

**Designing a Research Proposal to Clarify the Issue
of Risk From Eating Shellfish;
With Emphasis on Narragansett Bay Quahogs**

by
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ABSTRACT

The risk of illness from eating raw and steamed shellfish has become an issue of concern within the last year. In March of 1986 an article by Morse, et al. in the NEJM suggested that Rhode Island quahogs was the likely source of greater than 1,000 cases of Norwalk viral gastroenteritis. The implication that Narragansett Bay shellfish are a significant risk, could have a major impact on Rhode Island. Shellfishing is an economic livelihood for over 3,000 people, and raw shellfish, especially the quahog, are an integral part of the culture.

A broad scientific background about enteric pathogens in shellfish is given, followed by the examination of different possibilities for research. The potential research possibilities are then explored in light of research designs. Several possible research designs are then suggested to help clarify the controversy of risk and raw shellfish. A cross-sectional seroprevalence research design for the Norwalk antibody in Rhode Island children was chosen. This study included an interview that might allow insight into potential transmission modes of the Norwalk virus, and the possibility of raw and/or steamed shellfish consumption being associated with Norwalk antibody seropositivity.

There are several reason for deciding on such a research design. First and foremost, there has never been a reported outbreak of Norwalk virus whatsoever in Rhode Island. Norwalk virus accounts for greater than 1/3 of reported outbreaks of acute nonbacterial gastroenteritis. A research design of this type would allow quick insight into the possibility of Rhode Island being a source of Norwalk virus, and provide a basis for further research. Also, possible immunological theories to the Norwalk virus could be further evaluated.