



The Health Risk of Bathing in Southern California Coastal Waters

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Abstract

Bathers exposed to microbiological contamination in coastal waters have an excess risk of gastrointestinal and respiratory illness. This study investigated gastrointestinal and respiratory illness rates in Southern California from 2000 to 2004 with a simulation model that incorporated water quality, beach attendance, and bathing rate data, along with three published dose-response relationships.

An estimated 689,000 episodes of gastrointestinal illness and 693,000 episodes of respiratory illness occurred each year. Most illnesses (57% – 80%) occurred during the summer season and a relatively small proportion of beaches (12 of 67) accounted for half of all illnesses. Coastal water contamination is a serious health risk for bathers at Southern California beaches. California's marine water contact standards may be inadequate to protect the health of bathers.

Biosketch

Dr. Brinks is a physician and public health researcher based in Portland, Oregon. His five year collaboration with the Coastal Water Research Group based in Huntington Beach, California has focused on the health risk associated with the microbial contamination of recreational coastal waters. Dr. Brinks received his medical training from the Oregon Health Sciences University and the University of Hawaii, which he completed in 1996. He directed territorial eye care and eye related public health in American Samoa from 1996 to 1999. He worked as a physician and surgeon in Maui, Hawaii from 2000 until 2004 when he returned to Oregon to pursue additional training in epidemiology and public health. He is now initiating a series of epidemiology studies into the causes and treatments of eye disease in the country of East Timor.