

## WHO Representative's Office in Iraq

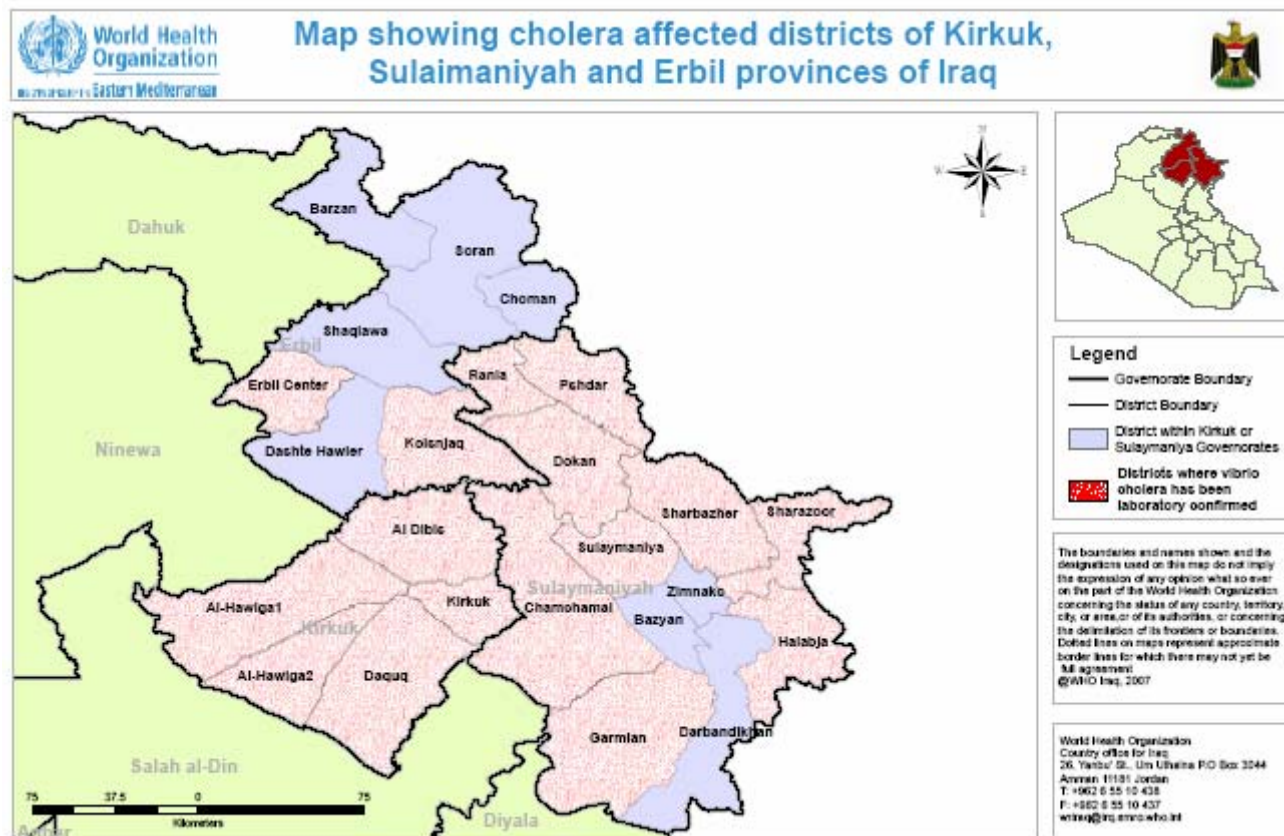
### Daily Situation Report on Cholera Outbreak in Northern Iraq

Sitrep number: 7; Date of Reporting: 12<sup>th</sup> of September 2007

#### 1. OVERVIEW

As of 11<sup>th</sup> of September 2007, sixteen districts of Northern Iraq have reported laboratory-confirmed cases of cholera putting over 3 million people exposed to public health risk from this ongoing outbreak. Nine 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 6<sup>th</sup> of September caused 10 deaths so far and continues to be of major threat to public health in the region.

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 strong technical support from WHO.



From 23 August to 10 September 2007, the cumulative number of cases of acute watery diarrhoea reported from five out of eleven districts of Sulaymaniyah province stands at 6,142 including 9 deaths with an overall case fatality rate of 0.14%. Of these reported cases, *Vibrio cholerae* has been laboratory confirmed in 339 stool specimens.

While during the period from 29 July to 11 September 2007, the health authority of Kirkuk province reported a total of 6,368 cases of acute diarrhoeal disease including 1 death (CFR: 0.01%). 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 482 stool specimens were tested positive for *Vibrio cholerae*.

On 6<sup>th</sup> 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, 23 stool specimens collected from these two districts of Erbil province have tested positive for *Vibrio cholerae* serogroup 01 Inaba. Although cumulative number of cases of acute watery diarrhoea since the first index case of *Vibrio cholerae* was laboratory confirmed is still not available, the Communicable Disease Control unit of Erbil Directorate of Health reported 3,406 cases of diarrhoeal disease with no death from the entire province between 1<sup>st</sup> of September and 10<sup>th</sup> of September, 2007.

**Table-1: Cases of AWD and diarrhoeal diseases reported from three provinces of Northern Iraq**

Province	No of districts affected	Date outbreak started	No of AWD/DD cases reported	No of deaths reported	CFR (%)
Sulaymaniyah	5	23/08/07	6,142	9	0.14
Kirkuk	5	14/08/07	6,368	1	0.01
Erbil	2	06/09/07	3,406	0	0

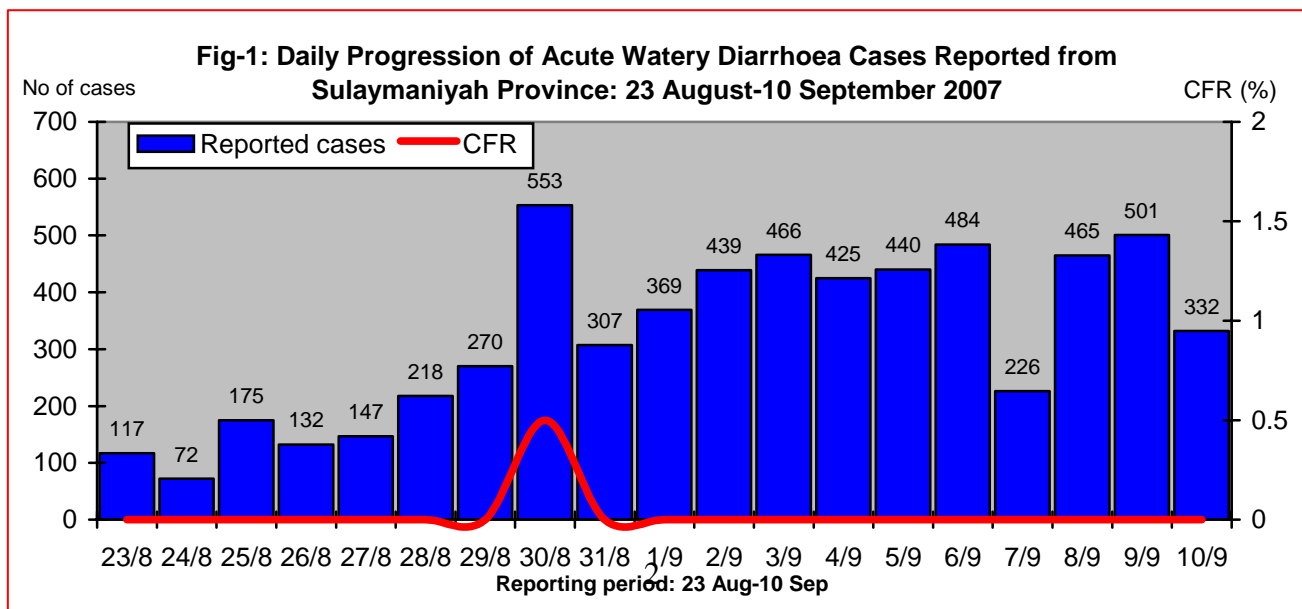
Note: The time period of these reported cases varies from one province to another. For details please refer to the text above.

## 2. PATTERN OF TRANSMISSION IN SULAYMANIYAH PROVINCE

As of 10<sup>th</sup> of September, the outbreak, since unfolded in the province on 23 August, has spread to eight out of eleven districts in the province (Please see the map above) exposing over 1.3 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 1<sup>st</sup> of September, the reported cases are appearing to come in a wave which seems to be more consistent with any outbreak. The apparent increase in number of reported cases in recent time compared to the immediate past may also be attributed to improvement in surveillance system in the province as the recent reports received from the field suggests that surveillance data are now being collected and assimilated from all the hospitals as well as from primary health centers in the province. The sudden drop in cases reported on 7<sup>th</sup> of September may be due to the weekly holiday (Friday) in the province wherein reports were, possibly, not received or available from all health centres.

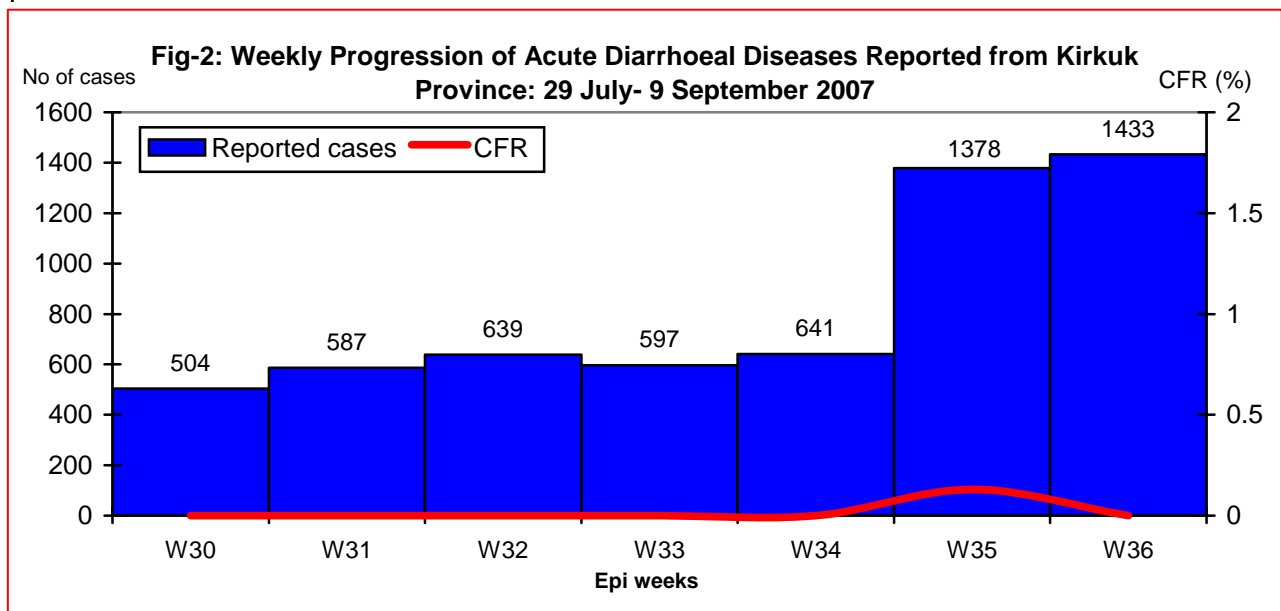
Although the outbreak, as illustrated in figure-1, has not shown any definite peak, it is expected that with the improvement of surveillance system, already visible, the transmission pattern of this outbreak could be better explained in the coming weeks. Therefore, owing to lack of comprehensive surveillance data, the overall 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 29<sup>th</sup> of August, reveals that between 29 August and 9 September 2007, a total of 4,289 cases of acute watery diarrhea were reported in the above 5 year age group from Sulaymaniyah province compared to only 599 cases reported during the same period in the below 5 year age group.

### 3. SITUATION IN KIRKUK PROVINCE

The weekly progression of cases reported from Kirkuk province and as shown in figure-2 clearly indicates an increase of case load in recent week compared to the preceding weeks. This increased number could be due to improved reporting, increased public awareness resulting in more cases seeking consultation in health centres, an actual increase of case load as the outbreak keeps unfolding and more and more people are being exposed to the source of infection or a combination of both. Of the 6,368 cases reported from Kirkuk province from 29<sup>th</sup> July to 11<sup>th</sup> of September 2007, it is still not clear how many of these reported cases of diarrhoeal diseases are attributable to cholera since the first index case of cholera, confirmed by laboratory test, was reported on 14 August 2007 (epi week no 33) and up until now, only aggregate data on case counts of all diarrhoeal diseases are available. As the surveillance systems for cholera improves throughout the province with more comprehensive surveillance data on cholera available from the field, the real extent of the burden of cholera in the province could be recognized.



Note: The figure shows weekly progression of cases of diarrhoeal diseases from epidemiological week no 30 to 36 ( Reporting period: 29 July to 09 September 2007)

### 4. SITUATION IN ERBIL PROVINCE

Apart from Erbil centre and Koisanjaq district, no other district in the province has, so far, reported any laboratory-confirmed case of *Vibrio cholerae*. The provincial health authority has intensified preventive measures to limit further spread of the outbreak to other non affected areas. An operation room has been set up with the local governor in the chair to coordinate overall operational response to this outbreak. All control measures have been intensified across the province. Epidemiological field investigation has also been initiated by the health authority

## 5. SITUATION IN REST OF IRAQ

Apart from three affected provinces of Northern Iraq, there is no sign that the disease has spread to any other part of Iraq. One stool sample collected from a suspected case in Baghdad has tested negative for *Vibrio Cholerae*. All preventive measures have been taken to reduce the risk of transmission of cholera. Epidemic preparedness for cholera has been geared up in all the neighbouring provinces of cholera affected areas and as part of it, surveillance system for diarrhoeal disease has been intensified in all these neighbouring provinces which are considered to be at high risk for spread of this outbreak.

A laboratory based surveillance system has been established in all the districts of these neighbouring provinces, stool samples are being collected regularly from suspected cases and tested in order to detect any cholera case early as well as provide an early alert to the health authority of an impending outbreak. In addition, a daily reporting system for diarrhoeal diseases has been introduced in all these potentially high risk provinces..

So far, none of these daily reports has suggested any evolving risk. For example, the Ninawa province which is geographic proximity to both Erbil and Kirkuk province has reported a total number of 392 cases of diarrhoeal disease in last 24 hours of which 70 cases were admitted in different hospitals of the province. Of these, 305 cases were sampled but no stool sample tested positive for *Vibrio cholerae*.

Similarly in Thi-Qar province, out of 37 cases of diarrhoeal diseases reported during last 24 hours, 22 cases were sampled but none of the stool sample collected tested positive for *Vibrio cholerae*

In Salah al-Din province, on the other hand, which neighbours the affected Kirkuk province, 93 stool samples collected from suspected cases of diarrhoeal disease as part of laboratory based surveillance did not yield any positive result. Similar efforts are underway in rest of Iraq and daily reports and the laboratory result of stool samples are analyzed regularly.

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. So far none of these provinces have reported any shortage of medical supplies.

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