



Food and Agriculture
Organization of the
United Nations



World Health
Organization

Joint FAO/WHO Expert Meeting on Microbiological Risk Assessment (JEMRA)

Call for experts and data on the pre- and post-harvest control of non-typhoidal *Salmonella* spp. and *Campylobacter* spp. in poultry meat

FAO and WHO are looking to identify experts to contribute to the future work of JEMRA on the control of non-typhoidal *Salmonella* spp. and *Campylobacter* spp. at all points along the poultry meat value chain.

In addition, FAO and WHO are requesting governments, the industry, academia, consumer groups, laboratories, and any other interested organizations and individuals to submit any available data and information to support this work.

Background

Salmonellosis and campylobacteriosis are among the most frequently reported food-borne diseases worldwide. In response to the requests from Codex for scientific advice, FAO and WHO have undertaken the risk assessment of food-borne pathogens on several foods since 1999¹. In the past, the Joint FAO/WHO Expert Meeting on Microbiological Risk Assessment (JEMRA) has evaluated *Salmonella* spp. in eggs and broiler chickens^{2, 3}, powder infant formula⁴, chicken meat⁵, bivalve molluscs⁶, and beef and pork⁷, to inform risk assessments and recommend effective interventions for the control of this food-borne

¹ Report of CCFH32: http://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FMeetings%252FCX-712-32%252FAI01_13e.pdf

² MRA1: <https://www.fao.org/3/y4393e/y4393e.pdf> and <https://www.who.int/publications/i/item/9291562307>

³ MRA2: <https://www.fao.org/3/y4392e/Y4392E.pdf> and <https://www.who.int/publications/i/item/9291562293>

⁴ MRA10: <https://www.fao.org/3/a0707e/a0707e.pdf> and <https://www.who.int/publications/i/item/9241563311>

⁵ MRA19: <https://www.fao.org/3/i1133e/i1133e.pdf> and <https://www.who.int/publications/i/item/9789241547901>

⁶ In press

⁷ MRA30: <https://www.fao.org/3/i5317e/I5317E.pdf> and <https://www.who.int/publications/i/item/9789241565240>

pathogen. For *Campylobacter* spp., JEMRA has conducted risk assessments in broiler chickens^{8, 9} and evaluated intervention measures being used in production of chicken meat⁵.

In its report on the global burden of food-borne disease, WHO estimated that in 2010 food-borne non-typhoidal *S. enterica* caused more than 78 million illnesses, 59 153 deaths, and nearly 4 068 000 Disability Adjusted Life Years (DALYs); food-borne *Campylobacter* spp. caused more than 95 million illnesses, 21 374 deaths, and nearly 2 142 000 DALYs¹⁰. While numerous potential vehicles of transmission exist, commercial poultry meat has been identified as one of the most important food vehicles for non-typhoidal *Salmonella* spp. and *Campylobacter* spp.

At its 52nd session in 2022¹¹, Codex Committee on Food Hygiene (CCFH) requested JEMRA to collate the relevant scientific information on *Salmonella* and *Campylobacter* in chicken meat in preparation for a potential update of the existing Guidelines for the Control of *Campylobacter* and *Salmonella* in Chicken Meat (CXG 78-2011)¹².

To meet the request of the CCFH, FAO and WHO will convene expert meetings on the pre- and post-harvest control of non-typhoidal *Salmonella* spp. and *Campylobacter* spp. in poultry meat. The goal of the meetings are to gather and evaluate recent data, evidence and scientific opinions on the topic.

Scope and objectives of the meeting

The purpose of the meetings are to collect, review and discuss relevant measures for controls of non-typhoidal *Salmonella* spp. and *Campylobacter* spp. from primary production to consumption of poultry meat.

The scope of the meetings shall include, but will not be limited to, aspects of primary production, processing, distribution, handling, preparation, retail and consumption of poultry meat. Emphasis will be placed on the identification and evaluation of solutions to reduce salmonellosis and/or campylobacteriosis associated with consumption of poultry meat, taking into consideration their effectiveness and practicalities.

⁸ MRA11: <https://www.fao.org/3/a1468e/a1468e.pdf> and <https://www.who.int/publications/i/item/9789241547352>

⁹ MRA12: <https://www.fao.org/3/a1469e/a1469e.pdf> and <https://www.who.int/publications/i/item/9789241547369>

¹⁰ Report on the global burden of foodborne disease: https://apps.who.int/iris/bitstream/handle/10665/199350/9789241565165_eng.pdf?sequence=1

¹¹ Report of CCFH52: https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FMeetings%252FCX-712-52%252FReport%252FREP22_FHe.pdf

¹² CXG 78: https://www.fao.org/fao-who-codexalimentarius/sh-proxy/de/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXG%2B78-2011%252FCXG_078e.pdf

The objectives of the meetings will include:

- To review publicly available literatures and guidelines from competent authorities and industry associations (e.g. compliance guidelines, code of practices, etc.) to assess the current state of the knowledge in controlling non-typhoidal *Salmonella* spp. and *Campylobacter* spp. in poultry meat.
- To review mitigation/intervention measures being used at different points along the food chain and assess their effectiveness at reducing non-typhoidal *Salmonella* spp. and *Campylobacter* spp. in poultry meat.

Call for Experts

FAO and WHO are looking to identify experts to participate in future work of FAO and WHO in assessing the pre- and post-harvest control of non-typhoidal *Salmonella* spp. and *Campylobacter* spp. in poultry meat. All applicants should meet the following general criteria:

- Advanced University/College degree in food science, veterinary medicine, microbiology, food technology, epidemiology, public health, or related fields;
- Experience in food safety/risk assessment related to microbiological hazards in foods;
- At least five years of experience in relevant fields;
- Scientific publications in peer-reviewed journals, in particular, relevant publications within the most recent 10 years;
- Good knowledge of the English language, both written and oral; and
- Evidence of leadership or invited participation in national or international scientific bodies, committees, and other expert advisory bodies pertinent to the scope of this work.

Selection of experts

Applicants' curricula vitae (CV) will be reviewed based on the criteria listed above by a selection panel consisting of three or more individuals appointed by FAO or WHO. In selecting experts, FAO and WHO will consider, in addition to scientific and technical excellence, diversity and complementarities of scientific backgrounds, and representation from geographic regions, including low- and middle-income countries, as well as gender. A small number of accomplished individuals will be notified and invited to participate in the expert meetings on the pre- and post-harvest control of non-typhoidal *Salmonella* spp. and *Campylobacter* spp. in poultry meat and may be added to the JEMRA roster of experts that is valid for future work until 31 December 2022. Selected experts may be required to assist in the preparation of background papers and report drafts (in English). Selection to participate in one of the meetings does not constitute an invitation to participate in all the meetings in this series. Unsuccessful candidates are not routinely notified.

Appointment of experts

Selected experts will be invited to contribute to the meetings only in their individual scientific capacity. An expert will not represent the government of the country of which he or she is a citizen, or the institution with which he or she is associated. The experts designated will not receive any remuneration, however, where a physical expert meeting is held, travel costs and a subsistence allowance will be the exclusive responsibility of FAO and WHO.

Applications

Interested applicants should submit their CV. The CV should include a description of education, relevant work experience, evidence of national or international expertise on the topic, including a list of peer-reviewed publications relevant to the factors indicated above (please do not include reprints in your submission unless specifically requested at a later date). Applicants must have a good working knowledge of English as correspondence and meetings will be in English only.

Before participating in any related activity, all the selected experts will be required to declare any potential interests associated with the topic of the meeting. Experts will be asked to indicate, in writing, all interests (financial and intellectual) on their part or that of their spouse that may affect, or be perceived to affect, their scientific independence as experts, including one or more of the following conditions: employment (past or present) by any commercial enterprise or private or civil sector association; receipt of research or other study grants from such enterprises or associations; shareholdings in commercial enterprises active

in fields related to food safety. Identification of an interest does not necessarily indicate a conflict nor automatically exclude an individual from participation. For example, as an expert, it is expected that many, if not all, will be employed in some capacity related to the subject matter. These declarations must be completed and evaluated before a formal invitation will be issued. Declaration documents will be retained by the Joint Secretariat and a summary of declarations will be included in the report of the work. In addition, a confidentiality undertaking must also be completed prior to appointment to ensure proper handling of dossiers and proprietary information.

Deadline

Please submit nominations and CVs at your earliest convenience. Selection of participants will begin on **1 June 2022** and continue until suitable candidates are identified.

Submissions in response to the call for experts should be sent to:

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Call for Data

FAO and WHO desire that all relevant information and data on the pre- and post-harvest control of non-typhoidal *Salmonella* spp. and *Campylobacter* spp. in poultry meat are considered in their assessment and are thus issuing this international call to raise awareness about data needs and invite all interested parties to provide any relevant information/data, particularly data that may not be readily available in the public domain.

Objectives

This call is aimed to obtain more globally-representative data and information on pre- and post-harvest control of non-typhoidal *Salmonella* spp. in poultry meat.

The purpose of the meeting is to review and discuss the relevant measures for pre- and post-harvest control of non-typhoidal *Salmonella* spp. and *Campylobacter* spp. in poultry meat. The data will serve as inputs to the development of scientific advice on this topic.

Request for relevant information

FAO and WHO want to ensure that all available and relevant information/data are collected, and are requesting governments, the food industry, academia, consumer groups, laboratories, health care providers and any other interested organizations and individuals to submit any available data on the specific areas indicated above. These data may be published or unpublished. Reference should be made to related published studies, where applicable. Data should be submitted as soon as possible to allow adequate time for expert review prior to the meeting.

FAO and WHO also recognize that countries may be in the development of intervention and control measurement for non-typhoidal *Salmonella* spp. and/or *Campylobacter* spp. in poultry meat and welcome information on the status including challenges encountered.

List of data and information requirements

Data and information on the following aspects are requested:

A. Information on the prevention and control of non-typhoidal *Salmonella* spp. and/or

***Campylobacter* spp. contamination in poultry meat** from primary production, processing, packing, storage and retail to consumption:

- The prevention and control measures from the primary production stage to consumption – i.e. literatures, guidelines from competent authorities (e.g. compliance guidelines, sanitary dressing procedures) and/or publicly-available industry practices.
- The efficacy and effectiveness of any generic control measures (e.g. GAP, GMP/GHP, HACCP etc.) including operational monitoring programme (sampling point/testing plan/step in the food chain).
- Verification and validation (e.g. control points that might be relevant) and corrective actions (e.g. post-application treatments to mitigate the risk if commodities exceed control points).
- The efficacy and effectiveness of specific interventions such as:
 - Primary production control strategies: poultry demographics (age, sex, density); wildlife and other species exposure; climate and geographical features; heat/cold stress; sanitation of housing; handling of poultry; facilities; water and feed management; vaccination of poultry; use of clinical antimicrobials; duration of transportation, etc.

- Processing control strategies: logistic scheduling for slaughter; holding poultry in cages or containers; separation in space or time; design of slaughter lines; chilling process (immersion etc.); temperature control etc.
 - Potential for amplification of non-typhoidal *Salmonella* spp. and/or *Campylobacter* spp. through the food chain.
- B. Surveillance data and/or food-borne outbreak possibly related to non-typhoidal *Salmonella* spp. and/or *Campylobacter* spp. contamination in poultry meat.**
- Surveillance data
 - sample (poultry, environment, meat, processed meat etc.) and sampling area (farm, slaughterhouse, cutting plant, supermarket etc.);
 - presence or counts of non-typhoidal *Salmonella* spp. and/or *Campylobacter* spp.;
 - possible origin of contamination; and
 - other information and relevant links (articles, reports, websites, etc.).
 - Food-borne outbreak
 - year and month in which the outbreak occurred;
 - whether the outbreak/cases were confirmed or suspected regarding the link between the food vehicle and the outbreak of human cases and how this was determined (e.g. laboratory confirmation, epidemiological investigation, etc.);
 - number of cases, hospitalizations, and deaths associated with the outbreaks;
 - age and sex distribution of cases (e.g. range and median);
 - possible origin of contamination;
 - cause of the outbreak (insufficient heating, cross-contamination, lack of labeling, etc.)
 - corrective actions; and
 - other information and relevant links (articles, reports, websites, etc.).
- C. Other information**
- Genomic linkages that provide targets for intervention strategies.
- D. Data provider:** Please provide name, title and full contact details of the contact person for potential follow-up and further details, if needed.

Confidential and/or unpublished data

FAO and WHO recognize that some of the information and relevant data which are now required may be unpublished or of a confidential nature. With regard to unpublished information and data, this remains the property of the author for subsequent publication by the owner as original material. Unpublished confidential studies that are submitted will be safeguarded in so far as it is possible to do so without compromising the work of FAO and WHO. Specific issues relating to confidentiality should be discussed directly between the information and data owners and FAO/WHO. For these and other issues please contact FAO and WHO at the contacts provided.

Deadline

Please submit any relevant information electronically either via e-mail (if not too large) or on a USB stick, in any official United Nations language (English, French, Spanish, Arabic, Chinese, Russian), and with title and short description of the content in English, to the addresses below at your earliest convenience, but no later than **1 September 2022**.

Data submissions in response to the call for data should be sent to:

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