

# Cross sectorial collaboration to prevent foodborne outbreaks

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## Introduction

Foodborne outbreaks (FBO) caused by consumption of contaminated foods represent an important cause of morbidity and mortality worldwide.

FBO are associated with the degree of development of national regulations on food safety, food hygiene, food handlers health, health literacy and food handling practices across all of the society.

Information from epidemiological surveillance, integrating human, veterinary and environmental areas are essential to identify risk factors to support risk management and burden minimization activities directed at these preventable diseases.

Prevention of FBO can be optimized by teaching good food safety practices to different target populations, including consumers, food handlers and health educators.

## Purpose

Contribute to the prevention and control of FBO in Portugal, through the development and implementation of a guide of good practices in schools and municipalities.

**Objective 1:** Identification of FBO bad practices and risk factors in order to obtain the evidence-base for the elaboration of a “Guide of Consumer Good Practices”;

**Objective 2:** Implementation of the Guide of Consumer Good Practices through collaboration and data sharing between the Ministry of Health, Ministry of Education and all the food chain stakeholders to be used as educational material targeted to lower food consumers risk.

## Material and Methods

- 1) Analysis of data from 86 FBO received between 2009 and 2013 by the Food and Nutrition Department of the National Institute of Health (INSA), according to WHO<sup>1</sup> and EFSA guidelines<sup>2</sup>, in order to 1) identify the consumer's bad practices and risk factors that contributed to FBO occurrence 2) elaborate a Guide of Consumer Good Practices based in the identified bad practices./risk factors;
- 2) Promotion of cooperation between the ministries of health and education, municipalities, local authorities and food chain stakeholders, in order to implement the Guide of Consumer Good Practices as educational material for students and for society.

## Results and Discussion

- 1) Considering the 40 FBO with causative agent identified (46,5%), received and analysed by the Food and Nutrition Department of INSA Laboratories between 2009-2013, data shows that 35% were related to domestic kitchens and the most frequent food vehicle was mixed meals (62,5%)<sup>3,4</sup>. The frequency of FBO contributory factors, when identified, are represented in Figure 1. To tackle these factors through food safety education, we elaborated a Guide of Consumer Good Practices<sup>5</sup> (Figure 2), according to best scientific evidence available on identified risk factors, whose structure can be seen in Figure 3.

Figure 1: FBO contributory factors (INSA 2009-2013)

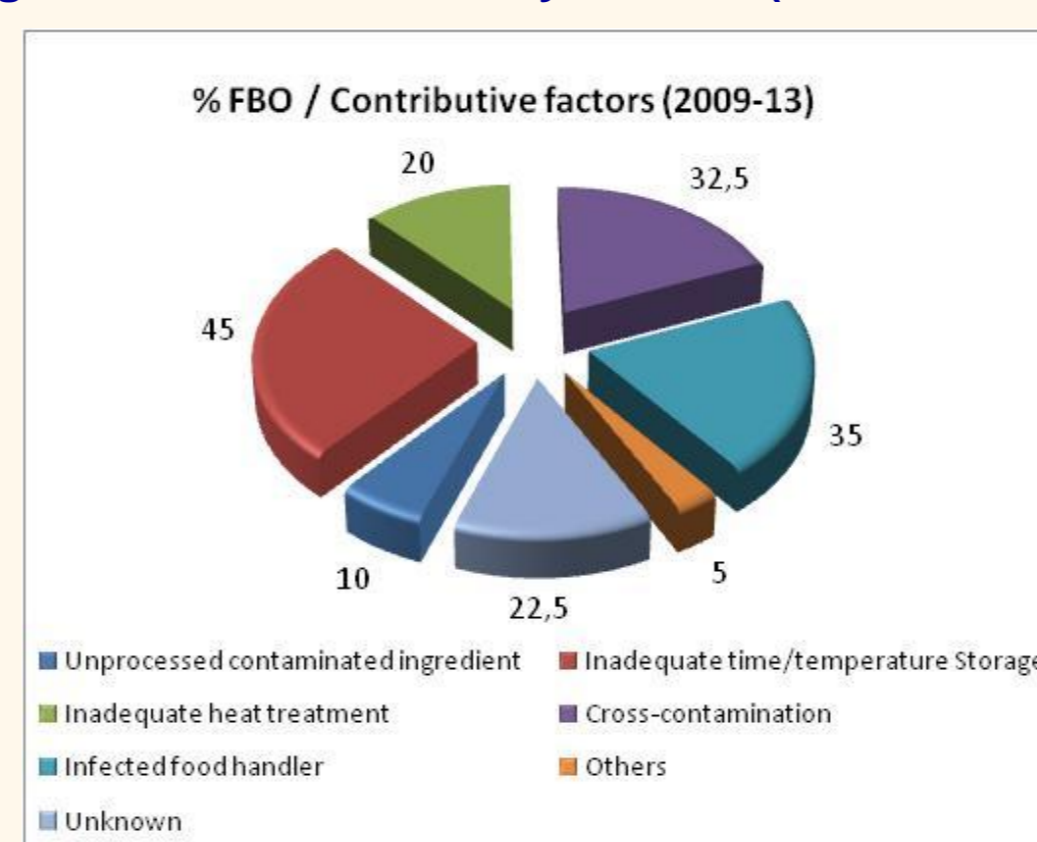


Figure 2: Guide of Consumers Good Practices

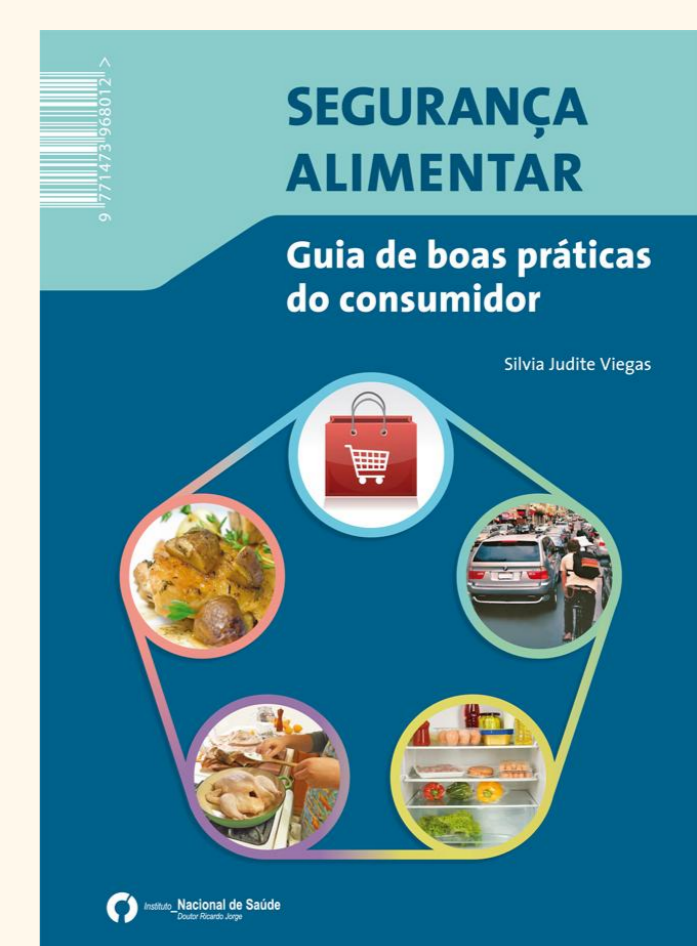


Figure 3: Guide of Consumers Good Practices (structure)

GUIDE OF CONSUMERS GOOD PRACTICES			
Cap I: Food hazards	Cap II: FBO occurrence in Portugal, Europe and USA	Cap III: Risk of infection at home	Cap IV: FBO prevention
Cap V: How to improve food safety at home	Cap VI: Precautions eating away from home	Cap VII: What to do in a suspicion of FBO	Cap VIII: Food preparation: identification and control of hazards.

- 2) To prevent FBO and improve health literacy through “whole-of-society” and “health in all policies” approaches, we are i) distributing the Guide by all food chain stakeholders as educative material and ii) publishing information about nutrition and food safety in popular magazines and newspapers:



## Conclusions

- 1) Analysis of data from FBO surveillance systems was useful for producing scientific evidence on existing risk factors which can guide the collaboration between stakeholders, develop informed policies and strategies to change consumer risk behaviours, and minimize their human, social and financial burden.
- 2) The scientific evidence is useful during the production of materials that support targeted interventions by directing their contents, design and implementation according with different stakeholders and settings.

## References

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