

Selected Proceedings of the  
International Congress and Exhibition on Nutrition, Fitness and Health  
Shanghai, November 30 to December 2, 2006

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# **Nutrition and Fitness: Cultural, Genetic and Metabolic Aspects**

Volume Editor

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48 figures, 12 in color, and 34 tables, 2008



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## **The Role of Government in Nutrition and Fitness**

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The role of government in enhancing the health of the population can be vital. How large a role government should play is open to vigorous debate based on economic factors, concerns about intrusions in the rights of individuals to make decisions about their own lives, politics and practical administrative matters that can make implementing policy decisions difficult. As a result the role of government varies widely from one country to another.

The first important intervention may have been in 1854 when John Snow removed the handle of the Broad Street pump in London to prevent the continuing access of the impoverished local people to water contaminated with cholera. This established the precedent for government and public health officials to assume the responsibility of assuring clean water supplies and later adequate sanitation. Thus they made the world safe for big cities. Another 50 years would elapse before governments began to assume responsibility of inspecting foodstuffs to weed out infected or even putrid produce offered for sale. The development of vaccines offered another opportunity for government to intervene to protect people's health. In many countries it remained a voluntary option for parents. In others it was made mandatory, a view that accelerated when the possibility of eradicating diseases such as smallpox and polio were perceived.

Government intervention was justified early on to achieve purely social and health benefits. By the 1960s it became apparent that immense economic savings could be made by mandating certain preventive measures. In the early days of the automobile it had been required that a man carrying a red flag walk in front of all cars to protect pedestrians. There is little data to suggest that it had much impact. However, requiring people to wear seatbelts in cars or helmets while riding motorcycles not only saved tens of thousands of lives but saved vast amounts of money in reducing healthcare costs after accidents.

Sometimes there are complicating factors. Cuba, for instance, felt it could not enforce a requirement that motorcyclists wear helmets as long as such headgear had to be imported and the country lacked sufficient foreign exchange to make them available for all at a reasonable cost.

Perhaps the zenith of government intervention has been over cigarette smoking. Clearly the largest preventable cause of death worldwide the obligation on governments to intervene seems overwhelming despite the powerful economic forces they have to battle. Beginning with the US Surgeon General's Report in 1964 linking smoking to lung cancer, governments started to inch their way into this field. Initially the interventions were purely in the form of education and warnings about the health hazards involved in smoking but over-time more aggressive laws were passed to prevent teenagers from smoking and limiting where adults could smoke. These measures worked savings millions of lives but only where they were vigorously enforced.

The zealotry with which government intervention has been pursued in the name of enhancing people's health and well-being has begun to produce a strong backlash. Nowhere has government intervention been greater than in the European Union where well-intentioned rules have resulted in a barrage of criticism and resistance. In the United Kingdom the Health and Safety Executive has promulgated rules that often restrict people's activities to the point of absurdity. In addition, government involvement in some areas such as HIV/AIDS lacked a clear scientific base and served only to foster political agendas at the expense of those infected or at risk.

The role of government in the field of food and nutrition has been limited in the past for a number of reasons:

- The science of nutrition seemed imprecise and often controversial.
- In developed nations there were vast vested financial interests at stake that governments did not wish to offend.
- In developing countries limited food sources and poverty of the population meant that the struggle for calories transcended all other considerations.
- Although willing to control tightly the drugs people took, the food people ate, while equally involving the ingestion of chemicals that had a significant effect on biochemistry and physiology, was seen as a significantly less important subject for government involvement. The argument was that food did not contain exogenous substances.

With the exception of the discovery by the British Navy that consuming limes prevented scurvy, it was not until World War II that nutrition became a subject of government concern for an entire civilian population. British Prime Minister, Winston Churchill, announced that the war effort should not be allowed to jeopardize the health of the children of Britain. For the first time, nutritional scientists were brought in to advise at the highest level of government. The result

was a carefully constructed rationing program that included free supplemental doses of cod liver oil and orange juice for all children regardless of income. In addition, heavily subsidized feeding centers offered carefully nutritionally balanced meals at minimal cost. Ironically, it created in the country, in the midst of total war, a standard of nutrition among working class children that was substantially superior to that they had enjoyed in peace time or any time previously when the quality of their food was limited by the poverty and ignorance of their parents. Similar, but less comprehensive measures were introduced in the USA.

Following World War II, with vast numbers of displaced starving or malnourished people across Europe and Asia, scientific knowledge about nutrition continued to play an important role in shaping government policy. Restoring the nutritional status not just in the occupied and defeated nations but also in the victorious countries was seen as an integral part of the recovery effort. Even in a country like India a national initiative was started to provide iodinated salt in iodine-deficient areas to reduce the incidence of cretinism.

With the return of plentiful food supplies, especially in the developed nations, people largely returned to their own devices in making decisions that affected their nutritional status. At best, governments were in an advisory role, but in many instances especially in the USA they were in a constant struggle with the food and agricultural industry whose primary interest was in getting people to consume the products they had to sell rather than in improving nutritional status of the population.

In recent years, commensurate with a growing concern among people about their health in general, nutrition has become a topic of enormous commercial and scientific interest. Food supply is controlled by global market forces making it a fierce political issue. The international trade in food is a massive business. The General Agreement on Tariffs and Trade (GATT) and the Common Agricultural Policy of the European Union allow global forces to shape the food supply. International Committees such as Codex Alimentarius which determine food quality and safety standards lack public health representatives while the influence of the food industry is formidable. This is so despite the enormous volume of data now available concerning the relationship of diet to health. More than 100 expert committees have agreed to the dietary goals to prevent chronic disease emphasizing eating more fresh vegetables, fruits and pulses while minimizing animal fat, refined sugars and salt [1].

The World Health Organization (WHO) has urged local, national and international government agencies, non-governmental organizations, and the food industry to ensure that:

- The integration of public health perspectives into the food system to provide affordable and nutritious fresh food for all, especially the most vulnerable.

- Democratic, transparent decision-making and accountability in all food regulation matters with participation by all stakeholders, including consumers.
- Support for sustainable agriculture and food production methods that conserve natural resources and the environment.
- A strong food culture for health, especially through school education, to foster people's knowledge about food and nutrition, cooking skills.
- Growing food and the social value of preparing food and eating together.
- The availability of useful information about food, diet and health especially aimed at children.
- The use of scientifically based nutrient reference values and food-based dietary guidelines to facilitate the development and implementation of policies on food and nutrition [2].

In a broader context, the WHO has focused on the critical relationship between diet and physical exercise. The work of several expert working groups led to the publication in 2004 of the Global Strategy on Diet, Physical Activity and Health [3]. There was, however, considerable difficulty in getting physical activity adequately addressed in the development of the strategy. It was not given sufficient attention especially by the media, overshadowed by prominent issues concerning diet and obesity. A repositioning of physical activity was required for which a special WHO/CDC consultation was held. It examined appropriate ways in which to support the implementation of the WHO physical activity plan [4].

It is easy to pose the issue as a struggle between an agribusiness industry bent on achieving obscene profits and governments seeking to represent the health interest of the populations by reigning in, through regulation, the corporate excesses. In fact the power of government to shape the behavior of corporations is limited, while, in a free market the power of an educated public is immense. Public awareness of the importance of omega-3 fatty acids in the diet has had a dramatic effect on the food industry especially in Europe with corporations seeing their continuing profits as dependent on responding to this new public sophistication. Similarly, fast food chains, Kentucky Fried Chicken, Taco Bell and McDonalds, among others, have seen it very much in their interests to respond to the public concern over *trans*-fatty acids, removing them from their products. In these instances public opinion was quicker and more effective than government might have been. If anything, government has responded belatedly to what has happened in the market. Only after public awareness of the issue was overwhelming apparent did the New York City Health Department announce, with the backing of the City Council, that it will ban the use of *trans*-fatty acids in restaurants beginning in 2008. How significant this will prove in improving the health of New Yorkers is open to question, but the action represents an important new precedent on the part of government in shaping healthier

nutrition for the population. It remains true, however, that local government is more responsive to public pressure than national governments, which are more subject to corporate pressure.

Government's greatest role is probably in sponsoring research, collating studies, disseminating scientifically based factual information, and educating the public on a massive scale.

Foundations have taken great interest in other aspects of health and provided large amounts of funding, but on a relative basis have heretofore largely ignored the area of nutrition, except for such areas as maternal and child health.

Nutrition is a field in which private industry has, despite its detractors, at times, played a vital role. Beginning with the discovery of vitamins an enormous market opened up in populations who believed they had dietary deficiencies or if their diets were adequate that taking supplements would enhance their sense of well-being and their performance. Because of the extraordinary control multinational corporations have over what we eat, their role cannot be dismissed. They must be convinced that ultimately their best interests will be served by expanding their research in nutrition and being responsive to the knowledge of an increasingly sophisticated public.

### References

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