



# 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. Severe 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 health 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 feed back 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

For timeline intervention

# Results of the syndromic surveillance

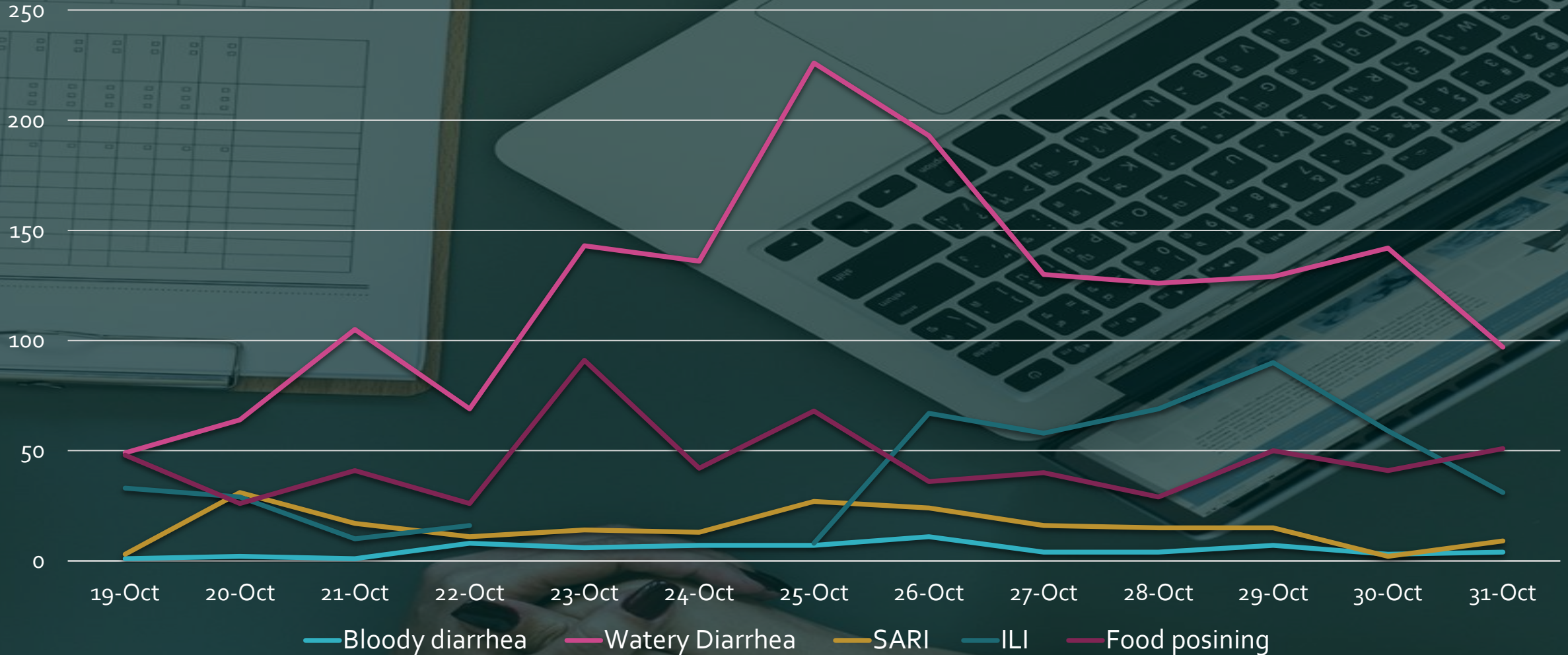
- During a 13 day period a total of 2935 patients were enrolled with at least one of the proposed syndromes (screened from 111572 attended patients to the 5 red crescent clinics in Iraq)

# Results of the syndromic surveillance

Syndromes	Female	Male	Total
Acute bloody diarrhea	24	41	65
Acute watery diarrhea	498	1111	1609
Sever acute respiratory infection	69	128	197
Fever & hemorrhage	0	1	1
Fever & neurologic fever	0	3	3
Jaundice	0	1	1
Influenza like infection	187	283	470
Food poisoning	236	353	589
Total	1014	1921	2935

# Results of the syndromic surveillance

## Trend of reported syndromes



# 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)
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- 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.

# Challenges





# Thank You

Questions?

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