



اليمن Yemen

الاستجابة للكوليرا Cholera Response

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

النشرة الوبائية الأسبوعية
Weekly Epidemiological Bulletin
W13 2018 (Mar 26-Apr 01)

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- المنديريات ذات الأولوية و
- المنحنى الوبائي حسب المحافظة ز

Highlights

Cumulative figures

- The cumulative total from 27 April 2017 to 1 April 2018 is 1,086,105 suspected cholera cases and 2,271 associated deaths, (CFR 0.21%), 1113 have been confirmed by culture.
- The total proportion of severe cases among the suspected cases is 15.4%
- The national attack rate is 388.7 per 10,000. The five governorates with the highest cumulative attack rates per 10,000 remain Amran (903), Al Mahwit (878), Al Dhale'e (639), Sana'a (527) and Dhamar (524).
- Children under 5 years old represent 28.8% of total suspected cases.
- In total, 36,619 rapid diagnostic tests (RDT).
- 2,975 cultures have been performed which represents 22% coverage.
- The last positive culture was on 9 Mar 2018 in Al Hali district in Al Hudeideh governorate
- Since 1st of Jan 2018 the districts with highest cumulative suspected cases are Al Hali (4132), Maqbanah (1,795), Al Sabaeen (1,578), Radman Al Awad (1,504) Bani Al Harith (1,462)
- 165 districts are still reporting suspected cholera cases since last 3 weeks
- 140 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 W10 –W12 decrease or was stable in all governorates.

Trends

- The trend of weekly number of cases is decreasing since week 36.
- The weekly proportion of severe cases has significantly decreased (now 18%).

Week 13 2018

- 1,780 suspected cases and 3 associated deaths were reported
- The districts reporting the highest number of cases are Radman Al Awad (115), Al Hali (111), Al Mighlaf (91), Utmah (88).
- 18 % are severe cases
- 1,780 RDTs were performed, 163 were positive
- no culture results received this week

A. ملخص المؤشرات Summary indicators



Cholera Response | Cumulative figures from 27/04/2017 to 1/4/2018

1,086,105

حالات الاشتباه
Suspected cases

حالة اشتباه في
الأسبوع الحالي
1,780 suspected cases
in current week

2,271

الوفيات
Associated deaths

حالة وفاة في
الأسبوع الحالي
3 associated deaths
in current week

0.21%

معدل الاماتة بين الحالات
Case Fatality Rate

96%

المحافظات المتأثرة بالوباء
Governorates
affected

(23 / 22 محافظته)
(22 / 23 governorates)

92%

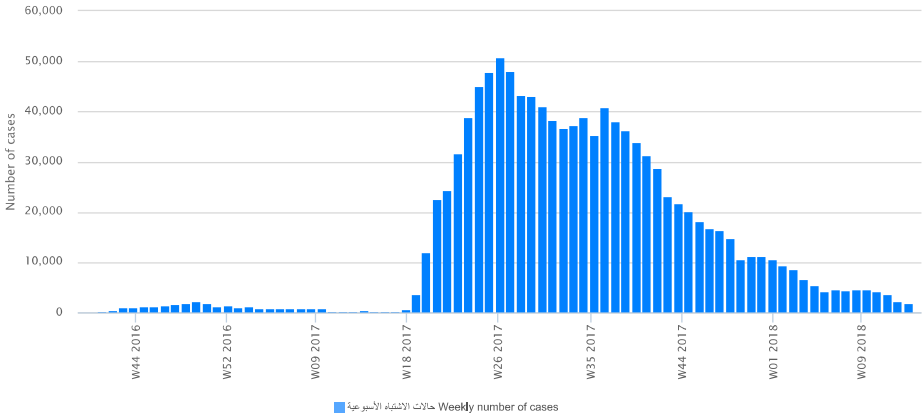
المديريات المتأثرة بالوباء
Districts
affected

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

B. المنحنى الوبائي Epidemic curve

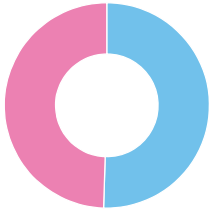
الشكل (1) المنحنى الوبائي على المستوى الوطني

Figure 1 | Epidemic curve (Country)



الشكل (2) حالات الكوليرا على مستوى الجنس

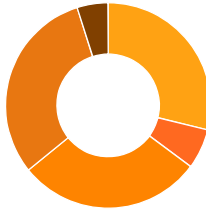
Figure 2a Cases by sex (Cumul.)



♂ Male (52% ; n = 33,014)
♀ Female (48% ; n = 30,691)

الشكل (2 ب) حالات الكوليرا على مستوى الفئات العمرية

Figure 2b Cases by age (Cumul.)



< 5 (28,8% ; n = 309,884)
5-17 (28,0% ; n = 312,187)
18-44 (30,8% ; n = 332,550)
45-59 (6,3% ; n = 67,760)
≥ 60 (4,9% ; n = 52,480)

الشكل (2 ج) حالات الكوليرا بالنسبة لحالة المريض

Figure 2c Cases by outcome (Cumul.)



Discharged (67,05% ; n = 728,225)
Referred (0,32% ; n = 3,477)
Died (0,21% ; n = 2,271)
Unknown (32,63% ; n = 354,403)

Trends in cases by age distribution and dehydration status

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

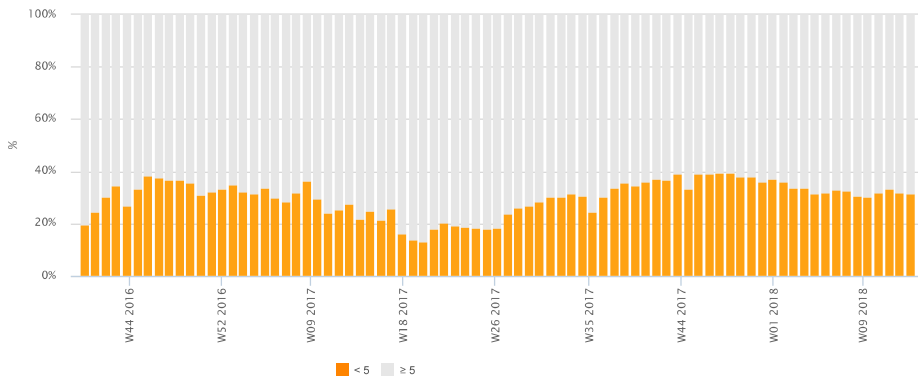
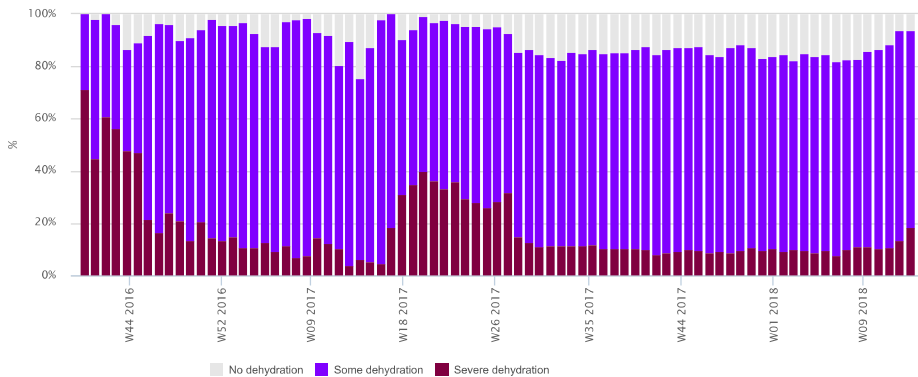


Figure 2e | Trend in proportion of cases by dehydration status¹



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. المحافظات 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 1/4/2018) | | | | | الاتجاه 3 أسابيع 3 week trend | | | | |
|--------------------------------|---|-------------------|----------------------------------|----------------------|---------------------------------|----------------------------------|------------------|------------------|---------------------|-----------------------------|
| | حالات الإصابة Cases | الوفيات Deaths | معدل الإصابة CFR ¹ | السكان Population | معدل الإصابة AR ² | أسابيع -3 -3W | أسابيع -2 -2W | أسابيع -1 -1W | الأسبوع الحالي W | اتجاه Trend ³ |
| عمران Amran | 105,122 | 179 | 0.17% | 1,164,003 | 903.11 | 213 | 204 | 128 | 105 | ▼ -30% |
| البحرين Al Mahwit | 64,638 | 151 | 0.23% | 735,453 | 878.89 | 469 | 203 | 119 | 121 | ▼ -55% |
| الذليع Al Dhale'e | 47,158 | 82 | 0.17% | 737,330 | 639.58 | 4 | 7 | 1 | 8 | ▼ -75% |
| صنعاء Sana'a | 77,953 | 123 | 0.18% | 1,477,541 | 527.59 | 415 | 290 | 87 | 96 | ▼ -67% |
| نحار Dhamar | 106,355 | 162 | 0.15% | 2,026,131 | 524.92 | 543 | 699 | 542 | 378 | ► -9% |
| حجة Hajjah | 121,333 | 423 | 0.35% | 2,359,672 | 514.19 | 7 | 10 | 7 | 7 | ▼ -12% |
| أبين Abyan | 28,243 | 35 | 0.12% | 574,125 | 491.93 | 0 | 0 | 0 | 0 | ■ Interrupt |
| الحديدية Al Hudaydah | 158,958 | 284 | 0.18% | 3,258,790 | 487.78 | 496 | 421 | 357 | 334 | ▼ -16% |
| البيضاء Al Bayda | 32,927 | 37 | 0.11% | 762,298 | 431.94 | 377 | 442 | 408 | 402 | ► 0% |
| أمانة العاصمة Amanat Al Asimah | 106,821 | 71 | 0.07% | 2,863,978 | 372.98 | 672 | 522 | 399 | 186 | ▼ -25% |
| ريمة Raymah | 18,541 | 120 | 0.65% | 610,843 | 303.53 | 73 | 38 | 19 | 15 | ▼ -56% |
| الجوف Al Jawf | 16,161 | 22 | 0.14% | 581,433 | 277.95 | 31 | 25 | 4 | 0 | ▼ -80% |
| لحج Lahj | 24,344 | 22 | 0.09% | 1,013,972 | 240.09 | 1 | 0 | 0 | 0 | ▼ -100% |
| إب Ibb | 69,604 | 291 | 0.42% | 2,973,021 | 234.12 | 541 | 491 | 39 | 64 | ▼ -89% |
| عدن Aden | 20,993 | 62 | 0.30% | 931,493 | 225.37 | 0 | 0 | 0 | 0 | ■ Interrupt |
| تعز Taizz | 65,786 | 189 | 0.29% | 3,013,668 | 218.29 | 285 | 170 | 69 | 63 | ▼ -60% |
| مارب Marib | 7,296 | 7 | 0.10% | 361,214 | 201.99 | 0 | 0 | 0 | 0 | ■ Interrupt |
| صعدة Sa'ada | 10,712 | 5 | 0.05% | 918,244 | 116.66 | 2 | 1 | 0 | 0 | ▼ -100% |
| المحيرة Al Maharah | 1,169 | 1 | 0.09% | 150,043 | 77.91 | 0 | 0 | 0 | 1 | ■ Interrupt |
| شبابwah | 1,399 | 3 | 0.21% | 607,751 | 23.02 | 0 | 0 | 0 | 0 | ■ Interrupt |
| المكلا Mokla | 568 | 2 | 0.35% | 444,067 | 12.79 | 0 | 0 | 0 | 0 | ■ Interrupt |
| سيئون Say'on | 24 | 0 | 0.00% | 378,995 | 0.63 | 0 | 1 | 0 | 0 | ▼ -100% |
| اليمن Yemen | 1,086,105 | 2,271 | 0.21% | 27,944,065 | 388.67 | 4,129 | 3,524 | 2,179 | 1,780 | ▼ -34% |

¹ معدل الإصابة بين الحالات

² معدل الإصابة لكل 10,000 من السكان

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

(أو لم يتم تعيين الاتجاه الحالي في حساب الاتجاهي بسبب عدم اكتمال البيانات)

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)

| | |
|---------------------|----------------------------------|
| ▲ مالحى مرتفع | ≥ +10% تغير |
| ► مالحى مستقر | غير ميعال > -10% أو < +10% |
| ▼ مالحى منخفض | غير ميعال ≤ -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 |

D. Laboratory

Figure 4 | RDT results by week

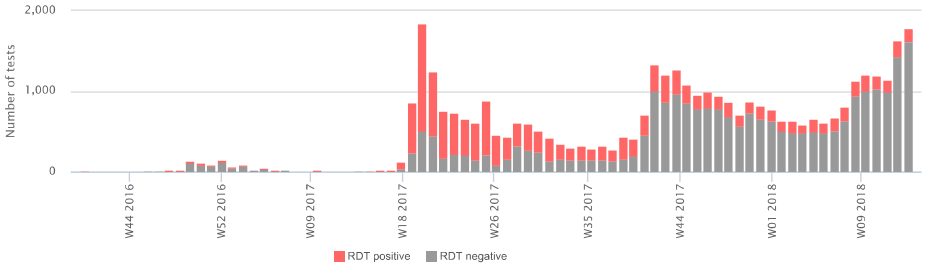
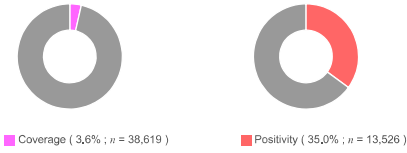
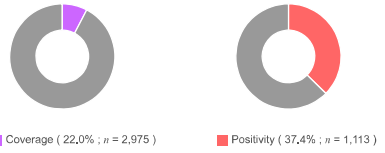


Figure 5 | Rapid Diagnostic Kit (RDT)



*Coverage of RDT is calculated based on (Number of RDT performed/Number of suspected cases)
 Table 2 | Summary of key laboratory indicators by Governorate

Figure 6 | Culture



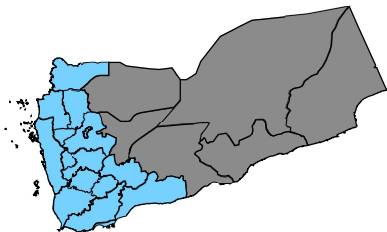
*Coverage of culture is calculated based on (Number of culture performed/Number of positive RDT)

| Governorate | Rapid Diagnostic Kit (RDT) | | | | | Culture | | | |
|--------------------------|----------------------------|--------------|----------|-----------|-------------|--------------|----------|-----------|-------------|
| | Cases | Total tested | Coverage | Total +ve | +ivity rate | Total tested | Coverage | Total +ve | +ivity 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 البوضاء | 32,927 | 2901 | 88.1% | 973 | 33.5% | 194 | 19.9% | 9 | 4.6% |
| Al Dhale'e الضالع | 47,158 | 368 | 7.8% | 132 | 35.9% | 43 | 32.6% | 3 | 7.0% |
| Al Hudaydah الحديدة | 158,958 | 5521 | 34.7% | 1406 | 25.5% | 507 | 36.1% | 234 | 46.2% |
| Al Jawf الجوف | 16,161 | 1525 | 94.4% | 924 | 60.6% | 72 | 7.8% | 12 | 16.7% |
| Al Maharah المهرة | 1,169 | 264 | 225.8% | 119 | 45.1% | 25 | 21.0% | 14 | 56.0% |
| Al Mahwit المحويت | 64,638 | 2469 | 38.2% | 1067 | 43.2% | 111 | 10.4% | 13 | 11.7% |
| Amanat Al Asimah العاصمة | 106,821 | 7053 | 66.0% | 2463 | 34.9% | 495 | 20.1% | 191 | 38.6% |
| Amran عمران | 105,122 | 2810 | 26.7% | 773 | 27.5% | 109 | 14.1% | 23 | 21.1% |
| Dhamar ذمار | 106,355 | 4786 | 45.0% | 528 | 11.0% | 127 | 24.1% | 23 | 18.1% |
| Hajjah حجة | 121,333 | 810 | 6.7% | 195 | 24.1% | 46 | 23.6% | 14 | 30.4% |
| Ibb إب | 69,604 | 926 | 13.3% | 546 | 59.0% | 106 | 19.4% | 13 | 12.3% |
| Lahj لبح | 24,344 | 1160 | 47.7% | 588 | 50.7% | 44 | 7.5% | 18 | 40.9% |
| Marib مارب | 7,296 | 197 | 27.0% | 128 | 65.0% | 2 | 1.6% | 0 | 0.0% |
| Mokla المكلا | 568 | 105 | 184.9% | 80 | 76.2% | 55 | 68.8% | 32 | 58.2% |
| Raymah ريمه | 18,541 | 642 | 34.6% | 409 | 63.7% | 36 | 8.8% | 5 | 13.9% |
| Sa'ada صعده | 10,712 | 921 | 86.0% | 752 | 81.7% | 12 | 1.6% | 0 | 0.0% |
| Sana'a صنعاء | 77,953 | 3694 | 47.4% | 885 | 24.0% | 314 | 35.5% | 45 | 14.3% |
| Say'on 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% |
| Taizz تعز | 65,786 | 1491 | 22.7% | 978 | 65.6% | 402 | 41.1% | 314 | 78.1% |
| Yemen اليمن | 1,086,105 | 38,619 | 35.6% | 13,526 | 35.0% | 2,975 | 22.0% | 1,113 | 37.4% |

E. التوزيع الجغرافي مع مرور الوقت Geographic distribution over time

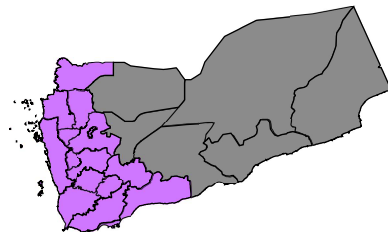
الخريطة (1 أ) عدد حالات الإصابة للمحافظات

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



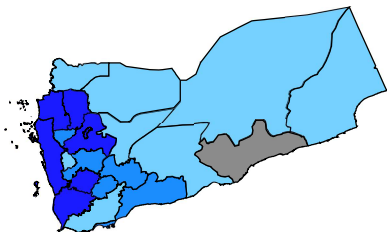
الخريطة (1 ب) معدل الإصابة للمحافظات

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



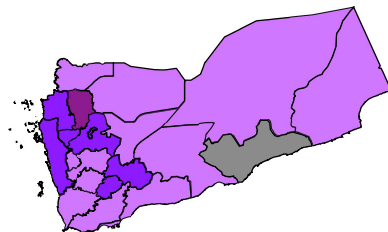
الخريطة (1 ج) عدد حالات الإصابة للمحافظات

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



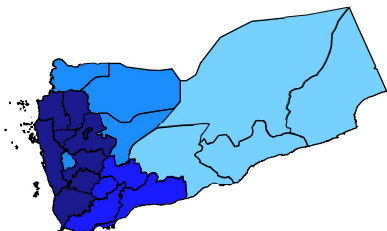
الخريطة (1 د) معدل الإصابة للمحافظات

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



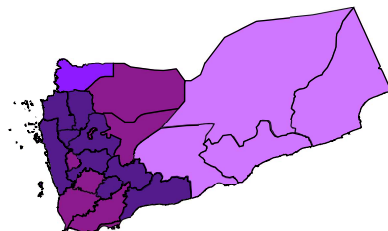
الخريطة (1 هـ) عدد حالات الإصابة للمحافظات

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)



عدد حالات الكوليرا
Number of cholera cases



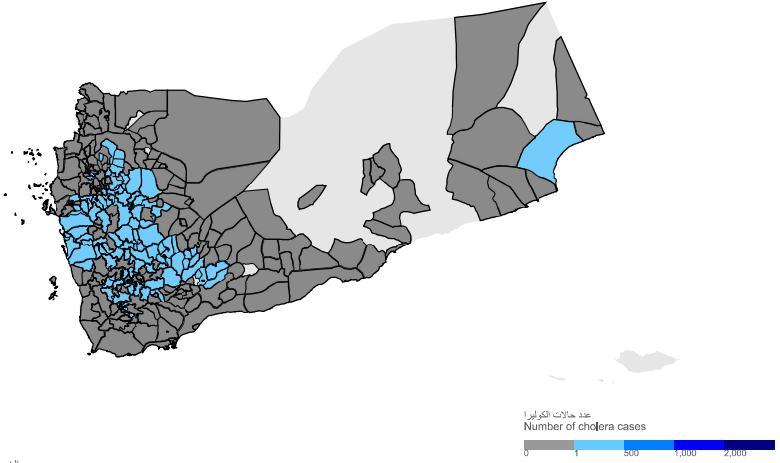
معدل الإصابة لكل 10,000 من السكان
Attack rate (/10,000)



F. المديرية ذات الأولوية Districts reporting in current week

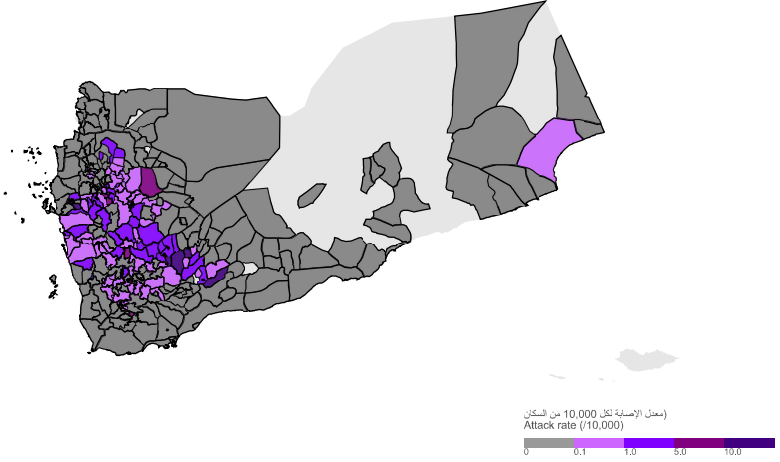
الخريطة (12) عدد حالات الاصابة الأولية

Map 2 | Number of cases by district (W13 2018)



الخريطة (3) معدل الإصابة الأولية

Map 3 | Attack rate by district (W13 2018)



G. المنحني الوبائي حسب المحافظة. Epidemic curves by Governorate

Figure 3a | Abyan أبين

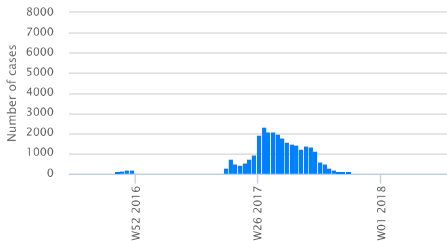


Figure 3b | Aden عدن

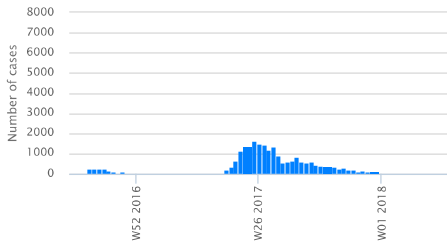


Figure 3c | Al Bayda البيضاء

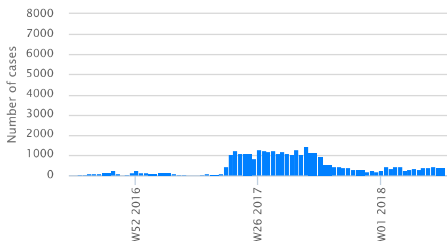


Figure 3d | Al Dhale'e الضالع

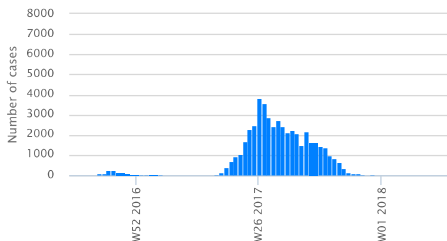


Figure 3e | Al Hudaydah الحديدة

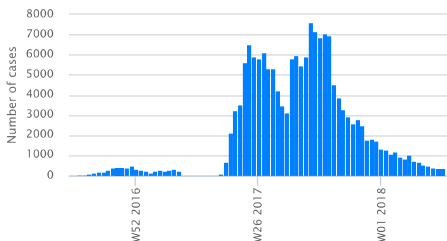


Figure 3f | Al Jawf الجوف

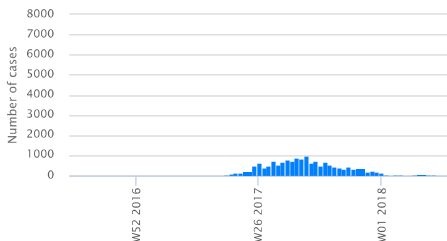


Figure 3g | Al Maharah المهرة

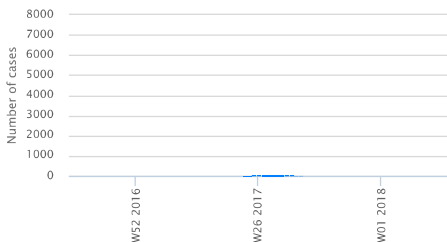


Figure 3h | Al Mahwit المحويت

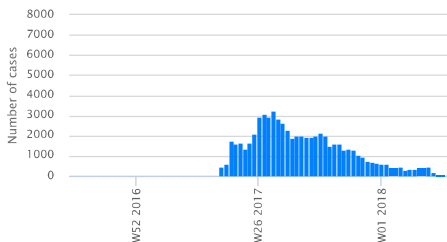


Figure 3i | Amanat Al Asimah أمانة العاصمة

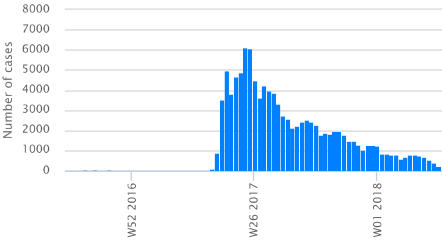


Figure 3j | Amran عمران

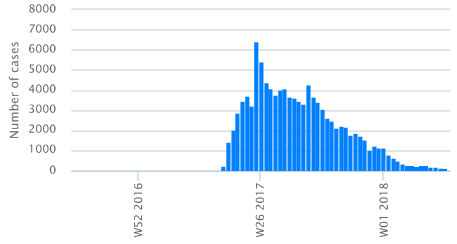


Figure 3k | Dhamar ذمار

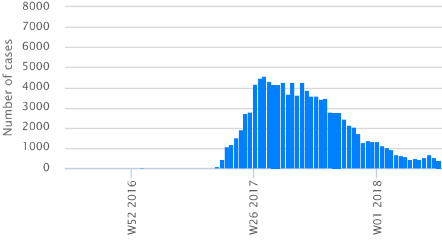


Figure 3l | Hajjah حجة

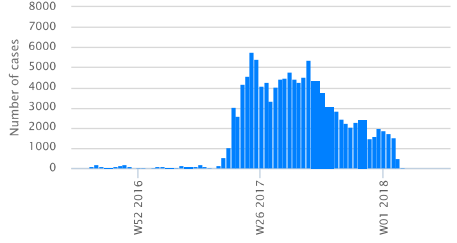


Figure 3m | Ibb إب

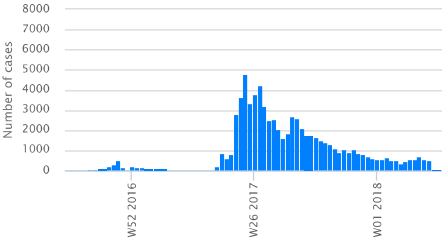


Figure 3n | Lahj لَحْج

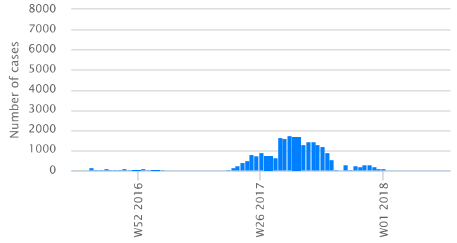


Figure 3o | Marib مَرْب

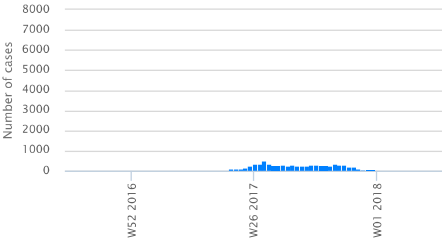


Figure 3p | Raymah ربيعة

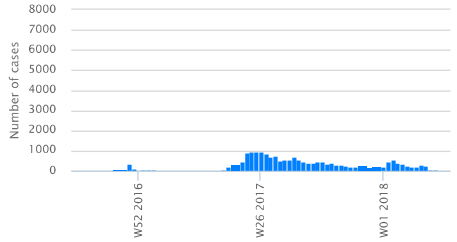


Figure 3q | Sa'ada صنعَة

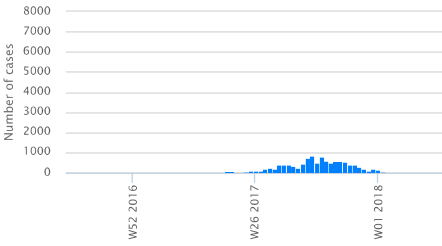


Figure 3r | Sana'a صنعَاء

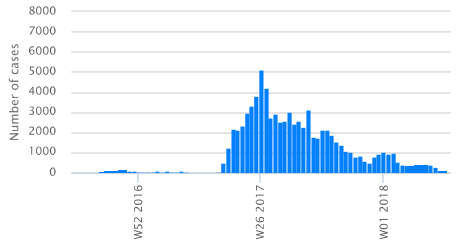


Figure 3s | Say'on سَيُون

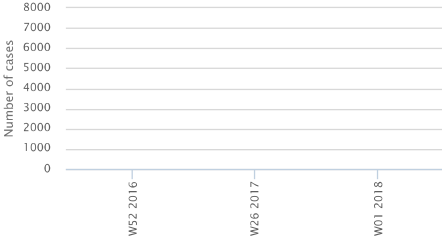


Figure 3t | Shabwah شَبْوَاء

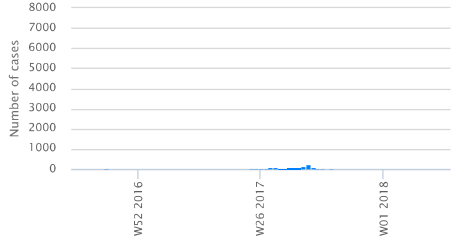
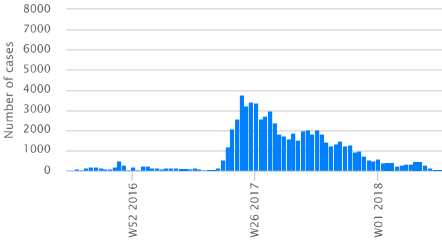


Figure 3v | Taizz تَعِز



للتواصل
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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

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