**EXECUTIVE BOARD**
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# Accelerating efforts on food safety

## Report by the Director-General

## BACKGROUND

1. At a meeting of the Officers of the Board, it was recommended to add this item to the provisional agenda of this session of the Board.[1]

2. Recently, in collaboration with the African Union and the World Trade Organization (WTO), respectively, WHO and FAO contributed to convening the First International Conference on Food Safety (Addis Ababa, 12 and 13 February 2019) and the International Forum on Food Safety and Trade (Geneva, 23 and 24 April 2019), which reviewed the status of food safety in the world and identified new and emerging challenges.[2] The six WHO/FAO Regional Coordinating Committees, which are subsidiary bodies of the WHO/FAO Codex Alimentarius Commission, are in the process of discussing follow-up actions at meetings that will conclude in November 2019. To date, the Committees have highlighted the need to mainstream food safety to advance public health goals, raise the profile of food safety in the governing bodies of both WHO and FAO and ensure sustainable funding for scientific advice to the Codex Alimentarius Commission.

3. Food safety has been part of the WHO Constitution (Article 2(u)) since its adoption. Over the past decades, major food safety crises, such as the epidemic of the variant Creutzfeldt-Jakob disease linked to bovine spongiform encephalitis and outbreaks of enterohaemorrhagic *Escherichia coli* infections that affected many countries, have profoundly influenced or reshaped food safety policies and national food control systems. Increasing global trade in food and animal feed have likewise highlighted the importance of managing food safety at the international level.

4. Member States have requested the WHO Secretariat to implement a number of activities to promote and strengthen food safety worldwide, most recently in resolution WHA53.15 (2000), which resulted in the WHO global strategy for food safety: safer food for better health, issued in 2002;[3] and resolution WHA63.3 (2010), which resulted in the WHO strategic plan for food safety, including foodborne zoonoses, 2013–2022.[4] Subsequently, the Regional Committee for the Western Pacific, in

[1] See document EB146/1 (annotated).

[2] "Chairperson's Summary" and "Joint FAO/WHO/WTO Statement" (https://www.who.int/news-room/events/international-food-safety-conference, accessed 6 November 2019).

[3] WHO Food Safety Programme. WHO global strategy for food safety: safer food for better health. World Geneva: Health Organization; 2002 (https://apps.who.int/iris/handle/10665/42559, accessed 31 October 2019).

[4] Advancing food safety initiatives: strategic plan for food safety including foodborne zoonoses 2013–2022. Geneva: World Health Organization, 2013 (https://www.who.int/foodsafety/strategic-plan/en/, accessed 31 October 2019).

resolution WPR/RC68.R6 (2017), endorsed the Regional Framework for Action on Food Safety in the Western Pacific.[1] The Strategic Plan of the Pan American Health Organization 2020–2025: Equity at the Heart of Health,[2] approved by the WHO Regional Committee for the Americas, in resolution CD57.R2 (2019), addresses the role of food safety in reducing communicable diseases, emphasizing the need for increased access to interventions in support of food safety along the food supply chain in order to prevent foodborne illnesses. Similarly, it is expected that at a meeting of Member States in the South-East Asia Region, due to be held in November 2019, national food safety authorities will endorse a regional framework for action on food safety 2020–2025.

5. In the 1960s, WHO and FAO established the joint WHO/FAO food standards programme, whose executive organ is the Codex Alimentarius Commission. The Commission has since been developing new and revised standards on food safety and nutrition, based on the scientific advice provided by several joint WHO/FAO expert bodies. The relevance and pertinence of Codex standards as international public goods was noted in a recent evaluation of WHO's normative functions,[3] while the importance of science and risk analysis as the basis of food safety standard-setting was reaffirmed in the Codex Strategic Plan 2020–2025.[4] WHO and FAO also provide technical support to Member States in effectively engaging in the Codex discussion and in implementing its adopted standards at the national level. Most of these activities – peripheral to the Codex yet essential – are implemented by WHO in close coordination with FAO.

## Burden of foodborne diseases

6. Foodborne diseases are caused by hazardous physical, chemical, microbial and radioactive agents in food. Microbial hazards include prions, viruses, bacteria and parasites. The nature of such illnesses ranges from acute (e.g. diarrhoea, allergy, meningitis, miscarriage) and sub-acute (e.g. arthritis, renal failure) to chronic (e.g. cancer, epilepsy) symptoms and sequelae.[5]

7. In 2015, WHO issued the first estimates of the global burden of foodborne diseases: every year, 31 foodborne hazards (of the more than 200 known) cause 600 million cases of foodborne illnesses and 420 000 deaths, resulting in the loss of 33 million disability-adjusted life years.[6] Children under five years of age are at particularly high risk, with 125 000 deaths (30% of global mortality) every year. The burden is unevenly distributed across regions, with the African, South-East Asia and Eastern Mediterranean regions carrying the highest burden per population. Diarrhoeal diseases are the leading cause of disease burden in those regions.

8. In 2018, a World Bank study[7] estimated the total productivity loss associated with foodborne diseases in low- and middle-income countries to be US$ 95.2 billion per year and the annual cost of

[1] The Regional Framework for Action on Food Safety in the Western Pacific. Manila: WHO Regional Office for the Western Pacific; 2018 (https://apps.who.int/iris/handle/10665/272681, accessed 31 October 2019).

[2] Document OD359. Available at http://iris.paho.org/xmlui/handle/123456789/51599, accessed 31 October 2019.

[3] Evaluation of WHO's Normative Function. Available at https://www.who.int/about/evaluation/who_normative_function_report_july2017.pdf, accessed 31 October 2019.

[4] Codex Strategic Plan 2020–2025 (http://www.fao.org/3/ca5645en/CA5645EN.pdf, accessed 31 October 2019).

[5] https://www.who.int/news-room/fact-sheets/detail/food-safety.

[6] https://www.who.int/foodsafety/areas_work/foodborne-diseases/ferg/en/.

[7] Jaffee S, Henson S, Unnevehr L, Grace D, Cassou E. The safe food imperative: accelerating progress in low- and middle-income countries. Washington DC: International Bank for Reconstruction and Development and The World Bank; 2019 (https://openknowledge.worldbank.org/handle/10986/30568, accessed 31 October 2019).

treating foodborne illnesses to be US$ 15 billion. Other costs, though harder to quantify, include losses of farm and company sales, foregone trade income, the health repercussions of consumer avoidance of perishable yet nutrient-rich foods and the environmental burden of food waste.

9. A large proportion of those public health burden and economic costs can be avoided by adopting preventive interventions in the food chain – from primary food production, storage and processing through to the point of final preparation and consumption – combined with improved food safety management at the national, regional and global levels, including contamination monitoring, disease and outbreak surveillance, laboratory diagnoses and food traceability and recall systems. Some of those measures should be implemented by governments and local authorities, while others should be implemented by the private sector and consumers.

10. Foodborne disease generally is subject to huge underreporting. Food safety interventions contribute to attaining Sustainable Development Goals targets and improving the indicators of the Thirteenth General Programme of Work, 2019–2023, such as infant mortality or cancer mortality, which are multifactorial and not solely dependent on food safety. Lack of specific indicators to measure progress and prioritize areas for action in food safety is seen as a challenge to quantifying the magnitude of the foodborne disease burden and building up the necessary investments in food safety systems.

## WHO's response to reduce the burden of foodborne diseases

11. WHO is working to protect the health of consumers by providing (i) normative frameworks, (ii) science-based policy guidance, (iii) consolidated health-related data, (iv) technical assistance and cooperation and (v) public health leadership.

12. WHO, jointly with FAO, provides resources and strategic and technical guidance to the Codex Alimentarius Commission, which has been meeting regularly since 1963 to develop international food standards. Since 1995, Codex standards and related texts have become international benchmarks for food safety under the WTO Agreement on the Application of Sanitary and Phytosanitary Measures. WHO contributes approximately 20% of the budget of the joint WHO/FAO food standards programme administered by FAO, which contributes the remaining 80%.

13. The international risk assessments conducted by the Joint WHO/FAO Expert Committee on Food Additives, the Joint WHO/FAO Meeting on Pesticide Residues and the Joint WHO/FAO Expert Meeting on Microbiological Risk Assessment, as well as by ad hoc expert consultations, are used both by the Codex Alimentarius Commission and Member States. While the operating expenses of the Commission are covered by the budget of the joint WHO/FAO food standards programme, the resources for the provision of scientific advice are identified and managed by WHO and by FAO separately. The issue of how to ensure sustainable and predictable funding for scientific advice has been discussed by the Commission, most recently at its 42nd Session, in order not to impede or delay its standards-setting work to protect the health of consumers.[1]

14. International risk assessments must be supported by the collection of food contamination data that are representative of different regions and diets. WHO is home to the Global Environment Monitoring System – Food Contamination Monitoring and Assessment Programme (GEMS/Food) which informs governments, the Codex Alimentarius Commission and other relevant institutions on the levels and trends of chemical contaminants in food and their contribution to total human exposure. The data on

[1] See documents CX/CAC 19/42/14 and CX/CAC 19/42/14 Add.1 (http://www.fao.org/fao-who-codexalimentarius/meetings/detail/en/?meeting=CAC&session=42, accessed 31 October 2019).

food contamination and risk assessments are made available through the Food Safety Collaborative platform (FOSCOLLAB) dashboard.

15. All countries should participate in the work of the Codex Alimentarius Commission in order to ensure that Codex standards are truly global and relevant. To that end, the Directors-General of WHO and FAO established the Codex Trust Fund, which from 2004–2015 ensured that developing and transition economy countries were able to participate in Codex meetings in order to better understand the importance of Codex. The successor initiative, launched in 2016, supports countries in strengthening their national Codex structures to engage fully, effectively and sustainably in the establishment and use of international food standards.

16. WHO, in collaboration with FAO, has developed a national food control system assessment tool to assist countries to identify the areas for improvement and prioritize their investment. In addition, WHO published in 2018 a new manual on strengthening the surveillance of, and response to, foodborne diseases,[1] which is also a prerequisite for effectively combating antimicrobial resistance in the food chain. Currently, WHO is finalizing a country tool to estimate the national foodborne disease burden.

17. Recognizing that food safety responsibilities at the national level are often split among different ministries and that managing food safety emergencies often requires a rapid exchange of information across borders, in 2004 WHO launched the International Network of Food Safety Authorities (INFOSAN), in cooperation with FAO. INFOSAN is managed jointly by WHO and FAO and is complementary to the International Health Regulations (2005), collaborating with external partners such as the European Rapid Alert System for Food and Feed and internally with the WHO Global Outbreak Alert and Response Network (GOARN).

18. WHO is playing a global leadership role in advocating for food safety at the policy and technical levels. After organizing World Health Day 2015 on the theme of food safety, WHO and FAO have been designated by the United Nations General Assembly to facilitate the celebration of the annual World Food Safety Day.[2] WHO has launched the Five Keys to Safer Food initiative as a universal food hygiene campaign, which operates in more than 87 languages and in a range of different target groups and settings.

19. WHO is delivering its products and services through a collaborative effort that cuts across all three levels of the Organization. Normative products, including food safety standards (Codex standards), the scientific advice underpinning those standards and WHO recommendations, and the global guidance manual and tools are generated at the headquarters level. The joint WHO/FAO secretariats for INFOSAN and for the Codex Trust Fund are also located at WHO headquarters. Interagency collaboration involving, for example, FAO, the International Atomic Energy Agency, the World Organisation for Animal Health, the World Food Programme and WTO, is also led by WHO headquarters. The regional and country offices are taking a lead in identifying priority areas for action and supporting countries to strengthen their capacity to prevent, detect and respond to foodborne disease outbreaks through risk-based food control regulations and enhanced surveillance and information exchange, thus reinforcing the implementation of international standards.

[1] Manual – Strengthening surveillance of and response to foodborne diseases (https://www.who.int/foodsafety/areas_work/foodborne-diseases/fbd_surveillance/en/, accessed 31 October 2019).

[2] See General Assembly resolution 73/250 (https://undocs.org/A/RES/73/250, accessed 31 October 2019).

## New and emerging challenges

20. The outstanding challenges facing food safety were identified by the above-mentioned international conferences held in February and April 2019 and include: (i) providing timely support to the Codex Alimentarius Commission in developing or revising international standards that take account of new scientific evidence and methodologies and addressing emerging hazards; (ii) providing support to Member States to effectively participate in the Codex work and implement adopted Codex standards at the national level; (iii) making use of new technologies to improve food safety, such as whole genome sequencing, processing of big data using artificial intelligence, blockchain and other innovations in product-tracing, while harnessing potential risks from the application of novel technologies such as genome editing; and (iv) addressing the food safety risks driven or influenced by climate change[1] and building sustainable and resilient food systems. Among those innovations, whole genome sequencing has the potential to revolutionize the foodborne disease outbreak investigations and product recalls, which would benefit all high-, middle- and low-income countries.

21. In order to build effective food safety systems at the national, regional and global levels, it is essential to collect quality data, build evidence and connect these to concrete actions that are given a clear priority. Sharing expertise, knowledge and information on existing and emerging food safety challenges will inform forward-looking policies, regulations and programmes. Finally, a clear understanding by policy-makers that food safety is an important pillar of public health is critical to mobilizing appropriate resources towards food safety, following the "One Health" approach.

## ACTION BY THE EXECUTIVE BOARD

22. The Board is invited to note the report and to provide advice on how Member States can strengthen: the development and implementation of Codex Standards; food safety legislation and regulations; other components of national food safety systems; and information exchange operations during food safety events.

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[1] https://www.who.int/foodsafety/publications/all/climate_change/en/.