**Highlights**

- **Number of reporting sites in Week 42:** One hundred and thirty-nine (139) reporting sites (81% of the total EWARN reporting sites) including ninety-one (91) in camps for Internally Displaced Persons (IDPs), six (6) in refugee camps, thirty nine (39) mobile clinics and 3 hospitals submitted their weekly reports completely and in a timely manner.

- **Total number of consultations in Week 42:** 34,920 (male=15,944 and female=18,976) marking a decrease of 5252 since Week 41.

- **Leading causes of morbidity in the camps in Week 42:** Acute respiratory tract infections (ARI) (n=16,021), acute diarrhoea (AD) (n=2,212) and skin diseases (n=751) remained the leading causes of morbidity in all camps and areas hosting displaced populations served by mobile clinics during this reporting week.

- **Number of alerts in Week 42:** Seven (7) alerts were generated through EWARN this week. Five alerts were reported from IDP camps and two from refugee camps. The alerts were investigated within 72 hours by health cluster partners; six alerts were verified as true and one false (see Alerts and Outbreaks Section).

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**Figure I:** Distribution of total consultations and number of reporting health facilities by week, Week 1–42, 2016

**Distribution of total consultations in camps by age and gender (Week 42, 2016)**
**Morbidity Patterns**

**IDPs camps:**
During Week 42, the proportions of acute respiratory tract infections (ARI) increased, while the trends of acute diarrhoea and skin infestations, including scabies, in camps for internally displaced persons decreased compared to the previous week (please see Figure II).

**Refugee camps:**
During Week 42, the proportions of acute respiratory tract infections (ARI), acute diarrhoea and skin infestations, including scabies, decreased from the previous week (see Figure III).
Distribution of common diseases by proportion and location, IDPs camps

Figure IV below indicates the proportions of acute respiratory tract infections, acute diarrhoea and skin infestations, including scabies, which comprise the highest leading causes of morbidity in camps for internally displaced persons during Week 42, 2016.

Figure IV: Proportion of cases of ARI, scabies and acute diarrhoea in IDPs camps, Week 42, 2016

Distribution of common diseases by proportion and location, refugee camps

Figure V below indicates the proportions of acute respiratory tract infections, acute diarrhoea and skin infestations, including scabies, which comprises the highest leading causes of morbidity in refugee camps during Week 42, 2016.

Figure V: Trend of proportions of cases of ARI, scabies and acute diarrhoea in refugee camps, Week 42, 2016
Figure VI below indicates the proportions of acute respiratory tract infection, acute diarrhoea and skin infestations, including scabies, which comprise the highest leading causes of morbidity of internally displaced persons covered by mobile clinics for Week 42, 2016.

![Proportion of cases for IDP for ARI, Skin diseases and AD consulted through Mobile clinics](image)

**Trends of Acute Diarrhoea**

Figure VII below shows the trends of acute diarrhoea reported in the period from Week 15 to Week 42 in 2015 and 2016 through the EWARN system. This week showed a decreasing on the trend compared to previous weeks. From Week 6 to Week 42, Anbar reported 36% of all reported acute diarrhoea cases, followed by Dohuk with 21%, Ninewa with 11%, Sulaymaniyyah with 9%, Erbil with 8%, Kirkuk with 5%, Baghdad with 4%, and Salah Al din with 3%.

The trend of the disease showed a peak in Week 24 (3,387 cases) followed by another peak in Week 31 (3,079 cases). Following Week 31, there was a decrease in the reporting of acute diarrhoea in all EWARN reporting governorates.

![Distribution of reported cases of acute diarrhoea by week](image)
An increase in cases of acute diarrhoea was observed in Basirma camp on 15 October. From 15-18 October, 34 cases of acute diarrhoea were reported from camp’s health clinic (see Figure VIII below). Almost 63% of patients were female, and 53% were above five years of age. The majority of cases suffered from diarrhoea (watery in character, offensive without blood). In some cases, the diarrhoea was accompanied by abdominal pain, and a few cases also had vomiting and/or fever. Four cases were referred to hospital due to severe pain (one case was later diagnosed as renal pain and excluded from the list).

33 acute diarrhoea cases were reported from the clinic in week 41, the highest number reported in one week since the beginning of EWARN reporting by the clinic in 2015 (see Figure IX below). The majority of cases reported no dehydration. Doctors prescribed oral rehydration salts and metronidazole to patients reporting some dehydration. A WHO mission to the camp during the reporting period visited 5 tents and found 7 suspected cases with acute diarrhoea. Of the 7 cases, 4 visited the health clinic and received medications, while 3 (all adult males) did not seek treatment and their condition improved.

Ten stool samples were tested for *vibrio cholerae* by the rapid diagnostic test (supported by WHO earlier this year as part of preparedness activities for the summer season). All samples were found negative. Five water samples were tested for chlorine at the health clinic, of which 4 samples ranged between 0.4 o 0.7. No chlorine was found in one of the samples tested. Health staff and two people from the camp who are responsible for monitoring water samples mentioned that prior to the reporting of the recent cases, the water supply had been mixed at the water station with salty, untreated water, which may play a role in the increasing cases of diarrhoea. As of 16 October, the water supply authority has stopped mixing the water. The source of this water is from wells serving only the camp population.

**Discussions**

The abnormal increase of the acute diarrhoea cases indicated a localized outbreak of the disease. Since 10 rapid diagnostic test samples were negative for *vibrio cholera*, this suggests other possible factors, the most probable of which is E. Coli due to the character of the stool and associated fever and abdominal cramp. This requires lab confirmation of the stool samples (10 carry Blaire media received from the directorate of health for collection from the new suspected cases).

The localized epidemic started on Saturday after distribution of safe water mixed with untreated water. Not all those who suffered from diarrhoea during this period visited the clinic. On 18 October, only one case was reported as of 12:30 pm (the time of the outbreak investigation) which may indicate a decrease in cases. However, close monitoring and active case findings are still required. Although the clinic is open 24 hours a day, patients who received medication after 2:30 pm were not registered, or were advised to come the next day to be registered and receive medications. This issue has to be solved from the DOH and the supporting agency to the clinic. Water samples should be tested regularly for microbiology and chemicals, and maintaining availability of safe water is mandatory.

**Conclusion:**

This is localized outbreak of acute watery diarrhoea, most probably due to E. Coli as a result of mixing treated water with untreated water, leading to a flare-up of cases. Daily monitoring, ensuring safe water and sufficient medications for the camp population, conducting regularly coordination meetings, and increasing awareness among the people in the camp are mandatory.
Alerts & Outbreaks

During this reporting week, seven alerts were generated through EWARN according to the defined thresholds, of which five were from camps hosting internally displaced persons, and two from refugee camps. All alerts were investigated within 72 hours and six verified as true and responded to by the Departments of Health of the respective governorates, WHO and relevant health cluster partners (see table below).

<table>
<thead>
<tr>
<th>Sn</th>
<th>Alert</th>
<th>Location</th>
<th>Governorate</th>
<th>District</th>
<th>IDP/Refugee Camp</th>
<th># of cases</th>
<th>Run by</th>
<th>Investigation and Response within/48-72Hrs</th>
<th>Sample Taken</th>
<th>Alerts Outcome True/False</th>
<th>Public Health Interventions Conducted</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Suspected Leishmaniasis</td>
<td>Al-Rahma</td>
<td>Salah-Al-Din</td>
<td>Dijlah</td>
<td>IDPs</td>
<td>4</td>
<td>UIMS</td>
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<td>No</td>
<td>TRUE</td>
<td>Yes</td>
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<tr>
<td>2</td>
<td>Suspected Meningitis</td>
<td>Bajet Kandala</td>
<td>Dahuk</td>
<td>Zakho</td>
<td>IDPs</td>
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<td>PU-AMI</td>
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<td>Yes</td>
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<td>No</td>
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<tr>
<td>3</td>
<td>Suspected Leishmaniasis</td>
<td>Hashm</td>
<td>Erbil</td>
<td>Erbil</td>
<td>IDPs</td>
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<td>IMC</td>
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</tr>
<tr>
<td>4</td>
<td>Suspected Leishmaniasis</td>
<td>Kharabke</td>
<td>Dahuk</td>
<td>Dahuk</td>
<td>IDPs</td>
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<td>MC-PU-AMI</td>
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<td>No</td>
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<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>Suspected Measles</td>
<td>Gawilan</td>
<td>Dahuk</td>
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<td>Yes</td>
</tr>
<tr>
<td>6</td>
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<td>Al Rayan</td>
<td>Anbar</td>
<td>Ameriyat Al-Fallujah</td>
<td>IDPs</td>
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<td>UIMS</td>
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<td>No</td>
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<td>No</td>
</tr>
<tr>
<td>7</td>
<td>Acute Diarrhea- (Suspected E. coli)</td>
<td>Basirma</td>
<td>Erbil</td>
<td>Shaqlawa</td>
<td>Refugees</td>
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<td>Yes</td>
<td>TRUE</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Trends of alerts

Figure X below shows the number of alerts (true & false) generated per week which were investigated and responded to accordingly by the Ministry of Health, WHO and health cluster partners.

![Figure X: Alerts generated through Week 16, 2015—Week 42, 2016](image)

For comments or questions, please contact

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EWARN reporting health facilities: http link: http://irq-data.emro.who.int/ewarn/reporting_sites