



اليمـن Yemen

# الاستجابة للكوليرا Cholera Response

برنامـج الترصد الـاـلكتروني للـامراض  
Electronic Disease Early Warning System (eDEWS)

الـنشرة الـوبائيـة الأـسبوعـية  
Weekly Epidemiological Bulletin  
W50 2017 (Dec 11-Dec 17)

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ملخص المؤشرات .  
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المؤشرات الرئيسية حسب المحافظة .  
المؤشرات المختبرية .  
التوزيع الجغرافي مع مرور الوقت .  
المديريات ذات الأولوية .  
المنحنى الوبائي حسب المحافظة .

## Highlights

### Cumulative figures

- The cumulative total from 27 April 2017 to 17 December 2017 is 994,751 suspected cholera cases and 2,226 associated deaths, (CFR 0.22%), 1069 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 17.5%
- The national attack rate is 361.19 per 10,000. The five governorates with the highest cumulative attack rates per 10,000 remain Amran (848), Al Mahwit (805), Al Dhale'e (643), Abyan (494) and Hajjah (479).
- Children under 5 years old represent 28.3% of total suspected cases.
- In total, 24,129 rapid diagnostic tests (RDT) have been performed which represents 24.3% coverage.
- 2,535 cultures have been performed which represents 22.8% coverage.
- The last positive culture was on 4 Dec 2017 in Kuhlan affar district.
- 95 districts did not report any suspected case the last three consecutive 3 weeks.

### Governorate and District level

- At governorate level, the trend from W48-W50 decrease or was stable in all governorates.

### Trends

- The weekly number of cases is decreasing for the 14 consecutive weeks.
- The weekly proportion of severe cases has significantly decreased representing now 10% of the admitted cases.

### Week 50

- 7,7622 suspected cases and 1 associated deaths were reported
- 10 % are severe cases
- 615 RDTs were performed, 99 were positive
- 0 Positive culture



## Cholera Response | Cumulative figures from 27/04/2017 to 17/12/2017

**994,751**

حالات الاشتباه  
Suspected cases

**2,226**

الوفيات  
Associated deaths

**0.22%**

معدل الاماته بين  
الحالات  
Case Fatality Rate

**96%**

المحافظات المتأثرة  
بالوباء  
Governorates affected

**92%**

المديريات المتأثرة  
بالوباء  
Districts affected

( محافظة 23 / 22 )

( 22 / 23 governorates )

( مديرية 333 / 305 )

( 305 / 333 districts )

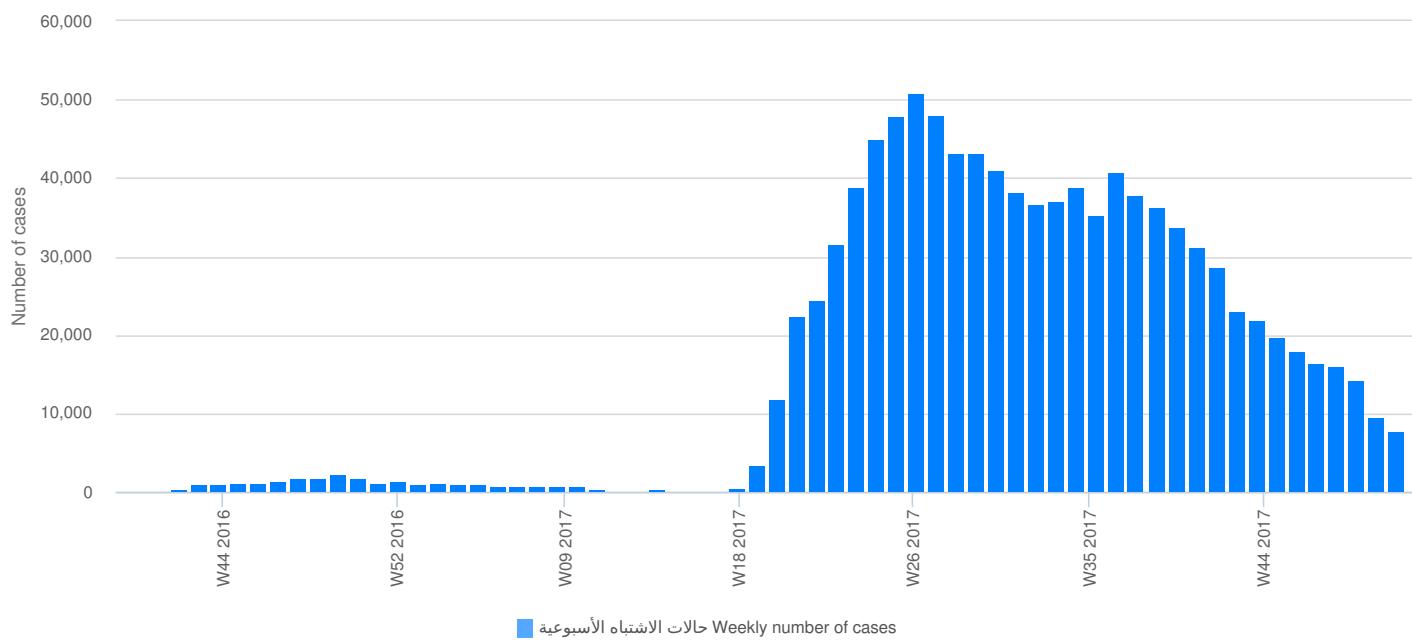
حالة اشتباه في  
الأسبوع الحالي  
7,762 suspected cases  
in current week

حالة وفاة في  
الأسبوع الحالي  
1  
1 associated deaths  
in current week

## B. المحنى الوبائي Epidemic curve

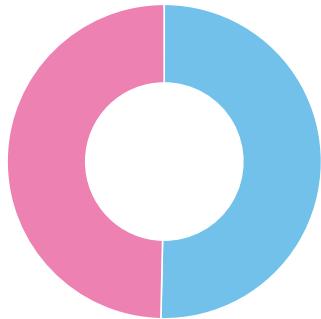
الشكل (1) المحنى الوبائي على المستوى الوطني

Figure 1 | Epidemic curve (Country)



الشكل (2) (أ) حالات الكوليرا على مستوى الجنس

Figure 2a Cases by sex (Cumul.)



Male ( 50% ; n = 506,284 )  
Female ( 50% ; n = 498,628 )

الشكل (2) (ب) حالات الكوليرا على مستوى الفئرية

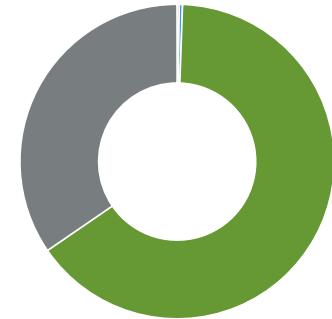
Figure 2b Cases by age (Cumul.)



< 5 ( 28.3% ; n = 278,760 )  
5-17 ( 29.1% ; n = 286,103 )  
18-44 ( 31.3% ; n = 307,613 )  
45-59 ( 6.4% ; n = 62,511 )  
≥ 60 ( 4.9% ; n = 48,553 )

الشكل (2) (ج) حالات الكوليرا بالنسبة لحالة المريض

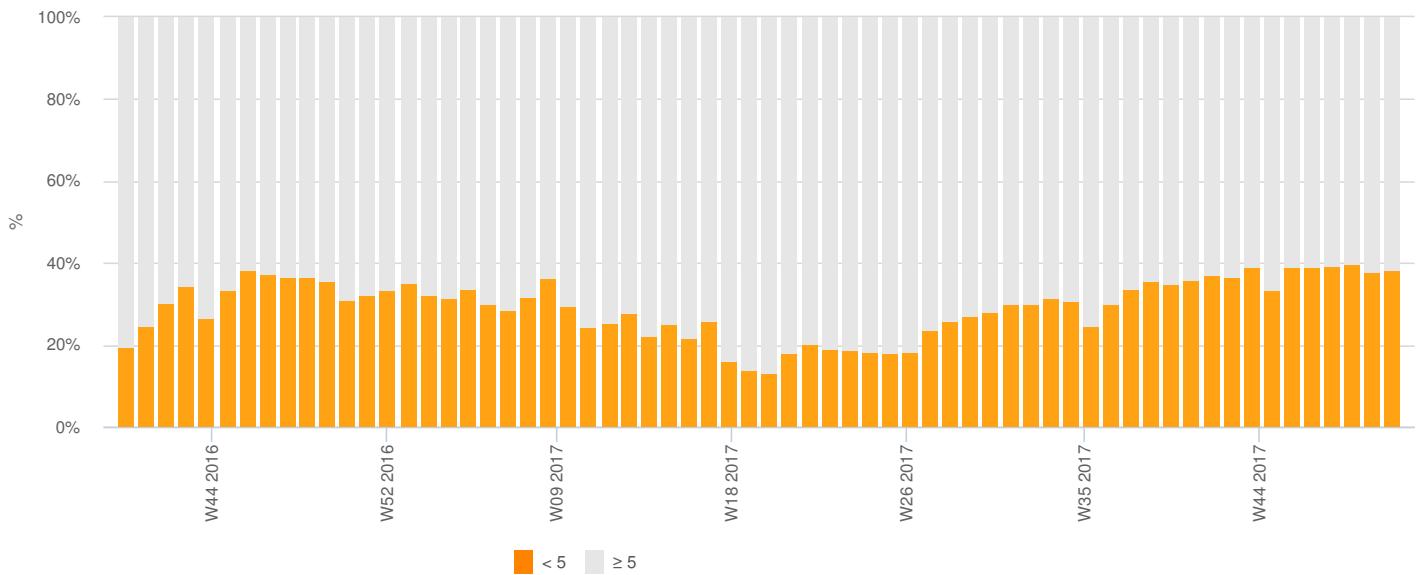
Figure 2c Cases by outcome (Cumul.)



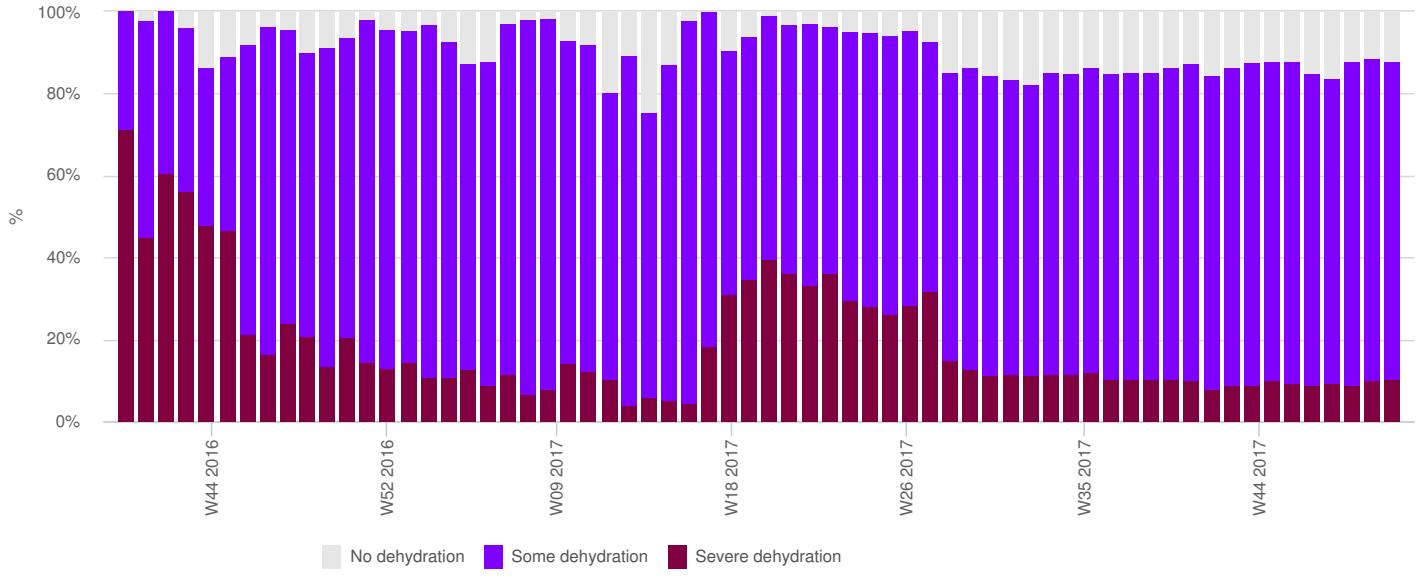
Discharged ( 65.04% ; n = 646,984 )  
Referred ( 0.33% ; n = 3,256 )  
Died ( 0.22% ; n = 2,226 )  
Unknown ( 34.63% ; n = 344,511 )

## Trends in cases by age distribution and dehydration status

**Figure 2d | Trend in proportion of cases aged under 5**



**Figure 2e | Trend in proportion of cases by dehydration status**



<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.

## المؤشرات الرئيسية حسب المحافظة Key indicators by governorate

جدول (1) خلاصة بالمؤشرات الرئيسية بالنسبة للمحافظات  
Table 1 | Summary of key cholera indicators by Governorate

المحافظات Governorate	نراكمي Cumulative (27/04/2017 to 17/12/2017)	الاتجاه 3 أسابيع 3 week trend									
		حالات الاشتياه Cases	الوفيات Deaths	معدل الامانة CFR <sup>1</sup>	السكان Population	معدل الاصابة AR <sup>2</sup>	أسابيع -3W	أسابيع -2W	أسابيع -1W	أسابيع -1W	الأسبوع الحالي W
Amran عمران	98,452	174	0.18%	1,160,559	848.32	1,757	1,531	1,028	1,024	▼ -29%	
Al Mahwit المحويت	58,828	149	0.25%	730,209	805.63	1,056	936	725	509	▼ -20%	
Al Dhale'e الصالع	47,089	81	0.17%	731,496	643.74	77	40	21	24	▼ -54%	
Abyan أبين	28,228	35	0.12%	570,832	494.51	55	64	37	24	▼ -29%	
Hajjah حجة	111,598	417	0.37%	2,329,741	479.01	2,426	2,335	930	230	▼ -51%	
Sana'a صنعاء	70,322	123	0.17%	1,470,346	478.27	844	586	512	768	▼ -21%	
Dhamar ذمار	95,054	160	0.17%	2,012,264	472.37	2,042	1,741	1,280	1,367	▼ -24%	
Al Hudaydah الحديدة	145,559	273	0.19%	3,238,199	449.51	2,794	2,508	1,768	1,412	▼ -25%	
Al Bayda البيضاء	27,550	33	0.12%	759,388	362.79	285	274	199	252	▼ -21%	
Amanat Al Asimah أمانة العاصمة	95,298	70	0.07%	2,827,824	337.00	1,489	1,305	1,039	849	▼ -19%	
Al Jawf الجوف	15,487	22	0.14%	578,585	267.67	345	343	214	241	▼ -29%	
Raymah ريمة	15,071	119	0.79%	606,776	248.38	234	229	162	175	▼ -22%	
Lahj لحج	22,639	21	0.09%	1,008,864	224.40	29	22	13	6	▼ -39%	
Aden عدن	20,566	62	0.30%	922,996	222.82	115	152	108	20	▼ -14%	
Ibb إب	62,196	285	0.46%	2,957,138	210.32	1,052	847	690	436	▼ -20%	
Taizz تعز	60,443	184	0.30%	2,998,300	201.59	951	970	679	311	▼ -22%	
Marib مأرب	6,906	7	0.10%	358,542	192.61	116	3	1	5	▼ -97%	
Sa'ada صعدة	10,312	5	0.05%	905,145	113.93	399	284	199	107	▼ -32%	
Al Maharah المهرة	1,168	1	0.09%	148,478	78.66	1	0	0	1	▼ -100%	
Shabwah شبوة	1,397	3	0.21%	604,243	23.12	3	0	1	0	▼ -25%	
Mokalla المكلا	568	2	0.35%	400,788	14.17	0	0	0	0	■ Interrupt	
Say'on سيون	20	0	0.00%	219,953	0.91	0	0	0	1	■ Interrupt	
Yemen اليمن	994,751	2,226	0.22%	27,540,666	361.19	16,070	14,170	9,606	7,762	▼ -28%	

<sup>1</sup> معدل الامانة بين الحالات

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

<sup>3</sup> تم حساب المحنى بناء على متوسط عدد الحالات خلال ثلاثة أسابيع سابقة

<sup>1</sup> Case Fatality Rate

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

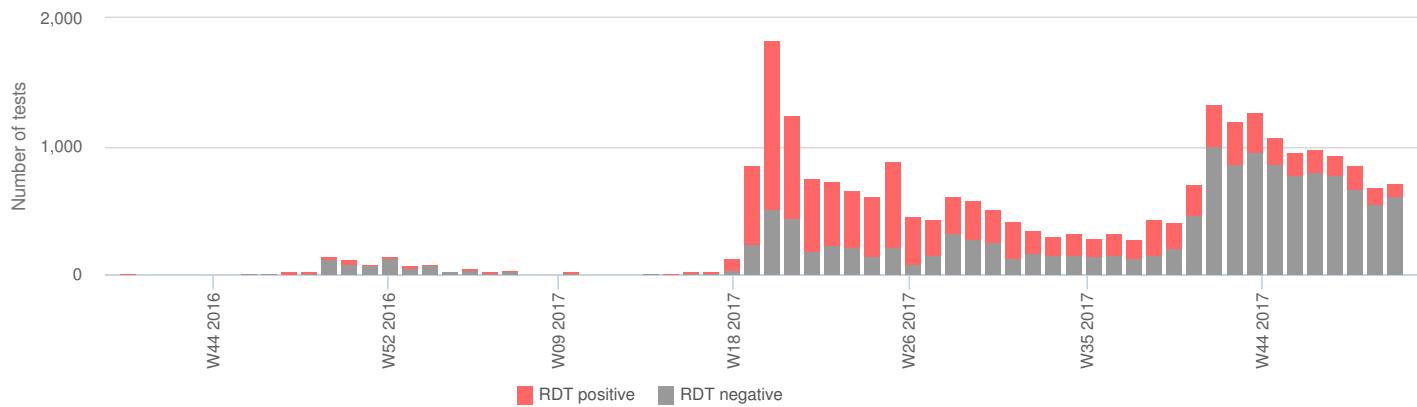
<sup>3</sup> Trend based on average number of cases in previous 3 weeks:

▲ محنى مرتفع	≥ +10% change
► محنى مستقر	> -10% to < +10% change
▼ محنى منخفض	≤ -10% change
■ انقطاع في الارسال	0 cases for 3 consecutive weeks

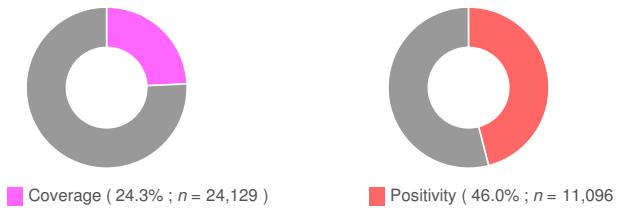
▲ Increased trend	≥ +10% change
► Stable trend	> -10% to < +10% change
▼ Decreased trend	≤ -10% change
■ Interruption in transmission	0 cases for 3 consecutive weeks

## D. Laboratory

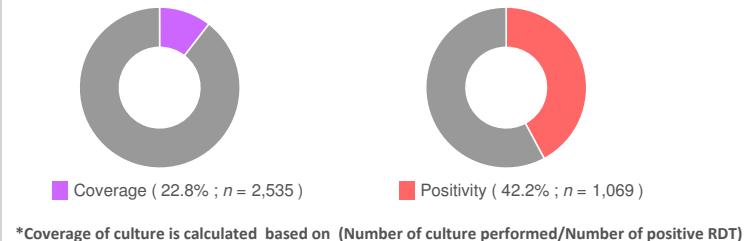
**Figure 4 | RDT results by week**



**Figure 5 | Rapid Diagnostic Kit (RDT)**



**Figure 6 | Culture**

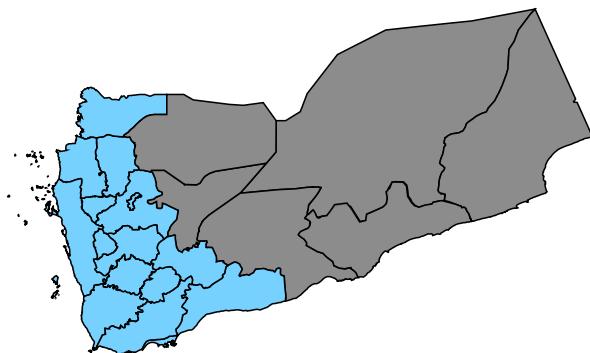


**Table 2 | Summary of key laboratory indicators by Governorate**

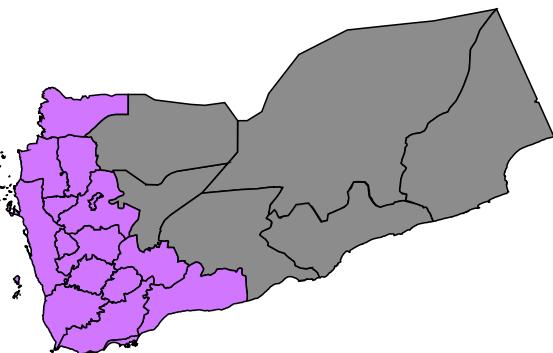
Governorate	Rapid Diagnostic Kit (RDT)					Culture			
	Cases	Total tested	Coverage	Total +ve	+vity rate	Total tested	Coverage	Total +ve	+vity rate
Abyan أبين	28,228	238	8.4%	151	63.4%	39	25.8%	23	59.0%
Aden عدن	20,566	552	26.8%	350	63.4%	154	44.0%	117	76.0%
Al Bayda البيضاء	27,550	1619	58.8%	747	46.1%	194	26.0%	9	4.6%
Al Dhale'e الصالع	47,089	318	6.8%	114	35.8%	38	33.3%	3	7.9%
Al Hudaydah الحديدة	145,559	2424	16.7%	894	36.9%	373	41.7%	218	58.4%
Al Jawf الجوف	15,487	1263	81.6%	876	69.4%	47	5.4%	12	25.5%
Al Maharah المهرة	1,168	263	225.2%	118	44.9%	25	21.2%	14	56.0%
Al Mahwit المحويت	58,828	1626	27.6%	881	54.2%	49	5.6%	11	22.4%
Amanat Al Asimah أمانة العاصمة	95,298	4416	46.3%	1928	43.7%	482	25.0%	181	37.6%
Amran عمران	98,452	1381	14.0%	587	42.5%	89	15.2%	23	25.8%
Dhamar ذمار	95,054	1804	19.0%	309	17.1%	107	34.6%	21	19.6%
Hajjah حجة	111,598	714	6.4%	169	23.7%	45	26.6%	14	31.1%
Ibb إب	62,196	601	9.7%	412	68.6%	58	14.1%	12	20.7%
Lahj لحج	22,639	1134	50.1%	576	50.8%	36	6.3%	12	33.3%
Marib مأرب	6,906	163	23.6%	124	76.1%	2	1.6%	0	0.0%
Mokha المكلا	568	105	184.9%	80	76.2%	55	68.8%	32	58.2%
Raymah ريمة	15,071	575	38.2%	381	66.3%	32	8.4%	5	15.6%
Sa'ada صعدة	10,312	913	88.5%	752	82.4%	12	1.6%	0	0.0%
Sana'a صنعاء	70,322	2650	37.7%	681	25.7%	260	38.2%	43	16.5%
Say'on سيئون	20	19	950.0%	9	47.4%	11	122.2%	0	0.0%
Shabwah شبوة	1,397	125	89.5%	51	40.8%	51	100.0%	9	17.6%
Taizz تعز	60,443	1226	20.3%	906	73.9%	376	41.5%	310	82.4%
Yemen اليمن	994,751	24,129	24.3%	11,096	46.0%	2,535	22.8%	1,069	42.2%

## E. التوزيع الجغرافي مع مرور الوقت Geographic distribution over time

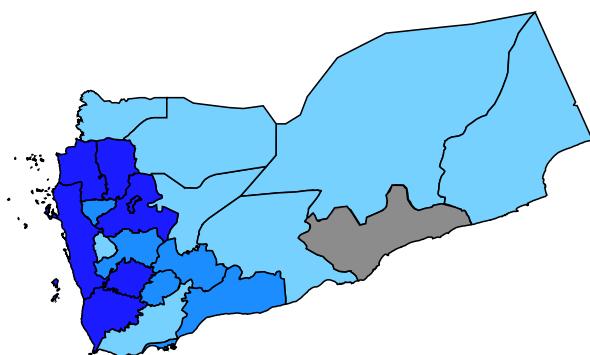
الخريطة (1أ) عدد حالات الاشتباه للمحافظات  
Map 1a | Number of cases by governorate (Jan 2017 - Apr 2017)



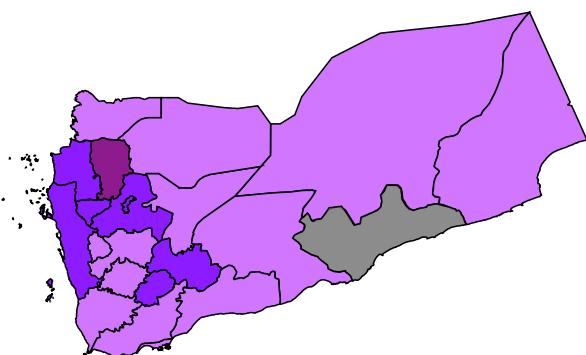
الخريطة (1ب) معدل الاصابة للمحافظات  
Map 1b | Attack rate by governorate (Jan 2017 - Apr 2017)



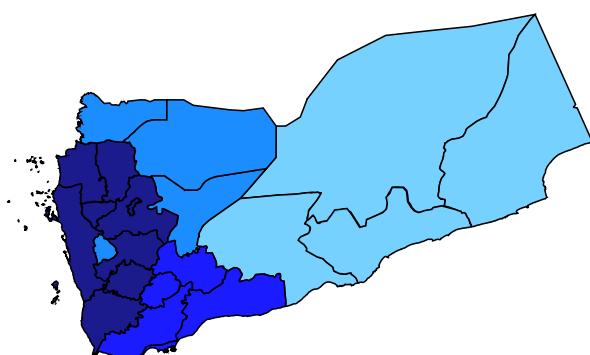
الخريطة (1أ) عدد حالات الاشتباه للمحافظات  
Map 1c | Number of cases by governorate (Jan 2017 - Jun 2017)



الخريطة (1ب) معدل الاصابة للمحافظات  
Map 1d | Attack rate by governorate (Jan 2017 - Jun 2017)



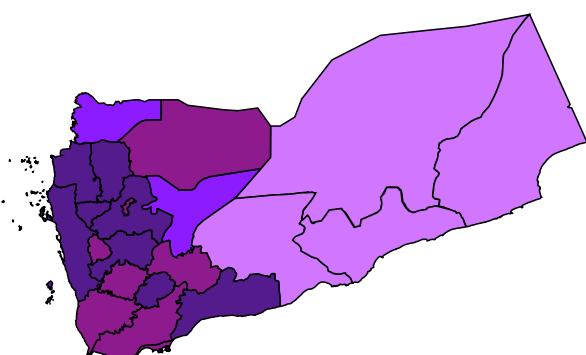
الخريطة (1أ) عدد حالات الاشتباه للمحافظات  
Map 1e | Number of cases by governorate (Jan 2017 - present)



عدد حالات الكوليرا  
Number of cholera cases

0	1	10,000	20,000	50,000
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الخريطة (1ب) معدل الاصابة للمحافظات  
Map 1f | Attack rate by governorate (Jan 2017 - present)

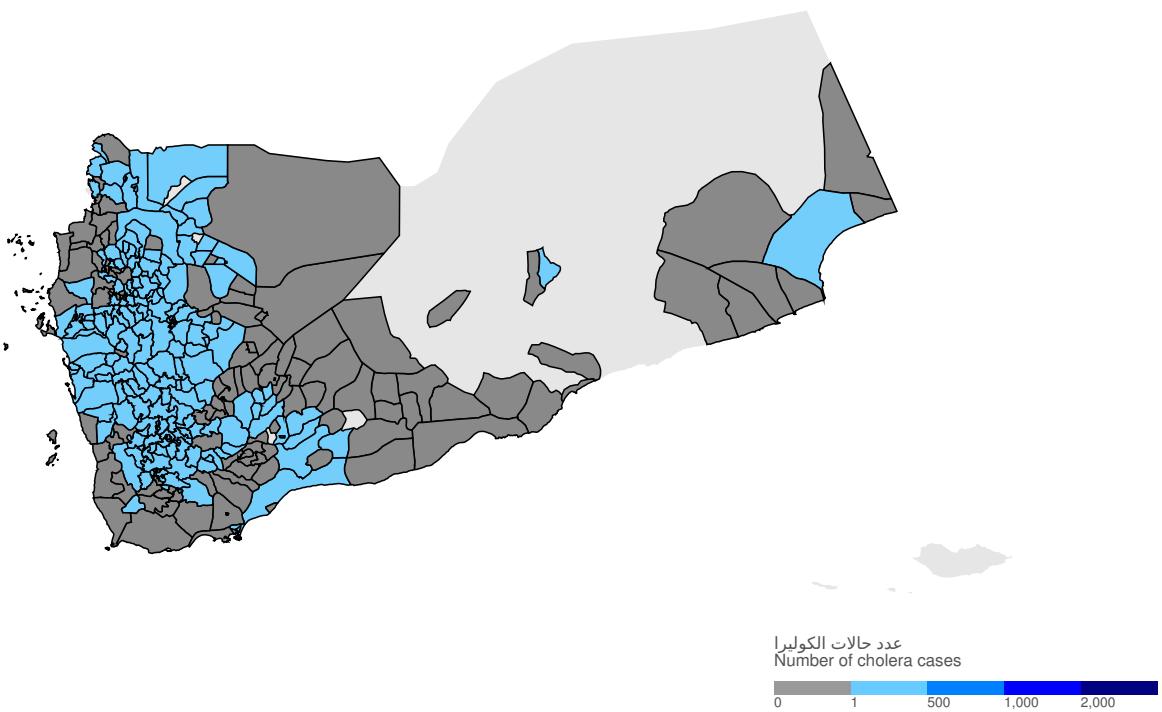


معدل الاصابة لكل 10,000 من السكان  
Attack rate (/10,000)

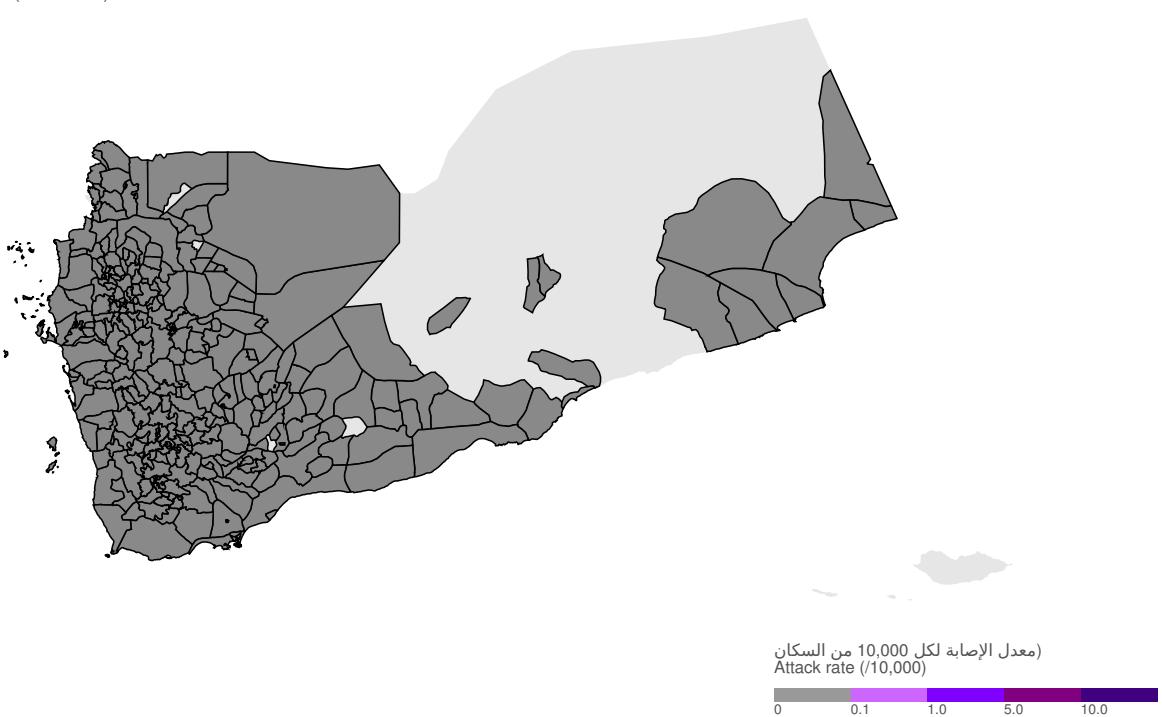
0	0.1	100.0	200.0	400.0
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## F. المديريات ذات الأولوية Districts reporting in current week

الخريطة (2) (أ) عدد حالات الاشتباه الأولوية  
Map 2 | Number of cases by district (W50 2017)



الخريطة (3) (ب) معدل الاصابة الأولوية  
Map 3 | Attack rate by district (W50 2017)



## المنحنى الوبائي حسب المحافظة Epidemic curves by Governorate

Figure 3a | Abyan أبين

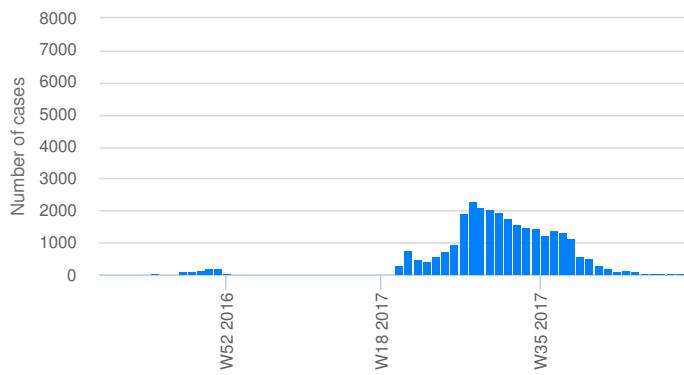


Figure 3b | Aden عدن

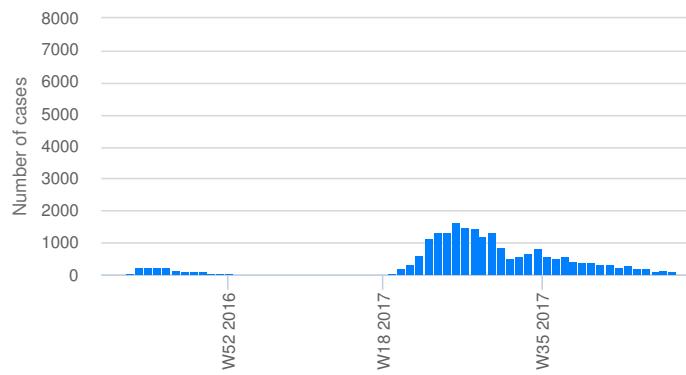


Figure 3c | Al Bayda البيضاء

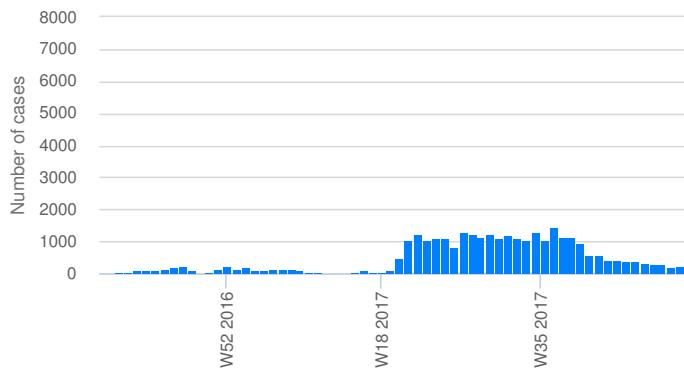


Figure 3d | Al Dhale'e الصالع

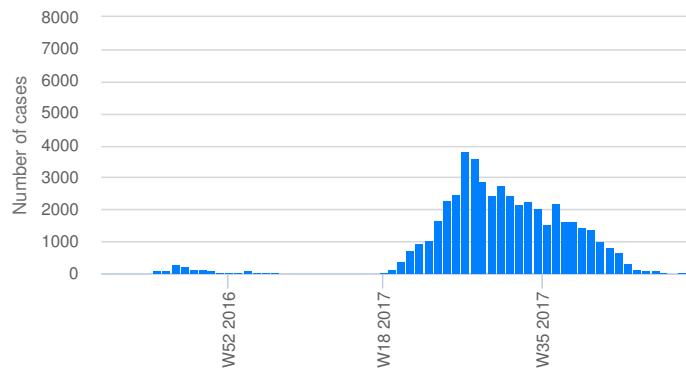


Figure 3e | Al Hudaydah الحديدة

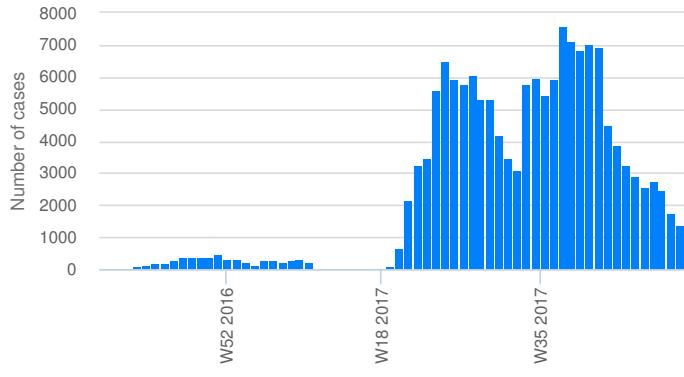


Figure 3f | Al Jawf الجوف

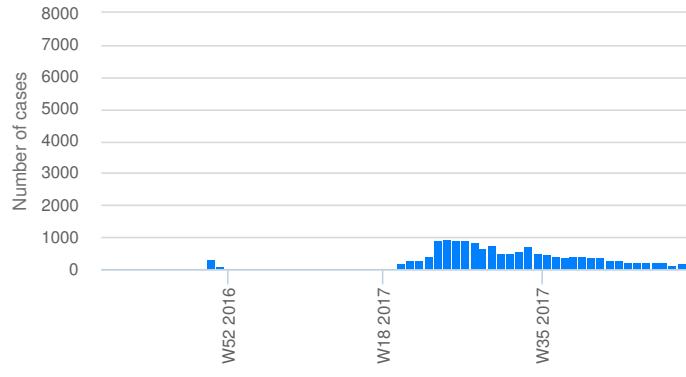


Figure 3g | Al Maharah المهرة

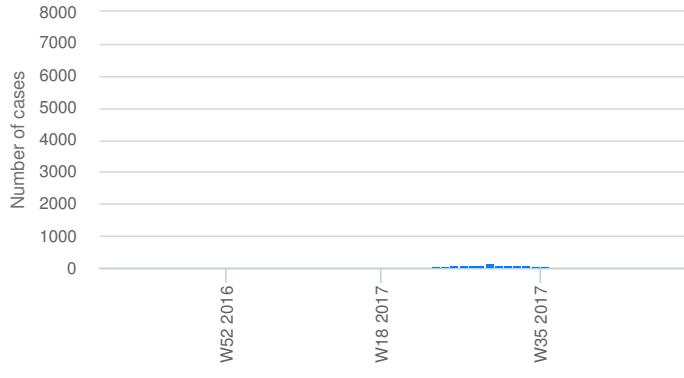
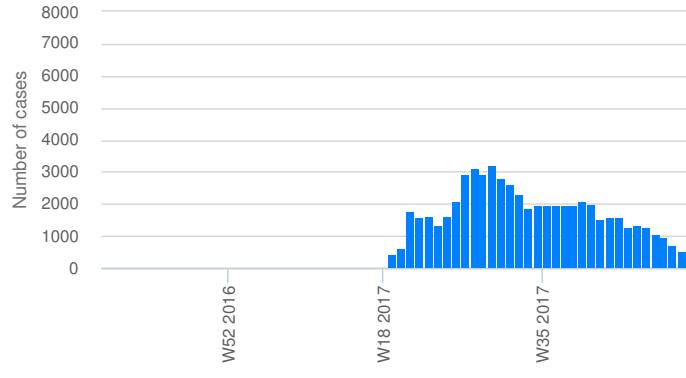
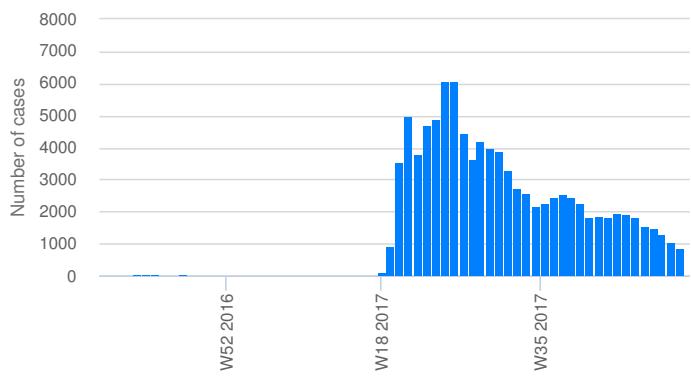


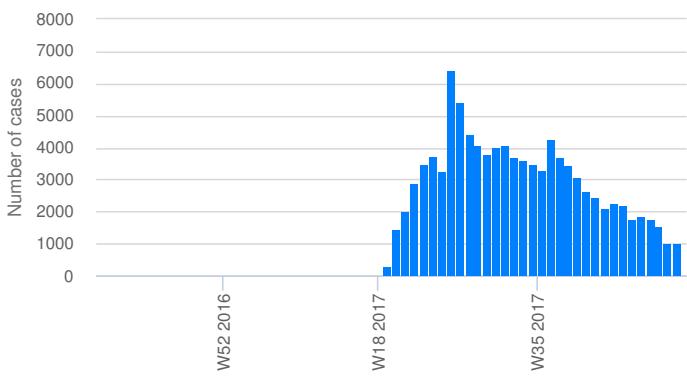
Figure 3h | Al Mahwit المحويت



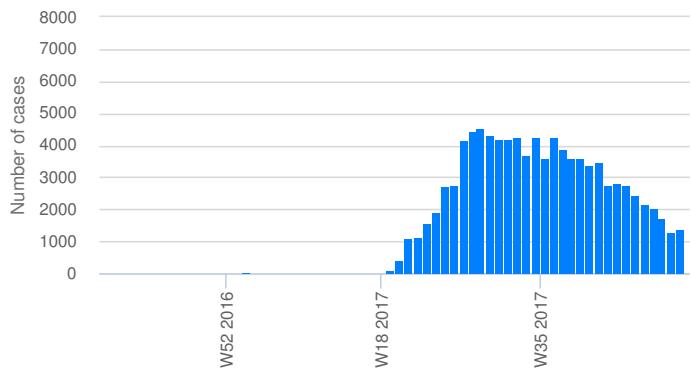
**Figure 3i | Amanat Al Asimah** أمانة العاصمة



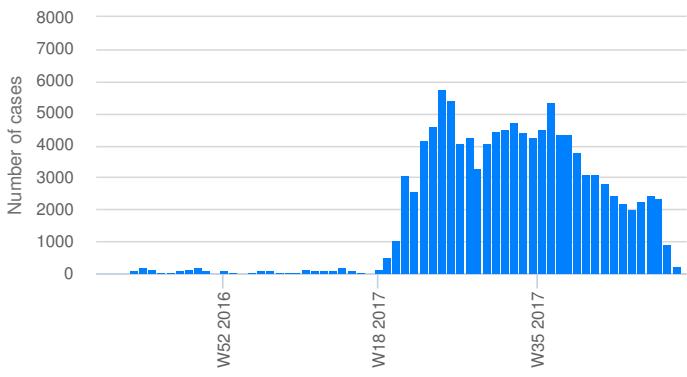
**Figure 3j | Amran** عمران



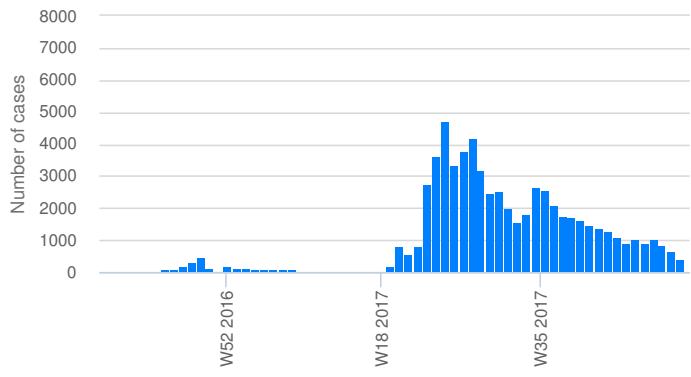
**Figure 3k | Dhamar** ذمار



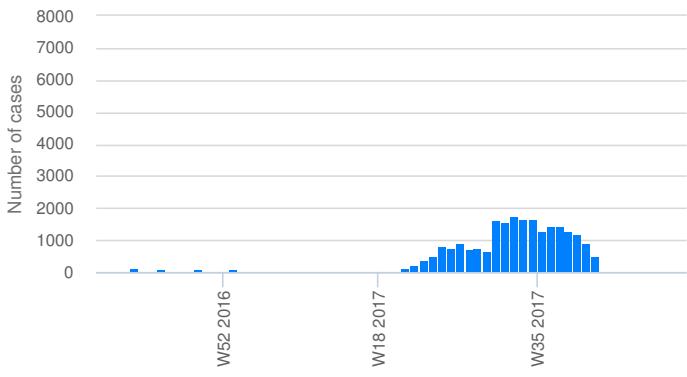
**Figure 3l | Hajjah** حجـة



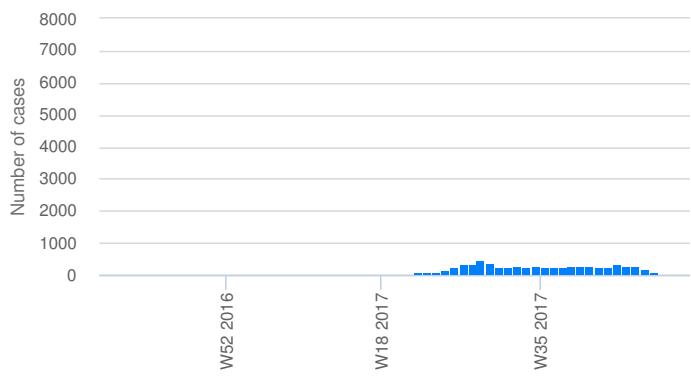
**Figure 3m | Ibb** إب



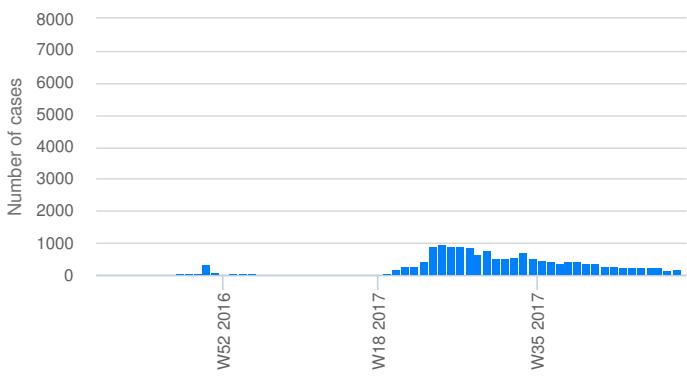
**Figure 3n | Lahj** لحج



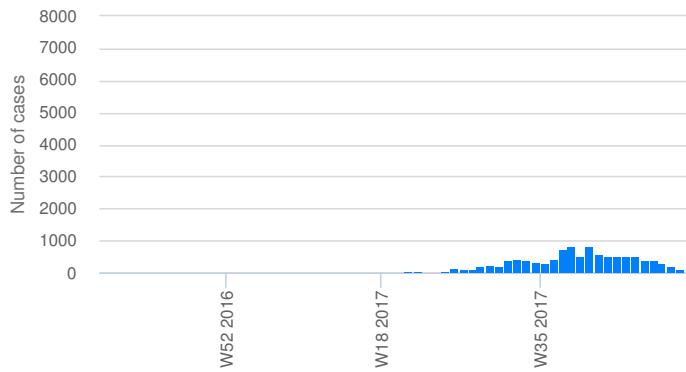
**Figure 3o | Marib** مأرب



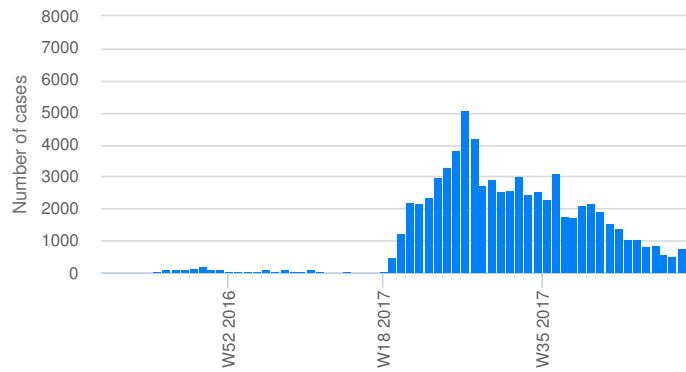
**Figure 3p | Raymah** ريمة



**Figure 3q |** Sa'ada سعدة



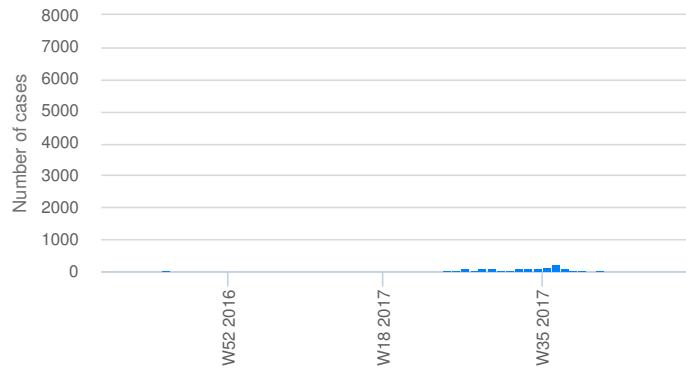
**Figure 3r |** Sana'a صنعاء



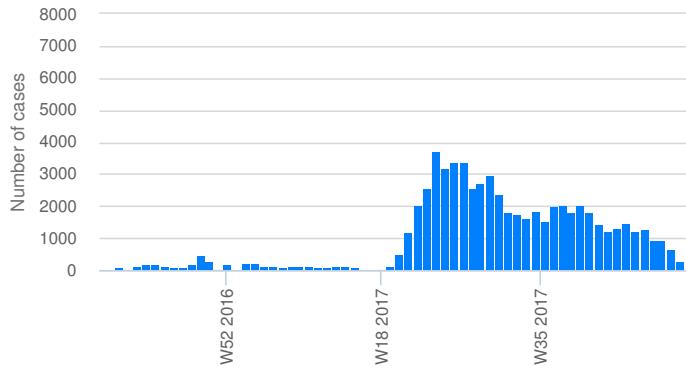
**Figure 3s |** Say'on سيئون



**Figure 3t |** Shabwah شبوة



**Figure 3v |** Taizz تعز



## للتواصل Contact Information

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Learn more about the project:  
<http://ewars-project.org>

**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>

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

