Supporting Consumers
Facilitating Behaviour that Reduces Risky Behaviours

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Risky behaviour might mean......

- Not adopting *safe food preparation* practices
- Reducing *nutritional quality of the diet* in response to perceived food risk
- Rejecting *potentially beneficial food innovations*?
  - Ethical concerns and values also relevant
The Risk Analysis Framework

Risk Assessment
- Which hazards?
- When are they assessed and with which method?
- What consequences are judged important, and with what level of uncertainty?
- Who is affected?

Risk Management
How do values influence the selection and implementation of policy alternatives?

Risk Communication and Stakeholder Involvement
Interactive exchange of information and opinions

*Increased transparency results in the need for additional communication and stakeholder involvement*
Risk Perception

The psychology of risk perception drives public risk attitudes

- **An involuntary risk** over which people have no control is more threatening than one people choose to take
  - *Exposure to milk contaminated by melamine*

- Potentially **catastrophic** risks concern people most
  - *Radiation contamination of the food chain*

- **Unnatural** (technological) risks are more threatening than natural one
  - *Food additives*
  - *Application of food technology to agrifood production*
  - *Dioxin contamination of the food chain*

- **Ethical representations** and concerns are emerging as an important determinant of consumer decision making
  - *Animal welfare*
  - *Environmental impact of agriculture*
People underestimate.....

- The risks of *food poisoning* contracted in the home...
- Risks associated with *habitual food preparation* practices....
Dioxins in the environment

Table 1. Documented Dioxin Contamination Incidents

- 1930s-onward Dow Chemical, Michigan
- 1976 Factory emission, Seveso, Italy
- 1996 SE contamination of broiler flocks with ball clay added to soybean meal as an anti-caking agent, U.S.
- 1998 Milk contamination from citrus pulp imported from Brazil, EU
- 1999 Animal feed contamination with recycled industrial oil, Belgium and adjoining countries
- 2007 Guar gum from India in prepared foods, EU
- 2008 Contamination of hog feed with an ingredient containing industrial oil waste, Ireland

Source wattagnet.com, 2012
E coli, Spanish cucumber and German bean sprouts-getting it wrong

Germany admits Spanish cucumbers are not to blame for E coli outbreak
Source of outbreak that has killed 16 people remains a mystery as row spreads across Europe and Spain counts cost of ban on its vegetables

*The Guardian, 31st May 2011*

- Trust and culpability
- Perceived Protection of economic interests
Differences between expert and consumer/citizen perceptions of risk

• **Experts**
  – Rely on technical risk assessments
  – Use scientific argumentation which does not take account of socio-economic impacts
  – In theory, balance risk against benefits (but it is not always clear how socio-economic benefits, or even technical benefits, are assessed).

• **Public**
  – Use their risk perceptions to make judgements about risk
  – Require risk communication to take account of their concerns as well as technical risk estimates
  – Emotional (or affective) responses are important.

*Frewer et al, in press, Critical Reviews in Food Science and Technology*
BSE
The follow – on from BSE

• Consumers express concern about animal production systems, but do not wish to be involved in **details of animal husbandry**

• As a consequence, consumers need to **trust** regulators and food chain actors
  • Reinvention of national and regional food safety institutions
    • EFSA
    • FSA (UK)

• **Decline in consumer trust** as a result of BSE crisis

• Transparent and trustworthy
  • Production systems,
  • Product traceability (consumer choice?)
  • Labelling for animal welfare
“Horsegate”
Issues

• Fraud and standards
  A food chain (beef post BSE) where these are expected to be applied rigorously

• Public concern
  – (Illegal) economic gain
  – Criminal activity
  – Not focused on food safety
    • The issue of Bute
A systematic review of the food risk communication literature

- Fifty four papers identified
- Certain food issues were of greater interest to researchers (and research sponsors) than others
  - reflecting the occurrence of a crisis, or policy concern.
- Three broad themes relevant to the development of best practice in risk (benefit) communication identified
  - The characteristics of the target population
  - The contents of the information
  - The characteristics of the information sources
Future research

• Need to consider the difference between communications under acute or chronic conditions

• Undertake analysis of long term impacts of communication interventions

• Understand consumer benefit perceptions as well as risk perception
Acute Risks

• Acute risks (in particular when presented in a crisis context) may be difficult to predict in terms of
  • what type of hazard will occur?
  • when?
  • who will be affected?
• Recommendations will therefore need to focus on the process of communication
  – Generic guidelines to communication following potential incident).
Chronic risks

• More information regarding the impact of the risk, and who is affected, is available, More feasible to tailor messages according to
  – consumer/citizen **perceptions** of the **risks and benefits**
  – the **needs** of those most affected
  – in terms of **current behaviours and/or habits**.
Targeting communication to perceptions and needs of “at risk” groups

- Risk-benefit communication

  e.g. What do “at risk” groups perceive to be the risks and benefits of fish or unpasteurised cheese consumption to be?
Instrumental and accidental introduction of food risks

• *Instrumental introduction* can be considered in terms of whether it resulted in unintended consequences
  – communication about mitigation measures and related research activities
  – communication about uncertainties and what is being done to reduce these *in real time*
Deliberate contamination

- Information about *enforcement and identification* will be of interest to consumers
- In the case of potential hazards associated with both risks and benefits
  - consumers may lose something from not consuming a particular food, or switching to alternatives
What is the role of the social media?
“Big” data and risk communication

• Identify emerging food risk issues
  – Geography?
  – Demographic groups?

• Not inclusive
  – UK population = 65 million
  – UK population on Twitter = 15 million

• People may falsify identities on-line or not exist at all!

• Social media rapidly go out of fashion, in particular if “institutionalised”
Principles of risk communication  
*What should be communicated?*

- **Targeted information** *(dependent on needs of consumers, not communicators)*

- **Coordinated information on….*
  - **Risk/benefit** variability and uncertainty
  - **Risk management** activities
  - **Regulatory priorities**
  - **Preventative measures** being taken
  - **Enforcement** actions
  - **Expertise** of risk managers
  - Actions to *improve future preparedness*
Principles of risk communication

When?

Proactively

• **As soon as** a food risk is identified

• For all *potentially contentious issues* (e.g. including food additives, controversial food technologies) independent of risk assessments

• For all issues where (groups of) people are at risk

• When new *identification, mitigation, or prevention* measures are being put into place
Crisis communication

• Rapid communication \textit{as soon as} a problem is identified
• Communicate about what \textit{risk management measures} are being taken
• \textit{Coordinated communication} between different agencies
• Provide information about \textit{risk uncertainties} and what is being done to \textit{reduce these}
  – \textit{Vulnerable populations}
  – Location of risk in \textit{(different) food chains}
  – \textit{Geographical} location of risk
Thank you

Questions or comments?