

WHO Representative's Office in Iraq

Daily Situation Report on Cholera Outbreak in Northern Iraq

Sitrep number: 12; Date of Reporting: 19th of September 2007

1. New Developments:

- a. **Baghdad:** The first laboratory confirmed case of cholera of the inaba serotype, in Baghdad was reported on 19th of September for a 25 year old female who live in Jisr Diala area/ Mada'en district of Baghdad Resafa. The case is still admitted to Zaafraniyah hospital.
- b. **Basra: Basra:** (Modiana district) On the 17th of September, a 7 month; breast and bottle fed child, presenting with fever and diarrhea for 6 days tested positive for *vibrio cholera* of the *Inaba serotype*. The isolate was sent on 18th of September to the CPHL and confirmed *vibrio cholera* of the *Inaba serotype* on 19/09. 511 cases of acute watery diarrhea were reported from Basra on the 18th of September; out of the 511 cases 17 were admitted to hospital. None of the 511 samples tested was positive for vibrio cholera.
- c. **Diala:** The stool samples of 3 out of the 4 patients (reported on sitrep 10) tested negative for cholera organism in Baquba general hospital, however, all patients were on antibiotics before collection of specimens. All are diagnosed by treating doctors as cholera on clinical grounds. The 4th cases is a 9 month child admitted at Al- Batool pediatric hospital in Diala, stool specimen results expected tomorrow.
- d. **Tikrit:** No secondary cases were reported following the case reported in sitrep 10
- e. **Mosul :** Despite high quality surveillance no additional suspect or confirmed cases were reported from Mosul directorate of health following cases reported in sitrep 10 .
- f. **Falluja:** For the first time in 2 years, WHO was able to establish daily reports with Falluja general hospital and falluja district. Daily reports shows that a diarrhoeal disease surveillance has been set and stool samples are collected from 15-19% of admitted diarrhea cases. All specimens collected since the beginning of the month were negative for cholera organism

OVERVIEW

As of 18th of September 2007, 25 districts of Northern Iraq and 4 districts in the south and center have reported laboratory-confirmed cases of cholera. 12 out of the 14 districts of Sulaymaniyah governorate, all five districts of Kirkuk governorate, 4 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. Preparations are being made to send a representative number of vibrio cholera isolates to a reference laboratory for further confirmation and genomic sequencing.

This outbreak, first unfolded in Kirkuk province on 14 August spread to Sulaymaniyah governorate on 25 August and then to Erbil governorate on 6th of September. The outbreak has so far caused 10 deaths and continues to be a major threat to public health in Iraq. Over 27 million people living in Iraq are presumed to be exposed to this epidemic risk. More than 80% of confirmed cholera cases occurred among adults; 54% of cases were reported among females which is an indication of indoors or house hold mode of transmission strongly incriminating water or food or person to person transmission rather than restaurants or public places that are usually frequented by males.

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.

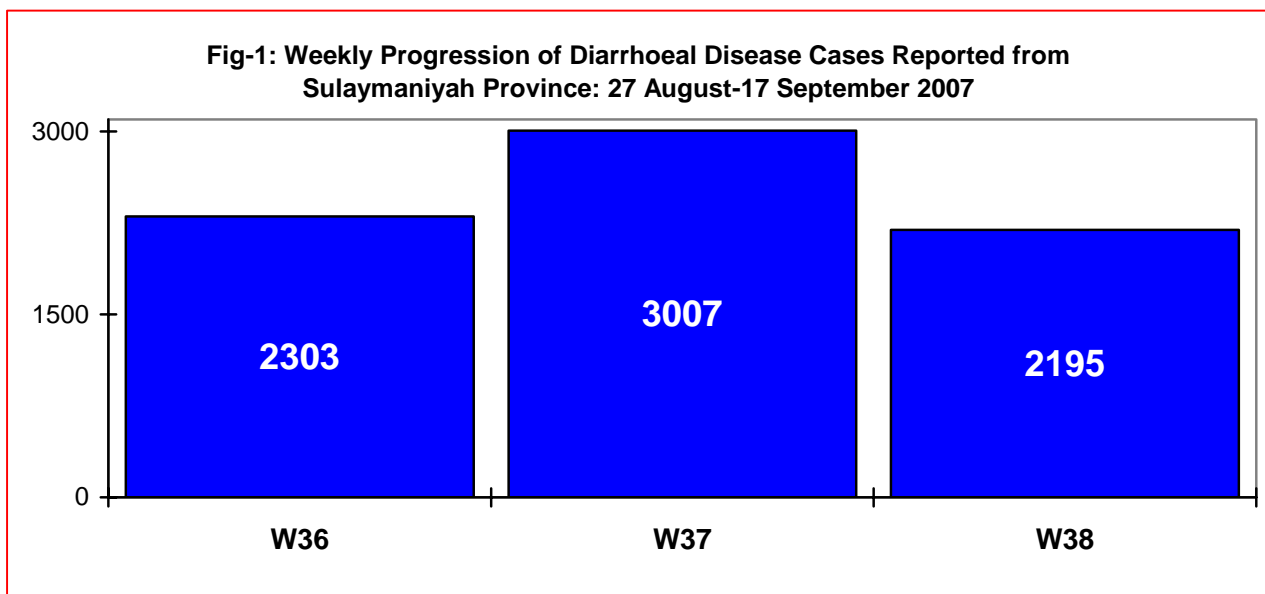
Table-1: Cases of laboratory confirmed cholera cases reported from Iraq

Province	No of districts affected	Date outbreak started	No of deaths reported	No of laboratory-confirmed case of cholera
Sulaymaniyah	12	23/08/07	9	534
Kirkuk	5	14/08/07	1	1028
Erbil	4	06/09/07	0	68
Mosul	1	15/09/07	0	1
Baghdad-Resafa	1	19/09/07	0	1
Basra	1	19/09/07	0	1

2. PATTERN OF TRANSMISSION IN SULAYMANIYAH PROVINCE

Although the number of diarrhea cases, as illustrated in figure-1, has not shown a definite peak at week 37, it is very early to say that the outbreak is slowing down. The transmission pattern of diarrhoea 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.

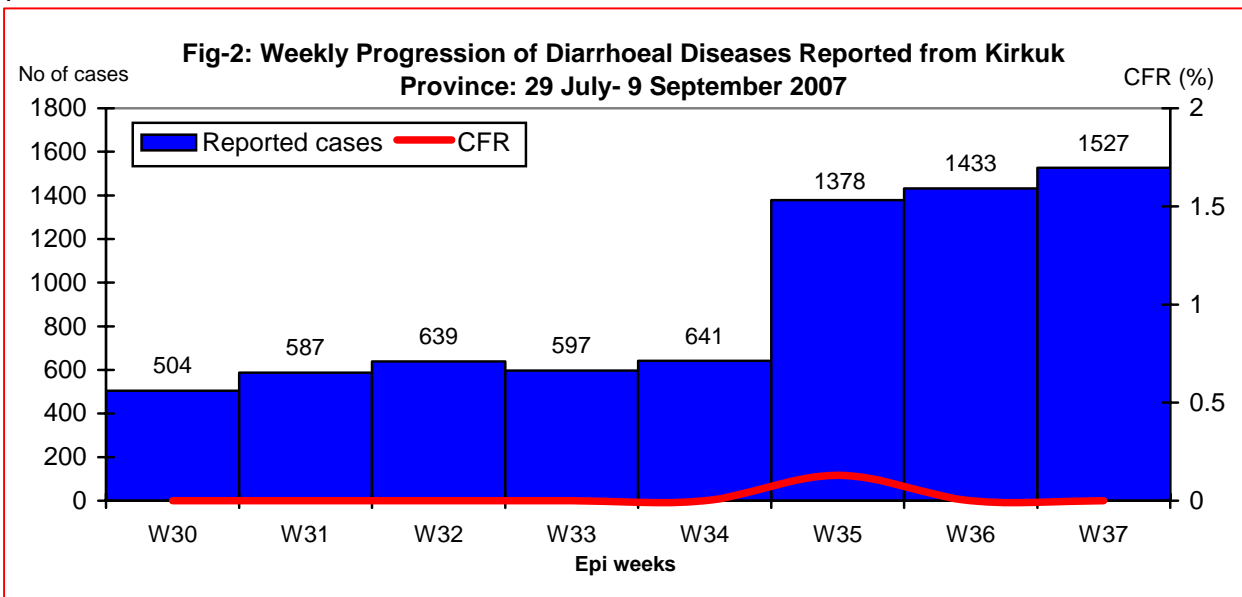
An example of the huge effort and the amount of resources dedicated for the cholera surveillance is the load facing the Public Health Laboratory and the district laboratories. A total of 5000 stool specimens were tested; 2827 in the Public Health Laboratory and 2173 in district laboratories of Rania, Chamchamal and Kalar. Out of the 5000 tested stool specimens 528 were positive for vibrio cholera of the inaba serotype and 6 were positive for vibrio cholera of the ogawa serotype. In addition to this activity, as the schools were opened 17th September, the school health teams concentrated on the issues of water safety and close



monitoring of hygiene.

3. PATTERN OF TRANSMISSION IN KIRKUK PROVINCE

The weekly progression of diarrhea cases reported from Kirkuk province and as shown in figure-2 clearly indicates an increase of case load in the last 3 weeks 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. As the surveillance systems for diarrhoea improves throughout the province with more comprehensive data available from the field, the real extent of the burden of disease in the province could be better recognized. The mapping of positive cholera cases have shown that majority of cases are localized in kirkuk city (Over 90%) itself.



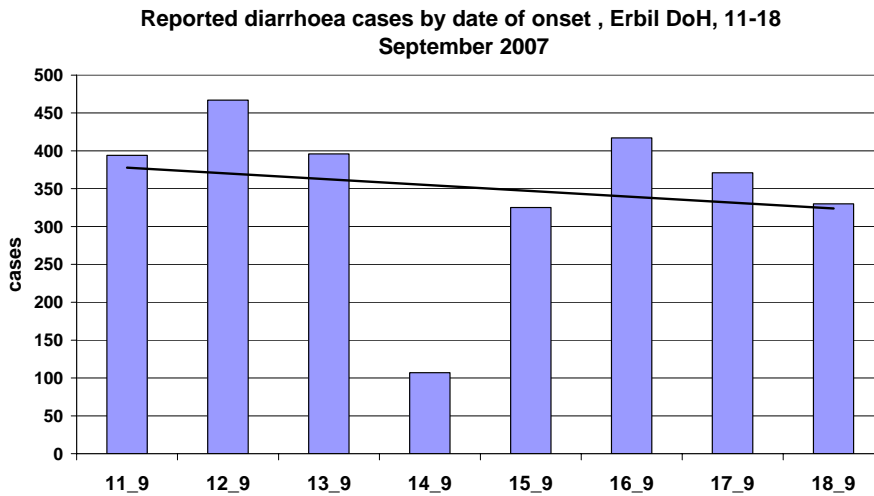
Note: The figure shows weekly progression of cases of diarrhoeal diseases from epidemiological week no 30 to 37 (Reporting period: 29 July to 09 September 2007)

The number of diarrhea diseases reported in 2007 between epidemiological weeks no 30 and 37 shows an overall increase of 17% compared with the number of diarrhea disease cases reported from Kirkuk during the same period in 2006. While the increase in cases reported in the under 5 year age group is less (6%), there is an overall increase of 30% between the cases reported in the above 5 year age group between the comparable periods of 2006 and 2007.

There is some evidence that the high rate of positive stool culture for vibrio cholera in Azadi hospital (over 30%) may be due to contamination. All stool specimens are collected in a single, blocked and flooded toilet in the out patient department.

4. PATTERN OF TRANSMISSION IN ERBIL PROVINCE

The below figure show the number of Diarrhea by date of onset for the period 11-18 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 September reflect the Friday holiday effect.



4 out of the 7 districts in Erbil governorate have reported 68 laboratory-confirmed case of *Vibrio cholerae*. The total number of cases of diarrhoeal disease reported from this province from 1st of September to 18th of September stands at 14442 with no death which reflects good case management. 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 contained the first few cases.

5. SITUATION IN REST OF IRAQ

Apart from three affected provinces of Northern Iraq, Baghdad, Basra, DIALA 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.
