CHOLERA OVERVIEW

Cholera was first reported in Togo in 1970. Since 1990, there have been notable outbreaks in 1991, 1998, 2001 and between 2004–2006 with cases reported every year. The overall yearly trend shows a decrease over time in size (Fig. 1).

Between 2006 and 2013, epidemiological surveillance reported 2,142 cases with 38 fatalities (case fatality rate ≈ 1.8%)\(^1\).

The main outbreaks were reported in the capital Lomé (65%), with the remaining outbreaks predominantly reported in the regions of Maritime (19.5%) and Plateaux (13.3%) (Tab. I).

Lomé and border districts are affected by outbreaks from Ghana, Benin and Nigeria.

CHOLERA DISTRIBUTION

The coastal region of Lomé, which includes the capital city Lomé, reported 65% of the total of cholera cases between 2006 and 2013, with more than one outbreak reported each year. The other coastal region, Maritime, reported a further 20% of cases with a recurrence for Golfe (periphery of Lomé) and Lake districts at the border with Ghana and Benin (Fig. 2 and Tab. I).

Further north, the Plateaux region reported an additional 13% of cases with a recurrence for Haho district and high incidences in Moyen Mono and Oou. Central and Northern regions are notifying sporadically between 2006 and 2013 with 1.8% of cases reported over the period. However, outbreaks in Tchaoudjo had a high incidence and a short average duration (5 weeks). The further away from the coast, the lower the number of outbreaks (Fig. 2 and Tab. I).

Overall, outbreaks were mainly occurring 1) during the long dry season with an emergence between weeks 46 and 50 and 2) during the short rainy season with emergence in September (Tab. I and Fig. 3).

The country is affected by cross-border outbreaks in Lomé, Golfe and Lake districts through trades, traditional ceremonies and fishing activities with Ghana, Benin and Nigeria.

### Table I. Epidemiological parameters of cholera outbreaks by main affected departement in Togo, 2006–2013\(^2\)

<table>
<thead>
<tr>
<th>Region</th>
<th>District</th>
<th>Cases / Deaths (%)</th>
<th>% of total cases</th>
<th>Number of outbreaks</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lomé</td>
<td>District III</td>
<td>403 / 3</td>
<td>21</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>District II</td>
<td>325 / 3</td>
<td>16.9</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>District V</td>
<td>294 / 3</td>
<td>15.3</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>District IV</td>
<td>156 / 1</td>
<td>8.1</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>District I</td>
<td>75 / 0</td>
<td>3.9</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Maritime</td>
<td>District VII</td>
<td>376 / 9</td>
<td>19.5</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Plateaux</td>
<td>District VIII</td>
<td>256 / 12</td>
<td>13.3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Centrale</td>
<td>District X</td>
<td>33 / 2</td>
<td>1.7</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: 1. Total cases = 1,919 and total deaths = 33 between 2006 and 2013; 2. Average in weeks between 2006 and 2013.
CHOLERA HOTSPOT IDENTIFICATION

Outbreak onsets and cross-border spread are mainly occurring in the coastal regions, with recurrence for Lomé (districts 4, 2 and 3), Golfe and Lake districts (Fig. 4 and Tab. II).

Overall, districts regularly affected and with a medium to high duration or incidence are located:

- at the border with Ghana: Lomé D4 and Golfe districts;
- at the border with Benin: Lake district;
- fishing activities and trades with Ghana: Lomé D2 and D3.

STRATEGIC RECOMMENDATIONS

High-risk cholera areas along the coastline are located on a corridor where outbreaks spread from and to neighbouring countries — Ghana, Benin and Nigeria — highlighting the importance of cross-border collaboration (Fig. 2). It should be noted that central regions (Plateau and Central) can be affected by cholera outbreaks with a high incidence showing the need of preparedness and early detection1-6.

In coastal regions, preparedness and response plans should be developed and implemented including: (1) strengthening early detection and rapid response systems of which community based surveillance and cross-border alert; (2) setting up coordination mechanisms across the sectors and borders; (3) building capacity on outbreak management; (4) targeted pre-positioning of supplies and (5) preparing communications messages and plans (Tab. II).

Sustainable Water, Sanitation and Hygiene activities should be a priority in districts regularly affected and with a long duration (Tab. II, Type 1). An 2014 integrated WASH-epidemiological study has been conducted by UNICEF and proposes long-term programmatic responses in type I cholera hot spots1. Concrete actions should be undertaken in Katanga fishermen informal settlements (Lomé D3 and Adakamné (Lomé D2), 1) to improve access to water (construction/rehabilitation of water points), public latrines, and treatment of drinking water (social marketing approach) and 2) to strengthen prevention against cholera and change at risky hygiene practices (proximity and media awareness campaigns).

Table II. Summary of cholera hotspots classification and strategic interventions in Togo, 2006–20132

<table>
<thead>
<tr>
<th>REGION</th>
<th>DISTRICT</th>
<th>Recurrence (No. of outbreaks)</th>
<th>Outbreak duration (percentage in weeks)</th>
<th>Mean incidence (per 10,000 inhab.)</th>
<th>Emergence (median onset week)</th>
<th>Cross-border spread</th>
<th>Hotspot type</th>
<th>Early detection</th>
<th>Preaparadness</th>
<th>Preparedness</th>
<th>Wash development</th>
<th>Role of vaccination</th>
<th>Cross-border collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISTRICT II</td>
<td>11</td>
<td>6</td>
<td>0,3</td>
<td>30 [34–47]</td>
<td>Yes</td>
<td>T.1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>DISTRICT III</td>
<td>7</td>
<td>9</td>
<td>1,8</td>
<td>27 [33–47]</td>
<td>Yes</td>
<td>T.1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>DISTRICT IV</td>
<td>7</td>
<td>14</td>
<td>1,7</td>
<td>26 [24–48]</td>
<td>Yes</td>
<td>T.2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>DISTRICT V</td>
<td>5</td>
<td>14</td>
<td>1,3</td>
<td>20 [23–39]</td>
<td>No</td>
<td>T.2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MARITIME</td>
<td>LACS</td>
<td>5</td>
<td>7</td>
<td>0,9</td>
<td>22 [22–37]</td>
<td>Yes</td>
<td>T.1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Note: Type 1 (T.1): High priority area with a high frequency (>80% percentile) and a long duration (>40 percentile).

Type 2 (T.2): Medium priority area with a moderate frequency (between 60–80% percentile) and a long duration (>40 percentile).

References
5. Cholera outbreaks investigation reports, Ministry of Health Togo.

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Livelihood groups and high risk practices to be considered in prevention, preparedness and response strategies1-6:

- migrant fishermen communities mainly Ghanaian and Togolese living in Katanga informal settlement and nearby neighbourhoods (Lomé D2 and D3);
- fishermen, workers involved in fishing product’s processing and trade in Lomé, Golfe and Lake;
- regular trade and flow of workers between Ghana (Afaral) and Togo (Lomé D4, Avé and Golfe);
- animist ceremonies in Lake district at the border with Benin;
- traders and bus drivers on the coastal road Accra - Lagos.

Figure 4. Cholera pattern in health districts, Togo, 2006–20133

Figure 5. Water and sanitation coverage estimates in Togo, 1990–20124