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WORLD HEALTH ORGANIZATION

MEETING OF INTERESTED PARTIES

GENEVA, 18 TO 29 JUNE 2001

Area of work: food safety

Progress Report 2000

1. FOOD SAFETY: SUMMARY OF THE GLOBAL SITUATION IN 2000

A serious burden of foodborne disease exists in both developed and developing countries. Every year billions of people around the world become sick as a result of consuming contaminated and unsafe food. While it is estimated that up to 2 million children die every year as a result of diarrhoea caused by water- or foodborne micro organisms, up to 30% of the population in industrialized countries may be affected by foodborne illness each year.

In recent years, serious outbreaks of foodborne disease have occurred on virtually every continent, demonstrating both the public health and social significance of foodborne diseases.

In addition to the human suffering, the consequences of foodborne illnesses for emerging economies are particularly severe. The disease burden strains health care systems and affects economic productivity in general, while uncontrolled contamination of foods affects the development of sustainable food production systems.

2. GOALS AND OBJECTIVES

The goal of WHO's work in this area is to reduce the burden of foodborne disease.

The objective of WHO's work in this area is to create an environment which enables the health sector, in cooperation with other sectors and partners, effectively and promptly to assess, communicate and manage foodborne risk.

3. PRIORITY AREAS

The food safety area of work focuses on five priority areas:

- microbial foodborne disease
- chemical hazards in food
- foods derived from biotechnology
- the Codex Alimentarius Commission
- technical cooperation activities.

4. ACHIEVEMENTS IN 2000

4.1 Microbiological foodborne disease

Apart from a number of routine tasks performed by WHO in food safety during the year 2000, two major new initiatives have been started this year.

WHO has in cooperation with FAO initiated **microbiological risk assessment (MRA)** at the international level. MRA is a new science-based methodology to characterize the size and nature of foodborne risk as well as the factors affecting this along the entire food production chain. While a few countries have initiated MRA, most developed as well as developing countries are looking for international help. WHO will develop this technique in active collaboration with the scientific community of all regions, and will specifically ensure developing countries participation.

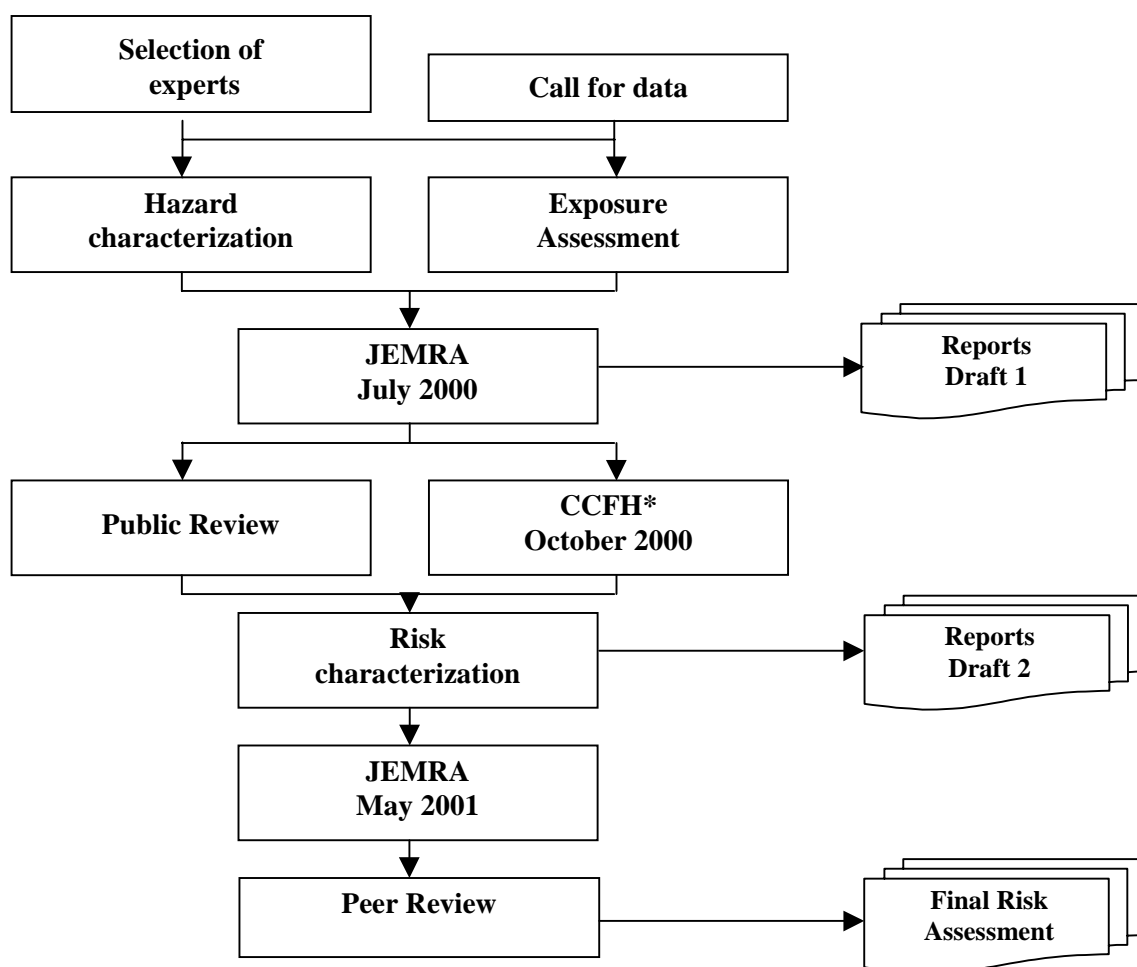
In addition, an important part of the 2000-2001 funding for food safety will go to the **foodborne disease surveillance** area which will be initiated primarily in 2001 in close cooperation between Clusters. While disease surveillance has a long WHO tradition, the surveillance of foodborne disease has not been covered in detail, and new efforts are needed to evaluate the true disease burden in all regions as well as to be able to input disease data into MRA.

- ***Microbiological risk assessment of Salmonella in eggs and broilers and Listeria in ready-to-eat food***

A new line of international work was defined (see Figure) as well as several new series of WHO publications for the final publication of MRA work to the scientific community, to risk managers as well as to the general public.

- Two **international drafting group meetings** on *Salmonella* spp. in broilers and eggs.
- Two **international drafting group meetings** on *Listeria monocytogenes* in ready-to-eat foods.

- The **first expert consultation** Joint Expert Meeting on Microbiological Risk Assessment (JEMRA) was held in July 2000.
- After a **second JEMRA** 30 April – 4 May 2001 the outcome will be published.



* Codex Committee on Food and Hygiene

- ***Vibrio in seafood and Campylobacter in broilers***

FAO and WHO initiated new JEMRA risk assessment work in 2000 on these pathogens to be finalized during 2002.

- ***Development of guidelines for microbiological hazard characterization – food and waterborne pathogens***

These guidelines were initiated at an **international WHO Workshop** hosted by the Institute for Public Health and Environment, the Netherlands from 13-18 June 2000.

- ***Interaction between Assessors and Managers of Microbiological Hazards in Foods***

A **WHO/FAO Expert Consultation** was hosted by the German Institute for Hygiene and Food Safety.

4.2 Chemical Hazards in Food

- ***Joint FAO/WHO Expert Committees and Meetings***

WHO contributes to these activities through toxicological assessments as well as exposure assessments. These evaluations are instrumental in the management of chemical hazards in food.

- Two meetings of the Joint FAO/WHO Expert Committee on Food Additives (JECFA)
- One meeting of the Joint FAO/WHO Meeting on Pesticide Residues (JMPR).

- ***GEMS/Food (Global Environmental Monitoring System)***

GEMS/Food continues to collect, collate and evaluate data submitted by GEMS/Food, participating institution on the levels and trends of chemical contaminants in food and in the total diet.

- The WHO SIGHT portal has become operational and will allow Internet access to the GEMS/Food database.
- A GEMS/Food publication on total diet studies issued.
- A GEMS/Food publication on an analytical quality assurance (AQA) study of selected pesticides in tomato powder issued.
- An AQA study of heavy metals in sunflower seed was coordinated.
- A manual for the electronic submission of data on contaminants in food completed.
- The Operating Program for Analytical Laboratories to aggregate data (OPAL I) was reviewed by collaborating laboratories.

- ***General Chemical issues***

- Contributions to a WHO Fact Sheet on bottled water
- Contributions to a WHO monograph on arsenic

- A global assessment of exposure to mycotoxins in food
- An article as well as several missions on healthy marketplaces.

4.3 Foods Derived from Biotechnology

WHO has decided, in collaboration with FAO, to organize a series of expert consultations on the safety of Genetically Modified (GM) foods, recognizing the increasing interest in this issue among Member States. This work will also provide scientific input into the Codex Task Force on Foods Derived from Biotechnology, which is operating from 2000 to 2003.

- The **First FAO/WHO Joint Consultation on Biotechnology**, Geneva 29 May to 2 June 2000 dealt with **safety and nutritional aspects of GM Foods**.
- Preparation of the **Second FAO/WHO Joint Consultation on Biotechnology** to be held in Rome from 22 to 25 January 2001, addressing the question of assessing the **allergenic potential of foods derived from GM plants**.

4.4 Codex Alimentarius Commission

- Increased involvement in the **management of the Secretariat of the Codex Alimentarius Commission**, through new administrative measures as well as support to the Secretariat by secondment from WHO.
- A joint **FAO/WHO workshop on exposure assessment** methodology for contaminants and toxins in food, to set Maximum Limits in food.
- A continuation of the **science-based advice** to Codex decisions relative to **chemical, microbiological and biotechnology risk**, through independent expert meetings, such as JECFA, JMPR, and JEMRA.
- Participation in the work of relevant Codex subsidiary bodies:
 - Codex Committee on Food Additives and Contaminants
 - Codex Committee on Pesticide Residues
 - Codex Committee on Food Hygiene
 - Codex Committee on General Principles
 - Codex ad hoc Intergovernmental Task Force on Foods derived from Biotechnology
 - Codex Committee on Fish and Fishery Products
 - Codex Committee on Food Labelling
 - Codex Committee on Residues of Veterinary Drugs in Foods

- Codex Committee on Food Import and Export Certification and Inspection
- Codex Regional Coordinating Committee for Europe
- Codex Regional Coordinating Committee for Africa
- Codex Executive Committee.

4.5 Technical cooperation

The application of new and more efficient approaches to food safety, based on risk analysis (consisting of assessment, management and communication) and the application of hazard based control systems (such as Hazard Analysis and Critical Control Point Systems (HACCP), have been advocated by WHO. A number of activities to support this have been initiated:

- In collaboration with Natural Resources Institute, United Kingdom and the Regional Office for South-East Asia, preparation of **HACCP training** in Aqua-culture in developing countries.
- In cooperation with PAHO, FAO, and the Pan American Institute for Food Protection and Zoonoses (INPPAZ), preparation of, and participation in, **Risk Analysis training** courses in Argentina.
- In collaboration with the International Life Sciences Institute, United Kingdom and FAO, preparation and participation in a seminar workshop on microbial risk assessment, November 2000 in Manila.
- Publication, jointly with the Industry Council for Development, United Kingdom, of training material on **Food Safety for Nutritionists and Other Health Professionals**, adaptable to local differences and interests.
- Publication of a guide: Foodborne Disease: A Focus for Health Education.
- Publication of a fact sheet on: **Food Safety and Foodborne Illness**.

5. GOVERNING BODIES

- *Executive Board report of the Director-General on food safety*

This report, prepared for the Board meeting January 2000, focuses on the need to assess the burden of disease, as well as evaluate and suggest options to lower this burden. The report also calls for a long-term, strategic planning of food safety initiatives globally, regionally and nationally.

- *World Health Assembly resolution on food safety*

Adopted at the Fifty-third World Health Assembly in May 2000 resolution WHA53.15 urges Member States to integrate food safety as one of their essential public health and public nutrition functions, while it requests the Director-General to work towards developing sustainable, integrated food-safety systems for the reduction of health risk along the entire food chain.

6. IMPROVEMENTS IN COLLABORATION AND TRANSPARENCY

- *Inter-departmental and cross-cluster collaboration*

The Food Safety Programme has initiated improved collaboration with the other food safety key units at headquarters, notably: Nutrition, Water and Sanitation, Chemical Safety and Disease Surveillance and Response.

- *Increased collaboration between regions and headquarters*

A series of annual meetings and additional contacts of regional and headquarters staff involved in food safety was initiated in 2000, resulting in improvements in communication and planning processes.

- *Interagency collaboration*

While cooperating directly with FAO, both within and outside the FAO/WHO Food Standards Programme, WHO also cooperates with a number of other international organizations, such as World Bank, IAEA, UNDP, UNEP, WTO, the International Office of Epizootics, development agencies and international nongovernmental organizations.

- *Improved transparency in the selection of experts*

WHO and FAO have established rosters of experts in microbiology and biotechnology from which individuals are selected to serve at expert consultations. All applicants for the roster are evaluated by a panel with external participation. The rosters are posted on the respective WHO and FAO web sites.

- *New communication initiatives*

In acknowledging the need for simpler and readily understandable messages from WHO in the food safety area, a series of posters has been initiated with the development of a poster in the six official languages of the organization posing the question “**How safe is our food?**”

7. COLLABORATING CENTRES

WHO works with collaborating centres in the following areas:

- Food safety
- Food contamination monitoring
- Pesticide analysis and training
- Foodborne disease surveillance
- Research and training in food hygiene
- Food virology
- Foodborne listeriosis

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