



WHO Representative's Office in Iraq

Daily Situation Report on Cholera Outbreak in Iraq

Sitrep number: 18; Date of Reporting: 25th of September 2007

1. New Developments:

- a. **Baghdad and Basra:** The only confirmed cholera case from Baghdad died on 22nd of September; bringing the total death from cholera to 11 cases. Stool sample of 2 of her contacts were found positive for vibrio cholera of the inaba serotype. Following the death of this case a team from the CDC/Baghdad, Resafa DoH and WHO has been compiled to review the surveillance system in Madain district including review records of hospitals in the area, train staff on DD surveillance and case management.
- b. **Dahuk:** On 23rd of September; Duhok health authority reported the first laboratory confirmed V cholera in a 5 year old female child from Bardarash district in Dahuk governorate. It is important to note that the first index case for 1999 outbreak (over 900 cases) started in the same area which the WHO requested to visit during her last mission to north Iraq, however, the request was denied. The case was detected during the routine testing of cases presenting to health facilities with watery diarrhea. Further investigation of contacts and water supply was negative for V cholera organism.
- c. **Diala:** During the 15-26 September we received reports of a new focus of acute watery diarrhoea in Diala province which is down to the south of the original focus in Sulymania and Kirkuk. In this new focus 20 patients presented to Baladruz, salahaddin, Hibhib, Al-Udhem and Baquba hospitals and PHCs with severe dehydrating diarrhea with renal shut down in one of them. Unfortunately, specimen collection was done late after patient had antibiotics for the majority of cases. The results of 18 cases tested negative to V cholera while 2 are still pending. Negative isolates have been sent to the Central Lab in Baghdad for further testing. Despite the difficult security situation the DoH surveillance staff were able to visit affected areas, supply them with fresh CB transport medium, train them on the correct method of collection and shipping of samples.
- d. **Tikrit:** The total laboratory confirmed cases in Tikrit province is 5 confirmed cases and 2 carriers and not 4 cases as reflected sitrep17.
- e. **Mosul :** Nothing to add to yesterday's report..
- f. **Babil and Wassit:** There are reports of 2 suspect cases of cholera, one in each of Wassit and Babil, confirmatory laboratory test is expected within 48 hours.

2. OVERVIEW

As of 24th of September 2007, 25 districts of Northern Iraq and 6 districts in the south and center have reported laboratory-confirmed cases of cholera. 13 out of the 14 districts of Sulaymaniyah governorate, all five districts of Kirkuk governorate, all seven districts of Erbil governorate; 3 districts in Tikrit as well as one district in each of Dahuk, Mosul, Baghdad and Basra are now affected by this cholera outbreak. A representative sample of vibrio cholera isolates from Sulymania sent by WHO reached today US Navy Advanced Research Unit Laboratory in Cairo for further confirmation and phenotypic characterization.

Up to this day 2463 lab confirmed cholera cases (all of the inaba serotype except 26 isolates of the ogawa serotype) were officially reported from Iraq.

95% of cases were reported from Sulymania and Kirkuk in north Iraq, the out break seems to be slowly spreading to the neighboring provinces of Erbil and Diala with 120 cases (out of which 17 cases from Diala diagnosed on clinical grounds) reported during last week.

Sporadic cases with definite history of travel and food consumption in Kirkuk were reported from Mosul and Tikrit provinces; however, isolated cases with no epidemiological link to north Iraq were also confirmed in Baghdad and Basra.

One of the important features in this out break is that most of the cases seen have mild to moderate signs and symptoms. The traditional signs and symptoms of severe dehydrating diarrhea were seen only very occasionally, out of the 2463 lab confirmed cases; only 11 death were reported, all the deceased have another serious underlying cause.

Specific control measures to contain this ongoing outbreak and limit its spread to other areas have been reinforced by the concerned governmental departments of the affected provinces with technical support from WHO. The below map show the distribution of confirmed cholera case by district in Kirkuk, Sulymania, Erbil and Dahuk.

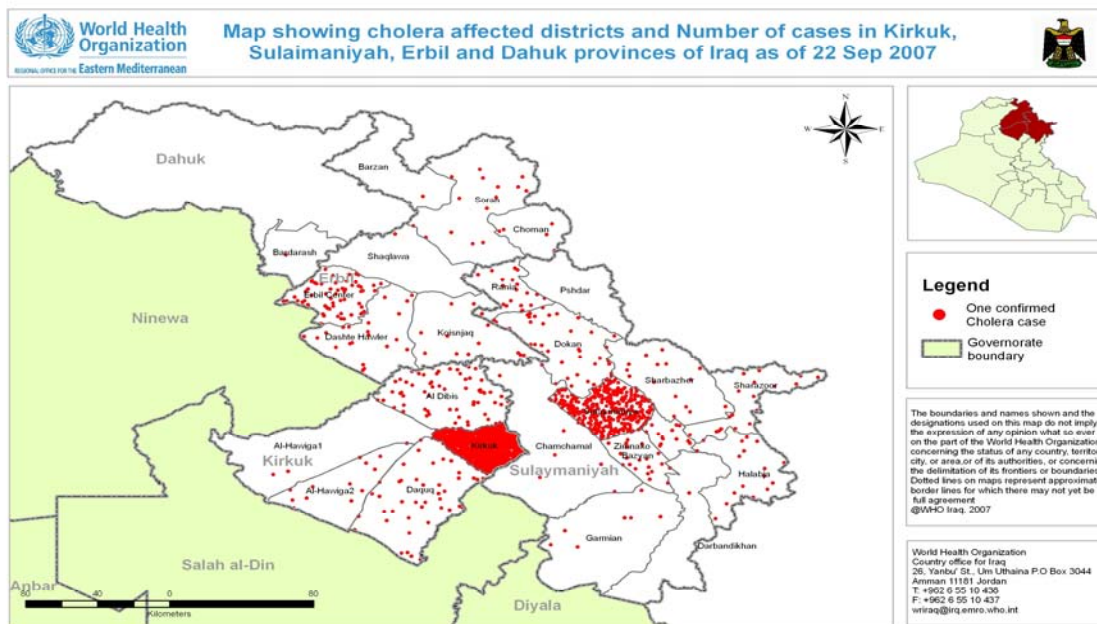
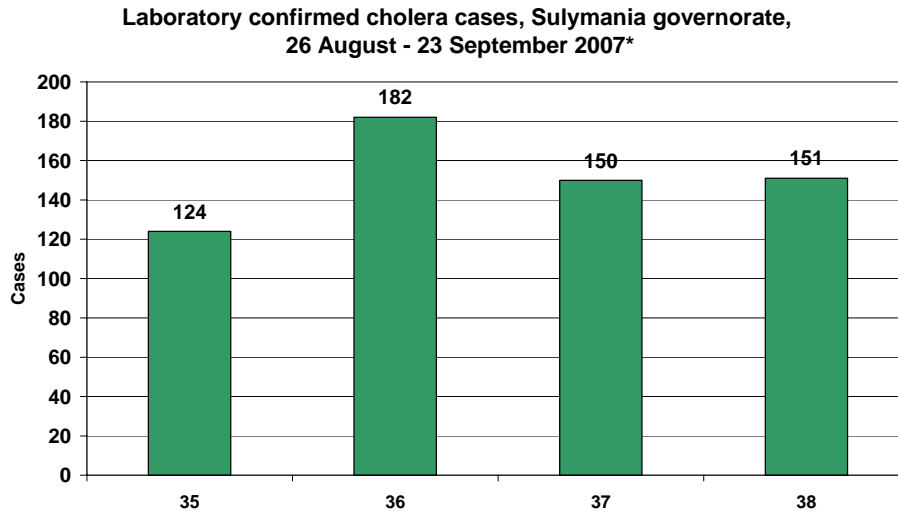


Table-1: Cases of laboratory confirmed cholera cases reported from Iraq

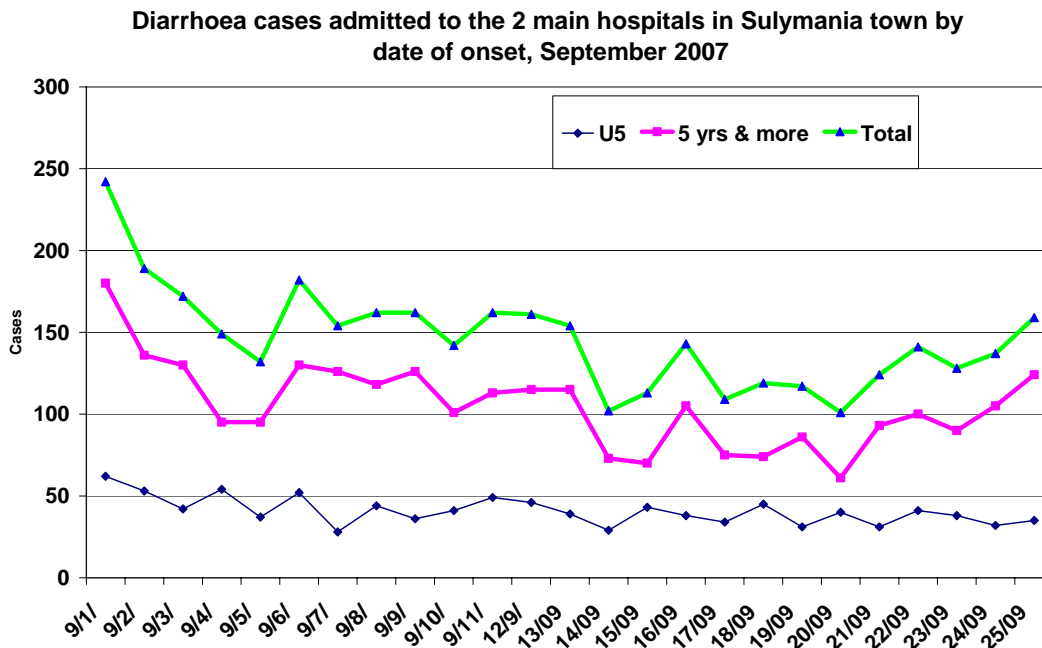
Province	No of districts affected	Date outbreak started	No of deaths reported	laboratory- confirmed case of cholera
Sulaymaniyah	13	23/08/07	9	678
Kirkuk	5	14/08/07	1	1671 including 26 Ogawa
Erbil	7	06/09/07	0	103
Dahuk	1	23/09/07	0	1
Tikrit	1	12/09/07	0	5
Mosul	1	15/09/07	0	2 + 1**
Baghdad-Resafa	1	19/09/07	1	2
Wasit	1	20/09/07	0	1
Basra	1	19/09/07	0	1
Total	31		11	2463

* contacts ** pending CPHL confirmation

3. PATTERN OF TRANSMISSION IN SULAYMANIYAH PROVINCE



The total number of laboratory confirmed cases up to the 25th of September reached 678; the above chart shows that confirmed cases peaked in week 36 and then leveled during the last 2 weeks. It is not yet clear whether this pattern will prevail for some weeks or cases will start to decrease during the upcoming weeks.



70% of confirmed cholera cases were reported from within the capital of Sulymania governorates. The above Chart showing admitted diarrhoea cases to the pediatric and teaching hospitals in Sulymania during the period 1-25 September 2007. It is clear that there is slight down trend the number of admitted below 5 children, as for above 5 cases there is a slight upward trend in the number of admitted cases.

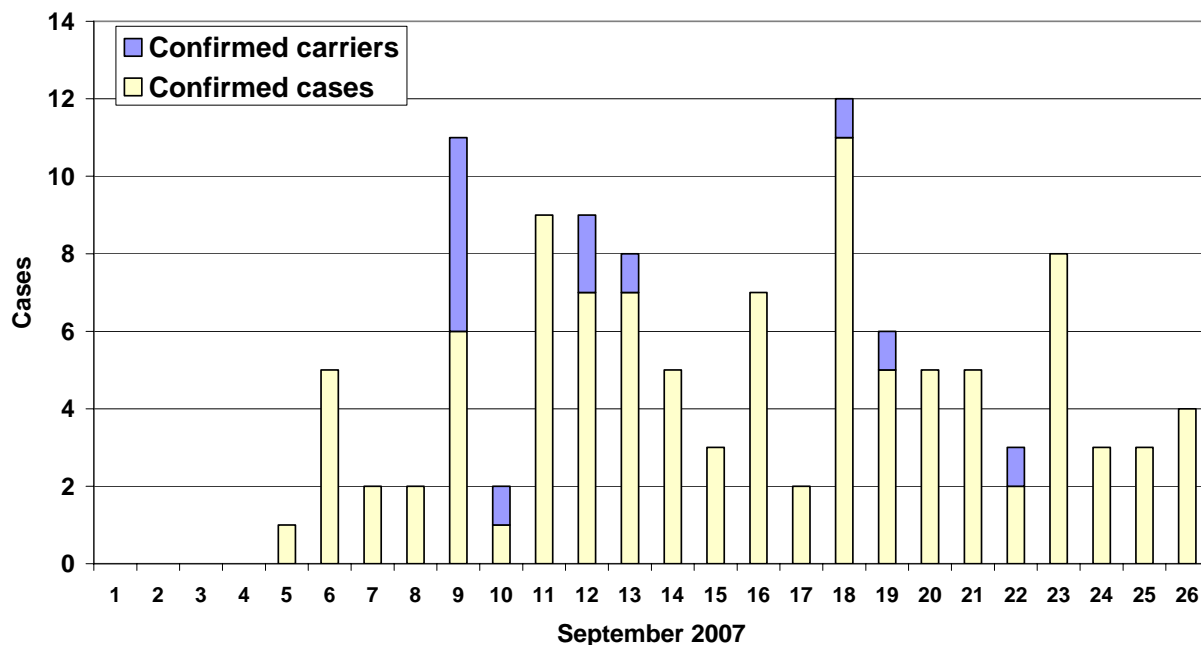
4. PATTERN OF TRANSMISSION IN KIRKUK PROVINCE

65% of the total confirmed cholera cases reported from Iraq, are from Kirkuk province. 90% of Kirkuk province cases are from Kirkuk town. Despite the effort exerted by the DoH authorities; the daily reported diarrhea cases, confirmed cholera cases and severity of the disease seems to be on the increase. In order to coordinate the efforts of the different actors, enhance control and case ascertainment, case management and laboratory performance; HE acting Minister of Health instructed MoH deputy minister Dr. Isam Mamiq to travel to Kirkuk and lead the cholera containment measures for 10 days as of 26/09/2007.

5. PATTERN OF TRANSMISSION IN ERBIL PROVINCE

The below figure; show the number of confirmed V cholera by date of onset for the period 05-26 September 2007. Although it is too early to detect any pattern but the general trend show slight decrease in the daily confirmed cases.

Confirmed cholera cases and contacts, by date of onset, Erbil Governorate, September 2007



The 7 districts in Erbil governorate have reported 103 laboratory-confirmed case of *Vibrio cholerae*. The total number of cases of diarrhoeal disease reported from this province from 1st of September to 25th of September stands at 17073 with no death; 3868 stool samples were collected out of which 116 were positive; 103 for cases and 13 from contacts. Erbil seems to have a fairly sensitive diarrhea disease surveillance system that was able to pick up cholera cases very early and swiftly responded and seems to have succeeded in halting and limiting the spread and magnitude of the out break.

5. SITUATION IN REST OF IRAQ

Apart from three affected provinces of Northern Iraq, in addition to Kirkuk, Baghdad, Basra, DIALA; Tikrit and Mosul; there is no sign that the disease has spread to any other part of Iraq. However, as the weather cools and become more favorable for transmission, the organism is expected to spread to other provinces.

All preventive measures have been taken to reduce the risk of transmission of cholera to other high risk areas. Epidemic preparedness for cholera has been geared up in all provinces. Surveillance system for diarrhoeal disease has been intensified in all provinces.

Operations rooms have also been set up in all these potentially high risk provinces and the prevailing situation, particularly the stock position of emergency drugs and medical supplies are being reviewed regularly by the local coordination committees.