

Exploring health: is your lifestyle really to blame?



About this free course

This free course is an adapted extract from the Open University course K219 Critical issues in health and wellbeing: www.open.ac.uk/courses/modules/k219.

This version of the content may include video, images and interactive content that may not be optimised for your device.

You can experience this free course as it was originally designed on OpenLearn, the home of free learning from The Open University –

www.open.edu/openlearn/health-sports-psychology/exploring-health-your-lifestyle-really-blame/content-section-0

There you'll also be able to track your progress via your activity record, which you can use to demonstrate your learning.

Copyright © 2019 The Open University

Intellectual property

Unless otherwise stated, this resource is released under the terms of the Creative Commons Licence v4.0 http://creativecommons.org/licenses/by-nc-sa/4.0/deed.en_GB. Within that The Open University interprets this licence in the following way:

www.open.edu/openlearn/about-openlearn/frequently-asked-questions-on-openlearn. Copyright and rights falling outside the terms of the Creative Commons Licence are retained or controlled by The Open University. Please read the full text before using any of the content.

We believe the primary barrier to accessing high-quality educational experiences is cost, which is why we aim to publish as much free content as possible under an open licence. If it proves difficult to release content under our preferred Creative Commons licence (e.g. because we can't afford or gain the clearances or find suitable alternatives), we will still release the materials for free under a personal end-user licence.

This is because the learning experience will always be the same high quality offering and that should always be seen as positive – even if at times the licensing is different to Creative Commons.

When using the content you must attribute us (The Open University) (the OU) and any identified author in accordance with the terms of the Creative Commons Licence.

The Acknowledgements section is used to list, amongst other things, third party (Proprietary), licensed content which is not subject to Creative Commons licensing. Proprietary content must be used (retained) intact and in context to the content at all times.

The Acknowledgements section is also used to bring to your attention any other Special Restrictions which may apply to the content. For example there may be times when the Creative Commons Non-Commercial Sharealike licence does not apply to any of the content even if owned by us (The Open University). In these instances, unless stated otherwise, the content may be used for personal and non-commercial use.

We have also identified as Proprietary other material included in the content which is not subject to Creative Commons Licence. These are OU logos, trading names and may extend to certain photographic and video images and sound recordings and any other material as may be brought to your attention.

Unauthorised use of any of the content may constitute a breach of the terms and conditions and/or intellectual property laws.

We reserve the right to alter, amend or bring to an end any terms and conditions provided here without notice.

All rights falling outside the terms of the Creative Commons licence are retained or controlled by The Open University.

Head of Intellectual Property, The Open University

Contents

Introduction	4
Learning Outcomes	5
1 Understanding 'lifestyles'	6
1.1 Further defining 'lifestyles'	7
2 Quantitative research	10
3 Benefits of the Body Mass Index	12
4 Weaknesses of the Body Mass Index	14
5 Lifestyles and choice	19
6 Lifestyles in context	22
7 Qualitative research	24
8 The scale of obesity as an issue	28
9 Improving understanding about what we eat	30
10 Encouraging behavioural change	33
Conclusion	35
References	35
Acknowledgements	37

Introduction

Are factors influencing our health and wellbeing biological, or can they be more or less exclusively attributed to individual differences in terms of lifestyle? For instance, in high-income countries many 'lifestyles' are physically inactive, and this can have a negative impact on a person's health. In this free course, *Exploring health: is your lifestyle really to blame?*, you will be encouraged to consider the impact of social, cultural, political and economic factors that influence obesity in adulthood. You will also investigate whether a focus on lifestyles and a person's behaviours are sufficient to explain contemporary health and wellbeing concerns.

This OpenLearn course is an adapted extract from the Open University course [K219 Critical issues in health and wellbeing](https://www.open.edu/openlearn/health-sports-psychology/exploring-health-your-lifestyle-really-blame/content-section-0).

Learning Outcomes

After studying this course, you should be able to:

- outline to what extent a person's 'lifestyle' impacts upon their health and wellbeing
- describe how psychosocial (i.e. social, economic, cultural and political) factors influence a person's health
- identify what government interventions have been developed to tackle a health issue, in particular obesity.

1 Understanding 'lifestyles'

It is commonly known that smoking cigarettes is bad for your health. But the health implications associated with other important 'lifestyle factors' can be under appreciated. In particular, that a lack of regular physical exercise is a major issue in the twenty-first century, with this being especially so for people living in high-income countries like the UK. That is because our lifestyles are increasingly sedentary, so much so that a prominent physician and Oxford University professor declared the following:



“Sitting is the new smoking”
Sir Muir Gray, in Gordon, 2016

Figure 1 A standard office chair constructed of cigarettes.

Other 'lifestyle factors', such as our diet, also impact on our health. But what is meant by the term 'lifestyle'? In the *Oxford English Dictionary* it is defined as:

A style or way of living (associated with an individual person, a society, etc.); esp. the characteristic manner in which a person lives (or chooses to live) his or her life.

(OED Online, 2009a)

Now, without giving it too much thought, take a moment to respond to the question in the activity below.

Activity 1 Is being overweight related to a person's lifestyle?

Allow about 5 minutes

In your opinion, to what extent is a person being overweight a result of their lifestyle? Click on the link below to go to the poll.

Interactive content is not available in this format.

Comment

In this free course you will explore a range of factors associated with adults being overweight or obese (predominantly focusing on obesity), including a person's lifestyle. When Level/Year 2 Open University students from the School of Health, Wellbeing and Social Care were asked to consider this question, more than two-thirds selected 'Yes – a little (being overweight is somewhat to do with a person's lifestyle)'. The results were as follows (from a group of 253 respondents):

- A. Yes – entirely (being overweight is entirely related to a person's lifestyle) = 13%
- B. Yes – a little (being overweight is somewhat to do with a person's lifestyle) = 68%
- C. Neither yes nor no = 13%
- D. No – a little (being overweight is mostly to do with factors other than a person's lifestyle) = 6%
- E. No – not at all (being overweight is entirely unrelated to a person's lifestyle) = 0%

1.1 Further defining 'lifestyles'

As suggested in the *Oxford English Dictionary* definition, the whole notion of 'lifestyle' is bound up together with an individual's choices and habits. But in thinking about lifestyle and obesity in Activity 1 (i.e. the question 'Is being overweight related to a person's lifestyle?'), you might have realised that when considered from the perspective of health and wellbeing the concept is far more complex. In addition, lifestyles go beyond the individual level (Jensen, 2007); for instance, they can be conceived at a national or country level (e.g. an 'American lifestyle') as well as at a social group level in terms of age (e.g. a 'youth lifestyle'), geography (e.g. a 'country lifestyle' or a 'city lifestyle') or socio-economic status (e.g. a 'jet-set lifestyle').

The concept of lifestyles as choice can become problematic when considering the boundaries around what is innate versus what is something a person selects for themselves. It can be challenging at times to determine what is in fact a choice and what is something that a person has very little (or no) conscious control over. Very few people will have the 'ideal healthy lifestyle'. Instead, most people have aspects of their lifestyle that are healthy and other aspects that are less healthy. In the next activity you will be asked to consider certain factors in your own lifestyle to help you make sense of key aspects of your own behaviours related to health and wellbeing.

Activity 2 Describing your own lifestyle

Allow about 30 minutes

Part A

Click on the thumbnail or 'View interactive version' below to access the drag and drop tool. Drag and drop the lifestyle factors onto the diagram. (If it helps, think of those that have applied to your life in the last month.) Place the factors that are most accurate for you at the top of the image and the factors that are not currently relevant to you at the bottom.

Interactive content is not available in this format.



Comment

Here is an example answer:

- **Often:** I don't smoke, I frequently use parks and green spaces, and I eat 'five a day' fruit and vegetables.
- **Sometimes:** I watch less than four hours of television per day, I drink alcohol in moderation and I incorporate physical activity into my everyday life.
- **Rarely:** I do 150 minutes of moderate intensity exercise per week.
- **Not relevant:** I avoid being sedentary (sitting) for extended periods, and I contribute to my community by working as a volunteer.

The nine factors provided in the drag and drop tool are not an exhaustive list, but they do represent some of the key factors thought to be relevant to a healthy lifestyle. For instance, Public Health England has promoted the importance of lifestyle factors associated with physical activity, e.g. recommending 150 minutes of moderate intensity exercise in bouts of 10 minutes or more for adults (Public Health England, 2016).

Part B

1. Pick one of the lifestyle factors from Part A that you find easy to maintain as part of your lifestyle. Summarise why you find it easy in the box below. (For example, if you are currently a non-smoker and find this easy to maintain, why is this?)

Provide your answer...

Comment

Some lifestyle factors will be fairly easy to maintain for selected people. For instance, if you have always been a non-smoker, then not smoking is going to be easy for you. However, if you have recently given up smoking and are experiencing acute stressors in your life, remaining smoke-free may be very challenging.

2. Pick one of the lifestyle factors from Part A that you find challenging to change and summarise why that is. (For example, if you spend a lot of time being sedentary and sitting for long periods, why is it challenging to be more active?)

Provide your answer...

Comment

Instigating change in relation to some lifestyle factors is harder than others, particularly where we have less control over them. For many people, their job requires that they sit for long periods in order to do the tasks that are required of them, meaning that they do not get any exercise at work, and they must proactively incorporate physical exercise into their life.

The term 'lifestyle' is often associated with health-related behaviours like those you learned about in Activity 2. For example, factors such as these have been highlighted by Buck and Frosini (2012). After drawing on data from the World Health Organization (2002), they concluded that in high-income countries nearly half of the total current burden of disease (i.e. the number of years of life lost to disease and the number of years lived with disability as a result of disease) is attributable to unhealthy behaviours such as smoking, alcohol misuse, poor diet and a lack of physical exercise.

The term 'lifestylism' was coined by Skrabanek (1994) and implies that most diseases are caused by the unhealthy behaviour of individuals, such that it is people's lifestyles that affect their health and, indeed, their life expectancy. This link between behaviour and disease has been much emphasised by health professionals, partly in an attempt to persuade people to adopt healthier lifestyles.

To know more about lifestyles and wellbeing requires some 'way of knowing'. In other words, some evidence is needed to 'make sense' of health challenges, such as that of adult obesity. Such evidence can be acquired through both quantitative and qualitative research methods. You will learn about these methods in this free course, starting in the next section where you will begin to explore how quantitative evidence is used to understand what obesity is and how it is linked to unhealthy lifestyles, before moving on to qualitative approaches later on.

2 Quantitative research



Figure 2 Quantifying how you feel.

Quantitative research reflects the philosophical stance of ‘positivism’. Those who ascribe to this position believe a topic of research can be described, recorded and studied numerically in a scientific manner. In simple terms, they believe that it is possible to quantify and therefore measure, in a research context most aspects of life. For instance:

Basic descriptive statistics can often be used to describe a population by comparing, for instance, different age ranges. For example, the Office for National Statistics (ONS) reported that around 15.1% of people aged 18 years and over in the UK have smoked cigarettes. Of the constituent countries and Northern Ireland, 14.9% of adults in England smoked; for Wales, this figure was 16.1%; Scotland, 16.3% and Northern Ireland, 16.5% (ONS, 2018).

Correlational analyses explore the relationships between factors or variables. For instance, there is a correlation between increasing obesity and increasing levels of socio-economic deprivation in adult women in Scotland, such that women in the most deprived areas of Scotland are more likely to be obese relative to women in the least deprived areas of Scotland. Among men in Scotland the results are less conclusive (Scottish Government, 2010).

Experimental research can be used to measure the effect of an intervention, that is, it can show the difference, if any, that a specific change has made. As an example, experimental research has shown that eating from plates with rims (specifically those with colouring to highlight the rim) exaggerates a person's perceptions of food portions and tends to result in people (in particular children) eating less. This is a strategy that appears promising for improving portion control for children prone to over-eating (Robinson and Matheson, 2015).

According to Payne and Payne (2011) quantitative research does not explore social phenomena as they occur naturally, but instead involves introducing measures (such as questionnaires) or collecting data in a repeated and controlled way. Payne and Payne (2011) conclude that almost all forms of quantitative research share certain features:

- They **describe and/or account for phenomena** (e.g. aspects of human behaviour), in particular by using numbers (such as the number or proportion of people who engage in exercise regularly).

- They **break down or separate behaviour into variables or factors that can be measured** (for instance, by clearly defining regular exercise as '150 minutes of moderate intensity exercise in bouts of 10 minutes or more per week').
- They **contain statistical results that are analysed in a structured way** (as an example, researchers have analysed the health benefits of the recommendation to get 150 minutes' exercise, described above, in Saint-Maurice et al., 2018).

3 Benefits of the Body Mass Index

Quantitative research is particularly useful for studying whole populations and identifying general trends and relationships because it makes use of statistical data. The results of large-scale, quantitative studies are frequently summarised in documents like government-commissioned reports or academic journal articles, but these documents are not particularly accessible or easy to interpret. For this reason, departments such as Public Health England, sum up key findings using infographics, such as the 'Scale of the problem' image in the figure below.

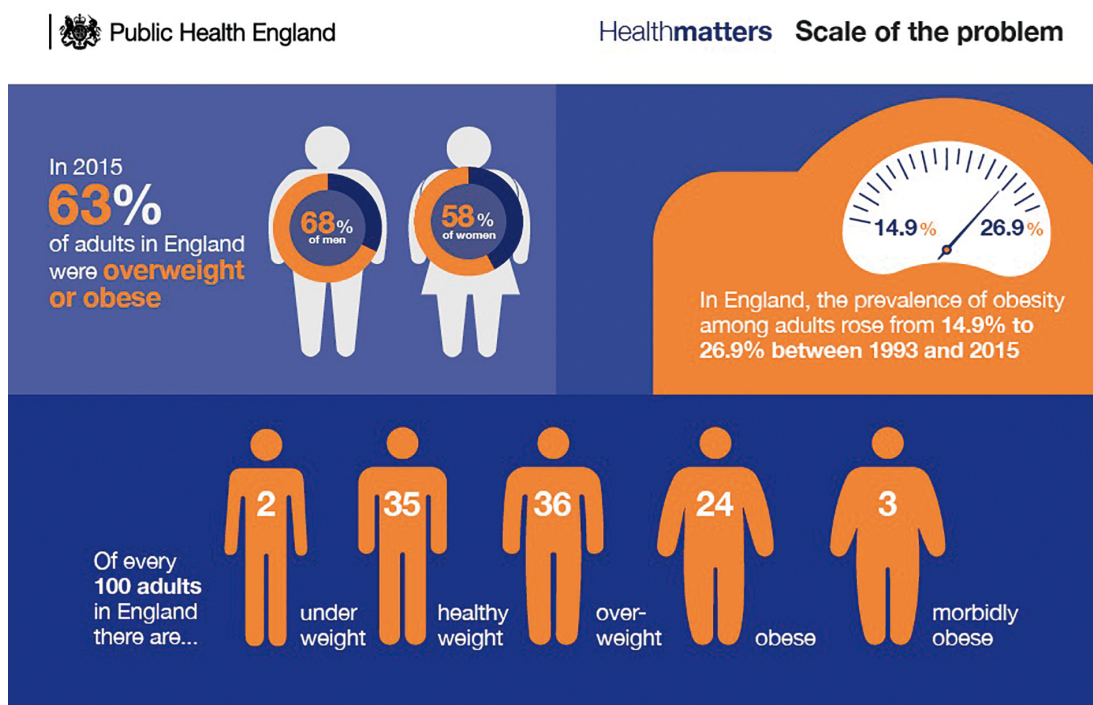


Figure 3 Public Health England infographic.

The infographic presents the results for adults in various weight categories in England, and highlights that most adults in England are now either overweight or obese. Determining whether someone fits into a given category in terms of their weight for an infographic like that in Figure 3 requires the use of a particular quantitative metric, such as the Body Mass Index (BMI).

BMI is a widely used measure to work out if a person's weight is seen as healthy. A BMI is calculated by dividing an adult's weight in kilograms by their height in metres and then dividing the answer by their height again. As such, BMI can be used to calculate and compare weights of groups of people relative to their heights. The weight categories for interpreting BMI for adults are shown in Table 1.

Table 1 Weight categories for BMI

Weight category	BMI
underweight	<18.5 kg/m ²
healthy weight range	18.5–25 kg/m ²

3 Benefits of the Body Mass Index

overweight	25–30 kg/m ²
obese	30–40 kg/m ²
morbidly obese or severely obese	>40 kg/m ²

Note: the symbol < means 'less than' and > means 'more than'.

4 Weaknesses of the Body Mass Index

The BMI is just a measure of weight relative to height, and as such is very much an imperfect health metric. For example, a very muscular person may weigh more because muscle is denser than fat. So they may have a higher BMI than someone who has less muscle but is the same height. You will explore this further below. It is not a person's high BMI per se that should cause concern so much as an unhealthy diet and lack of physical activity, as these factors are the leading causes of the major non-communicable diseases, such as diabetes and cardiovascular disease (WHO, 2004).

Researchers have also questioned the representativeness of BMI as a health measure:

Primarily derived from data obtained on Anglo-Saxon populations, the generalizability and applicability of the BMI and its cut-off points to other populations has been questioned and its sensitivity as a measure of excess fat queried.

(Eknoyan, 2008, p. 48)

Activity 3 BMI categories explored

Allow about 15 minutes

Part A

Use the BMI chart in Figure 4 to identify into which category (i.e. 'underweight', 'healthy weight range', 'overweight', 'obese' or 'morbidly obese') each of the three people below fit. 'Underweight' is shown in green; 'healthy weight range' in blue; 'overweight' in white; 'obese' in orange; and 'morbidly obese' in purple. (If you would like to access a larger version of the image click on 'View larger image'.)

		Weight in kilograms																		
		45	48	50	53	55	58	60	63	65	68	70	73	75	78	80	82.5	85	87.5	90
Height in centimetres	145.0	21.4	22.6	23.8	25.0	26.2	27.3	28.5	29.7	30.9	32.1	33.3	34.5	35.7	36.9	38.0	39.2	40.4	41.6	42.8
	147.5	20.7	21.8	23.0	24.1	25.3	26.4	27.6	28.7	29.9	31.0	32.2	33.3	34.5	35.6	36.8	37.9	39.1	40.2	41.4
	150.0	20.0	21.1	22.2	23.3	24.4	25.6	26.7	27.8	28.9	30.0	31.1	32.2	33.3	34.4	35.6	36.7	37.8	38.9	40.0
	152.5	19.3	20.4	21.5	22.6	23.6	24.7	25.8	26.9	27.9	29.0	30.1	31.2	32.2	33.3	34.4	35.5	36.5	37.6	38.7
	155.0	18.7	19.8	20.8	21.9	22.9	23.9	25.0	26.0	27.1	28.1	29.1	30.2	31.2	32.3	33.3	34.3	35.4	36.4	37.5
	157.5	18.1	19.1	20.2	21.2	22.2	23.2	24.2	25.2	26.2	27.2	28.2	29.2	30.2	31.2	32.2	33.3	34.3	35.3	36.3
	160.0	17.6	18.6	19.5	20.5	21.5	22.5	23.4	24.4	25.4	26.4	27.3	28.3	29.3	30.3	31.3	32.2	33.2	34.2	35.2
	162.5	17.0	18.0	18.9	19.9	20.8	21.8	22.7	23.7	24.6	25.6	26.5	27.5	28.4	29.3	30.3	31.2	32.2	33.1	34.1
	165.0	16.5	17.4	18.4	19.3	20.2	21.1	22.0	23.0	23.9	24.8	25.7	26.6	27.5	28.5	29.4	30.3	31.2	32.1	33.1
	167.5	16.0	16.9	17.8	18.7	19.6	20.5	21.4	22.3	23.2	24.1	24.9	25.8	26.7	27.6	28.5	29.4	30.3	31.2	32.1
	170.0	15.6	16.4	17.3	18.2	19.0	19.9	20.8	21.6	22.5	23.4	24.2	25.1	26.0	26.8	27.7	28.5	29.4	30.3	31.1
	172.5	15.1	16.0	16.8	17.6	18.5	19.3	20.2	21.0	21.8	22.7	23.5	24.4	25.2	26.0	26.9	27.7	28.6	29.4	30.2
	175.0	14.7	15.5	16.3	17.1	18.0	18.8	19.6	20.4	21.2	22.0	22.9	23.7	24.5	25.3	26.1	26.9	27.8	28.6	29.4
	177.5	14.3	15.1	15.9	16.7	17.5	18.3	19.0	19.8	20.6	21.4	22.2	23.0	23.8	24.6	25.4	26.2	27.0	27.8	28.6
	180.0	13.9	14.7	15.4	16.2	17.0	17.7	18.5	19.3	20.1	20.8	21.6	22.4	23.1	23.9	24.7	25.5	26.2	27.0	27.8
	182.5	13.5	14.3	15.0	15.8	16.5	17.3	18.0	18.8	19.5	20.3	21.0	21.8	22.5	23.3	24.0	24.8	25.5	26.3	27.0
	185.0	13.1	13.9	14.6	15.3	16.1	16.8	17.5	18.3	19.0	19.7	20.5	21.2	21.9	22.6	23.4	24.1	24.8	25.6	26.3
	187.5	12.8	13.5	14.2	14.9	15.6	16.4	17.1	17.8	18.5	19.2	19.9	20.6	21.3	22.0	22.8	23.5	24.2	24.9	25.6
	190.0	12.5	13.2	13.9	14.5	15.2	15.9	16.6	17.3	18.0	18.7	19.4	20.1	20.8	21.5	22.2	22.9	23.5	24.2	24.9

Figure 4 BMI chart

Name	Height (cm)	Weight (kg)
Kaya	166	85
Bradley	158	86
Amber	171	90

1. Kaya

- underweight: $<18.5 \text{ kg/m}^2$
- healthy weight range: $18.5\text{--}25 \text{ kg/m}^2$
- overweight: $25\text{--}30 \text{ kg/m}^2$
- obese: $30\text{--}40 \text{ kg/m}^2$
- morbidly obese or severely obese: $>40 \text{ kg/m}^2$

2. Bradley

- underweight: $<18.5 \text{ kg/m}^2$
- healthy weight range: $18.5\text{--}25 \text{ kg/m}^2$
- overweight: $25\text{--}30 \text{ kg/m}^2$
- obese: $30\text{--}40 \text{ kg/m}^2$
- morbidly obese or severely obese: $>40 \text{ kg/m}^2$

3. Amber

- underweight: $<18.5 \text{ kg/m}^2$
- healthy weight range: $18.5\text{--}25 \text{ kg/m}^2$
- overweight: $25\text{--}30 \text{ kg/m}^2$
- obese: $30\text{--}40 \text{ kg/m}^2$
- morbidly obese or severely obese: $>40 \text{ kg/m}^2$

Comment

Each of the people fall into the obese category. Kaya and Amber each have a BMI around 31 kg/m^2 , while Bradley has a BMI around 34 kg/m^2 . Based purely on their BMI you might assume that they are in poor health, but this would not be accurate, as each person would have been on peak form at this weight in order to compete in the 2016 Rio Olympic Games:

- Kaya Salman represented Turkey in athletics
- Bradley Edward Tandy represented South Africa in swimming
- Amber Campbell represented the United States in athletics.

To see how your height and weight compares to an Olympian's, you can check out this tool from the BBC: [Who is your Olympic body match?](#)



Figure 5 Bradley Edward Tandy



Figure 6 Amber Campbell

Part B

Watch this brief video where people describe what a healthy body looks like and are asked to offer advice to Bradley and Amber, who according to their BMI are obese.

Video content is not available in this format.

[Video 1](#)



What can you conclude about the health of Kaya, Bradley and Amber, as a result of determining their BMI?

Provide your answer...

Comment

Very little can actually be determined about their health based on their BMI. One would assume, by virtue of being Olympians, that they are in very good health. As such it is fair to say that BMI is not an especially valid measure of health, but it is often used as a proxy measure, in other words a 'rough tool' to determine whether a person is overweight or obese.

Part C

Now you are invited to consider your own BMI.

1. Without using the BMI chart, estimate which weight category you think you are likely to be in. Remember, the categories are 'underweight', 'healthy weight range', 'overweight', 'obese' and 'morbidly obese'.

Provide your answer...

Comment

Based on the results presented in Figure 3 (and if you are living in England) almost two-thirds of adults are categorised as obese or overweight.

2. Use the BMI chart in Figure 4 to determine your BMI. Use [this link from the NHS](#) to identify your weight category. Comment on whether or not the results surprise you and why that is.

Provide your answer...

Comment

Was it straightforward to accurately establish your current weight (which is not easy to do if you do not have access to scales) and height (which reduces slightly as we age)? Were you surprised by your BMI result? Or did your BMI result confirm what you already estimated in Part C, Question 1? For further details about BMI you can read [this information from the NHS](#).

Despite widespread recognition among policymakers and public health agencies that BMI is a crude measure, the ease and convenience of its use make it a popular and widely used metric. So even though it is far from perfect, BMI is still frequently used. Quantitative researchers use BMI in health research, as well as other measures, to describe patterns and trends (e.g. in terms of life expectancy, poverty and physical activity levels) among certain population groups. This is helpful in terms of establishing which population groups require more assistance. For example, a study led by researchers at The Open University, found that there were no significant differences in terms of BMI between sexual and gender minority young males when they were compared to heterosexual cisgender (i.e. non-transgender) males in a nationally representative sample of secondary school students in New Zealand (Lucassen et al., 2019). While almost half of the sexual and gender minority young females in the same study were overweight or obese, and they were significantly more likely to be overweight or obese compared to heterosexual cisgender females (Lucassen et al., 2019). Quantitative research is therefore helpful in terms of not only making visible and defining health and social care problems (as well as exploring inequalities between groups), but also in shaping what policymakers do in response to these problems.

5 Lifestyles and choice

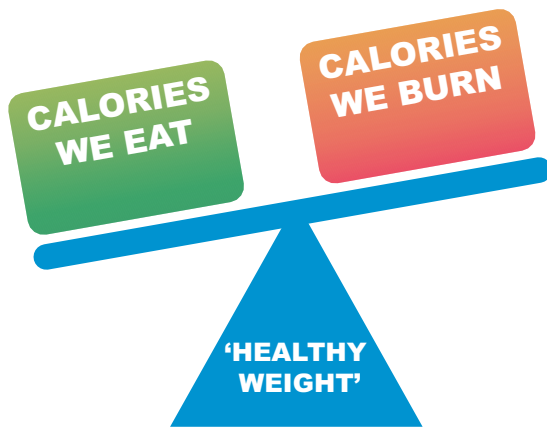


Figure 7 Balancing scales showing that a healthy weight is achieved by burning more calories than we eat.

Obesity is frequently seen as a consequence of the poor lifestyle choices that an individual makes. Earlier in this free course, obesity was defined (as it often is in quantitative research) in terms of BMI: i.e. to be classified as obese a person must weigh over 30 kg/m². However, the *Oxford English Dictionary* defines it in less definitive or measurable terms:

The condition of being extremely fat or overweight; stoutness, corpulence.

(OED Online, 2009b)

The underlying explanatory argument that has been put forth about adult obesity focuses on individual responsibility. This is where a person should address the imbalance between the 'energy going in' over 'energy that is expended' in their body, and this is the position which is highlighted in policy documents, for example, by the Department of Health:

Overweight and obesity are a direct consequence of eating and drinking more calories and using up too few. We need to be honest with ourselves and recognise that we need to make some changes to control our weight.

(Department of Health, 2011, p. 3)

Many people struggle with their weight, and with creating (as well as maintaining) a healthy lifestyle. In the next activity you will see a clip of the television chef Hugh Fearnley-Whittingstall (from the BBC/Open University co-production *Britain's Fat Fight*). In this short video Hugh is assessed in terms of his weight by a general practitioner (GP) who he talks to about aspects of his lifestyle in relation to his weight that are helpful and not so helpful.

Activity 4 Lifestyle factors and obesity

Allow 20 minutes

Part A

Play Video 2, in which Hugh talks to a GP about his weight. Then answer the questions below.

Video content is not available in this format.

[Video 2 Hugh visits his GP](#)



Part B

1. According to his BMI, which weight category is Hugh in?

- ☐ underweight: $<18.5 \text{ kg/m}^2$
- ☐ healthy weight range: $18.5\text{--}25 \text{ kg/m}^2$
- ☐ overweight: $25\text{--}30 \text{ kg/m}^2$
- ☐ obese: $>30 \text{ kg/m}^2$
- ☐ morbidly obese or severely obese: $>40 \text{ kg/m}^2$

Comment

Given Hugh's BMI result he would be categorised as being overweight. This is because Hugh is 81 kg (12 st or 10.6 lb – we are not told what height he is) and we are informed he has a BMI of 26.2 kg/m^2 .

2. Following the GP's assessment of Hugh, which result does he describe as 'more worrying' than Hugh's BMI?

Provide your answer...

Comment

The GP was more concerned about Hugh's abdominal circumference than his BMI. This is an alternative metric for determining whether someone's size is a concern in terms of their overall health. As Hugh's abdominal circumference is over 90 cm he is at greater risk of health issues such as diabetes.

3. What behaviours or lifestyle factors does Hugh describe as being problematic in relation to him achieving a healthy weight?

Provide your answer...

Comment

Hugh states that he has a 'sweet tooth' and that he drinks alcohol (specifically cider and wine) 'almost every day'. He also drinks 'more than a glass' at a time.

Although lifestyles are seen as an individual's responsibility, the social context in which people lead their lives exerts a powerful influence on people and their ability to 'choose a healthy lifestyle'. Furthermore, the idea of choice and responsibility is not always straightforward, as you will see in the next section.

6 Lifestyles in context

The Black Report on Inequalities in Health (Department of Health and Social Security, 1980) has been described as a seminal document in debates about health. This report judged material and structural factors (such as income, housing and employment) to be the main contributors to health inequalities. In her review of The Black Report, Professor Dame Margaret Whitehead (1987) concluded that material and structural factors severely limit a person's choice of lifestyle. In other words, living and working conditions impose severe restrictions on an individual's ability to choose a healthy lifestyle.

Subsequently published related reports, such as The Acheson Report (Acheson, 1998) and, more recently, The Marmot Review (Marmot, 2010) support this perspective, and highlight the importance of social, cultural, political and economic elements, which are at times labelled 'structuralist' factors. Based on this, it has been suggested that an individual's efforts to change their lifestyle will frequently fail unless the foundations for such changes are established through economic and social supports.

In the next activity you will be asked to read an article that challenges the use of individual choice or lifestyles as a means to reduce obesity. Instead the author argues that obesity as an issue should be tackled at a societal level.

Activity 5 Obesity as a societal issue

Allow 40 minutes

Read the article

['It's poverty, not individual choice, that is driving extraordinary obesity levels'](#) by Martin Cohen (2018), then answer the questions below.

1. According to the article, what is obesity a product of?

Provide your answer...

Comment

In the second paragraph Cohen argues that despite a medicalisation of the issue, obesity is a social problem that is a product of social inequality, and therefore it requires a collective social response.

2. According to the article, who is usually treated as being 'responsible for obesity'?

Provide your answer...

Comment

In the fourth paragraph the author writes that obesity is usually treated as the responsibility of individuals or families, and is not viewed as a social problem in the same way as, for example, low-educational achievement. As a result the solutions provided are pitched at the individual or family level.

3. In terms of children, which borough in London is England's 'most obese council'?

Provide your answer...

Comment

In the ninth paragraph Cohen reports that Brent is England's 'most obese council'; it is also England's ninth poorest. Of the ten areas with the most children who are overweight or obese, half are also areas in the top ten of greatest levels of child poverty.

4. According to the article, how supportive is the food industry of public health initiatives?

Provide your answer...

Discussion

In the fourteenth paragraph the author suggests that, presumably because of the impact on profits, the food industry has resisted public health initiatives (in the article, the investigative work of journalist Michael Moss is cited as evidence of this resistance).

5. In concluding, what specific social factors does Cohen link to obesity?

Provide your answer...

Comment

In the final paragraph the author states that collective action is required, and the issues which allow 'obesity germs' to 'breed' should be the focus. In particular, this includes addressing insecure and erratic employment, stress, inadequate education, mental health issues and a lack of social cohesion in communities.

Research evidence suggests that people's ability to change or choose a lifestyle depends upon a range of social and environmental factors. This evidence takes the form of both quantitative and qualitative research. You have already seen how quantitative research is key in terms of exploring aspects of a health issue such as obesity, whereby obesity can be determined using a statistical measure like BMI. In the next section, you will develop your understanding of the need for and role of qualitative evidence in furthering our understanding of issues like obesity.

7 Qualitative research

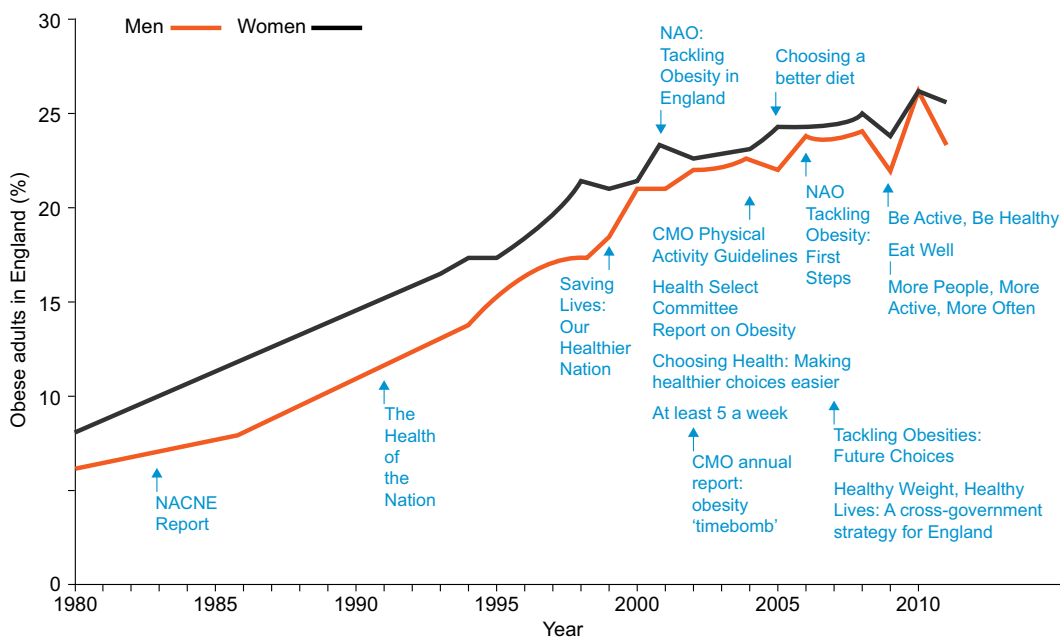


Figure 8 History of obesity policy reports in England and the growing prevalence of obesity in adults (Jebb et al., 2013, p. 43)

The graph in Figure 8 depicts quantitative data showing the growing prevalence of obesity in England, as well as the anti-obesity reports and interventions that have been undertaken since the 1980s. As the graph illustrates, obesity has remained a salient issue because of the health risks associated with it and the various government initiatives developed. This suggests that obesity is a complex challenge, and one that is likely to remain an issue for the foreseeable future. Qualitative research can assist us in the endeavour to more fully understand obesity as an issue.

How people experience their health is highly subjective. For example, how does a person quantify their experience of pain? Or how does someone verify that they are in 'poor health'? Because of the subjective nature of health and wellbeing generally, and obesity specifically, research methods need to delve into the meaning and reasons behind why a person struggles to lead a healthy lifestyle. Qualitative research can help to gain these insights because this form of research can provide 'an in-depth and interpreted understanding of the social world, by learning about people's social and material circumstances, their experiences, perspectives and histories', which is influenced 'by the need to understand the meanings that people attach to their own experiences' (Snape and Spencer, 2003, p. 22).

Qualitative research tends to be associated with smaller-scale studies that involve fewer participants than quantitative studies and aims to provide a full and more holistic understanding of research participants' views and actions (Snape and Spencer, 2003). In qualitative research, words rather than numbers are the unit of analysis, and examples of qualitative evidence or data include using the following methods:

- **Participant observation** involves the researcher systematically describing events and behaviours in the setting of their chosen study. For instance, in fieldwork conducted in a South Australian community that has experienced significant socio-

economic disadvantage, researchers detailed how the ‘problem of fat’ is countered from the experience of the people targeted by obesity interventions (Zivkovic et al., 2018).

- **In-depth individual interviews** attempt to explore the world from the perspective of the people studied. This methodology was used in a study where 27 self-identified ‘fat’ pregnant women and new mothers were asked what it was like for them to be on the ‘receiving end’ of debates and practices in maternity care that problematise their bodies (Parker, 2017).
- **Focus groups** are interviews with a group of people who are asked to explore their views on a topic. For example, in one project researchers conducted four focus groups to ask overweight and obese women from disadvantaged neighborhoods in the United States about their views on barriers to exercise and healthy eating (Baruth et al., 2014).
- **Analysis of documents or texts** involves the researcher studying selected written texts on a subject in detail. For instance, Lingetun and colleagues reviewed 13 internet blogs to understand what overweight or obese pregnant women wrote about in their pregnancy blogs (Lingetun et al., 2017).

Some common features of qualitative research include the following:

- Providing a means of connecting ‘lay knowledge’ with that of the expert. For example, researchers gathered the views of residents in a socio-economically deprived area (a former mining community). They did so to assist a Welsh local authority that had considerable expertise, but wanted to know how decisions on the future of a housing estate might impact the health of residents (Elliott and Williams, 2008).
- Collecting information that provides considerable depth in terms of its detail and complexity. As an example, in a study which observed 30 mothers prepare a plate of food for their pre-school child, the mothers were asked in detail about influences on their decisions about portion sizes and their expectations around their child’s eating (Johnson et al., 2015).
- Having a ‘reflexive approach’, where the role and perspective of the researcher in the research process is acknowledged. For some researchers, reflexivity means reporting their personal experiences of the ‘field’. For instance, in her study of self-identified ‘fat’ pregnant women (mentioned above), the researcher was very open about their own role and perspective, stating ‘As a Pākehā [New Zealand European], an academic researcher, a former midwife, a mother, and a sometimes fat person, I am positioned in complex ways to the research as both insider and outsider’ (Parker, 2017, p. 25).

Qualitative research is useful in developing depth and detail around an issue such as obesity. You have already seen a clip from Hugh Fearnley-Whittingstall’s series *Britain’s Fat Fight*, in which a commonly used quantitative metric, BMI, was used to consider his health. In the short video in the activity that follows, Hugh is presented with the lived experience of a woman from Newcastle. From her he learns some ‘home truths’ about his large-scale ‘Newcastle Can’ project, where the city council and the production team aimed to get a whole city behind a healthy eating and exercise regime.

Activity 6 Socio-economic factors and lay knowledge

Allow 25 minutes

Play the following video in which Hugh speaks to a local Newcastle woman who uses her lay knowledge to provide him with useful insights into his proposed healthy lifestyle project. Then answer the questions below.

Video content is not available in this format.

[Video 3 Hugh learns some home truths](#)



1. How well is the 'Newcastle Can' project progressing (as outlined by Hugh) at the start of the clip?

Provide your answer...

Comment

Over 370 people had signed up – but despite the encouraging noises from the volunteers (wearing the 'Newcastle Can' vests), Hugh comments that this is 'still a drop in the ocean'.

2. Why does the woman who challenges Hugh think he has been targeting the wrong people? Based on your knowledge from your learning so far, do you agree or disagree?

Provide your answer...

Comment

She believes Hugh is targeting the wrong people because she thinks that the people who could benefit from his project most are put off by what she thinks is a 'posh' group

targeting and working with people in the wrong part of the city (i.e. the part of city that needs less help to become healthier).

3. Do you agree or disagree with the woman who thinks Hugh has been targeting the wrong people? Based on your knowledge from your learning, how might you go about finding research evidence from the academic literature to support your answer?

Provide your answer...

Comment

In this free course you have been introduced to quantitative and qualitative research as a 'way of knowing', and you have been asked to start thinking about how these methods could potentially be used to explore a particular research question. These methods could potentially answer a question such as why the 'Newcastle Can' project struggled to engage a city in a healthy lifestyle project. The type of research studies that are concerned with examining the effectiveness of intervention are usually known as evaluation studies. They can be either quantitative or qualitative (or sometimes both).

4. What keywords would you use in an internet search engine to find a qualitative or quantitative research study that has examined the effectiveness of an intervention aimed at reducing obesity?

Provide your answer...

Comment

You may have come up with keywords similar to the following:

- evaluation
- intervention
- obesity
- qualitative (or quantitative).

If you have time now, put these into an internet search engine and browse the first few articles that come up.

As reinforced in the video clip you watched in the previous activity, interventions or solutions to the 'obesity epidemic' are not straightforward. Furthermore, obesity is usually treated as the responsibility of individuals or families, and not as a social issue. This is problematic as social, cultural, political and economic factors are major contributors to obesity. Put simply, the challenge of adult obesity cannot be simply explained as being entirely 'the individual's fault'.

8 The scale of obesity as an issue

The Foresight Report was commissioned by the UK Government to develop an evidence base about obesity and to inform the interventions designed to tackle it (Government Office for Science, 2007). The report took into account the role of structural factors and this was reinforced in its executive summary, which states:

People in the UK today don't have less willpower and are not more gluttonous than previous generations. Nor is their biology significantly different to that of their forefathers [and foremothers]. Society, however, has radically altered over the past five decades, with major changes in work patterns, transport, food production and food sales. These changes have exposed an underlying biological tendency, possessed by many people, to both put on weight and retain it.

(Government Office for Science, 2007, p. 5)

This report took a strategic view up to the year 2050 and explored how the UK can respond sustainably to rising levels of obesity. It acknowledged changes in work patterns (e.g. the sedentary nature of many jobs), transport (such as our reliance on cars) and issues around the food that we are consuming.

In 2012 the Department of Health published an update on its approach to tackling obesity (Department of Health, 2012), which built on the earlier work of the *Foresight Report* (Government Office for Science, 2007). Their update provides a helpful overview of the scale of the problem and who is responsible for addressing it.

Activity 7 What has been done to tackle obesity?

Allow 1 hour and 20 minutes

Read the

[Department of Health's \(2012\) report on An Update On The Government's Approach To Tackling Obesity](#). Note that you only need to read from page 7 (the heading 'Why obesity remains a problem') to the end of page 15 (up to the heading 'Childhood obesity'). Then answer the questions below.

1. Based on statistical modelling carried out by the Government Office for Science, what proportion of men and what proportion of women are likely to be obese by 2050?

Provide your answer...

Comment

Modelling carried out suggested that, if trends continued at the current rates, 60% of men and 50% of women (as well as 25% of under 20 year olds) could well be obese by 2050.

2. Which country has the greatest proportion of obese people (i.e. the highest obesity prevalence rate)?

Provide your answer...

Comment

The United States has the greatest proportion of obese people, according to Figure 4 in the report: in 2010 the prevalence was 35.7%.

3. Who is accountable (and either receives or provides funding) for addressing the issue of obesity?

Provide your answer...

Comment

According to Figure 5 in the report, it is the Department of Health, local authorities, the NHS (in particular the Commissioning Board), clinical commissioning groups (those responsible for commissioning or buying services) and providers of services (such as hospitals). Local communities are also involved, as those responsible should be accountable to their communities.

4. Which campaign is cited as an intervention assisting 'families and individuals to make simple changes to their diet and activity levels'?

Provide your answer...

Comment

The [Change4Life](#) campaign is cited by the report. This is a project that aims to support millions of families to make healthy behavioural changes. If you have time now, you might like to take a look at the campaign's website and its approaches to tackling obesity.

Having established the scale of the obesity problem and costs to society, it is often argued that governments, and even society as a whole, have a responsibility to try to address obesity as an issue.

9 Improving understanding about what we eat



Figure 9 Trying to improve our understanding of what we eat.

As mentioned previously, obesity is the result of eating more calories than the body needs. This can be because of unhealthy food choices, such as eating food and consuming drinks high in energy, fat and/or sugar, as well as drinking too much alcohol. But in order to do better in terms of weight management, most people need some assistance to bring about positive behavioural changes. In part this requires further education, so government, industry and individuals need to work together to tackle the issue of obesity. Nonetheless most people can find it difficult to estimate how much they have eaten and to be 'healthy'. Education is therefore central in ensuring people eat well and adopt healthier lifestyles. But what strategies need to be deployed to ensure that changes are made, including ensuring that people are sufficiently educated, and that they can accurately determine their calorie intake? You will briefly be introduced to factors related to the food industry, diet, nutrition and education, and some of the policies focused on the next section of this free course.

Some people might think that industry has little to do with obesity, but advertising agencies employ sophisticated methods to increase our consumption from childhood onwards. As highlighted in the short animation in the activity below.

Activity 8 Five things junk food marketer know about your child

Allow 5 minutes

Watch the short animation and answer the question below.

Video content is not available in this format.

[Video 4 Five things junk food marketers know about your child](#)



1. In addition to the 'Five things junk food marketers know about your child', what three techniques or strategies used by marketers are highlighted at the start of the animation?

Provide your answer...

Comment

The three techniques or strategies are hashtags, games and sponsored tweets. For more about how children in particular are targeted by the food industry you might like to explore the free course 'Children and young people: food and food marketing' after finishing this course: [Children and young people: food and food marketing](#).

In addition to sophisticated food marketing, increasing portion sizes are also important to note. As the infographic below illustrates, the food industry has been increasing portion sizes substantially over many years. As our exposure to larger portions has become more and more common, these sizes have come to be seen as appropriate, with consumption then increasing (Marteau et al., 2015).

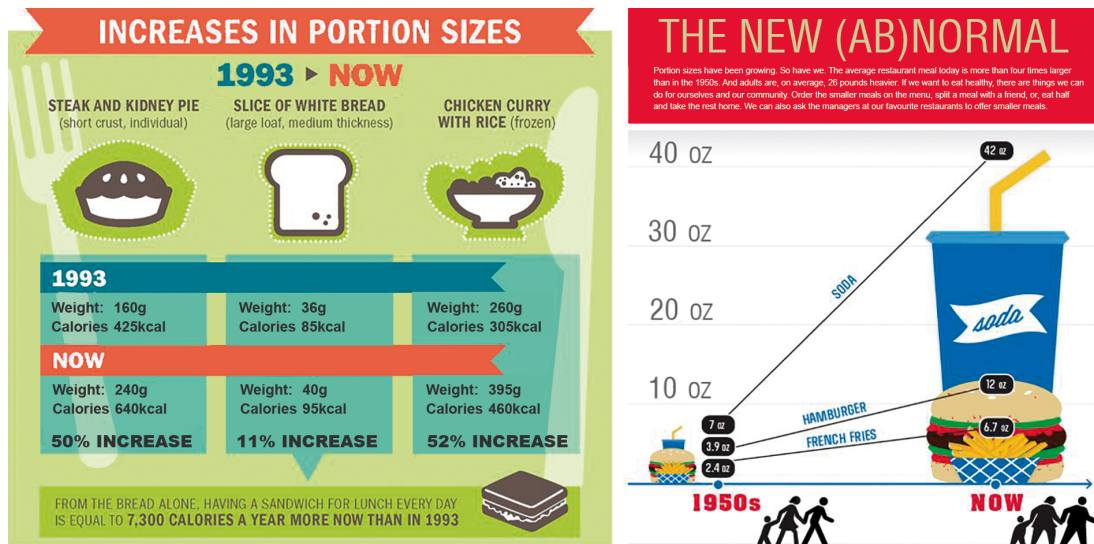


Figure 10 Portion sizes have increased considerably over the decades, and this applies to a range of products, not just fast food.

10 Encouraging behavioural change



Figure 11 What's in our food?

Several strategies have already been put forward to encourage health-related behavioural changes, and some of these include placing some restrictions on industry:

- **Promoting healthy eating** – regulations governing food-based standards for school lunches (introduced in 2006) ban economy burgers from school lunches, deep-fried products such as chips are limited to twice a week, and chocolate, crisps and sweetened fizzy drinks can no longer be part of school lunches (Department of Health, 2012).
- **Clear nutrition labelling** – in the UK 80% of pre-packaged food carries nutritional information on the front of the packaging. Placing this nutrition information in a prominent place is key to consumers using it in order to make healthier choices (Department of Health, 2012).
- **Restrictions on food advertising** – the government introduced controls on television advertising of foods and drinks high in fat, salt and sugar to children in the UK from April 2007 onwards (Department of Health, 2012).

In addition to these government-endorsed strategies, what else can be done to influence behaviour and encourage behavioural change? Behaviour is seen as comprising the interaction of two systems:

The first is a reflective system, whereby what we do is a result of goals that reflect our values and where we're aware of what we're doing. The other system, which actually accounts for much more of our behaviour, is an automatic system, whereby we're often not aware of the impulses that have generated our behaviour. There is an increasing recognition that both these systems are very important in explaining our behaviour. Often they work synergistically, so they work together well. Sometimes they work antagonistically. This is one of the reasons why, while many of us have very good

intentions, we often find ourselves behaving in ways that go against our intentions.

(Marteau, quoted in Science and Technology Select Committee, 2011, pp. 16–17)

A range of models of health behaviour and theories of behaviour change have been developed. A fairly recent example is 'nudge theory' (Thaler and Sunstein, 2009). Arno and Thomas (2016) consider nudge theory to be a collection of methods, deemed to be 'nudges', that have the potential for low-cost and broad application to guide healthier lifestyle choices. Examples include nutritional labelling being added to menus in a restaurant, so that diners can establish how many calories are in a meal (nudging them towards healthier options) and increasing the availability and visibility of healthier options presented to consumers on supermarket webpages (nudging consumers towards selecting healthy food options).

Conclusion

This free course, *Exploring health: is your lifestyle really to blame?*, has considered the concept of lifestyles and how these are thought to have an impact on adult obesity. It has drawn your attention to some of the lifestyle factors that are particularly pertinent to a person's health and wellbeing, and you have been asked to consider these factors in relation to your own current lifestyle. You have also been introduced to quantitative and qualitative research as 'ways of knowing', and have also been asked to consider the usefulness of a quantitative metric like BMI in relation to making sense of a contemporary issue such as adult obesity.

There are a range of organisations and professionals who are in some way responsible for addressing the challenge that is adult obesity. Providing people with adequate knowledge about what they eat, in addition to ensuring government, industry and individuals work together, will assist in encouraging healthy behavioural change. Strategies are already in place, and theories of behavioural change are utilised, but it is likely that greater efforts will be required to ensure the upward trend in obesity in high-income countries is reversed.

This OpenLearn course is an adapted extract from the Open University course [K219 Critical issues in health and wellbeing](#).

References

- Acheson, D. (1998) *Independent Inquiry into Inequalities in Health*, London, Stationery Office.
- Arno, A. and Thomas, S. (2016) 'The efficacy of nudge theory strategies in influencing adult dietary behaviour: a systematic review and meta-analysis', *BMC Public Health*, vol. 16, no. 676 [Online]. Available at <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-016-3272-x> (Accessed 2 August 2019).
- Baruth, M., Sharpe, P. A., Parra-Medina, D. and Wilcox, S. (2014) 'Perceived barriers to exercise and healthy eating among women from disadvantaged neighborhoods: results from a focus groups assessment', *Women & Health*, vol. 54, no. 4, pp. 336–353.
- Buck, D. and Frosini, F. (2012) *Clustering of Unhealthy Behaviours over Time: Implications for Policy and Practice*, London, The King's Fund.
- Cohen, M. (2018) 'It's poverty, not individual choice, that is driving extraordinary obesity levels', *The Conversation*, 19 February [Online]. Available at <https://theconversation.com/its-poverty-not-individual-choice-that-is-driving-extraordinary-obesity-levels-91447> (Accessed 14 May 2019).
- Department of Health (2011) *Healthy Lives, Healthy People: A Call to Action on Obesity in England*, London, Department of Health.
- Department of Health (2012) *An Update on the Government's Approach to Tackling Obesity*, London, National Audit Office.
- Department of Health and Social Security (1980) *Inequalities in Health: Report of a Working Group chaired by Sir Douglas Black*, Department of Health and Social Security, London.

- Eknoyan, G. (2008) 'Adolphe Quetelet (1796–1874) – the average man and indices of obesity', *Nephrology Dialysis Transplantation*, vol. 23, no. 1, pp. 47–51.
- Elliott, E. and Williams, G. (2008) 'Developing public sociology through health impact assessment', *Sociology of Health & Illness*, vol. 30, no. 7, pp. 1–16.
- Gordon, O. (2016) 'The Oxford professor who warns that sitting is the new smoking', *Oxford Today*, 3 August.
- Government Office for Science (2007) *Foresight – Tackling Obesities: Future Choices – Project Report*, London, Government Office for Science.
- Jebb, S. A., Aveyard, P. N., and Hawkes, C. (2013) 'The evolution of policy and actions to tackle obesity in England', *Obesity Reviews*, vol. 14, no. S2, pp. 42–59.
- Jensen, M. (2007) 'Defining lifestyle', *Environmental Sciences*, vol. 4, no. 2, pp. 63–73.
- Johnson, S. L., Goodell, L. S., Williams, K., Power, T. G. and Hughes, S. O. (2015) 'Getting my child to eat the right amount. Mothers' considerations when deciding how much food to offer their child at a meal', *Appetite*, vol. 88, pp. 24–32.
- Lingetun, L., Fungrbrant, M., Claesson, M. and Baggens, C. (2017) "I just want to be normal" – a qualitative study of pregnant women's blogs who present themselves as overweight or obese', *Midwifery*, vol. 49, pp. 65–71.
- Lucassen, M., Guntupalli, A., Clark, T., Fenaughty, J., Denny, S., Fleming, T., Smith, M. and Utter, J. (2019) *Body size and weight, and the nutrition and activity behaviors of sexual and gender minority youth: Findings and implications from New Zealand*, Public Health Nutrition, In-Press.
- Marmot, M. (2010) 'Fair Society, Healthy Lives: Strategic Review of Health Inequalities in England post-2010, London', *The Marmot Review* [Online]. Available at www.parliament.uk/documents/fair-society-healthy-lives-full-report.pdf (Accessed 2 August 2019).
- Marteau, T. M., Hollands, G. J., Shemilt, I. and Jebb, S. A. (2015) 'Downsizing: policy options to reduce portion sizes to help tackle obesity', *British Medical Journal*, vol. 351, no. h5863.
- OED Online (2009a) 'Lifestyle, n.', in *Oxford English Dictionary*, 3rd edn [Online], Oxford, Oxford University Press. Available at www.oed.com/view/Entry/108129?redirectedFrom=lifestyle#eid (Accessed 20 April 2019).
- OED Online (2009b) 'Obesity, n.', in *Oxford English Dictionary*, 3rd edn [Online], Oxford, Oxford University Press. Available at <https://www.oed.com/view/Entry/129578?redirectedFrom=obesity#eid> (Accessed 11 May 2019).
- Office for National Statistics (2018) *Adult Smoking Habits in the UK: 2017* [Online]. Available at <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/2017> (Accessed 31 August 2019).
- Parker, G. (2017) 'Shamed into health? Fat pregnant women's views on obesity management strategies in maternity care', *Women's Studies Journal*, vol. 31, no. 1, pp. 22–33.
- Payne, G. and Payne, J. (2011) 'Quantitative methods', in Payne, G. and Payne, J. (eds) *Key Concepts in Social Research* [Online]. Available at

<http://methods.sagepub.com/book/key-concepts-in-social-research/n38.xml> (Accessed 31 May 2019).

Robinson, T. N. and Matheson, D. M. (2015) 'Environmental strategies for portion control in children', *Appetite*, vol. 88, pp. 33–38.

Saint-Maurice, P. F. Troiano, R. P., Matthews, C. E. and Kraus, W. E. (2018) 'Moderate-to-vigorous physical activity and all-cause mortality: do bouts matter?', *Journal of the American Heart Association*, vol. 7, no. 6, pp. 1–6.

Science and Technology Select Committee (2011) 'Behaviour Change', House of Lords Paper 179, London, The Stationery Office.

Scottish Government (2010) *Preventing Overweight and Obesity in Scotland: A Route Map towards Healthy Weight*, Edinburgh, The Scottish Government.

Skrabanek, P. (1994) *The Death of Humane Medicine and the Rise of Coercive Healthism*, Bury St Edmunds, The Social Affairs Unit.

Thaler, R. H. and Sunstein, C. R. (2009) *Nudge: Improving Decisions about Health, Wealth and Happiness*, London, Penguin Books.

Snape, D. and Spencer, L. (2003) 'The foundations of qualitative research', in Richie, J. and Lewis, J. (eds) *Qualitative Research Practice: A Guide for Social Science Students and Researchers*, London, SAGE publications, pp. 1–23.

Whitehead, M. (1987) *The Health Divide*, London, Health Education Authority.

World Health Organization (2002) *The World Health Report 2002: Reducing Risks, Promoting Healthy Life*, Geneva, World Health Organization.

World Health Organization (2004) *Global Strategy on Diet, Physical Activity and Health*, Geneva, World Health Organization.

Zivkovic, T., Warin, M., Moore, V., Ward, P. and Jones, M. (2018) 'Fat as productive: enactments of fat in an Australian suburb', *Medical Anthropology*, pp. 1–14.

Acknowledgements

This free course was developed by Mathijs Lucassen based on material he wrote with Manik Gopinath. It was first published in November 2019.

Except for third party materials and otherwise stated (see [terms and conditions](#)), this content is made available under a

[Creative Commons Attribution-NonCommercial-ShareAlike 4.0 Licence](#).

The material acknowledged below is Proprietary and used under licence (not subject to Creative Commons Licence). Grateful acknowledgement is made to the following sources for permission to reproduce material in this free course:

Images

Course image: © noipornpan/iStock/Getty Images Plus

Figure 1: © University of Oxford, 2013

Figure 2: © unknown

Figure 3: © Crown copyright, Health matters: obesity and the food environment, 2017, Reproduced under the terms of the OGL, www.nationalarchives.gov.uk/doc/open-government-licence

Figure 5: © Quinn Rooney/Getty Images.

Figure 6: © Andy Lyons/Getty Images

Figure 8: Jebb, S. A., Aveyard, P. N. and Hawkes, C. (2013) Obesity policy in England. *Obes Rev*, 14: 42-59. doi:10.1111/obr.12093

Figure 9: © Danilin/istock/Getty Images Plus

Figure 10: taken from Marteau, T., Hollands, G. J. and Shemilt, I. (2015) 'Downsizing: policy options to reduce portion sizes to help tackle obesity', *BMJ*, vol. 352:i105 [Online]. Available at <https://www.bmj.com/content/351/bmj.h5863> (Accessed 5 October 2018). Artwork by Center for Disease Prevention and Control, data from Young L, Nestle M. *Am J Public Health*, 2002 and 2007 respectively.

Figure 11: © HotHibiscus/istock/Getty Images Plus

Audio-visual

Video 1: © The Open University. Image of Bradley Tandy © Quinn Rooney/Getty Images. Image of Amber Campbell © Andy Lyons/Getty Images

Videos 2 and 3: © Keo West for the BBC

Video 4: © The Open University

Every effort has been made to contact copyright owners. If any have been inadvertently overlooked, the publishers will be pleased to make the necessary arrangements at the first opportunity.

Don't miss out

If reading this text has inspired you to learn more, you may be interested in joining the millions of people who discover our free learning resources and qualifications by visiting The Open University – www.open.edu/openlearn/free-courses.