

The challenge of achieving a healthy and sustainable diet in Scotland

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Food in a global and national context

- Climate Change
- Global Commodity Prices
- Health

WHO (2008) *“placed climate change and health firmly on the agenda of the health sector, emphasising that a cross-sector response was vital”*

LANCET (2009) *“effects of climate change on health will effect most populations in the next decades and put the lives and wellbeing of billions of people at increased risk”*

- **Managing the Health effects of Climate Change**
- A collaboration between The Lancet and University College London, UK, resulting in the first UCL Lancet Commission report, setting out how climate change over the coming decades could have a disastrous effect on health across the globe.

 CabinetOffice

Food Matters

Towards a Strategy for the 21st Century

The Strategy Unit
July 2008

Making
government
work better

The destiny of nations depends
on the manner in which they
feed themselves.....

Brilliat-Savarin

The Future for Food in Scotland

Topic	%
Diet and Nutrition	68
Local food economies	49
Health Promotion	44
Education in schools	39
Access to food	38
Adult education	35
Farming Industry	33
Environ friendly produce	33
Local food +communities	30
Food labelling	28



Food and Drink Industry

Scotland Food and Drink is a private limited company which aims to help the food and drink sector in Scotland to grow the industry **from £7.5 to £10 billion over the next decade.**

- **Manufactured drink accounts for 82% of total exports** from food and drink industry from Scotland, with food being only 10% of export market

Costs of Diet and Alcohol related disease

Alcohol:

- Total cost to NHS Scotland = £400m[1]
- Total cost of alcohol misuse in Scotland = £2.25bn

[1] *Costs of Alcohol Use and Misuse in Scotland*, Scottish Government, May 2008 (estimate)



Diet:

- Total cost to NHS Scotland = £420m[2]
- Projected cost to NHS in Scotland by 2050 = £970m.[2]

[2] Using figures provided in Foresight (2007), *Tackling Obesities: Future Choices Project*, p 40, an estimate (10%) of these costs for Scotland has been made.

If we don't progress dietary goals and targets..

- *“By 2050 60% males and 50% females could be obese”*

Diabetes (JECH, 2009)

- *...results suggest that, although the incidence of diabetes remains lower in the UK than in the US, it appears to be increasing at a faster pace. We found an **increase of 74% in the incidence of diabetes in the UK between 1997 and 2003 (from 2.84 to 4.66 per 1000 person-years),**”*
- *? Sustainability outcomes*

A National Food and Drink Policy

Food and Drink leadership Forum

Chair: Richard Lohead (Cabinet Secretary for Rural Affairs and the Environment)

- Increasing sustainable Economic Growth of the food and drink industry
- Supporting consumers and the food and drink industry to make healthier and more environmentally sustainable choices.
- Celebrating and enhancing Scotland's reputation as a Land of Food and Drink
- Walking the talk - getting Government right
- Access, affordability, and security in relation to food

Workstream 2

“To work with the food & drink industry to enable and support consumers to make healthier and more sustainable choices”.

Work stream 2

“To work with the food & drink industry to enable and support consumers to make healthier and more sustainable choices”.

Meeting 1 Information, education and awareness

Meeting 2 Marketing and advertising

**Meeting 3 Government action:
Partnerships and opportunities**

Challenge One

- Defining a healthy AND environmentally sustainable diet

Scottish Dietary Targets/goals

Fruit & Vegetables	Average intake to double to more than 400g per day
Bread	Intake to increase by 45% from present daily intake of 106g, mainly using wholemeal and brown breads
Breakfast Cereals	Average intake to double from the present intake of 17g per day
Fats	Average intake of total fat to reduce from 40.7% to no more than 35% of food energy Average intake of saturated fatty acids to reduce from 16.6% to no more than 11% of food energy
Salt	Average intake to reduce from 163mmol per day to 100mmol per day
Sugar	Average intake of NME sugars in adults not to increase Average intake of NME sugars in children to reduce by half i.e. to less than 10% of total energy
Breastfeeding	See breakout box on page 27
Total Complex Carbohydrates	Increase average non-sugar carbohydrates intake by 25% from 124g per day, through increased consumption of fruits and vegetables, bread, breakfast cereals, rice and pasta and through an increase of 25% in potato consumption
Fish	White fish consumption to be maintained at current levels Oil rich fish consumption to double from 44g to 88g per week

Dietary Targets and goals

- Specific, scientific and long term
- Little disagreement
- Refinement of detail with increasing science base (red meat, energy intake, emerging science)

Definition of Healthy Foods

(FSA EatWell leaflets, website, front of pack)

	Low	Medium	High
Fat	$\leq 3\text{g}/100\text{g}$	$>3 - \leq 20\text{g}/100\text{g}$	$>20\text{g}/100\text{g}$
Saturates	$\leq 1.5\text{g}/100\text{g}$	$>1.5 - \leq 5\text{g}/100\text{g}$	$>5\text{g}/100\text{g}$
Sugars	$\leq 5\text{g}/100\text{g}$	$>5 - \leq 12.5\text{g}/100\text{g}$	$>12.5\text{g}/100\text{g}$
Salt	$\leq 0.3\text{g}/100\text{g}$	$>0.3 - \leq 1.5\text{g}/100\text{g}$	$>1.5\text{g}/100\text{g}$

Definition of Healthy Foods

(Scottish Food Profile- retail promotions)

SCOTTISH FOOD PROFILE takes account of FOOD based
Scottish dietary targets

Category based, consistent with current guidance, basic
foods

Dietary Targets/goals

- Refinement to embrace newer dimensions relating to sustainability- joint criterion
URGENT NEED FOR JOINT APPROACHES
- Real danger of compromising nutrition/compromising sustainability.
- Need to develop a dietary goals approach that “identity” 21st century challenges e.g Scottish Food Health targets

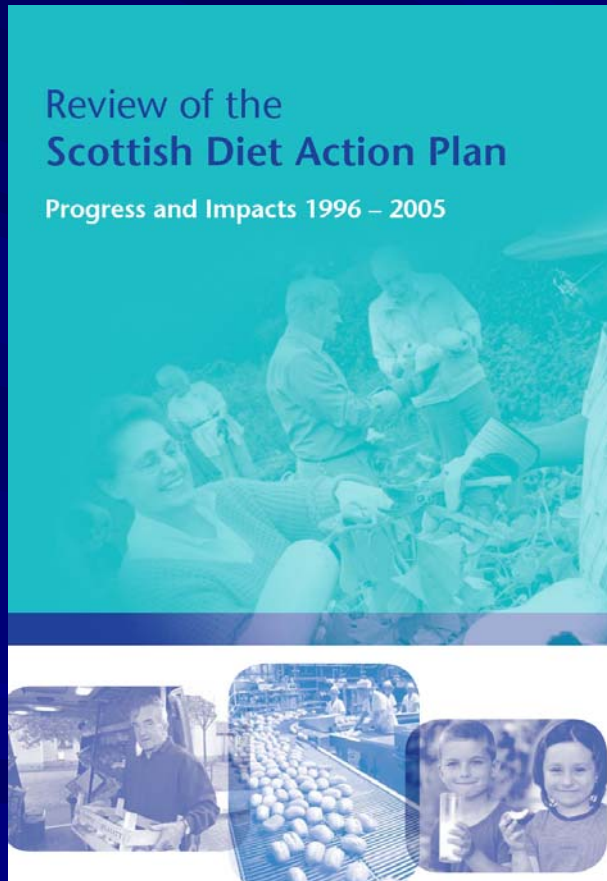
Sustainability issues

- Define food chain sustainability targets (livestock, production, processing, packaging, storage, travel, waste)
- Recognise limitation of “Local”
- Have consistency of food promotion messages (foods that are consistent with dietary targets, tension of “local” versus high sat fat products)
- Review choice editing (consider narrower choices but healthier more sustainable targets)
- Translate combined targets into food guidance for consumer

Challenge Two

- Recognising the limits of previous approaches.... More of the same isn't an option....

Key actions to date



- Scottish Diet Action Plan
- *Hungry for Success*
- *Schools (Health Promotion and Nutrition) (Scotland) Act*
- Public sector and community work

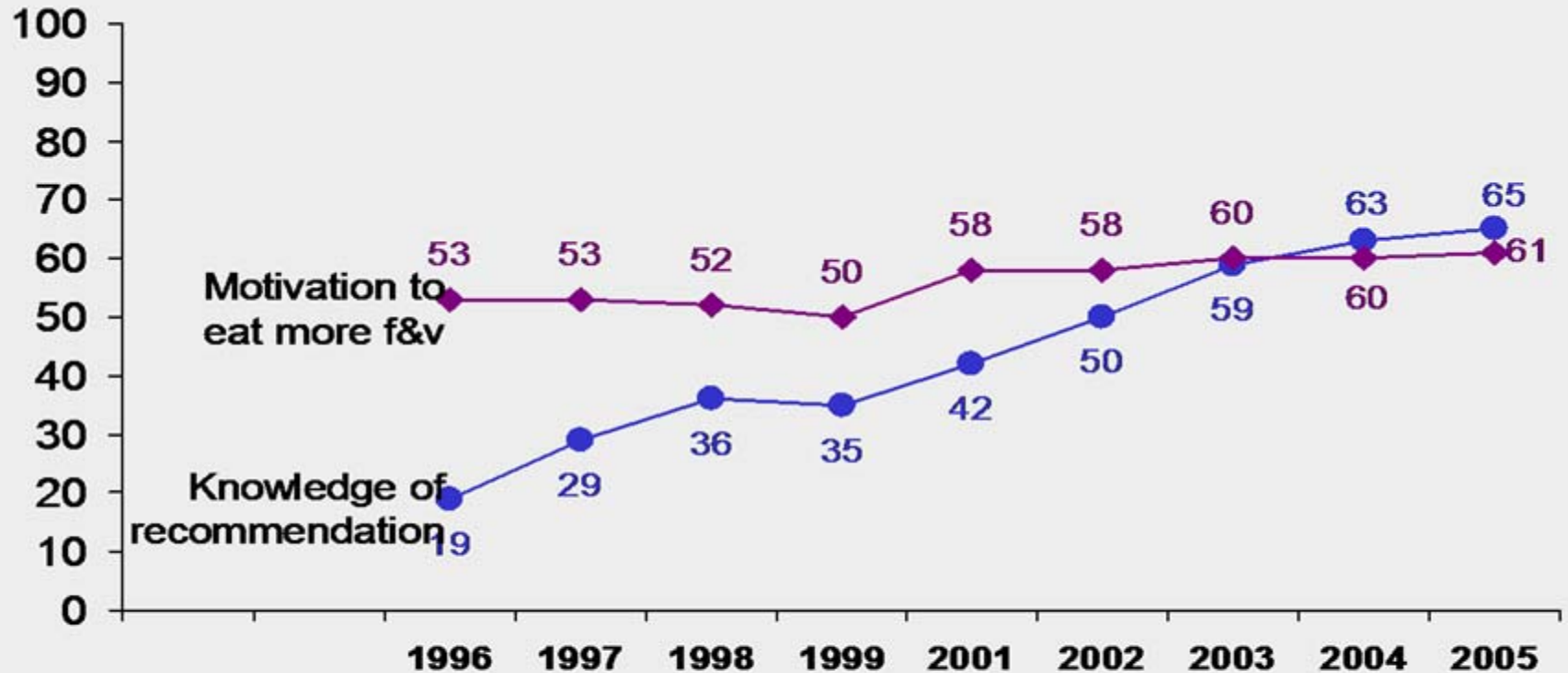
Formal information and educational strategies (1996 – 2006)

- Dietary advice for breastfeeding mums
- Development of health education campaigns and resources for healthy eating.
- Support for health professionals to give healthy eating advice.
- Distribution of nutritional advice to every household on Scotland.
- Health promoting schools - education and provision of healthy foods in schools.
- Setting of nutritional standards in for school meals – to provide a lead from the public sector.

■ *(Lang et al., 2006).*

Achievements!

Time trends in knowledge of recommended consumption and motivation to increase consumption of fruit and vegetables (1996-2005)

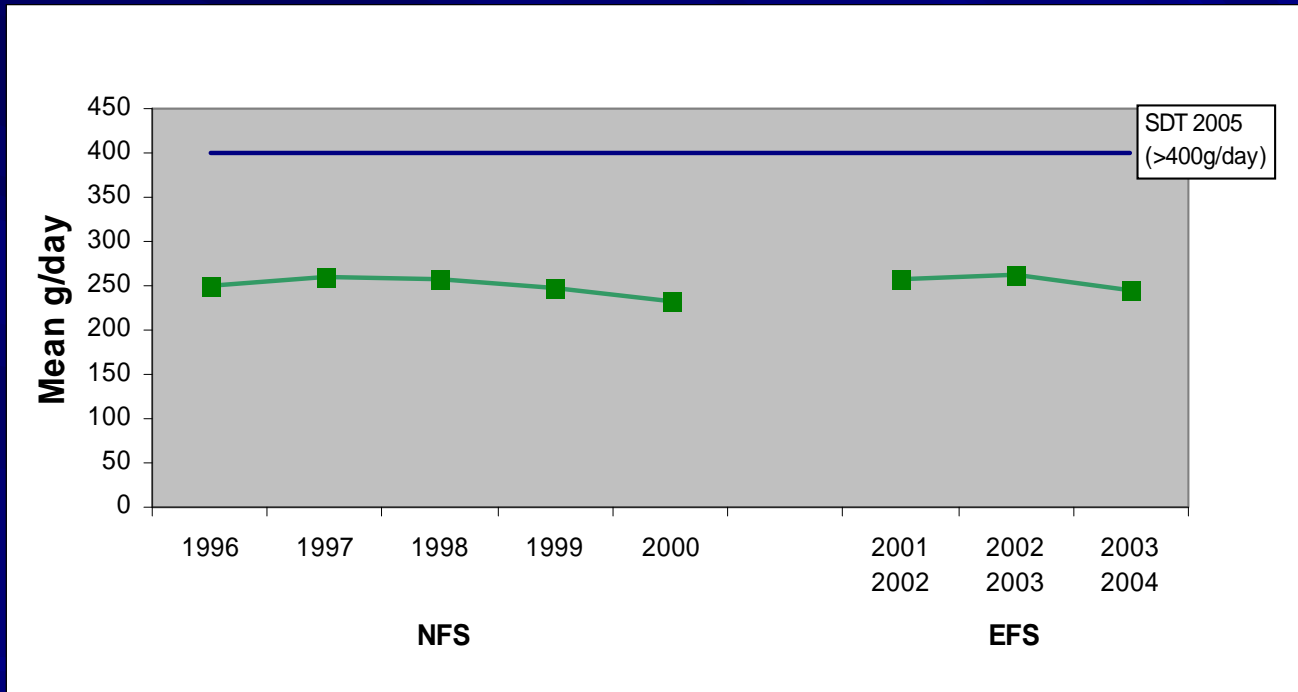


Scottish Health Education Population Survey 2006
Gosling, R. Base: all respondents (2005: 1822)

Progress towards the targets: fruit and vegetables (using 5 a day criteria)

data Source :NFS/EFS

Average intake to double to more than 400g per day



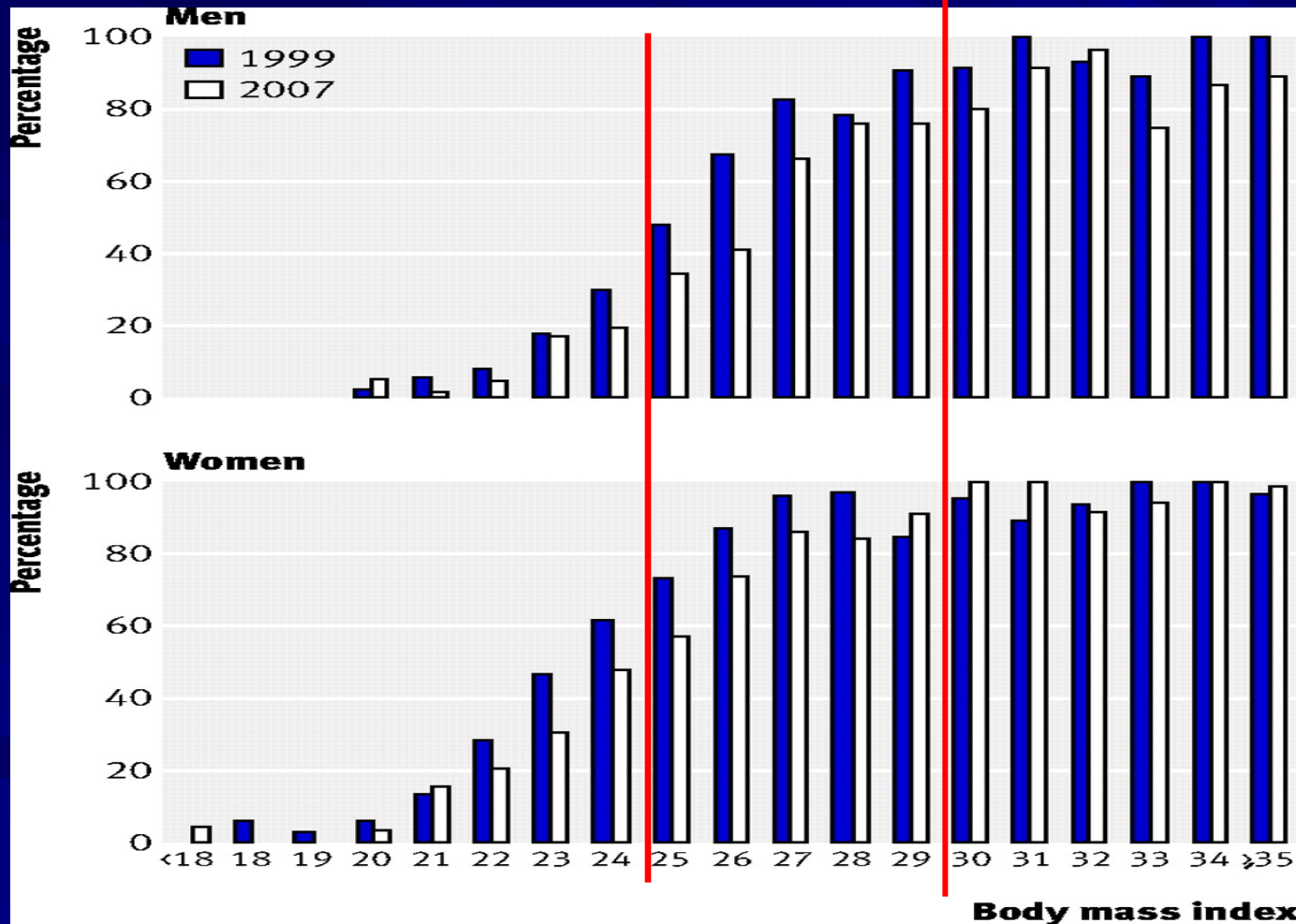
Three negative trends in consumer behaviour over the last decade

- Little shift in population dietary intake of:
 - fruit and veg, daily consumption of remains at around 246g - desired 400g.
 - saturated fat down marginally (15.6 to 15.2%) Far short of desired 11%.
 - total complex carbohydrate, oil rich fish and breakfast cereal consumption the same where increased consumption is required
- Downward trends in consumption of
 - Increased intake in non-milk extrinsic sugars.
 - Decrease potato and bread consumption.
- Overall consumption of healthy foods significantly lower in the most deprived populations (Lang, Dowler, & Hunter, 2006).

Obesity

- The prevalence of obesity (BMI>30kg/m²) in Scotland has increased over the past two decades, reaching 22% in men and 24% in women in 2003.
- Obesity in children is now common. In Scotland, nearly one in five (18%) boys and over one in ten (14%) girls aged 2–15 years are obese.
- **Scotland has one of the highest levels of obesity among OECD countries, second only to the United States of America.** (Grant, *et al.* 2007)

Raising awareness about obesity is long overdue...Proportion of men and women who perceived themselves overweight



The limits of education and information

- Education or information-based interventions to change behaviour have achieved very modest, short lived, or no success

Maio *et al.*, (2007) (Foresight review); Baranowski, *et al.*, (2003); Joint WHO/FAO Expert Consultation, 2003AO Expert Consultation (2003):

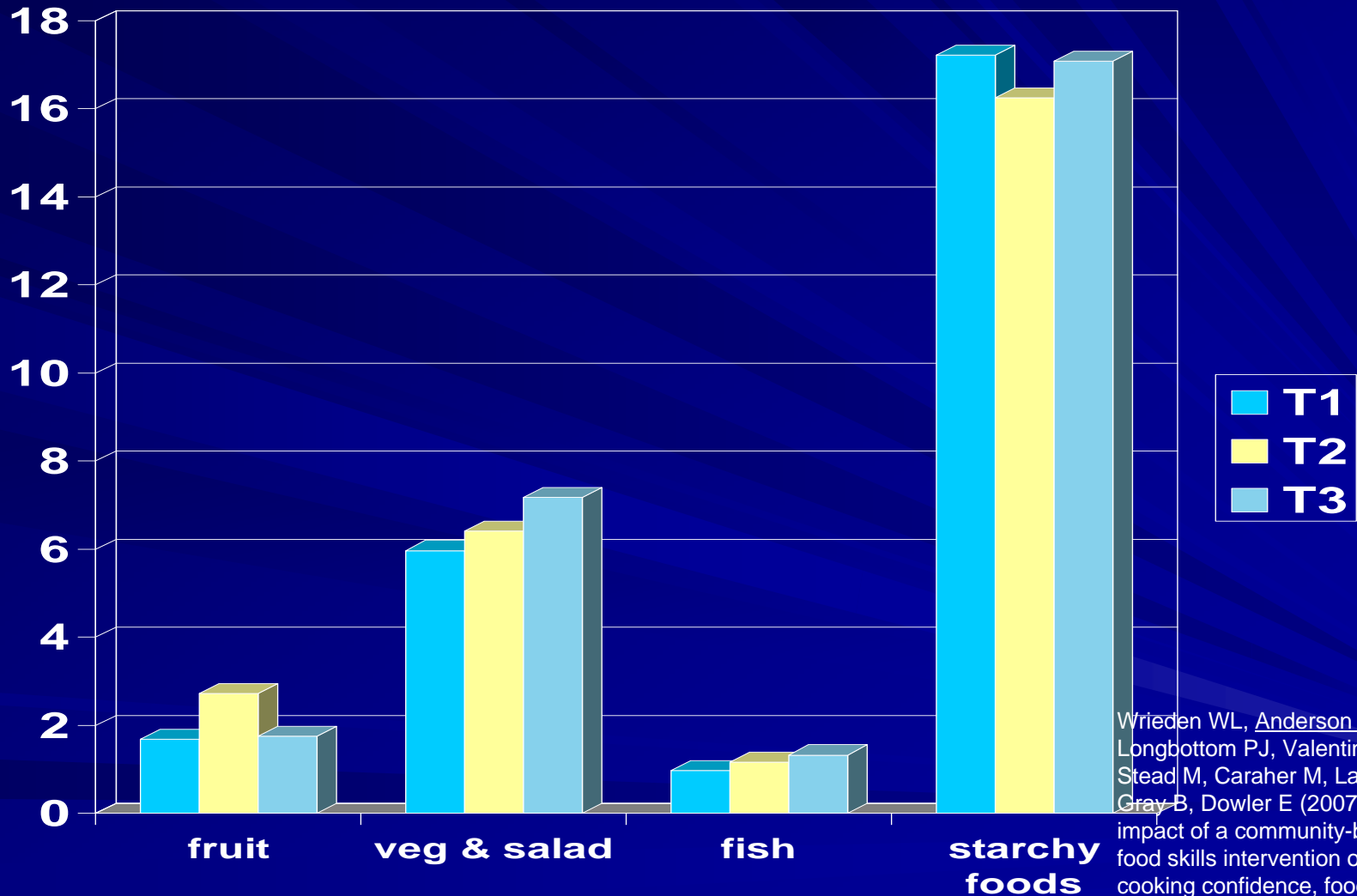
- Health education (in general) has been effective in changing knowledge, attitudes and motivation on a wide range of health issues - **but on its own**, is unlikely to achieved sustained behavioural change.

National Institute for Health and Clinical Excellence (2007); Tones & Tilford (2001), Stokols (1992), Baranowski *et al.* (1997). Green & Kreuter (1999) McLeroy, *et al.* (1988), World Health Organisation (1986).

Food Skills Education

- Educational efforts which focus on food skills may assist with consumer awareness but have not been demonstrated to be effective in terms of improving dietary intake.
- *“Teach the poor to cook”*

Mean Portions per week (intervention group)



Wrieden WL, Anderson AS, Longbottom PJ, Valentine K, Stead M, Caraher M, Lang T, Gray B, Dowler E (2007) The impact of a community-based food skills intervention on cooking confidence, food preparation methods and dietary choices - an exploratory trial. ;10(2):203-11

Education is still important (within a framework of action)

- Providing understanding and skills is needed to translate intention into practice
- Influencing beliefs
- To foster healthy public policy - which can develop **health promoting**

■ Tones and Tilford (2001) Bryant (2000)

SDAP Review (Lang et al)

Dietary targetsare overwhelmingly not being met....

Health and Sustainable Devt to engage more closely.....

Social justice to be the heart of appeal to tackle inequalities in food and health.....

Food industry must be engaged with / committed to new Sustainable Food and Health Policy agenda

Review of the
Scottish Diet Action Plan

Progress and Impacts 1996 – 2005

Review of the Scottish Diet Action Plan Progress and Impacts 1996–2005



Challenge Three

- Addressing the factors that reduce the effectiveness of education

Bamboozled, baffled and bombarded

The contribution of consumer confusion to
dietary inaction

Scottish Government Food and Drink Policy WS2
1 October 2008

Presented by Jane Landon
National Heart Forum

Consumers are overwhelmed

- *“It takes approximately 4 minutes and 16 seconds to read every word printed on a box of Mr Kipling Lemon Slices.”*

The Grocer Magazine, August 2008

What does it all mean?



Marketing, not information



■ But is high/red in saturated fat and salt

Traffic light labels in the UK market

McCain

per 135g serving oven cooked		% of GDA
MED FAT	6.6g	9%
LOW SATURATES	0.8g	4%
LOW SUGAR	0.8g	1%
LOW SALT	0.3g	5%

Waitrose

PER 100g	PER PACK
MED Fat	21.1g
HIGH Saturates	11.8g
MED Salt	2.8g
LOW Sugars	9.9g
Calories	471

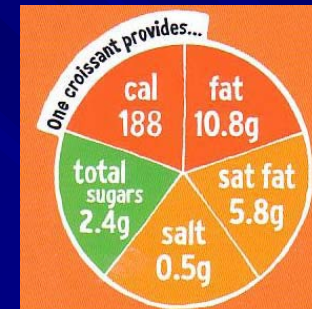
Co-op

Suitable for Freezing				
Calories 160	Low Fat 3.7g	Low Saturates 1.5g	Low Sugars 0.9g	Med Salt 0.7g
approx. per 1/2 pack				

Marks and Spencer

SERVES 1 - THIS PACK PROVIDES				
CALS 360	SUGAR 10.8g	FAT 13.2g	SAT FAT 8g	SALT 2g
18%	12%	19%	40%	33%
OF YOUR GUIDELINE DAILY AMOUNT				

Bernard Matthews



Sainsbury's

Roadchef



Boots

PER SERVING				
346	10g	1.0g	2.5g	5.4g
CALORIES	FAT	SATURATES	SALT	SUGARS

In the  this week...



- **Warnings over fatty fish and chips**
- **Eat pistachio nuts to lower cholesterol and risk of heart disease**
- **How safe is your blast of caffeine?**
- **Minister links children's cereals to health issues**
- **Cherry juice hailed as superfood with equivalent of 23 portions of fruit in a single glass**

FOOD, NUTRITION, PHYSICAL ACTIVITY, AND WEIGHT GAIN, OVERWEIGHT, AND OBESITY

In the judgement of the Panel, the factors listed below modify the risk of weight gain, overweight, and obesity. Judgements are graded according to the strength of the evidence.

Factors that decrease risk promote appropriate energy intake, and those that increase risk promote excess energy intake, relative to the level of energy expenditure.

	DECREASES RISK	INCREASES RISK
Convincing	Physical activity	Sedentary living ¹
Probable	Low energy-dense foods ² Being breastfed ⁴	Energy-dense foods ^{2 3} Sugary drinks ⁵ 'Fast foods' ⁶ Television viewing ⁷
Limited — suggestive		
Limited — no conclusion	Refined cereals (grains) and their products; starchy roots, tubers, and plantains; fruits; meat; fish; milk and dairy products; fruit juices; coffee; alcoholic drinks; sweeteners	
Substantial effect on risk unlikely	None identified	

Sugary Drinks – definitions and claims



Principally drinks with “added sugar”

- Colas, squashes, sodas
- Fruit juices (limited)

Do we recognise sugary drinks?

- Milk Shakes (2160 kcals)
- Fruit Smoothies no sugar added... (120 to 190kcals)
- With “Health added” e.g. Orange **J**uice Drink with '**F**ive Added Nutrients'





98kcal per 250 mls
196 kcal per 500 mls

- 16.9 oz bottle/500mls = "2 servings"
- 100 calories per serving
- 100 calories x7 =700calories per week
- 1kg body fat = 1000 g x7cals 7000
- In 10 weeks 1 serving of coca cola....



Is this a useful **portion size**?.....

Marketing Issues

Conflict with Health and Food industry



"WHEN I'M A BURGER,
I WANT TO BE
WASHED DOWN WITH
IRN-BREW."



"WE'D GO STRAIGHT
FOR IRN-BREW."



www.ironbrew.com

Marketing energy density....

Size of Portion Supersize offers Value Offers



1/2 PRICE

WHEN YOU BUY
**ANY NEWSPAPER
OR MAGAZINE**

Offer applies to all 150g and 200g Cadbury's Dairy Milk variants, usually priced £1.60. Subject to availability, in participating stores only.

9 Sept - 6 Oct 1

The poster features three Cadbury Dairy Milk bars at the top. Below them are images of a Glamour magazine cover and a page from The Independent newspaper. A small red circle on the right side of the poster indicates the offer price is 80p.

Addressing Marketing and Promotions

Must move beyond television adverts on childrens tv...

Marketing

Increased volume of commercial marketing of nutrient dense and *sustainably produced* (as opposed to energy dense) basic foodstuffs...

Increased social marketing to influence cultural norms and unacceptability of excessive consumption and *unsustainable foodstuffs*

Increased availability of nutrient dense foods- price, marketing, availability

■ Basic Scottish, healthy and sustainable Foods

- Process, Production and Portions “The healthy biscuit, crisp, candy etc etc
- Functional foods... Omega three, vitamins added

■ Retailing- incentives and new routes to market

■ Catering- labelling, fast foods, drinks

■ Must move beyondGovernment and Public sector exemplars

Is this all more of the same?

Can we make a difference through voluntary action with industry?

Lessons from tobacco control

- **Programmatic measures to reinforce healthy options**
e.g. campaigns, counselling, programmes
- **Normative measures (overconsumption)**
e.g. social marketing, individual values that support change, advocacy
- **Legislative measures**
e.g. inappropriate marketing, sales, environments

Challenge Four

- Engaging with people... Winning hearts and minds

The Future for Food in Scotland

Choosing the Right Ingredients

The Future for Food in Scotland
Discussion Paper



The Scottish Government

Food adverts should not be allowed to undermine the health benefits of healthy eating

Due to the special vulnerability of children it would be desirable not to advertise to children foods high in fat, salt and sugar by any medium, including on the internet

Where the market fails to uphold its responsibility in the marketing of food, regulation by government is ethically justifiable.

Advocacy: when information isn't enough

- Objective: to maximise support for healthy behaviours and healthy environments
- Means: to present data in relevant ways
- Techniques: to attain support for agreed value bases

Advocacy: when information isn't enough

30th March 2005

Government announces

- £280 million package ...
- Schools should spend at least 50p per child on food ingredients
- Tough minimum nutrition standards
- Ofsted to review the quality of school meals as part of regular school inspections

5th May 2005
Election date



Advocacy: when information isn't enough



“Jamie Oliver has done more for the public health of our children than a corduroy army of health promotion workers or a £100m Saatchi & Saatchi campaign”
(Spence, 2005) .

FSA Salt reduction

■ **Actions taken:**

- Work with industry - retailers, manufacturers and caterers - to *encourage reformulation*.
- In 2006 *targets set* for 85 types of food. New targets under review (2009)
- A 3 phase *major media campaign*, as well as ongoing lower level activity e.g. www.salt.gov.uk. Each phase of the media campaign has cost £3-4 million.

– **Work through NGOs by funding over 20 projects to look at *raising awareness* in hard to reach groups.**

- International work.

■ **Results achieved:**

- 2000/01 Intake 9.5g per day (11g men, 8.0g women)
- 2008 Intake 8.6g per day (9.7g men, 7.7g women)
- Reduction achieved: 9.5%.

■ **Aim** Average intake of 6g per day by 2010

■ (Target intake is 6g per day: a reduction of 37% from 2000/01)

Winning hearts and minds...

- Partnerships, Networks, wide range of stakeholders.....
- Scottish Food Advocacy Group?
 - Dedicated to food issues
 - Flags good and reliable information
 - Flags misinformation
 - Monitors the issues Scots are concerned about...