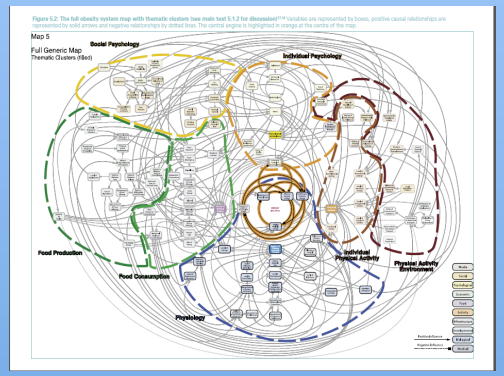
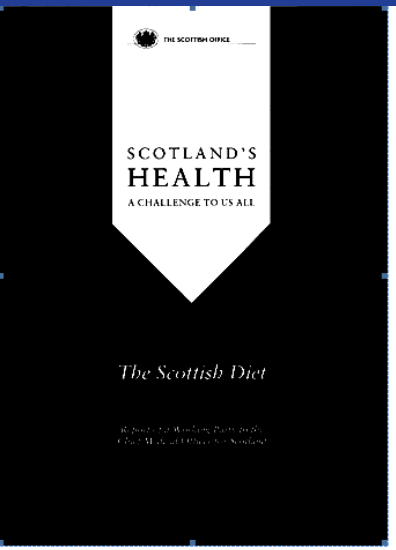
How easy is it to make healthy food choices in Scotland?

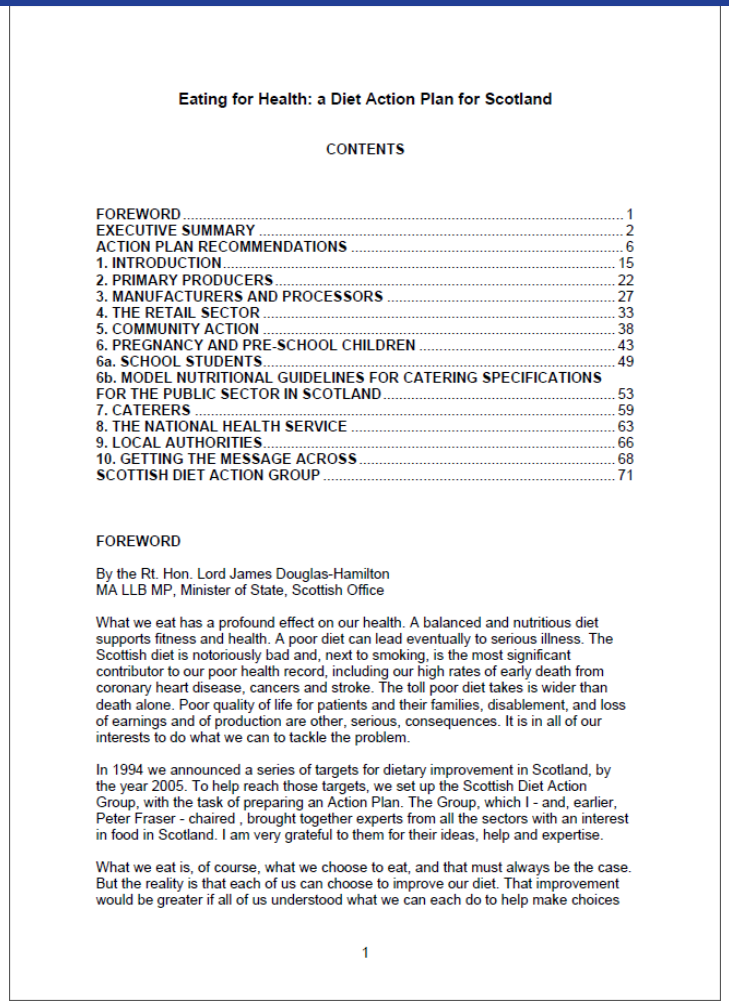


Flora Douglas

Rowett Institute of Nutrition and Health

A very brief Scottish dietary/food policy history lesson……1993 - 2012





Eating for Health: a Diet Action Plan for Scotland

CONTENTS

FOREWORD

By the Rt. Hon. Lord James Douglas-Hamilton
MA LLB MP, Minister of State, Scottish Office

What we eat has a profound effect on our health. A balanced and nutritious diet supports fitness and health. A poor diet can lead eventually to serious illness. The Scottish diet is notoriously bad and, next to smoking, is the most significant contributor to our poor health record, including our high rates of early death from coronary heart disease, cancers and stroke. The toll poor diet takes is wider than death alone. Poor quality of life for patients and their families, disablement, and loss of earnings and of production are other, serious, consequences. It is in all of our interests to do what we can to tackle the problem.

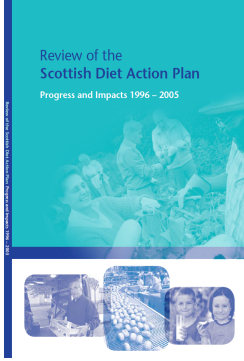
In 1994 we announced a series of targets for dietary improvement in Scotland, by the year 2005. To help reach those targets, we set up the Scottish Diet Action Group, with the task of preparing an Action Plan. The Group, which I - and, earlier, Peter Fraser - chaired , brought together experts from all the sectors with an interest in food in Scotland. I am very grateful to them for their ideas, help and expertise.

What we eat is, of course, what we choose to eat, and that must always be the case. But the reality is that each of us can choose to improve our diet. That improvement would be greater if all of us understood what we can each do to help make choices

1

The 1996 Scottish Diet Action Plan recognised that "dietary improvement was not achievable without tackling poverty and deprivation which underlines so much of Scotland's poor dietary and nutritional status".

2006 SDAP review...observed inputs and processes



1. The creation of alliances on food and health (to increase policy leverage).

2. The formation of the Scottish Community Diet Project to support community level food initiatives, especially in low income areas/groups).

3. The delivery of dietary information to expectant mothers (to improve infant and neonatal health).

4. Support for breastfeeding by appropriately trained health professionals (to improve infant diet and child health).

5. The development of health promoting schools and a whole school approach to healthy eating, catering and supply (to improve dietary education and the provision of healthy food in schools).

6. The provision of free fruit in schools (to intervene directly in children's diets).

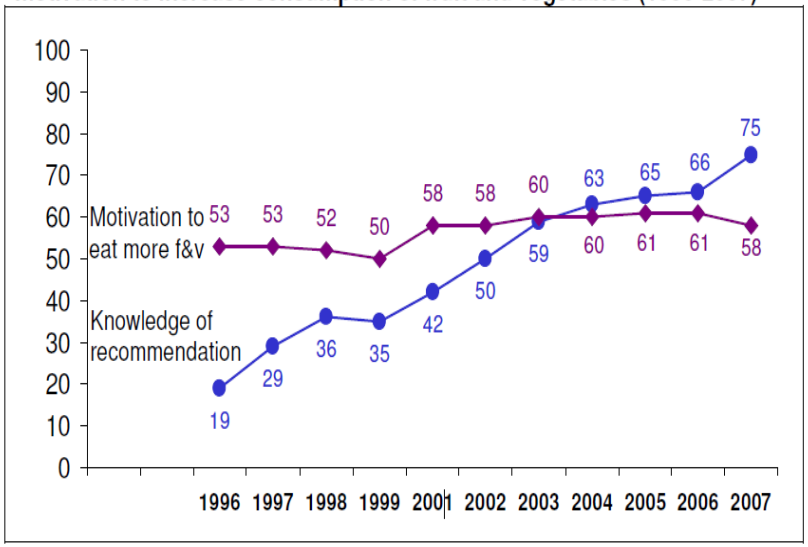
7. The setting of nutritional standards for school meals (to provide a lead in public sector catering).

8. The distribution of nutritional advice to every household in Scotland (to empower consumers).

9. The development of health education campaigns and resources on healthy eating (to raise awareness about healthy eating messages and support health **professionals).**

Observed SDAP population level outcomes

Figure 4.2 Time trends in knowledge of recommended consumption and motivation to increase consumption of fruit and vegetables (1996-2007)



Base: all respondents (2007: 1,921)

Source: Health Education Population Survey 2007

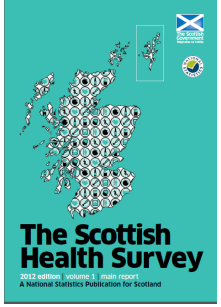
•Notable improvements in levels of knowledge associated with daily fruit and veg consumption recommendations.

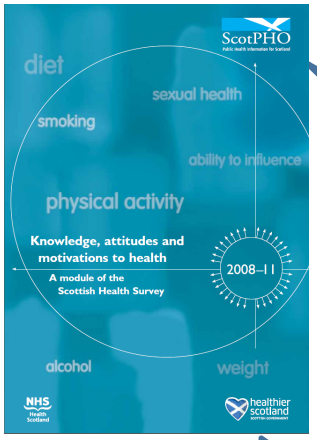
•Little change in motivation to eat fruit and veg

• ***Very little change*** in consumption patterns

• **Modest decline** in the consumption of food that **had targets to increase consumption** - e.g. brown bread and potatoes.

•Overall, the consumption levels of the 'healthy' foods that were targeted to increase **were significantly lower in the most deprived groups of the population**





.....2012/2013

Time-trend data between 2008 and 2011 showed that knowledge was not a good predictor of motivation, and that motivation was similarly not shown to be a good predictor of actual behaviour change.

.....population approaches intended to change behaviour primarily through increasing levels of knowledge within the population will be met with limited success.

Policies and public education campaigns should focus on the structural (as well as) individual influences on behaviour and consider the wider socio-economic inequalities

Complex 21st century living

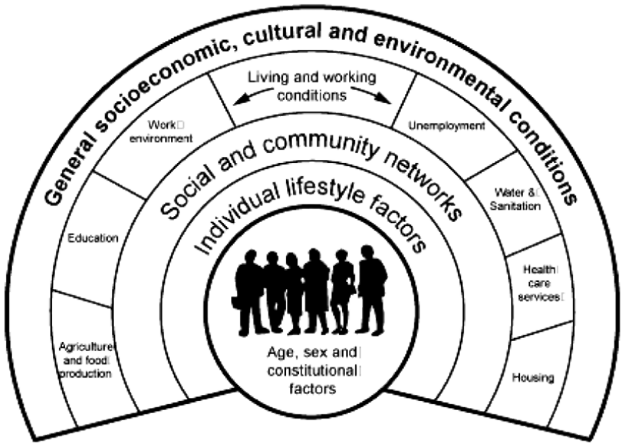
Tackling Obesities: Future Choice Report 2007

"the overwhelming scientific consensus is that modern life has become a major driver of obesity...[and }*.. that individual responsibility is important but insufficient to tackle obesity on its own". Butland et al 2007*

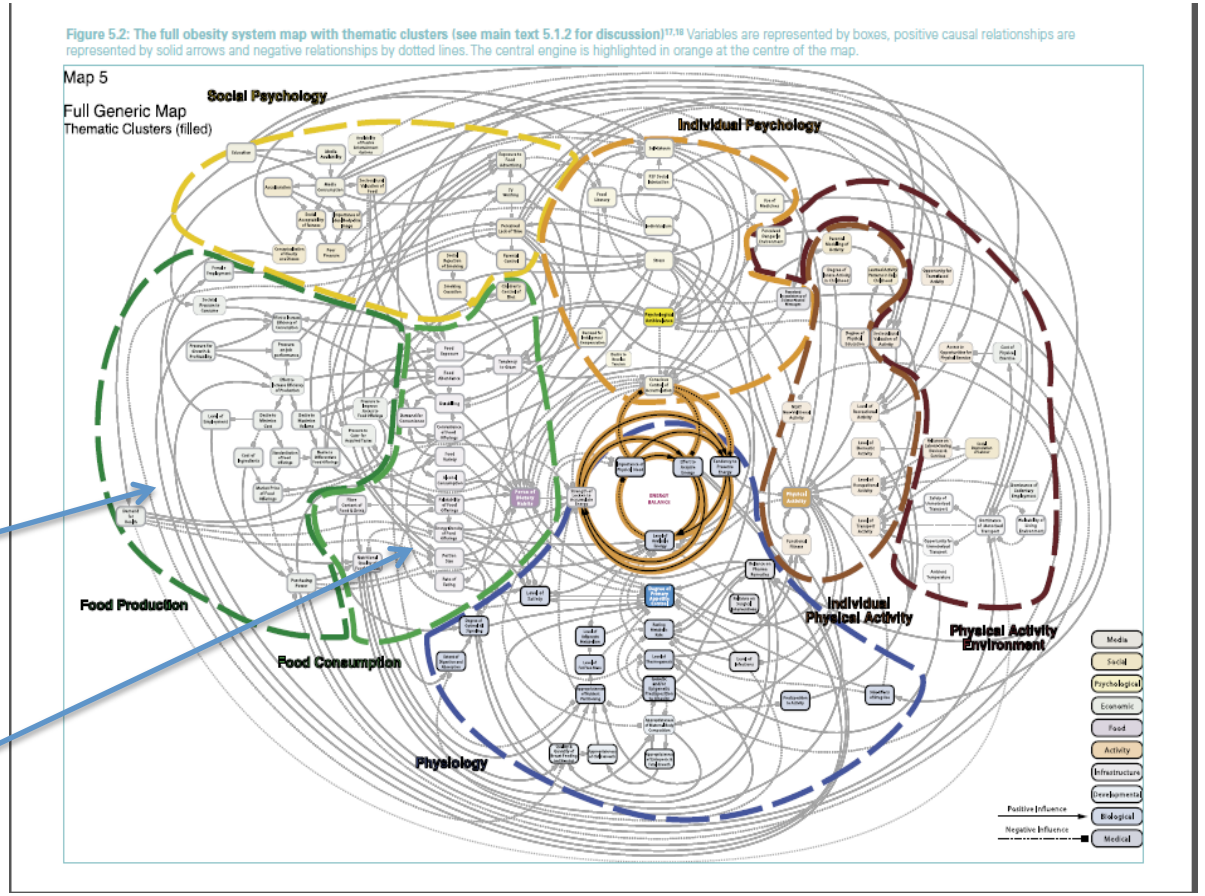
Derived from
38 international science reviews

"People in the UK today don't have less willpower and are not more gluttonous than previous generations. Nor is their biology significantly different to that of their forefathers. Society, however, has radically altered ..."
Butland et al 2007

Public health/health promotion mindset regarding the determinants of health and health behaviours

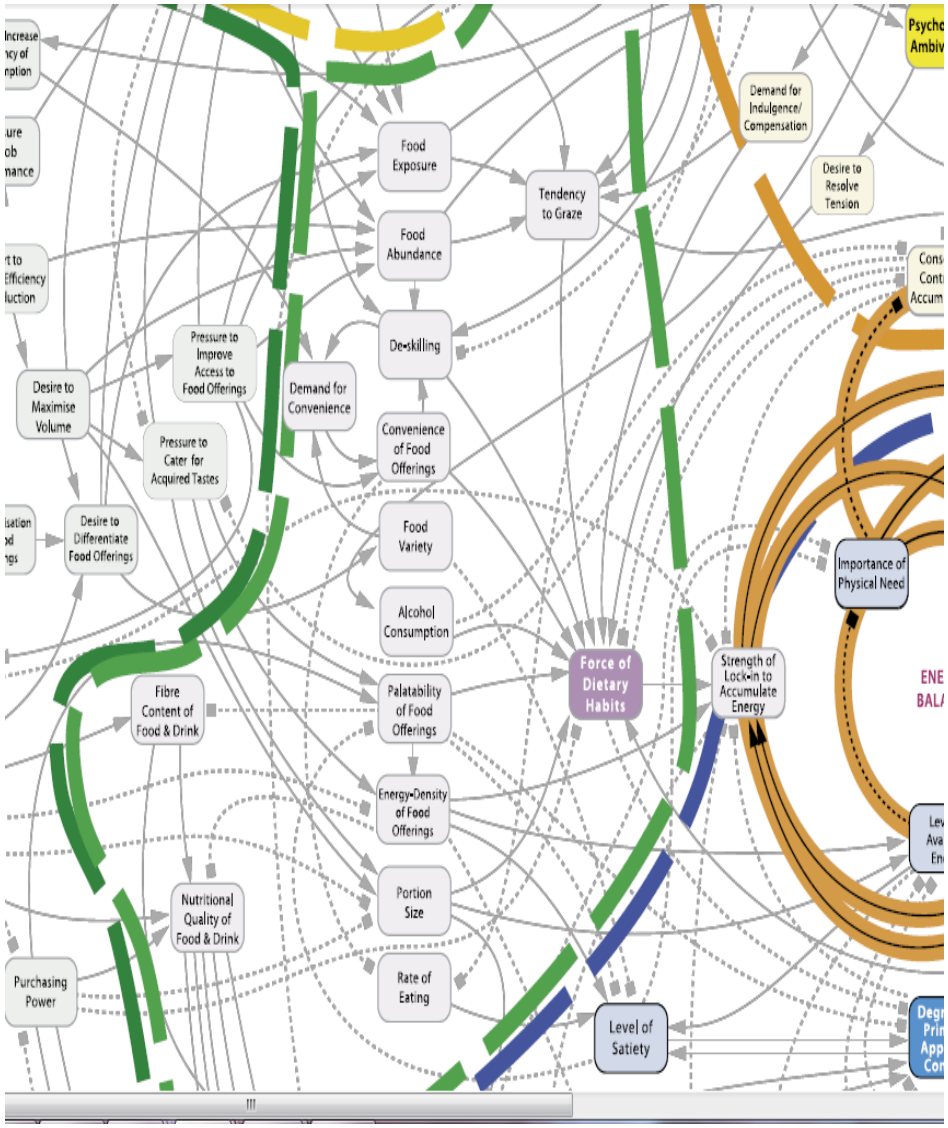


Layers influence model
Dahlgren and Whitehead, 1991



Foresight Report 2007 - Full Systems Obesity Map

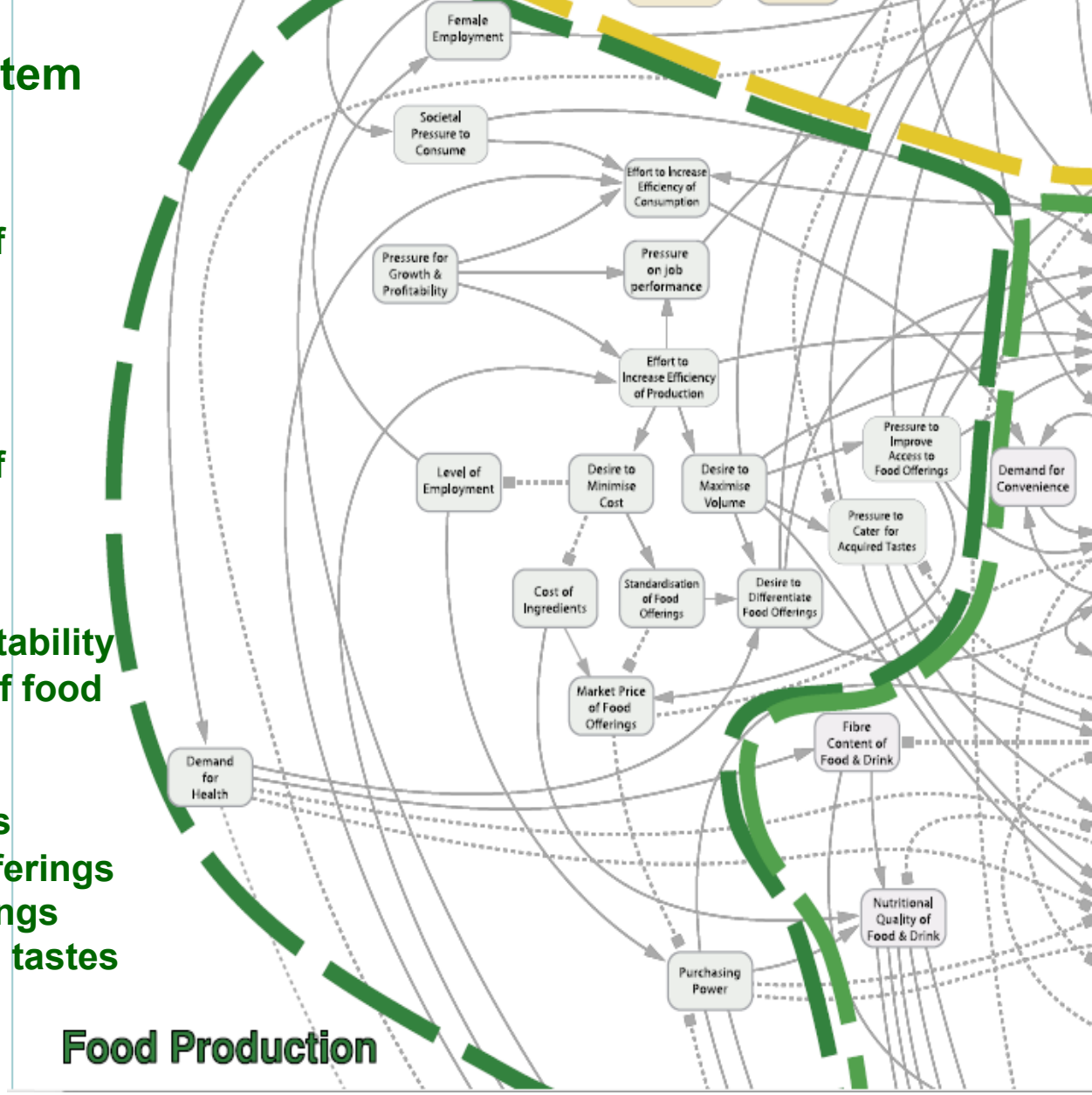
Food consumption system variables



- Force of dietary habits
- Food exposure
- Food abundance
- Tendency to graze
- De skilling
- Demand for convenience
- Convenience of food offerings
- Food Variety
- Palatability of food offerings
- Alcohol consumption
- Energy density
- Portion Size
- Rate of eating
- Nutritional quality of food

Food Production System Variables

- Societal pressure to consume
- Effort to increase efficiency of consumption
- Pressure on job performance
- Female employment
- Level of employment
- Effort to increase efficiency of production
- Desire to minimise cost
- Desire to maximise volume
- Pressure for growth and profitability
- Pressure to improve access of food offerings
- Cost of ingredients
- Market price for food offerings
- Desire to differentiate food offerings
- Standardisation of food offerings
- Pressure to cater for acquired tastes
- Demand for health
- Purchasing power



Some Scottish mothers' perspectives

Douglas et al. BMC Public Health 2014, 14:1009
http://www.biomedcentral.com/1471-2458/14/1009

BMC Public Health

RESEARCH ARTICLE Open Access

"It's a balance of just getting things right": mothers' views about pre-school childhood obesity and obesity prevention in Scotland

Flora Douglas[1*], Julia Clark[2], Leone Craig[2], Jonina Campbell[1] and Geraldine McNeill[1]

- **Mothers saw themselves as the primary (and capable) agents of obesity prevention in the early years – but were being undermined by intrinsic uncertainties and extrinsic pressures and mixed messages emanating from their social and cultural environments.**
- **Portion size / other environmental cues leading to overconsumption.**
- **Substantial efforts were being made to meet highly variegated family food preferences, values and dietary requirements on a daily basis.**
- **Strong motivation to *cook from scratch,* but talked honestly about cutting corners and breaking their own food rules when tired or pressed for time – all were leading busy lives.**
- **Managing meals in busy households with 'unconventional' work hours and meal schedules a big challenge! Need for speedy solutions and tradeoffs.**

Time and food behaviours

•Employed UK parents with children experience greater time pressure than those without children (Carrigan 2006)

•Dramatic decline in the amount of time spent on cooking average 2.5 hours in 1934, to 10 mins in 2010 in the UK Patel, (2007).

•UK study using US data concluded:

- •Spending time on food preparation at home may be key to healthier dietary habits.
- •Noted that those who spent the least among of time cooking are more likely to be employed, and more likely to spend money on food away from home or fast food outlets.
- •Government efforts aimed at identifying lowest cost food patterns need to explicitly account for time costs of producing healthier meals. Doing so would make the true costs of producing a healthier diet more realistic. Monsivias *et al* 2014

•Low income households want to provide high quality, nutritional food – but time and monetary constraints affects their ability to follow through on aspirations. (Jabs et al 2007)

Trends in low income and nutritional quality of food purchases

- Poverty and food insecurity are associated with lower food expenditures, low fruit and vegetable consumption, and lower-quality diets.
- Highest rates of obesity occur among population groups with the highest poverty rates, and, the least education.
- High energy density and palatability of sweets and fats are associated with higher energy intakes. Drewnowski & Spectre, 2004 (**1656 citations**)

Emerging evidence suggesting vulnerable sections of the UK population may be more at risk from under nutrition**....pensioner households, single-parent households, and households with young children experiencing the largest deterioration in the nutritional quality of food purchased between 2005-07 and 2010-2012** Griffith et al. 2013.

In 2012 the poorest 10% of UK households spent almost a quarter of their income (23.8%) on food and non-alcoholic drink, compared with an annual food spend of around 4.2% by the richest 10% of households Centre for Economics and Business Research 2013.

It costs more to eat a healthy diet

•Inverse relation between energy density (MJ/kg) and energy cost ($/MJ), energy-dense foods composed of refined grains, added sugars, or fats ...lowest-cost option to the consumer. Drewnowski & Spectre, 2004

Relatively higher costs of a healthy diet is a significant barrier to its consumption by those for those on low incomes Rao M, Afshin A, Singh G, et al. 2013.

2014 UK study (just published) shows that since 2002, more healthy foods and beverages have been consistently more expensive than healthy ones.

This trend is likely to **make healthier diets less affordable over time, which may have implications for individual food security and population health and may exacerbate social inequalities.**

Recommended ongoing monitoring of food prices (in relation to food nutrient composition) for public health. Jones et al 2014

Final words

2006 SDAP Review revisited.... The level of change defined against the dietary targets had underestimated the impact of social inequalities.

•Countervailing social, economic and cultural factors interfere with parent's decisions and ability to help their children manage their weight (Voigt, 2012)

•Nutritional advice typically focuses on **what to** eat and not **how to** fit those recommendations into busy lives (Jab, 2007)

Flora Douglas
Public health lecturer
f.douglas@abdn.ac.uk

References

Butland B, Jebb S, Kopelman P, McPherson K, Thomas S, Mardell J, et al. Tackling Obesities: Future Choice - Project Report. 2007.

Carrigan M, Szmigin I, Leek S. Managing routine food choices in UK families: The role of convenience consumption. Appetite 2006;47(3):372-383.

Centre for Economics and Business Research (2013) Hard to Swallow: The Facts about Food Poverty. Kellogs.

Whitehead, M., & Dahlgren, G. (1991). What can be done about inequalities in health?. *The Lancet*, *338*(8774), 1059-1063.

Douglas, F., Clark J, Craig L., Campbell, J.. & McNeill, G. 2014 Mothers' talk about pre-school childhood obesity and obesity prevention in Scotland. *BMC Public Health* 14:1009 DOI: 10.1186/1471-2458-14-1009 URL: http://www.biomedcentral.com/1471-2458/14/1009

Drewnowski, A. Specter, S. (2004) Poverty and obesity: the role of energy density and energy costs *American Journal of Clinical Nutrition,* 79: 6-16.

Griffith R, O'Connell M, Smith K. Food Expenditure and nutritional quality over the Great Recession. Institute for Fiscal Studies. Report No. ISBN: 978-1-909463-27-1, Nov 2013.

Jabs J, Devine CM. Time scarcity and food choices: an overview. Appetite 2006;47(2):196-204.

Jabs J, Devine CM, Bisogni CA, Farrell TJ, Jastran M, Wethington E. Trying to Find the Quickest Way: Employed Mothers' Constructions of Time for Food. Journal of Nutrition Education and Behavior 2007 0;39(1):18-25.

Jones, R.V.N, Conklin, A.J., Suhroke, M. And Monsivais, P. 2014 The growing gap between more and less healthy foods: Analysis of a novel longitudinal UK data set. *Public Library of Science* Oct: 10 e109343

Lang, T., Dowler, E, & Hunter DJ. *Review of the Scottish Diet Action Plan: Progress and Impacts 1996-2005* 2006 - NHS Scotland

Monsivais, P., Aggarwal, A. & Drewnowski, A. 2014 Time spent on home food preparation and indicators of healthy eating. *American Journal of Preventative Medicine* (Article in Press)

Patel R. Stuffed and starved: From farm to fork, the hidden battle for the world food system. London: Portobello Books; 2007.

NHS Health Scotland 2008 Health Education Population Survey 2007 http://www.healthscotland.com/scotlands-health/population/HEPS.aspx

NHS Health Scotland (2012) Knowledge, attitudes and motivations to health: A module of the Scottish Health Survey. Scottish Government: Edinburgh.

Patel R. Stuffed and starved: From farm to fork, the hidden battle for the world food system. London: Portobello Books; 2007.

Rao M, Afshin A, Singh G, et al. *Do healthier foods and diet patterns cost more than less healthy options? A systematic review and meta-analysis*. BMJ Open 2013; 3: e004277.