

## Sudan Cholera Update

31 July 2006

### Overview

Cholera is an acute intestinal infection caused by ingestion of food or water contaminated with the bacterium *Vibrio cholerae*. It has a short incubation period, ranging from a few hours to five days, and produces an enterotoxin that causes copious, painless and watery diarrhoea that can quickly lead to severe dehydration and death if treatment is not promptly given. Vomiting also occurs in most patients.

Most persons infected with *V. cholerae* do not become ill, although the bacterium is present in their faeces for 7-14 days. When illness does occur, about 80-90% of episodes are of mild or moderate severity and it is difficult to distinguish clinically from other types of acute diarrhoea. Less than 20% of ill persons develop typical cholera with signs of moderate or severe dehydration.

Cholera remains a global threat and is one of the key indicators of social development. While the disease no longer poses a threat to countries with minimum standards of hygiene, it remains a challenge to countries where access to safe drinking water and adequate sanitation cannot be guaranteed. Almost every developing country faces cholera outbreaks or the threat of a cholera epidemic.

### Current situation in Sudan

Since the first cholera case in Sudan, on 21 April this year, the total number of confirmed cholera cases is **5369** with **180** deaths and a case fatality rate of **3.4%**, as of 30 July 2006.

The highest number of cholera cases has been found in North Kordofan with 1441 and 45 deaths and a case fatality rate of 3.1% and in Khartoum with 940 cases and 40 deaths and a case fatality rate of 4.3%.

**Cholera cases & deaths reported up to 30/7/2006**

State	30/7/2006		Cumulative* <sup>1</sup>		CFR%
	Cases	Deaths	Cases	Deaths	
Khartoum	1	0	940	40	4.3
North Kordofan	2	0	1441	45	3.1
White Nile	NA	0	680	14	2.1
South Darfur	11	0	562	17	3.0
South Kordofan	NA	0	426	15	3.5
River Nile	6	0	559	20	3.6
Kassala	2	0	245	13	5.3
Al Gazera	0	0	79	5	6.3
Gedaref	1	0	313	5	1.6
Other states * <sup>2</sup>	0	0	124	6	4.8
<b>Total</b>	<b>23</b>	<b>0</b>	<b>5369</b>	<b>180</b>	<b>3.4</b>

*Source: Republic of Sudan, Federal Ministry of Health, Preventive Directorate, Epidemiology Department*

\*<sup>1</sup>: Some states reported backdated cases which affects only the cumulative number.

\*<sup>2</sup>: this refers to states where the outbreak is just starting or not further reporting any new cases in the last week (Northern- Blue Nile – Red sea states).

**Cholera sample results received up to 30/7/2006**

State	No. of results received	<i>Vibrio cholerae</i> positive	Positivity rate %
Khartoum	96	54	56.3
North Kordofan	15	5	33.3
White Nile	7	2	28.6
South Darfur	56	10	17.9
South Kordofan	7	2	28.6
River Nile	15	7	46.7
Kassala	16	7	43.8
Al Gazera	7	5	71.4
Other states	13	2	15.4
<b>Total</b>	<b>231</b>	<b>94</b>	<b>40.7</b>

*Source: Republic of Sudan, Federal Ministry of Health, Preventive Directorate, Epidemiology Department*

The National Public Health Laboratory of the Federal Ministry of Health (FMoH) has confirmed the isolation of *Vibrio cholerae* 01 serotype inaba in **94** out of **231** stool samples (40.7%) collected so far.

## WHO support & response

The Federal Ministry of Health (FMOH) has formed a Cholera task force in which WHO is a member providing support and coordinating the overall response and operations management of the epidemic.

WHO works closely with the FMOH as well as other health partners such as UNICEF and daily information sharing and collaborative risk assessment is being conducted.

The following type of assistance has, so far, been extended to the FMOH by WHO for control of the present wave of Cholera cases:

- Publishing a Daily Bulletin on the situation (for in-house distribution in the FMOH)
- Supplying six (6) complete cholera kits (Type-D and Type-F kits) to the FMOH for the State Ministry of Khartoum (2 kits), State Ministry of Kordofan (3 kits), the State Ministry of White Nile (1 kit) and IV fluids and drugs to S. Darfur
- Supplying three (3) complete Enteric Disease Bacteriology Kits to the National Public Health Laboratory (NPHL) in Khartoum for setting up field laboratories in those affected states which do not have good laboratory surveillance capacities;
- Providing necessary laboratory supplies to the National Public Health Laboratory to scale up production of C-B transport media in order to ensure systematic collection and processing of stool samples from all states reporting Cholera cases (specially from the states not yet reporting laboratory confirmed cases of *Vibrio Cholera Inaba*).
- Elaborating a joint proposal with UNICEF for strengthening the ongoing emergency response and operations management for epidemic control.
- WHO has supported two international environmental engineers to evaluate the measure taken by the country in response to Cholera and to strengthen environmental control measures in most selected states
- Conducting refresher training on testing procedure of stool samples to the laboratory personnel in the three Darfur states
- Requisition of additional cholera laboratory supplies and kits to the affected states
- Environmental survey and assessment for preparedness plan & response in three Darfur states
- Joint team from WHO, UNICEF and FMOH to north Kordofan, to strengthen the epidemic response regarding environmental activities

WHO prepares and shares regular **situation reports** on the cholera situation in Sudan with all relevant health partners.