

Obesity issues facing Scotland over the next 15-20 years

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The financial cost of obesity

It is estimated that the NHS in England spent **£6.1 billion** on overweight and obesity-related ill-health in 2014 to 2015.

Annual spend on the treatment of obesity and diabetes is greater than the amount spent on the police, the fire service and the judicial system combined.

The UK-wide NHS costs attributable to overweight and obesity are projected to reach **£9.7 billion by 2050**, with wider costs to society estimated to reach **£49.9 billion per year**.

McKinsey Global Institute; 3% of GDP; for Scotland (**£4.6 billion**).

Obesity prevalence in the UK



Classification	BMI (kg/m ²)
Healthy weight	18.5 – 24.9
Overweight	25 – 29.9
Obese	30 and over

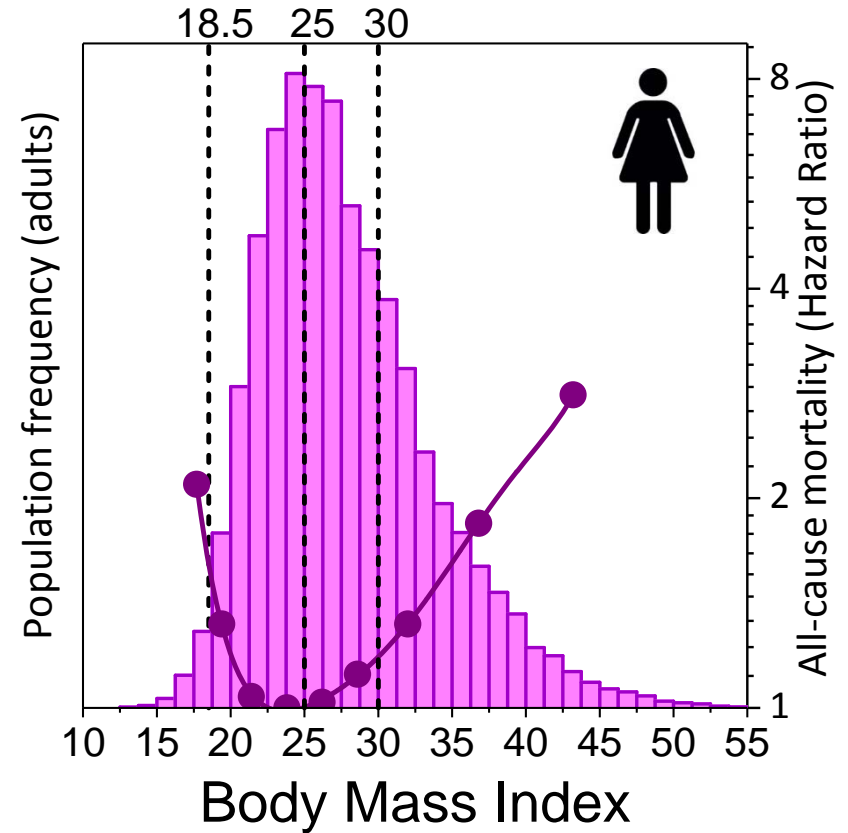
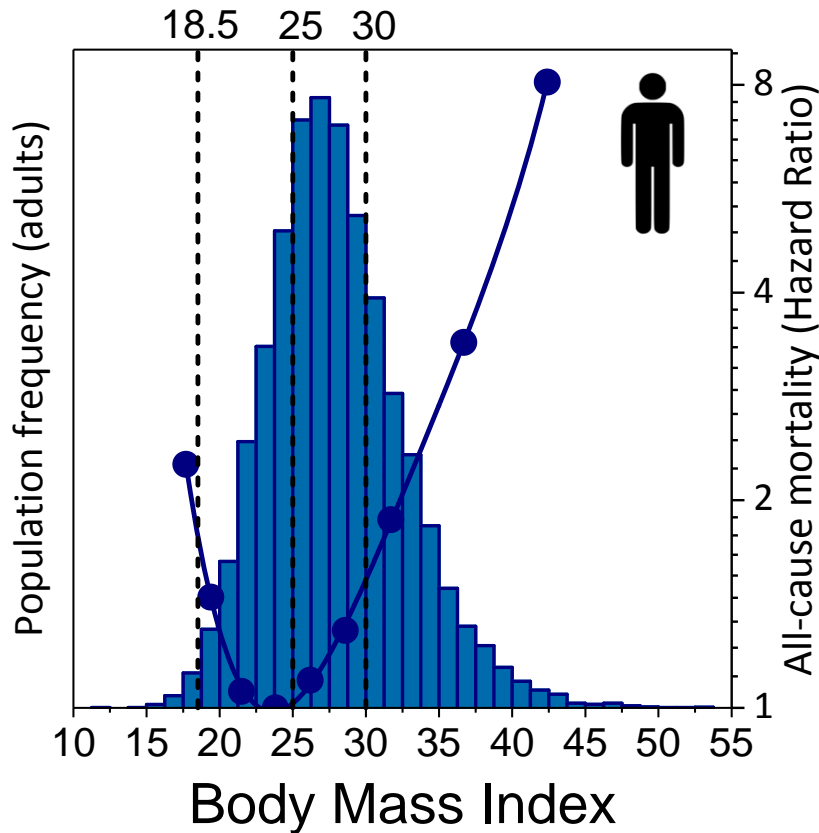
Adults (16+y)	% overweight (incl. obese)		% obese	
	Men	Women	Men	Women
Scotland (2015)	68	61	25	29
England (2015)	67	57	26	24



Children*	% at risk overweight (incl. obese)		% at risk of obesity	
	Boys	Girls	Boys	Girls
Scotland	31	27	17	15
England	30	29	16	15

*2-15years

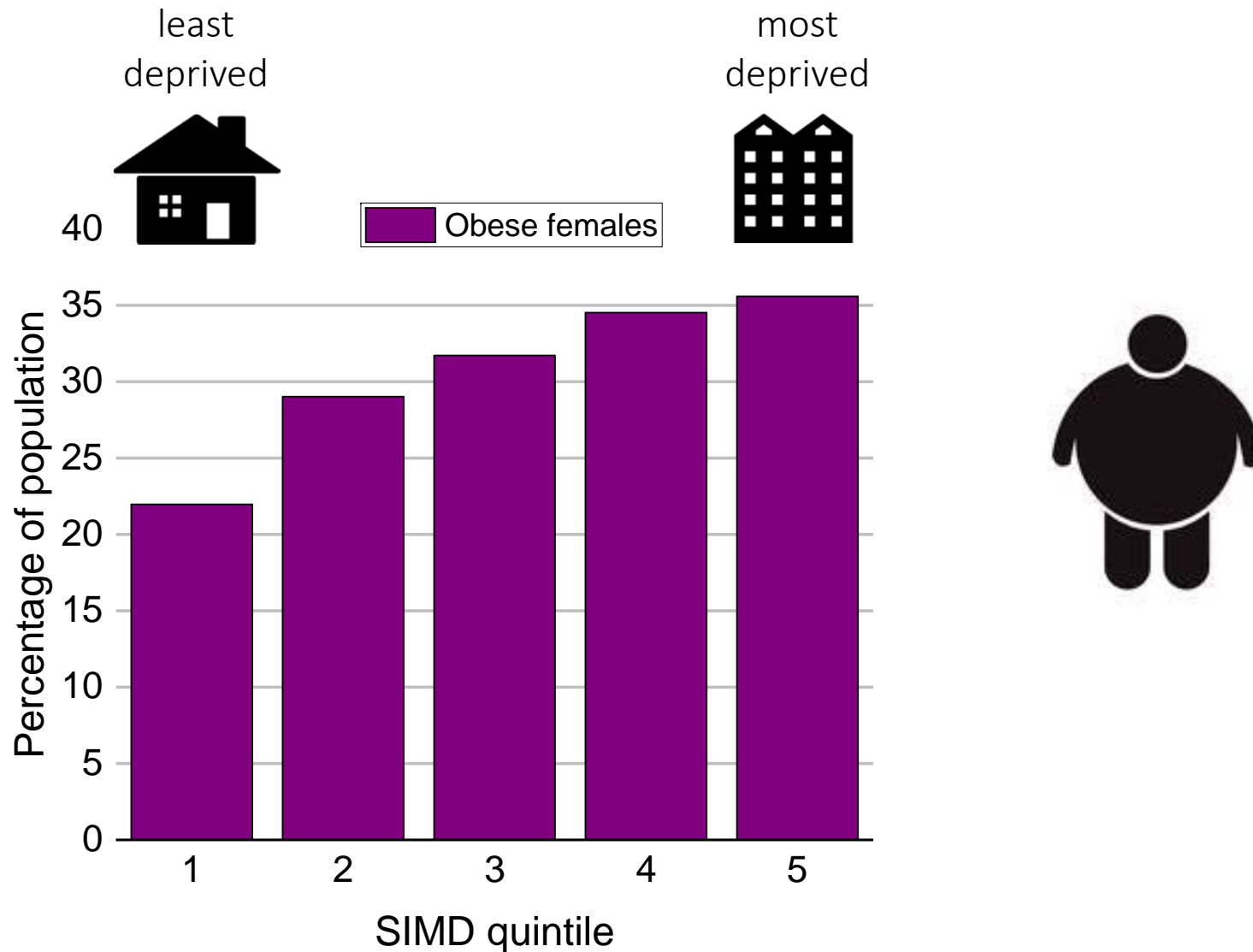
The health effects of high BMI



Hazard ratios restricted to never-smokers without pre-existing chronic disease and exclude the first 5 years of follow-up.

Scottish Health Surveys (2008-2014); Global BMI Mortality Collaboration (2016). Body-mass index and all-cause mortality: individual-participant-data meta-analysis of 239 prospective studies in four continents. *Lancet (London, England)* 388, 776-786.

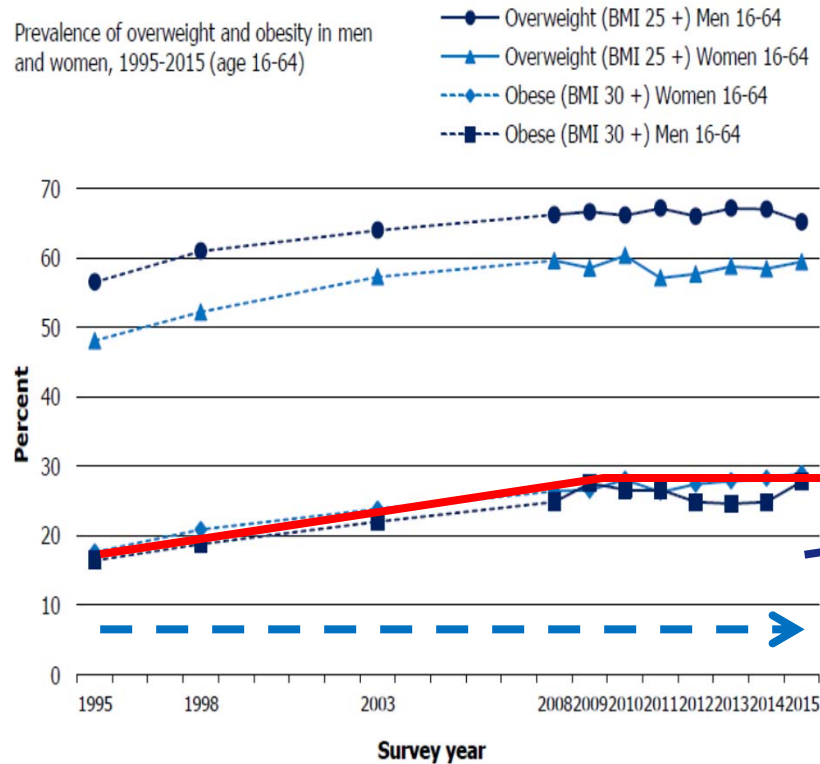
Adult female obesity rates and deprivation



Adult obesity trends and health



Prevalence of overweight and obesity in men and women, 1995-2015 (age 16-64)



2029

Pattern of ill health (if 20 year delay)

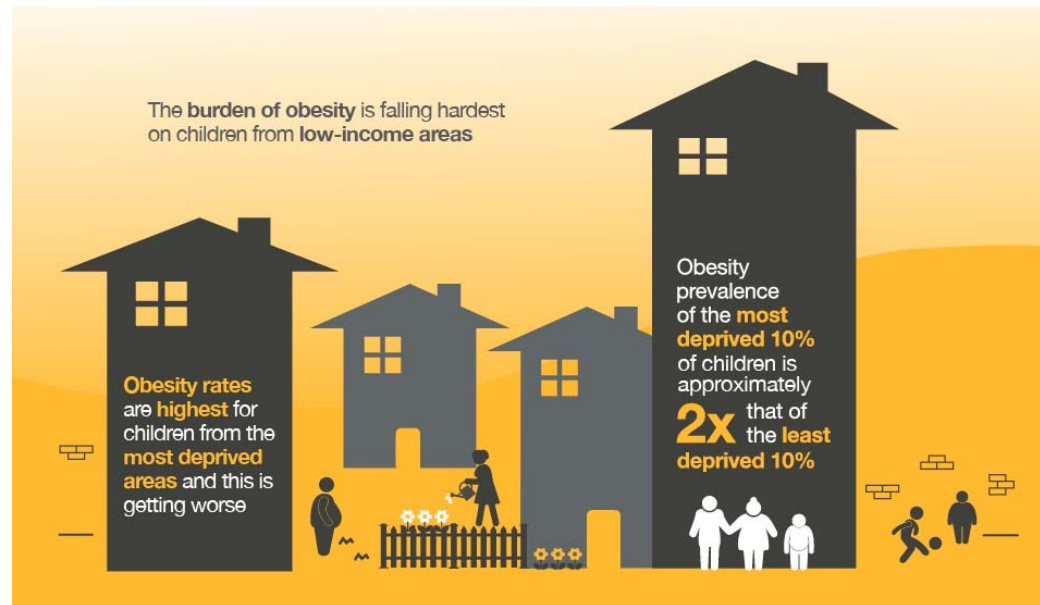
Summary

Obesity rates relatively stable since around 2009

Increase before that yet to fully manifest in poor health (delay of decades)

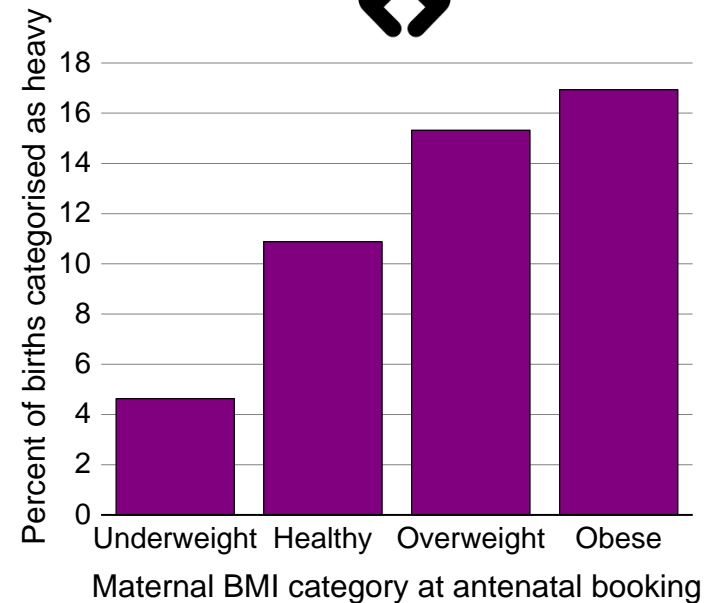
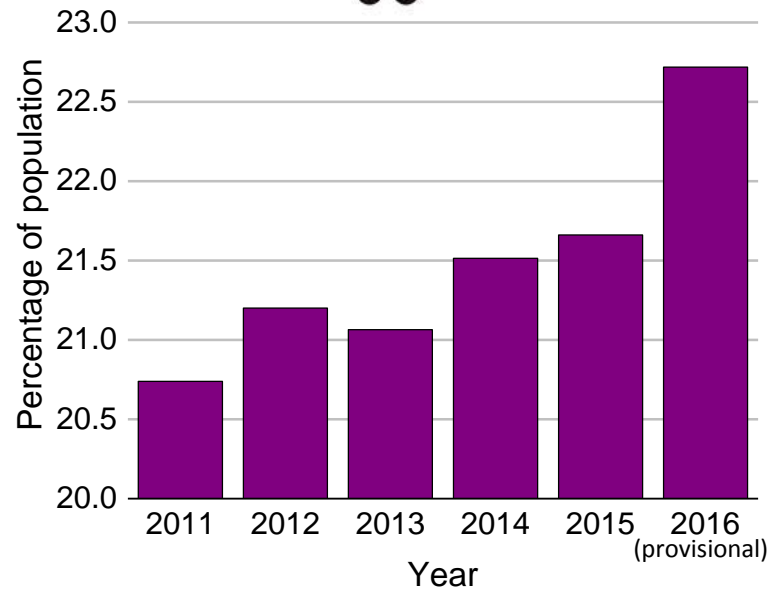
Overweight likely to change little based on current distribution (mathematical)

Deprivation & transgenerational persistence of obesity



A child with an obese parent is significantly more likely to be at risk of being overweight or obese (40% compared with 22%) or at risk of obesity (23% compared with 11%).

Obesity in pregnancy; trends and effects



Maternal obesity increases risk of premature death in adult offspring*



Obesity: starting earlier and lasting longer



28%
of children
aged 2 to 15 are
**overweight
or obese**

Younger generations are becoming **obese at earlier ages** and staying obese into adulthood



Of every 100 4 & 5 year olds in England there are...



under weight



healthy weight



over-weight



obese

Of every 100 10 & 11 year olds in England there are...



under weight



healthy weight



over-weight



obese

Obesity issues facing Scotland over the next 15-20 years

- Significant economic, health, wellbeing and social cost
- Rates relatively stable since around 2009
- Increase before that yet to fully manifest in poor health
- Strongly related to deprivation index
- Starting earlier in life and lasting longer
- Increasingly transgenerational transmission

Future focus

- Even small changes to population BMI will produce gains
- Short term gains: focus on deprived groups
- Long term strategy: focus on early years and pregnancy