Cholera Task Force-IRAQ

Update on Current Cholera Outbreak in Iraq.
SITREP – Situation Report – N° 17

29.10.2015 (Epi Week 44)

Situation Update

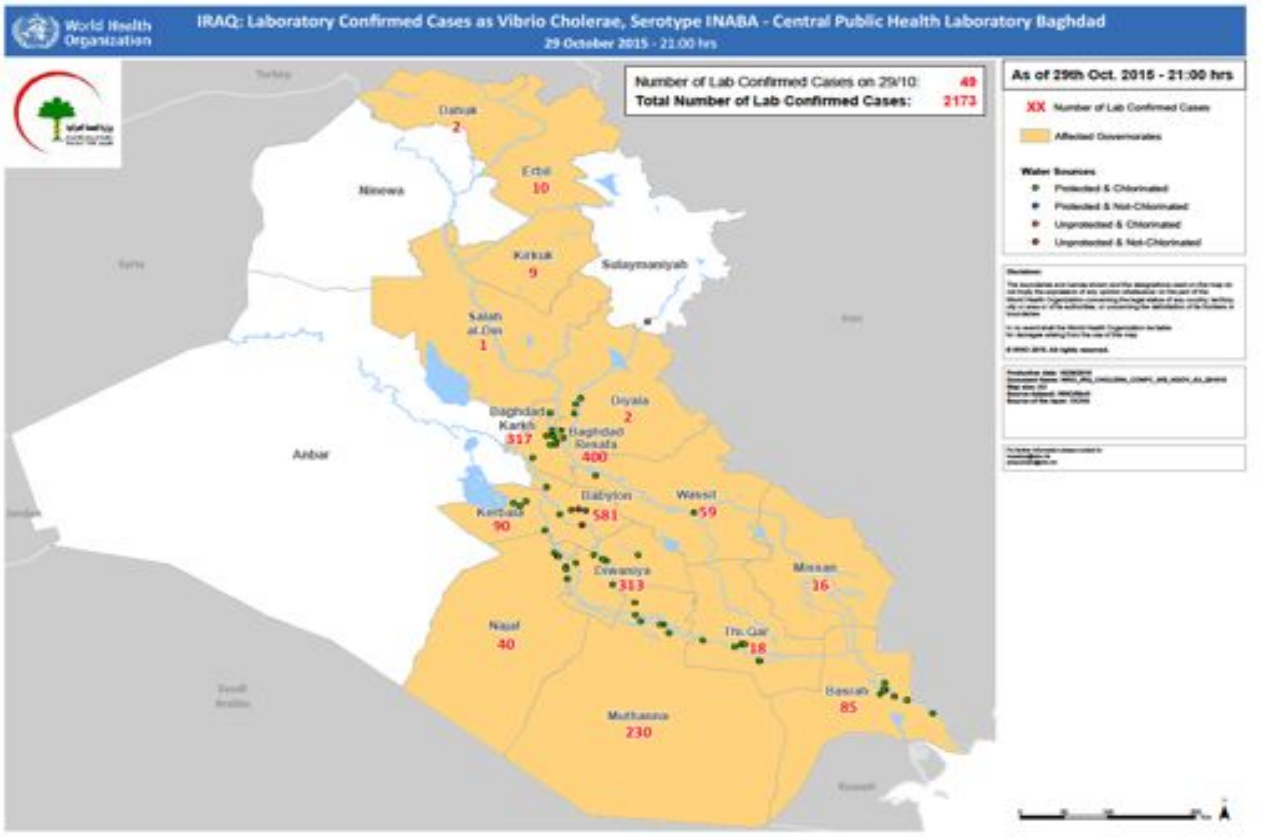
Since the last situation report of October 22, 2015, there were 231 confirmed cases reported from the Central Public Health Laboratory (CPHL), setting total CPHL confirmed cholera cases to 2,173 in this current cholera outbreak. The cumulative and newly confirmed (past 7 days) cases by governorate are shown in Table 1.

Table 1: Distribution of CPHL confirmed cholera cases by governorate and outcome from September 1 – October 29, 2015 in Iraq

Serial #	Governorate DOH	CPHL confirmed cases and deaths as of Sit Rep 17			CPHL confirmed cases and deaths during the week of Sit Rep 17		
		Cases	Deaths	CFR	Cases	Deaths	CFR
1	Baghdad-Karkh	317	0	0	26	0	0
	Baghdad-Resafa	400	1	0.3	87	0	0
2	Babylon (Babil)	581	1	0.2	1	0	0
3	Kerbala	90	0	0	11	0	0
4	Najaf	40	0	0	0	0	0
5	Diwaniya	313	0	0	67	0	0
6	Muthanna	230	0	0	29	0	0
7	Basrah	85	0	0	0	0	0
8	Missan	16	0	0	0	0	0
9	Wassit	59	0	0	6	0	0
10	Thi-Qar	18	0	0	1	0	0
11	Diyala	2	0	0	0	0	0
12	Erbil	10	0	0	1	0	0
13	Salah El-Din	1	0	0	0	0	0
14	Kirkuk	9	0	0	2	0	0
15	Dahuk	2	0	0	0	0	0
Total		**2,173**	**2**	**0.09%**	**231**	**0**	**0%**

Baghdad, Babil and Diwaniya governorates are the most highly affected governorates to-date, reporting 33.0, 26.7 and 14.4% of the CPHL confirmed cases, respectively. Baghdad (Baghdad-Resafa) and Diwaniya also reported the highest number of confirmed cases this past week. Map 1 below summarizes the CPHL confirmed cases by governorate, and also shows water quality test results from major sources collected by UNICEF after the outbreak was confirmed.

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



Following previous recommendations and commitments at the regional meeting on cholera preparedness, on October 16-17, in Beirut, Lebanon, the Ministry of Health of Iraq released the data of cases confirmed at the provincial laboratories (n=3,797). Those data are shown in Figures 1 and 2 as the epidemic curve and also as gender and age group distribution. WHO and partners are continuing to work with MOH to obtain suspected cholera case data by governorate from the beginning of the outbreak, in order to understand the full caseload (suspected and confirmed) and outbreak progression.

Figure 1. Epidemic Curve of Provincial Laboratory Confirmed Cholera Cases by Date of Onset, Iraq, August 30 – October 27, 2015 (n=3,797)

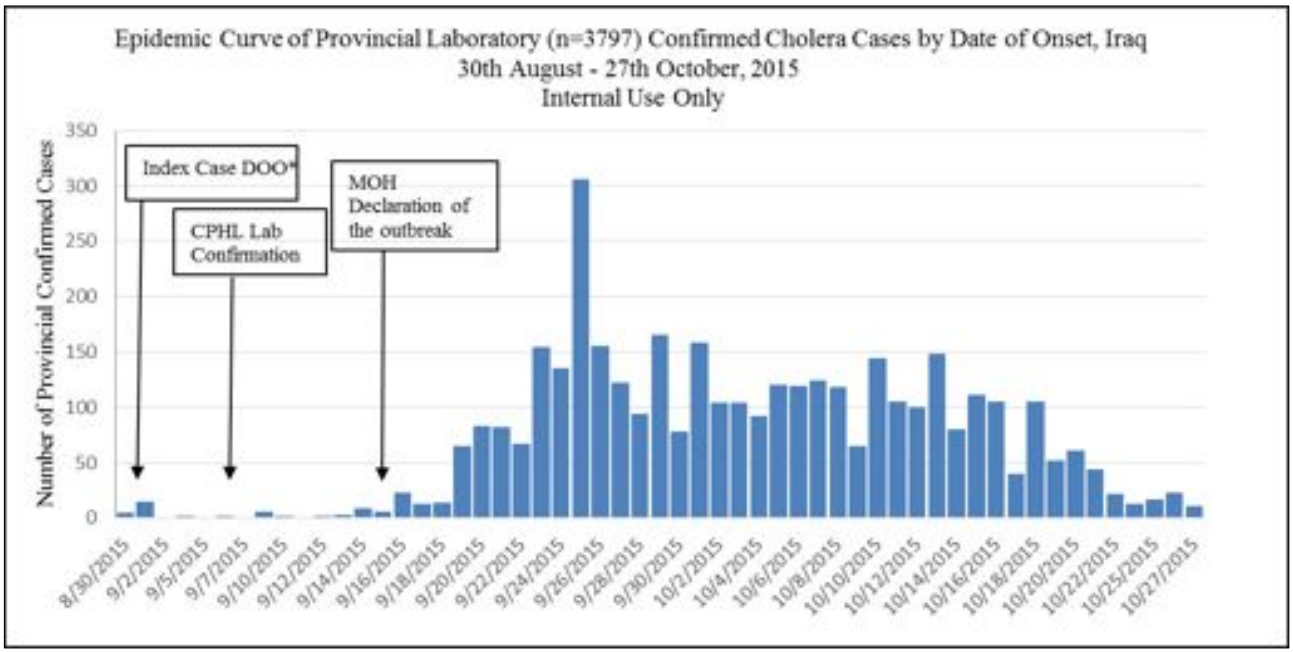
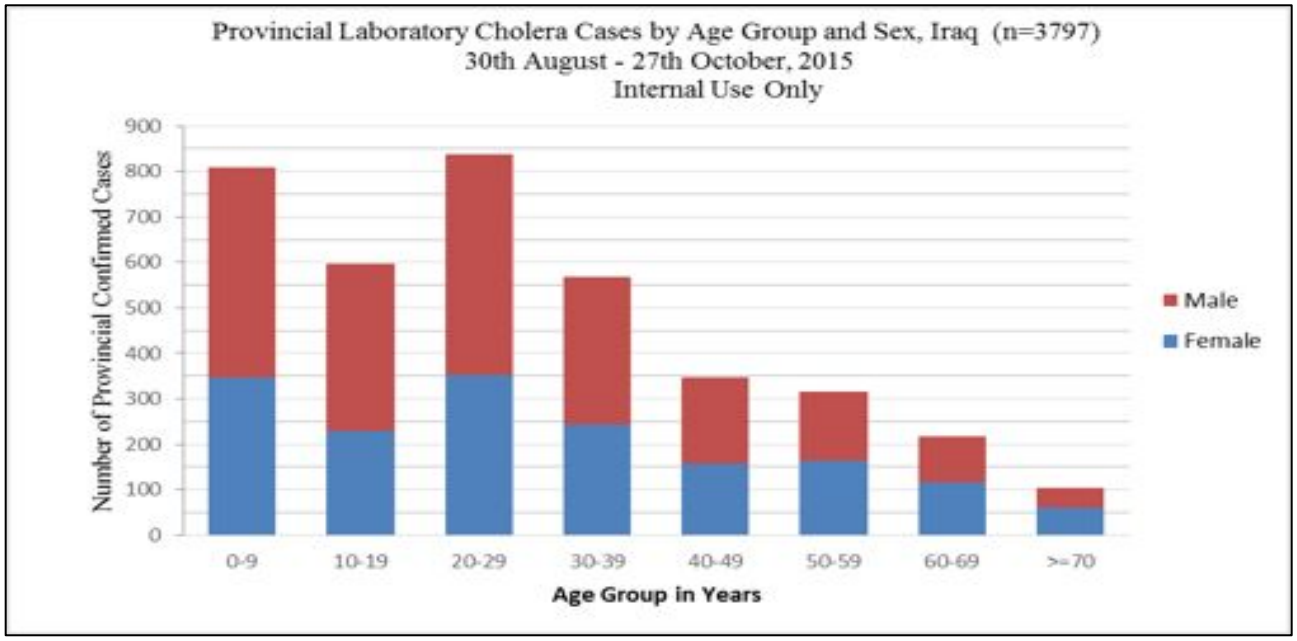


Figure 2 below shows the age distribution by gender of the provincially confirmed cases. The 20-29 years age group is the most affected to-date, closely followed by 0-10 years age group with 21.2% of total cases. Males comprise a slightly higher proportion of the cases, accounting for 56.1% of cases compared to 44.9% for women.

Figure 2. Provincial Laboratory Confirmed Cholera Cases by Age Group and Gender, Iraq, August 30 – October 27, 2015 (n=3,797)



The planning for the Oral Cholera Vaccination campaign continued this week, with a planning and training session for EPI managers at governorate level, and took place in Baghdad on Monday October 26, and in Erbil, on Tuesday October 27. Training of supervisors, vaccinators and social mobilisers started at governorate level on Wednesday October 28. The OCV mass preventive first round campaign is still scheduled to start on October 31, depending on the preparedness of the human and logistical resources at each of the governorates. All vaccine doses for the two rounds have arrived at the EPI cold chain storage of each governorate.

A Joint WHO & UNICEF multidisciplinary mission of epidemiologists, clinical care, and WASH experts visited the highly-affected Babil governorate on October 28 to assess the current situation, gaps and needs of the outbreak response coordination, surveillance, case management and prevention, including response's WASH components. The team met with the Governor, Directorate of Health (DOH) and Directorate of Water (DOW) and conducted site visits to Marjan Hospital and one of the Water Treatment Plants (Al-Tayara water treatment plant). The remainder of this situation report will focus on the findings from that joint mission.

WASH Sector New Updates

Baghdad:

- UNICEF has supported Rebuild Iraq Reconstruction Programme RIRP to extend the water supply pipeline in Sader Al Yousifiya camp, and Jannat Foundation to complete installation of 20 water tanks (5,000 liters each) and initiated trucking and monitoring of safe, chlorinated water in Khan Dhari and Abo Mnesier, Abu Ghraib. 200 families in Khan Dhari have been provided with jerry cans.
- RIRP with UNICEF support has trained 70 male and female community mobilizers from IDP camps and collection centers to disseminate cholera prevention messages and undertake basic hygiene promotion.

Northern Governorates:
Dahuk:

- Health inspection and health awareness campaign activities have been stepped up, including, regulating eating places, public sales of food and drinks.
- The following supplies have been stocked with Directorate of Water for use of by any WASH agencies for response: 5,800 boxes of aqua tabs, 25 pool testing kits, 250 boxes of DPD1, 250 boxes of phenol red, 22,000 bars of soap
- The following WASH stocks have also been made available through UNICEF to support any WASH agencies for response: 40,000 bars of soap, 37,000 hygiene kits, 900 boxes of DPD1, 1,000 boxes of Phenol red, 40,000 boxes of aqua tabs
- Global Handwashing day events consolidated efforts on Cholera prevention and delivery of cholera awareness related messages.
    - 21,621 children in schools participated directly and received various hygiene items and 10,121 community members (children and adults) also directly participated.
    - UNICEF and 10 NGOs participated (FRC, NRC, JEN, Mission East, NCA, ACF, PIN, ASB, HARIKAR and Samaritans Purse). In total, 13 camps (Domiz 1 & 2, Khanke, Bersive 1, Bejed Kandala 1 & 2,

Karbarto 1 & 2, Mamilan, Akre, Gawilan, Sharia and Esyan) and the non-camps areas of Zummar were reached by the various NGOs.

- UNICEF supported the NGOs through the Directorate of Surrounding Waters and Directorate of Health to distribute 940 jugs, 19,300 soap, 910 basins and 4,350 leaflets/posters.

Erbil

- The WASH Cluster has activated the Cholera Preparedness and Response Plan, and it is supporting all partners to review their own capacities for preparedness and response. Cholera checking list (developed by DRC) is being presented and implemented by the majority of partners to check their own capacities in terms of stocks, HR, management, structure, etc.

Sulimaniyah

- WASH partners are strengthening water quality surveillance in all camps, particularly in communal tanks filled by boreholes and in water trucks. Daily testing of turbidity, pH and chlorine is being conducted: Arche Nova in Qoratu camp, Save the Children in Alawand 2, Kalaju and Alyawa camps, Qandil in Arbat camp and QRC in Ashti camp. DOSW and other governmental bodies are also intervening for water and sanitation improvement in camps.

Findings from WHO-UNICEF Joint Mission to Hilla, Babil governorate

Context:

More than 45% of the provincial confirmed cholera cases in the ongoing outbreak have been registered in Babil governorate and mainly in the city center (Al-Hilla district).

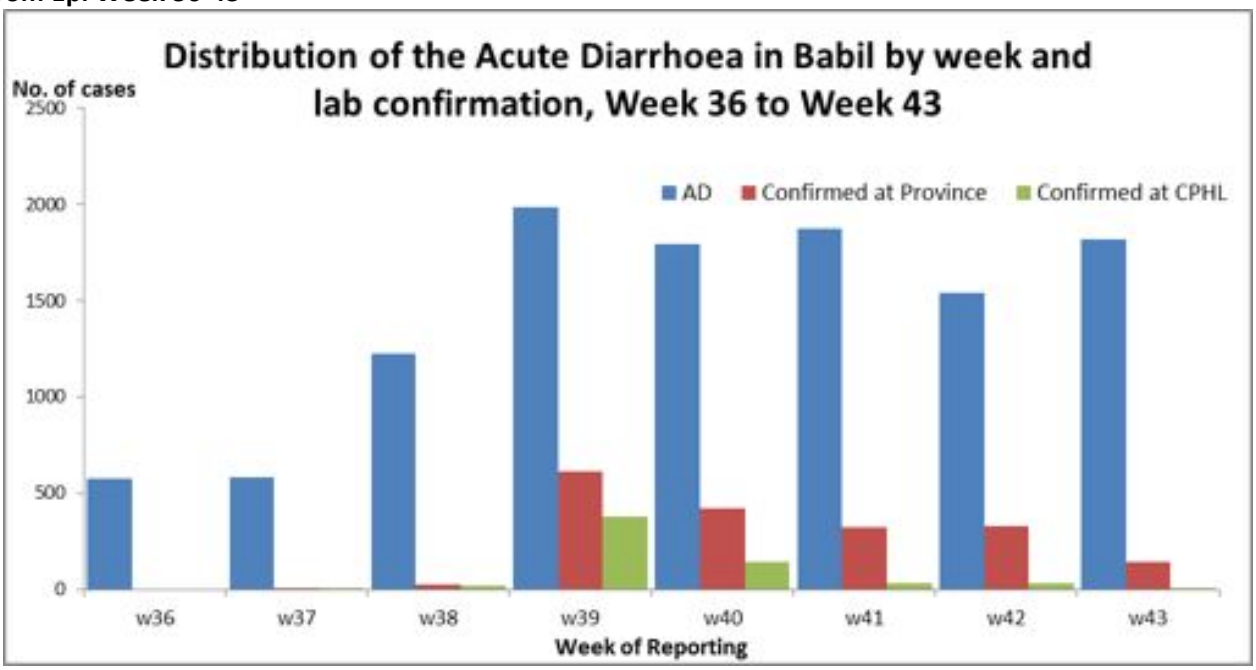
Meeting with the Governor:

A preliminary meeting was held with the Governor of Babil and governorate council members. The governor welcomed the team and appreciated the support of both WHO & UNICEF. He stated that Babil faced similar situation with cholera outbreaks in 1999, 2008 and 2012. In addition, he confirmed that they believe the decline of Shatt Al-Hilla river water level was the main cause of this current outbreak, and he asked for technical support to seek alternative drinking water resources (e.g. wells). The governor stated that due to the financial crisis, they don't have a budget to refurbish their current water treatment plants networks. WHO briefed the governor on the support provided by UN and health partners for the current outbreak response through the health cluster, including provision by WHO of 15 Integrated Diarrheal Disease Kits, capacity building of the health cadres in standard case management of cholera and other diarrheal diseases and technical support to improve the surveillance system. UNICEF stated that their response plan started with the delivery of lifesaving supplies and will continue including upgrade/rehabilitation of water projects, support for water quality monitoring, installation of water distributing points/water trucking in most deprived locations, and upgrade of WASH facilities in schools within the derived areas.

Epidemiology/Surveillance Meeting with the DOH:

The Directorate of Health indicated that their first suspected cholera case was reported on September 6 (Week 37), following an upsurge of acute diarrhea (AD) cases in the surveillance system. According to the DOH, up to Week 37, the weekly trend of AD cases was sustained within the range of 500-600 weekly cases. However, from Week 38, AD cases have remained over 1,500 weekly cases, although the number of confirmed cholera cases appears to be declining since Week 39 (Figure 3 below). In total, 2,250 suspected cholera samples were sent to the lab and vibrio cholera was isolated in 1,861 samples at provincial level in Babil; of these, 581 have so far tested positive for cholera at the CPHL. DOH stated that they have a well-organized surveillance system and use standard SOPs for cholera surveillance, including case definitions. Since the outbreak was confirmed, according to the DOH, all cases of acute watery diarrhea are considered as suspected cholera, in line with WHO recommendations. The DOH receives daily reports of suspected cases from the health facilities. Standard case definition is being used in the governorate and over 90% of cholera cases detected in PHCs were based on the application of standard case definition. One death was recorded among cholera cases, of a 48-year old female, reported in the governorate.

Figure 3. Reported AD, provincial laboratory and CPHL confirmed cholera cases in Babil governorate, Iraq from Epi Week 36-43



After the outbreak was detected, two emergency cells were rapidly established by the governor and chaired by his first deputy including members from all the implicated Directorates (Health, Environment, Water, and Sanitation) and civil societies. Response activities in the governorate have included distribution of 11 million aqua tabs, as well as twice-daily water testing (from 3 sampling points in the network) by health inspection teams (DOH). The DOH reported they continue to have capacity in terms of staff and stock to effectively treat suspected cholera cases in the 100 PHCs and 4 hospitals serving the governorate.

Case Management (site visit to Marjan hospital):

Marjan hospital (400 beds) was visited, and an interview was conducted with the hospital manager, staff and some patients. The adult male ward was visited, where 5 suspected cholera patients were receiving care at the time of the visit. Both IV fluids and ORS were in use at the ward; however, two of the patients on IV fluids had no dehydration. Doctors acknowledged that, while treatment protocols were available, some patients do not want to take ORS and prefer IV fluids and injectable antibiotics. Regarding environmental health, the hospital reported that they have functional on-site waste management for both solid and medical waste. They have on-site septic tanks and desludge via tankers to off-site (authorized location).

WASH Assessment (visit to Al-Tayara water treatment plant):

Both the DOH and the DOW reported that a decline of the water level in their main water source (Shatt Al-Hilla/branch of Euphrates River) led to acute shortage of water and discontinuity in water supply, and they believe that this contributed strongly to the outbreak in Babil. Further, the DOW stated that the water network infrastructure (e.g. cast iron pipes) is very old and requires considerable upgrades. Due to water shortage, the DOW was forced to limit daily water supply to 6 hours per district. This intermittent supply results in negative pressure in the lines and intake of contaminated water during off-periods. Their monitoring indicates that water leaving treatment plants has sufficient free chlorine residual, but a combination of damaged infrastructure and negative pressure as a result of intermittent supply leads to introduction of contaminated water and results in insufficient chlorine levels at the point of consumption.

Further exacerbating this problem is the lack of a sewerage system in the city, which leads to return of human waste to the environment and waterways.

The Al-Tayara plant produces approximately 1200m^3/hr and is one of seven water treatment plants serving the governorate. Water is river-sourced and the plant employs sedimentation, gravity filtration and chlorine disinfection. Al-Tayara produces about 10% of Hilla city water needs, and also provides water via tanker trucks to 50 surrounding villages (17 tanker trucks, 4 daily trips).

The plant was functioning during the visit, and chlorine gas was in stock (Picture 1). The current stock was sufficient for 3 weeks, after which more will have to be obtained from Baghdad. The DOW cited difficulties with transport of chlorine gas from Baghdad, requiring several clearances each time and taking 7 days to arrive from Baghdad. Water was tested for free chlorine residual (FRC) from one of the tanker truck fill points, and the level was appropriate at 1.81mg/L (Picture 2). They reported testing FRC and turbidity every two hours, and also conducting FRC, turbidity and microbiological tests at various sampling points (20) throughout the network on a daily basis. Capacity building and equipment needs were identified in the laboratory.

Picture 1: Chlorine gas canister

Picture 2 : Field Testing of Free Chlorine Residual

Mission's Recommendations:

WHO and UNICEF to continue supporting local authorities and community structure in Babil to enhance their service delivery.

WHO activities:

- Strengthening multi-sectoral coordination tool at provincial level
- Strengthening surveillance especially at community level to ensure capture of case and deaths due to suspected cholera at community level
- Sensitizing health workers to adhere to standard case management protocol

UNICEF to focus on:

- Advocacy with both central & local government to ensure sufficient purification materials
- Support upgrading water projects in most deprived areas
- Support WASH in school & Health institutions in most deprived areas
- Support Cholera cells and water quality monitoring
- Activation of Water Safety plan at district level
- Capacity building for their water treatment and testing staff
- Support water trucking and other lifesaving supplies where required