Impact of Food Safety Culture on Food Safety Management Systems

Prof Carol Wallace
Agenda

- Evolution of food safety management systems and emergence of food safety culture
- Evolving understanding of food safety management systems complexity
- A journey to food safety culture via HACCP and food safety research
- Understanding food safety culture
- Measuring and improving food safety culture
- Food safety culture current initiatives and forthcoming guidance
Factors impacting HACCP and food safety success at different business levels
Adapted from Wallace (2009)
Evolving understanding of Food Safety Management Systems Complexity

**Food Safety Culture**

- Food Safety Programme
- Essential Management Practices:
  - Management Commitment
  - Roles and Responsibilities
  - Training and Education
  - Resource Management
  - Documentation
  - Supplier/Customer Partnerships
  - Continuous Improvement

- Food Fraud
- Safe Design
- Prerequisite Programmes
- HACCP
- Food Defence

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FSC builds on work from:
- Organisational Culture
- Organisational Psychology
- Human Factors research
- Safety Science
- Social cognitive science
- National Culture

These are very well developed fields in their own right

FSC needs input from a number of perspectives,
- not just food safety people but social scientists, psychologists, ethnographers, behavioural specialists
- Quantitative and qualitative perspectives both important.

But what actually is Food Safety culture?....
Icebergs, onions and trees!

Metaphors for Food Safety Culture and impact on its assessment

...culture is not visible on the surface
Culture or Climate?

A simplified model

- Climate
- Culture

- Behaviour and Artefacts
- Espoused values
- Basic underlying assumptions
Food Safety Culture Evolving Definitions

- Griffith, 2010 – FSC = ‘The aggregation of the prevailing, relatively constant, learned, shared attitudes, values and beliefs contributing to the hygiene behaviours used within a particular food handling environment’

- Schein, 2004 – Organisational Culture = A pattern of shared basic assumptions that was learned by a group as it solved its problems. The group found these assumptions to work well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to these problems’

- Jespersen et al, 2016 – FSC = ‘the interlinking of three theoretical perspectives: organisational culture, food science and social cognitive science.’

- GFSI TWG, 2018 – FSC = Food Safety Culture: Shared values, norms, and beliefs that affect mindset and behaviours towards food safety across/in/throughout an organisation.

This latter definition builds on previous work and definitions in the literature, in particular the definitions of Griffith et al. (2010) and Schein (2004). Shared values, norms and beliefs generally seen as a learned pattern of conditions that are taught to new members when they join a group.
Food Safety Culture - A continuum

- Weak Negative
- Strong Positive

Measurement is not enough. Improvement tools and mapping tools also needed.

Identify position and level of maturity

Criteria being assessed (varies by tool)

Food Safety Culture Measurement Tools
Breaking down and measuring FSC

- Values and Mission
- Risk Awareness
- Consistency
- Adaptability
- People Systems
FSC Dimensional Framework

Regulations and Requirements

HACCP

PRPs

Fraud Prevention TACCP/VACCP, etc.

Quality

Values and Mission

Risk Awareness

Consistency

People Systems

Adaptability

Jespersen, Griffiths and Wallace, 2016
## Current initiatives in Food Safety Culture

<table>
<thead>
<tr>
<th>Research</th>
<th>Industry Guidance</th>
<th>Industry Debate</th>
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<td><img src="image1" alt="The Food Safety Culture Science Group" /></td>
<td><img src="image2" alt="GFSi Global Food Safety Initiative" /></td>
<td><img src="image3" alt="International Association for Food Protection" /></td>
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<tr>
<td>Research ongoing to fill the gaps.</td>
<td>Technical Working Group in Food Safety Culture established 2016</td>
<td>Professional Development Group in Food Safety Culture established July 2017</td>
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<td>Position Paper published 2018</td>
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Food Safety Culture Science Group (SALUS)

- International Group of Academics from 11 Universities, 1 Industry RA
- Consultants linked with research institutes (Consultant/Academics)
- Multiple perspectives
  - Food safety, systems theory, psychology, human factors, team behaviour, leadership, decision-making, measurement tool development, etc.
- Chaired by Prof Carol Wallace, UCLan; meet twice per year (since 2015)
- Mission to provide consensus on FSC based on science and give rigour to the field
GFSI Food Safety Culture Technical Working Group (TWG)

- **Aim:** to provide guidance and requirements around food safety culture.
- Consists of practitioner technical experts from retailers, manufacturers, food service operators, service providers, standard owners, certification bodies, and industry associations.
FSC Dimensional Framework

Values and Mission

Risk Awareness

People Systems

Consistency

Adaptability
IAFP Food Safety Culture PDG

- **Mission Statement:** To provide an international forum to advance food safety culture science and best practices
- The group will work to advance food safety culture as a science and not a slogan by reviewing existing content on the topic and publishing in scientific journals, engaging members, communicating best practices, and learning from other industries/disciplines
- Symposia proposals and work plans ongoing
- Next meeting July 2019, Louisville, Kentucky
Other Guidelines and Standards

- Codex HACCP Revisions
  - Currently ongoing and at step 3 of Codex document process
  - Food safety culture features in the draft
    - Cultivating and enabling a strong food safety culture
    - Commitment to providing safe food and encouraging appropriate food safety behaviours
- BRC Global Standard for Food Safety Issue 8
  - New clause on food safety culture
Special Edition of Food Safety Magazine

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Understanding Food Safety Culture better will help us to strengthen food safety management systems

BUT

Will require a toolkit of options depending on existing state, e.g.

- Team building approaches and people development
- Application of behavioural theories and interventions
- Application of systems theories and interventions
- Clarification of vision and strategy and linking to what leaders actually do and say
- Provision of necessary resources, structures, systems and equipment to enable an effective culture.

Will require research and sharing of best practices

Still a lot of questions to be answered….
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References