



POSTER

DEVELOPMENT AND VALIDATION OF A SET OF INDICATORS FOR ASSESSING FOOD SAFETY CULTURE: PRELIMINARY RESULTS FROM AN ITALIAN-FINNISH STUDY

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Food Safety Culture (FSC) has been formally introduced into European Union food hygiene legislation, requiring food business operators to establish, maintain and provide evidence of an appropriate FSC. However, its practical verification during official controls remains challenging, because of the lack of harmonized operational tools, shared criteria and proportionate approaches for different types of food businesses. This study aimed to develop and validate, through a Delphi-based consensus process, a set of FSC indicators to support competent authorities in its assessment during official controls. The validation form included i) a short questionnaire aimed at describing the operational context and current practices for FSC verification, and ii) a set of 22 indicators organized according to the components described in Chapter XIa of Annex II to Regulation (EC) No 853/2004: management and employees' commitment, leadership, awareness of food safety hazards, communication and availability of resources. For each indicator, possible sources of evidence and, where appropriate, examples of flexible application for micro and small food businesses were also proposed. For each indicator the assessed criteria included relevance, clarity, verifiability during official controls, adequacy of the proposed sources of evidence and appropriateness of the flexibility examples. Each criterion was evaluated using a four-point Likert scale (0-3). A score above 2 was considered as indicating a generally favorable judgement. The validation form was then distributed to 30 official veterinarians from Italy and Finland, 15 from each country. Official veterinarians were also invited to provide comments or sugges-

tions for each indicator; this was mandatory when the assigned score was 0 or 1. All invited participants completed the first validation round. The short questionnaire highlighted marked heterogeneity in FSC verification practices, with limited availability of specific training, operational guidance and dedicated checklists. FSC assessment was often based on individual interpretation or indirect verification through existing control mechanisms, such as food safety management systems, while formalized FSC evidence was reported mainly in larger or more structured food businesses. Overall, 19 of the 22 proposed indicators received a positive evaluation (mean score above 2) for all assessed criteria. However, participants provided several comments and suggestions to further improve the indicators. Based on the first validation round results six indicators were removed, one was approved without modifications, and the remaining 15 were revised according to participants' comments and submitted to a second validation round. Preliminary results confirmed that FSC verification in food businesses is not yet harmonized and is affected by heterogeneity, professional discretion and lack of shared tools. However, participants recognized the potential usefulness of these indicators in official controls. The continuation of the Delphi process through a second validation round will allow the final set of indicators to be further refined, with the aim of supporting a more consistent, transparent and proportionate assessment of FSC during official controls.

The study was conducted within the framework of a PhD research project at the University of Pisa.