Consumer & Market Insights Research Programme

Risk Perceptions & Communication

For information on the Food Marketing Research Unit’s (FMRU) Consumer & Market Insights Research Programme, please contact:

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**Project Title:** Risk Analysis Based Control of Salmonella in Pork on the Island of Ireland  
**Duration:** 2005-2009  
**Funding:** Food Institutional Research Measure  
**Partners:** Francis Butler, Nola Leonard (UCD), Bob Madden (QUB), Patrick Naughton (UU)

**Project Description:**
An effective food safety system provides an array of important social and economic benefits such as maintain public confidence in the safety of the food supply chain, contribute to higher levels of exports, and from the manufacturer’s perspective, maintain brand equity. The overall aim of this multi-disciplinary project is to assess the occurrence and transmission of *Salmonella* in the pork supply chain, and to establish the effectiveness of current different control measures and programmes in both the Republic of Ireland (ROI) and Northern Ireland (NI). The main objectives of the consumer insight element of this project were: to collate data on pork consumption on the island of Ireland; to estimate the economic costs of *Salmonella* infection on the island of Ireland, and specifically, for cases attributable to pork; and to evaluate management interventions in order to reduce the economic costs attributable to *Salmonella* in the pork supply chain.

Data on consumption of pork on the island of Ireland was collated from relevant databases. An economic cost model, which was based on the most recently available data from the national surveillance systems in both the ROI and NI, was then developed to assess the economic cost of Salmonellosis cases attributable to pork on the island of Ireland. The data was used in conjunction with a multiplier of disease from a previous study in order to extrapolate the full extent of human Salmonellosis infection in Ireland. Multiple datasets were used in order to calculate the associated direct costs, and productivity loss was calculated on the basis of wage rates per working days lost due to Salmonellosis. A sensitivity analysis was also conducted in order to assist in the understanding of both the nature and the total costs of Salmonellosis in Ireland. Overall, the study revealed that over 3,655 persons experienced symptoms of Salmonellosis, and that the true cost of Salmonellosis was estimated to be €4.5m in 2004 for the Island of Ireland. An expert stakeholder elicitation study was recently conducted to determine and rank possible management interventions. The research generated from this study will be directed and communicated to a risk management forum which will operate alongside the scientific process. This will allow the direct uptake and assessment of the scientific results for direct translation into an assessment of controls where changes in current policy may be needed or applied. The expected outcome will be to establish new strategic approaches by which risk and costs attributable to *Salmonella* can be reduced.

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Project Title: Welfare Quality: Consumers’ Views about Farm Animal Welfare

Duration: 2004-2009

Funding: European Commission 6th Framework Programme

Project Description:
Animal welfare is of considerable importance to European consumers given that food quality is not only determined by the overall nature and safety of the end product, but also by the perceived welfare status of the animals from which the food is produced. The Welfare Quality project is concerned with the integration of animal welfare in the food quality chain: from public concern to improved welfare and transparent quality. The overall aim of this research project was to develop European standards for on-farm welfare assessment and product information systems as well as practical strategies for improving animal welfare. Focus group discussions and quantitative surveys were conducted by the research consortium across seven EU countries (France, Hungary, Italy, The Netherlands, Norway, Sweden and the United Kingdom). Researchers from Ashtown Food Research Centre (AFRC) conducted a series of in-depth focus group discussions and administered the consumer questionnaire in Hungary.

Overall, the focus group research results confirmed that many contemporary European consumers were spatially and psychologically distanced from the realities of modern farming and were poorly informed about specific issues of animal biology and farming practices. It appeared that most of their knowledge was derived from their experience of companion animals rather than farm animals. That said, the research also showed that many consumers possessed detailed understandings of the ethical issues behind farm animal welfare. They also held relevant views about what constituted a good quality of life for farm animals and the types of welfare concerns they believed should be taken into account when monitoring and assessing welfare. The follow-up quantitative study provided valuable insights into consumers’ awareness of animal welfare, and showed that awareness had increased since the early 1990s. While a significant increase in support for animal welfare/rights groups had been reported, consumer concerns had not yet generated a new and significant demand for ethically produced products, with the exception of consumers from the United Kingdom.

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Project Title: Market Studies Relating to E.Coli O157:H7 in Irish Minced Beef and Beef Burgers

Duration: 2001-2004

Funding: Food Institutional Research Measure

Project Description:
Changes in demographics, consumers’ lifestyles and preferences have resulted in changes in food formulation, manufacturing and distribution, as well as the ways in which consumers purchase, store, prepare and consume foods. It is not surprising therefore that the incidence of foodborne illnesses has continued to rise, and has come to represent one of the most widespread public health concerns worldwide. Understanding the food handling practices of consumers is therefore essential to develop strategies that can help reduce the incidence of foodborne illnesses. The main objectives of this study were: to obtain and collate Irish beef consumption data; to identify the most common malpractices by consumers in the handling of meat in general, and with minced beef and beef burgers, pre and post purchase; and to gather data on consumer handling, storage and preparation of minced beef and beef burgers to feed into a food safety risk assessment model.

Qualitative research by means of 10 in-depth consumer interviews initially explored the practices undertaken by Irish consumers in the purchasing, transport, handling, preparation and cooking of beef and beef burgers. Following this, a telephone-based questionnaire was administered to 485 purchasers of minced beef. The results of this study revealed both positive and negative food purchasing and handling practices undertaken by Irish purchasers of beef products. On a positive note, the majority of Irish consumers check the best-before-date prior to purchase, returned home within 2 hours of shopping, put the shopping away immediately, and used chilled minced beef within two days of purchase. However, the majority of shoppers failed to leave their meat shopping until last, did not use cooler bags when purchasing meat, and tellingly, neither stored meat on the correct shelf in the fridge nor defrosted meat according to best practice. Importantly, the research revealed the most significant socio-demographic factors that influenced food handling and preparation practices by Irish consumers of minced beef and beef products. From both a societal and public health perspective, there is clearly a need to continually educate consumers on improved food handling and preparation in the home. This study revealed important insights into the food purchasing and handling practices of Irish purchasers of beef products, which should form the basis and focus of future food safety campaigns.

Final Report: The end of project report (Project Armis No. 5035) can be downloaded here

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Project Title: Consumer Concerns about Animal Welfare and the Impact on Food Choice

Duration: 1998-2001

Funding: EC-FAIR Programme

Project Description:

There is evidence of growing concern about animal welfare amongst consumers in the European Union as a consequence of the ever increasing demand for ethically produced foods such as ‘free range’ eggs. However, while a number of studies do indeed allude to increased consumer concern with intensive animal husbandry, there is limited information on the issue from the perspective of Irish consumer. The main objectives of this research therefore were: to assess the nature and magnitude of consumer concerns about animal welfare in Ireland; and to determine the impact of these concerns on choice for animal-based food products, which could guide strategies to address consumers’ concerns.

Qualitative research initially investigated consumers’ attitudes towards animal welfare issues through a combination of 4 focus groups and 60 in-depth consumer interviews. The in-depth consumer interviews employed the Laddering technique based on means-end theory which helped illustrate the link between consumers’ concerns and consumers’ value systems. The means-end chain analysis revealed that consumers defined animal welfare in terms of animals being allowed to lead natural lives given that ‘natural’ in the context of food equated with ‘production methods’ from the consumer’s perspective. Finally, a quantitative consumer survey was administered to 500 Irish consumers to identify segments of consumers with concern for animal welfare issues. Overall, the qualitative and quantitative studies demonstrated that although consumers were concerned about farm animal welfare, this concern was not a priority in their food choices. Instead, the research revealed that consumers used animal welfare as an indicator of other product attributes such as food safety, quality and healthiness, which they usually perceived as more important. Consequently, it appeared that consumers equated good animal welfare standards with good food standards. This research provided new insights into the development of consumer-driven strategies to address consumers’ concerns, and ultimately, increase consumer uptake of ethically produced foods.

Final Report: The end of project report (Project Armis No. 4543) can be downloaded here

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