

CODEX ALIMENTARIUS COMMISSION



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Agenda Item 10

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

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REVISION OF THE GUIDELINES ON THE APPLICATION OF THE GENERAL PRINCIPLES OF FOOD HYGIENE TO THE CONTROL OF VIRUSES IN FOOD (CXG 79-2012)

(Comments of Canada and the Netherlands)

Background

1. At the 51st Session of the Committee on Food Hygiene (CCFH51)¹, the CCFH forward work plan was revised to include the *Guidelines on the Application of General Principles of Food Hygiene to the Control of Viruses in Food* (CXG 79-2012) (hereafter referred to as “the guidelines”) for possible revision based on new information available on norovirus (NoV). Canada, with support from the Netherlands, offered to prepare a discussion paper on the possible revision of the guidelines for consideration by the Committee. CCFH52, conducted virtually with an abbreviated agenda, decided that all new work proposals, including the discussion paper on the revision of the guidelines, would be taken up for consideration at CCFH53.
2. This discussion paper² was prepared for consideration by CCFH53 and presented the basis for possible revision of the guidelines. CCFH53³ responded favorably to the discussion paper and were generally in agreement with the areas presented there in which scientific advice would be needed in order to progress any revision.
3. CCFH53 agreed to request JEMRA to provide scientific advice on the following areas:
 - i. An up-to-date review of the foodborne viruses and relevant food commodities of highest public health concern
 - ii. A review of the scientific evidence on prevention and intervention measures and the efficacy of interventions in the food continuum
 - iii. A review of the analytical methods for relevant enteric viruses in food commodities
 - iv. A review of scientific evidence on the potential utility of viral indicators or other indicators of contamination
 - v. A review of the various risk assessment models with a view towards constructing more applicable models for wide use among member countries, including a simplified risk calculator.
4. CCFH53 further assigned priority to i, iii and iv in the above list and noted that Canada together with the Netherlands would provide a project document taking into account the scientific advice from JEMRA for consideration by CCFH54.
5. A first JEMRA meeting⁴ was convened in September 2023 and a summary report from that meeting is available. A second JEMRA meeting on viruses is scheduled for February 2024.

¹ REP20/FH paragraph 118

² CX/FH 22/53/8

³ REP23/FH paras 133-140

⁴ Joint FAO/WHO Expert Meeting on microbiological risk assessment of viruses in foods Part 1: food attribution, analytical methods, and indicators, 18 – 22 September 2023. Summary and Conclusions. Available [here](#)

6. A project document taking into consideration the output of the first JEMRA meeting and other available information has been prepared by Canada and the Netherlands and is attached as Appendix 1.

Recommendation

7. CCFH54 is invited to consider the project document attached as Appendix 1, taking into consideration the discussion paper presented at CCFH53 and the discussions and conclusions of CCFH53, as well as the scientific advice provided by JEMRA, make amendments as it considers appropriate, and recommend new work on the revision of the guidelines for approval by CAC47.

APPENDIX I

PROJECT DOCUMENT

REVISION OF THE GUIDELINES ON THE APPLICATION OF GENERAL PRINCIPLES OF FOOD HYGIENE TO THE CONTROL OF VIRUSES IN FOOD (CXG 79-2012)**1. Purpose and scope of the standard**

The purpose and scope of the work is to revise and update the *Guidelines on the Application of General Principles of Food Hygiene to the Control of Viruses in Food* (CXG 79-2012). CXG 79-2012 currently covers human enteric viruses, more specifically hepatitis A virus (HAV) and norovirus (NoV) and is applicable to all foods, with a focus on ready-to-eat food. It also contains two annexes for the control of HAV and NoV in specific commodities, one for bivalve molluscs (Annex I) and the other for fresh produce (Annex II). The revision will provide updated advice to competent authorities and food business operators on a framework for the control of human [foodborne enteric](#) viruses in food. The revision will be mainly based on the latest scientific advice from FAO/WHO. It will also include alignment of CXG 79-2012 with the revision of the *General Principles of Food Hygiene* (CXC 1-1969).

2. Relevance and timeliness

Since the publication of CXG 79 in 2012, new scientific information for the control of viruses in food has been made available. Risk assessment models have been developed, including a quantitative risk model on NoV in bivalve molluscan shellfish. FAO/WHO published *Technical guidance for the development of the growing area aspects of Bivalve Mollusc Sanitation Programmes*⁵. There have been technical advancements in viral detection in specific commodities and in assessing potential infectivity of viruses, as well as new scientific findings on the use of indicators to monitor seawater quality of molluscs growing areas.

The Codex Committee on Food Hygiene (CCFH) requested the Joint FAO/WHO Expert Meeting on Microbiological Risk Assessment (JEMRA) to provide scientific advice on five areas:

1. An up-to-date review of the foodborne viruses and relevant food commodities of highest public health concern.
2. A review of the scientific evidence on prevention and intervention measures and the efficacy of interventions in the food continuum.
3. A review of the analytical methods for relevant enteric viruses in food commodities.
4. A review of scientific evidence on the potential utility of viral indicators or other indicators of contamination.
5. A review of the various risk assessment models with a view towards constructing more applicable models for wide use among member countries, including a simplified risk calculator.

The JEMRA meeting of viruses in foods, *Part 1: Food attribution, analytical methods and indicators* was held on September 18-22, 2023. A public call for data and experts was issued to support this work⁶. A summary of the conclusions of the meeting was published thereafter⁷. The full report will be published as part of the FAO/WHO Microbiological Risk Assessment (MRA) Series at a later date. A second JEMRA meeting of viruses in foods is planned for February 2024 to review the prevention and intervention measures, as well as the various risk assessment models.

The available information as well as the new scientific advice to be provided by FAO/WHO in 2024 highlights the need for and the timeliness of the revision of CXG 79-2012. While the fundamental principles in CXG 79-2012 are likely to remain the same, additional guidance based on new scientific information will help competent authorities and food business operators in the control of human enteric viruses in food to protect the health of consumers and ensure fair practices in food trade.

3. Main aspects to be covered

⁵ FAO and WHO. 2021. Technical guidance for the development of the growing area aspects of Bivalve Mollusc Sanitation Programmes. Second edition. Food Safety and Quality Series No.5A. Rome. <https://doi.org/10.4060/cb5072en>

⁶ FAO and WHO. Call for experts and data on microbiological risk assessment of viruses in foods. <https://www.fao.org/3/cc4295en/cc4295en.pdf>.

⁷ FAO and WHO. [Joint FAO/WHO Expert Meeting on microbiological risk assessment of viruses in foods. Part 1: Food attribution, analytical methods, and indicators, Summary and conclusions, 2023](#)

The new work is intended to revise CXG 79-2012 to take into account the latest scientific information and will consider various aspects relevant to the control of viruses in foods, including:

- Expansion of the scope to address viruses other than HAV and NoV such as Hepatitis E viruses (HEV) and emerging vehicles of foodborne illnesses such as frozen [fruits/berries or prepared foods](#);
- Revision of interventions in the food chain focusing on process-specific control systems, surface disinfection as well as hand disinfection and food handler hygiene according to available evidence;
- Possible inclusion of additional information on testing of foods for foodborne viruses taking into account technical advancements in viral detection in specific food commodities and in assessing potential infectivity of viruses; and
- Consideration of new scientific findings to control HAV, ~~and~~ NoV in [shellfish \(in-bivalve molluscs\)](#), ~~and~~ fresh ~~and frozen~~ produce made available since the publication of CXG 79-2012 including indicators to monitor seawater quality of molluscs growing areas and risk assessment models.

The expansion of the scope may result in [reorganisation of the annexes by commodities based on the latest JEMRA executive summary, i.e. shellfish, fresh and frozen produce, prepared and RTE foods, pork and wild game meat. the addition of an annex to provide additional recommendations for specific virus-commodity combinations \(e.g., HEV in pork and game meat\)](#). The revision will also ensure [full](#) alignment with the *General Principles of Food Hygiene* (CXC 1-1969) (revised in 2022).

4. An assessment against the *Criteria for establishment of work priorities*

General criterion

- **Consumer protection from the point of view of health, food safety, ensuring fair practices in the food trade and taking into account the identified needs of developing countries**

The proposed new work will support competent authorities and food business operators in implementing control measures to prevent or minimize the presence of human enteric viruses in food to reduce the risk of foodborne illness caused by viruses. The new work will consider the inclusion of measures to minimize the presence of zoonotic viruses i.e., HEV, a route of transmission not currently covered by CXG 79-2012.

Criteria applicable to general subjects

- **Diversification of national legislations and apparent resultant or potential impediments to international trade**

The revised CXG 79-2012 is expected to assist countries in adopting hygiene practices to reduce the risks of foodborne illness from viruses and to support international fair food trade practices.

- **Work already undertaken by other international organizations in this field and/or suggested by the relevant international intergovernmental body(ies)**

FAO/WHO has already initiated work on human enteric viruses in food, including the work of the WHO Foodborne Disease Burden Epidemiology Reference Group (FERG), which has included foodborne illnesses caused by viruses in its work plan.

- **Consideration of the global magnitude of the problem or issue**

Foodborne viral infections are very common in many parts of the world. Viruses differ in size, structure and biological characteristics from bacteria which can result in different management strategies compared to bacterial pathogens. A revision of CXG 79-2012, especially on newly identified foodborne viruses is key in supporting the reduction of the public health burden of foodborne viral infections.

5. Relevance to the Codex strategic objectives

The proposed new work directly relates to the following goals from the *Codex Strategic Plan 2020–2025*.

Goal 1: *Address current, emerging and critical issues in a timely manner*

The review and update of CXG 79-2012 are in response to new scientific information that can improve the control of viruses in food and in response to new information to be provided by FAO/WHO in 2024.

Goal 2: Develop standards based on science and Codex risk-analysis principles

Relevant reports from JEMRA meetings will inform the revision of CXG 79-2012. CXG 79-2012 will continue to provide risk analysis principles, implemented through food hygiene systems at multiple levels, to help reduce the risk of foodborne illness from viruses. During this review process, developments in recently available scientific information will be considered with input from member countries.

Goal 3: Increase impact through the recognition and use of Codex standards

The practical use of science-based Codex standards and related texts in food trade contributes to a high level of food safety. The revision of CXG 79-2012 should promote a better understanding and application of its principles internationally.

Goal 4: Facilitate the participation of all Codex Members throughout the standards setting process

The revision of CXG 79-2012 and participation will be open to all member countries interested in order to obtain constructive and relevant contributions.

Goal 5: Enhance work management systems and practices that support the efficient and effective achievement of all strategic plan goals

The consensus-driven review and update of CXG 79-2012 will be performed effectively and with transparency for timely adoption. Initial discussions are likely to take place through an electronic working group (EWG) to establish a framework in performing the update. Wide participation will be encouraged as free web-based technologies will be used. Translation of the latest versions of the texts into the official languages of the Commission will be performed ahead of the annual Committee meetings.

6. Information on the relation between the proposal and other existing Codex documents as well as other ongoing work

The review of CXG 79-2012 will continue to complement existing Codex texts. These include the *General Principles of Food Hygiene* (CXC 1-1969), the *Code of Practice for Fish and Fishery Products* (CXC 52-2003) and the *Code of Hygienic Practice for Fresh Fruits and Vegetables* (CXC 53-2003). The scope extension, to include additional virus-commodity combinations, could complement other Codex documents such as the *Code of Hygienic Practice for Meat* (CXC 58-2005). The ongoing work to align the Codex texts developed by CCFH with the revised *General Principles of Food Hygiene* (CXC 1-1969) will also be relevant for this review process. In addition, the *Guidelines for the Safe Use and Reuse of Water in Food Protection and Processing* (General Section and Annex I on Fresh Produce adopted at CAC46) as well as Annex II on Fishery Products (at Step 2/3), will also be considered for this review process.

7. Identification of any requirement for and availability of expert scientific advice

A first meeting of the *JEMRA of viruses in foods. Part 1: Food attribution, analytical methods and indicators* was held on September 18-22, 2023. A second JEMRA meeting of viruses in foods is planned for February 2024 to review the prevention and intervention measures, as well as the various risk assessment models. The summary reports and full reports of these two meetings will be necessary for the review and update of CXG 79-2012.

The report of the work on the alignment of CCFH documents with the revised *General Principles of Food Hygiene* (CXC 1-1969) will be taken into account for the review of CXG 79-2012.

8. Identification of any need for technical input to the standard from external bodies so that this can be planned for

Additional technical input from external bodies is not anticipated at this time.

9. Proposed timeline for completion of the new work, including the start date, the proposed date for adoption at Step 5, and the proposed date for adoption by the Commission; the time frame for developing a standard should not normally exceed five years

Provided acceptance of the work at CCFH54 in 2024, and subject to the Codex Alimentarius Commission (CAC) approval at its 47th Session in November 2024, the following timeline is proposed:

- Consideration at Step 4 by CCFH55
- Re-consideration at Step 4 by CCFH56
- Recommendation for adoption at Step 5/8 by CCFH57

- Adoption by CAC the subsequent meeting.

The proposed timeline is provisional since the final publication date of the JEMRA report and the scheduling of CCFH55 is not known.

PROJECT DOCUMENT

NEW WORK PROPOSAL FOR THE REVISION OF THE GUIDELINES ON THE APPLICATION OF GENERAL PRINCIPLES OF FOOD HYGIENE TO THE CONTROL OF LISTERIA MONOCYTOGENES IN FOODS (CXG 61-2007)**1. Purpose and scope of the standard**

The purpose and scope of the work is to revise and update the *Guidelines on the Application of General Principles of Food Hygiene to the Control of Listeria monocytogenes in Foods* (CXG 61-2007) to provide advice to [governments—competent authorities and food business operators \(FBOs\)](#) on a framework for the control of *L. monocytogenes* in ready-to-eat foods. Furthermore, as everyone has a role to play in reducing the risk of foodborne listeriosis, CXG 61-2007 will also provide information to [food business operators and consumers](#) to this end. This revision will be mainly based on the latest scientific advice from JEMRA and will incorporate relevant aspects of the revision of *General Principles of Food Hygiene* (CXC 1- 1969).

The original intent of CXG 61-2007 will not change.

2. Relevance and timeliness

In 2020, a virtual meeting of the Joint FAO/WHO Expert Meeting on Microbiological Risk Assessment (JEMRA) reviewed recent data on *L. monocytogenes* to assess the need to modify, update, or develop new risk assessment models and tools for this pathogen. A public call for data and experts was issued in 2019 to support this work¹¹.

A full report of the meeting entitled “*Listeria monocytogenes* in ready-to-eat (RTE) foods: attribution, characterization and monitoring” was published in 2022 (Microbiological Risk Assessment (MRA) Series No. 38; MRA38)¹², principally recommending expanding future risk assessments on *L. monocytogenes* in RTE food to diverse commodity sub-groups, incorporating a primary-production-to-consumption perspective, and reviewing groupings of susceptible populations. Several critical gaps in the current JEMRA risk assessment model were identified and the expert group collectively agreed that updating the model would be valuable for informing risk analysis strategies, including in low- and middle-income countries.

At the 52nd session of the Codex Committee on Food Hygiene (CCFH52) in 2022, the Committee supported the proposal that JEMRA undertake full primary-production-to-consumption risk assessments of *L. monocytogenes* in foods. In response, a second call for data and experts was issued on 29 April 2022¹³ to inform two meetings, one each in 2022 and 2023. Summaries and conclusions of the meetings were published thereafter, which included recommendations and considerations to inform a possible revision of CXG 61-2007. A full report of the meetings on microbiological risk assessment of *L. monocytogenes* in foods is still pending publication.

New scientific information provided by JEMRA justifies the need and timeliness of the revision of CXG 61-2007.

While the fundamental principles in the original CXG 61-2007 are likely to largely remain the same, an update to CXG 61-2007 will continue to provide current advice to [governments—competent authorities](#) on a framework for the control of *L. monocytogenes* in RTE foods, with a view towards protecting the health of consumers and ensuring fair practices in food trade.

3. Main aspects to be covered

The new work is intended to update CXG 61-2007 based on the latest scientific information. CXG 61-2007 will provide advice to [governments—competent authorities and FBOs](#) on a framework for the control of *L. monocytogenes* in RTE foods. It will also provide information that will be of interest to the food industry, consumers, and other relevant parties. To reduce the risk of foodborne listeriosis, everyone has a role to play.

The new work should consider various factors relevant to the control of *L. monocytogenes*, including:

¹¹ FAO and WHO. 2019. Call for experts and data on microbiological risk assessment of *Listeria monocytogenes* in ready-to-eat (RTE) food: attribution, characterization and monitoring. <https://www.fao.org/3/ca7352en/ca7352en.pdf>

¹² FAO and WHO. 2022. *Listeria monocytogenes* in ready-to-eat (RTE) foods: attribution, characterization and monitoring – Meeting report. Microbiological Risk Assessment Series No. 38. Rome. <https://doi.org/10.4060/cc2400en> or <https://www.who.int/publications/i/item/9789240034969>

¹³ FAO and WHO. 2022. Call for experts and data on microbiological risk assessment of *Listeria monocytogenes* in foods. <https://www.fao.org/3/cb9930en/cb9930en.pdf> or <https://www.who.int/news-room/articles-detail/call-for-experts-and-data-on-microbiological-risk-assessment-of-listeria-monocytogenes-in-foods>

- Activities at primary production, including the need for food business operators (including primary producers) to apply effective control measures as appropriate to their operations
- New and pertinent information to be considered throughout the primary-production-to-consumption continuum regarding resource management, time-temperature control, environmental hygiene practices, and climate change
- Microbiological monitoring methods, [particularly including](#) molecular- or genomic-based approaches as complements to conventional cultural methods
- Consumer practices and the relevance of factors impacting listeriosis risk among different regions of the world including underlying health conditions, socio-economic factors, as well as behavioural and cultural factors
- Other recently available scientific information, including new risk assessment models and listeriosis outbreaks

4. An assessment against the *Criteria for establishment of work priorities*

General criterion

- **Consumer protection from the point of view of health, food safety, ensuring fair practices in the food trade and taking into account the identified needs of developing countries**

The proposed new work will broadly support competent authorities and food business operators in implementing control measures against *L. monocytogenes*, which is a worldwide microorganism of public health significance in RTE foods.

Criteria applicable to general subjects

- **Diversification of national legislations and apparent resultant or potential impediments to international trade**

The large scope of food covered under CXG 61-2007 suggests a global impact to food trade. The updated CXG 61-2007 is anticipated to assist countries in the adoption of practices to reduce the risk of listeriosis and support international fair trade practices.

- **Work already undertaken by other international organizations in this field and/or suggested by the relevant international intergovernmental body(ies)**

JEMRA has already initiated work on *L. monocytogenes* in food. The Terrestrial Manual of the World Organization for Animal Health (WOAH) includes a chapter ([Chapter 3.10.5](#)) dedicated to the detection and identification methods for *L. monocytogenes* (last revisions in May 2021).

- **Consideration of the global magnitude of the problem or issue**

Listeriosis cases have been reported widely around the world, hence making this a global concern. There are multiple venues throughout the primary-production-to-consumption continuum by which a wide range of food can be contaminated by *L. monocytogenes*. CXG 61-2007 is key in supporting the reduction of the public health burden of listeriosis.

5. Relevance to the Codex strategic objectives

The proposed work directly relates to the following goals from the *Codex Strategic Plan 2020–2025*.

Goal 1: Address current, emerging and critical issues in a timely manner

The review and update of CXG 61-2007 is in response to recommendations by JEMRA, as indicated in MRA38 and in response to recent information that impacts the control of *L. monocytogenes* in RTE foods. This work will address the gap in guidance, in particular related to primary production.

Goal 2: Develop standards based on science and Codex risk-analysis principles

Following scientific recommendations from JEMRA, the review and update of CXG 61-2007 has been flagged to provide current advice for the control of *L. monocytogenes* in RTE foods throughout the entire food chain. CXG 61-2007 will continue providing important principles to consider in reducing the risk of listeriosis which can be implemented through food safety control systems. During this review process, developments in recently available scientific information will be considered with input from member countries.

Goal 3: Increase impact through the recognition and use of Codex standards

The practical use of science-based Codex standards and related texts in food trade contributes to a high level of food safety. The update and review of CXG 61-2007 should promote better understanding and application of their principles internationally.

Goal 4: Facilitate the participation of all Codex Members throughout the standards setting process

The review and update of CXG 61-2007 should generate interest and participation and will be open to all Members in order to obtain constructive and relevant contributions.

Goal 5: Enhance work management systems and practices that support the efficient and effective achievement of all strategic plan goals

The consensus-driven review and update of CXG 61-2007 will be performed effectively and with transparency for timely adoption. Initial discussions are likely to take place through an electronic working group (EWG) to establish a framework and approach in undertaking the update. Wide participation will be encouraged as free web-based technologies will be used. Translation of the latest versions of the texts, to the official languages of the Committee, will be performed ahead of the annual Committee meetings.

6. Information on the relation between the proposal and other existing Codex documents as well as other ongoing work

The review of CXG 61-2007 will complement existing CCFH texts. As such, the updated CXG 61-2007 will consider, for example, the 2022 revision to *General Principles of Food Hygiene* (CXC 1-1969) and the 2013 revision to the Guidelines - *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CXG 21-1997) to refer to the latest information and provide special attention related to *L. monocytogenes* in RTE food, as needed.

7. Identification of any requirement for and availability of expert scientific advice

Given that JEMRA have already provided recommendations for the update of CXG 61-2007, these will be used as the basis for the work. To maintain consistency among all existing CCFH texts that reference the *General Principles of Food Hygiene* (CXC 1-1969), CCFH will likely engage with the Members that are leading the review and update of these documents and also take into consideration the ongoing work on the alignment of CCFH developed texts with the *General Principles of Food Hygiene* (CXC 1-1969).

8. Identification of any need for technical input to the standard from external bodies so that this can be planned for

Additional scientific expert advice is not anticipated.

9. Proposed timeline for completion of the new work, including the start date, the proposed date for adoption at Step 5, and the proposed date for adoption by the Commission; the time frame for developing a standard should not normally exceed five years

Provided the new is agreed upon by CCFH54 in 2024 and approved by CAC47 in 2024, conceivably it could be considered at Step 4 by CCFH55 depending on the timing of this meeting, followed by Steps 5 at CCFH56 and Step 5/8 by at CCFH56, CCFH57 and CCFH57 respectively. The timeline, i.e., within 3 sessions of CCFH, is envisioned since scientific advice from JEMRA is close to completion.