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South Tyneside Council



INCREASING UNDERSTANDING OF THE GROWTH OF HOT FOOD TAKE- AWAYS: The Role of Environmental Health

Wednesday 14 October 2015

Justine Wilkinson

Background

Most of us are eating or drinking more than we need to and are not active enough and as a direct consequence levels of being overweight or obese are increasing.

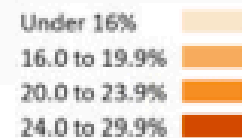
(HSCIC, 2015).



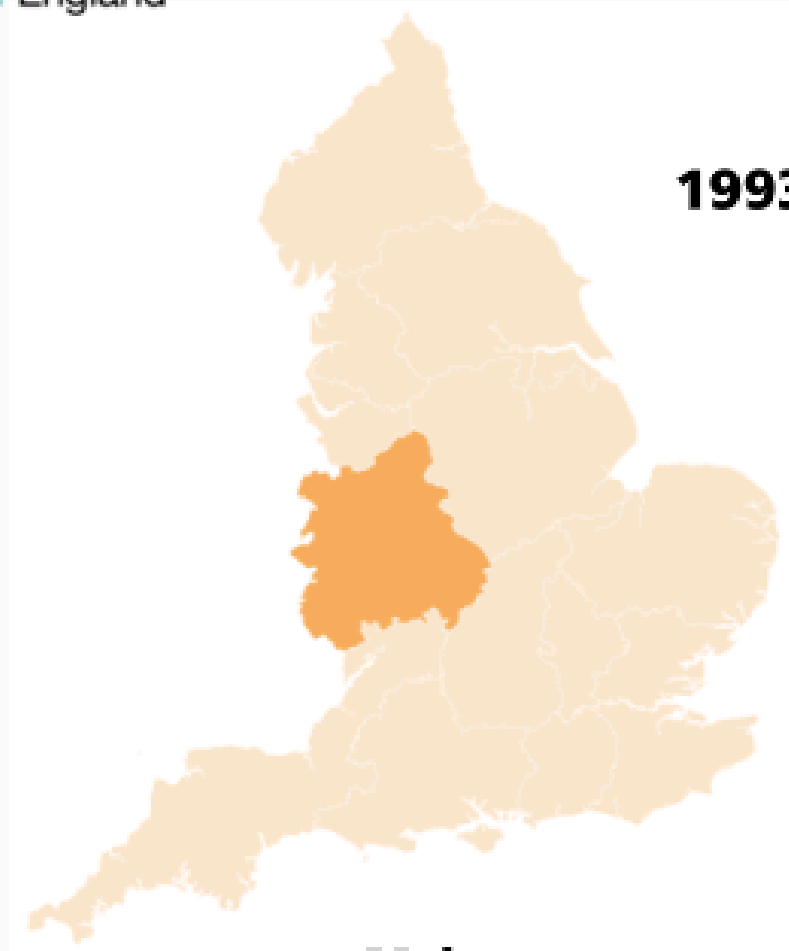


Public Health
England

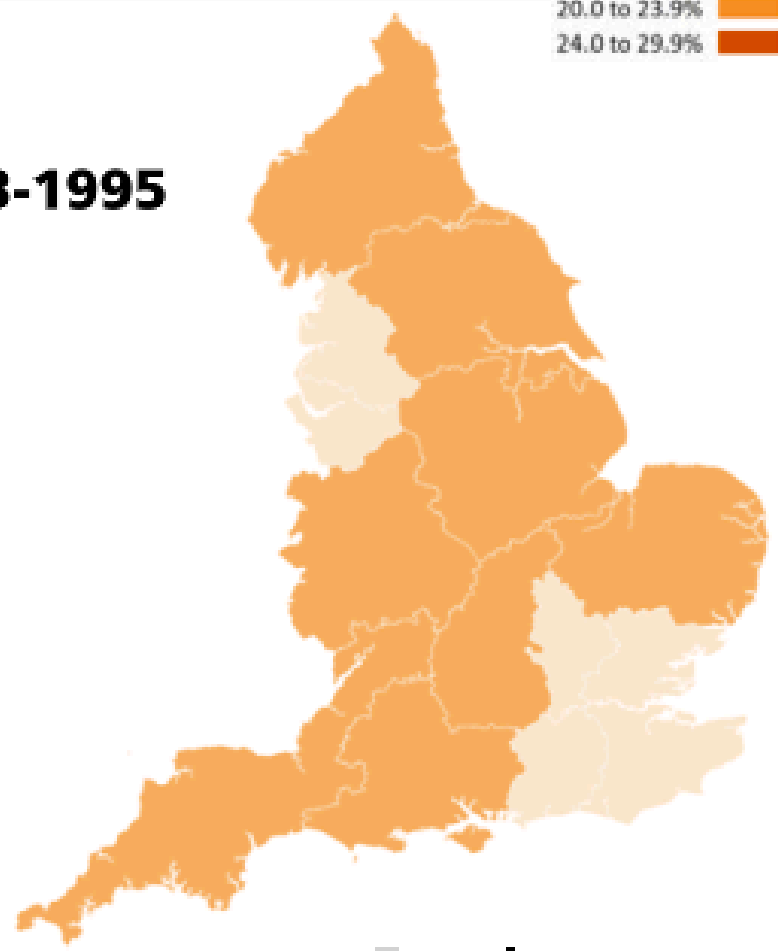
Prevalence of obesity in adults (aged 16+)
Source: Health Survey for England



1993-1995



Males



Females

Adult obesity: BMI $\geq 30\text{kg/m}^2$

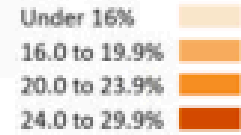
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Public Health England (2015)

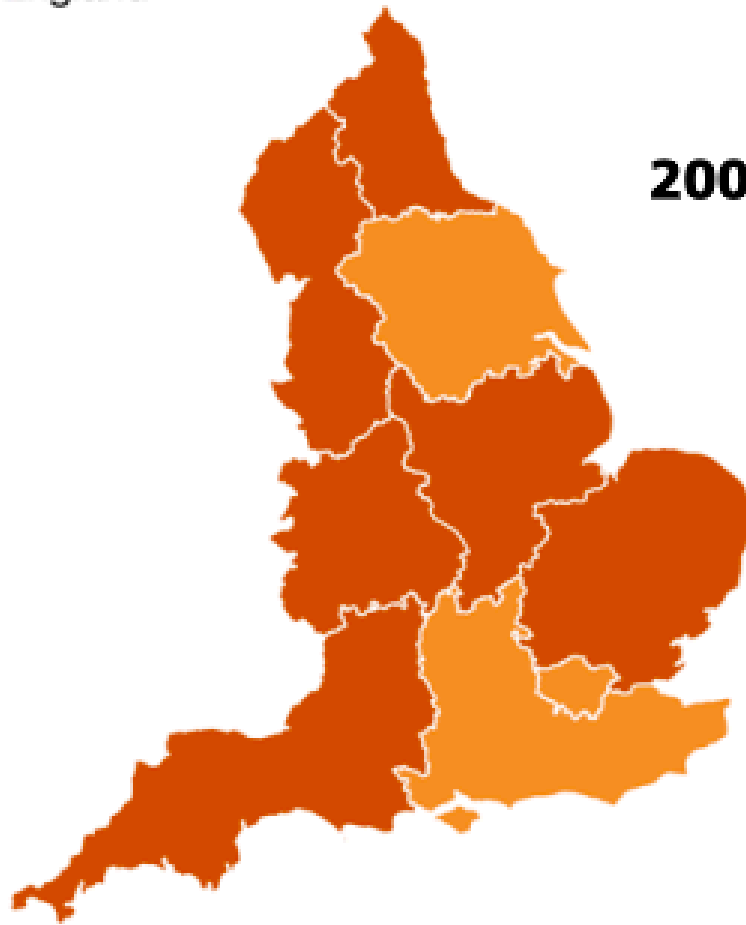


Public Health
England

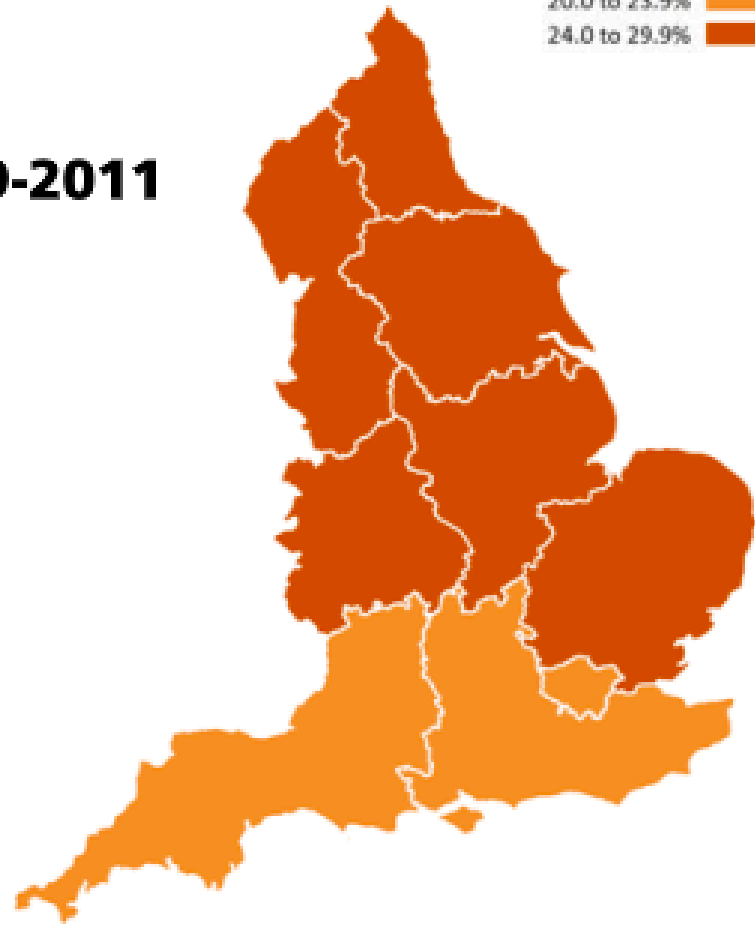
Prevalence of obesity in adults (aged 16+)
Source: Health Survey for England



2009-2011



Males



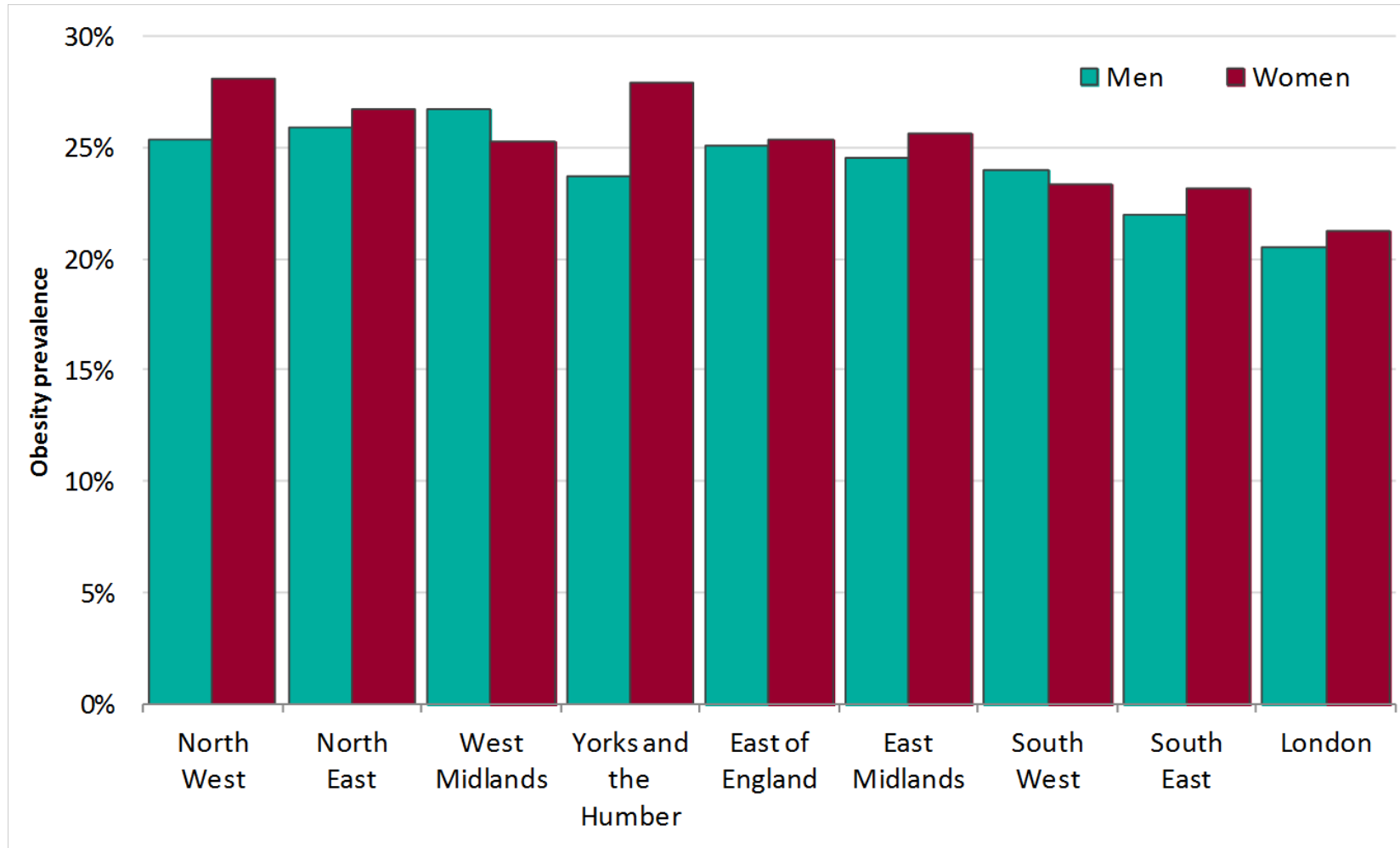
Females

Adult obesity: BMI $\geq 30\text{kg/m}^2$

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Prevalence of adult obesity by region

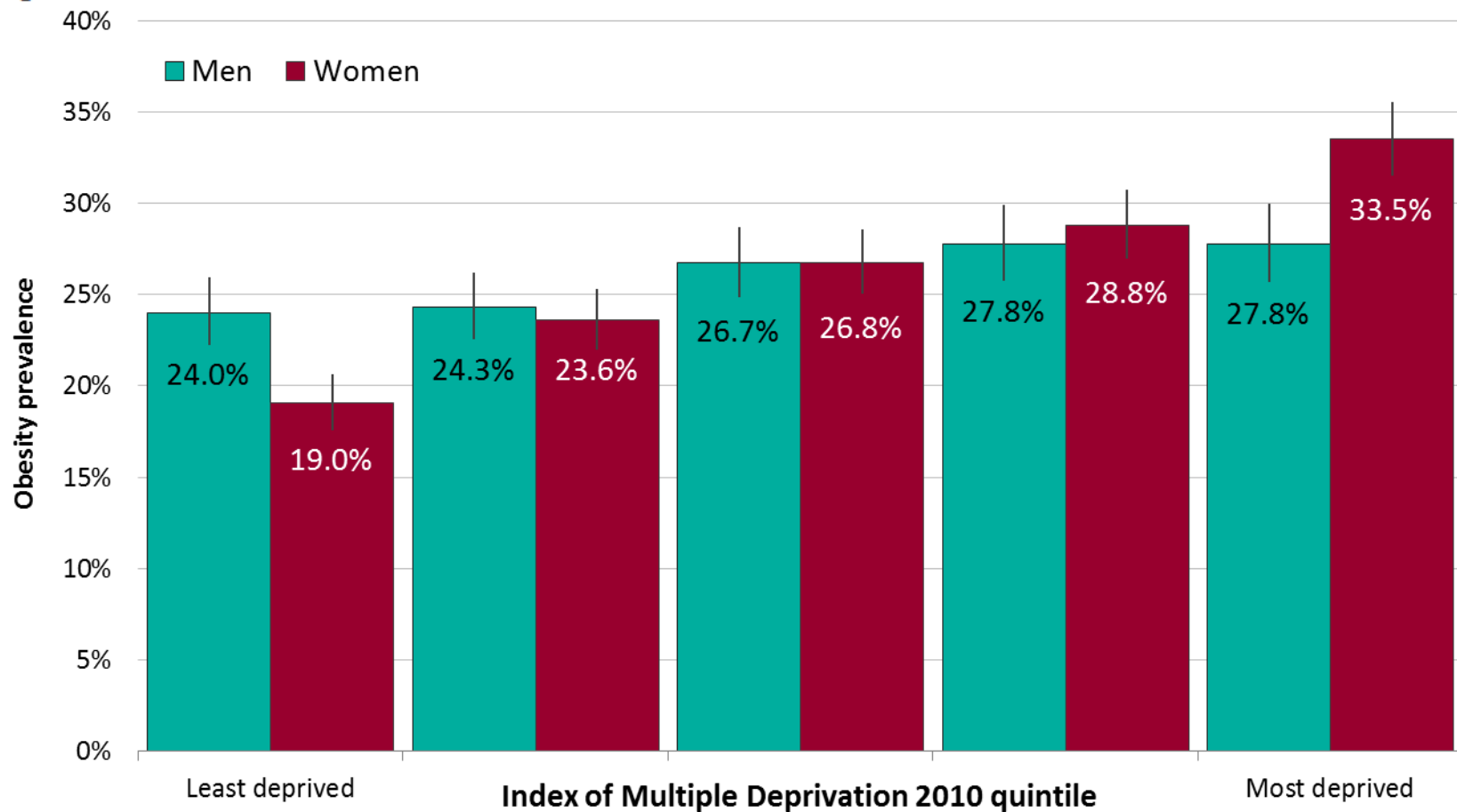
Health Survey for England 2009-2011 (3-year average)



Adult (aged 16+) obesity: BMI \geq 30kg/m²



Adult obesity prevalence by deprivation



The chart shows 95% confidence intervals
Adult (aged 16+) obesity: BMI ≥ 30kg/m²

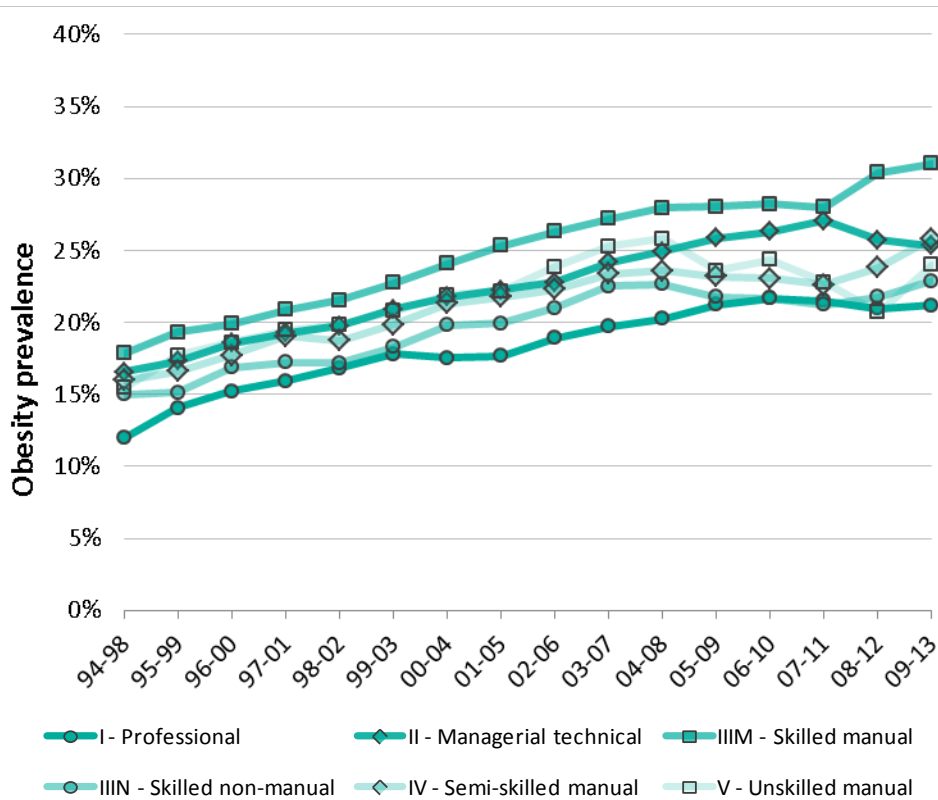
Deprivation measure is Index of Multiple Deprivation (IMD) 2010

Trend in adult obesity prevalence by social class

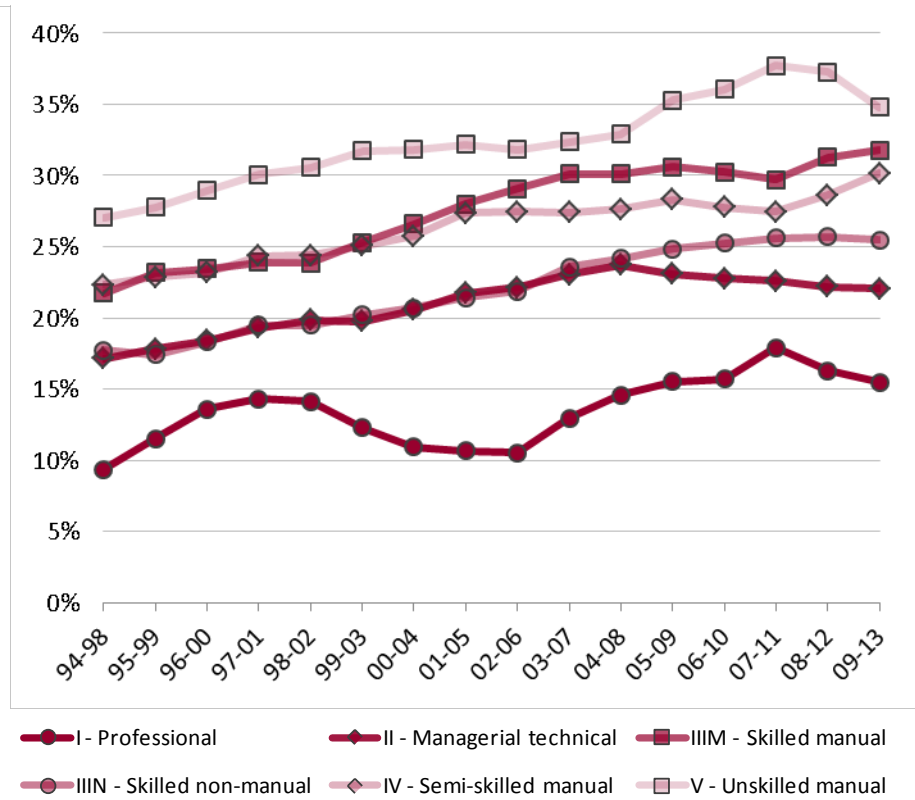
Health Survey for England 1994-2013 (5 year moving average*)

Adult (aged 16+) obesity: BMI $\geq 30\text{kg/m}^2$

Men



Women



*No data on social class were collected in 2010 and 2011. Therefore data presented as 06-10 are based on a 4 year average. Data presented for 07-11, 08-12, and 09-13 are based on a 3 year average.



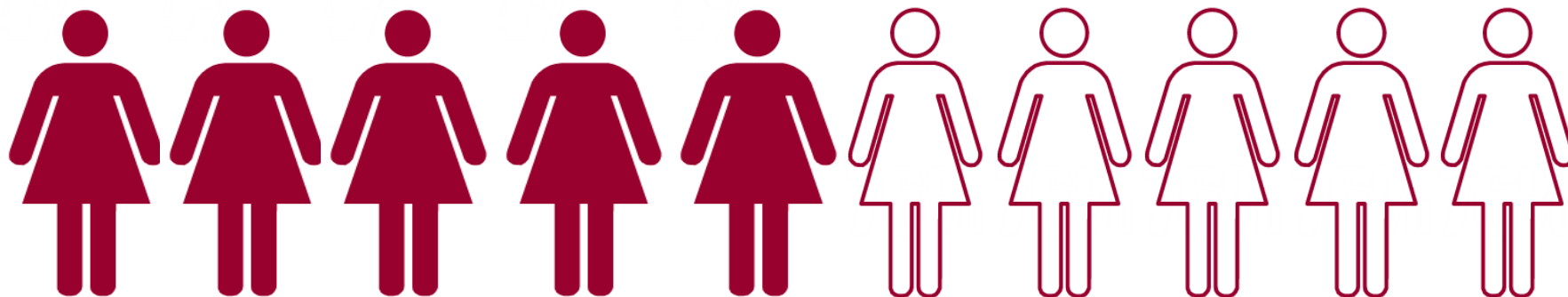
Overweight and obesity among adults

Health Survey for England 2011-2013

More than 6 out of 10 **men** are overweight or obese (66.2%)



More than 5 out of 10 **women** are overweight or obese (57.6%)



Adult (aged 16+) overweight and obesity: BMI \geq 25kg/m²



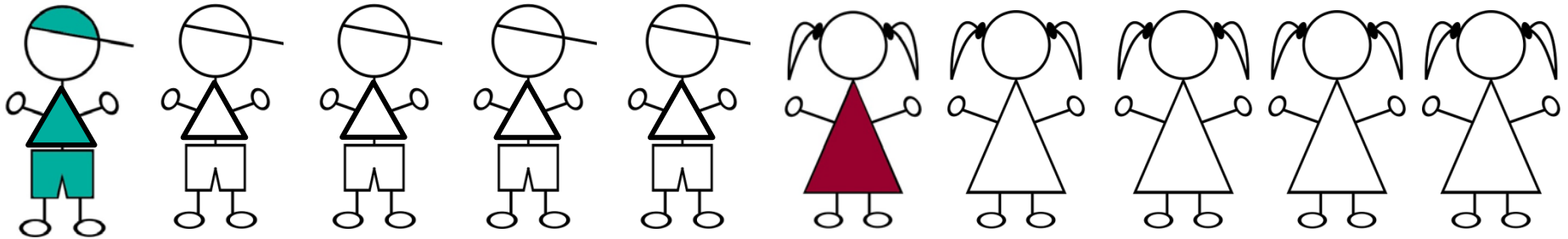
Prevalence of excess weight among children



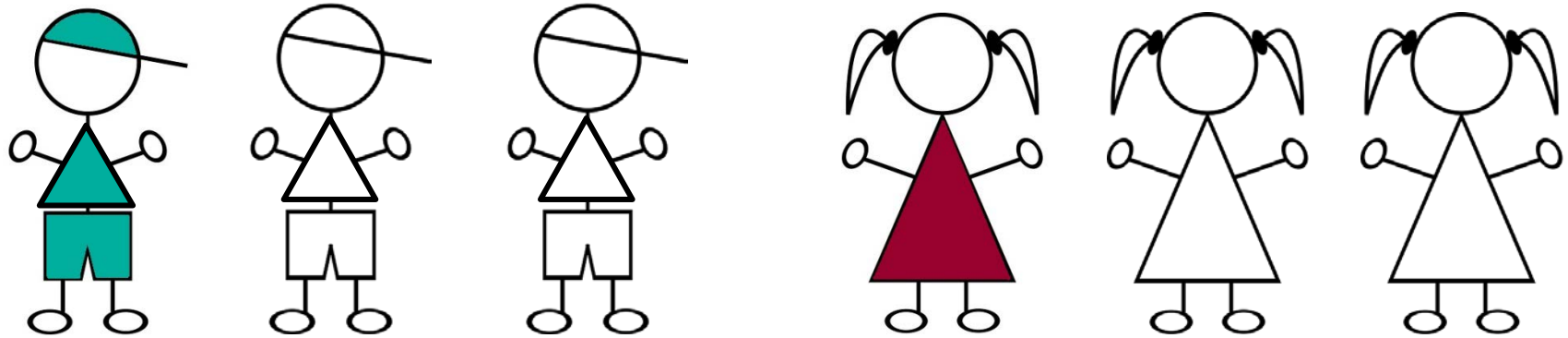
Public Health
England

National Child Measurement Programme 2013/14

One in five children in Reception is overweight or obese (boys 23.4%, girls 21.6%)



One in three children in Year 6 is overweight or obese (boys 35.2%, girls 31.7%)



Child overweight (including obesity)/ excess weight: BMI \geq 85th centile of the UK90 growth reference

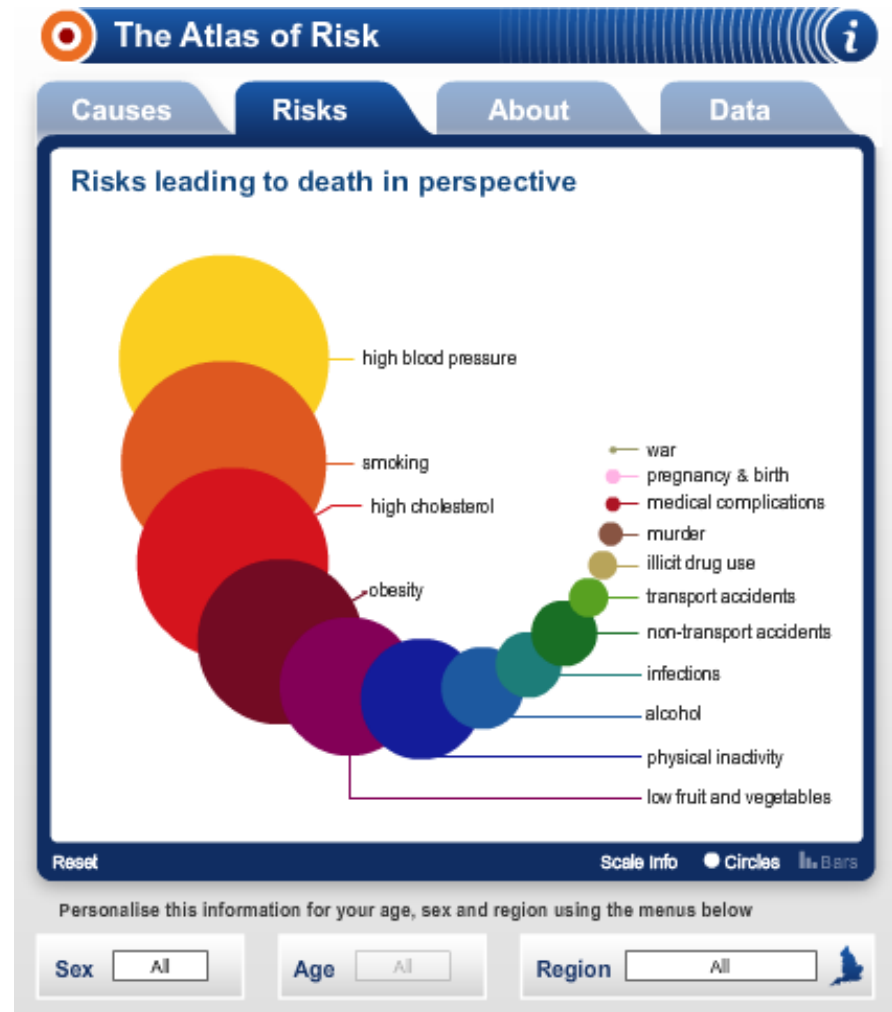
Risks of being obese

Obesity increases the risk of

- Hypertension
- Type II diabetes
- Musculoskeletal disease
- Stroke
- Coronary heart disease
- Asthma
- *Many* types of cancer

Leading to significant health and social care costs

Government Office for Science (2007)
Dept of Health (2011)
NHS Choices (2013)



Risks associated with childhood obesity

- Childhood obesity increases the risk of type 2 diabetes, asthma, sleep apnoea, musculoskeletal problems, and cardiovascular disease (among many others)
- There are also links to psychiatric diagnoses
- There is some (limited) evidence to suggest that, on average, children with obesity have poorer educational attainment
- Obese children often become obese adults

What does the literature say?

The *Foresight Report* is the most comprehensive investigation into obesity and its causes and describes obesity as a complex problem that is more than poor choice about diet and exercise but is influenced by **social, cultural** and **environmental** factors.

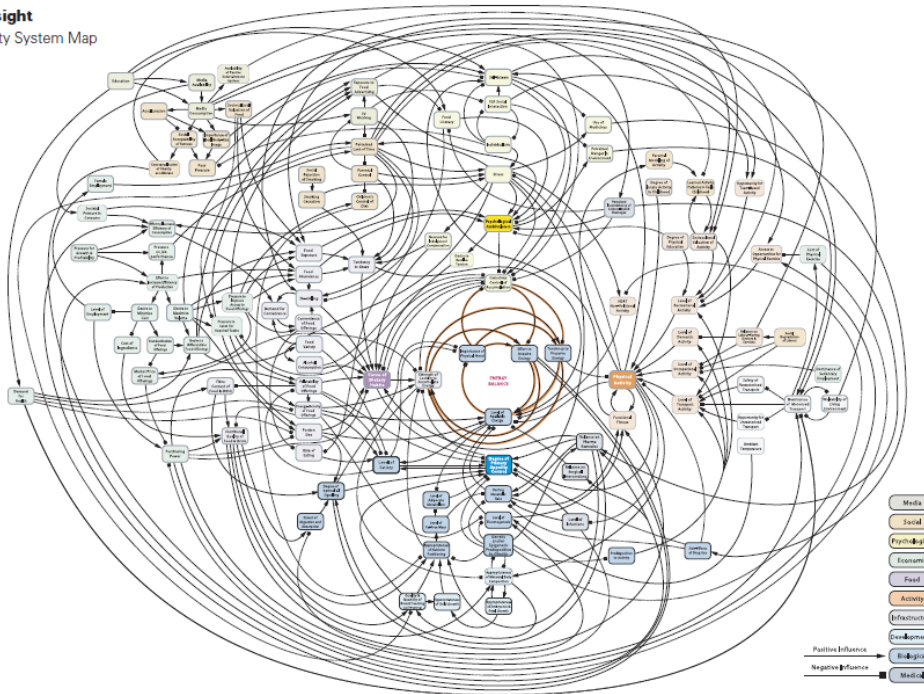
Government Office for Science (2007)

The Foresight Report: – Responding sustainably to obesity

- Most adults in the UK are already overweight. Modern living ensures every generation is heavier than the last – ‘passive obesity’
- By 2050 60% of men and 50% of women could be clinically obese. Without action obesity related diseases are estimated to cost society £49.9 billion per year.
- The obesity epidemic cannot be prevented by individual action alone and demands a societal approach.
- Tackling obesity requires far greater change than anything tried so far, and at multiple levels: personal, family, community and national.
- Preventing obesity is a societal challenge, similar to climate change. It requires partnership between government, science, business and civil society.

Tackling obesity is complex!

Foresight
Obesity System Map



7 Key themes:

- Physiology
- Individual activity
- Physical activity environment
- Food consumption
- Individual psychology
- Social psychology

Focus on Fast Food

Attention has grown to developing action and policy to modify the food environment, with fast food outlets of particular interest.

But

Causal evidence of the link between food availability and obesity is still relatively underdeveloped.

PHE, 2014

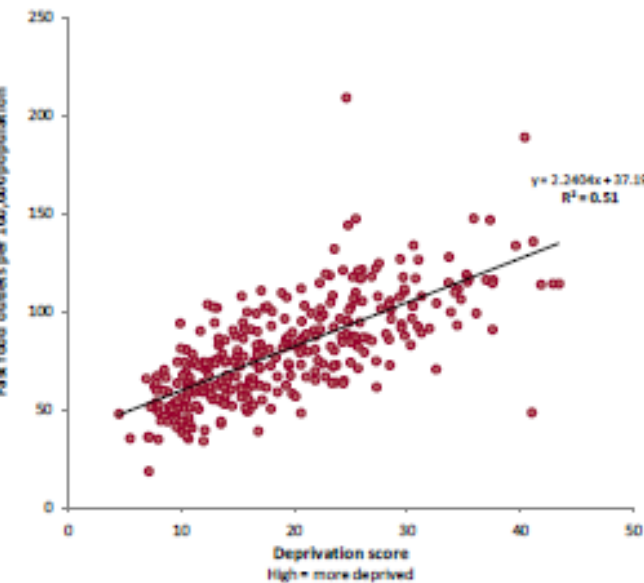


Public Health
England

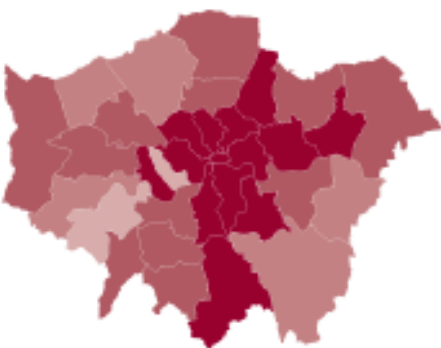
Obesity and the environment

Fast food outlets

Relationship between density of fast food outlets and deprivation
by local authority

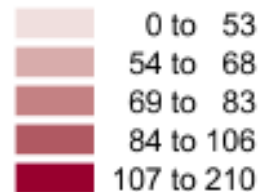


London inset:



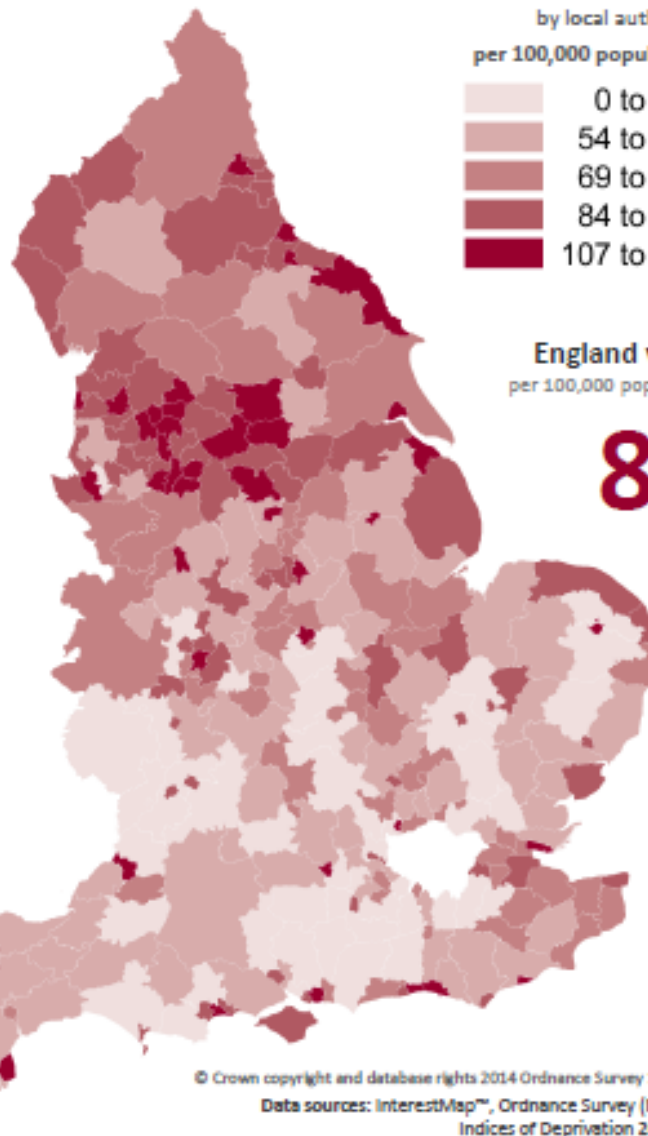
Fast food outlets

by local authority
per 100,000 population



England value
per 100,000 population

86



England value
is **86** per
100,000

South
Tyneside's
value is **103.9**
per 100,000
population

Public Health
England (2014)



Examples of Literature on Fast Food

Relationship between location of HFTAs and the impact on food choice and health

Caraher et al (2014)

Connection between the food environment and health inequalities showing an association between the concentration of fast food takeaways and levels of obesity with obesity levels tending to be higher in more deprived areas

Greig et al (2014)

People who live and work near a high number of takeaway food outlets tend to eat more takeaway food and are more likely to be obese than those less exposed

Burgoine et al (2014)

Literature continued...

- Intake of takeaway food has increased & become a regular component of the diet

(Duffy et al., 2007; Poti et al., 2011)

- Consumption of fast/takeaway food > once a week increases the risk of being obese by 129%

(Schroder et al., 2007)

- Nutritional profile of takeaway food is highly variable - tendency for excessive portion size, energy, macronutrients and salt

(Jaworowska et al., 2014; Caraher et al., 2014; Saunders et al., 2015).



Gateshead Takeaway Study

Sampled popular meals and analysed nutrient data and found:

- wide variation in nutritional content and portion size
- About two-thirds had more than an adult female's RDA of saturated fat
- About three-quarters had more than 66% of an adult female's RDA of calories
- Areas where takeaways had proliferated saw serious competition on price and portion size

Transfer of Public Health functions

Transition of health improvement functions back to local government in England in 2013.

Provides opportunities for Environmental Health practitioners to contribute to address health inequalities.

The Project

Understanding food businesses from a public health perspective using existing Environmental Health data.



The Project

The public health community is responsive to systematic data gathering, evidence based delivery and measuring population level public health outcomes.

The South Tyneside Team:

- Julie Connaughton
- Andrea King
- Claire Nevison
- Dene Outerside
- Justine Wilkinson

What did we seek to do?

Use existing food business data collected by South Tyneside EH to:

- Document the HFTA business profile over a 5 year period
- Define the current local HFTA business profile in South Tyneside
- Map HFTA business location and compare with deprivation, child and adult obesity data
- Use findings to inform public health decision making



Methodology

- South Tyneside Council's Environmental Health database used to extract reliable data on Hot Food Take Aways (HFTAs), including location, type of HFTA and change in profile over time (5 years).
- Geographical Information Systems used to map on to local political boundaries and overlaid with child and adult obesity levels, deprivation, town centres and location of schools shown with a radius of 400m.

Key Findings: Change over time

Number of outlets - as of 01/01/2014

Food Reg Form

	2009	2010	2011	2012	2013	2014
Delicatessens	3	3	3	3	3	4
Chinese	21	22	22	23	25	28
Indian	19	20	24	24	26	31
Pizza/Kebab	13	15	15	16	23	34
Fish/Chips	22	22	22	25	25	29
Sandwiches	10	11	12	14	17	21
Mobile/Bakery				1	1	2
Total	88	93	98	106	120	149

—————> Increase of 69.32% <—————

Comparison with planning information

- Whilst the overall number of business units in South Tyneside is decreasing the only category to show an increase in growth was A5 (+3% in 2013-14).
- In South Tyneside 9% of retail units are defined as business class A5.
- Retail units which fall under class A1 such as bakers and sandwich shops may also sell hot food as an ancillary use to their primary purpose without requiring a change of use. In South Tyneside this presents the potential to add a further 268 premises.



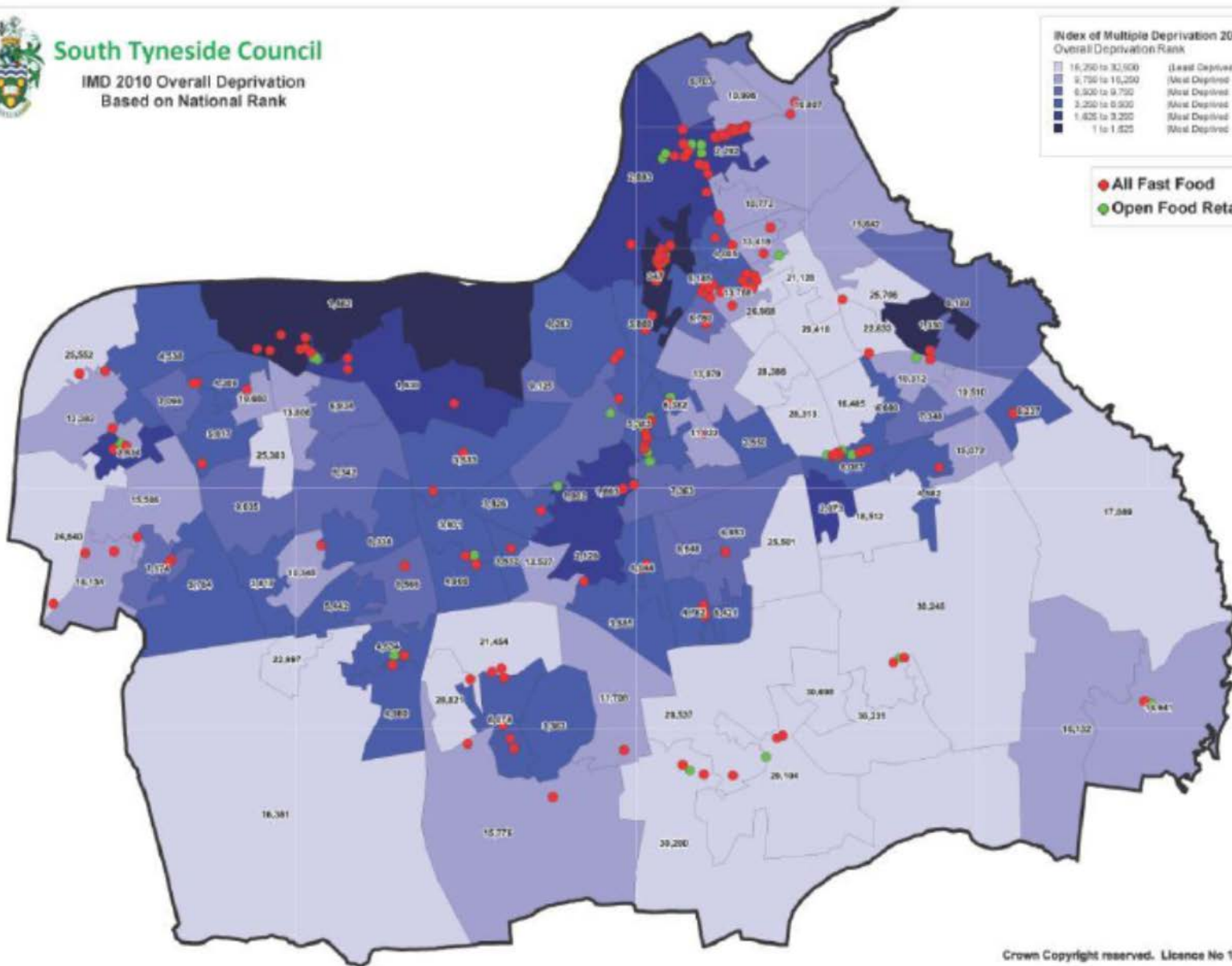
South Tyneside Council

IMD 2010 Overall Deprivation
Based on National Rank

Index of Multiple Deprivation 2010
Overall Deprivation Rank

16,250 to 32,500	(Least Deprived)	50%
9,750 to 16,250	(Most Deprived)	30-50%
6,500 to 9,750	(Most Deprived)	30%
3,250 to 6,500	(Most Deprived)	20%
1,625 to 3,250	(Most Deprived)	10%
1 to 1,625	(Most Deprived)	5%

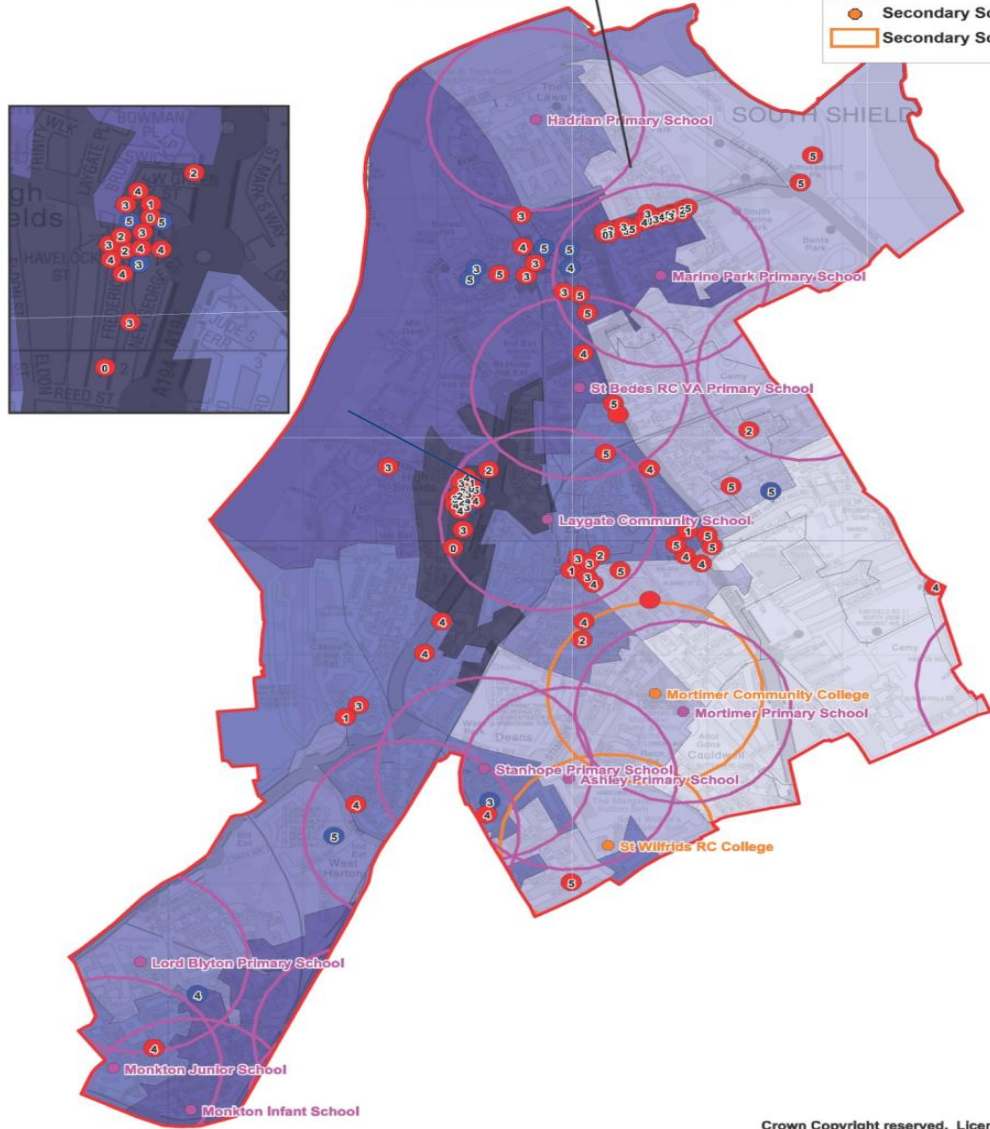
- All Fast Food
- Open Food Retail





16,250 to 32,500	(Least Deprived	50%)
9,750 to 16,250	(Most Deprived	30-50%)
6,500 to 9,750	(Most Deprived	30%)
3,250 to 6,500	(Most Deprived	20%)
1,625 to 3,250	(Most Deprived	10%)
1 to 1,625	(Most Deprived	5%)

- All Fast Food
- Open Food Retail
- Primary Schools
- Primary School 400m Buffers
- Secondary Schools
- Secondary School 400m Buffers



Deprivation and Location of HFTAs

Areas with high levels of deprivation tend to have higher rate per population of HFTAs

Limitations

- Differences between planning and Env Health recording of business category
- Definitions can lead to missing businesses eg McDonalds is classed as a restaurant.
- Doesn't take account of takeaway delivery
- Takeaway outlets are not the only source of poor quality foods with retailers and supermarkets also contributing to the issue.
- Focussed on / around the home exposure and doesn't reflect different types of exposure such as at work or commuting route exposure which may underestimate total exposure



So what next....

The following has been approved by the Health and Wellbeing Board

- Planning – Location, Limits and Local Plan
- Public Health – Think Family, Healthy Schools
- Environmental Health – Businesses
- Joint – Regulatory and Educative



So what next...

- Licensing restrictions on the location of takeaways doesn't have an impact on the existing portfolio of businesses.
- A more realistic intervention is to challenge and change what is on offer, how much is offered and how it's been prepared (Saunders et al 2015).
- This suggests opportunities to work with independent takeaway businesses particularly in the areas of standardising recipes, improving the nutritional profile and quality of products sold, reviewing cooking techniques as well as portion size reduction.
- Public support for healthy lifestyle campaigns and menu labelling rather than taxation of unhealthy foods (Beeken and Wardle, 2013)



Summary

- The proportion of people who are overweight and obese is very large and growing.
- We live in an obesogenic environment – the problem is far wider than takeaways alone.
- Physical activity, though not mentioned today, has a big role to play.
- Obese children often become obese adults. Early intervention can help children and families.
- Local authorities are well-placed to intervene.

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