CODEX ALIMENTARIUS COMMISSION E

Food and Agriculture Organization of the United Nations

World Health Organization

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Agenda Item 3 **CX/RVDF 10/19/3**
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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON RESIDUES OF VETERINARY DRUGS IN FOODS

Nineteenth Session

Burlington, Vermont, United States of America, 30 August – 3 September 2010

MATTERS ARISING FROM FAO/WHO

1. This document provides information on FAO and WHO activities in the area of provision of scientific advice to Codex and Member countries, as well as other activities which are of interest for CCRVDF.

Provision of Scientific Advice from FAO and WHO

Matters for information from the electronic meeting (January – May 2010) of the Joint FAO/WHO Expert Committee on Food Additives (JECFA)

2. The results of the electronic meeting of JECFA constituted to review data on residues of ractopamine in pig tissues, on request by the 32nd Session of the Codex Alimentarius Commission, is available as a prepublication of FAO JECFA Monographs 9 on the FAO JECFA website at: http://www.fao.org/ag/agn/agns/jecfa_new_en.asp .

Principles and Methods for Risk Assessment of Chemicals in Food

3. FAO and WHO have finalised the project to update the principles and methods for the risk assessment of chemical in food, including food additives, contaminants and natural toxins, residues of veterinary drugs and pesticides. The document will be published shortly as Environmental Health Criteria No 240 and will be made available on the web: http://www.who.int/ipcs/food/principles/en/index.html

Expert Consultation on the application of nanotechnology in the food industry

4. In response to concerns raised by member countries on the possible food safety implications of the application of nanotechnology to food and agriculture, FAO and WHO has implemented an expert meeting to address this issue, in June 2009 at FAO HQ in Rome. The aim of the meeting was three-fold (1) summarize actual and anticipated nanotechnology applications in the food and agriculture sectors, and develop a common view of their implications for food safety, (2) to review current risk assessment procedures and evaluate their adequacy for the assessment of nano-particles in relation to foods, (3) consider issues related to communication with all stakeholders, and overall agree on priority research to fill information gaps related to potential food safety issues and to provide guidance FAO and WHO how to address food safety issues linked to nanotechnology applications. The report is available at: http://www.fao.org/ag/agn/agns/meetings_consultations_en.asp and http://www.who.int/foodsafety/fs_management/meetings/nano_june09/en/index.html .

Joint FAO/WHO Expert meeting to review toxicological and health aspects of Bisphenol A: 1-5 November 2010

5. In the light of uncertainties about the possibility of adverse human health effects at low doses of Bisphenol A, especially on reproduction, the nervous system and on behavioural development, and considering the relatively higher exposure of very young children compared with adults, FAO and WHO will jointly organise in November 2010 an *ad hoc* expert meeting to assess the safety of Bisphenol A. This work is supported by Health Canada, the National Institute of Environmental Health Sciences, the US-FDA and by

EFSA Information on the project and the calls are available on the FAO and WHO websites at: http://www.fao.org/ag/agn/agns/chemicals_en.asp and http://www.who.int/foodsafety/chem/chemicals/bisphenol/en/.

Global Initiative for Food-related Scientific Advice (GIFSA)

6. GIFSA is a mechanism established by FAO and WHO to facilitate the provision of extra budgetary resources for scientific advice activities Resources provided through GIFSA are allocated to activities in an independent and transparent manner, taking into consideration the criteria for prioritization of activities already agreed by Codex, FAO and WHO and the specific needs of FAO and WHO member countries. Contributions, which are accepted from governments, organizations and foundations in accordance with WHO and FAO rules continue to be received. FAO and WHO would like to express their appreciation to all donors for their contributions.

7. For additional information and advice on the procedure for making a donation/contribution please contact Ms Dominique Di Biase, Policy Assistance and Resources Mobilization Division (Dominique.DiBiase@fao.org; Tel: + 39 06 57055391) at FAO; and Jorgen Schlundt, Department of Food Safety, Zoonoses and Foodborne Diseases, WHO (schlundtj@who.int; Tel: + 41 22 791 3445).

Other related initiatives underway in FAO and WHO

Establishment of a new program: Emergency Prevention System for Food Safety (EMPRES Food Safety)

8. FAO has established a program for emergency prevention and early warning in the area of food safety (EMPRES-Food Safety) as part of its Food Chain Crisis Management Framework (FCC). The primary purpose of EMPRES Food Safety is to respond to recent requests from many member states for technical assistance in food safety emergencies, preparedness and rapid response. It is being established taking into consideration existing networks and activities in the area of early warning and prevention world-wide. EMPRES Food Safety and INFOSAN Secretariat implemented a workshop 14 - 18 December 2009 and drafted a framework document on the development and implementation of national food safety emergency response (FSER) plans. The final FSER document will be available shortly. A Global Program that aims to assist members to manage food safety risks in three pillars: early warning, emergency prevention and preparedness and emergency response is being drafted and will be made available when finalized. EMPRES Food Safety will also shortly issue a call for experts in a wide range of food safety topics in order to establish the EMPRES Food Safety Expert Roster. For more information on any of these items contact: EMPRES-FS@fao.org .

Conference on nanotechnology in food and agriculture sectors

9. FAO has implemented, together with CAPES and the Ministry of Agriculture of Brazil (EMBRAPA), a conference on Nanotechnology in the food and agriculture sectors in San Carlos, Brazil, 20 - 25 June 2010. New and emerging applications of nanotechnologies in food and agriculture and issues related to their use were the focus of this Conference. In addition to exploring relevant scientific and technological advances, the Conference also highlighted areas of research with the greatest potential to benefit society. For more information, visit www.nanoagri2010.com or contact food-quality@fao.org

WHO activities on Surveillance and Containment of Foodborne Antimicrobial Resistance (AMR)

10. The global trade in food products has escalated enormously over the last decade and is expected to continue to grow. In this context, the importance of food safety was recently emphasized by a resolution passed at the 63rd World Health Assembly in May 2010. Antimicrobial resistance is a multifactor problem which needs to be addressed globally. In WHO, two initiatives are involved in AMR monitoring, surveillance and control: the Global Foodborne Infections Network (GFN) and the WHO Advisory Group on Integrated Surveillance of Antimicrobial Resistance (AGISAR)

The WHO Global Foodborne Infections Network (GFN)

11. In January 2000, the WHO began a program of Global *Salmonella* Surveillance (GSS), now called the WHO Global Foodborne Infections Network (GFN). This program consists of a global network of institutions involved in the isolation, identification, and antimicrobial susceptibility testing of *Salmonella* and

other foodborne pathogens. There are currently over 1,500 individual members and more than 700 institutions in 177 member states. The objectives of GFN are to:

i) Strengthen capacities of National Reference Laboratories and other laboratories in surveillance of foodborne pathogens through international training courses, an external quality assurance program, and; laboratory support (lab manuals, reference testing, reagents, collaborative research projects).

ii) Establish centres of excellence for specialized training and consultation

iii) Foster collaboration among microbiologists and epidemiologists in public health, veterinary and food-related disciplines

iv) Enhance reporting of data through a web-based country databank, which currently contains data for over 1.5 million human Salmonella isolates and 360,000 non-human isolates. More information can be found at: http://www.who.int/gfn/en/index.htm

The WHO Advisory Group on Integrated Surveillance of Antimicrobial Resistance (AGISAR)

12. The WHO Advisory Group on Integrated Surveillance of Antimicrobial Resistance (AGISAR) was instituted to provide guidance to the WHO for the development of an integrated network to promote and enhance collaboration on harmonization and data sharing on integrated surveillance of antimicrobial resistance (AMR) among WHO Member countries. This includes:

i) Development of harmonized schemes for monitoring AMR in zoonotic enteric bacteria, including appropriate sampling;

ii) Support capacity building activities via GFN;

iii) Support integrated data management and promote information sharing;

iv) Provide expert advice to WHO of containment of AMR;

v) Support and advise WHO for selection of sentinel sites and designing pilot projects;

vi) Support capacity building for antimicrobial use monitoring.

13. WHO-AGISAR comprises over 25 internationally-renowned experts in a broad range of disciplines relevant to antimicrobial resistance. The group was established following a web-published call for advisers, and a transparent selection process. WHO-AGISAR experts are divided into 4 sub committees: Usage Monitoring subcommittee, Antimicrobial Resistance Monitoring subcommittee, Capacity Building and Country Pilot project subcommittee, and Data Management subcommittee. The main task of the subcommittees, in addition to providing scientific advice to WHO on global food safety and containment of antimicrobial resistance, is to develop tools /protocols/manuals for integrated surveillance of antimicrobial resistance, including data management and data sharing. AGISAR experts met in 2009 in Copenhagen to review and update the WHO list of Critically Important Antimicrobials in Human Medicine (3rd Edition of WHO list now published) and develop a 5 year-strategic plan; and more recently in Guelph, Canada in June 2010 to develop sub committees work plans. More information on AGISAR can be found at: http://www.who.int/foodborne_disease/resistance/agisar/en/index.html

The Global Environment Monitoring System/Food programme (GEMS/Food)

14. The WHO GEMS/Food programme (http://www.who.int/foodsafety/about/Flyer_GEMS.pdf) consists in collecting data and training people to decrease human exposure to contaminated food. It includes a network of about 140 institutions submitting to WHO data on both the occurrence of contaminants in food and the consumption of various foodstuffs. For the issue of residue of veterinary drugs, the collection of food consumption can be of interest to assess the dietary exposure in a comprehensive and harmonized way.

15. Up to now the GEMS/Food programme performed a clustering of various diets around the world based on the FAO food balance sheets and resulting in the 13 cluster diets that are used in many risk assessments for food contaminants and pesticide residues. http://www.who.int/foodsafety/chem/gems/en/index1.html

16. The following improvements are ongoing:

i) Development of a common food classification system for data exchange: The GEMS/Food database is based on the codex classification for food and animal feed and mainly on raw agricultural

commodities. Such a classification quite often does not fit the purpose of preparing dietary exposure assessments, where data relating to processed foodstuffs is used. Moreover, for the purpose of risk/benefit analysis it is necessary to consider for each food/food group both levels of contamination and nutritional composition. The key issue will be to determine the adequate level of specificity for each category, knowing that if the categories are too broad the accuracy of the risk analysis will be limited and if they are too narrow, there might be difficulties in obtaining adequate contaminant concentration data.

ii) Recently, WHO has set up an expert group dealing with food consumption data. The conclusions and recommendations of these working groups will be used to improve the GEMS/Food programme with regard to data submission and data interchange.

iii) The increased data availability enables the preparation of improved dietary exposure assessments and will allow a smoother transition from point estimates to a stochastic approach/modelling for dietary exposures. This shift would imply:

a) The collection of food consumption data from individuals, with a particular focus on consumption by children, is one of the major objectives of the GEMS/Food programme. This would be in addition to the collection of data for the cluster diets.

b) The implementation of a stochastic approach to combine data on food consumption and food composition: Guidelines on the application of stochastic modelling at meetings of the JECFA should be developed, as well as software allowing this modelling.