



اليمن Yemen

الاستجابة للكوليرا Cholera Response

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

النشرة الوبائية الأسبوعية
Weekly Epidemiological Bulletin
W38 2017 (Sep 18-Sep 24)

Printed: 15:40 Tuesday, 26 September 2017 UTC

جدول المحتويات Table of Contents

A. Summary indicators	ملخص المؤشرات أ.
B. Epidemic curve	المنحنى 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 د.
F. Districts reporting in past week	المديرية ذات الأولوية هـ.
G. Epidemic curves by Governorate	المنحنى الوبائي حسب المحافظة هـ.

Highlights

- The cumulative total from 27 April 2017 to 24 September 2017 is 738,212 suspected cholera cases and 2,117 associated deaths (CFR 0.29%). 28,277 suspected cases and 16 associated deaths were reported in W38.
- The national attack rate is 259.41 per 10,000. The five governorates with the highest cumulative attack rates per 10,000 remain Amran (639), Al Mahwit (583), Al Dhale'e (558), Abyan (456) and Hajjah (347).
- Children under 5 years old represent 25.7% of total suspected cases. Children under 18 years old represent 55.9%.
- In total, 12,864 rapid diagnostic tests (RDT) have been performed which represents 17.4% coverage. 1,624 cultures have been performed which represents 19.3% coverage. The last positive laboratory confirmation was on the 20th September in Hubaysh district.

Governorate and District level

- The trend at country level over the past 3 weeks is considered stable.
- At governorate level, the trend from W35-W37 increased in 4 governorates: Al Hudaydah (+20%), Saada (+53%), Mokhla (+25%), Sayon (+50%).
- At district level, the range number of death in week 38 is [0-3]
- Those districts are under particular surveillance: As Safra (Saada); Al marawit, Az Zuhra, Ad Dahi (Al hudaydah).

Conclusions and actions

- In response to the continued increases in numbers of suspected cholera cases, WHO and health authorities are still strongly recommend the following:
 1. Strictly apply case definition. All cases that are line listed MUST meet the case definition of suspected cholera. There must be the presence of acute watery diarrhoea, defined as 3 or more loose stools in the past 24 hours.
 2. Strengthen laboratory testing. At a minimum, 1 in 10 patients should be tested with rapid diagnostic test (RDT). Where feasible, exhaustive testing of all admissions to DTC is recommended. All RDT positive cases should be tested for culture.
 3. Strengthen data collection and reporting. Partners should use one register to record consultations at DTC and ORC, and use the line list register ONLY for those that meet case definition of suspected cholera



738,212

حالات الاشتباه
Suspected cases

حالة اشتباه في
الأسبوع الحالي
28,277 suspected cases
in current week

2,117

الوفيات
Associated deaths

حالة وفاة في
الأسبوع الحالي
16 associated deaths
in current week

0.29%

معدل الاماته بين
الحالات
Case Fatality Rate

96%

المحافظات المتأثرة
بالوباء
Governorates
affected

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

91%

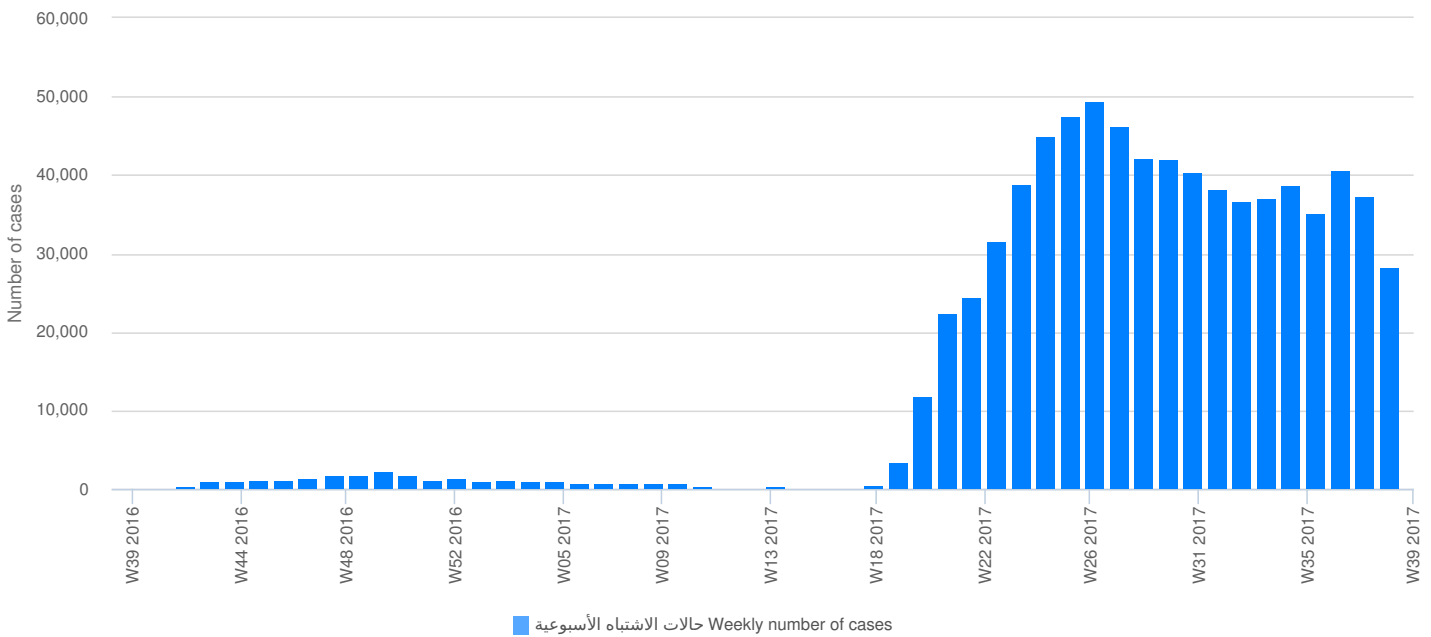
المديريات المتأثرة
بالوباء
Districts
affected

(333 / 304 مديرية)
(304 / 333 districts)

B. المنحنى الوبائي Epidemic curve

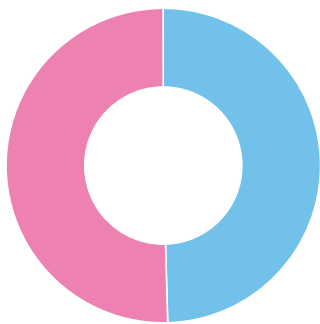
الشكل (1) المنحنى الوبائي على المستوى الوطني

Figure 1 | Epidemic curve (Country)



الشكل (2 أ) حالات الكوليرا على مستوى الجنس

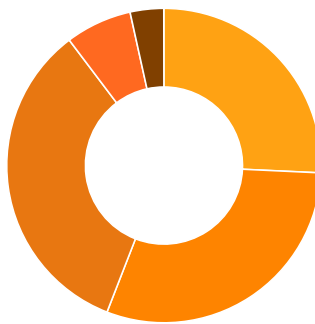
Figure 2a Cases by sex (Cumul.)



Male (50% ; n = 371,492)
Female (50% ; n = 377,274)

الشكل (2 ب) حالات الكوليرا على مستوى الفئات العمرية

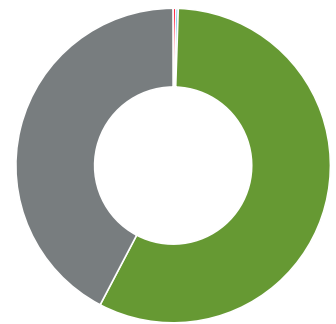
Figure 2b Cases by age (Cumul.)



< 5 (25.7% ; n = 184,597)
5-17 (30.2% ; n = 216,229)
18-44 (33.8% ; n = 242,393)
45-59 (6.8% ; n = 48,972)
≥ 60 (3.5% ; n = 24,769)

الشكل (2 ج) حالات الكوليرا بالنسبة لحالة المريض

Figure 2c Cases by outcome (Cumul.)



Discharged (57.32% ; n = 423,150)
Referred (0.24% ; n = 1,798)
Died (0.29% ; n = 2,117)
Unknown (42.44% ; n = 313,264)

C. المحافظة 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	تراكمي Cumulative (27/04/2017 to 24/9/2017)				الاتجاه 3 أسابيع 3 week trend					
	حالات الاشتباه Cases	الوفيات Deaths	معدل الامانه CFR ¹	السكان Population	معدل الإصابة AR ²	أسابيع -3 -3W	أسابيع -2 -2W	أسابيع -1 -1W	الأسبوع الحالي W	اتجاه Trend ³
Amran عمران	74,190	167	0.23%	1,160,559	639.26	3,309	4,271	3,676	2,885	► -2%
Al Mahwit المحويت	42,641	140	0.33%	730,209	583.96	1,986	1,961	1,958	1,781	► -1%
Al Dhale'e الصالح	40,823	79	0.19%	731,496	558.08	1,514	2,180	1,642	1,427	► -8%
Abyan أبين	26,082	35	0.13%	570,832	456.91	1,264	1,408	1,354	1,140	► 1%
Hajjah حجة	80,916	398	0.49%	2,329,741	347.32	4,486	5,303	4,067	1,688	▼ -12%
Sana'a صنعاء	48,448	122	0.25%	1,470,346	329.50	2,306	3,120	1,790	1,081	▼ -26%
Dhamar ذمار	65,067	151	0.23%	2,012,264	323.35	3,609	4,252	3,859	3,469	► -1%
Al Hudaydah الحديدة	97,193	247	0.25%	3,238,199	300.15	5,413	5,929	7,613	5,431	▲ +20%
Al Bayda البيضاء	22,435	28	0.12%	759,388	295.44	1,041	1,444	1,143	1,083	► -5%
Amanat Al Asimah العاصمة	75,088	66	0.09%	2,827,824	265.53	2,242	2,426	2,553	1,839	► 6%
Raymah ريمة	11,769	111	0.94%	606,776	193.96	462	410	405	405	► -5%
Lahj لحج	19,512	20	0.10%	1,008,864	193.41	1,289	1,442	1,431	1,043	► 3%
Aden عدن	17,760	62	0.35%	922,996	192.42	592	543	576	441	► 1%
Al Jawf الجوف	10,613	21	0.20%	578,585	183.43	847	973	663	757	▼ -20%
Ibb إب	48,804	272	0.56%	2,957,138	165.04	2,493	2,027	1,662	1,498	▼ -19%
Taizz تعز	44,495	180	0.40%	2,998,300	148.40	1,525	1,910	1,819	1,145	► 4%
Marib مأرب	4,568	7	0.15%	358,542	127.40	244	256	240	250	► -3%
Al Maharah المهرة	1,162	1	0.09%	153,306	75.80	39	21	8	3	▼ -65%
Sa'ada صعدة	4,920	5	0.10%	911,467	53.98	272	432	737	830	▲ +53%
Shabwah شبوة	1,243	3	0.24%	636,008	19.54	136	239	80	28	▼ -47%
Moklla المكلا	469	2	0.43%	774,430	6.06	60	73	95	53	▲ +25%
Say'on سينون	14	0	0.00%	654,921	0.21	1	0	1	0	▲ +50%
Yemen اليمن	738,212	2,117	0.29%	28,457,130	259.41	35,130	40,620	37,372	28,277	► -1%

¹ معدل الامانه بين الحالات

² معدل الإصابة لكل 10,000 من السكان

³ تم حساب المنحنى 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:

▲ منحنى مرتفع	غير بمعدل $\geq +10\%$
► منحنى مستقر	غير بمعدل $> -10\%$ to $< +10\%$
▼ منحنى منخفض	غير بمعدل $\leq -10\%$
■ انقطاع في الارسال	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

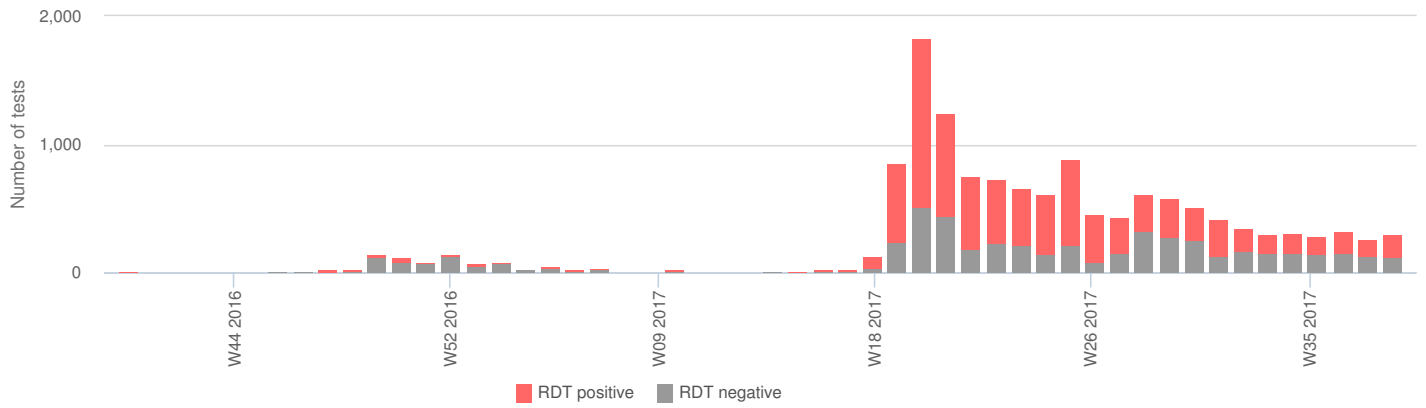


Figure 5 | Rapid Diagnostic Kit (RDT)

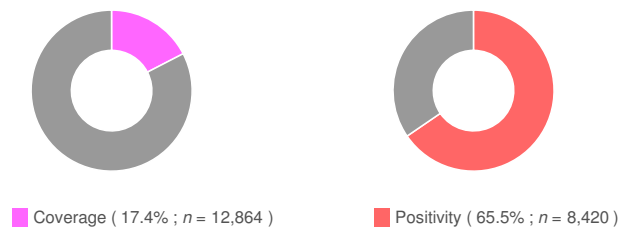


Figure 6 | Culture

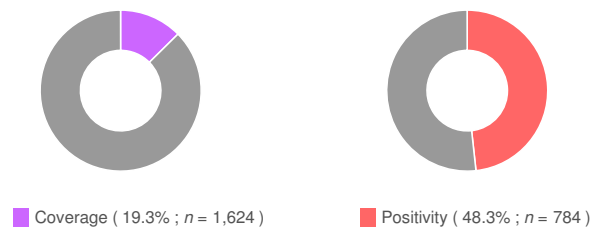


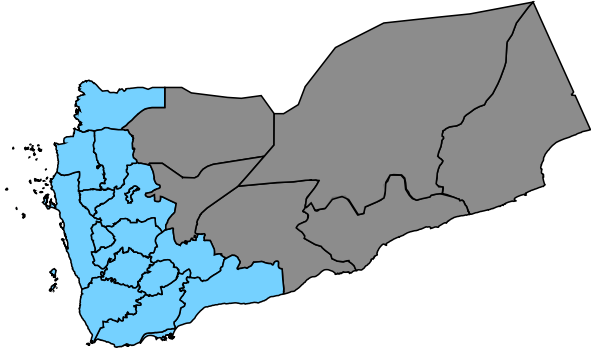
Table 2 | Summary of key laboratory indicators by Governorate

Governorate	Rapid Diagnostic Kit (RDT)					Culture			
	Cases	Total tested	Coverage	Total +ve	+ivity rate	Total tested	Coverage	Total +ve	+ivity rate
أبين أبين	26,082	170	6.5%	126	74.1%	36	28.6%	23	63.9%
عدن عدن	17,760	347	19.5%	237	68.3%	116	48.9%	91	78.4%
البيضاء البيضاء	22,435	754	33.6%	542	71.9%	112	20.7%	9	8.0%
الضالع الضالع	40,823	195	4.8%	80	41.0%	18	22.5%	3	16.7%
الحديدة الحديدة	97,193	210	2.2%	85	40.5%	21	24.7%	3	14.3%
الجوف الجوف	10,613	1187	111.8%	854	71.9%	39	4.6%	12	30.8%
المهرة المهرة	1,162	259	222.9%	114	44.0%	22	19.3%	14	63.6%
المحويت المحويت	42,641	996	23.4%	698	70.1%	33	4.7%	10	30.3%
أمانة العاصمة أمانة العاصمة	75,088	2814	37.5%	1702	60.5%	312	18.3%	170	54.5%
عمران عمران	74,190	832	11.2%	505	60.7%	58	11.5%	20	34.5%
ذمار ذمار	65,067	319	4.9%	229	71.8%	96	41.9%	21	21.9%
حجة حجة	80,916	516	6.4%	109	21.1%	29	26.6%	10	34.5%
إب إب	48,804	320	6.6%	270	84.4%	37	13.7%	13	35.1%
لحج لحج	19,512	993	50.9%	531	53.5%	33	6.2%	10	30.3%
مأرب مأرب	4,568	145	31.7%	121	83.4%	2	1.7%	0	0.0%
المكلا المكلا	469	76	162.0%	60	78.9%	43	71.7%	22	51.2%
ريمة ريمة	11,769	512	43.5%	339	66.2%	27	8.0%	5	18.5%
صعدة صعدة	4,920	907	184.3%	750	82.7%	5	0.7%	0	0.0%
صنعاء صنعاء	48,448	535	11.0%	415	77.6%	170	41.0%	43	25.3%
سيئون سيئون	14	13	928.6%	7	53.8%	9	128.6%	0	0.0%
شبوة شبوة	1,243	85	68.4%	27	31.8%	39	144.4%	4	10.3%
تعز تعز	44,495	679	15.3%	619	91.2%	367	59.3%	301	82.0%
اليمن اليمن	738,212	12,864	17.4%	8,420	65.5%	1,624	19.3%	784	48.3%

E. التوزيع الجغرافي مع مرور الوقت Geographic distribution over time

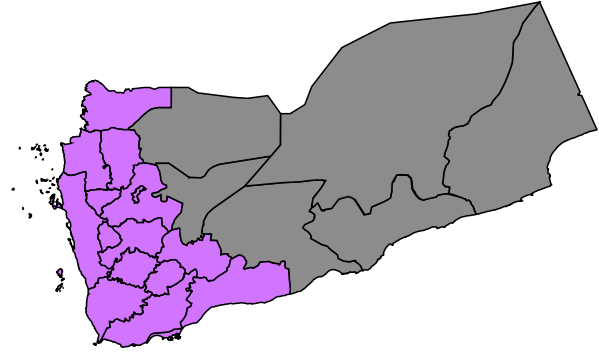
الخريطة (أ 1) عدد حالات الاشتباه للمحافظات

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



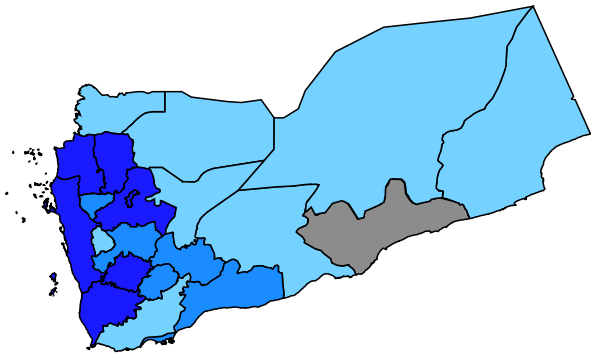
الخريطة (ب 1) معدل الإصابة للمحافظات

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



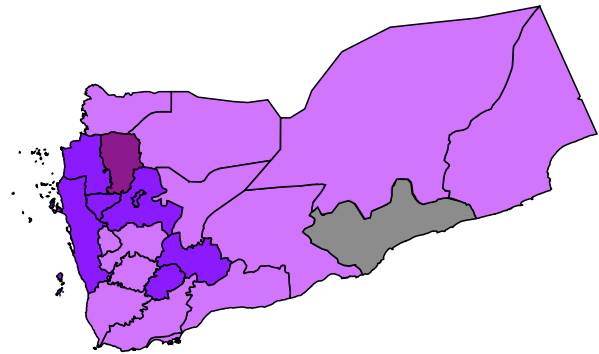
الخريطة (أ 1) عدد حالات الاشتباه للمحافظات

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



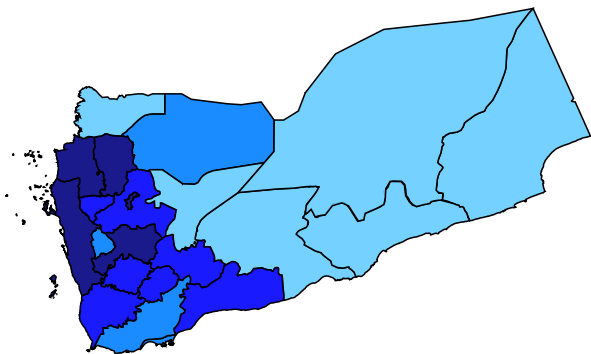
الخريطة (ب 1) معدل الإصابة للمحافظات

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



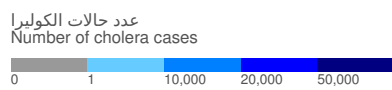
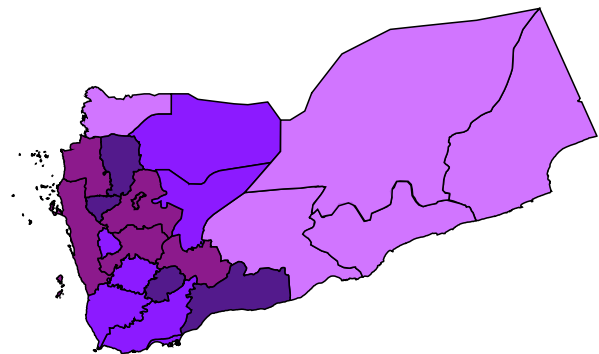
الخريطة (أ 1) عدد حالات الاشتباه للمحافظات

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



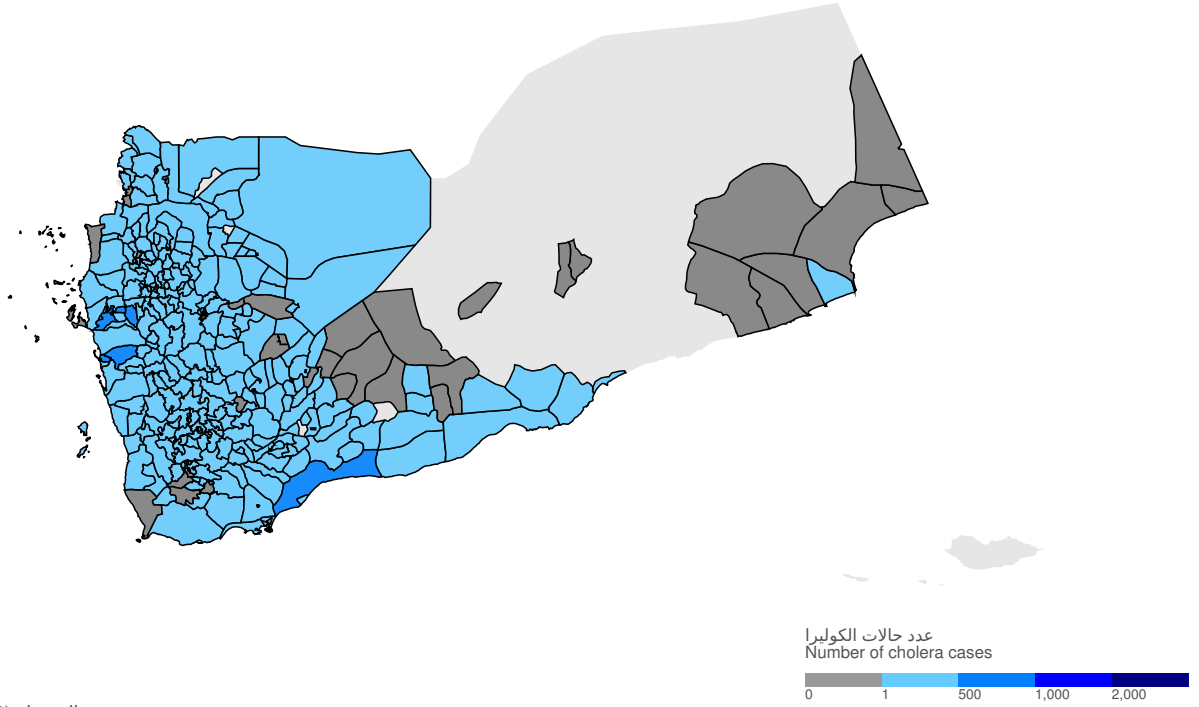
الخريطة (ب 1) معدل الإصابة للمحافظات

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

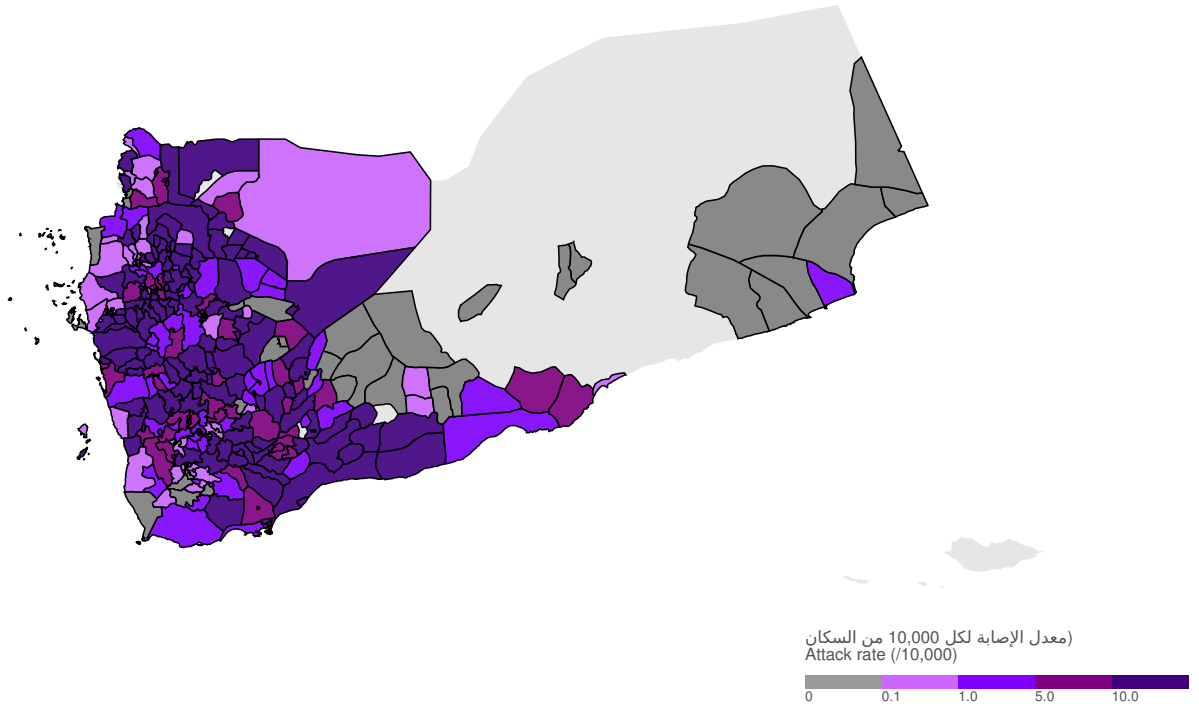


F. المديريات ذات الأولوية Districts reporting in current week

الخريطة (2 أ) عدد حالات الاشتباه الأولوية
Map 2 | Number of cases by district (W38 2017)



الخريطة (3 ب) معدل الإصابة الأولوية
Map 3 | Attack rate by district (W38 2017)



G. Epidemic curves by Governorate

Figure 3a | أبين Abyan

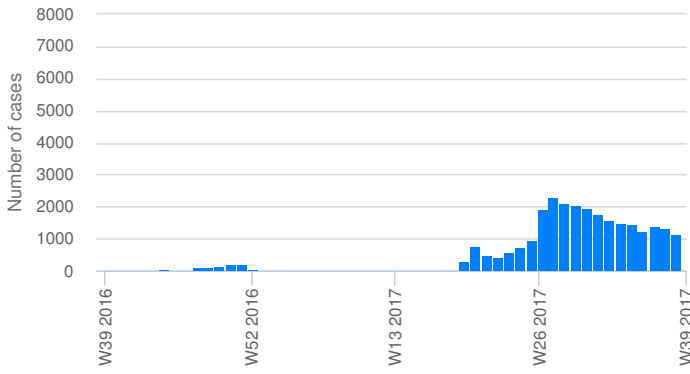


Figure 3b | عدن Aden

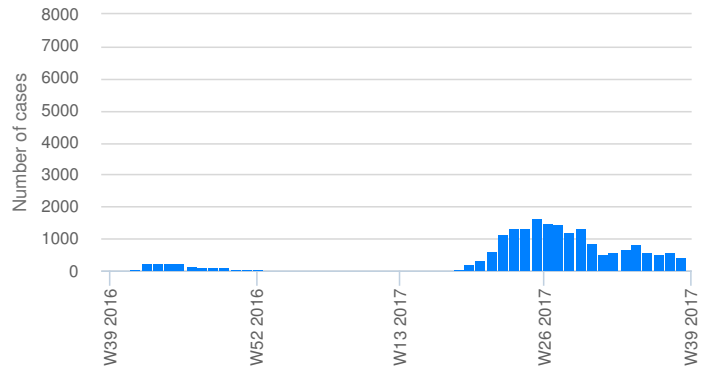


Figure 3c | البيضاء Al Bayda

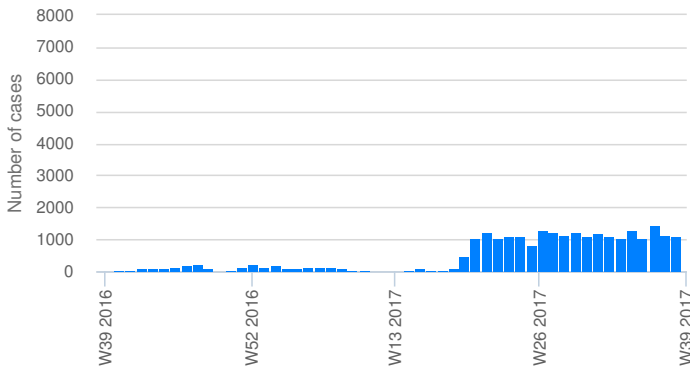


Figure 3d | الضالع Al Dhale'e

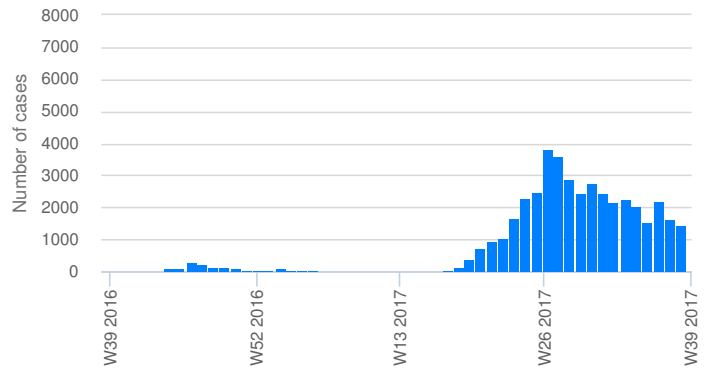


Figure 3e | الحديدة Al Hudaydah

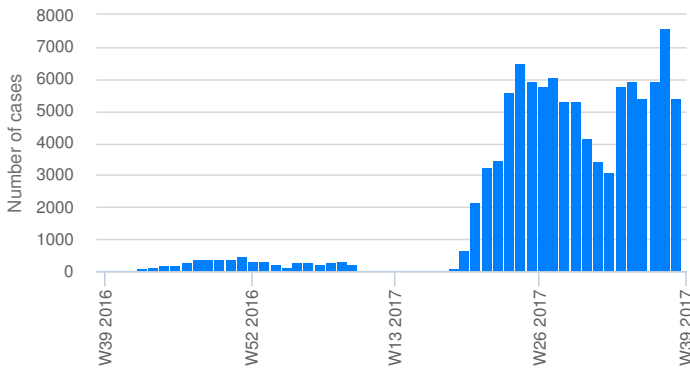


Figure 3f | الجوف Al Jawf

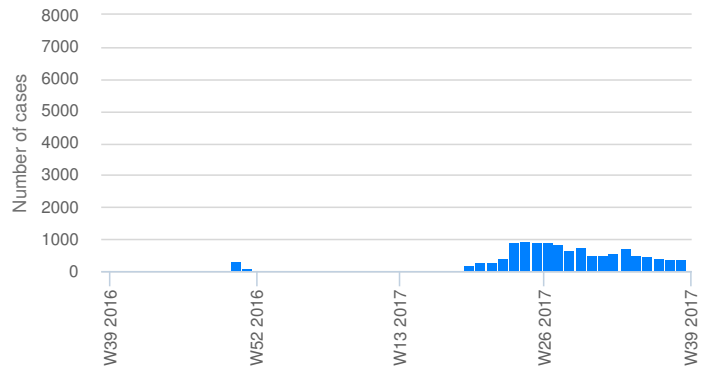


Figure 3g | المهرة Al Maharah

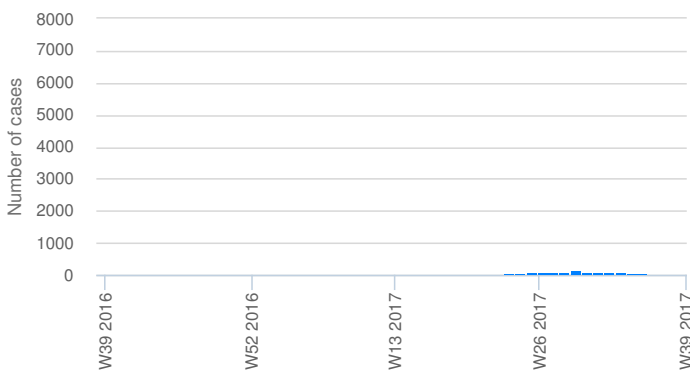


Figure 3h | المحويت Al Mahwit

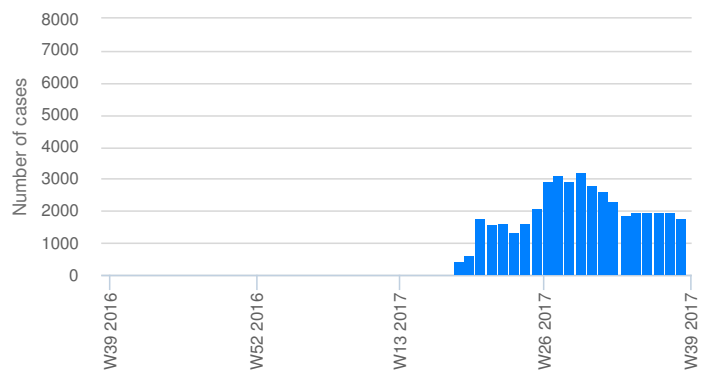


Figure 3i | Amanat Al Asimah أمانة العاصمة

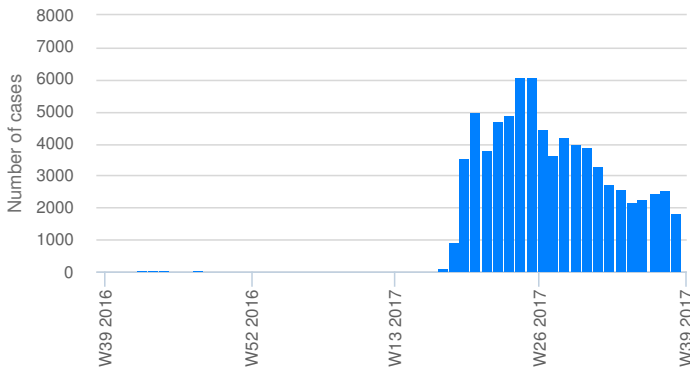


Figure 3j | Amran عمران

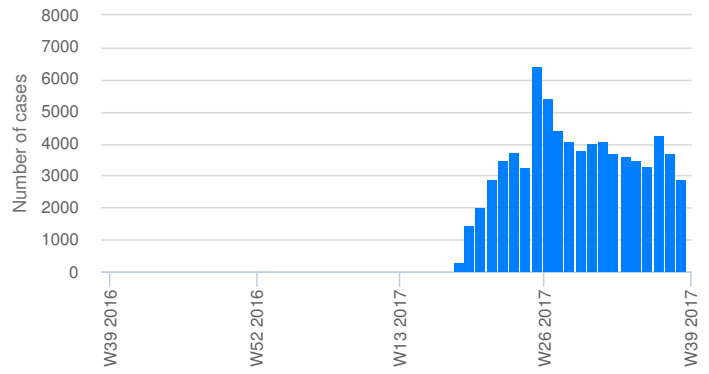


Figure 3k | Dhamar ذمار

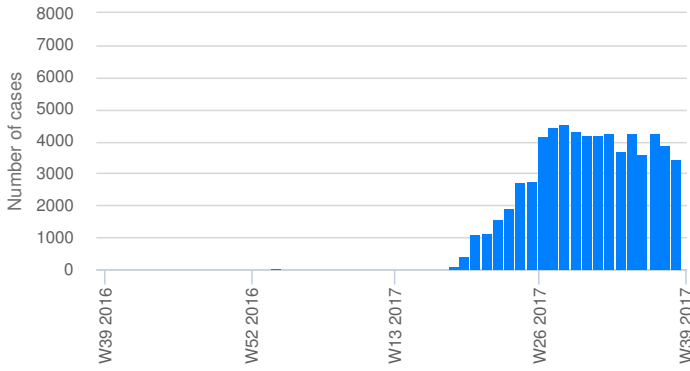


Figure 3l | Hajjah حجة

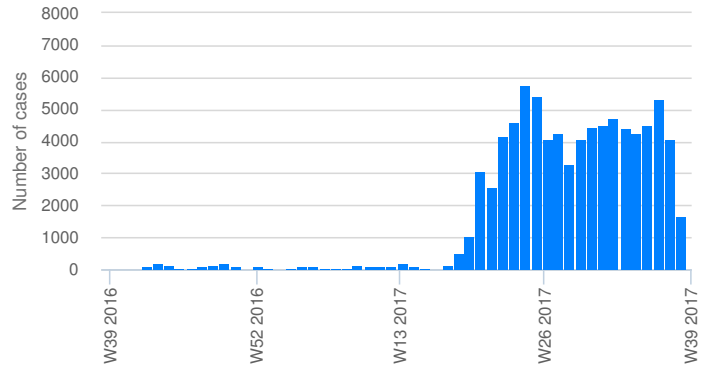


Figure 3m | Ibb إب

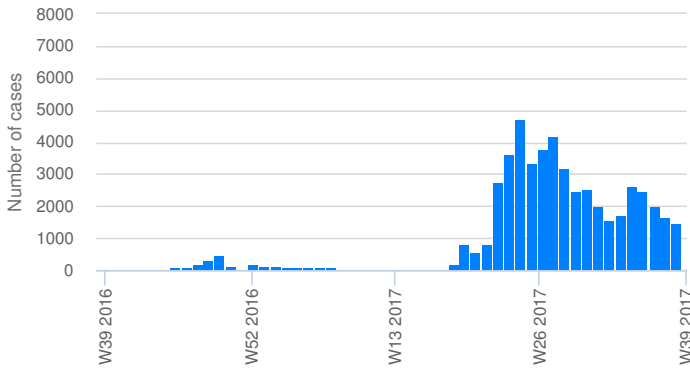


Figure 3n | Lahj لبح

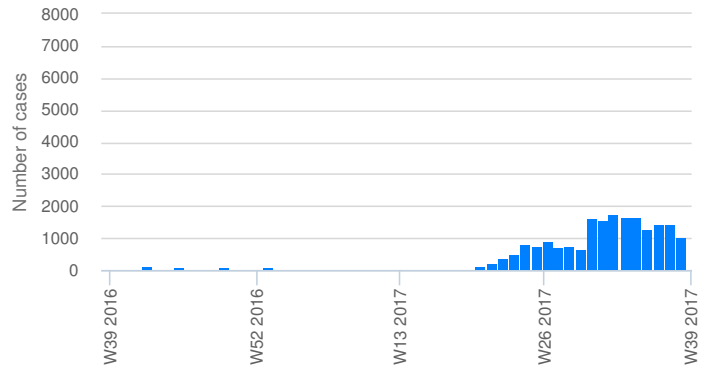


Figure 3o | Marib مأرب

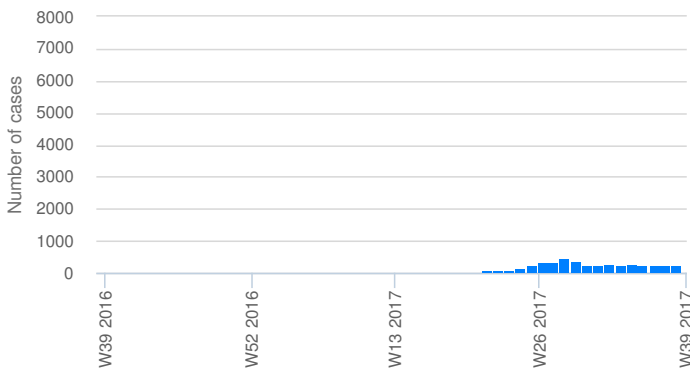


Figure 3p | Raymah ريمة

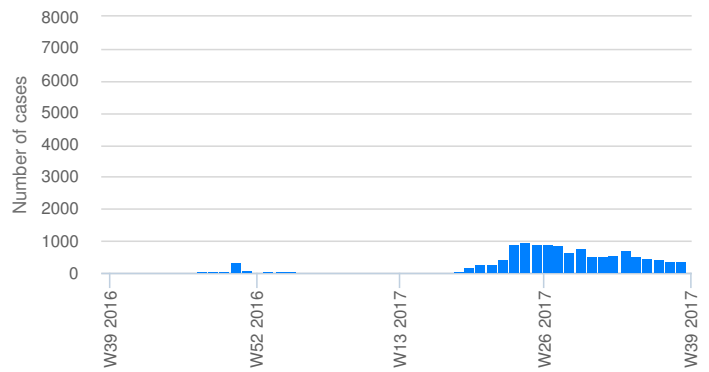


Figure 3q | Sa'ada صعدة

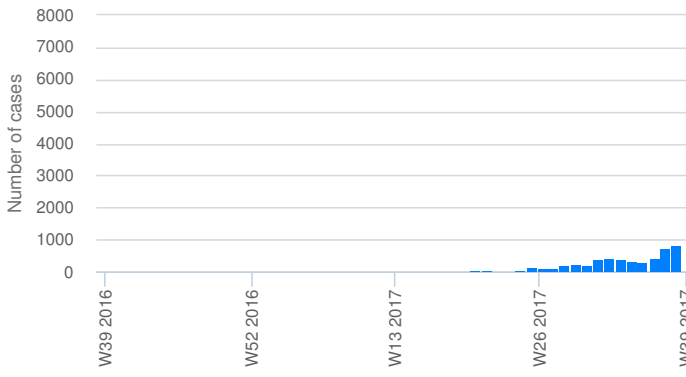


Figure 3r | Sana'a صنعاء

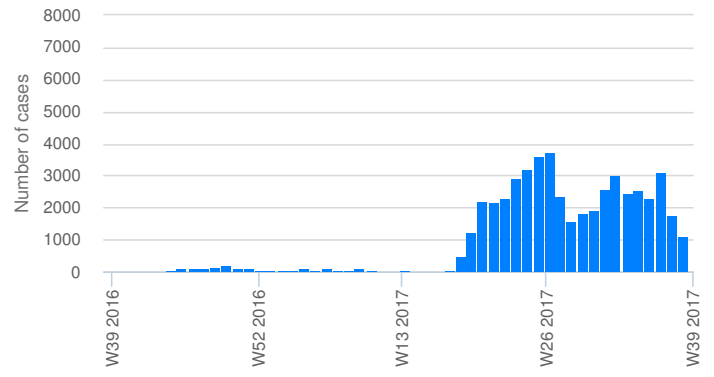


Figure 3s | Say'on سينون

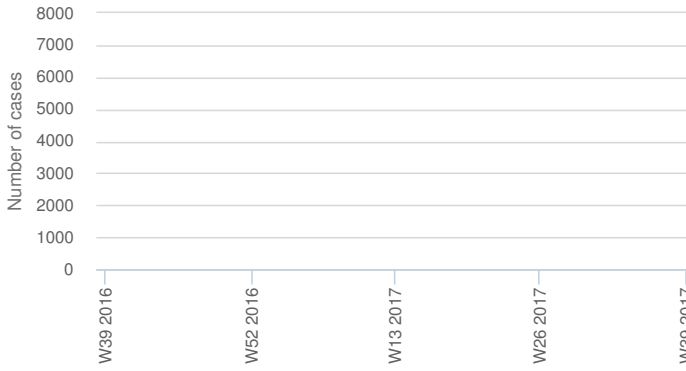


Figure 3t | Shabwah شبوة

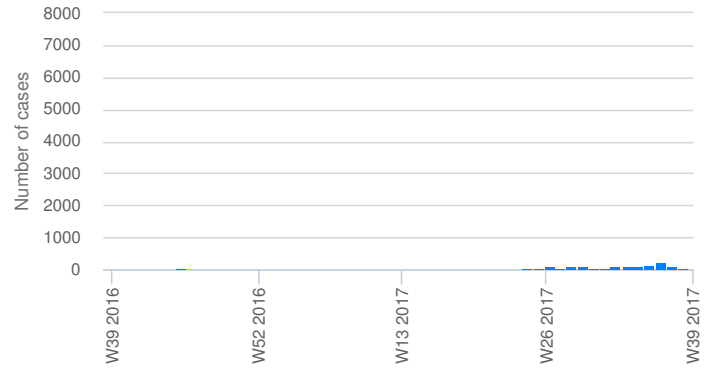
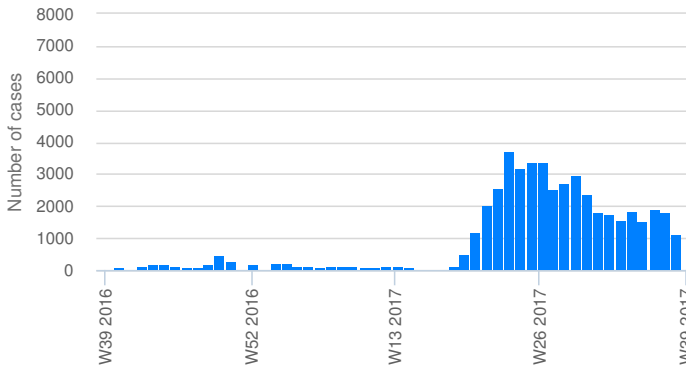


Figure 3v | Taizz تعز



للتواصل
Contact Information

Dr Reema Al Yusfi
eDEWS National Coordinator
Ministry of Public Health and Population
Sana'a, Yemen
Email: alyusfi@yahoo.com

Malika Bouhenia
Epidemiologist
WHO Country Office
Sana'a, Yemen
Email: bouheniam@who.int

Lauren O'Connor
Communications Officer
WHO Country Office
Sana'a, Yemen
Email: occonnorl@who.int



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