

WHO Representative's Office in Iraq

Situation Report on Cholera Outbreak in Northern Iraq

Sitrep number: 5; Date of Reporting: 10th of September 2007

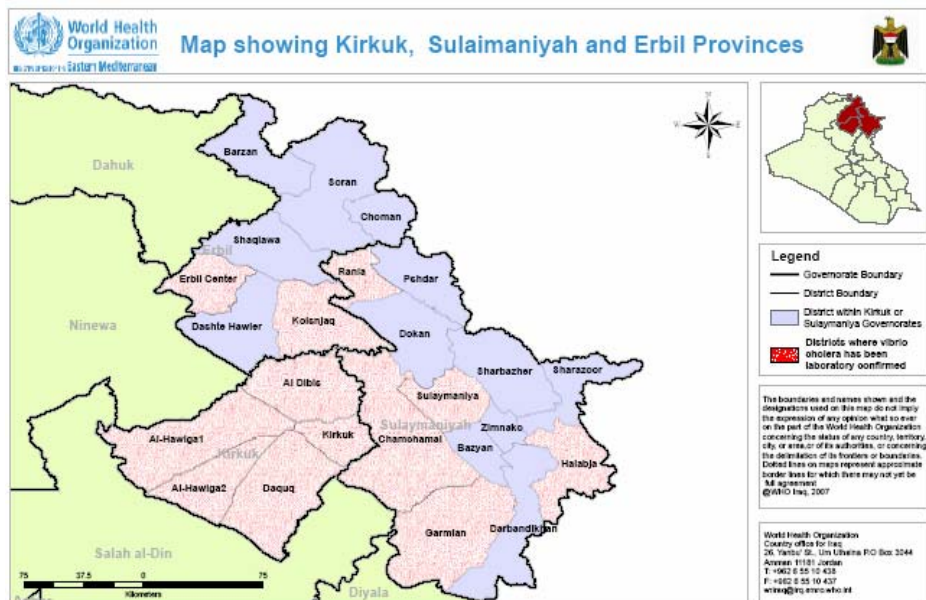
1. OVERVIEW

As of 9th of September 2007, twelve districts of Northern Iraq have reported laboratory-confirmed cases of cholera putting over 2.8 million people exposed to public health risk from this ongoing outbreak. Five out of eleven districts of Sulaymaniyah province, all five districts of Kirkuk province and two out of seven districts of Erbil province are now affected by this cholera outbreak in Northern Iraq. This outbreak, first unfolded in Kirkuk province on 14 August, spread to Sulaymaniyah province on 23 August and then to Erbil province on 6th of September and, so far, claimed 10 lives in Northern Iraq.

From 23 August to 08 September 2007, in Sulaymaniyah province, the cumulative number of cases of acute watery diarrhoea reported from five out of eleven districts stands at 5,309 including 9 deaths with an overall case fatality rate of 0.16%. of these reported cases, *Vibrio cholerae* has been laboratory confirmed in 323 stool specimens.

While during the period from 29 July to 2 September 2007, the health authority of Kirkuk province reported a total of 3,728 cases of acute diarrhoeal disease including 1 death (CFR: 0.026%). The first index case of cholera, confirmed by laboratory test, was reported from Kirkuk province on 14 August 2007. So far, from the Kirkuk province, a total of 291 stool specimens out of 5,610 samples collected have tested positive for *Vibrio cholerae*. Of these, 116 stool specimens out of 3,207 samples (4%) collected tested positive in the month of August and 175 stool specimens out of 2,403 stool specimens (7%) tested positive during the first week of September.

On 6th of September, the first laboratory-confirmed case of cholera was reported for the first time from one of the districts (Erbil centre) of Erbil province. Later on, laboratory confirmed cases were also reported from Koisnjaq district. So far, 21 stool specimens collected from these two districts of Erbil province have tested positive for *Vibrio cholerae* serogroup O1 Inaba. Consolidated figure on cumulative number of cases of acute watery diarrhea since the first index case of *Vibrio cholerae* was laboratory confirmed are still not available.



2. PATTERN OF TRANSMISSION IN SULAYMANIYAH PROVINCE

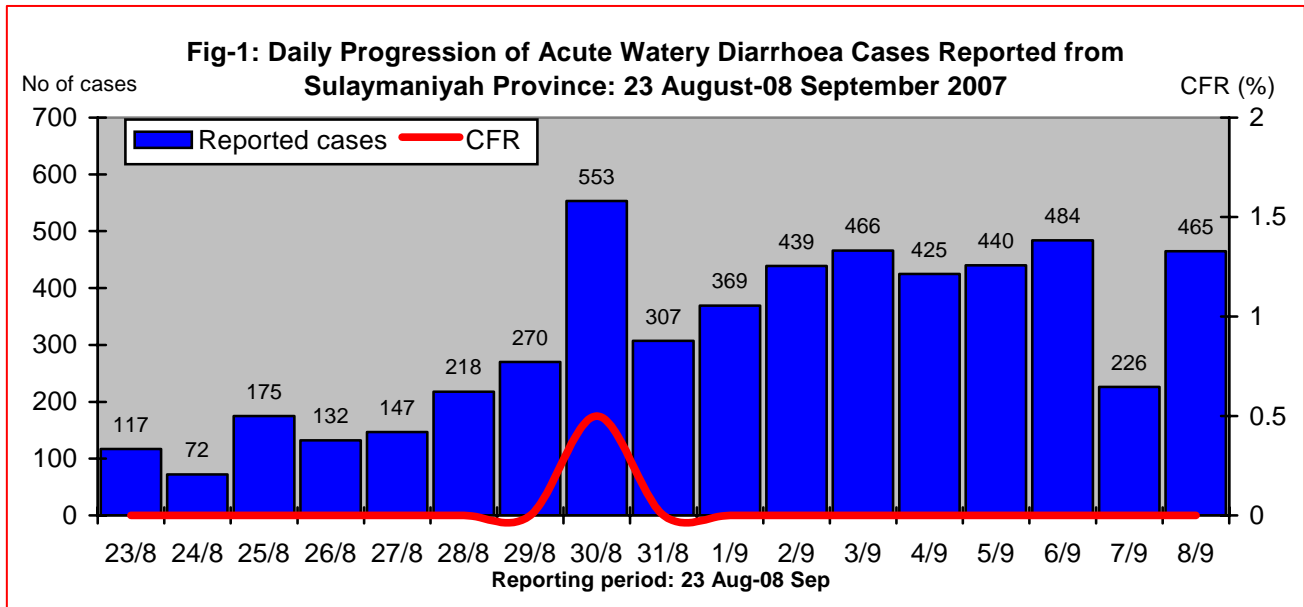
As of 9th of September, the outbreak, since reported for the first time in the province on 23 August, has spread to five out of eleven districts in the province (Please see the map above) exposing over 1.1 million people living in this province to this epidemic risk. As accumulation of surveillance data from the field shows signs of improvement, the overall epidemiological pattern of the outbreak is gradually becoming more conspicuous.

The daily progression of cases, as plotted in figure-1, shows that barring some inadequacies and incompleteness in reporting during the earlier part of this outbreak in Sulaymaniyah province, the number of cases are now gradually increasing and possibly after 1st of September, the reported cases appear to come in a wave which seems to be more uniform and consistent with any outbreak revealing signs of improvement of surveillance system in the province. The sudden drop in cases reported on 7th of September may be attributed to the weekly holiday (Friday) in the province wherein reports were, possibly, not available from all health centres.

Although the outbreak, as illustrated in figure-1, has not shown any definite peak, it is expected that with the improvement of surveillance system, already visible, the transmission pattern of this outbreak could be better explained and the source of exposure could be hypothesized.

It is also unclear (because of lack of representative data) whether the cases are increasing or declining in any particular district compared to other affected districts in the province. Therefore, due to lack of comparable data, the epidemiological trend of the prevailing situation needs to be interpreted with caution.

The majority of cases reported from Sulaymaniyah province belong to the over 5 year age group. Comparable data on distribution of reported cases by two broad age groups (Under 5 and over 5 year age group), available since 29th of August, reveals that between 29 August and 8 September 2007, a total of 3,930 cases of acute watery diarrhoea were reported in the above 5 year age group from Sulaymaniyah province compared to only 514 cases reported during the same period in the below 5 year age group.



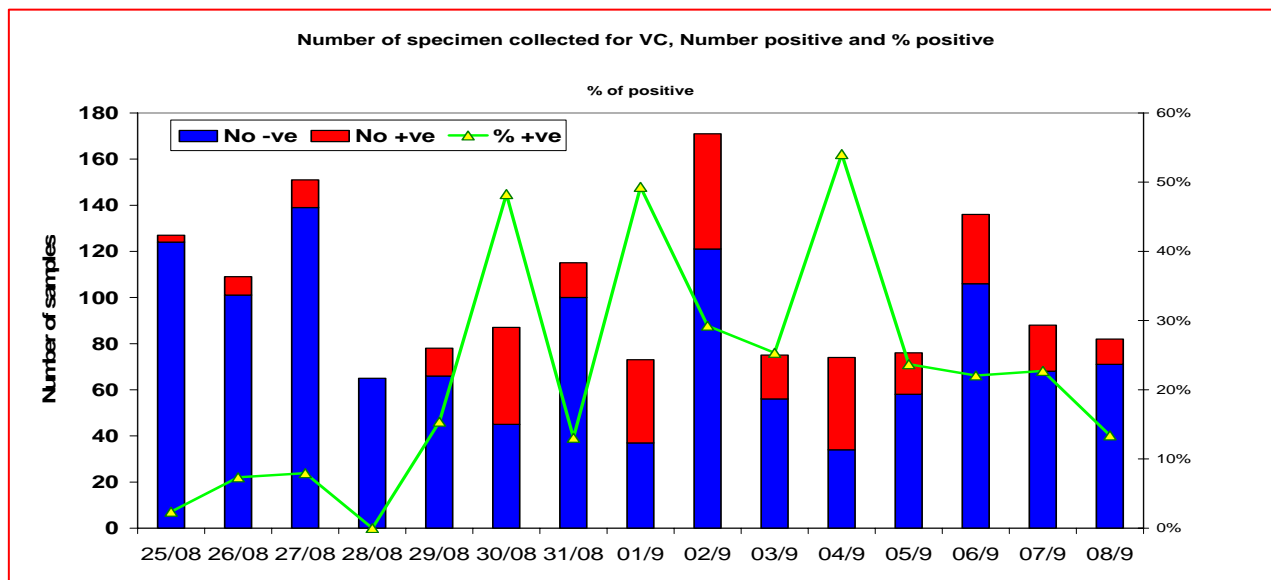
Source: Daily report of Ministry of Health, Baghdad.

3. POSITIVITY TREND OF *VIBRIO CHOLERA*E IN SULAYMANIYAH PROVINCE

Since the outbreak was confirmed by laboratory test, adequate number of stools samples are still being collected from the suspected cases as part of laboratory based surveillance to monitor the microbial sensitivity pattern. The strain of *Vibrio cholerae* serogroup 01 Inaba isolated from Sulaymaniyah province is

shown to be sensitive to all commonly used antibiotics except Cotrimoxazole to which the strain has been found to be resistant.

Both the number and the ratio of positive samples to the total number of stool samples collected from the suspected cases are gradually decreasing in recent time (as shown in the figure below). For example, during the initial period of the outbreak (25th to 28th of August), the positivity rate of detection of *Vibrio cholerae* from the stool samples was in the range of 2 to 8 percent which increased to 25 to 50 percent during the period from 01 to 05 September and thereafter, from 06 September onwards, the positivity rate has decreased to a level between 15 to 25 percent again.



3. PATTERN OF TRANSMISSION IN KIRKUK PROVINCE

Data from Kirkuk province are not available

4. PATTERN OF TRANSMISSION IN ERBIL PROVINCE

Data from Erbil province are not available.

5. SITUATION IN REST OF IRAQ

Apart from three provinces of Northern Iraq, no other districts of any province of Iraq have reported any laboratory-confirmed case of cholera. Epidemic preparedness for cholera has been geared up in all neighbouring districts of the cholera affected provinces and as part of this preparedness measures, surveillance system for diarrhoeal disease, in general, has been strengthened in all these neighbouring districts which are considered to be at high risk for spread of this outbreak. A laboratory based surveillance system has been established in all these neighbouring districts and stool samples are being collected regularly from suspected cases and laboratory tested in order to detect any cholera case early and provide an early alert to the health authority of an impending outbreak. In addition, a daily reporting system for diarrhoeal diseases has also been introduced in all these potentially high risk districts.

So far, none of these daily reports has suggested any evolving risk. For example, the Salah Eldin province which is geographic proximity to Erbil province has reported a total number of 242 cases of diarrhoeal disease in last 24 hours of which 40 cases were admitted in different hospitals of the province. Of these, 115 cases were sampled but no stool sample tested positive for *Vibrio cholerae*. Similar efforts are underway in rest of Iraq and daily reports and the laboratory result of stool samples are analyzed regularly.

6. URGENT NEEDS

WR-Iraq who is currently in Baghdad, met the Acting Minister of Health of Iraq, senior MOH officials and parliamentarian members for health yesterday (9th of September, 2007) to seek their active support for the cholera outbreak response in Northern Iraq and for the cholera epidemic preparedness plan in rest of Iraq. Following the meeting, the government of Iraq allocated USD 30 million to support the plan which will focus on intensifying surveillance and public education for cholera prevention. As a follow up to this meeting, it has been decided that H.E. the Deputy Prime Minister of Iraq would chair a high level inter-ministerial task force on cholera which will provide multi-sectoral support to the MOH's ongoing cholera preparedness and response operations in northern and rest of Iraq.

While surveillance system for acute watery diarrhea/cholera is showing signs of improvement in general, there is an urgent need to improve it further in order to obtain better quality data for continuous risk assessment and assess the effectiveness of the control measures real time. In order to strengthen the surveillance system for acute watery diarrhea/cholera in the affected districts of Northern Iraq, two international qualified epidemiologists needs to be deployed temporarily (One in Sulaymaniyah province and the other in Kirkuk province) to assist the local health authority in improving surveillance, conducting case investigation, imparting training to the rapid response team members for outbreak verification etc.

In terms of medical and laboratory supplies, the current need is to expedite the shipment of 10 Inter Agency Diarrhoeal Disease Kits to Erbil and 5000 rapid diagnostic kits (SMART kits) to Northern Iraq
