

# Consumer Focused Review

Of Men's Food Behaviour  
2014



# **Men's Food Behaviour**

**ISBN:** 978-1-905767-51-9

**Publication date:** December 2014

# Foreword



With the publication in 2008 of the Men's Health Policy and the formation of an all-island Men's Health Forum, increased attention has been placed in recent years on the issue of men's health. Obesity has been highlighted as a key concern for men given their higher rates of overweight and obesity when compared with women, a situation that exists across the island of Ireland.

This report focuses specifically on the food-related behaviours of men and highlights key food-related public health issues for men including food safety and nutrition. The report also explores men's knowledge, attitude and behaviours relating to food, and examines the relevant social and cultural influences.

What is evident from this report is that men on the island of Ireland are in general, less engaged than women when it comes to food hygiene and healthy eating, something which is having a detrimental effect on their health. Men eat less healthily than women; consume more salt and fat and less fruit and vegetables. And though men are more likely to be overweight and obese than women, they are less aware of, and less concerned about, their weight.

Awareness of excess weight as a major health issue for men needs to be raised. More boys and young men need to be educated on basic food skills such as planning and cooking. And more positive role models for men's daily involvement with safe and healthy food need to be created, promoted and championed. Collectively, we all have a responsibility to reconsider how we regard men, their food and health.

Ray Dolan,

Chief Executive Officer, **safefood**.



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# Abbreviations

|        |   |
|--------|---|
| BMI    | Body Mass Index                             |
| BP     | Blood Pressure                              |
| CAPi   | Computer Assisted Personal Interview        |
| DRV    | Dietary Reference Values                    |
| EU     | European Union                              |
| F&V    | Fruit and Vegetables                        |
| FFQ    | Food Frequency Questionnaire                |
| FSA    | Food Standards Agency                       |
| FSAI   | Food Safety Authority of Ireland            |
| IEFS   | Institute of European Food Studies          |
| IOI    | Island of Ireland                           |
| NANS   | National Adult Nutrition Survey             |
| NDNS   | National Diet and Nutrition Survey          |
| NHS    | National Health Service                     |
| NI     | Northern Ireland                            |
| NSIFCS | North South Ireland Food Consumption Survey |
| PA     | Physical Activity                           |
| RNI    | Reference Nutrient Intake                   |
| ROI    | Republic of Ireland                         |
| SES    | Socio-Economic Status                       |
| SSB    | Sugar-Sweetened Beverages                   |
| UK     | United Kingdom                              |
| WHO    | World Health Organisation                   |

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# Acknowledgements

**safefood** wishes to thank all those who were involved in this research project, including the members of the External Advisory Group:

|                    |   |
|--------------------|---|
| Dr Paula Carroll   | Lecturer and Researcher, Centre for Health Behaviour Research,<br>Waterford Institute of Technology |
| Mr Colin Fowler    | Director, Men's Health Forum in Ireland   |
| Ms Marita Henessy  | Researcher / Project Coordinator, National Cancer Registry Ireland                                  |
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| Mr Gerry McElwee   | Head of Cancer Prevention, Ulster Cancer Foundation   |
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| Dr Noel Richardson | Lecturer and Director of Centre for Men's Health, Institute of<br>Technology, Carlow                |

# 1 Introduction

## 1.1 Background to *safefood*

***safefood***, the Food Safety Promotion Board, is an all-island body charged with conducting research, facilitating cross-jurisdictional work, and promoting food-safety and healthy-eating messages to consumers, primarily at a population level. This is done through mass communication, including print, radio, television and the web. ***safefood*** collaborates with a variety of partners to promote healthy eating and better food safety practices at a community level or in specific settings, including schools, colleges, workplaces and community groups.

***safefood*** works in four key areas: education, research, and consumer communications relating to both food safety and healthy eating. The role of ***safefood*** is determined by its governing legislation, which sets out its functions. These functions are summarised as follows:

- Promotion of food safety
- Research into food safety
- Communication of food alerts
- Surveillance of foodborne disease
- Promotion of nutrition
- Nutrition research
- Promotion of scientific co-operation and linkages between laboratories
- Development of cost-effective facilities for specialised laboratory testing.

***safefood***'s functions also include the provision of independent, science-based assessments of the food chain, and the organisation has a role in giving advice on the nutritional aspects of certain foods.

## 1.2 Rationale for the review

Although many studies include sex as an attribute, few explore how concepts of masculinity and femininity influence health practices. Despite gender being widely acknowledged as a determinant of health, many studies fail to explain the mechanisms by which gender influences health, in particular, men's health. For example, compared to women, men are less likely to report healthy eating and diet restriction and, in general, place less importance on nutrition—but there has been little attempt to explore why this might be the case (1).

In 2012 **safe food** published a large-scale review of consumer food behaviour on the island of Ireland (2). One of the key findings of that report was that gender differences existed in relation to food and health. In general, the research indicated that men had poorer knowledge and skills, riskier attitudes and less healthy behaviours in relation to both food safety and nutrition. Prior to this, in 2009, safe food had developed a 12-week intervention with the aim of supporting men, in particular truck drivers, to eat healthily, lead active lives and maintain a healthy lifestyle. Much was learned from this project in terms of getting men engaged with their health. As a result of these findings, **safe food** took the decision to further investigate men's food-related health behaviours.

### 1.2.1 Sex vs. gender

It is important to note the distinction between 'sex' and 'gender' in the context of this report. In some studies these terms are used as synonymous and interchangeably. Although the exact definition of sex and gender depend on the particular discipline or ideology, varying across sociology, biomedical science and psychology, for example, in this instance, sex refers to the physiological aspects of manhood and womanhood, while gender is something that one does in social interactions rather than a set of inherent qualities to men and women (3). In this report gender refers to the socially, culturally and environmentally constructed spectrum of roles, behaviours, values, attitudes, activities and attributes that any society deems to be appropriate for men (masculinity) and women (femininity).

### **1.3 Objective and terms of reference of the review**

The report will:

1. Give a brief overview of the major public health nutrition and food safety issues on the island of Ireland for men and explain the related behaviours;
2. Investigate the environmental, social and personal factors that influence attitudes and food-related behaviour in men from an international perspective;
3. Provide an account of research conducted on the island of Ireland on knowledge, attitudes, perceptions and food-related behaviours of men in relation to both nutrition and food safety;
4. Review interventions that have been carried out in relation to key nutrition-related and food-safety behaviours in men and outline those factors that may promote successful behaviour change;
5. Develop recommendations for further research/action where gaps have been identified through the review process.

### **1.4 The health of men on the island of Ireland**

There has been a growing concern in Western countries in recent years about the burden of ill health experienced by men, and so a dialogue around men's health has emerged in academic, policy and media texts (4-6). This increased attention on men's health is related to a number of factors, including published statistics highlighting sharp differences between the sexes for incidences of major illnesses, accompanied by expressions of concern among health professionals and media constructions of a 'crisis' in masculinity in general (7). The Republic of Ireland has been leading the way in Europe and internationally by developing a national policy for men's health (8).

While physiological difference between men and women explain some of the variation in the rate and/or onset of disease (e.g., protective effects of oestrogen in relation to the onset of cardiovascular diseases), other factors, such as socio-cultural influences, also play an important role. It is acknowledged that men and women experience different influences and motivations with respect to their knowledge and attitudes of and behaviours towards food and health.

In most countries around the world, women now have a longer life expectancy than men (9). On the IOI, despite recent increases in men's life expectancy, men continue to have higher death rates than women at all ages and from all leading causes of death (10). On the island of Ireland, life expectancy at birth has increased significantly over the past few decades for both men and women and is broadly comparable for NI and the ROI. According to the Northern Ireland Statistics and Research Agency (NISRA), in 2010, male life expectancy was 77.08 years, while female life expectancy was 81.52 years. Data from ROI reveals men's life expectancy to be lower than that of women by almost five years. Women's life expectancy at birth

has increased from 57.9 years in the period 1925-1927 to 81.6 years in 2005-2007. Over the same period, men's life expectancy at birth increased from 57.4 to 76.8 years (11).

Men in the UK are also at risk from several major diseases mainly due to poor diet, high consumption of alcohol, smoking, etc. (12). Men of all ages experience a significantly higher mortality rate from all kinds of cancer (using age-standardization and excluding sex-specific cancers), and this higher rate of death in men becomes even more pronounced for men over the age of 65 (13, 14).

There is a similar situation internationally (5, 6). Men's rate of lost years of life is twice that of women's, primarily due to men's higher mortality rates for heart disease, suicide and motor vehicle accidents (15, 16). In Canada, using age-standardized frequencies to control for the greater life expectancy of women, data from 2005 showed that men are 39% more likely to die from diabetes, 84% from arterial diseases and 78% from heart disease (17).

A closer examination of aggregated data from the ROI reveals substantial differences between different categories of men, particularly in relation to age and socioeconomic status (5, 18). Young men (15-24 years) are a particularly high-risk group (10), suicide being the principle cause of death among this group (19). This contrasts with most other countries, where suicide is more frequently observed in older men (20). Compared to men in the highest occupational classes, men from the lower occupational classes have poorer health outcomes and experience significantly higher mortality rates (5, 18). It is also well recognised in Ireland (21) and internationally (22, 23) that men are often reluctant to seek help and continue to present late in the course of an illness.

## **1.5 Gender differences in food and health across the IOI**

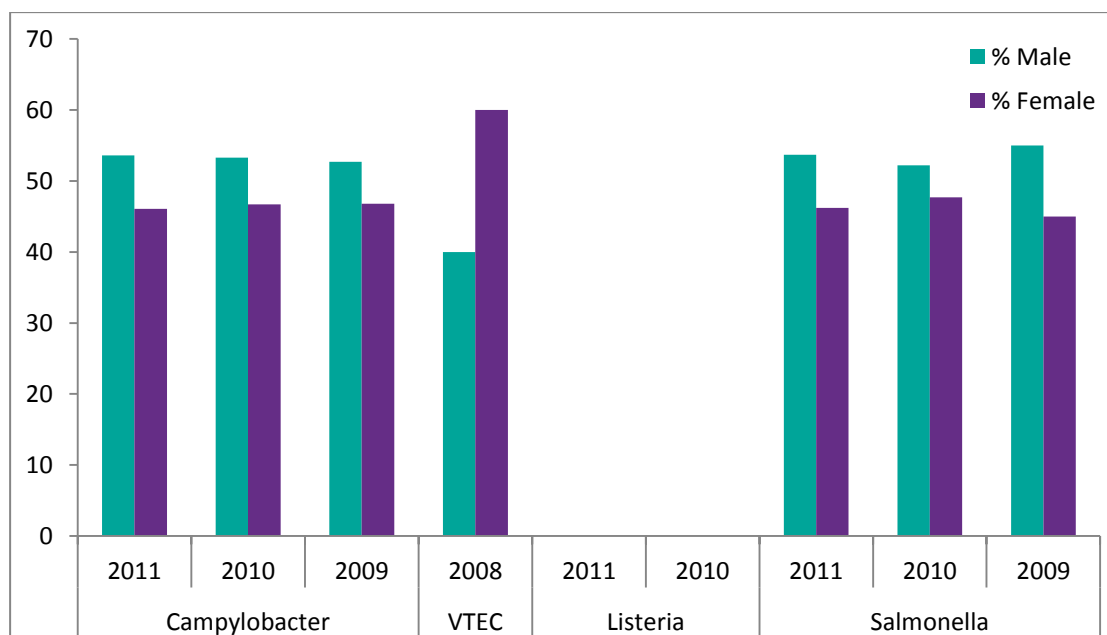
An overview of the literature on gender, food and health suggests a number of key themes in this area. These include body image, food intake and dieting. The literature on gender and food in the domestic setting contains themes related to the gendered division of labour in food-work, differences in knowledge and food safety practices, differences in male and female patterns of food selection and preference, for example, fruit and vegetable intake, and differences in meat consumption. These are influenced by concepts of masculinity and femininity.

### **1.5.1 Food safety practices**

Studies from the IOI (2, 24-26) and internationally (27-31) have consistently shown men to have less than ideal food hygiene practices and a significantly lower knowledge of food safety issues. Data in relation to the incidence of foodborne illnesses are routinely collected in ROI (32) and NI (33). These figures reveal slightly higher incidence rates among men than women in ROI in relation to campylobacter and salmonella, but not VTEC (Figure 1). Figures from NI show that men experience higher incidence of foodborne illness from campylobacter and salmonella but women experience higher incidence of VTEC and listeria (Figure 2). However, this data does not provide any detail on the circumstances of each case

and therefore it is not possible to draw conclusions on whether it was the food safety practices of the male or the female consumers that led to the reported cases.

**Figure 1 - Rates of foodborne illnesses in men and women in the ROI**



**Figure 2 - Rates of foodborne illnesses in men and women in NI**



Evidence on gender differences in day-to-day food safety practices is limited. Much of the research on food safety behaviour on the IOI is confined to studies on knowledge, attitudes and perceptions of food safety issues rather than actual practices and will be outlined in chapter 4. Therefore, in this section, a greater focus is given to gender differences in food consumption and intake preferences.

### **1.5.2 Food and nutrient intake**

Research on actual food intake practices of men and women and their links to health has demonstrated significant sex differences. In a study of food choice behaviours in 23 countries, it was found that men attached less importance to healthy eating than women and were less likely to avoid fat, eat fibre, eat fruit or engage in dieting (1). In addition, Breadsworth et al. surveyed UK respondents in relation to their food beliefs, practices and preferences, and revealed that women reported significantly higher consumption of fruit and vegetables, while crisps, fried food and processed meats (sausages, pies, pork pies, hamburgers and corned beef) were consumed significantly more often by men. Men were also significantly more likely to agree that a 'healthy diet should always include meat' (34).

On the IOI, throughout the years, a number of surveys have collected food consumption data from representative samples of the population (Table 1). Although awareness of the relationship between health and nutrition has increased significantly in the general population, this has not always been reflected in their everyday food choices (35).

The findings of these surveys have been covered elsewhere (2). The focus here will be to highlight the differences identified in consumption patterns of adult men and women on the IOI. Although recent food consumption data have been reported separately for NI (36) and ROI (37), the North/South of Ireland Food Consumption Survey (NSIFCS) (38), published in 2001, is the last survey reporting food intake values on an IOI basis.

Table 1 - Surveys contributing to nutrient surveillance picture on the Island of Ireland

| Study Name                              | Year | Age   | Anthropometry |     | Diet   |                                | Socio-economics and lifestyle                     | Clinical   |
|---|------|-------|---------------|-----|--|--------------------------------|---|--|
|   |      |       | M*            | SR* | Food level only  | Food and nutrient level        |   |  |
| Health Survey of Northern Ireland (36)  | 2011 | 2+    |               | ✓   | FFQ: F&V, potatoes, confectionary, processed meat, savoury snacks and SSBs                                       |                                | Employment, education, smoking, alcohol and PA    |  |
| NANS (37)                               | 2011 | 18-90 | ✓             |     |  | 4-day semi-weighed food record | Employment, alcohol, smoking and PA               | BP, blood for nutritional status and metabolic indicators and urine sample |
| Health and Social Wellbeing Survey (39) | 2007 | 16+   | ✓             |     | FFQ: Processed meat, chicken products, potatoes, chips, biscuits and confectionary, savoury snacks, SSBs and F&V |                                | Education and employment, PA, alcohol and smoking | BP, blood sample   |
| NSIFCS (38)                             | 2001 | 18-64 | ✓             |     | Questionnaire  |                                | Questionnaire on lifestyle                        | Blood sample, bone density, B-vitamin status biomarkers                    |

\* M-Measured, SR-Self-reported, FFQ-Food Frequency Questionnaire, F&V-Fruit and Vegetables, PA-Physical Activity, BP-Blood Pressure

According to the NSIFCS, five food groups overall contributed 59% of energy intake in the population, i.e., meat and meat products (16%), breads (14%), potatoes (11%), milk, yoghurt and cheese (9%), and biscuits, cakes and pastries (9%). There was little difference between men and women in the percentage of energy from various food groups (Table 2), with the exception of alcohol, which provided almost twice as much energy for men compared to women (38).

**Table 2 - NSIFCS mean and SD of energy and macronutrient intakes and the % of food energy from macronutrients in men and women aged 18-64 years**

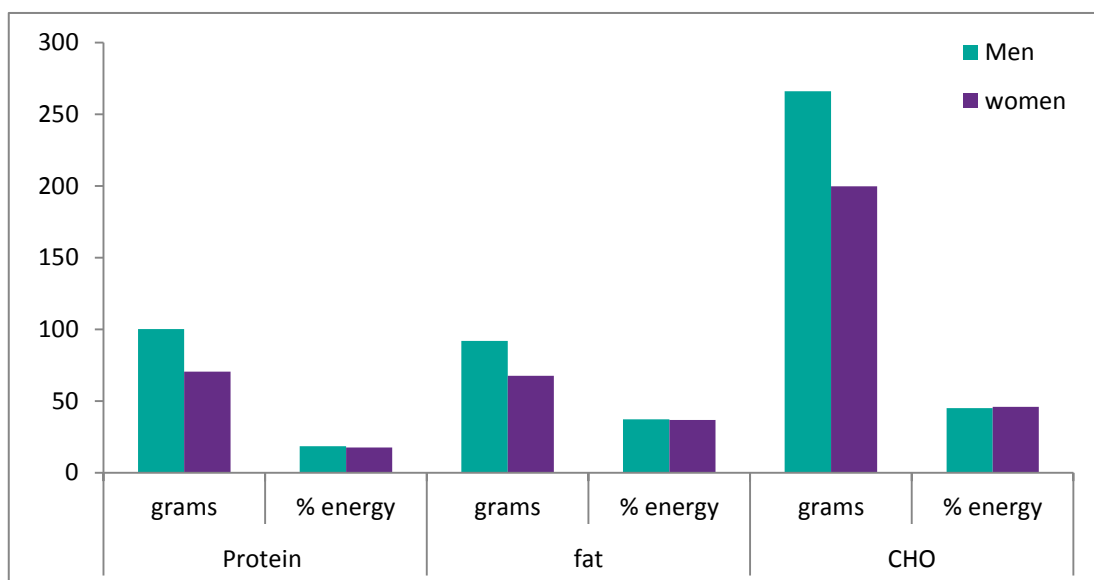
|                    | Total population |      | Men   |      | Women |      |
|--------------------|------------------|------|-------|------|-------|------|
|                    | Mean             | SD   | Mean  | SD   | Mean  | SD   |
| <b>Energy (MJ)</b> | 9.3              | 3.1  | 11.0  | 3.1  | 7.6   | 2.0  |
| <b>Protein (g)</b> | 84.4             | 26.9 | 100.2 | 26.6 | 69.8  | 17.2 |
| <b>% energy</b>    | 16.4             | 2.9  | 16.6  | 2.8  | 16.2  | 3.0  |
| <b>Fat (g)</b>     | 87.1             | 33.2 | 102.2 | 34.3 | 73.1  | 24.9 |
| <b>% energy</b>    | 36.9             | 5.8  | 37.0  | 5.4  | 37.0  | 6.0  |
| <b>CHO (g)</b>     | 260.1            | 91.1 | 305.1 | 96.0 | 218.6 | 62.3 |
| <b>% energy</b>    | 46.5             | 5.5  | 46.2  | 5.4  | 46.6  | 5.6  |

A closer look reveals a few major areas of consumption where gender differences are visible.

– Overall energy intake

On average, men in the IOI had higher intakes of energy and consumed greater amounts of all macronutrients compared to women (37, 38), but women consumed a greater variety of foods. Overall, energy intakes decreased with decreasing age for both men and women.

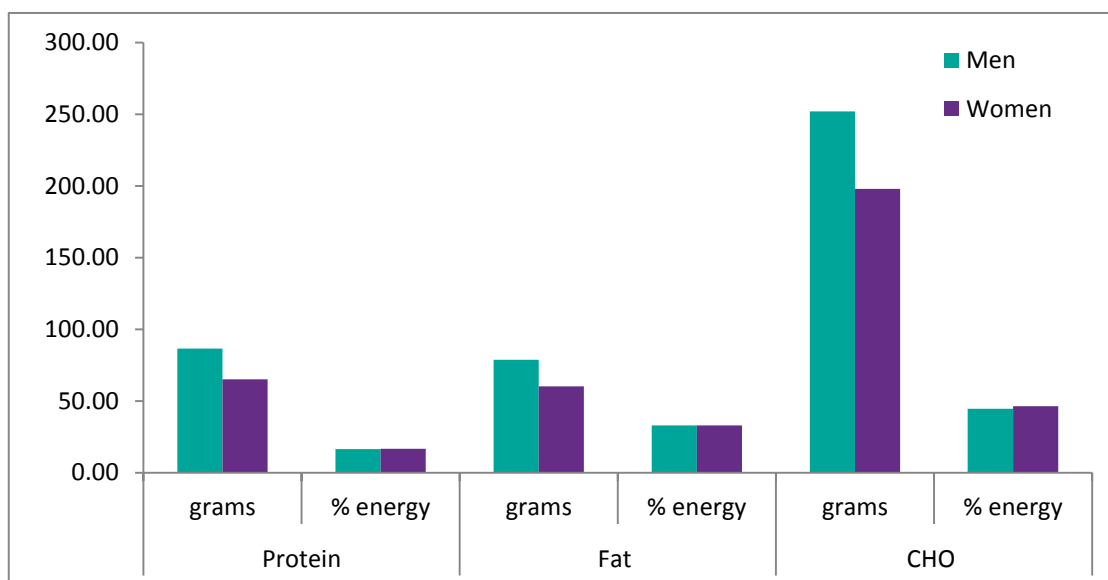
Figure 3 - Nutrient intake data for men and women – NANS (ROI)



Differences in men's and women's intake data (19-64 years) from National Adult Nutrition Survey (NANS) (ROI) can be seen in Figure 3. The data also reveal that 65+ year-old men consumed 85.2g (18.8%) protein [69.4g (18.3%) for women], 77.6g (36.5%) fat [60.6g (35.5%) for women] and 225.8g (45.2%) carbohydrate [187.3g (46%) for women] (37).

According to data from the National Diet and Nutrition Survey (NDNS), mean daily protein intakes were above the RNI for both men and women (Figure 4). Mean daily total fat intake in men and women met the DRV of contributing no more than 35% of energy for the 19-64 year olds but exceeded this limit for those aged 65 years and over (men=36.9% and women=35.4%) (40).

Figure 4 - Nutrient intake data from men and women – NDNS (UK)



#### – Fibre

On the island of Ireland, the mean daily intake of dietary fibre in 2001 was 20.2g/day (38). While on average men consumed larger quantities of fibre (23.2g/day) than women (17.4g/day), women consumed more fibre-dense diets (2.33g/MJ) than men (2.1gg/MJ). In general, younger men (18-35 years) consumed less fibre than older men (36-64 years).

More recent data from the ROI (37) indicates that these figures have not varied greatly between 2001 and 2011. The average daily intake of dietary fibre was found to be 19.2g/day (men 21.1g/day and women 17.3g/day) among 18-64 year olds in this population. Similar to the NSIFCS, results from the NANS revealed that the main food groups contributing to this intake were breads (26%), potatoes (13%) and vegetables (17%). Fruit and fruit juices and breakfast cereals contributed a further 10% and 9% respectively.

The NANS (37) findings also suggest that more than 80% of the population is not achieving the European Food Safety Authority (EFSA) recommendation of 25g/day of dietary fibre. This is similar to the findings of the NSIFCS, in which 77% of the population was estimated to have inadequate fibre intakes.

#### – Salt

In 2011, among 18-64 year olds in ROI, the mean daily intake of salt was 7.4g, with men (8.5g) having higher intakes than women (6.2g). In 65+ year olds, men's daily salt intake was 7.3g compared to 5.4g

in women. Even when discretionary salt is excluded, mean daily intakes exceeded the intake target of 6g/day. Among 18-64 year olds, the largest contributor to sodium intake was 'meat and fish' (30%), of which 18% came from cured/processed meats. The largest contributor to sodium intake in this age group was meat and fish (30%), of which 18% came from processed/cured meats. Bread contributed a further 22%, while soups and sauces, milk and milk products, and vegetables contributed 9%, 8% and 7% respectively (37).

– Processed Meats

Men on the IOI consume significantly more meat (red, white and processed meat) than women. Meat is the greatest contributor to fat (24%) and protein (41%) intake in adults (18-64 years). Intakes were similar for 65+ year olds. Irish men on average consumed 30.9 g of processed meat a day (women consumed 19.9g a day) which is in excess of the 20g/day recommendation (41).

– Fruit and vegetables

Although 90% of respondents were aware of the advice to have at least five portions of fruit and vegetables every day, only a third (32%) of respondents ate the recommended five portions. Men (27%) were less likely than women (37%) to eat the recommended five portions a day (36).

– Vitamins

Vitamin intakes were adequate in the population for most vitamins. However, a significant prevalence of inadequate intakes was observed for vitamin A (21% of men, 15% of women). In men aged 65 and over, 17% had inadequate intakes of vitamin C and 14% had inadequate intakes of vitamin A. Mean daily intakes of vitamin B2 less than the Estimated Average Requirement (EAR) was observed in 15% of men and 11% of women in this age group (37).

To sum up, international surveys of food intake practices reveal that in general, men attach less importance to healthy eating and this is reflected in food consumption data. This scenario is reflected on the IOI, with surveys revealing that men consume too much salt and processed meats and not enough fruit and vegetables and fibre.

### **1.5.3 Body weight and BMI**

The NSIFCS (38) data show that in 2001, according to WHO definitions (42), less than 1% of people on the IOI were underweight, 42% were in the normal weight range, 39% were overweight and 18% were obese. A lower percentage of men (33.3) than women (50.4) were of normal weight and a higher percentage of men (46.3) than women (32.5) were overweight. Overall, 20.1% of men and 15.9% of women were obese.

Data published in 2011 from the ROI revealed that less than 1% of individuals were underweight, 39% were in the normal weight range, 37% were overweight and 24% were obese. A higher percentage of women (47%) compared to men (30%) were of normal weight and a higher percentage of men (44%) compared to women (31%) were overweight. In addition, 26% of men and 21% of women were obese (37) (Table 3 and Table 4). According to research commissioned by **safe food**, 38% of people believe they are overweight and 57% feel they do not need to lose weight (43). Similar results from the ROI population are reported in other national surveys. According to the National Teens Food Survey, parents of a healthy weight were able to accurately judge their own weight status (44). However, 69% of overweight fathers thought that their weight was 'fine' and one in five obese fathers thought that their weight was 'fine'. Mothers were more likely to correctly recognise their own body weight status. Hudson et al. examined the ability of mothers of teenagers and of school children to classify their own weight status and found that 4.8% of obese mothers and 38.2% of overweight mothers reported that their weight was fine for age/height (45).

The Health Survey of Northern Ireland (46), published in 2014, revealed that 25% of adults were obese, with a further 37% classified as overweight, while 38% were either normal or underweight. Men (69%) were more likely than women (57%) to be overweight or obese. In contrast to the 2011 survey, the majority of those who were obese recognised that they were too heavy (87%). In comparison, just over half of those who were overweight (52%) thought they were too heavy.

Table 3 - Anthropometric measures (mean values) for men and women from the NSIFCS (2001) and NANS (2011) by age group

|                          | Men     |      |         |      |         |      |         |       | Women   |      |         |      |         |      |         |      |
|--------------------------|---------|------|---------|------|---------|------|---------|-------|---------|------|---------|------|---------|------|---------|------|
|                          | 18-64yr |      | 18-35yr |      | 36-50yr |      | 51-64yr |       | 18-64yr |      | 18-35yr |      | 36-50yr |      | 51-64yr |      |
|                          | 2001    | 2011 | 2001    | 2011 | 2001    | 2011 | 2001    | 2011  | 2001    | 2011 | 2001    | 2011 | 2001    | 2011 | 2001    | 2011 |
| Weight (kg)              | 82.9    | 86.2 | 81.0    | 82.5 | 84.8    | 88.2 | 83.2    | 90.7  | 67.5    | 70.0 | 64.6    | 67.4 | 68.1    | 70.5 | 71.1    | 73.6 |
| BMI (kg/m <sup>2</sup> ) | 82.9    | 27.5 | 81.0    | 25.8 | 84.8    | 28.5 | 83.2    | 29.7  | 67.5    | 26.4 | 64.6    | 24.8 | 68.1    | 26.7 | 71.1    | 28.8 |
| Waist circum. (cm)       | 94.3    | 95.5 | 90.3    | 89.2 | 96.6    | 89.2 | 67.6    | 103.7 | 81.2    | 86.3 | 77.5    | 82.1 | 81.9    | 87.6 | 86.6    | 91.9 |
| Body fat %               | 21.2    | 23.3 | 17.7    | 19.2 | 22.7    | 19.2 | 24.0    | 27.8  | 33.2    | 33.9 | 29.2    | 31.0 | 34.1    | 34.9 | 39.1    | 37.6 |

Table 4 - Percentage of men and women in each BMI category from NSIFCS (2001) and NANS (2011) by age group

|             | Men     |      |         |      |         |      |         |      | Women   |      |         |      |         |      |         |      |
|-------------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|
|             | 18-64yr |      | 18-35yr |      | 36-50yr |      | 51-64yr |      | 18-64yr |      | 18-35yr |      | 36-50yr |      | 51-64yr |      |
|             | 2001    | 2011 | 2001    | 2011 | 2001    | 2011 | 2001    | 2011 | 2001    | 2011 | 2001    | 2011 | 2001    | 2011 | 2001    | 2011 |
| Underweight | 0.3     | 0.3  | 0.8     | 0.0  | 0.0     | 1.1  | 0.0     | 0.0  | 1.1     | 1.0  | 2.3     | 2.1  | 0.4     | 0.5  | 0.7     | 0.7  |
| Normal      | 33.3    | 30.0 | 44.6    | 47.5 | 26.7    | 17.8 | 25.0    | 13.5 | 50.4    | 46.8 | 64.2    | 59.4 | 47.0    | 43.5 | 32.9    | 29.5 |
| Overweight  | 46.3    | 43.8 | 41.3    | 39.6 | 48.9    | 49.2 | 50.6    | 44.4 | 32.5    | 30.9 | 24.5    | 25.1 | 37.7    | 32.2 | 36.8    | 38.8 |
| Obese       | 20.1    | 25.8 | 13.3    | 12.9 | 24.4    | 31.9 | 24.4    | 42.1 | 15.9    | 21.3 | 9.1     | 13.4 | 15.0    | 23.8 | 29.6    | 30.9 |

## **1.6 Conclusion**

There are clear differences between men and women in relation to health and food-related behaviours across the IOI. Despite recent increases in life expectancy in IOI and internationally, men tend to experience lower life expectancy compared to women. Men are at risk from several major diseases (circulatory diseases, cancer and respiratory diseases) all of which are influenced by lifestyle behaviours, such as diet, alcohol consumption and smoking (14).

Men have consistently been shown to have poorer food safety practices and lower food safety knowledge, but the current data does not provide the evidence that this translates into higher incidence of foodborne illnesses. In addition, there are differences in the dietary intake and food preferences of men and women. According to an examination of food-choice behaviours in 23 countries, men often attach less importance to healthy eating than women and are less likely to avoid fat, eat fibre, eat fruit and engage in dieting. Similar findings have emerged from the food intake surveys across the IOI. In addition, compared to women, a higher percentage of men are overweight or obese in the ROI and NI.

These differences are influenced by various socio-cultural and environmental influences, which are discussed in more detail in chapter 2.

## 2 Cultural and societal influences on men's food-related behaviour

### Key findings

- Gender has been revealed as an important social determinant of health. However, few studies have explored how social gender expectations, and in particular masculinity, influence men's attitudes and practices in relation to food.
- Within the literature there is a well-articulated dominant form of masculinity connected to food practices; with the prevailing idea that men are risk takers; they perceive themselves to be invulnerable and are uninterested in health issues.
- Some foods are labelled masculine and others feminine. For example, meat and alcohol products appear to function as an important marker of masculinity in various cultures, whereas vegetables, fruits and sweet foods symbolise femininity.
- Men are less likely to try to influence their health status by means of healthy eating. They perceive sport and exercise as more relevant to their health, and so are more likely to try and control their weight by means of exercise compared to women who most often do so by means of dieting.
- A recent systematic review of weight management programmes in the UK has revealed that adding an exercise component to a weight management routine produced marked effects in the long term in men, although exercise-only interventions were not as successful.
- Sociological and cultural studies on cooking in the past few decades suggest that men and women cook differently. Men's cooking has traditionally been defined as a hobby and a display of culinary artistry. However, more recent research suggests that this dichotomy may be somewhat misleading as those studies looking specifically at men with significant food-work responsibilities reveal that men's cooking can be care oriented.
- In addition to masculine identity and socio-cultural influences, other environmental factors, such as education and training in food preparation, along with media portrayals of gender and food practices, influence men's food behaviour.

## 2.1 Introduction

Many factors influence men's food and health behaviour (Figure 11). These range from socio-cultural norms and expectations and the gendered division of domestic labour to wider environmental factors, including the impact of media portrayals of gender, the availability of services and support structures, as well as education policy in relation to nutrition and food-safety training.

The dominant view of masculinity (also known as hegemonic masculinity), may be described as socially-patterned constructions of masculinity that are dominant and relate to power between men and women as well as within various groups of men (47, 48). One prevailing concept of masculinity in the Western world is that men are risk-takers, invulnerable and uninterested in health issues (4, 49). Over time such ideologies may become norms. It is important to note that ideologies are neither rational nor rooted in objective reality, but these cultural templates play a critical role in defining what behaviours are appropriate or inappropriate for men and women.

## 2.2 Masculine identity and health

The finding that men often neglect their health has partly been attributed to male role expectations (4). Masculinity is associated with risk-taking behaviour, aggressiveness, a denial of weakness and vulnerability, a reluctance to seek help. Men tend to be positioned by society as strong and resistant to disease, while a concern for health is seen as feminine behaviour (50). This stance has become influential in the study of men's health (4, 47, 48, 51, 52).

The World Health Organization has identified the need to pay greater attention to the shorter life expectancy of men and a lack of understanding of the role of 'masculinity' in shaping men's expectations and behaviours as a major contributing factor to the health inequality between men and women (53). The literature increasingly suggests that being a woman is the strongest predictor of preventive and health-promoting behaviour (4, 54), and gender has been revealed as an important social determinant of health (16, 55, 56). This association of health-promoting behaviours with femininity and normative understandings of masculinity and risky behaviours (e.g. drinking, smoking, late seeking of health care) is thought to contribute to the health disparity between men and women (57, 58), even after social class is accounted for (59).

Men's reluctance to engage in health-promoting behaviours is often explained through theories of masculinity, which are thought to emphasise self-efficiency and robustness (60, 61). However, this concept of masculinity as the driving force of men's health decision making has been criticised (62). Although men are worse off than women for various comorbidities (e.g., heart disease, mental illness, life expectancy), there is considerable variation between men (63-65). It is therefore important to take account of the social diversity among men and acknowledge that they are not one overarching or homogenous category. However, this does not undermine the influence of concepts of masculinity and social expectations in relation to men's health behaviour.

### **2.2.1 Masculinity in youth**

Often boys are socialized according to this dominant masculinity even at an early age and are discouraged from showing feelings of vulnerability or weakness (22). The implications of this are problematic because the social expectation of toughness and independence, as suggested by Good et al. (66), leads to the suppression of emotion, social isolation and resistance to asking for help. For boys and young men, physical risk is naturalized, promoted and celebrated. Their bodies are agents of gendered social practice through demonstrations of aggression, strength and risk taking (67).

### **2.2.2 Masculinity in the middle years**

During this phase of life, men construct their masculinity in relation to the physicality of their work and/or the level of income their labour produces. Thus, for men, work defines their status in the masculine hierarchy and has significance as a site for the social production of masculinity (50).

### **2.2.3 Masculinity in later life**

As men age and illness becomes more frequent, the inability to sustain dominant masculine ideals by keeping the body muscular, strong and resilient may threaten their self-perceptions of masculinity (68), and men are faced with the challenge of redefining themselves (69). While some men may find dignity and new opportunities in aging, Pease (70) notes that others experience a deepening sense of crisis accompanied by a growing awareness of their own mortality. Transitions from career and work life to retirement can be stressful, especially in times of economic downturn and/or when unplanned or enforced (71). In addition to unemployment affecting older men's masculine ideals, they can be further eroded by diseases associated with older age, including prostate cancer and heart disease (56, 72, 73).

## **2.3 Masculine identity and food**

Within the literature there is an ideology of masculinity connected to food practices, a kind of "doing gender" through certain types of foods, cooked in certain ways by particular people, and eaten in certain circumstances. At the same time, there have been almost no sustained analyses of the changes in this ideology, nor much understanding of how it affects people's actual activities around food and eating. Although there are ample nutritional studies that document differences in men's and women's consumption patterns, there is a lack of understanding of how gender and food operate together as fields of experience that shape consumers' lives. While the study of gender and the study of food have expanded exponentially over the last two decades, the emphasis usually is on women's experiences (74). Various authors have recognised that studies concentrating specifically on men's lived experiences with food are still quite rare (74-77).

The relationship between gender and dietary choice is a complex one and physiological differences between men and women can only explain part of the variation in their diets. Other explanations such as behavioural and cultural differences have rarely been studied.

Although it has been reported that both men and women believe health is determined by factors within an individual's control, women are more inclined to actively regulate food intake with health concerns in mind (34). Men and women also have different levels of involvement in their food decisions. These differences are rooted in the cultural ideology of being male and female (78, 79). For women, nutrition frequently plays a central role in their conception of health, whereas for men, sport and exercise are more relevant than nutrition to their health (127).

Adherence to such gender templates can result in men avoiding healthy behaviours because 'real men must never display feminine characteristics' (4, 67, 77, 80). The same masculine ideals contribute to men's low involvement in food decisions, based on a cultural coding of high food involvement as a feminine activity, which discourages men from accessing and acting on nutritional information. Even apparently healthy men were reported to avoid thinking about and discussing health issues and considered a concern for health to be within the feminine domain (49).

### **2.3.1 Gendered food preferences**

Theories of masculinity allow for examinations of men's relationships to food without comparing men with women. The social constructionist perspective (3, 4, 47), the idea that society and culture create gender roles that are thought to be ideal or appropriate for a specific gender, can help illustrate various food-related behaviours and beliefs among men. Experiences of men with food emphasise aspects of their social selves and how they assert behaviour through social performances (81, 82, 83). Men and women are assumed to think and act in the ways they do because of ideals of masculinity and femininity that they adopt from their culture, and so they are actively constructing and reconstructing gender norms (84-89). As a result, when men do not eat in a manly way, they often feel pressure to present gender 'accounts' (e.g., my wife packed sandwiches without meat, etc.), which help to keep their masculine identity intact by placing the blame for non-masculine actions on another person or situation (90). This permits men to prevent or recover from challenges to the masculinity of their eating behaviour (91).

Newcombe et al. (77) and Messerschmidt (92) argue that men display their masculinities in various contexts and tailor their food habits in accordance with their roles as men, husbands and fathers. Sobal (93) offers examples of this (Table 5).

Table 5 - Examples of masculine constructions of healthy food habits

| Masculine construction            | Description/representation  | Example   |
|-----------------------------------|---|---|
| <b>The 'strong man' script</b>    | A model of masculine strength and power, where physical might and virility are enhanced by eating meat to gain muscle mass. This represents a dominant masculine script in contemporary Western societies   | Athletes exemplify the dominant script of strong masculinity (94), and hyper-masculine athletes, like boxers, wrestlers, football players and body builders, try to grow and strengthen their muscles by eating meat (95). According to Roos et al., Finnish carpenters saw meat as an essential strength food to build and fuel their bodies and encouraged their wives to cook meat for them (96) |
| <b>The 'healthy man' script</b>   | A model of masculine functionality and survival, where warding off serious disease is enhanced by not eating excessive meat. The focus on long-term health represents an alternative construction of masculinity to dominant masculine ideals (4) | In Roos et al.'s study, Finnish engineers saw meat as a component of a healthy diet, not to be consumed in excess and to be balanced by vegetable consumption (96)  |
| <b>The 'sensitive man' script</b> | A model of masculine emotion and empathy, where men are supportive and considerate of others, such as spouses   | For example, some men eat less meat after they marry, as they engage in their roles of husbands who compromise and converge with the food preferences of their wives and/or children (97)   |

Men's food habits can be tailored in accordance with their roles as men, husbands and fathers. Adult men who are not partnered (single, widowed, divorced or separated) engage in food choices without being obliged to consider girlfriends or wives in their eating decisions (97, 98). Independence is a hallmark characterisation of contemporary western masculinity and manly eating often represents a refusal to surrender food choices to authorities (including governmental, medical and spousal). Accomplishing masculinity through food involves demonstrating and celebrating autonomy in the face of other demands, with men eating what they want, not what they should (99).

### 2.3.2 Dietary patterns

Food itself is generally considered as feminine because the purchasing, preparation and presentation of food is traditionally regarded as women's work (100). However, all foods are not equal. Some foods have special status and some are labelled masculine or feminine food. For example, meat and alcohol products appear to function as an important marker of masculinity in various cultures, whereas vegetables, fruits and sweet foods symbolise femininity (89, 96, 98, 101, 102). This gendering of foods is largely considered to be culturally constructed rather than biologically based (103). Foods are gendered differently in various cultures and historical periods (88, 89, 104).

Men's preference for meat has been demonstrated in several studies in Western cultures (89, 101, 102, 105-107). A recent study by Rothgerber, who investigated the meat-eating justifications of undergraduate male students in the US (108), verified the theory by Adams (101) that meat is a symbol of patriarchy and that greater meat consumption scored higher on masculinity (108).

'Proper meals' in many western societies typically centre on meat (84, 86, 109-111), with the structure of meals as 'meat and potatoes', 'meat and two vegetables' or 'meat and two sides' dominating family food patterns in contemporary Western food cultures (84, 86, 112-115). This symbolic meat-centred meal formula is even replicated in some vegetarian meals, with a meat substitute as a core meal component (116), although this may no longer be the case for younger couples (115). Egalitarian spousal relationships in Western societies have been shown to combine men's and women's preferred foods into a merged category of foods that are not fully masculine (being more diverse than traditional men's foods) and not fully feminine (being richer than typified women's foods).

Women tend to favour 'healthier' meals and, compared to men, rate these meals higher for pleasure, convenience and health (117). The results from two large-scale surveys of the Norwegian population (118) reveal that women made dietary changes in line with official recommendations, and that they had higher levels of health knowledge than men. Women were also more likely to report a decrease in meat consumption and less likely to see meat as an important factor in healthy eating.

Men have been shown to take eating for granted, as an everyday practical matter, to get energy for work and to kill hunger and reflect masculine ideas about the body as a machine (2, 3, 96, 119). Bredsworth reported fundamental gender-related differences in food attitudes. Compared to women, men demonstrated a somewhat more confident and uncritical view of eating, with few moral and ecological reservations. In general, they were more oriented towards traditional cuisine as the foundation of healthy eating and were less likely to restrict food intake or try new foods or be involved in food-work. Also, they had fewer culinary skills. Women, in contrast, appeared more reflective about food and health issues, expressed more ethical concerns in relation to food and were more inclined to accept novel food items (34).

#### 2.3.2.1 Masculinity and vegetarianism

Women have been shown to be more accepting of vegetarianism than men (120). With regard to masculinity, research has demonstrated that those who eat 'masculine foods' are perceived as more masculine than those who eat 'feminine food' (121). Male vegetarians are perceived as more principled but less masculine than their omnivorous counterparts (122). Barker et al. (123) found evidence that high-fat diets were more associated with males, whereas low-fat diets were more associated with females. Oakes (124) found that women who followed a low-fat diet were rated as more feminine and less masculine than their high-fat consuming counterparts.

## 2.4 Masculine identity and body weight

Predominant portrayals of 'attractive' and 'ideal' men and women in terms of appearance and body shape influence and encourage the embodiment of these body image ideals for both men and women (129, 130). Advertising routinely depicts youthful, toned and muscular male bodies in positive ways. Unlike women, who are encouraged to look thin, men are encouraged to maintain a larger, more muscular body size in an attempt to literally embody traditional masculine ideals (131-133) and emphasise strength and fitness rather than weight control (133, 134). According to Davis et al. (128), 80% of men reported being dissatisfied with their bodies, but in contrast to women, who mostly want to be thinner, an equal number of men want to gain and lose weight.

In contemporary Western societies, men's fitness practices are often defined as distinctive, requiring separate environments, specialized knowledge, equipment, cooking techniques and foods (74). Masculine fitness and health are clearly defined as occupying a different order, space and need to feminine health. In this domain the discourse surrounding nourishment limits cooking to "popping some supplements" and opening cans (125). It is not clear how this discourse affects desire to change for the majority of men.

### 2.4.1 Weight management

Qualitative interviews of British men's dieting experiences (135) reveal that all men made a distinction between their own and women's reasons for dieting: men were mostly unconcerned with appearance and dieted for 'good' reasons, such as health, whereas women were constructed as dieting for less 'legitimate' reasons, such as vanity and looks.

Much of the research on overweight and obese individuals and weight loss has involved participants from organised weight loss groups. These studies represent a very small percentage of those attempting to lose weight and attract very few men (135, 136). Men are also underrepresented in randomised trials of weight loss interventions (27%) and tend to have lower participation rates in group formats (24%) compared to individual counselling (29%) or mail/email/internet (34%) interventions (137).

A recent systematic review of the management of obesity in men in the UK revealed very few long term men-only randomised trials of interventions for reducing obesity (138). Of the weight reduction interventions identified by Robertson et al. (138), only seven studies (139-145) tailored their intervention delivery with men in mind. All other interventions were either standard unisex programmes delivered in men-only groups (146-149) or were delivered in mixed-sex groups (150-155). The available evidence suggests that adding an exercise component to a dietary intervention produces a marked effect in the long term (156, 157), although an exercise-only intervention was not as successful as a diet-only intervention in terms of weight reduction in men (158). Commercial weight loss programmes (151, 152, 155, 159) produced results that were on a par with the NHS programmes (150, 154) when these were delivered in mixed-sex settings, whether for private subscribers or NHS referral participants. In addition, when interventions were delivered in single-sex groups, commercial providers (140, 146, 147, 153) outperformed in comparison with NHS single-sex services. However, men were less likely to choose a commercial

provider than they were to choose an NHS programme. Commercial weight loss services may be perceived to be focused on physical appearance and be more female orientated in contrast to NHS services, which are perceived to be purely concerned with health (160-162).

A study of obese men from the ROI who had previously attended HSE lifestyle intervention services revealed that despite higher levels of overweight and obesity among them than women, they were less likely to be referred to weight management services (38%). The authors recommend that tailored advice and interventions, practical approaches and long-term follow up may be effective in achieving sustained lifestyle changes in men (133).

## **2.5 Gender and domestic food-work**

The apparent influx of men into the domestic kitchen in recent years might suggest that gender has become less relevant to the world of food. However, over the years, in spite of common beliefs, the planning, purchasing, preparing, cooking and serving of food in the home remains the domain of women (100, 163, 164).

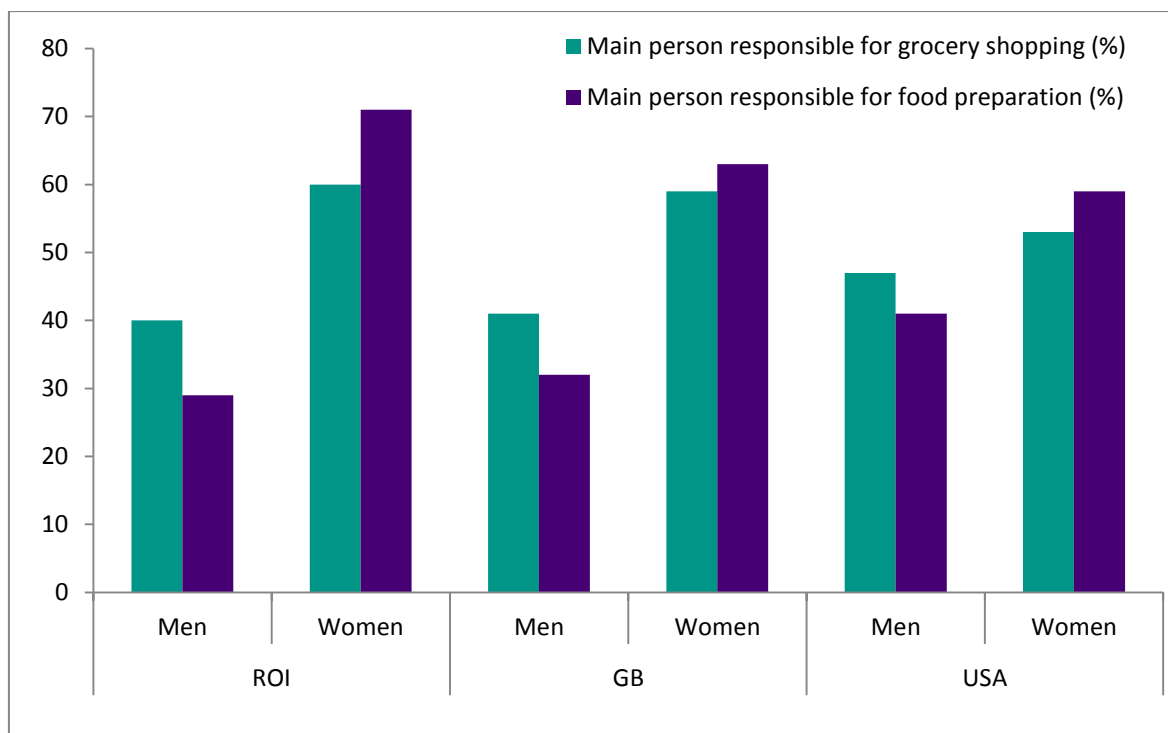
Since food and health generally have been associated with femininity, and dominant notions of masculinity are in part defined by disinterest in health, there is a widespread cultural assumption that men tend to rely on women for advice and support on food and health when required (4). As a result, many interventions aiming to improve men's food and health behaviour in the past targeted their messages towards women (165). However, while emphasising male traits may enhance health promotional behaviours in men, they also continue to reinforce the restrictiveness of socially-constructed views of what is acceptable behaviour for men and women. It would be useful therefore to explore the influence of gender on the domestic food practices of men and women and to include an examination of women's contributions to the maintenance of gender inequality through tactics such as absolving men from personal responsibility for their health (135).

### **2.5.1 Division of labour**

Historically, women have been primarily responsible for the majority of domestic tasks, particularly the responsibility for food preparation (166). A common explanation for this has been women's greater likelihood of being at home as carers of children (167). Therefore, through the years, women have almost always been responsible for food, as well as for other household tasks (87, 110), even when they also worked away from home (168-171). While women's time investment in domestic tasks has decreased over the years in some countries (e.g., in Canada it has been reduced from 1.1 hours to 0.9 hours per day), perhaps due to increases in employment outside the home, there has been no corresponding increase in men's participation (stable at 0.4 hours per day) (172). In contrast, in the UK and the US, men's total domestic work time has increased from 90 and 105 minutes per day respectively in the 1960s to 148 and 173 minutes per day respectively in the early 2000s, with time spent on cooking, cleaning and laundry

increasing from around 20 minutes per day to more than 50 minutes per day over the same period in the UK (173).

Figure 5 - Household division of responsibility for grocery shopping and food preparation (174)



According to a Bord Bia PERIscope study in 2013, the woman was the main person responsible for grocery shopping and food preparation in households across the ROI, UK and the US (Figure 5) (174).

In a study of 'gender role preference and family food chores' from the US, Brown et al. found that, regardless of the woman's work situation when first married, 90% of transitional couples (between a traditional and modern family structure) reported that men were more involved in shopping, cooking, and/or cleaning prior to having children, but that this responsibility had subsequently shifted predominantly to women regardless of their current job status. Very few said that this was discussed and decided, rather, "*it just sort of evolved that way*". Many transitional men reported that they offered suggestions and watched the budget, but their wife made the shopping list and did the shopping. Most men felt comfortable with this situation because they did not have the time, interest or skill, or believed "*she likes to cook*". On the other hand, women reported that they were satisfied doing the shopping, often because they also cooked. The reasons for accepting shopping responsibility were control ("*I like having control over what I buy*"), skill ("*I am thriftier; I compare prices and know the brands*"), duty ("*it's my job as a wife and mother*") and time ("*I have the time and ability to do it*") (112).

More recently, similar findings were reported by Newcombe et al. (77), where, in a sample of men from the ROI, marriage/cohabitation resulted in the adaption of eating habits and food preferences to fit with

the partner's preferences. Initially there were complex and mindful negotiations of preference among partners, whereas later they became routine and automatic.

Interestingly, despite their disproportionate involvement in food-work, women tend to view this situation as fair (175). Early research in this area (176) revealed that women readily accepted the responsibility of cooking for male 'breadwinners' as 'women's work'. Food preparation was reportedly perceived as an expression of care performed by women (86), and even when men were involved in domestic food-work, they did so under their partner's supervision since 'it was not their domain' (87). Men's traditional economic position of 'breadwinner' in the external environment has often led them to disengage from household food-work (177-180).

Interviews carried out with couples before and after they set up home together revealed a gendered division of labour, and in the majority of cases, the woman was the main person responsible for food preparation, while only two (out of 22) of the men could be thus described. The remaining couples (7/22) took turns or shared food-preparation tasks (181). It is interesting to note that where the men and women had similar jobs in terms of difficulty and pay, food preparation remained the responsibility of the women. Other studies have also pointed to this relative allocation of time within the household as an explanation for women's higher level of responsibility for food-work. In general, the partner with fewer paid work hours contributed more unpaid work hours. However, while unemployed or part-time employed women contributed more time to domestic work, men employed for fewer hours than their female partners did not increase their share of such work (100, 139, 182). Studies from the past few decades reveal that when men's income levels exceeded those of their female partners, they tended to participate less in housework (183), but there were mixed finding in relation to the division of labour when the woman's job was of higher status and required a greater commitment than the man's. When women earned more than 50% of the total family income, their involvement in domestic work declined (139), but in some cases, this did not result in the men significantly increasing their involvement. Rather, the tasks tended to be shared fairly equally (181), while in other cases, the male partner's involvement increased (175, 184).

### **2.5.2 Men's domestic food behaviour**

In addition to changing household structures and women's increased labour market participation, as discussed above, the reconstitution of cooking as a recreational lifestyle activity – and a 'cool' masculine one (185) – has paved the way for some men's increased engagement with cooking (174, 186, 187). Men have entered this space on their own terms, and some argue that men cook as a lifestyle choice rather than taking the main responsibility for feeding the family (188-190). In contrast, studies of practices of men who have significant food-work responsibility suggest that men's cooking can be care oriented.

Sociological and cultural studies on cooking in the past few decades suggest that men and women cook differently. Men's cooking has traditionally been defined as a hobby (96, 110, 191), a display of culinary artistry (188), a strategy for seduction (192), a means of 'helping out' in the absence of a wife/mother (86), cooking for special occasions (87, 98, 193), or as the domain of the professional chef (194) who is located

in the public sphere (195, 196). By contrast, women do the everyday cooking of daily meals in the invisibility of private life, their cooking being mainly seen as an 'other-oriented' responsibility. They cook to please loved ones and care for their health and wellbeing (163, 192).

Studies of discourses on food and cooking programmes on TV support the link between gender and leisurely cooking (185, 195). This approach stems from a masculine 'distance from domestic obligation'. Leisure is associated with choice and men choose when and how they cook (181, 197, 198). This may create mixed feelings among women who experience satisfaction from catering to family tastes and health (163, 191, 192, 198, 199), but also experience negative feelings because of issues such as time pressure (200, 201), difficulty combining cooking with childcare (200) and anxieties about the tastes and health of loved ones (87, 202). These findings were supported by Cronin et al., who reported similar tensions in their sample of ROI women, where assuming the role of caregiver was a source of satisfaction and self-worth, while simultaneously being a source of burden and self-denial (203).

More recent research suggests that this dichotomy may be somewhat misleading as many of the studies mentioned above include men with either limited or unspecified domestic food responsibilities. While numerous studies have examined the role of masculinity and food, the division of domestic food-work and the symbolic significance of women's cooking (84, 86, 87, 93, 110, 163, 181, 198, 204, 205), few have focused on the cooking practices of men who have significant food-related responsibilities in their households (191, 198, 206).

Those studies that have looked specifically at men with significant food-work responsibilities (207, 208) reveal that, contrary to the Adler's conclusions (193), men's cooking can be care oriented. Socio-cultural discourses about cooking may influence men's enjoyment by framing men's cooking as leisure and entertainment (195, 201, 209) or by giving men who cook 'extra credit' because they are perceived to be breaking stereotypes (210, 211). Men have also been shown to actively employ strategies to turn everyday cooking into experiences of leisure and entertainment.

Examining the practices of Canadian men who cook a considerable amount at home, Szabo recently revealed that although these men had regular cooking responsibilities or were the primary cook in their households, many spoke about their cooking in terms of traditional culinary masculinities (e.g., as a display of skill and entertainment) (207). In keeping with previous studies they spoke of cooking as an aesthetic or artistic endeavour (98, 192), and many spoke of cooking as a kind of relaxation or entertainment and thus distanced themselves from traditional the feminine identity of food provisioning. According to Szabo (207), the degree to which participants drew on traditional culinary masculinities did not align with the amount of cooking responsibility they had, nor was there an association with socio-demographic factors such as ethnicity, sexuality or fatherhood. On the other hand, a significant number of these men also associated cooking with traditional culinary femininities, such as the satisfaction of nurturing loved ones, connecting with others and expressing care as well as anxiety about the nutritional health and preferences of family members, and the provision of proper household meals. It is unclear whether these men who had significant responsibilities for feeding others

developed ‘feminine’ approaches to cooking because of their involvement, or whether they were nurturing, caring men who self-selected into these household roles (212, 213).

As mentioned previously, many studies suggest that men are more easily able to find cooking to be a leisurely activity (181, 185, 192, 193, 197, 198, 201). However, an examination of men who cooked at least half of the home-cooked weekly meals in their households (208) revealed that while many treated home-cooking as a combination of work and leisure, the majority viewed it as a leisurely activity. These men had all, whether consciously or not, manipulated their cooking environment and situations to make them more leisurely. These strategies included combining cooking with symbols of leisure, such as alcohol or music, merging the domestic and social realms by including friends and loved ones in the process and taking time to embrace the sensual aspects of cooking. However, it is important to note that, similarly to other studies (98, 204, 208), the majority of men who enjoyed cooking in this study (208) did not have to take care of children while cooking – they either had no children under the age of 10 or their wives/partners were the primary caretakers of their children. The dual role of being the cook and the primary caretaker is something that many women express difficulty with (200).

The findings from studies focusing on men with significant food-work involvement suggest that we can no longer view men’s cooking as only a leisure activity. However, this is not to say that gender hierarchies no longer manifest themselves in experiences of cooking.

### **2.5.3 Domestic food-work and femininity**

While so far the focus has been on masculinity and food-work, it is important to note how food-work relates to femininity and whether or not this may have an effect on men’s food behaviour. Beyond the basic provision of nutritional sustenance, feeding the family demands care of, and connection and sensitivity to, the needs of loved ones. DeVault demonstrated how cooking as caring operates as a form of doing gender, in which “a woman conducts herself as recognisably womanly” (87). Cronin et al., in a recent study of Irish women, similarly report that many women’s feminine identity was manifested through their expression of caring for their family or partners/husbands through food-work. Yet a paradox is found between “assuming the caregiver role and it being thrust upon them” (203).

Traditionally, the ability to cook and provide proper meals for men and children has been viewed by many women as a fundamental part of their roles as wives and mothers (86, 110). The reason women may still be the primary actors in the home food arena may reflect a confirmation of feminine gender identity. Femininity seems to be deeply involved in the cooking and giving of food which, as Cronin et al. suggest, can be accompanied by a sense of pride and self-importance for women (203), and so they may hesitate to give up this aspect of their identity and embrace the gender neutralisation of housework. As Murcott (110) suggests, homemade ‘proper food’ can act as a symbolic expression of family relationships that is not only important for family health, but also for its happiness – a quintessential gift (214).

Studies have consistently shown that most women perceive their disproportionate contribution to food-work and other housework as fair (175, 215, 216). Thompson (217) suggests this may be influenced by how outcomes are valued. Keeping an organised household and ensuring family members feel cared for may

outweigh any desire for the equitable division of domestic work, especially if the latter depends upon 'coaxing, cajoling or otherwise coercing men into doing tasks they are unwilling to do' (175). Thompson emphasises that a sense of fairness emerges from the quality of interactions between partners, particularly appreciation for domestic work and that women may care more about relational outcomes than task outcomes in domestic labour.

Baxter (175) also suggests that women have a vested interest in seeing the domestic division of labour as fair, since acknowledging inequity may be equivalent to admitting that one's relationship as a whole is unfair or unsatisfactory. Critical attention to inequity in the family may highlight the effort involved in the family constructions, which normally remain invisible by virtue of appearing effortless and natural (218). To this end, women and their families use various explanations and devices to rationalise their greater involvement and responsibility for family food-work. These include discussions on women's greater time availability (whether this was actually the case or not), food-work as essentially women's work, family health matters, women's high standards in relation to food-work and reducing family conflicts. Although gender roles were rarely named explicitly to explain why women were responsible for most of the food-work, some participants saw this responsibility simply as part of being a mother. However, in most families, such gendered assumptions were concealed within arguments concerning time and other justifications (163).

In Beagan's study (163), qualitative interviews with multiple family members from three ethno-cultural groups in Canada revealed that relative time availability was a rationale offered by all participants and led to a gendered division of domestic labour (100, 175, 182, 219), particularly if the women did not work outside the home or worked part-time. Both men and women explained food-work involvement in terms of schedules, noting that whoever got home from work first did more meal preparation. In reality however women continued to do the majority of food preparation and clean up, even on weekends, which contradicts this rationale. This justification appeared to rest on a belief that men's paid work is more onerous, deserving exemption from food-work, and/or a belief that food-work is inherently women's responsibility. Thus, paid work did not necessarily exempt women from food-work.

In the same study, many women explained that they took responsibility for food-work due to concerns around maintaining the family's health. Several women reported going shopping alone to prevent partners and children from buying 'junk' food. Thus, their desire to maintain family health limited the food-work participation of other family members (163). Although the notion of women monitoring their family's health is not new, it is interesting how health was employed, primarily by women, to justify their over-involvement in food-work. Men, women and teenagers all agreed on women's exacting standards and desire for control as major reasons why women did more food-work. Several women commented that their male partners did not clean adequately, and when men shopped for food, they forgot items, bought 'junk', bought the wrong brands and failed to compare prices and labels. The notion that women's high standards result in their doing the majority of the food-work is a long-standing theme. In the context of traditional gender ideologies, women are likely to be judged on their

performance concerning food. Feeding the family well, providing a 'proper', nutritious meal that family members like and maintaining a spotless kitchen are hallmarks of traditional femininity (87, 218).

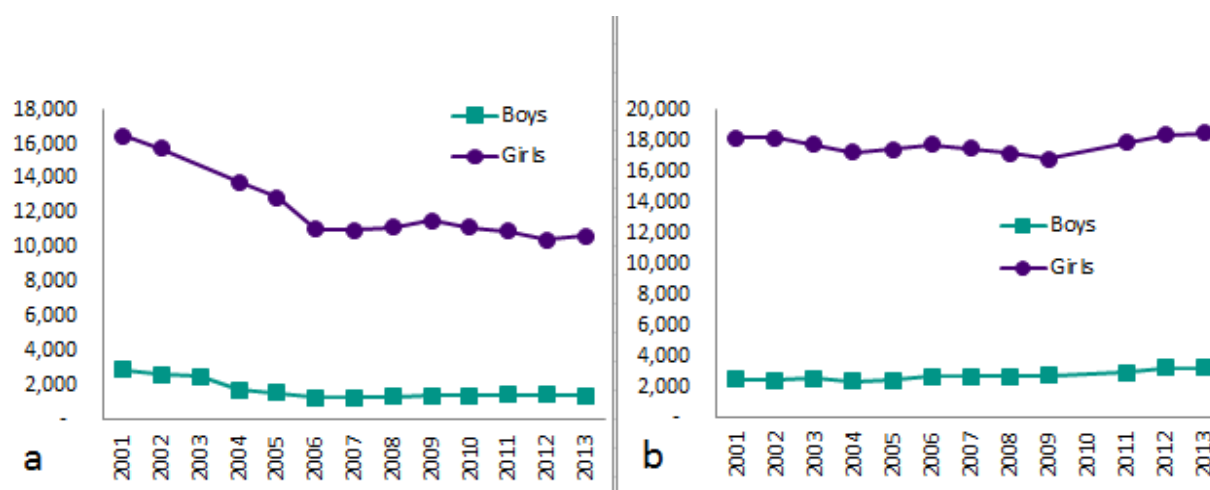
Reducing conflicts was another major reason why women said they did most of the food-work. Women reported doing the food shopping alone in order to avoid arguments with children about what to buy and with partners about time spent reading labels and comparing prices. Grocery shopping and food preparation were also guided by the tastes of family members, and the woman's involvement in these activities was seen as a way of reducing potential conflict. Because women did most of the cooking, they learned the preferences of family members; therefore, it became more efficient to do the cooking and shopping themselves rather than risking having someone else buy or prepare food others would refuse to eat. Getting others to help in the kitchen was also frequently described as more trouble than it was worth. Women thought it easier to do most or all of the work than to deal with the conflicts that might arise from trying to get others to participate or to meet particular standards. The desire for family harmony outweighed the desire for equal sharing of food-work (167/175) and was subtly flaunted by participants in the Cronin et al. study as an expression of authority.

## **2.6 Gender differences in food preparation training**

In the past, home economics classes in schools were seen as a major source of learning about food (220). However, these classes are no longer formally taught in many countries and the hours allocated to practical learning for such courses have been reduced (221). In the ROI, home economics courses are not available in all secondary schools (220). Even when these courses are available, there is generally a low level of involvement (222). In contrast, in NI home economics is compulsory up to key stage 3 (223).

Data from the ROI show that in 2011, 22.8% of Leaving Certificate candidates studied home economics (a decrease from 24.0% in 2008). In the same year, 36% of Junior Certificate students studied home economics (an increase from 34.8% in 2009). However, a breakdown of these figures reveals that the take up of home economics at school is significantly lower among boys during both the Leaving Certificate and Junior Certificate cycles (224) (Figure 6). In tandem with these changes we know that daily food preparation practices are changing (225, 227) and consumers are moving to quicker food preparations involving minimal effort (226). Parents no longer cook from basic ingredients on a daily basis (228, 229). This puts an even greater emphasis on the role of non-domestic sources of education in relation to food and health (220).

Figure 6 - Leaving Certificate (a) and Junior Certificate (b) home economics participation among boys (■) and girls (●) in ROI (224)



## 2.7 Media representations of men's food and health behaviour

Media representations about health are ubiquitous and increasingly regarded as influential (230). They also offer an opportunity to investigate contemporary portrayals of diet-related phenomena (231). Research from the ROI and internationally indicate that this is an additional domain where gender stereotyping in relation to food is perpetuated (232-234).

The prevalent or assumed scenario in the media is that women are dominant within health spaces and men are subordinate. Women are often portrayed as caregivers for others, having a significant influence on men's health (232). Such discourse reinforces health as a feminised arena (235), or perhaps it is more accurate to suggest that illness is reinforced as a feminised arena while health (i.e., not needing to see a doctor) is implicitly construed as masculine.

Media constructions of men's health demonstrate a reliance on narrowly defined, stereotypical images of masculinity. For example analyses of *Men's Health* magazine have identified dominant themes, such as the calls to 'burn fat' and 'build muscle' (233), and activities such as meat eating, beer drinking and womanising (234). Similarly, accounts of men's health by a UK newspaper constructed women as knowledgeable and responsible for men's health, while men were presented as passive and helpless and in need of women's protection (165). Lyons and Willott (165) argue that although this appears to position women as being in control of men's health, it is only a veneer of control, as women remain relegated to the domestic sphere and must resort to manipulation and 'sneaky' tactics in order to obtain their aims and to influence men. This difference is represented not as a cultural construction but as a biological difference between men and women. Gough's (231) analysis of another UK newspaper drew similar conclusions. Analyses of UK national newspapers between 2005 and 2006 in relation to articles on men and diet (231) reveal that the majority of articles featured concerned warnings about men's health resulting from bad dietary habits. On the other hand, a small but significant number of articles dealt with the rise of the 'metrosexual' man, who partakes in traditionally feminine activities of cooking and

dieting. However, these articles constructed shopping, dieting and cooking in masculine terms. For example, military and sport metaphors were used abundantly, with men in the kitchen setting and attaining key objectives and men on diets also weight training to maximise a muscular physique. Furthermore, feminine diets were ultimately constructed as extreme and unsuitable for men who universally preferred 'hearty' meals.

Similarly, De Brun et al. (232) examined 346 print news articles drawn from six major publications in the ROI in relation to representations of obesity. In line with the international literature, the positioning of men and women on the issue of weight and diet was found to be in keeping with traditional social constructions around gender, where women were portrayed as fixated with weight and dieting and tasked with monitoring and improving men's diet and health. On the other hand, Irish men were described as a homogenous group, unconcerned with health and weight management, whose diet typically consisted of meat, greasy foods and beer.

Food-related activities such as shopping and cooking are also presented as female-centred (85, 236). Historically, cookbooks and magazine food columns show a clear effort to define the 'male cook' as a hobbyist, with his own style of cooking (237). Men's cooking is almost always symbolically constructed as 'special' for the straightforward reason that women are recruited for daily cooking with much greater frequency than men (87). In media accounts of men and food, women are positioned in the unseen, unglamorous world of mundane everyday cooking, while male 'chefs' capture the limelight on special occasions (231, 238). An examination of the link between masculinity, femininity and cooking on a popular TV food channel by Swenson (195) reveals that although there has been a shift in the cooking discourse which no longer 'warns men that the kitchen is not their lair', food preparation was constructed as gendered work and cooking was negotiated in ways that protect traditional understandings of masculinity, with men entering the kitchen as scientists, chefs, athletes and entertainers. For women, 'kitchen culture' was strongly tied to the domestic family and caring for others. According to Swenson (195), the most striking difference was the absence of a discussion of cooking as every day, family-centred labour by male hosts. Male hosts differentiated themselves by constructing cooking as a professional, public challenge rather than a domestic chore, which allowed men to be in the kitchen without fully engaging in 'women's work'.

Some experts argue that although many media features of men's health behaviour display a concern about the health of men, it is unfortunate and ironic that the maintenance of 'unhealthy' forms of masculinity predominates. They suggest that this prevents men from acknowledging the benefits of 'achieving manhood' by looking after their own health and through nurturing and family-centred labour (195, 231).

## 2.8 Conclusions

The influences mentioned in this chapter and their role in shaping men's food behaviour reflects the complexity of the issue. Masculine identity is associated with risk taking, a denial of vulnerability and a reluctance to seek help. These characteristics have been linked with risky health behaviours connected to food practices. Men and women are assumed to think and act in the ways they do because of culturally-reinforced ideals of masculinity and femininity, and as a result their food habits are tailored in accordance with these roles. Such concepts are reflected in men's weight management and dietary practices, such as a preference for meat consumption, large and muscular body ideals and a particular preference for exercise as means of weight loss.

The domains of food and health have generally been associated with femininity, and data both internationally and from the IOI show that although men's involvement in domestic food-work has increased over the past few decades, women still bear the main responsibility of planning, purchasing, preparing, cooking and serving food in the home regardless of their employment status.

While some studies suggest men's domestic food involvement to be characterised as leisure and entertainment, others report that many men take on significant food-work responsibility at home and, similarly to women, experience anxiety about the health and satisfaction of family members.

In addition to these social norms and gender expectations, environmental influences, such as media portrayals of men and women in relation to food and weight management, lack of food and nutrition education and training for boys, as well as dedicated and tailored weight management services for men, act as barriers for them to increasing their food involvement and improving their habits.

It is also important to acknowledge the role of women in relation to men's food involvement as it can both serve as an encouragement or a barrier to men's ownership of their food and health practices.

# 3

## Men's nutrition behaviour: knowledge, attitudes and perceptions

### Key findings

- Men are less likely to be aware of healthy eating guidelines and are also less likely to regard healthy eating as an important factor influencing long-term health.
- Gender-related levels of knowledge, along with less positive attitudes towards healthy eating and lower levels of health concerns have the potential to influence men's food choices.
- For men, the formation of habits and taste preferences are a key factor in relation to eating habits. This can be influenced by the family environment as well as wider environmental and socio-cultural factors.
- Gender differences are apparent in men's and women's perceptions of food and health. Men view food as fuel and tend to gauge what they need to eat against the energy they need to expend.
- Factors such as socially-reinforced gender roles, sports participation, convenience orientation and body weight perception influence men's food behaviour.
- Men tend to view larger body frames as more masculine and show greater preference for larger portions.
- Although more men than women are overweight or obese on the IOI, men are less likely to attempt to lose weight or to monitor their diet.

### **3.1 Introduction**

Differences in dietary behaviours between men and women have been reported in many studies but causal mechanisms have not been established. This chapter explores some of the influences that may affect food-related health behaviours for men, with an emphasis on nutrition knowledge, attitudes and perceptions, where much of the research has been focused. Key surveys from the island of Ireland are summarised in Table 6.

Table 6 - Adult food behaviour nutrition surveys conducted between 1995 and 2012

| Study  | Organisation /Author   | N   | Location | Sampling   | Methodology  | Year      | Description   |
|--|--|---|----------|--|--|-----------|---|
| <b>A pan-EU survey of consumer attitudes to food, nutrition and health</b> | Institute of European Food Studies<br>Several publications from Kearney et al. (239-243) | 14,331 EU; adults aged 15+ years,<br><br>~1000 from ROI | ROI      | Quota controlled sampling in each member state   | Face-to-face questionnaire   | 1995-1996 | Survey of influences on food choice, sources of nutrition information, definitions of healthy eating, perceived barriers and benefits of healthy eating, stages of change   |
| <b>North South Food Consumption Survey</b>                                 | Irish University Nutrition Alliance (38, 244)  | 1,379 adults aged 18-64 years                           | IOI      | Random selection using the electoral register as the sampling frame. Survey sample was representative of the population on the IOI with respect to age, sex, geographical location, marital status, social class and socio-economic group. | Study included seven-day weighed records (body composition) and self-administered questionnaires on food attitudes, employment status, social and demographic variables, lifestyle factors, habitual activity, health status, etc. | 1997-1999 | Food consumption survey with limited attitudinal data collected by self-administered questionnaire; investigated habitual food and beverage consumption, lifestyles, health indicators and attitudes to food and health |
| <b>Eating for Health?</b>  | Health Promotion Agency (245)  | 1,094 adults aged 18-75 years                           | NI       | A random sample of 2,050 addresses was drawn for each of three regions: Belfast, East NI, West NI  | All members of the household who were eligible were asked to complete an interview using a hand-held computer device   | 1999      | Survey of current eating patterns, reported food intake, the factors influencing food choices, public knowledge of current nutritional attitudes to healthy eating  |

Table 6 - Adult food behaviour nutrition surveys conducted between 1995 and 2012 *Continued*

| Study   | Organisation /Author  | N   | Location | Sampling  | Methodology  | Year   | Description   |
|---|---|---|----------|---|--|--|---|
| <b>Attitudes of older EU adults to diet, food and health: a pan-EU survey</b> | HealthSense 5 <sup>th</sup> Framework programme<br>Allen et al. (246) | 6,532 EU; adults aged 55 years+, of which 406 were from the ROI | ROI      | A random route procedure was used to meet quota requirements  | Face-to-face interviews  | 2001   | Survey of influences on food choice, assessment of attitudes to food and nutrition and health among older adults                            |
| <b>Safetrak</b>   | safefood (247)  | ~800 participants aged 15-74 years (500 ROI and 300 NI)         | IOI      | Quota sampling  | Face-to-face interviews in participants' homes                       | 2005-2009<br><br>Initially on a bi-annual basis and later annually | Quantitative surveys of consumer knowledge, attitudes and behaviours relating to food safety and nutrition                                  |
| <b>Consumer Attitudes to Food Standards</b>                                   | FSA (248)   | 712 aged 16 years+  | NI       | Random location sampling was used to select a representative sample based on sex, age, SES, ethnicity, and working and marital status | Face-to-face interviews using CAPI technologies (approx. 30 minutes) | 2006   | Survey of shopping habits, eating habits, understanding and use of food labels, food safety concerns and sources of food safety information |
| <b>Food and You Survey NI</b>   | FSA (249)   | 504 aged 16+  | NI       |   |  | 2012   |   |

### 3.2 Gender differences in nutrition knowledge

Two similar studies carried out in NI (245) and in the ROI (239) asked participants to describe healthy eating in their own words and relatively large proportions of the participants were able to identify key features of healthy eating.

In Northern Ireland, the ‘Eating for Health?’ study examined demographic and socioeconomic factors related to knowledge of healthy eating. Compared to women, men were less likely to mention key healthy eating messages, such as ‘reduce fat intake’ (50% versus 57%), ‘eat more fruit and vegetables’ (45% versus 55%) and ‘reduce sugar intake’ (20% versus 29%). The research identified associations between gender and socioeconomic circumstances and the number of definitions provided for the term ‘healthy eating’. More women (38%) than men (26%) provided three or more terms (245). This data shows that certain populations, such as men and those in lower socioeconomic groups, may be key targets for interventions to improve nutrition knowledge.

The Food and You Survey (249) assessed the ability of consumers in NI to correctly place foods in the different sections of the ‘Eatwell plate’. The Eatwell plate illustrates the types and proportions of foods needed for a healthy, balanced diet. There were a few gender differences when respondents were asked to place foods in the recommended sections. For example, men were significantly less likely to place the meat and fish in the recommended section than women (33% compared with 48% of women).

Gender differences were also apparent in relation to factors perceived to be important for a healthy lifestyle. Relative to men, women considered that certain behaviours are more important. For example, women were more likely than men to agree that eating fish (94% compared with 84%), dairy products (92% compared with 79%) and pulses (74% compared with 58%) are important for maintaining a healthy lifestyle (249).

### 3.3 Attitudes to and perceptions of nutrition and healthy eating

Data from the late 1990s on attitudes to and perceptions of nutrition and healthy eating among consumers in the ROI come from the study by Kearney and Gibney at the former Institute of European Food Studies (242). Consumers were asked to assess their own diets by agreeing or disagreeing with the following statement: *‘I do not need to make changes to the food I eat as it is already healthy enough’*. A total of 66% either strongly agreed or tended to agree, with men and those with a primary-level education only more likely to agree. Men with low levels of education were the least likely to regard healthy eating as an important factor influencing long-term good health (250).

A more in-depth analysis was carried out on the same data by Hearty et al., including a comparison with food consumption estimated using a seven-day food diary (244). The authors found that those who perceived their own eating habits to be healthy were more likely to comply with current dietary guidelines than those who did not. The groups most likely to perceive their diet as unhealthy were men,

those aged 18–35 years, those from the lowest social class, and those with primary-level education only. Women were more likely to be dieting and attached greater importance to healthy eating (239), while for men, especially young males, the 'taste' of food was regarded as important. Gender differences in food choices, therefore, appear to be partly attributable to women's greater weight control involvement and partly to their stronger beliefs in relation to healthy eating.

Data on attitudes to food and nutrition are available for NI adults from the FSA's annual survey of consumer attitudes (248). When consumers were asked to spontaneously list the food concerns that came to mind, no single food concern related to healthy eating was mentioned by more than one in ten people, indicating that there is no 'top of mind' single food issue for consumers. Just over a third of consumers in NI (37%) spontaneously mentioned any concern at all and men were less likely to express a concern than women (33% vs. 42%).

An all-island study on teenagers' attitudes and perceptions of healthy eating, conducted by Share et al. (251), revealed gender differences, with girls being more likely than boys to be concerned about risks to their health from certain foods. These included foods that are high in saturated fat, sugar, salt and calories, foods low in dietary fibre, and foods containing additives and preservatives. Similarly, in children, McKinley et al. (252) carried out a qualitative study, which showed that girls were motivated to eat healthily because of body weight concerns, whereas boys were motivated by sport and physical performance.

In relation to actively seeking nutritional information, the IEFS study reported that women between 35–54 years of age with at least a secondary level education (239) were more likely to do so. Health information seeking behaviour is related to an intention to eat healthily. Kearney et al. concur, and reported females to be more likely to make conscious efforts to try to eat a healthy diet 'most of the time', while males were three times more likely to 'hardly ever' make such conscious efforts to eat a healthy diet (250).

### **3.4 Influences on food choice**

Gender-related levels of knowledge, along with less positive attitudes towards healthy eating and lower levels of concern have the potential to influence men's food choices. Data on personal, social and wider environmental influences on food choice are briefly summarised below.

#### **3.4.1 Importance of healthy eating**

Participants in the ROI were questioned in two quantitative studies in relation to influences on food choices. These surveys were the IEFS pan-EU survey of consumer attitudes in adults and the HealthSense pan-EU survey (see Table 6) of older adults (239, 241, 246). Adults in the ROI (aged 15+ years) most often cited quality or freshness (49%), taste (45%), family preferences (36%), trying to eat healthily (35%), price (30%) and habit (29%) as influences on their food choices (239). Further analysis showed that women, those from older age groups, those who had greater education and those with a higher

socioeconomic status were most likely to regard healthy eating as an important influence (241). Older Irish adults (aged 55 years+) cited 'trying to eat healthily' (45%), habit (26%), taste (21%), family or spouse (18%), body weight (17%) and price (14%) as major influences (246). Detailed segmentation analysis of the participants revealed clear differences in perceived influences between demographic groups. Women, compared to men, were more likely to select 'trying to eat healthier' (48% v 42%) and body weight (20% v 14%) as influences, while men were more likely to select taste (26% v 16%).

These gender differences may be due to cultural conditioning or the differing responsibilities of women and men with regard to food (253). For men, the formation of habits and taste preferences seemed to be key factors, which in turn could be influenced by the family environment and wider environmental and socio-cultural factors, as discussed in chapter 2.

### 3.4.2 Convenience

Convenience and ease of preparation have been shown to be significant motivators in food choice for men. **safe food** research has shown that younger and older men tend to shop for convenience in a haphazard way and rarely conduct a weekly shop (2). In addition, previous studies have shown that men working shift hours and commuting long distances tend to have an increased reliance on convenience foods, snacking and eating out (133).

### 3.4.3 Perceptions of food and health – The meaning of food for consumers

In 2009 **safe food** carried out both qualitative and quantitative studies across a wide variety of socioeconomic groups in NI and ROI as part of the Consumer Focused Review of food-related behaviour on the island of Ireland. Full details of the methodology used for the quantitative and qualitative research are outlined elsewhere (2). Findings in relation to perceptions of food and health are briefly discussed below.

#### 3.4.3.1 Functionality

The qualitative research showed that there was a subtle difference in the way men and women talked about food. Women tended to emphasize satiety and feeling full as a key requirement for meals, and deliberately chose filling foods so they would not need to interrupt their activities to eat before their next main meal. On the other hand, men tended to conceptualise food as fuel and gauged what they needed to eat against the energy they needed to expend, topping up between meals with snacks if needed.

Both men and women identified certain foods that they eat for the sake of functional or emotional effects, such as a burst of energy (or sometimes 'a sugar rush'), a feeling of comfort, a mid-afternoon 'pick-me-up', a hangover cure, a mood lift, satisfying hormonal cravings, etc.

#### 3.4.3.2 Life stage

Young, pre-family men were concerned with appearance and changed their diet when they felt they needed to lose weight, although they were less overtly concerned with weight control than young

women. In addition, young men with no children mentioned disease prevention as a key requirement. They differed from mature women, whose children had left home, and mature men, in that their focus was on avoiding illness now, rather than considering their long-term health.

Many fathers said they eat healthily for the most part and voiced concern over their long-term health because they wanted to ensure they would still be active and vital when their children grow up.

*"Yes, I think about it [healthy eating] because I wouldn't like to have a stroke or a heart attack. I am starting to think a wee bit more about it in the last couple of years. It came to me after reading stuff in the paper." (45-60 year old men, C1C2, Urban)*

As with mothers, juggling childcare responsibilities with work and personal life gave fathers a more demanding routine than those in the pre-family or post-family life stages. Appearance did not feature as prominently for fathers compared to younger men, and weight control was not as closely associated with health. Some asserted that it is possible to be "two or three stone overweight" and still have a healthy diet, perhaps indicating some optimistic bias.

*"I'd class myself as overweight definitely, but I wouldn't class myself as eating junk food all the time." (35-50 year-old man, C1C2, Rural)*

Mature men were like their female counterparts in that they had a relatively physically undemanding routine. However, their consciousness of their vulnerability to disease and its debilitating effects was sharpened by their age and peer group. Like mature women, they preferred to avoid medical or surgical intervention if possible through healthy eating. Like fathers, they also believed that they could be as much as a stone or two overweight without needing to take action.

#### **3.4.4 Self-regulation and optimism bias**

The focus group results from the Food Behaviour Report (2) showed that the majority of participants were very aware of the meaning of healthy eating and they claimed that they could regulate their own diets. Respondents did not acknowledge the inherent contradictions between their perceived ability to regulate their diet versus the myriad of influences that govern their daily lives and affect their dietary choices.

*"You are in charge. It's just about whether you want to do it or not and how committed you are to it and the price of the benefit and self-control." (20-29 year old women, C1C2, Urban)*

As a result, the self-regulation practised was typically either sporadic or relatively relaxed. For women and young men, self-regulation often oscillated between a sense of responsibility and a need for escapism. For mid-life fathers and mature men, self-regulation more often meant making small but permanent dietary changes, for example, reducing their intake of red meat or dairy foods.

#### **3.4.5 Social influences**

According to findings from **safe food's** Food Behaviour Report (2), socially-reinforced gender roles influenced people's capacity for self-regulation. Men tended to be more confident about their ability to

change their behaviour, while women tended to be more conscious of difficulties associated with changing the *status quo*. Women, usually as the primary shopper and meal planner, could only rely on themselves to make better food choices – sometimes against the will of partners and/or children. Men, on the other hand, could either provide better food for themselves or ask their female counterpart (in her role as the main food conduit) to provide healthier food for them.

#### **3.4.6 Sport and medical supervision**

Several participants in the food behaviour research (2) cited involvement in sport and regular medical checks as facilitators for making permanent changes to their diets by highlighting inadequacy in the *status quo* and increasing expectations of their bodies' capabilities. Whether the goal was to lower their cholesterol level or train for a race, changes in habits were necessary to achieve the goal.

Furthermore, both sport and medical advice also provided a context in which an individual could receive advice and support to help make changes, either through a sport peer group or the authority of a GP. In particular, the GP's authority influenced family members, friends and co-workers to respect and support the individual's goal. Men, in particular, felt that peer and social support were vital for maintaining permanent behaviour change.

#### **3.4.7 Perceptions of body weight**

As mentioned in chapter 2, men and women tend to hold rather different views on what is the ideal body shape for each sex. There is a tendency for men to associate 'bigness' with more ideal or valorized notions of masculinity and therefore to strive for a large body frame as opposed to a 'normal' body weight (254, 255). Perhaps related to this is the finding by the FSAI that more males than females had a preference for larger portion sizes (88% versus 68%) (256).

Indeed, although men and women tend to exhibit similar rates of obesity, women appear to be more likely to be engaged in attempts to lose weight through food intake restriction, and to be more dissatisfied with their body shape than is the case with comparable men. Studies show that men aged 18-34 years are five times less likely (4% vs. 20%) to be on a weight loss diet (21).

Data from the National Teens Food Survey (257) showed that healthy weight parents were able to accurately judge their own weight status but 69% of overweight fathers thought that their weight was 'fine' and one in five obese fathers thought their weight was 'fine'. Mothers were more likely to correctly recognise their own body weight status. Men typically had a wider range of acceptability for weight and believed that being two to three stone overweight was still healthy (2).

### **3.5 Changing food-related behaviour**

In the 1990s, Kearney and Gibney assessed 'stages of change' according to the trans-theoretical model (258) for the IEFS Pan-EU Survey on Consumer Attitudes to Food, Nutrition and Health. Most participants were not considering dietary change, with 55% in the 'pre-contemplation stage'. Men and those with

primary-only education were more likely to be at this stage of change (239). Stages of change were measured using the same methodology by **safe food** in 2012. The results revealed that a large proportion of individuals were either in the maintenance stage (trying to eat healthily for six months or more) or in the pre-contemplation stage (never thought about dietary change). Small percentages of respondents were classified in the contemplation, action (trying to eat healthily for less than six months), decision (have decided to make changes but not implemented) or relapse stages (2). Findings also revealed notable gender differences. Men were much more likely to have never changed their diet to eat more healthily; 42% compared to only 29% of women were in the pre-contemplation group. However, men were nearly twice as likely as women to have made a change in their diet in the last six months (13% compared to 7%).

The key barriers to dietary change for older individuals were giving up foods they liked (28%) (Selected more often by men than women, 31% vs. 26%), simply not wanting to make the change (24%), feeling confused (22%), the cost of healthy food and the perception that there was no need to change (19%) (246, 259).

### 3.6 Conclusions

These findings paint a less positive picture for men in all age groups compared to women. Compared to women, men feel nutrition is less important and are less concerned about it. They are more likely to think their diet is already healthy and therefore are less likely to try to make changes in order to eat healthily. In addition, although more men than women are overweight and obese on the IOI, men are less likely to attempt to lose weight and monitor their diet.

# 4 Men's food safety behaviour: knowledge, attitudes and perceptions

## Key findings

- Food safety practices are influenced by a wide range of factors, such as personal, social and cultural ones, the wider environment, the nature of the risks involved, the economic and policy environment (legislation/regulations), media messages, experience (past and present), habits, knowledge, cooking skills, food safety training, time pressures and convenience. In addition, socio-demographic factors, attitudes, perceptions and beliefs influence food handling practices.
- Men are at higher health risk due to poor food safety practices and a lower level of knowledge and awareness of food safety issues.
- Younger men surveyed in IOI have been shown to feel invulnerable to many food hazards and averse to any type of consequence borne out of risky food safety behaviour. In addition, the majority of men reported that they had experienced some level of food poisoning; however, none described his symptoms as severe and they were humorous and dismissive in relation to the consequences of their illness.
- While men portray less healthy food safety behaviour and attitudes, women show greater food safety concern and so may be more open to health promoting messages in relation to food safety. Therefore, the question remains as to whether men should be targeted directly or whether women could be targeted as potential influencers of men. The likely success of any such interventions has yet to be investigated.

## 4.1 Introduction

Research on food safety behaviour on the island of Ireland is a growing area but for now data is relatively limited. Much of the research is confined to studies on knowledge, attitudes and perceptions of food safety issues.

International research reveals that food safety practices are influenced by a wide range of factors, such as personal, social and cultural ones, the wider environment and the nature of the risk involved (2). The nature of the risks, the economic and policy environment (legislation/regulations), media messages, experience (past and present), habits, knowledge, cooking skills, food safety training, time pressures and convenience, socio-demographic factors, attitudes, perceptions and beliefs have all been found to influence food handling practices.

This chapter outlines gender differences in the attitudes, beliefs and practices relating to food safety on the island of Ireland. The details of key studies are shown in Table 7.

Table 7 - Surveys of consumer knowledge, attitudes and perceptions of food safety on the IOI

| Study   | Organisation/<br>Author  | N   | Location | Sampling   | Methodology   | Year                   | Description  |
|---|--|---|----------|--|---|------------------------|--|
| <b>A study of consumer food safety knowledge, microbiology and refrigeration temperatures in domestic kitchens on the IOI</b> | safe food/<br>Kennedy et al.<br>(24, 25)/ Bolton<br>et al. (260) | 1,020 householders<br><br>Sample sizes were<br>divided into two<br>age groups:<br><br>over 45 years and<br>under 45 years of<br>age | IOI      | 102 sampling locations<br>selected by Market<br>Research Bureau of Ireland<br><br>Size of the household, the<br>occupation of the principal<br>earner and the<br>employment status of the<br>main food preparer were<br>put in place, as well as the<br>socio-demographic profile<br>of respondents<br><br>Respondents were<br>responsible for food<br>preparation and cooking in<br>their household. All the<br>answers were unprompted | Participants completed<br>questionnaires about their<br>domestic food practices<br>and knowledge of food<br>pathogens. In 79% of the<br>homes, the refrigerator was<br>swabbed and<br>microbiological<br>investigation conducted. In<br>10% of the homes,<br>refrigerator temperatures<br>were monitored. | 2001-<br>2002;<br>2005 | Quantitative study that used<br>questionnaires, refrigerator<br>swabs and recorded<br>refrigerator temperatures to<br>establish what is known<br>about safe food practices by<br>householders on the IOI and<br>the general hygiene status<br>and temperature status of<br>their refrigerators |
| <b>Who is at risk and what do they know? Segmenting a population on their food safety knowledge</b>                           | McCarthy et al.<br>(26)  | 1,025 participants<br>aged between 18<br>and 69.  | IOI      | Random location sampling   | Exploratory focus groups<br>with the general public and<br>a survey of scientific<br>experts informed the<br>design of the study. Face-<br>to-face interviews with<br>participants  | 2005                   | Quantitative survey that<br>used questionnaires to<br>measure knowledge levels<br>about food safety practices,<br>food safety and food science<br>amongst the population on<br>the IOI   |

Table 7 - Surveys of consumer knowledge, attitudes and perceptions of food safety on the IOI *Continued*

| Study  | Organisation/<br>Author | N   | Location | Sampling  | Methodology   | Year      | Description   |
|--|-------------------------|---|----------|---|---|-----------|---|
| <b>Safetrak</b>  | safe food (247)         | 800 participants aged 15-74 (500 ROI and 300 NI) annually | IOI      | Quota sampling  | Face-to-face interviews in participants' homes  | 2005-2013 | Quantitative surveys of consumer knowledge, attitudes and behaviours relating to both food safety and nutrition   |
| <b>Why do consumers deviate from best microbiological food safety advice? An examination of 'high-risk' consumers on the IOI</b> | Brennan et al. (261)    | 1,025 consumers aged 18 to 69                             |          | There were 73 sample points. Quotas for age and social class were implemented. The selection of group participants for the qualitative research was based on the demographic profiles from the quantitative study | Quantitative survey was used to demographically profile 'high-risk' groups on the IOI. A series of statements were used to measure knowledge and questions on a number of demographic factors<br><br>Qualitative study consisted of 12 focus groups, eight in the ROI and four in NI. Face-to-face questionnaires were used to recruit the participants | 2007      | The objectives of this paper were firstly to profile and identify 'high risk' demographic groups on the IOI and, secondly, to investigate the group members' knowledge of microbiological food safety, microbiological food safety handling and the preparation behaviours they engage in |

## 4.2 Gender differences in food safety knowledge

Several studies on the island of Ireland have examined food safety knowledge and demonstrated clear differences between men and women. Kennedy et al. showed that consumers could be segmented successfully based on their food safety knowledge and reported practice (24). The authors identified three groups of consumers based on knowledge factors, i.e., conscientious, cavalier and careful food handlers. Members of the cavalier food handler group were more likely to be male and engaged in less hygienic food handling practices (24). McCarthy et al. also identified an 'At Risk' segment with less than ideal food safety practices and significantly lower knowledge about food safety and food science issues; members were again more likely to be male (26). These studies show that older and younger men may be particularly at risk of low levels of food safety knowledge. This is consistent with the international literature (27-30, 262). More recently, Kennedy et al. surveyed 60 consumers on the perceived importance of key food handling practices in the prevention of foodborne illnesses (263). Respondents assessed the importance of nine food safety behaviours relating to the transport, storage, handling and cooking of foods. All behaviours were generally considered important; however, men were less likely than women to consider correct food safety practices as important.

### 4.2.1 Awareness of food safety issues

In 2009, **safefood** commissioned quantitative and qualitative research to investigate consumer knowledge, attitudes and behaviour relating to food safety as a basis for the Consumer Focused Review of Food Related Behaviour (2). The research, which was carried out by Millward Brown Lansdowne, formed part of **safefood's** annual consumer tracking research, 'Safetrak'. The questions used reflected questions included in previous Safetrak surveys and aimed to address some of the influences on food-related behaviour. The quantitative methodology is outlined in Table 7.

The qualitative research involved a series of six focus groups in a variety of population groups and locations on the IOI. The research aimed to explore factors like knowledge, attitudes, prior experience, social norms, self-efficacy, habits, emotions and contextual factors in relation to food safety. It also explored knowledge, attitudes and perceptions around food poisoning.

The focus groups showed that females had a high awareness of major news stories concerning outbreaks of foodborne illnesses due to *salmonella*, dioxin and *E. coli*. The majority of females described television advertisements for biocides, which had a complementary effect in that it raised their awareness of food safety issues. Some females also recalled some more specific food safety advertisements (many of which were from **safefood**, e.g., the food safety campaign and the Christmas campaign). Male participants did not display the same level of awareness. However, it is difficult to assess whether this reflected general food safety awareness or simply how the advertising campaigns were targeted.

### 4.3 Concerns about food safety

Data from the **safefood** Food Behaviour Report on concerns around food safety, derived from both the quantitative and qualitative research, showed that most people realise the importance of food safety and good food hygiene, with 77% of those surveyed expressing concern when asked to describe their attitude to food safety issues. Men were less likely to worry than women (11% unconcerned compared to 6% of women). In the ROI, females aged 35-49 years and over 50 years were more concerned, whereas in NI, females aged 35-49 years were more concerned (2). These findings broadly reflect previous research (31).

The results from the Food Standards Agency in the UK, published in 2013, revealed that compared to women, men were less likely to be concerned about food hygiene when eating out (31% vs. 41%), about food poisoning (23% vs. 29%), about the use of additives (23% vs. 30%) and about date labels (20% vs. 27%) (264).

### 4.4 Food risk perception

In relation to risk perception, the qualitative research from **safefood's** Food Behaviour Report showed that females appeared to make a greater connection between poor food safety and illness. Younger males felt averse to any type of consequence borne out of risky food safety behaviour and felt invulnerable to many food hazards (2). This finding reflects international research that shows that men tend to have a lower food risk perception than women (31).

#### 4.4.1 Experience of a food safety incident

Understanding the link between food safety practices and consequences varied according to personal experiences. A strong gender difference was apparent in the findings of **safefood's** Food Behaviour Report (2). Women had a strong association between illness and poor food safety practices, which included evidence of first-hand food poisoning instances and outcomes. Those women with experience (direct or indirect) of food poisoning were not humorous or dismissive in their accounts of the symptoms experienced, and the types of reports of food safety-related illnesses were varied and ranged in severity. Some examples included particularly serious, emotive descriptions of a case of *E.coli* and *salmonella*, which resulted in children being seriously ill and being hospitalised. The women involved spoke of the intense worry and guilt they felt at the time. Both of these cases evoked strong emotions amongst all the women and it was evident that these events had clearly shaped their attitudes and behaviours around food safety.

On the other hand, the majority of men felt that they had experienced some level of food poisoning. However, none of them described their symptoms as severe, and their recollections of any more serious incidents were vague and distant. Male reports of food poisoning included upset stomachs, diarrhoea, nausea, weakness and fatigue. Most episodes lasted a short amount of time (one/two days) and more serious episodes reportedly lasted up to a week. An element of invincibility was evident among male participants, particularly younger males.

It is difficult to say whether the gender differences in the perceptions of food poisoning described here reflect real differences in perceptions or simply the different ways that men and women interact in group settings, or both.

#### 4.5 Gender differences in food safety practices

**safe**food qualitative data on food safety practices (2) showed clear differences relating to life stage and gender amongst the participants. Men described a more haphazard approach to food preparation practices. For example, younger men tended to leave dirty kitchen utensils to accumulate and cleaned them when needed. They also displayed a poor knowledge of food safety practices. For example, they use an *ad hoc* approach for storing and defrosting foods. As mentioned already, research has shown that forms of masculinity such as risk taking and feelings of invulnerability are factors that influence men's health practices (51). This reflects findings from previous research conducted on the IOI (24-26, 265) and internationally, and could leave young men at higher risk of food poisoning.

Women and mature men portrayed a much more organised and methodological approach to food practices. They cleaned as they went along and said they had procedures in place with a view to being more efficient throughout the food preparation process. These efficiencies were driven by their attitudes and habits or by their circumstances. Having children, for example, necessitated an orderly approach to kitchen tasks. Fathers who were involved in meal preparation described a structured approach to running the home and tended to break meal preparation into a series of tasks – preparation, cooking, mealtime and cleaning up.

The majority of respondents relied on sensory inputs to judge whether food was fit to prepare and consume. Men, in particular, trusted their own senses as a better indicator than 'use by' dates and were guided strongly by touch (meat and vegetables), taste (many different foods), smell (meat and dairy products) and the physical appearance of food (mould, colour, etc.). Women, while also reliant on these sensory inputs, were more cautious.

While inherited habits and traditions were not a factor for younger men, mature men and fathers referred back to food preparation practices when they were children and commented how food safety practices have developed. This reflects the findings of a previous qualitative study on the IOI (261).

Many male participants reported learning about food preparation (including food safety) and taking on a greater role within the home and more specifically within the kitchen. There were many reasons for this, including current high unemployment rates among men and changing male/ female roles within the home. Even though men were participating more actively in the home, they felt that the home and the kitchen were traditional female domains and, as a result, did not consider themselves fully responsible for food safety. This may stem from traditional values where the role of men was as providers while women were the homemakers. Similarly, there may be an element of masculinity ideology here (266). In contrast, women felt that they had a better handle on food safety practices and their consequences than

men and this may reflect their comfort with a traditional role as a food provider. The use of food has long been recognised as a way that a person assigns identity to herself/himself and others (166, 267, 268).

The focus group work also examined areas of food preparation practices that required improvement. Minor food safety misdemeanours were acknowledged and accepted by all as part of food preparation. Men readily admitted to careless food preparation practices, such as eating out of date meat (younger men only), using the same knife for meat and vegetables (commonly mentioned) and eating food picked up from the floor (the 'five-second rule'). Similar to studies of masculinity and food, men's comments, in their discussions of eating, diet and health, tended to reflect traditional constructions of masculinity that position food and health promoting behaviours as of little interest to them (4).

## 4.6 Conclusions

Food hygiene practices and their influencers vary according to gender and life stage. Lower food safety knowledge levels among men indicate that this issue needs to be addressed via formal education settings and in the home. In addition, the segmentation of consumer messages for men and women may help to promote increased food safety knowledge and awareness and effective food-related behaviour change. Younger and older men appear to be key groups to target. As the role of fathers in the home continues to change, this group is also becoming more important.

While food safety behaviour and attitudes appear to be less healthy in men than in women, the higher level of concern among women may suggest that they may be more open to food safety messages than men. Therefore, the question remains whether men should be targeted directly or whether women could be targeted as potential influencers of men. Further research is needed to establish how best to effectively communicate gender-specific messages around food safety.

# 5

## How men view the world of food: *safefood* qualitative research

### Key findings

- Barriers to men's increased involvement in food-work included overcoming traditional gender stereotypes, lack of education around food and confusion around food and health terminology, perception of ability, the influence of advertising, career, life-stage and household make-up.
- The research identified five types based on personal motivations in relation to food among the participants, ranging from having a low health concern and low food involvement to highly concerned, highly regulated types.
- Life stage played a major role in men's behaviour. The majority of participants started their food lives as either Frivolous Feeders, characterised by a lack of interest and a low level of knowledge and responsibility, or Epicurean Explorers, with high level of food knowledge and an interest in new foods.
- As men progressed through life, various trigger points, such as career development or becoming a father, affected their food and health behaviour. The presence of partners or children changed some men's food motivation and brought an increased level of focus on health.
- As men became older, some sought out higher quality food and more varied food experiences, regarding food as a function of status. Others, mainly due to presence of illness and interactions with the health system, became more regimented, using food as means of improving health.
- Generally, younger men, who displayed a lower level of knowledge and interest, were identified as the group most at risk.

## 5.1 Introduction

This chapter provides an overview of findings from qualitative research carried out by **safefood** as part of this Consumer Focused Review to contribute to our understanding of men's current knowledge, attitudes and behaviours around food and health on the island of Ireland. The research aimed to provide up-to-date information on factors influencing men's food behaviour, their involvement in domestic food-work and optimum strategies to communicate food and health issues to them.

While this research provides some insight into the factors that influence behaviours, its limitations must be borne in mind in extrapolating the findings to the entire population.

## 5.2 Research background

To inform this review, **safefood** commissioned qualitative research to identify key influences on men's food behaviour on the island of Ireland. Qualitative focus group discussions were carried out by Ipsos MRBI in consultation with **safefood** in November and December 2013 across a variety of population groups and locations.

The research aimed to understand men's approach to food and how food safety and healthy eating influenced this. The discussions focused on food involvement, with a view to revealing information on knowledge and attitudes relating to nutrition and food safety behaviour, as well as influencing factors such as lifestyle, social norms, habits and potential influencers of positive change. The discussion guide was developed based on a review of the current literature in the area.

For the purposes of this research, food involvement contained parameters such as planning (budgeting, menu planning and grocery shopping), preparation (preparing, cooking and cleaning up) and knowledge (ingredients, recipes, food safety practice, nutrition, etc.), as well as evaluating the general level of responsibility for men within the household regarding these parameters,

The qualitative research involved a series of eight focus groups across urban (Dublin, Cork, Belfast) and rural (Tipperary, Roscommon, Down) locations to provide a mix and allow for regional variations. For the purpose of this research, participants had to be male and aged between 20-65 years. Participants were recruited from different socioeconomic groups and life stages to present a mix of older/younger and personal family circumstances (with/without children, working/retired/unemployed, etc.). In total, 64 participants were recruited.

Recruitment was carried out according to strict guidelines to reflect the population groups identified in Table 8. It must be noted that although the majority of men were considered for recruitment regardless of their responsibility for household food-work, there was one exception. Those participants identified as 'food experts' were excluded at recruitment stage. This was done to aid group dynamics. Attitude statements were used to identify men fitting this description.

**Table 8 - Focus group characteristics**

| Group | Family Stage                 | Sex  | Social Class | Location      |
|-------|------------------------------|------|--------------|---------------|
| 1     | Pre-Family / Single          | Male | C2DEF        | Co. Tipperary |
| 2     | Older Family / Empty Nesters | Male | C2DEF        | Co. Roscommon |
| 3     | Younger Family               | Male | BC1          | Cork          |
| 4     | Pre-Family / Single          | Male | C1C2         | Dublin        |
| 5     | Empty Nesters                | Male | BC1          | Dublin        |
| 6     | Pre-Family / Single          | Male | BC1          | Belfast       |
| 7     | Older Family                 | Male | C1C2         | Belfast       |
| 8     | Younger Family               | Male | C2DEF        | Co. Down      |

### **5.2.1 The Censydiam approach**

Motivations can be difficult to articulate; however, the validated Censydiam approach (269, 270) helped in understanding participants' motivations in relation to various food and health behaviours. Through a series of projective techniques, an analysis of different potential motivations that underpin the role of food and health in men's lives was undertaken. The needs were then explored using the Censydiam map (Figure 7).

Understanding men's motivations for behaving the way they do can help us develop communications and messages that connect best with their motivations and so have a higher potential to deliver behaviour change.

Figure 7 – Censydiam model



Each position on the compass in Figure 7 (270) represents a different motivation. The compass is focused on the theoretical viewpoint that consumers are driven by two main forces, personal (north/south) and social (east/west) dimensions. The remaining motivations combine elements of these social and personal dimensions. These are briefly described below in relation to food behaviour motivations:

- **Enjoyment** – maximising pleasure, striving to let go and be impulsive. Any food behaviour that is not simple and easy to follow tends to be rejected.
- **Conviviality** – desire to be connected to others, interacting and sharing experiences. Provision of food can be used as both a message to others and a desire to bring people together.
- **Belonging** – the need to be part of a society or group. Food can be seen as a way to demonstrate dedication to others.
- **Security** – experience of relaxation, tranquillity and safety. Looking for simplicity regardless of how it is achieved which can drive a divestiture of accountability to other sources.
- **Control** – keeping in check and hiding emotions and feelings. A requirement for routine, structure and consistency, which establishes an input/output based food motivation that is efficient and effective.
- **Recognition** – feeling ahead of the pack, need to stand out and break from convention (excluded in this study).
- **Power** – reflects a desire to be viewed positively and be appreciated and praised. Therefore, food can serve as a function of status.
- **Vitality** – reflects adventure, testing boundaries and discovering new things. Food can become an expression of the person.

### 5.3 Influences on men's food behaviour

Throughout the research, a series of obstacles presented themselves for men to overcome on the road to food responsibility. These included overcoming traditional gender stereotypes, a lack of education around food and language confusion, perception of ability, the influence of advertising, career, life stage and household make-up.

It should be noted that, as mentioned previously, men with a certain level of knowledge and experience in relation to food and nutrition, or those who were highly involved in family food decisions, were excluded from this research. Therefore, participants generally had low food involvement and so the majority of the influences discussed focused on barriers to their increased involvement.

#### 5.3.1 Education

Lack of formal education and training was either identified directly by participants or was evident from their narrative as a barrier to their food involvement.

*"The way we were brought up, you know, the girls at home sort of learned to cook, you didn't... it's only when you had to fend for yourself and had responsibilities of your own and you're away from your upbringing home that you kind of took it seriously" (Small town, Young family, C2DEF)*

Education is the main starting point from which people can build their knowledge on food and health. On the IOI, as well as internationally, learning in relation to nutrition, food safety and cooking practices can come from the home (i.e., through observing/helping) (271-273) or from school (i.e., home economics). However, only a few participants reported receiving information from either source.

*"I learned through people that I lived with and stuff I saw them cook" ... "I remember watching my mum cooking and then when I had to do it myself I remembered that...if someone shows you then you'll know after that" (Pre-family/single, C1C2, urban)*

Men's lack of sufficient food-related education at a young age put them at a distinct disadvantage when it came to food involvement. As can be seen in the following section, even when men showed an interest in and willingness to increase their food involvement and took part in family food-work, this lack of basic knowledge undermined their confidence in their ability to take ownership of food.

#### 5.3.2 Food knowledge

On the surface, men seemed to possess an appropriate language in relation to food and healthy eating. However, a closer examination revealed that while buzzwords such as unprocessed, fresh, natural, etc. allowed men to converse about food, their knowledge was superficial. This in turn reduced the impact of the health and nutrition messages men received and in many ways permitted them to create their own parameters. For example, many spoke about the importance of balance in their diet but when asked what this meant, one participant said:

*"[Balance means] it has to be tasty but it has to be healthy as well, somewhere in the middle" (Pre-family, C1C2, Urban)*

Similarly, another participant said:

*“[Balance means] not eating takeaway seven nights of the week but not eating salads seven nights of the week either” (Young family, C2DEF, Small town)*

This lack of understanding may lead to issues with health and nutrition, and misconceptions in men in relation to what they should eat and what practices they should follow. Interestingly, most men perceived a distinct divide between ‘healthy’ and ‘tasty’ and tended to believe foods belonged to one or the other group and not both.

*“I think [in a wholesome diet] you can incorporate what you like about food, but healthy means you have to eat because that’s the right thing to eat” (Empty nesters, BC1, Urban)*

### 5.3.3 Work

Work played an important part in men’s lives and was undoubtedly a key factor in their approach to food. While a job’s major impact on food practices was time availability, the type of work also affected the participants’ views of their nutrition and health.

#### 5.3.3.1 Unemployed/retired

Participants who were unemployed or retired reported having positive attitudes in relation to food involvement because they had more free time. They also expressed health considerations.

*“I just feel that you can control yourself more when you are retired than when you are eating for Ireland as they say” (Urban, Empty nesters, BC1)*

#### 5.3.3.2 Blue collar

Participants among blue collar and rural occupation groups displayed low levels of interest in food and nutrition. Many believed that the high level of activity associated with their occupation (often involving manual labour) could justify their unhealthy eating habits. Participants from rural backgrounds displayed more traditional views in relation to family food-work and the role of men and women, and so were less likely to be involved in daily food preparation.

*“I suppose the wife is a better cook and she likes doing it” (Empty nesters, BC1, Urban)*

#### 5.3.3.3 White collar

These participants reported that long working hours and/or the commute associated with their job had a negative impact on their food habits.

### 5.3.4 Media vs. reality

The influence of media on men’s food behaviour has been discussed in detail already. For many men in this study, the media’s view of cooking did not reflect their reality because when they cooked, they reported that it was often basic and quick and far from the gourmet image portrayed on TV.

*“She makes up sauces there, that [famous TV chef]; you’d want to have a market garden to make it up”  
(Single, C2DEF, Rural)*

Most participants reported watching cooking shows on TV; however, this was more for the entertainment value than an interest in food and cooking. Nevertheless, such programmes clearly exerted an influence on men’s approach to food. Some men found them useful:

*“[TV cooking shows] makes it easier for you because you’re looking at it and saying, yeah I can do that”  
(Young family, BC1, Urban)*

However, for others, particularly those with a poor start from a food education perspective, this influence undermined their food involvement efforts as they perceived the barriers to entry to be large and complex. Interestingly, some men who were involved in food-work did not perceive their efforts to be of value. They perceived that their cooking did not match some unspoken standard, and this undermined their confidence.

*“[I] have a handful of things I know I can make...not fine dining food or any of that carry on... standard set things that I can make and it kind of becomes boring” ... “When my wife is cooking, it’s more complicated stuff, mine is all very simple, it’s the frying pan and the oven”... “If you say to the children... even though they’re only three and six... who do you want to make the dinner... it’s the missus all the time” (Young family, C2DEF, Small town)*

### **5.3.5 Advertising and marketing**

The pervasiveness and persuasiveness of food advertising was clear to most respondents. Although its impact was significant across a number of factors, it appeared to be most effective in relation to health and cost, allowing men to make judgements on their behaviour.

Price promotions and related materials skewed men’s price perceptions. Although some acknowledged that pre-prepared and ready meals were unhealthy, they pointed out that pre-packed or processed foods were cheaper than making a full meal from scratch.

*“Sometimes you can buy a cheap meal that’s as cheap as if you’d cooked it yourself or less”...  
“Especially if you’re cooking for one” (Pre-family/single, C1C2, Urban)*

However, those who bypassed advertising and were involved in some way in practical food preparation revealed that this is not necessarily true.

*“Some of them [cooking shows] would be telling you like this is only costing £5 to make this meal, Jamie Oliver and stuff like that, he’s always doing stuff that’s cheap and it looks more interesting than your normal meal (Young family, C2DEF, Small town)*

The ever increasing presence of health claims and nutrition information on food products confused participants. Claims such as ‘low fat’, ‘no added sugar’, ‘one of your five a day’, etc. are now commonplace on many food products and have therefore blurred the lines between what is and is not healthy. This confused men and obstructed other health messages from gaining traction. Previous

research has shown men to be suspicious of health and nutrition messages on food products (75) – and this discrepancy can feed into their suspicion, and so they may ignore credible health information as marketing ploys.

Once again, lack of basic knowledge and understanding of food and nutrition negatively affected participants' ability to distinguish marketing and advertising messages and interpret the nutritional and health quality of food products.

#### 5.4 Men's food involvement and motivations

A qualitative examination of the findings based on the values from the Censydiam wheel suggested five food personae types among the participants (Figure 8). Their definitions and relationships, as well as their development through men's various life stages, are discussed below.

Figure 8 – Participants' food persona motivations

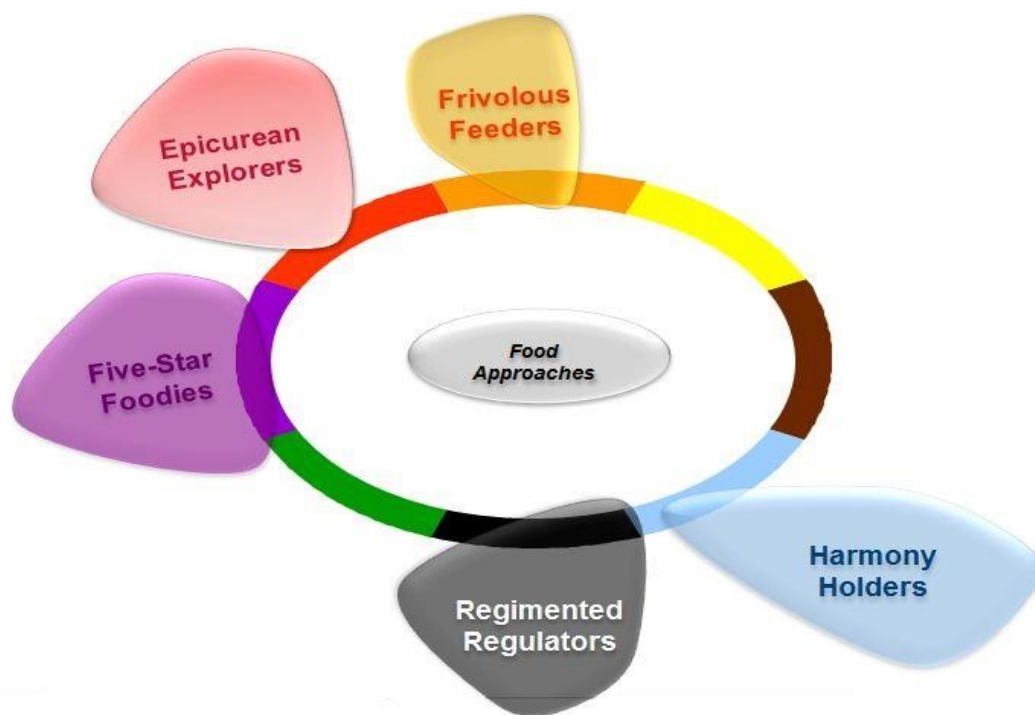


Table 9 - Men's food involvement personae

|                                 | Frivolous Feeders   | Epicurean Explorers  | Harmony Holders  | Five-star Foodies  | Regimented Regulators  |
|---------------------------------|---|--|--|--|--|
| <b>Who are they</b>             | Low interest, low knowledge consumers. Often single   | Food explorers, high knowledge, likely to be middle class and urban                          | Parents aged 30+. Evident across social classes and work profiles  | Older, affluent men, generally still living with partners but children have moved out  | Older, often experiencing health issues  |
| <b>What they want from food</b> | Eat for enjoyment of food, little consideration given to health   | Interested in new foods and challenging themselves through meals and cooking                 | To fit their lifestyle and not create hassle for them or others in their household   | Food is a function of status and serves to demonstrate same  | To prolong life; allow them to feel in control of their health   |
| <b>What they eat</b>            | Tend not to take responsibility for cooking. Eat whatever is put in front of them or bought in (takeaway). Welcome large portions | Prepare ingredients generally from fresh produce. Tend to focus on international foods       | Health tends to play a role due to presence of children – but lack secure knowledge of healthy foods. Often have set routines and repertoire of dishes | Tend to let others cook (either partners or restaurant chefs), but seek to buy high-quality, often expensive, foods perceived to be 'the best' | Often will have a single focus and eat foods to fit this focus, e.g., diabetes and sugar, high blood pressure and salt, etc. |
| <b>What are the challenges</b>  | Lack interest. Lifestyle can excuse diet, e.g., active jobs, sport participation. Food waste also a factor                        | Food may not always be healthy and they are not looking for information on how to make it so | Although involved with food, they still do not have ownership  | Health is not a focus, although it may be a by-product given the standard of ingredients   | Few challenges evident as they are taking control, although they can risk over focusing on one issue                         |

Qualitative findings revealed that life stage played a major role in men's behaviour, and as men progress through life, a number of trigger points become apparent which have an impact on their food and health behaviour.

#### 5.4.1 Single/pre-family (18-30 years old)

In this study, the majority of participants began their food lives as either Frivolous Feeders or an Epicurean Explorers. Most started taking sole responsibility for food when they began their adult lives outside the family home, generally without a sure knowledge of what was involved.

*"I remember when I first moved out thinking Jaysus what am I going to eat? And being really worried about that and I remember my new year's resolution was to learn to cook and buy a cook book, but I didn't. I took a while; even going to supermarket first I didn't know what to buy" (Pre-family/single, C1C2, Urban)*

It is important to note, however, that sole responsibility can mean ordering takeaway food, and does not necessarily equate to ownership and full involvement. In general, Frivolous Feeders exhibited low levels of interest in food and perceived it mainly as a source of fuel, aiming to minimise their involvement as much as possible:

*"I eat whatever is there, whatever is cheapest and handiest. I'd get chicken rolls...I used to eat eight chicken rolls a week. Sometimes I'd buy two and save the second one for a few hours later" (Pre-family/single, C1C2, Urban)*

As can be seen below, this period in men's lives can shape their relationship with food, and while Frivolous Feeders exhibited low levels of interest and knowledge, Epicurean Explorers discovered ways of exploring food and developed an interest in food involvement. Nevertheless, health was not high on men's agenda at this time. This is in line with findings from previous research and consistent with a certain feeling of invincibility towards health exhibited by men of this age group (51), regardless of their food knowledge and level of involvement.

#### Young family (31-45 years old)

Moving in with a partner triggered some changes in men's food behaviour. The personality and the food management style of the partner had an important impact in determining the nature of this change and the role and responsibility of men regarding food involvement in the household as they adapted and merged food habits with their partner. Some partners naturally took charge of the family food-work, reducing men's involvement to "pushing the trolley":

*"I'd be there [food shopping] but I don't really have a choice in a lot of what goes on"... "She [wife/partner] would know exactly what to get and why and when it's for and all that" (Young family, C2DEF, Small town)*

However, some men, generally Epicurean Explorers, pointed to the changing times and men's increased involvement in food:

*"If you go back to your father's generation, he had someone to look after him, but a lot of people now have to fend for themselves"... "A man is not just going to come home and plank himself on the couch expecting it to be served up to him"... "And who's to say your wife is going to cook better than you... you might not even like what she makes"... "I'd say I'd be a better cook than my wife" (Young family, BC1, Urban)*

In addition to the influence of partners, presence of children and/or change in work circumstances also affected men's food personae. Some men remained in their original persona if no external influence was present or if partners permitted them to remain in that role. However, in general, the presence of one or more of the above influences was likely to shift men into the Harmony Holder motivation.

The presence of children triggered a major overhaul in men's lifestyle and food behaviour and generally brought a focus on health. This focus was not just aimed at providing healthier food for the children but was also an effort by men to change their lifestyle and improve their health to ensure that they were available and able to take part in their children's lives.

*"In my 20s I ate and drank all around me and I would kind of hope that metabolism would be enough to cope with it. But in your 30s you're getting much more conscious of things and you're cutting down...you're also looking to say...well, because you have kids now that I need to look after myself" (Young family, BC1, Urban)*

However, for some, as children got older and career took over again, health moved down the list of priorities. Later on in life, grandchildren triggered a renewed emphasis on health.

#### **5.4.2 Older family (46-60 years old)**

Similar to the previous stages, many men remained in their various personae at this stage in their life course, but influences such as increased time availability, lower levels of responsibility (in relation to children and career) and increased disposable income allowed some men to shift to other personae. A lack of responsibility for children saw some Harmony Holders revert to their Frivolous Feeder or Epicurean Explorer personae, while higher disposable income allowed some men to switch into the 'status' persona of Five-star Foodies.

#### **5.4.3 Empty nesters (61+ years old)**

Health considerations and doctor's warnings were some of the influences that increased men's consciousness of their vulnerability to disease and often motivated a renewed focus on health and prolonging life, which saw many men forced into the Regimented Regulators motivation group later in life.

*"We're trying to stretch out what's left... we're in the second half now" (Older family/empty nesters, C2DEF, Rural)*

Other influences included the presence of grandchildren as well as experience of losing friends and family members to disease.

*"We're on the wrong side of 60, your grandchildren are growing up and you want to be around for as long as you can, all of us have seen and lost friends, usually through something that could have been prevented but wasn't. when I look at my grandchild I'd say I'd like to still be around when he's 10, 12, 14 and watch him play football... I suppose you're looking at your own mortality" (Empty nesters, BC1, Urban)*

Some men, however, did not see signs of change or chose to ignore warnings and continued with past behaviour.

#### 5.4.4 Absent personalities

Other **safe food** research on approaches to food (274) revealed other personality types that were not found in the findings of this study.

Figure 9 - Censydiam motivation types not found among participants in this study

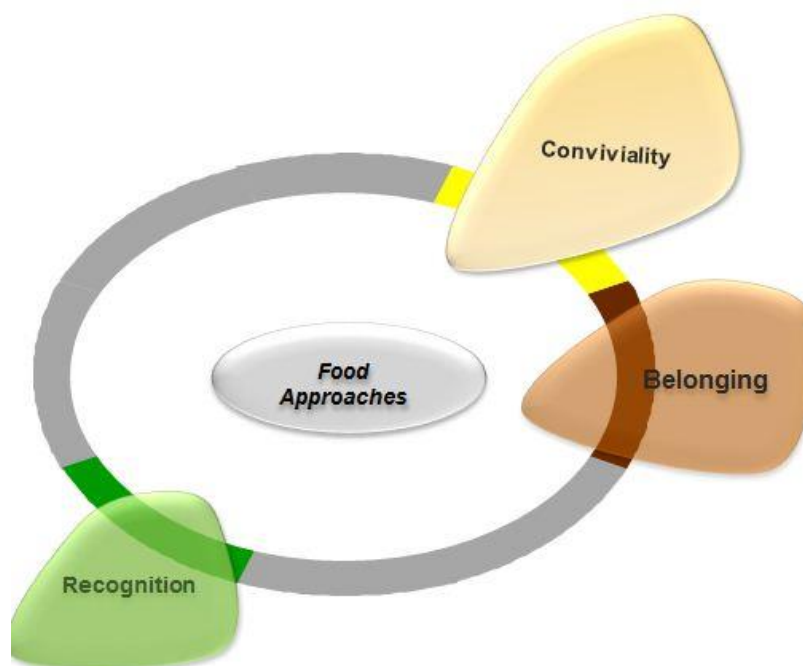


Table 10 - Censydiam motivation types not found among participants

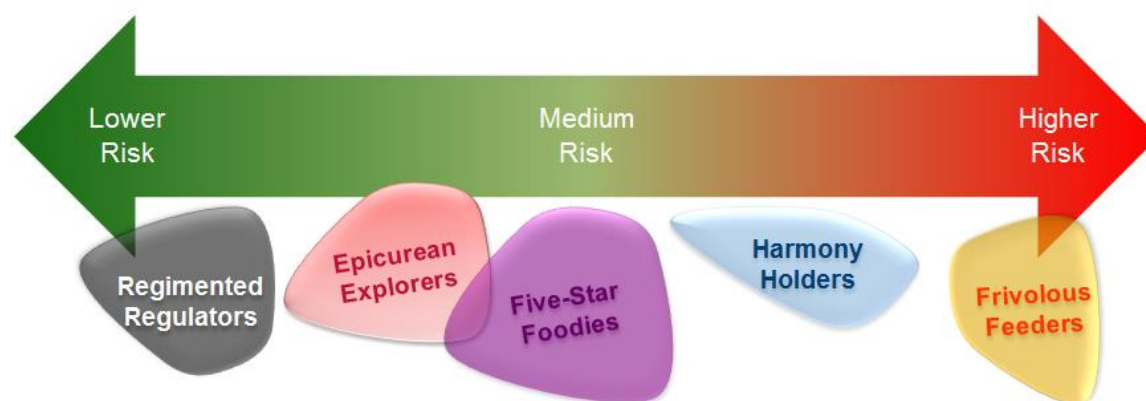
|                                 | Conviviality  | Belonging   | Recognition  |
|---------------------------------|---|---|--|
| <b>Who are they?</b>            | <p>Busy mothers with older children, working outside the home</p> <p>Aspire to be the hub of the family, friends and extended community</p>                     | <p>Mothers with children at various ages, less likely to work outside the home</p> <p>Aspire to be the home maker who is counted upon and is largely defined by this role</p> | <p>Almost exclusively male, although they do not have the knowledge and skills of Epicurean Explorers</p>                              |
| <b>What they want from food</b> | <p>Use food as glue that bonds people together</p> <p>Confident in the information they have and are happy to demonstrate this (be the centre of attention)</p> | <p>Use food provision to demonstrate dedication to others (less of a statement to others about their worth than conviviality state)</p>                                       | <p>Credit seekers, using food to gain recognition among family. This acknowledgement reinforces their confidence in food provision</p> |

In this study, although conviviality and social dining were present in some cases, they were generally not the driving force behind men's food choices or outlook in day-to-day food provisioning. The absence of these traditionally feminine identities may also point to some men's lack of confidence and hesitation in taking ownership of the food-work and accepting sole responsibility for family food provisioning. Although there were men who spoke about the importance of family and belonging, the underlying needs generally fell into other categories, such as security, rather than food.

As mentioned previously, credit seekers generally tended to be men who demonstrated a desire for their effort and work to be viewed positively and expressed to them as such. However, for the purposes of this research, those who would naturally occupy this space were excluded at the recruitment stage in order to avoid the appearance of 'experts' at the groups when less involved participants were present.

## 5.5 Communicating with men about food

Figure 10 - At risk groups – a health perspective



## 5.6 At risk groups

The lack of knowledge and interest among Frivolous Feeders put them at increased health risk:

*“I wouldn’t have touched the cooker in my mam’s house...even my bed was made for me...now [after getting married] you have to fend for yourself...you’ve got the children and you have to make something for them...you have to learn. I nearly burned down the house one day, left a pot of mince on...every room in the house had to be painted...on the bright side I can make bolognaise now!” (Young family, C2DEF, Small town)*

This was similar to the findings of previous work on food behaviours on the IOI, which found young men of similar characteristics (274). Frivolous Feeders were also the persona least likely to pay attention to messages promoting food safety and nutrition because they were not focused on health issues in relation to food.

*“You go for the easiest option as opposed to preparing fresh food” (Young family, BC1, Urban)*

Men belonging to the Harmony Holder persona group were next on the health-risk scale. Although they had introduced improvements in their habits and behaviours, their lack of basic knowledge and understanding in relation to food put them at increased risk. However, these men tended to show the highest level of interest in health messages and learning about food safety and nutrition.

*“You think more about the health side of it now because it’s getting drilled into you... eating more vegetables...fat, salt and sugar content...” (Young family, C2DEF, Small town)*

The middle of the scale featured Epicurean Explorers and Five-star Foodies. Although these men were not particularly receptive of health messages, they tended to experience lower levels of risk as health occurred as a by-product of the types of foods they ate.

At the lower end of the risk scale were Regimented Regulators. While these men were not particularly interested in food safety and nutrition messages, the tight control they exerted over their approach to food, often due to health problems reduced their risk levels.

#### **5.6.1 Communication opportunities**

Findings from this research and the literature suggest that many men deflect responsibility for food provision and preparation to others in the household or even outside it. However, if men from certain food personae are to improve their knowledge of food safety and nutrition and ultimately their health, they might benefit from taking a more active role in this domain.

*“Everyone nowadays, or most people, are aware of what they have to do, it’s just a question of finding time and the willpower to do it” (Young family, BC1, Urban)*

As mentioned above, men’s ability to take control rested on internal and external influences. While some internal factors can be challenged and many external factors can also be overcome, men’s lack of confidence in their own abilities was a key barrier, particularly among the high-risk personae.

Interestingly, this lack of confidence is not confined to those men with limited food skills, but can be observed even among men who show adequate skill levels and are routinely involved in food preparation. This was evident in the way one participant reported preparing a full meal from scratch for his family but as an example of his lack of cooking skills:

*“On Sundays sometimes I’d make the dinner... I have a set plan... fire the spuds in the oven and bake them, I would cook steak or something, I would use frozen peas and mushrooms and onions...it’s about all I know how to cook... other than grilled breakfast meals...” (Young family, C2DEF, Small town)*

Another participant compared his style and confidence in cooking to that of his wife:

*“She finds it easier... she’d be able to do that [cook the meal] and probably still fit in doing the children’s home work...where I’d be getting everybody out of the way, the children stay in the sitting room, don’t come near me, I’ll call you when it’s ready and it’s there, you eat it, if you don’t you go hungry...because if I get distracted the house would be on fire... o everybody out of the way and hope for the best” (Young family, C2DEF, Small town)*

Therefore, efforts to build confidence among these men are particularly important. In addition to this, efforts to engage men should be tailored to their particular circumstances and suit their current level of skill

and knowledge. High risk groups such as Frivolous Feeders posed the greatest challenge as their lack of interest in health messages is difficult to overcome.

*"I'd say most men wouldn't have the confidence to go outside of the very basics...give them a cook book and say go and try and put that together...it would be horror" (Young family, C2DEF, Small town)*

Simple, clear and easy-to-follow directions in approaching food are needed to challenge preconceptions around cost, preparation time and the tastiness of healthy food among this group.

*"I had a student cook book when I was in college that had these really easy and simple things and I used to use that a lot" (Pre-family/single, C1C2, Urban)*

Efforts should be made early on to educate boys and young men in relation to food preparation, food safety and healthy eating in order to prepare them to enter their adult lives with some basic knowledge in food preparation and planning. This sentiment was echoed by majority of participants from various groups:

*"I think once you reach maybe 17 or 18, you're already programmed in a certain way. Whereas I know when I was in school that there weren't any cooking classes (Young family, BC1, Urban)*

*"[If I could change anything] I'd go back and learn to cook... I think it goes back to our school days, girls went into home economics courses and we were out kicking a football or hurling" (Empty nester, BC1, Urban)*

Building confidence is important in order to help men feel in control. For example, men in the Harmony Holder persona group tended to follow set routines and therefore would not move from their comfort zone easily. As one participant pointed out, this can be achieved by keeping solutions basic as these men currently tend to operate with little basis in culinary skills.

*"One of the things I find when I'm shopping... I love to pick up recipes; you can buy against the recipe"... "I think for me it would be just like they have in Operation Transformation that you have recipes that are relatively easy to do and you're not going to spend all day doing it. I don't want to spend all day in a kitchen preparing for dinner" (Empty nesters/ BC1, Urban)*

Men in the other three personae groups could also benefit from some instruction on how to approach food in a more constructive manner. For example, promoting high quality healthy produce as 'best ingredients' to Five-star Foodies, inspiring Epicurean Explorers with challenging recipes and new foods and providing assistance to Regimented Regulators to control their diets would be useful in getting their attention and encouraging these men to become more involved with food and health. It is also important to raise awareness of food safety issues among men in all persona groups as food safety concerns did not feature in any of the participants' food behaviour accounts.

As mentioned above, timing is also important when targeting health messages to men. Ideally such communications should be tailored to various transitions men experience through their life course, as certain stages or events help men to be more receptive to such messages and implementing changes.

*“I don’t think there has to be a message as in like you know all of a sudden they [health promotion authorities] are going to come out and say something [that will make you pay more attention to health]. I think it would be a message through something else. So like it would be a friend of yours at 40 keeled over and dying” (Young family, BC1, Urban)*

## **5.7 The household view and ownership of food-work**

As mentioned previously, men’s food behaviour is affected by internal and external influences. In a domestic context, the partner/wife’s food management style is a major influence on men’s involvement, which has been discussed in detail in previous chapters. Our findings confirmed this. In many instances, women’s confidence and practised style undermined men’s tentative approaches:

*“I think if you have a wife who is a good cook...I mean when I cook I’ll get a recipe and I will go by the recipe... half a cup of that, four ounces of this... and she will come in and say what are you doing?! You just get this and throw it in” (Empty nesters, BC1, Urban)*

*“I tried to make brown bread when I retired first... drove my wife mad for a month or two... just not worth the effort” (Empty nesters, BC1, Urban)*

In other examples, the partner/wife’s total ownership of the household food management discouraged men to take ownership even if they were involved in the process.

*“My wife works so I’m home a good bit more [retired]. But my wife would do the shopping and she would make sure that we have chicken on Monday, fish on Tuesday... so she sets out the menu... I just do the cooking but she sets it out” (Empty nesters, BC1, Urban)*

*“They [wives/partners] tell us they get better value because they know where the bargains are. We just go with the list and come home with what we are told to get” (Older family/empty nesters, C2DEF, Rural)*

On the other hand, wider socio-cultural influences in relation to food behaviour and masculinity (discussed in chapter 2) may also impede men’s ownership of food-work. In some cases, men minimised their food involvement and made excuses for their participation.

*“My wife works late sometimes so it’s [cooking] probably unavoidable...” “I work close to home so I kind of do a lot of food preparation during the week because I’m home first” (Young family, BC1, Urban)*

These accounts as well as findings from other research (274) carried out by **safe food** in relation to female food managers present an interesting dilemma. In some cases, the adjustments men may make in their attitudes and food behaviours may be undone by the partners they share the household with. These studies independently investigated how men and women operate and while studying the interactions between these personalities was beyond the scope of either project, it can be hypothesized.

While we cannot be sure until the interactions between the persona groups have been tested in research, it would appear that the interaction of certain personalities may produce an increased risk in relation to food and health behaviour. In this hypothesis, any relationship featuring a 'control' persona is likely to be lower risk due to the control exerted. Those with exploratory or social personae may be at risk depending on others in the household because although they possess an adequate level of food knowledge, they may not be focused on making healthier choices. However, a combination of the 'enjoyment' or 'coping' categories is likely to produce a higher risk level in relation to health and food safety due to their limited knowledge, indifference towards health messages and desire for hassle-free, set routines.

## 5.8 Conclusions

As mentioned in previous chapters, various socio-cultural and environmental factors influence men's food and health behaviour. Our findings reveal that lack of knowledge and education in healthy eating and food preparation skills proved to be a major barrier in men's increased food involvement. Often when men overcame traditional gender stereotypes, the influence of advertising and career and lifestyle commitments, this lack of knowledge led to a lack of confidence and a negative perception of their own ability in relation to food.

Interestingly, there was a complete absence of food safety considerations in relation to discussions of food skills and domestic food practices throughout all groups. Low levels of food involvement and ownership in the majority of the men in this study may explain this lack of attention to food safety issues. In addition, those men who reported involvement in family food practices did so under a certain level of supervision from wives or partners who assumed responsibility and ownership of the process. 'Involved' men were more likely to be concerned with time management and quality in relation to their food practices.

The results revealed that there are opportunities to target men at certain transition stages during their lives (e.g., moving out of the family home, having children, etc.) when they are likely to be more receptive to healthy-eating and food-safety messages. The findings also point to the importance of the influence of women on men's food involvement in the household. There is a need for further research on women's food management style in the household and its relationship with men's food and health behaviour and the level of ownership of domestic food decisions.

# 6 Conclusions and Recommendations

## 6.1 Conclusions

On the island of Ireland, as well as internationally, differences in the health and life expectancy of men and women have been reported. Despite increases in life expectancy over the past few decades, men tend to be at higher risk from major diseases, mainly due to modifiable behavioural factors such as poor diet, high consumption of alcohol and smoking. While there is an abundance of data on men and women's food intake and dietary patterns, few studies have exclusively examined men's attitudes and behaviours in relation to food and health.

Studies investigating men's food practices point to the influence of various socio-cultural factors, such as the role of masculinity in shaping men's health behaviours, as well as environmental influences, including media portrayals of men and women in relation to food and health, education and training in food safety and nutrition, and the availability of dedicated weight management solutions (Figure 11).

Currently on the IOI, gender differences are apparent in men's and women's perceptions of food and health. Even though more men than women are overweight or obese, men tend to be less concerned about their health and nutrition and less likely to try to make changes to their behaviour. Men also tend to have poorer food hygiene practices and lower food safety knowledge and are, in general, less concerned with the consequences of risky food behaviour.

Our findings in relation to men's food behaviour corresponds with findings from other studies on the IOI and internationally in highlighting the effects of socio-cultural and environmental influences on men's food-related behaviour. In order to increase their food involvement, men on the IOI tend to have to overcome traditional gender stereotypes, a lack of knowledge and skills in food preparation, a lack of confidence and a negative perception of their own ability, as well as the influence of advertising and career and lifestyle commitments.

The majority of the men in our study tended to have limited food responsibilities at home and were happy to allow their partner/wife take ownership of the process. As a result, their involvement was mainly confined to the role of 'helper', accompanied by instruction and supervision from their partner/wife.

It is important to note that the authors acknowledge that men and women experience different influences and motivations with respect to their knowledge, attitudes and behaviours towards food and health. As such, the purpose of this report is not compare men with women or to encourage men to model women in

relation to their food and health behaviour. Rather, the goal is to provide recommendations, to inform those working with men and/or in the area of men's health so that effective messages, interventions and services can be developed. These may then provide men with greater knowledge, skills and support in relation to food safety and healthy eating, thus encouraging them to take responsibility for their own health, and ensuring that they are not left vulnerable in this regard.

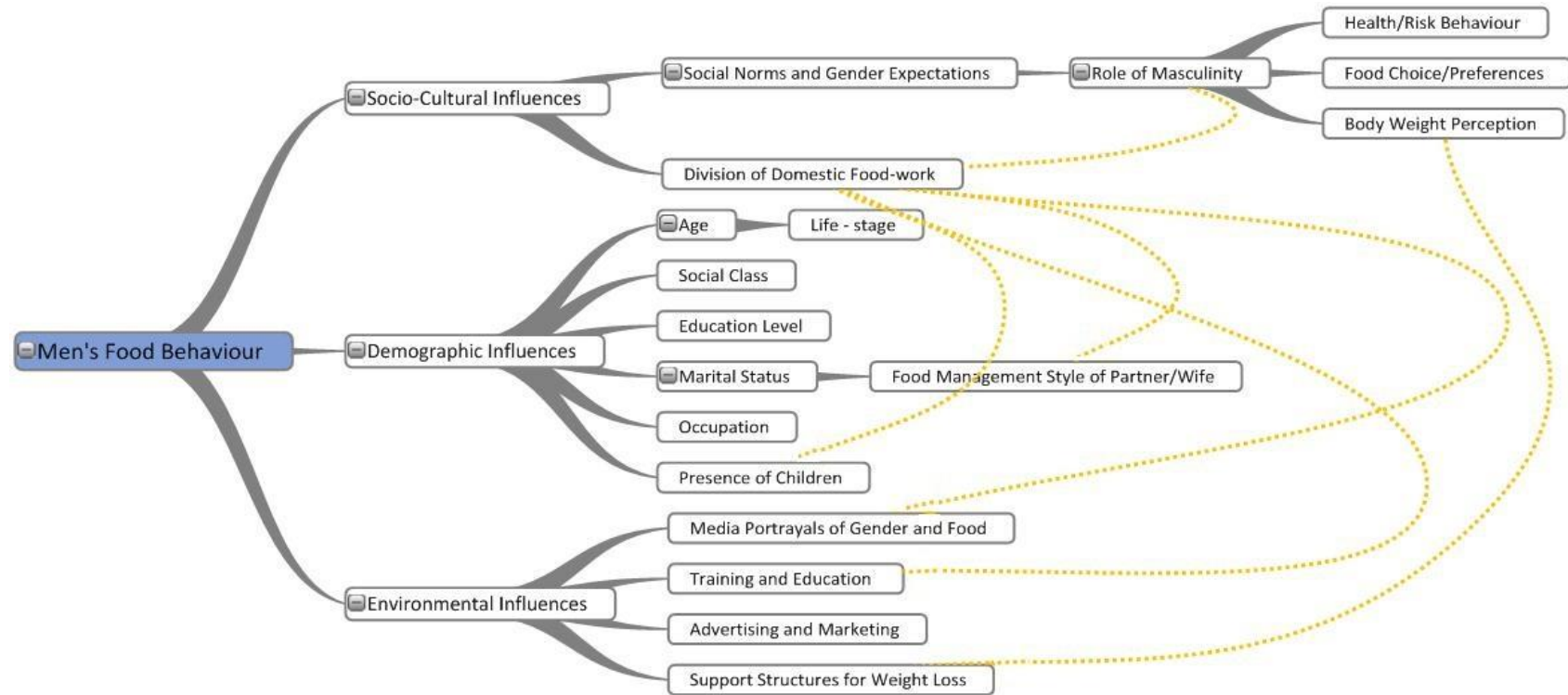
#### **6.1.1 Implications for health promotion and communication**

Our findings reveal that there are opportunities to target men at certain transition stages throughout their lives, such as moving out of the family home, moving in with a partner, having children, etc., when they may be more receptive to health promotion messages and behaviour change.

#### **6.1.2 Implications for research**

The findings point to the importance of the influence of women in men's food-related behaviour. The research shows that women's food management styles in the household can act as an encouragement or a barrier to increasing men's food involvement. There is a need for further research in this area in order to establish the role of women and their food behaviour in relation to men's domestic food involvement and food and health behaviour.

Figure 11 - Mind map of the influences on men's food safety and nutrition behaviour



## 6.2 Recommendations

### 6.2.1 Recommendations for policymakers and service providers

| Policy/Service Area      | Significance   | Recommendation  |
|--------------------------|--|---|
| Home economics education | Home economics courses at school are a major source of learning about nutrition, health and food safety for many students, in particular boys, who may not traditionally learn such skills at home               | Policymakers in the ROI should closely monitor the impact of making home economics compulsory in NI (up to key stage 3) in order to evaluate the effectiveness of such measures in improving the uptake of this course, particularly among boys. Measures should also be taken to examine whether this initiative will result in improved knowledge and skills among participants |
| Men's health services    | Health services need to account for differences between men as well as differences between men and women in the design, delivery and evaluation of their services  | Services tailored to men, such as the Men's Shed Movement, should place a greater importance on the link between diet and health as well as provide members with the information and skills needed to increase their involvement with food  |
| Gateways to health       | Some men may not have been traditionally encouraged to develop food and nutrition skills or may not seek information and resources in this area, and so it is important to target them through alternative means | Initiatives such as sports clubs can be used as a gateway to introduce men to healthy eating and lifestyle behaviour change. Services such as the Community Food Initiatives have been shown to engage men through an interest in food production, which can then be utilised as a platform for developing other food-related skills such as healthy eating and food safety       |

### 6.2.2 Recommendations for intervention/communication with men

| Communication Area   | Significance   | Recommendation  |
|--|--|---|
| Food education and training                                      | Findings revealed lack of education and training as a key barrier in men's domestic food involvement<br><br>Home economics courses at school are seen as a major source of learning about food and nutrition. However, the data show significantly lower participation levels among boys | Further research is needed to examine the factors influencing boys' participation in home economics courses, with a view to making such courses more attractive to boys and increasing participation levels   |
| Increase confidence among men in relation to food related skills | Men's lack of confidence in their own abilities and skills acts as a barrier in their increased food involvement and ownership   | Interventions are needed to specifically target men in order to improve their food related skills and knowledge and improve their confidence levels<br><br>That many men may be operating with no few culinary skills beyond what they currently do should be taken in account, and so interventions need to be specific to each group/segment's circumstances in order to achieve best results |
| Opportunities for communication                                  | Findings identified various transition periods during men's lives, such as moving out of the family home or the arrival of children, which resulted in an increased focus on health and therefore increased the acceptance of health and nutrition messages                              | In order to achieve maximum impact, health promotion and food and nutrition communication should be delivered during these trigger points (e.g., student packs or basic meal recipes, family-friendly or new-parent guidance, etc.)   |
| Targeted communication strategies                                | Men should not be treated as a homogenous group, and variations in socio-demographics as well as knowledge and skills levels should be taken into account when communicating food and health messages to them  | Communication strategies should be targeted to men's specific circumstances and food involvement levels, with the aim of creating tailored advice, which may be more effective in achieving behaviour change.   |

**6.2.3 Research recommendations**

| Research Area  | Description/significance  | Recommendation   |
|--|---|--|
| Role of masculinity and socio-cultural gender expectations on shaping men's food-related behaviour and practices   | <p>Masculinity, and in particular dominant masculinity, has been associated with risk-taking behaviours and a reluctance to engage with health.</p> <p>While there is evidence in the literature of the impact of masculinity on men's food behaviour, there has been no sustained analyses of changes in the ideology, or much understanding of how gender and food operate together to shape consumer's lives.</p> <p>Studies of food and gender have generally focused on women's experiences, and studies of men's lived experiences with food are still quite rare</p>   | <p>Further research is needed to investigate the effect of masculinity, specifically in shaping men's food-related behaviour, while acknowledging their social diversity</p> <p>It is important that men are not treated as a homogenous group and that variations between them are taken into account when examining the role of masculinity on their behaviours.</p> |
| Data on gender differences in day-to-day food safety practices is limited on the IOI. Much of the research on men's food safety behaviours on the IOI focuses on knowledge, attitudes and perceptions of food safety issues rather than actual practices | A better understanding of men's actual level of knowledge and involvement may result in better interventions and more effective behaviour change  | Further quantitative and qualitative studies, with a specific focus on reporting men's food safety-related behaviour in order to develop effective interventions, are needed. These studies should be cognisant of gender differences and build this into the study design and reporting   |
| Misperception of body weight and desirability of bigger body frames among men.   | <p>Contrary to data on overweight and obesity levels on the IOI, men tend to report higher satisfaction with their body weight and are less likely to attempt to change their weight. When focusing on weight control, men tend to perceive sports and exercise as more relevant to health compared to diet and nutrition</p> <p>Such body weight misconceptions may act as a barrier to weight management interventions. In addition, men's tendency to favour sports participation and physical activity over dietary control may negatively affect their weight management efforts as they progress through life and decrease their sports participation due to various family, career and life-stage influences</p> | <p>Studies to investigate effective methods/interventions to promote realistic body weight perception among men</p> <p>Research on how to best communicate and motivate men to consider food and diet as means of improving health and not just exercise</p>   |

### 6.2.1 Research Recommendations *Continued*

| Research Area  | Description/significance  | Recommendation  |
|--|---|---|
| Review of men's weight management services on the IOI                            | <p>Men tend to associate diet and weight management with femininity and are less likely to participate in organised weight management/loss groups.</p> <p>Recent evidence has revealed that there are very few long-term interventions for reducing obesity which focus solely on men. In addition, only a few studies tailored their intervention delivery with men in mind</p>  | Further research is needed to investigate men's attitudes to weight management services/interventions on the IOI, with a particular focus on the mode of delivery (group, email, telephone, etc.) and the success rate of interventions, in order to design effective weight management services for men              |
| Focus on men's domestic food behaviour   | <p>Although men have become more involved in family food-work and have taken on more responsibility in recent years, there has not been a corresponding reduction in women's food involvement, suggesting that men's involvement tends to be accompanied by guidance and supervision from partners/wives</p>  | <p>More research is needed on men's domestic food behaviour and level of involvement in family-food decisions.</p> <p>In particular, attention should be paid to the practices of those men who bear significant food responsibility</p>  |
| Significance of women's food behaviour and its influence on men's food practices | <p>Investigations of division of domestic labour, in particular in relation to food-work have revealed that women may be reluctant to give up their role as the food decision-maker in the family</p> <p>Women tend to perceive this role as more than food provision, and rather as a means of looking after the family's health and caring for loved ones, and so may be reluctant to give up this aspect of their identity.</p> <p>In addition, women have reported doubts about men's ability to successfully perform this task and meet their exacting standards</p> | Research is needed to investigate the impact of women's influence and food management style on men's level of food involvement and practices, with the aim of providing recommendations on how to increase men's domestic food involvement as well as improve their confidence and ownership of family food decisions |

# 7

## References

1. Wardle J, Haase AM, Steptoe A, Nillapun M, Jonwutiwes K, Bellisle F. Gender differences in food choice: the contribution of health beliefs and dieting. *Ann Behav Med*. 2004;27(2):107-16. Epub 2004/04/01.
2. *safe*food. Consumer Focused Review: Food Behaviours on the island of Ireland. Dublin: *safe*food, 2012 6 June 2012.
3. Moynihan C. Theories in health care and research: theories of masculinity. *BMJ*. 1998;317(7165):1072-5. Epub 1998/10/17.
4. Courtenay WH. Constructions of masculinity and their influence on men's well-being: a theory of gender and health. *Social Science and Medicine*. 2000;50(10):1385-401.
5. White A, Cash K. The state of men's health across seventeen European countries. 2004.
6. White A, McKee M, Richardson N, Visser R, Madsen SA, Sousa BC, et al. Europe's men need their own health strategy. *BMJ*. 2011;343:d7397. Epub 2011/12/01.
7. Horrocks R. *Masculinity in Crisis*. London: Macmillan; 1994.
8. Department of Health and Childen. National Men's Health Policy 2008-2013. Dublin: DOHC., 2008.
9. World Health Organisation. World Health Statistics, 2011 Last accessed 19/02/2014. Available from: <http://www.who.int/whosis/whostat/2011/en/>.
10. Central Statistics Office. Women and Men in Ireland. Dublin: 2011.
11. Central Statistics Office. Irish Life Tables No. 15. Dublin, Ireland: CSO, 2009.
12. Office for National Statistics. Focus on Gender. 2004.
13. Cancer Research UK. Cancer mortality for all cancers combined, 2011 last accessed on 18/02/2014. Available from: <http://www.cancerresearchuk.org/cancer-info/cancerstats/mortality/all-cancers-combined/#source1>.
14. Clarke N, Sharp L, O'Leary E, Richardson N. A report on the excess burden of cancer among men in the Republic of Ireland. Ireland: The Centre for Men's Health, Institute of Technology Carlow, 2013.
15. Bilsker D, Goldenberg L, Davison J. A Roadmap to Men's Health: Current Status, Research, Policy and Practice. Men's Health Initiative of British Columbia, 2010.
16. Evans J, Frank B, Oliffe J, Gregory D. Health, Illness, Men and Masculinities (HIMM): A Theoretical Framework for Understanding Men and Their Health. *Journal of Men's Health*. 2011;8(1):7-15.
17. Statistics Canada. Age-standardised mortality rated by selected causes, by sex, 2007. Last accessed 18/02/2014. Available from: <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/health30c-eng.htm>.
18. Balanda K, Wilde J. Inequalities in Mortality 1989-1998. Institute of Public Health Ireland, 2001.

19. Richardson N, Clarke N, Fowler C. Young Men and Suicide Project: A Report on the All-Ireland Young Men and Suicide Project. Ireland: Men's Health Forum Ireland, 2013.
20. Corcoran P, Reilly M, Salim A, Brennan A, Keeley H, Perry I. Temporal variation in Irish suicide rates. *Suicide and Life-Threatening Behavior*. 2004;34(4):429-38.
21. Richardson N. Getting inside men's health. Ireland: South Eastern Health Board, Department HP; 2004.
22. Addis ME, Mahalik JR. Men, masculinity and the contexts of help seeking. *American Psychologist*. 2003;58(1):5-14.
23. White AK, Johnson M. Men making sense of their chest pain – niggles, doubts and denials. *J Clin Nurs*. 2000;9(4):534-41. Epub 2001/03/23.
24. Kennedy J, Jackson V, Cowan, C., , Blair I, McDowell D, Bolton D. Consumer food safety knowledge: segmentation of Irish home food preparers based on food safety knowledge and practice. *British Food Journal*. 2005;107(7):441-52.
25. Kennedy J, Jackson V, Blair IS, McDowell DA, Cowan C, Bolton DJ. Food safety knowledge of consumers and the microbiological and temperature status of their refrigerators. *Journal of Food Protection*. 2005;68:1421-30.
26. McCarthy M, Brennan M, Kelly AL, Ritson C, de Boer M, Thompson N. Who is at risk and what do they know? Segmenting a population on their food safety knowledge. *Food Quality and Preference*. 2007;18:205-17.
27. Sanlier N. The knowledge and practice of food safety by young and adult consumers. *Food Control*. 2009;20:538-42.
28. Rimal A, Fletcher SM, McWatters KH, Misra SK, Deodhar S. Perception of food safety and changes in food consumption habits: A consumer analysis. *International Journal of Consumer Studies*. 2001;25(1):43-52.
29. Bruhn CM, Schutz HG. Consumer food safety knowledge and practices. *Journal of Food Safety*. 1999;19:73-87.
30. Unusan N. Consumer food safety knowledge and practices in the home in Turkey. *Food Control*. 2007;18(1):45-51.
31. Dosman DM, Adamowicz WL, Hruddy SE. Socioeconomic determinants of health- and food safety-related risk perceptions. *Risk Analysis*. 2001;21(2):307-18.
32. Health Protection Surveillance Centre. Data on Gastroenteric Infectious Diseases. HSE; [25/02/2014]; Available from: <http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/>.
33. Public Health Agency. Gastrointestinal Infections. [25/02/2014]; Available from: <http://www.publichealth.hscni.net/directorate-public-health/health-protection/gastrointestinal-infections>.
34. Breadsworth A, Bryman A, Keil T, Goode J, Haslam C, Lancashire E. Women, men and food: The significance of gender for nutritional attitudes and choices. *British Food Journal*. 2002;104(7):470-91.
35. *safe*food. Consumer Focused Review of the Fruit and Vegetable Supply Chain 2012. 2013.
36. Department of Health Social Services and Public Safety. Health Survey Northern Ireland: First results from the 2010/2011 Survey 2011; Available from: [http://www.dhsspsni.gov.uk/health\\_survey\\_northern\\_ireland\\_-\\_first\\_results\\_from\\_the\\_2010-11\\_survey.pdf](http://www.dhsspsni.gov.uk/health_survey_northern_ireland_-_first_results_from_the_2010-11_survey.pdf).
37. Irish Universities Nutrition Alliance. National Adult Nutrition Survey. 2011.

38. *safe*food. North/South Ireland Food Consumption Survey. *safe*food; 2001.
39. Northern Ireland Statistics and Research Agency. Northern Ireland Health and Social Wellbeing Survey 2005/2006. Belfast Central Survey Unit, Department of Health, Social Services and Public Safety. , 2007.
40. Bates B., Lennox A., Bates C., Swan G. National Diet and Nutrition Survey Headline results from Years 1, 2 and 3 (combined) of the Rolling Programme (2008/2009 – 2010/11) [Online]. 2012; Available from: [http://www.natcen.ac.uk/media/978078/ndns-y3-report\\_all-text-docs-combined.pdf](http://www.natcen.ac.uk/media/978078/ndns-y3-report_all-text-docs-combined.pdf).
41. Rohrmann S, Overvad K, Bueno-de-Mesquita H, Jakobsen M, Egeberg R, Tjønneland A, et al. Meat consumption and mortality – results from the European Prospective Investigation into Cancer and Nutrition. *BMC medicine*. 2013;11(1):63.
42. World Health Organisation. Obesity and Overweight. 2012 [cited 2012 26th October]; Available from: <http://www.who.int/mediacentre/factsheets/fs311/en/>.
43. *safe*food. Bodyweight Perception on the island of Ireland. Ireland: *safe*food, 2012.
44. Irish Universities Nutrition Alliance (IUNA). The National Teens Food Survey. 2008 [20 August 2012]; Available from: <http://www.iuna.net/?p=29>.
45. Hudson CE, Cherry DJ, Ratcliffe SJ, McClellan LC. Head Start children's lifestyle behaviors, parental perceptions of weight, and body mass index. *J Pediatr Nurs*. 2009;24(4):292-301. Epub 2009/07/28.
46. Department of Health Social Services and Public Safety. Health Survey of Northern Ireland – 2012/13. 2014.
47. Connell RW. Masculinities. Sydney: Allen & Unwin; 1995.
48. Connell RW, Messerschmidt JW. Hegemonic Masculinity: Rethinking the Concept. *Gender & Society*. 2005;19(6):829-59.
49. Sloan C, Gough B, Conner M. Healthy masculinities? How ostensibly healthy men talk about lifestyle, health and gender. *Psychology & Health*. 2009;25(7):783-803.
50. Lee C, Owens RG. Issues for a Psychology of Men's Health. *Journal of Health Psychology*. 2002;7(3):209-17.
51. Gough B. Try to be healthy, but don't forgo your masculinity: Deconstructing men's health discourse in the media. *Social Science & Medicine*. 2006;63:2476-88.
52. Connell RW. The Men and the Boys. Sydney: Allyn & Unwin; 2000.
53. World Health Organisation. What about boys? a literature review on the health and development of adolescent boys. 2000 WHO/FCH/CAH/00.7.
54. Ratner PA, Bottorff JL, Johnson JL, Hayduk LA. The interaction effects of gender within the health promotion model. *Research in Nursing & Health*. 1994;17(5):341-50.
55. Bottorff JL, Oliffe J, Kalaw C, Carey J, Mroz L. Men's constructions of smoking in the context of women's tobacco reduction during pregnancy and postpartum. *Soc Sci Med*. 2006;62(12):3096-108. Epub 2006/01/18.
56. Oliffe J. Health Behaviors, Prostate Cancer, and Masculinities: A Life Course Perspective. *Men and Masculinities*. 2009;11(3):346-66.
57. Oliffe J, Grewal S, Bottorff JL, Dhesei J, Bindy H, Kang K, et al. Masculinities, diet and senior Punjabi Sikh immigrant men: food for Western thought? *Sociology of Health & Illness*. 2010;32(5):761-76.

58. Oliffe J, Bottorff JL, Johnson J, Kelly M, Lebeau K. Fathers: locating smoking and masculinity in the postpartum. *Qualitative Health Research*. 2010;20(3):330-9.
59. Mahalik JR, Burns SM, Syzdek M. Masculinity and perceived normative health behaviours as predictors of men's health behaviours. *Social Science & Medicine*. 2007;64:2201-9.
60. O'Brien R, Hunt K, Hart G. 'It's caveman stuff, but that is to a certain extent how guys still operate': men's accounts of masculinity and help seeking. *Soc Sci Med*. 2005;61(3):503-16. Epub 2005/05/19.
61. Galdas PM, Cheater F, Marshall P. Men and health help-seeking behaviour: Literature review. *Journal of Advanced Nursing*. 2005;49(6):616-23.
62. Petersen A. *Unmasking the Masculine: 'Men' and 'Identity' in a Sceptical Age*: SAGE Publications; 1998.
63. Baker P. The International Men's Health Movement. *British Medical Journal*. 2001;323(7320):1014-5.
64. Johnson B. Deriving Trends in Life Expectancy by the National Statistics Socio-economic Classification using the ONS Longitudinal Study. Office for National Statistics, 2011.
65. White A. *The State of Men's Health in Europe*. European Commission, 2011.
66. Good GE, Borst TS. Masculinity research: A review and critique. *Applied and Preventive Psychology* 1994;3:3-14.
67. Kimmel M. *Manhood in America: A cultural history*. New York: NY: Free Press; 1996.
68. Oliffe J. Embodied Masculinity and Androgen Deprivation Therapy. *Sociology of Health & Illness*. 2006;28(4):410-32.
69. Arber S, Davidson K, Ginn J. *Gender and Aging: Changing Roles and Relationships*: McGraw-Hill International; 2003.
70. Pease B. *Men and Gender Relations*. Croydon, Vic: Tertiary Press; 2002.
71. Marshall VW, Clarke PJ, Ballantyne PJ. Instability in the Retirement Transition: Effects on Health and Well-Being in a Canadian Study. *Research on Aging*. 2001;23(4):379-409.
72. Calasanti T, King N. Firming the Floppy Penis: Age, Class, and Gender Relations in the Lives of Old Men. *Men and Masculinities*. 2005;8(1):3-23.
73. Riska E. From Type A man to the hardy man: masculinity and health. *Sociology of Health & Illness*. 2002;24(3):347-58.
74. Julier A, Lindenfeld L. Mapping Men onto the Menu: Masculinities and Food. *Food and Foodways*. 2005;13:1-16.
75. Gough B, Conner MT. Barriers to healthy eating amongst men: A qualitative analysis. *Social Science & Medicine*. 2006;62:387-95.
76. Melanson KJ. Promoting Nutrition for Men's Health. *American Journal of Lifestyle Medicine*. 2008;2(6):488-91.
77. Newcombe MA, McCarthy MB, Cronin JM, McCarthy SN. "Eat like a man". A social constructionist analysis of the role of food in men's lives. *Appetite*. 2012;59(2):391-8.
78. Williams J, Best D. *Measuring sex stereotypes: A multinational study*. Newbury Park, CA.: SAGE Publications; 1990.
79. Fausto-Sterling A. *The myths of gender: biological theories about women and men*. New York: NY: Basic Books; 1992.

80. Alexander S. Stylish hard bodies: Branded masculinities in men's health magazine. *Sociological Perspectives*. 2003;46(4):535-54.
81. Danziger K. The Varieties of Social Construction. *Theory & Psychology*. 1997;7(3):399-416.
82. Vannini P. Snacking as ritual. In: Rubin LC, editor. *Food for thought Essays on eating and culture*. North Carolina: McFarland; 2008:237-47.
83. Crawford M. *Talking Difference: On Gender and Language*. Thousand Oakes, CA: SAGE; 1995.
84. Murcott A. On the social significance of the cooked dinner in South Wales. *Social Science Information*. 1982;21(4/5):677-96.
85. Caplan P. Concepts of Healthy Eating: A Comparative Anthropological Investigation. In: Murcott A, Keane A, editors. *The Nation's Diet: The Social Science of Food Choice*. London: Longman; 1998. p. 168-82.
86. Charles N, Kerr M. *Women, food and families*. Manchester: Manchester University Press; 1988.
87. DeVault M. *Feeding the Family: The Social Organisation of Caring as Gendered Work (Women in Culture and Society)*: University of Chicago Press; 1991.
88. Counihan CM. *The Anthropology of Food and Body: Gender, Meaning and Power*. New York: Routledge; 1999.
89. O'Doherty Jensen K, Holm L. Preferences, quantities and concerns: socio-cultural perspectives on the gendered consumption of foods. *Eur J Clin Nutr*. 1999;53(5):351-9. Epub 1999/06/16.
90. Orbuch TL. People's accounts count: The sociology of accounts. *Sociology*. 1997;23:455-78.
91. McIntosh A, Zey M. Women as gatekeepers of food consumption: A sociological critique. *Food and Foodways*. 1989;3(4):317-32.
92. Messerschmidt JW. Becoming "Real Men": Adolescent Masculinity Challenges and Sexual Violence. *Men and Masculinities*. 2000;2(3):286-307.
93. Sobal J. Men, meat, marriage: Models of masculinity. *Food and Foodway*. 2005;13(1-2):135-58.
94. Messner M. *Power at Play: Sports and the Problem of Masculinity*. Boston Beacon Press; 1995.
95. McCaughey M. Fleshing out the discomforts of femininity: The parallel cases of female anorexia and male compulsive bodybuilding. In: Sobal J, Maurer D, editors. *Interpreting Weight: Fatness and Thinness as Social Problems*. Hawthorne, NY: Aldine de Gruyter; 1999.
96. Roos G, Prattala R, Koski K. Men, masculinity and food: Interviews with Finnish carpenters and engineers. *Appetite*. 2001;37:47-56.
97. Bove CF, Sobal J, Rauschenbach BS. Food choices among newly married couples: convergence, conflict, individualism, and projects. *Appetite*. 2003;40(1):25-41. Epub 2003/03/13.
98. Julier AP. *Feeding Friends and Others: Boundaries of Intimacy and Distance in Sociable Meals*: University of Massachusetts at Amherst; 2002.
99. Paisley J, Sheeshka J, Daly K. Qualitative investigation of the meanings of eating fruits and vegetables for adult couples. *J Nutr Educ*. 2001;33(4):199-207. Epub 2002/04/16.
100. Lake AA, Hyland RM, Mathers JC, Rugg-Gunn AJ, Wood CE, Adamson AJ. Food shopping and preparation among the 30-somethings: Whose job is it? *British Food Journal*. 2006;108(6):475-86.
101. Adams C. The sexual politics of meat. In: Jaggar AM, editor. *Living with Contradictions: Controversies in Feminist Social Ethics*. Boulder, CO: Westview Press; 1994.

102. Bourdieu P. *Distinction: A social critique of the judgement of taste*. illustrated, reprint ed. London: Routledge & Kegan Paul; 1989.
103. Zellner DA, Garriga-Trillo A, Rohm E, Centeno S, Parker S. Food Liking and Craving: A Cross-cultural Approach. *Appetite*. 1999;33(1):61-70.
104. Jansen W. Gender identity and the rituals of food in a Jordanian community. *Food and Foodways*. 1997;7(2):87-117.
105. Fiddes N. *Meat: A natural symbol*: Taylor & Francis; 2004.
106. Holm L, Mohl M. The role of meat in everyday food culture: an analysis of an interview study in Copenhagen. *Appetite*. 2000;34(3):277-83. Epub 2000/07/11.
107. Charles N, Kerr M. Issues of Responsibility and Control in the Feeding of Families. In: Rodmell S, Wyatt A, editors. *The Politics of Health Education: Raising the Issues*. London: Routledge & Kegan Paul; 1986.
108. Rothgerber H. Real Men Don't Eat (Vegetable) Quiche: Masculinity and the Justification of Meat Consumption. *Psychology of Men and Masculinity*. 2012;14(4):363-75.
109. Douglas M. *Cultural bias*. London: Royal Anthropological Institute of Great Britain and Ireland; 1978.
110. Murcott A. Cooking and the cooked: a note on the domestic preparation of meals. In: Murcott A, editor. *The Sociology of Food and Eating*. Gower: Aldershot; 1983.
111. Murcott A. *The Nation's Diet: The Social Science of Food Choice*. UK: Longman Ltd; 1998.
112. Brown JL, Miller D. Gender role preference and family food chores. *J Nutr Educ Behav*. 2002;34(2):100-8. Epub 2002/06/06.
113. Douglas M. Deciphering a meal. *Daedalus*. 1972;101(1):61-81.
114. Douglas M, Nicod M. Taking the Biscuit: The Structure of British Meals. *New Society*. 1974;December:744-7.
115. Marshall DW, Anderson AS. Proper meals in transition: young married couples on the nature of eating together. *Appetite*. 2002;39(3):193-206. Epub 2002/12/24.
116. Gvion-Rosenberg L. Why do vegetarian restaurants serve hamburgers? Toward an understanding of a cuisine. *Semiotica*. 1990;80:61-80.
117. Rappoport L, Peters GR, Downey R, McCann T, Huff-Corzine L. Gender and Age Differences in Food Cognition. *Appetite*. 1993;20(1):33-52.
118. Fagerli RA, Wandel M. Gender differences in opinions and practices with regard to a healthy diet. *Appetite*. 1999;32:171-90.
119. Cameron E, Bernardes J. Gender and Disadvantage in Health: Men's Health for a Change. *Sociology of Health & Illness*. 1998;20(5):673-93.
120. Walker C. Meet the New Vegetarian. *American Demographics*. 1995;17(1):9.
121. Mooney K, Lorenz E. The Effects of Food and Gender on Interpersonal Perceptions. *Sex Roles*. 1997;36(9-10):639-53.
122. Ruby MB, Heine SJ. Meat, morals, and masculinity. *Appetite*. 2011;56(2):447-50. Epub 2011/01/25.
123. Barker ME, Tandy M, Stookey JD. How are consumers of low-fat and high-fat diets perceived by those with lower and higher fat intake? *Appetite*. 1999;33(3):309-17. Epub 2000/01/08.

124. Oakes M, Slotterback C. Prejudgments of those who eat a “healthy” versus an “unhealthy” food for breakfast. *Curr Psychol*. 2004;23(4):267-78.
125. Parasecoli F. Feeding Hard Bodies: Food and Masculinities in Men's Fitness Magazines. *Food and Foodway*. 2005;13:17-37.
126. Kiefer I, Leitner B, Bauer R, Rieder A. Body weight: the male and female perception. *Soz Präventivmed*. 2000;45(6):274-8. Epub 2001/02/24.
127. Kiefer I, Rathmanner T, Kunze M. Eating and dieting differences in men and women. *Journal of Men's Health and Gender*. 2005;2(2):194-201.
128. Davis C, Elliott S, Dionne M, Mitchell I. The relationship of personality factors and physical activity to body satisfaction in men. *Personality and Individual Differences*. 1991;12(7):689-94.
129. Leit RA, Gray JJ, Pope HG, Jr. The media's representation of the ideal male body: a cause for muscle dysmorphia? *Int J Eat Disord*. 2002;31(3):334-8. Epub 2002/03/29.
130. Morgan JF, Arcelus J. Body image in gay and straight men: a qualitative study. *Eur Eat Disord Rev*. 2009;17(6):435-43. Epub 2009/08/01.
131. White P, Gillett J. Reading the Muscular Body: A Critical Decoding of Advertisements in Flex Magazine. *Sociology of Sport Journal*. 1994;11(1):18-39.
132. McCabe MP, McGreevy SJ. Role of media and peers on body change strategies among adult men: Is body size important? *Eur Eat Disord Rev*. 2011;19:438-46.
133. McCarthy MaR, N. . Report on best practice approaches to tailoring lifestyle interventions for obese men in the primary care setting. Ireland: Institute of Technology, Carlow, 2011.
134. Brannon L. *Gender: Psychological Perspectives*. 2 ed. Boston, MA: Allyn & Bacon; 1999.
135. de Souza P, Ciclitira KE. Men and Dieting: A Qualitative Analysis. *Journal of Health Psychology*. 2005;10(6):793-804.
136. Jeffery RW, Adlis SA, Forster JL. Prevalence of dieting among working men and women: the healthy worker project. *Health Psychol*. 1991;10(4):274-81. Epub 1991/01/01.
137. Pagoto SL, Schneider KL, Oleski JL, Luciani JM, Bodenlos JS, Whited MC. Male inclusion in randomized controlled trials of lifestyle weight loss interventions. *Obesity (Silver Spring)*. 2012;20(6):1234-9. Epub 2011/06/03.
138. Robertson C, Archibald D, Avenell A, Douglas F, Hoddinott P, van Teijlingen E, et al. Systematic Review and Integrated Report on the Quantitative, Qualitative and Economic Evidence Base for the Management of Obesity in Men. 2014.
139. McFarlane G, Rennie J. Appendix 2: The Bloke's Weight – Men's Weight Management Group Arbroath, March-May 2006. Angus Weight Management Project, 2006.
140. Salisbury J, Hallam Spencer C, Wiggins J, Du Plessis J, Mullins GL. Weight Loss Results for 2200 male patients with a BMI >29kg/m<sup>2</sup> following the LigherLife Programme. *Obes Facts*. 2009;2(Suppl.2):246.
141. Witty K, White A. The Tackling Men's Health Evaluation Study: Final Report. Leeds Metropolitan University Centre for Men's Health [http://www.leedsmet.ac.uk/hss/docs/Tackling\\_Men\\_Health\\_Final\\_Report.pdf](http://www.leedsmet.ac.uk/hss/docs/Tackling_Men_Health_Final_Report.pdf), 2010.
142. Brady AJ, Perry C, Murdoch DL, McKay G. Sustained benefits of a health project for middle-aged football supporters, at Glasgow Celtic and Glasgow Rangers Football Clubs. *Eur Heart J*. 2010;31(24):2696-8. Epub 2010/12/31.

143. Department of Health and Leeds Metropolitan University. 'Tackling men's health'. Men only weight management group: NHS Leeds and Leeds Rhinos, 2010 Season. Leeds: Public Health and Social Care Group Yorkshire and the Humber and NHS Leeds, 2010.
144. Gray C, Hunt K, Mutrie N, Anderson A, Treweek S, Wyke S. Can the draw of professional football clubs help promote weight loss in overweight and obese men? A feasibility study of the Football Fans in Training programme delivered through the Scottish Premier League. *Journal of Epidemiology and Community Health*. 2011;65(Suppl 2):A37-A8.
145. Gray CM, Anderson AS, Clarke AM, Dalziel A, Hunt K, Leishman J, et al. Addressing male obesity: An evaluation of a group-based weight management intervention for Scottish men. *Journal of Men's Health*. 2009;6(1):70-81.
146. Poulter J, Raine G, Robertson S. Evaluation of a gender-segregated commercial community based weight management pilot. *Obes Facts*. 2012;5:67.
147. Bye C, Avery A, Lavin J. Tackling obesity in men -- preliminary evaluation of men-only groups within a commercial slimming organization. *J Hum Nutr Diet*. 2005;18(5):391-4. Epub 2005/09/10.
148. Drummond S, Dixon K, Griffin J, De Looy A. Weight loss on an energy-restricted, low-fat, sugar-containing diet in overweight sedentary men. *Int J Food Sci Nutr*. 2004;55(4):279-90. Epub 2004/09/17.
149. Leslie WL, MEJ.; Baillie, HM.; et al. . Weight Management: A Comparison of Existing Dietary Approaches in a Work-Site Setting *International Journal of Obesity* 2002;26(11):1469-75.
150. Ross H, Laws R, Lean M. Evaluation of the Counterweight Programme for Obesity Management in Primary Care: A Starting Point for Continuous Improvement. *British Journal of General Practice*. 2008;58(553):548-54.
151. Stubbs RJ, Pallister C, Whybrow S, Avery A, Lavin J. Weight outcomes audit for 34,271 adults referred to a primary care/commercial weight management partnership scheme. *Obes Facts*. 2011;4(2):113-20. Epub 2011/05/18.
152. Ahern AL, Olson AD, Aston LM, Jebb S. Weight Watchers on prescription: An observational study of weight change among adults referred to Weight Watchers by the NHS. *BMC Public Health*. 2011;11:434.
153. Dixon KJ, Shcherba S, Kipping RR. Weight loss from three commercial providers of NHS primary care slimming on referral in North Somerset: service evaluation. *J Public Health (Oxf)*. 2012;34(4):555-61. Epub 2012/05/23.
154. Evans S. Primary care weight management in Hertfordshire using ProHealth Clinical. available online [http://nhfshare.heartforum.org.uk/RMAssets/OLC\\_Resources/EastEngland/2740\\_EE.pdf](http://nhfshare.heartforum.org.uk/RMAssets/OLC_Resources/EastEngland/2740_EE.pdf): 2011.
155. Johnson F, Wardle J. The association between weight loss and engagement with a web-based food and exercise diary in a commercial weight loss programme: a retrospective analysis. *Int J Behav Nutr Phys Act*. 2011;8:83. Epub 2011/08/04.
156. Pavlou KN, Krey S, Steffee WP. Exercise as an adjunct to weight loss and maintenance in moderately obese subjects. *Am J Clin Nutr*. 1989;49:1115-23.
157. Volpe SL, Kobusingye H, Bailor S, Stanek E. Effect of diet and exercise on body composition, energy intake and leptin levels in overweight women and men. *J Am Coll Nutr*. 2008;27(2):195-208. Epub 2008/08/12.
158. Wood PD, Stefanick ML, Dreon DM, Frey-Hewitt B, Garay SC, Williams PT, et al. Changes in plasma lipids and lipoproteins in overweight men during weight loss through dieting as compared with exercise. *N Engl J Med*. 1988;319(18):1173-9. Epub 1988/11/03.

159. Stubbs RJ, Brogelli DJ, Pallister CJ, Whybrow S, Avery AJ, Lavin JH. Attendance and weight outcomes in 4754 adults referred over 6 months to a primary care/commercial weight management partnership scheme. *Clinical Obesity*. 2012;2(1-2):6-14.
160. Jolly K, Lewis A, Beach J, Denley J, Adab P, Deeks JJ, et al. Comparison of range of commercial or primary care led weight reduction programmes with minimal intervention control for weight loss in obesity: Lighten Up randomised controlled trial. *BMJ*. 2011;343.
161. Sabinsky MS, Toft U, Raben A, Holm L. Overweight men's motivations and perceived barriers towards weight loss. *Eur J Clin Nutr*. 2007;61(4):526-31. Epub 2006/09/22.
162. White A, Conrad D, Branney P. Targeting men's weight in the workplace. *Journal of Men's Health*. 2008;5(2):133-40.
163. Beagan B, Chapman GE, D'Sylva A, Bassett BR. 'It's Just Easier for Me to Do It': Rationalizing the Family Division of Foodwork. *Sociology*. 2008;42(4):653-71.
164. Bugge AB, Almås R. Domestic dinner: Representations and practices of a proper meal among young suburban mothers. *Journal of Consumer Culture*. 2006;6(2):203-28.
165. Lyons AC, Willott S. From Suet Pudding to Superhero: Representations of Men's Health for Women. *Health* 1999;3(3):283-302.
166. Mennell S, Murcott A, van Otterloo AH. *The Sociology of Food: Eating, Diet and Culture*. London, England: Sage; 1992.
167. Calnan M, Cant S. The social organisation of food consumption: A comparison of middle class and working class households. *International Journal of Sociology and Social Policy*. 1990;10(2):53-79.
168. L'Orange Furst E. Cooking and Femininity. *Women's Studies International Forum*. 1997;20(3):441-9.
169. McRae S. The allocation of money in cross-class families. *The Sociological Review*. 1987;35(1):97-122.
170. Oates CJ, McDonald S. Recycling and the Domestic Division of Labour: Is Green Pink or Blue? *Sociology*. 2006;40(3):417-33.
171. Sullivan O. The Division of Domestic Labour: Twenty Years of Change? *Sociology*. 2000;34(3):437-56.
172. Statistics Canada. *General Social Survey – 2010 Overview of the time use of Canadians*. Ottawa: Statistics Canada, 2011.
173. Kan MY, Sullivan O, Gershuny J. Gender Convergence in Domestic Work: Discerning the Effects of Interactional and Institutional Barriers from Large-scale Data. *Sociology*. 2011;45(2):234-51.
174. Bord Bia. *PERIscope 2013 – Irish and British Consumers and their Food*. Dublin: Bord Bia, 2013.
175. Baxter J. The Joys and Justice of Housework. *Sociology*. 2000;34(4):609-31.
176. Murcott A. It's a pleasure to cook for him: Food, meal times and gender in South Wales households. In: Gamarnikow E, editor. *The Public and the Private*. London: Heinemann, 1982.
177. Coltrane S. Research on Household Labor: Modeling and Measuring the Social Embeddedness of Routine Family Work. *Journal of Marriage and Family*. 2000;62(4):1208-33.
178. Coltrane S, Masako IK. Men's housework: A lifecourse perspective. *Journal of Marriage and Family*. 1992;54(1).

179. Harnack L, Story M, Martinson B, Neumark-Sztainer D, Stang J. Guess who's cooking? The role of men in meal planning, shopping, and preparation in US families. *Journal of the American Dietetic Association*. 1998;98:995-1000.
180. Devine CM, Farrell TJ, Blake CE, Jastran M, Wethington E, Bisogni CA. Work conditions and the food choice coping strategies of employed parents. *Journal of Nutritional Education*. 2009;41(5):365-70.
181. Kemmer D. Food preparation and the division of domestic labour among newly married and cohabiting couples. *British Food Journal*. 1999;101(8):570-9.
182. Gazso-Windle A, McMillin J. Doing domestic labour: Strategising in a gendered domain. *Canadian Journal of Sociology*. 2003;28(3).
183. Arrighi B, Maume DJ. Workplace Subordination and Men's Avoidance of Housework. *Journal of Family Issues*. 2000;21(4):464-87.
184. Bergen E. The Economic Context of Labor Allocation: Implications for Gender Stratification. *Journal of Family Issues*. 1991;12(2):140-57.
185. Hollows J. Oliver's Twist: Leisure, Labour and Domestic Masculinity in The Naked Chef. *International Journal of Cultural Studies*. 2003;6(2):229-48.
186. Gershuny J, Godwin M, Jones S. The domestic labour revolution: A process of lagged adaptation. In: Anderson M, Bechhofer F, Gershuny J, editors. *The Social and Political Economy of the Household*. Oxford: Oxford University Press; 1994.
187. Metcalfe A, Dryden C, Johnson M, Owen J, Shipton G. Fathers, Food and Family Life. In: Jackson P, editor. *Changing Families, Changing Food*. Basingstoke: Palgrave Macmillan; 2009.
188. Meah A, Jackson P. Crowded kitchens: the 'democratisation' of domesticity? *Gender, Place & Culture*. 2012;20(5):578-96.
189. Inness S. *Dinner Roles: American Women and Culinary Culture*. Iowa City, IA: University of Iowa Press; 2005.
190. Swinbank VA. The Sexual Politics of Cooking: A Feminist Analysis of Culinary Hierarchy in Western Culture. *Journal of Historical Sociology*. 2002;15(4):464-94.
191. Aarseth H, Olsen BM. Food and masculinity in dual-career couples. *Journal of Gender Studies*. 2008;17(4):277-87.
192. Cairns K, Johnston J, Baumann S. Caring About Food: Doing Gender in the Foodie Kitchen. *Gender & Society*. 2010;24(5):591-615.
193. Adler T. Making pancakes on Sunday: The male cook in family tradition. *Western Folklore*. 1981;40(1):45-54.
194. Fine G. Wittgenstein's kitchen: Sharing meaning in restaurant work. *Theory and Society*. 1995;24(2):245-69.
195. Swenson R. Domestic Divo? Televised Treatments of Masculinity, Femininity and Food. *Critical Studies in Media Communication*. 2009;26(1):36-53.
196. Ekstrom M. Food class and gender. *Studies in Sociology*. 1990;98.
197. Stebbins R. *Leisure and Consumption: Common Ground/Seperate Worlds*: Palgrave Macmillan; 2009.
198. Bove CF, Sobal J. Foodwork in Newly Married Couples: Making Family Meals. *Food, Culture and Society: An International Journal of Multidisciplinary Research*. 2006;9(1):69-89.

199. Wright-St Clair V, Hocking C, Bunrayong W, Vittayakorn S, Rattakorn P. Older New Zealand women doing the work of Christmas: a recipe for identity formation. *The Sociological Review*. 2005;53(2):332-50.
200. Short F. *Kitchen Secrets: The meaning of cooking in everyday life*: Bloomsbury Academic; 2006.
201. Hollows J. Feeling Like a Domestic Goddess: Postfeminism and Cooking. *European Journal of Cultural Studies*. 2003;6(2):179-202.
202. Dixon J, Banwell C. Heading the table: Parenting and the junior consumer. *British Food Journal*. 2004;106(3):182-93.
203. Cronin JM, McCarthy MB, Newcombe MA, McCarthy SN. Paradox, performance and food: managing difference in the construction of femininity. *Consumption Markets & Culture*. 2014;1-25.
204. Lupton D. 'Where's me dinner?': food preparation arrangements in rural Australian families. *Journal of Sociology*. 2000;36(2):172-86.
205. Kelly A, Ciclitira K. Eating and drinking habits of young London-based Irish men: a qualitative study. *Journal of Gender Studies*. 2011;20(3):223-35.
206. Carrington C. *No Place Like Home: Relationships and Family Life Among Lesbians and Gay Men*. Chicago: University of Chicago Press; 2002.
207. Szabo M. Men nurturing through food: Challenging gender dichotomies around domestic cooking. *Journal of Gender Studies*. 2013;23(1):18-31.
208. Szabo M. Foodwork or Foodplay? Men's Domestic Cooking, Privilege and Leisure. *Sociology*. 2013;47(4):623-38.
209. Parasecoli F. *Bite Me: Food in Popular Culture*: Bloomsbury Academic; 2008.
210. Coltrane S. Household Labour and the Routine Production of Gender. *Social Problems*. 1989;36(5):473-90.
211. Deutsch FM, Saxon SE. The double standard of praise and criticism for mothers and fathers. *Psychology of Women Quarterly*. 1998;22(4):665-83.
212. Risman B. Intimate relationships from a microstructural perspective: Men who mother. *Gender and Society*. 1987;1(1):6-32.
213. Kroska A. Investigating Gender Differences in the Meaning of Household Chores and Child Care. *Journal of Marriage and Family*. 2003;65(2):456-73.
214. Ogden J. *The Psychology of Eating: From Healthy to Disordered Behaviour*. 2nd ed. UK: Blackwell Publishing; 2010.
215. Blair S, Johnson M. 'Wives' Perceptions of the Fairness of the Division of Household Labour: The Intersection of Housework and Ideology'. *Journal of Marriage and Family*. 1992;54(August):570-81.
216. Nordenmark M, Nyman C. Fair or Unfair? Perceived Fairness of Household Division of Labour and Gender Equality among Women and Men: The Swedish Case. *European Journal of Women's Studies*. 2003;10(2):181-209.
217. Thompson L. Family Work: Women's Sense of Fairness. *Journal of Family Issues*. 1991;12(2):181-96.
218. Erickson RJ. Why emotion work matters: sex, gender, and the division of household labor. *Journal of Marriage and Family*. 2005;67(2):337-51.

219. McFarlane S, Beaujot R, Haddad T. Time Constraints and Relative Resources as Determinants of the Sexual Division of Domestic Work. *The Canadian Journal of Sociology*. 2000;25(1):61-82.
220. Mac Con Iomaire M. The Current State of Cooking in Ireland: The Relationship between Cooking Skills and Food Choice. 2011.
221. Stitt S. An International Perspective on Food and Cooking Skills in Education. *British Food Journal*. 1996;98(10):27-34.
222. OogaraphPratap B, Bholah R, Cyparsade M, Mathoor K. Influence of home economics on the nutrition knowledge and food skills of Mauritian school adolescents. *Nutrition and Food Science*. 2004;34(6):264-7.
223. Department of Education Northern Ireland. The Northern Ireland Curriculum. [25/02/2014]; Available from: [http://www.deni.gov.uk/the\\_northern\\_\\_ireland\\_\\_curriculum\\_-\\_amended\\_05-2.pdf](http://www.deni.gov.uk/the_northern__ireland__curriculum_-_amended_05-2.pdf).
224. State Examination Statistics [database on the Internet]. [cited 25/02/2014]. Available from: <http://www.examinations.ie/index.php?l=en&mc=st&sc=r13>.
225. Jabs J, Devine CM. Time scarcity and food choices: an overview. *Appetite*. 2006;47(2):196-204.
226. Bord Bia. What did Ireland eat last night? Dublin: Bord Bia, 2011.
227. Gofton L. Convenience and the moral status of consumer practices. In: Marshall D, editor. *Food Choice and the Consumer* 1995:152-81.
228. Hartmann C, Dohle S, Siegrist M. Importance of cooking skills for balanced food choices. *Appetite*. 2013;65:125-31.
229. Lyon P, Mattsson Sydner Y, Fjellström C, Janhonen-Abruquah H, Schröder M, Colquhoun A. Continuity in the kitchen: how younger and older women compare in their food practices and use of cooking skills. *International Journal of Consumer Studies*. 2011;35(5):529-37.
230. Seale C. *Media and Health* 1ed. London: SAGE Publications Ltd; 2002.
231. Gough B, . 'Real men don't diet': An analysis of contemporary newspaper representations of men, food and health. *Social Science & Medicine*. 2007;64:326-37.
232. De Brun A, Mc Carthy M, McKenzie J, McGloin A. "Fat is Your Fault": Gatekeepers to Health, Attributions of Responsibility and the Portrayal of Gender in the Irish Media Representation of Obesity. *Appetite*. 2013;62:17-26.
233. Labre M. Burn Fat, Build Muscle: A Content Analysis of Men's Health and Men's Fitness. *International Journal of Men's Health*. 2005;4(2):187-200.
234. Stibbe A. Health and the Social Construction of Masculinity in Men's Health Magazine. *Men and Masculinities*. 2004;7(1):31-51.
235. Norcross WA, Ramirez C, Palinkas LA. The influence of women on the health care-seeking behavior of men. *The Journal of family practice*. 1996;43(5):475-80. Epub 1996/11/01.
236. Warde A, Hetherington K. English households and routine food practices: a research note. *The Sociological Review*. 1994;42(4):758-78.
237. Neuhaus J. *Manly Meals and Mom's Home Cooking: Cookbooks and Gender in Modern America*: Johns Hopkins University Press; 2003.
238. DeVault M. Conflict over housework: A problem that (still) has no name. In: Kriesberg L, editor. *Research in Social Movements, Conflicts and Change*: JAI Press; 1990. p. 189-202.
239. Institute of European Food Studies. A pan-EU survey of consumer attitudes to food, nutrition and health. IEFS, Trinity College Dublin 1996 4.

240. Kuttschreuter M. Psychological determinants of reactions to food risk messages. *Risk Analysis*. 2006;26(4):1045-57.
241. Kearney M, Kearney JM, Dunne A, Gibney MJ. Sociodemographic determinants of perceived influences on food choice in a nationally representative sample of Irish adults. *Public Health Nutrition*. 2000;3(2):219-26.
242. Kearney M, Gibney MJ, Martinez JA, de Almeida MDV, Friebe D, Zunft HJF, et al. Perceived need to alter eating habits among representative samples of adults from all member states of the European Union. *European Journal of Clinical Nutrition*. 1997;51(Suppl2):30-5.
243. Kearney JM, Kearney MJ, McElhone S, Gibney MJ. Methods used to conduct the pan-European Union survey on consumer attitudes to physical activity, body weight and health. *Public Health Nutrition* 1999;2(1a):79-86.
244. Hearty AP, McCarthy SN, Kearney JM, Gibney MJ. Relationship between attitudes towards healthy eating and dietary behaviour, lifestyle and demographic factors in a representative sample of Irish adults. *Appetite*. 2007;48(1):1-11. Epub 2006/10/20.
245. Health Promotion Agency. Eating for health? A survey of eating habits among children and young people in Northern Ireland. 2001 Contract No.: 22 June 2006.
246. Allen D, Newsholme HC. Attitudes of older adults to diet, food and health: a pan-EU survey. *Campden & Chorleywood Food Research Association Group*, 2003 174.
247. Market Research: safetrak. [database on the Internet]. safefood. 2003-2011 [cited 27/01/2014]. Available from: <http://www.safefood.eu/Publications/Market-research/Safetrak>.
248. Food Standards Agency. Consumer Attitudes Survey. 2007.
249. Prior G, Taylor L, Smeaton D, Draper A. Exploring food attitudes and behaviours in Northern Ireland: Findings from the food and you survey 2012/2013. Available from: [http://www.foodbase.org.uk/admintools/reportdocuments/805-1-1491\\_Food\\_and\\_You\\_-\\_NI\\_report\\_-\\_FINAL.pdf](http://www.foodbase.org.uk/admintools/reportdocuments/805-1-1491_Food_and_You_-_NI_report_-_FINAL.pdf).
250. Kearney M, Kelly A, Gibney MJ. Attitudes toward and Beliefs about Nutrition and Health among a Nationally Representative Sample of Irish Adults: Application of Logistic Regression Modelling. *Journal of Nutrition Education*. 1998;30(3):139-48.
251. Share M, Black D, Stewart-Knox B, Strain M, Strain JJ. Food safety education: a cross-border, comparative study of food risk perception in post-primary schools and the development of a model for implementing effective curricular change. 2007.
252. McKinley MC, Lowis C, Robson PJ, Wallace JMW, Morrissey M, Moran A, et al. It's good to talk: Children's views on food and nutrition. *European Journal of Clinical Nutrition*. 2005;59:542-51.
253. Devine CM. A life course perspective: Understanding food choices in time, social location, and history. *Journal of Nutrition Education and Behavior*. 2005;37(3):121-8.
254. Fallon A, Rozin P. Sex differences in perceptions of desirable body shape, *Journal of Abnormal Psychology*. 1985;94(1):102-5.
255. Spitzer BL, Henderson KA, Zivian MT. Gender differences in population versus media body sizes: A comparison over four decades. *Sex Roles*. 1999;40(7-8):545-65.
256. Food Safety Authority of Ireland. Scientific recommendations for healthy eating in Ireland. Ireland: 2011.
257. Irish Universities Nutrition Alliance (IUNA). National Teen's Food Survey. Cork2008 [updated 2nd June 2009].

258. Prochaska JO, Redding CA, Evers KE. The Transtheoretical Model and stages of change. 3rd ed. Glanz K, Rimer BK, Lewis FM, editors. San Francisco, CA: Jossey-Bass; 2002: 99-120
259. Allen KN, Taylor JS, Kuiper RA. Effectiveness of nutrition education on fast food choices in adolescents. *The Journal of School Nursing*. 2007;23(6):337-41.
260. Bolton DJ. Food Safety Knowledge, Microbiology and Refrigeration Temperatures in Restaurant Kitchens on the island of Ireland. 2006.
261. Brennan M, McCarthy M, Ritson C. Why do consumers deviate from best microbiological food safety advice? An examination of 'high-risk' consumers on the island of Ireland. *Appetite*. 2007;49(2):405-18. Epub 2007/09/11.
262. Byrd-Bredbenner C, Wheatley, V., Schaffner, D., Bruhn, C., Blalock, L., and Maurer, J. Development of food safety psychosocial questionnaires for young adults. *Journal of Food Science Education*. 2007;6:30-7.
263. Kennedy J, Gibney S, Nolan A, O'Brien S, McMahon MAS, McDowell D, et al. Identification of critical points during domestic food preparation: an observational study. *British Food Journal*. 2011;113(6):766-83.
264. Food Standards Agency. Biannual Public Attitudes Tracker, Wave 7. UK: Social Science Research Unit, 2014.
265. Kennedy J, Jackson V, Cowan C, Blair I, McDowell D, Bolton D. Consumer food safety knowledge: Segmentation of Irish home food preparers based on food safety knowledge and practice. *British Food Journal*. 2005;107(7):441-52.
266. Thompson EH, Pleck JH, Ferrera DL. Men and masculinities: Scales for masculinity ideology and masculinity related constructs. *Sex Roles*. 1992;27:573-607.
267. Bisogni CA, Connors M, Devine CM, Sobal J. Who we are and how we eat: A qualitative study of identities in food choice. *Journal of Nutrition Education Behaviour*. 2002;34:128-39.
268. Fischler C. Food, self and identity. *Social Science Information*. 1988;27:275-92.
269. Geeroms N, Van Kenhove P, Geuens M, Vermeir I, Verbeke W, Grunert K, et al. Towards a better understanding of motivational consumer behaviour: Cross-validation, construct validation and application of a psychological taxonomy of consumer motives 2006. Available from: <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.122.1935>.
270. Ipsos MORI. The Censydiam Model. [25/02/2014]; Available from: <http://w3.ipsos.com/marketing/censydiam/our-approach.aspx>.
271. Caraher M, Dixon P, Lang T, Carr-Hill R. The state of cooking in England: the relationship of cooking skills to food choice. *British food journal*. 1999;101(8):590-609.
272. Lang T, Caraher M. Is there a culinary skills transition? Data and debate from the UK about changes in cooking culture. *Journal of the Home Economics Institute of Australia*. 2001;8(2).
273. Vrhovnik L. A pilot study for the development of a food skills survey tool, 2012.
274. *safefood*. Fridge-Manager Segmentation Project. 2013.



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