cholera cases and deaths by governorate, Yemen, 27 June – 2 July 2017

Governorate	Cases	Deaths
Al-Hudaydah	3 208	19
Amran	2 964	2
Dhamar	2 954	12
lbb	2 702	20
Sana'a	2 434	4
Al Dhale'e	2 254	5
Taizz	2 230	13
Amanat Al Asimah	1 983	-
Al Mahwit	1 766	4
Abyan	1 505	3
Hajjah	1 305	9
Aden	1 097	-
Al Bayda	867	1
Raymah	779	8
Lahj	504	2
Al_Jawf	495	1
Ma'areb	316	-
Sa'ada	91	-
AL Mahrah	79	-
Shabwah	54	
Total	29 587	103

This map shows the suspected cholera attack rate (%) per district



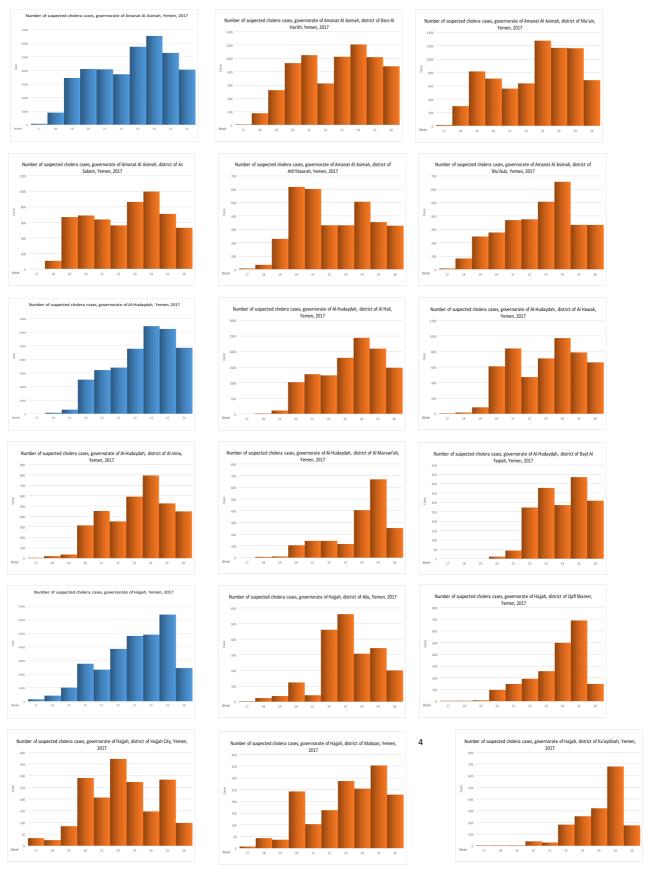
Since 27 April 86,2% of all districts (287/333) have been affected. Figure 3 shows the 45 most affected districts where 52.9% (137 941/260 520)³ of the cases have been reported. The highest number of cases were reported in Al Hali (Al Hudaydah gov., 11 518 cases, 21 deaths), Bani Al Harith (Amanat Al Asimah gov., 7 464 cases, 10 deaths) and Ma'ain (Amanat Al Asimah gov., 7 330 cases, 7 deaths). Zulaymat Habur (Amran gov.) and Al Hali (Al Hudaydah gov.) had the highest attack rates (respectively 50.3‰ and 45.7‰).



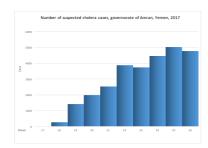
³ 2 130 missing values

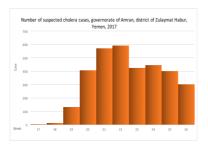
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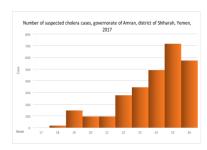
Figure 4: Epidemic curves of most affected governorates and districts, Yemen, 27 April – 2 July 2017

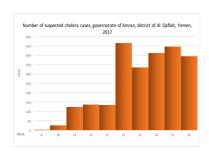


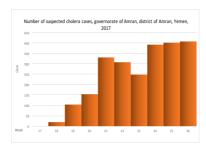
 $^{^4}$ Hajjah governorate and district curves should be interpreted with caution since there are usually reporting late

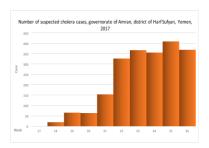


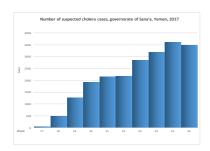


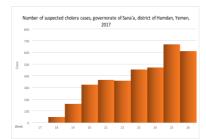


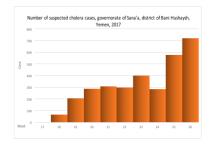


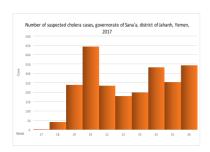


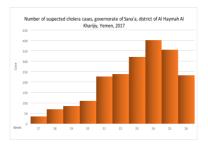


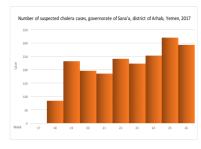


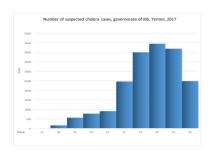


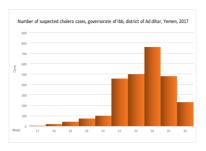


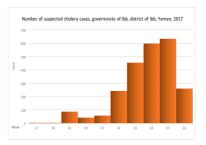


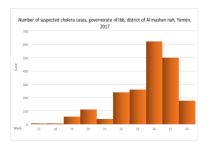


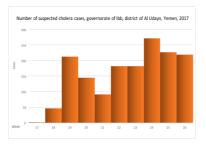


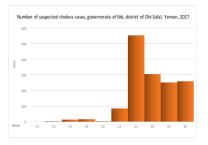










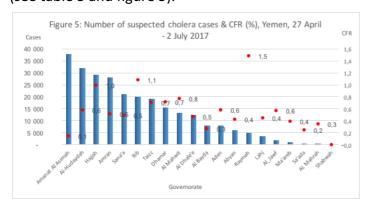


Case fatality ratio, and age and sex distribution

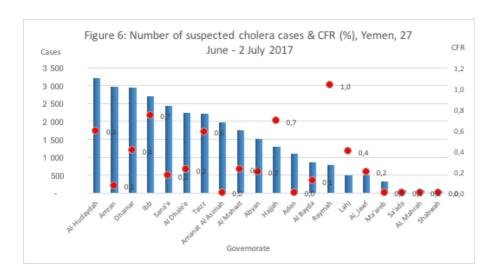
Table 3: Number of cholera cases and case fatality ratio (CFR), Yemen, 27 April – 2 July 2017

Governorate	Number of cases	Proportion of cases (%)	Number of deaths	CFR (%)
Amanat Al Asimah	37 981	14.5	53	0.1
Al-Hudaydah	31 889	12.1	184	0.6
Hajjah	29 095	11.1	288	1.0
Amran	28 058	10.7	144	0.5
Sana'a	21 157	8.1	103	0.5
Ibb	19 993	7.6	216	1.1
Taizz	19 079	7.3	134	0.7
Dhamar	15 443	5.9	109	0.7
Al Mahwit	13 228	5.0	101	0.8
Al Dhale'e	12 360	4.7	57	0.5
Al Bayda	8 067	3.1	21	0.3
Aden	7 939	3.0	46	0.6
Abyan	5 976	2.3	25	0.4
Raymah	4 937	1.9	73	1.5
Lahj	3 597	1.4	16	0.4
Al_Jawf	1 933	0.7	11	0.6
Ma'areb	1 048	0.4	4	0.4
Sa'ada	415	0.2	1	0.2
AL Mahrah	293	0.1	1	0.3
Shabwah	160	0.1	-	-
Moklla	2	0.0	-	-
Total	262 650	100.0	1 587	0.6

From 27 April to 2 July, the overall case fatality ratio (CFR) was 0.6 % (1 587/262 650). The highest CFR were still reported in Raymah and Ibb governorates, respectively 1.5% and 1.1%, (see table 3 and figure 5).



Since 27 June, the overall CFR was 0.3% (103/29 587) and was the highest in Raymah governorate (1.0%, 8/779) (see figure 6).



The male/female sex ratio was 0.9. The highest proportion of cases was still seen in the 15-29 year age group (i.e. 28.1%). Patients aged under 18 years old were 46.7% of the total. People over 60 years old were more at risk of dying (CFR: 2.9%), followed by cases in the 45-60 year age group (CFR: 1.1%) (see table 4). CFR was slightly higher in male than in female cases (respectively 0.7% and 0.6%).

Table 4: Distribution of cholera cases and deaths by age, Yemen, 27 April – 2 July 2017

Age (y.o.)	Cases			Deaths				
	Male	Female	Total*	% of cases	Male	Female	Total**	CFR (%)
< 5	25 858	21 739	47 597	18.2	142	104	246	0.5
5 - 14	31 027	28 129	59 156	22.7	119	118	237	0.4
15 - 29	30 199	43 027	73 226	28.1	59	87	146	0.2
30 - 44	17 712	25 299	43 011	16.5	94	119	213	0.5
45 - 60	8 807	11 922	20 729	7.9	121	108	229	1.1
> 60	7 987	9 282	17 269	6.6	258	244	502	2.9
Total	121 590	139 398	260 988	100.0	793	780	1 573	0.6
*1 662 missing values				**14 miss	ing values			

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Note: This bulletin is now released once a week. A shorter update is proposed daily. You can find them on EMRO <u>website</u>.