

Critical and Emerging issues in Food Safety and Quality-Estonia

Critical issues are those that are the most pressing ones, and as such need to be addressed and considered as priorities. They can be known issues that are actually present/already occurring or even recurring. They can also be completely new or emerging. With the word “issues” is meant either hazards/challenges or opportunities or even trends that might have an impact on food safety and quality.

Emerging issues are those that are new, unexpected, or can cause change in the status quo. Many factors inside and outside the food production system(s) could directly and/or indirectly lead to emerging issues in food safety and quality.

Examples of “drivers of change” that could lead to emerging issues

- **Globalization of trade:** Food safety must be considered within a global context that is dynamic and evolving as part of the globalization process: increased international trade, more integrated markets, more rapid adoption of new technologies, increased market concentration, and information transfer, can all have important implications (both positive and negative) in food safety.
- **New distribution channels**
Increase in online retailers will eventually get to the food retail market; are there any food safety risks that might arise from such a change of the retail market, where the local store might be replaced with automated warehouses and logistics in distributing it to the end consumer?
- **Economic factors:** budgetary pressures on national governments to improve efficiencies and reduce spending on national food safety systems; the ability/ willingness of food enterprises to implement adequate food safety measures; trends in food adulteration and food fraud; fluctuation of food prices. All these, and many other economic factors can impact on food safety at different levels.
- **Climate change:** Climate change, perhaps the most compelling environmental issue of our time, can affect patterns of occurrence of food safety hazards. Indeed international commitment to address environmental issues has a significant impact on agricultural development strategies and on food safety
- **New technologies:** The increasing role of new and emerging technologies in food production, post-harvest treatment, processing, packaging and sanitary treatment is also significant in the context of food safety and more globalised food trade.
- **Scientific progress:** Technical and scientific innovation has multiple impacts on food safety and its management. More sensitive detection methods are providing new tools for investigating and indeed discovering new food safety hazards. Recent advances in food safety related sciences give us a better understanding of food-borne disease, and the role played by some food contaminants in the etiology of some pathologies and disorders.
- **Urbanization:** With the global population growing there is a sustained trend of migration from rural to urban areas. Cities (and surrounding areas) are increasingly becoming places where food is produced (i.e. urban and peri-urban agriculture). This plays an important role in how people procure food, what people eat, the nature of food traded and the interactions among food systems, people and the environment.
- **Regulatory landscape**
The regulatory landscape is changing with an increased importance on bilateral or multilateral treaties, emergence of private standards etc that can affect the food supply chain.
- **Public attention to food safety:** Increasing public awareness of food safety hazards, concern over hazards to health attributable to food hazards and reduced confidence in the ability of current food supply systems to manage food safety risks are additional factors to be considered in the food safety evolving context. At the same time food insecurity – an extreme manifestation of a large and growing wealth disparity within countries and among countries – remains a pressing global concern with important implications for decision-making on food safety at all levels.

Please note that the above are just some examples of drivers and the list is not complete. In responding to question #1 please consider these and any other broad drivers that you think could lead to emerging issues in food safety and quality.

1 - Identification of critical and emerging issues

Please identify what you believe to be the 3-5 most **critical issues** related to Food Safety and Quality, from **present to the next 2 - 5 years**.

- 1) AMR
- 2) Food fraud
- 3) Harmonised risk communication

Please identify what you believe to be the 3-5 most important **emerging issues** related to Food Safety and Quality **in the next 2 to 5 years**.

- 1) New technologies
- 2) E-commerce
- 3) Need for a multiple hazards approach
- 4) The possible establishment of a common database covering national regulations/requirements related to food safety and quality issues
- 5) The possible establishment of a common risk ranking tool

2 - For each issue you have identified above please provide a **short explanation**¹ (1 or 2 paragraphs)

1) AMR (antimicrobial resistance) - Facilitated by the increasing flow of people and goods between different countries/regions, AMR is generally seen as a growing concern at global scale. In that respect, innovative international approaches are needed to be developed in order to control the spread and impact of new resistance mechanisms.

2) Food fraud - Given the rising number of incidents involving food fraud through misdescription of the origin of the product or its constituents or issues concerning labelling or packaging, for example, at local, regional and global level, a special attention should be given to support the fight against intentional violations and protect consumers' health.

3) Harmonised risk communication - Since many issues of food safety and quality are of cross-boarder character, a standardized methods and/or a common operational coordination system among the risk managers in different regions could be considered in the view of producing more comparable study results and to enhance transparency, exchange and share of information among different parties (including institutions).

1) New technologies - In the light of the areas where knowledge is lacking (GMOs, food contact materials, novel foods *etc*), not yet identified hazards and risks could emerge on human/animal

¹ In providing a **short explanation** of 1 -2 paragraphs please briefly explain: 1) why you selected that issue (i.e. on what basis - information/data, knowledge or assumption - you made that choice) and 2) the expected and/or actual impacts of the issue (whether the impact would be sector-specific, affect only some sub-populations or countries/regions, whether it would be related to public health or trade etc)

health. Therefore, further regional and global research in the area would be required. With regard to food contact materials, for example, there are not any Codex standards regulating the area.

2) E-commerce - Increase in online retailers and trends pertaining to globalisation have brought about several food safety risks, such as dissemination of scientifically unproved claims or issues concerning the information provided on products or the complexity of relevant surveillance/traceability systems. Consequently, a balanced science-based risk communication to rise the public awareness about risks and benefits related to their food choices is needed at global level.

3) Need for multiple hazards approach - As the number of contaminants in environment and food is globally and regionally constantly growing, there is also an increasing need for new exposure evaluation/risk assessment methodologies to multiple substances/cumulative exposure assessments, taking into account, that the combined exposure is formed by interaction of chemicals through different routes (oral, inhalation, dermal).

4) The possible establishment of a common database covering national regulations/requirements related food safety and quality issues - Currently there is no database providing relevant information on national food standards/regulations/requirements of different countries, which among other benefits would provide complementary assistance to stakeholders (competent authorities included) in finding necessary information more rapidly and therefore tackling international food trade barriers far more effectively.

5) The possible establishment of a common risk ranking tool - Recognizing the importance of prioritization for the future works in food safety and quality, it would be essential to consider the need for a development of a common risk ranking tool (for all the Codex Committees) for the purpose of increased transparency and facilitation of reasoning as well as investigating the corresponding strategical choices made.