WORLD HEALTH ORGANIZATION

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Food safety and health

Report by the Secretariat

1. The Fifty-third World Health Assembly, in resolution WHA53.15, requested the Director-General to put in place a global strategy for surveillance of foodborne diseases and to initiate a range of other activities on food safety and health. Since then WHO has organized a strategy planning meeting on food safety (Geneva, 20-22 February 2001). Following further consultation with Member States, WHO has drawn up a draft global food safety strategy, including surveillance, as outlined in this document.

GLOBAL FOOD SAFETY CONCERNS

2. **Microbiological hazards** and the foodborne diseases they cause are an increasingly important public health problem. In many countries significant increases have been reported over the past few decades in the incidence of diseases caused by microorganisms transmitted mainly by food, such as *Salmonella* spp. and *Campylobacter* spp. New, serious hazards have emerged in the food chain, such as enterohaemorrhagic *Escherichia coli* and bovine spongiform encephalopathy.

3. **Chemical hazards** remain a significant source of foodborne illness. Chemical contaminants in food include natural toxicants, such as mycotoxins and marine toxins, environmental contaminants, such as mercury and lead, and naturally occurring substances in plants. Food additives, micronutrients, pesticides and veterinary drugs are deliberately used in the food chain; however, assurance must first be obtained that all such uses are safe.

4. Although traditional approaches have proved largely successful, risk assessment now needs also to take account of susceptible populations, combined low-level exposure to several chemicals, endocrine effects, and effects on development of the fetal neural system. More data on food intake and on the concentrations of contaminants in food are needed, in particular in developing countries, in order to permit assessment and management of these risks, including setting of national and international standards.

5. **New technologies**, such as genetic engineering, irradiation of food, and modified-atmosphere packaging, can improve food production and food safety. However, the potential risks associated with application should be objectively and rigorously assessed well before these technologies are widely introduced. The basis for risk assessment should be communicated effectively, so that the public can be involved at the early stages of the process. Assessment should be based on internationally agreed

principles and should be integrated with consideration of other factors, such as health benefits, socioeconomic factors, ethical issues and environmental considerations.

6. **Building capacity** in food safety is essential in most countries, especially developing ones. Both positive and negative experiences from countries with well-developed food safety systems could be used as a means to improve systems globally. Foodborne disease has a significant impact not only on health but also on development. Moreover, globalization of the food trade and development of international food standards have raised awareness of the interaction between food safety and export potential for developing countries.

7. Putting food safety on the political agenda is the first step in reducing foodborne illness; however, even with this step in place, many developing countries lack the technical expertise and financial resources to implement food safety policies. Support from donors for capacity building in order both to protect health and to improve food trade, would help to build up a framework for sustainable development.

DRAFT FOOD SAFETY STRATEGY: SUMMARY[1]

Goal

8. To reduce the health and social burden of foodborne disease.

Methods

9. The goal will be achieved through three principal lines of action:

- advocating and supporting the development of risk-based, sustainable, integrated food safety systems;
- devising science-based measures along the entire food production chain that will prevent exposure to unacceptable levels of microbiological agents and chemicals in food;
- assessing and managing foodborne risks and communicating information, in cooperation with other sectors and partners.

Approaches

10. **Surveillance of foodborne diseases.** Surveillance is the basis for the formulation of national strategies to reduce food-related risks. Detailed and accurate knowledge about the nature and level of foodborne diseases is a prerequisite for action to lower these levels. Therefore, the present paucity of reliable data on foodborne diseases in most countries is a major impediment for evidence-based interventions. A surveillance system employing sentinel sites and regional and international laboratory networks would be a major improvement in most regions. In addition, internationally agreed methods are needed for surveying foodborne diseases and linking them to food contamination on the basis of risk. This requires an interdisciplinary approach that includes all sectors dealing with foodborne diseases and food safety in both the health and agriculture sectors.

[1] The full draft food safety strategy will be available in the meeting room.

11. It is essential for Member States to be committed to strengthening systems for surveillance of foodborne diseases. WHO will facilitate the strengthening of systems based on laboratory and epidemiological findings and of their linkages to programmes for monitoring food contamination. WHO and its collaborating centres will promote key sentinel sites both in developing countries and globally for surveillance of foodborne diseases.

12. **Better risk assessment.** WHO, in collaboration with FAO, will develop tools for appropriate risk assessment. With the help of these tools, joint WHO/FAO expert groups will compile information on chemicals and microorganisms in food and their link to foodborne disease. Such assessments can serve as the basis for setting international standards and guidelines, and for national food regulations or other initiatives. The provision of tools and information will permit the effective transfer of risk-assessment technology and data between countries, including developing countries.

13. The developing discipline of microbiological risk assessment provides a tool to set priorities for future interventions. Effective management of microbiological hazards is enhanced through the use of preventive approaches, such as the Hazard Analysis and Critical Control Point (HACCP) system, which is a tool for process control of points critical for preventing hazards in food. Use of these new tools, suitably adapted for developing countries, should be advocated in order to improve public health through the reduction of microbiological hazards in food and their associated diseases.

14. **Safety of new technologies.** WHO will promote a holistic approach to the production and safe use of foods derived from new methods of production, including genetic engineering. This approach is supported by a framework for evaluation that includes safety considerations, health benefits, environmental effects, and socioeconomic consequences. The framework provides a basis for internationally agreed methods and guidelines for evaluating the safety of new technologies and guidance for Member States in framing policies on the use of foods and food ingredients derived by new technologies.

15. **Public health in the Codex Alimentarius.** WHO will work to ensure that consumer health concerns are reflected in the priorities of the Codex Alimentarius Commission. In this regard, WHO is promoting a thorough review and optimization of the work of the Commission. In general, WHO seeks greater involvement of the health sector in the development of Codex standards, guidelines and recommendations. WHO will support the effective participation of developing countries in the work of the Commission.

16. **Risk communication.** The results of risk analyses should be communicated in a readily understandable form. WHO will support the development of methods for fostering dialogue among, and participation of, stakeholders, including consumers, in the communication process. Methods for assessing the effects of risk communication should be evaluated. In line with the methodology so developed, WHO will produce food safety publications and other products for targeted audiences.

17. **International cooperation.** WHO will work for the establishment of an international coordination group on food safety to ensure a consistent, effective approach to food safety. This group should be geared to coordinating at country level activities on food safety undertaken by international bodies. WHO will support Member States in introducing health concerns into considerations on the globalization of food trade.

18. **Capacity building.** WHO will formulate regional food safety strategies on the basis of the WHO global food safety strategy and of specific regional needs such as technical support, educational tools and training. Donor support will be needed to prioritize food safety in public health in

developing countries. A network of WHO collaborating centres will be established in order to further capacity building.

ACTION BY THE EXECUTIVE BOARD

19. The Board is invited to review and endorse the draft food safety strategy.

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