# Successful containment of the 2015 cholera outbreak in Iraq

Dear Editor,

Cholera is an acute diarrheal disease of bacterial origin, resulting from two serogroups of *Vibrio cholera*, namely O1 (responsible for the majority of the outbreaks) and O139 (outbreaks predominantly in the South-East Asia region).[1] The case fatality rate of cholera is extremely high, if the condition is left unattended.[1] In fact, the recent global estimates suggest that every year almost 1.4–4.3 million cases and 0.02–0.14 million cholera-attributable deaths have been reported.[1] This is an alarming public health concern and a serious question mark on the reach of public health services, as in excess of 80% of cholera cases can be effectively managed with oral rehydration salt alone, and the world also has access to an effective cholera vaccine.[1,2]

Cholera has been acknowledged as one of the key indicators to reflect a lack of social development.[2] Further, the transmission of the disease is strongly linked with poor environment sanitation and substandard drinking water quality, and thus there is an enormous risk of potential cholera outbreak in urban slums or in camps for displaced persons, as most of the requirements of clean water and sanitation are not met.[2,3] However, the available estimates do not depict the precise picture owing to the limitation in the surveillance system.[1]

On September 15, 2015, the first case of cholera (O1 Inaba strain) was notified to the World Health Organization (WHO) from the Al-shamiya District of Iraq.[4] Since then, in excess of 4850 laboratory-confirmed cases and two associated deaths have been reported till the mid of November month from the 16 governorates of the nation.[4,5] Further, almost 90% of these cholera cases have been reported from the 10 districts of the four governorates, most of which receive their water supply primarily from the Euphrates river.[5]

However, a sustained decline in the incidence of cholera cases has been observed among all the severely affected districts in the last 21 days.[5] In addition, the analysis of the surveillance data has revealed that there is no evidence to suggest the spread of disease to the new communities or districts.[5] The national program managers were able to contain the outbreak and prevent its further spread, predominantly because of the involvement of various stakeholders, and timely implementation of the comprehensive prevention and control measures.[4,5] In fact, the first phase of a mass vaccination campaign employing oral cholera vaccine (Shanchol variety) has been completed in the affected regions.[6] Nevertheless, it is very important to understand that cholera vaccination is an additional supplementary measure and should not be considered as a substitute for routine cholera control measures.[1,6]

In addition, other measures such as conducting periodic sessions with the local stakeholders to appraise the development, creating awareness and social mobilization among the local population using different forms of mass media communication, strengthening the disease surveillance and laboratory support, employing rapid diagnostic kits for screening and prompt diagnosis, ensuring the sustained availability of safe drinking water (through earmarked water distribution points), sanitation (such as disinfection of septic tanks at health facilities, etc.), and food in affected regions, providing facilities to extensively monitor chlorine levels at both supplier and household levels, and ensuring the availability of essential medications in the region, has been implemented in the districts to contain the outbreak.[1,4-6] Finally, no restrictions have been imposed by the WHO on any travel or trade in Iraq.[1]

To conclude, the 2015 outbreak of cholera in Iraq has again shown that none of the nations can consider themselves as immune to cholera. Further, there is an indispensable need to strengthen the primary health care, disease surveillance mechanism and improve the nation's preparedness to rapidly detect and respond to such outbreaks in the future.

### Financial support and sponsorship

Nil.

### Conflicts of interest

There are no conflicts of interest.

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|---|---|
| Quick Response Code: | Website: www.caijournal.com |
| | DOI: 10.4103/2225-6482.179235 |

**How to cite this article:** Shrivastava SR, Shrivastava PS, Ramasamy J. Successful containment of the 2015 cholera outbreak in Iraq. Community Acquir Infect 2016;3:28-9.