The Syndromic Surveillance of Arbaeen Mass Gathering 2018
Specific Objectives

- Early detection & Numeration of syndromes
- Early detection of the outbreaks
- Rapid response to the detected outbreaks both in Iraq and Iran

The objectives of the surveillance system

Early detection and rapid response to important outbreaks during Arbaeen mass gathering
Selected syndromes

1. Acute watery diarrhoea
2. Acute bloody diarrhoea
3. Food poisoning
4. Influenza like infections
5. Sever acute respiratory infections
6. Fever and haemorrhage
7. Jaundice
8. Fever & neurologic symptoms
9. Sudden death
Case Definition:

• For each syndrome a case definition was proposed; in this case the health officers were able to count the number of cases.

• A meeting was held for training the health staff who were involved for the surveillance system.
Data collection method

• Sentinel site data collection method

• Two different categories of locations:
  1. At the border posts
     • 3 health posts at the Iraqi borders
     • 2 heath posts at the Pakistan and Afghanistan borders
  2. In a number of red crescent clinics in Iraq
     • 2 in Karbala
     • 2 in Najaf
     • 1 in Kazemeyn
Data collection method

• All patients were screened for any of the 9 syndromes at the entry of the targeted clinics.
• The necessary data were recorded in a prepared form.
Data collection tool

• We used an application installed on mobile phone for data collection:
  
  • Health officer recorded data on their smart phone
  
  • They sent the collected data once they had accessibility to internet
  
  • Data were analysed in the Iranian CDC & the feedback was prepared on the next morning
Data collection tool

• The target groups of the feed back were:
  • Authorities of the Iranian MOH
  • Surveillance groups inside Iraq
  • Medical universities across the country
Results of the syndromic surveillance

• During a 13 day period a total of 2935 patients were enrolled with at least one of the proposed syndromes (screened from 111572 attended patients to the 5 red crescent clinics in Iraq)
### Results of the syndromic surveillance

<table>
<thead>
<tr>
<th>Syndromes</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute bloody diarrhea</td>
<td>24</td>
<td>41</td>
<td>65</td>
</tr>
<tr>
<td>Acute watery diarrhea</td>
<td>498</td>
<td>1111</td>
<td>1609</td>
</tr>
<tr>
<td>Sever acute respiratory infection</td>
<td>69</td>
<td>128</td>
<td>197</td>
</tr>
<tr>
<td>Fever &amp; hemorrhage</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fever &amp; neurologic fever</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Jaundice</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Influenza like infection</td>
<td>187</td>
<td>283</td>
<td>470</td>
</tr>
<tr>
<td>Food poisoning</td>
<td>236</td>
<td>353</td>
<td>589</td>
</tr>
<tr>
<td>Total</td>
<td>1014</td>
<td>1921</td>
<td>2935</td>
</tr>
</tbody>
</table>
Results of the syndromic surveillance

Trend of reported syndromes

- Bloody diarrhea
- Watery Diarrhea
- SARI
- ILI
- Food poisoning
Evidence based interventions

• We detected a number of outbreaks during the pilgrimage and surveillance period:
  • Inspection of “Mokebs” for food water supply by environmental health experts who were settled in different places on the roads leading to Karbala (31 persons)
  • 3021 inspections during 20 days
Evidence based interventions

• 3404 sampling from suspected foods
• 4119 chlorine measurements
Evidence based interventions

• Training the pilgrims for hand hygiene and food safety (45430 persons)
• Training the servants of “MOKEBS” for environmental health (13026 servants)
•
• We used cholera rapid test for a number of diarrheal patients during the pilgrimage
• We had difficulty for confirmation of positive tests
• It is necessary to implement a microbiologic lab in order to confirm these results.
Thank You

Questions?

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