



# اليمن Yemen

## الاستجابة للكوليرا Cholera Response

برنامج الترصد الإلكتروني للأمراض  
Electronic Disease Early Warning System (eDEWS)

النشرة الوبائية الأسبوعية  
Weekly Epidemiological Bulletin  
W5 2018 (Jan 29-Feb 04)

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### جدول المحتويات Table of Contents

A. Summary indicators	ملخص المؤشرات أ.
B. Epidemic curve	المحنى الوبائي ب.
C. Key indicators by Governorate	المؤشرات الرئيسية حسب المحافظة ج.
D. Laboratory indicators	المؤشرات المختبرية د.
E. Geographic distribution over time	التوزيع الجغرافي مع مرور الوقت هـ.
F. Districts reporting in past week	المنديات ذات الأولوية هـ.
G. Epidemic curves by Governorate	المحنى الوبائي حسب المحافظة هـ.

### Highlights

#### Cumulative figures

- The cumulative total from 27 April 2017 to 4 Feb 2018 is 1,055,788 suspected cholera cases and 2,255 associated deaths, (CFR 0.21%), 1102 have been confirmed by culture.
- 59.3 % of death were severe cases at admission
- The total proportion of severe cases among the suspected cases is 16.1%
- The national attack rate is 381.19 per 10,000. The five governorates with the highest cumulative attack rates per 10,000 remain Amran (892), Al Mahwit (852), Al Dhale'e (644), Hajjah (520) and Sana'a (513).
- Children under 5 years old represent 28.7% of total suspected cases.
- In total, 28,999 rapid diagnostic tests (RDT) have been performed which represents 27.5% coverage.
- 2,723 cultures have been performed which represents 22.5% coverage.
- The last positive culture was on 13 Jan 2018 in Al-Wahda district in Amanat Al-Asimah
- 187 districts are still reporting suspected cholera cases since last 3 weeks
- 118 districts (out of 305 affected districts) did not report any suspected cases for the last three consecutive weeks

#### Governorate and District level

- At governorate level, the trend from W3 –W5 decrease or was stable in all governorates except (Al Jawf governorate) (+67%).

#### Trends

- The weekly number of cases is decreasing for the 21 consecutive weeks.
- The weekly proportion of severe cases has significantly decreased representing now 10% of the admitted cases.

#### Week 5 2018

- 3,633 suspected cases and 1 associated deaths were reported
- 10 % are severe cases
- 545 RDTs were performed, 105 were positive
- No culture test was performed this week

## A. ملخص المؤشرات Summary indicators



**Cholera Response** | Cumulative figures from 27/04/2017 to 4/2/2018

**1,055,788**

حالات الاشتباه  
Suspected cases

حالة نشأة في  
الأسبوع الحالي  
3,633 suspected cases  
in current week

**2,255**

الوفيات  
Associated deaths

حالة وفاة في  
الأسبوع الحالي  
1 associated deaths  
in current week

**0.21%**

معدل الاماتة بين الحالات  
Case Fatality Rate

**96%**

المحافظات المتأثرة بالوباء  
Governorates affected

( 23 / 22 محافظة )  
( 22 / 23 governorates )

**92%**

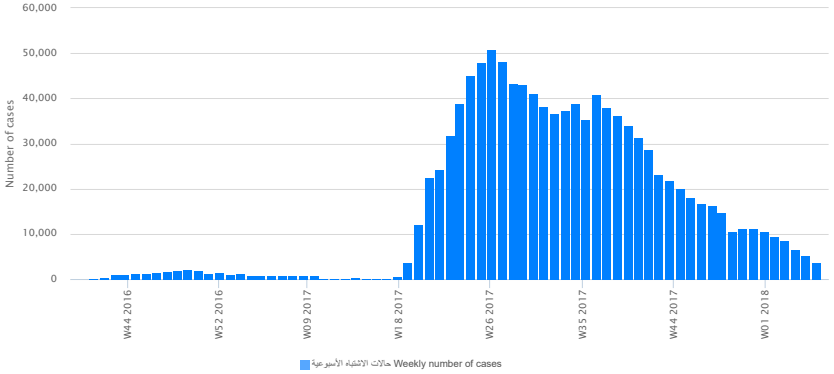
المديريات المتأثرة بالوباء  
Districts affected

( 333 / 305 مديرية )  
( 305 / 333 districts )

## B. المنحنى الوبائي Epidemic curve

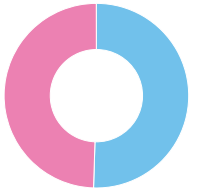
الشكل (1) المنحنى الوبائي على المستوى الوطني

Figure 1 | Epidemic curve (Country)



الشكل (2) حالات الكوليرا على مستوى الجنس

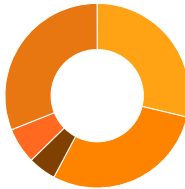
Figure 2a Cases by sex (Cumul.)



ذكر Male ( 53% ; n = 17,637 )  
أنثى Female ( 47% ; n = 15,893 )

الشكل (2ب) حالات الكوليرا على مستوى الفئات العمرية

Figure 2b Cases by age (Cumul.)



< 5 ( 28.7% ; n = 300,219 )  
5-17 ( 29.0% ; n = 303,400 )  
18-44 ( 31.0% ; n = 323,895 )  
45-59 ( 6.3% ; n = 65,932 )  
≥ 60 ( 4.9% ; n = 51,105 )

الشكل (2 ج) حالات الكوليرا بالنتيجة للمرضى

Figure 2c Cases by outcome (Cumul.)



مُخْرَج Discharged ( 66.34% ; n = 700,387 )  
مُرْفَع Referred ( 0.32% ; n = 3,390 )  
مُتَوَفَّى Died ( 0.21% ; n = 2,255 )  
مُجْمَعٌ غير معروف Unknown ( 33.34% ; n = 352,011 )

## Trends in cases by age distribution and dehydration status

Figure 2d | Trend in proportion of cases aged under 5<sup>1</sup>

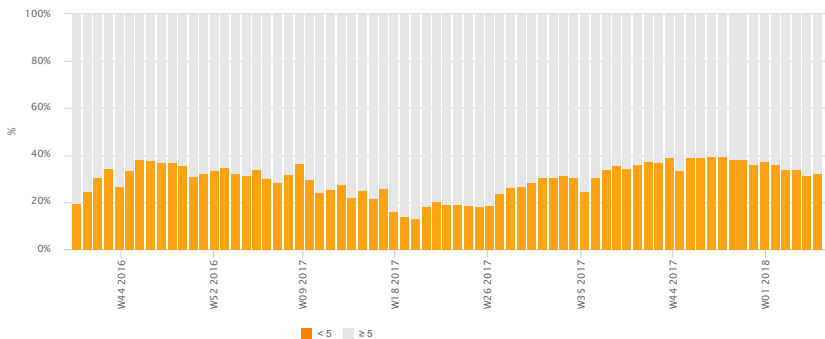
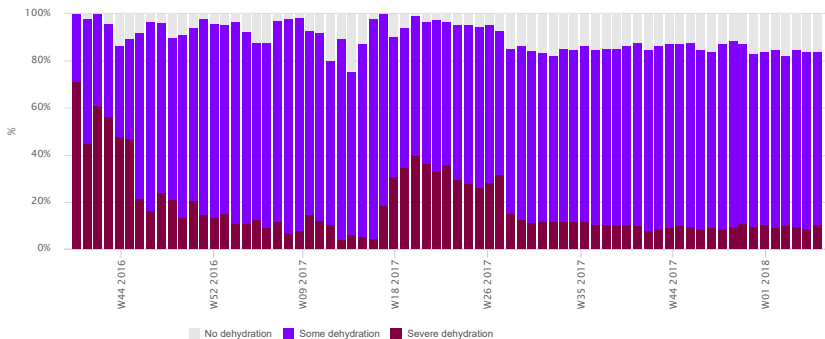


Figure 2e | Trend in proportion of cases by dehydration status<sup>1</sup>



<sup>1</sup> Trends in proportional age distribution and dehydration status always add up to 100% and do not give any indication of the number of cases reported. For this reason, these may reflect cases that are not visible in the epidemic curve due to the scale of the y-axis and the huge difference in the case counts between the first and second waves of the outbreak.

## C. Key indicators by governorate

جدول (1) خلاصة بالموشرات الرئيسية بالسياسة للمحافظة

Table 1 | Summary of key cholera indicators by Governorate

المحافظة Governorate	تراكمي Cumulative (27/04/2017 to 4/2/2018)			الاتجاه 3 أسابيع 3 week trend						
	حالات الإصابة Cases	الوفيات Deaths	معدل الإصابة CFR <sup>1</sup>	السكان Population	معدل الإصابة AR <sup>2</sup>	-3 أسابيع -3W	-2 أسابيع -2W	-1 أسابيع -1W	الأسبوع الحالي W	الاتجاه Trend <sup>3</sup>
عمران Amran	103,556	176	0.17%	1,160,559	892.29	642	494	360	262	▼ -28%
المحويت Al Mahwit	62,275	151	0.24%	730,209	852.84	403	371	425	267	► 6%
الذليع Al Dhale'e	47,135	81	0.17%	731,496	644.36	6	0	0	3	▼ -100%
حجة Hajjah	121,284	422	0.35%	2,329,741	520.59	1,533	518	29	1	▼ -96%
صعدة Sana'a	75,531	123	0.16%	1,470,346	513.70	992	522	400	350	▼ -37%
ذمار Dhamar	102,185	161	0.16%	2,012,264	507.81	1,031	950	699	641	▼ -22%
أبين Abyan	28,241	35	0.12%	570,832	494.73	0	0	0	0	■ Interrupt
الحديدة Al Hudaydah	154,262	281	0.18%	3,238,199	476.38	1,073	1,202	939	711	▼ -12%
البيشة Al Bayda	29,980	35	0.12%	759,388	394.79	356	462	448	258	► 6%
أمانة العاصمة Amanat Al Asimah	101,910	71	0.07%	2,827,824	360.38	846	763	793	475	► -1%
ريمة Raymah	17,445	120	0.69%	606,776	287.50	554	397	344	223	▼ -20%
الجوف Al Jawf	15,957	22	0.14%	578,585	275.79	13	38	64	21	▲ +67%
لحج Lahj	24,342	22	0.09%	1,008,864	241.28	1	0	0	1	▼ -100%
عدن Aden	20,932	62	0.30%	922,996	226.78	22	19	21	24	► 2%
إب Ibb	66,147	287	0.43%	2,957,138	223.69	668	469	509	240	► -7%
تعز Taizz	63,457	188	0.30%	2,998,300	211.64	415	373	242	156	▼ -30%
مأرب Marib	7,286	7	0.10%	358,542	203.21	0	0	1	0	▲ +200%
صعدة Sa'ada	10,706	5	0.05%	905,145	118.28	1	2	1	0	▼ -25%
المهرة Al Maharah	1,168	1	0.09%	148,478	78.86	0	0	0	0	■ Interrupt
شبووة Shabwah	1,399	3	0.21%	604,243	23.15	0	0	0	0	■ Interrupt
المكلا Mokla	568	2	0.35%	400,788	14.17	0	0	0	0	■ Interrupt
سواة Say'oon	22	0	0.00%	376,237	0.58	0	0	0	0	■ Interrupt
اليمن Yemen	1,055,788	2,255	0.21%	27,696,950	381.19	8,556	6,580	5,275	3,633	▼ -22%

<sup>1</sup> معدل الإماتة بين الحالات

<sup>2</sup> معدل الإصابة لكل 10,000 من السكان

<sup>3</sup> تم حساب الاتجاه بناءً على متوسط عدد الحالات خلال ثلاثة أسابيع سابقة (لم يتم تضمين الأسبوع الحالي في حساب الاتجاه بسبب عدم اكتمال البيانات)

متزايد ▲	غير معدل ≥ +10%
متزايد مستقر ►	غير معدل > -10% to < +10%
متناقص ▼	غير معدل < -10%
■ انقطاع في الإرسال	عدد 0 حالة خلال 3 أسابيع متتالية

<sup>1</sup> Case Fatality Rate

<sup>2</sup> Attack Rate (10,000 population)

<sup>3</sup> Trend based on average number of cases in previous 3 weeks (current week excluded due to incomplete data)

▲ Increased trend	≥ +10% change
► Stable trend	> -10% to < +10% change
▼ Decreased trend	≤ -10% change
■ Interruption in transmission	0 cases for 3 consecutive weeks

## D. Laboratory

Figure 4 | RDT results by week

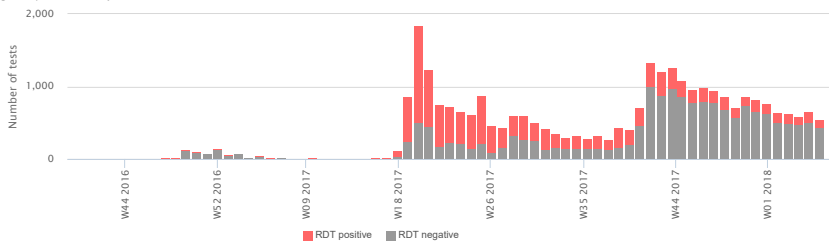
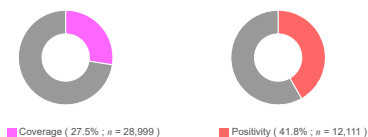


Figure 5 | Rapid Diagnostic Kit (RDT)



\*Coverage of RDT is calculated based on (10% of the suspected cases)

Figure 6 | Culture



\*Coverage of culture is calculated based on (Number of culture performed/Number of positive RDT)

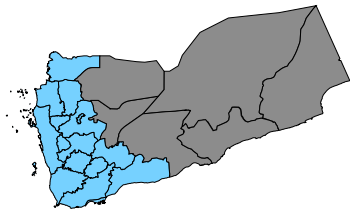
Table 2 | Summary of key laboratory indicators by Governorate

Governorate	Rapid Diagnostic Kit (RDT)					Culture				
	Cases	Total tested	Coverage	Total +ve	+vity rate	Total tested	Coverage	Total +ve	+vity rate	
Abyan أبين	28,241	238	8.4%	151	63.4%	39	25.8%	23	59.0%	
Aden عدن	20,932	584	27.9%	363	62.2%	173	47.7%	118	68.2%	
Al Bayda البويدة	29,980	1870	62.4%	816	43.6%	194	23.8%	9	4.6%	
Al Dhale'e الضالع	47,135	347	7.4%	125	36.0%	42	33.6%	3	7.1%	
Al Hudaydah الحديدة	154,262	3034	19.7%	1099	36.2%	392	35.7%	227	57.9%	
Al Jawf الجوف	15,957	1398	87.6%	904	64.7%	55	6.1%	12	21.8%	
Al Maharah المهرة	1,168	263	225.2%	118	44.9%	25	21.2%	14	56.0%	
Al Mahwit المحويت	62,275	1930	31.0%	955	49.5%	58	6.1%	13	22.4%	
Amanat Al Asimah أمارة العاصمة	101,910	5136	50.4%	2145	41.8%	489	22.8%	188	38.4%	
Amran عمران	103,556	2121	20.5%	666	31.4%	89	13.4%	23	25.8%	
Dhamar ذمار	102,185	2965	29.0%	399	13.5%	119	29.8%	23	19.3%	
Hajjah حجة	121,284	766	6.3%	178	23.2%	46	25.8%	14	30.4%	
Ibb إب	66,147	693	10.5%	459	66.2%	99	21.6%	13	13.1%	
Lahj لحج	24,342	1160	47.7%	588	50.7%	44	7.5%	18	40.9%	
Marib مارب	7,286	192	26.4%	124	64.6%	2	1.6%	0	0.0%	
Mokalla المكلا	568	105	184.9%	80	76.2%	55	68.8%	32	58.2%	
Raymah ريمه	17,445	589	33.8%	385	65.4%	32	8.3%	5	15.6%	
Sa'ada صنعاء	10,706	920	85.9%	752	81.7%	12	1.6%	0	0.0%	
Sana'a صنعاء	75,531	3195	42.3%	792	24.8%	294	37.1%	44	15.0%	
Say'on سيئون	22	21	954.5%	9	42.9%	11	122.2%	0	0.0%	
Shabwah شبوة	1,399	127	90.8%	53	41.7%	51	96.2%	9	17.6%	
Taizz تعز	63,457	1345	21.2%	950	70.6%	402	42.3%	314	78.1%	
Yemen اليمن	1,055,788	28,999	27.5%	12,111	41.8%	2,723	22.5%	1,102	40.5%	

## E. Geographic distribution over time

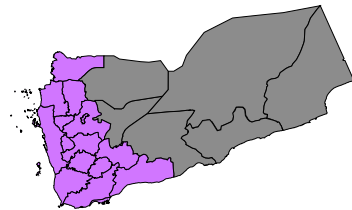
الخريطة (1 أ) عدد حالات الإسهال للمحافظات

Map 1a | Number of cases by governorate (Jan 2017 - Apr 2017)



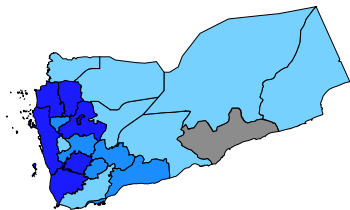
الخريطة (1 ب) معدل الإصابة للمحافظات

Map 1b | Attack rate by governorate (Jan 2017 - Apr 2017)



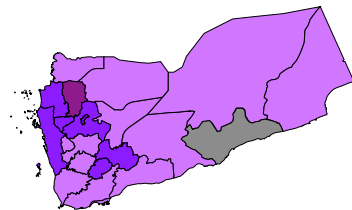
الخريطة (1 ج) عدد حالات الإسهال للمحافظات

Map 1c | Number of cases by governorate (Jan 2017 - Jun 2017)



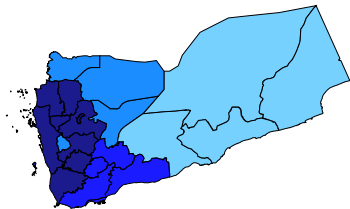
الخريطة (1 د) معدل الإصابة للمحافظات

Map 1d | Attack rate by governorate (Jan 2017 - Jun 2017)



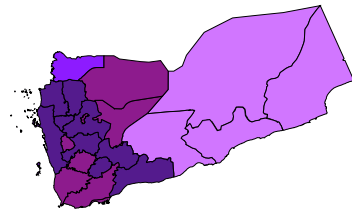
الخريطة (1 هـ) عدد حالات الإسهال للمحافظات

Map 1e | Number of cases by governorate (Jan 2017 - present)



الخريطة (1 و) معدل الإصابة للمحافظات

Map 1f | Attack rate by governorate (Jan 2017 - present)



عدد حالات الكوليرا  
Number of cholera cases



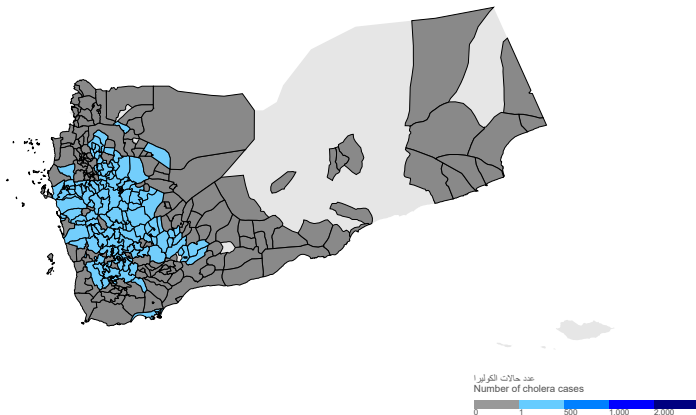
معدل الإصابة لكل 10,000 من السكان  
Attack rate (/10,000)



## F. Districts reporting in current week

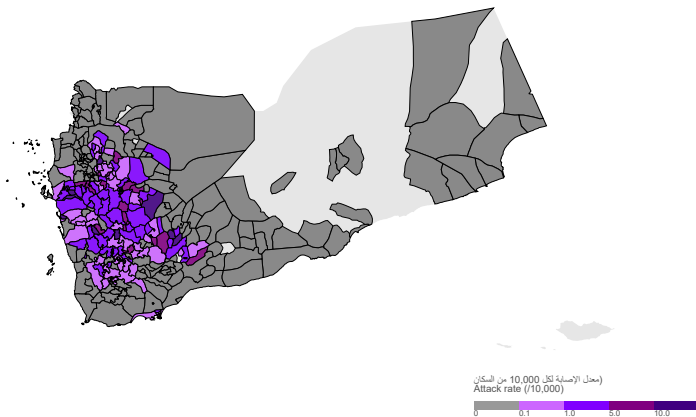
الخريطة (2) عدد حالات الإسهال الأولوية

Map 2 | Number of cases by district (W5 2018)



الخريطة (3) معدل الإصابة الأولوية

Map 3 | Attack rate by district (W5 2018)



## G. المنحنى الوبائي حسب المحافظة Epidemic curves by Governorate

Figure 3a | أبين Abyan

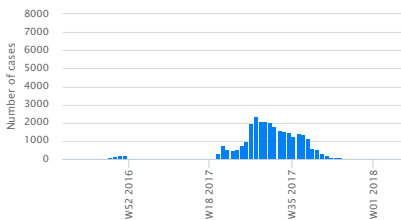


Figure 3b | عدن Aden

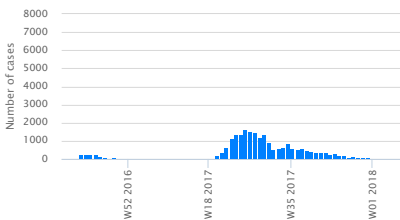


Figure 3c | البوضاء Al Bayda

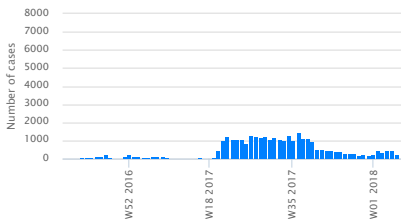


Figure 3d | الضالع Dhale'e

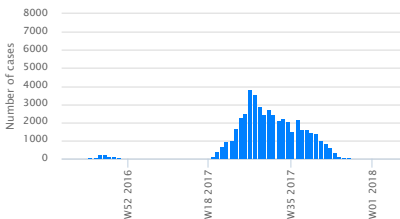


Figure 3e | الحديدة Hudaydah

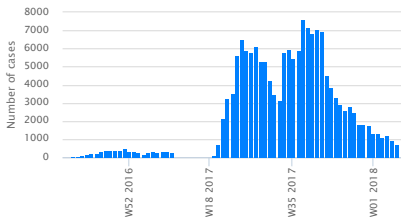


Figure 3f | الجوف Al Jawf

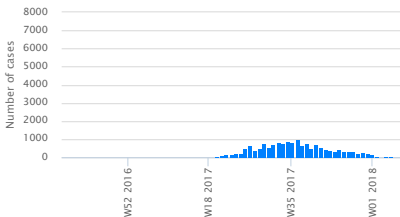


Figure 3g | المهرة Maharah

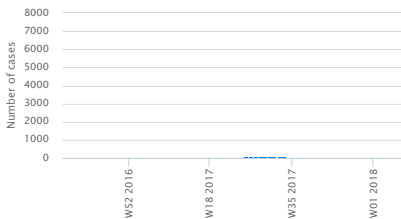


Figure 3h | المحويت Mahwit

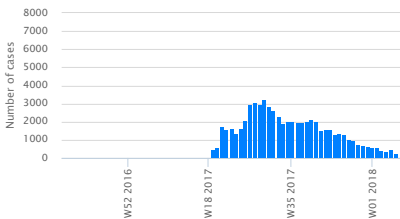




Figure 3i | Amanat Al Asimah العاصمة أمانة

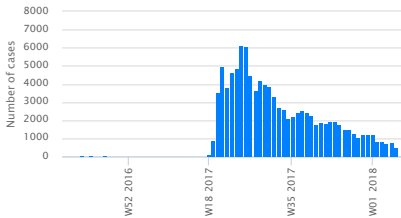


Figure 3j | Amran عمران

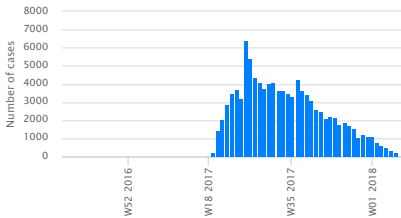


Figure 3k | Dhamar ذمار

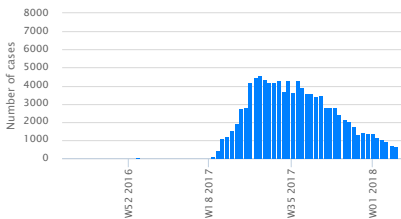


Figure 3l | Hajjah حجة

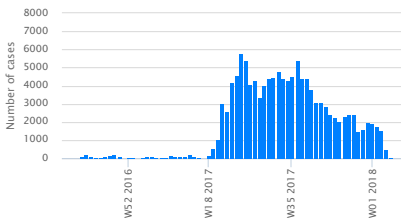


Figure 3m | Ibb إب

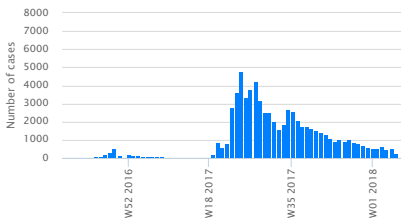


Figure 3n | Lahj لحج

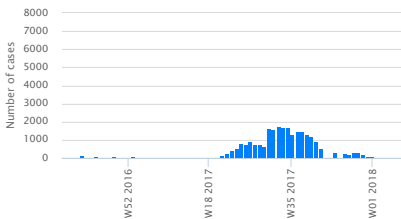


Figure 3o | Marib مأرب

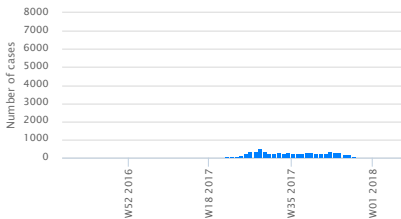


Figure 3p | Raymah ريمة

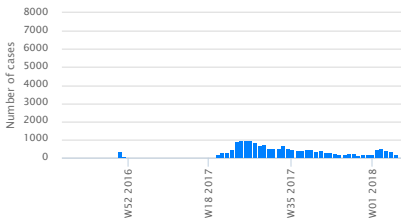


Figure 3q | Sa'ada صنعاء

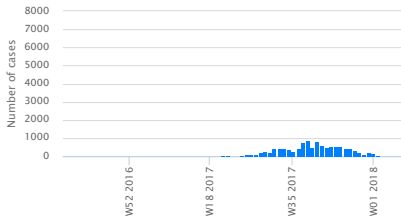


Figure 3r | Sana'a صنعاء

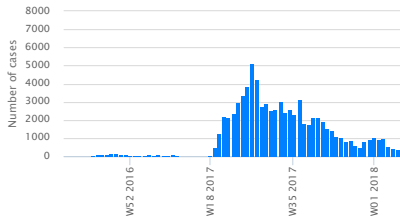


Figure 3s | Say'un سبأون

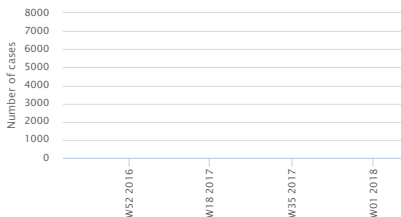


Figure 3t | Shabwah شبوة

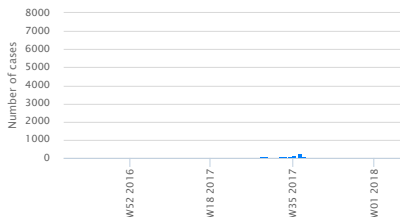
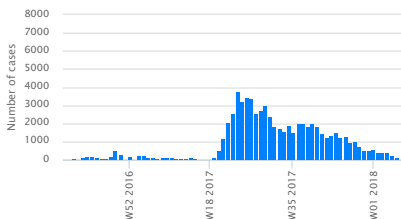


Figure 3v | Taizz تعز



لتواصل  
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**Yemen Cholera Response Portal**  
has been deployed since July 2017 to strengthen surveillance in response to the cholera outbreak in Yemen. <http://ye.ewars.ws/login>

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التفئة الخاصة بالاستجابة لوباء الكوليرا في اليمن  
تم النشر بتاريخ يوليو 2017 لتعزيز الترصد والاستجابة لوباء  
الكوليرا في اليمن <http://ye.ewars.ws/login>

World Health Organization