Research Based Curricula





Resource Three Overview



Topic Inequalities and Obesity

A-Level Modules Health

Objectives After completing this resource you should be able to:

✓ Identify and discuss social variables of obesity

✓ Use specific examples from Cumbria data to discuss variances of obesity

✓ Explain the life course approach to analysing health inequalities

✓ Use obesity as an example of health inequalities

Instructions 1. Read the data source

2. Answer the questions

3. Take part in the debating exercise

4. Explore the further reading







Section A

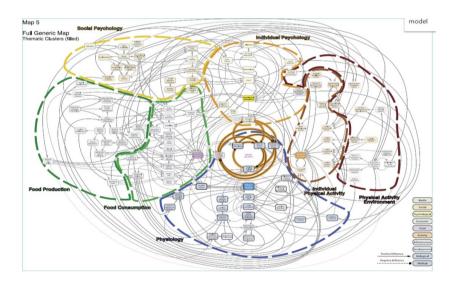
Introduction

Obesity is one of the most significant public health challenges today. Obesity is often believed to be the result of eating too much and moving too little. Whilst these factors are relevant, there are many more which influences weight. Some interesting examples include:

- Sleep
- Socioeconomic stress causes an increase in the rate of metabolic syndrome (a cluster of conditions including increased blood pressure, high blood sugar and excess body fat around the waist), exacerbating the physiological response to stress. Comfort eating is also sometimes used as a coping strategy for people living stressful lives.
- Media

The image below is of Foresight's system map of obesity. It is over ten years old now, but forms part of the most comprehensive review of obesity to date. It describes obesity as "embedded in an extremely complex biological system, set within an equally complex societal framework" (Foresight Report, 2007: 5).

Figure 1
The Obesity System
Map from the Foresight
Report (2007)





The report identified over 100 variables of obesity, including seven main clusters:

- 1. individual psychology
- 2. social psychology
- 3. individual physical activity
- 4. physical activity environment
- 5. Physiology
- 6. food consumption
- 7. food production.

This demonstrates how complex obesity is.

Section B

Obesity in Cumbria

The population of Cumbria has excess weight levels (the combination of overweight and obese) that are broadly similar to the England average, as demonstrated by the amber colour of five of the bars on the graph. There is just Barrow which is significantly worse than the English average.

2.12 - Percentage of adults (aged 18+) classified as overweight or obese 2016/17

Area 🗬	Recent Trend	Count	Value	
England	-	-	61.3	
Cumbria	-	-	62.4	H
Allerdale	-	-	64.7	H-1
Barrow-in-Furness	-	-	68.2	
Carlisle	-	-	60.0	H-1
Copeland	-	-	65.8	<u> </u>
Eden	-	-	65.0	-
South Lakeland	-	-	56.3	



The Active Lives survey measures sport and activity levels. Participants who are categorised as "active" do at least 150 minutes of exercise a week. Interestingly, Allerdale and South Lakeland have better than average levels of physical activity.

2.13i - Percentage of physically active adults 2016/17

Area ▲▼	Recent Trend	Count ▲▼	Value ▲▼	
England	-	-	66.0	
Cumbria	-	-	69.5	
Allerdale	-	-	71.8	
Barrow-in-Furness	-	-	66.0	
Carlisle	-	-	70.2	
Copeland	_	-	64.8	
Eden	-	-	69.3	
South Lakeland	-	-	72.3	

The results show the average person in the UK consumes 2.65 portions of fruit a day. Allerdale, Carlisle and South Lakeland are reported to have higher consumption of fruit on average, and Barrow as below average consumption.

2.11ii - Average number of portions of fruit consumed daily (adults) 2016/17

Area ▲▼	Recent Trend	Count	Value	
England	-	-	2.65	
Cumbria	-	-	2.76	Н
Allerdale	-	-	2.86	—
Barrow-in-Furness	-	-	2.42	H
Carlisle	-	-	2.83	
Copeland	-	-	2.64	
Eden	-	-	2.79	-
South Lakeland	-	-	2.87	

The results show the average person in the UK consumes 2.7 portions of vegetables a day. Allerdale, Carlisle and South Lakeland are reported to have higher consumption of fruit on average, and Barrow as below average consumption.

2.11iii - Average number of portions of vegetables consumed daily (adults) 2016/17

Area ▲▼	Recent Trend	Count	Value ▲▼
England	-	-	2.70
Cumbria	-	-	2.77
Allerdale	-	-	2.71
Barrow-in-Furness	-	-	2.49
Carlisle	-	-	2.93
Copeland	_	-	2.64
Eden	-	-	2.84
South Lakeland	-	-	2.91

Source: Public Health England (hased on Active Lives Sport England)



Section C

The life course approach

One of the theories discussed in public health regarding health inequalities is the "life course approach". This aims to bring together the biological and social factors that influence health. It involves thinking about the risks that people are exposed to throughout life, from the womb to old age.

Babies which develop in a nutrient deprived intrauterine environment have a preference for high fat diets, are more sedentary and are more likely to experience metabolic and neuropsychiatric disorders (Dhurandhar and Keith, 2014, Tamashiro, 2011). Some might argue that this is a result of what the mother chooses to eat, or not eat, during pregnancy. However those decisions could also be determined by the food products the mother has access to, relating to socio economic disparities in nutrition.

Overweight children are more likely to be overweight adults. In later life, excess body weight increases the risk of numerous diseases including type 2 diabetes, some cancers (such as breast and bowel) and coronary heart disease. This example demonstrates how health inequalities can be exacerbated across generations. It also shows that disadvantage clusters and accumulates over time. Someone who encounters low income is more likely to be exposed to other disadvantages.

Section D

Food environment

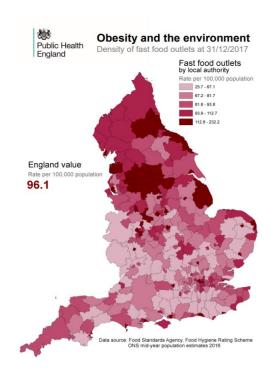
The food environment today has been described as "obesogenic". This is an environment which promotes weight gain. The image below shows the density of fast food outlets in England by local authority area. This means how many fast food outlets exist in an area per 100,000 population.

In Cumbria all six districts have been grouped into the second highest quintile group (divided into fifths) of 93.9-112.7 fast food takeaways per 100,000 population. This shows that all districts in Cumbria have a higher than UK average presence of fast food takeaways.



Figure 2

Density of fast food outlets per 100,000 population (2017).



Section E

Healthy Weight Declaration in Cumbria

The councils in Cumbria understand there is a healthy weight problem in the county. It is acknowledged that excess weight is more common in less affluent population groups and access to healthy food is more limited in poorer neighbourhoods. In 2018, they all signed a Healthy Weight Declaration. This commits them to considering healthy weight in their decisions. Some of the actions in the declaration also include:

- increasing access to drinking water
- protecting children from inappropriate food marketing at local authority controlled sites and events
- consider supplementary planning guidance for hot food takeaways (this would potentially restrict new takeaways opening near schools or parks)
- Review food provision in public buildings (schools, leisure facilities etc)
- Support the health and wellbeing of local authority employees

Resource Three Activities



Activities

Map available online: https://assets.publishin g.service.gov.uk/govern ment/uploads/system/ uploads/attachment_d ata/file/296290/obesity -map-full-hi-res.pdf

- Have a look at a more detailed version of the Foresight obesity system map: and also look at this one where the factors have been clustered: https://foresightprojects.blog.gov.uk/2017/10/04/dusting -off-foresights-obesity-report/
- 2. Outline and explain three factors that influences weight in each of these groups:
 - 1. the "physical activity environment group".
 - 2. the "social psychology group".
 - 3. the "food production group".
- 3. Order the districts starting with the highest levels of overweight and obese population, through to the lowest.
- 4. The England average is 61.3% of the population are obese/overweight. What do you think of this average? If the local population is "better than the England average", does that mean the levels of excess weight in the population are low? Explain your answer.
- 5. Some of the districts have better than average levels of consumption of fruit and vegetables, and two have higher levels of physical activity. Why then, are obesity and overweight levels not lower?
- 6. What is an obesogenic environment?
- 7. Have a look at the image of fast food takeaways density in England. What do you notice about the distribution of take-aways in England?
- 8. Read the Healthy Weight Declaration commitments: Write a response to the report, addressing the following questions:
 - Is there anything you would change in the declaration?
 - Is there anything you would add/take out of the declaration?
 - Do you think the actions in the declaration will lead to a population with a healthier weight?



Declaration available online:

http://councilportal.cu mbria.gov.uk/document s/s73052/Cumbria%20H ealthy%20Weight%20De claration.pdf

Resource Three Further Reading



Explore

- Food Active are a North West organisation who advocate for healthy weight in policy at both a local and national level (they created the Healthy Weight Declaration). They also work with local communities to improve health amongst less affluent populations. They produce an excellent monthly e-newsletter which you can sign up to at: http://www.foodactive.org.uk/newsletter/
- Foresight Obesity Report (2007): <u>https://www.gov.uk/government/publications/reducing-obesity-future-choices</u>
- 3. Leeds Beckett University are currently doing a project titled "Whole systems approach to tackle obesity". Their research includes working with local councils to tackle obesity. You can find out more and sign up for alerts at: http://www.leedsbeckett.ac.uk/wholesystemsobesity/
- 4. Sport England research measuring sport and activity: https://www.sportengland.org/research/active-lives-survey/measuring-sport-and-activity/



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