Cholera Task Force-IRAQ

Update on Current Cholera Outbreak in Iraq
SITREP – Situation Report – N° 18

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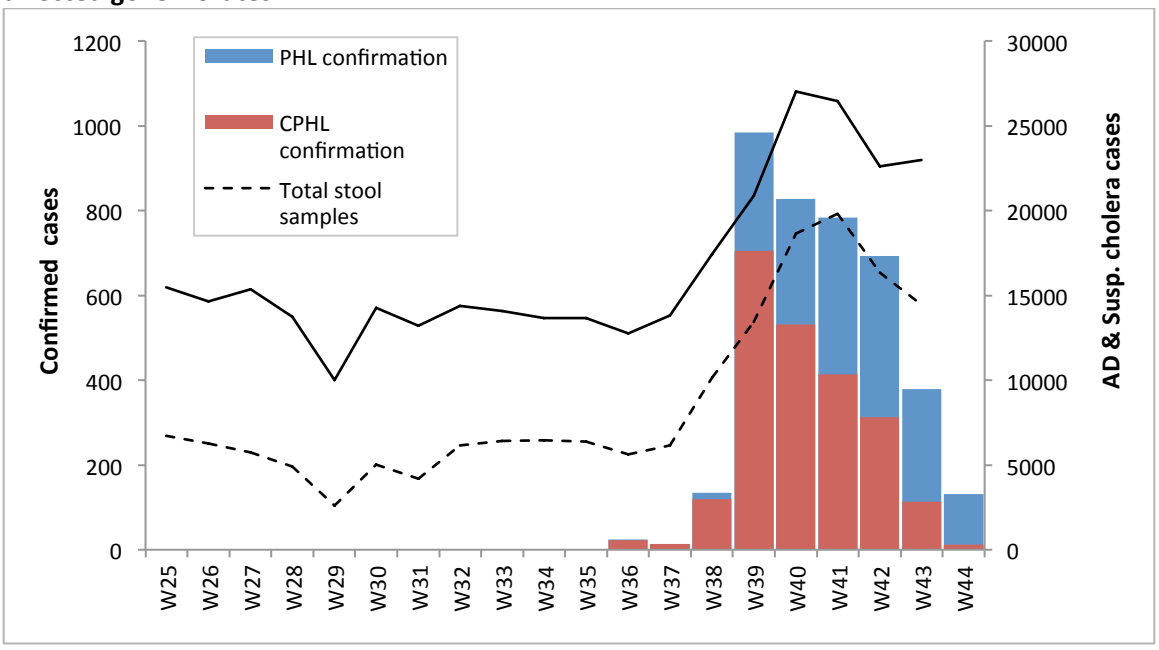
Situation Update

The general trend of acute diarrheal diseases (AD) remains high since week 36 although the number of confirmed cases appears to be trending downwards (Fig 1 & 2). A cumulative total of 4,351 cholera cases have been confirmed at provincial level labs (PHL) and 2,436 of the positive provincial-level samples have been confirmed at the Central Public Health Laboratory (CPHL). The large gap between CPHL and provincial-level confirmation is mainly due to large numbers of samples with pending test results at the CPHL.

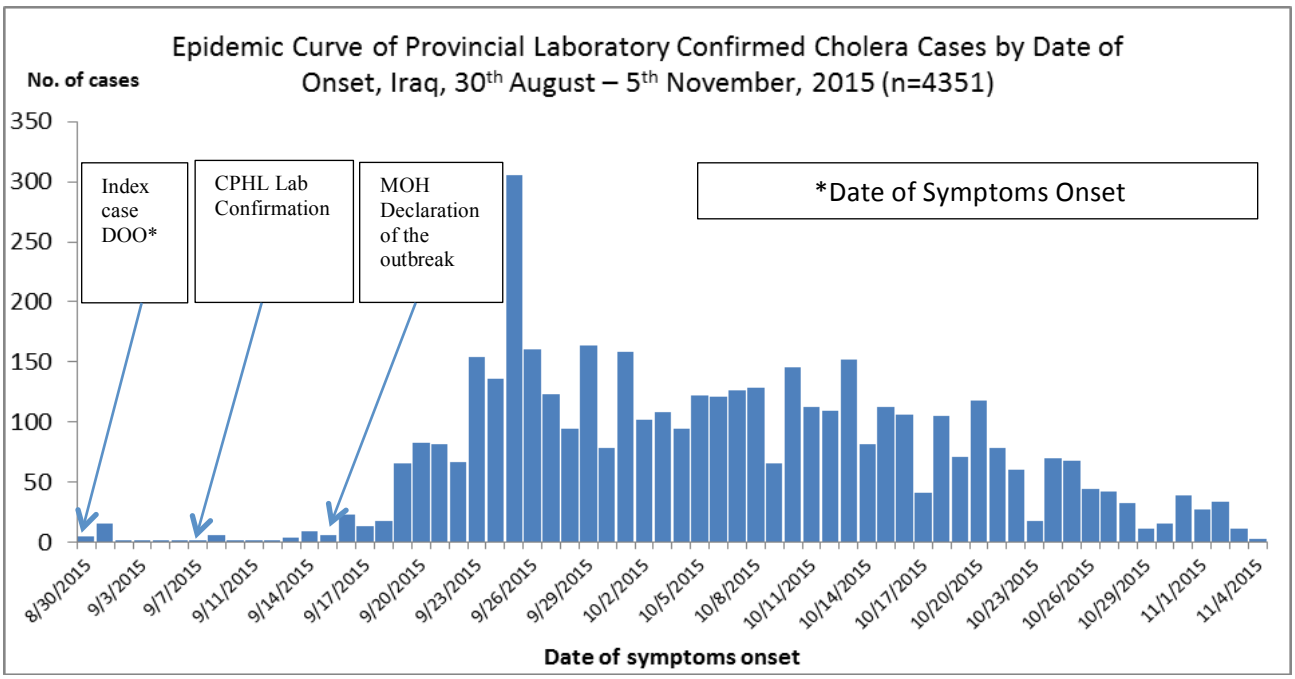
Overall, Baghdad, Babil, Diwaniya and Muthanna governorates have been the most affected governorates, accounting for 33%, 25%, 15% and 11% of cumulative cases, respectively, based on CPHL confirmed cases. However, going by PHL data, Babylon alone accounts for nearly 50% of all laboratory-confirmed cases. Affected neighboring countries so far include: Kuwait, with six (6) reported confirmed cholera cases, of which four (4) with established history of recent visits to Iraq and two (2) from contacts with confirmed cases; Iran, with fifteen (15) reported cholera cases – all have recent history of travel to Iraq; Oman, with one (1) reported confirmed case with recent history of travel to Iraq.

Figure 1: Epidemic curve by PHL, CPHL confirmed cholera cases and AD and stools sampling trends for all affected governorates



Although data on numbers of suspected cholera cases as per standard case definition is not available in the routine surveillance system, total stool samples collected could serve as a proxy, especially in the affected governorates and districts. This is because, since the outbreak was confirmed in week 36 in Diwaniya, followed by Najaf, all AD cases cholera-affected districts were considered suspected cholera and 100% of the samples were collected for cholera testing from week 38. There were 136,221 Acute Diarrhea cases between week 38 and week 43, from which 91,676 samples were collected.

Figure 2: Epidemic Curve of Provincial Laboratory-Confirmed Cholera Cases by Date of Onset



Two hundred sixty-three (263) new cases were reported by CPHL this week (Table 1). So far, only two (2) deaths (CFR 0.08%) have been reported; most of the admitted cases respond to treatment and are discharged from health facilities. Baghdad (Baghdad-Resafa) and Diwaniya had the highest number of confirmed cases this week. One confirmed cholera case was reported in Kirkuk; the case was imported from Sulaymaniyah. An outbreak investigation and active case finding has been initiated by Sulaymaniyah DOH with WHO support.

Table 1: CPHL confirmed cholera cases by governorate and outcomes

Serial #	Governorate	Cumulative cases and deaths			Cases and deaths week 44		
		Cases	Deaths	CFR	Cases	Deaths	CFR
1	Baghdad-Karkh	336	0	0	19	0	0
	Baghdad-Resafa	474	1	0.3	74	0	0
2	Babylon (Babil)	613	1	0.2	32	0	0
3	Kerbala	112	0	0	22	0	0
4	Najaf	41	0	0	1	0	0
5	Diwaniya	373	0	0	60	0	0
6	Muthanna	258	0	0	28	0	0
7	Basrah	93	0	0	8	0	0
8	Missan	18	0	0	2	0	0
9	Wassit	59	0	0	0	0	0
10	Thi-Qar	20	0	0	2	0	0
11	Diyala	3	0	0	1	0	0
12	Erbil	10	0	0	0	0	0
13	Salah El-Din	2	0	0	1	0	0
14	Kirkuk	11	0	0	2	0	0
15	Dohuk	12	0	0	10	0	0
16	Sulaymaniyah	1	0	0	1	0	0
Total		**2,436**	**2**	**0.08%**	**263**	**0**	**0%**

National trends' epidemic curves show that the epidemic is declining. However, disaggregated governorate and district level analysis shows ongoing cholera outbreak in districts, as illustrated by Diwaniya 2 districts in Diwaniya Governorate (Figure 3). PHL and CPHL cholera confirmation test results for Diwaniya2 districts also show strong agreement.

Figure 3: Epidemic curve by PHL, CPHL confirmed cholera cases and AD and stools sampling trends for Diwaniya 2 district, Diwaniya governorate

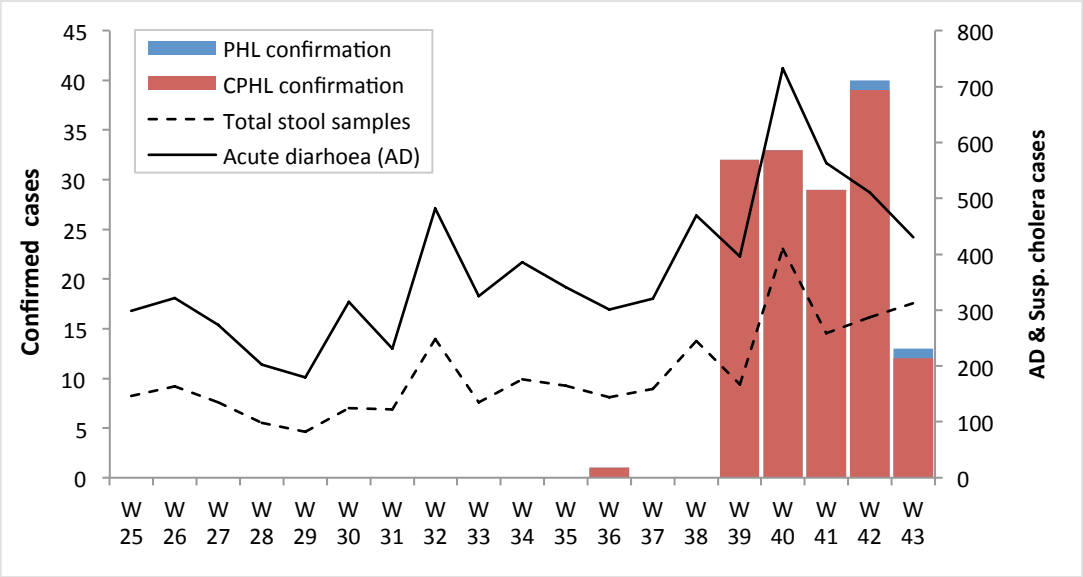
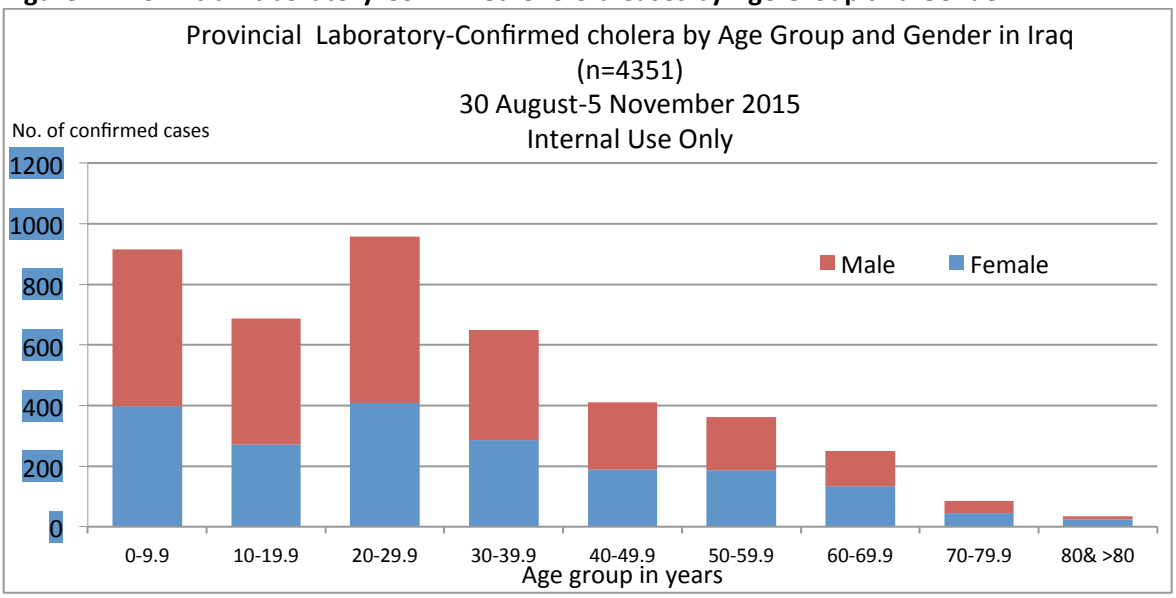


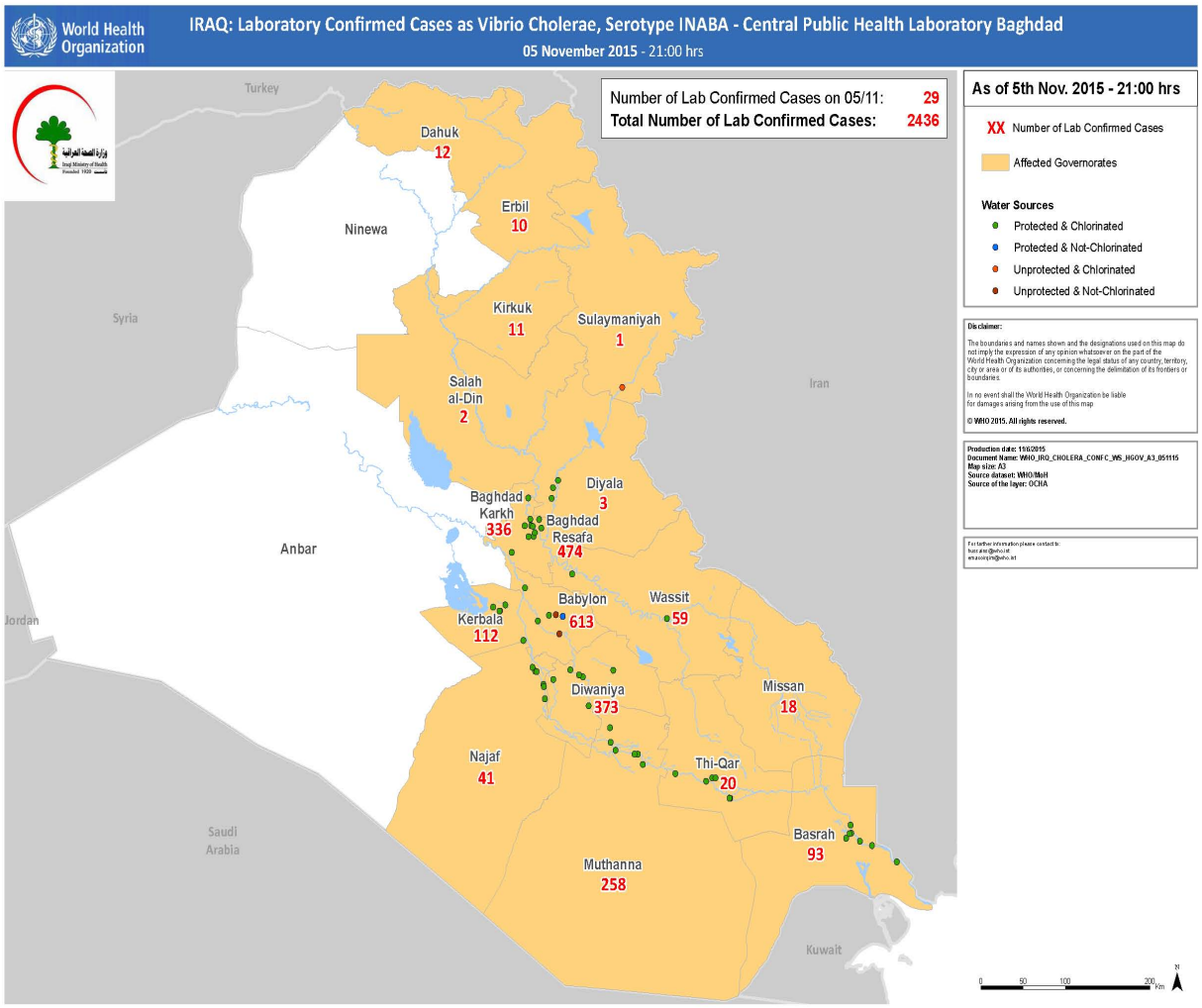
Figure 4 shows age distribution by gender of PHL confirmed cases. The average age of victims was 27 years (range: 10 months-99 years), and the 20-29 year age group was the most affected (22%) to-date, closely followed by 0-10 years of age, with 21 % of total cases. Males comprise a slightly higher proportion of cases, accounting for 55.4% of cases compared to 44.6% for females.

Figure 4: Provincial Laboratory-Confirmed Cholera Cases by Age Group and Gender



Map 1 below summarizes CPHL-confirmed cases by governorate; it also shows water quality test results from major sources based on data collected by UNICEF since outbreak onset.

Map 1: Cumulative CPHL-confirmed cases by district in each affected governorate:



Oral Cholera vaccination Campaign:

Round one of the OCV mass campaigns started on October 31. By November 5, 91 % coverage was achieved in 12 governorates. The campaign targeted 62 IDP camps and Refugee camps in 13 governorates. Around 1,200 vaccinators and 650 social mobilisers were deployed for the campaign.

Due to last week's heavy rains and flooding, 10 out of the 62 camps targeted for OCV campaign, IDPs in affected camps were displaced, and this affected coverage in these camps, particularly in Baghdad and Anbar governorates. There has been high acceptance of the vaccine, with only few refusals reported. Vaccination coverage of male adults was low, perhaps due to being away at work at the same time of the vaccination. This has been solved in some camps by availing teams during evenings. This is the first time that Iraq introduced the OCV vaccine. The temporary fix team strategy is not usually applied during mass vaccination campaigns. In addition, some governorates could not manage to gather the number of vaccinators required for the campaign. They increased the period and used less vaccinators Instead. The movement of displaced populations from selected camp to areas that were not selected resulted in not achieving target in

some camps, such as in Baghdad Karkh. OCV vaccine doses of 3% of the targeted population from each camp added to the target in order to cater for the possibility of receiving more than planned people in camps led more than half of the governorates to exceed 100% of their target. The table below shows the preliminary results of the OCV coverage during the first round, which are currently being analyzed.

Table 2: OCV vaccination coverage

Ser. #	Governorate/DOH	Target	Total vaccinated	Coverage %
1	Basrah	478	503	105
2	Baghdad Resafa	911	944	104
3	Kerbala	1,848	1,926	104
4	Kirkuk	2,604		
5	Babil	2,838	2,940	104
6	Wasit	3,174	2,855	90
7	Salah Eddin	3,480	3,850	111
8	Diyala	10,984	11,336	103
9	Baghdad Karkh	12,870	8,671	67
10	Najaf	13,788	13,503	98
11	Sulaimaniya	18,285	17,044	93
12	Erbil	32,167	29,474	92
13	Anbar	38,328	39,478	103
14	Dohuk	105,564	94,994	90
Total target		**247,319**	**227,518**	**92**

WASH sector updates

Recent flooding has affected IDPs in camps and communities in Baghdad, Anbar, Salah al-Din and Diyala governorates. According to OCHA, there are 44 flood-affected areas in these governorates, with approximately 84,354 people impacted. Floods have raised additional concerns as this situation might contribute to spreading further the cholera outbreak through contamination of water supply sources and systems by floods, particularly in areas already impacted by cholera. Diyala, in particular, has significant WASH needs in communities and villages around Sadiyah and Khanaqin, where populations are concentrating while waiting for the possibility of returning to their initial locations. Water and sanitation facilities in locations on the eastern side of Lake Hamrin (Jalawla, Sadiyah) have sustained serious damage and are currently non-operational. Hygiene in these locations is particularly poor; there is increased risk of disease outbreaks, with the ongoing cholera outbreak, and urgent WASH response is required.

Chlorine Supplies

- The General Directorate of Water has distributed 1,123 out of 5,000 tons of chlorine gas received from Iran to affected Governorates in the South and Centre. Shortages still exist in the Aluminum Sulphate stocks.

- A shipment of 43 tons of chlorine gas, procured with the support of the World Vision for use by Kirkuk Water Directorate is undergoing final clearance and is expected to be delivered in Kirkuk early next week.
- A procurement of 15.5 tons of calcium hypochlorite (70-90%) for IDP camps, chlorine gas and chlorine tablets (200g) for refugee camps are ongoing in Dohuk with UNICEF support.

Baghdad & Anbar

- Jannat Al-Firdous provided water trucking to Khan Dari and Albo Mneser in Abu Ghraib, although distribution has been restricted due to the recent flooding in the area. AFKAR is trucking water in six locations within Amiriyat Al-Fallujah.
- RIRP distributed 15,310 set of bottled water to IDP camps in Baghdad, and dislodged sewage from septic tanks in Al-Tabadul Al-Tijari camp.
- UIMS and AFKAR have conducted cholera hygiene promotion activities in Baghdad and Anbar, focusing on the cholera outbreak.

Thi-Qar & Qadissiya

- Cholera hygiene and health awareness campaigns were conducted in primary schools and supported prevention efforts through partners.
- RIRP erected 30 billboards with Cholera prevention messages in Nasiriya (Thi-Qar) and Diwaniya (Qadissiya).

Najaf

- Through al Ataba al Alawiya institution, hygiene kits and WASH NFIs were distributed to at-risk households in cholera-affected areas in Najaf governorate. This includes 350 households in Kufa district, 1,333 households in Al Hira sub-district (Al-Manathira district) and 692 households in Najaf district.

Babel

- Water tanks (25 tanks of 5,000 liters and 80 tanks of 1,000 liters), water test kits, chlorine test tablets, PH tests and conductivity meters for high risk areas have been supplied with support from UNICEF.

Dohuk

- Mobilization of communities and dissemination of messages on the OVC campaign are being conducted in Dohuk Refugee and IDP camps.
- Monitoring of free residual chlorine in water in all the IDP and refugee camps is ongoing.
- 35,612 bars of soap (100gm tablets) were distributed, benefitting 17,806 students (each child receiving 1 bar of soap per month for 2 months) in 20 IDP tented schools.
- Mapping of available resources was conducted, including WASH partners working in the Rabea'a region, which has witnessed significant increase in cases of acute watery diarrhea.
- In Dohuk, overall coordination at governorate level is inadequate; meetings are infrequent and arranged on an *ad hoc* basis. There is lack of timely sharing of surveillance data, including line-list of acute diarrhea cases. This is hampering targeted and timely interventions.

Findings from WHO-UNICEF Joint Mission to Kerbala, Kerbala governorate

A Joint WHO & UNICEF multidisciplinary mission of epidemiologists, clinical care, and WASH experts visited Kerbala governorate on November 4 to assess current situation, gaps, and needs in

outbreak response components of coordination, surveillance, case management, water quality, sanitation resources, food safety and risk communication. In addition, one of the objectives was to assess the readiness of the governorate to Arbaeenia pilgrim mass gathers. The team conducted meetings with the General Directorate of Department of Health (DOH), the Directorate of Water (DOW), and conducted site visits to Kerbala Pediatric Hospital and the main Infectious diseases isolation wards for pediatrics and adults, and one Water Treatment Plant (Kerbala water treatment plant). The remainder of this situation report will focus on the findings from that joint mission.

Context:

Karbala is one of the 15 governorates affected by cholera; the governorate has reported a total of 87 cases. While disease incidence has remained low, with only sporadic cases, large numbers (millions) of pilgrims are expected in the Karbala for Arbaeenia. The risk of cholera outbreak spreading along the routes used by pilgrims due to the mass gathering is of particular concern.

Meeting with the DG health:

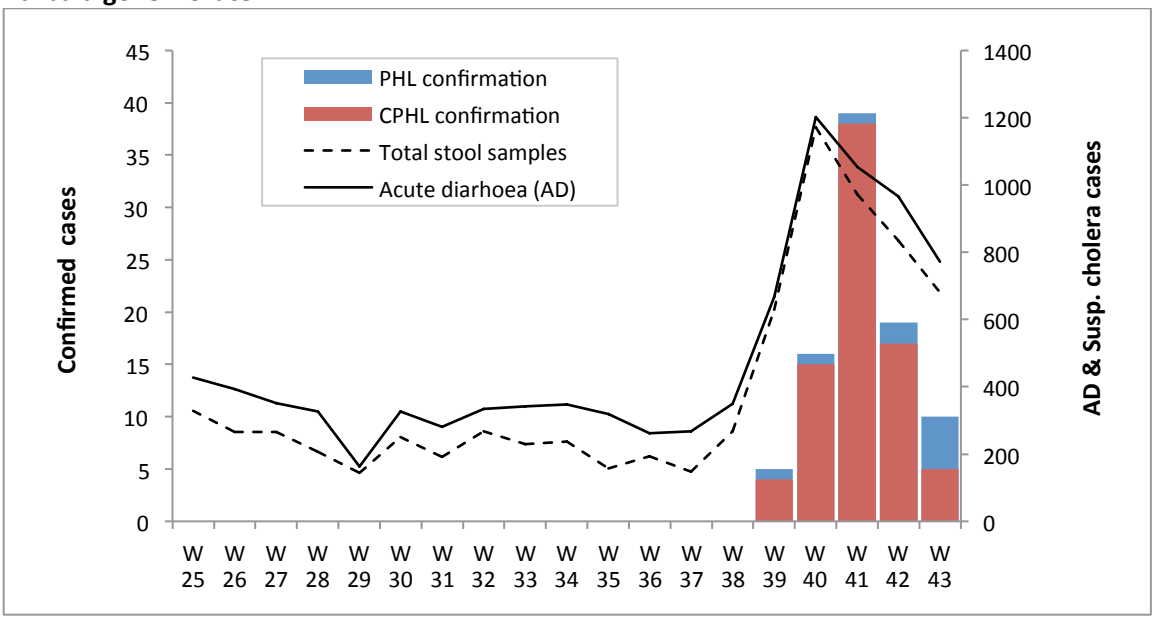
A meeting was held with the DG health and governorate health officers. The governor welcomed and briefed the team regarding status of the outbreak and the response, as well as preparedness for the pilgrimage season, when millions of people visit Karbala. He stated that, since the outbreak's onset, Karbala has reported 87 confirmed cholera cases in different districts; these cases are not concentrated in any particular district. Local medical staff has been trained in cholera case management and SOPs have been disseminated to all health facilities.

The DG explained ongoing preparation for Karbala pilgrimage. Steps taken so far include stockpiling medical supplies (IV fluids and ORS) and mobilizing medical teams, including local governorate's medical staff, volunteers from other governorates and foreign medical volunteers. Up to 1,500 medical teams will provide health services in mobile clinics and designated hospitals. Enhanced public cholera awareness campaigns are ongoing; methods are deployed, most of which were observed during the visit, such as: posters, brochures, printed T-Shirts and bags and key cholera awareness messages displayed on LCD screens by the side of road.

Epidemiology/Surveillance Meeting with the DOH:

The DOH indicated the province has not experienced a large outbreak (Figure 5). According to the DOH, outbreak investigation of suspected cases suggests that a significant number may be imported cases from neighboring Muthana, which is one of the most affected governorates. DOH stated that they have a well-organized surveillance system and they are using SOPs for cholera surveillance, including case definitions. The DOH receives daily reports of suspected cases from health facilities. Standard case definition is being used in the governorate and no cholera-associated death has been reported there.

Figure 5: Epidemic curve by PHL, CPHL confirmed cholera cases and AD and stools sampling trends for Karbala governorate



Case Management (Hospital visit):

The Infectious Diseases Referral Hospital in Karbala was visited and an interview was conducted with the hospital manager, staff and some patients, and patients' files on treatment for suspected cholera were reviewed. According to hospital staff, since the outbreak was declared, any patient with acute diarrhea is treated as suspected cholera case and is put on cholera treatment. Although treatment algorithm and guidelines were available in the ward visited, review of patients and their treatment showed that IV fluids and antibiotics were extensively being used. There was no evidence of ORS use.

WASH Assessment (Water treatment plant visit):

The visit to Karbala included also a visit to the drinking water treatment plant, where the mission received an overview of the drinking water network capacity and water quality measurements. The drinking water network coverage is almost 100 % and the drinking water quality is checked mainly for chlorine (every hour) and turbidity (every three hours). During the outbreak, the dosage at the plant ranged between 3.4 to 5 mg/l to achieve around 1mg/l at household. The ministry of water confirmed that they exchange testing data with the Ministry of Health and they even intervene when the testing results from the MoH shows some disqualified samples. The team also visited the holy shrines and examined WASH services provided there, where very reasonable precautions are taken to deal with mass gatherings.

Mission's Recommendations:

- Strengthening multi-sectoral coordination mechanism at provincial level;

- Strengthening surveillance, especially establishing outbreak response teams and hotlines for immediate notification;
- Sensitizing health workers to adhere to standard case management protocols, especially new medical teams and volunteers for the pilgrimage season;
- Enhancing health promotion during the pilgrimage season;
- Advocating with both central & local government to ensure sufficient purification materials.