

How food safety risk assessment supports risk management

K. Sommerkorn¹

1 German Federal Institute for Risk Assessment, Berlin, Germany; Department Food and Feed Safety in the Food Chain

Food safety is a key factor to ensure public health. Ensuring access to sufficient amounts of safe and nutritious food is vital for human health. As food is traded globally, food safety is also a global challenge. A shared understanding of risk and precaution, together with internationally agreed standards, is therefore essential. The Codex Alimentarius risk analysis framework provides a common basis for addressing food safety worldwide.

This presentation provides an insight into the Codex Alimentarius risk analysis framework, with a particular focus on food safety risk assessment and its role in supporting risk management. Risk analysis comprises three distinct but closely linked components: risk assessment, risk management and risk communication. The presentation emphasises risk assessment as a science-based process comprising four steps: hazard identification, hazard characterisation, exposure assessment and risk characterisation. While risk assessment provides the scientific basis for decision-making, risk management considers this evidence together with other legitimate factors when evaluating and selecting appropriate measures. Risk assessment and risk management should remain functionally separate to safeguard the scientific integrity and independence of the assessment. Nevertheless, effective interaction between risk assessors and risk managers is essential, for example when defining the purpose and scope of an assessment, formulating the risk assessment question, or discussing possible risk management options. Risk assessment supports risk management by providing a scientifically sound characterisation of the risk, including its magnitude, affected populations and uncertainties. These aspects are used by risk management to identify and select appropriate and proportional risk management measures. Risk assessment and risk management therefore have distinct and significant roles. The challenge is to transfer the results of risk assessment into appropriate risk management actions.

A recent example from Germany will be used to illustrate this process and demonstrate how the results of a food safety risk assessment can inform risk management and contribute to the development of appropriate measures. Although risk assessment and risk management have different roles, their shared goal is to support food safety to protect public health.

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