



Intelligence

# Governments and seafood consumption, part 1

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## Health benefits of seafood offer aquaculture opportunities



Scientists are continuing to report that many people are eating insufficient quantities of seafood, and their health is suffering as a result.

The Food and Agriculture Organization (FAO) of the United Nations and World Health Organization (WHO) held a joint expert consultation meeting on the risks and benefits of fish consumption early in 2010. They had deep conversations about the issues and finally came to agreement that the following recommendations should be made to member states to better assess and manage the risks and benefits of fish consumption, and more effectively communicate with their citizens:

- [Acknowledge fish consumption as an important food source of energy, protein and a range of essential nutrients, and part of the cultural traditions of many peoples.
- Emphasize the benefits of fish consumption in reducing mortality from coronary heart disease (and the risks associated with not eating fish) for the general adult population.
- Emphasize the neurodevelopment benefits to offspring of fish consumption by women of childbearing age, particularly pregnant women and nursing mothers, and the neurodevelopment risks of such women not consuming fish.
- Develop, maintain and improve existing databases on specific nutrients and contaminants, particularly mercury and dioxins, in fish consumed in various regions.
- Develop and evaluate risk management and communication strategies that both minimize risks and maximize benefits from eating fish.

In 2013, the question now is: Where are these recommendations being followed?

#### Shorter lives, poorer health

The new *U.S. Health in International Perspective: Shorter Lives, Poorer Health* report, published in January by the National Research Council (NRC) and Institute of Medicine (IOM), highlighted that although the United States is among the wealthiest nations in the world, it is far from the healthiest. For many years, Americans have been dying at younger ages than people in almost all other high-income countries.

This health disadvantage prevails even though the U.S. spends far more per person on health care than any other nation. The National Institutes of Health (NIH) asked NRC and IOM to investigate potential reasons for the U.S. health disadvantage and assess its larger implications.

The report found that the health disadvantage exists at all ages from birth to age 75 and that even advantaged Americans – those who have health insurance, college educations, higher incomes and healthy behaviors – appeared to be sicker than their peers in other rich nations.

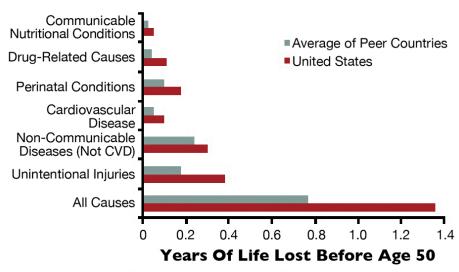
Steven H. Woolf, professor of family medicine at Virginia Commonwealth University in Richmond, Virginia, USA, and chairman of the panel that wrote the report, said: "We were struck by the gravity of these findings. Americans are dying and suffering at rates that we know are unnecessary, because people in other high-income countries are living longer lives and enjoying better health. What concerns our panel is why, for decades, we have been slipping behind."



The medical community overwhelmingly recommends that we all eat seafood regularly, since the numerous health benefits far outweigh any potential hazards.

The report was the first comprehensive look at multiple diseases, injuries and behaviors across the entire life span, comparing the United States with 16 peer nations – affluent democracies that included Australia, Canada, Japan and many western European countries. Among these countries, the U.S. was at or near the bottom in nine key areas of health: infant mortality and low birth weight, injuries and homicides, teenage pregnancies and sexually transmitted infections, prevalence of human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS), drug-related deaths, obesity and diabetes, heart disease, chronic lung disease and disability.

Many of these health conditions disproportionately affect children and adolescents, the report said. For decades, the U.S. has had the highest infant mortality rate of any high-income country, and it also ranked poorly on premature birth and the proportion of children who live to age 5. U.S. adolescents had higher rates of death from traffic accidents and homicide, and the highest rates of teenage pregnancy. They were also more likely to acquire sexually transmitted infections. Nearly two-thirds of the difference in life expectancy between males in the U.S. and the other countries can be attributed to deaths before age 50 (Fig. 1).



Sources: Human Mortality Database, World Health Organization Mortality Database, and Statistics Canada.

Fig. 1: Causes of death for U.S. men before age 50 and those of similar age in peer countries, 2006-2008.

These findings built on a 2011 NRC report that documented a growing mortality gap among Americans over age 50. "It's a tragedy," Woolf said. "Our report found that an equally large, if not larger, disadvantage exists among younger Americans. I don't think most parents know that, on average, infants, children and adolescents in the U.S. die younger and have greater rates of illness and injury than youths in other countries."

The panel concluded that many factors are responsible for the nation's health disadvantage, but it failed to highlight the low seafood consumption that would be evident when comparing to countries like Japan. You would not need to be a Rhodes scholar to suggest that the majority of Americans have high omega-6 levels in their blood compared to omega-3 levels, and if that issue could be changed, it would probably have an enormous effect on the results.

The report examined the roles of underlying social values and public policies in understanding why the U.S. is outranked by other nations on both health outcomes and the conditions that affect health. It seems Americans are more likely to engage in unhealthy behaviors, from heavy caloric intake to behaviors that increase the risk of fatal injuries, the report said. The U.S. has relatively high rates of poverty and income inequality, and is lagging behind other countries in the education of young people.

However, the panel's research suggested that the U.S. health disadvantage is not solely a reflection of the serious health disadvantages concentrated among poor or uninsured people, or ethnic and racial minorities. Americans still fare worse than people in other countries even when the analysis is limited to non-Hispanic whites and people with relatively high incomes and health insurance, non-smokers or people who are not obese.

"Research is important, but we should not wait for more data before taking action, because we already know what to do," Woolf said. If we fail to act, the disadvantage will continue to worsen, and our children will face shorter lives and greater rates of illness than their peers in other rich nations."

### **Opportunity for seafood industry**

The report recommended an intensified effort to pursue established national health objectives. The seafood industry has a chance to push for major changes because the report calls for a comprehensive outreach campaign to alert the American public about the U.S. health disadvantage and to stimulate a national discussion about its implications.

In parallel, it recommended data collection and research to better understand the factors responsible for the U.S. disadvantage and potential solutions, including lessons that can be learned from other countries.

Typically, while one government department is highlighting the challenges, another has the answers. A quick look at the National Oceanic and Atmospheric Administration's <u>website</u> (<a href="http://www.nmfs.noaa.gov/seafood.htm">http://www.nmfs.noaa.gov/seafood.htm</a>) shows it is already highlighting the seafood and health story.

NOAA stated: "The connection between seafood and health is undeniable, yet information available to consumers is confusing at best and often conflicting. The Food and Drug Administration (FDA) is the primary government agency that manages food safety/food health issues. However, as part of the Department of Commerce, NOAA Fisheries Service has an obligation to help make information about seafood products more accessible to the general public.

"Consumers want to know if fish and other seafood are healthy and safe to eat and feed to their families. Our goal is to provide balanced information that puts the benefits and risks of seafood consumption into perspective to help consumers make educated decisions about their diet. As new information becomes available, we will post it here."

Unfortunately, NOAA does not always keep up with all the information, so possibly it should connect with other resources like www.gillseafood.com, as this is a global issue and GILLS aims to keep up to date with health news.

#### Importance of omega-3s

Seafood is an important part of our diets. The medical community overwhelmingly recommends that we all eat seafood regularly, since the numerous health benefits far outweigh any potential hazards. FDA has been more concerned with the risks/hazards and has forgotten the benefits. Their delays are hurting American families and potentially costing lives.

Not only FAO and WHO have issued warnings that have not been heeded. The world's foremost authorities in neuroscience and nutrition, meeting in London, highlighted that western nations will suffer "unthinkable health, social and fiscal consequences" unless they increase consumption of docosahexaenoic acid, an omega-3 oil found most abundantly in seafood. They urged governments to encourage greater consumption of seafood to avoid a looming "epidemic" of mental ill health and other brain disorders.

Professor Michael Crawford, director of the Institute of Brain Chemistry and Human Nutrition at London Metropolitan University at that time, said at the meeting: "We need to see action at the most fundamental level to circumvent the mental health epidemic facing our society. The issue must be addressed in school-level education; maternal and infant nutrition; food, agricultural and fisheries policies; and in moving to adequately address river, estuarine and coastal pollution.

"We estimate that the bulk of the mental health issues could potentially be addressed and the impending rise in disorders reversed through adequate nutrition, and we urge all parties to come together in tackling this most serious of problems. The financial, social and political issues for the function of society and peace demand the highest priority be given to this issue."

Crawford added that the Institute of Brain Chemistry and Human Nutrition had identified the poor state of maternal nutrition in pregnancy associated with low birth weight, which in previous work it identified as starting with school children. The institute also identified omega-3 deficiency as a global problem that coexists with iodine deficiency, to which some 1.6 billion people are at risk. Both deficiencies stunt brain development.

"Humans evolved with high levels of consumption of fish and other seafood, and today we still require many of the nutrients they contain," Crawford said. "The omega-3 oils or 'fish oils' are the best known, but seafood contains a package of very important nutrients, such as iodine, selenium, zinc, copper and iron, all important for good health, especially brain health.

"The recent scientific conference in the Royal Institute of Medicine highlighted that most people are eating insufficient quantities of seafood, and their health is suffering as a result. Everyone should be eating fish or other seafood at least two to three times a week, and it would be better to eat seafood even more often."

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