

Deadly strain of cholera strikes Asia

by Adam K. East

In Central Asia, where epidemic diseases had been kept in check before, cholera has resurfaced in the republics of Kazakhstan, Tajikistan, Uzbekistan, and Kyrgyzstan. At a recent World Health Organization (WHO) conference in Athens, delegates were told that cholera was staging a comeback in the Middle East, Europe, and Asia. Polio, diphtheria, and tuberculosis are also making a comeback on five continents. The increase of these diseases is a mark of the general deterioration of public health, caused by the degeneration of living standards and infrastructure.

The world so far has been hit by seven cholera pandemics, beginning in 1817, when the disease first surged out of India. The seventh pandemic, which spread from Asia in 1960, is continuing today without any signs of abatement. Cholera is spread primarily through contaminated water and poor sanitation. The current pandemic is caused by a type of *Vibrio cholerae* known as El Tor, which is able to survive in water for long periods of time. It has been responsible for more than 3 million cases and tens of thousands of deaths in Asia, Africa, and Ibero-America.

In spring of 1993, a new form of cholera bacteria was discovered in India, where 20% of the urban and 53% of the rural population are without safe water. The new strain had already caused at least 6,000 deaths in India as of June 1993. Dr. Balkrish Nair, the head of the Indian Institute for Cholera, has identified the new variant of the *Vibrio cholerae*. He warned: "This germ, which is extremely toxic, and more resistant than all other cholera bacteria, is spreading rapidly. The chance that all these characteristics would be found in one cholera organism was 1 trillion to 1. But exactly that has happened. This germ will have reached its greatest effectiveness in two to three years. It will spread extremely rapidly."

Sure enough, the new strain has swept rapidly across the Indian subcontinent at an alarming rate and is threatening to cause a global pandemic.

In May, the WHO warned the South Asian states about the spread of the new strain. In five months, the disease had already passed through Nepal and Bangladesh, claiming thousands of victims. Even Japan and Malaysia, where single cases have been registered, have proven vulnerable. WHO officials admit that they are totally baffled by the new strain.

"None of the known vaccines is working," the officials say.

In the Central Asian republic of Kazakhstan, where some cases of cholera were reported at the beginning of September, quarantine regulations have been imposed in the capital of Alma Ata. The government has also banned all Kazakh airline flights to China, Pakistan, Turkey, Mongolia, Iran, Syria, and the United Arab Emirates. Over 300 cases of cholera have been identified in the southern region of Chimkent, which borders Uzbekistan. "Cholera is brought from Pakistan and Uzbekistan," said a spokesman for the Kazakh Health Department.

In Uzbekistan, where some 48 cases of cholera have been reported so far, no quarantine is in place yet. A Health Ministry official in Tashkent claims that the cholera-causing bacterium had been brought into the country from Tajikistan, Afghanistan, and Pakistan. The official also pointed out that there was a serious danger of further spreading of the disease because the Syrdar'ya River in the south flows through one of the infected areas. It is not certain yet whether the cholera strain which is now sweeping through Central Asia is the new one from India.

Difficult to detect

What makes the new strain so deadly is that standard laboratory tests have failed to detect it, thus causing the diagnosis to be often delayed, say authors of a study in the medical journal *Lancet*. Another cause for concern is that earlier attacks from the older strains would not impart any immunity to a person stricken by the new one, so that even in areas where cholera has not been lethal because of frequent exposure and subsequent development of immunity, the new strain will prove to be lethal. Also, unlike the older strains of cholera which do not usually spread through the blood, doctors in India have reported that the new strain has been detected in the bloodstream.

In its worst form, cholera can cause severe diarrhea and vomiting which result in muscle cramps. The sudden loss of huge amounts of fluid and electrolytes from the body, causes a collapse of the vascular system and can easily lead to death within hours, unless the fluids and electrolytes are replaced either orally or intravenously.

The Centers for Disease Control in Atlanta has warned health officials in Asia, Africa, and Latin America to be on their guard in order to prevent a possible health catastrophe. This would not prove to be an easy task for most of the nations involved, since most of them have outdated water supply systems and poor sanitation.

The World Bank, in its recent report on water policy, estimates that the developing nations will have to invest up to \$700 billion over the next decade to ensure inexpensive, clean, and reliable water supplies for the diverse needs of their people. The report also points out that currently over 1 billion people do not have any access to clean water and 1.7 billion have no access to sanitation.