Food choice and health across the life course: A qualitative study examining food choice in older Irish adults

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Abstract. *Ireland has experienced much economic and social change in recent times along with rising levels of overweight. Two-thirds of adults are now overweight or obese. Excess weight is a major risk for chronic disease for all ages which heralds a great societal burden and presents challenges and opportunities for the food industry. Individual food choice is an important and complex factor to be understood in order for food manufacturers to enable healthy choices. It can be understood as a process in which patterns arise and change over time, influenced by a range of personal factors and environmental influences. This study aimed to gain insight into the key contextual influences on food choice patterns in older Irish adults of varied health status who have lived through much socio-economic change. In-depth semi-structured interviews on food choice across the life course were conducted with 32 adults aged 61-79. Data was thematically analysed using content analysis. Patterns of eating within the changing food environment and dietary choices in the face of ageing and illness were influenced by accumulated life experiences. Findings can contribute to health and nutrition policies and to the design of tailored interventions and products to facilitate the adoption of healthful diets.*

Keywords: food, health, food life experiences

1. Introduction

Obesity has become the most common nutritional disorder in the industrialised world. It is a major risk factor for the development of degenerative and chronic diseases, the leading causes of death in the western world[1]. For instance, as much as 58% of type 2 diabetes, 21% of heart disease and between 8% and 42% of certain cancers are believed to be attributable to obesity[2]. Compared to people of healthy weight, life expectancy of people who are obese at the age of 40 can be reduced by up to seven years[3]. The costs of overweight and obesity are manifold. As well as impacting greatly on individual health, and on duration and quality of life, obesity and overweight incur significant direct and indirect costs on health and welfare systems[2]. Obesity and overweight are on the increase in Ireland, mirroring international patterns. Two out of five Irish adults – 38% (44% of men; 31% of women) are overweight. One in four – 23% (22% of men; 36% of women) is obese[4]. In particular there has been a rapid increase in female and childhood obesity which signals a spiralling public health issue[4-6].

Irish healthy eating guidelines encourage people to eat a variety of foods based on the Food Pyramid. A major concern in the Irish diet is the over consumption of energy-dense foods high in fats and sugar with less than one-fifth of the population complying with the food pyramid recommendation to eat these 'sparingly'[4]. Excess consumption of these foods is of particular concern since these types of food possess little to no nutritional value and may contribute to adverse health conditions and weight gain. As in other countries, there rests a societal challenge to address food choice and eating behaviour in the population in order to prevent further escalation of diet-related health problems.

Factors influencing individuals' food choice has attracted interest from many fields of expertise. Physiological factors, individual differences such as genetic predispositions and personality traits, opportunities for learning across the lifespan, social influence and the role of micro and macro contexts such as a particular cultural environment have all been shown to influence what people choose to eat[7]. Worldwide, the rapid rise in obesity since the latter part of the last century has been rooted in the proliferation of what has been termed the 'obesogenic' or obesity-promoting environment[8]. This refers to the larger social, political, and economic influences on food choice and intake and on participation in physical activity. While it is acknowledged that some obese people may also be genetically pre-disposed[9], the growing trend in excess weight is believed to be ultimately due to an energy imbalance in individuals created by the consumption of energy-dense, low-nutrient foods in conjunction with decreasing levels of physical activity arising from changes in broader environmental circumstances[10].

The environment in which a person operates offers expanded or constrained possibilities for food choice. Home and workplace are two key micro-contexts which also incorporate social considerations and managing eating relationships[11,12]. Macro influences such as geographical location can influence food choice on a broader level. The food and nutrition system of a particular area determines availability of foods, social meanings and functions attached to foods. Cultural and sub cultural norms establish which foods are acceptable and preferable for consumption and how they should be consumed[13,14].

Macro-environmental influences are subject to change over individuals' life-times as historical events unfold. A person's socio-culturally determined life experiences may be brought to bear in food choices over the life course. Ireland, for instance, underwent much economic and social change in the 20th century. Decades of economic stagnation and poverty followed independence from the UK in 1920's and there was large-scale emigration during an economic depression in the 1950's. TB was a serious problem up to the 1960's due to poor living conditions. Ireland benefitted from EU membership since 1973. However relative economic underdevelopment and fluctuating fortunes continued until the 1990's. This decade saw Ireland undergo transformation from one of the poorest countries in Europe to one of the fastest growing economies in the world described as the 'Celtic Tiger' phenomenon[15]. Unemployment dropped to 4% by 2003 and greater affluence[1] and increased disposable income for services such as eating out and foreign holidays was experienced by many[16]. In conjunction, accelerated social change has also occurred in recent decades as the influence of the once pervasive Catholic Church has become increasingly challenged leading to alternative family structures (divorce introduced in 1995), and more widespread tendencies to secularisation and consumerism[17]. Since the 1990s there has also been accelerated urbanisation and increased multi-ethnicity due to immigration. Such broader socio-cultural changes may impact at individual level by determining availability of foods and cultural and sub-cultural norms concerning eating.

Socioeconomic and individual resources, determined by the broader political and economic environment, can play an important role in determining food choice and eating behaviour[18]. The trend to overweight and obesity is greatest in the lower socioeconomic groups in Ireland, similar to patterns seen in other developed countries[4]. Availability of other non-monetary resources such as nutritional knowledge can also stem from the wider educational and cultural environment as well as product information/ labelling and marketing campaigns. While nutritional knowledge alone is not strongly related to dietary behaviour, education level is associated with dietary change in adulthood[19].

Developmental and familial influences on food choice have been located at particular life course stages. The foundations of enduring dietary habits have been firmly set in childhood[20,21]. Family formation and maturation may also bring food choice adjustments such as spousal negotiations around food choice[22,23] and the effects of food provision for children[24-26]. Middle-age can be a time when food choices are altered for health reasons[27]. Food choice in older adults may be affected by a decline in appetite[28] and a functional decline in taste and smell[29].

Micro and macro environmental factors are subject to change over time as are people's life roles and experiences, capabilities, income level, state of health and independence. Food choice may thus be considered a complex phenomenon incorporating a myriad of influences which may be subject to change according to life experiences and external social and historical circumstances. Psychosocial theories widely used to explain food choice often focus on how *current* individual characteristics, attitudes, beliefs, social frameworks and environmental contexts influence food choices[30,-35]. Studies employing psychosocial models also tend to deductively investigate the influence of a set pre-defined set of variables on food choice over a relatively short time-span. The ability of such models to predict food choice behaviour is limited[36]. One conceptual framework of food choice, the 'Food Choice Process Model' was inductively derived through qualitative interview methodology. It provides a conceptual framework that

[1] The recent economic downturn will also have consequences on food choices in Ireland, perhaps more so for younger generations who may have less established patterns of consumption and less stable sources of income than the older sample in this study.

incorporates the concept of the dynamic nature of cumulative life course experiences and the myriad influences that may be considered in influencing current food choice[11].

A number of qualitative research studies have built on various aspects of this conceptual framework, some explicitly showing how past events and experiences can shape food choices in present contexts[24,37,38]. The life course perspective in food choice research is useful for understanding how people construct food choices and how changes in the food and eating environment impact on those choices[39]. Food choice patterns can be viewed as a process over time and individuals' patterns of food choice in conjunction with accumulating experiences can be conceptualised as a food choice trajectory as they go through life[11]. For example, one study examining influences on adults' fruit and vegetable trajectories found key factors included food upbringing, roles, health, cultural traditions, resources, location and the food system[24]. A life course perspective on food choice enables exploration of how past events interact with current food environments to both enable and limit current food decisions.

It is acknowledged that as societies become increasingly diverse, theoretically-driven and culturally grounded research on dietary behaviour is increasingly important for the design of tailored interventions and approaches to behaviour change[40]. In Ireland, the economic prosperity of recent years has resulted in dramatic changes in the lifestyle of Irish people. The array of foods and opportunities for eating has increased along with the decline of traditional lifestyles and values and food choices borne of necessity. The impact of the nature and magnitude of these social, cultural and economic changes on food choice in Ireland is poorly defined. Thus, in response to growing concern about diet-related health in Ireland, this study aimed to apply the life course approach to examine food choice among a sample of older people who have lived through significant economic and social change in order to provide a culturally grounded perspective on food choice. Researching this particular age cohort may provide valuable insight into the social and historical background shadowing current Irish consumption patterns and attitudes.

2. Methodology

The study adopted a qualitative methodology in order to inductively explore the interaction of past and current experiences on food choice in the sample rather than investigate a set of *a priori* constructs. Qualitative research reflects the complexity of the phenomena under study, allowing a richness of data and deeper insight into the research topic of enquiry. It takes a holistic approach to investigation and interpretation[41,42]. Semi-structured interviews were employed to explore the individuals' perspectives on how his/her dietary pattern had evolved. This methodology enables participants to provide in-depth accounts of their experiences while also allowing the researcher considerable flexibility in probing interesting areas which emerge[43].

Table 1: Characteristics of study participants (n=32)

	Male	**Female**	**Total**
	16	16	32
Age			
61-69	9	9	18
70-79	7	7	14
Location			
Urban (city)	4	4	8
Urban (suburbs)	4	4	8
Rural (coastal)	4	4	8
Rural (inland)	4	4	8
BMI*			
Obese	8	8	16
Healthy weight	8	8	16
Marital status			
Married	14	12	26
Widowed	1	3	4
Single/Never married	1	1	2

*BMI according to IOTF criteria
(Healthy weight: BMI 18.5-24.9, Obese: BMI >30)

A sub-sample of participants were recruited from a larger health study on older people (aged 60+) taking place in the South West of Ireland. All participants took part in a health screening session and completed a questionnaire. Data including health history and risk factor measurements for cholesterol and blood sugar levels, blood pressure and BMI measured by a research nurse were collected. During attendance at the health-screening, participants, except those deemed unsuitable by the nurses, were invited to take part in an hour-long interview about their diet and food choice at a later date. 32 participants aged 61-79 (mean age 69) were purposively recruited to vary by gender, BMI and urban/rural residence (see Table 1 for details).

Participants were contacted via telephone following the health-screening and interviews were arranged in their homes. A semi-structured interview guide with follow-up probes was used to explore participants' current eating habits, attitudes and beliefs about food, and memories and perceptions about food and dietary change at different life stages. Interviews lasted between 45 and 90 minutes and were recorded and transcribed verbatim. Data was analysed using conventional content analysis[44].This process of data analysis is similar to the initial approach of many qualitative methods, for example the open and axial coding stages proposed by grounded theory[45]. While other qualitative approaches go beyond content analysis stage to develop theory[45] or a more deeply embedded understanding of the lived experience[46], the main application of content analysis is to describe a phenomenon. It offers a flexible, pragmatic method for developing knowledge[44]. Conventional content analysis involves the avoidance of pre-conceived categories, allowing themes to emerge from the data[47]. Interview transcripts were read a number of times and key emergent themes were identified and marked in the text. Analytical constructs and codes were decided upon to inform the coding process. Relevant transcript passages were then coded by these themes using a computer aided qualitative package NVIVO 8[48]. Codes were altered and adjusted as new concepts emerged during data coding. During analysis, interconnections between analytical constructs, codes and data were established and potential inconsistencies in findings were identified and explanation attempted in order to develop a deeper description and interpretation of results.

3. Results

Present food choice was found to be influenced by early food experiences and changing political, economic, social and cultural circumstances as well as changes in individual life circumstances. The most important influences on participants' current food choices are represented in Figure 1. Standards and norms were established in youth through early food experiences. In terms of broader macro-environmental influences, economic development over time, the changing food system and changing knowledge and awareness about food were salient for participants. Changing micro-contexts such as developments throughout working and home lives also impacted on food choice as did the process of ageing and changing health status for a number of participants. The linking dotted arrows in *Figure 1* aim to suggest that these influences are not one-dimensional or uni-directional but rather, they interact with each other in a dynamic fashion over time in different ways for different individuals. What follows is an overview of the most prominent influences on present food choice as well as a description of current consumption patterns of participants.

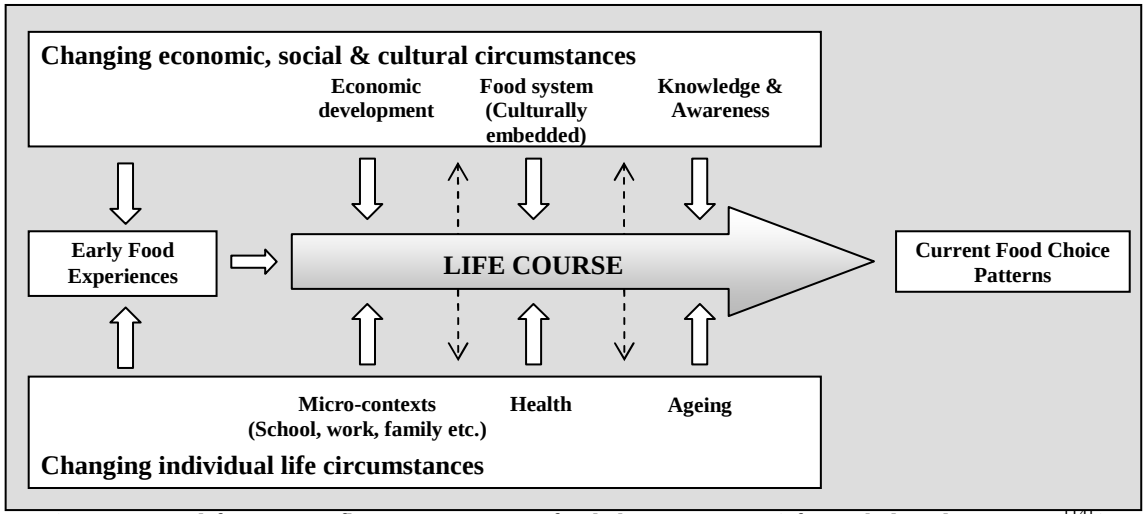

Figure 1. Key life course influences on present food choice patterns (after Sobal et al, 2006, p.4[14])

3.1 Early food experiences

Food in early life for participants growing up in the 1930's to early 60's was described as *'basic'*, *'simple'*, and *'plain'*. The key constituents remembered were porridge, homemade brown bread or white loaves with butter or jam, eggs, and milk, tea or buttermilk to drink. The main meal was usually eaten at

mid-day and typically included potatoes, often eaten with butter. If meat was available this commonly included boiled bacon and cabbage or various stews and boiled beef dishes of cheaper meat cuts. The main vegetables eaten were cabbage, turnip, parsnip, carrots, onions and peas. For many living in the country, much of the food was home-produced such as vegetables and home-cured bacon. Those growing up in the city appeared to fair worse; however tough economic times were recalled by the majority. Sunday was a special day and included a roast dish of beef or chicken for those who could afford it. 'Irish breakfast' constituents such as sausages, sliced bacon and puddings were occasionally eaten for lighter evening meals or breakfast.

The Catholic observance of abstaining from meat on a Friday was practiced. Fish was eaten instead if available or affordable. This was mainly salted or smoked white fish such as hake, cod and ling accompanied by a white sauce and sometimes eggs. Fish was not eaten widely apart from Fridays. One Protestant man recalled never having eaten fish in childhood as a mark of religious differentiation. Fish was not readily available in coastal areas unless directly involved in fishing. Some fresh mackerel and pollock were eaten in coastal areas but overall salted fish was the norm.

Fruits consisted mainly of apples which were seasonably available. Blackberries and strawberries were used for jams. During the Second World War oranges were regarded as a prized Christmas treat and one man recalled the excitement of tasting white bread for the first time after the war. Ireland remained neutral during the war and so did not experience food rationing at the level of some countries. However, importation and production of some foods were disrupted and luxury items including tea, butter, sugar and bread were rationed. One woman recalled how her family had the habit of drinking boiling water with milk during the war as her mother used to trade tea rations for butter from a farmer's wife. Fruit became more available in the post-war period, although still limited in quantity and variety. Confectionary was also limited. Biscuits and sweets were a rare treat for many, particularly those in rural areas. *'I remember if you got a packet of biscuits for your birthday, you'd be jumping up in the air'* (M61,H) (male participant, aged 61, healthy weight). However some home-made goods such as apple tarts, cakes and milk puddings such as rice and tapioca were recalled.

Bread and butter and potatoes were described as key staples in youth. Participants emphasised that there was little variety and food availability was described as sufficient but limited for most, in contrast to today. *'We had enough to keep us going'* (M67,O) (male, aged 67, obese). Some participants recalled a culture of eating large quantities of food, particularly potatoes. This '*hearty*' eating was deemed to be offset by the amount of physical activity both men and women were involved in back then. Similarly possible negative effects of eating a lot of bacon, viewed as a *'fat diet'* by two participants, were seen as being counteracted by heavy involvement in physical work. Diets consisting mainly of home-produced food were perceived as '*wholesome*', *'nourishing'* and *'healthy'*.

3.2 Subsequent Life Course Influences (Changing roles and micro-contexts)

Most felt that their dietary patterns had undergone change over time, both as a result of changing circumstances and exposure to new foods or deliberate change in some cases. Childhood experiences were undoubtedly a key period of influence for subsequent patterns of eating. However, following childhood, participant's experiences and changes in roles and life circumstances brought about new, sometimes enduring influences on food choice patterns. Consumption in younger adulthood was characterised by exposure to a greater variety of foods and eating circumstances. While money was still scarce for most, participants were able to purchase foods that they viewed as treats such as chips. '*Oh a big thing that time then as well were chips […] I used to be looking forward to them on Fridays like…'* (M68,O). Sweets and confectionery were considered a novel treat for some, having been of limited availability in childhood. *'Like when I was young there were not so many sweets around and then as we went into the 50s, sweets were back on the shelf if you like and.... you'd always enjoy them'* (F72,H). Some participants described being less concerned with eating healthily in younger adulthood than at present. *'When I was very young, I'd have a fry….. and I'd have loads of white bread……just like I'd make a sandwich out of anything when I was younger, but I'd be more conscious of weight now…'* (M67,H). Improved economic circumstances during working life led to more meat consumption for some which was considered desirable at the time but perceived as unhealthy in retrospect. '*I started eating more meats then at that stage because of... maybe more affluent for want of a better word I suppose…and*

it changed to a lot of meats and rich foods and sauces and different things. Whereas ah.... today, it's got much, much healthier' (M61,H).

Changes in lifestyle habits were associated with varied food consumption patterns. Some male participants mentioned heavy alcohol consumption in younger years. Two men associated this period with initial weight gain due to quantities consumed and fast food consumption after drinking sessions triggered by an alcohol-induced '*false appetite'*. Three participants associated quitting smoking in younger adulthood with weight gain. The influence of religious rituals was apparent as participants described how they abstained from certain foods during the Catholic fasting period of lent. Two participants reflected on how they maintained the habit of drinking tea without sugar after having abstained for lent.

The majority of participants married in early adulthood and all except one woman had children. Women were engaged in most meal preparation throughout life in this sample. Providing food for families involved catering to spouses and children's tastes and ensuring they ate well. *'You'd be always conscious of trying to feed them up'* (F65,H). Some introduced more variety in food to accommodate children's tastes. Producing home-baking had been associated with the role of being a 'good mother'. Women reported sometimes finding that they neglected themselves in terms of food when considering their children's needs, either eating in rushed circumstances or serving themselves with the remains after the rest of the family had been adequately served. One woman associated a tendency towards self-neglect while raising her eight children with weight gain. *'The weight does creep up on you over the years. There's other things you see, you get caught up in other things and you, women are desperate for leaving themselves out, forgetting about themselves and putting the children first you know'* (F67,O).

The stresses and time pressures of working life also impacted on peoples' dietary patterns. While all men had been in paid employment, most women had worked in the home or in part-time employment when their children were older. Two men found themselves eating a lot to cope with busy work demands. *'I used to work, long hours and keeping yourself well nourished or what you regard as well nourished (laughs) with high calorie food, etc. and…[..]…I felt there was nothing I could do about it right now…. and that I would make an effort to change that when I would have the time to do so and that's precisely, what I'm doing...'* (M69,O). One man felt that a stressful period at one time in his job made it difficult for him to eat as he felt '*full of tension'* (M79,H). Meals were recalled as more rushed during working life for many and some recalled being less mindful of what they were eating such as eating *'two dinners'* in a day both at work and at home or over-compensating after prolonged working periods without eating. Eating with work colleagues also influenced the consumption of snacks and confectionery on breaks as cultures of sharing 'treats' around was described as the norm. One woman recalled how she was considered '*odd'* by colleagues in her younger days for eating healthier snacks of raw carrots or dates on breaks (F78,H).

Retirement was associated with more time to enjoy meals, particularly breakfast, and for two participants, more time to concentrate on eating healthily. Others, however found the increased free time a deterrent to eating healthily due to a tendency to snack or '*comfort'* eat when bored or inactive. One woman described how she was aiming to change her snacking habits in these circumstances. *'I'd be at home and I'd be bored and I'd have a cup of coffee and I'd eat something with it. Whereas now, I can have a cup of coffee or a cup of tea and not eat. I'm training myself…I tell myself that I don't need it, you see'* (F67,O).

The four participants who had lost a spouse found that meals they prepared when alone tended to be less complex but all were content with the degree of control they exerted over their current food choices and felt they were eating adequately. Three of them maintained the tradition of eating a family meal with extended family on Sundays and two of the women had routines for eating regularly with friends and family members. A period of adjustment in eating practices following bereavement was described by all. For instance, one woman felt that she had eaten too much confectionery and had developed high cholesterol while adjusting to feeling alone until she became more involved in activities outside the home.

3.3 Present Consumption

Present patterns of consumption and preferences reflected strong influences from participants' early food experiences while incorporating more variety. Porridge continued to feature heavily for breakfast. Individuals included various additions such as fresh and dried fruits, seeds and berries. Other high-fibre

cereals were sometimes eaten as alternatives. Breakfast could also include eggs, fruit, brown bread or toast with fruit spreads and tea, coffee or water. Cooked breakfasts were perceived to be eaten less frequently than in younger adulthood and were eaten only by a few regularly at breakfast or as a treat when staying away from home. Sausages, bacon and puddings were eaten by a few for the main meal or lighter evening meal one day per week and most participants had switched to grilling rather than frying such foods.

Traditional staples such as bacon and cabbage, beef and lamb stews and casseroles and chicken were still popular for the main meal. Main meals also now incorporated more expensive cuts of meat such as steak and lamb and pork chops which would have been *'unheard of'* for many in youth. Greater variety in main meal dishes was evident, mainly comprising the addition of Italian dishes, stir-fires, rice and curries to varying degrees. Most conveyed a preference for meals comprising meat, vegetables and potatoes in different forms. *'I couldn't go a day without "my spud" as the saying is'* (F70,O). Increased variety arose in some cases because of children's influences, an interest in cooking or exposure to different foods due to travel or eating out. Most preferred familiar tastes such as more traditional meals and foods they had eaten in youth. *'I like my dinner. Now I would eat, as I say now, the curry and the rice but normally I would really like my dinner. I like the traditional dinner like we had at home. The meat and the veg and the potatoes you know, the usual'* (F65,H). The tradition of a Sunday roast of meat such as beef or chicken was well maintained, particularly if this meal was shared with extended family. Sunday and sometimes overall weekend consumption was described as more indulgent and involving greater quantities of food than weekdays by some.

Participants generally appeared to eat fish one day per week, often maintaining the Catholic tradition of fish on Fridays. This was often pre-prepared breaded frozen fish such as cod or whiting. One man preferred this product because it disguised the natural fish shape which he viewed as unappetising. There were ambiguous attitudes toward taste and palpability. Some were making a deliberate attempt to increase fish consumption for health benefits. While one woman was struggling with the taste but eating tinned sardines because *'it's good for you'* (F61,H), others discounted oily fish because of taste despite awareness of health benefits. However, a greater variety of fish was being chosen for taste by some participants such as salmon, plaice, whiting, lemon sole, monk fish and crab following increased exposure over time.

A wide variety of fruit and vegetables was eaten and enjoyed by many of the participants and viewed as a healthy addition to their diet. Most included some vegetables in main meals and ate some fruit every day either as snacks or incorporated into desserts or breakfasts. Many participants expressed a liking for fruit. *'I suppose because we'd no fruit when we were young…you'd appreciate it more then...as something special like'* (F71,O). Many ate something sweet such as biscuits, fruit and yoghurt or ice-cream or traditional desserts such as apple tart after their main meal. Starters apart from soup in winter did not feature highly. For those who ate dinner in the evening, soup, sandwiches or salads were typical lunches. Lighter meals in the evening comprised more traditional evening meal foods such as boiled eggs, bread with cheese, cold meat or tinned fish, fries and salads.

Snacks were consumed by some between meals. Morning snacks included hot drinks, fruit, scones and plain biscuits. Afternoon tea or coffee was more likely to include biscuits. Evening and night-time snacks included teas or hot milk or cocoa, fruit, biscuits, sweets, chocolate, cakes, crisps, cheese, breakfast cereal and toast. Night-time snacking was linked to TV viewing for nine participants and internet use for one. *'Am...if I was watching television, I might eat a bag of crisps..(laughs) or if there was a bar of chocolate there, I might eat that ..... or if there was a cake…..I suppose it is a habit here, watching tv..'* (M61,H). Snacking was also associated with periods of inactivity within the home. *'but if you're at home its…and if you're lazing around and everything…you've lots of temptations to… you know…with food…'* (F61,H).

3.4 Food and Health

Some participants recalled attempting to lose weight through diet for aesthetic reasons; however the biggest deliberate changes in dietary patterns over life occurred for health reasons. Food in early life was seen as healthy if it was sustaining and nutritional enough to combat communicable diseases of the time, primarily TB. Vegetables, potatoes, meat, milk and eggs were mentioned by participants as foods that they had been encouraged to eat in childhood for nourishment. Some re-appraised the diet they had eaten

in youth as unhealthy because it had contained too much fat or excessive quantities of potatoes or bread. One woman with fond memories of abundant country food felt the diet she had grown up with, namely porridge, brown bread, vegetables, meat, potatoes, fish and cheese was the healthy ideal and was happy to maintain it throughout her life with the addition of fruit. Participants recalled little interest in choosing foods based on healthfulness in younger adulthood when foods such as confectionery products and fast foods were consumed more. Most felt that thinking about food in terms of chronic disease risk was a more recent development due to more awareness about health risk and more of an element of choice involving food.

Over time, three participants had developed heart problems, three had type-2 diabetes and raised blood-pressure, cholesterol and blood-glucose level were experienced by numerous others. The development or threat of chronic disease or associated risk factors led in some cases to avoidance or reduction of certain foods. Participants with high cholesterol made various changes such as reducing consumption of eggs, red meat, chips, fries, cream, confectionery and cheese. Other changes included switching to lower-fat options such as oven chips, reduced-fat dairy products such as milk, cheese and butter, and grilling rather than frying food. Cholesterol-lowering medication was seen as a deterrent to maintaining dietary changes for some as it was seen as an easier option. Others were enthused by seeing the benefits of dietary changes to cholesterol level even if on medication. Most participants mentioned the desirability of reducing salt intake but varied in their willingness to compromise on taste. One participant was aiming to lose weight to tackle high blood pressure while two others were contemplating it. Three participants with type-2 diabetes were less complacent about dietary changes needed to control their condition. One was particularly motivated to control her diabetes by dietary means to avoid having to resort to insulin injections. One man with diabetes found he was able to maintain his regime at home but found it difficult to resist temptation elsewhere.

Some participants aimed to improve their general health by eating fruit, vegetables and fish. One man who had avoided vegetables in his youth was encouraged to eat them by his wife and now embraced them as he had found that previously recurring throat infections stopped. Others were trying to increase their fish consumption. It was one of the only foods participants felt they should eat more of. The central role of meat and potatoes in the traditional diet was questioned by some, as were the healthfulness of traditional meats such as bacon and joints of beef. Participants with such concerns tended to eat more alternatives to potatoes such as pasta and rice, more white meat and a greater variety of fruit, vegetables and flavourings. Some were aiming to moderate overall quantity of food eaten or to limit consumption of energy-dense foods to lose weight. Individual experiences also led to the avoidance of certain foods if they were found to be difficult to digest or disagreeable such as certain red meats, fatty foods, processed foods, eggs, milk and salads in two cases.

Ageing

Quality of life in older age had triggered a change in consumption patterns by some participants. With age they had become more interested in maintaining good health, independence and longevity and this had prompted some to take more interest in their diet in recent years. '*I just want to feel well more than anything else while I'm alive. You know, I don't want to end up in a home…*' (M67,H). Older age was also seen as a period in which poor eating habits could not be counteracted by physical activity as much as in youth and therefore diet was perceived as a greater health risk. Some participants anticipated that they would make dietary changes in the event of a more salient health threats. For example, one man who felt that he ate too much high-fat food described how he would need a health incentive to change. *'I suppose there... at the back of my mind or even the front of my mind there is always just a kind of a question mark there like you know – am I eating the right food like but.. you know…once I keep going to the doctor, my cholesterol is fine and my heart is fine and my blood pressure is under control, so I'll carry on as I am'* (M67,O). Some took a fatalistic view of chronic disease development seeing it as impossible to avoid purely by lifestyle modification due to personal experiences and anecdotal evidence. '*I actually don't think you are going to stop what's going to happen... and you can waste time worrying and thinking about it'* (F67,O). There were mixed attitudes to excess body weight in older age. While some felt that being overweight or obese was a risk for chronic disease and attempted to keep their weight in check, others felt that excess weight would help in the event of illness. Some believed one would be motivated only by aesthetic concerns to lose weight which they felt were unnecessary as one got older

Six respondents in their 70's felt that their appetite had declined in recent years. Three women had lost an appetite for sweet foods. The men reported being less inclined to eat red meat and were eating more fish as they found it easier to digest and chew. Fatty foods such as cheese were avoided by some as they were found to be less easily digested than before. One man found that eliminating processed convenience foods solved severe digestive problems he had developed. Some participants had experienced deteriorating physical mobility but continued to obtain food they wanted so far by accepting support from family members. Some women were cooking less had grown tired of their role as the main food provider.

Perceptions of current diet and desired changes

Most believed a healthy diet consisted of all foods in moderation for maximum enjoyment and health benefits and six participants felt they were conforming to this ideal. Having a regular pattern of 'good meals' was found to help curb excessive consumption and snacking and maintain energy levels. However some struggled with over-consumption of certain foods they perceived to be unhealthy, particularly confectionery snacks. People described themselves in terms of either being 'sweet-toothed' or not. Some felt they should cut down on sweet foods but found temptations difficult to resist. *'The one big change I think would be cut down on ah… sweet things… I feel I eat enough of the good things as well you know, like the fruit and the veg and the… am I feel our meals are nutritional enough you know..'* (M68,O). Some valued health above food enjoyment and were prepared to stick to rigorous routines they described as *'boring'* or *'limited'* while others were unprepared to abandon preferred foods they perceived as unhealthy. Four felt it would be unnecessary to change their diet unless a health reason arose, one of whom perceived himself as of being at little risk because his weight was not affected by eating high-fat and high-sugar foods. Most participants had experienced a shift in meal patterns over their lifetime from eating their main meal at mid-day to evening time in order to accommodate working or school patterns and some questioned the healthfulness of this switch.

3.5 Changes in macro-environment

Food System

Participants negotiated their individual food choices within a changing macro-environment. Foremost was accelerated economic development which brought about wide ranging changes which filtered down via the food system to individual level. Whereas youth was often characterised by subsistence-level consumption with little choice or variety, *'Have enough food that you don't starve to death was the thing then do you know'* (M69,O), the contemporary food system made a wide variety of foods available to all. Women maintained the primary shopping roles in most households; however men recounted becoming more involved since retirement as shopping was viewed as an outing and means of social interaction. Participants welcomed the wider availability of meats, fish, cheeses, fruits and vegetables all year round. The greater variety of various packaged items now available was of little interest to most participants who felt they purchased familiar foods in a routine fashion, taking account of household preferences. Certain processed foods were perceived as targeted at the younger generations and were not seen as fit for consumption by the participants themselves. Participants felt able to afford the food that they wanted and some felt that they could afford to prioritise quality over cost for expensive items such as meat. Others on tighter budgets found the cost of fresh fish prohibitively expensive at times. Meat and fish were purchased by some in specialised stores which they perceived as being of higher quality than supermarket produce. Maintaining established relationships with small business operators was also valued and some lamented the decline of more personal interactions during shopping experiences in the past. In general the majority of goods were bought in local supermarkets chosen for proximity and convenience. The newer arrivals of German discount stores were sometimes selected for specific items perceived to be of particularly good value. Fruit and vegetables in these stores were perceived in some cases to be of better quality than in general supermarkets also. Widespread availability of food was not viewed as positively in relation to confectionery goods as described by one woman who tried to confine herself to shopping once every two weeks: *'I think if you shop daily, you are looking at things, you are picking up the cake and you are picking up the biscuits and whatever, you know'* (F67,O). One diabetic man described how he used to buy large quantities of sweets and chocolate on the road as a travelling food salesman and when buying his daily newspaper in later years. Another with threatened diabetes on a weight-loss regime described how he could not resist the range of cheap chocolate available in a local discount store.

Food Attributes

Food available in youth was perceived to have been fresher, more natural and was described in modern terms such as 'free-range' or 'organic', being free from additives, chemicals or sprays. Participants compared current foods against standards and tastes they remembered from youth. A number of participants who referred back to home-produced food in youth were particularly expressive about a perceived deterioration in food quality today. Some endeavoured to grow some of their own produce or to purchase their vegetables from local farmers which they felt tasted superior to supermarket produce. Organic produce was viewed sceptically and seen as difficult to achieve in today's environment. However, some valued organic produce as it reminded them of the taste of food they had grown up with. Others did not notice any taste difference and therefore did not feel a higher cost was justified.

Processed modern food was also viewed unfavourably as 'rubbish', 'unhealthy,' 'plastic' and 'junk' and, in some cases as causing cancer. Mass production was believed to compromise on quality and healthfulness of food. Some considered the low price of certain supermarket foods such as chicken as indicative of inferior quality. Processed meat products such as sausages and chicken nuggets were viewed very negatively by some as containing dubious waste ingredients described as the remnants on the factory floor. Food additives were perceived to be wide-spread and most felt that they favoured more natural foods and preferred to cook dishes from scratch. One particular pre-prepared product eaten widely, however, was frozen breaded fish. Conflicted attitudes were evident in some participants when considering functional foods known to be processed but marketed as healthy. For example, one woman was contemplating whether butter which she viewed as natural was less harmful than processed cholesterol lowering spreads. *'I'm using Benocol and I'm on the verge of giving it up because there's an awful lot of additives added to it. I read them, I'd make sure sometimes I'd have my glasses. I watch out for all them […] there is nothing in butter if 'twas used in moderation I'd say, 'tis a lot better than all these spreads..'* (F77,O).

Such concerns about additives also influenced people's use of convenience foods. Some participants occasionally bought prepared meals, with some buying from delicatessen stores which were perceived to be more wholesome than larger store equivalents. The primary reasons for buying pre-prepared foods were to cater for an unexpected event, if the main cook was away or as a break from cooking. Takeaways were purchased occasionally by some for similar reasons. Two participants found digestively they could not handle pre-prepared food and avoided it for that reason. Others perceived such foods to contain unhealthy levels of salt and some participants felt if they avoided these foods that their own use of salt at the table or in cooking compared more favourably. Overall, there appeared to be a growing concern about the healthfulness of pre-prepared foods. Some women described a range of time-saving food preparation techniques they used as an alternative to buying convenience foods. Participants who had baked in younger years however, described now buying brown bread and cakes as it was convenient and cheaper. While many participants classified store-bought confectionery items as *'rubbish'* they continued to eat them in comparison to other packaged foods they had classified in a similar way. Sweets, biscuits and cakes were kept in most households for visitors and grandchildren as well as for personal consumption. Some felt less in control than others of urges to eat such goods and felt compelled to consume the product rapidly once opened.

The most salient conflict in food choice decisions was negotiating values of taste versus health concerns. Some people were substituting what they perceived to be healthier options of foods they liked. For example, in confectionery products, people were eating 'plain biscuits' and substituting yoghurt for cream or ice-cream in desserts. Foods consumed that were both enjoyed and perceived to be healthy included porridge, brown bread, fruit and vegetables. There were more conflicted attitudes towards red meat, potatoes and butter, the limiting of which were viewed as a sacrifice. Low-fat milk and butter alternative spreads and yoghurts were perceived to be the healthier option and consumed by most. Salt, processed products such as sausages, white bread, heavy sauces and gravies, high-fat and high-sugar foods were generally perceived to be unhealthy although still consumed.

Eating out

The majority of this sample ate out in restaurants or hotels mainly for special occasions. Participants also ate out if the normal routine was disrupted such as being away for the day. A minority ate out more

regularly as a treat or as means of social interaction. Quality and variety were felt to have improved over the years. However, some found restaurant food too rich and hard to digest. Large portion sizes were also an issue with some who felt they ate too much rather than waste food. Some had developed the habit of asking for half-portions which they felt were adequate. The extra expense of eating out was felt by men in particular to be unjustified and some distanced themselves from the unfolding *'gourmet'* culture in Ireland in favour of *'plain'* home-cooking. Some women enjoyed the treat of eating out as a break from cooking or being in the house and were likely to eat out more regularly with friends or family at inexpensive restaurants. Restaurants that served traditional style food were favoured although a few people enjoyed sampling foreign cuisine. The celebratory eating out experience was equated with foods viewed as indulgent including red meats such as steak or lamb, for men in particular, and desserts. Fish was viewed as less satisfying and a female choice by some. However, some members of both sexes noted changing to choosing fish as it was easier to digest or considered lighter and healthier.

Meaning of Food

Participants reported being more aware of food they were eating and making conscious decisions compared to youth when there was little choice available. Food had changed meaning from being merely sustenance to a source of enjoyment and hedonism or a gateway to better health for some participants. Particular cultural patterns of earlier times were perceived to still exist and influence food patterns today. For example, a culture of generosity with food in the farming community as a means of expressing gratitude to others helping out at harvest time was described by one man. This man was today active in the community and while aware of his diabetes, found it difficult to refuse food offered by friends and neighbours. Others described strategies to decline hosts' or partners' generosity with food during shared meals. A number felt that habits of excessive consumption had persisted from days when people were more involved in manual labour and therefore burned off the calories more readily than today. One man with threatened diabetes described the custom of offering something sweet such as a biscuit with a cup of tea to visitors, which had become an ingrained habit for him. *'I very seldom ever drink a cup of tea on its own […] most Irish people.....if there is a cup of tea, there is usually a biscuit with it or something'* (M69,O). Another woman always bought confectionery despite not eating much as she felt that not having such foods available would imply to visitors that she was living like a *'pauper'* (F78,H). Some people felt that consumption of confectionery faired as a more positive vice in comparison to smoking or drinking, excessive consumption of which is well documented in Ireland. Some participants felt that younger people were more removed from understanding the origins of natural food and therefore making more unhealthy choices. For example, one woman welcomed a campaign initiative she had seen on television to involve children in growing vegetables as she had experienced growing up. *'Trying to get back to the old ways I suppose which is very good really. Get away from all this junk food'* (F65,H).

Food-related awareness and knowledge

Participants noted recent media preoccupation with cooking and most preferred 'plain food' rather than striving to increase complexity or variety. Men described having a passive role in household food choice and preparation generally in comparison to more involvement and interest in younger men today, a tradition seen as too *'embedded'* to change. The media was also an important source of health-related food knowledge and much change in awareness of such issues was described in recent decades. Many reported disillusionment at conflicting health messages about certain foods. A few participants who were endeavouring to change their diets used multiple information resources such as the internet, television and newspapers. Others maintained their own commonsense approaches to eating healthily discounting what was viewed as *'faddy'* media information. Personal experience and anecdotal evidence also led some people to discount the reliability of media-relayed health messages. In particular participants felt they were either genetically prone or not to certain conditions through observation of family patterns of disease over the years. Dietary advice from doctors and health professionals, if imparted, was taken on board by many participants. Some augmented such advice with advice from non-professional sources such as friends and family. Food labelling in recent years and had also been perceived to enable more informed choices based on the healthfulness of foods, particularly awareness of preservatives, salt and fat and sugar content. Increased understanding of calorie information via the media and weight loss clubs such as Weight-Watchers was also felt to be helpful by some. Others felt dietary pre-occupation if taken to extremes could lead to ill-health outcomes and relayed anecdotes of people known to them who had developed health problems through extreme measures to eat healthily.

4. Discussion

The life course perspective offers a conceptual framework in order to explore how current dietary patterns are influenced by past experiences and changing environments[11]. In this study the life course approach was applied to investigate the effects of changing life roles and micro-contexts and broader economic and social change over the years on current food choice and perceptions of food in a sample of older Irish people. Understanding how present decisions arise out of cumulative life experiences rather than looking at current behaviour patterns in isolation may be useful when addressing healthy eating.

As outlined in the literature[20,21,24], food experiences in early life in this sample played a key role in determining the basis of current food choice patterns. Enduring preferences for 'traditional' foods were expressed by many for foods such as porridge, brown bread, potatoes and bacon and cabbage. A historical synopsis of Irish food described the traditional diet as 'simple food', believed to be the legacy of harsh economic circumstances[49]. It has been found that key features of the diet such as milk, meat, grains and legumes have endured over many centuries while potatoes, tomatoes, sugar, tea and coffee were more recent editions[50]. Beef and dairy produce have reportedly been held in high cultural esteem down through the ages[49]. The preference for simple or plain food encompassing these features endured in the psyche of many of these participants despite wider varieties of foods available today. Similar consumption patterns were found in older people in a survey of 1379 Irish adults conducted during 1997-1999[51]. This emphasises the often habitual and unconscious nature of food selection based on deeply embedded cultural norms as described by participants. While the legacy of some of these cultural food practices such as eating porridge may have positive health benefits, other norms such as the central role of meat and cultural identification with certain high-fat foods may need to be considered when promoting dietary change. While many maintained the custom of eating fish on Fridays, the Catholic religious symbolism of fish as 'sacrificial' and therefore less satisfying food appeared to be being replaced by a perception of it as a tasty and healthy food in some participants. Fresh local fish was perceived by some as being prohibitively expensive. Cultural attitudes towards fish may influence its availability within the wider food system. Also worthy of consideration is the symbolic role different foods can play. For example, offering confectionery was perceived as symbolic of generosity and ritual sharing of such foods was alluded to by many as an ingrained custom as described in the UK[52]. The transition from using home-baked goods to more store-bought confectionery in this sample may suggest that the essence of such cultural practices could be perpetuated in new ways as food systems change. The legacy of the custom of special meals on Sundays may have played a part in some participants feeling that they presently over-indulged with richer foods on Sundays or other designated 'special food' day. Others describing a norm of consumption of large quantities of food when younger may suggest that perceptions of appropriate portion sizes may need to adjust as people lead more sedentary lives.

Changing roles and life experiences such as parenthood, work and retirement also sometimes impacted on food choices. The effects of such changes on consumption patterns were seen as gradual as people recalled changing quantities or types of foods consumed which they attributed to external circumstances at different periods in their life. Such micro-contextual changes occurred within a wider changing macro-context of higher standards of living and increased affluence for many along with a more sophisticated food system. Early experiences of home-produced food and understanding of the origins of food influenced perceptions of modern packaged and convenience foods. Consumption of fresh meat and vegetables prepared from their natural state was favoured over consumption of more processed foods. The conundrum of the wide-spread consumption of confectionery products such as chocolate and biscuits, while also processed and packaged perhaps requires consideration via a cultural perspective in that sweet-tasting food may be highly valued in Irish society. Confectionery has also been noted to have the ambiguous classification of being both a food and a non-food and may therefore be conceptualised more symbolically than 'proper' food from which to obtain nutrients. It may thus also be perceived as a food suitable for 'non-meals' or snacks[52]. Similarly processed breaded fish was preferred to fish in its natural state for some, emphasising ambiguous cultural attitudes to fish.

Some participants in this sample felt that their consumption of certain or all foods was difficult for them to control. They equated availability with temptation and tendency to consume. For instance, confectionery was a rare treat for many in early life, with consumption limited by financial constraints and availability. There has no doubt been more widespread availability, variety and affordability of such products in Ireland over participants' lifetimes. While the majority felt that such foods were unhealthy,

for many, desire for such foods was stronger than perceived ill effects. The status of 'treat' products perhaps also changed over participants' lifetimes. Sweets and fruit were treats in early life. Fried fast foods and confectionery were treat foods in younger adulthood. As participants aged and some became more interested in health, perceived 'unhealthy' foods such as high-fat and high-sugar foods were relegated to the status of occasional treats, their consumption being limited for health reasons rather than financial constraints. It could be argued that foods are seen as treats only if their consumption is constrained for a particular reason. Widespread availability perhaps 'normalises' the routine consumption of foods traditionally viewed as treats without taking account of their lack of nutritional value. Others, who continued eating such foods regularly, displayed ambivalent attitudes encompassing guilt and lack of control temporarily suspended by expectations of high palpability. Specific environmental changes such as the availability of certain low-cost products were described by some participants as leading to increased consumption. While some attributed external sources as temptation to consume, others located an internal locus of control regarding consumption, remaining unaffected by the changing food system. The notable increase in restaurants and proliferation of 'eating out' culture in Ireland in recent years did not impact significantly on the participants in this study who ate out mainly for special occasions. Richness of food, large portion sizes, cost and perceived poor quality were deterrents to eating out more regularly for various participants. Some participants were eating out more regularly due to changing home circumstances such as widowhood which indicates that with changing levels of social report eating out could feature more prominently and therefore older people's needs, preferences and quality standards for eating in a social setting should be addressed.

Participants varied in their attitudes to perceived personal risk of consuming 'unhealthy' foodstuffs. Changing eating habits on the grounds of health was viewed as a valid reason for changing consumption practices perceived to be unhealthy such as consuming foods with high fat, sugar and salt content, however it appeared from participants' experiences that salient health threats were usually required, demonstrating an optimistic bias as found in other research[53]. While there was perceived to be much wider availability of nutrition information in recent years, conflicting information was noted as a deterrent to following advice as shown elsewhere[54]. Advice from health professionals appeared to be more trusted among participants as found in other research[54]. However, comprehension and uptake of such advice could be mediated by other factors such as education level[19]. Conceptions of a healthy diet veered towards advocating the traditional diet as healthy along with more modern conceptions of low-fat, high-fibre diets, displacing the central role of meat and potato based dishes. Most participants alluded to concepts of variety and moderation as being healthy. However, multiple meanings of these concepts were evident as found in other studies[55]. Such ideas were garnered from a variety of sources. Perceptions of a healthy weight varied among participants with some taking perhaps the more traditional view of extra weight as necessary for robustness in the event of ill-health or presenting no risk. Others saw achieving a healthy weight as important for overall health and varied in success in achieving their target weight. The general rejection of many processed products suggests a gap between participants' expectations concerning food based on life experiences and industry conceptions of food. Such concerns in preference of natural, fresh foods have been observed in older people across Europe[56]. Increased information transparency arising from food labelling and media focus was seen in some participants to further argue for rejection of processed foods on the basis of dubious nutritional value while also assisting in choosing foods based on conceptions of healthfulness.

Participants in this study described adequate economic resources, social support and transportation to meet their food needs, in contrast to difficulties that may be encountered by vulnerable elders as shown in other research[57]. Participants generally expressed satisfaction with their food lives, feeling they were able to eat as and how they wished while some desired items such as fresh fish and organic poultry were highlighted by some as being prohibitively expensive. The trend observed in some towards shopping for fruit and vegetables in discount stores was explained by dissatisfaction with perceived quality and value of rival supermarket produce. This observation highlights the changing retail landscape and indeed economic conditions in Ireland.

Exploring food choice in this particular sample of older Irish people afforded a unique opportunity to look at the intersection of personal, developmental and broader environmental change on dietary patterns in a particular cultural context. Participants described how changing life roles that occurred within the context of a 'modernising' Ireland brought new challenges and opportunities for food consumption while negotiating more traditional consumption rules and patterns. Influences from the changing broader

environment on food choice were guided and constrained by participants' early food experiences. Changes within the food system such as wider availability of high-fat and high-sugar foods may have influenced creeping processes of change contributing to the development of chronic disease or associated risk factors in some participants. Increases in nutrition knowledge and awareness over time arising from changing media and cultural emphasis as well as experiential knowledge due to ageing led to modification of food choice patterns for some. The dynamic and complex nature of influences on food choice highlight the importance of addressing current patterns of food choice in a culturally-specific manner, taking account of food life experiences to date. The qualitative methodology employed allowed these issues to be examined in detail and depth. While, the small sample size which qualitative research necessitates renders the findings ungeneralisable to the larger population, the sample was purposively chosen in order to gain as rich and varied an insight as possible into food choice in the group of interest by choosing participants living in rural and urban environments, of varied age and body-mass-index. All older adults in this study were community-dwelling and independent individuals. Further research is needed to explore factors affecting food choice in less able-bodied and independent older people.

In conclusion, this research highlights the importance of acknowledging the cultural context in which food choice behaviour occurs. Culture-specific norms can have long-lasting influences on food choice and industry needs to take account of how products may be appropriated to take on new meanings within specific cultures which may lead to less healthful food choices. Widespread availability, portion sizes and marketing strategies may contribute to some participants feeling out of control regarding consumption of certain products. Perception of diet as a risk factor for chronic disease was low in these participants unless linked to personal experience. Clear explicit health messages, nutrition labelling and tailored interventions may lead to more awareness of the importance of a healthy diet for the prevention and management of chronic diseases. The participants in this sample desired quality fresh raw ingredients to prepare meals and needs-appropriate food when eating out. The food industry is challenged to provide such produce at a non-prohibitive cost in order to facilitate food choice that will maximise health and contribute to the prevention and management of chronic disease.

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