New cVDPV2 cases this week: 0
Total number of cVDPV2 cases: 74
Outbreak grade: 3

Infected governorates and districts

<table>
<thead>
<tr>
<th>Governorate</th>
<th>District</th>
<th>Number of cVDPV2 cases to date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deir Ez-Zor</td>
<td>Mayadeen</td>
<td>58</td>
</tr>
<tr>
<td>Deir Ez-Zor</td>
<td>Boukamal</td>
<td>12</td>
</tr>
<tr>
<td>Raqqa</td>
<td>Tell Abyad</td>
<td>1</td>
</tr>
<tr>
<td>Raqqa</td>
<td>Thawra</td>
<td>1</td>
</tr>
<tr>
<td>Homs</td>
<td>Tadmour</td>
<td>1</td>
</tr>
</tbody>
</table>

Index case
Location: Mayadeen district, Deir Ez-Zor governorate
Onset of paralysis: 3 March 2017, age: 22 months, vaccination status: 2 OPV/zero IPV

Most recent case (by date of onset)
Location: Boukamal, Deir Ez-Zor governorate
Onset of paralysis: 21 September 2017, age: 5 months, vaccination status: zero OPV/zero IPV

Characteristics of the cVDPV2 cases
Median age: 15 months
Gender: approximately two thirds of cases are female
Vaccination status of the cases:
- IPV: 11 cases (15%) received IPV
- OPV: 41% zero dose, 42% have received 1-2 doses

Distribution of non-polio AFP (NPAFP) and circulating vaccine-derived poliovirus type-2 (cVDPV2), Deir Ez-Zor, Raqqa and Homs governorates 2017-2018

<table>
<thead>
<tr>
<th>Gov.</th>
<th>Deir Ez-Zor</th>
<th>Raqqa</th>
<th>Raqqa</th>
<th>Homs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
<td>NPAFP</td>
<td>cVDPV2</td>
<td>NPAFP</td>
<td>cVDPV2</td>
</tr>
<tr>
<td>Jan’17</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Feb’17</td>
<td>11</td>
<td>3</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Mar’17</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Apr’17</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>May’17</td>
<td>13</td>
<td>16</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Jun’17</td>
<td>8</td>
<td>12</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Jul’17</td>
<td>8</td>
<td>9</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Aug’17</td>
<td>12</td>
<td>22</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Sep’17</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Oct’17</td>
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<td>4</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Nov’17</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Dec’17</td>
<td>9</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Jan’18</td>
<td>18</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Feb’18</td>
<td>12</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Mar’18</td>
<td>10</td>
<td>9</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Apr’18</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>May’18</td>
<td>16</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Jun’18</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>152</td>
<td>71</td>
<td>52</td>
<td>66</td>
</tr>
</tbody>
</table>

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Source: Syrian Arab Republic, Administrative map, DFS, United Nations 2012

Key highlights

- No new cases of cVDPV2 have been reported in 2018. Nine months have passed since the last case was reported from Boukamal district, Deir Ez-Zor governorate (the date of onset of paralysis was 21 September 2017). The total number of cVDPV2 cases remains 74.

- In an effort to heighten population immunity against type-2 among high risk populations, more than 5,000 children aged 2-23 months have received inactivated polio vaccine (IPV) in newly accessible areas of East Ghouta. In addition, a total of 33,836 children under five years of age have received bivalent oral polio vaccine (bOPV). 23 vaccination teams were deployed between March and May 2018 through fixed centres and mobile clinics that also provided other routine immunization.

- WHO has supported further upgrades to the Syrian National Polio Laboratory, to improve the poliovirus diagnostic capacity. Seven national technical staff were trained on Intratypic Differentiation (ITD) of poliovirus samples, which will allow for more comprehensive testing and faster identification of results.

- All empty and expired unopened vials of monovalent oral polio vaccine type-2 (mOPV2) have been destroyed according to global guidelines, under the direct supervision of WHO staff in country. In addition, all type-2 poliovirus specimens available in the National Polio Laboratory (NPL) have also been destroyed in the Central Public Health Lab in the presence of WHO and NPL staff.

- The Ministry of Health, with the assistance of the GPEI partnership, continues to implement the recommendation of the outbreak response assessment (OBRA) done during March-April 2018, with major focus on strengthening surveillance for polioviruses and further heightening the population immunity against the type-2 poliovirus.
Immunization response

- The Ministry of Health in coordination with World Health Organization, UNICEF and other partners have successfully implemented two phases of the outbreak response, reaching resident, refugee and internally displaced children under five with monovalent oral polio vaccine type-2 (mOPV2) and children aged between 2-23 months with IPV in key districts and governorates in the outbreak zone.

- Since the outbreak was declared, a total of three mass immunization rounds utilizing mOPV2 have been implemented in Deir Ez-Zor, Hasakah and Raqqa governorates and Tadmour district of Homs governorate.

- Additional targeted immunization activities with IPV were carried out to reach children aged 2-23 months in infected and high risk areas of Deir Ez-Zor, Raqqa, Aleppo, Idleb, Hama and Homs governorates and areas of Damascus, Rural Damascus and Hasakah.

- Additional supplementary immunization campaigns continue to ensure children on the move receive vaccination. More than 780,000 children under 5 received bOPV in Idleb, Aleppo and Hama governorates and more than 33,000 children under five years of age have received bOPV in Eastern Ghouta.

Coordination and surge support

- WHO and UNICEF continue to provide technical and human resource support to the outbreak response through the joint Emergency Operations Centers (EOCs) in both Damascus and Gaziantep hubs.

Cold Chain

- Cold chain equipment using written chart recorders have been replaced with digital continuous temperature monitoring devices to better enable cold chain management.

- UNICEF has provided solar panels in Idleb and Aleppo governorates to support 10 newly established Expanded Programme on Immunization (EPI) centers.

- UNICEF, with the support of GAVI, is finalizing request for procurement of cold chain needs for Syria.

Surveillance summary

- In 2018, all governorates in Syria, but two are meeting both key indicators for AFP surveillance: 3* or more non-polio AFP (NPAFP) cases per 100,000 children below 15 years of age, and 80 percent or more AFP cases with adequate specimens. (*NB: In an outbreak setting the target is 3 or more non-polio AFP cases per 100,000 children below 15 years). Raqqa (76%) and Aleppo (79%) are missing the 80% target for stool adequacy.

- The total number of AFP cases detected in Deir Ez-Zor governorate since the beginning of 2017 is 223 (128 from Mayadeen, 57 from Deir Ez-Zor, and 38 from Boukamal districts). Raqqa governorate has reported 54 AFP cases (24 from Raqqa, 23 from Tell Abyad, and 7 from Thawra districts). Homs governorate has reported 67 AFP cases (41 from Homs city, 20 from Rastan, 1 from Tadmour, 1 from Moukahram and 4 from Talkalakh districts).

- Environmental surveillance and healthy children stool sampling continues to complement AFP surveillance across the country. Environmental surveillance sites have been established in Damascus, Deir Ez-Zor, Aleppo, Raqqa and Homs. Of the 32 environmental samples that have been taken, of which results are available for 26 samples (12 from Damascus, five from Deir Ez Zor, four from Homs, four from Aleppo and one from Raqqa), there has been no isolation of VDPV2. 560 healthy children have been sampled since the start of the outbreak (414 in 2017, 146 to date in 2018).

- Additional surveillance strengthening activities continue as per Outbreak Response Assessment (OBRA) recommendations. Fifty (50) surveillance officers working at governorate and district levels have been trained on acute flaccid paralysis (AFP) surveillance, specifically stool specimens collection, storage and shipment in Raqqa and Deir Ez-Zor governorates.

- Community-based surveillance has been established to further enable rapid detection of AFP cases. Ministry of Health in collaboration with WHO has recently established the community-based surveillance in Raqqa governorate. In addition, community-based surveillance is operating in Idleb and parts of rural Aleppo and Hama governorates.

- WHO is supporting the pilot introduction of ‘Fridge-tag’, a temperature monitoring technology to observe the reverse cold chain of stool specimens collected for AFP cases.
EPI Curve of AFP cases by classification, (up to 25 June 2018)

**Syria**
- DZ Round 2 mOPV2 & IPV
- DZ Round 1 mOPV2
- Raqqa Round 2 mOPV2 & IPV
- Raqqa Round 1 mOPV2
- Hasakeh, Aleppo, Damascus and Homs (Tadmor) Round 2 IPV
- DZ, Raqqa, Hasakeh and Homs (Tadmor) Round 1 mOPV2

**Deir Ezzor**
- mOPV2 Round (22 - 27 Jul)
- mOPV2 & IPV Round (22 - 28 Aug)
- mOPV2 Round (14 - 20 Jan)

**Raqqa**
- mOPV2 Round (16 - 20 Jan)
- mOPV2 Round (12 - 18 Aug)
- mOPV2 & IPV Round (7 - 13 Oct)

**Homs**
- (Tadmor) mOPV2 Round (14 - 19 Jan)
- (Tadmor) Round 2 IPV (4 - 8 Feb)
### Relevance

- **Global Polio Eradication Initiative (GPEI) website**, updated weekly
- **Vaccine-derived polioviruses video**
- **Responding to an outbreak of VDPV video**
- **What is vaccine-derived polio?**
- **GPEI factsheet—VDPV**

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### Vaccination status (OPV) NPAFP cases aged 6-59 months (up to 25 June 2018)