

Ensuring food safety and nutrition security to protect consumer health: 50 years of the Codex Alimentarius Commission

Angelika Tritscher,^a Kazuaki Miyagishima,^a Chizuru Nishida^b & Francesco Branca^b

The globalization of trade, which has contributed to food availability and diversification throughout the world, has also increased the chances that the food produced in one place will affect the health and diet of people living in another. As a result, global food safety and nutrition measures applicable across borders, institutions and disciplines, including the establishment of evidence-based international standards on food safety and nutrition, are more important than ever before. Since its inception in 1963, the Codex Alimentarius Commission has developed hundreds of such standards and provided guidance for improving food safety and nutrition in each of its member states and globally.

The Commission, whose 186 members represent 99% of the world's population, is the principal body of the Joint Food and Agriculture Organization of the United Nations (FAO)/World Health Organization (WHO) Food Standards Programme.¹ In addition to international food safety and nutrition standards, it develops guidelines and codes of practice, also intended to protect consumers' health as well as to ensure fair practices in the food trade. Its standards and related texts cover an impressively wide range of subjects of international relevance having to do with biotechnology, pesticides, pathogens, additives and contaminants, food labelling, reference values for nutrients (particularly those related to the risk of noncommunicable diseases) and many other areas. In 1995, the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures called on members of the World Trade Organization to harmonize their national regulations to Codex standards,² which have since become international benchmarks for food safety.

Over the decades the Commission has benefited from the scientific and technical advice provided by WHO. In collaboration with FAO, WHO has con-

vened international meetings of experts to address emerging or emergency issues and provide independent risk assessments, and the recommendations from these meetings feed directly into the Commission's standard-setting process. Four expert groups meet regularly: the Joint FAO/WHO Expert Committee on Food Additives has carried out risk assessments related to food additives, contaminants, natural toxins and veterinary drug residues in food since 1956; the Joint FAO/WHO Meeting on Pesticide Residues has assessed since 1963 the potential health effects of pesticide residues and recommends safe maximum residue levels for specific food commodities; the Joint FAO/WHO Expert Meeting on Microbiological Risk Assessment has focused since 2000 on risk assessments for selected pathogen-commodity combinations, and the recently-established Joint FAO/WHO Expert Meetings on Nutrition provide scientific advice on nutritional matters.

Although Codex standards are sometimes viewed as "trade standards", their primary purpose is to protect consumers' health by ensuring the safety and nutritional quality of food products traded worldwide. The importance of this work is evidenced by the large burden of food- and diet-related disorders and illness. Foodborne and waterborne diarrhoeal diseases kill an estimated 2.2 million people annually, most of them children³ and food containing harmful levels of chemicals can cause serious health problems, including cancer. Excessive intake of calories can lead to obesity and to conditions such as diabetes mellitus, coronary heart disease, cancer, hypertension and stroke.^{4,5} On the other hand, lack of sufficient food and vitamin and mineral deficiencies also cause enormous numbers of deaths and disability. Stunting, a mark of chronic undernutrition, affects 165 million children younger than 5 years and an estimated 35% of all deaths among

children in this age group are associated with undernutrition.⁶ Foodborne diseases and malnutrition undermine not only human health and productivity, but also countries' potential for sustainable development.

As the Commission celebrates 50 years of successful work, it may be a good time to reflect on its trajectory and how it can serve the public interest even better. Over the years the Commission has become more inclusive. Thanks to the work of the FAO/WHO Project and Trust Fund for Enhanced Participation in Codex, launched in 2003, more countries in development and with economies in transition are actively participating in the Commission. The openness, transparency and precision of its reporting and prioritization procedures have been improved. Nonetheless, today's rapid changes in trade, travel and commerce call for an international standard-setting system that is able to respond more quickly to new situations. One way to achieve this might be through better use of modern information technology. Stronger support of national Codex contact points is needed as well, but equally necessary are heightened political will and an acknowledgement of the importance of food safety and nutrition in public health. Because trade, nutrition and food safety are so closely connected, closer collaboration between different sectors and strengthened interactions between the Codex and other global players will be essential. ■

References

Available at: <http://www.who.int/bulletin/volumes/91/7/13-125518>

^a Department of Food Safety and Zoonoses, World Health Organization, 20 avenue Appia, 1211 Geneva 27, Switzerland.

^b Department of Nutrition for Health and Development, World Health Organization, Geneva, Switzerland.

Correspondence to Angelika Tritscher (e-mail: tritschera@who.int).

References

1. Codex Alimentarius [Internet]. International food standards. Rome: World Health Organization & Food and Agriculture Organization of the United Nations; 2013. Available from: <http://www.codexalimentarius.org/> [accessed 6 June 2013].
2. World Trade Organization [Internet]. The WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). Geneva: WTO; 1995. Available from: http://www.wto.org/english/tratop_e/sps_e/spsagr_e.htm [accessed 6 June 2013].
3. World Health Organization [Internet]. Food safety. Geneva: WHO; 2013. Available from: <http://www.who.int/foodsafety/en/> [accessed 6 June 2013].
4. *Diet, nutrition and the prevention of chronic diseases: report of the joint WHO/FAO Expert Consultation*. Geneva: World Health Organization; 2003 (WHO Technical Report Series 916). Available from: <http://www.fao.org/docrep/005/ac911e/ac911e00.HTM> [accessed 6 June 2013].
5. *Global status report on noncommunicable diseases 2010*. Geneva: World Health Organization; 2011. Available from: http://www.who.int/nmh/publications/ncd_report2010/en/index.html [accessed 6 June 2013].
6. *Levels and trends in child malnutrition: UNICEF–WHO–The World Bank: joint child malnutrition estimates*. New York, Geneva & Washington: United Nations Children's Fund, World Health Organization & The World Bank; 2012. Available from: <http://www.who.int/nutgrowthdb/estimates/en/index.html> [accessed 6 June 2013].