Presentation on the Foresight report ‘Tackling Obesities: Future Choices’

House of Lords Committee Room G
1 April 2008

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Obesity: A national scandal

Taking the fast track to obesity

Obesity prevalence from 1993 to 2005 in adults and children (2-15 y)

Source: Health Survey for England
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Foresight Obesity Project
Tackling Obesities: Future Choices

‘To produce a long term view on how we can deliver a sustainable response to obesity in the UK over the next 40 years’

What we did

- Underpinning review of evidence base
- Systems mapping
- Scenario development
- Qualitative modelling of policy response impact
- Development of quantitative model and analysis
- Analysis and implications for policy
Humans are endowed with an ANCIENT PHYSIOLOGY moulded by famine ...

“A grain in the balance will determine which individual shall live and which shall die”

Charles Darwin, The Origin of Species
Foresight

... and ill equipped to handle our modern food environment ....

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... especially when we do so little!

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We are locked in to a positive feedback cycle.
We are locked in to a positive feedback cycle. Which can only be overridden by conscious control.
Foresight Modelling Component addresses the following:

- What distributions of obesity, among whom, are likely to develop over the next forty years

- What are the likely health consequences of extrapolated obesity trends, and

- By how much can these consequences be attenuated with what we currently know and might come to know
Obesity modelling

HSE & ONS data files

Cross Sectional

Obesity distribution

Longitudinal

micro simulation

output

Eg 1993-2004 data set – males, 21-60

Such graphs also by age, sex, social class, ethnicity, geographic region.

Subject to adequate numbers
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Obesity growth: children age 6-10 IOTF definition

Healthy – Overweight - Obese
II Obesity Microsimulation

- Is a computer model of the UK population (1993-2060…)
- A series of Individuals (typically several million) people are simulated and monitored each year of their lives
- These individuals have sex, social class, ethnicity and geographic region allocated according to current distributions
- The population of individuals accurately reflects known age profiles, birth, death and health statistics and is capable of making projections into the future
- Obesity distributions among population are determined by predictions and specified scenarios
- The model specifically targets the relationship between individuals’ evolving body mass indices and the incidence of disease
- The model can simulate and compare the impact of various public health interventions

Example: micro simulation ‘scenarios’

Scenario 0: 2008-2070; No interventions

Scenario 1: 2008-2070; Age{6-10} no BMI growth

Scenario 2: 2008-2070; All ages; BMI cap 30; caps 50%

Scenario 3: 2008-2070; Ages 20-100; BMI shift- 4.0
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**CHD Costs**
- O. No change – predicted growth
- 1. PSA Target age <11; BMI constant
- 2. Caps BMI at 30 among 50%
- 3. Mean BMI 4 units lower

**Diabetes Costs**

Total NHS Costs
- 4 scenarios £[year]
- 0. No change – predicted growth
- 1. PSA Target age <11; BMI constant
- 2. Caps BMI at 30 among 50%
- 3. Mean BMI 4 units lower
<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2015</th>
<th>2025</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra future NHS costs</td>
<td>-</td>
<td>2.2</td>
<td>4.1</td>
<td>5.5</td>
</tr>
<tr>
<td>Estimated NHS costs</td>
<td>4.2</td>
<td>6.4</td>
<td>8.3</td>
<td>9.7</td>
</tr>
<tr>
<td>% NHS cost @ £70 billion</td>
<td>6.0%</td>
<td>9.1%</td>
<td>11.9%</td>
<td>13.9%</td>
</tr>
<tr>
<td>Total costs of obesity</td>
<td>16</td>
<td>27</td>
<td>37</td>
<td>50</td>
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(Including: NHS costs + Incapacity, Employment, related (non NHS) Morbidity etc) conservatively estimated.
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Scenario Development
Key uncertainty 1: societal values
Responsibility lies with individuals and costs/benefits to individuals are prioritised

VALUES
Nation
Societal group
Family
Individual

Social responsibility is dominant and costs/benefits to the wider community are prioritised.

Key Uncertainty 2: How we respond to challenges
anticipation and preparation for change

Scenario 1
Scenario 2
Scenario 3
Scenario 4

Individual
Social

react when the need to change is critical, focus on mitigation of impact.
Foresight ‘most promising’ policy options

- Investment in early life interventions
- Controlling the availability of and exposure to obesogenic food and drink
- Increased walkability/cyclability of the built environment
- Increasing responsibility of organisations for health of employees
- Targeting health interventions for those at high risk
Developing a sustainable response

Developing an obesity strategy

- Interventions at different levels: individual, local, national, global
- Systemic change across the system map
- Interventions across the life-course
- A mixture of initiatives, enablers and amplifiers
- Short, medium and long term plans for change
- Ongoing evaluation and continuous improvement
Interventions are needed at all levels of society

Interventions across the system map
A life-course approach

e.g. changing the nutritional balance of the diet

0-6 months 6-24 months 0-4 years 4-16 years 16-65 years >65
Breast feeding Improved weaning advice Nutritional standards for pre-schools Transformation of school food Employer action in workplace canteens

Personalised advice and support

Definitions

Amplifiers are key to shifting the system and population profile as a whole but cannot act if the other elements are not in place.

Enablers are ineffective alone but essential to underpin the effectiveness of other interventions in isolation but not sufficient.

Focused initiatives are interventions aimed directly at tackling obesity of a particular at risk group.

Examples

- Control of advertising high fat, salt and sugar foods.
- Introduction of congestion charging for vehicles in towns.
- Incentivising organisations to import and consider health outcomes as well as environmental outcomes as part of the bottom line.
- Efforts to improve knowledge and attitudes around food and activity.
- Provision of cycle leases.
- Raising awareness in employers of productivity benefits of promotion of healthy lifestyle staff.
- Provision of healthy school meals.
- Targeted active travel planning assistance (such as ‘travelpass’).
- Public sector takes lead on providing healthy working environment for their employers from health food to gyms to promotion of flexible working practices.
<table>
<thead>
<tr>
<th>Generation 1 (current adults)</th>
<th>Generation 2 (current children)</th>
<th>Generation 3</th>
<th>Generation 4</th>
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**Impact Rises**: combination of sustained approach and increase in options available ensures impact rises over time.

**Options Increase**: range of interventions possible will increase as time progresses.

Culture & values around food & activity shift over time?

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A model of continuous improvement to integrate science and policy

- New scientific advances
- Credible review of evidence
- Refinement of policy
- Stimulation of additional research
- Evaluation of policy
- Development of policy

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Our ambition is to be the first major nation to reverse the rising tide of obesity and overweight in the population by ensuring that everyone is able to achieve and maintain a healthy weight. Our initial focus will be on children: by 2020, we aim to reduce the proportion of overweight and obese children to 2000 levels.

Healthy weight, Healthy Lives: 5 Key Themes

- **Children: healthy growth and healthy weight** - early prevention of weight problems by establishing good eating and activity habits
- **Promoting healthier food choices** - reducing the consumption of foods that are high in fat, sugar and salt and increasing the consumption of fruit and vegetables
- **Building physical activity into our lives** - getting people moving as a normal part of their day
- **Creating incentives for better health** - increasing the understanding and value people place on the long-term impact of decisions
- **Personalised advice and support** - complementing preventative care with treatment for those who already have weight problems
Government action alone will not be successful, everyone must play a part

Identifying synergies with other policy areas
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**New groups supporting policy**

- Delivery Reference Group
  - Chair: Paul Lincoln
- Interim Expert Network
  - Chair: Susan Jebb
- Obesity Partnership
- Obesity Observatory
- CROSS-GOVT OBESITY UNIT

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**New governance structure**

- Cross-Government Ministerial Group on Obesity
- Cabinet Committee on Families, Children & Young People
  - Permanent Secretaries’ Groups
  - Child Health & Well-being PSA Board
  - Other PSA Boards
- Senior Officials Group on Obesity
- CROSS-GOVT POLICY TEAM
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Associate Parliamentary Food and Health Forum

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