Climatic, Socio-economic, and Health Factors Affecting Human Vulnerability to Cholera in the Lake Victoria Basin, East Africa

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Abstract

Cholera epidemics have a recorded history in the eastern Africa region dating to 1836. Cholera is now endemic in the Lake Victoria basin, a region with one of the poorest and fastest growing populations in the world. Analyses of precipitation, temperatures, and hydrological characteristics of selected stations in the Lake Victoria basin show that cholera epidemics are closely associated with El Niño years. Similarly, sustained temperatures high above normal (Tmax) in two consecutive seasons, followed by a slight cooling in the second season, trigger an outbreak of a cholera epidemic. The health and socioeconomic systems that the lake basin communities rely upon are not robust enough to cope with cholera outbreaks, thus rendering them vulnerable to the impact of climate variability and change. Collectively, this report argues that communities living around the Lake Victoria basin are vulnerable to climate-induced cholera that is aggravated by the low socioeconomic status and lack of an adequate health care system. In assessing the communities' adaptive capacity, the report concludes that persistent levels of poverty have made these communities vulnerable to cholera epidemics.