



# اليمن Yemen

## الاستجابة للكوليرا Cholera Response

برنامج الترصد الإلكتروني للأمراض

Electronic Disease Early Warning System (eDEWS)

النشرة الوبائية الأسبوعية

Weekly Epidemiological Bulletin

W4 2018 (Jan 22-Jan 28)

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### Highlights

#### Cumulative figures

- The cumulative total from 27 April 2017 to 28 Jan 2018 is 1,051,789 suspected cholera cases and 2,252 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 16.2%
- The national attack rate is 379.75 per 10,000. The five governorates with the highest cumulative attack rates per 10,000 remain Amran (889), Al Mahwit (848), Al Dhale'e (644), Hajjah (520) and Sana'a (511).
- Children under 5 years old represent 28.7% of total suspected cases.
- In total, 28,410 rapid diagnostic tests (RDT) have been performed which represents 27% coverage.
- 2,706 cultures have been performed which represents 22.6% coverage.
- The last positive culture was on 13 Jan 2018 in Al-Wahda district in Amanat Al-Asimah
- 198 districts are still reporting suspected cholera cases since last 3 weeks
- 107 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 W2 –W4 decrease or was stable in all governorates except (Al Jawf governorate) (+42%).

#### Trends

- The weekly number of cases is decreasing for the 20 consecutive weeks.
- The weekly proportion of severe cases has significantly decreased representing now 9% of the admitted cases.

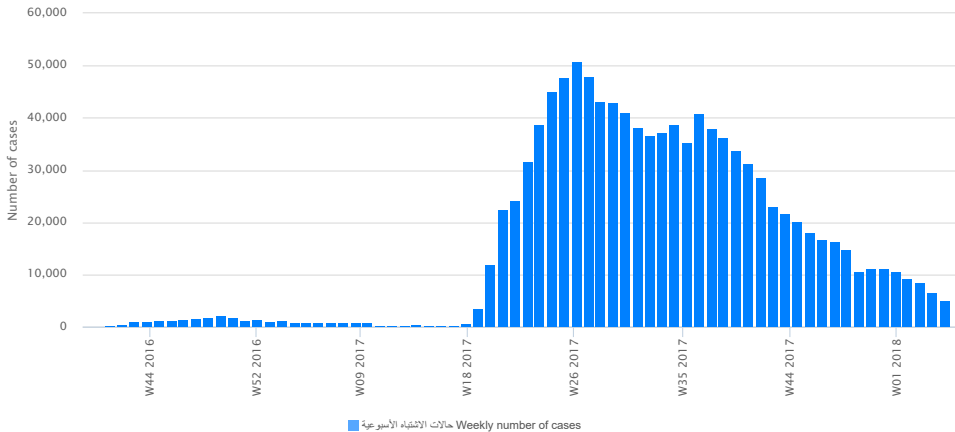
#### Week 4 2018

- 4,920 suspected cases and 4 associated deaths were reported
- 9 % are severe cases
- 610 RDTs were performed, 145 were positive
- No culture test was performed this week

## B. المنحنى الوبائي Epidemic curve

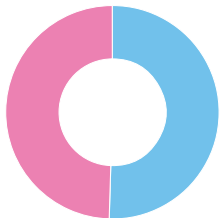
الشكل (1) المنحنى الوبائي على المستوى الوطني

Figure 1 | Epidemic curve (Country)



الشكل (2) حالات الكوليرا على مستوى الجنس

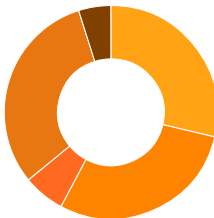
Figure 2a Cases by sex (Cumul.)



■ ذكر Male ( 53% ; n = 15,783 )  
■ أنثى Female ( 47% ; n = 14,201 )

الشكل (2ب) حالات الكوليرا على مستوى الفئات العمرية

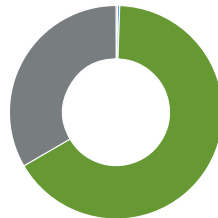
Figure 2b Cases by age (Cumul.)



■ < 5 ( 28.7% ; n = 298,947 )  
■ 5-17 ( 29.0% ; n = 302,256 )  
■ 18-44 ( 31.0% ; n = 322,753 )  
■ 45-59 ( 6.3% ; n = 65,685 )  
■ ≥ 60 ( 4.9% ; n = 50,912 )

الشكل (2 ج) حالات الكوليرا بالنسبة لحالة المريض

Figure 2c Cases by outcome (Cumul.)



■ شفاء Discharged ( 66.24% ; n = 696,681 )  
■ إحالة Referred ( 0.32% ; n = 3,374 )  
■ وفاة Died ( 0.21% ; n = 2,252 )  
■ غير معرف Unknown ( 33.44% ; n = 351,734 )

# Trends in cases by age distribution and dehydration status

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

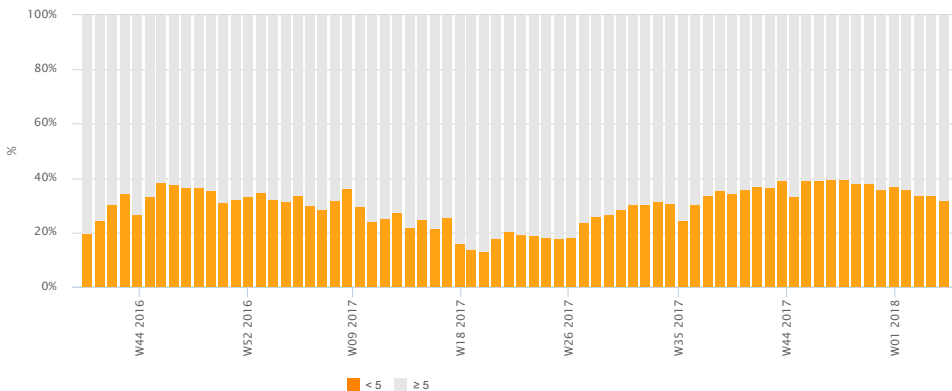
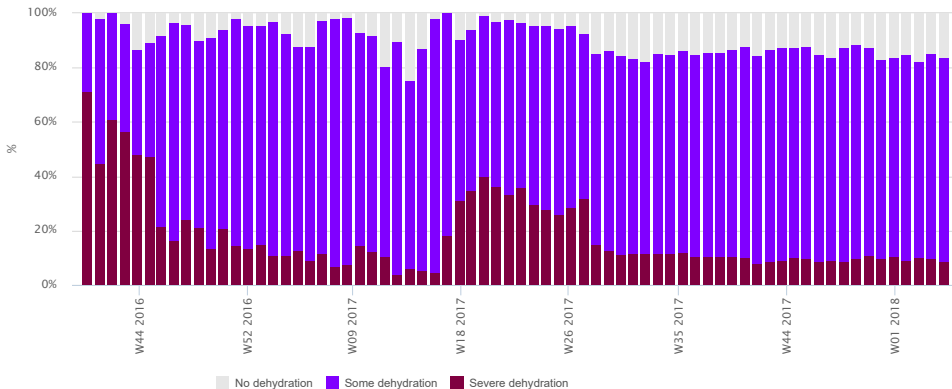


Figure 2e | Trend in proportion of cases by dehydration status<sup>1</sup>



<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 بالنسبة للمحافظات

Table 1 | Summary of key cholera indicators by Governorate

المحافظات Governorate	تراكمي Cumulative (27/04/2017 to 28/1/2018)	الاتجاه 3 أسابيع 3 week trend								
		حالات الاصابة Cases	الوفيات Deaths	معدل الامتاة CFR <sup>1</sup>	المكان Population	معدل الإصابة AR <sup>2</sup>	أسابيع -3 -3W	أسابيع -2 -2W	أسابيع -1 -1W	الأسبوع الحالي W
عمران Amran	103,285	176	0.17%	1,160,559	889.96	795	642	494	351	▼ -23%
Al Mahwit المهويت	61,927	151	0.24%	730,209	848.07	577	403	370	347	▼ -18%
Al Dhale'e الذالعي	47,132	81	0.17%	731,496	644.32	11	6	0	0	▼ -100%
Hajjah حجة	121,279	421	0.35%	2,329,741	520.57	1,750	1,533	518	25	▼ -59%
Sana'a صنعاء	75,177	123	0.16%	1,470,346	511.29	963	992	522	396	▼ -37%
Dhamar ذمار	101,535	161	0.16%	2,012,264	504.58	1,118	1,031	950	693	► -8%
Abyan أبين	28,241	35	0.12%	570,832	494.73	0	0	0	0	■ Interrupt
Al Hudaydah الحديدة	153,446	281	0.18%	3,238,199	473.86	1,286	1,073	1,202	834	► 1%
Al Bayda البيضاء	29,718	34	0.11%	759,388	391.34	447	356	462	448	► 10%
Amanat Al Asimah العاصمة	101,364	71	0.07%	2,827,824	358.45	829	846	763	722	► -6%
Raymah ريمه	17,217	120	0.70%	606,776	283.75	458	554	396	340	▼ -16%
Al Jawf الجوف	15,936	22	0.14%	578,585	275.43	29	13	38	64	▲ +42%
Lahj لحج	24,341	22	0.09%	1,008,864	241.27	1	1	0	0	▼ -100%
Aden عدن	20,908	62	0.30%	922,996	226.52	26	22	19	21	▼ -15%
Ibb إب	65,852	287	0.44%	2,957,138	222.69	552	668	469	454	▼ -17%
Taiz تعز	63,282	187	0.30%	2,998,300	211.06	396	415	373	223	► -5%
Marib مارب	7,286	7	0.10%	358,542	203.21	8	0	0	1	▼ -100%
Sa'ada صنعاء	10,706	5	0.05%	905,145	118.28	55	1	2	1	▼ -90%
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	0	0	0	0	■ Interrupt
Mokla المكلا	568	2	0.35%	400,788	14.17	0	0	0	0	■ Interrupt
Say'on صنونو	22	0	0.00%	376,237	0.58	1	0	0	0	▼ -100%
Yemen اليمن	1,051,789	2,252	0.21%	27,696,950	379.75	9,302	8,556	6,578	4,920	▼ -19%

<sup>1</sup> معدل الإماتة بين الحالات

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

<sup>3</sup> تم حساب المعدل بناءً على متوسط عدد الحالات خلال ثلاثة أسابيع سابقة

(لم يتم تضمين الأسبوع الحالي في حساب المعدل 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 مرتفع	غير متبادل ≥ +10%
► متزايد مستقر	غير متبادل > -10% to < +10%
▼ متناقص	غير متبادل ≤ -10%
■ انقطاع في الإرسال	عدد 0 حالة خلال 3 أسابيع متتالية

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

Figure 4 | RDT results by week

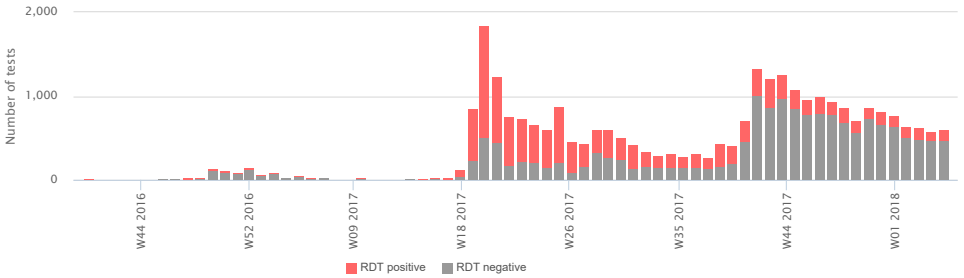
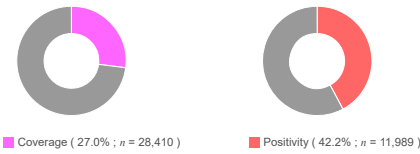
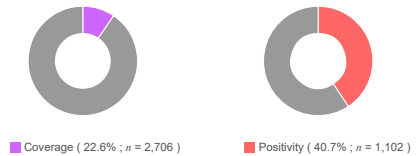


Figure 5 | Rapid Diagnostic Kit (RDT)



\* 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)

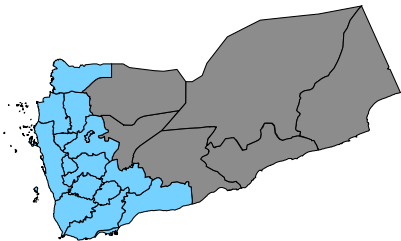
Table 2 | Summary of key laboratory indicators by Governorate

Governorate	Rapid Diagnostic Kit (RDT)					Culture			
	Cases	Total tested	Coverage	Total +ve	+vity rate	Total tested	Coverage	Total +ve	+vity rate
أبين Abyan	28,241	238	8.4%	151	63.4%	39	25.8%	23	59.0%
عدن Aden	20,908	578	27.6%	363	62.8%	173	47.7%	118	68.2%
البيضاء Al Bayda	29,718	1822	61.3%	812	44.6%	194	23.9%	9	4.6%
الذليع Al Dhale'e	47,132	345	7.3%	123	35.7%	41	33.3%	3	7.3%
الحديدة Al Hudaydah	153,446	2945	19.2%	1068	36.3%	392	36.7%	227	57.9%
الجبف Al Jawf	15,936	1377	86.4%	904	65.6%	55	6.1%	12	21.8%
المهرة Al Maharah	1,168	263	225.2%	118	44.9%	25	21.2%	14	56.0%
المحويت Al Mahwit	61,927	1885	30.4%	939	49.8%	56	6.0%	13	23.2%
أمانة Al Asimh	101,364	5033	49.7%	2120	42.1%	489	23.1%	188	38.4%
عمران Amran	103,285	2068	20.0%	660	31.9%	89	13.5%	23	25.8%
نمر Dhamar	101,535	2824	27.8%	384	13.6%	109	28.4%	23	21.1%
حجة Hajjah	121,279	763	6.3%	176	23.1%	46	26.1%	14	30.4%
إب Ibb	65,852	684	10.4%	452	66.1%	98	21.7%	13	13.3%
لحج Lahj	24,341	1160	47.7%	588	50.7%	44	7.5%	18	40.9%
مأرب Marib	7,286	192	26.4%	124	64.6%	2	1.6%	0	0.0%
المكلا Mokla	568	105	184.9%	80	76.2%	55	68.8%	32	58.2%
ريمة Raymah	17,217	588	34.2%	385	65.5%	32	8.3%	5	15.6%
صعدة Sa'ada	10,706	920	85.9%	752	81.7%	12	1.6%	0	0.0%
صنعاء Sana'a	75,177	3132	41.7%	778	24.8%	291	37.4%	44	15.1%
سيئون Say'on	22	21	954.5%	9	42.9%	11	122.2%	0	0.0%
شبه Shabwah	1,399	127	90.8%	53	41.7%	51	96.2%	9	17.6%
تعز Taizz	63,282	1340	21.2%	950	70.9%	402	42.3%	314	78.1%
اليمن Yemen	1,051,789	28,410	27.0%	11,989	42.2%	2,706	22.6%	1,102	40.7%

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

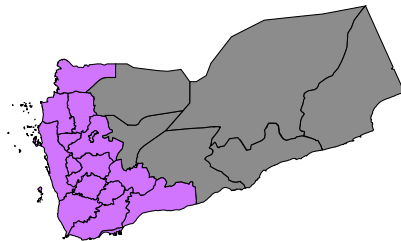
الخريطة (1 أ) عدد حالات الإصابة للمحافظات

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



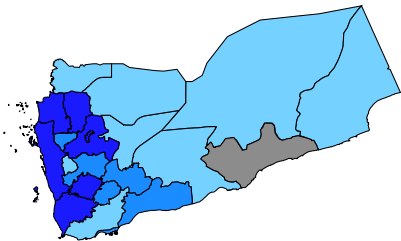
الخريطة (1 ب) معدل الإصابة للمحافظات

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



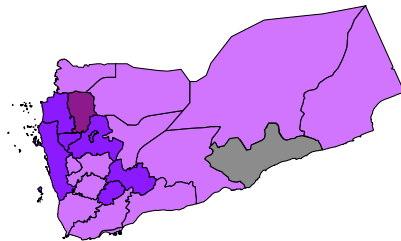
الخريطة (1 أ) عدد حالات الإصابة للمحافظات

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



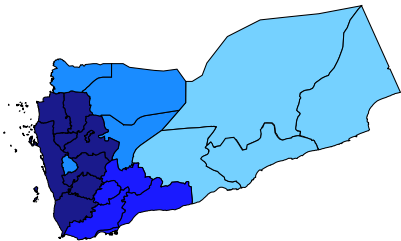
الخريطة (1 ب) معدل الإصابة للمحافظات

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



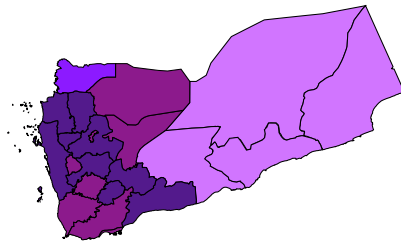
الخريطة (1 أ) عدد حالات الإصابة للمحافظات

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)



عدد حالات الكوليرا  
Number of cholera cases



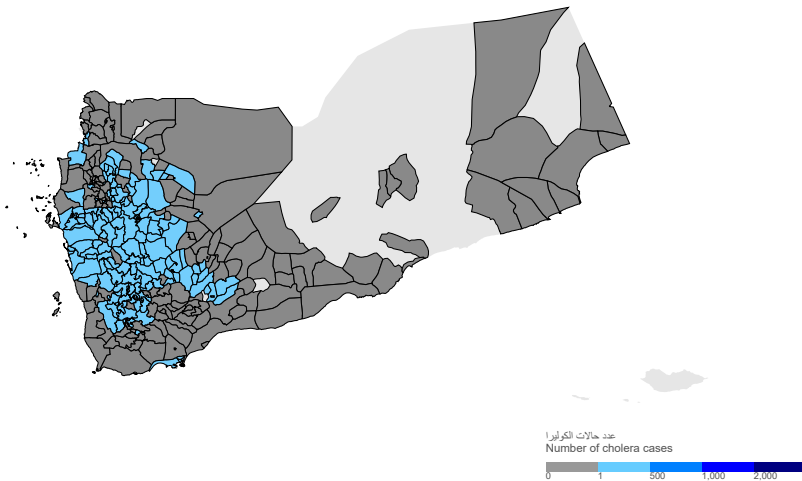
معدل الإصابة لكل 10,000 من السكان  
Attack rate (/10,000)



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

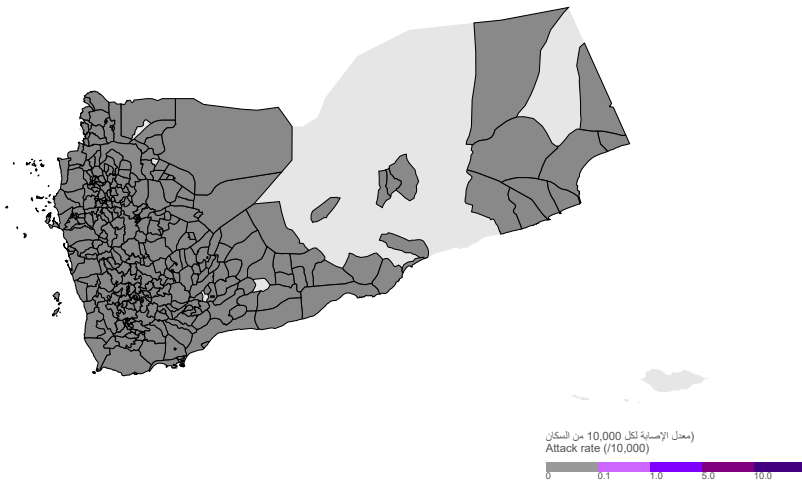
الخريطة (2) عدد حالات الاصابة الأولوية

Map 2 | Number of cases by district (W4 2018)



الخريطة (3) معدل الإصابة الأولوية

Map 3 | Attack rate by district (W4 2018)



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

Figure 3a | أبين Abyan

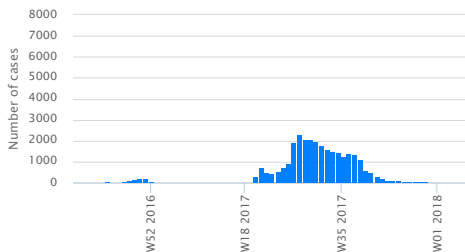


Figure 3b | عدن Aden

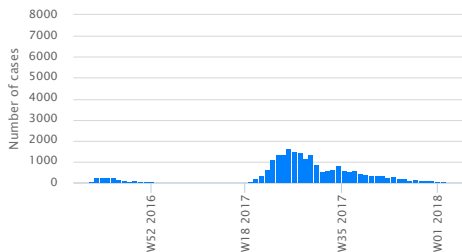


Figure 3c | Al Bayda البيضاء

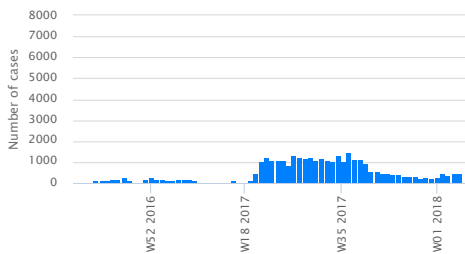


Figure 3d | Al Dhale'e الضالع

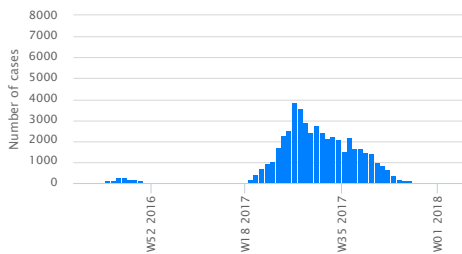


Figure 3e | Al Hudaydah الحديدة

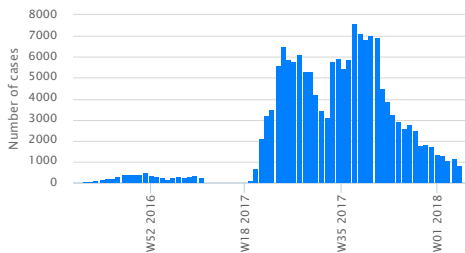


Figure 3f | Al Jawf الجوف

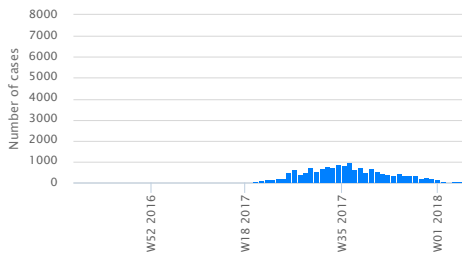


Figure 3g | Al Maharah المهرة

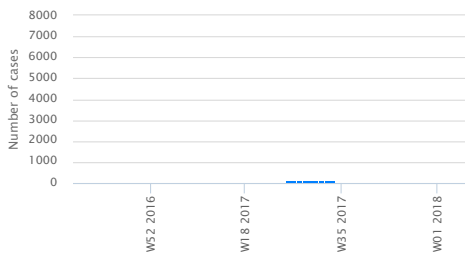


Figure 3h | Al Mahwit المحويت

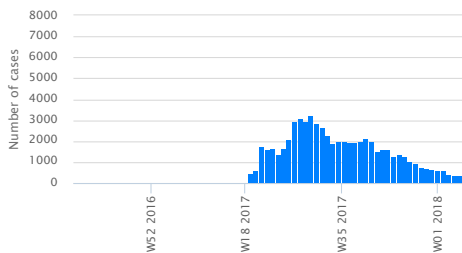




Figure 3i | Amanat Al Asimah أمانة العاصمة

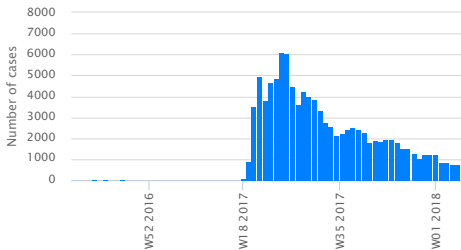


Figure 3j | Amran عمران

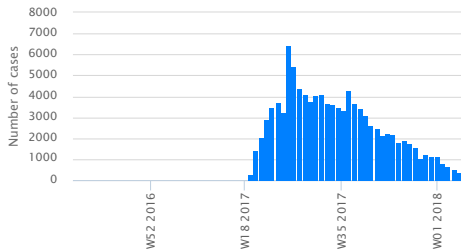


Figure 3k | Dhamar ذمار

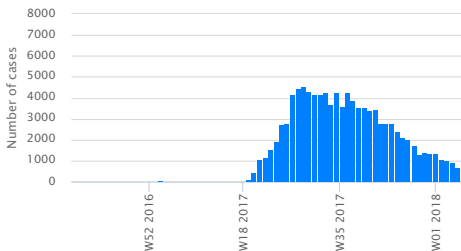


Figure 3l | Hajjah حجة

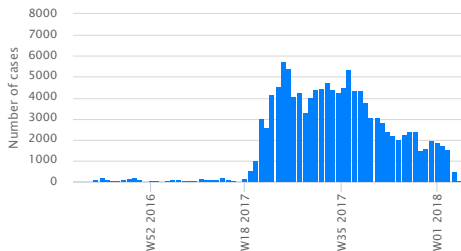


Figure 3m | Ibb إب

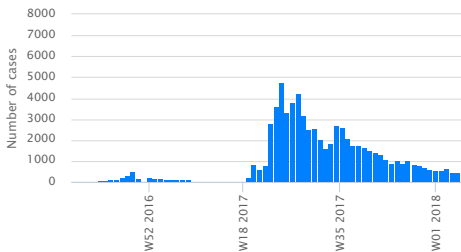


Figure 3n | Lahj لَحْج

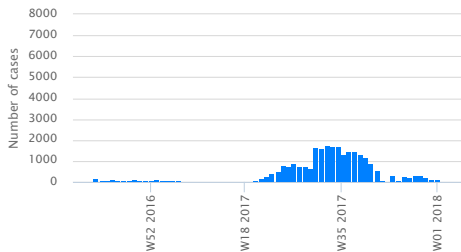


Figure 3o | Marib مارب

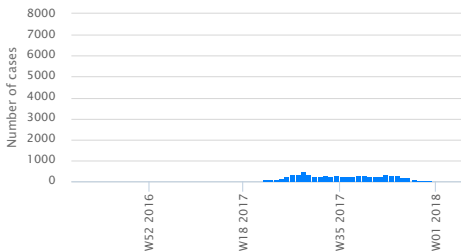


Figure 3p | Raymah ربيعة

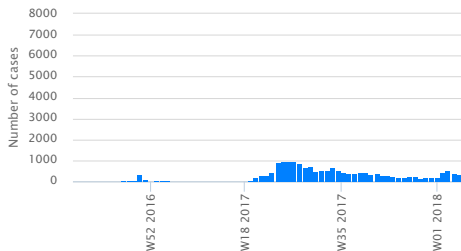


Figure 3q | Sa'ada صنعَة

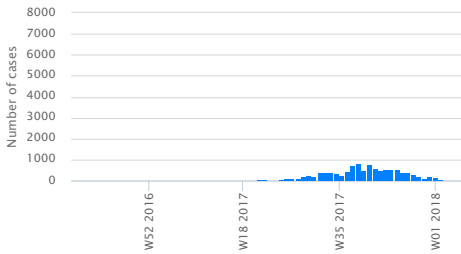


Figure 3r | Sana'a صنعَة

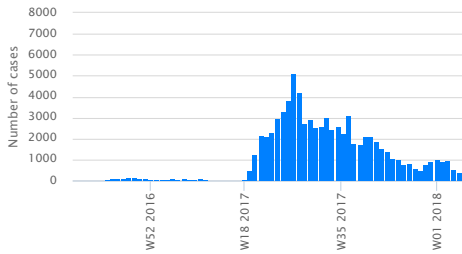


Figure 3s | Say'on سينون

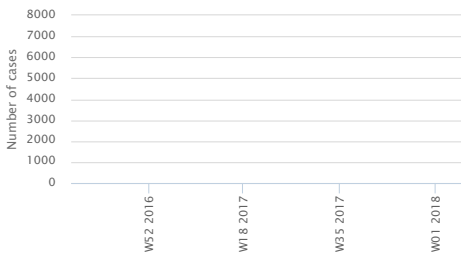


Figure 3t | Shabwah شبوة

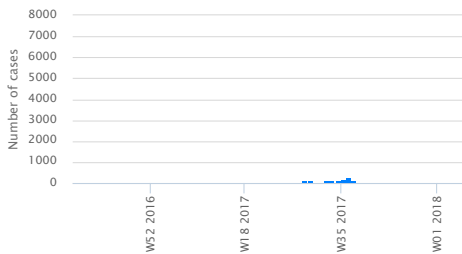
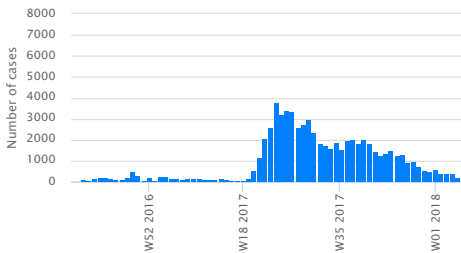


Figure 3v | Taizz تعز



للتواصل  
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