FABIAN COMMISSION ON FOOD AND POVERTY
Working paper 3: Health

Contents

This paper provides context, background and key questions for the third hearing of the Fabian Commission on Food and Poverty on health.

The hearing is at 11am on Thursday 8th January 2015 in Friends House, London.

Witnesses will be:

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Introduction: Healthy diets and poor UK averages

The health repercussions of a poor diet are considerable. Diets failing to meet recommended standards have been linked to reduced life expectancy, as well as a range of physical and mental ailments. The impact of diet-related public health problems has been compared to that of cigarettes by some, while others have estimated that a poor diet is linked to 30% of life years lost in early death or disability each year (respectively: Square Meal, 2014 and Faculty of Public Health, 2005).

Though the consequences of a poor diet are clear, the nature of the problem, and subsequent approaches, are more complex. A poor diet is influenced by a number of determinants, beyond individual choice alone, such as the broader consequences of a general shift towards 'fast' and convenient food in the developed world (Square Meal, 2014). Subsequently, recommendations for improving health and diets both deal with the individual and broader, 'macro' systems.

The subject of food-related health has been approached in a number of different ways, including consideration of socio-economic gradient, the particular needs of child nutrition and the dietary consequences of emergency food provision. Within each of these, concerns for rising levels of obesity, 'modern malnutrition' and malnourishment dominate. Furthermore, aside from these long-term considerations, the issue of health usually peaks in public significance immediately after a food scandal, such as the recent scare concerning campylobacter contamination in chickens.

Finally, suggestions for improvements are divided. There is a tension around the different elements – behavioural and environmental – that determine diet. Subsequently, previously suggested approaches target a range of groups, with some calling for increased government intervention and information provision to stimulate individual choices and regulate advertising, and others demanding local authority responsibility to ensure access and availability of affordable, nutritious food.

Obstacles to a healthy diet

UK diets: the nature of the problem

Formal and government institutions have played an important role in advising the public on what constitutes a healthy diet and lifestyle, and it is upon these benchmarks that the UK national diet is typically assessed. And although definitions of 'public health' are contested, formal institutions have set national standards (Rayner and Lang, *Ecological Public Health*, 2012). Currently, the government advises 5 portions of fruit and vegetables a day, at least 1 portion of oily fish a week, moderate amounts of milk and dairy, small amounts of food high in fat or salt or sugar, vitamins and dietary supplements, and alcohol in moderation, combined with a healthy weight and BMI (Faculty of Public Health, *Nutrition and Food Poverty*, 2004).

However, UK diets fall significantly short of these recommendations, correlating with high numbers of overweight and obese people, with some estimating that by 2050 over half the adult population could be obese (*Foresight: tackling obesities*, 2007). And increased numbers of overweight and obese people have significant health repercussions.

Undernutrition and 'modern malnutrition' are stubborn problems in modern Britain, defined as 'excessive intakes compared with energy spent', a combination of obesity and an unhealthy diet of excessive sweet, salty, fatty foods, with little fruit, vegetables and fibre (*Nutrition and Food Poverty*, 2004). Though the concept of 'modern malnutrition' might seem paradoxical in the context of obesity, suggesting indulgence and food excesses, the concern here is not the *quantity* of food accessed generally, but rather its poor **quality and nature of its consumption**.

The consequences of such developments are significant. It has been estimated that 70,000 deaths could be avoided each year if UK diets matched nutritional guidelines on fresh fruit and vegetables, saturated fat, and added sugar, with poor diets falling short of these guidelines being linked to an increased risk of **cancer, heart disease** and other conditions, such as those concerning **mental health** (Cabinet Office, *Food Matters, 2008*).

And the consequences of this 'looming health crisis' are already apparent (ODI, *Future Diets*, 2014).

Socio-economic gradients

There are a wide variety of factors influencing the likelihood of a healthy diet, including geography and location, low incomes and ability to buy food (**see Context & Access working paper**), employment status, age, cultural origin and social norms, and family status (*Nutrition and Food Poverty*, 2005).

However, the social gradient of food poverty, well documented throughout the Commission, is also prevalent in the context of health, with **lower income groups** more likely to suffer obstacles to healthy, nutritious food, and therefore more likely to have an increased risk of the associated ailments. The social gradient in nutritional inequality is

Food and Health: facts and figures at a glance

- Only **30%** of UK adults meet the government criteria of five portions of **fresh fruit and vegetables** a day
- Only **8.5%** of children meet the guidelines
- **Healthy food costs** on average **three times more** than unhealthy food, per calorie
- An average **64%** of the UK population is now classed as '**overweight' or 'obese'**, up from 38% in 1980
- **One in three** adults has '**pre-diabetes**' or **high cholesterol**
- An estimated **70,000** deaths could be avoided each year if UK diets matched govt nutritional guidelines
- An estimated **1.3-2.5million** extra years of life could be enjoyed by those **dying prematurely** each year in the UK because of **health inequalities**
- **28%** of those admitted to UK hospitals and care homes were **malnourished** in 2008
- Diet-related diseases cost the NHS an estimated **£6bn** per year

All data sourced from:

National Diet and Nutrition Survey, 2014

Jones et al., 'The growing price gap between more and less healthy foods', PLOS One, 2014

'Obesity quadruples to nearly one billion in developing world', BBC News, 3.1.2014

Cabinet Office, Food Matters, 2008

The Marmot Review, 2010

Square Meal, 2014

reflective of health inequalities more generally. Indeed, the Marmot Review noted that the lower a person's social position the worse his or her health was likely to be.

Diet inequalities are borne out in the literature, where *The National Diet and Nutrition Survey* (2014) divided nutritional statistics into quintiles, indicating that total energy and protein intake and fruit and vegetable consumption was lower overall in the lower income quintiles than upper ones. Evidence suggests that this is partly a result of the increasing cost of healthy food, exacerbated by the declining wages of low income groups (Donald Hirsch and JRF, *Minimum Income Standards*, 2014).

Child nutrition

The interest in child nutrition dominates the literature on healthy eating, and seems to be the main age group of interest, with comparatively less written about adults and the elderly. In many ways, this emphasis reflects the 'predistribution' angle of debates, focusing more on early intervention, to avoid spending in later life, in contrast to non-preventative provision for older groups which might cost more, such as treatment for ailments.

The literature indicates that the average UK child consumes a poorer than recommended diet, with 1 in 3 children presently considered obese or overweight (QUB presentation, McKinley, 2014).

Importantly, as well as being influenced by a **socio-economic** gradient, poor diet and associated ailments amongst children are also shaped by **gendered**, **geographic** and **ethnic minority** dimensions. While some research suggests that healthy eating is associated more with girls 'watching their weight', and gendered assumptions amongst children of boys needing to keep active and therefore consume a more calorific diet (see Barnado's, *Burger Boy and Sporty Girl*, 2004), other work identifies that children of ethnic minority origin, or from areas such as the North East, West Midlands, Scotland or Northern Ireland, are more likely to have a poor diet and be obese (School Food Trust, *The link between child nutrition and health*, 2008).

Such poor diet can have significant health consequences for children. Research on **'early nutrition'** outlines how eating behaviours in early years are linked not only to children's health in later childhood, but also **social and cognitive outcomes**, linked closely to **health inequalities** and **poor social mobility** (*For Starters*, Demos, 2012). Nutrition in early life influences critical and sensitive periods of development in a child's life which can have life-long influences on the likelihood of developing **chronic diseases**, **poor behaviour, obesity, dental problems, physical growth stunting, diabetes, and impaired cognitive development** in later life (McKinley, QUB, 2014).

This interest in children's health is accompanied by a concern for the inadequacy of school food provision (*Burger Boy and Sporty Girl*, 2004; *Health in Schools in Swansea*, 2006). It is worth noting that since these reports, and high profile interventions (most notably from Jamie Oliver since 2005), school food standards have in fact been tightened greatly, with national school

food standards phased in from 2006 after previous regulations were removed in 1980 (see *Turning the Tables: Transforming School Food*, 2005 and the government's most recent recommendations in *School Food in England*, 2014). In fact, government intervention to improve school food standards, requiring Local Authority action and school responsibility, indicates the influential role of public opinion in calling for these changes. Furthermore, action to improve school meals has sought not only to improve children's diets but also children's attitudes to food: a 2008 report found many children erroneously associated 'healthy eating' with a low calorie diet (School Food Trust, *The link between child nutrition and health*, 2008).

Mental Health

Though less dominant in the literature than the physical ailments caused by malnutrition, research suggests that nutrition can strongly affect mental health, again shaped by other determinants such as age, genetics and environmental factors.

According to the Mental Health Foundation's *Feeding Minds* (2005), the particularly detrimental influence of fats, additives, toxins and oxidants in food can influence a range of mental health problems including:

- **ADHD / childhood concentration / anti-social behaviour** – linked to eating breakfast each morning / dehydration / inadequate vitamin intake
- **Depression** – related to low folic acid levels and serotonin
- Other problems such as: **schizophrenia, pre-natal depression** and **Alzheimer's**

However, there is still more research to be conducted on the influence of nutrition on brain structures, while government departments such as that of health need to do more to stress the importance of a balanced diet on mental as well as physical health (Associate Parliamentary Food and Health Forum, *Links between diet and behaviour*, 2008).

Dental hygiene

Another consequence of a poor diet is poor dental health, particularly as caused by sugary foods which can cause 'dental erosion', causing gum disease, cavities, tooth decay, and even extractions. According to the British Dental Health Foundation, it is less the *quantity* of sugar consumed, and more the *frequency* of its consumption i.e. if frequently in between regular meal times (British Dental Health Foundation website - https://www.dentalhealth.org/tell-me-about/topic/sundry/diet).

Indeed, there is a clear link between 'healthy' eating and good oral health, which could curb the continued prevalence of poor dental hygiene, the consequences of which are striking, with almost a third of five-year olds having tooth decay in 2012. Furthermore, as with health inequalities in general, reports have also stressed the regional and social gradients of oral health inequalities (Public Health England, *Local Authorities improving oral health*, 2013).

More recent / ad hoc

When it comes to food and health, 'food fraud' and safety often peak in interest following contamination events, as with the recent horsemeat scandal (see the *Elliot Review*, 2014) or concerns with chicken contamination (with Tim Lang calling for a boycott of supermarket poultry). Such considerations about the 'safety' of food often concern the lack of transparency and public accountability in food production. There is evidence to suggest that concerns with food safety and provenance will expand alongside the rise of cheap food, both within the established supermarkets and new, cheaper providers.

A more recent concern has accompanied that rise of emergency food usage, where questions have been raised around the nutritional content of emergency food. For example, the recent Food Ethics Council / Warwick report (2014) outlined the importance of research on the long term nutritional impact of food bank usage.

Beyond food bank usage specifically, there is evidence to suggest that an already poor UK diet is worsening. Anecdotally recorded increases in the cases of **rickets**, particularly among children, in relation to vitamin deficiency and malnutrition, have been linked to 'manifestations of extreme poor diet', as referred to by Faculty of Public Health (FPH, forthcoming – cited here). Indeed, latest figures show there has been a 19% increase in people hospitalised in England and Wales for malnutrition over the past 12 months, which may mean that average figures are masking an even steeper dietary decline for some at the sharp end (cited here).

Review of recommendations

The spheres of the individual (lifestyles, individual choices), the micro-system (home, school, work), the mesosystem (neighbourhood, social life relationships), the exosystem (local council decisions), and the macrosystem (social and health policies, cultural norms and values), all influence the likelihood of a good or poor diet in different ways, and recommendations vary by the sphere they prioritise (QUB, McKinley, 2014).

Influencing behaviour and structure

There has been a shift from seeing accountability for healthy eating as an individual concern, the responsibility of families and individuals to make **the right dietary choices**. This was the thinking behind '5 a day' and food labelling, implicitly assuming that education and information could be the best ways to enhance healthy eating choices (see the recommendations in *Food Choices*, 2008).

In recent years, however, there has been an increasing realisation that structural considerations (like wages and the lived environment) shape the options open to people (see especially *Nutrition and Food Poverty: A Toolkit*, 2004). So action is needed at a macro level, involving institutional action (e.g. school provision of nutritious food), local participation

(organisational changes to ensure access) and legislative change (e.g. sugar tax proposals – to place responsibility on food producers; advertising).

Addressing individual choice and behaviour

As well as the UK government's extensive five-a-day campaign, there is much that can be learned from developing as well as developed countries on influencing individual choice. For example, Brazil's latest dietary guidelines call for individuals to make choices on the basis of several principles:

- Choosing natural / almost wholly natural foods over processed goods
- Amending culinary preparation to decrease amount of oil, sugar, fats and salt used
- Eating regularly and carefully – avoiding snacking
- Eating in 'appropriate' environments, and in company

However, it's worth noting that these guidelines designed to influence individual choice and behaviour are coupled with a concern for larger obstacles including scarcity of reliable information, the high cost and poor availability of healthy foods, and the targeted advertising of ultra-processed foods to children and young people (See Geoff Tansey, 'Brazil's latest dietary guidelines', https://geofftansey.wordpress.com/2014/12/01/brazils-latest-dietary-guidelines-aim-to-tackle-both-under-and-over-nutrition-and-warn-of-dangers-of-ultra-processed-foods-and-advertising/)

Children's diets

For Starters (Demos, 2012) recommended that **early intervention** to shape nutrition in very early years needed to become a central component of government policy, by supporting young mothers better in advice on their children's eating, specifically through the provision of local government support, information and visits.

Barnado's *Burger Boy and Sporty Girl* (2004) outlined the wide range of influences on children's eating habits including 'micro' influencers, such as peer pressure and family rules, and 'macro' factors, such as media / advertising pressures, socio-economic factors (with wealthier children eating more nutritious food), and gendered factors. So Barnado's recommended both more effective education for children on healthy eating, but much more responsibility taken at an institutional level, with nutritional training for school caterers and banning unhealthy food / vending machines in the school canteen.

Macro action

As *Nutrition and Food Poverty* (2004) suggests, government can be better placed to target action using wide-ranging activities rather than simply offering advice to individuals. There are a number of structural recommendations that have been made since then:

- Address **cultural norms** (which are a structural influence on behaviour) via legislation on advertising, particularly for children (as recommended in a 2011 FPH briefing paper here)
- Address **low wages / welfare / financial means** (Donald Hirsch, JRF, 2014)
    - Also cited in University of Sheffield project *Changing Families, Changing Food* (2009) which stresses how family and individual choice neglect the fact that dietary practices are not only socially and culturally embedded but socio-economically inflected, shaping the 'myth' of choice in food provision in the 'victim blaming' approach apparently taken by local govt – so the paper called for taking seriously socio-economic factors like poverty / unemployment as contributory factors in health more generally
- Legislation on food quality such as proposed **sugar tax** (as advocated by England's Chief Medical Officer Dame Sally Davies, cited here)
- Government action in promoting a **'less but better'** approach to the consumption of lifestock - acknowledging the importance of food system sustainability (Square Meal, 2014)
- Making **natural connections** between individuals and the food they eat to ensure people take a personal interest (influence of individual attitudes)
- Greater **public transparency** on food production to ensure food safety
- Improving the **Food Standards Agency**, learning by example in Scotland and Northern Ireland
    - The newly established Food Standards Scotland (FSS) was established after the UK government moved responsibilities for nutrition and food labelling away from the FSA to be split amongst different departments. The FSS now has extensive powers in Scotland, including the power to seize food that fails to meet labelling rules
    - The FSA in Northern Ireland now actively considers **health inequalities** in the context of **economic insecurity and social exclusion**, highlighting the socio-economic gradients of poor diets (see: http://www.food.gov.uk/science/research/devolvedadmins/fs307008)

Problems and questions to consider

- What are the consequences of viewing the Department of Health / the NHS as being primarily responsible for public health?
- Are public health professionals / nutritionists adequately involved in government policy setting?
- What can we learn from **developing countries** in our approach to food health?
- How can the **Food Standards Agency** be improved to be more effective in its work, and what can be learned by the examples of Scotland and Northern Ireland?
- Why is there comparatively a weaker interest in **adult / mature adult diets** within public discourses on food? What of the diets of the elderly?

- Does **emergency food provision** threaten to worsen UK diets?
- How does the UK diet / public health compare to other **EU nations / developed** world? Is there anything we can learn from approaches in other nations to apply to the UK?
- How **unsafe** is UK food? And do short-term food safety scares truly reflect the nature of the problem?
- How have UK attitudes to food shifted in the **recent past**? And what's the prognosis for UK diets in the near **future**?

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