## **CONSULTATIONS AND WORKSHOPS**

## Risk assessment of microbiological hazards in foods

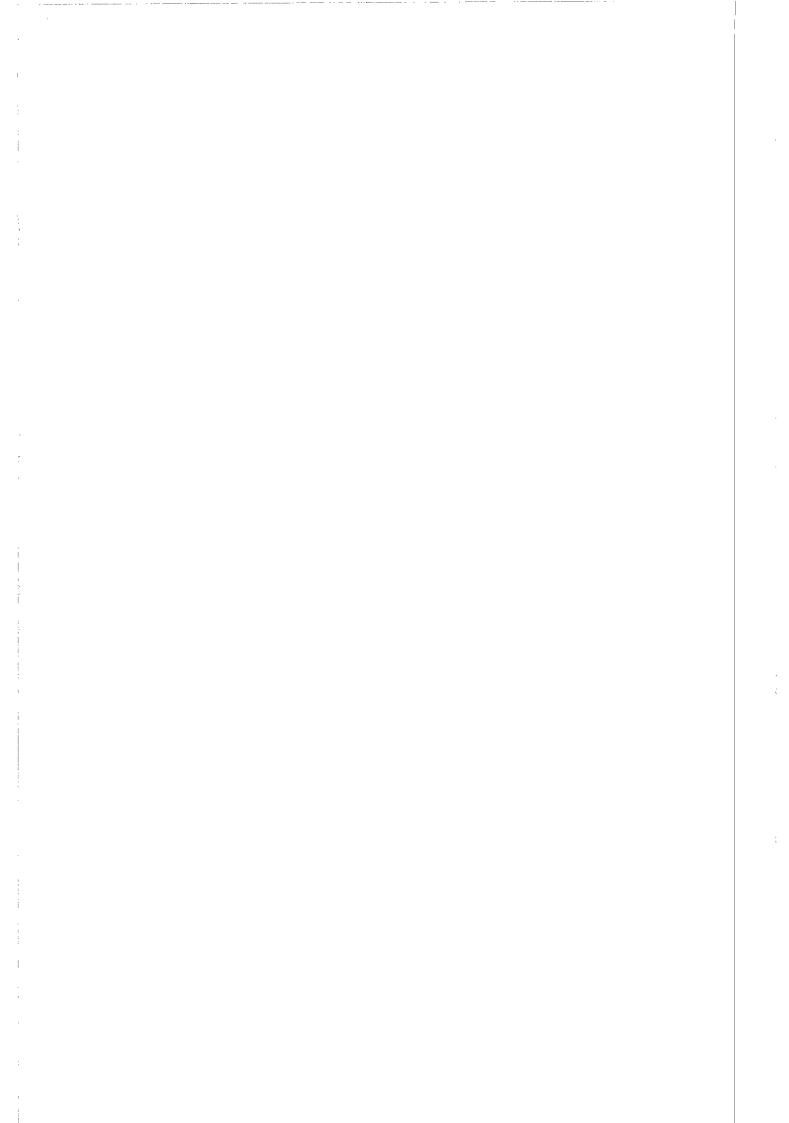
Report of a Joint FAO/WHO Expert Consultation Geneva, Switzerland 15–19 March 1999





Issued by the World Health Organization in collaboration with the Food and Agriculture Organization of the United Nations

FOOD SAFETY PROGRAMME
DEPARTMENT OF PROTECTION OF THE HUMAN ENVIRONMENT
WORLD HEALTH ORGANIZATION



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## 1. INTRODUCTION

The Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) convened an Expert Consultation on Risk Assessment of Microbiological Hazards in Food, in Geneva, Switzerland, from 15 to 19 March 1999. The list of participants is presented in *Annex 1*.

Mrs Poonam Khetrapal Singh, Executive Director of the Sustainable Development and Healthy Environments Cluster in WHO, opened the Consultation on behalf of the Director-General of WHO. In welcoming the participants, Mrs Khetrapal Singh stated that present-day international trade in food plays an increasingly important role in the provision of safe and nutritious diets for the world's populations. She noted that international trade has a twofold benefit. Trade in food introduces a greater variety of foods into the diet, providing consumers with a wider choice of products. Food trade also provides food exporting countries with foreign exchange. International food trade is indispensable for the economic development of many countries, and thus for an improvement in the standard of living for many peoples.

The growth in international trade in food has increased the risk of cross-border transmission of infectious agents and underscores the need for an international approach to estimate the risk that microbial pathogens pose to human health and to identify appropriate interventions to reduce or eliminate these risks. More than three million people die annually from diarrhoeal diseases, while hundreds of millions suffer from frequent episodes of diarrhoea and its debilitating consequences. Of particular concern are the extent and life-threatening nature of such diseases in the young in developing countries. The world has experienced a continuing increase in the reported incidence of foodborne diseases and developing countries are likely to bear the brunt of foodborne disease.

Mrs Khetrapal Singh thanked the participants, on behalf of the Director-General, for accepting the invitation to attend and for placing their valuable time and expertise at the disposal of the two organizations. She reminded them that their participation in the Consultation was in their personal capacities as international experts in the subject area and not as representatives of their governments, institutes or other organizations. Mrs Khetrapal Singh acknowledged that the participants had already done a great deal of preparation prior to the Consultation and would be asked to work many additional hours during the coming week.

Mr Gregory Orriss, Chief, Food Quality and Standards Service, Food and Nutrition Division of the FAO, welcomed the participants on behalf of the Director-General of FAO. He noted that this was the fourth in a series of consultations held in the area of risk analysis. The first of these meetings was held in Geneva in 1995 and like this one it focused on the risk assessment component of risk analysis. The other two consultations, held in Rome in 1997 and 1998, addressed risk management and risk communication respectively.

Mr Orriss stressed that the issues to be discussed at this Consultation are of great importance both for the protection of the health of consumers and for the international trade in food. He noted that Article 5 of the Agreement on the Application of Sanitary and

Phytosanitary Measures (SPS Agreement) requires that World Trade Organization (WTO) Members ensure that their sanitary and phytosanitary measures are based on an assessment of the risks to human, animal or plant life or health, and in so doing take into account risk assessment techniques developed by the relevant international organizations. The development of risk assessment techniques as a means of evaluating the risks associated with microbiological hazards is viewed by the Codex Alimentarius Commission (CAC) and by FAO and WHO as a priority.

Mr Orriss stressed the need for the Consultation to develop recommendations for an approach to microbiological risk assessment at the international level. He also reminded participants to consider the inputs and needs of developing countries in the elaboration of their recommendations.

Dr Allan Hogue, WHO Secretary, emphasized the need for the Consultation to address risk assessment of microbiological hazards in foods from an international perspective. International risk managers need a scientific basis for measures to reduce the risk of illness from foodborne pathogens. The CAC has requested risk assessment to support the activities of the Codex Committee on Food Hygiene (CCFH). Dr Hogue also stated that the need for scientifically justified food safety measures must be balanced by the ability of the scientific community to generate the necessary data and refine the scientific tools for risk assessment.

The Consultation elected Dr Roger Skinner as Chairperson and Dr Steven Hathaway as Vice-Chairperson. Dr Anna Lammerding agreed to serve as Rapporteur. The deliberations of the Consultation were based on a number of background papers (listed in *Annex 2*).

## 2. BACKGROUND

The globalization of food trade and increasing problems worldwide with emerging and re-emerging foodborne diseases have increased the risk of cross-border transmission of infectious agents. Because of the global nature of food production, manufacturing, and marketing, infectious agents can be disseminated from the original point of processing and packaging to locations thousands of miles away. It is important to understand how infectious agents enter and spread through the food chain in order to prevent or minimize exposure of the consumer to such agents. This underscores the need to estimate the risk that foodborne pathogens pose to human health in an international context and to identify possible interventions to reduce or eliminate these risks.

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