



اليمن Yemen

الاستجابة للكوليرا Cholera Response

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

النشرة الوبائية الأسبوعية

Weekly Epidemiological Bulletin
W3 2018 (Jan 15-Jan 21)

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Highlights

Cumulative figures

- The cumulative total from 27 April 2017 to 21 Jan 2018 is 1,046,674 suspected cholera cases and 2,248 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 16.8%
- The national attack rate is 379 per 10,000. The five governorates with the highest cumulative attack rates per 10,000 remain Amran (886), Al Mahwit (843), Al Dhale'e (644), Hajjah (520) and Sana'a (508).
- Children under 5 years old represent 28.7% of total suspected cases.
- In total, 27,785 rapid diagnostic tests (RDT) have been performed which represents 26.5% coverage.
- 2,689 cultures have been performed which represents 22.7% coverage.
- The last positive culture was on 13 Jan 2018 in Al-Wahda district in Amanat Al-Asimah
- 225 districts are still reporting suspected cholera cases since last 3 weeks
- 80 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 W1 –W3 decrease or was stable in all governorates except (Raymeh governorate) (+37%) and (Ibb governorate) (+13%).

Trends

- The weekly number of cases is decreasing for the 19 consecutive weeks.
- The weekly proportion of severe cases has significantly decreased representing now 10% of the admitted cases.

Week 3 2018

- 6,410 suspected cases and 4 associated deaths were reported
- 10 % are severe cases
- 572 RDTs were performed, 101 were positive
- No culture test was performed this week



1,046,674

حالات الاشتباه
Suspected cases

حالة اشتباه في
الأسبوع الحالي
6,410 suspected cases
in current week

2,248

الوفيات
Associated deaths

حالة وفاة في
الأسبوع الحالي
4 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%

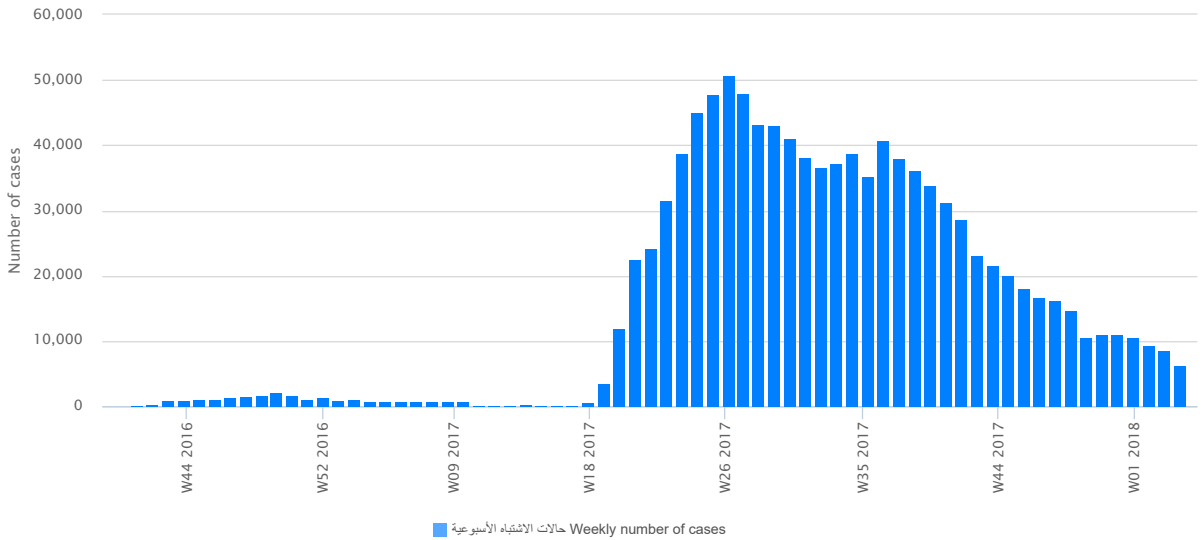
المديريات المتأثرة بالوباء
Districts
affected

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

B. المنحنى الوبائي Epidemic curve

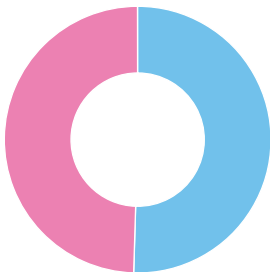
الشكل (1) المنحنى الوبائي على المستوى الوطني

Figure 1 | Epidemic curve (Country)



الشكل (2 أ) حالات الكوليرا على مستوى الجنس

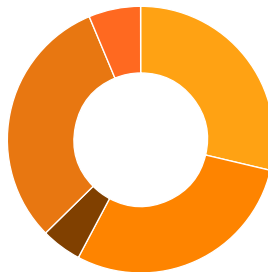
Figure 2a Cases by sex (Cumul.)



■ ذكر Male (53% ; n = 13,655)
■ أنثى Female (47% ; n = 12,172)

الشكل (2 ب) حالات الكوليرا على مستوى الفئات العمرية

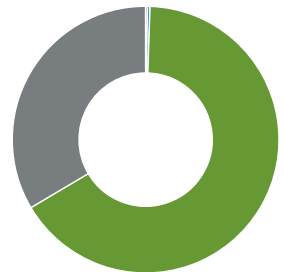
Figure 2b Cases by age (Cumul.)



■ < 5 (28.7% ; n = 297,323)
■ 5-17 (29.0% ; n = 300,699)
■ 18-44 (31.0% ; n = 321,363)
■ 45-59 (6.3% ; n = 65,389)
■ ≥ 60 (4.9% ; n = 50,666)

الشكل (2 ج) حالات الكوليرا بالنسبة لحالة المريض

Figure 2c Cases by outcome (Cumul.)



■ Discharged (66.10% ; n = 691,842)
■ Referred (0.32% ; n = 3,360)
■ Died (0.21% ; n = 2,248)
■ غير معرف Unknown (33.58% ; n = 351,472)

Trends in cases by age distribution and dehydration status

Figure 2d | Trend in proportion of cases aged under 5¹

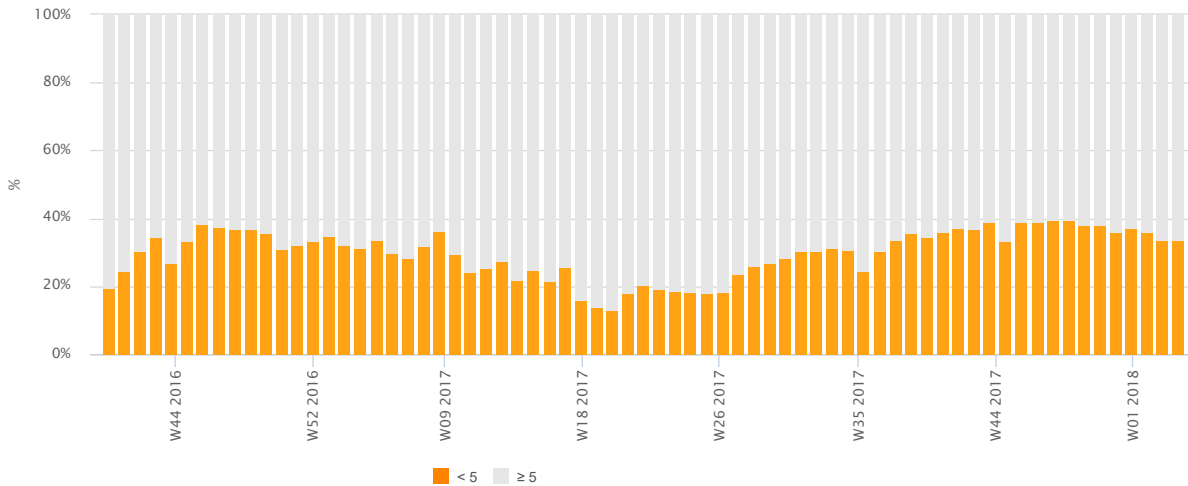
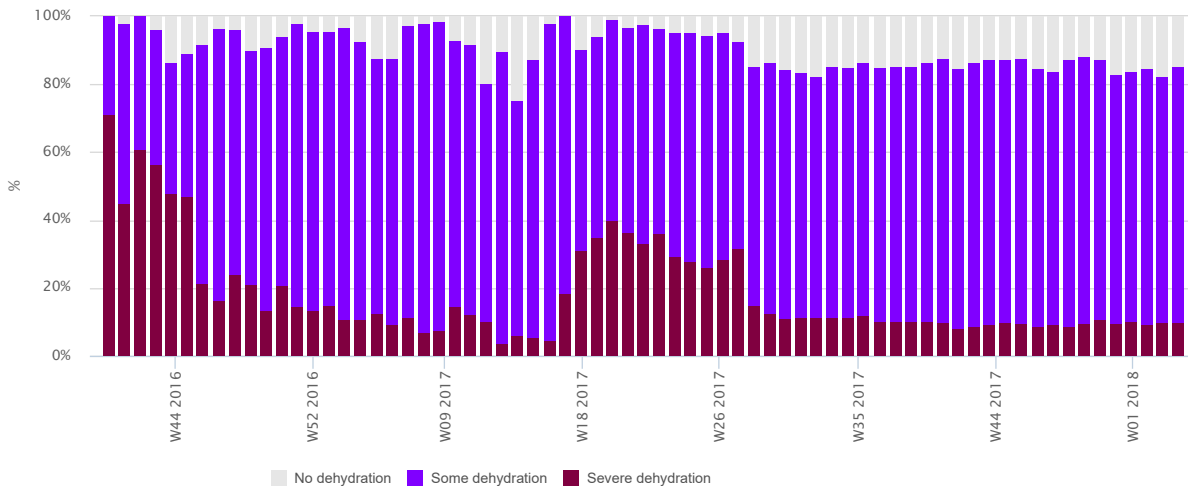


Figure 2e | Trend in proportion of cases by dehydration status¹



¹ 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 بالنسبة للمحافظات

Table 1 | Summary of key cholera indicators by Governorate

المحافظات Governorate	تراكمي Cumulative (27/04/2017 to 21/1/2018)					الاتجاه 3 أسابيع 3 week trend				
	حالات الاشتباه Cases	الوفيات Deaths	معدل الاماتة CFR ¹	السكان Population	معدل الإصابة AR ²	-3 أسابيع -3W	-2 أسابيع -2W	-1 أسابيع -1W	الأسبوع الحالي W	اتجاه Trend ³
عمران Amran	102,917	175	0.17%	1,160,559	886.79	1,162	792	635	487	▼ -26%
Al Mahwit المحويت	61,564	149	0.24%	730,209	843.10	578	577	402	355	▼ -23%
Al Dhale'e الضالع	47,132	81	0.17%	731,496	644.32	6	11	6	0	▼ -22%
Hajjah حجة	121,254	421	0.35%	2,329,741	520.46	1,871	1,750	1,533	518	▼ -11%
Sana'a صنعاء	74,781	123	0.16%	1,470,346	508.59	1,047	963	992	522	► -1%
Dhamar ذمار	100,842	161	0.16%	2,012,264	501.14	1,341	1,118	1,031	950	▼ -11%
Abyan أبين	28,241	35	0.12%	570,832	494.73	1	0	0	0	▼ -100%
Al Hudaydah الحديدة	152,592	281	0.18%	3,238,199	471.22	1,347	1,283	1,069	1,189	▼ -13%
Al Bayda البيضاء	29,269	34	0.12%	759,388	385.43	233	447	355	462	► 3%
Amanat Al Asimah العاصمة	100,596	70	0.07%	2,827,824	355.74	1,244	828	841	723	▼ -13%
Raymah ريمة	16,853	120	0.71%	606,776	277.75	196	458	553	373	▲ +37%
Al Jawf الجوف	15,869	22	0.14%	578,585	274.27	127	29	12	36	▼ -79%
Lahj لحج	24,341	22	0.09%	1,008,864	241.27	96	1	1	0	▼ -97%
Aden عدن	20,887	62	0.30%	922,996	226.30	70	26	22	19	▼ -44%
Ibb إب	65,339	287	0.44%	2,957,138	220.95	555	552	668	410	▲ +13%
Taizz تعز	63,050	187	0.30%	2,998,300	210.29	583	396	415	364	▼ -11%
Marib مارب	7,285	7	0.10%	358,542	203.18	21	8	0	0	▼ -100%
Sa'ada صعدة	10,705	5	0.05%	905,145	118.27	139	55	1	2	▼ -98%
Al Maharah المهرة	1,168	1	0.09%	148,478	78.66	0	0	0	0	■ Interrupt
Shabwah شبوة	1,399	3	0.21%	604,243	23.15	1	0	0	0	▼ -100%
Mokla المكلا	568	2	0.35%	400,788	14.17	0	0	0	0	■ Interrupt
Say'on سيئون	22	0	0.00%	229,256	0.96	0	1	0	0	▼ -100%
Yemen اليمن	1,046,674	2,248	0.21%	27,549,969	379.92	10,618	9,295	8,536	6,410	▼ -10%

¹ معدل الإماتة بين الحالات

² معدل الإصابة لكل 10,000 من السكان

³ تم حساب المنحني بناء على متوسط عدد الحالات خلال ثلاثة أسابيع سابقة

¹ Case Fatality Rate

² Attack Rate (/10,000 population)

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

▲ منحنى مرتفع	غير يعادل $\geq +10\%$
► منحنى مستقر	غير يعادل $> -10\%$ to $< +10\%$
▼ منحنى منخفض	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

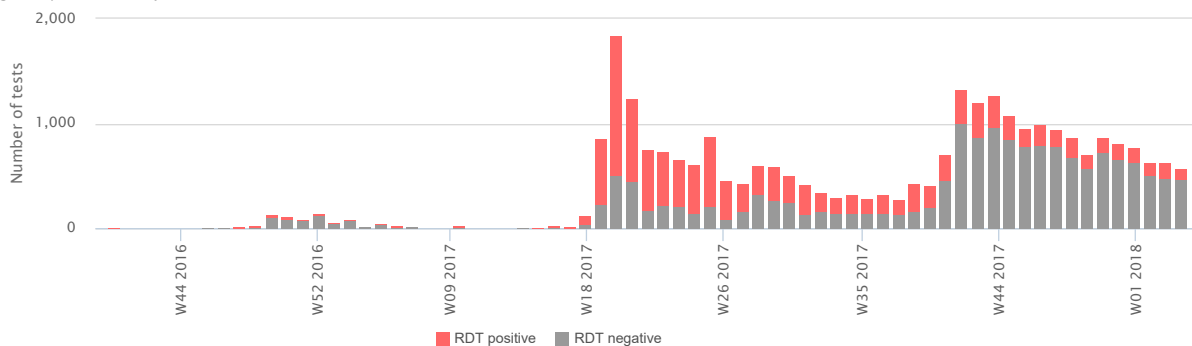
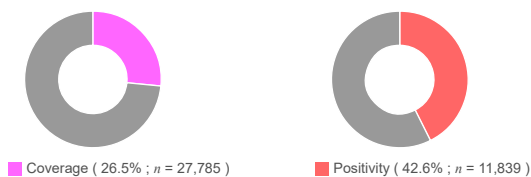
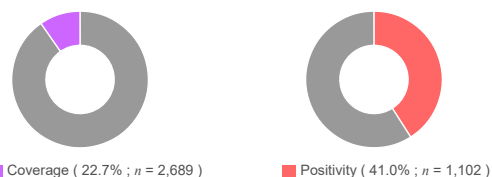


Figure 5 | Rapid Diagnostic Kit (RDT)



* 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)

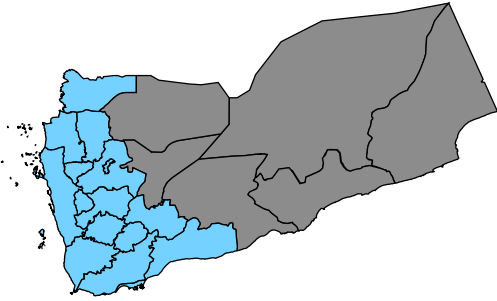
Table 2 | Summary of key laboratory indicators by Governorate

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	20,887	575	27.5%	362	63.0%	173	47.8%	118	68.2%
Al Bayda البيضاء	29,269	1788	61.1%	797	44.6%	194	24.3%	9	4.6%
Al Dhale'e الضالع	47,132	345	7.3%	123	35.7%	41	33.3%	3	7.3%
Al Hudaydah الحديدة	152,592	2882	18.9%	1040	36.1%	392	37.7%	227	57.9%
Al Jawf الجوف	15,869	1315	82.9%	898	68.3%	50	5.6%	12	24.0%
Al Maharah المهرة	1,168	263	225.2%	118	44.9%	25	21.2%	14	56.0%
Al Mahwit المحويت	61,564	1835	29.8%	923	50.3%	55	6.0%	13	23.6%
Amanat Al Asimah امارة العاصمة	100,596	4923	48.9%	2095	42.6%	489	23.3%	188	38.4%
Amran عمران	102,917	1989	19.3%	652	32.8%	89	13.7%	23	25.8%
Dhamar ذمار	100,842	2701	26.8%	373	13.8%	109	29.2%	23	21.1%
Hajjah حجة	121,254	763	6.3%	176	23.1%	46	26.1%	14	30.4%
Ibb إب	65,339	675	10.3%	445	65.9%	98	22.0%	13	13.3%
Lahj لحج	24,341	1160	47.7%	588	50.7%	44	7.5%	18	40.9%
Marib مأرب	7,285	192	26.4%	124	64.6%	2	1.6%	0	0.0%
Moklla المكلا	568	105	184.9%	80	76.2%	55	68.8%	32	58.2%
Raymah ريمة	16,853	584	34.7%	384	65.8%	32	8.3%	5	15.6%
Sa'ada صنعاء	10,705	919	85.8%	752	81.8%	12	1.6%	0	0.0%
Sana'a صنعاء	74,781	3059	40.9%	754	24.6%	280	37.1%	44	15.7%
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	63,050	1326	21.0%	942	71.0%	402	42.7%	314	78.1%
Yemen اليمن	1,046,674	27,785	26.5%	11,839	42.6%	2,689	22.7%	1,102	41.0%

E. Geographic distribution over time

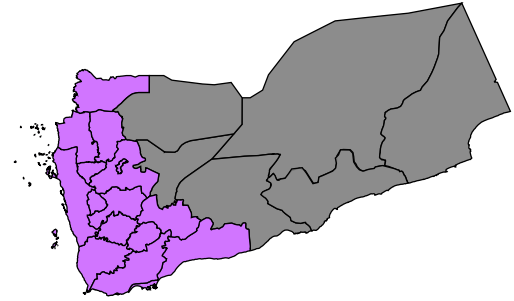
الخريطة (1 أ) عدد حالات الاصابة للمحافظات

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



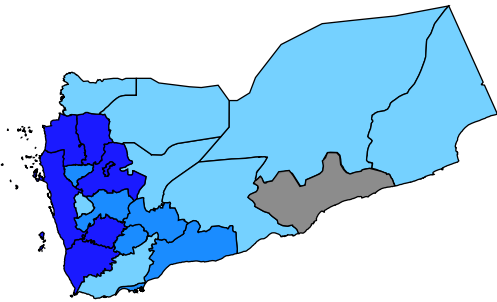
الخريطة (1 ب) معدل الإصابة للمحافظات

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



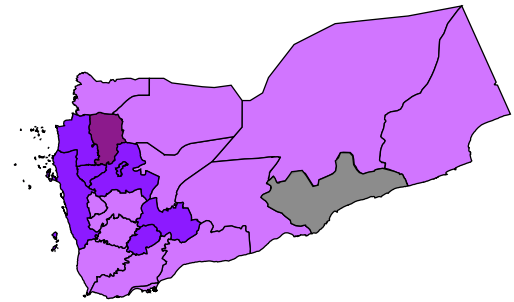
الخريطة (1 أ) عدد حالات الاصابة للمحافظات

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



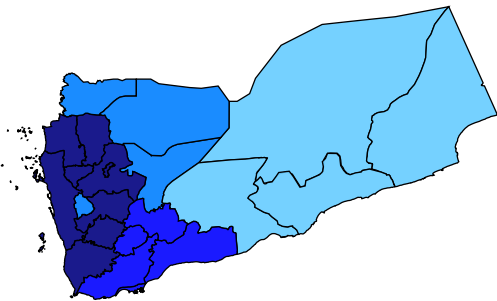
الخريطة (1 ب) معدل الإصابة للمحافظات

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



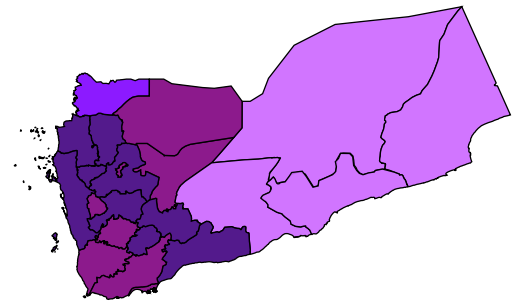
الخريطة (1 أ) عدد حالات الاصابة للمحافظات

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



الخريطة (1 ب) معدل الإصابة للمحافظات

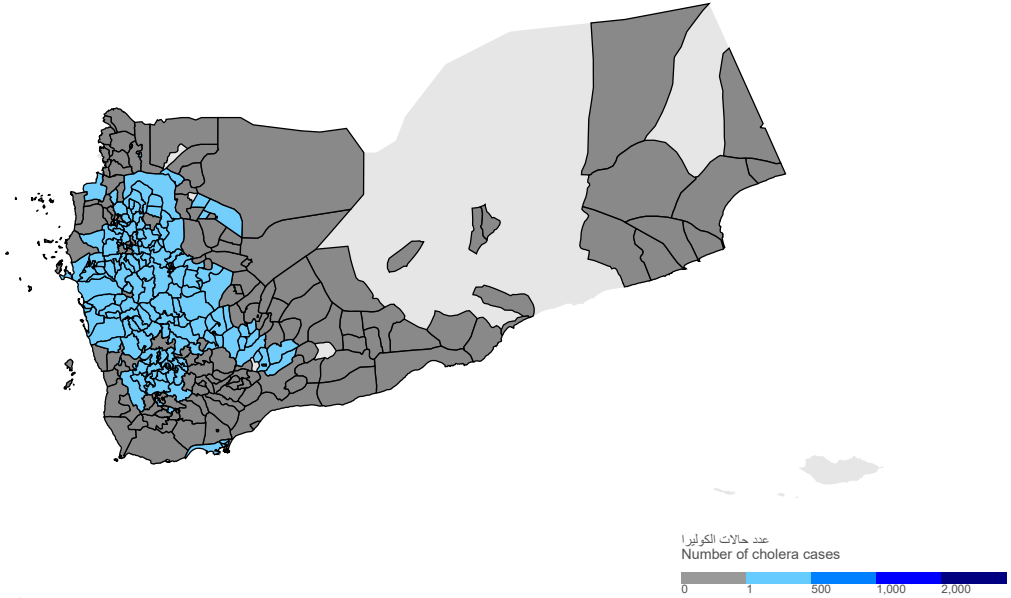
Map 1f | Attack rate by governorate (Jan 2017 - present)



F. المديريات ذات الأولوية Districts reporting in current week

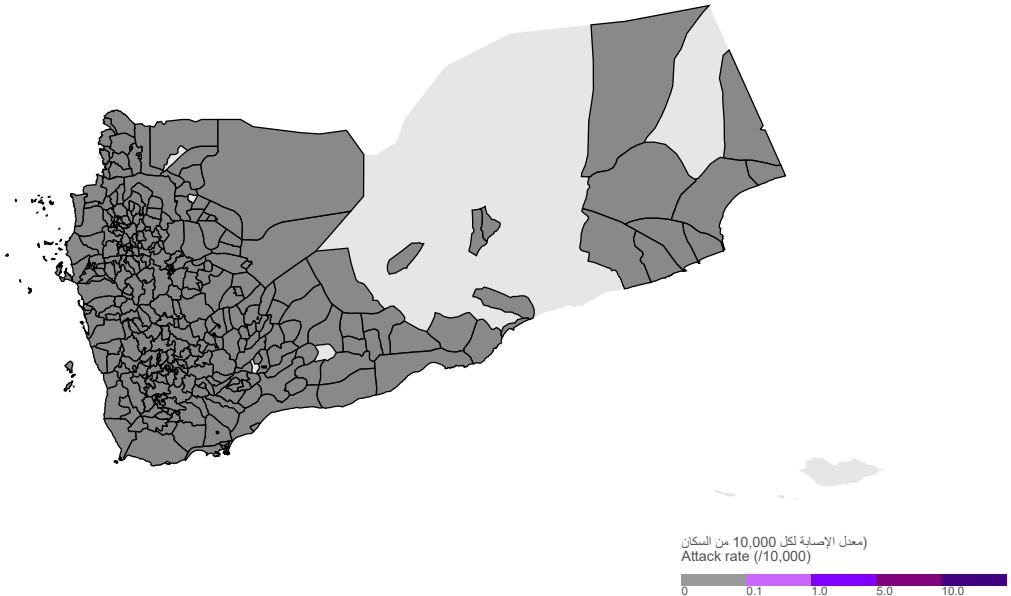
الخريطة (2) عدد حالات الاصابة الأولية

Map 2 | Number of cases by district (W3 2018)



الخريطة (3) معدل الاصابة الأولية

Map 3 | Attack rate by district (W3 2018)



G. المنحنى الوبائي حسب المحافظة Epidemic curves by Governorate

Figure 3a | Abyan أبين

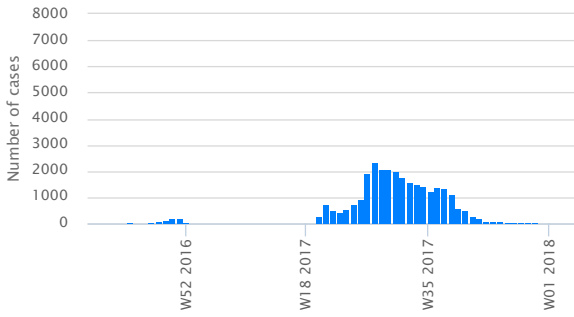


Figure 3b | Aden عدن

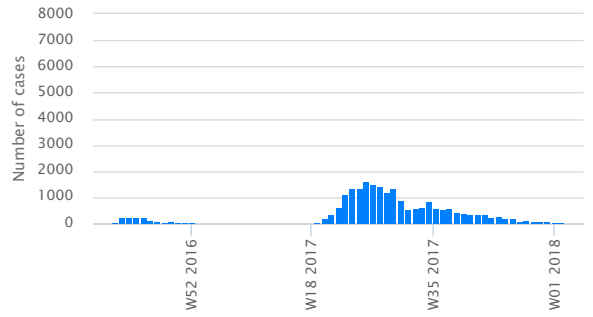


Figure 3c | Al Bayda البيضاء

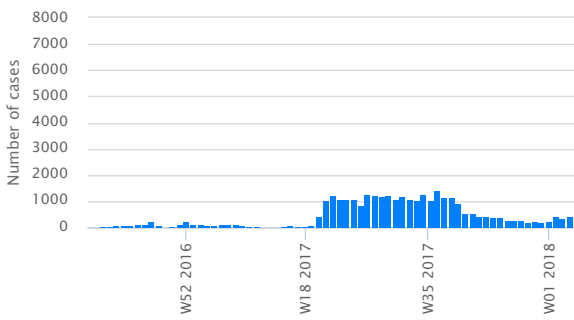


Figure 3d | Al Dhale'e الضالع

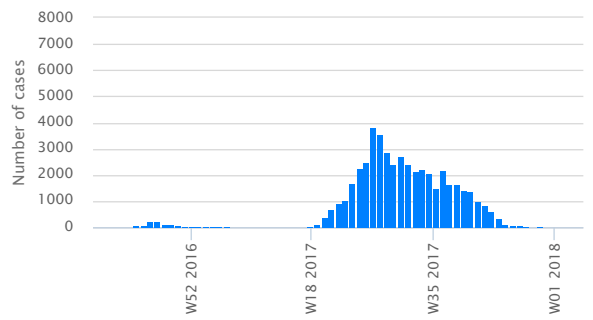


Figure 3e | Al Hudaydah الحديدة

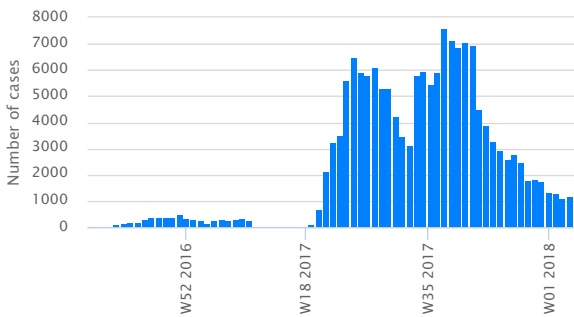


Figure 3f | Al Jawf الجوف

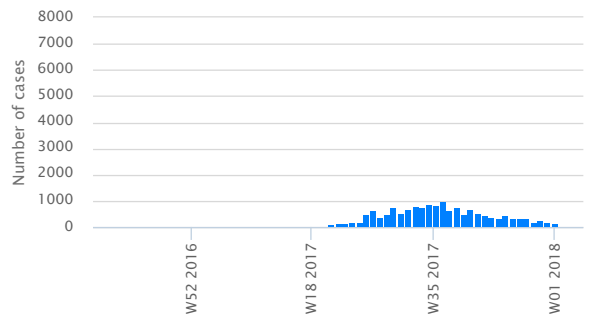


Figure 3g | Al Maharah المهرة

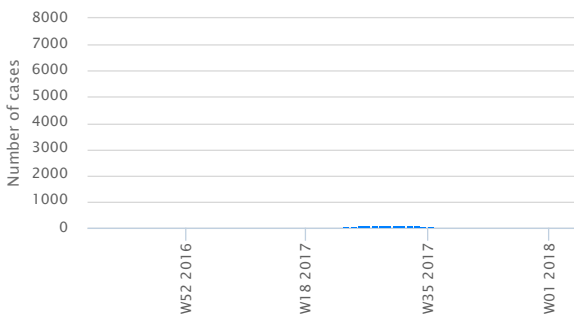


Figure 3h | Al Mahwit المحويت

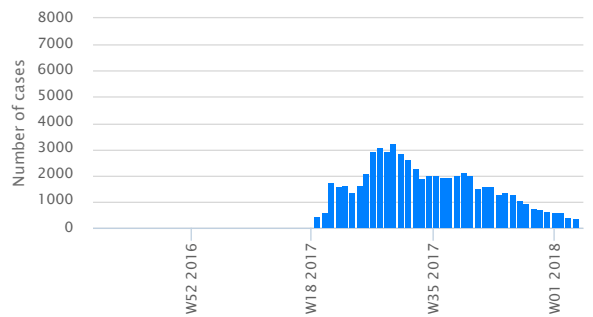


Figure 3i | Amanat Al Asimah أمانة العاصمة

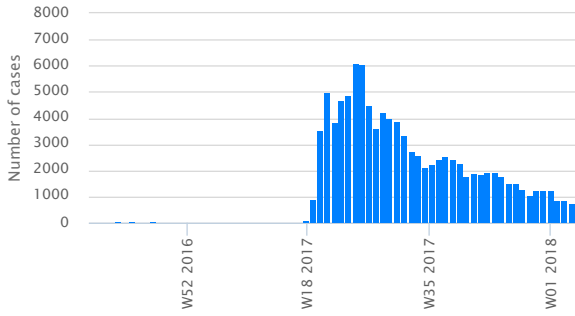


Figure 3j | Amran عمران

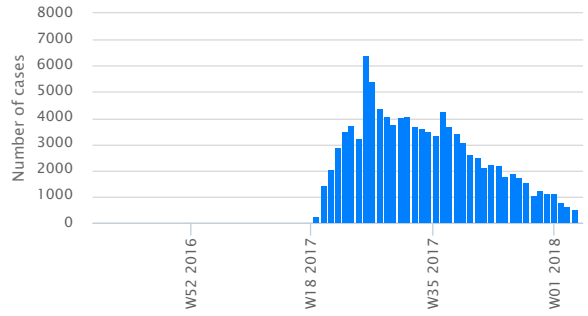


Figure 3k | Dhamar ذمار

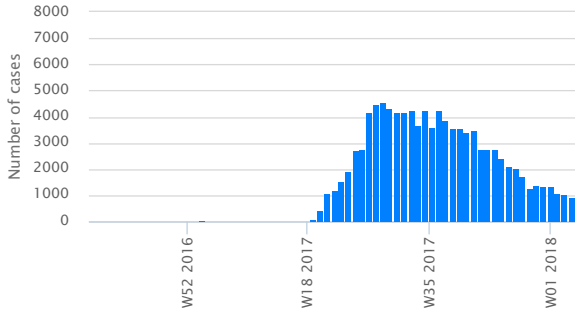


Figure 3l | Hajjah حجة

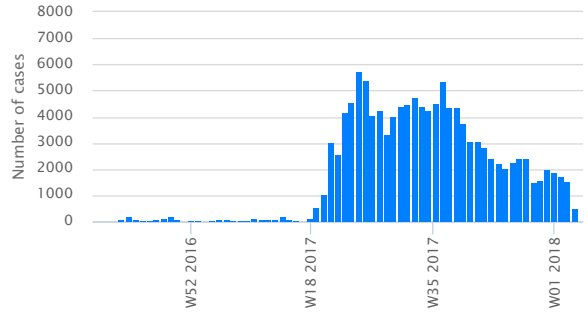


Figure 3m | Ibb إب

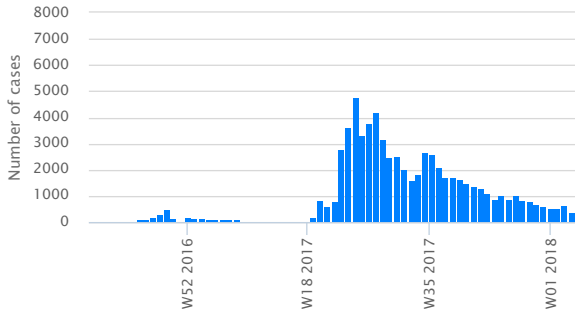


Figure 3n | Lahj لَحْج

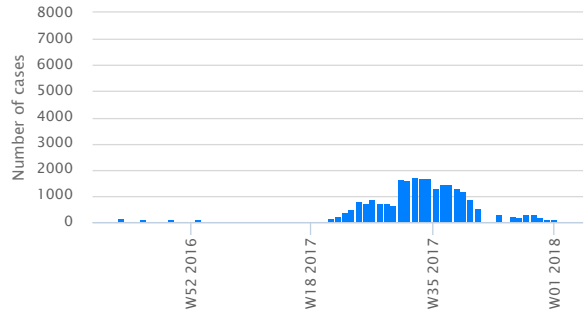


Figure 3o | Marib مارب

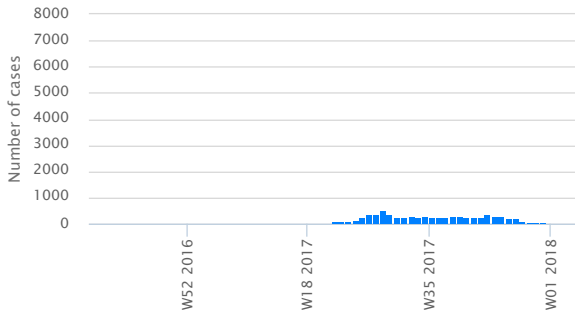


Figure 3p | Raymah ريمه

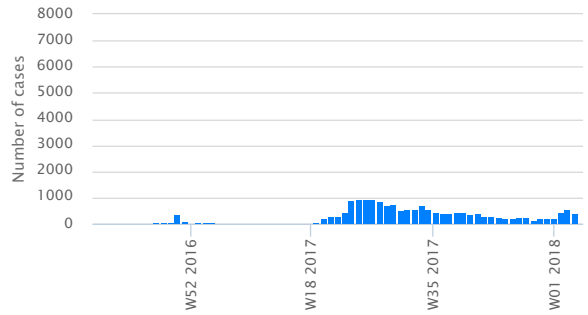


Figure 3q | Sa'ada صنعاء

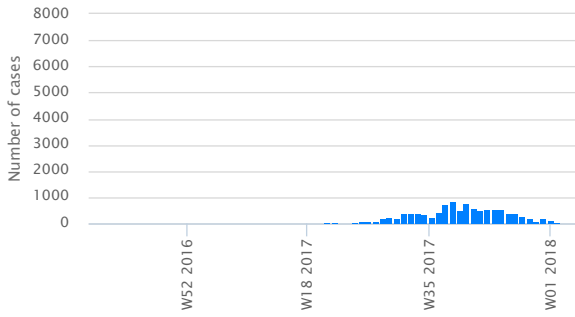


Figure 3r | Sana'a صنعاء

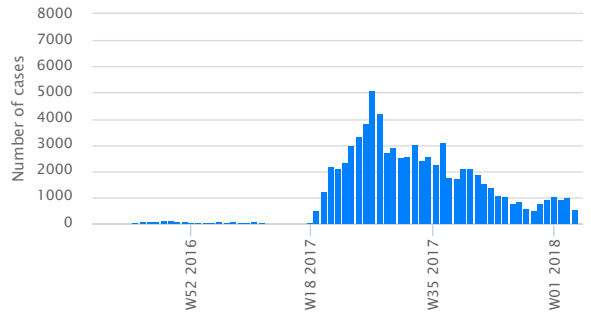


Figure 3s | Say'on سينون

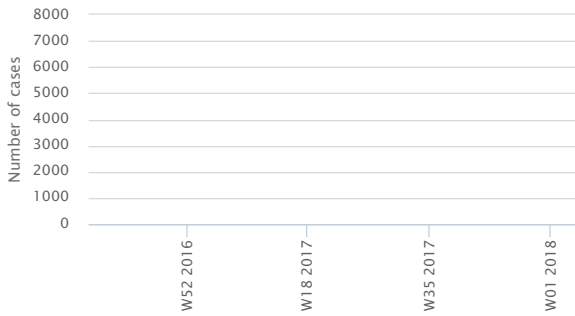


Figure 3t | Shabwah شبوة

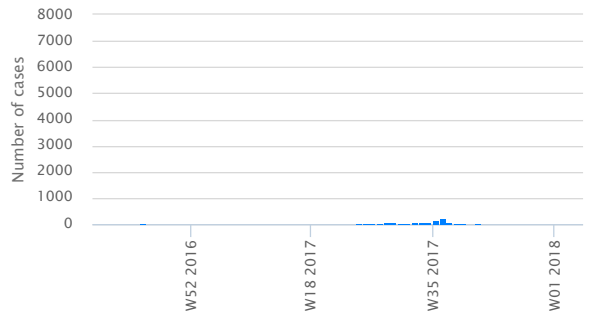
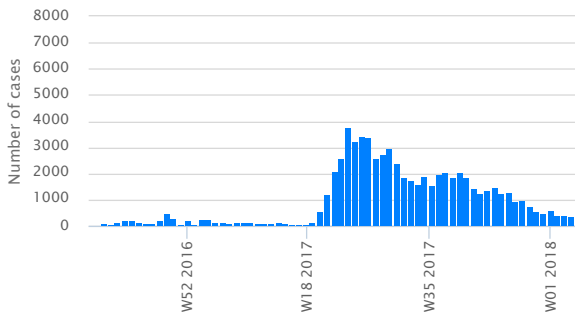


Figure 3v | Taizz تعز



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



World Health Organization