

## WHO Representative's Office in Iraq

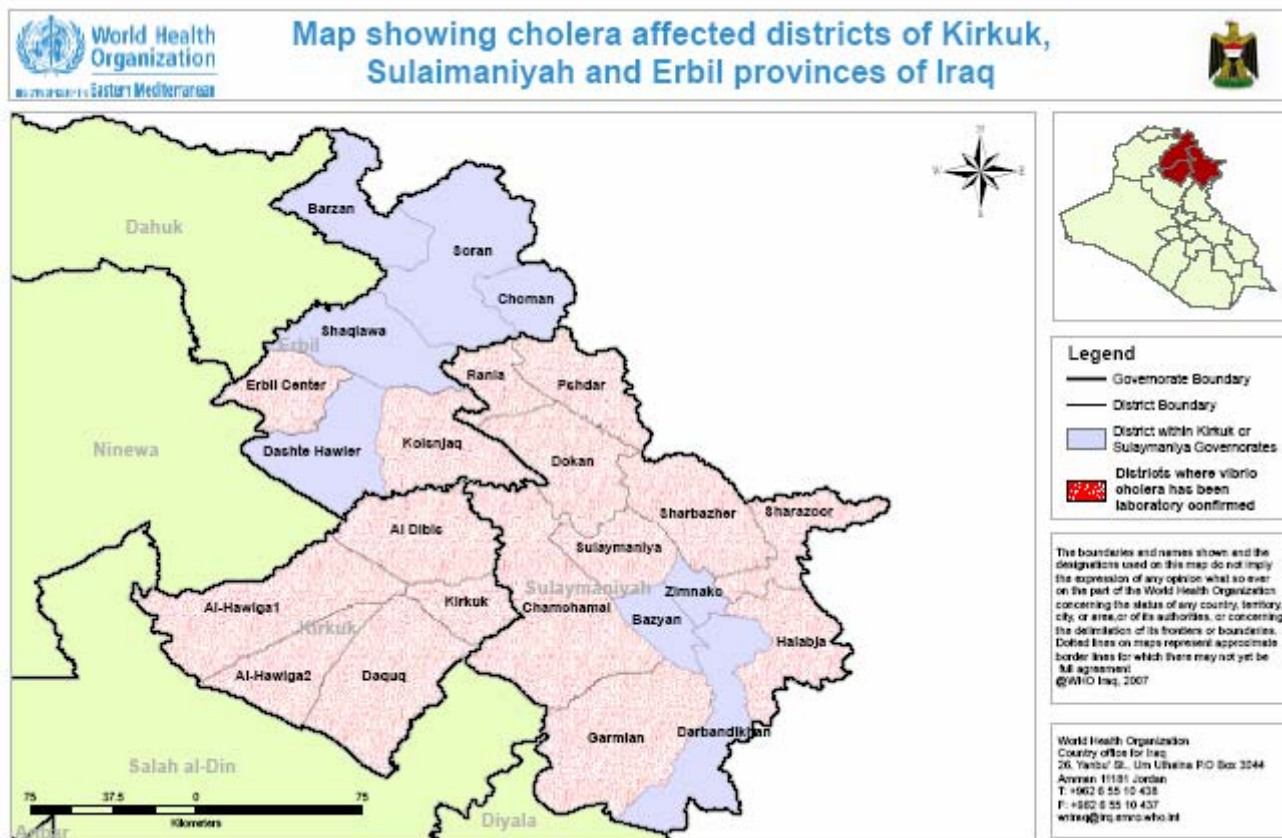
### Daily Situation Report on Cholera Outbreak in Northern Iraq

Sitrep number: 8; Date of Reporting: 13<sup>th</sup> of September 2007

#### 1. OVERVIEW

As of 12<sup>th</sup> of September 2007, twenty one districts of Northern Iraq have reported laboratory-confirmed cases of cholera putting over 3.5 million people exposed to risk from this ongoing outbreak. Fourteen out of sixteen 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 technical support from WHO.



From 23 August to 10 September 2007, the cumulative number of cases of diarrhoeal disease reported from fourteen out of sixteen 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 392 stool specimens.

While during the period from 29 July to 12 September 2007, the health authority of Kirkuk province reported a total of 6,749 cases of 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 630 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, 33 stool specimens have tested positive for *Vibrio cholerae* serogroup O1 Inaba in this province. Although cumulative number of cases of acute watery diarrhea 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 11,641 cases of diarrhoeal disease with no death from the entire province from 1<sup>st</sup> of September to 10<sup>th</sup> of September, 2007.

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

Province	No of districts affected	Date outbreak started	No of DDs reported	No of deaths reported	CFR (%)
Sulaymaniyah	5	23/08/07	6,142	9	0.14
Kirkuk	5	14/08/07	6,749	1	0.01
Erbil	2	06/09/07	11,641	0	0

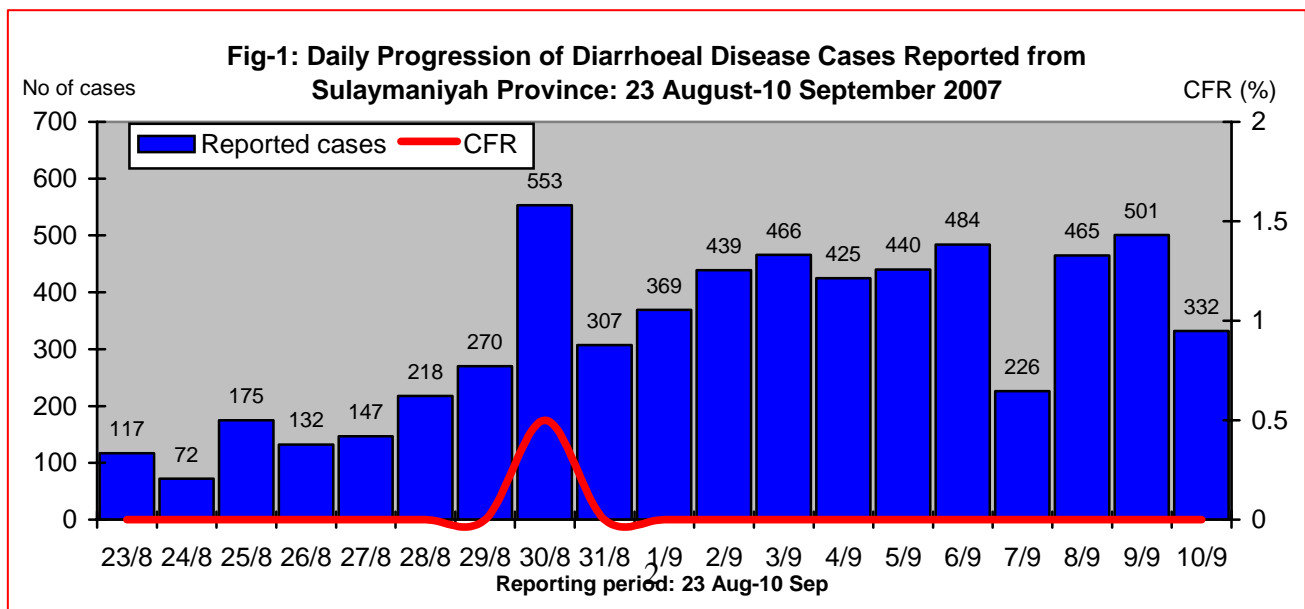
Note: The time period of these reported cases varies from one province to another. For details please refer to the text above.

## 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.

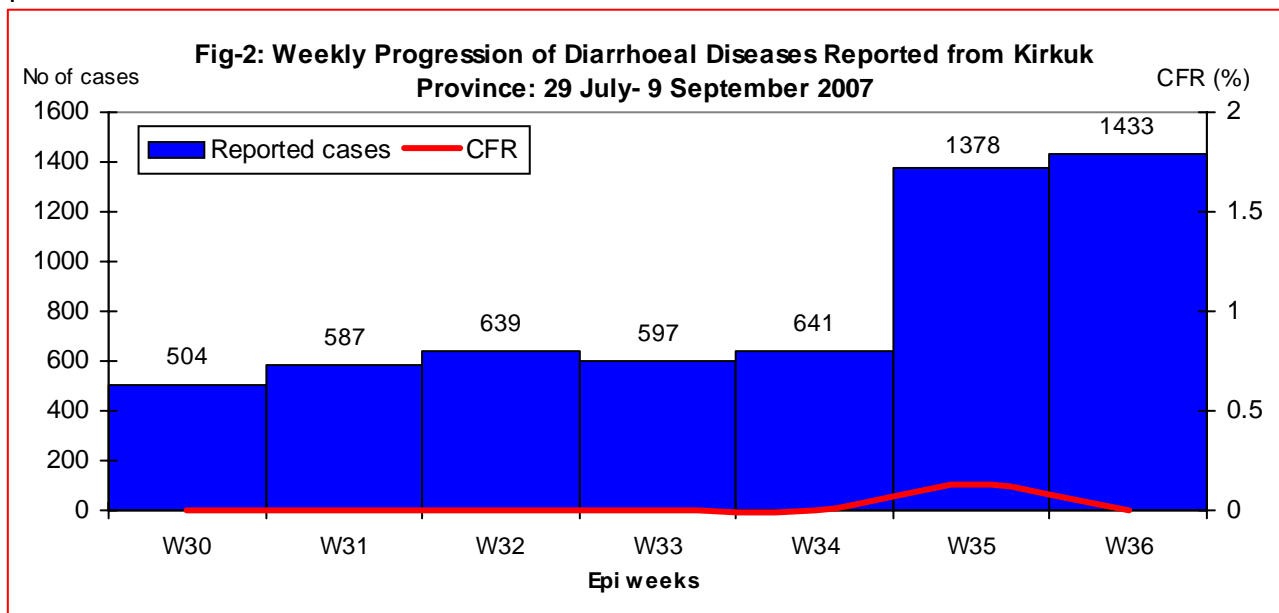
Although the outbreak, as illustrated in figure-1, has not shown any definite peak, it is expected that with the improvement of surveillance system, already visible, the transmission pattern of this outbreak could be better explained in the coming weeks. Therefore, owing to lack of comprehensive surveillance 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 diarrhoea 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 6,749 cases reported from Kirkuk province from 29<sup>th</sup> July to 12<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 Koisnjq district, no other district in the province has, so far, reported any 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 10<sup>th</sup> of September stands at 11,641 with no death, 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. However, one stool sample collected from Mousul has shown positive growth for *Vibrio Cholera* at the local public health laboratory which is now being retested at the National Public Health Laboratory in Baghdad. Another 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.

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.

## 6. ONGOING CONTROL MEASURES FOR CONATINMENT OF OUTBREAK

The provincial health authorities of Sulaymaniyah and Kirkuk province have initiated a number of public health control measures to contain the current wave of cholera outbreak. WHO-Iraq is actively involved in the containment of this outbreak providing technical assistance to the health authorities for risk assessment, strengthening surveillance, improving coordination and information flow, standardizing case management, mobilizing medical and other essential supplies as well as in organizing social mobilization and health education campaigns for risk communication.

- **Coordination and Information management:** A high level national committee on cholera preparedness and outbreak has been established in Iraq under the leadership of H.E. Dr Abdul Samad, the Acting Minister of Health. The committee draws members from all related sectors and disciplines who are involved in response operations. The OIC of WHO Office in Baghdad is also a member of this committee. The committee regularly reviews the situations and takes important strategic decisions to improve the quality of interventions that are aimed at both controlling as well as limiting the spread of present outbreak. Necessary operational support in terms of mobilizing financial, logistics and human resources are also being extended by this high level committee to the health authorities of the affected provinces. Similar mirror image committees are set up in all Directorates of Iraq which are chaired by the respective Governors while there are technical committees in each of the affected provinces to back up the decisions of these coordination committees in terms of operational response which are usually chaired by the Director General of Health Services. Operations rooms have been set up at the provincial ministry of health in order to better manage information flow.
- **Surveillance for cholera:** WHO-Iraq office is continuing to support all the health authorities in Iraq to strengthen its surveillance system for generating better quality comprehensive data on the current outbreak. Necessary surveillance guidelines, case definitions and reporting forms have been distributed to all hospitals and health centres for notifying cases. A number of training courses have also been organized for the surveillance officers on data management. Five training courses are being organized for the laboratory technicians to improve the competency of the local laboratory technicians on cholera diagnostic assay. A laboratory based surveillance system has been established in all the districts of the provinces which are in geographic proximity to the affected areas. Stool samples are being collected regularly from suspected cases and tested in order to detect any cholera case early as well as to provide an early alert for an impending outbreak. In addition, a daily reporting system for diarrhoeal diseases has been introduced in all the potentially high risk districts

- **Case management:** WHO-Iraq office has printed 5000 posters on WHO's standard case management guideline for cholera and 5000 posters on cholera outbreak assessment which have been distributed to the health authorities of the affected provinces in an attempt to standardize case management of cholera cases in all health-care settings. WHO-Iraq has also conducted a series of hands-on training courses on case management for health care providers.
  - **Risk communication:** Religious leaders, community heads, medical, nursing and pharmacy students have been involved in organizing health education campaigns in the affected areas in order to raise public awareness for maintaining minimum hygiene standards and food safety at every household level WHO-Iraq office has reproduced 7,000 posters on WHO's Key Food safety messages in Kurdish language.
  - **Improving environmental management:** All the public water supply systems (Piped water supply, household tanks, deep wells, private wells, deep tubewells, etc).in the affected provinces have been chlorinated by the provincial authority. In addition, water samples from the public water supply sources are being collected and tested routinely to detect water contamination. In Sulaymaniyah province, several field teams have been formed and necessary logistics and transports provided by the authority for water quality surveillance and control programme. The chlorinators have been trained by WHO on treating contaminated water using chlorination before they have been deployed in the field. Chlorine powders and chlorine tablets have been made available in all the affected areas. More than 1100 families who were without public water supply have been distributed family hygiene kits containing soap, bucket and chlorine tablets. The chlorine tablets are being distributed along with necessary instructions on how to use the chlorine tablets. Clean and safe water are also being distributed to the families living in the affected areas through water tankers. Improving the sanitation situation of the affected families have been promoted through hygienic disposal of sewage.
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