



2012 CHOLERA IN IRAQ

North Iraq is witnessing the second Cholera outbreak in less than five years. The first detected case of Cholera was on 23 September 2012 in Sulaimaniyah and Kirkuk. Many cases of watery Diarrhea have been registered in Erbil, Babil, Salehaldin and Diayla Governorates however, no confirmed cases of cholera have been observed to date. The majority of the cases registered were in Sulaimaniyah with 4693 reported cases of Acute Watery Diarrhea (AWD) since the onset of the outbreak until 23 October 2012 including 266 confirmed cases of cholera. In Kirkuk, the total number of reported cases of cholera up to 17 October was 160, confirmed by re-examining the cases in the Central Public Health Lab in Baghdad WHO accredited.



Latest available figures

Number of deaths in the country	4	NO DEATH has been reported since 4 October
Sulaimaniyah		
Number of laboratory confirmed Cholera	266	
Number of laboratory confirmed cases Acute watery Diarrhea cases	4693	
49% were females, 64% were within the age group 15-45, while 25% of the cases were more than 45 years and 11% were below 15 years old		
Kirkuk		
Number of laboratory confirmed Cholera	160	
85 % were male, 97% were more than 5 years and 3% cases below 5 years.		

Source of the outbreak

The official declaration of the Cholera as the OGAWA strain was confirmed through lab report on 23 Sep. The Dokan River is likely to be the source of the outbreak. And there are many other factors that played a role such as;

- The contact in the farm, the markets, and the households with contaminated agriculture produce irrigated with raw wastewater.
- The use of ice that has been produced with the use of contaminated water in the market is also suspected.
- The use and consumption of water from contaminated shallow wells.
- Disposal of raw sewerage into the stream and its use in agriculture will likely contribute to future reoccurrence of the outbreak

Two out of 18 governorates are now affected. In spite of the fear that Cholera could be transmitted to other areas as a result of transportation and mobility, results show that the number of hospitalized cases has decreased over the last weeks. In Sulaimaniyah, there has been a decreasing trend as the cases peaked at one point (340 cases on 4 October 2012) but however have been reduced to 129 cases on 14 October and to 57 cases on 23 October 2012. All cases are under recovery and most of them have left the hospitals after receiving the IV fluids (Ringer lactate sol) while others are treated by the antibiotics mainly tetracycline and doxycycline .

The severity of the cases have also shown drastic change in its form as most of the cases reported to the clinics and hospitals are presented with mild to moderate dehydration, revealing that the preventive and curative steps taken by the MOHs and WHO are effectively addressing the issue.

Figure 1: Acute Watery Diarrhea Cases Reported in Sulaimaniyah up to 23rd Oct

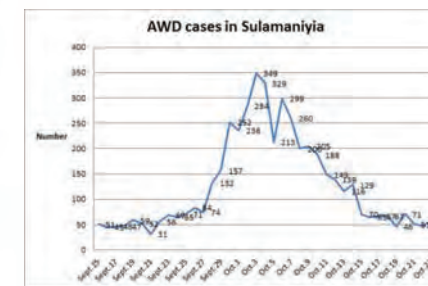
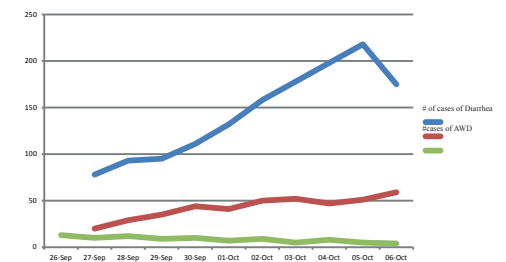


Figure 2: Acute Watery Diarrhea cases Reported in Kirkuk



“The Cholera outbreak which was reported in Sulaimaniyah and Kirkuk is showing signs of control measures working effectively... The measures taken by GOI on preventive aspect are adding tremendous value to prevention efforts”.

Dr Syed Jaffar Hussain, Representative of WHO in Iraq., 2012

Main Challenges

- The preparedness and response capacity within the Preventative Health Directorate of the DOH:
 - Drinking water quality surveillance of the Department of Health is inadequate.
 - The national cholera surveillance guidelines that require testing 10% of Diarrhea cases for V cholera were not followed due to the large number of Diarrhea cases.
- The outbreak movement (spatial and time) was not possible to establish.
- The following risk factors can be implicated: The consumption of contaminated food in the tourist restaurants in Dukan area.
- The preventative water safety management practices and extending the operational monitoring of water quality to include the user tap for timely control of detected incidents.
- The identification and replacement of over-aged and potentially corroded water pipes.



Health response

WHO along with UNICEF and UNAMI support the Ministry of Health in Iraq, the Ministry of Health in Kurdistan Regional Government in Iraq with:

- 1- Strengthening of the epidemiological surveillance system for communicable diseases and health coordination at the departmental level especially in Dohuk and Baghdad to capture any undue rise of Acute Watery Diarrhoea cases in these governorates.
- 2- Preventive strategies: intensification of existing services through partners: hygiene promotion (targeting at chlorination at the domestic and water point level, hand washing, disinfection of latrines and water tanks in schools, information and communication on cholera), increasing Water chlorination levels at all sources with strict monitoring at the source distribution and household level distribution of soaps, aquatabs and ORS (by UNICEF), extension of chlorinated water trucking.
- 3- Meticulously putting preventive and diagnostic measures in Domiz camp to prevent any outbreak of AWD in Dohuk. Especially, with the refugees situation in Dohuk, risk of any undue rise of AWD in Domiz camp is maximized.
- 4- Curative strategies: training of health staff, support of cholera treatment centers and Oral Rehydration Points, referral system for patients, supply chain for medical products, particularly in Sulaimaniyah main hospital and clinics and WHO has stockpiled lifesaving medicines and supplies, in order to respond immediately to any shortage should it arrive.
- 5- The surveillance system has been activated in all governorates to be able the increased case number of Diarrhea.

Recommendations to the Government to avoid future outbreak

1. Strengthen the following functions of the Preventative Health Directorate for timely detection and efficient response:
 - a. The water quality surveillance is to be upgraded with stronger capacity for planning surveillance, implementing and communicating for corrective measures. This upgrade is to be responsive to the preventative water safety management framework that is recommended for the SDW.
 - b. Disease surveillance and reporting
2. Case definition for AWD should meet the WHO case definition for Cholera, Surveillance for other types of Diarrhoea can continue, but needs to be separated from AWD/Cholera.
3. For surveillance purposes in inter-epidemic periods, stool sampling needs to be done on all AWD cases fitting the cholera case definition. Once the outbreak is confirmed, only 5%-7% of all cases need to be sampled.
4. Establish a programme initiative to ensure continued disinfection of the shallow wells used for private residences and those used as source water for tanker transportation. The initiative should be combined with increased surveillance by the Department of Health and increased awareness and education.
5. Ban the direct irrigation of agriculture crops with untreated sewerage.
6. Establish sewerage treatment plant to treat the wastewater from Suleimaniyah prior to discharge into the Tanjaru stream.
7. Ban the use of raw water from the Dukan River by the restaurants in Dukan area and intensify the monitoring and surveillance of food safety in the Dukan tourist attraction.
8. Upgrade the water supply system for Dukan town and surrounding villages. The upgrade must include treatment with several barriers in addition to chlorination.
9. Institutionalize an implement a preventative water safety management framework for the water supply system in Suleimaniyah. For this purpose the Water Safety Plans approach is recommended as a comprehensive and reliable vehicle for system management and operation.



THE WORLD HEALTH ORGANIZATION CALLS FOR PARTNERSHIP TOWARDS THE ELIMINATION OF CHOLERA IN IRAQ

For more information read news related to cholera outbreak in Iraq

WHO team visits cholera patients in Suleimaniyah hospitals, 8 October
International experts visit Erbil to assess cholera outbreak, 9 October
WHO assesses cholera outbreak in Kirkuk, 10 October
Cholera outbreak hits north Iraq, 8 October
www.emro.who.int/iraq

