



Obesity – a growing problem?

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Editorial

Obesity is recognised internationally and in Ireland as a major health concern. In Ireland, 61% of adults and 22% of 5-12 year olds are overweight or obese.

The key policy document in this area, the Report of the National Taskforce on Obesity, is now six years old. A 2009 review of its execution found only partial implementation of its recommendations had been achieved. To address this, the current government has established a Special Action Group - a core group in the Department of Health / HSE that works with other Departments / bodies on a case-by-case basis. The introduction of a tax on sugar-sweetened drinks and improved nutritional labelling are among the priorities the Group is addressing.

This *Spotlight* looks at reviews of evidence on the effectiveness of obesity interventions and also at criticisms of the dominant thinking on obesity that argue that the 'problem' is exaggerated and that the obsession with the issue is damaging. It distils the vast literature on the subject into key information around overweight and obesity in Ireland and lessons from international experience.

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Executive summary

At present, 61% of Irish adults and around 20% of Irish children are overweight or obese. Irish men are more likely to be overweight than women, but obesity rates are about the same. Obesity tends to be higher in those aged over 35, those with lower levels of education and those in lower socio-economic groups. In Ireland, there are also small regional differences.

Official OECD estimates place Ireland mid-table in international comparison, however, the data used in this instance (for Ireland and many other countries) is self-reported data, which tends to under-estimate the true level of obesity.

The causes of overweight and obesity are characterised as a natural reaction to an unnatural situation. The wide and constant availability of foods, many of which are high in salt, sugar and fat, along with more sedentary work and transport patterns contribute greatly. The term 'obesogenic environment' has been coined to describe contexts in which weight gain is passively encouraged.

The health and economic impact of this is considerable. Obesity is linked with physical and psychological ill-health and premature death. In Ireland, the costs of related deaths alone have been estimated at €4 billion per annum.

The Report of the Taskforce on Obesity (2005) is the key policy document in this area. It made 93 recommendations for the prevention and treatment of obesity. The implementation of these recommendations was criticised following a 2009 review which revealed only partial implementation had been achieved.

In 2011, the Minister for Health, James Reilly, TD, established a new Special Action Group on Obesity and has set out the priorities to be addressed, including introducing a tax on sugary drinks and improving nutritional labelling. These types of measures have been ranked highly in terms of cost-effectiveness.

Unfortunately, there are no exemplar populations abroad to learn from as no country has been successful in turning the tide on obesity. Indeed, there is some concern that the current arsenal of interventions is not proving sufficient. However, there are some promising

lessons and an ever increasing and improving body of evidence. The most important messages stressed in the international literature are the need for concerted action by governments and other sectors of society (civil society, private sector, international agencies, health professionals, individuals) and the importance of rigorous evaluations of interventions to provide evidence of what works and what does not.

Definition & measurement

What do we mean by overweight and obesity?

Overweight and obesity are defined as 'abnormal or excessive fat accumulation that may impair health'.¹

How is it measured?

There is some debate surrounding the measurement and classification of overweight and obesity. The most commonly used measure for adults - endorsed by the World Health Organisation (WHO) and used in the Irish policy context - is a scale of Body Mass Index (BMI). BMI is a calculation of weight in kilograms divided by height in metres, squared (m^2).²

Table 1 presents the categories and cut-off points on the BMI scale that define normal, overweight and obese in the literature.

Table 1: Classification of weight categories using the Body Mass Index (BMI)

Category	BMI Level
Underweight	Less than 18.5
Normal	18.5-24.9
Overweight or pre-obese	25.0-29.9
Obese	30 and over

The various critiques of BMI question, among other things, the rigidity of the model, as it does not allow for age, gender, or ethnicity differences or for a range of body types to be described as 'normal'. Other challenges to this

¹ World Health Organisation, Obesity Factsheet, <http://www.who.int/mediacentre/factsheets/fs311/en/>

² 'Abdominal Obesity' is another measure used, calculated using hip or waist circumference measurements, these may be calculated into a measure of waist-hip ratio (WHR). The lack of established or standardised cut-off points makes this data less useful for comparative purposes.

model argue that the measure does not distinguish between fat and muscle weight and so is not a reliable measure.

The relationship between the categories and people's own perceptions of their weight is interesting. The National Taskforce on Obesity report (discussed in detail below) recognises that the 'BMI cut off for obesity is quite low', so that many people do not recognise themselves to be overweight or obese. Generally, studies that rely on self-reporting, find that people under-estimate their weight / BMI.

The WHO defends BMI as a measure, but cautions that it ought to be considered 'a rough guide because it may not correspond to the same degree of fitness in different individuals.'

Measuring children

'It is difficult to develop one simple index for the measurement of overweight and obesity in children and adolescents because their bodies undergo a number of physiological changes as they grow.'(WHO)

Due to height and growth variations, measuring overweight and obesity in children is more complex. A child's weight status is determined using an age and sex-specific percentile for BMI rather than the BMI categories used for adults because children's body composition varies as they age and varies between boys and girls.

Current situation

Obesity and overweight in Irish adults

The most recent representative adult data shows that 61% of Irish adults are overweight or obese. This figure comes from the Survey of Lifestyle, Attitudes and Nutrition (SLÁN) 2007 study, which presents both self-reported and measured (by researchers) BMIs, finding that

when self-reporting, people tend to underestimate their weight. The study found that 38% of the population had weights in the healthy range. It found that 54% of women and 66% of men were either overweight or obese (see Table 2; Note: The totals for overweight and obese categories do not sum to row totals as they are weighted to allow for population variation).

Table 2: SLÁN 2007 – Measured data

	Men (%)	Women (%)	Total
Overweight	44	31	38
Obese	22	23	23
Total:	66	54	61

Source: SLÁN 2007³

Are we getting bigger?

Using different data sets to the SLÁN study cited above, The Irish Universities Nutrition Alliance (IUNA) looked at obesity trends, finding:

'Obesity levels in Ireland have risen dramatically in the last 20 years. In 1990, only one in 10 Irish men were obese; that figure is now officially put at one in four. In the same period, obesity in women has risen from 13% to 21%.⁴

More recent trends in the SLÁN survey are reported using the self-reported data. Figure 1 shows that between 1996 and 2007 there was an increase in those overweight, and an increase followed by a levelling off in obesity levels over the same period.

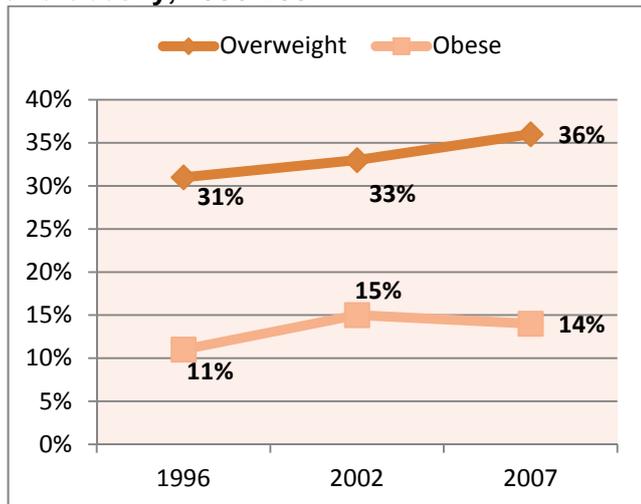
³ Harrington, J., Perry, I., Lutomski, J., Morgan, K., McGee, H., Shelley, E., Watson, D. and Barry, M. (2008) *SLÁN 2007: Survey of Lifestyle, Attitudes and Nutrition in Ireland. Dietary Habits of the Irish Population*, Department of Health and Children. Dublin: The Stationery Office. Also see:

Dept. of Health & Children (2008) *Survey of Lifestyle, Attitudes and Nutrition in Ireland, Main Report*,

<http://www.slan06.ie/SLAN2007MainReport.pdf>

⁴ <http://www.irishhealth.com/article.html?id=19452>

Figure 1: Trends in self-reported overweight and obesity, 1996-2007



Source: SLÁN 2007

Are there regional differences?

Figure 2 (overleaf) maps 2007 obesity levels (self-reported) by regional authority level. While the overall differences are small, ranging from 13-16% approximately, the map shows some regional variation.

The Dublin Regional Authority area has the lowest prevalence and the Border Regional Authority area the highest. Unfortunately, the data is not available at county level, and there may be some variation between counties within each regional authority area.

Group differences

Obesity tends to be higher in men (though the Irish data shows little difference between men and women, but more men are overweight), those aged over 35, those with lower levels of education and those in lower socio-economic groups.⁵

National and international data show differences between socio-economic groups in relation to obesity. While figures have been rising amongst all social groups in recent years and decades, the National Taskforce on Obesity reported that *'those with lower levels of education are more likely to be obese'* and that:

⁵ Report of the National Taskforce on Obesity, p.15

'in developed countries, such as Ireland, levels of obesity are higher in lower socio-economic groups'

An OECD health paper highlights three potential factors to explain why education matters in this area:

- 'Greater access to health-related information and improved ability to handle such information;
- Clearer perception of the risks associated with lifestyle choices; and
- Improved self-control and consistency of preferences over time.'⁶

Furthermore, food costs, the availability of healthy foods and the relatively poor availability of good facilities for exercise in disadvantaged areas have been linked to differences between socio-economic groups. International studies *'provide strong evidence of the importance of living environments as determinants of obesity'*.⁷

Differences between and within populations can be attributed to factors such as genetics, national wealth and cultural norms and values.⁸

Children – Levels of overweight and obesity

There are a number of studies looking at the issue of weight in children in Ireland. Different studies tend to vary in their focus on children of different ages, type(s) of measurement used, and so on. This means that comparing over time or between studies is not straightforward. Data from a number of studies is summarised below.

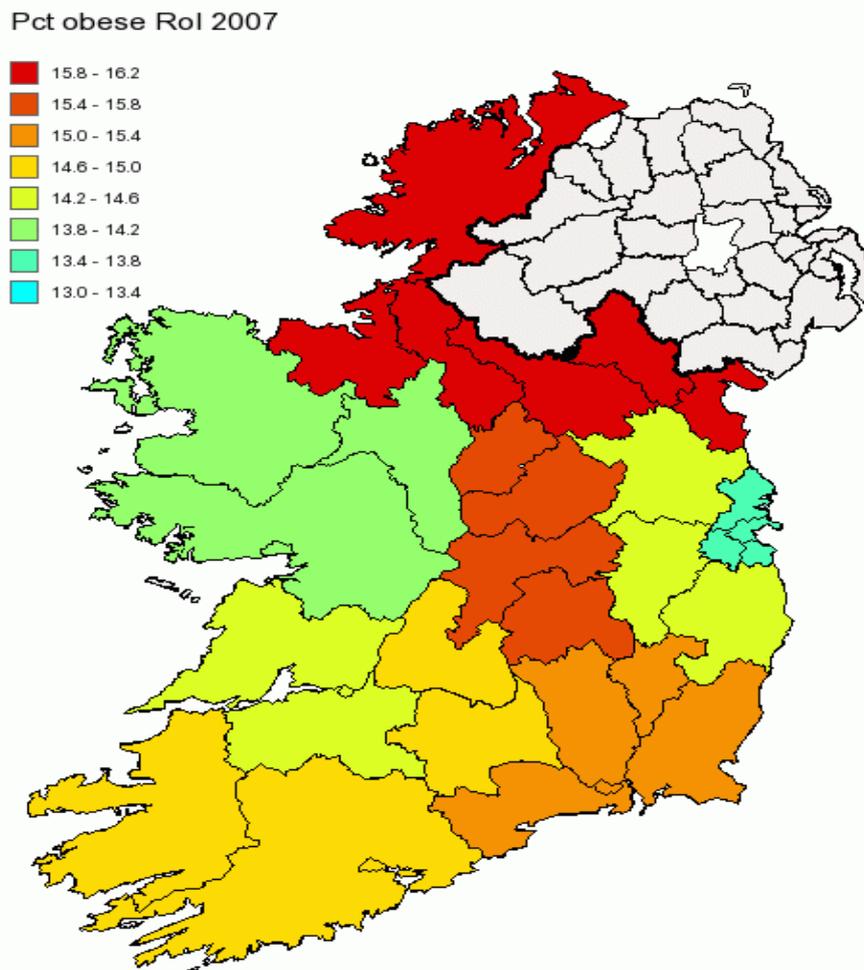
The overall message is that a substantial number and proportion of children are overweight or obese and this number has grown substantially in recent years. An often quoted figure stems from the Report of the National Taskforce, as follows:

⁶ Sassi *et al* (2009) Health Working Paper, No. 46 – Education and Obesity in Four OECD Countries. OECD

⁷ Children's Health Policy Centre (Canada)

⁸ Swinburn *et al* (2011) 'The global obesity pandemic: shaped by global drivers and local environments', *Lancet*, 378:804-14

Figure 2: Percentage of obese adults by Regional Authority Area



From INIsPHO eData <http://www.inispho.org/eData>
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'While currently there are no agreed criteria or standards for assessing Irish children for obesity some studies are indicating that the numbers of children who are significantly overweight have trebled over the past decade. Extrapolation from authoritative UK data suggests that these numbers could now amount to more than 300,000 overweight and obese children on the island of Ireland and they are probably rising at a rate of over 10,000 per year.'

Presented below are summary statistics from the Irish Heart Foundation (IHF) and details of a recent (2009) study of 9 year-olds. They show that various studies have found that between 19% and 26% of Irish children are overweight or obese.

Irish children (5-12 years)

- Overweight and obesity is now the most common childhood disorder in Europe.
- One in ten 5-12 year olds is overweight and a further one in ten is obese. In total, 22% of 5-12 year olds are overweight or obese.

Irish teenagers (13-17 years)

- One in five teenagers is overweight or obese (11% overweight and 8% obese).
- There has been a significant increase in teenage obesity since 1990 with an 8-fold increase in males (1% to 8%) and a 2-fold increase in females (3% to 6%).
 (Source: *IHF, Obesity Fact Sheet*⁹)

⁹See: http://www.irishheart.ie/media/pub/factsheets/obesity_fact_sheet.pdf

The 2009 *Growing up in Ireland* nationally representative survey of 9-year olds found:

- Using international definitions and thresholds, 74% of children were described as being of normal weight, 19% were overweight and 7% were obese.
- Children's weight and obesity were strongly linked to that of their parents. Where both parents were overweight or obese, 33% of children were overweight or obese. This compares with 11% of children in households where neither parent was overweight or obese.

Children become adults – will they 'grow out of it'?

International evidence suggests that obese children are more likely to become obese adults. In Ireland, the HSE action plan on obesity states that: '*a significant correlation exists between childhood and adolescent BMI and adult overweight and obesity.*'¹⁰

However, there are countering views. For instance, a follow up study with people born in 1947 in Britain found no association with obesity at age 9 and adult obesity and that only half of those obese at age 13 were obese as adults.¹¹ The authors argue that:

'There is a widespread popular belief that adult fatness begins in childhood, despite evidence from many studies that most fat adults were not fat children.'

How do we compare?

In most EU member states, more than half the adult population is above the healthy weight range. It is also estimated that 30% of children living in the EU are overweight and that this figure is growing by 400,000 per year.¹²

International comparisons of obesity data are hampered by different:

- data collection methods (esp. self-reported vs. measured by a professional);
- response rates;
- age ranges;
- years of collection; and
- definitions of overweight and obesity.¹³

Looking just at obesity, Figure 3 (pg. 7) shows that Ireland stands about mid-table in relation to other OECD countries. However, in this case the Irish data (and that for most other states) refers to self-reported levels of obesity. Self-reported data, as noted above, generally underestimate the true prevalence of overweight and obesity. Here, the Irish level shows 15%, whereas the measured data in Table 2 above shows a level of 23%.

The 2007 SLÁN survey found that using measured data:

'the prevalence of overweight and obesity in Ireland was broadly similar to that reported from England (2006) and Scotland (2003), and approximately 5% lower than in the USA (2004)'.¹⁴

Criticism of the 'crisis' or 'epidemic'

There has been some criticism of the characterisation of the 'obesity epidemic'. A number of scholars accuse obesity experts (public health officials and the media) of exaggerating the health effects of the impact of obesity.¹⁵ Michael Gard, author of a new book – '*The end of the obesity epidemic*' – takes to task the predominant view that the condition is on the rise and set to continue to do so. He argues that evidence suggests that obesity rates are levelling off in Western societies while life expectancies are continuing to rise.

¹⁰ HSE (2008) *HSE Framework for Action on Obesity, 2008-2012*, Health Service Executive

¹¹ Wright, C.M., et al (2001) 'Implications of childhood obesity for adult health: findings from thousand family cohort', *BMJ* 323:1280, 1 December

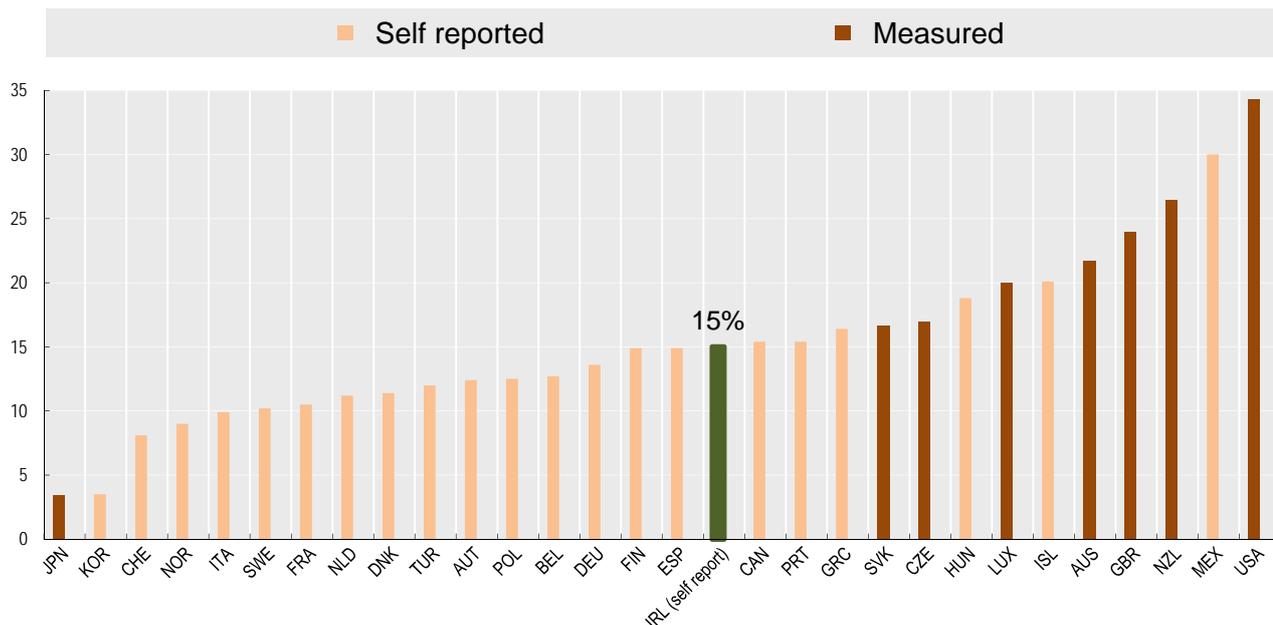
¹² IMO/BMA[NI] (2010) *Position paper on Obesity in Europe*. <http://www.imo.ie/policy-international-affair/research-policy/imo-position-papers/obesity-in-europe-a-joint/>

¹³ WHO, *The Challenge of Obesity*

¹⁴ Harrington, J et al (2008) *Dietary Habits of the Population*, SLÁN Report, Department of Health

¹⁵ Gibbs, W.W. (2005) 'Obesity: An overblown epidemic?', *Scientific American*, May 23, See: <http://www.scientificamerican.com/article.cfm?id=obesity-an-overblown-epid>

Figure 3: Obese population aged 15 and above
As a percentage of population aged 15 and above, 2007, or latest available year



Source: OECD Factbook 2010: Economic, Environmental and Social Statistics



‘There is compelling evidence that humans are predisposed to put on weight by their biology.’¹⁶

At the most simplistic understanding, weight gain is due to energy intake exceeding energy expenditure. While this is true, it masks the more complicated picture about how energy is acquired and used. Despite recognising the role of personal responsibility, it is widely accepted that the causes of obesity are complex and multi-factorial, with a great deal of the literature focusing on environmental rather than individual factors.

Text Box 1: Causes of obesity

The Irish Heart Foundation (IHF) states that:
The overwhelming influences of obesity in 99% of the population are environmental and include marketing, advertising, increasing portion sizes, accessibility and availability of foods and facilities, increased automation and increased car use among other factors.¹⁷

¹⁶ UK Government Foresight Programme (2007) *Foresight: Tackling Obesity: Future Choices – Project Report*, 2nd Ed., Government Office for Science

¹⁷ IHF Obesity Factsheet,

In the UK, the Government Office for Science’s report *‘Tackling Obesity: Future Choices’* maps the ‘obesity system’ – displaying a complex picture of the positive and negative influences on obesity.¹⁸ The influences are grouped as follows (variables in each group have an impact on energy balance):

- individual psychology;
- physical activity environment;
- individual physical activity;
- physiology;
- food consumption;
- food production; and
- social psychology.

What is an ‘obesogenic environment’?

The term ‘obesogenic environment’ has been coined to describe an environment where physical activity is discouraged and unhealthy food consumption is encouraged. Homes, neighbourhoods, schools and communities can all become environments that encourage obesity.¹⁹

¹⁸ http://www.irishheart.ie/iopen24/pub/factsheets/obesity_fact_sheet.pdf

¹⁹ <http://webarchive.nationalarchives.gov.uk/http://www.bis.gov.uk/foresight/our-work/projects/current-projects/tackling-obesity/reports-and-publications>

Children’s Health Policy Centre (Canada)

'A very significant determinant of obesity is the environment in which we live which often makes unhealthy choices more accessible. This environment was termed obesogenic by the World Health Organisation in 1998. Food commercialism, technology, urban and socioeconomic development are contributing to the creation of this obesogenic environment which nurtures over-eating and inactive lifestyles.' (HSE, 2008)²⁰

Role of the food industry

Looking at key causes of the obesity problem, one of a recent series of articles in *The Lancet* medical journal:

*'comes up with a clear primary culprit: a powerful global food industry which is producing more processed, affordable, and effectively-marketed food than ever before'*²¹

The author, Boyd Swinburn, argues that the 'increased supply of cheap, palatable, energy-dense foods', coupled with better distribution and marketing, has led to 'passive overconsumption'.

Critics identify problems with the food industry, especially the growth of processed food culture, as:

- Recipes high in sugar, salt and fat;
- Large portion sizes;
- Poor nutritional labelling; and
- Aggressive marketing of unhealthy food, especially to children.

To successfully address obesity, people must consume fewer calories, which means eating less food, or at least different types of food. This implies less industry profit, as the foods most at risk are the most processed, with the highest profit margins, often made by the biggest industry players.²²

²⁰ HSE (2008) *HSE Framework for Action on Obesity, 2008-2012*, HSE

²¹ Walker, P (2011) 'Half of UK men could be obese by 2030', *The Guardian*, 26 August, <http://www.guardian.co.uk/society/2011/aug/26/half-uk-obese-by-2030>

²² Brownell, K & K. Warner (2009) 'The perils of ignoring history: Big tobacco played dirty and millions died. How similar is big food?', *The Millbank Quarterly*, Vol. 87, No. 1, 259-494; <http://vancouver.ca/parks/activecommunity/pdf/FoodTobac>

Impact

Physical health

The WHO summarises the impact obesity has on physical health in Box 2 below.

Text Box 2: Health impact

The WHO reports that raised BMI is a major risk factor for:

- Cardiovascular diseases (particularly heart disease and stroke), the leading cause of death globally in 2008;
- Diabetes;
- Musculoskeletal disorders (especially osteoarthritis – a highly disabling condition of the joints);
- Some cancers (endometrial, breast and colon).

The International Association for the Study of Obesity states that:

'Excess weight gain was found to be the 6th largest contributor to the world's disabilities and premature deaths, and by 2006 excess weight had become the 3rd largest cause of ill health in the affluent world.'²³

At its most extreme, the National Taskforce on Obesity stated that in 2005 '*about 2,000 premature deaths in Ireland will be attributed to obesity and the numbers are growing relentlessly*'.²⁴

Childhood obesity is linked with a higher chance of premature death and disability in adulthood. Overweight and obese children are at risk of staying obese into adulthood and are more likely to develop non-communicable diseases (NCDs) like diabetes and cardiovascular disease from a young age.²⁵

²³ <http://www.iaso.org/policy/iotfhistory/>

²⁴ p.7

²⁵ World Health Organisation (2010) '*Why does childhood overweight and obesity matter?*'

Psychological health and stigma issues

*'Prejudice against obese people seems to border on the socially acceptable in Ireland.'*²⁶

Though it is now the norm to be overweight or obese, there is a significant social stigma attached to it, with thinness seen and promoted as the health and social ideal. This stigma is experienced in many different ways and can be classified as direct (e.g. verbal abuse), environmental (e.g. lack of clothing in larger sizes) and indirect (e.g. feeling judged when buying or eating food).²⁷ Obesity can cause great social and emotional adversity both adults and children and their families. Stereotyping and peer rejection are linked to struggles with self-esteem, a negative body image and dissatisfaction with physical appearance. And obese children are more likely to suffer bullying, discrimination, low self-esteem and poor body image (WHO).²⁸

There are clear gender differences - with girls feeling more pressure to be 'slim'²⁹ and overweight girls being more stigmatised than boys. These experiences can have a lasting impact and obesity has been linked to mental health problems in children.³⁰

It has been argued that societal attitudes are so ingrained that non-discrimination legislation would not be effective in addressing it.³¹ Text Box 3 looks at criticisms of the predominant ideas about fatness in society and the impact they have.

What is the cost of obesity?

While cost estimates differ, for example, single year vs. lifetime costs, the literature shows that obesity is linked with high health care costs and economic productivity losses. Further costs are associated with people who are overweight but not obese.

²⁶ National Taskforce on Obesity (2005)

²⁷ Lewis, S. *et al* (2011) 'How do obese individuals perceive and respond to the different types of obesity stigma that they encounter in their daily lives? A qualitative study', *Social Science & Medicine*, 73, 1349-1356

²⁸ <http://www.euro.who.int/en/what-we-do/health-topics/disease-prevention/nutrition/facts-and-figures>

²⁹ National Taskforce on Obesity, p. 27

³⁰ Children's Health Policy Centre (Canada) (2010)

'Overview: Linking mental and physical health', *Children's Mental Health Research Quarterly*, Vol. 4, No. 1

³¹ Lewis *et al*, op cit.

Text Box 3: Criticism of the predominant view of fatness / obesity and its relationship to stigma

Critics in this area challenge the dominant thinking on fat and obesity, arguing that fat people are commonly portrayed as lazy, diseased, greedy, ugly and lacking in moral fibre. They argue this leads to 'stigma, stereotyping, discrimination, self-hatred and a sense of helplessness in fat people'.³²

Some academics and activists alike, question the interpretations of medical evidence on the definition and measurement of obesity and the pathologising³³ of fat people with the disease 'obesity'. They criticise diet culture and weightloss industries as contributing to stigma.

The international literature shows that healthcare spending per annum is higher for someone who is obese than for someone of a BMI in the healthy range. However, lifetime healthcare costs may not be higher, due to the shorter life spans of people who are obese.

A recent editorial in *The Lancet* asserts that health systems everywhere are under severe pressure to contain the costs of obesity and that without corrective action, they may be overwhelmed to breaking point.³⁴

In 2005, the Report of the Taskforce on Obesity estimated costs resulting from premature deaths and hospital costs – see Text Box 4 (pg. 10).

In addition, the Taskforce estimated direct healthcare costs for treating obesity in 2002 at some €70 million. Indirect costs also arise from days of work lost due to illness and lower wages earned due to discrimination, for example. While no specific data is available for calculating these costs, the National Taskforce employed a method used by the UK National Audit Office to estimate these indirect costs in Ireland to be in the region of €0.37 billion per annum.

³² Cooper, C (2011) 'Fat Lib: How Fat Activism Expands the Obesity Debate', in Rich, E. *et al* (Eds.), *Debating Obesity*, Palgrave Macmillan, Basingstoke, Hampshire.

³³ to view or characterize as medically or psychologically abnormal.

³⁴ *The Lancet* (2011) 'Urgently needed: a framework convention for obesity control.' Vol. 378, No. 9793

Text Box 4: Extract from the Report of the National Taskforce on Obesity (2005)³⁵

In economic terms, a figure of approximately €30million has been estimated for in-patient costs alone in 2003 for a number of Irish hospitals.

This year [2005] about 2,000 premature deaths in Ireland will be attributed to obesity and the numbers are growing relentlessly. Diseases which proportionally more obese people suffer from than the general population include hypertension, type 2 diabetes, angina, heart attack and osteoarthritis...

Using the accepted EU environmental cost benefit method, these deaths alone may be costing the state as much as €4bn per year.

The Taskforce emphasises that these figures are an 'order of magnitude' estimate and primary research would be needed to be more specific.

Indeed, Safefood, the all-island food safety promotion agency, has commissioned a major study on the cost of obesity across the island of Ireland.³⁶ This research will look at both the direct and indirect costs obesity and is due for completion in 2012.³⁷

What is Ireland doing?

Current policy in Ireland

In Ireland, the current key policy document in the area of obesity is the Report of the Taskforce on Obesity, published in 2005.^{38,39} This report gives a comprehensive picture of obesity in Ireland at that time, indicating the causes and making 93 recommendations aimed at preventing and treating overweight and

³⁵ http://www.dohc.ie/publications/report_taskforce_on_obesity_es.html

³⁶ Irish Medical Times (2010) 'Cost of Obesity Under Review'

³⁷ Personal contact with Safefood representative, 7/9/2011.

³⁸ Full report at:

http://www.dohc.ie/publications/report_taskforce_on_obesity.html

³⁹ There is also a national strategy on physical activity: <http://www.getirelandactive.ie/>

obesity. These recommendations fell into 5 categories (number of recommendations in parentheses):

- High level government (5);
- Education sector (22);
- Social and community sectors (13);
- Health sector (24);
- Food, commodities, production and supply (9);
- Physical environment (20).

One action currently being progressed is the development of a new national nutrition policy. The Department of Health is expected to publish this following its review of existing guidelines, including the food pyramid.⁴⁰

The role of the HSE in implementing the Taskforce recommendations is outlined in Text Box 5.

Text Box 5: HSE and obesity⁴¹

The HSE formed a National Steering Group on Obesity. This group translated the Taskforce recommendations for which the health service has a lead role into the HSE Framework for Action on Obesity 2008–2012.

A full-time Project Manager for Obesity was appointed to drive the implementation of the action plan.

HSE Framework for Action on Obesity - Strategic priorities

- 1) Enhance the effectiveness in surveillance, research, monitoring and evaluation of obesity.
- 2) Develop a quality, uniform approach to the detection and management of obesity.
- 3) Improve the capacity of the HSE in preventing overweight and obesity and to promote health.
- 4) Communicate the HSE's messages on obesity effectively.
- 5) Engage and support other sectors in addressing the causes of obesity and the obesogenic environment.

⁴⁰ <http://www.independent.ie/health/diet-fitness/its-war-on-flab-and-the-rules-are-changing-2860132.html>

⁴¹ <http://www.imt.ie/features-opinion/2011/06/stemming-the-rising-tide-a-matter-of-record.html>

The HSE has implemented a large number of projects arising out of the framework including:

- Provision of growth monitoring equipment and training.
- Conducted several baseline research studies, the latest of which is the 'Growing Up in Ireland' study.
- Assessment of training needs of healthcare professionals and programmes available, and developed a quick-reference Weight Management Treatment Algorithm⁴² for primary care staff.
- Implementation of several prevention programmes, such as the HSE Dublin North East's 'Be Active After School Activity Programme'.
- Sponsorship of the Community Games.

The HSE has also been involved in mass communications via RTE's *Operation Transformation* television programme.

Progress on Taskforce recommendations

The Taskforce report is now six years old and a 2009 review of the implementation of its recommendations found only partial compliance. (see Table 3 below). However, the review group stated that the nature of some recommendations was that they would be implemented in the longer-term.

Table 3: Progress reported on Taskforce recommendations (2009)⁴³

Status	No. of Recommendations	%
Significant progress	30	32%
Partial implementation	29	31%
Action progressed	26	28%
No progress	8	9%

⁴² A quick reference guide for identification, evaluation and treatment.

⁴³ <http://debates.oireachtas.ie/dail/2011/07/12/00312.asp>

In 2010, five years after publication of the Task Force Report, the Irish Heart Foundation (IHF) criticised the lack of progress:

'...despite 93 recommendations, minimal progress has been made and instead we are facing serious health problems in our country'.⁴⁴

Further to this, the IHF commented that although the Taskforce had stipulated that the Department of the Taoiseach lead the implementation of the recommendations, this had not happened.

The organisation called on the government to:

'prioritise action on obesity at policy level by focusing on environmental influences such as consumer-friendly food labelling, the physical environment and food marketing to children'.⁴⁵

It called for the introduction of measures to restrict advertising to children of foods high in fat, salt and sugar (HFSS). This has been provided for in legislation but not yet implemented.⁴⁶ The Broadcasting Authority of Ireland has recently undertaken a consultation on the issue, with a view to implementing changes to the advertising code in this area.

Current priorities

The Minister for Health, James Reilly, TD has changed the method of oversight to some extent, establishing a core group, the Special Action Group on Obesity, comprising largely of representatives of the Department of Health and HSE. This Group works with other government departments / bodies on a case-by-case basis.

The Minister has indicated that the Group's priorities are:

- Calorie posting on menus;
- The introduction of a tax on sugar sweetened drinks;
- Nutritional labelling;

⁴⁴ Irish Heart Foundation (2010) 'IHF says 5 years on, little done to tackle obesity', <http://www.irisheart.ie/iopen24/says-years-little-done-tackle-obesity-n-267.html>

⁴⁵ Ibid.

⁴⁶ Broadcasting Act 2009; <http://www.oireachtas.ie/documents/bills28/acts/2009/a1809.pdf>

- Restrictions on the marketing of food and drinks to children;
- Improved detection and treatment of obesity;
- Revised healthy eating guidelines;
- Promotion of physical activity.⁴⁷

Fiscal and regulatory measures – Experience abroad

Can taxation help?

There is much attention around the issue of taxation to discourage unhealthy diets. It is argued:

‘We put heavy taxes on cigarettes and alcohol in an effort to limit their usage, and to help pay for the damage they create. Junk food should be targeted in exactly the same way, with tax revenues ring-fenced to make healthier foods more affordable.’⁴⁸

In Ireland, the Special Action Group on Obesity is examining a number of options in this area, including the introduction of a tax on sugar sweetened drinks. However, the Group is not considering the introduction of a tax on high fat, salt and sugar foods at this stage.⁴⁹

This year, Denmark and Hungary became the first countries to introduce taxes on fatty and processed foods respectively.

Text Box 6: Denmark’s new fat tax

Tax On: All foods with more than 2.3% saturated fat, e.g. pizza, butter, cheese and oil

Rate: €2.15 per kg of saturated fat, e.g. 20c on a pound of butter.

Hungary has also introduced levies on a range of pre-packaged foods containing high salt or sugar, including crisps, salted nuts, chocolates,

⁴⁷ Topical Issue Debate, Dáil Éireann,

<http://debates.oireachtas.ie/dail/2011/09/29/00013.asp>

⁴⁸ White, T. (2011) ‘Debate on obesity can no longer be avoided’. *The Irish Times*, 10 Oct.

⁴⁹ Condon, D.(2011) ‘Taxing ourselves thin – the way forward?’, *irishhealth.com*

sweets, biscuits, ice creams and energy drinks.⁵⁰ The Hungarian Prime Minister has pledged the money raised will be used to support the health system. There has been some controversy around the measures, with critics saying they go too far while some supporters believe they do not go far enough.

Sugary drinks have raised concerns as some evidence suggests that US children are gaining more calories from drinks than from food. A 2009 *New England Journal of Medicine* article stated that:

‘The science base linking the consumption of sugar-sweetened drinks to the risk of chronic diseases is clear.’⁵¹

The authors argued that while taxing sugary drinks may be a blunt instrument to indirectly tackle obesity, it is still justified. They liken it to seatbelt legislation, which, while it does not eliminate traffic collisions, is worthwhile nonetheless.

‘With the use of a conservative estimate that consumers would substitute calories in other forms for 25% of the reduced calorie consumption, an excise tax of 1 cent per ounce would lead to a minimum reduction of 10% in calorie consumption from sweetened beverages, or 20 kcal per person per day, a reduction that is sufficient for weight loss and reduction in risk...The benefit would be larger among consumers who consume higher volumes, since these consumers are more likely to be overweight and appear to be more responsive to prices. Higher taxes would have greater benefits.’

Such taxes have been introduced in some parts of the USA and in France. In the US, some city or state governments introduced a ‘soda tax’ calculated per fluid ounce (as in the example above). And in France a 19.6% tax on soft drinks in addition to VAT of 5.5% is expected to raise €120m per annum.⁵²

⁵⁰ Holt, E. (2011) Hungary to introduce a broad range of fat taxes, *Lancet*, Vol. 378, Aug. 27

⁵¹ Brownell, K. (2009) ‘The public health and economic benefits of taxing sugar-sweetened drinks’, *New England Journal of Medicine*

<http://www.nejm.org/doi/pdf/10.1056/NEJMhpr0905723>

⁵² Murphy, C. (2011) ‘Fizzy drink tax is latest weapon to hit obesity’, *herald.ie*, 27 Sept.

In the US, an economic review, 'Can soft drink taxes reduce population weight?',⁵³ found they resulted in weight loss at different levels for different groups. However, weight loss was generally quite low at current (low, mean 3.3%) tax rates and insufficient to counter obesity. Modelling a tax rate similar to that on tobacco products, of approximately 58%, the researchers found a greater weight loss would be achieved. The acceptability of taxes at this level is not clear.

The food and drink industry in other jurisdictions has opposed the introduction of taxes on sugary drinks. And in Ireland, the industry body, Food and Drink Industry Ireland (FDII) claims that fat and sugar taxes could have a negative impact on employment in the food and drink sector and are unproven in terms of effectiveness in tackling lifestyles.⁵⁴ Some authors have pointed out that industry resistance indicates the belief that taxes would be effective in reducing consumption.⁵⁵

The regressive nature of such a tax has also been highlighted, i.e. that sugar or fat taxes will have disproportionate impact on those on low incomes as they spend a larger proportion of their income on food. The relative benefits to be gained for low income groups are used as a counter-argument to this point.⁵⁶

Text Box 7: Current situation– VAT on food and drinks

The tax system, through VAT, already differentiates between food products sold by retailers, with most foods such as bread, butter, tea, milk, sugar, meat, vegetables, subject to zero rate VAT.

However some foods incur 21% VAT these include – sweets, chocolates, confectionary, ice-cream, crisps, soft drinks and alcohol.

The Department of Finance notes that previous experience casts doubt on the use of taxes / subsidies to influence behaviour. The Department cites the food subsidies introduced

⁵³ Fletcher, J. et al (2010) 'Can soft drink taxes reduce population weight?', *Contemporary Economic Policy*, Vol. 28 (1)

⁵⁴ Murphy (2011) op cit.

⁵⁵ Brownell et al, 2009

⁵⁶ Brownell et al. op cit.

in the 1970s to counter inflation that were ineffective and took a long-time to phase out.⁵⁷ The WHO cautions on the use of regressive taxes and says there are question marks over the success of such taxes, as people may simply purchase a similar item that is not subject to the same tax, e.g. shifting from buying sugary fizzy drinks to sugary non-fizzy drinks.⁵⁸

The IHF argues that other fiscal measures such as subsidies for fresh fruit and vegetables and reducing VAT on bottled water would encourage consumption.

Food labelling – recent EU experience

In June 2011, the European Parliament voted against proposals to introduce 'traffic-light' style food labelling regulations. The traffic light system displays a red, amber or green light on the front of food packaging to clearly show consumers how the contents rate in terms of healthy eating criteria. The colour is determined by the levels of calories, sugar, salt and fat the product contains.

The European Public Health Alliance (EPHA)⁵⁹ backed the measure, citing evidence from British and Australian research that found that:

'a traffic light label on the front of [the] package is the best way to facilitate accurate interpretation of key nutritional information and therefore enable consumers to make informed choices about the food they purchase.'⁶⁰

Studies showed that the traffic light system is understood equally by all consumers, regardless of socio-economic status, gender or ethnicity. This type of labelling is used by some supermarkets in the UK.⁶¹ The EPHA's recommendations are set out in Text Box 8.

⁵⁷ Report of the inter-sectoral group on the implementation of the recommendations of the National Taskforce on Obesity (2009), Appendix 1, p. 2.

⁵⁸ Holt. E (2011) op cit.

⁵⁹ The EPHA is an NGO advocating for better health. IT is a member-led organisation, made up of public health NGOs, patient groups, health professionals, and disease groups working together to improve health and strengthen the voice of public health in Europe.

⁶⁰ European Public Health Alliance, <http://www.eph.org/a/3516>

⁶¹ <http://www.guardian.co.uk/lifeandstyle/2010/jun/16/meps-reject-traffic-light-food-labelling>

Text Box 8: The European Public Health Alliance on traffic light food labelling

Mandatory and standardised front of pack labelling should utilise the traffic light system. Using just one label format would enhance the use and comprehension of front of pack labels and reduce confusion amongst consumers. The balance of evidence ...shows that the strongest labels are those which combine text (high, medium, low) with %GDA and interpretative traffic light colours.

The food and drinks industry was opposed to the traffic light labelling system. It ran what has been described as 'one of the most expensive lobbying campaigns ever mounted in the European Union – at a cost of a whopping €1 billion euro'.⁶²

Food and Drink Industry Ireland (FDII) welcomed the MEPs rejection of the traffic light system, saying it 'failed to take into account the place of a particular food in the context of a balanced diet and healthy lifestyle'.⁶³

Instead, a rival system known as Guideline Daily Amounts (GDA) is to be introduced across the EU on a mandatory basis. This scheme expresses nutritional content as a proportion of the recommended daily intake of each nutrient.

OECD - fiscal and regulatory measures

A recent OECD review of international evidence of the effectiveness and cost effectiveness of obesity interventions, made specific findings in relation to fiscal and regulatory measures. A summary of these is presented in Text Box 9, below.

Text Box 9: OECD findings on regulatory and fiscal measures⁶⁴

Regulatory and fiscal measures:

- Are more transparent and contestable than other interventions (such as

⁶² <http://euobserver.com/19/30301>

⁶³ <http://www.irishtimes.com/newspaper/health/2010/0622/1224273020890.html>

⁶⁴ OECD (2010) *Obesity and the Economics of Prevention – Fit not Fat*

education and persuasion).

- May be difficult to organise and enforce and may have regressive effects.
- Governments have been reluctant to use them due to complexity, enforcement costs and the potential for confrontation with industry.
- Are among the most cost-effective interventions for obesity.
- Fiscal measures are the only intervention producing consistently larger health gains for the less well-off.

Policy and evidence – International lessons

In many policy arenas, the idea of looking abroad for successful models to solving problems in Ireland is attractive. However, in the area of obesity, while individual programmes can be shown to be effective, few countries have been successful in halting growing waistlines. A recent article in *The Lancet* put the case for building evidence in this area:

'Unlike other major causes of preventable death and disability, such as tobacco use, injuries and infectious diseases, there are no exemplar populations in which the obesity epidemic has been reversed by public health measures.'⁶⁵

No single approach stands out

'Systematic reviews of the reported effectiveness of interventions around the world reveal few scientifically conducted trials that have shown a direct effect on BMI or obesity prevalence.'⁶⁶

A review of evidence for the prevention and treatment of obesity in children found that 'no one approach, setting or activity stands out as generally effective'.⁶⁷

⁶⁵ Swinburn *et al* (2011) 'The global obesity pandemic: shaped by global drivers and local environments', *Lancet*, Vol. 378: 804-14.

⁶⁶ Foresight Report.

⁶⁷ Hadley *et al* (2010) 'What works for the prevention and treatment of obesity among children: Lessons from experimental evaluations of programs and interventions', *Child Trends Fact Sheet*.

The WHO has conducted a rigorous review of global literature on diet and physical activity interventions finding that while no size fits all 'multi-component interventions that are adapted to the local context' were most useful.

'Interventions that used the existing social structures of a community, such as schools or the weekly meetings of older adults, reduced barriers to implementation. Effective interventions invariably involved participants in the planning and implementation stages, such as involving workers themselves in workplace interventions and community leaders in community and religion-related programmes'.⁶⁸

Ranking cost-effective interventions

While no one approach stands out, there has been some determination of programmes that can be effective and their relative cost-effectiveness has been studied. A recent large-scale Australian study ranked the cost-effectiveness of obesity interventions based on the number of Disability Adjusted Life Years each would save. Though the strength of evidence for each varies, the top five actions are listed in Table 4.

It is interesting to note that the top three interventions cited - around taxation, labelling and advertising - are currently under consideration in some form in Ireland. In addition, there are programmes in place around nutrition and physical activity in schools. The authors of this study take the view that most of the measures are transferable to some extent.

Current arsenal (childhood) not enough⁶⁹

The Melbourne ACE-Obesity Study, an assessment of current measures for combating childhood obesity, found that:

'The expected gain from the current arsenal of interventions is unlikely to be sufficient to reverse the trend towards increasing levels of overweight and obesity.'

Table 4: Top 5 obesity interventions in terms of cost effectiveness for years of life saved⁷⁰

Action	Target Population
Unhealthy food and beverage tax (10%)	Adults
Front-of-pack traffic light nutrition labelling	Adults
Reduction in advertising of junk food and beverages to children	Children (0-14 years)
School based education programme to reduce television viewing	Primary school children (8-10 years)
Multi-faceted education programme including nutrition and physical activity	Primary school children (6 years)

The OECD comments that obesity prevention measures, particularly those aimed at children, take a long time to pay off (OECD, 2010).

The limited success of diets

Recent research found that assumptions around the pace and sustainability of weight loss programmes aimed at diet and exercise in individuals are wrong. This has led to 'drastically overestimated expectations for weight loss'.⁷¹

The evidence clearly indicates that diets and weight loss programmes have very limited success. Adults who stick with weight management programmes can expect a maximum weight loss of 10%.⁷²

Key messages from international literature

It is argued that environmental factors overwhelm individual intent and education⁷³ and that altering these environmental factors presents the best possible approach to obesity prevention and reversal at population level. Those that have shown effectiveness are predominately in easily controlled settings such as schools and workplaces.⁷⁴ As Swinburn *et al* recently argued in *The Lancet*:

⁶⁸ <http://www.who.int/dietphysicalactivity/summary-report-09.pdf>

⁶⁹ Melbourne ACE-Obesity Cost-Effectiveness Review of Obesity Interventions (2006) http://www.health.vic.gov.au/healthpromotion/downloads/ace_obesity.pdf

⁷⁰ Gortmaker, S.L., *et al* (2011) 'Changing the future of obesity: science, policy, and action', *Lancet*, 378:838-47

⁷¹ Hall, K.D. *et al* (2011) 'Quantification of the effect of energy imbalance on bodyweight' *Lancet*, 378:826-37

⁷² IHF, Obesity Factsheet

⁷³ IHF, Obesity Factsheet

⁷⁴ *Ibid.*

'Policy interventions for obesity can only be realistically aimed at the environment (making healthy choices easier) rather than the individual (compelling them to take the healthy choices).'⁷⁵

The most important messages stressed in the international literature are the need for concerted action by governments and other sectors of society (civil society, private sector, international agencies, health professionals, individuals) across multiple systems and the importance of rigorous evaluations of interventions to provide evidence of what works and what does not.

In relation to the first point, regarding coordinated action, the argument is made that:

'Tackling obesity demands an approach that does not merely coordinate the discrete actions of a huge number of individuals, organisations, and sectors. Those actions need to be integrated, their unintended consequences understood, correction actions undertaken, ineffective interventions stopped, and effective ones continuously tweaked and improved. We need to move from small steps and single solutions to "big thinking, many changes", taking an ecological approach'.⁷⁶

Further to this, there is a need for interventions and policies to be rigorously evaluated so as to improve the evidence base in this area and avoid directing efforts into the wrong programmes.

'New or current interventions...need to be properly evaluated so that we can be confident that they actually achieve the desired impact when compared to current practice or to no intervention.'⁷⁷

Key messages from a series of *The Lancet* articles on obesity are distilled as:

1. The obesity epidemic will not be reversed without government leadership.
2. Business as usual would be costly in terms of population health, health care expenses, and loss of productivity.
3. Assumptions about speed and sustainability of weight loss are wrong-adjusting downwards what changes are plausible for individuals.
4. We need to accurately monitor and evaluate both basic population weight data and intervention outcomes.
5. A systems approach is needed with multiple sectors involved.

Useful Resources

Obesity Hub: This database is a reference point for Irish and international obesity data, policy, research reviews, and interventions. It is managed by the Institute of Public Health (IPH).

<http://obesity.thehealthwell.info/>

WHO NOPA database: Source for national strategies on nutrition, obesity and physical activity:

<http://data.euro.who.int/nopa/>

WHO International Inventory of Physical Activity Promotion Documents:

This WHO database allows you to search and link to policies, strategies and legislation relating to physical activity promotion from Europe and beyond.

<http://data.euro.who.int/PhysicalActivity/?TabID=107125>

⁷⁵ Swinburn, B.A. *et al* (2011) 'The global obesity pandemic: shaped by global drivers and local environments', *Lancet*, 378:804-14

⁷⁶ Rutter, H. (2011) 'Where next for obesity?' *Lancet*, 378:746-7

⁷⁷ Melbourne ACE-Obesity Study (2006)