

PROJECT DOCUMENT

THE REVISION OF GUIDELINES ON THE APPLICATION OF GENERAL PRINCIPLES OF FOOD HYGIENE TO THE CONTROL OF PATHOGENIC VIBRIO SPECIES IN SEAFOOD (CXG 73-2010)

(For approval)

1. Purpose and Scope of the Standard

The purpose of the work is to revise and update the *Guidelines on the Application of General Principles of Food Hygiene to the control of pathogenic Vibrio species in seafood* (CXG 73-2010) to provide risk management options based on the latest scientific advice from FAO/WHO and to incorporate some relevant aspects of the revision of the *General Principles of Food Hygiene* (CXG 1-1969)

The intended scope of the guidelines will not be changed from the original guidelines.

2. Relevance and Timeliness

An FAO/WHO expert working meeting¹ held in 2019 noted several critical developments in the last decade: 1) The emergence of highly pathogenic strains, in particular the Pacific Northwest (PNW) *V. parahaemolyticus* strain (ST36), which have spread to the East coast of the United States of America, Europe, South America, and New Zealand. The pandemic spread of these highly pathogenic strains is of global concern for seafood safety. 2) In response to climate change, there has been a significant geographical spread regarding where seafood-associated vibrio infections have been reported, with a general trend in the poleward spread of *V. parahaemolyticus* and *V. vulnificus* cases. Over the last decade in particular, there has been an increase in reported illnesses as well as the geographical spread of foodborne infections associated with these bacteria into regions where reported infections were previously absent. 3) Globally, an increased at-risk population, increased population densities in coastal regions and improvements in diagnosis of infections may also have played a role in accentuating reported cases. 4) A range of new approaches for best practice, such as high-pressure treatment, harvesting curfews, relaying and temperature controls appear to offer effective and cost-effective approaches for reducing human health risks postharvest associated with these pathogens. Finally, 5) a range of new methods, such as those utilizing genomics and satellite imagery, provide novel means of complementing approaches outlined in previous risk assessment exercises for these globally important foodborne pathogens. New scientific information provided by FAO/WHO justify the need and timeliness of the revision of the Guideline.

New information provided by FAO/WHO can offer significant benefits to competent authorities and food businesses to minimize the risk associated with pathogenic vibrios.

While the fundamental principles in the original document (CXG 73-2010) are likely to largely remain the same, practical guidance covering the specific implementation of control measures will help national competent authorities to reduce the burden of food-borne vibriosis and to ensure fair practice in the international seafood trade.

3. Main aspects to be covered

The new work is intended to update Guidelines on the application of the *General Principles of Food Hygiene to the Control of Pathogenic Vibrio Species in Seafood* based on the latest scientific information, and to incorporate some relevant aspects of the revised *General Principles and Food Hygiene* (CXC 1-1969). The guidelines will provide guidance on selection of the most appropriate risk management options and risk management tools.

The new work will consider factors relevant to the control of *V. parahaemolyticus* and *V. vulnificus*; including:

- microbiological monitoring methods, particularly molecular-based approaches,
- recently available scientific data, in particular information on new pathogenic strains and their geographical spread and clinical incidence,
- methods for the detection and characterization of vibrio's,
- remote sensing-based techniques to measure variables such as temperature and salinity, climate change,
- practical interventions that can be used to reduce vibriosis risks associated with the consumption of seafood, include preharvest intervention e.g., relaying, at harvest (such as reduced cooling

¹ FAO and WHO. 2021. Advances in science and risk assessment tools for *Vibrio parahaemolyticus* and *V. vulnificus* associated with seafood. Meeting report. Microbiological Risk Assessment Series No. 35. Rome.
<https://doi.org/10.4060/cb5834en>

times), and post-harvest treatments, e.g., high pressure processing, freezing and pasteurization etc.

4. An assessment against the *Criteria for the 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 to implement practical interventions that can be used to reduce the risk of vibriosis.

Criteria applicable to general subjects

(a) Diversification of national legislation and apparent resultant or potential impediments to international trade.

Additional guidance by Codex might assist countries in amending their legislation to reduce the risk of vibriosis and support fair practice in international seafood trade.

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

Codex has already undertaken risk management work on *Vibrio* spp. in seafood.

(e) Consideration of the global magnitude of the problem or issue.

There is some evidence for the global spread of pathogenic *Vibrio* strains. Codex guidance is an essential contribution to reducing the global public health burden of vibriosis.

5. Relevance to the Codex strategic objectives

The proposed work is directly related to the purposes of the Codex Alimentarius Commission. Namely, goals one and five of the Codex Strategic Plan 2020-2025, to “Address current, emerging and critical issues in a timely manner” and to “Enhance work management systems and practices that support the efficient and effective achievement of all strategic plan goals”. In particular, this work is relevant to Strategic Objective 1.2 “Prioritize needs and emerging issues” where the outcome is a “Timely Codex response to emerging issues and the needs of members.” This work will address the gap in guidance, in particular new information provided by FAO/WHO.

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

The amendment of specific guidance on pathogenic vibrio will complement existing CCFH texts. This includes the *General Principles of Food Hygiene* (CXG 1-1969).

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

Not required at this moment, but during the course of the revision, the Codex Committee on Food Hygiene (CCFH) may need additional scientific advice.

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

Not required 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.

Subject to the Codex Alimentarius Commission approval at its 46th Session in 2023, it is hoped that the new work can be expedited (i.e., within two sessions of CCFH).