South Sudan

Integrated Disease Surveillance and Response (IDSR)

Annexes W11 2018 (Mar 12 – March 18)
The total consultation in the country since week 1 of 2018 is 1,386,328, by hub, Bentiu registered the highest number of consultations as indicated in the table above. The total number of consultations by county is indicated in the map above. See the key for more information.
Proportional morbidity

Figure 2, above shows the top causes of morbidity in the country, with malaria being the leading cause of morbidity 411,634 (53.8%) followed by ARI, AWD and ABD respectively since week 1 of 2018. refer to the figure above for more information.

Proportional mortality

Figure 1, above shows the proportional mortality for 2018, with malaria being the main cause of mortality accounting for 22.1% of the deaths since week 1 of 2018, followed by ARI, and acute bloody diarrhoea.
In the relatively stable states, malaria is the top cause of morbidity accounting for 32.7% of the consultations in week 11 (representing an increase from 24.0% in week 10).

Figure 1 | IDSR Proportionate morbidity trends, week 1, 2017 to 11, 2018
Among the IDPs, ARI and malaria accounted for 26.2% and 15.7% of consultations in week 11. The other significant causes of morbidity in the IDPs include AWD, skin diseases, and injuries.

The top causes of morbidity in the IDPs in 2018 include ARI, malaria, AWD, skin diseases, injuries, and ABD.
Malaria is the top course of Morbidity in the country, a total of 411,634 cases with 62 deaths registered since week 1 of 2018. Malaria trend for 2018 is above 2016 and 2017 as shown in the figure 4a, above.

Since the beginning of the year, a total of 23 malaria alerts have been triggered, 13 of those were verified. The Maps above indicate the location reporting malaria alerts from 2014, 2015, 2016, 2017, and 2018.
Acute Watery Diarrhoea | Trends over time

Figure 5a | Trend in AWD cases over time (South Sudan)

Graph legend

Key AWD indicators (2018)

<table>
<thead>
<tr>
<th>Year</th>
<th>Cases</th>
<th>Deaths</th>
<th>Alerts</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>109,529</td>
<td>4</td>
<td>39</td>
</tr>
</tbody>
</table>

Figure 5b | % morbidity

Figure 5c | Age breakdown

AWD is one of the top causes of morbidity in the country with 109,529 cases reported since week 1 of 2018 including 4 deaths. AWD trend for 2018 is below 2016 and 2017 as shown in figure 5a, above.

Acute Watery Diarrhoea | Maps and Alert Management

Map 4 | Map of AWD cases by county (2018)

- a. 2014
- b. 2015
- c. 2016
- d. 2017
- d. 2018

Map 5 | Map of AWD alerts by county (2018)

Map legend

Risk Assessment

The number of AWD alerts triggered since week 1 of 2018 is 39, out of which 19 were verified. Maps above highlight the areas reporting AWD alerts from 2014 to 2018.

The number of AWD alerts triggered since week 1 of 2018 is 39, out of which 19 were verified. Maps above highlight the areas reporting AWD alerts from 2014 to 2018.

The AWD trend for 2018 is below 2016 and 2017 as shown in figure 5a, above.
Since week 1 of 2018, a total of 16,287 cases of ABD have been reported country wide including 5 death. ABD trend for 2018 is below 2015, 2016, and 2017 respectively. Refer to figure 6a, above.

Total of 50 alerts were generated since week 1 of 2018, of which 19 were verified by the county surveillance team. Maps indicating areas triggering alerts since 2014 to 2018 are shown above.
Since the beginning of 2018, at least 109 suspect measles cases including 1 death (CFR 0.92%) have been reported. Of these, 84 suspect cases have undergone measles case-based laboratory-backed investigation with 68 samples collected out of which 14 measles IgM positive cases; 14 clinically confirmed cases; and 3 cases confirmed by epidemiological linkage.

Since week 1 of 2018, 36 alerts of measles were triggered and 25 of those have been verified at county level. Maps of areas raising alerts from 2014 to 2018 are shown above.
In week 9, 2018, Thirteen (13) new AFP cases were reported from Jonglei, Lakes, Northern Bahr el Ghazal, Upper Nile, Western Bahr el Ghazal, and Western Equatoria hubs. This brings the cumulative total for 2018 to 51 AFP cases.

The annualized non-Polio AFP (NPAFP) rate (cases per 100,000 population children 0-14 years) in 2018 is 3.58 per 100,000 population of children 0-14 years (target ≥2 per 100,000 children 0-14 years).

Stool adequacy was 96% in 2018, a rate that is higher than the target of ≥80%.

Environmental surveillance ongoing since May 2017; with 23 samples testing positive for non-polio enterovirus (NPEV) in 2017 and one NPEV positive sample in 2018.

Source: South Sudan Weekly AFP Bulletin

**Table 6** | Proportional mortality by cause of death in IDPs W11 2018

<table>
<thead>
<tr>
<th>Cause of Death by IDP site</th>
<th>Bentiu &lt;5yrs</th>
<th>≥5yrs</th>
<th>Juba 3 &lt;5yrs</th>
<th>≥5yrs</th>
<th>Malakal &lt;5yrs</th>
<th>≥5yrs</th>
<th>Wau PoC &lt;5yrs</th>
<th>≥5yrs</th>
<th>Total deaths</th>
<th>Proportionat e mortality [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspiration</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Malaria</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Pneumonia</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>SAM</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Sepsis</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td>14</td>
<td></td>
</tr>
<tr>
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<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>TB</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Burns</td>
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<td></td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Anaemia</td>
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<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Chronic Hepatitis C</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td><strong>Total deaths</strong></td>
<td><strong>1</strong></td>
<td><strong>6</strong></td>
<td><strong>4</strong></td>
<td><strong>1</strong></td>
<td><strong>1</strong></td>
<td><strong>1</strong></td>
<td><strong>1</strong></td>
<td><strong>14</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

Among the IDPs, mortality data was received from Bentiu PoC, Wau PoC, Malakal PoC, & UN House PoC in week 11. (Table 6). A total of 14 deaths were reported during the week. Bentiu PoC reported 7 (50%) deaths in the week. During the week, 2 (14%) deaths were recorded among children <5 years in (Table 6).

The causes of death during week 11 are shown in Table 6.
The U5MR in all the IDP sites that submitted mortality data in week 11 of 2018 is below the emergency threshold of 2 deaths per 10,000 per day (Fig. 20). The Crude Mortality Rates [CMR] in all the IDP sites that submitted mortality data in week 11 of 2018 were below the emergency threshold of 1 death per 10,000 per day (Fig. 21).

### Table 7 | Mortality by IDP site and cause of death as of W11, 2018

<table>
<thead>
<tr>
<th>IDP site</th>
<th>Acute watery diarrhoea</th>
<th>Cancer</th>
<th>Gunshot wound</th>
<th>Heart Failure</th>
<th>Kala-Azar</th>
<th>Malaria</th>
<th>Meningitis</th>
<th>Perinatal death</th>
<th>Pneumonia</th>
<th>Rabies</th>
<th>SAM</th>
<th>Sepsis</th>
<th>TB/HIV/AIDS</th>
<th>Trauma</th>
<th>HIV/AIDS</th>
<th>TB</th>
<th>Others</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bentiu</td>
<td>4</td>
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<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>14</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>9</td>
<td>6</td>
<td>1</td>
<td>8</td>
<td>6</td>
<td>51</td>
<td>119</td>
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<td>Juba 3</td>
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<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>6</td>
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<td>36</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Malakal</td>
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<td></td>
<td></td>
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<td></td>
<td>2</td>
<td>9</td>
<td>16</td>
<td></td>
<td></td>
<td>8</td>
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<tr>
<td>Akobo</td>
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<td>1</td>
<td>1</td>
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<td></td>
<td></td>
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<td>8</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wau PoC</td>
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<td>1</td>
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<td>1</td>
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</tr>
<tr>
<td>Grand Total</td>
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<td>3</td>
<td>4</td>
<td>4</td>
<td>9</td>
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<td>7</td>
<td>2</td>
<td>12</td>
<td>14</td>
<td>76</td>
<td>180</td>
</tr>
</tbody>
</table>

Proportate mortality [%]  
- Acute watery diarrhoea: 3%  
- Cancer: 2%  
- Gunshot wound: 2%  
- Heart Failure: 2%  
- Kala-Azar: 5%  
- Malaria: 2%  
- Meningitis: 8%  
- Perinatal death: 3%  
- Pneumonia: 1%  
- Rabies: 3%  
- SAM: 6%  
- Sepsis: 4%  
- TB/HIV/AIDS: 1%  
- Trauma: 7%  
- HIV/AIDS: 8%  
- TB: 42%  
- Others: 100%

- A total of 180 deaths have been reported from the IDP sites in 2018 (Table 7).
- The top causes of mortality in the IDPs in 2018 are shown in Table 7.
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Notes

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The data has been collected with support from the EWARS project. This is an initiative to strengthen early warning, alert and response in emergencies. It includes an online, desktop and mobile application that can be rapidly configured and deployed in the field. It is designed with frontline users in mind, and built to work in difficult and remote operating environments. This bulletin has been automatically published from the EWARS application.

More information can be found at http://ewars-project.org