



## WHO Representative's Office in Iraq

### Daily Situation Report on Cholera Outbreak in Northern Iraq

Sitrep number: 15; Date of Reporting: 22<sup>nd</sup> of September 2007

#### 1. New Developments:

- a. **Baghdad and Basra:** The only confirmed cholera case from Baghdad died on 22<sup>nd</sup> of September; bringing the total death from cholera to 11 cases.  
**Diala:** Nothing to add to yesterday's report..
- b. **Tikrit:** Nothing to add to yesterday's report.
- c. **Mosul :** Nothing to add to yesterday's report..

#### 2. OVERVIEW

As of 22<sup>nd</sup> of September 2007, 24 districts of Northern Iraq and 4 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, 6 out of seven districts of Erbil governorate as well as one district in each of Mosul, Tikrit, Baghdad and Basra are now affected by this cholera outbreak. A representative sample of vibrio cholera isolates from Sulymania was sent by WHO today to the US Navy Advanced Research Unit Laboratory in Cairo for further confirmation and phenotypic characterization.

Up to this day 2253 lab confirmed cholera cases (all of the inaba serotype except 8 isolates of the ogawa serotype) were officially reported from Iraq.

95% of cases were reported from Sulymania and Kirkuk in north Iraq, the outbreak seems to be slowly spreading to the neighboring provinces of Erbil and Diala with 105 cases (out of which 12 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 outbreak 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 2253 lab confirmed cases; only 11 deaths were reported, all the deceased have another serious underlying cause.

During the last 5 days we received reports of a new focus in Diala province which is down to the south of the original focus in Sulymania and Kirkuk. In this new focus 12 patients presented to Baladruz, salahaddin and Baquba hospitals with severe dehydrating diarrhea with renal shut down in one of them. Unfortunately, specimens collection was done late in the majority of cases, after patients received antibiotics except in last 2 and culture results -done by inexperienced staff in Baquba general hospital, one of the hottest areas of Iraq- were found negative for V cholera 7 cases, the results for 3 cases are still pending. It is not yet clear whether the organism is becoming more virulent or the population in this new focus is more susceptible to the disease.

WHO is working closely with MoH to send 10% of the positive isolates to the NAMRU3 reference Lab in Cairo for phenotypic characterization. This will consist of antibiotic susceptibility testing, minimal inhibitory concentration testing (E-strips), serotyping, and an API strip confirmation, to better characterize the outbreak.

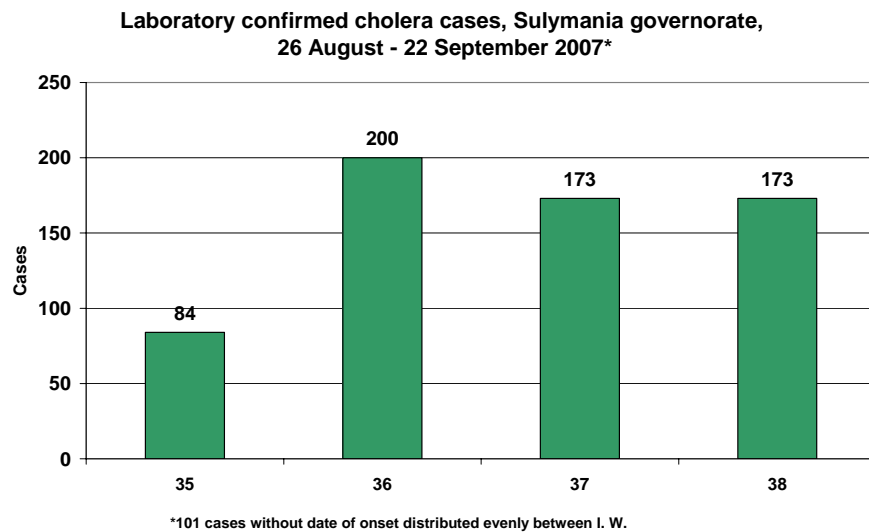
Specific control measures to contain this ongoing outbreak and limit its spread to other areas have been reinforced by the health authorities of the affected provinces with technical support from WHO.

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

Province	No of districts affected	Date outbreak started	No of deaths reported	No of laboratory-confirmed case of cholera
Sulaymaniyah	13	23/08/07	9	630
Kirkuk	5	14/08/07	1	1524
Erbil	6	06/09/07	0	93
Tikrit	1	12/09/07	0	3 +1*
Mosul	1	15/09/07	0	1+1*
Baghdad-Resafa	1	19/09/07	0	1
Basra	1	19/09/07	0	1

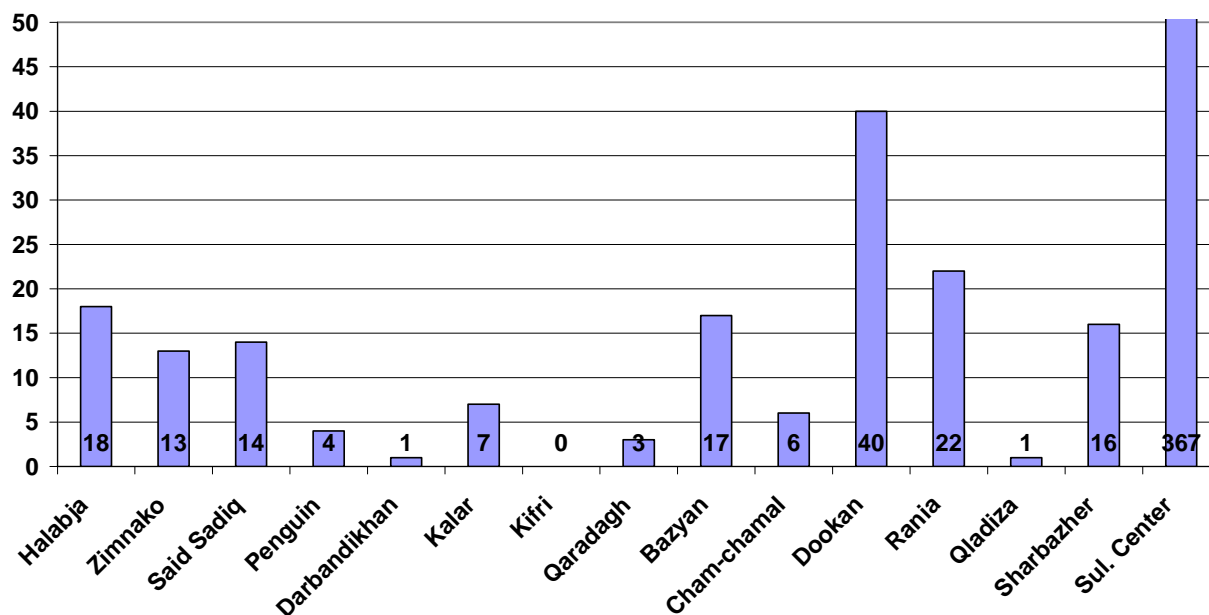
\*One case from Mosul and another from Tikrit are pending central public health lab confirmation

## 2. PATTERN OF TRANSMISSION IN SULAYMANIYAH PROVINCE



The total number of laboratory confirmed cases up to the 22<sup>nd</sup> of September reached 630; the above chart shows that confirmed cases peaked in week 36 and then leveled at 173 cases 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.

**Confirmed cholera cases by district, Sulymania governorate,  
26 August-22 September**



70% of confirmed cholera cases were reported from within the capital of Sulymania governorates. 13 out of the 14 Sulymania governorate districts reported the remaining 30%. It is important to note that Dookan district, named after Dookan Lake, the main source for water supply for Sulymania city reported 40 confirmed cholera cases (8% of the total cases); The water department and health authorities are exerting special effort to protect the lake from any possible contamination by cases or carriers.

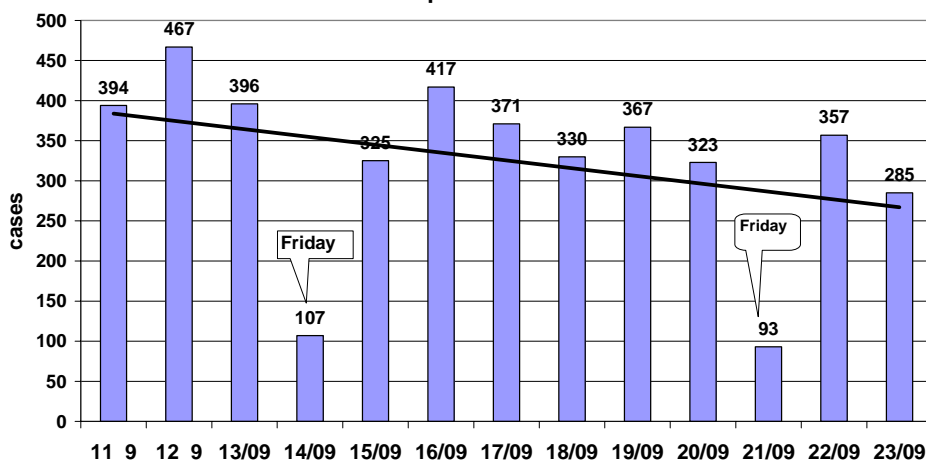
## **2. PATTERN OF TRANSMISSION IN KIRKUK PROVINCE**

68% 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.

## **4. PATTERN OF TRANSMISSION IN ERBIL PROVINCE**

The below figure; show the number of Diarrhea by date of onset for the period 11-23 September 2007. Although it is too early to detect any pattern but the general trend show slight decrease in the daily reported cases, the low number of cases reported on 14 and 21 September reflects the Friday holiday effect.

Reported diarrhoea cases by date of onset , Erbil DoH, 11-23  
September 2007



6 out of the 7 districts in Erbil governorate have reported 93 laboratory-confirmed case of *Vibrio cholerae*. The total number of cases of diarrhoeal disease reported from this province from 1<sup>st</sup> of September to 21 of September stands at 15967 with no death; 3218 stool samples were collected out of which 106 were positive; 93 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 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.