**Current major event**

**Cholera outbreak in Sudan**

On the 9th of September the Federal Ministry of Health (FMoH) of Sudan announced a cholera outbreak in the Blue Nile state and soon the outbreak spread to Sinner state. Till 18th September a total of 124 suspected cholera cases, with 7 related deaths (CFR 5.65%) were reported.

**Editorial note**

In Sudan, several outbreaks of suspected cholera/acute watery diarrhea (AWD) have been reported in the past years. The recent past outbreak was unprecedented, it started on August 2016 from Kassala state and spread to over 18 states and 145 localities. Till March 2018, the outbreak has caused more than 36,494 cases including 823 deaths (CFR: 2.3%).

This year, Sudan was affected by heavy rains during the month of August. Flash floods resulted in destruction of 41,514 houses, damaging another 27,242, and displacing around 350,000 population. Around 11,000 latrines were destroyed by the floods resulting in contamination of drinking water sources. In addition, the turbidity of drinking water increased which rendered standard chlorination measured of drinking water ineffective across several areas and exposing the population to high risk of waterborne diseases.

As of 18th September 2019, a total of 124 suspected cholera cases with 7 related deaths (CFR 5.65%) were reported from the two affected states of Sudan (see graph). The index case was reported on 2 September 2019 from Ganees Shareg (east) in El Rosaires town, Blue Nile State. In total 7 localities are affected in both states; four in Blue Nile and 3 in Sinner states (see table). Of the total cases reported, 61% were females and 39% are male.

The cholera outbreak declaration by the FMoH is important and welcomed development and this will lead to timely response and greater support by the local communities and partners. The National Cholera Task force was activated and the cholera response plan was developed and shared with relevant partners. A standard case definition and tools for collecting surveillance data were distributed to the health facilities in both states. Early warning surveillance was enhanced with activation of zero reporting.

With the support of WHO and other partners, the FMoH managed to establish 4 cholera treatment centers (CTC) in Blue Nile state and 10 hospitals designated wards for the CTCs in Sinner state. In addition to technical and logistic support on ground, WHO has prepositioned 25 regional cholera kits (for > 2500 severe cases) and 5,000 Rapid Diagnostic Test (RDTs) to Sudan.

Nevertheless, the case fatality ratio is >5% compared to accepted level of 1%. This high CFR also represent either poor case management or poor access of the at risk populations to healthcare services.

Given these challenging situation, it is imperative to save lives and avert deaths. Accordingly, case management and infection control practices, need to be improved particularly early detection and treatment of all cases while rapid re-hydration should be the mainstay of current response. In addition to this, the Ministry of Health and partners should ensure that critical components of response to the cholera outbreak are sustained. The risk of spread to other states is considered high, and effective preparedness activities should be put in place for neighboring states.

**Cholera cases reported in Blue Nile and Sinner states, Sudan, 28 August to 18 September 2019**

**Suspected cholera cases by locality in Sudan-2019**

<table>
<thead>
<tr>
<th>State</th>
<th>Localities</th>
<th>Cases</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Nile</td>
<td>Elrosiers</td>
<td>73</td>
<td>5</td>
<td>6.85</td>
</tr>
<tr>
<td></td>
<td>Wad Almahai</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Edamazin</td>
<td>25</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Bau</td>
<td>1</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Abu Hugar</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Sinner</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Elsoki</td>
<td>6</td>
<td>1</td>
<td>16.67</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>124</strong></td>
<td><strong>7</strong></td>
<td><strong>6.65</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Update on outbreaks in the Eastern Mediterranean Region**

- MERS in Saudi Arabia; cholera in Somalia; cholera in Yemen; cholera in Sudan; Multi drug-resistant typhoid fever in Pakistan.

**Current public health events of concern**

- [Cumulative N° of cases (deaths), CFR %]
  - **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) [3 164 (2 115), 66.85%]
  - **Cholera: 2017-2019**
    - Somalia [8 719 (46), 0.53%]
    - Yemen [2 014 110 (3 588), 0.18%]
  - **Diphtheria: 2018-2019**
    - Yemen [3 906 (218), 5.58%]
    - Bangladesh [8 779 (45), 0.51%]
  - **MERS: 2012-2019**
    - Saudi Arabia [2 073 (772), 37.24%]
  - **Multidrug-resistant typhoid fever: 2016-2019**
    - Pakistan [10 825 (0)]