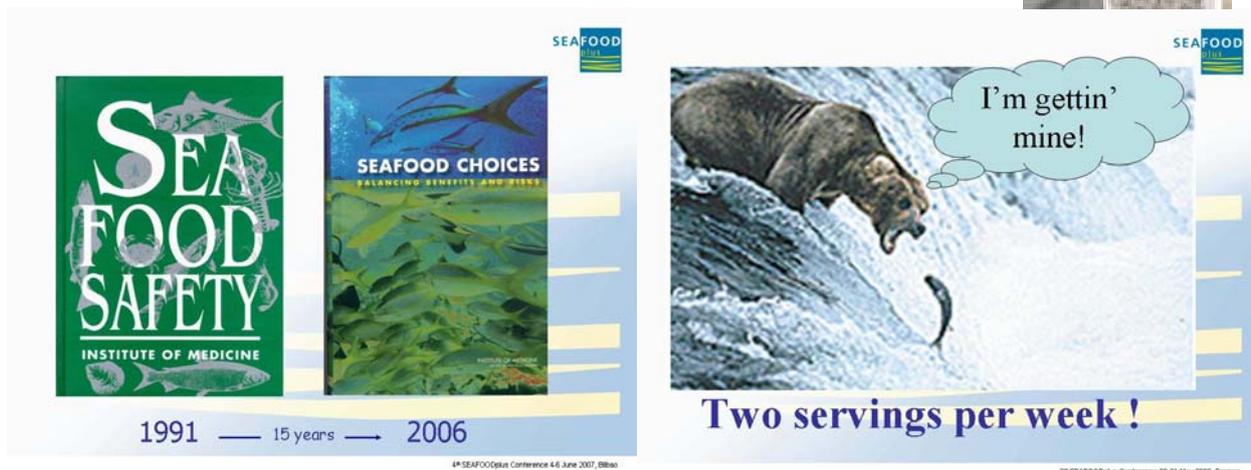
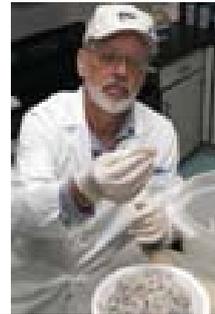


## Balancing Risks and Benefits in Seafood Consumption in the USA

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Comparisons of two national reports by the National Academy of Science's Institute of Medicine (IOM) regarding the safety of seafood consumed in the United States through the past 15 years suggest that general product safety is increasing. Seafood and aquaculture products remain a recommended healthful choice due to low saturated fats, certain omega-3 fatty acids, and a recognized source of selenium and vitamin B-12 from marine selections. Diet and health authorities continue to recommend doubling consumption despite evidence for limitations in traditional preferences. Alternative choices will involve farmed products which must contend with issues for feed availability and content.

As noted in the initial 1991 report, most seafood health risks from wild harvests originate in the environment and should be addressed at the point of harvest. The recent 2006 report, introduces concerns for the emerging risks associated with the growing dependence on aquaculture. Both reports express continuing concerns for environmental contaminants, but the historical changes in supply, in terms of amounts, types and sources, will influence the anticipated risks and modes for control.

The dominant acute illnesses do not appear to be increasing but some remain persistent. A consumer preference for raw products, especially molluscan shellfish, remains the primary seafood safety problem. Proper classification of harvest waters has proven effective in preventing potential shellfish-borne illnesses due to viral contaminants, but the indigenous *Vibrio vulnificus* and *parahaemolyticus* have forced adoption of new management plans with harvest restrictions and new post-harvest processing methods, i.e., Frosted oysters. Continuing reports for histamine poisoning have culminated in more HACCP guidelines due for release in Summer 2007 with more stringent thermal controls during harvest, storage and distribution of the scombroid related species. Concern for exposure to methyl mercury remains a calculated health concern for potential chronic illnesses despite recent evidence that reflect decreasing levels in the populous, reduced burdens relative to the seafood supply, potential selenium modulation, and questionable support for the existing reference doses (RfD). Advisories remain the principle method of control yet exhaustive messages could cause indifference and initiate spillovers with unanticipated risks due to reduced seafood consumption.