

## WHO Representative's Office in Iraq

### Cholera Outbreak in Iraq: Analysis of current situation, on going strategies to contain its transmission and limit its spread

17 September 2007

#### Current Situation

As of 12<sup>th</sup> of September 2007, twenty one districts of Northern Iraq have reported laboratory-confirmed cases of cholera. Fourteen out of sixteen districts of Suleimaniyah governorate, all five districts of Kirkuk governorate and two out of seven districts of Erbil governorate are now affected by this cholera outbreak.

This outbreak, first unfolded in Kirkuk province on 14 August spread to Suleimaniyah governorate on 23 August and then to Erbil governorate on 6<sup>th</sup> of September. The outbreak has so far caused 10 deaths and continues to be a major threat to public health in the region. Over 3.3 million people living in these areas are presumed to be exposed to this epidemic risk.

The case fatality remains very low (Less than 1%) which indicates good access as well as improved case management of cholera patients at all treatment centres in the affected areas

**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 (%)	No of laboratory-confirmed cases of cholera
Suleimaniyah	14	23/08/07	6,142	9	0.14	392
Kirkuk	5	14/08/07	6,749	1	0.01	630
Erbil	2	06/09/07	11,641	0	0	33

#### Ongoing Strategies for Containment Operations:

It has been emphasized by WHO team led by WR Iraq during their mission to Erbil and Suleimaniyah that provision of safe water and food, establishment of adequate sanitation services for the community at risk and implementation of personal and community hygiene constitute the main public health interventions to contain the outbreak

WHO team led by WR and during all the Cholera committee meetings has emphasized on the following strategies to ensure the prompt containment of the outbreak;

- Improving coordination and information management;
- Intensifying surveillance for cholera ( Active and passive)
- Strengthening public health laboratories
- Ensuring proper case management;
- Ensuring the availability of safe water, sanitation and safe food
- Strengthening risk communication in the affected communities
- Ensuring the availability of needed supplies

*Actions recommended by WHO against each strategy and they are under implementation*

**Coordination and information management**

The coordination committees have been established and they are coordinating overall response to the outbreak including the following:

- The committees are meeting every day and all the decisions taken in the meeting are minuted and circulated to all concerned;
- The action points taken in a meeting are reviewed in the next meetings in order to see to what extent the action points have been complied with;
- The surveillance data on cholera (cumulative daily figures) reported from the governorate are presented in the meeting by the concerned person or a designated official on his behalf and the progression of cases are used to measure the effectiveness of the ongoing control interventions;
- The coordination committees have designated one spokes person only to report to the media daily at the end of the meetings
- An action plan has been drafted and it has been discussed with the UN agencies and NGOs in the field for their active involvement in areas where the gaps exist;
- Operational and logistics resources available in the governorate for cholera control have been mapped

**Intensifying surveillance for cholera (Active and passive)**

Strengthening surveillance system for cholera has been given the top priority. In doing so, the following actions have been done and still going on :

- All hospitals, primary health care centres, out-patient clinics, etc have been included in the surveillance system for cholera. Still there is no reporting from private health care practitioners and the traditional healers
- Standardized surveillance forms including case definition, case investigation, etc have been distributed to all hospitals and PHC centers
- Zero reporting from all hospital and PHC centers have been established
- One person has been designated to collect surveillance data on cholera cases on daily basis and transmit these data to a designated official every day by an agreed time frame;
- All cases reported have been mapped in order to identify hotspots where most of the cases are concentrated so that these areas can be better targeted for chlorination and hygiene promotion;
- Outbreak investigation teams have been established. An active case findings has been initiated in the areas from where the *Vibrio cholerae* has been laboratory confirmed. All close contacts of admitted and laboratory confirmed cases are followed up
- With technical and logistic support of WHO, many TOT workshops have been conducted in Suleimaniyah and Erbil with the participation of health workers from main hospitals and PHC centers

**Strengthening laboratory surveillance for cholera**

WHO has recommended that since the outbreak of cholera has been laboratory confirmed, there is no need to take stool sample from every patient and get the specimen tested in the laboratory. This would overburden the laboratories with unnecessary tests and subsequently waste of resources. The current strategy is as per the following:

- Collect few samples randomly on a continuing basis during the outbreak for monitoring the circulating pattern of the outbreak as well as the antimicrobial sensitivity pattern of the pathogen.

## **Cholera Outbreak in Iraq**

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- Scale up stool specimen collection when epidemiological data shows that the outbreak is weakening or receding (Collection of at-least 20 stool specimens is required to confirm the end of the outbreak)

### **Actions to be done:**

- Use the rapid diagnostic test kits (SMART) for cholera organism identification in areas with limited laboratory capacity in order to see whether the organism is still circulating in the environment;
- Use the rapid diagnostic kits (SMART) in areas not yet reporting any laboratory confirmed case of cholera. Any positive result obtained through the rapid test should be validated by culture so that any laboratory confirmed case of cholera can be detected early;
- Use of rapid diagnostic test kits (SMART) for rapid assessment and investigation of a cluster of suspected cholera cases;

### **Ensuring proper case management**

- WHO has recommended that all diarrhea cases should be treated in a separate ward or in a designated place inside the hospital and should never be mixed up with other patients since the infection may spread if proper disinfection measures are not in place in the treatment centres;
- Before discharging the patients, they are given some basic personal hygiene education like hand washing with soap, use of safe water for drinking, treatment of unsafe water through boiling and through use of chlorine tablets
- The attendees of cholera patients, when coming to the treatment centres and when going out of the treatment centres are asked to disinfect their hands
- There is good accessibility of cholera patients to the cholera treatment centers
- In all hospitals and primary health centres drugs and other essential cholera supplies to treat at-least 100 patients are available
- 5000 posters of WHO case management guidelines have been printed and distributed to all hospitals and PHC centers in all governorates
- With technical and logistic support of WHO, many TOT workshops have been conducted, health workers from main hospitals and PHC centers have been trained on proper case management
- WHO has supported on job training activities. Two clinicians have been assigned to visit all hospitals in all districts of Suleimaniyah to monitor the treatment practices and to ensure the implementation of WHO case management guidelines

### **Ensuring the availability of safe water**

#### **Actions recommended by WHO technical team and are under implementation by the local authority:**

- Provide extensive chlorine monitoring programme at consumers interfaces in order to adjust chlorine dosing at source to achieve a chlorine residual around 0.5
- Increase water quality monitoring and testing by a joint monitoring teams (Department of Health and Department of Water Supply) to sample and test water quality from source to end users.
- Installation of chlorinators at all resources lack of chlorinators mainly wells and springs.
- Start a hygiene awareness campaign targeting household wives at affected areas through the sanitary inspection teams.
- Ensure the availability of laboratory reagents for water testing and DPD1 tablets for residual chlorine measurement.
- Ensure the availability of chlorine stock at both states (Gas or powder) at the water resources to avoid pumping water with disinfection.
- Inspect water supplied through private water tankers to ensure that its safe for drinking purpose.
- Educate the owner of shallow wells mainly in Suleimaniyah how to chlorinate water before using it drinking.

**Water and Sanitation Short Term Action Plan:**

Ensure Increased Safe Water Supply through:

- Release of more water, preferably 24/7, from Dokan Dam to ensure uninterrupted operation of Dokan Water Treatment Plant, and as such decrease dependence on shallow groundwater wells and private vendors.
- Find additional water resources to alleviate the water shortage particularly at Suleimaniya governorate where about 30% of needs currently provided.
- Protect existing water resources from all means of pollution water through a sanitary inspection survey.
- Rehabilitate Sarchanar water facility to ensure the maximum use of its pumping capacity and to protect the quality from pollution sources.
- Increase distribution of chlorine tablets and floaters to private well owners.
- Decrease percentage of unaccounted for water which is currently more than 50% through extensive repair and maintenance of the leaky and corroded water pipes.
- Ensure availability of emergency stand-by power generation sets at all the main water resources with emphasis at Sarchanar and Dokan Water Treatment facilities to ensure uninterrupted operations.
- Divert current waste water outfalls upstream Dokan Water Treatment Plant intake to avoid water contamination.
- Launch an extensive community campaigns delivering several messages including “limit use of private wells”, “boil water before use” ...etc.
- Ensure the sustainability of water quality monitoring and surveillance systems through:
  1. Increase number of joint water quality monitoring teams to ensure the coverage of all water resources including water network and household.
  2. Ensure the availability of all essential water quality laboratory requirements including reagents, supplies and fuel.
  3. Enhance detailed laboratory data analysis means, recommendations and reporting to ensure availability of the necessary tools for decision makers.
  4. Enhance coordination and information sharing between all key partners mainly DOH, DWS, Municipality and NGOs.

**Risk communication**

It has been emphasized many times by WR and WHO team during their mission to Suleimnayah and Erbil that Risk communication plays an important role in limiting the spread of cholera to other communities at risk and Health education is crucial to ensure the participation of the community in cholera control. The following actions have been recommended and they are under implementation:

- Using all communication means (radio, TV, talks, posters, focus group discussion) to disseminate risk messages to the community;
- The information provided to the community should be clear and simple and should be adapted to social, cultural and behavioral context of the community;
- Places where people are usually gathering like mosques, universities etc have been used to disseminate health education messages to the community;
- Messages given have been focused on safe water, safe food, hand washing with soap and personal hygiene and disinfection practices in general;
- With technical and logistic support of WHO, orientation sessions for media have been conducted in Suleimaniyah