



# اليمن Yemen

## الاستجابة للكوليرا Cholera Response

برنامج الترصد الإلكتروني للأمراض

Electronic Disease Early Warning System (eDEWS)

النشرة الوبائية الأسبوعية

Weekly Epidemiological Bulletin  
W18 2018 (Apr 30-May 06)

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### Highlights

#### Cumulative figures

-The cumulative total from 27 April 2017 to 6 May 2018 is 1,096,317 suspected cholera cases and 2,282 associated deaths, (CFR 0.21%), 1115 have been confirmed by culture.

- The total proportion of severe cases among the suspected cases is 15.2%

- The national attack rate is 391.5 per 10,000. The five governorates with the highest cumulative attack rates per 10,000 remain Amran (911), Al Mahwit (887), Al Dhale'e (639), Dhamar (532), Sana'a (531)

- Children under 5 years old represent 28.8% of total suspected cases.

- In total, 48,825 rapid diagnostic tests (RDT).

- 3,604 cultures have been performed which represents 24% coverage.

- The last positive culture was on 3 April 2018 in Ma'ain district in Amanat Al Asimah

- Since 1st of Jan 2018 the districts with highest cumulative suspected cases are Al Hali (4894), Radman Al Awad (1,974), Al Sabaeen (1,875), Maqbanah (1,861), Al Mighlaf (1,674)

- 147 districts are still reporting suspected cholera cases since last 3 weeks

- 158 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 W15 –W17 decrease or was stable in all governorates, except Amran +23% , Al Mahwit +19%, Dhamar +18%, Sana'a +19%.

#### Trends

- The trend of weekly number of cases is decreasing since week 36.

- The weekly proportion of severe cases has significantly decreased (now 15%).

#### Week 18 2018

- 2,017 suspected cases and 3 associated deaths were reported

- The districts reporting the highest number of cases are Dhamar City (106), Jabal Ash sharq (97), Dawran Aness, (95), Al Hali (89).

- 15 % are severe cases

- 2,014 RDTs were performed, 185 were positive

- no culture results received this week

## A. ملخص المؤشرات Summary indicators



**Cholera Response** | Cumulative figures from 27/04/2017 to 6/5/2018

**1,096,317**

حالات الاشتباه  
Suspected cases

حالة اشتباه في  
الاسبوع الحالي  
2,017 suspected cases  
in current week

**2,282**

الوفيات  
Associated deaths

حالة وفاة في  
الاسبوع الحالي  
3 associated deaths  
in current week

**0.21%**

معدل الاماته بين الحالات  
Case Fatality Rate

**96%**

المحافظات المتأثرة بالوباء  
Governorates  
affected

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

**92%**

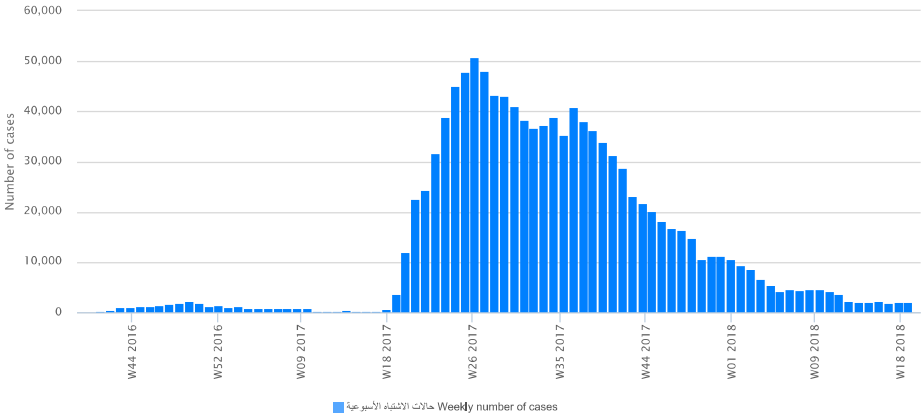
المديريات المتأثرة بالوباء  
Districts  
affected

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

## B. المنحنى الوبائي Epidemic curve

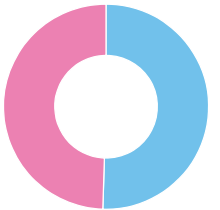
الشكل (1) المنحنى الوبائي على المستوى الوطني

Figure 1 | Epidemic curve (Country)



الشكل (2) حالات الكوليرا على مستوى الجنس

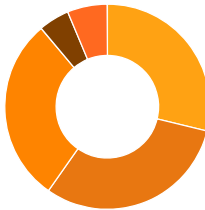
Figure 2a Cases by sex (Cumul.)



ذكر Male ( 52% ; n = 38,116 )  
انثى Female ( 48% ; n = 35,778 )

الشكل (ب) حالات الكوليرا على مستوى الفئات العمرية

Figure 2b Cases by age (Cumul.)



< 5 ( 28,8% ; n = 312,820 )  
5-17 ( 29,1% ; n = 315,354 )  
18-44 ( 30,8% ; n = 335,510 )  
45-59 ( 6,3% ; n = 68,367 )  
≥ 60 ( 4,9% ; n = 53,013 )

الشكل (ج) حالات الكوليرا بالنسبة لحالة المريض

Figure 2c Cases by outcome (Cumul.)



Discharged ( 67,29% ; n = 737,709 )  
Referred ( 0,32% ; n = 3,512 )  
Died ( 0,21% ; n = 2,282 )  
Unknown ( 32,39% ; n = 355,096 )

# Trends in cases by age distribution and dehydration status

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

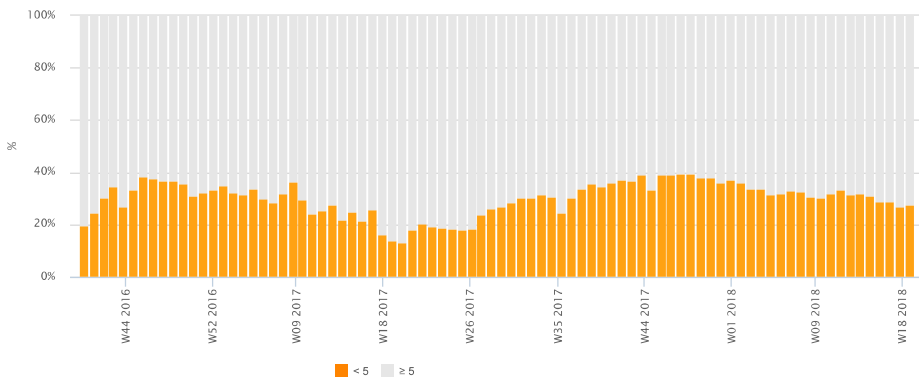
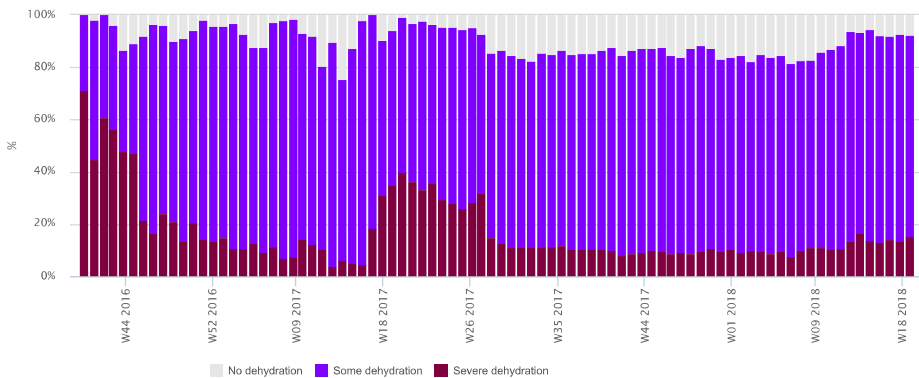


Figure 2e | Trend in proportion of cases by dehydration status<sup>1</sup>



<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 بالمؤشرات الرئيسية بالنسبة للمحافظة

Table 1 | Summary of key cholera indicators by Governorate

المحافظة Governorate	تراكمي Cumulative (27/04/2017 to 6/5/2018)				الاتجاه 3 أسابيع 3 week trend					
	حالات الإصابات 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	التجاه Trend <sup>3</sup>
عمران Amran	106,131	183	0.17%	1,164,886	911.08	170	197	254	190	▲ +23%
المخاريب Al Mahwit	65,407	151	0.23%	736,797	887.72	159	106	175	183	▲ +19%
الضالع Al Dhale'e	47,185	82	0.17%	738,826	638.65	3	6	7	7	▲ +31%
ذمار Dhamar	108,096	163	0.15%	2,029,687	532.57	323	176	322	579	▲ +18%
صنعاء Sana'a	78,572	123	0.16%	1,479,386	531.11	76	120	128	184	▲ +19%
حجة Hajjah	121,361	423	0.35%	2,367,346	512.65	3	6	4	0	► -8%
الحديدة Al Hudaydah	160,931	284	0.18%	3,264,070	493.04	477	419	346	258	▼ -16%
أبين Abyan	28,243	35	0.12%	574,969	491.21	0	0	0	0	■ Interrupt
البيضاء Al Bayda	34,495	38	0.11%	763,045	452.07	402	279	237	191	▼ -23%
أمانة العاصمة Amanat Al Asimah	108,174	72	0.07%	2,873,248	376.49	320	255	262	160	► -6%
ريمة Raymah	18,713	123	0.66%	611,886	305.82	25	32	24	39	▼ -11%
الجبوف Al Jwf	16,178	22	0.14%	582,163	277.89	0	0	12	5	▲ +200%
لحج Lahj	24,344	22	0.09%	1,015,282	239.78	0	0	0	0	■ Interrupt
إب Ibb	70,050	291	0.42%	2,977,093	235.30	74	82	66	119	▼ -11%
عدن Aden	20,993	62	0.30%	933,671	224.84	0	0	0	0	■ Interrupt
تعز Taizz	66,275	190	0.29%	3,017,608	219.63	96	110	77	101	▼ -18%
مأرب Marib	7,296	7	0.10%	361,899	201.60	0	0	0	0	■ Interrupt
صعدة Sa'ada	10,713	5	0.05%	921,603	116.24	0	0	0	1	■ Interrupt
المحرق Al Maharah	1,169	1	0.09%	150,445	77.70	0	0	0	0	■ Interrupt
شبروه Shabwah	1,399	3	0.21%	608,651	22.99	0	0	0	0	■ Interrupt
المكلا Mokla	568	2	0.35%	444,860	12.77	0	0	0	0	■ Interrupt
سيئون Say'on	24	0	0.00%	379,702	0.63	0	0	0	0	■ Interrupt
اليمن Yemen	<b>1,096,317</b>	<b>2,282</b>	<b>0.21%</b>	<b>27,997,124</b>	<b>391.58</b>	<b>2,128</b>	<b>1,788</b>	<b>1,914</b>	<b>2,017</b>	<b>► -2%</b>

<sup>1</sup> معدل الإماتة بين الحالات

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

<sup>3</sup> تم حساب الاتجاه بناء على متوسط عدد الحالات خلال ثلاثة أسابيع سابقة (ألم يتم تعيين الاتجاه في حساب الاتجاه بسبب عدم اكتمال البيانات)

<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)

▲ متزايد	غير يعادل $\geq +10\%$
► مستقر	غير يعادل $> -10\%$ to $+10\%$
▼ متناقص	غير يعادل $\leq -10\%$
■ انقطاع في الإرسال	عدد 0 حالة خلال 3 أسابيع متتالية

▲ Increased trend	$\geq +10\%$ change
► Stable trend	$> -10\%$ to $+10\%$ change
▼ Decreased trend	$\leq -10\%$ change
■ Interruption in transmission	0 cases for 3 consecutive weeks

## D. Laboratory

Figure 4 | RDT results by week

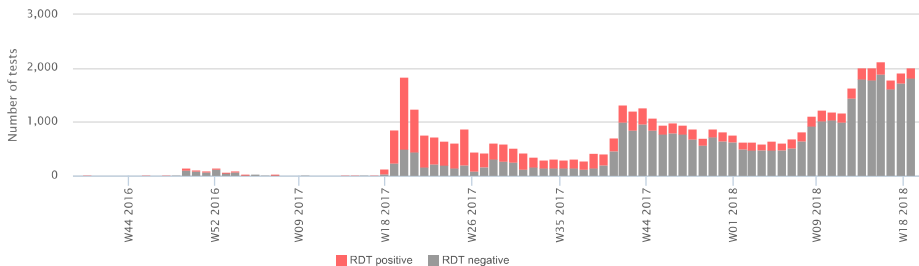


Figure 5 | Rapid Diagnostic Kit (RDT)

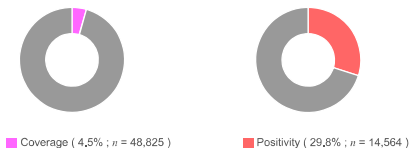
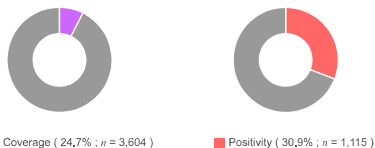


Figure 6 | Culture



\*Coverage of RDT is calculated based on (Number of RDT performed/Number of suspected cases)

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

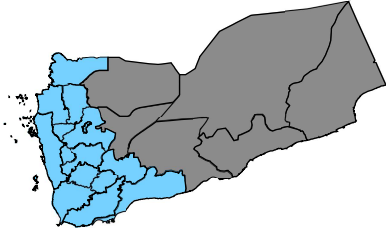
Table 2 | Summary of key laboratory indicators by Governorate

Governorate	Rapid Diagnostic Kit (RDT)					Culture			
	Cases	Total tested	Coverage	Total +ve	+vity rate	Total tested	Coverage	Total +ve	+vity rate
Abyan أبين	28,243	239	8.5%	152	63.6%	39	25.7%	23	59.0%
Aden عدن	20,993	587	28.0%	366	62.4%	173	47.3%	118	68.2%
Al Bayda البويدة	34,495	4469	129.6%	1059	23.7%	284	26.8%	9	3.2%
Al Dhale'e الضالع	47,185	395	8.4%	136	34.4%	44	32.4%	3	6.8%
Al Hudaydah الحديدة	160,931	7494	46.6%	1632	21.8%	549	33.6%	235	42.8%
Al Jawf الجوف	16,178	1542	95.3%	924	59.9%	72	7.8%	12	16.7%
Al Maharah المهرية	1,169	264	225.8%	119	45.1%	25	21.0%	14	56.0%
Al Mahwit المحويت	65,407	3238	49.5%	1152	35.6%	177	15.4%	13	7.3%
Amanat Al Asimah المنامة	108,174	8406	77.7%	2623	31.2%	753	28.7%	192	25.5%
Amran عمران	106,131	3816	36.0%	904	23.7%	173	19.1%	23	13.3%
Dhamar ذمار	108,096	6527	60.4%	600	9.2%	164	27.3%	23	14.0%
Hajjah حجة	121,361	838	6.9%	205	24.5%	67	32.7%	14	20.9%
Ibb إب	70,050	1372	19.6%	605	44.1%	123	20.3%	13	10.6%
Lahj لَحْج	24,344	1160	47.7%	588	50.7%	44	7.5%	18	40.9%
Marib مأرب	7,296	197	27.0%	128	65.0%	2	1.6%	0	0.0%
Mokkha المكلا	568	105	184.9%	80	76.2%	55	68.8%	32	58.2%
Raymah ريمه	18,713	811	43.3%	434	53.5%	48	11.1%	5	10.4%
Sa'ada صنعاء	10,713	922	86.1%	752	81.6%	12	1.6%	0	0.0%
Sana'a صنعاء	78,572	4313	54.9%	959	22.2%	334	34.8%	45	13.5%
Siunon سيئون	24	23	958.3%	9	39.1%	12	133.3%	0	0.0%
Shabwah شبوة	1,399	127	90.8%	53	41.7%	51	96.2%	9	17.6%
Taiz تعز	66,275	1980	29.9%	1084	54.7%	403	37.2%	314	77.9%
Yemen اليمن	1,096,317	48,825	44.5%	14,564	29.8%	3,604	24.7%	1,115	30.9%

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

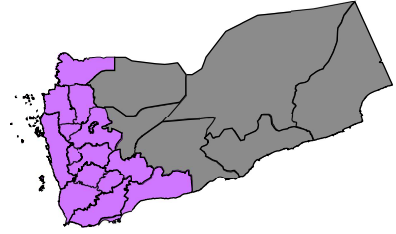
الخريطة (1 أ) عدد حالات الإسهال للمحافظات

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



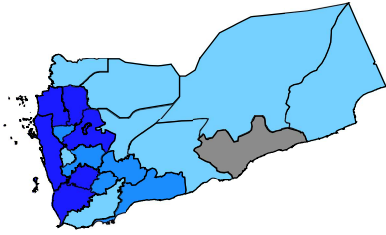
الخريطة (1 ب) معدل الإصابة للمحافظات

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



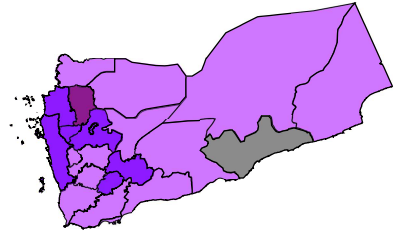
الخريطة (1 ج) عدد حالات الإسهال للمحافظات

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



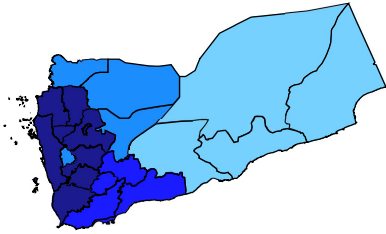
الخريطة (1 د) معدل الإصابة للمحافظات

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



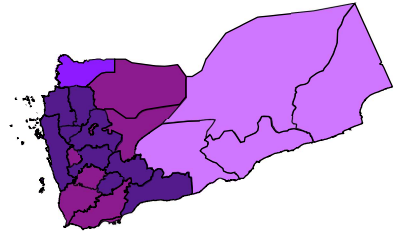
الخريطة (1 هـ) عدد حالات الإسهال للمحافظات

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



الخريطة (1 و) معدل الإصابة للمحافظات

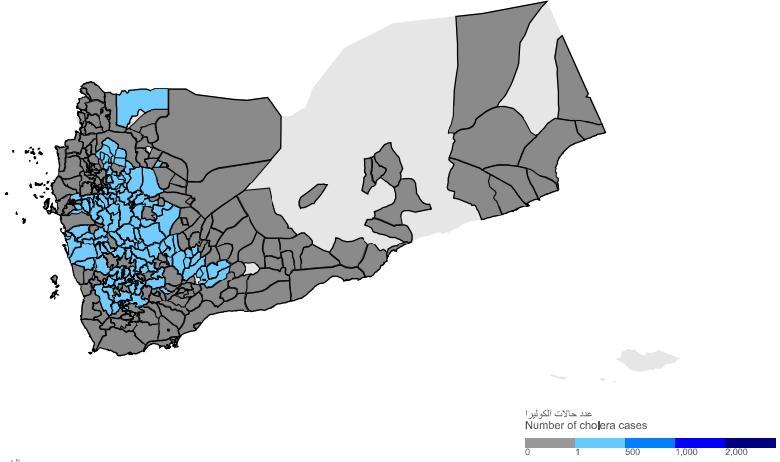
Map 1f | Attack rate by governorate (Jan 2017 - present)



## F. المديرية ذات الأولوية Districts reporting in current week

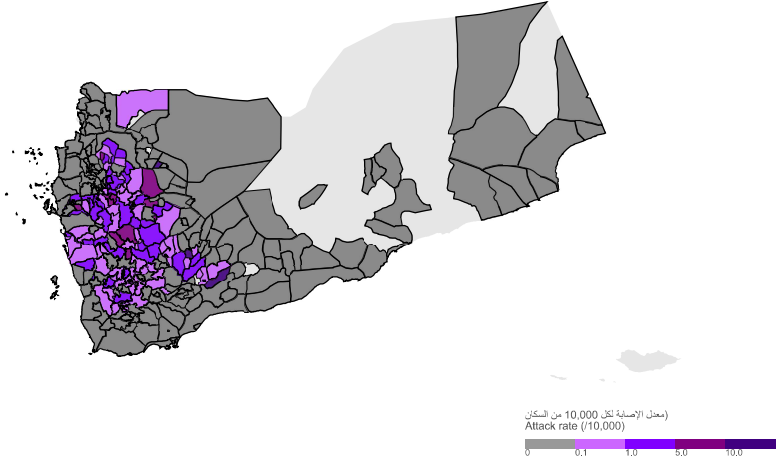
الخريطة (2) | عدد حالات الإصابة الأولية

Map 2 | Number of cases by district (W18 2018)



الخريطة (3) | معدل الإصابة الأولية

Map 3 | Attack rate by district (W18 2018)



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

Figure 3a | أبين Abyan

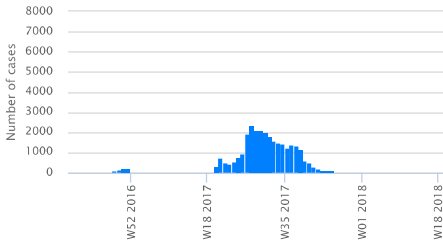


Figure 3b | عدن Aden

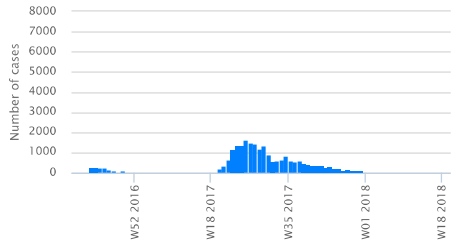


Figure 3c | البضياء Al Bayda

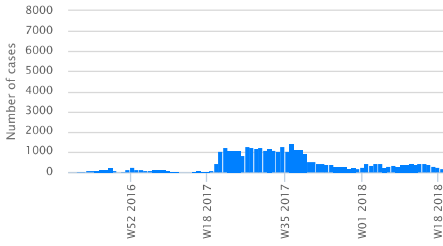


Figure 3d | الضالع Dhale'e

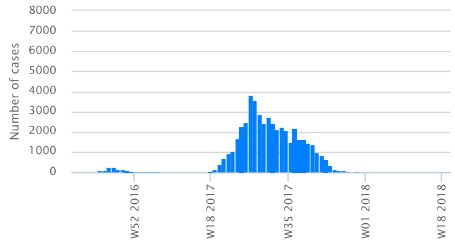


Figure 3e | الحديدة Hudaydah

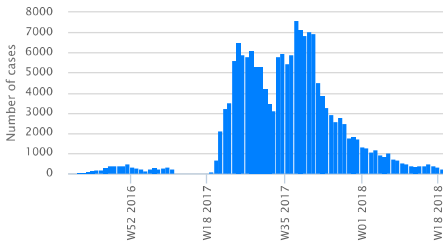


Figure 3f | الجوف Jawf

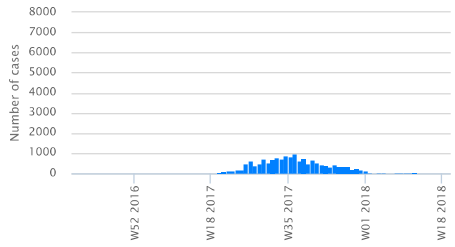


Figure 3g | المهرة Maharah

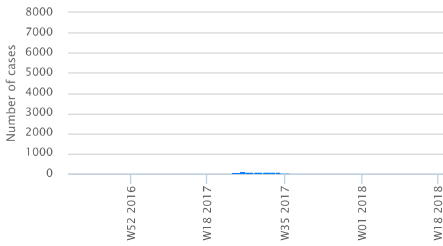


Figure 3h | المحويت Mahwit

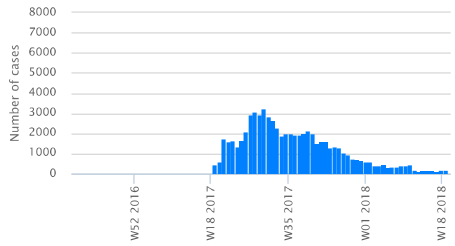




Figure 3i | Amanat Al Asimah أمانة العاصمة

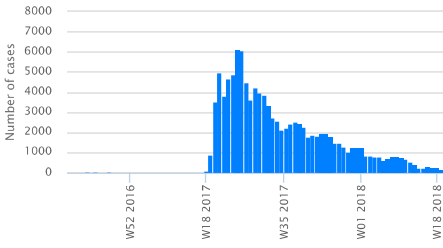


Figure 3j | Amran عمران

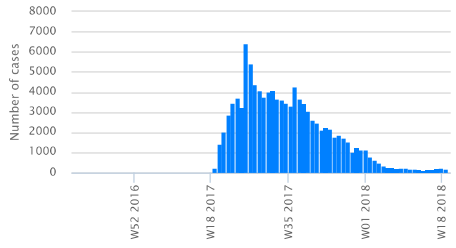


Figure 3k | Dhamar ذمار

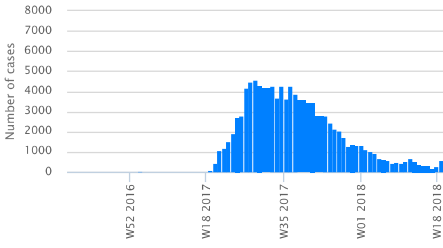


Figure 3l | Hajjah حجة

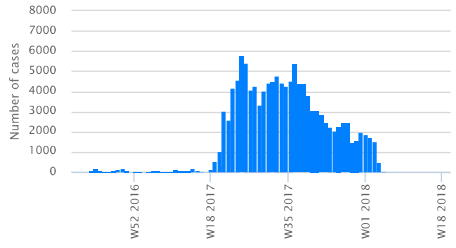


Figure 3m | Ibb إب

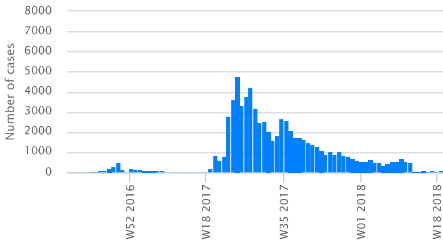


Figure 3n | Lahj لَحْج

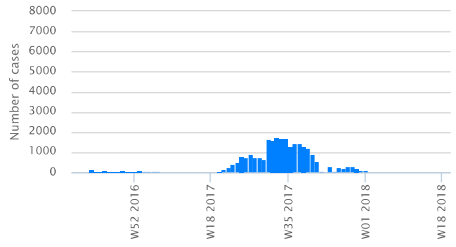


Figure 3o | Marib مَرْب

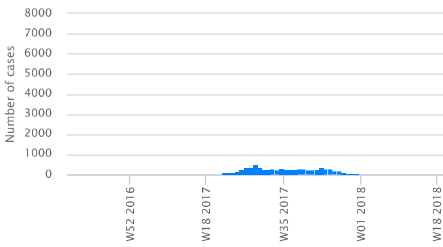


Figure 3p | Raymah ربيعة

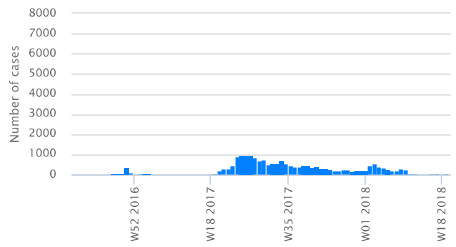


Figure 3q | Sa'ada صنعَة

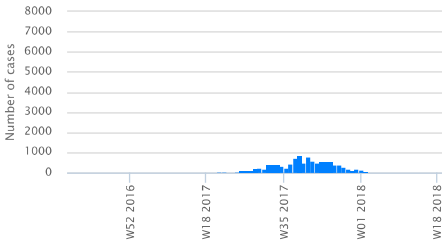


Figure 3r | Sana'a صنعاء

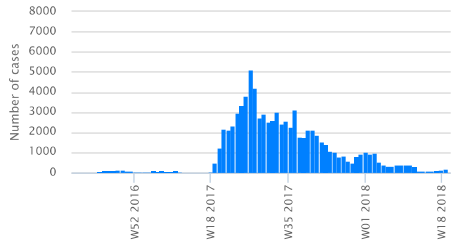


Figure 3s | Say'on سيئون

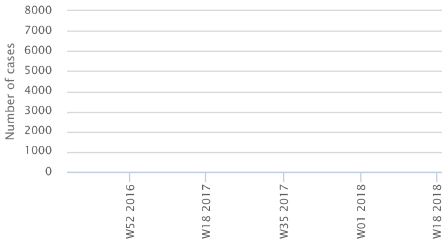


Figure 3t | Shabwah شبوة

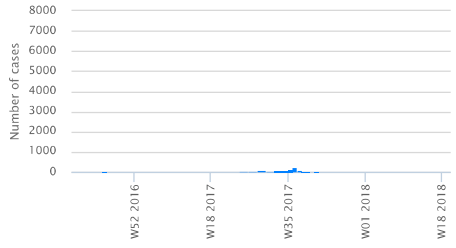
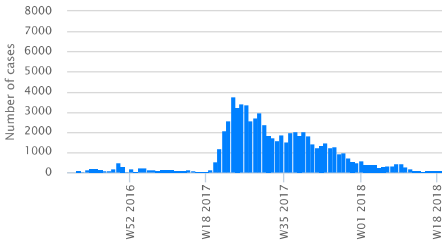


Figure 3v | Taizz تعز



للتواصل  
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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>

النافذة الخاصة بالاستجابة لوباء الكوليرا في اليمن  
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الكوليرا في اليمن <http://ye.ewars.ws/login>

