Highlights

- During week no 41, 2013; 98% (92/94) health facilities from 4 pilot governorates provided valid surveillance data.
- The total number of consultations reported during the week in pilot governorates was 18907 compared to 20875 the previous reporting week. Acute respiratory tract infections (ARI), acute diarrhea (OAD) and suspected malaria (S.Mal) were the leading cause of morbidity this week.
- A total of 51 alerts were generated by eDEWS system in week 41, 2013; Of these, 31 alerts were verified as true for further investigations with appropriate response.
- Altogether 7 alerts Measles, 6 Petrusiss, 4 Dengue fever, 3 each for AVH and C.Leishmaniasis, 2 each for Acute Flaccid Paralysis, Meningitis and NNT, and 1 each for VHF and Pneumonia were received and responded.
- Online disease surveillance and response system was launched in 4 governorates (Aden, Abyan, Lahj and Taiz) in March 2013. Ongoing on site trainings to improve weekly reporting and immediate notification are underway in all 4 pilot governorates.

Leading Priority Diseases - Pilot Governorates (Epi-week 41, 2013)

- URTI (18.1%), suspected malaria (0.9%), OAD (7%) and Pneumonia (3.5%) remain the leading causes of morbidity representing a total of 29.5%.
- Acute viral hepatitis, acute watery diarrhea and Schistosomiasis represented less than 1% of total morbidity in reporting period. Bloody diarrhea represented 0.5% of this morbidity.
- All diarrheal disease comprised 7.5% and Pneumonia 3.5% of total morbidity in Pilot Governorates this week.
- All diarrheal disease comprised 3.7% and Pneumonia 2.07% of total morbidity in the <5 years age group.

Trends for Leading Priority Diseases in Pilot Governorates - Epiweeks 10 to 41, 2013

Proportional Morbidity for Leading Priority Diseases - Epiweek 41, 2013
Measles focal point was contacted and information was shared; Field investigation.

Outbreaks

**Alkawd HC**

- Five cases proved to be chickenpox (clinically), on job training about AWD.

**Lahj**

- EDEWS team contact AFP coordinator, the case was a suspected AFP, stool samples were collected from cases and close contact and sent to Sana’a Central Surveillance Center in Sana’a for lab confirmation.

**Taiz**

- Lawdar Hospital: Two blood samples for suspected dengue fever were collected and sent to Sana’a Central Laboratory.

- Abyan: A diagnosis of pertussis was made. The patient is treated with antibiotics.

- Tuban: Actions were taken to investigate the case.

**Actions Taken / Notes**

- Lahj: The case confirmed to be CL and treated as such.

- Aden: The neonate developed muscle spasm, continuous crying and refused sucking. He died on 8/10/2013 in hospital.

- Abyan: There was a report in a different governorate. CSF was collected from two cases.

- Taiz: Only one case was from Aden; the other three were from Lahj.

**Percentage**

- Lahj: 5087
- Aden: 661
- Abyan: 1321
- Taiz: 64

**Number of alerts & outbreaks reported and investigated with appropriate response**

- Upper Respiratory Infections: 93749
- Diarrheal Diseases: 37940
- Suspected Malaria: 5087
- Pneumonia: 16738
- Others: 385500

**System Gen. Alerts (week 41)**

- Upper Respiratory Infections: 429
- Pneumonia: 74
- Other Acute Diarrhea: 265
- Bloody Diarrhea: 21
- Acute Watery Diarrhea: 0
- Schistosomiasis: 0
- Malaria: 27
- Meningitis: 3
- Dengue Fever: 1
- Viral Hemorrhagic Fever: 0
- Rabies: 0
- Measles: 1
- Acute Viral Hepatitis (A & E): 8
- Neonatal Tetanus: 1
- Acute Flaccid Paralysis: 0
- Cutaneous Leishmaniasis: 3
- Diphtheria: 0
- Pertussis: 3
- Other: 1
- Other Consultations: 2218

**Total Consultations**

- Lahj: 1622
- Aden: 506
- Abyan: 865
- Taiz: 3422
- Total: 7005

**Leading Diseases by Governorate, Epiweek 41**

- Diarrheal Disease was highest in Governorate Aden (25.41%) this week.
- Diarrheal Disease was highest in Governorate Lahj (9.36%) this week.

**Age and Sex distribution of total consultations of leading diseases (Epi week 41, 2013)**

- Number of consultations:
  - Lahj: 1622
  - Aden: 506
  - Abyan: 865
  - Taiz: 3422
  - Total: 7005

**Number of alerts & outbreaks reported and investigated with appropriate response**

<table>
<thead>
<tr>
<th>Diseases</th>
<th>Alerts</th>
<th>Outbreaks</th>
<th>Alerts</th>
<th>Outbreaks</th>
<th>TRUE</th>
<th>FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pertussis</td>
<td>174</td>
<td>4</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Measles</td>
<td>435</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>AFP</td>
<td>38</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Cholomiasis</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bloody Diarrhea</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AIV</td>
<td>92</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Dengue Fever</td>
<td>53</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Meningitis</td>
<td>44</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>CL</td>
<td>43</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>NTI</td>
<td>15</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>SAD</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>YHF</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>12</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>529</td>
<td>7</td>
<td>11</td>
<td>0</td>
<td>11</td>
<td>20</td>
</tr>
</tbody>
</table>

**Cumulative number of major health events reported in Epi-weeks 10 to 41, 2013 (1st March 2013 to 10th Oct. 2013)**

- Upper Respiratory Infections: 17.4%
- Diarrheal Diseases: 7.0%
- Suspected Malaria: 0.9%
- Pneumonia: 3.1%
- Others: 71.5%

- Total (All consultations): 539014

**Leading Diseases by Governorate, Epiweek 41**

- URTI was highest in Governorate Aden (25.41%) this week.
- Diarrheal Disease was highest in Governorate Lahj (9.36%) this week.

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Lahij Governorate

25 health facilities from 13 districts in Lahij governorate reported to eDEWS with a total of 3056 patients consultations in week 41, 2013. Total 8 alerts were reported and appropriate measures were taken in week 41, 2013. Altogether 3 alerts C. Leishmaniais, Pertussis, and 1 each for AVH, Meningitis and NNT were reported and responded.

Aden Governorate

25 health facilities from 8 districts in Aden governorate reported to eDEWS with a total of 6383 patients consultations in week 41, 2013. Total 7 alerts were reported and appropriate measures were taken in week 41, 2013. Altogether 4 alerts Measles, 2 Pertussis and 1 Meningitis were reported and responded.

Abyan Governorate

22 health facilities from 4 districts in Abyan governorate reported to eDEWS with a total of 2463 patients consultations in week 41, 2013. Total 4 alerts were reported and appropriate measures were taken in week 41, 2013. Altogether 1 alerts each for Measles, Acute Flaccid Paralysis, Dengue Fever and VHF were reported and responded.

Taiz Governorate

20 health facilities from 7 districts in Taiz governorate reported to eDEWS with a total of 7005 patients consultations in week 41, 2013. Total 12 alerts were reported and appropriate measures were taken in week 41, 2013. Altogether 3 alerts Dengue Fever, 2 each for AVH and Pertussis, 1 each for Measles, Meningitis, Acute Flaccid Paralysis, Pneumonia and NNT were reported and responded.

Alerts/Outbreak Investigated and Responded in Epi-week 41, 2013

<table>
<thead>
<tr>
<th>Suspected Disease</th>
<th>Governorate</th>
<th>District</th>
<th>HFs</th>
<th>eDEWS team contacted focal point. The case confirmed to be CL and treated appropriately. Waqf samples collected.</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>Lahij</td>
<td>Almosaimir, Yahar and Labaos</td>
<td>Almosaimir, Yahar and Labaos HFs.</td>
<td>eDEWS team contacted focal point. The case confirmed to be CL and treated appropriately. Waqf samples collected.</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Pertussis</td>
<td>Lahij</td>
<td>Labaos and Radfan</td>
<td>Labaos and Radfan HFs.</td>
<td>eDEWS team contacted focal point, case was diagnosed clinically using case definition by doctor in clinic, case was treated as per standard protocol for Pertussis.</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>NNT</td>
<td>Lahij</td>
<td>Labaos</td>
<td>Labaos Hospital</td>
<td>eDEWS team contacted focal point, cases were confirmed to be NNT and treated appropriately.</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Measles</td>
<td>Lahij</td>
<td>Tuban</td>
<td>MCH Alwotthah</td>
<td>Measles focal point was contacted and information was shared; Field investigation and Blood sample was collected from the case.</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>AVH</td>
<td>Lahij</td>
<td>Radfan</td>
<td>Radfan Hospital</td>
<td>eDEWS team contacted focal point, cases were confirmed to be AVH and treated appropriately.</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Measles</td>
<td>Aden</td>
<td>Al Mansura, Al-Mualla, Al-Tawahi and Al-Sheikh Othman</td>
<td>Al-Wali, Al-Mualla, Al-Tawahi and Al-Wahdah HFs.</td>
<td>eDEWS team contact focal point, information shared, Blood samples was collected from one case and will be sent to sana'a central Lab. For Lab. Confirmation.</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Pertussis</td>
<td>Aden</td>
<td>Crafter and Ash Shakh Othman</td>
<td>Al-Shaikh and Al-Wahdah HFs.</td>
<td>eDEWS team contact meningitis focal point, cases diagnosed as meningitis and treated was given. Only one case was from Aden the other three were from different governorates. CSF was collected from two cases.</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Meningitis</td>
<td>Aden</td>
<td>Ash Shakh Othman</td>
<td>Al-Wahdah Hosp.</td>
<td>eDEWS team contact meningitis focal point, cases diagnosed as meningitis and treated was given. Only one case was from Aden the other three were from different governorates. CSF was collected from two cases.</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>DF</td>
<td>Abyan</td>
<td>Lawdar</td>
<td>Lawdar Hospital</td>
<td>eDEWS team contact focal point, Abyan surveillance coordinator was informed, information shared, no blood sample was collected from cases, 3 cases were from Lowdar and 3 from different sites, full address of cases were not registered, further search will be conducted for cases and for samples collection.</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>VHF</td>
<td>Abyan</td>
<td>Lawdar</td>
<td>Lawdar Hospital</td>
<td>eDEWS team contact focal point, Abyan surveillance coordinator was informed, information shared, no blood sample was collected from the case. The patient brought to Aden governorate for medical advice, further search for the case is on going.</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Measles</td>
<td>Abyan</td>
<td>Khanfir</td>
<td>Alkawd HC</td>
<td>On week 39, nine cases were reported, after further investigation and visit to Alkawd HC, five cases proved to be chickenbox (clinically), on job training about the case definition of measles was conducted. This week, one case was reported, focal point was informed to follow the case for blood collection.</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>AFP</td>
<td>Abyan</td>
<td>Khanfir</td>
<td>MCH Ja'ar</td>
<td>eDEWS team contact AFP coordinator, the case was a suspected AFP, stool samples were collected and will be sent to central surveillance center in Sana'a for Lab confirmation.</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>DF</td>
<td>Taiz</td>
<td>Al Muddahfer and Al-Qahirah</td>
<td>Almodafar, Al-Hikmam and Labs. National Center HFs.</td>
<td>Focal point contact, information shared, 10 samples results were positive for DF (Elisa test) the other cases diagnosed in outpatient, no full information was registered. The importance of registration of data was discussed.</td>
<td>36</td>
<td>0</td>
</tr>
<tr>
<td>AVH</td>
<td>Taiz</td>
<td>Al Qahrah</td>
<td>Alhikma and Sweeken Hospital</td>
<td>Focal point contact, information shared, samples were sent to the HF lab, 11 samples results were positive for Hepatitis A, patients contact information was not available, the importance of detailed patients contact information was discussed again.</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>Pertussis</td>
<td>Taiz</td>
<td>Al Qahrah</td>
<td>Alrawda Hospital</td>
<td>eDEWS team contact focal point, cases were diagnosed clinically using case definition by doctors. Antibiotic treatment was given to the patients.</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Pertussis</td>
<td>Taiz</td>
<td>Al Qahrah</td>
<td>Sweden Hosp.</td>
<td>eDEWS team contact focal point, the case was a 2 month male child admitted with a diagnosis of pertussis. The patient is treated with antibiotics.</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Meningitis</td>
<td>Taiz</td>
<td>Al Qahrah</td>
<td>Sweden Hosp.</td>
<td>Focal point was contact, information shared, cases were diagnosed and CSF samples were collected, all samples was negative (no growth).</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>AFP</td>
<td>Taiz</td>
<td>Al Qahrah</td>
<td>Sweden Hosp.</td>
<td>eDEWS team contact AFp focal point, information shared, the two cases reported as AFp, stool samples were collected from cases and close contact and sent to central surveillance center in Sana'a for Lab confirmation.</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Measles</td>
<td>Taiz</td>
<td>Al Qahrah</td>
<td>Sweden Hosp.</td>
<td>eDEWS team contact focal point, information shared, Blood sample was collected from the case and sent to sana'a central Lab. For Lab. Confirmation.</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Pernumonia</td>
<td>Taiz</td>
<td>Al Qahrah</td>
<td>Sweden Hosp.</td>
<td>A female child aged 40 days from Saber, admitted to hospital on 8/10/2013 with a diagnosis of pneumonia. She came in a bad condition (loss of concious and gasping), died on 07/01/2013.</td>
<td>17</td>
<td>1</td>
</tr>
</tbody>
</table>
| NNT               | Taiz        | Al Qahrah | Sweden Hosp. | A male neonate aged 6days from shara'ab, was deliverd normaly at a privat clinic. The mother didn't have any antenatal care (and was not vaccinated with antitetanus vaccine). The neonate developed muscle spasm, continuous crying and refused sucking. He died on 8/10/2013 in hospital. | 2     | 2      

The objective of this weekly epidemiological bulletin is to provide a snap shot on selected health events reported from the eDEWS surveillance system in four governorates (Aden, Abyan, Lahij and Taiz) of Yemen. While every attempt is made to present the weekly trends of epidemic prone diseases, the information presented in the bulletin needs to be interpreted in the context that precise information on the reference populations is not always available. The bulletin also includes information collected by the eDEWS teams. The primary focus of DEWS is early detection of epidemic prone diseases, to facilitate a rapid public health response.

This weekly Epidemiological bulletin is published jointly by the Ministry of Public Health & Population and World Health Organization (WHO), WHO/EHA office, Sana'a, Yemen. For Correspondence: Mobile:+967 715 695 482; WHO/EHA office; Email: drkamranragut@hotmail.com