



Highlights:

- The cumulative total of probable diphtheria from week 33 to 29 December 2017 is 429 and 42 associated deaths.
- During week 52 (from week 33 to 29 December 2017), 16 probable diphtheria and 0 deaths were reported in Yemen.
- The national attack rate is 0.16 per 10,000 and CFR is 10%. The governorates with the highest cumulative of probable cases are Ibb (53% of the cases) and Al Hudeydah.
- 18 governorates and 90 districts are affected. Ibb is the most affected governorate.
- 50% of the probable case were between 5-14 years old
- 63% were not vaccinated at all.
- 17 tests were positive for Gram stain and Albert stain

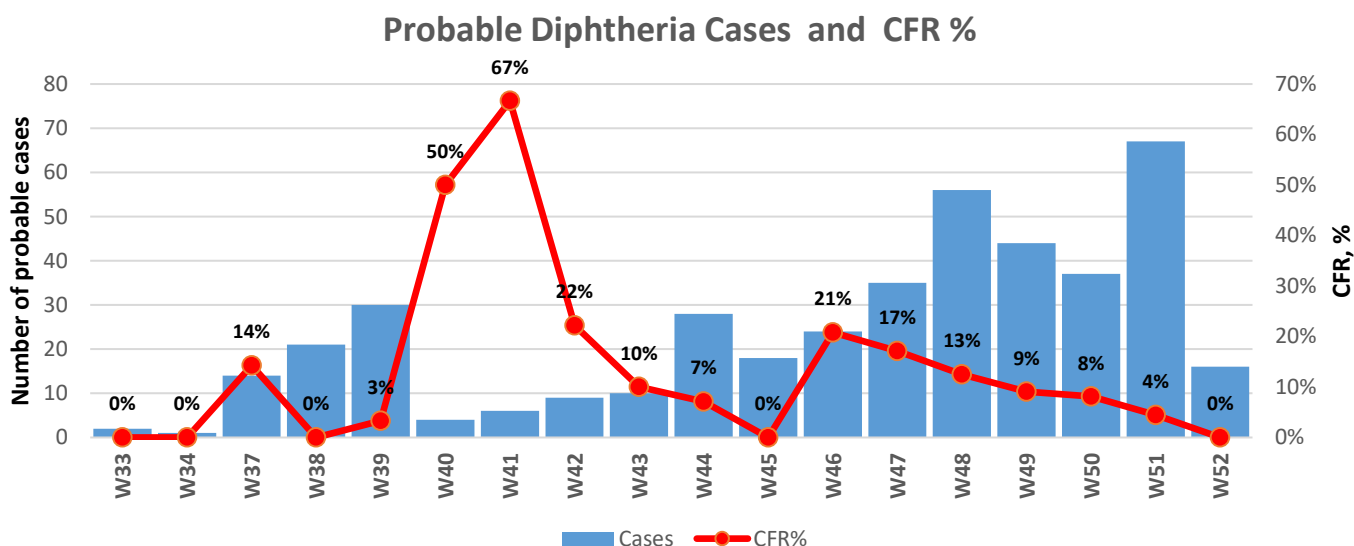


Figure 1: number of probable diphtheria cases per epiweek, and CFR, Yemen, 2017

Geographical distribution of cases and deaths

The most affected governorates are Ibb (53.9%) and Al Hudaydah . Ibb has the highest attack rate (0,75 per 10 000), followed by Aden (0.30 per 10000).

The highest cumulative number of deaths is in Ibb.

Governorate	Cases	Population	AR/10000	Death	CFR%
Ibb	226	3017004	0.75	13	6%
Al Hudaydah	50	3315812	0.15	11	22%
Aden	29	955022	0.30	2	7%
Amran	24	1173542	0.20	3	13%
Sana'a	23	1497466	0.15	0	0%
Dhamar	20	2064534	0.10	2	10%
Taizz	13	3056222	0.04	4	31%
Hajjah	12	2442558	0.05	2	17%
Amanat Al Asimah	10	2964094	0.03	0	0%
Al Mahwit	4	749974	0.05	1	25%
Sa'ada	4	959746	0.04	1	25%
Abyan	4	583242	0.07	2	50%
Lahj	3	1028118	0.03	0	0%
Al Bayda	2	770358	0.03	0	0%
Marib	2	368613	0.05	0	0%
Hadramaut	1	1468311	0.01	0	0%
Raymah	1	622106	0.02	0	0%
Al Jawf	1	589320	0.02	1	100%
Total	429	27626042	0.16	42	10%

Table 1: Number of probable diphtheria cases and deaths, AR and CFR, per governorate, Yemen, week 33- 52, 2017

In Ibb governorates, As saddah and Yareem districts are the most affected. In Al Hudeydah, the districts of Al Hali and bayt el faquiah are more affected.

Probable Diphtheria Cases by District in Yemen

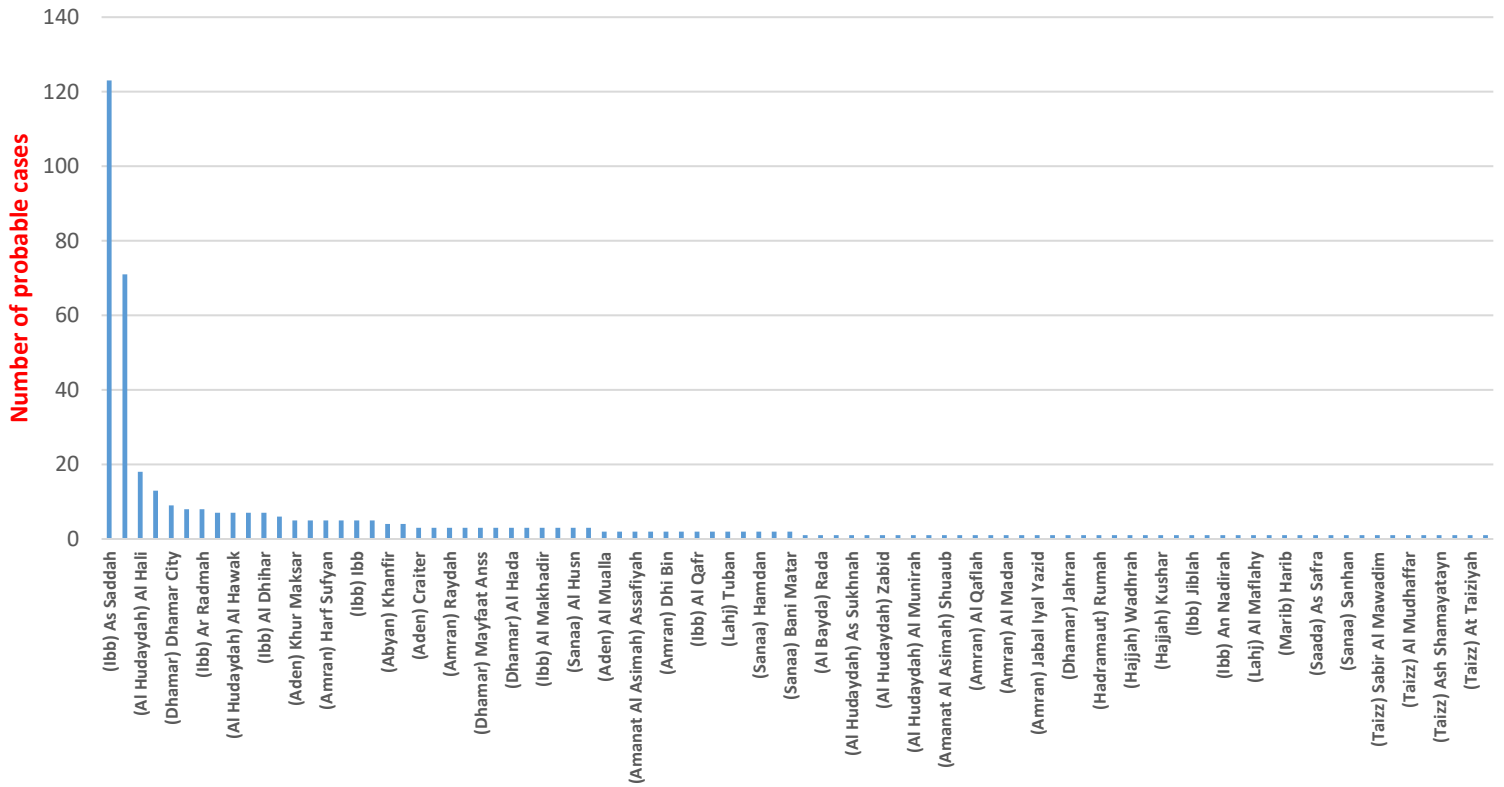


Figure 2: Number of probable diphtheria cases per district, Yemen, week 33-52, 2017

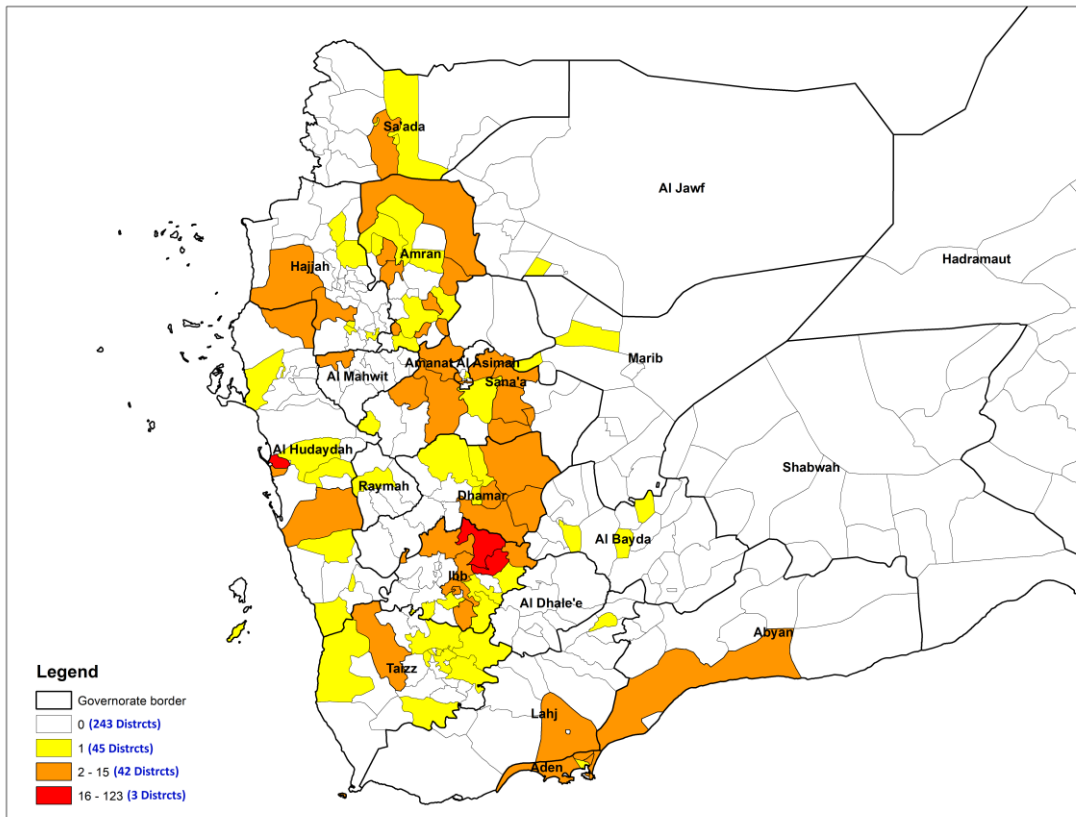


Figure 3: map of number of probable cases per district, Yemen, week 33-52, 2017

Epi curves in the most affected Districts

In total there were 226 cases in Ibb governorate, 71 in Yareem and 123 in As Saddah.

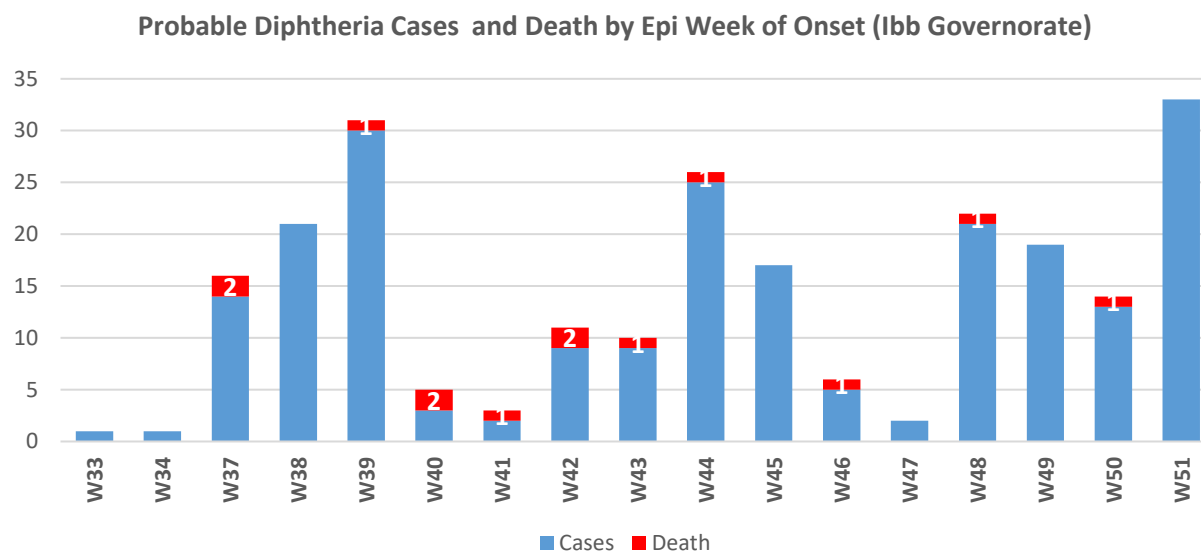


Figure 4: epicurve of probable diphtheria cases and deaths in Ibb governorate, Yemen, week 33- 52, 2017

- **Yareem District (Ibb)**

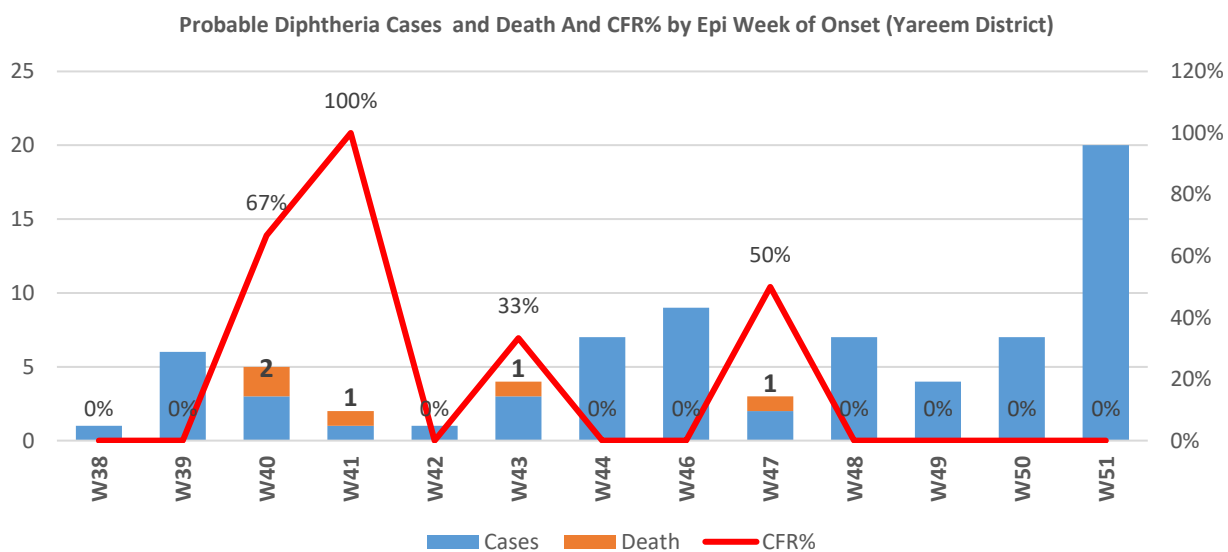


Figure 5: Epicurve of probable diphtheria cases and deaths, Yareem district, Yemen, week 33-52, 2017

- As Sadah District (Ibb)

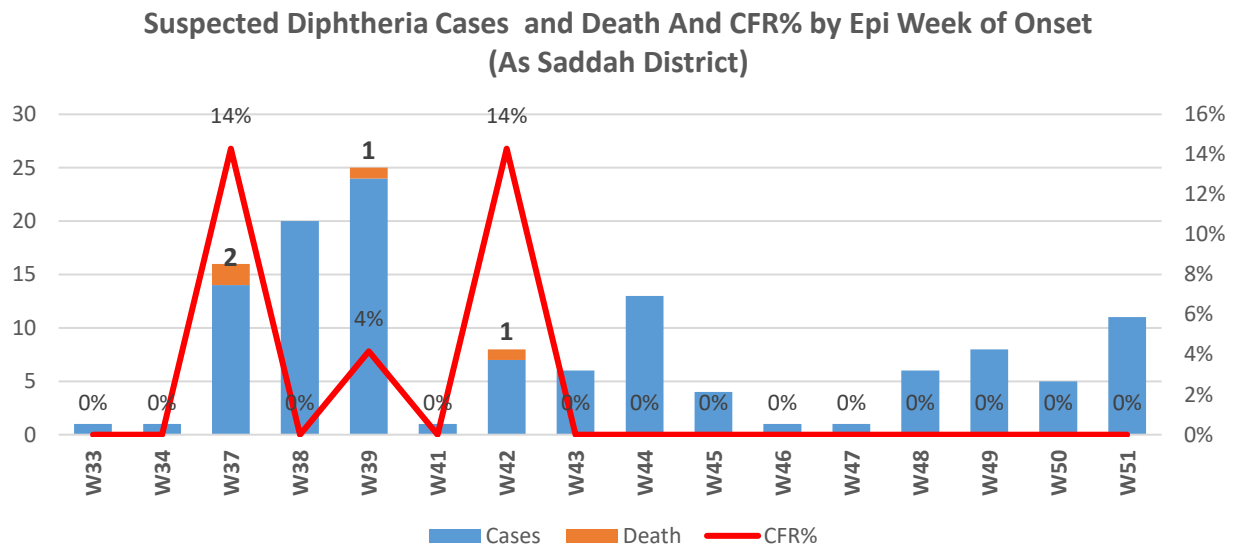


Figure 6: Epicurve of probable diphtheria cases and deaths, As Saddah district, Yemen, week 33-52, 2017

Sex and age distribution

The male/female sex ratio was 0.9. The highest proportion of cases was seen in the 5-14 year age group (i.e. 50%). The proportion of under-five y.o. cases was 17% and this age group was more at risk of dying (CFR: 17%).

Table 2: Distribution of probable cases and deaths by age and sex, Yemen, week 33-52, 2017

Age Group	Cases				Death			
	Female	Male	Total	% of cases	Female	Male	Total	Specific CFR %
0-4	29	43	72	17%	6	6	12	17%
5-14	94	116	210	50%	12	13	25	12%
15 - 24	38	34	72	17%	3	1	4	6%
25 - 44	30	20	50	12%	0	0	0	0%
45- 64	14	3	17	4%	0	1	1	6%
>65	0	2	2	0%	0	0	0	0%
Total	205	218	423	100%	21	21	42	10%
	6 Missing values							

Vaccination Status

Among the 419 cases, 268 (63%) were not vaccinated with diphtheria vaccine, 27% received 3 doses.

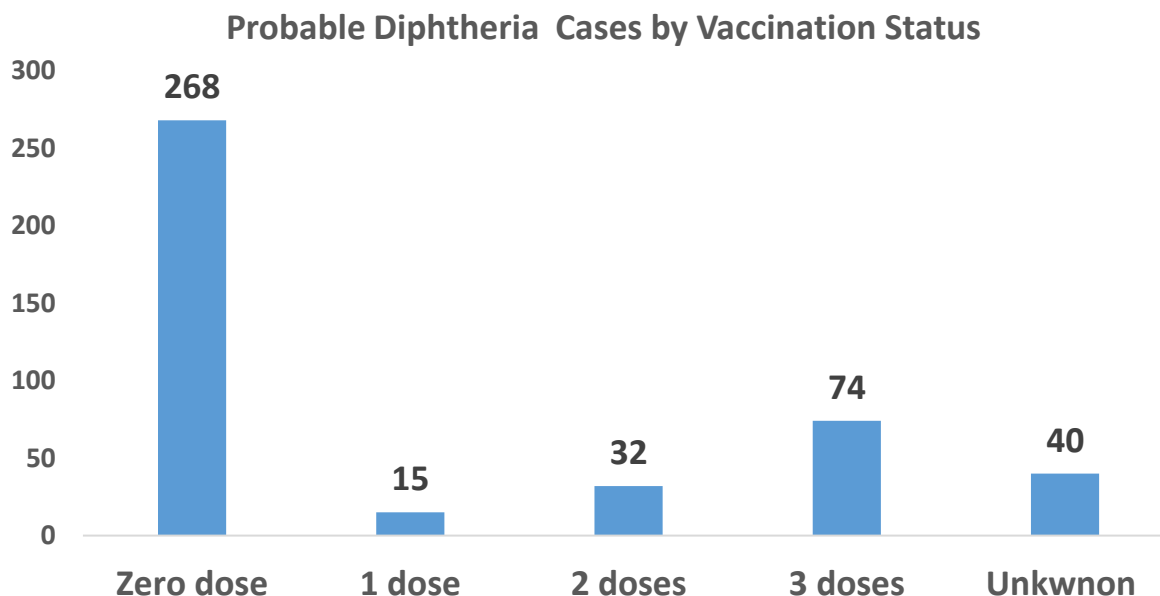


Figure 7: Vaccination status of probable diphtheria cases, Yemen, week 33-52

Laboratory

In total, 47 samples were taken for Albert stain and Gram stain test in Ibb, Al hudeydah and Sanaa.

In total, 17 were positive for Albert stain and gran stain: Ibb (11/40), Al Hudaydah (4/5), Sanaa (2/2).

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