Upsurge of cholera cases in Yemen

In 2019, Ministry of Public Health and Population, Yemen reported an increase in the reported cholera cases from the beginning of the year. A total of 108,889 suspected cholera cases including 190 related deaths have been reported as of week 11-2019.

Editorial note

The ongoing cholera outbreak in Yemen has persisted with periodic resurgence since the outbreak was first reported in the country during epidemiological week 34-2016. Both in terms of duration and number of people that have been affected, this could well be the biggest and the worst cholera epidemic on record since the seventh cholera pandemic began in 1961 in the country.

The prolonged humanitarian crisis since the conflict began in the county 4 years ago, and associated factors such as deteriorating and damaged water and sanitation infrastructure; collapsed health infrastructure and routine public health services; and loss of critical health workforce have created conditions for increased occurrence and outbreaks of epidemic prone diseases. Furthermore, a combination of these factors coupled with large numbers of internally displaced population in overcrowded dwellings, and the recent heavy rains are believed to be the main drivers of the renewed escalation of the cholera outbreak in the country. So far a cumulative total of 1.5 million cases of suspected cholera and more than 3000 deaths have been reported.

The resurgence of the cholera outbreak in Yemen started in early February (i.e. week 7-2019, see graph). As of week 11-2019, a total of 108,889 suspected cholera cases and 190 related deaths were reported (CFR: 0.17%) from 261 districts. The most affected governorates with highest number of reported cholera cases as of week 11-2019 are; Amanat (17,942), Al Hudaydah (14,820) and Sana’a (12,763). In total 23,536 cases have tested positive by RDT and culture has isolated *Vibrio cholerae* in 1,086 samples.

The Ministry of Public Health and partners have escalated implementation of outbreak response measures to rapid contain the outbreak. These measures have included enhanced surveillance and mapping of hotspots, or most affected districts, for more targeted interventions; relevant orientation have been given to health staff on case management; medical supplies for cholera treatment have been distributed; community awareness campaigns; waste management and chlorination of water; and use of oral cholera vaccine.

Despite the efforts, optimal response and effective interventions to the cholera outbreak in Yemen is severely hampered by restricted access to the affected population in many parts of the country due to the ongoing active conflict and insecurity. Achievement of long term and sustainable solution to the persistent and recurrent exacerbation of cholera in the country will therefore be closely linked to realization of cessation of the ongoing humanitarian crisis, restoration of critical infrastructure and routine public health services.

### Suspected cholera cases reported from Yemen during 2018 and 2019

![Graph showing weekly reported cases of cholera in Yemen from 2018 to 2019.](image)

- **2018:** 60,036 cases, 5.76% associated deaths
- **2019:** 108,889 cases, 49% associated deaths

### Few indicators for comparison, week 1-11 of 2018 and 2019

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total suspected case</td>
<td>60,036</td>
<td>108,889</td>
</tr>
<tr>
<td>Associated deaths</td>
<td>30</td>
<td>190</td>
</tr>
<tr>
<td>Case fatality rate</td>
<td>0.05%</td>
<td>0.17%</td>
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<tr>
<td>≤ 5 children</td>
<td>32%</td>
<td>26%</td>
</tr>
<tr>
<td>Proportion of severe cases</td>
<td>12.7%</td>
<td>14%</td>
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<tr>
<td>RDT positivity rate</td>
<td>37.5%</td>
<td>49%</td>
</tr>
<tr>
<td>Culture positivity rate</td>
<td>38.9%</td>
<td>41%</td>
</tr>
<tr>
<td>Attack rate (per 10,000)</td>
<td>21.5</td>
<td>36.3</td>
</tr>
</tbody>
</table>

### Update on outbreaks in the Eastern Mediterranean Region

- **MERS** in Saudi Arabia; **MERS** in Oman; **cholera** in Somalia; **cholera** in Yemen; **Multidrug-resistant typhoid fever** in Pakistan.

### Current public health events of concern

- **Avian influenza:** 2006-2017
  - Egypt (A/H5N1) [359 (122), 33.98%]
  - Egypt (A/H9N2) [4 (0)]
- **Ebola virus disease (EVD):** 2018-2019
  - Democratic Republic of Congo (DRC) [1,009 (629), 62.33%]
- **Cholera: 2017-2019**
  - Somalia [6,867 (46), 0.67%]
  - Yemen [1,502,648 (2,933), 0.19%]
- **Diphtheria:** 2018-2019
  - Yemen [3,524 (203), 5.76%]
  - Bangladesh [8,474 (45), 0.53%]
- **MERS: 2012-2019**
  - Saudi Arabia [2,007 (749), 37.31%]
  - Oman [24 (7), 29.16%]
- **Multidrug-resistant typhoid fever:** 2016-2019
  - Pakistan [6,427 (0)]