Epidemiology of a Cholera Hot Spot in Rural Bangladesh

by

Richard J. Levine, M. D.

A recurrent focus of endemic cholera - a cholera hot spot - was identified in adjacent parts of two villages in the vicinity of Matlab, Bangladesh. This hot spot has the highest rate of cholera in the 235 village area under surveillance by the Cholera Research Laboratory: 9.4 hospitalized cases per 1000 person years. In addition, although representing less than 2% of the population, 7 of 13 known cholera reinfections from the 56 village area for which complete data is available came from the hot spot. High rates of cholera were found to be associated with proximity to canal water flowing from a particular river point. Family socio-economic parameters and observed water usage patterns were examined for their relevance to rates of cholera and non-vibrio acute diarrheal illness over an 11 year period. Use of tubewell water rather than surface water for drinking, but not for cooking, bathing or washing food or body parts was found to be without detectable influence on the cholera rate. Despite the fact that water is the undoubted vehicle of cholera infection in this instance, it is postulated that direct consumption of contaminated water may play a relatively less important role here in the transmission of disease.

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